Washington County MARYLAND
DEPARTMENT OF PLANNING & ZONING
PLANNING | ZONING | LAND PRESERVATION | FOREST CONSERVATION | GIS

REVISED AGENDA
WASHINGTON COUNTY PLANNING COMMISSION
100 W Washington Street, Room 2000
December 4, 2023, 7:00 PM

CALL TO ORDER AND ROLL CALL

OLD BUSINESS

1. **Ralph and Leah Martin [RZ-23-006] –** Travis Allen ***Discussion/Action***
   Recommendation for the proposed rezoning of property located at 19815 Reidtown Road from RV (Rural Village) to RV/RB Rural Village with Rural Business overlay; Applicant is proposing an auto body repair facility
2. **Cascade Town Centre Lot 2 [OM-23-006] –** Jill Baker * ***Discussion/Action***
   Ordinance modification to allow 22 individual lots to be created without public road frontage; Location: 14203 Cushman Avenue, Cascade; Zoning: Special Economic Development

NEW BUSINESS

MINUTES

1. Minutes of the November 6, 2023 Planning Commission public input and regular meeting * ***Discussion/Action***

MODIFICATIONS

1. **John and Laura Smith [OM-23-014]** – Misty Wagner-Grillo * ***Discussion/Action***
   Modification request for the rear yard setback from 40-feet to 30-feet to construct a deck and patio on Lot 455, Section 3-B of the Westfields subdivision; Zoning: RT (Residential Transition)

SITE PLAN

1. **Patton Warehousing & Logistics [SP-23-010]** – Scott Stotelmyer * ***Discussion/Action***
   Proposal to construct a trailer drop lot on an undeveloped parcel and a small office building; Property located at 18525 Breeze Hill Drive; Zoning: HI (Highway Interchange)
2. **Wantz Distributors [SP-23-014]** - Scott Stotelmyer * ***Discussion/Action***
   Proposal to construct a 34,500 square foot building addition on an existing building; Property is located at 11743 Hopewell Road; Zoning: IG (Industrial General)

FOREST CONSERVATION

1. **Wantz Distributors [SP-23-014]** - Travis Allen * ***Discussion/Action***
   Variance to remove a specimen tree on property located at 11743 Hopewell Road; Zoning: IG (Industrial General)
2. **Bowman 2000, LLC Lots 4-9 [S-23-052] –** Travis Allen * ***Discussion/Action***
   Request to use off-site mitigation to meet Forest Conservation requirements on property located at 7816 Fairplay Road; Zoning: RV/A(R) – Rural Village and Agricultural Rural

OTHER BUSINESS

1. **19112 Keep Tryst Road** – Travis Allen * ***Discussion/Action***
   Request to add an additional land use to an existing Rural Business zoning district located at 19112 Keep Tryst Road; Proposal to construct an 800 square foot retail building with drive-through
2. **Larry Miller – Lot 1 [S-23-061]** – Travis Allen ***Information/Discussion***
   Request for off-site Forest Conservation easement mitigation for a one lot subdivision located on Reno Monument Road
3. **Update of Projects Initialized** – Jennifer Kinzer * ***Information/Discussion***
4. **Comprehensive Plan Update** – Jill Baker * ***Information/Discussion***

ADJOURNMENT

UPCOMING MEETINGS

1. January 8, 2024, 7:00 p.m. – Washington County Planning Commission regular meeting

*attachments

The Planning Commission reserves the right to vary the order in which the cases are called. Individuals requiring special accommodations are required to contact the Washington County Planning Department at 240-313-2430 to make arrangements no later than 10 working days prior to the meeting. Notice is given that the Planning Commission agenda may be amended at any time up to and including the Planning Commission meeting.

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3. **Comprehensive Plan Update** – Jill Baker * ***Information/Discussion***

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DECLARATION OF EASEMENT AND EASEMEMENT MAINTENANCE AGREEMENT

THIS DECLARATION OF EASEMENT AND MAINTENANCE AGREEMENT, made this _____ day of _____, 2023 by **CASCADE TOWN CENTRE DEVELOPMENT, LLC**.

RECITAL

CASCADE TOWN CENTRE DEVELOPMENT, LLC (hereafter **CASCADE and/or GRANTOR**) is the fee simple title owner of land together with improvements located in Washington County, Maryland which is more particularly described in a Deed from the Board of County Commissioners of Washington County dated the 18th day of September, 2017 and recorded at Deed Book 5594, Page 224, among the Land Records of Washington County, Maryland (hereafter the **PROPERTY)**. The Property abuts a public road known as Pen Mar High Rock Road and is part of a larger tract of land formerly known as Fort Ritchie. Located within the Property are private roadways known as Lake Wastler Drive, Hart Avenue and Cushman Avenue (hereafter **PRIVATE ROADWAYS**) which are more particularly shown and depicted on **Exhibit "A"** which is attached hereto and incorporated herein by reference. Cascade has requested Subdivision approval from the Washington County Planning Commission for twenty-two (22) town house lots as shown on **Exhibit "A".** The proposed subdivision does not connect to a public street but would be served by the aforementioned private roads. Through the execution and recording of this *Declaration of Easement and Easement Maintenance Agreement,* **Cascade** intends to comply with the *Washington County Subdivision Ordinance* and insure access to and from the Subdivision from the public road known as Pen Mar High Rock Road until such time as the Private Roadways are accepted into the public road system of Washington County, Maryland.

EASEMENT DECLARATION

1. The **RECITALS** are incorporated herein and made a part hereof.

2. **CASCADE TOWN CENTRE, LLC** hereby grants, conveys, transfers, establishes and declares a non-exclusive, perpetual easement for ingress and egress, improved or unimproved, and for the installation of utilities, over and across Lake Wastler Drive, Hart Avenue and Cushman Avenue as they currently exist and/or may be improved in the future and for the benefit of and to serve ***LOTS 2-A THROUGH 2-V SHOWN ON THE PRELIMINARY/FINAL PLAT FOR CASCADE TOWN CENTRE DEVELOPMENT***, page 1 of which is attached hereto as **Exhibit "A"** and the entirety of which is incorporated herein by reference and as may be recorded among the Plat Records of Washington County, Maryland.

3. The Grantor herein specifically reserves unto itself, its heirs, personal representatives, administrators, successors, grantees and/or assigns, the easement and the easement

rights set forth herein in the described easement, for the benefit of the Property and for any other divisions thereof including the right to use the easement and to subsequently convey said easement and easement rights with the Property and divisions thereof.

4. This Easement shall be for the public purposes of emergency and other public vehicles and for whatever public utility services are necessary.

5. This Easement also specifically includes a grant of easement to Washington County, or its assigns, for purposes of constructing, installing, maintaining, repairing, expanding or connecting to mains, laterals, appurtenances or related systems for the provision of water and/or sewer service to the Property.

6. This Easement shall run with the land and be binding upon all grantees, successors and/or assigns.

7. This Easement remain in effect until such time as the Private Roads described herein shall be constructed to Washington County standards, offered for dedication and accepted by the Board of County Commissioners of Washington County into the public road system of Washington County, Maryland. At said time, this Easement and the obligations hereunder shall immediately terminate without any further action on the part of Grantor, its successors, grantees and/or assigns.

EASEMENT MAINTENANCE

1. **CASCADE** and/or its successors and assigns shall be responsible to keep the Private Roadways useable and accessible for the Property in accordance with this Declaration.

2. **CASCADE** shall additionally be responsible for all necessary upkeep, maintenance, repair, snow removal, upgrade and/or improvements of the Private Roadways that are subject to this Declaration.

3. **CASCADE,** upon the upgrade and improvements of the Private Roadways to Washington County Standards shall offer said roads for dedication and acceptance by the Board of County Commissioners in accordance with the *Washington County Subdivision Ordinance* as it now exists or may be subsequently amended.

4. Until acceptance, Washington County shall have no obligation and/or responsibility for the upkeep, maintenance, repair, snow removal, upgrade and/or improvements of the Private Roadways that are the subject of this Declaration.

5. Upon acceptance of **CASCADE'S** offer of dedication and acceptance thereof by the Board of County Commissioners of Washington County, Maryland, subject to any terms and conditions resulting therefrom, this Declaration of Easement and Grantor's obligations hereunder shall terminate.

6. Any lots or parcels conveyed from the Property as part of the Subdivision of the aforesaid 22 lots shall be together with the rights and subject to the conditions of this Declaration until such time as it terminates as specified herein.

7. This Declaration and the covenants contained herein runs with the land and is binding upon all future owners, heirs and successors in title.

This **DECLARATION OF EASEMENT AND EASEMENT MAINTENANCE AGREEMENT** shall take effect when executed by **GRANTOR** and recorded among the Land Records of Washington County, Maryland.

IN WITNESS WHEREOF, GRANTOR has executed this *Declaration of Easement and Maintenance Agreement* in Washington County, Maryland on this ____ day of _____, 2023.

_____ _____

WITNESS _____, Managing Member

STATE OF MARYLAND, COUNTY OF WASHINGTON, To-wit:

I HEREBY CERTIFY, That on this _____ day of _____, 2023, before me, the subscriber, a Notary Public in and for the State and County aforesaid, personally appeared _____, who acknowledged himself/herself to be Managing Member of **CASCADE TOWN CENTRE DEVELOPMENT, LLC**, and that he, as such officer, being so authorized so to do, executed the aforegoing *Declaration of Easement and Maintenance Agreement* for the purposes therein contained by signing the name of said Company by himself, as Managing Member, and that the actual consideration paid or to be paid is Zero.

WITNESS my hand and Official Notarial Seal.

My Commission Expires: _____

Notary Public

Declaration.Easement.Private.Road.08.28.2023.Rev.11.07.2023

Cascade Town Centre Lot 2 [OM-23-006]

Ms. Baker presented an ordinance modification request to allow 22 individual lots to be created without public road frontage. The property is located at 14203 Cushman Avenue and is currently zoned SED (Special Economic Development). An ordinance modification was previously approved to create Lot 2 without public road frontage. The developer is now requesting a modification to subdivide each townhome lot (22) for individual sale. This request was sent to the County's Engineering Department; a copy of their comments was provided to Commission members. Both the Engineering Department and Planning staff have expressed grave concerns about allowing this many lots without public road frontage.

Ms. Baker noted that it would be very costly for the homeowners to maintain the private road leading into their homes. Typically, developers are required to upgrade the roads to County standards and then convey the roads to the County. Ms. Baker pointed out there would not be a Homeowner's Association or any type of entity to oversee the maintenance of the roadways until they are upgraded and turned over to the County.

Discussion and Comments: Mr. Gordon Poffenberger of Fox & Associates, Inc. as well as the property owner, Mr. Joe Lee, were present at the meeting. Mr. Poffenberger clarified that the dwelling units are duplexes, not townhomes. He explained that the owner would upgrade the roads and convey them to the County; however, the cost is prohibitive at this time and the developer would like to sell the duplexes inorder to acquire the funds for the upgrades. Mr. Kline asked why the developer would not be responsible for the maintenance of the roads until the time they are upgraded and turned over to the County. Mr.Poffenberger stated the developer would be responsible for the maintenance and snow removal until the roads are upgraded and the County has accepted them. Language to that effect would be included in the contracts with buyers.

There was a brief discussion regarding a road bond. Mr. Poffenberger stated that the developer is willing to provide a road bond; however, there is a lot of investigative work that needs to be done to determine what is needed to bring the roads up to County standards.

Motion and Vote: Mr. Semler made a motion to table this agenda item until the property owner provides a copy of the contract (approved by the County Attorney's Office) that will be presented to home buyers regarding the maintenance of the roads. The motion was seconded by Mr. Reeder and unanimously

WASHINGTON COUNTY PLANNING COMMISSION
PUBLIC INPUT MEETING AND REGULAR MEETING
November 6, 2023

The Washington County Planning Commission held a public input meeting and its regular monthly meeting on Monday, November 6, 2023 at 7:00 p.m. at the Washington County Administrative Complex, 100 W. Washington Street, Room 2000, Hagerstown, MD.

CALL TO ORDER AND ROLL CALL

In the absence of the Chairman and the Vice-Chairman, the meeting was called to order by Mr. Goetz at 7:00 pm.

Planning Commission members present were: BJ Goetz, Denny Reeder, Terrie Shank, Jeff Semler and Ex-officio County Commissioner Randy Wagner. Staff members present were: Washington County Department of Planning & Zoning: Jennifer Kinzer, Deputy Director; Travis Allen, Senior Planner; Scott Stotelmyer, Planner; and Debra Eckard, Administrative Assistant; and Washington County Division of Engineering: Heather Williams, Senior Plan Reviewer;

PUBLIC INPUT MEETING

Ralph and Leah Martin [RZ-23-006]

Staff Presentation

Mr. Allen presented a rezoning application for two acres of land located at 19815 Reidtown Road. The applicant is requesting the RB (Rural Business) overlay on the existing RV (Rural Village) designation. The purpose of the RB overlay is to permit the continuation and development of businesses that support the ag industry and farming community, serve the needs of the rural resident population, provide for recreation and tourism, and establish locations for businesses and facilities not otherwise permitted in the rural areas of the County. Specific conditions, found in Section 5.E of the Zoning Ordinance, must be met before the overlay can be applied to a piece of land. Mr. Allen briefly reviewed the criteria that the Planning Commission should consider when making its recommendation to the Board of County Commissioners. He noted that the approval of an RB district is only permitted for the use identified on the application; any changes in use or intensity would need to come back before the Planning Commission. If the zoning is approved, a site plan would be required for the property which would also need to be reviewed and approved by the Planning Commission.

Mr. Allen stated that the application was routed to several outside agencies for review and comment. The Washington County Engineering Department provided the following comments: Reidtown Road is inadequate for commercial traffic; a minimum pavement width of 18-feet along the proposed yard frontage and to the nearest road which is deemed adequate (in this case Marsh Pike) is required. A road condition survey and road widening plans would be required as part of the site plan process. A Washington County entrance permit would be required and sight distance requirements would need to be met in compliance with commercial standards as part of the site plan process.

Staff recommends that the Planning Commission consider the compatibility of the proposed use with the historic character of the neighborhood. There are several historic structures in close proximity to the proposed site. Three written public comments were received prior to the public input meeting; all three were opposed to the application based on the following: inadequacy of the road for a commercial use, potential effects on the neighborhood from an auto body repair shop (i.e. fumes, number of vehicles on the site, spillover of lighting, etc.), appearance of the structure to be compatible with the rural area, and impacts on groundwater resources.

Applicant's Presentation

Mr. Neil Manalo of Offit Kurman, Buckeystown Pike, Frederick, MD, represented the applicant during the meeting. Also present was the applicant, Mr. Ralph Martin, 19815 Reidtown Road, Hagerstown. Mr. Manalo stated the applicant has read the staff report and agrees with staff's comments; all road adequacy issues will be addressed during the site plan process, if the zoning is approved. Public comments were addressed as follows: there would be no more than two or three vehicles on the proposed site at any time; the amount of traffic will be negligible; and the proposed structure would be compatible with the character of the neighborhood.

Mr. Martin stated that the vehicles that would be at the property he would be working on within two weeks. He will be using a spill collection system to contain any impacts to groundwater resources.

Discussion and Comments: Mr. Reeder asked if the proposed structure would be a pole barn and how large it would be in size. Mr. Martin stated it would be a pole barn and would be approximately 3,600 square feet. Mr. Goetz asked if the parcel would be subdivided. Mr. Martin stated it is already two lots of record. Ms. Shank asked if the business is already operating or will be operating in one of the existing buildings. Mr. Martin stated the business is not currently in operation and will be housed in a new building. Ms. Shank asked what type of equipment Mr. Martin will be working on. Mr. Martin stated it will be cars and pick-up trucks. Ms. Shank asked what the hours of operation will be for the business. Mr. Martin stated it will be Monday thru Friday, 9 am to 6 pm.

Public Comment

- Norman Martin, 19836 Reidtown Road – Mr. Martin stated he lives across the road from this property, which has been in the family for 75 years. He respects the concerns raised by the neighbors; however, he believes Mr. Martin will maintain the appearance of the property and will have no adverse impact on the neighborhood. Mr. Martin agrees that Reidtown Road is narrow; however, with only two or three cars at the auto repair shop at a time, he does not believe this would affect the roadway.

Mr. Goetz closed the public input meeting at 7:20 p.m.

REGULAR MEETING

MINUTES

Motion and Vote: Mr. Semler made a motion to approve the minutes of the October 2, 2023 meeting as presented. The motion was seconded by Ms. Shank and unanimously approved.

NEW BUSINESS

ORDINANCE MODIFICATION

Michael and Gail Taylor – Lots 1 and 2 [OM-23-011]

Mr. Stotelmyer presented for review and approval an ordinance modification from Section 5A.7.6 of the Washington County Zoning Ordinance. The subject property is located at 11835 St. Paul Road and is currently zoned A(R) – Agricultural Rural. The applicant is requesting a reduction of the left side yard 50-foot ag buffer to 15-feet in order to combine 11835 and 11831 St. Paul Road for the construction of a house and detached garage. The owner is aware of the neighboring ag operation. All agency approvals have been received.

Motion and Vote: Mr. Reeder made a motion to approve the ordinance modification as presented. The motion was seconded by Mr. Semler and unanimously approved.

PRELIMINARY SITE PLANS

Metzger Mini-Storage [PSP-22-002]

Ms. Williams presented for review and approval a preliminary plat and site plan for a proposed mini-storage facility to be located at 12019 Itnyre Road. The property is currently zoned BL (Business Local). The entrance to the site is between two residences at 12019 and 12025 Itnyre Road. A portion of the site abuts Jefferson Boulevard; however, no ingress or egress is proposed on Jefferson Boulevard. The applicant is proposing the conveyance of land to two neighboring residential property owners. The hours of operation will be 7 am to 7 pm daily. No water or sewer services are proposed for the site. The proposed lighting is in compliance with the County's Zoning Ordinance. Forest Conservation requirements will be met through the payment in lieu of planting in the amount of $12,545.28. Ms. Williams distributed comments received prior to the meeting from the Soil Conservation District.

Motion and Vote: Mr. Reeder made a motion to approve the preliminary plat and site plan as presented contingent upon approval of the Forest Conservation Ordinance requirements and completion of the Soil Conservation District's requests. The motion was seconded by Mr. Semler and unanimously approved.

FOREST CONSERVATION

Metzger Mini-Storage [PSP-22-002]

Mr. Allen presented for review and approval two requests to meet Forest Conservation requirements for property located at 12019 Itnyre Road. The applicant is requesting the utilization of the payment-in-lieu

of planting option to satisfy the .80-acre planting requirements for commercial development on the site and removal of specimen trees from the site. Mr. Allen stated there are no areas of qualified forest on the site; the proposed development takes up the majority of the site, thereby leaving no ideal place for planting. Justification for the removal of two specimen trees includes: limitations due to grading, proposed circulation routes, and requirements for storm water management makes retention of these trees difficult. The effects on water quality of the site would be mitigated by the storm water management facilities.

Motion and Vote: Mr. Reeder made a motion to approve the use of the payment-in-lieu of planting option and the removal of two specimen trees as requested. The motion was seconded by Mr. Semler and unanimously approved.

OTHER BUSINESS

Update of Projects Initialized

Ms. Kinzer provided a written report for the land development plan review projects (50 total) initialized during the month of September including 6 site plans and 5 preliminary-final plats.

Comprehensive Plan Update

Ms. Kinzer reported that the public input meetings around the County are completed. The public comment period ended on October 31st. All written public comments will be included in the Commission's agenda packets in the near future, hopefully in December. Staff is currently working through all the comments and will make revisions before bringing the Plan back to the Commission in early 2024.

UPCOMING MEETINGS

1. Washington County Planning Commission regular meeting, December 4, 2023 at 7:00 p.m.

ADJOURNMENT

Mr. Reeder made a motion to adjourn the meeting at 7:50 p.m. The motion was seconded by Mr. Semler and so ordered by Mr. Goetz.

Respectfully submitted,

_____

Robert Goetz, Jr.

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

ORDINANCE MODIFICATION STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Josh & Laura Smith
NUMBER.....:	OM-23-014
OWNER.....:	SMITH JOSHUA A
LOCATION.....:	18239 MISTY ACRES Drive HAGERSTOWN, MD 21740
DESCRIPTION.....:	Ordinance Modification for the rear yard setback of Lot 455 (Westfields Section 3-B). Applicant is requesting modification from the approved 40ft rear yard setback to 30ft in order to construct a deck and patio. *A clustering concept together with a reduction in lot size and setback requirements was approved by the Planning Commission for the Westfields Development (plat # 9317 Section 3B)
ZONING.....:	Residential, Transition
COMP PLAN LU.....:	Low Density Residential
PARCEL.....:	10061067
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	10
TYPE.....:	
GROSS ACRES.....:	0.28
DWELLING UNITS.....:	1
TOTAL LOTS.....:	1
DENSITY.....:	N/L Units Per Acre
PLANNER.....:	Misty Wagner-Grillo
ENGINEER.....:	FOX & ASSOCIATES INC
RECEIVED.....:	November 13, 2023

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	No
WETLANDS.....:	No
WATERSHED.....:	Marsh Run
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	No Resources Present
EASEMENTS PRESENT.....:	None

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Rockland Woods	E Russell Hicks	South Hagerstown
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

Staff Comments:
Not Applicable

PUBLIC FACILITIES INFORMATION

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

FIRE DISTRICT.....:	Halfway
AMBULANCE DISTRICT.....:	Halfway

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	City	County
SERVICE AREA.....:	City	County
PRIORITY.....:	1-Existing Service	1-Existing Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

OM-23-014

Washington County
MARYLAND

DEPARTMENT OF PLANNING & ZONING
PLANNING | ZONING | LAND PRESERVATION | FOREST CONSERVATION | GIS

WASHINGTON COUNTY PLANNING COMMISSION
APPLICATION FOR SUBDIVISION ORDINANCE MODIFICATION

APPLICANT

NAME DAVID MAYOWADO (BURNSIDE CONSTRUCTION)

MAILING ADDRESS 34 WEST SALISBURY STREET WILLIAMSPORT MD 21795

TELEPHONE 301-748-4124
(home) (work) (cell)

PROPERTY OWNER

NAME JOSH & LAURA SMITH

MAILING ADDRESS 18239 MISTY ACRES DRIVE

TELEPHONE 410-688-9947
(home) (work) (cell)

CONSULTANT

NAME _____

ADDRESS _____

TELEPHONE _____

DESCRIPTION OF PROPERTY

TAX ACCOUNT ID # (Required) 10061067

PARCEL REFERENCE: MAP 62 GRID _____ PARCEL 295

PROPOSED LOT ACREAGE 12,096sF TOTAL SITE ACREAGE _____

ZONING DISTRICT RT ROAD FRONTAGE (FT) _____

747 Northern Avenue | Hagerstown, MD 21742 | P: 240.313.2430 | F: 240.313.2431 | TDD: 7-1-1

WWW.WASHCO-MD.NET

LOCATION / ADDRESS

EXISTING AND PROPOSED USE OF PROPERTY

DECK & PATIO

LOT TO BE CONVEYED TO IMMEDIATE FAMILY MEMBER

SUBDIVISION MODIFICATION INFORMATION

MODIFICATION TO SUBDIVISION ORDINANCE SECTION

MODIFICATION IS TO ALLOW

DECK & PATIO TO ENCROACH OVER REAR MBSL

STATEMENT OF JUSTIFICATION TO THE REQUESTED MODIFICATION (quantify modification – i.e. hardship resulting from irregular shape; safety hazard; topographic conditions; extraordinary hardship; other

REAR MBSL IS VERY CLOSE TO HOUSE AND PRESENT STANDARD DECK PACKAGE

(Attach additional sheets if necessary)

In addition, twelve (12) sketch plans, drawn to scale must accompany this application showing: the dimensions and shape of proposed lot with acreage; size and location of existing and/or future structures; existing/proposed roadways and associated access rights-of-way or easements; existing/proposed entrance/exit to property; natural or topographic peculiarities of the lot in question.

To the best of my knowledge, the information provided in this application and other material submitted is correct.

Applicant's Signature — Date: 10/13/23

Property Owner's Signature — Date: 10/13/23

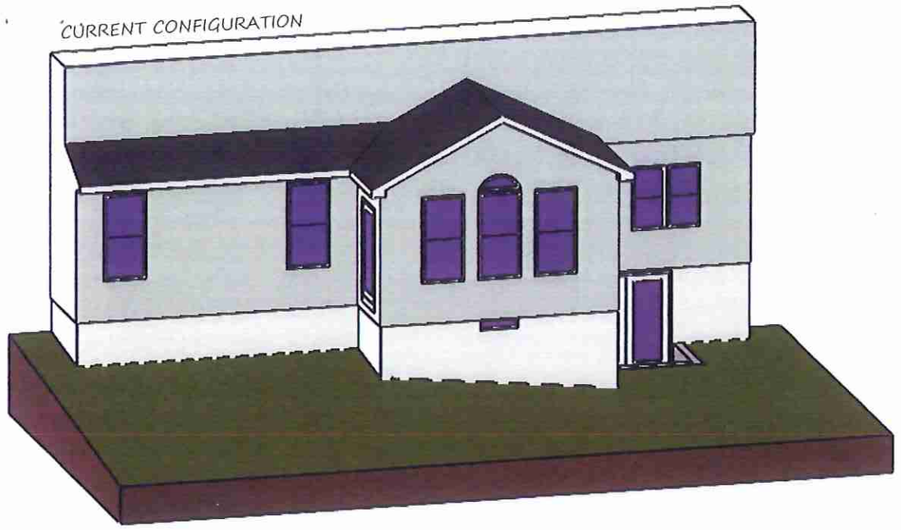
STAFF USE ONLY:

STAFF PLANNER: _____ DATE RECEIVED: _____

NUMBER: _____

MEETING DATE: _____

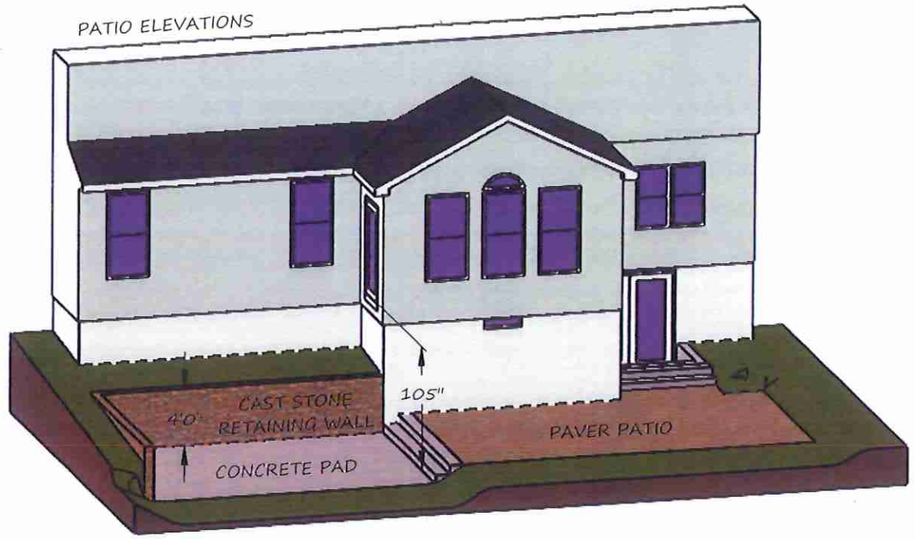
CURRENT CONFIGURATION



NOTES:

1. HOUSE DOES NOT CURRENTLY HAVE ANY PATIO OR DECK STRUCTURE AS SHOWN IN THE VEW AT LEFT.
2. SITE EXCAVATION MUST BE DONE TO ALLOW FOR THE TOP SURFACE OF THE CONCRETE PAD UNDER THE DECK TO BE AT AN ELEVATION APPROXIMATELY 105" BELOW THE EXTERIOR DOOR SILL. THERE WILL THEN BE 2 STEPS UP TO THE PAVER PATIO, AN INCREASE IN ELEVATION OF APPROXIMATELY 15" AS SHOWN IN THE VIEW AT THE RIGHT.
3. CONSTRUCTION WILL INCLUDE A 20' x 20' FREE STANDING DECK, 12' x 16' SCREEN ROOM (NOT ATTACHED TO THE HOUSE), 14' x 25' PAVER PATIO, AND A 14' x 20' CONCRETE PAD (w/ 48" TALL RETAINING WALL) UNDER THE DECK.
4. FINISHED SCREEN ROOM WILL HAVE 36" TALL KNEE WALL ALL AROUND, CONVENTIONAL 2x4 FRAMING, SIDED OUTSIDE TO MATCH, TONGUE AND GROOVE INTERIOR FINISH.

PATIO ELEVATIONS



PROPOSED CONFIGURATION

SHEET 1 OF 4

DATE 10/16/23

THIS SHEET N.T.S.

PREPARED FOR

SMITH
18239 MISTY ACRES DR
HAGERSTOWN, MD 21740

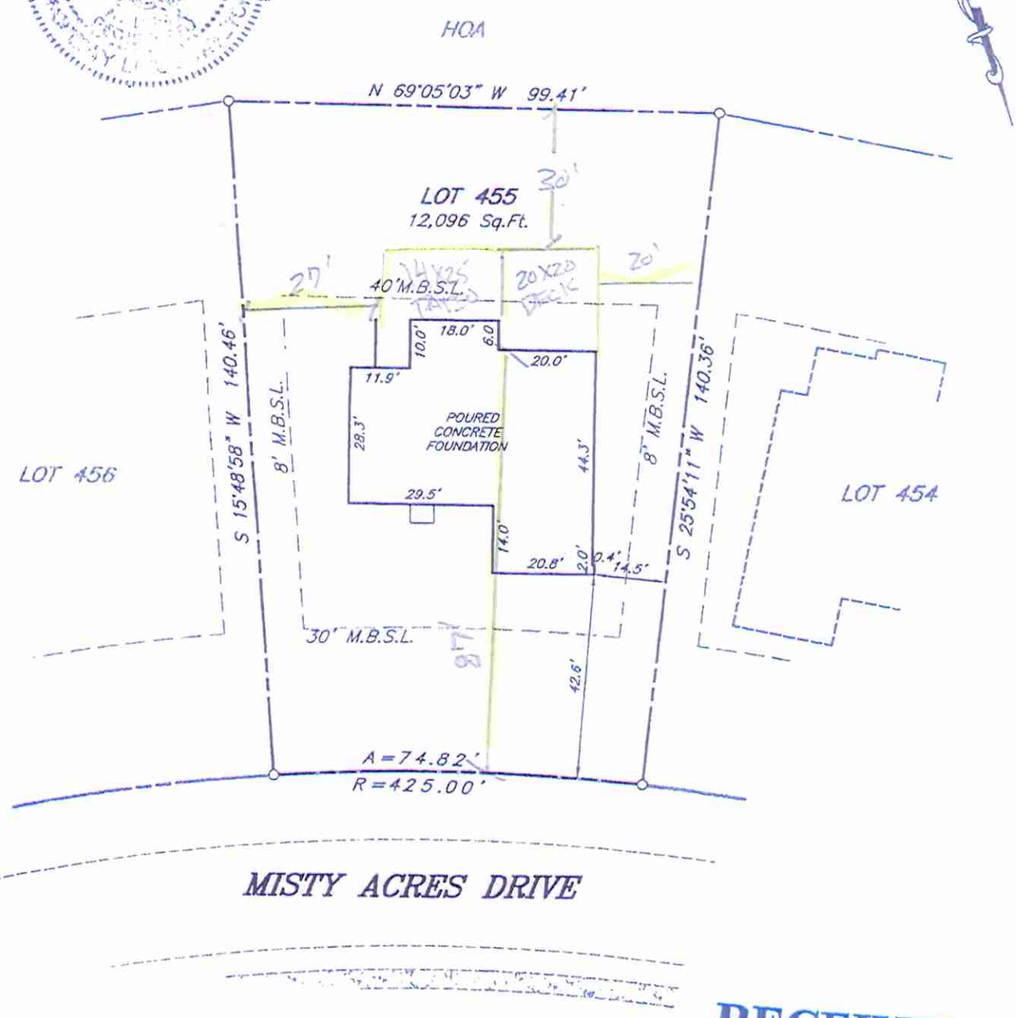
SURVEYOR'S CERTIFICATION TO:

I, HEREBY CERTIFY THAT THE IMPROVEMENTS SHOWN HEREON HAVE BEEN LOCATED BY A TRANSIT AND/OR RIGHT ANGLE PRISM AND TAPE SURVEY; THAT NO CERTIFICATION IS MADE TO THE EASEMENTS EXCEPT AS SHOWN AND THAT THERE IS NO PHYSICAL EVIDENCE OF ANY ENCROACHMENT OF BUILDINGS ACROSS THE LOT LINES UNLESS SHOWN.

1. THIS PLAT IS OF BENEFIT TO A CONSUMER ONLY INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENT IN CONNECTION WITH CONTEMPLATED TRANSFER, FINANCING, OR REFINANCING.
2. THIS PLAT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS, OR OTHER EXISTING
3. THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING.

12-12-13 — MARYLAND REG. No. 10812 EXPIRES 3-11-14
DATE

NOTE: IMPROVEMENTS SHOWN ON THIS SURVEY ARE AS OF 12-12-13



RECEIVED
DEC 23 2013
DIVISION OF PLAN REVIEW & PERMITTING

M.B.S.L. DENOTES MINIMUM BUILDING SETBACK LINE.

NOTE: PARCEL SHOWN HEREON BEING ALL OF LOT 455 AS SHOWN ON A FINAL PLAT OF WESTFIELDS, SECTION 3B AND RECORDED AT PLAT No. 9317 AMONG THE LAND RECORDS OF WASHINGTON COUNTY, MARYLAND.

NOTE: PARCEL SHOWN HEREON IS NOT WITHIN ANY 100 YEAR FLOOD PLAIN AS SHOWN ON WASHINGTON COUNTY FLOOD INSURANCE RATE MAP 240070-0155-A

WALL CHECK
LOT NO. 455
WESTFIELDS – SECTION 3B
RYAN HOMES
SITUATE AT 18239 MISTY ACRES DRIVE
WASHINGTON COUNTY, MARYLAND

DRAWN BY: J.M.F.	DATE: 12-12-13	**FOX & ASSOCIATES, INC.** ENGINEERS • SURVEYORS • PLANNERS 981 MT. AETNA ROAD, HAGERSTOWN, MARYLAND 21740 PHONE: 301-733-8503 FAX: 301-733-1653 email:foxassoc@foxassociatesinc.com	DISTRICT 10
CHECKED BY: R.E.T.	DATE: 12-12-13		TAX MAP No. 62
SCALE: 1" = 30'			DWG. No. A-17340

H:\2013\13941556\ZP-WC-FN\WC00455.dwg Dec 12, 2013 - 1:29pm User: mfream

SP-23-010 Patton Warehousing

-Presented is a site plan for Patton Warehousing and Logistics to construct a trailer drop lot on an undeveloped parcel.

-The site is located at 18525 Breeze Hill Drive, Hagerstown, MD 21742

-There will be one access point to the site from Breeze Hill Drive.

-There will be no water or sewer provided

-Proposed lighting is pole mounted

-Proposed signage is ground mounted

-Required parking is 2 parking spaces, with 10 being provided as well as 93 trailer parking spaces

-Hours of operation will be 7 AM to 7 PM Monday-Friday

-Forest Conservation was previously addressed under project FP-13-001

-All agency approvals received

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Patton Warehousing & Logistics
NUMBER.....:	SP-23-010
OWNER.....:	Breeze Hill LLC
LOCATION.....:	18525 BREEZE HILL Drive Hagerstown, MD 21742
DESCRIPTION.....:	This project proposes to construct a trailer drop lot on an undeveloped parcel. It will included a small office building.
ZONING.....:	Highway Interchange Airport Overlay
COMP PLAN LU.....:	Industrial/Flex
PARCEL.....:	13003106
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	13
TYPE.....:	Industrial
GROSS ACRES.....:	19.29
DWELLING UNITS.....:	0
TOTAL LOTS.....:	1
DENSITY.....:	0 Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....:	April 4, 2023

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	No
WETLANDS.....:	None
WATERSHED.....:	Antietam Creek
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	I013
EASEMENTS PRESENT.....:	None

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE DESIGN

Impervious Area Plan	**Impervious Maximum Allowed**	**Open Space Area Planned**
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Loading Area Meets Requirements		
		Not Fast Track
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
Parking Spaces - Minimum Required	**Recreational Parking Provided**	

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Maugansville	Western Heights	North Hagerstown
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	MAUGANSVILLE
AMBULANCE DISTRICT.....:	MAUGANSVILLE

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	City	County Line - City Treatment
SERVICE AREA.....:	City	County Line - City Treatment
PRIORITY.....:	1-Existing Service	1-Existing Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Hagerstown (City)

APPROVALS

MD-ENG-6A **USDA**
1/89 **SCS**

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:
Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 8.0 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 8,943 CU. YDS. OF EXCAVATION AND APPROXIMATELY 4,594 CU. YDS. OF FILL.

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE **DATE** **SEAL**

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

10-31-2023 — **Date**
Thierry Lindor — **Printed Name**
Signature

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

10-31-2023 — **Date**
Thierry Lindor — **Printed Name**
Signature

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

10.31.2023 — **DATE**
49808 — **REG. NO.**
SIGNATURE

SITE PLAN
FOR
PATTON
WAREHOUSING & LOGISTICS

SITUATED WEST OF PENNSYLVANIA AVE. (US ROUTE 11) AT 18525 BREEZE HILL DRIVE
WASHINGTON COUNTY, MARYLAND

OWNER:
BREEZE HILL LLC
11949 ROBINWOOD DRIVE
HAGERSTOWN, MD 21742

DEVELOPER:
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE
MILTON, PA 17847

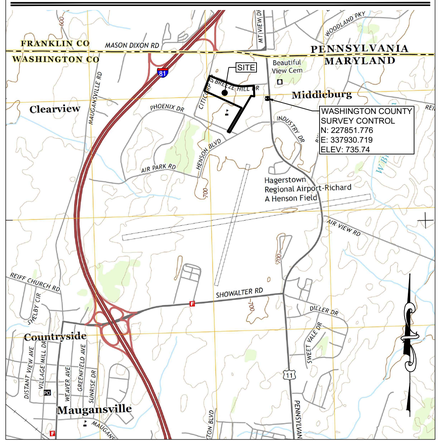
ATTN: THIERRY LINDOR
EMAIL: TLINDOR@PATTONWAREHOUSING.COM
PHONE: 570.246.5213

CIVIL ENGINEER / SURVEYOR:
FSA INC.
128 SOUTH POTOMAC STREET
HAGERSTOWN, MARYLAND 21740

PROJECT MANAGER: TREVOR FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
PHONE: 301.791.3650

VICINITY MAP
SCALE: 1" = 2000'

ADC MAP 10, C4
USGS MAPS (HAGERSTOWN)

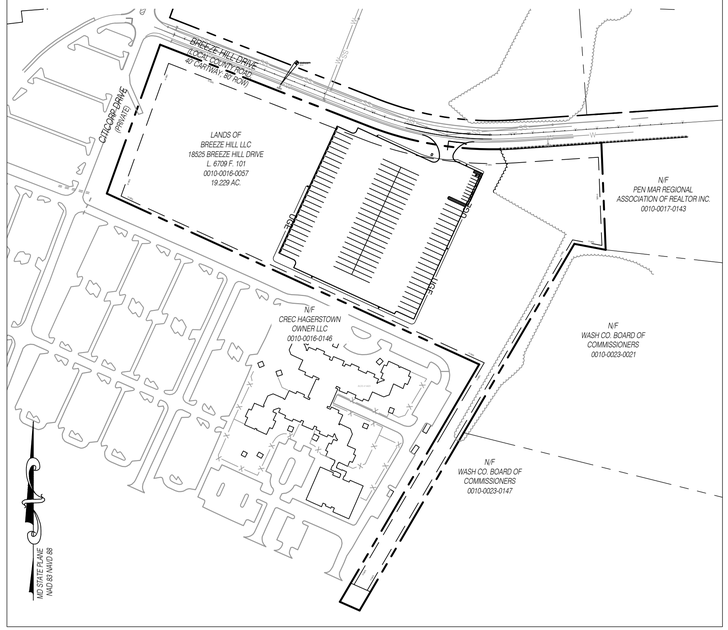


SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-002	SHEET 02	NOTES & LEGENDS
C-101	SHEET 03	EXISTING CONDITIONS
C-102	SHEET 04	EROSION & SEDIMENT CONTROL PLAN - INITIAL CONTROLS
C-103	SHEET 05	GRADING & UTILITY PLAN
C-104	SHEET 06	PAVING & DIMENSION PLAN
C-301	SHEET 07	STORMWATER MANAGEMENT PLANTING PLAN
C-302	SHEET 08	STORMWATER MANAGEMENT DETAILS & NOTES
C-501	SHEET 09	CONSTRUCTION DETAILS & NOTES - E & S CONTROLS
C-502	SHEET 10	CONSTRUCTION DETAILS & NOTES - SITE
C-503	SHEET 11	BREEZE HILL DRIVE CROSS SECTIONS
L-101	SHEET 12	LANDSCAPE PLAN
L-102	SHEET 13	LANDSCAPE PLAN

LOCATION PLAN
SCALE: 1" = 200'

TAX MAP - GRID - PARCEL: 0010 - 0016 - 0057
PROPERTY ACCOUNT #003106



ESD PRACTICES SUMMARY TABLE

CONSTRUCTION TYPE (NEW, REDEVELOPMENT, RESTORATION): **NEW**

ESD PRACTICES (CHAPTER 5 - STRUCTURAL PRACTICES)

TYPE	NO.	DA TO STRUCTURE (AC.)	IMPERVIOUS DA TO STRUCTURE (AC)	ESDv (CF)	ESDv (AC. FT)	Pe ADDRESSED (IN)
MICRO-BIORETENTION	A	0.66	0.59	4,228	0.10	2.18
MICRO-BIORETENTION	B	0.62	0.56	4,228	0.10	2.18
MICRO-BIORETENTION	C	0.62	0.56	4,228	0.10	2.18
MICRO-BIORETENTION	D	0.62	0.56	4,228	0.10	2.18
MICRO-BIORETENTION	E	0.62	0.56	4,228	0.10	2.18
MICRO-BIORETENTION	F	0.59	0.55	4,228	0.10	2.22
MICRO-BIORETENTION	G	0.66	0.50	3,574	0.08	2.04

Know what's below. Call before you dig.

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49808
Expiration Date: 08-24-2024

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.582.2644
555 SOUTH HANOVER STREET, CARLISLE, PA 17013, 717.249.0411
20 WEST BALTIMORE STREET, GREENCASTLE, PA 17225, 717.597.3667
128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740, 301.791.3650

© 2023

MARK	DESCRIPTION:	DATE:
	REVISED PER AGENCY COMMENTS	06.21.2023
	REVISED PER OWNERS REQUEST	10.31.2023

PATTON WAREHOUSING & LOGISTICS
SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-568-2127

PROJECT NO. 4027.2
DWN BY ABRAM MYERS | DATE 02.20.2023
PROJECT MANAGER T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE AS SHOWN
SHEET TITLE

COVER SHEET

C-001
SHEET 01 OF 13

SP-23-010

P:\SHARED FOLDERS\PROJECTS\4027\4027.2 ZONING\CONSTRUCTION SET\4027.2 C-00 - COVER SHEET & GENERAL NOTES.DWG 2023-10-31

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by Triad Engineering for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Columbia Gas (New Business)	1-800-440-6111
Columbia Gas (Conflicts)	(301) 964-1065
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Division of Engineering	(240) 313-2430
City of Hagerstown Utilities Department	(301) 739-8577 Ext. 650
Washington County Soil Conservation District	(301) 797-6821 Ext. 3
Washington County Department of Water Quality	(240) 313-2600

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Benchmarks is a water valve in Breeze Hill Drive. See Sheet C-101 for location.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by Triad Engineering for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. All handicapped parking spaces shall be designed, ramped and signed to meet the minimum requirements of the Maryland code for the handicapped.
20. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in October 2022. (Contour accuracy is to plus or minus one half the contour interval).
21. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
22. Exterior lighting will consist of pole mounted lights as shown on the photometrics plans and utility plan.
23. The contractor shall provide MOSH safety assistance for City Utilities Department, Water and Wastewater Division Inspectors.
24. Applicant to provide as built mylars at the completion of the project.
25. This project has a projected start date of July 2023 and a completion date of October 2023.
26. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County.
27. There are no Board of Zoning Appeals Cases for this property.
28. Proposed SWM will consist of on-site micro-bioretention facilities and a stone trench.
29. All existing drainage culverts and drainage easements are to be maintained and unaltered.
30. No outdoor storage of materials except for trailer parking is allowed on the site.
31. A Utility Permit will be required for any proposed utility work located within the County right-of-way.
32. The entrance on Breeze Hill Drive will require a Washington County Entrance Permit prior to construction.
33. Contractor is required to contact the Washington County Department of Water Quality at least 72 hours prior to connection of sanitary sewer lateral.

DIVISION OF PLAN REVIEW & PERMITTING NOTES

1. In conformance with the Stormwater Management Ordinance of Washington County, a performance security and executed maintenance agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans."
2. This project will require a third party qualified professional to be present at the preconstruction meeting. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
3. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Public Works.
4. Developer/Contractor shall contact the certifying engineer and the County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
5. This development plan must comply with the current Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control. Ordinance.
6. All grading for this project shall be the full responsibility of the property owner.
7. No permanent structures (e.g., fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.
8. A Public Works Agreement and performance security will be required for all improvements within the County right-of-way that are not otherwise regulated under a utility permit or entrance permit.

FIRE DEPARTMENT NOTES

1. Construction occurring on this site shall comply with NFPA 241, standard for safeguarding construction, alteration, and demolition operations, and chapter 16 of NFPA 1, uniformed fire code.
2. No open burning is permitted. Permits are required to perform blasting operations within the city of Hagerstown.
3. New buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property (NFPA 1-10.13.1).
4. A fire department access box (knox box) shall be installed. This box will be required to contain keys to the building, gates, fire protection system keys and other areas as requested by the fire department. Plans should reflect the location of box near the main entrance. Application information may be obtained from this office by the general contractor or online at *www.knoxbox.com*.

PARKING, LOADING & BICYCLE DATA

USE	REQUIREMENT	CALCULATION	REQUIRED
TOTAL PROVIDED PARKING SPACES			**10 SPACES**
TOTAL TRAILER PARKING SPACE			**93 SPACES**

ZONING DATA

ZONING DISTRICT	HI - HIGHWAY INTERCHANGE DISTRICT
MAX. BUILDING HEIGHT	75 FT.
MINIMUM YARD SETBACK:	
FRONT	40 FT.
*SIDE	25 FT.
*REAR	25 FT.

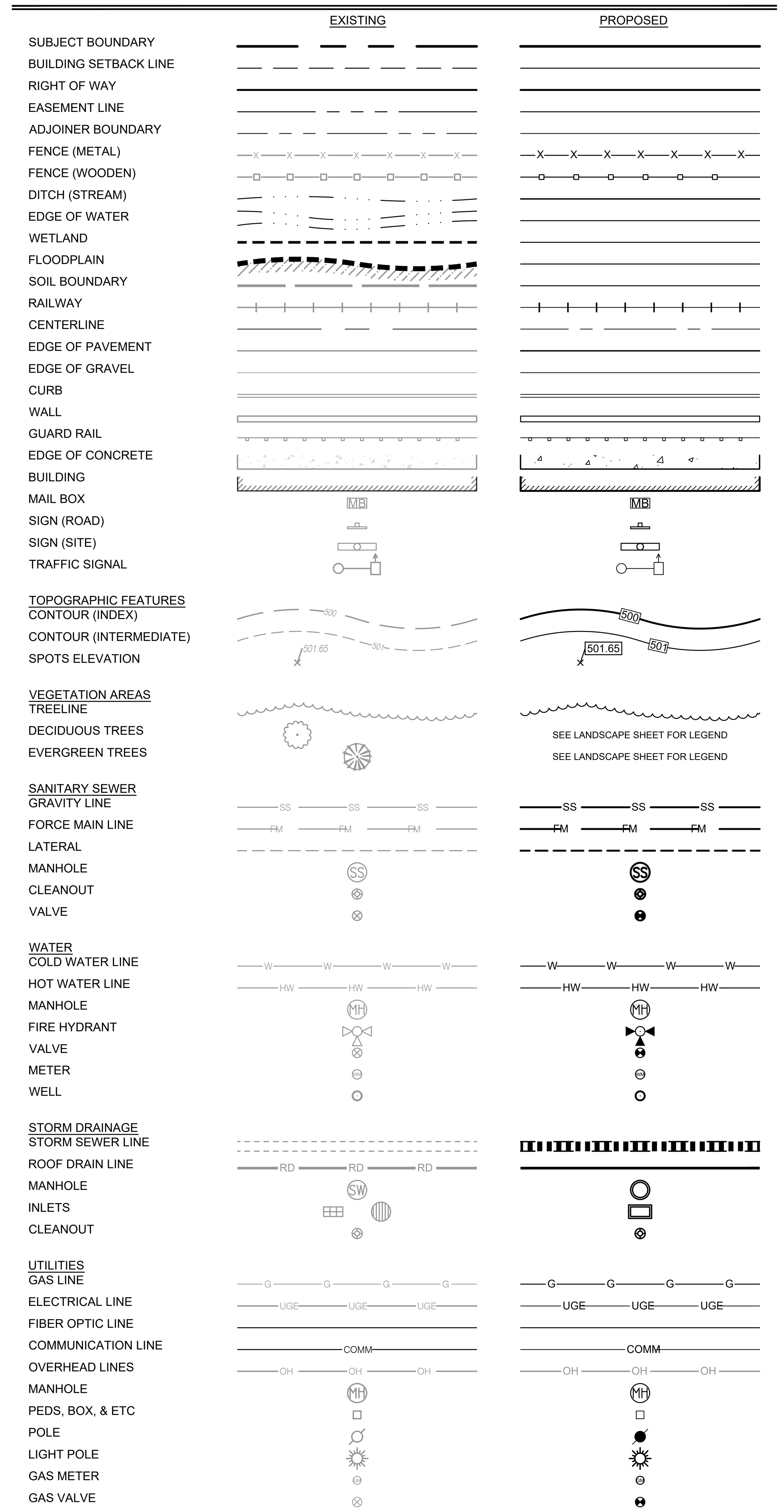
*When adjacent to residential development, it shall be 50 feet.

BOARD OF ZONING APPEALS' CASE	NONE
PROPOSED USE	TRUCK TERMINAL (PERMITTED USE)

SITE DATA

TAX MAP - GRID - PARCEL	0010-0016-0057
ELECTION DISTRICT	13
ACCOUNT NUMBER	003106
LIBER / FOLIO	6709 / 101
AREA SUMMARY:	
PARCEL	19.229 Ac
DISTURBED AREA	8.0 Ac
EXISTING IMPERVIOUS	0.00 AC
PROPOSED IMPERVIOUS	4.3 AC (23%)
WASTE & RECYCLABLES:	
SOLID WASTE REMOVAL	NONE
RECYCLE REMOVAL	NONE
SITE LIGHTING:	
EXISTING	NONE
PROPOSED	POLE MOUNTED
SITE SIGNAGE:	
EXISTING	NONE
PROPOSED	GROUND MOUNTED
ADDRESS ASSIGNMENT	18525 BREEZE HILL DRIVE, HAGERSTOWN, MARYLAND 21742
WAIVER AND/OR VARIANCE	N/A
FOREST CONSERVATION	APPROVED PER FP-13-001
EMPLOYEE SUMMARY	NONE
HOURS OF OPERATION	7 AM - 7PM; MONDAY-FRIDAY
WATERSHED:	
NAME	CONOCOCHEAGUE CREEK
NUMBER	02-14-05-04
FEMA PANEL #	24043C0128D

LEGEND



LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	OC	ON CENTER
ADS	ADVANCED DRAINAGE SYSTEM	PC	POINT OF CURVE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL	PCC	POINT OF COMPOUND CURVE
AWWA	AMERICAN WATER WORKS ASSOCIATION	PGL	PROPOSED GRADE LINE
BLDG	BUILDING	PRC	POINT OF REVERSE CURVE
BOT	BOTTOM	PT	POINT OF TANGENT
CIP	CAST IRON PIPE	PVC	POINT OF VERTICAL CURVE
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
CMP	CORRUGATED METAL PIPE	PVT	POINT OF VERTICAL TANGENT
CO	SANITARY SEWER CLEAN-OUT	ROW	RIGHT-OF-WAY
COMM	COMMUNICATION	SAN	SANITARY
CONC	CONCRETE	SCE	STABILIZED CONSTRUCTION ENTRANCE
DA	DRAINAGE AREA	SDR	STANDARD DIMENSION RATIO
DIA	DIAMETER	SIP	SET IRON PIN
EGL	EXISTING GRADE LINE	SD	STORM DRAINAGE
EX	EXISTING	SDMH	STORM DRAIN MANHOLE
EIP	EXISTING IRON PIN	SF	SQUARE FEET
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
GV	GATE VALVE	STA	STATION
HGL	HYDRAULIC GRADE LINE	STD	STANDARD
HDPE	HIGH DENSITY POLYETHYLENE	SY	SQUARE YARDS
INV	INVERT	TAN	TYPE AS NOTED
LF	LINEAR FEET	TEMP	TEMPORARY
MAX	MAXIMUM	TS	TOP OF STRUCTURE
MB	MAIL BOX	TG	TOP OF GRATE
MIN	MINIMUM	TR	TOP OF RIM
MJ	MECHANICAL JOINT	TYP	TYPICAL
NO	NUMBER	U/P	UTILITY POLE
NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
NTS	NOT TO SCALE	WL	WATERLINE
OAC	OR APPROVED EQUAL	WM	WATER METER
		WV	WATER VALVE

10/31/2023

FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com

MARK: | DESCRIPTION: REVISED PER AGENCY COMMENTS | DATE: 06.21.2023

PATTON WAREHOUSING & LOGISTICS

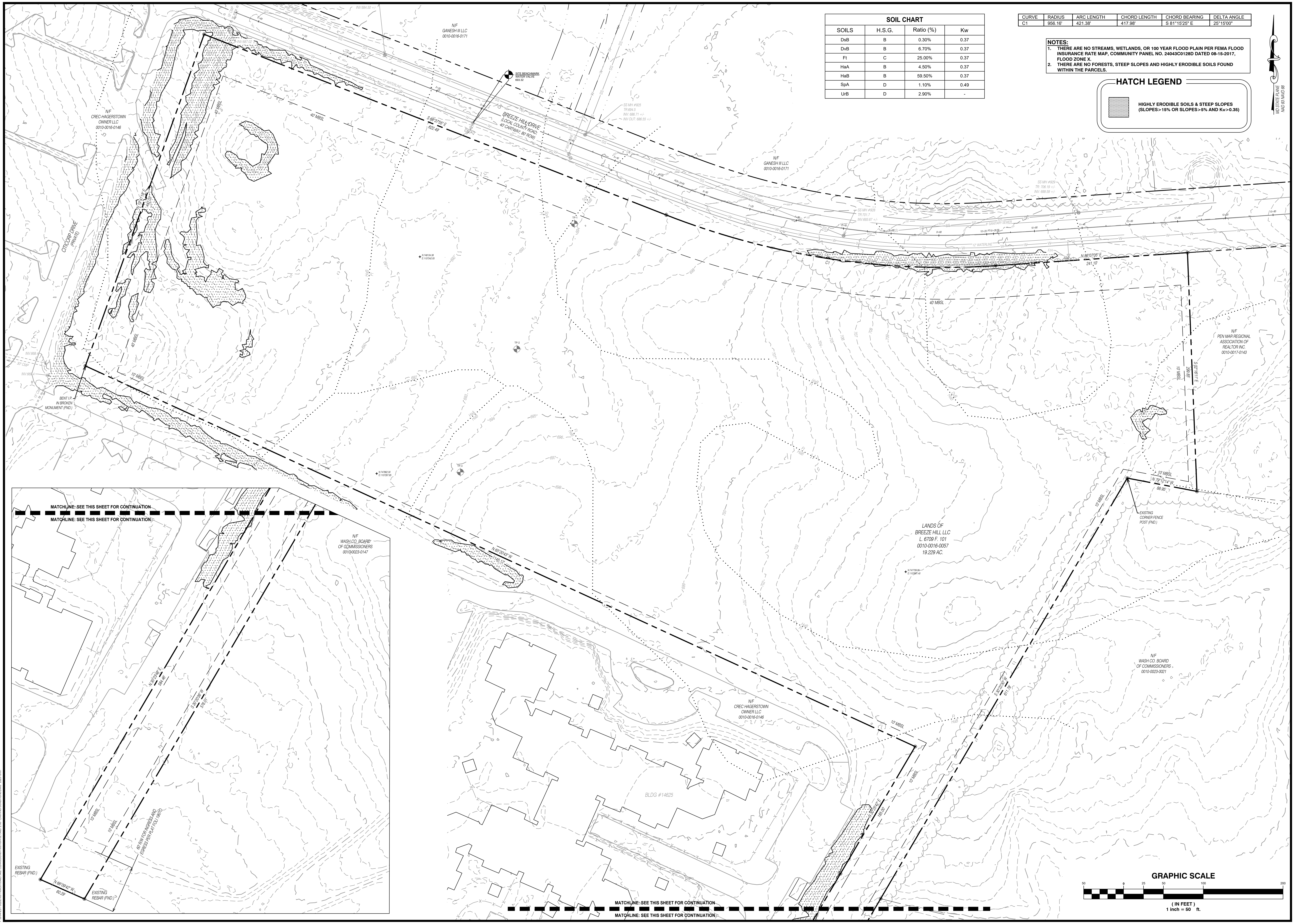
SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE
& WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO.	4027.2
DWN BY ABRAM MYERS	*DATE* 02.20.2023
PROJECT MANAGER:	T. FREDERICK
EMAIL:	TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0010-0016-0057
SCALE	N.T.S.
SHEET TITLE	GENERAL NOTES

C-002
SHEET 02 OF 13

SP-23-010



SOIL CHART

SOILS	H.S.G.	Ratio (%)	Kw
DsB	B	0.30%	0.37
DvB	B	6.70%	0.37
Ft	C	25.00%	0.37
HaA	B	4.50%	0.37
HaB	B	59.50%	0.37
SpA	D	1.10%	0.49
UrB	D	2.90%	-

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	956.16'	421.38'	417.98'	S 81°15'25" E	25°15'00"

NOTES:

1. THERE ARE NO STREAMS, WETLANDS, OR 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 24043C0128D DATED 08-15-2017, FLOOD ZONE X.
2. THERE ARE NO FORESTS, STEEP SLOPES AND HIGHLY ERODIBLE SOILS FOUND WITHIN THE PARCELS.

HATCH LEGEND

HIGHLY ERODIBLE SOILS & STEEP SLOPES (SLOPES>15% OR SLOPES>5% AND Kw>0.35)

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

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717.597.1007
505 SOUTH HANOVER STREET
CARLISLE, PA 17013
717.701.8111
15 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717.275.7531

DATE:

MARK: DESCRIPTION:

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE
& WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO. 4027.2
DWN BY ABRAM MYERS
DATE 02.20.2023
PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE 1" = 50'
SHEET TITLE

EXISTING CONDITIONS

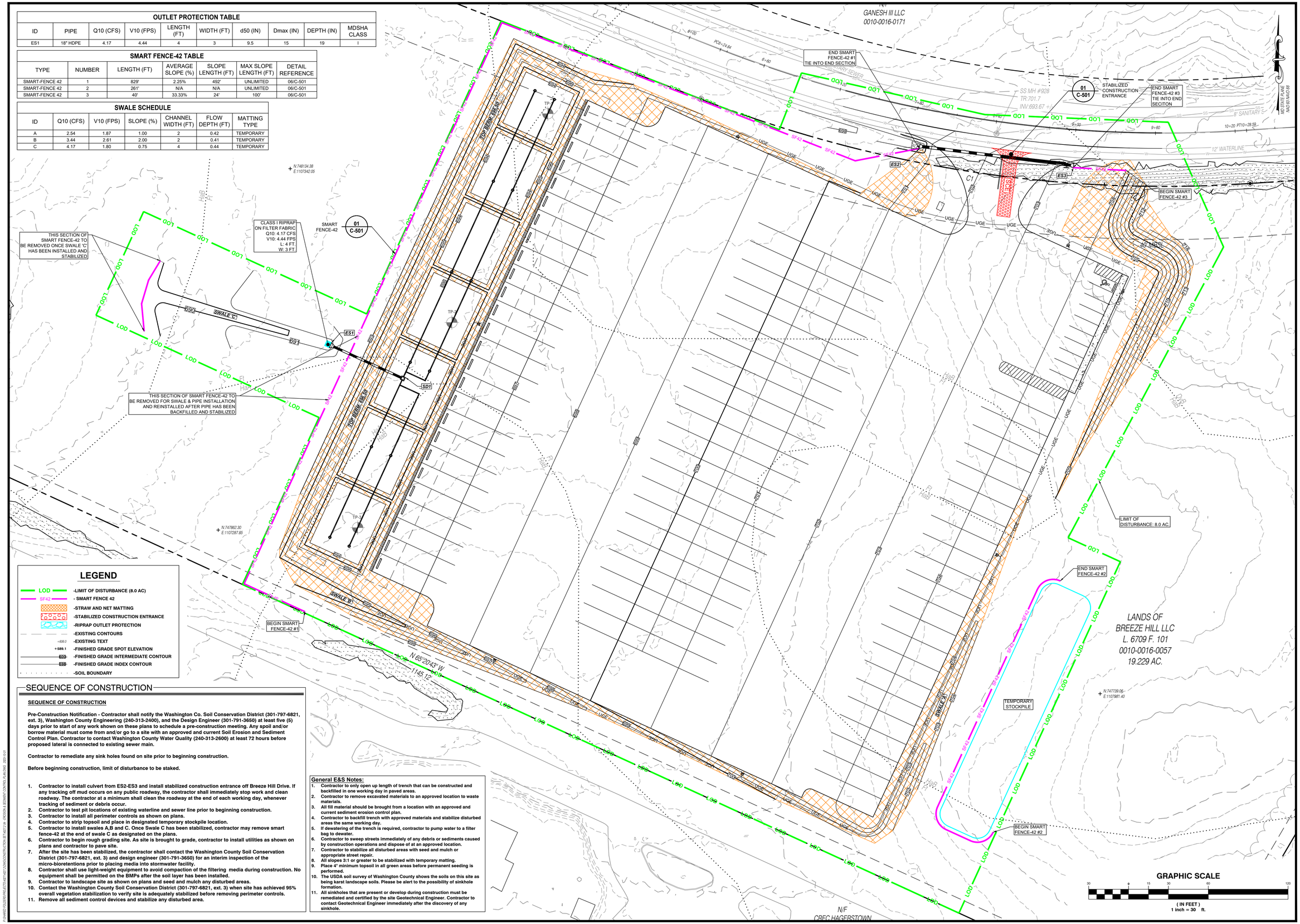
C-101
SHEET 03 OF 13

SP-23-010

OUTLET PROTECTION TABLE									
ID	PIPE	Q10 (CFS)	V10 (FPS)	LENGTH (FT)	WIDTH (FT)	d50 (IN)	Dmax (IN)	DEPTH (IN)	MDSHA CLASS
ES1	18" HDPE	4.17	4.44	4	3	9.5	15	19	I

SMART FENCE-42 TABLE						
TYPE	NUMBER	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)	DETAIL REFERENCE
SMART-FENCE 42	1	829'	2.25%	492'	UNLIMITED	06/C-501
SMART-FENCE 42	2	261'	N/A	N/A	UNLIMITED	06/C-501
SMART-FENCE 42	3	40'	33.33%	24'	100'	06/C-501

SWALE SCHEDULE						
ID	Q10 (CFS)	V10 (FPS)	SLOPE (%)	CHANNEL WIDTH (FT)	FLOW DEPTH (FT)	MATTING TYPE
A	2.54	1.87	1.00	2	0.42	TEMPORARY
B	3.44	2.61	2.00	2	0.41	TEMPORARY
C	4.17	1.80	0.75	4	0.44	TEMPORARY



LEGEND

- LOD — -LIMIT OF DISTURBANCE (8.0 AC)
- SF42 — - SMART FENCE 42
- -STRAW AND NET MATTING
- -STABILIZED CONSTRUCTION ENTRANCE
- -RIPRAP OUTLET PROTECTION
- -EXISTING CONTOURS
- +606.0 -EXISTING TEXT
- +589.1 -FINISHED GRADE SPOT ELEVATION
- 605 -FINISHED GRADE INTERMEDIATE CONTOUR
- 595 -FINISHED GRADE INDEX CONTOUR
- -SOIL BOUNDARY

SEQUENCE OF CONSTRUCTION

SEQUENCE OF CONSTRUCTION

Pre-Construction Notification - Contractor shall notify the Washington Co. Soil Conservation District (301-797-6821, ext. 3), Washington County Engineering (240-313-2400), and the Design Engineer (301-791-3650) at least five (5) days prior to start of any work shown on these plans to schedule a pre-construction meeting. Any spoil and/or borrow material must come from and/or go to a site with an approved and current Soil Erosion and Sediment Control Plan. Contractor to contact Washington County Water Quality (240-313-2600) at least 72 hours before proposed lateral is connected to existing sewer main.

Contractor to remediate any sink holes found on site prior to beginning construction.

Before beginning construction, limit of disturbance to be staked.

1. **Contractor to install culvert from ES2-ES3 and install stabilized construction entrance off Breeze Hill Drive. If any tracking off mud occurs on any public roadway, the contractor shall immediately stop work and clean roadway. The contractor at a minimum shall clean the roadway at the end of each working day, whenever tracking of sediment or debris occur.**
2. **Contractor to test pit locations of existing waterline and sewer line prior to beginning construction.**
3. **Contractor to install all perimeter controls as shown on plans.**
4. **Contractor to strip topsoil and place in designated temporary stockpile location.**
5. **Contractor to install swales A,B and C. Once Swale C has been stabilized, contractor may remove smart fence-42 at the end of swale C as designated on the plans.**
6. **Contractor to begin rough grading site. As site is brought to grade, contractor to install utilities as shown on plans and contractor to pave site.**
7. **After the site has been stabilized, the contractor shall contact the Washington County Soil Conservation District (301-797-6821, ext. 3) and design engineer (301-791-3650) for an interim inspection of the micro-bioretentions prior to placing media into stormwater facility.**
8. **Contractor shall use light-weight equipment to avoid compaction of the filtering media during construction. No equipment shall be permitted on the BMPs after the soil layer has been installed.**
9. **Contractor to landscape site as shown on plans and seed and mulch any disturbed areas.**
10. **Contact the Washington County Soil Conservation District (301-797-6821, ext. 3) when site has achieved 95% overall vegetation stabilization to verify site is adequately stabilized before removing perimeter controls.**
11. **Remove all sediment control devices and stabilize any disturbed area.**

General E&S Notes:

1. **Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.**
2. **Contractor to remove excavated materials to an approved location to waste materials.**
3. **All fill material should be brought from a location with an approved and current sediment erosion control plan.**
4. **Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.**
5. **If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.**
6. **Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.**
7. **Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.**
8. **All slopes 3:1 or greater to be stabilized with temporary matting.**
9. **Place 4" minimum topsoil in all green areas before permanent seeding is performed.**
10. **The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.**
11. **All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.**

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MARYLAND
TREVOR M. FREDERICK
49100
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49100
Expiration Date: 08-24-2024

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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-3647
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-791-3650

MARK	DESCRIPTION	DATE
	REVISED PER AGENCY COMMENTS	06.21.2023
	REVISED PER OWNERS REQUEST	10.31.2023

PATTON WAREHOUSING & LOGISTICS

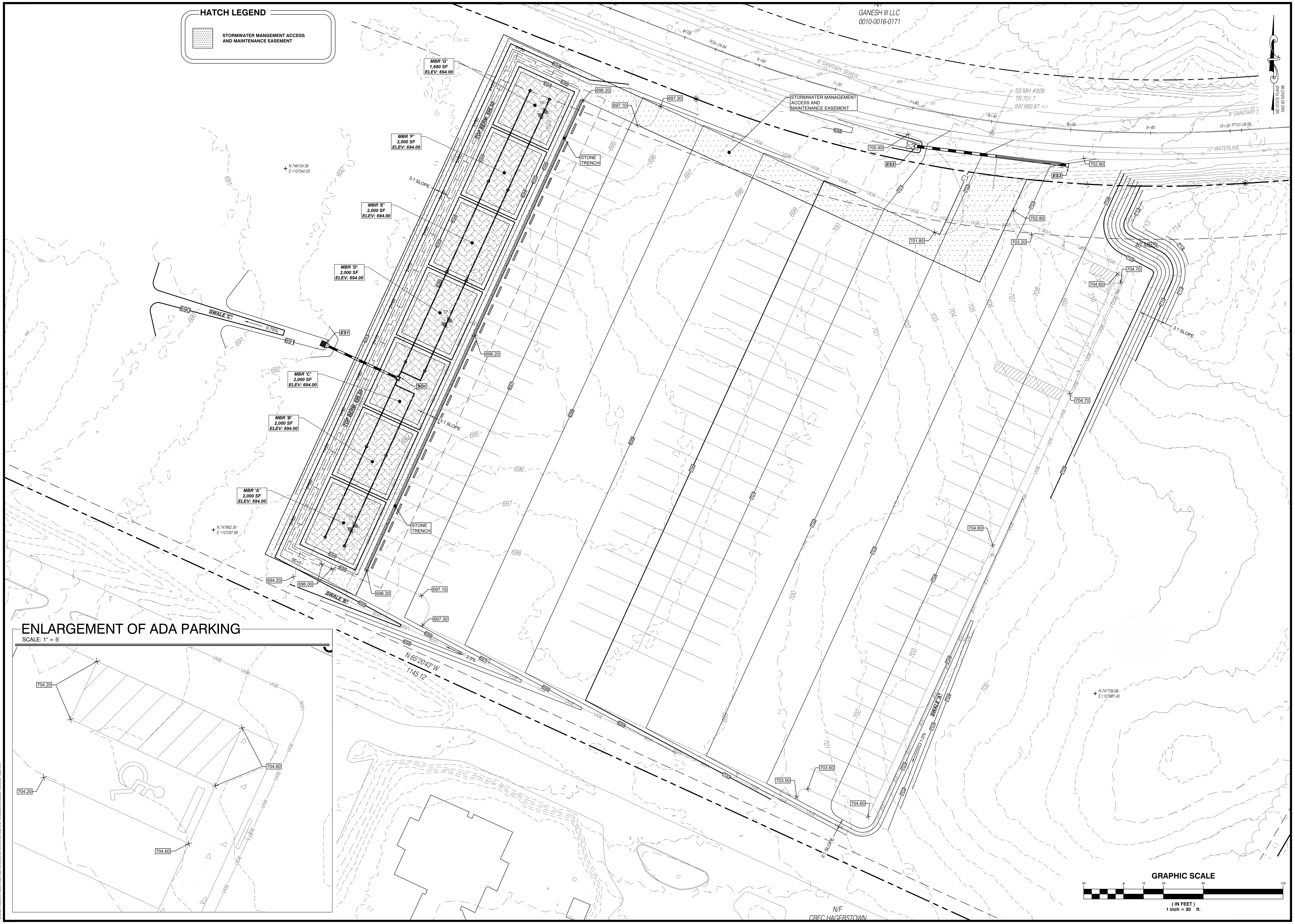
SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17947
570-568-2127

PROJECT NO.	4027.2
DWN BY	ABRAM MYERS
DATE	02.20.2023
PROJECT MANAGER	T. FREDERICK
EMAIL	TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL	0010-0016-0057
SCALE	1" = 30'
SHEET TITLE	EROSION & SEDIMENT CONTROL PLAN

C-102
SHEET 04 OF 13

SP-23-010

P:\SHARED FILES\PROJECTS\4027\CONSTRUCTION SET\4027.2 - EROSION & SEDIMENT CONTROL PLAN.DWG 2023-10-31



10/31/2023

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MARK	DESCRIPTION	DATE
	REVISED PER AGENCY COMMENTS	06.21.2023
	REVISED PER CONTRACTORS RFI	07.25.2023
	REVISED PER OWNERS REQUEST	10.30.2023

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO.
4027.2

DWN BY	DATE
ABRAM MYERS	02.20.2023

PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM

TAX MAP - GRID - PARCEL:
0010-0016-0057

SCALE
1" = 30'

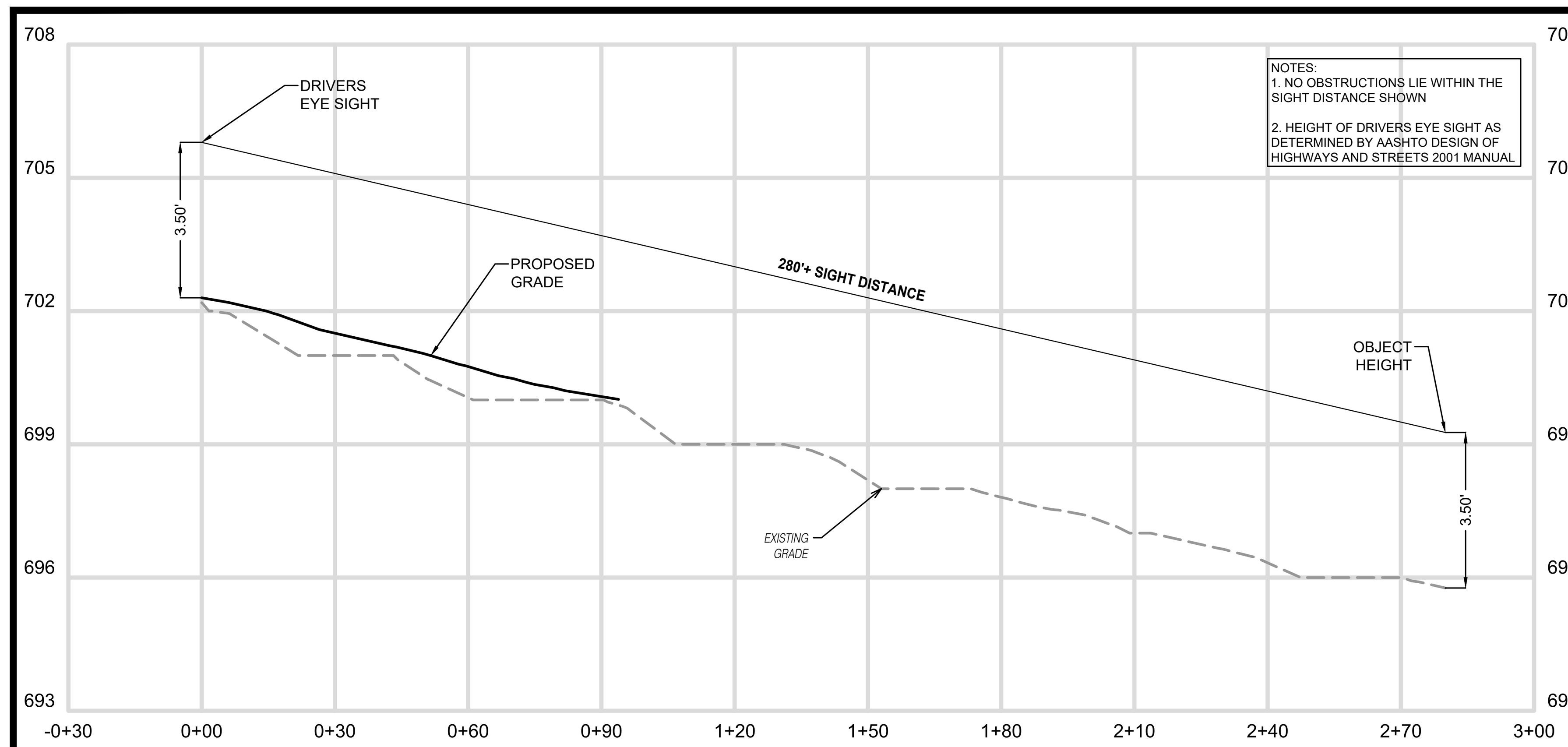
SHEET TITLE

GRADING & UTILITY PLAN

C-103

SHEET 05 OF 13

SP-23-010



SIGHT DISTANCE PROFILE LEFT TURN
SCALE- H: 1" = 30', V: 1" = 3'

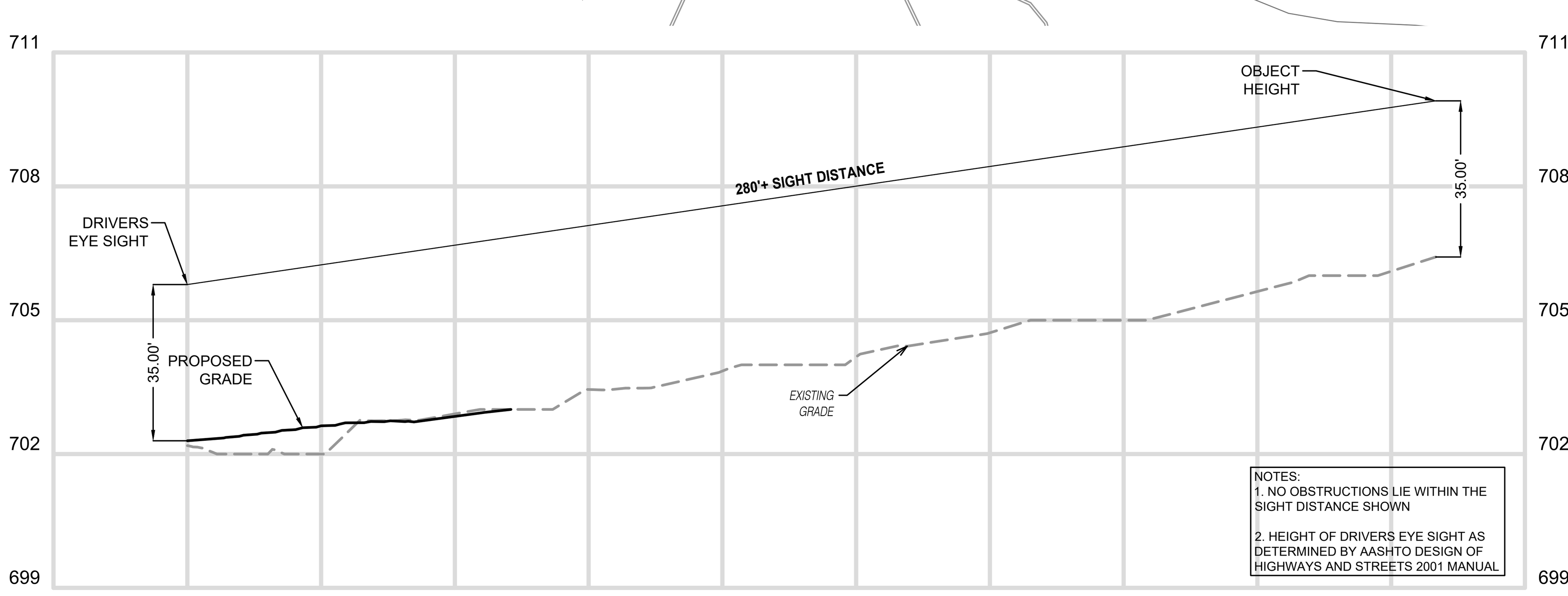
HATCH LEGEND		
HATCH	DESCRIPTION	SHEET/DETAIL
	TRUCK PAVEMENT	C-502/01
	WASHINGTON COUNTY PAVEMENT	C-502/02
	MILL AND OVERLAY	
	PAVEMENT TRANSITION	
	CONCRETE SIDEWALK	C-502/04

STRIPING LEGEND:

- A WHITE STOP BAR
- B WHITE LINE FOR PARKING
- C 5" SINGLE WHITE LINE - THERMOPLASTIC
- D WHITE ADA SYMBOL
- E 5" DOUBLE YELLOW LINE - THERMOPLASTIC

STRIPING NOTES:

1. FINAL APPLICATION OF WHITE AND YELLOW THERMOPLASTIC PAVEMENT MARKINGS SHALL BE AFTER COMPLETION OF ALL ASSOCIATED PROJECT ROADWAY CLEAN-UP.
2. REFERENCE FEDERAL HIGHWAY ADMINISTRATION M.U.T.C.D. 2009 EDITION CHAPTER 8B SECTION 27 FOR GRADE CROSSING PAVEMENT MARKINGS (FIGURE 8B-7).
3. ALL STRIPING AND SIGNAGE SHALL CONFORM TO MUTCD STANDARDS, MOST RECENT EDITION.



SIGHT DISTANCE PROFILE RIGHT TURN
SCALE- H: 1" = 30', V: 1" = 3'

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

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15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.275.7531

MARK	DESCRIPTION	DATE
	REVISED PER AGENCY COMMENTS	06.21.2023
	REVISED PER CLIENTS REQUEST	10.30.2023

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

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PROJECT NO.	4027.2
DWN BY	ABRAM MYERS
DATE	02.20.2023
PROJECT MANAGER:	T. FREDERICK
EMAIL:	TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0010-0016-0057
SCALE	1" = 30'

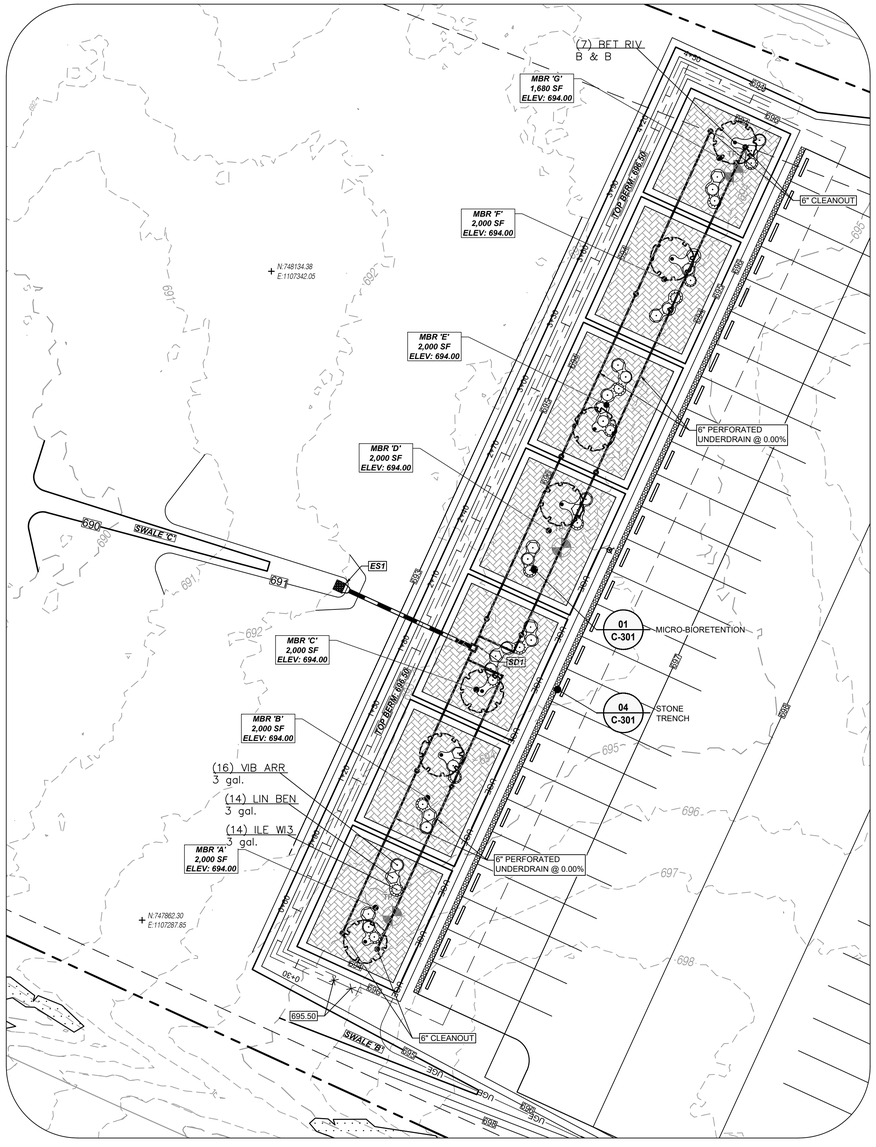
SHEET TITLE

SITE & DIMENSIONING PLAN

C-104

SHEET 06 OF 13

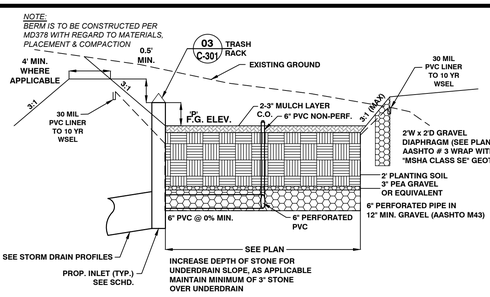
SP-23-010



GRAPHIC SCALE

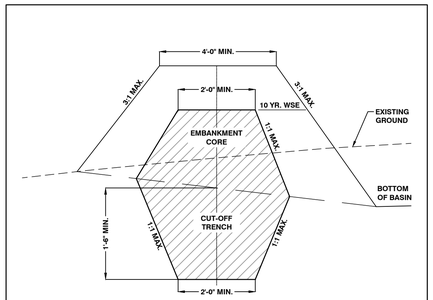
30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



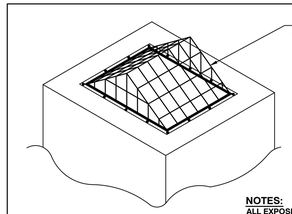
01 C-301 MICRO-BIORETENTION

SCALE: 1" = 5'



02 C-301 CUT-OFF TRENCH - BIO-RETENTION

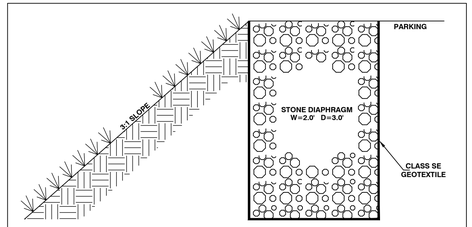
SCALE: 1" = 5'



NOTES:
ALL EXPOSED REBAR IS TO HAVE AN EPOXY COAT.

03 C-301 TRASH RACK - SLANTED

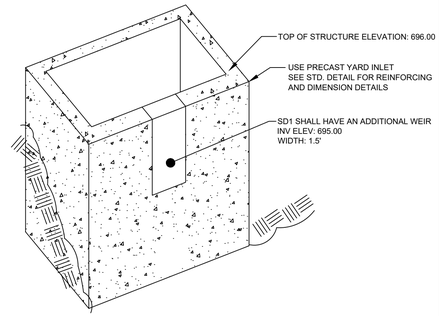
SCALE: 1" = 5'



04 C-301 STONE DIAPHRAGM

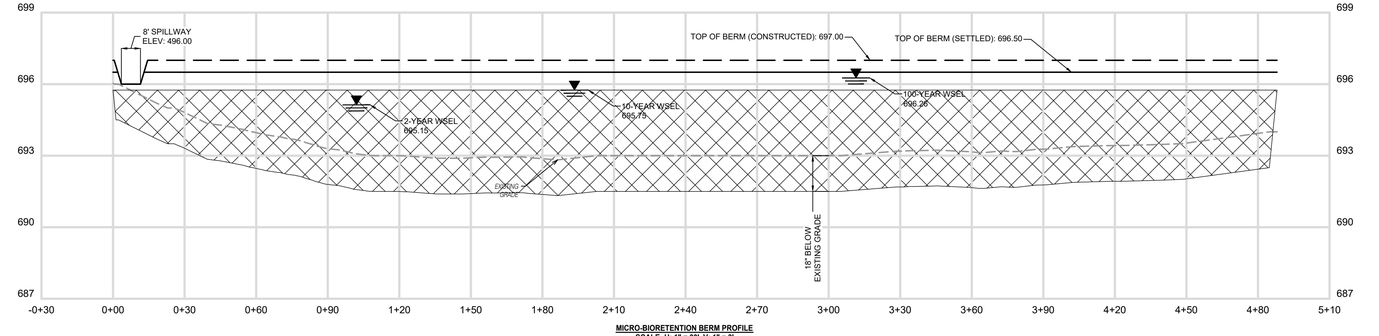
SCALE: 1" = 5'

NOTES:
1. SEE DETAIL 03/C-301 FOR TRASH RACK DETAILS
2. PRECAST INLET DETAILS ARE FOUND ON SHEET C-503.

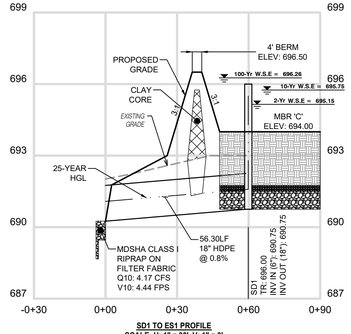


05 C-301 STORMWATER MANAGEMENT OUTLET STRUCTURE DETAIL

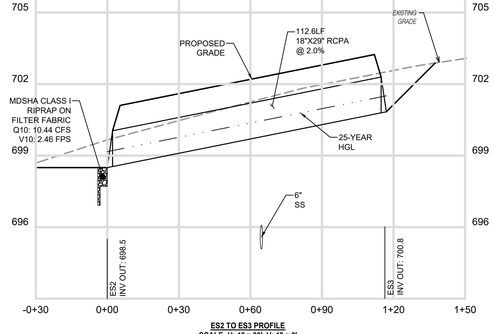
SCALE: 1" = 5'



MICRO-BIORETENTION BERM PROFILE
SCALE- H: 1" = 30', V: 1" = 3'



SD1 TO ES1 PROFILE
SCALE- H: 1" = 30', V: 1" = 3'



ES2 TO ES3 PROFILE
SCALE- H: 1" = 30', V: 1" = 3'

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
	BET RIV	Betula nigra / River Birch	B & B	2"Cal	7	03/L-501
SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**	**DETAIL**
	ILE WI3	Ilex verticillata / Winterberry	3 gal.		14	02/L-501
	LIN BEN	Lindera benzoin / Spicebush	3 gal.		14	02/L-501
	VIB ARR	Viburnum dentatum / Viburnum	3 gal.		16	02/L-501

SWM BMP MIXED GRASSES PLANTING SCHEDULE

SYMBOL	QUANTITY							COMMON NAME	SIZE	REMARKS
	MBR 'A'	MBR 'B'	MBR 'C'	MBR 'D'	MBR 'E'	MBR 'F'	MBR 'G'			
	1,835 SF	1,835 SF	1,800 SF	1,830 SF	1,810 SF	1,820 SF	1,495 SF	MIXED GRASSES	2" PLUGS	SEE DETAIL 01/L-501

MIXED GRASSES

COMMON NAME	SCIENTIFIC NAME	
Rush, soft	Juncus effusus	THE MINIMUM SIZE FOR MIXED GRASSES SHALL BE 2" PLUG. GRASSES SHALL BE PLANTED 3 FOOT ON CENTER WITH A RANDOM MIX OF PLANTS. PLANTING SHOWN IS RECOMMENDED. OTHER PLANT SPECIES SPECIFIED IN THE MARYLAND STORMWATER DESIGN MANUAL ARE PERMITTED.
Sedge, broom	Carex scoparia	
Sedge, Pennslyvania	Carex pennsylvanica	
Switchgrass	Panicum virgatum	

MICRO - BIORETENTION SCHEDULE

ID	SURFACE AREA (S.F.)	PONDING DEPTH (FT.)	FINISH GRADE ELEV.	BOT. STONE ELEV.	LINER REQUIRED
A	2,000	1.00'	694.00	690.75	YES
B	2,000	1.00'	694.00	690.75	YES
C	2,000	1.00'	694.00	690.75	YES
D	2,000	1.00'	694.00	690.75	YES
E	2,000	1.00'	694.00	690.75	YES
F	2,000	1.00'	694.00	690.75	YES
G	1,680	1.00'	694.00	690.75	YES

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
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Expiration Date: 06-24-2024

MD STATE PLANE NAD 83 NAVD 88

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128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION:	DATE:
1	REVISED PER AGENCY COMMENTS	06.01.2023

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-568-2127

PROJECT NO.: 4027.2
DWN BY: ABRAM MYERS
DATE: 02.20.2023
PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE: 1" = 30'

SHEET TITLE
STORMWATER MANAGEMENT PLAN

C-301
SHEET 07 OF 13

SP-23-010

P:\SHARED FOLDERS\PROJECTS\4027\4027.2\CIVIL\CONSTRUCTION SET\4027.2 SP-23-010 - STORMWATER MANAGEMENT PLAN.DWG 2023-10-31

Pond MD-378
NRCS - MARYLAND JANUARY 2000
CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the em-bankment.
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out. The minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.
Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits
All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.
Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.
Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of ASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall
meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding -The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap
Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311. Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

MARYLAND STORMWATER DESIGN MANUAL
B.4.D Specifications for Micro-Bioretention, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications
The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- *Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)*
- *Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60% - 65%) and compost (35% - 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).*
- *Clay content - Media shall have a clay content of less than 5%.*
- *pH range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur may be mixed into the soil to increase or decrease pH.*

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction
It is very important to minimize compaction of both the base of the bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material
Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

5. Plant Installation
Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Under drains
Underdrains should meet the following criteria:

- *Pipe - Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (F 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid schedule 40 PVC or SDR35 pipe.*
- *Perforations - If perforated pipe is used, perforations should be $\frac{3}{8}$" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with $\frac{1}{4}$" (No. 4 or 4x4) galvanized hardware cloth.*
- *Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.*
- *The main collector pipe shall be at a minimum 0.5% slope.*
- *A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.*
- *A 4" layer of pea gravel ($\frac{1}{8}$" to $\frac{3}{8}$" stone) shall be located between the filter media and underdrain to prevent migration o fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".*

7. Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilized.

Table B-4.1 Material Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see planting list	n/a	plantings are site-specific
Planting Soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood	n/a	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4 inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) *not using previously approved State or local standards* requires design drawings sealed and approved by a professional engineer licensed in the State of Maryland - design to include meeting ACI Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitution such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.

OPERATION AND MAINTENANCE PLAN
BIORETENTION

INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION
Maintenance Access		
General	Check for accessibility to facility; excessive vegetation; surface stability	Repair erosion and maintain access surface in good condition
Pretreatment		
Grass filter strip or sand layer	Check for sediment accumulation	Remove sediment as needed
Optional sand layer	Check sand for staining and sediment accumulation	If contaminated, replace first three inches of sand layer
Gravel diaphragm	Check for sediment accumulation and evidence of erosion	Remove sediment and replace gravel as needed
Mulch layer	Check for a 2-3 inch mulch layer	Remove mulch and replace as needed
Filter Bed		
Dewatering	Check for dewatering within 48 hours of rainfall; noticeable odors; water stains on the filter surface or at the outlet; presence of algae or aquatic vegetation	Remove mulch and the top 3-6 inches of soil/sediment and replace with suitable materials per plan specifications; follow up inspections shall confirm adequate dewatering; contact the plan approval authority if the facility does not function as intended
Sediment	Check for sediment accumulation	Remove sediment as needed
Mulch layer	Check for adequate cover; sediment accumulation; discoloration	Remove and replace mulch and excess sediment as needed
Vegetation		
Plant composition and health	Check for plant composition according to approved plans; invasive species, weeds, and dead or dying vegetation	Remove and replace plants as necessary
Vegetative cover/erosion	Check for erosion, runoff channelizing, or bare spots	Repair/grade and stabilize as needed
Outlets		
Underdrain system	Check outlet end to ensure that discharge is not obstructed; check for erosion	Remove any flow obstructions; grade and stabilize any eroded areas to provide stable conveyance
Overflow spillway	Check for displacement of rip-rap, stable conveyance, and erosion below the outlet	Repair and replace as needed
Conveyance Systems		
General	Check for erosion, flow blockages or bypass, and stable conveyance	Repair/replace and stabilize as needed
Flow diversion	Check flow splitter for proper functioning	Repair as necessary
Trash and Debris		
	Check for trash and debris accumulation	Trash and debris shall be disposed of in an acceptable manner
Structural Components		
	Check for structural deterioration, spalling or cracking	Repair according to specifications on the approved plans

Field conditions may require a modification to the original approval in order to achieve the intended design function. The plan approval authority should be contacted for review and approval of all proposed modifications. Inspection and maintenance should occur after any major rain event (e.g., meeting or exceeding the design rainfall depth for the facility).

Earth Fill

Material- *The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC,SC,CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.*

Placement- *Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.*

Compaction - *The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.*

The minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/-2% of the optimum. Each layer of fill shall be compacted as necessary to obtain obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor.)

Cut Off Trench - *The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.*

Embankment Core - *The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.*

Geotechnical Notes:
1. In areas of deep cuts into bedrock, it is possible to encounter groundwater. The contractor should be prepared to implement temporary de-watering measures in these areas during construction. Refer to the Geotechnical Report for additional recommendations.
2. Consideration should be given to installing temporary monitoring wells to observe the groundwater levels in areas of deep cuts.
3. If significant groundwater is encountered, the project Civil Engineer (FSA) and Geotechnical Engineer should immediately be notified to determine if any changes in design are warranted.
4. If blasting is proposed, the selected blasting contractor should submit a detailed blasting plan to the design team and Owner for review and approval prior to any blast operations.
5. If rock is encounters, undercut pond 18 inches and backfill with CL type soil or equivalent based on the geotechnical report.

Notice of Required Stormwater Management Inspections
Sand Filters, Bioretention and Rain Garden Facilities

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		MICRO BIORETENTION 'A'	MICRO BIORETENTION 'B'	MICRO BIORETENTION 'C'	MICRO BIORETENTION 'D'	MICRO BIORETENTION 'E'	MICRO BIORETENTION 'F'	MICRO BIORETENTION 'G'
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**							
	Date							
	County Inspector							
	Date							
The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.								

CATEGORY 300 DRAINAGE PVC LINED PONDS

DESCRIPTION. This work shall consist of furnishing, placing and anchoring of a 30 mil PVC liner within designated pond area as shown in the Contract Documents and as directed by the Engineer.

MATERIALS.

Furnished Topsoil	920
Type B Soil Stabilization Matting	920
Staples	920

PVC LINER MATERIAL. The 30 mil PVC Liner shall conform to the following minimum physical properties.

PROPERTY	TEST METHOD	REQUIREMENT
Thickness	D 1593	+/- 5%
Specific Gravity (min.)	D 792	1.20
100% Modulus (psi. min.) (1 b. force/in. width, min.)	D 882	100 30
Tensile (psi, min.) (Lb. force/ in. width, min.)	D 882	2300 69
Elongation at Break (%, min.)	D 882	325
Graves Tear (lb./in., min.) (1b. force/in. width, min.)	D 1004	325 8
Resistance to Soil Burial (% change max.) (a) Breaking Factor (b) Elongation At Break (c) Modulus at 100% Elongation	D 3083 (NSF Modified)	5 20 20
Impact Cold Crack (/F)	D 1790	-20
Dimensional Stability (% change/max.)	D 120 (212/f/15 min.)	5
Water Extraction (%, max.)	D 3083	-0.25
Volatile Loss (%, max.)	D 1203	0.70
Hydrostatic Resistance (psi,min.)	D 751	82

PVC LINER CERTIFICATION.

The Contractor shall certify that the PVC liner material conforms to the physical properties. The PVC Liner Certification shall also include:

(a) Polymer and composition of the PVC Liner, including additive composition of any coating materials

(b) Manufacturer's Quality Control plan including properties, test methods, frequency of testing, tolerances and method of resolution for out-of-specification material.

(c) Laboratory test results documenting the physical properties.

STORAGE AND HANDLING.

The PVC liner shall remain stored in its original container in a dry area and protected from puncture, dirt, grease, water, mud, mechanical abrasions, excessive heat, extreme cold or other damage. On-site handling of the PVC liner is the responsibility of the Contractor

Any damage of the PVC liner shall be documented. If the damaged PVC liner cannot be repaired to comply with the specification it shall be removed and replaced at no additional cost to the Administration.

CONSTRUCTION.

Construction shall be in conformance with the details shown on the plans or as directed by the Engineer and the following:

Area Subgrade Preparation.

Surfaces to be lined shall be smooth and free of all rocks, stones, sticks, sharp objects, or debris of any kind. The surface shall provide a firm, unyielding foundation for the liner with no sudden sharp, or abrupt changes or break in grade. No standing water, mud, snow, or frozen subgrade that has become softened by water or overly dried until it has been properly reconditioned and recompacted. Special care shall be taken to maintain the prepared soil surfaces. The soil surface will be observed daily by the Engineer to evaluate the surface condition. Any damage to the surface caused by weather conditions shall be repaired by the contractor.

Anchor Trench.

The anchor trench shall be excavated to the line, grade, and width shown on the construction drawings, prior to liner placement.

If the anchor trench is located in clay susceptible to desiccation; no more than the amount of trench required for the liner to be anchored in one day shall be excavated to minimize desiccation of the anchor trench soils.

Slightly rounded corners shall be provided in the trench where the liner adjoins the trench so as to avoid sharp bends in the liner. No loose soil or rocks shall be allowed to underlie the liner in the anchor trench. Leading edges of the anchor trench shall be smooth and even.

Placement of Liner.

(a) The liner shall be placed down gradient (upstream to downstream) to facilitate over lapping and prevent run off from entering under the placed liner.

(b) The method used to place the liner panels shall minimize wrinkles (especially differential wrinkles between adjacent panels). Minimum wrinkles shall be allowed to insure the liner is installed in a relaxed condition. Excessive wrinkles which overlap themselves shall not be allowed. Stretching of the liner is not allowed.

(c) All panels may be repositioned after deployment to conform to the overlap requirements, however, deployment and repositioning measures may eliminate dragging or elongating the PVC liner panels.

(d) The seam overlap shall be a minimum of 3 ft. and a maximum of 4 ft.

(e) Adequate ballast (e.g., cover soil, or similar measures that will not damage the liner) shall be placed to prevent uplift by wind. In case of high winds, continuous loading is recommended along edges of panels to minimize risk of wind flow under the panels.

(g) Only equipment necessary for installation and testing of the liner shall be permitted to come in contact with the liner. This equipment shall be rubber tired with a ground pressure not exceeding 5 psi, and a total weight not exceeding 750 lb.

Weather conditions.

PVC liner deployment shall proceed when ambient temperature and material sheet temperature is between 60 and 105 F. Sheet temperature shall be measured on the liner surface by an infrared thermometer or surface contact thermometer.

Liner placement shall not be done during any precipitation, in the presence of excessive moisture, (e.g., snow, fog, rain, dew, mud) or in the presence of excessive winds, as determined by the engineer.

If liner placement is required at ambient temperatures below 60 F, a means of storing the liner in an area that maintains the liner temperature above 60 F shall be provided. This liner temperature shall be maintained until the time of deployment.

Unpacking the panels.

The contractor shall notify the Engineer, before the liner is unpacked. Damaged or suspect areas shall be marked for testing and/or repair. Liner that is damaged during deployment (i.e. that cannot be adequately repaired) shall be replaced at no additional cost to the Administration.

Backfilling of the Anchor Trench.

The anchor trench shall be backfilled and compacted by the contractor to the satisfaction of the Engineer. Trench backfill material shall be placed in 8 in. thick loose lifts and compacted by wheel rolling with light, rubber-tired or other light compaction equipment.

Care shall be taken when backfilling the trenches to prevent any damage to the PVC liner. At no time shall construction equipment come in direct contact with the liner. If damage occurs, it shall be repaired at no additional cost to the Administration.

Backfilling of PVC Liner.

The liner shall be covered with a 2 ft. layer of soil; the first 1.8 ft. shall conform to Common Borrow specifications and the top 4 in. shall be a layer of furnished topsoil. The backfill shall be tamped in place. Permanent type B soil stabilization matting shall be placed over the topsoil.

At no time shall construction equipment come into direct contact with the liner or traverse the backfilled trench. When damage occurs, it shall be repaired by the contractor at no additional cost to the Administration. Compaction shall be to the satisfaction of the Engineer.

Measurement and Payment.

Measurement and payment for the PVC ditch liner will be measured and paid for at the contract unit price per square yard accepted in place. The payment will be full compensation for all excavation, PVC liner, furnished topsoil, backfill, and for all overlap shall not be measured and paid for as separate item. All PVC liner overlap shall be incidental to the cost of PVC liner installation.

Excavation will be measured and paid for at the contract unit price per cubic yard for class 2 excavation for incidental construction.

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 49808

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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MARK:	DESCRIPTION:	DATE:
	REVISED PER AGENCY COMMENTS	06.21.2023

PATTON WAREHOUSING & LOGISTICS
SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE
& WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS

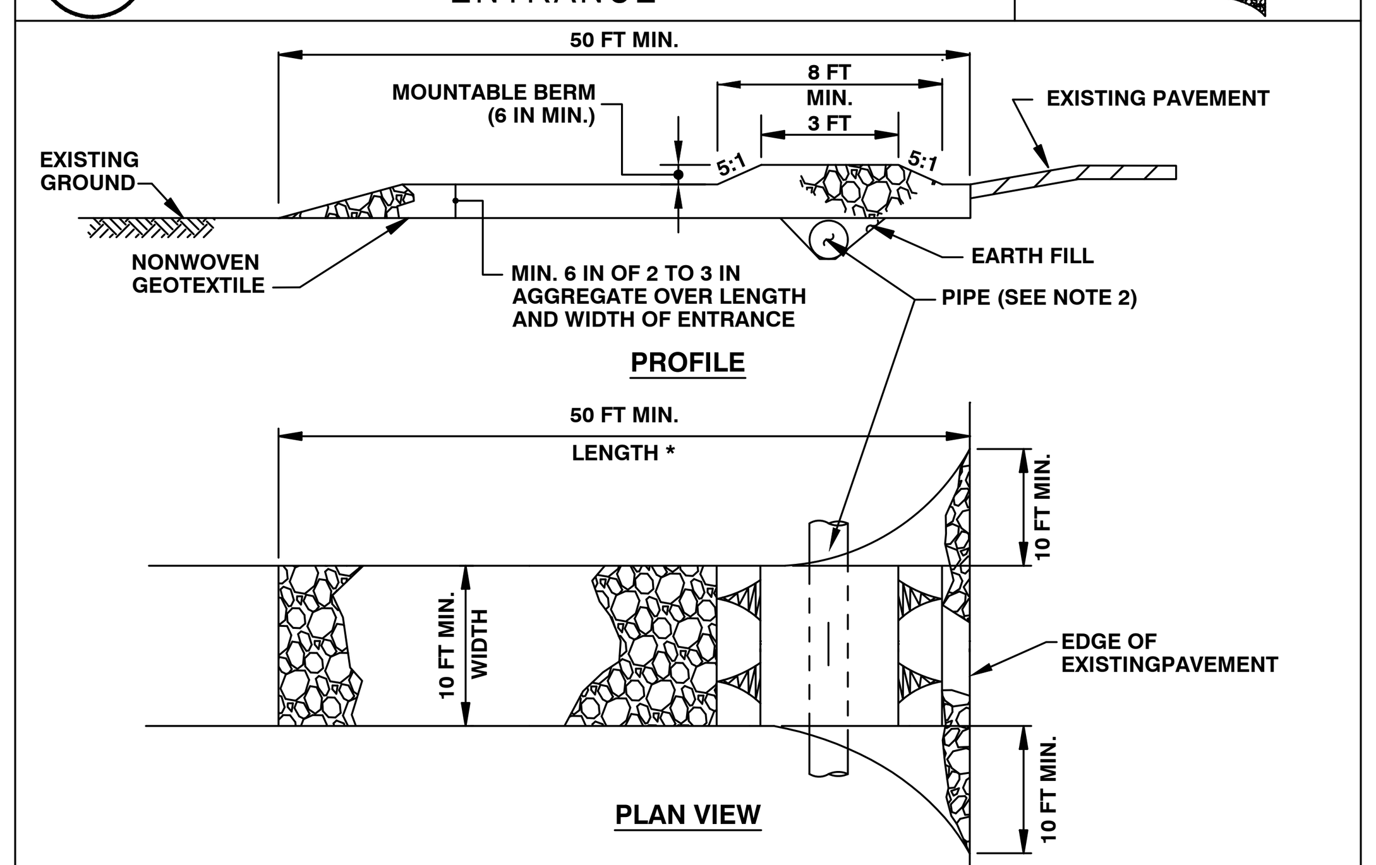
PROJECT NO.	4027.2
DWN BY: ABRAM MYERS	DATE: 02.20.2023
PROJECT MANAGER:	T. FREDERICK
EMAIL:	TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0010-0016-0057
SCALE	N.T.S.
SHEET TITLE	STORMWATER MANAGMENT NOTES

C-302
SHEET 08 OF 13

SP-23-010

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE (01 / C-501)

STANDARD SYMBOL: SCE



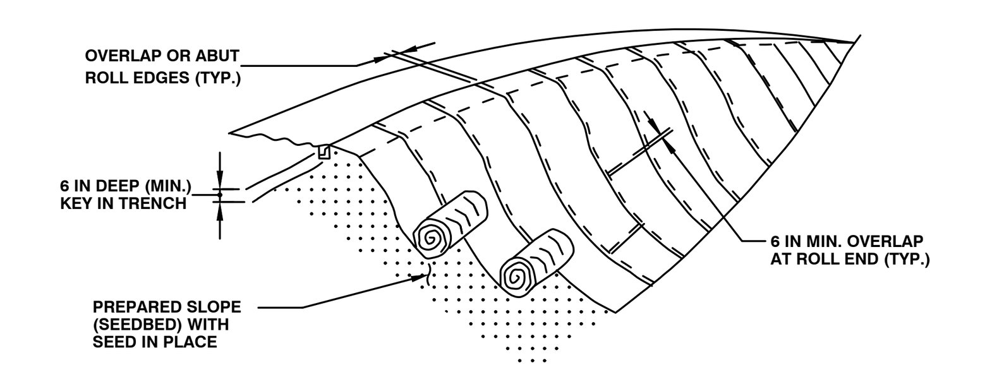
CONSTRUCTION SPECIFICATIONS

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 B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION (03 / C-501)

STANDARD SYMBOL: TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)

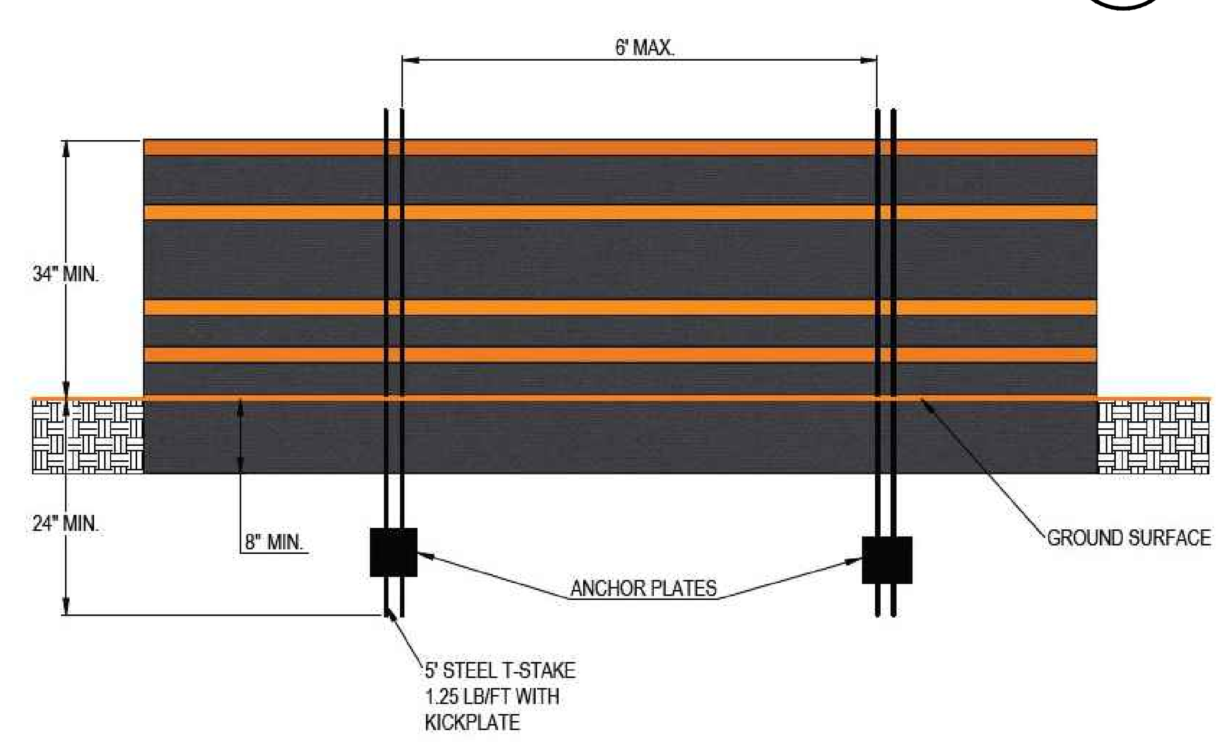


CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

SMARTfence® 42 Detail: (05 / C-501)



SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

SMARTFENCE 42" INSTALLATION INSTRUCTIONS

SEDIMENT & PERIMETER CONTROL

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

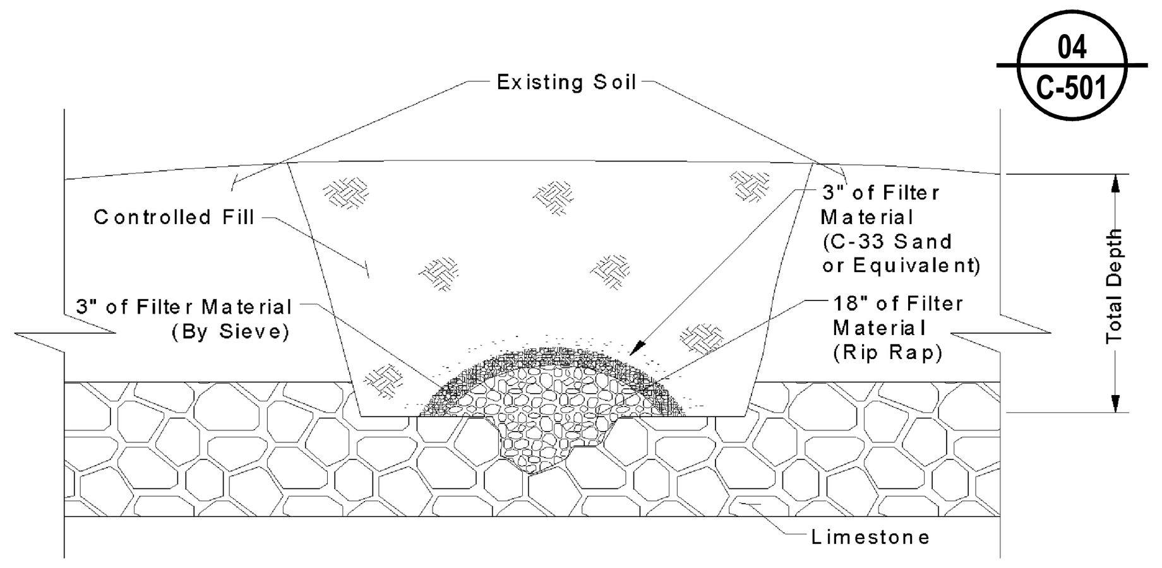
SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 email at info@acfenv.com

ACF ENVIRONMENTAL

SINKHOLE REMEDIATION DETAIL (04 / C-501)

IF SINKHOLES OCCUR ON SITE DURING CONSTRUCTION A GEOTECHNICAL ENGINEER SHALL BE CONTACTED. REMEDIATION OF ANY SINKHOLES SHALL BE UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER.



Sinkhole Treatment
Inverted Filter 1
Figure 1

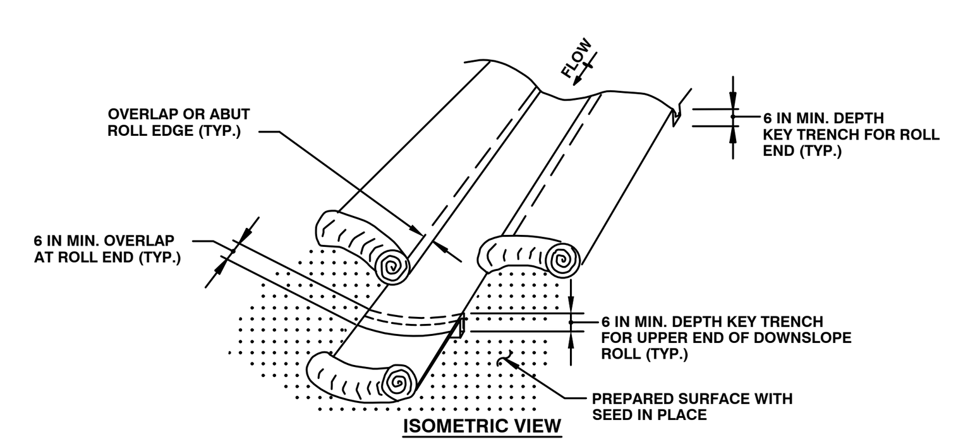
Notes:
Inverted Filter 1
Procedure for installing inverted filter to treat sinkholes.

1) Remove and properly dispose of materials dumped in and around the sinkhole.
2) Excavate loose material from sinkhole and try to expose the solution void(s) in the bottom. Enlarge the sinkhole, as necessary, to allow for installation of filter materials (Figure 1).
3) Select a field stone that is about 1.5 times larger than the solution void(s). Place the stone(s) in the void(s) forming a secure "bridge". A geotextile may be needed to "lock" the stone "bridge" in place, as determined by the geotechnical engineer.
4) Place a layer of filter material over the "bridge" at a minimum thickness of 18 inches. About 30 percent of the material should be larger than the openings between the bridge and the void(s). (A well placed "bridge" should not have large openings around it.) In most cases this material could be Rip Rap.
5) Place a layer of smaller size filter material over the previous layer at a minimum thickness of 9 inches. The size should be 1/4 to 1/2 the size of the pervious layer. In most cases this material could be 57 stone.
6) Place a layer of sand size filter material over the previous layer at a minimum thickness of 9 inches. The sand has to be compatible in size with the previous layer to prevent piping. In most cases this material could be C-33 sand or equivalent.
7) (A non-woven filter cloth with a burst strength between 100 to 200 psi can be substituted for the stone and sand filter materials discussed in 5 and 6.)
8) Backfill over the last filter layer (or filter cloth) with soil material to the surface. The reuse of any soil material excavated from sinkhole should be considered. Overfill by about 5 percent to allow for settlement. The material should be soil with at least 50% clay materials and a minimum of 3 feet thick. The fill materials should be compacted to a minimum of 95% of the standard proctor (AASHTO T-99). Any available topsoil should be placed on the surface.
9) Stone used for the "bridge" and the filters should have a rock strength at least equal to moderately hard (i.e. resistant to abrasion or cutting by knife blade but can be easily dent or broken with light blows of hammer). Shale or similar soft and non-durable rock is not acceptable.

SINKHOLE REMEDIATION DETAIL

DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION (06 / C-501)

STANDARD SYMBOL: TSSMC - * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
7. OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (FIGURE B.3): 6a & 6b (6b circled)
SEED MIXTURE (TABLE B.1)

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30 Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

PERMANENT SEEDING SUMMARY

HARDINESS ZONE (FIGURE B.3): 6a & 6b (6b circled)
SEED MIXTURE (TABLE B.1)

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTH	FERTILIZER RATE (10-20-20) N	P205	K20	LIME RATE
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sept 30 Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must 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.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.
B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.
C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).
D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

STATE OF MARYLAND · TREVOR M. FREDERICK · 49808 · PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

FSA
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CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.275.7531

MARK: | DESCRIPTION: | DATE:

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

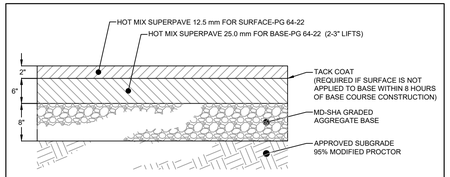
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO. 4027.2
DWN BY: ABRAM MYERS | DATE: 02.20.2023
PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE: N.T.S.
SHEET TITLE: EROSION & SEDIMENT CONTROL DETAILS

C-501
SHEET 09 OF 13

SP-23-010

P:\SHARED FOLDERS\PROJECTS\4027\4027.2\DWG\CONSTRUCTION SET\4027.2 09-11 - CONSTRUCTION DETAILS & NOTES.DWG 2023-10-31

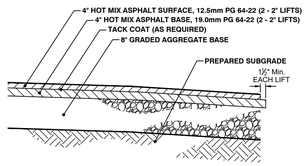


SECTION

NOTES:
The Asphalt Binder shall conform to AASHTO MP1-93 Table 1, Standard Specification for Performance Graded Asphalt Binder. Superpave mix designs shall be in conformance with AASHTO PP28-95, Standard Practice for Superpave Volumetric Design for HMA. The Performance Grading shall be achieved by the use of Neat Asphalt with polymer modification when needed.

01 C-502 **PAVEMENT - TRUCK**

NOT TO SCALE



Notes:
All construction and materials shall be in accordance with the Maryland Department of Transportation, State Highway Administration- Standard Specifications for Construction and Materials, Oct. 1993, as follows:

Subgrade preparation- Sections 204.01 thru 204.03.08 & 208.01 thru 208.03.05
Graded Aggregate Base Course- Section 501.01 thru 501.03.03
Hot mix Asphalt- Sections 504.01 thru 504.03.13

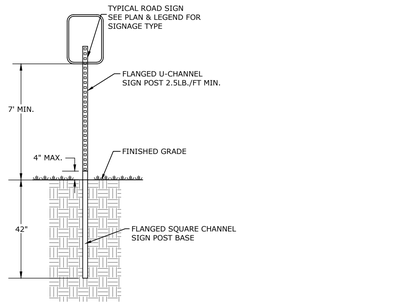
Subgrade/shoulder drains shall be installed where deemed necessary upon field inspection. Drains shall be in accordance with Sections 306.01 thru 306.03.06.

NOT TO SCALE

DIVISION OF PUBLIC WORKS
WASHINGTON COUNTY, MARYLAND
ENGINEERING DEPARTMENT

2 C-502 **LOCAL / MINOR COLLECTOR HIGHWAY TYPICAL PAVEMENT SECTION**

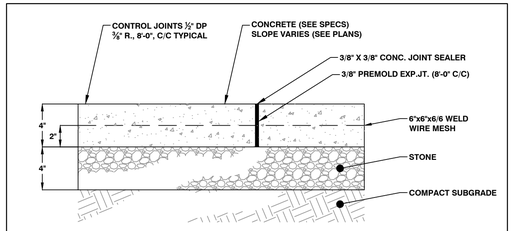
(Plate DPW-01)



NOTES:
1. **MOUNT SIGN AT RIGHT ANGLE TO DIRECTION OF TRAFFIC FLOW**

03 C-502 **ROADWAY SIGN POST**

NOT TO SCALE



SECTION

NOTES:
1. **Class P-I Air Entrained Concrete**
2. **Sidewalk to have 3/8" contraction joints scored at 5'-0" intervals.**
3. **Construct 3/8" expansion joints spaced every 20' and between curb and sidewalk where adjacent.**
4. **Sidewalk to be brush finished.**

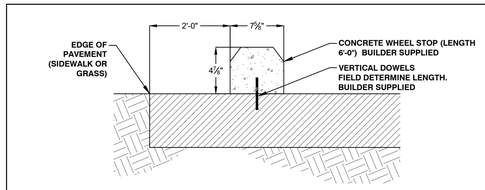
04 C-502 **SIDEWALK - CONCRETE**

NOT TO SCALE

R1-1
(30"x30")

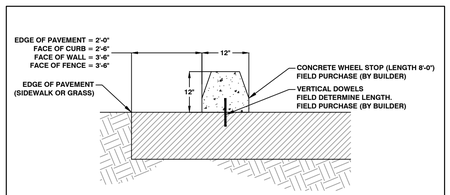
05 C-502 **STOP SIGN DETAIL**

NOT TO SCALE



06 C-502 **WHEEL STOP- CONCRETE - PLACEMENT**

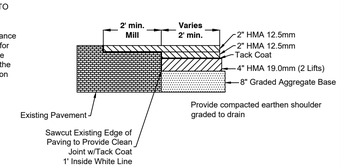
NOT TO SCALE



09 C-502 **WHEEL STOP - CONCRETE (TRUCK)**

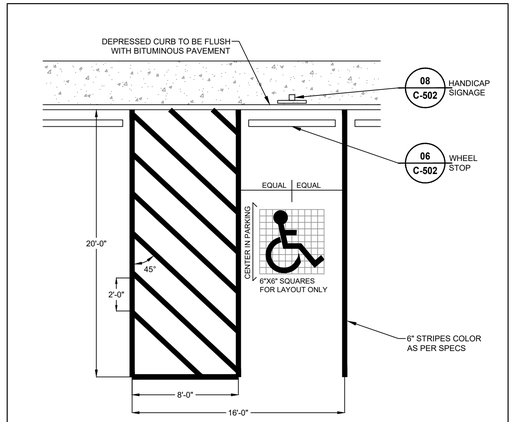
NOT TO SCALE

NOTES:
The Asphalt Binder shall conform to AASHTO MP1-93 Table 1, Standard Specification for Performance Graded Asphalt Binder. Superpave mix designs shall be in conformance with AASHTO PP28-95, Standard Practice for Superpave Volumetric Design for HMA. The Performance Grading shall be achieved by the use of Neat Asphalt with polymer modification when needed.



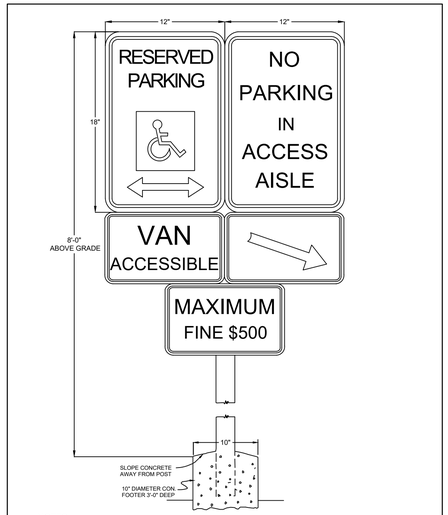
10 C-502 **PAVEMENT - OVERLAY**

NOT TO SCALE



07 C-502 **HANDICAPPED PARKING LAYOUT**

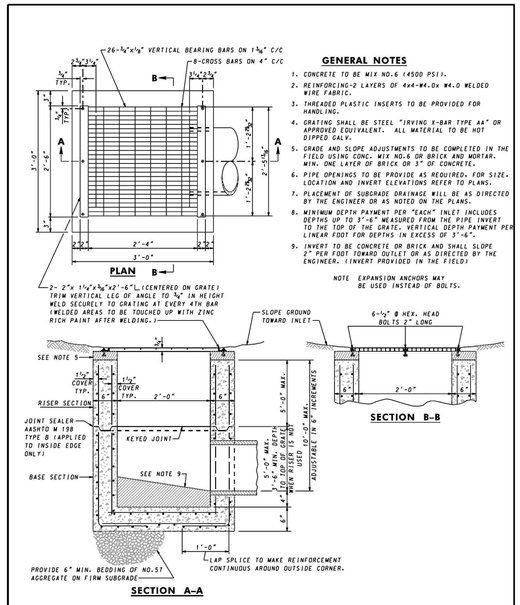
NOT TO SCALE



NOTES:
Use appropriate arrow plate.
Colors: Background (white), Text & Boarder (green), Symbol (white on a blue background).
Reference state of Maryland standard highway sign booklet.
Department of Transportation P.O. Box 717-707 N. Calbert St. Baltimore, Maryland 21203

08 C-502 **HANDICAPPED - SIGNAGE - MD**

NOT TO SCALE



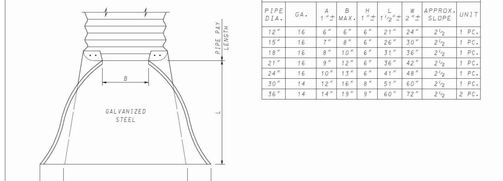
SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED	Kirk G. McCall, DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL	4-5-87	APPROVAL 4-23-87
REVISED	10-1-91	REVISED
REVISED		REVISED
REVISED		REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST YARD INLET

STANDARD NO. MD 381.02



NOTES

1. METAL END SECTIONS SHALL BE GAGE 16 FOR PIPES RANGING FROM 15" THRU 24", AND GAGE 14 FOR PIPES RANGING FROM 30" THRU 36" . MULTIPLE PANEL UNITS TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY ⅝" DIAMETER GALVANIZED RIVETS OR BOLTS.
2. TOE PLATES SHALL BE USED WHEN SPECIFIED ON THE PLANS. THICKNESS OF END PLATE TO BE SAME AS END SECTION. COST OF TOE PLATE TO BE INCIDENTAL TO THE BID PRICE PER EACH OF METAL END SECTION.

SPECIFICATION 303	CATEGORY CODE ITEMS
APPROVED	Kirk G. McCall, DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL	8-28-86	APPROVAL 12-12-86
REVISED	10-1-01	REVISED 7-27-09
REVISED	7-1-09	REVISED
REVISED		REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD METAL END SECTION ROUND METAL PIPE

STANDARD NO. MD 370.01

STATE OF MARYLAND
REGION M. FREDERICK
43806
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 43806
Expiration Date: 08-24-2024

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355 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-3411
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-3667
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

DATE
MARK DESCRIPTION

PATTON WAREHOUSING & LOGISTICS
SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-568-2127

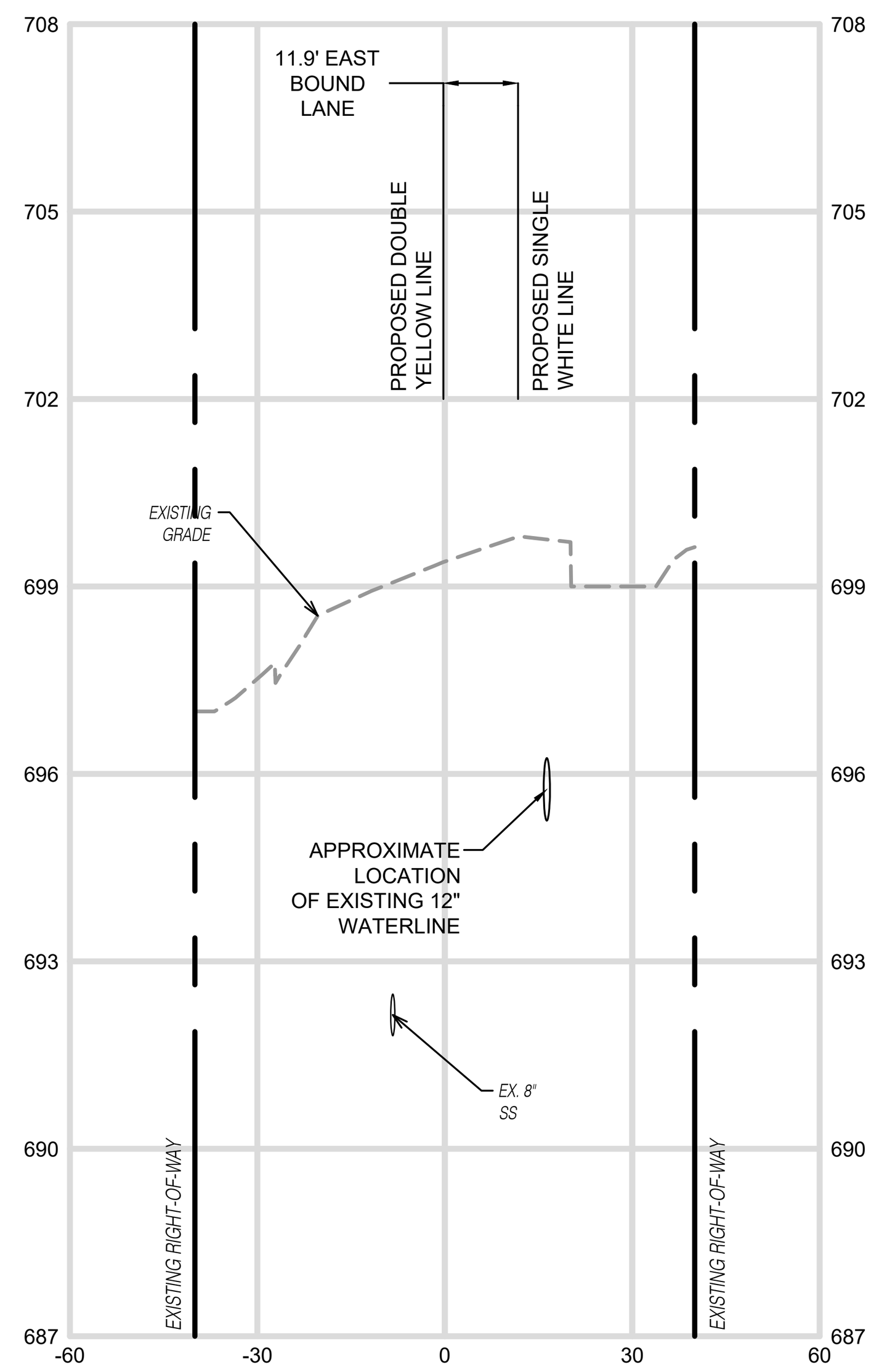
PROJECT NO. 4027.2
DWN BY ABRAM MYERS
DATE 02.20.2023
PROJECT MANAGER T. FREDERICK
EMAIL TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL 0010-0016-0057
SCALE N.T.S.
SHEET TITLE

SITE DETAILS & NOTES

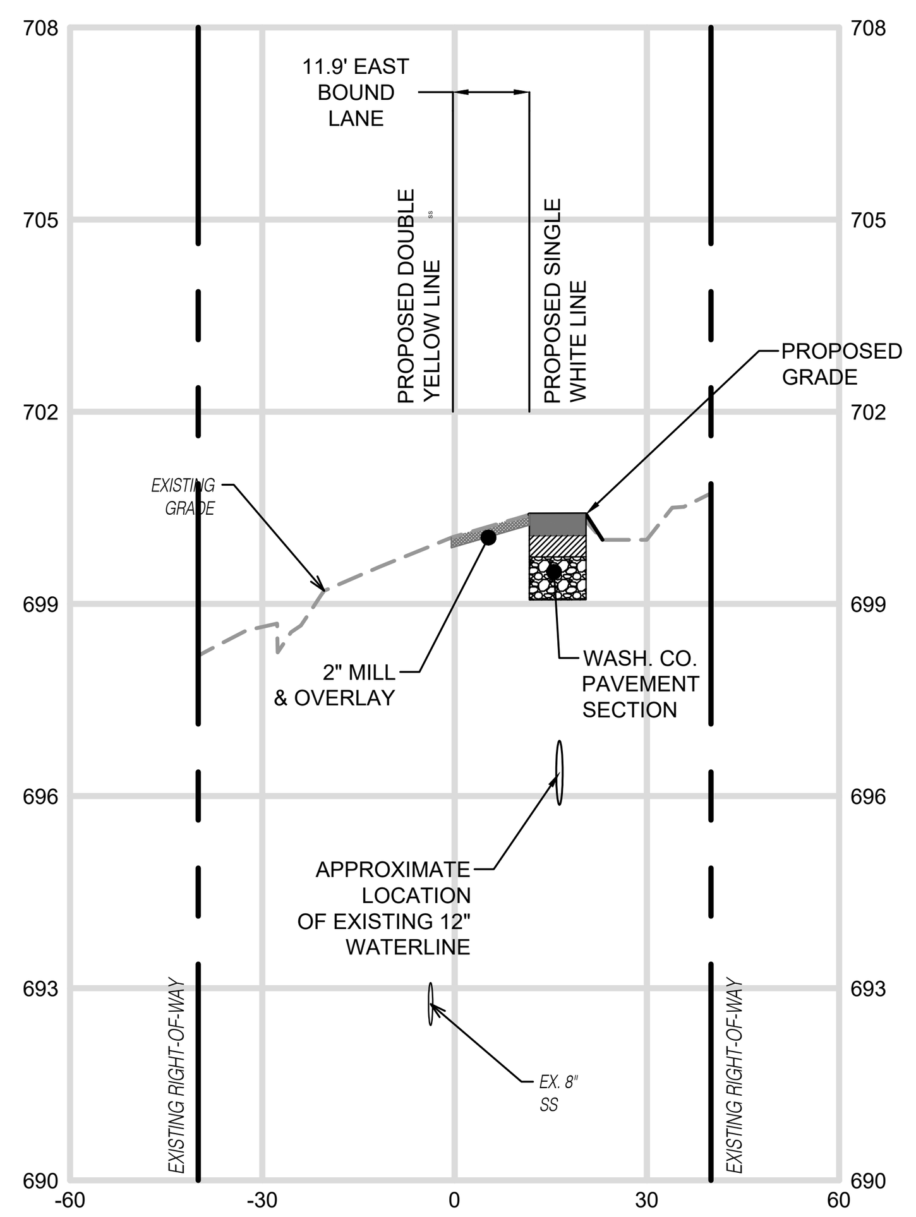
C-502
SHEET 10 OF 13

SP-23-010

P:\SHARED FOLDER\PROJECTS\4027\4027.2\CONSTRUCTION SET\4027.2 11 - CONSTRUCTION DETAILS & NOTES.DWG - 2023-10-31



BREEZE HILL DRIVE STA 7+50
SCALE- H: 1" = 30', V: 1" = 3'



BREEZE HILL DRIVE STA 7+80
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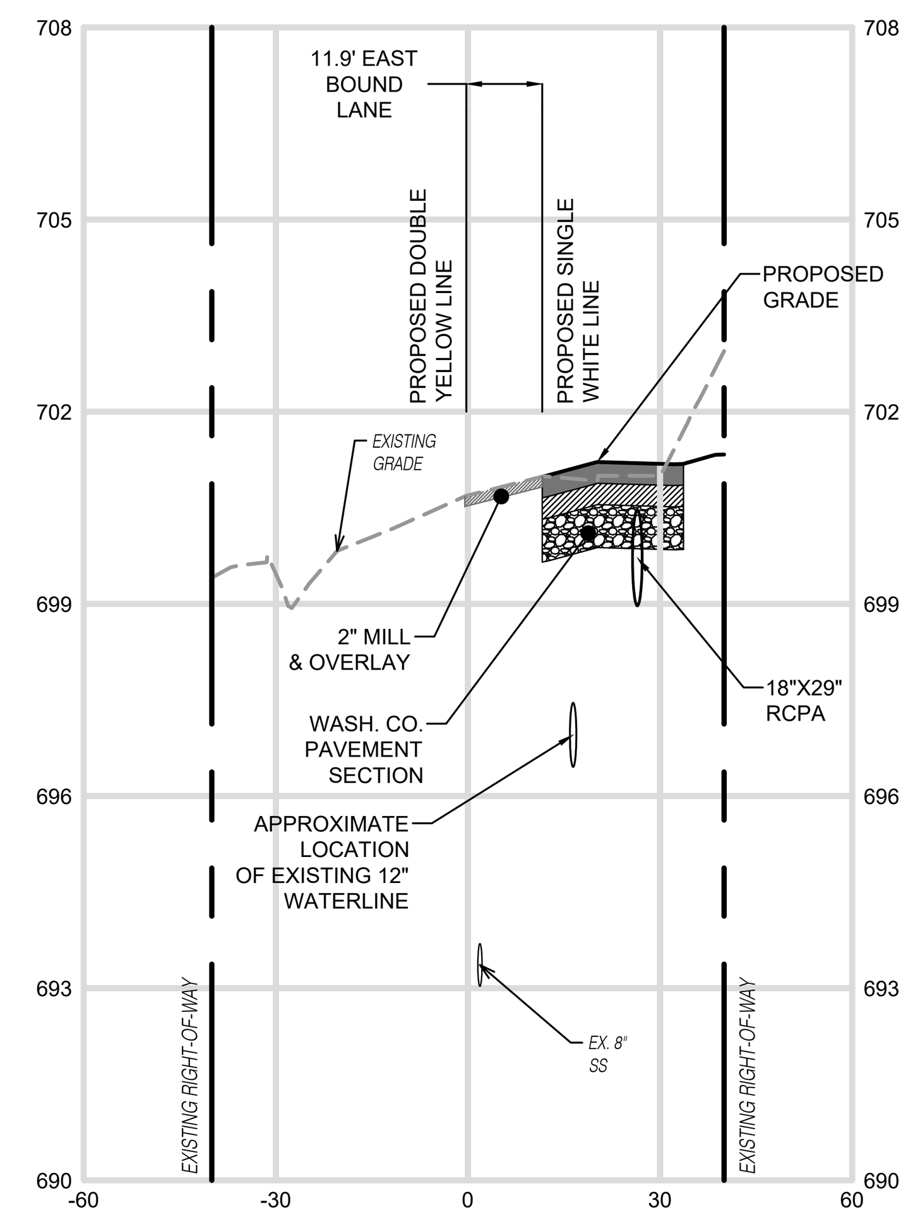

BREEZE HILL DRIVE STA 8+10
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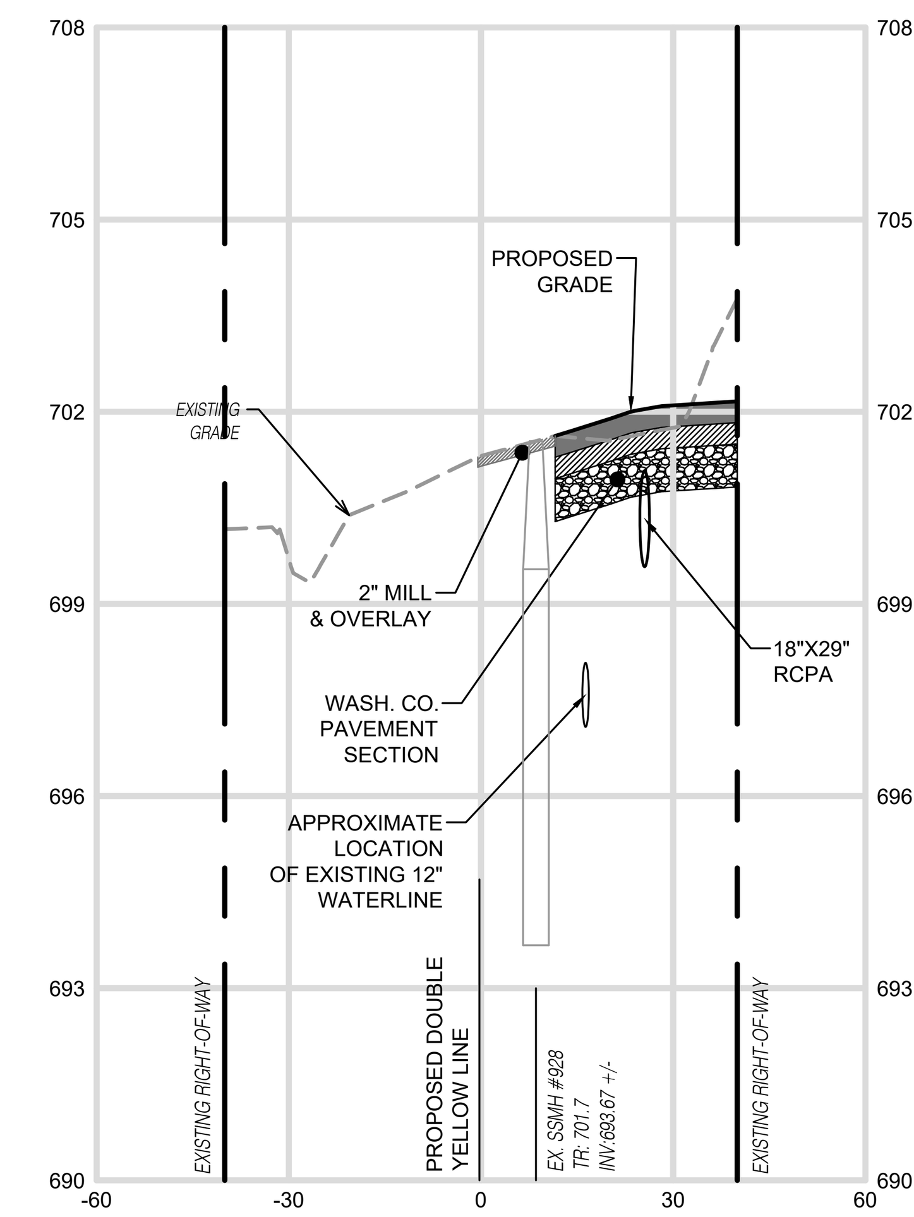

BREEZE HILL DRIVE STA 8+40
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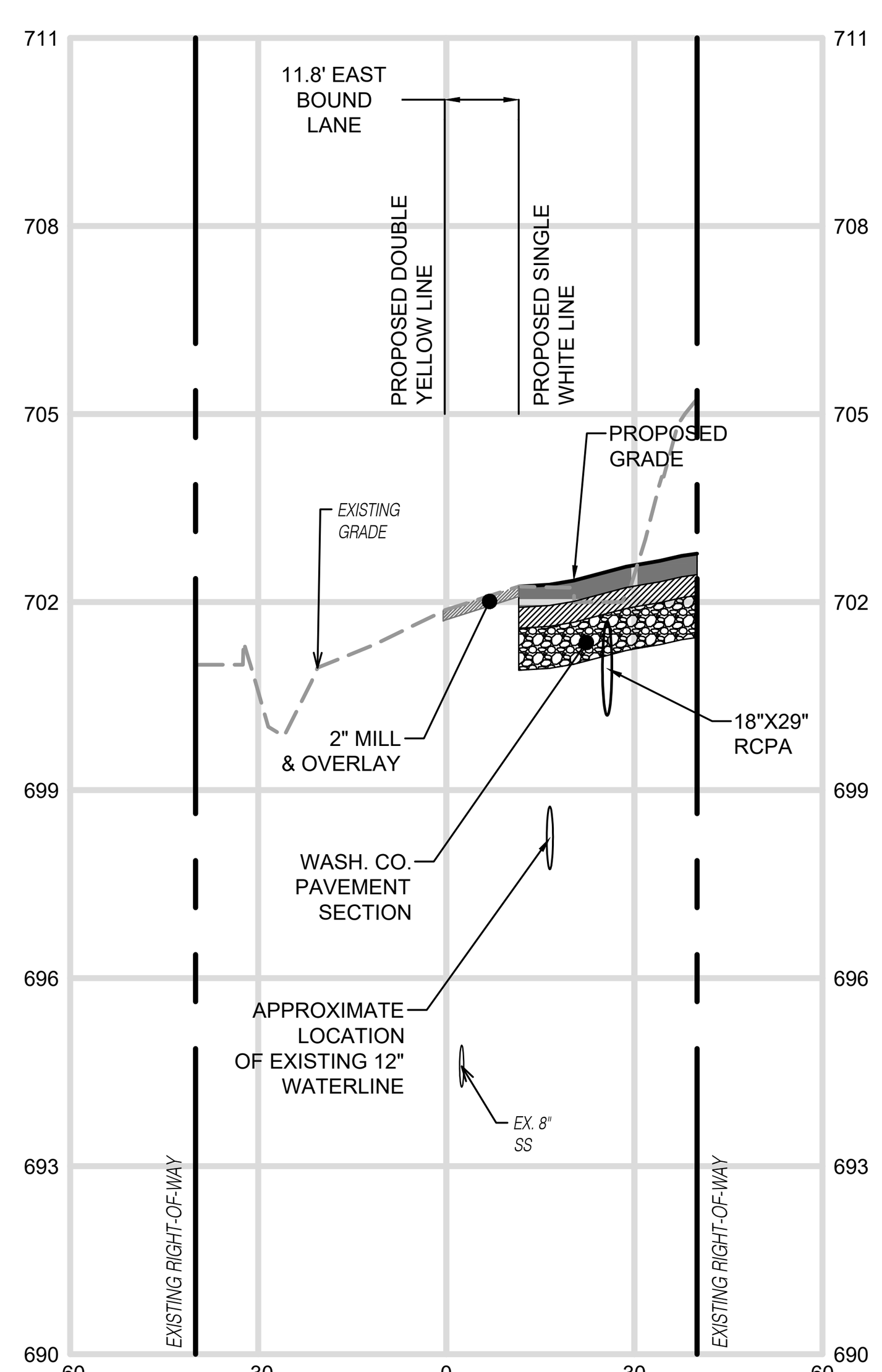

BREEZE HILL DRIVE STA 8+70
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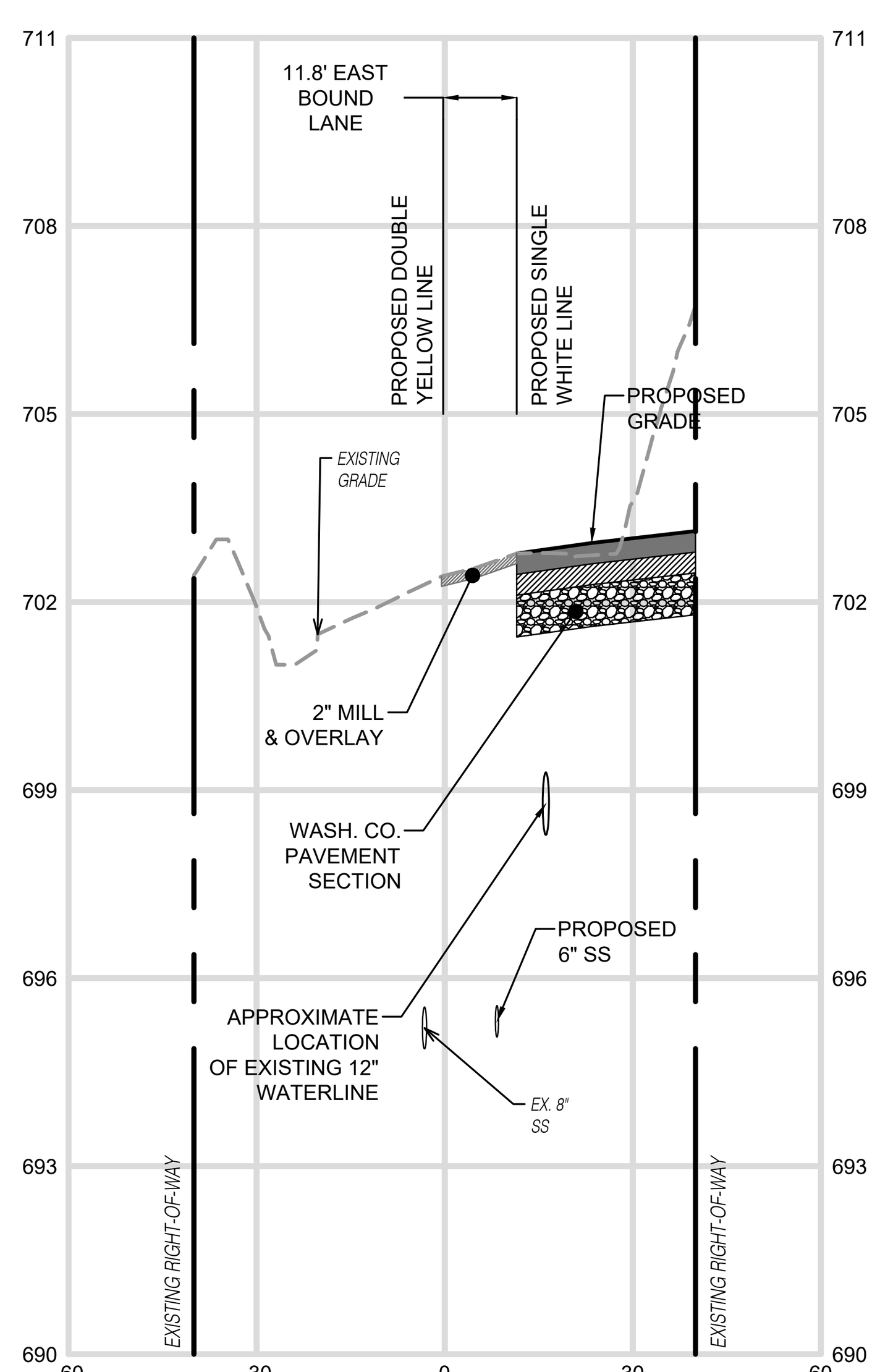

BREEZE HILL DRIVE STA 9+00
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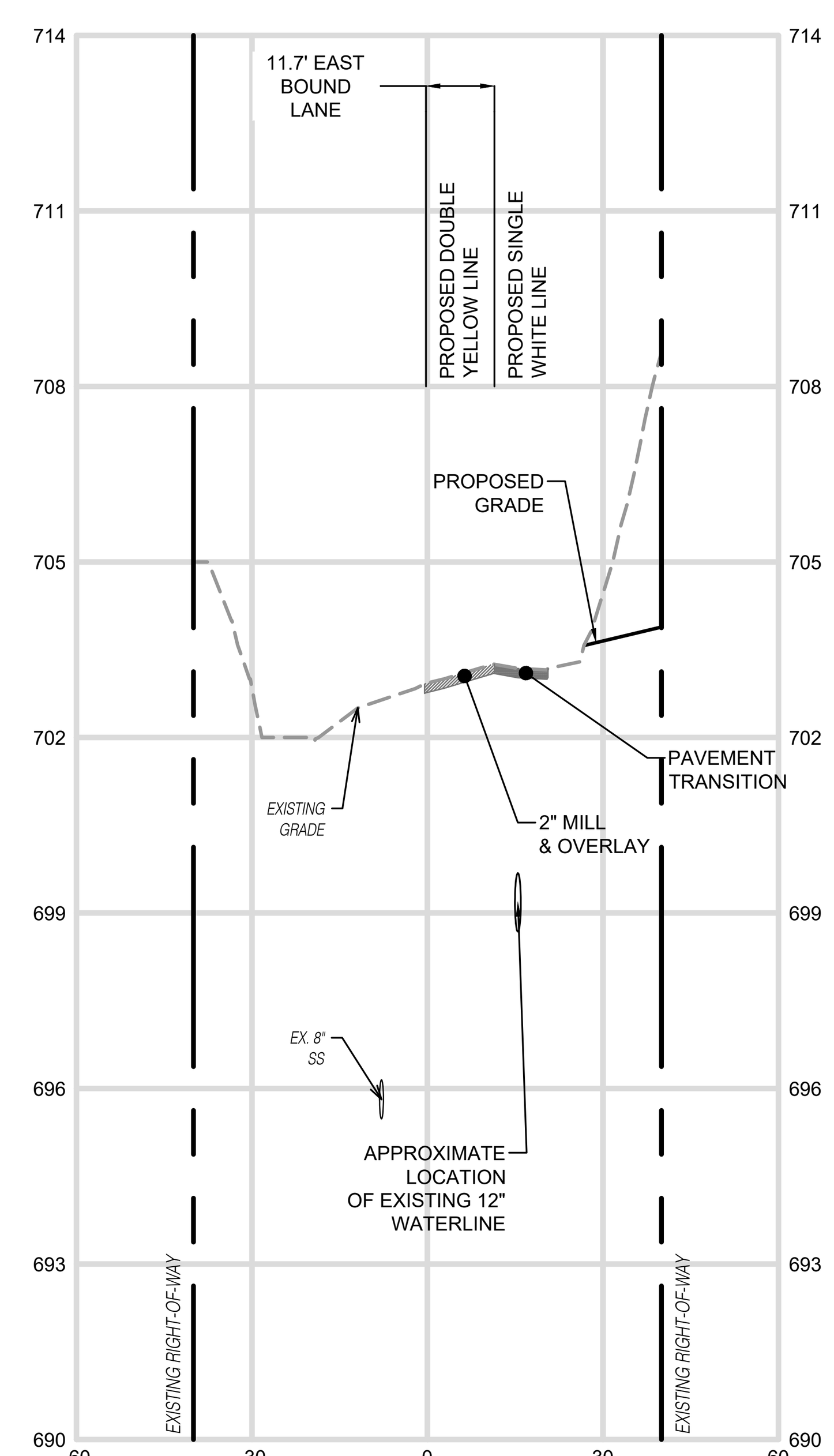

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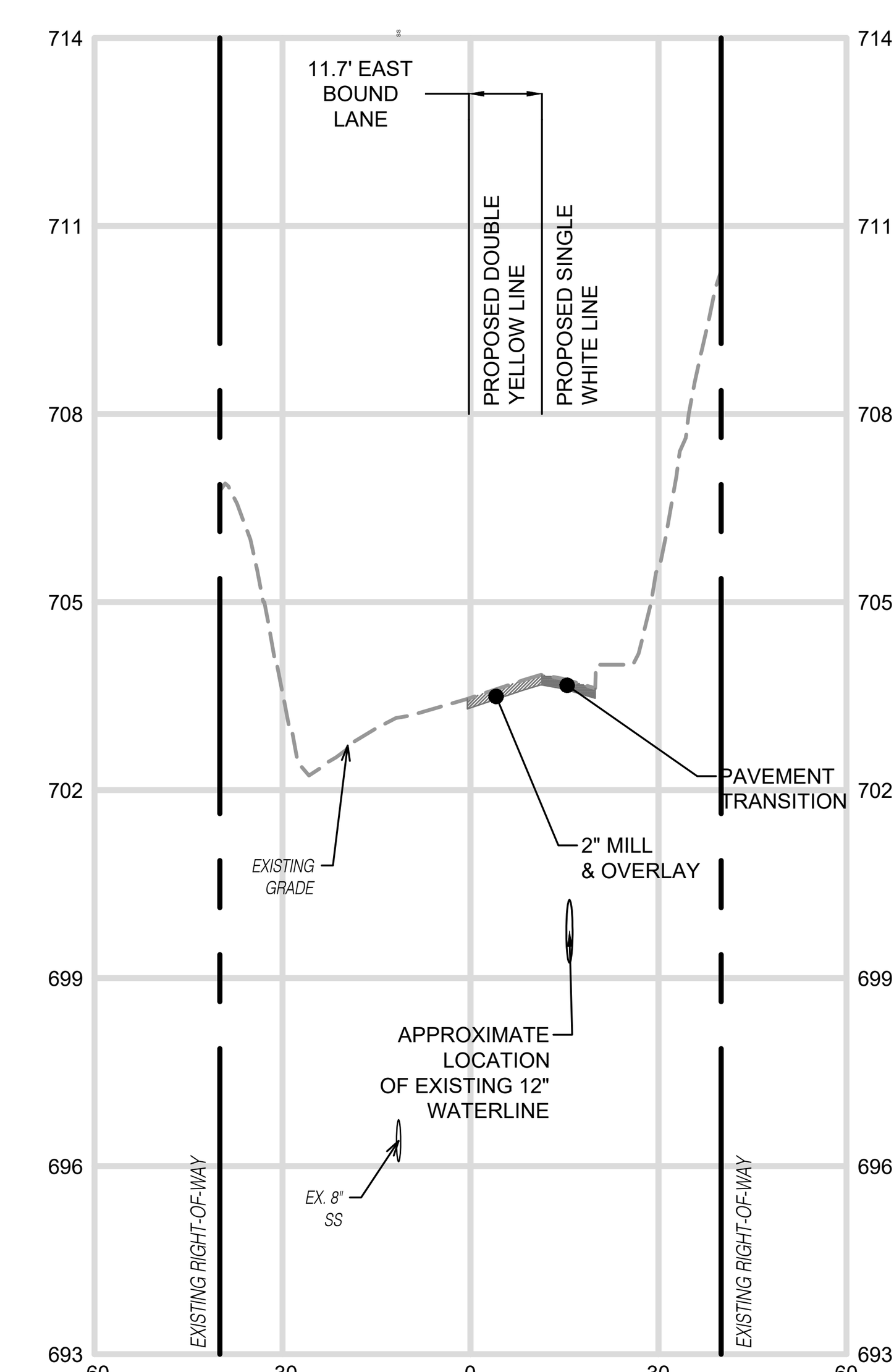

BREEZE HILL DRIVE STA 9+60
SCALE- H: 1" = 30', V: 1" = 3'

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

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15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.275.7531

MARK:	DESCRIPTION:	DATE:

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE
& WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

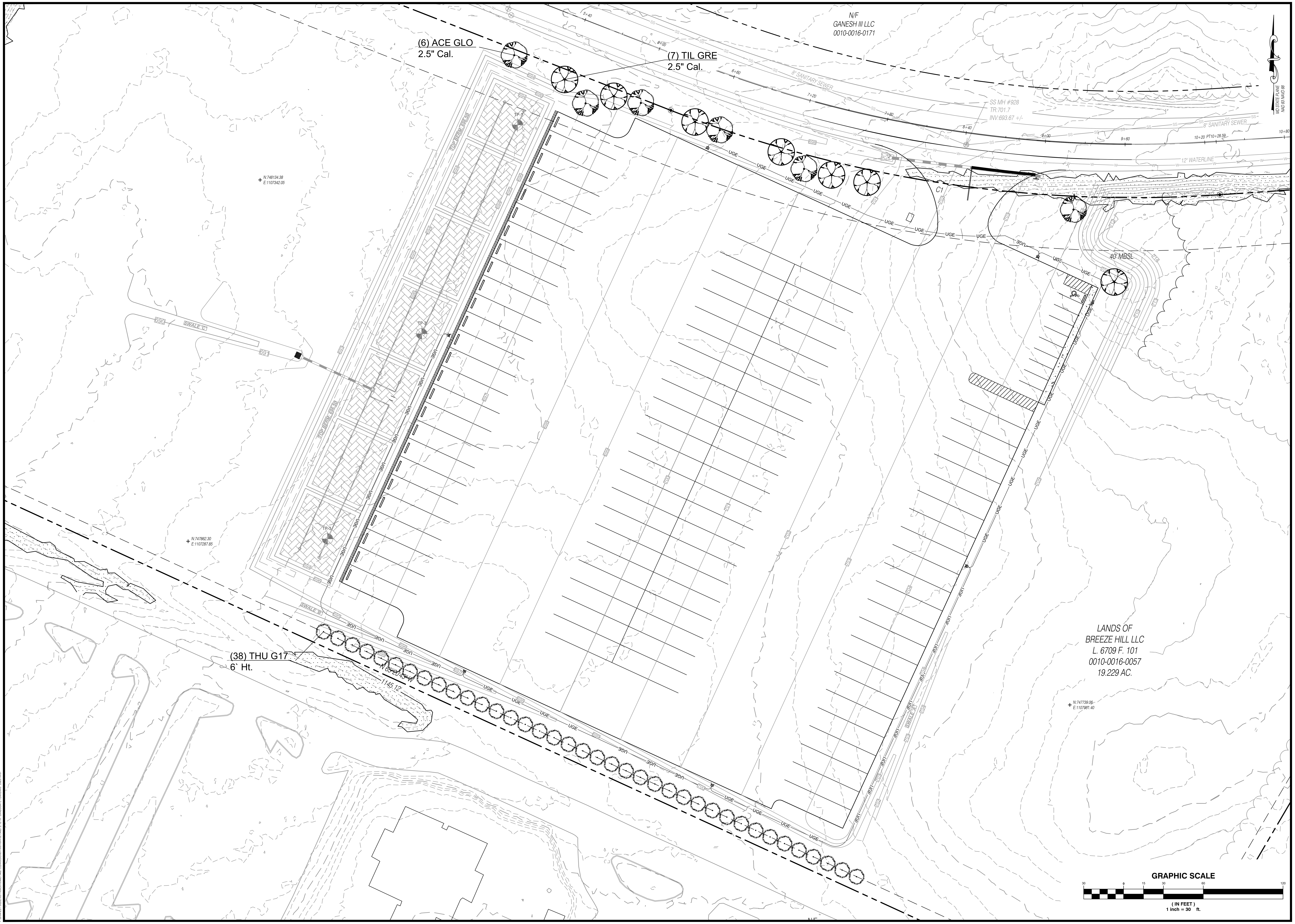
PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO. 4027.2
DWN BY: ABRAM MYERS
DATE: 02.20.2023
PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE: AS SHOWN
SHEET TITLE: BREEZE HILL DRIVE CROSS SECTIONS

C-503

SHEET 11 OF 13

SP-23-010



Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 4163, Expiration Date 10-19-2024.

10/31/2023

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15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.275.7531

MARK:	DESCRIPTION:	DATE:

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE
& WEST OF PENNSYLVANIA AVENUE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO. 4027.2
DWN BY: ABRAM MYERS
DATE: 02.20.2023
PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0010-0016-0057
SCALE: 1" = 30'
SHEET TITLE: LANDSCAPE PLAN

L-101
SHEET 12 OF 13

SP-23-010

PLANT SCHEDULE

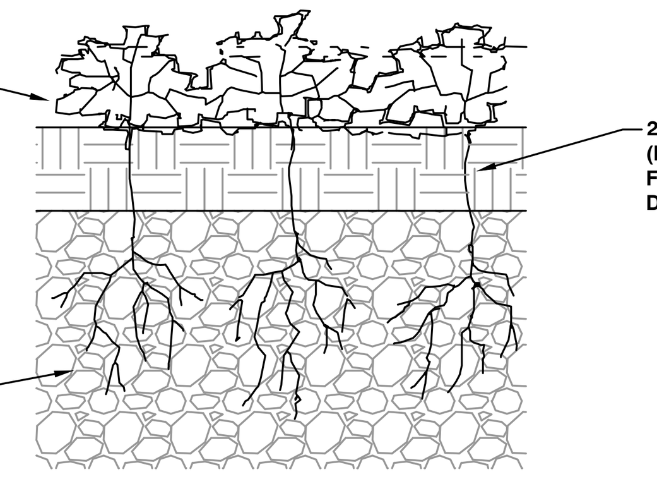
TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
	ACE GLO	Acer rubrum `October Glory` TM / October Glory Maple	2.5" Cal.	B&B	6	03/L-501
	THU G17	Thuja occidentalis `Green Giant` / Green Giant Arborvitae	6` Ht.	B&B	38	04/L-501
	TIL GRE	Tilia cordata `Greenspire` / Greenspire Littleleaf Linden	2.5" Cal.	B&B	7	03/L-501

GENERAL LANDSCAPE NOTES:

1. Landscape contractor is to call Miss Utility and have all underground utilities marked prior to any digging or planting.
2. Landscape Contractor shall install all plant material in a timely fashion.
3. Landscape Contractor shall be responsible for all watering, weeding, repairs and replacements prior to final acceptance.
4. NO Substitutions of plant material without written permission of FSA. Planting plans have been proposed with plant sizes, types, and locations as important design elements.
5. Plants shall be in accordance with the current issue of American Standards for Nursery Stock published by the American Association of Nurserymen.
6. All plants shall be watered thoroughly during installation and prior to final acceptance.
7. All bark mulched areas shall be first covered with Typar Weed Barrier or approved equal.
8. All planting bed areas on the site shall be mulched with a hardwood bark mulch at a depth of approx. 3", unless noted otherwise.
9. Plant material shall be inspected yearly in order to remove and replace dead, diseased vegetation.
10. Warranted plant material that is 25% dead or more shall be considered dead and shall be replaced at no charge.
11. All plant material shall be warranted for two years. 60 days prior to the end of the warranted period, the Engineering Department shall perform an inspection. Of which there should be an 90% survival rate of all plant material. All surviving plant material shall be found in a healthy condition. The warranty shall commune on the date of initial acceptance by the owner.
12. The landscape contractor shall conduct a final inspection with the owner or owner's representative at the end of the warranty period.
13. Fertilizer Packets are to be Nutri-Pak 16-8-8 or approved equal per manufacturer's recommendations.
14. Landscape is recommended to be installed during the two growing seasons. Spring: April 15-June 15, Fall: September 1-November 1.

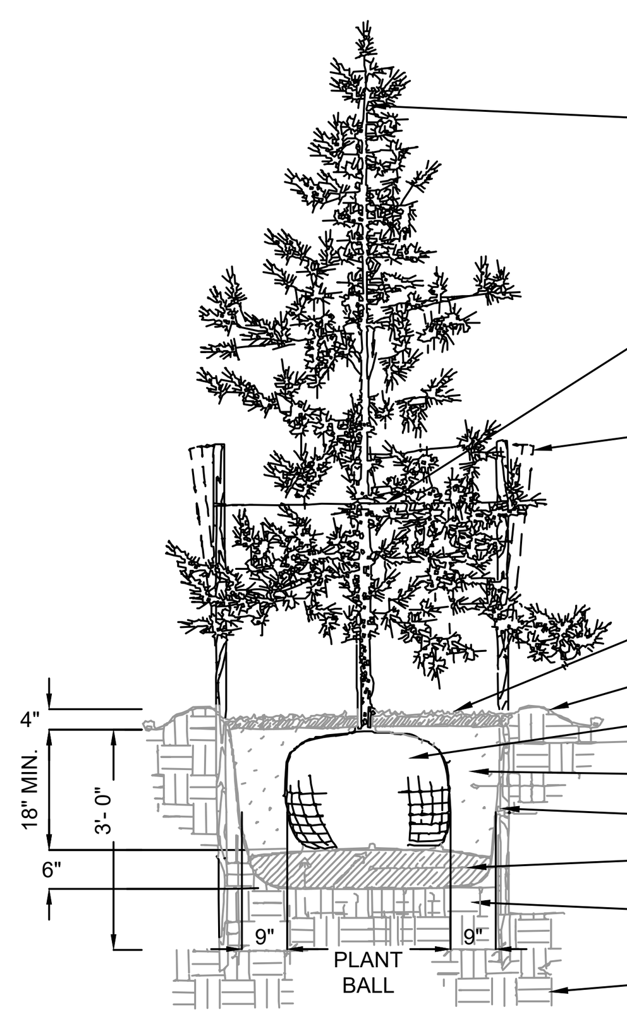
MAINTENANCE:

1. All trash and debris should be removed from the top of the wetland area as necessary.
2. Areas devoid of mulch shall be re-mulched on an annual basis.



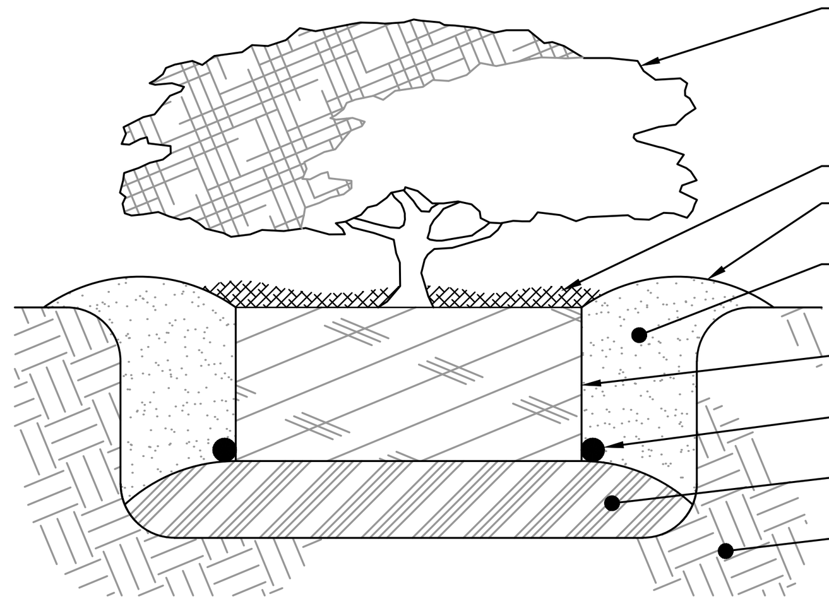
01 L-501 **PLUG PLANTING DETAIL**

NOT TO SCALE



04 L-501 **EVERGREEN TREE PLANTING**

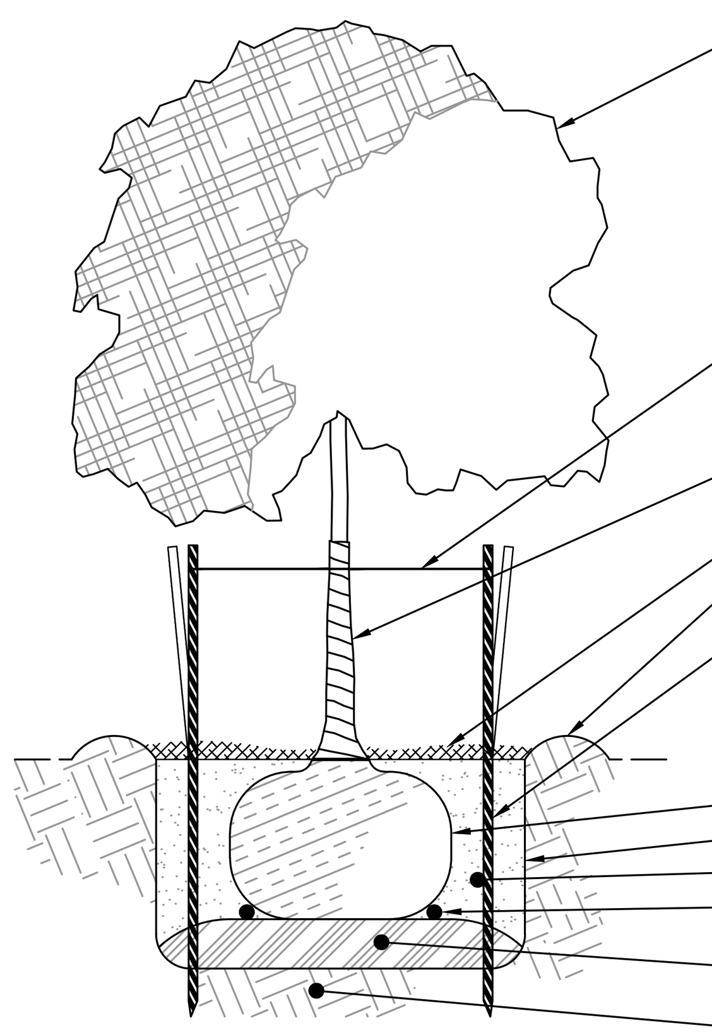
NOT TO SCALE



SECTION

02 L-501 **CONTAINER PLANTING - SHRUB**

NOT TO SCALE



SECTION

03 L-501 **PLANTING - TREE (Up to 2-1/2" Cal.)**

NOT TO SCALE

STATE OF MARYLAND
Brett Whorley
4163
LANDSCAPE ARCHITECT
10/31/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 4163, Expiration Date 10-19-2024.

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15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7531

MARK:	DESCRIPTION:	DATE:

PATTON WAREHOUSING & LOGISTICS

SITUATE ALONG THE SOUTHSIDE OF BREEZE HILL DRIVE & WEST OF PENNSYLVANIA AVENUE

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

PATTON WAREHOUSING & LOGISTICS
55 PATTON AVENUE, MILTON PA 17847
570-593-2127

PROJECT NO. 4027.2	
DWN BY ABRAM MYERS	DATE 02.20.2023
PROJECT MANAGER: T. FREDERICK	
EMAIL: TFREDERICK@FSA-INC.COM	
TAX MAP - GRID - PARCEL: 0010-0016-0057	
SCALE AS SHOWN	
SHEET TITLE LANDSCAPE PLAN DETAILS & NOTES	

L-501
SHEET 13 OF 13

SP-23-010

SP-23-014 Wantz Distributors

-Presented is a site plan for a 34,468 SF building addition to an existing warehouse/office site for Wantz Distributors.

-The site is located at 11743 Hopewell Rd.

-There will continue to be one access point to the site from Hopewell Road

-Parking required for the site is 89 spaces, and 95 will be provided

-Public water (city) and sewer (county) will service the site

-Hours of operation will be 4AM-5PM, M-F

-Lighting will be building, and pole mounted

-There will be no additional signage

Site to have on site Forest Conservation of 2.97 acres.

-All agency approvals received

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Wantz Distributors
NUMBER.....:	SP-23-014
OWNER.....:	ALCAR LLC
LOCATION.....:	11743 HOPEWELL Road Hagerstown, MD 21740
DESCRIPTION.....:	This project proposes to construct a 34.5K SF building addition onto an existing building.
ZONING.....:	Industrial, General
COMP PLAN LU.....:	Industrial
PARCEL.....:	24005380
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	24
TYPE.....:	Commercial
GROSS ACRES.....:	12.56
DWELLING UNITS.....:	
TOTAL LOTS.....:	
DENSITY.....:	0 Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....:	May 4, 2023

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	No
WETLANDS.....:	None
WATERSHED.....:	Conococheague Creek
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	No Resources Present
EASEMENTS PRESENT.....:	S-03-057

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE DESIGN		
Impervious Area Plan	**Impervious Maximum Allowed**	**Open Space Area Planned**
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Loading Area Meets Requirements		
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	**Not Fast Track**
Parking Spaces - Minimum Required	**Recreational Parking Provided**	

SCHOOL INFORMATION			
	ELEMENTARY	**MIDDLE**	**HIGH**
SCHOOL DISTRICT	Jonathan Hager	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION	
FIRE DISTRICT.....:	HALFWAY
AMBULANCE DISTRICT.....:	HALFWAY

WATER & SEWER INFORMATION		
	WATER	**SEWER**
METHOD.....:	County Line - City Treatment	County
SERVICE AREA.....:	County Line - City Treatment	County
PRIORITY.....:	1-Existing Service	1-Existing Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

SITE PLAN

FOR

WANTZ DISTRIBUTORS

SITUATED AT 11742 HOPEWELL ROAD

HAGERSTOWN

WASHINGTON COUNTY, MARYLAND

APPROVALS

MD-ENG-6A USDA
1/89 SCS

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:
Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 4.00 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 12,626 CU. YDS. OF EXCAVATION AND APPROXIMATELY 2,904 CU. YDS. OF FILL.

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE DATE SEAL

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

Date: 5-3-23 Printed Name: ERIC D. KISER
Signature

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

Date: 5-3-23 Printed Name: ERIC D. KISER
Signature

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

10.12.2023 49808
DATE REG. NO. SIGNATURE

CLIENT/OWNER/DEVELOPER:
ALCAR LLC
11743 HOPEWELL ROAD
HAGERSTOWN, MARYLAND 21740

ATTN: JASON JACHOWSKI
EMAIL: JASON.JACHOWSKI@WANTZDISTRIBUTORS.COM
PHONE: 301.733.3131

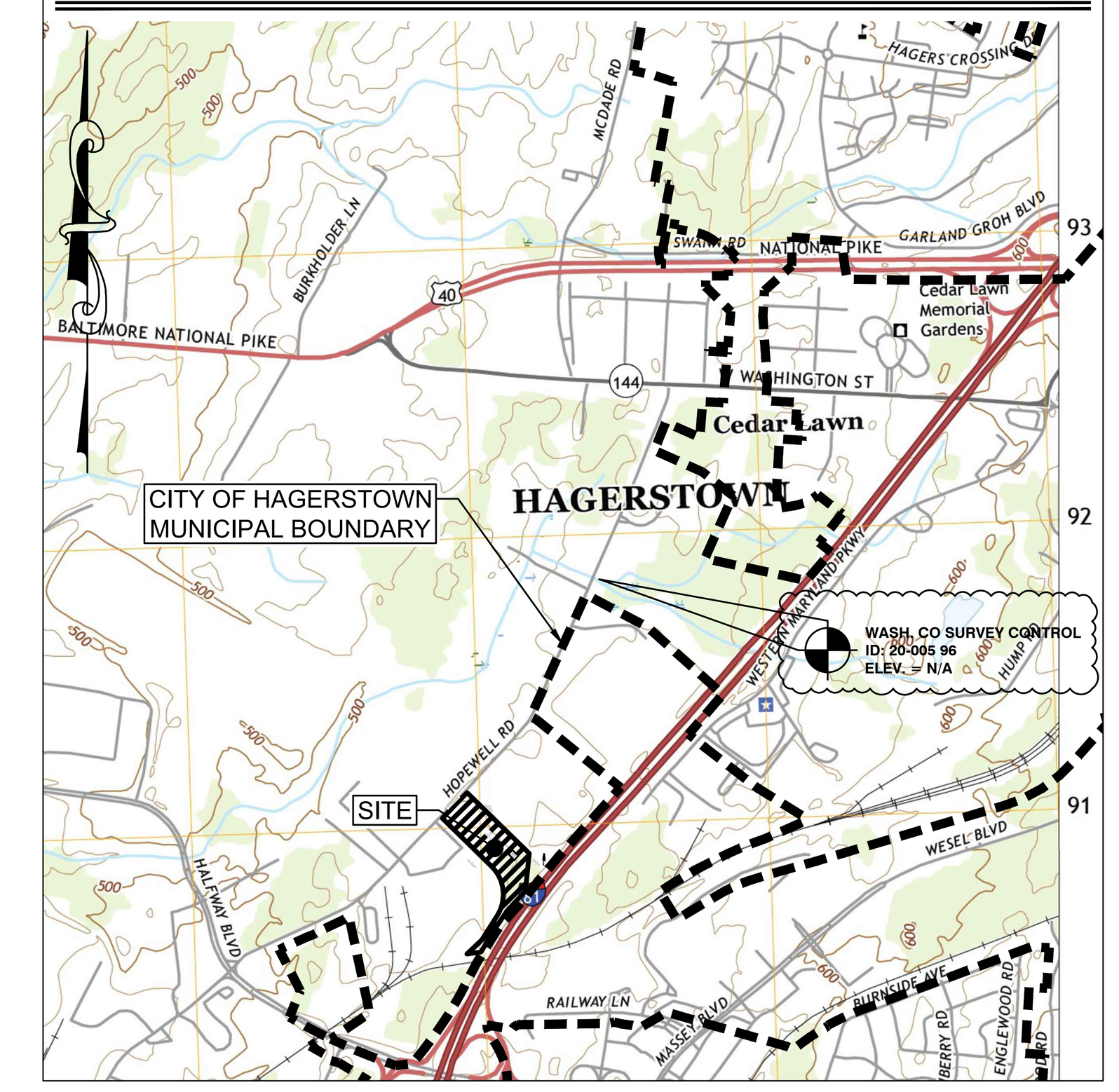
CIVIL ENGINEER / SURVEYOR:
FSA INC.
128 SOUTH POTOMAC STREET
HAGERSTOWN, MARYLAND 21740

PROJECT MANAGER: TREVOR FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM
PHONE: 301.791.3650

VICINITY MAP

SCALE: 1" = 2000'

ADC MAP 20, D8
USGS MAPS (HAGERSTOWN)



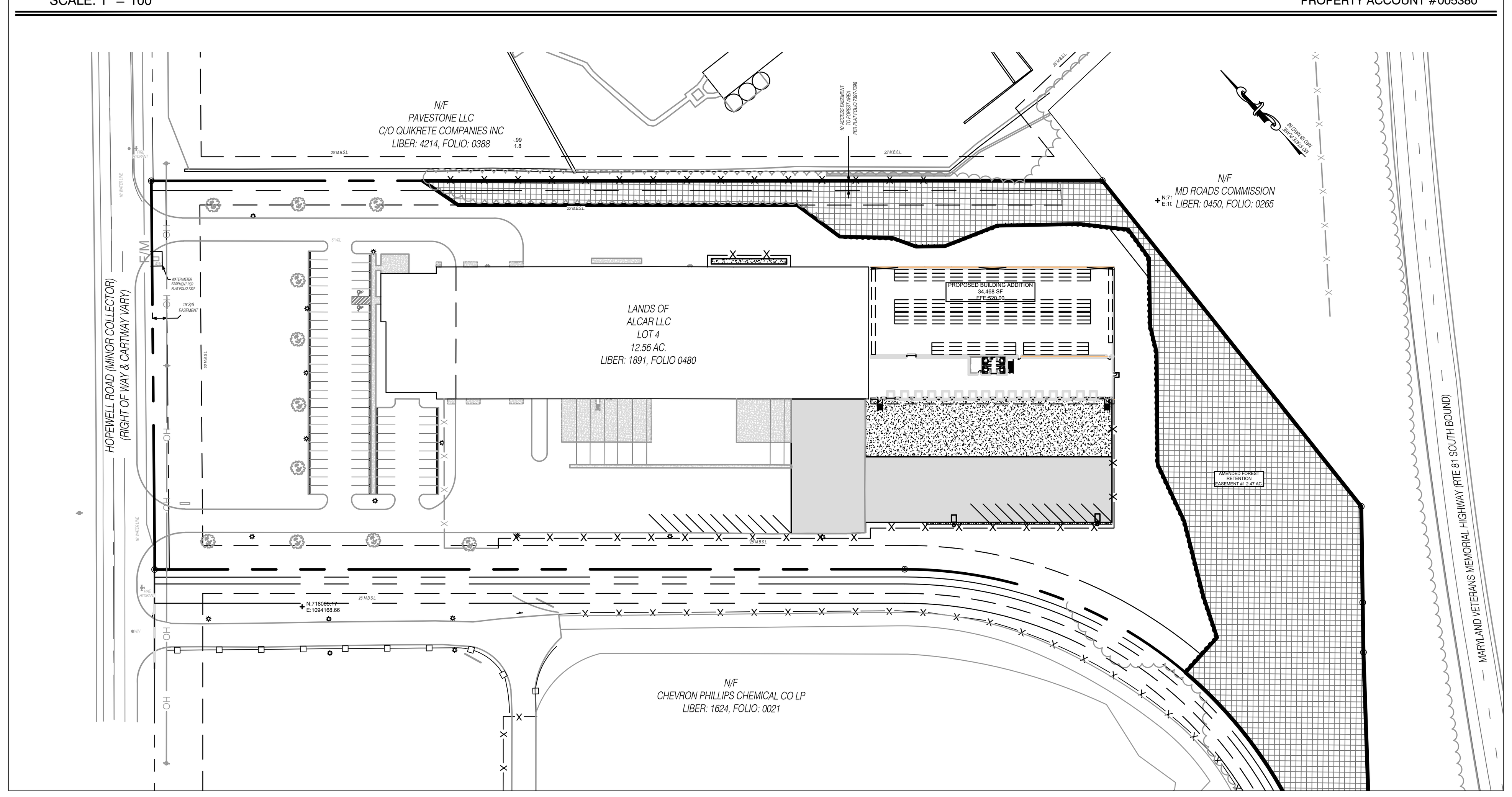
SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-002	SHEET 02	NOTES & LEGENDS
C-101	SHEET 03	EXISTING CONDITIONS & DEMO PLAN
C-102	SHEET 04	EROSION & SEDIMENT CONTROL PLAN
C-103	SHEET 05	GRADING, DRAINAGE PLAN
C-104	SHEET 06	SITE PLAN
C-301	SHEET 07	STORMWATER MANAGEMENT PLAN
C-302	SHEET 08	STORMWATER MANAGEMENT DETAILS & NOTES
C-501	SHEET 09	CONSTRUCTION DETAILS & NOTES - E & S CONTROLS
C-502	SHEET 10	CONSTRUCTION DETAILS & NOTES - STORMWATER & SITE
BY OTHERS		
SE-001	SHEET 1	ELECTRICAL SCHEDULES & DETAILS
SE-002	SHEET 2	SITE PLAN - PHOTOMETRICS

LOCATION PLAN

SCALE: 1" = 100'

TAX MAP - GRID - PARCEL: 0048 - 0006 - 0907
PROPERTY ACCOUNT #005380



SENSITIVE AREA NOTICE

TITLE

The stream buffers shown hereon are established pursuant to the requirements of the Washington County Subdivision Ordinance Article IV, Section 409. In an effort to preserve or improve water quality, the property owner is required to establish and thereafter maintain in perpetuity vegative ground cover in accordance with urban best management practices recommended by the Washington County Soil Conservation District. No permanent structures or construction are permitted within the stream buffer except those designed to improve water quality or flow as approved by the Washington County Planning Commission in accordance with all applicable regulations, laws, and policies. No septic systems shall be constructed within the buffer nor shall any reserve area be established within the buffer.

ESD PRACTICES SUMMARY TABLE

CONSTRUCTION TYPE (NEW, REDEVELOPMENT, RESTORATION): **NEW**

ESD PRACTICES (CHAPTER 5 - NON-STRUCTURAL & STRUCTURAL)

TYPE	NO.	DA TO STRUCTURE (AC.)	IMPERVIOUS DA TO STRUCTURE (AC)	ESDv (CF)	ESDv (AC. FT)	Pe ADDRESSED (IN)
SUBMERGED GRAVEL WETLAND	1	9.80	3.80	36,104	0.83	2.54

Know what's below. Call before you dig.

REVISED PER AGENCY COMMENTS 09.22.2023

10/12/2023

FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS

DRAWING INTENT IS TO INDICATE GENERAL ARRANGEMENT, DESIGN AND INTENT OF WORK IS PARTLY DIAGRAMMATIC. IT SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR SERVE AS ERECTION SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No. 6157
EXPIRATION DATE 09/07/24

BUSHEY FEIGHT MORIN ARCHITECTS
473 NORTH POTOMAC STREET, HAGERSTOWN, MD 21740
BFMARCHITECTS.COM | 301-733-5600 | FAX 301-733-5612

BFM #23007
WANTZ DISTRIBUTORS, INC.
ADDITION & RENOVATIONS

COVER SHEET
C-001
01 OF 10 SHEETS
DATE : 07/21/23

SP-23-014

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by ECS for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

    Miss Utility________1-800-257-7777
    Potomac Edison________1-800-255-3443
    Columbia Gas (New Business)________1-800-440-6111
    Columbia Gas (Conflicts)________(301) 964-1065
    Verizon________(301) 790-7124
    Antietam Cable________(240) 420-2082
    Wahington County Engineering Department________(240) 313-2776
    City of Hagerstown Utilities Department________(301) 739-8577 Ext. 650
    Washington County Soil Conservation District________(301) 797-6821 Ext. 3

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Site benchmark shown on Sheet C-101.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by ECS for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in March 2020. (Contour accuracy is to plus or minus one half the contour interval).
20. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
21. Exterior lighting will consist of building mounted lights and pole mounted lights as shown on the site plan.
22. This project has a projected start date of August 2023 and a completion date of March 2024.
23. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County.
24. There are no Board of Zoning Appeals Cases for this property.
25. Proposed SWM will consist of an on-site submerged gravel wetland.
26. A grading easement is required to be obtained from the owners at 11711 Hopewell Road prior to any work happening on that property.
27. There is no Floodplain located on site per FEMA panel #24043C0120D.

DIVISION OF PLAN REVIEW & PERMITTING NOTES

1. In conformance with the Stormwater Management Ordinance of Washington County, a performance security and executed maintenance agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans."
2. This project will require a third party qualified professional to be present at the preconstruction meeting. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
3. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Public Works.
4. Developer/Contractor shall contact the certifying engineer and the County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
5. This development plan must comply with the current Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control. Ordinance.
6. All grading for this project shall be the full responsibility of the property owner.
7. No permanent structures (e.g., fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.

FIRE DEPARTMENT NOTES

1. Construction occurring on this site shall comply with NFPA 241, standard for safeguarding construction, alteration, and demolition operations, and chapter 16 of NFPA 1, uniformed fire code.
2. No open burning is permitted. Permits are required to perform blasting operations within the city of Hagerstown.
3. New buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property (NFPA 1-10.13.1).
4. A fire department access box (knox box) shall be installed. This box will be required to contain keys to the building, gates, fire protection system keys and other areas as requested by the fire department. Plans should reflect the location of box near the main entrance. Application information may be obtained from this office by the general contractor or online at *www.knoxbox.com*.

ZONING DATA

ZONING DISTRICT________IG - INDUSTRIAL, GENERAL DISTRICT
MAX. BUILDING HEIGHT________100 FT.
MINIMUM YARD SETBACK:
FRONT________50 FT.
*SIDE________25 FT.
*REAR________25 FT.

BOARD OF ZONING APPEALS' CASE____NONE
PROPOSED USE________WAREHOUSING (PERMITTED USE)

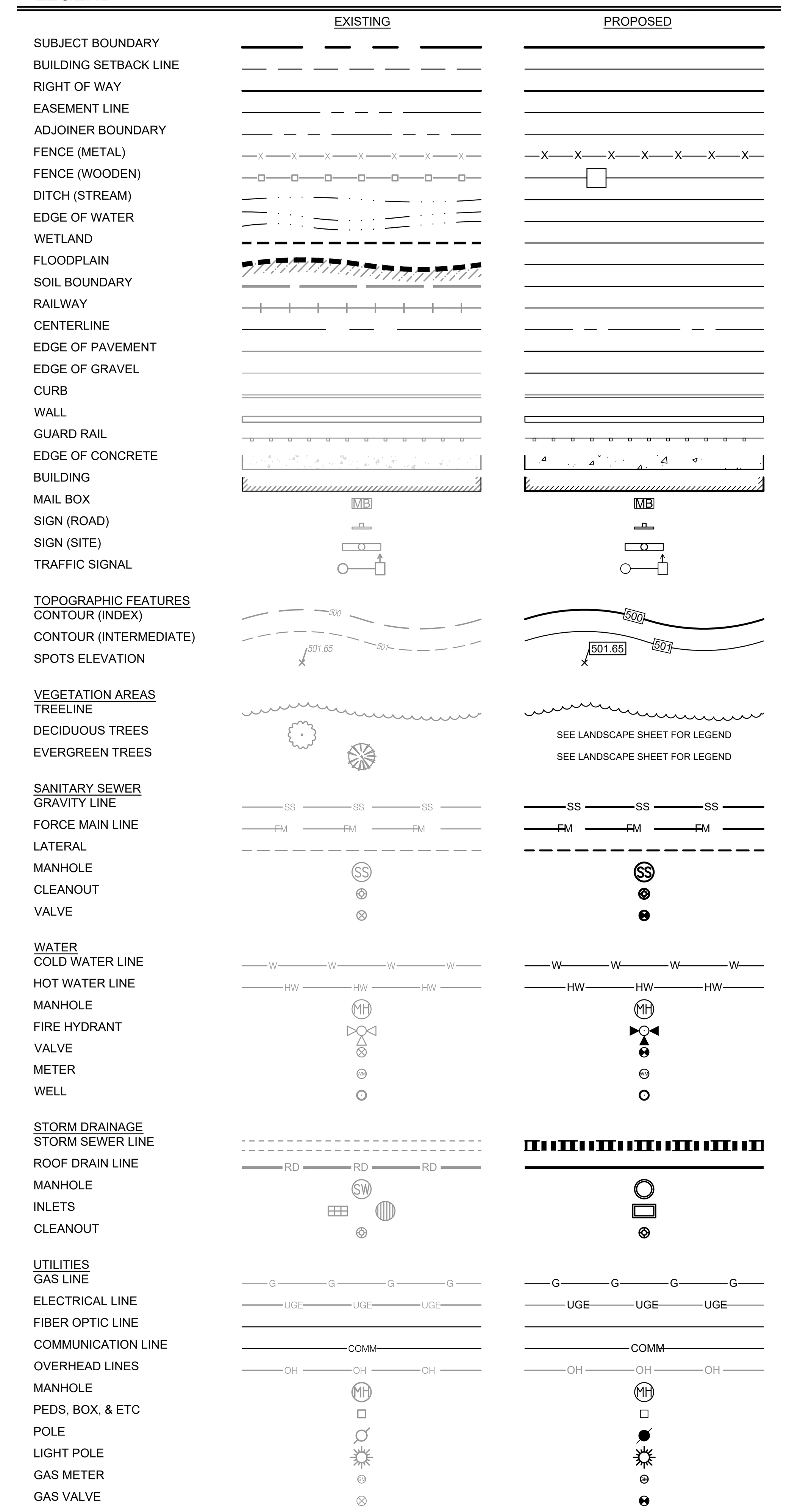
SITE DATA

TAX MAP - GRID - PARCEL________0048-0006-0907
ELECTION DISTRICT________24
ACCOUNT NUMBER________005380
LIBER / FOLIO________1891 / 0480
AREA SUMMARY:
PARCEL________12.56 Ac
DISTURBED AREA________4.00 Ac
EXISTING IMPERVIOUS________+/-4.00 AC
PROPOSED IMPERVIOUS________1.60 AC (44%)
BUILDING SUMMARY:
FOOTPRINT (EXISTING)________68,000 SF
FOOTPRINT (ADDITION)________34,468 SF
FOOTPRINT (TOTAL)________102,468 SF
OFFICE SPACE (EXISTING)________9,486 SF
WAREHOUSE SPACE (EXISTING)________58,514 SF
OFFICE SPACE (PROPOSED)________0 SF
WAREHOUSE SPACE (PROPOSED)________34,468 SF
HEIGHT________28 FT
PROPOSED USE________WAREHOUSE & OFFICE (PERMITTED USE)
HOURS OF OPERATION________4 AM - 5 PM; MONDAY THRU FRIDAY
EMPLOYEE SUMMARY________33 (18 OFFICE, 15 WAREHOUSE)
WATER & SEWER USAGE:
WATER PROVIDED________CITY OF HAGERSTOWN-WATER DIVISION
SEWER PROVIDED________WASHINGTON COUNTY DEPT. OF WATER QUALITY
WASTE & RECYCLABLES:
SOLID WASTE REMOVAL________ONSITE DUMPSTER
RECYCLE REMOVAL________INSIDE STORAGE
SITE LIGHTING:
EXISTING________BUILDING & POLE MOUNTED
PROPOSED________BUILDING & POLE MOUNTED
SITE SIGNAGE:
EXISTING________GROUND MOUNTED
PROPOSED________NONE
ADDRESS ASSIGNMENT________11743 HOPEWELL ROAD, HAGERSTOWN, MARYLAND 21742
WAIVER AND/OR VARIANCE________N/A
FOREST CONSERVATION________ON SITE RETENTION (MISC. PLAT#_______)
WATERSHED:
NAME________CONOCOCHEAGUE CREEK
NUMBER________02-14-05-04
FEMA PANEL #________24043C0120D

PARKING, LOADING & BICYCLE DATA

USE	REQUIREMENT	CALCULATION	REQUIRED
WAREHOUSE	1 SPACE PER 1,500 SF GFA	92,982 SF / 1,500 SF	62 SPACES
	PLUS 1 SPACE PER 350 GFA OF SALES AND/OR OFFICE SPACE	9,486 SF / 350 SF	27 SPACES
TOTAL REQUIRED SPACES			**89 SPACES**
TOTAL PROVIDED PARKING SPACES			**95 SPACES**

LEGEND



LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADS	ADVANCED DRAINAGE SYSTEM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
AWWA	AMERICAN WATER WORKS ASSOCIATION
BLDG	BUILDING
BOT	BOTTOM
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	SANITARY SEWER CLEAN-OUT
COMM	COMMUNICATION
CONC	CONCRETE
DA	DRAINAGE AREA
DIA	DIAMETER
EGL	EXISTING GRADE LINE
EX	EXISTING
EIP	EXISTING IRON PIN
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
GV	GATE VALVE
HGL	HYDRAULIC GRADE LINE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LF	LINEAR FEET
MAX	MAXIMUM
MB	MAIL BOX
MIN	MINIMUM
MJ	MECHANICAL JOINT
NO	NUMBER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OAC	OR APPROVED EQUAL
OC	ON CENTER
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PGL	PROPOSED GRADE LINE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
ROW	RIGHT-OF-WAY
SAN	SANITARY
SCE	STABILIZED CONSTRUCTION ENTRANCE
SDR	STANDARD DIMENSION RATIO
SIP	SET IRON PIN
SD	STORM DRAINAGE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SY	SQUARE YARDS
TAN	TYPE AS NOTED
TEMP	TEMPORARY
TS	TOP OF STRUCTURE
TG	TOP OF GRATE
TR	TOP OF RIM
TYP	TYPICAL
U/P	UTILITY POLE
VIF	VERIFY IN FIELD
WL	WATERLINE
WM	WATER METER
WV	WATER VALVE

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/12/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08/24/2024.

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301.791.3650
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717.597.1007
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717.701.8111
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7531

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LICENSE No. 6157
EXPIRATION DATE 09/07/24

BFM
BUSHEY FEIGHT MORIN ARCHITECTS
473 NORTH POTOMAC STREET, HAGERSTOWN, MD 21740
BFMARCHITECTS.COM | 301-733-5600 | FAX 301-733-5612

BFM #23007
WANTZ DISTRIBUTORS, INC.
ADDITION & RENOVATIONS

GENERAL NOTES
C-002
02 OF 10 SHEETS
DATE : 07/21/23

SP-23-014

NO.	BEARING	DISTANCE
L1	N44°24'43"E	20.98'

NO.	DELTA	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	04°00'35"	7829.44	547.94	547.83	S32°27'56"W
C2	78°03'22"	448.34	610.79	564.64	N06°33'40"W

SOIL CHART

SOILS	H.S.G.	Ratio (%)	Kw
HaB	B	19.80%	0.37
HbB	B	50.10%	0.37
SsA	D	24.50%	0.37
Ud	C	5.60%	0.37

NOTES:

1. THERE ARE NO WETLANDS, OR 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 24043C0128D DATED 08-15-2017, FLOOD ZONE X.
2. THERE ARE FORESTS, STEEP SLOPES AND HIGHLY ERODIBLE SOILS FOUND WITHIN THE PARCELS.

EXISTING PAVEMENT TO BE REMOVED

FOREST CONSERVATION EASEMENT TO BE ABANDONED (43,543 SF)

HIGHLY ERODIBLE SOILS & STEEP SLOPES (SLOPES>15% OR SLOPES>5% AND Kw>0.35)

PORTION OF EXISTING SWM EASEMENT TO BE ABANDONED (40,483 SF)

EXISTING FOREST CONSERVATION AREA

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

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BFM #23007

WANTZ DISTRIBUTORS, INC.
ADDITION & RENOVATIONS

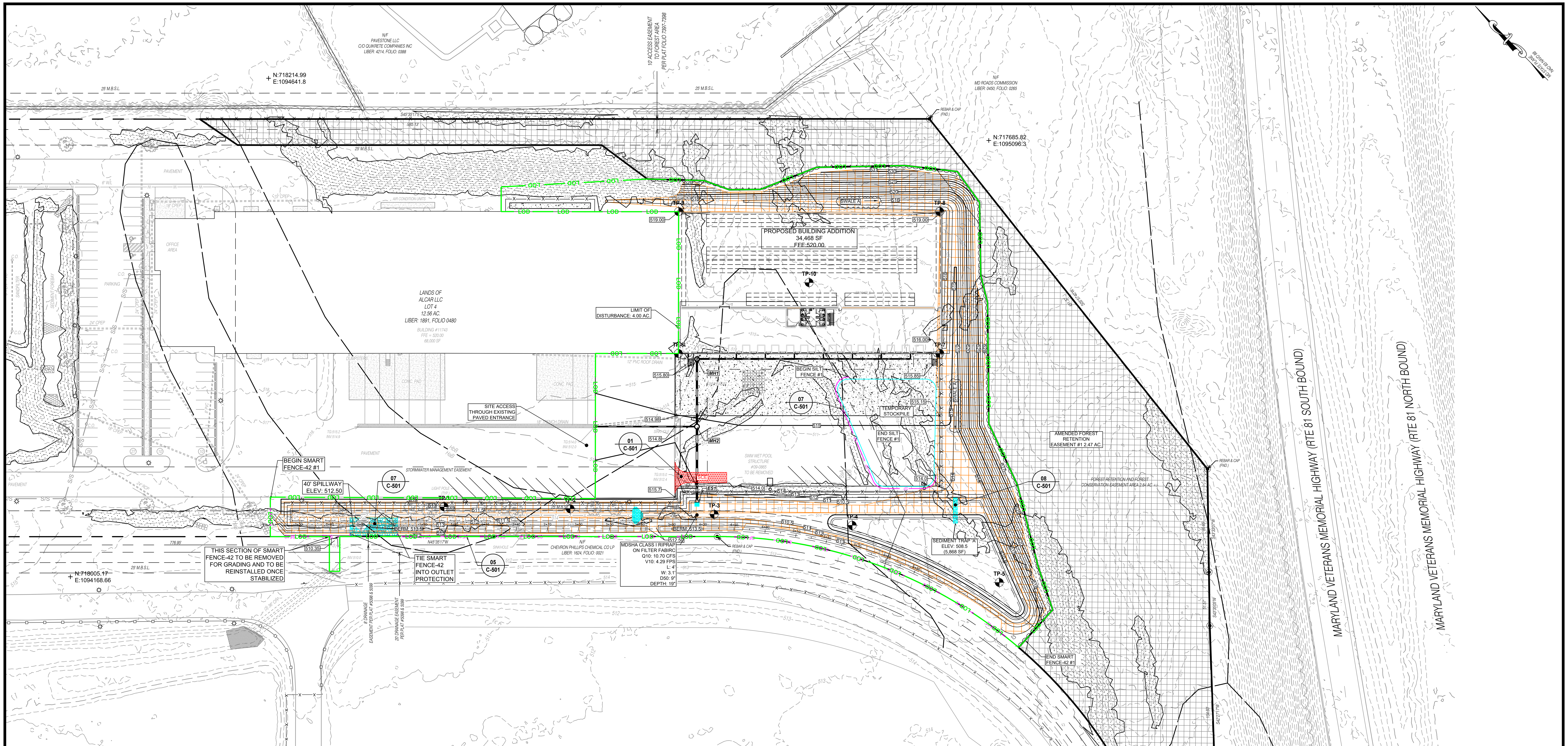
EXISTING CONDITIONS & DEMOLITION PLAN

C-101

03 OF 10 SHEETS

DATE : 07/21/23

SP-23-014



LEGEND

LOD	-LIMIT OF DISTURBANCE (4.00 AC)
SF42	- SMART FENCE 42
SF	- SILT FENCE
	-STRAW AND NET MATTING
	-STABILIZED CONSTRUCTION ENTRANCE
	-RIPRAP OUTLET PROTECTION
	-EXISTING CONTOURS
+606.0	-EXISTING TEXT
+589.1	-FINISHED GRADE SPOT ELEVATION
600	-FINISHED GRADE INTERMEDIATE CONTOUR
598	-FINISHED GRADE INDEX CONTOUR
	-SOIL BOUNDARY

SEQUENCE OF CONSTRUCTION

SEQUENCE OF CONSTRUCTION

Pre-Construction Notification - Contractor shall notify the Washington Co. Soil Conservation District (301-797-6821, ext. 3), Washington County Engineering (240-313-2400), and the Design Engineer (301-791-3650) at least five (5) days prior to start of any work shown on these plans to schedule a pre-construction meeting. Any spoil and/or borrow material must come from and/or go to a site with an approved and current Soil Erosion and Sediment Control Plan.

Before beginning construction, limit of disturbance and forest conservation area to be staked. Forest Conservation is to be removed and relocated onsite into the reconfigured forest easements. All sinkholes to be remediated prior to any construction.

1. **Contractor to access site through existing paved entrance. Contractor to install stabilized construction entrance as shown on plans if tracking of mud becomes an issue. If any tracking of mud occurs on any public roadway, the contractor shall immediately stop work and clean roadway. The contractor at a minimum shall clean the roadway at the end of each working day, whenever tracking of sediment or debris occur.**
2. **Contractor to install perimeter controls as shown on plans.**
3. **Contractor to install Sediment Trap 'A' as shown on plans. Shape of trap shall mimic final stormwater management pond.**
4. **With perimeter controls in place and Sediment Trap 'A' completed and stabilized, contractor to install Swale 'A'.**
5. **Contractor to install storm drain lines from the ES1 to MH2, MH2 to ex. trench drain and MH1 and tie existing roof drains into MH1. Contractor to plug incoming 18" storm drain hole on MH1 until new roof drain trunk line is installed.**
6. **With storm drain systems installed, contractor to perform all demolition work as shown on plans.**
7. **Contractor to strip topsoil and place in designated temporary stockpile location. Silt fence to be placed on downhill side of stockpile.**
8. **Contractor to begin rough grading site. As site is brought to grade and stoned, contractor to install remainder of roof drain trunk line.**
9. **Contractor to begin building construction.**
10. **Upon completion of building, contractor to begin paving site.**
11. **After the site has been stabilized, the contractor shall contact the Washington County Soil Conservation District (301-797-6821, ext. 3) and design engineer (301-791-3650) for an interim inspection of the submerged gravel wetlands prior to placing media into stormwater facility.**
12. **Contractor shall use light-weight equipment to avoid compaction of the filtering media during construction. No equipment shall be permitted on the BMPs after the soil layer has been installed.**
13. **Contractor to landscape site as shown on plans and seed and mulch any disturbed areas.**
14. **Contact the Washington County Soil Conservation District (301-797-6821, ext. 3) to verify site is adequately stabilized before removing perimeter controls. Site must achieve 95% overall vegetation before the final closeout inspection can take place.**
15. **Remove all sediment control devices and stabilize any disturbed area.**

SEDIMENT TRAP DESIGN TABLE

TRAP #	A
TYPE (STONE WEIR/PIPE)	STII-STONE OUTLET
FINAL DRAINAGE AREA (AC)	10.00
WET STORAGE REQ: (CF)	18,000
WET STORAGE PROV: (CF)	18,903
WET STORAGE ELEV	511.00
DRY STORAGE REQ: (CF)	18,000
DRY STORAGE PROV: (CF)	20,301
WEIR WIDTH (FT)	40.00
WEIR ELEVATION	512.50
STORAGE DEPTH (FT)	4.00
CLEANOUT ELEV:	509.75
EMBANKEMENT ELEV:	513.50
TRAP BOTTOM ELEV:	508.50
TRAP BOTTOM WIDTH (FT)	95.00
TRAP BOTTOM LENGTH (FT)	149.00

General E&S Notes:

1. **Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.**
2. **Contractor to remove excavated materials to an approved location to waste materials.**
3. **All fill material should be brought from a location with an approved and current sediment erosion control plan.**
4. **Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.**
5. **If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.**
6. **Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.**
7. **Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.**
8. **All slopes 3:1 or greater to be stabilized with temporary matting.**
9. **Place 4" minimum topsoil in all green areas before permanent seeding is performed.**
10. **The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.**
11. **All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.**

SILT FENCE TABLE

TYPE	NUMBER	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)	DETAIL REFERENCE
SILT FENCE	1	186'	N/A	N/A	N/A	09/C-501

SMART FENCE-42 TABLE

TYPE	NUMBER	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)	DETAIL REFERENCE
SMART-FENCE 42	1	752'	33.33%	6'	500'	05/C-501

OUTLET PROTECTION TABLE

ID	PIPE	Q10 (CFS)	V10 (FPS)	LENGTH (FT)	WIDTH (FT)	d50 (IN)	Dmax (IN)	DEPTH (IN)	MDSHA CLASS
ES1	24" HDPE	10.70	4.29	4	3.10	9.5	15	19	I

SWALE SCHEDULE

ID	Q10 (CFS)	V10 (FPS)	CHANNEL SLOPE (%)	CHANNEL WIDTH (FT)	CHANNEL DEPTH (FT)	SIDE SLOPES	10-YR FLOW DEPTH (FT)	TOP WIDTH (FT)	MATTING TYPE
A	9.15	2.76	0.80	2	1.5	3:1 / 2:1	0.82	6.10	TEMPORARY

REVISED PER AGENCY COMMENTS 09.22.2023

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/12/2023

Professional Certification:
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505 SOUTH HANOVER STREET, CARLISLE, PA 17013, 717.701.8111
15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717.275.7531

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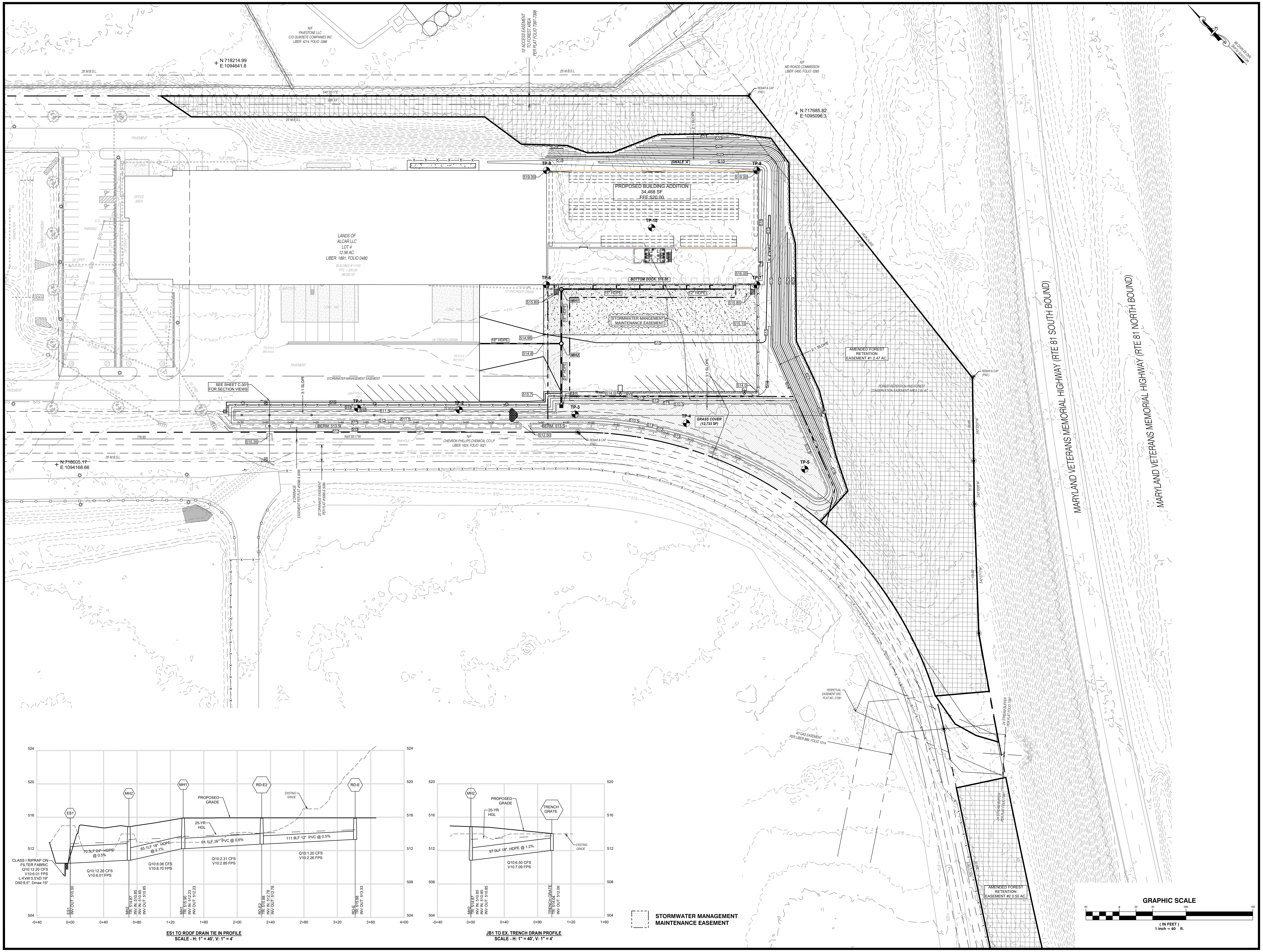
WANTZ DISTRIBUTORS, INC.
ADDITION & RENOVATIONS

SEDIMENT & EROSION CONTROL PLAN
C-102

DATE : 07/21/23
SP-23-014



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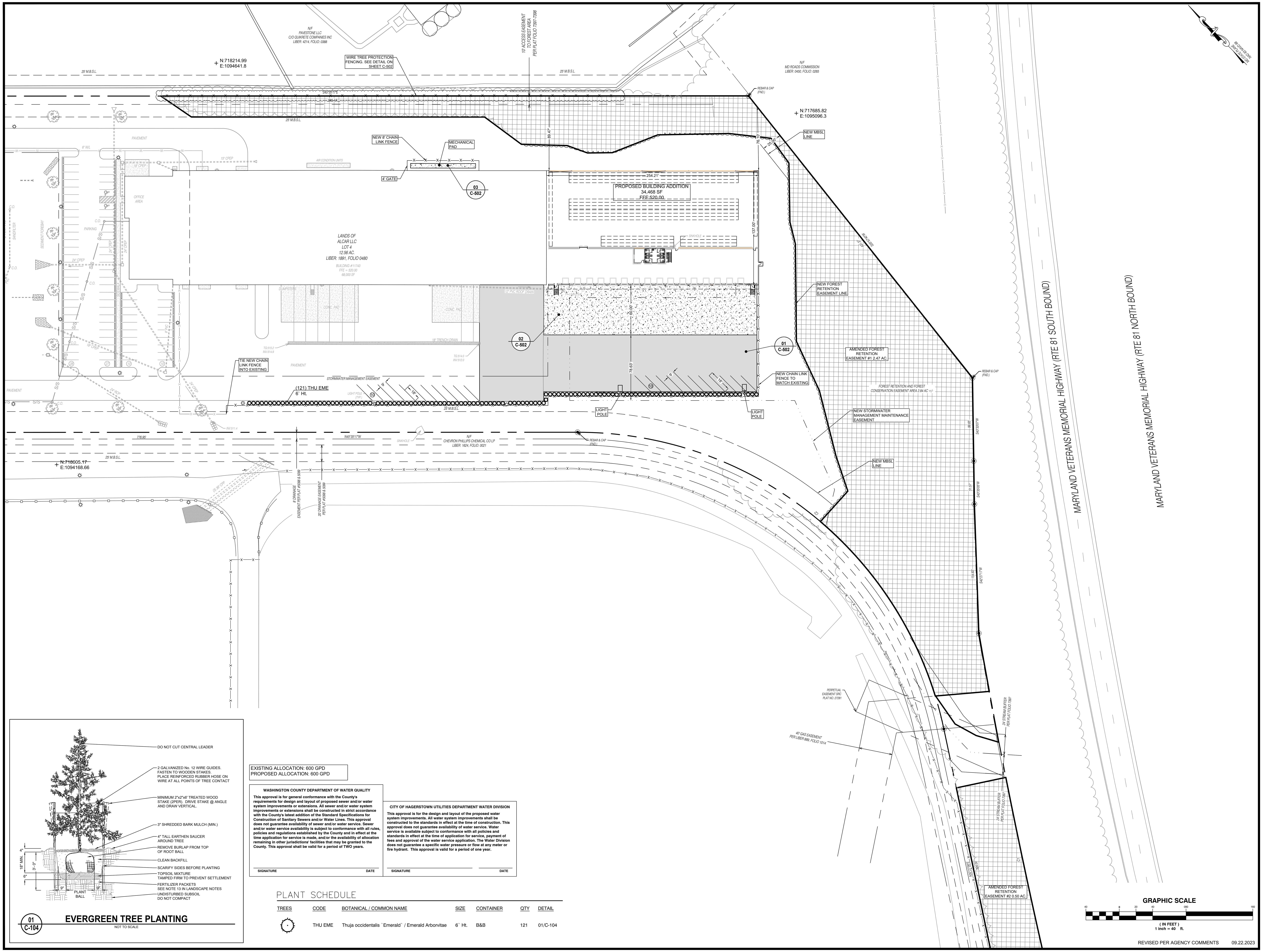
GRADING & DRAINAGE PLAN
C-103
05 OF 10 SHEETS
DATE : 07/21/23

SP-23-014



01
C-104

EVERGREEN TREE PLANTING

NOT TO SCALE

EXISTING ALLOCATION: 600 GPD
PROPOSED ALLOCATION: 600 GPD

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

This approval is for general conformance with the County's requirements for design and layout of proposed sewer and/or water system improvements or extensions. All sewer and/or water system improvements or extensions shall be constructed in strict accordance with the County's latest addition of the Standard Specifications for Construction of Sanitary Sewers and/or Water Lines. This approval does not guarantee availability of sewer and/or water service. Sewer and/or water service availability is subject to conformance with all rules, policies and regulations established by the County and in effect at the time application for service is made, and/or the availability of allocation remaining in other jurisdictions' facilities that may be granted to the County. This approval shall be valid for a period of TWO years.

SIGNATURE DATE

CITY OF HAGERSTOWN UTILITIES DEPARTMENT WATER DIVISION

This approval is for the design and layout of the proposed water system improvements. All water system improvements shall be constructed to the standards in effect at the time of construction. This approval does not guarantee availability of water service. Water service is available subject to conformance with all policies and standards in effect at the time of application for service, payment of fees and approval of the water service application. The Water Division does not guarantee a specific water pressure or flow at any meter or fire hydrant. This approval is valid for a period of one year.

SIGNATURE DATE

PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
	THU EME	Thuja occidentalis `Emerald` / Emerald Arborvitae	6` Ht.	B&B	121	01/C-104

REVISED PER AGENCY COMMENTS 09.22.2023

STATE OF MARYLAND
TREVOR M. FREDERICK
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PROFESSIONAL ENGINEER
10/12/2023

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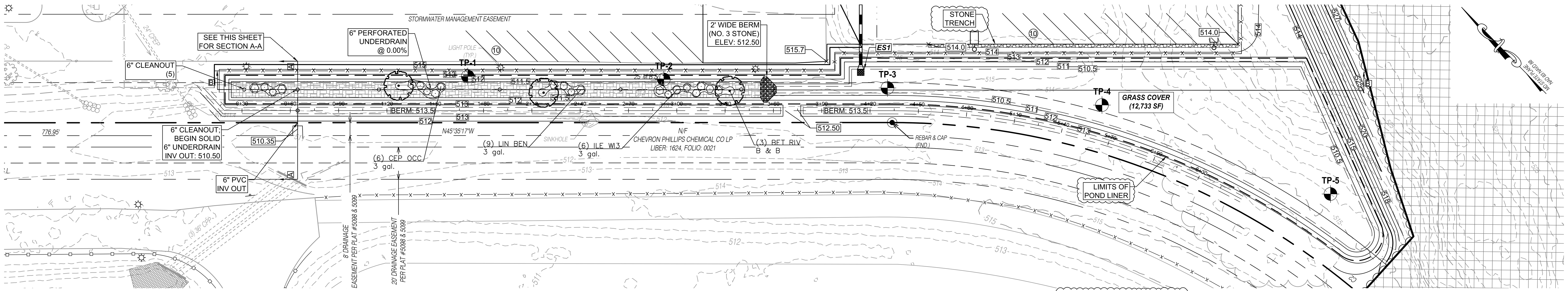
SITE PLAN
C-104
06 OF 10 SHEETS
DATE : 07/21/23

SP-23-014



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

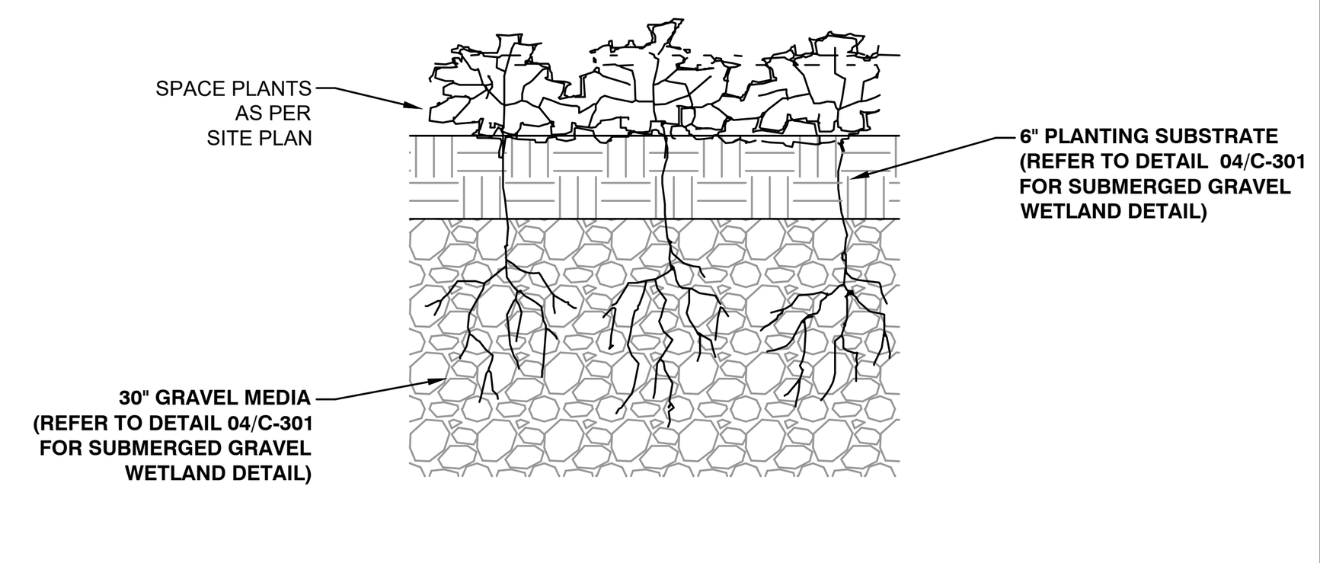
GRASS/PERENIAL LEGEND			
BMP PRACTICE	PERENNIALS/GRASS	SIZE	REMARKS
SUBMERGED GRAVEL WETLAND 'A'	2,590 SF	2" PLUG	EQUAL PERCENTAGE OF EACH SPECIE PLANT 36" O.C. (DETAIL 01/C-301)

MIXED GRASSES
CAREX TYPHINA, CAT-TAIL SEDGE
CAREX ANNECTENS, YELLOW FRUITED SEDGE
SWITCHGRASS, PANICUM CIRGATUM
SCIRPUS CYPERINUS, WOOLGRASS

PERENNIALS
ASTER LANCEOLATUS, PANICLED SMOOTH ASTER
MONARDA DIDYMA, BEEBALM
LOBELIA CARDINALIS, CARDINAL FLOWER
LOBELIA PUBERULA, DOWNY LOBELIA

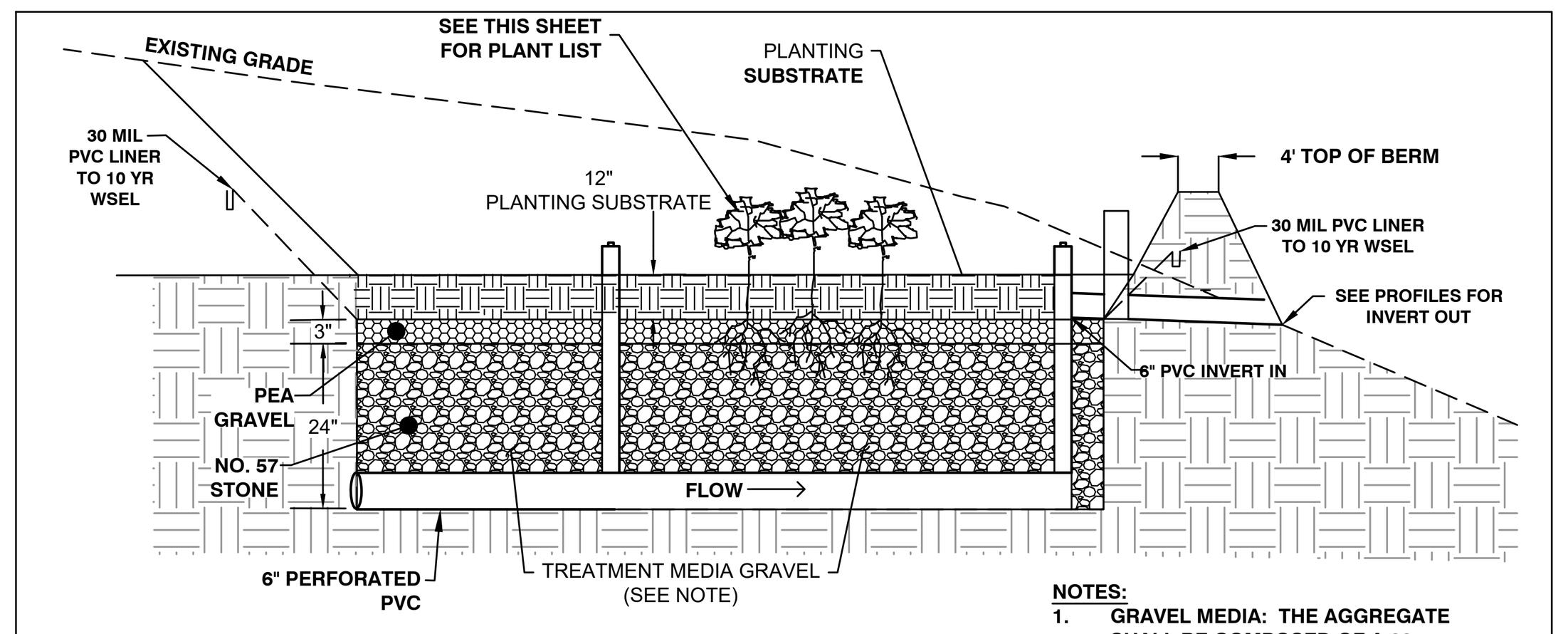
PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
	BET RIV	Betula nigra / River Birch	B & B	2"Cal	3	03/C-301
SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**	**DETAIL**
	CEP OCC	Cephalanthus occidentalis / Buttonbush	3 gal.		6	02/C-301
	ILE WI3	Ilex verticillata / Winterberry	3 gal.		6	02/C-301
	LIN BEN	Lindera benzoin / Spicebush	3 gal.		9	02/C-301



01 C-301 **PLUG PLANTING DETAIL**

NOT TO SCALE

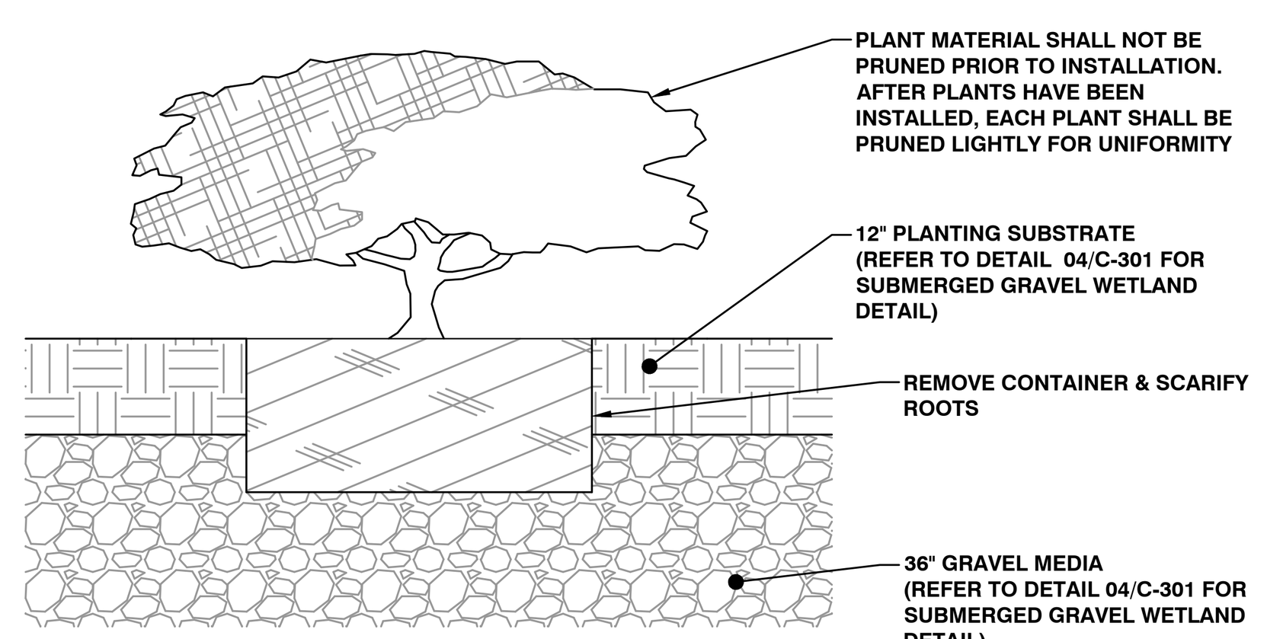


04 C-301 **SUBMERGED GRAVEL WETLAND**

NOT TO SCALE

NOTES:
1. GRAVEL MEDIA: THE AGGREGATE SHALL BE COMPOSED OF A 33 INCH LAYER OF CLEAN WASHED, UNIFORMLY GRADED MATERIAL WITH POROSITY OF 40%.
2. FOR MORE INFORMATION ON STONE WEIR SEE DETAIL 2/C-301.

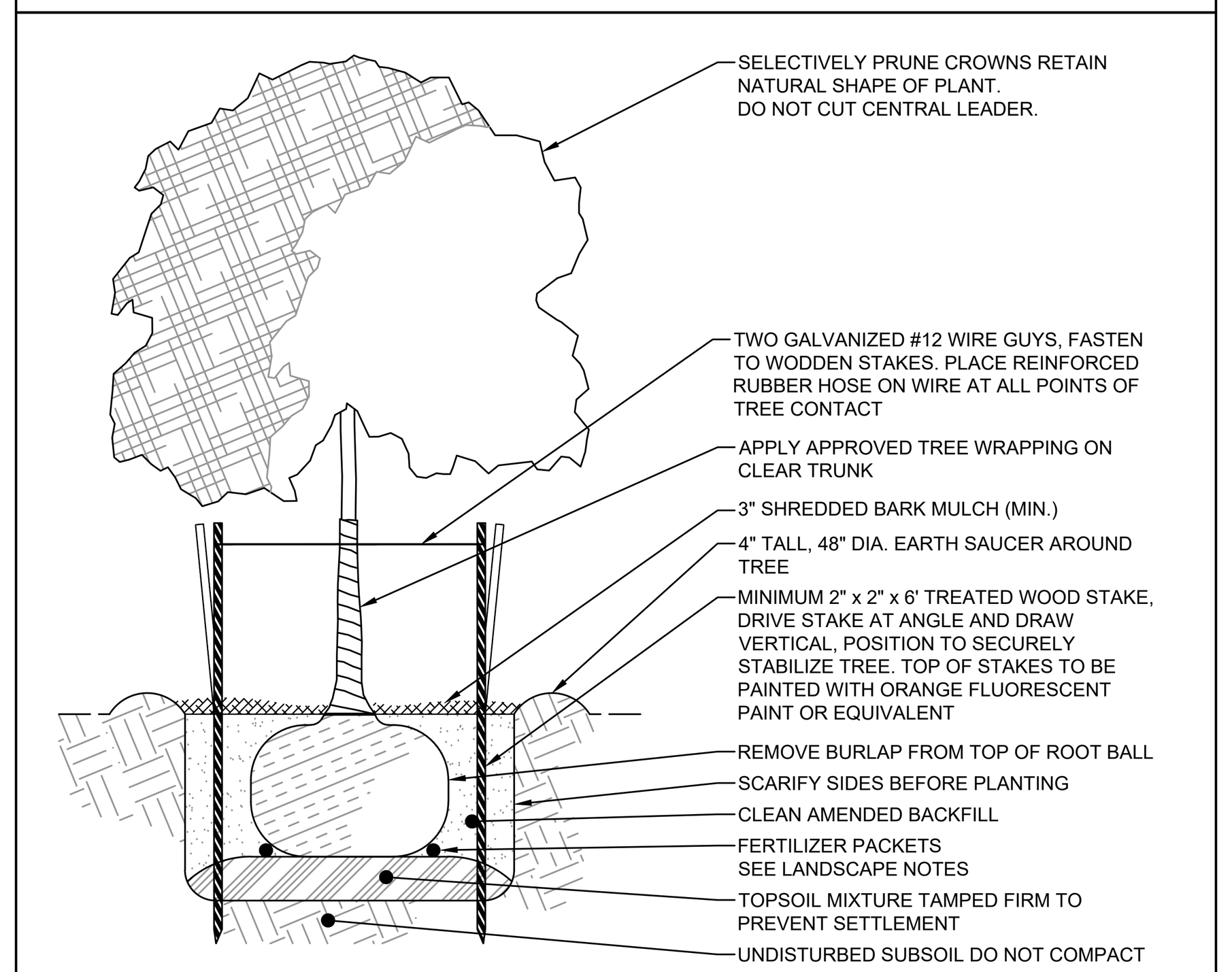
SUBMERGED GRAVEL WETLAND SCHEDULE									
ID	AREA (S.F.)	PONDING DEPTH (FT.)	FINISH GRADE ELEV.	BOTTOM STONE ELEV.	C.O.s	LINER REQUIRED	SPILLWAY ELEV.	TOP BERM (CONSTRUCTED)	TOP BERM (SETTLED)
A	3345	1	511.50	508.25	6	YES	512.50	514.00	513.50



SECTION

02 C-301 **GRAVEL WETLAND - SHRUB**

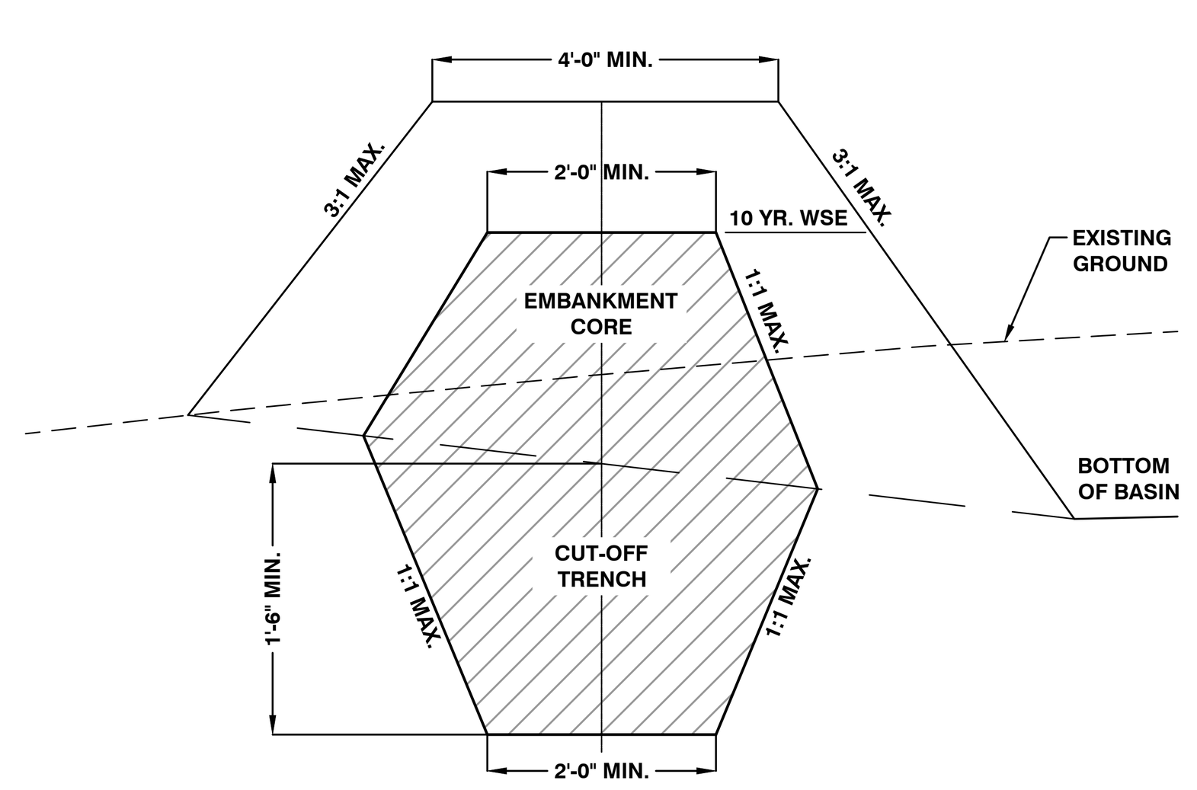
SCALE: 1" = 5'



SECTION

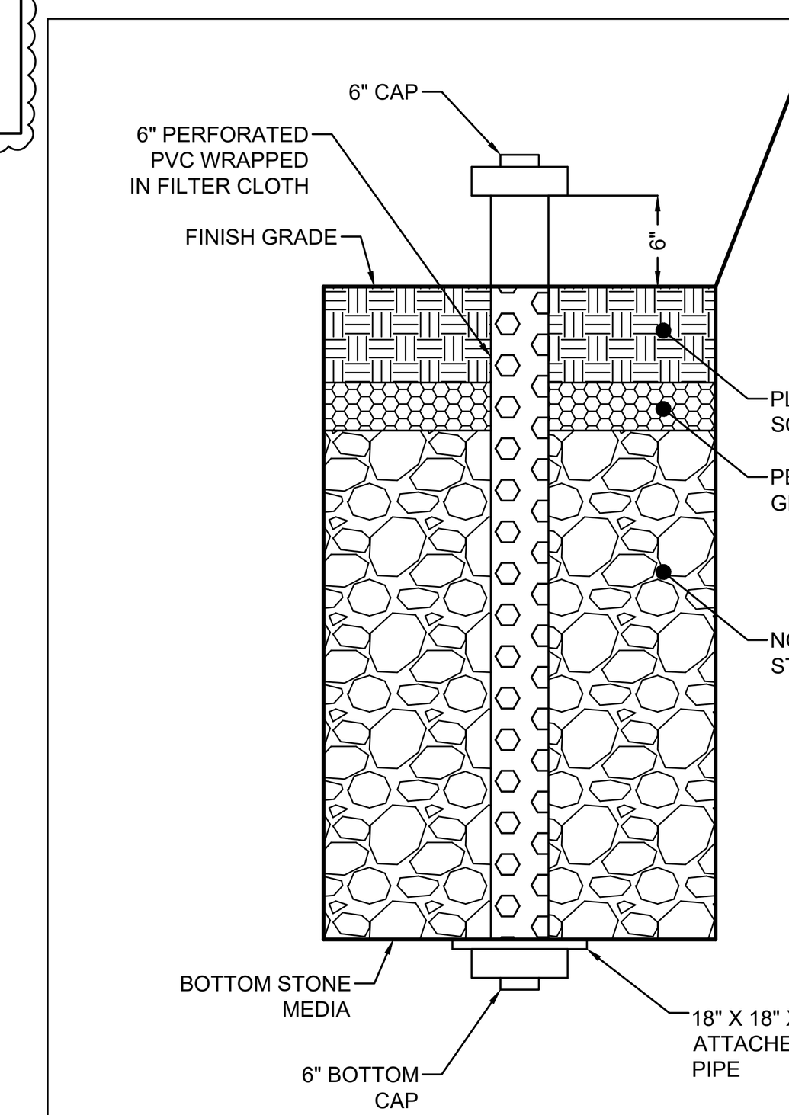
03 C-301 **PLANTING - TREE (Up to 2-1/2" Cal.)**

NOT TO SCALE



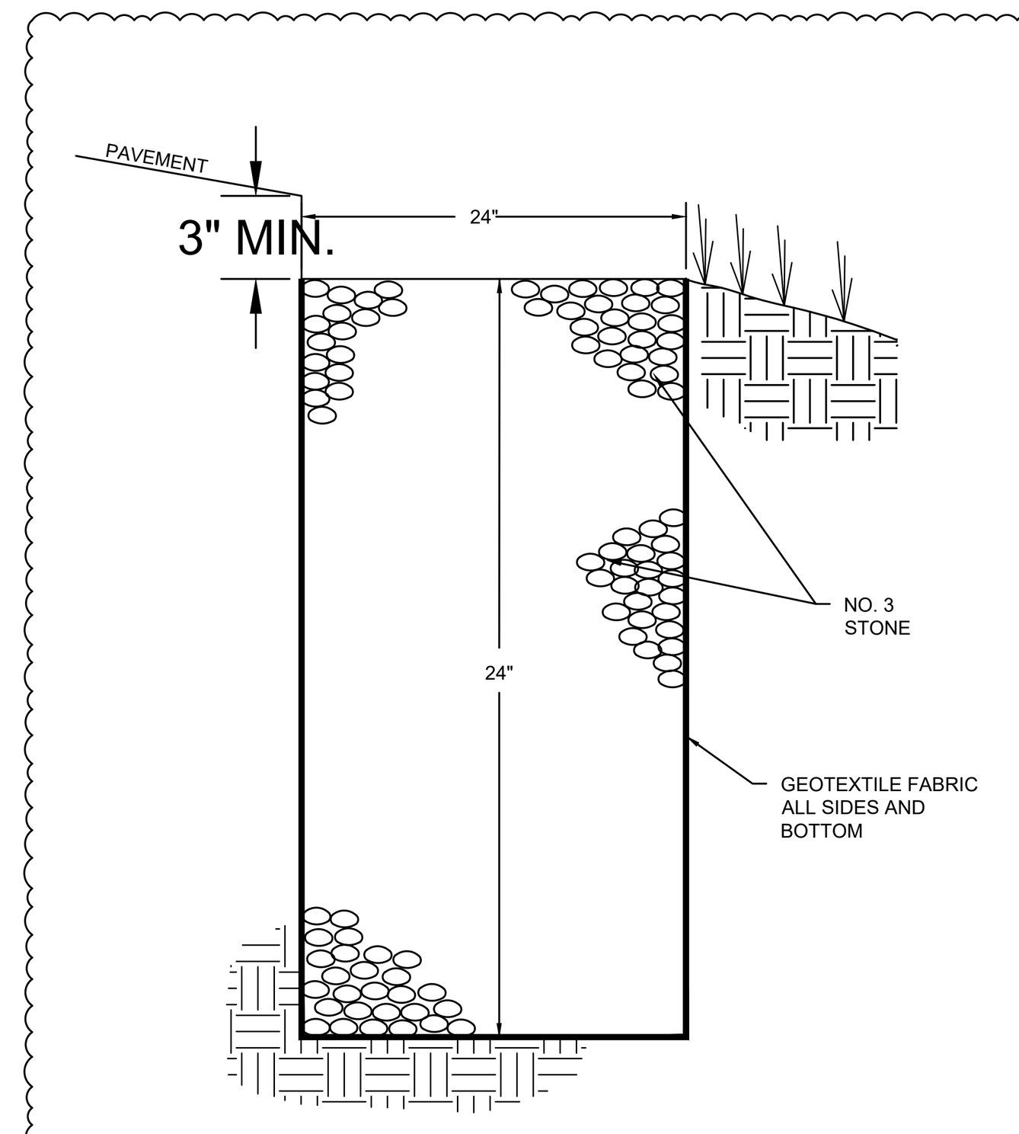
05 C-301 **CUT-OFF TRENCH - SUBMERGED GRAVEL WETLAND**

SCALE: 1" = 5'



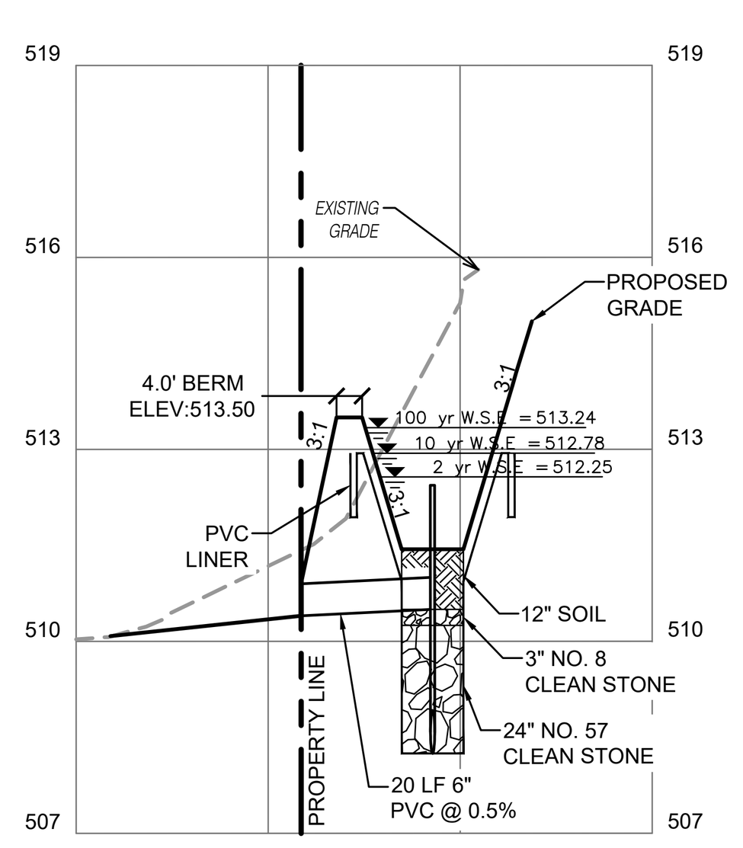
06 C-301 **OBSERVATION WELL**

NOT TO SCALE

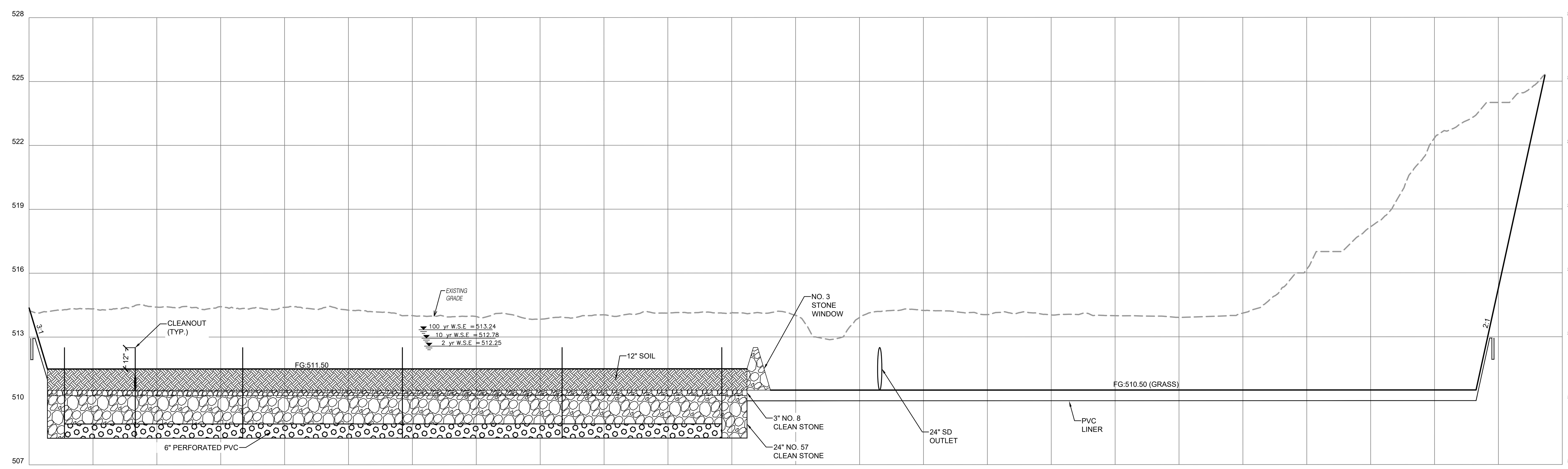


04 C-305 **STONE TRENCH**

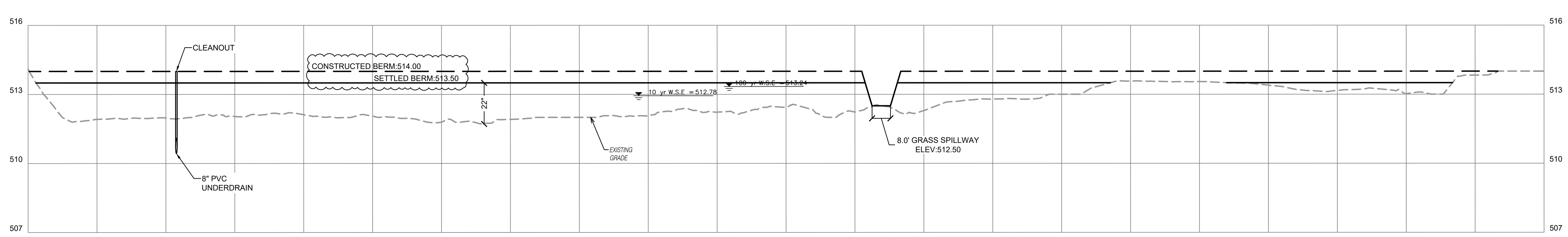
NOT TO SCALE



SUBMERGEED GRAVEL WETLAND SECTION A-A
SCALE - H: 1" = 30', V: 1" = 3'



SUBMERGEED GRAVEL WETLAND SECTION B-B
SCALE - H: 1" = 30', V: 1" = 3'



SUBMERGEED GRAVEL WETLAND BREM PROFILE
SCALE - H: 1" = 30', V: 1" = 3'

REVISED PER ADDENDUM #3
REVISED PER AGENCY COMMENTS 09.22.2023

STATE OF MARYLAND
TREVOR M. FREDERICK
PROFESSIONAL ENGINEER
10/12/2023

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ADDITION & RENOVATIONS

BFM #23007

STORMWATER MANAGEMENT PLAN

C-301

07 OF 10 SHEETS

DATE : 07/21/23

SP-23-014

Pond MD-378
NRCS - MARYLAND JANUARY 2000
CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the em-bankment.
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out. The minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.
Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits
All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall
have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.
Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.
Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of ASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable. Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall
meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding -The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap
Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311. Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

Stabilization
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

Submerged Gravel Wetlands Maintenance Schedule

1. Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
2. During the first year of operation, inspections shall be conducted after every major storm and poorly established areas revegetated.
3. Sediment accumulation in the pretreatment areas should be removed as necessary.
4. Signs of uneven flow distribution within the wetland may mean that the gravel or underdrain is clogged. The gravel and/or underdrain may need to be removed, cleaned, and replaced.
5. A dense stand of wetland vegetation should be maintained through the life of the facility with plantings replaced as needed.
6. Inlet and outlets to each submerged gravel wetland cell should be free from debris to prevent clogging.
7. Erosion at inflow points should be repaired. Flow splitters should be functional to prevent bypassing of the facility.

Table B-4.1 Material Specifications for Submerged Gravel Wetland

Material	Specification	Size	Notes
Plantings	see planting list	n/a	plantings are site-specific
Planting Substrate [6" Deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Gravely Treatment Media	Clean Washed uniformly graded material with a porosity of 40%	No. 57 or No. 6 Aggregate	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes.
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitution such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.

MARYLAND STORMWATER DESIGN MANUAL
B.4.D Specifications for Micro-Bioretention, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications
The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- *Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)*
- *Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60% - 65%) and compost (35% - 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).*
- *Clay content - Media shall have a clay content of less than 5%.*
- *pH range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur may be mixed into the soil to increase or decrease pH.*

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. *Compaction*
It is very important to minimize compaction of both the base of the bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. *Plant Material*
Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

5. *Plant Installation*
Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. *Under drains*
Underdrains should meet the following criteria:

- *Pipe - Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (F 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid schedule 40 PVC or SDR35 pipe.*
- *Perforations - If perforated pipe is used, perforations should be $\frac{3}{8}$" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with $\frac{1}{4}$" (No. 4 or 4x4) galvanized hardware cloth.*
- *Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.*
- *The main collector pipe shall be at a minimum 0.5% slope.*
- *A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.*
- *A 4" layer of pea gravel ($\frac{1}{8}$" to $\frac{3}{8}$" stone) shall be located between the filter media and underdrain to prevent migration o fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".*

7. *Miscellaneous*
These practices may not be constructed until all contributing drainage area has been stabilized.

Specifications for Submerged Gravel Wetland
(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications
The allowable materials to be used in submerged gravel wetland areas are detailed in Table B.4.1

Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the planting area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

Compaction
It is very important to minimize compaction of both the base of the planting area and the required backfill. When possible, use excavation hoes to remove original soil. If wetland areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the wetkabd area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the wetland facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the wetland area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade wetland materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Installation

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the submerged gravel wetland is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains
Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ⅜" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (⅛" to ⅜" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilize.

Wetland berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

Notice of Required Stormwater Management Inspections
Sand Filters, Bioretention and Rain Garden Facilities

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		Submerged Gravel Wetland A
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**	
	Date	
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**	
	Date	
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**	
	Date	
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**	
	Date	
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	

CATEGORY 300 DRAINAGE PVC LINED PONDS

DESCRIPTION. This work shall consist of furnishing, placing and anchoring of a 30 mil PVC liner within designated pond area as shown in the Contract Documents and as directed by the Engineer.

MATERIALS.

Furnished Topsoil	920
Type B Soil Stabilization Matting	920
Staples	920

PVC LINER MATERIAL. The 30 mil PVC Liner shall conform to the following minimum physical properties.

PROPERTY	TEST METHOD	REQUIREMENT
Thickness	D 1593	+/- 5%
Specific Gravity (min.)	D 792	1.20
100% Modulus (psi. min.) (1 b. force/in. width, min.)	D 882	100 30
Tensile (psi, min.) (Lb. force/ in. width, min.)	D 882	2300 69
Elongation at Break (%, min.)	D 882	325
Graves Tear (lb./in., min.) (1b. force/in. width, min.)	D 1004	325 8
Resistance to Soil Burial (% change max.) (a) Breaking Factor (b) Elongation At Break (c) Modulus at 100% Elongation	D 3083 (NSF Modified)	5 20 20
Impact Cold Crack (/F)	D 1790	-20
Dimensional Stability (% change/max.)	D 120 (212/f/15 min.)	5
Water Extraction (%, max.)	D 3083	-0.25
Volatile Loss (%, max.)	D 1203	0.70
Hydrostatic Resistance (psi,min.)	D 751	82

PVC LINER CERTIFICATION.

The Contractor shall certify that the PVC liner material conforms to the physical properties. The PVC Liner Certification shall also include:

(a) Polymer and composition of the PVC Liner, including additive composition of any coating materials

(b) Manufacturer's Quality Control plan including properties, test methods, frequency of testing, tolerances and method of resolution for out-of-specification material.

(c) Laboratory test results documenting the physical properties.

STORAGE AND HANDLING.

The PVC liner shall remain stored in its original container in a dry area and protected from puncture, dirt, grease, water, mud, mechanical abrasions, excessive heat, extreme cold or other damage. On-site handling of the PVC liner is the responsibility of the Contractor

Any damage of the PVC liner shall be documented. If the damaged PVC liner cannot be repaired to comply with the specification it shall be removed and replaced at no additional cost to the Administration.

CONSTRUCTION.

Construction shall be in conformance with the details shown on the plans or as directed by the Engineer and the following:

Area Subgrade Preparation.

Surfaces to be lined shall be smooth and free of all rocks, stones, sticks, sharp objects, or debris of any kind. The surface shall provide a firm, unyielding foundation for the liner with no sudden sharp, or abrupt changes or break in grade. No standing water, mud, snow, or frozen subgrade that has become softened by water or overly dried until it has been properly reconditioned and recompacted. Special care shall be taken to maintain the prepared soil surfaces. The soil surface will be observed daily by the Engineer to evaluate the surface condition. Any damage to the surface caused by weather conditions shall be repaired by the contractor.

Anchor Trench.

The anchor trench shall be excavated to the line, grade, and width shown on the construction drawings, prior to liner placement.

If the anchor trench is located in clay susceptible to desiccation; no more than the amount of trench required for the liner to be anchored in one day shall be excavated to minimize desiccation of the anchor trench soils.

Slightly rounded corners shall be provided in the trench where the liner adjoins the trench so as to avoid sharp bends in the liner. No loose soil or rocks shall be allowed to underlie the liner in the anchor trench. Leading edges of the anchor trench shall be smooth and even.

Placement of Liner.

(a) The liner shall be placed down gradient (upstream to downstream) to facilitate over lapping and prevent run off from entering under the placed liner.

(b) The method used to place the liner panels shall minimize wrinkles (especially differential wrinkles between adjacent panels). Minimum wrinkles shall be allowed to insure the liner is installed in a relaxed condition. Excessive wrinkles which overlap themselves shall not be allowed. Stretching of the liner is not allowed.

(c) All panels may be repositioned after deployment to conform to the overlap requirements, however, deployment and repositioning measures may eliminate dragging or elongating the PVC liner panels.

(d) The seam overlap shall be a minimum of 3 ft. and a maximum of 4 ft.

(e) Adequate ballast (e.g., cover soil, or similar measures that will not damage the liner) shall be placed to prevent uplift by wind. In case of high winds, continuous loading is recommended along edges of panels to minimize risk of wind flow under the panels.

(g) Only equipment necessary for installation and testing of the liner shall be permitted to come in contact with the liner. This equipment shall be rubber tired with a ground pressure not exceeding 5 psi, and a total weight not exceeding 750 lb.

Weather conditions.

PVC liner deployment shall proceed when ambient temperature and material sheet temperature is between 60 and 105 F. Sheet temperature shall be measured on the liner surface by an infrared thermometer or surface contact thermometer.

Liner placement shall not be done during any precipitation, in the presence of excessive moisture, (e.g., snow, fog, rain, dew, mud) or in the presence of excessive winds, as determined by the engineer.

If liner placement is required at ambient temperatures below 60 F, a means of storing the liner in an area that maintains the liner temperature above 60 F shall be provided. This liner temperature shall be maintained until the time of deployment.

Unpacking the panels.

The contractor shall notify the Engineer, before the liner is unpacked. Damaged or suspect areas shall be marked for testing and/or repair. Liner that is damaged during deployment (i.e. that cannot be adequately repaired) shall be replaced at no additional cost to the Administration.

Backfilling of the Anchor Trench.

The anchor trench shall be backfilled and compacted by the contractor to the satisfaction of the Engineer. Trench backfill material shall be placed in 8 in. thick loose lifts and compacted by wheel rolling with light, rubber-tired or other light compaction equipment.

Care shall be taken when backfilling the trenches to prevent any damage to the PVC liner. At no time shall construction equipment come in direct contact with the liner. If damage occurs, it shall be repaired at no additional cost to the Administration.

Backfilling of PVC Liner.

The liner shall be covered with a 2 ft. layer of soil; the first 1.8 ft. shall conform to Common Borrow specifications and the top 4 in. shall be a layer of furnished topsoil. The backfill shall be tamped in place. Permanent type B soil stabilization matting shall be placed over the topsoil.

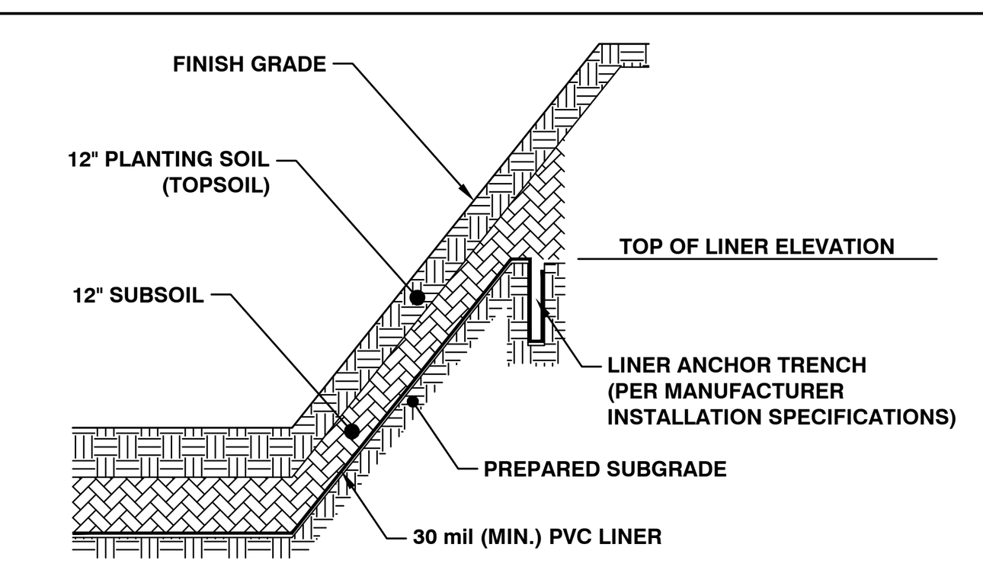
At no time shall construction equipment come into direct contact with the liner or traverse the backfilled trench. When damage occurs, it shall be repaired by the contractor at no additional cost to the Administration. Compaction shall be to the satisfaction of the Engineer.

Measurement and Payment.

Measurement and payment for the PVC ditch liner will be measured and paid for at the contract unit price per square yard accepted in place. The payment will be full compensation for all excavation, PVC liner, furnished topsoil, backfill, and for all overlap shall not be measured and paid for as separate item. All PVC liner overlap shall be incidental to the cost of PVC liner installation.

Excavation will be measured and paid for at the contract unit price per cubic yard for class 2 excavation for incidental construction.

Notes:
1. Consideration should be given to installing temporary monitoring wells to observe the groundwater levels in areas of deep cuts.
2. If significant groundwater is encountered, the project Civil Engineer (FSA) and project Geotechnical Engineer (ECS) should immediately be notified to determine if any changes in design are warranted.
3. If blasting is proposed, the selected blasting contractor should submit a detailed blasting plan to the design team and Owner for review and approval prior to any blast operations.
4. Any rock encountered within the swm facilities should be undercut at least 12 inches and covered with controlled and compacted clay liner soils. If a synthetic liner is used, any rock encountered within the swm facilities should be undercut at least 6 inches (or depths as recommended by the manufacturer) and covered with controlled fill.



01 / C-302 **LINER ANCHOR TRENCH**
SCALE: 1" = 5'

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
10/12/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08/24/2024.

FSA
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CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301.791.3650
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717.597.1007
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717.701.8111
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7531

DRAWING INTENT IS TO INDICATE GENERAL ARRANGEMENT, DESIGN AND INTENT OF WORK IS PARTLY DIAGRAMMATIC. IT SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR SERVE AS ERECTION SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No. 6157
EXPIRATION DATE 09/07/24

BFM
BUSHEY FEIGHT MORIN ARCHITECTS
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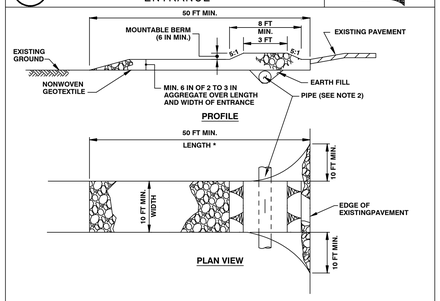
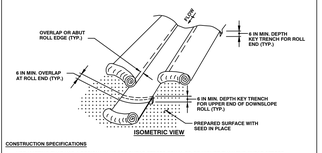
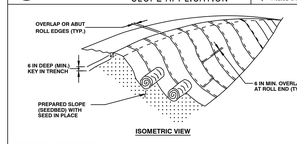
WANTZ DISTRIBUTORS, INC.
ADDITION & RENOVATIONS

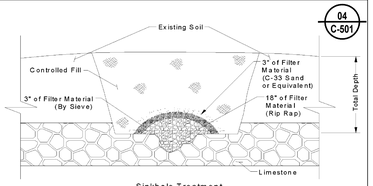
STORMWATER MANAGEMENT NOTES
C-302
08 OF 10 SHEETS
DATE : 07/21/23

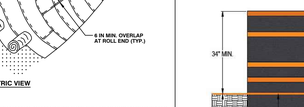
SP-23-014

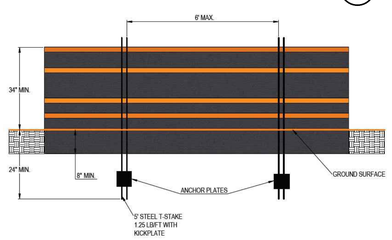


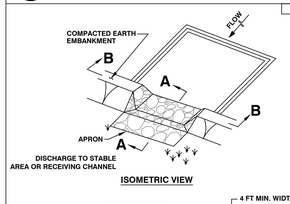


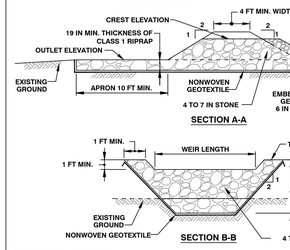


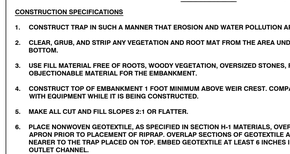


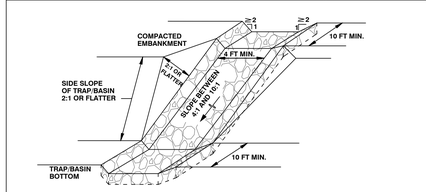


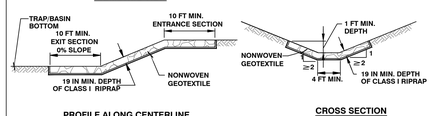


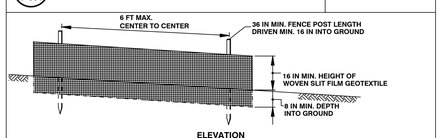


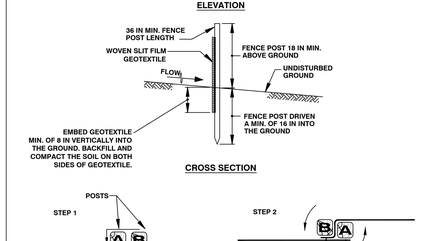


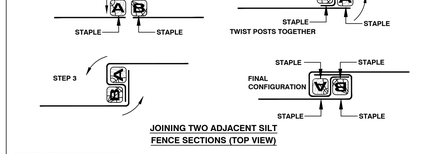












01 C-501 DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE

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

02 C-501 DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: TSSMC - * lb/ft² (* INCLUDE SHEAR STRESS)

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
7. OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control” and the provisions of the approved plan.
2. All grading and stabilization shall comply with the “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”, “Section B - Grading and Stabilization” and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”, and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must 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.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, “Adequate Vegetative Stabilization”, is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

03 C-501 DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

04 C-501

Sinkhole Treatment
Inverted Filter 1
Figure 1

Notes:
Inverted Filter 1
Procedure for installing inverted filter to treat sinkholes.

1) Remove and properly dispose of materials dumped in and around the sinkhole.
2) Excavate loose material from sinkhole and try to expose the solution void(s) in the bottom. Enlarge the sinkhole, as necessary, to allow for installation of filter materials (Figure 1).
3) Select a field stone that is about 1.5 times larger than the solution void(s). Place the stone(s) in the void(s) forming a secure "bridge". A geotextile may be needed to "lock" the stone "bridge" in place, as determined by the geotechnical engineer.
4) Place a layer of filter material over the "bridge" at a minimum thickness of 18 inches. About 30 percent of the material should be larger than the openings between the bridge and the void(s). (A well placed "bridge" should not have large openings around it.) In most cases this material could be Rip Rap.
5) Place a layer of smaller size filter material over the previous layer at a minimum thickness of 9 inches. The size should be 1/4 to 1/2 the size of the pervious layer. In most cases this material could be 57 stone.
6) Place a layer of sand size filter material over the previous layer at a minimum thickness of 9 inches. The sand has to be compatible in size with the previous layer to prevent piping. In most cases this material could be C-33 sand or equivalent.
7) (A non-woven filter cloth with a burst strength between 100 to 200 psi can be substituted for the stone and sand filter materials discussed in 5 and 6.)
8) Backfill over the last filter layer (or filter cloth) with soil material to the surface. The reuse of any soil material excavated from sinkhole should be considered. Overfill by about 5 percent to allow for settlement. The material should be soil with at least 50% clay materials and a minimum of 3 feet thick. The fill materials should be compacted to a minimum of 95% of the standard proctor (AASHTO T-99). Any available topsoil should be placed on the surface.
9) Stone used for the "bridge" and the filters should have a rock strength at least equal to moderately hard (i.e. resistant to abrasion or cutting by knife blade but can be easily dent or broken with light blows of hammer). Shale or similar soft and non-durable rock is not acceptable.

SINKHOLE REMEDIATION DETAIL

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.

B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the “Standard Inspection Form”, “General Permit for Stormwater Associated with Construction Activity” per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

TEMPORARY SEEDING SUMMARY						
HARDINESS ZONE (FIGURE B.3): 6a & 6b SEED MIXTURE (TABLE B.1)					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30 Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

PERMANENT SEEDING SUMMARY								
HARDINESS ZONE (FIGURE B.3): 6a & 6b SEED MIXTURE (TABLE B.1)					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTH	N	P205	K20	
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sept 30 Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

SEE SHEET C-102 FOR SWALE DETAILS.

NOTE:
1. ALL SWALES TO BE LINED WITH EROSION CONTROL MATTING. TO DESIGN FLOW DEPTH
2. ALL DIMENSIONS LABELED AS MIN. ON THIS DETAIL MAY BE SUPERSEDED BY GREATER DIMENSIONS WHICH WOULD BE NOTED DIRECTLY ON PLAN, IF NECESSARY.

06 C-501 TYPICAL SWALE DETAIL

NOT TO SCALE

SMARTfence® 42 Detail:

05 C-501

SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

SMARTFENCE 42”

SEDIMENT & PERIMETER CONTROL

INSTALLATION INSTRUCTIONS

STEP 1: Excavate trench a maximum of 4” wide and 6” deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18” depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8” nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25” openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18” depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18”.

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18” depth.

STEP 9: Place bottom 8” of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET’S GET IT DONE!™

SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 email at info@acfenv.com

ACF ENVIRONMENTAL

IF SINKHOLES OCCUR ON SITE DURING CONSTRUCTION A GEOTECHNICAL ENGINEER SHALL BE CONTACTED. REMEDIATION OF ANY SINKHOLES SHALL BE UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER.

07 C-501 DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STANDARD SYMBOL: ST-II

MAXIMUM DRAINAGE AREA = 10 ACRES

CONSTRUCTION SPECIFICATIONS

1. CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
2. CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
3. USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
4. CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
5. MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
6. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
7. USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS I RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
8. PLACE 1 FOOT OF CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
9. CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
10. STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
11. REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
12. WHEN DEWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
13. UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

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

08 C-501 DETAIL D-3-1 RIPRAP INFLOW PROTECTION

STANDARD SYMBOL: RRP

CONSTRUCTION SPECIFICATIONS

1. PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
2. CONSTRUCT INFLOW CHANNEL WITH CLASS I RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 19 INCHES (2 x D_{50}) AND A 1 FOOT DEEP FLOW CHANNEL. INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND A 4 FOOT MINIMUM BOTTOM WIDTH.
3. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
4. BLEND RIPRAP INTO EXISTING GROUND.
5. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

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U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

09 C-501 DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± 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 MID-SECTION.
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

REVISED PER AGENCY COMMENTS 09.22.2023

TREVOR M. FREDERICK
49808
10/12/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808,
Expiration Date 08/24/2024.

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505 SOUTH HANOVER STREET
CARLISLE, PA 17013
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15 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717.275.7531

DRAWING INTENT IS TO INDICATE GENERAL ARRANGEMENT, DESIGN AND INTENT OF WORK IS PARTLY DIAGRAMMATIC. IT SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR SERVE AS ERECTION SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No. 6157
EXPIRATION DATE 09/07/24

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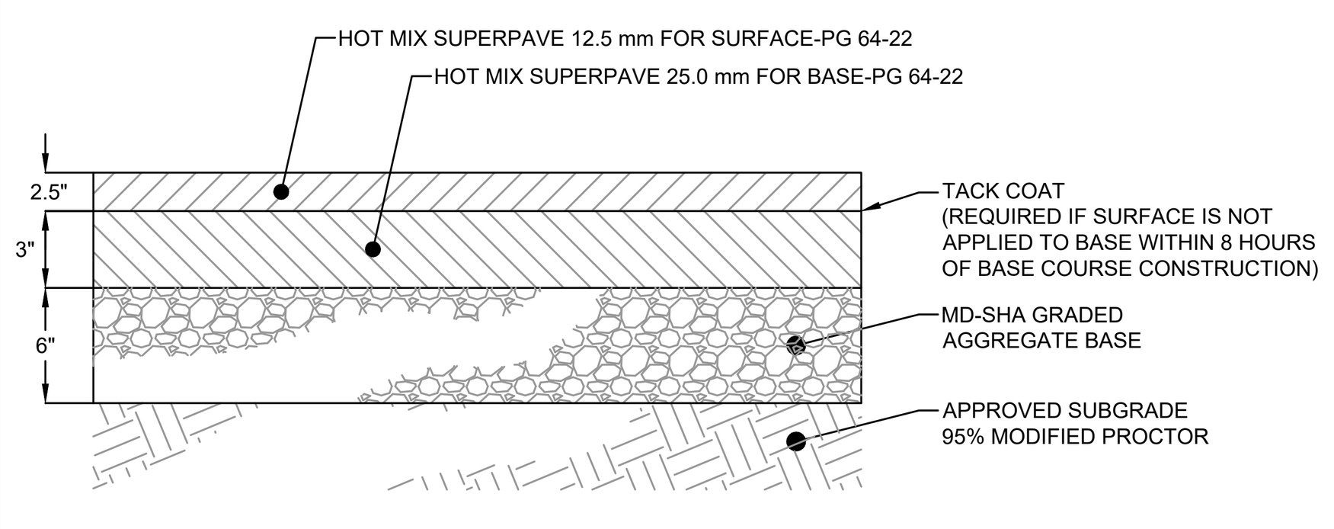
ADDITION & RENOVATIONS

CONSTRUCTION
DETAILS & NOTES
E & S CONTROLS
C-501
09 OF 10 SHEETS
DATE : 07/21/23

SP-23-014

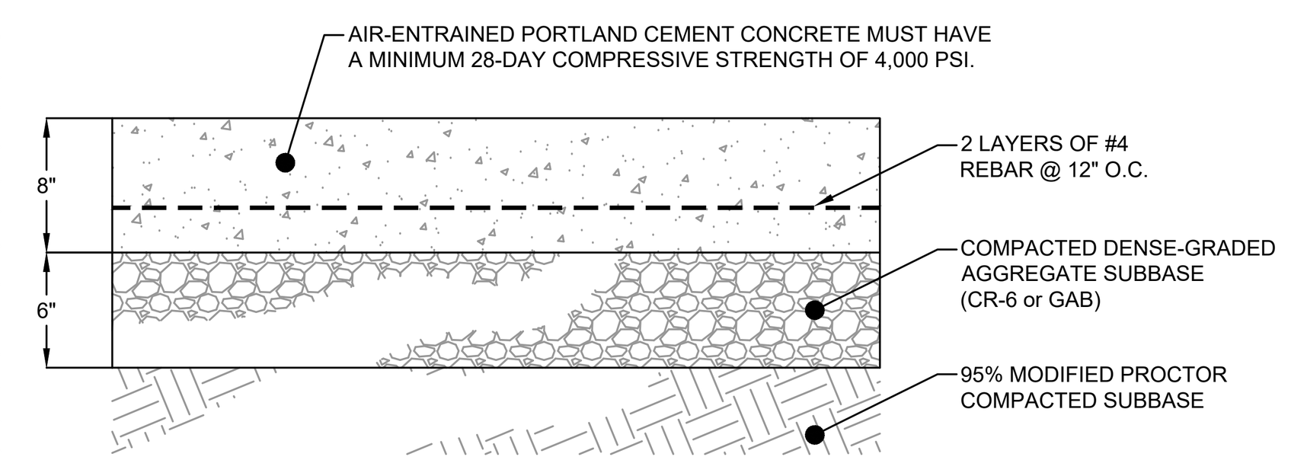
SECTION



NOTES:
The Asphalt Binder shall conform to AASHTO MP1-93 Table 1, Standard Specification for Performance Graded Asphalt Binder. Superpave mix designs shall be in conformance with AASHTO PP28-95, Standard Practice for Superpave Volumetric Design for HMA. The Performance Grading shall be achieved by the use of Neat Asphalt with polymer modification when needed.

01 / C-502 **PAVEMENT - TRUCK**
NOT TO SCALE

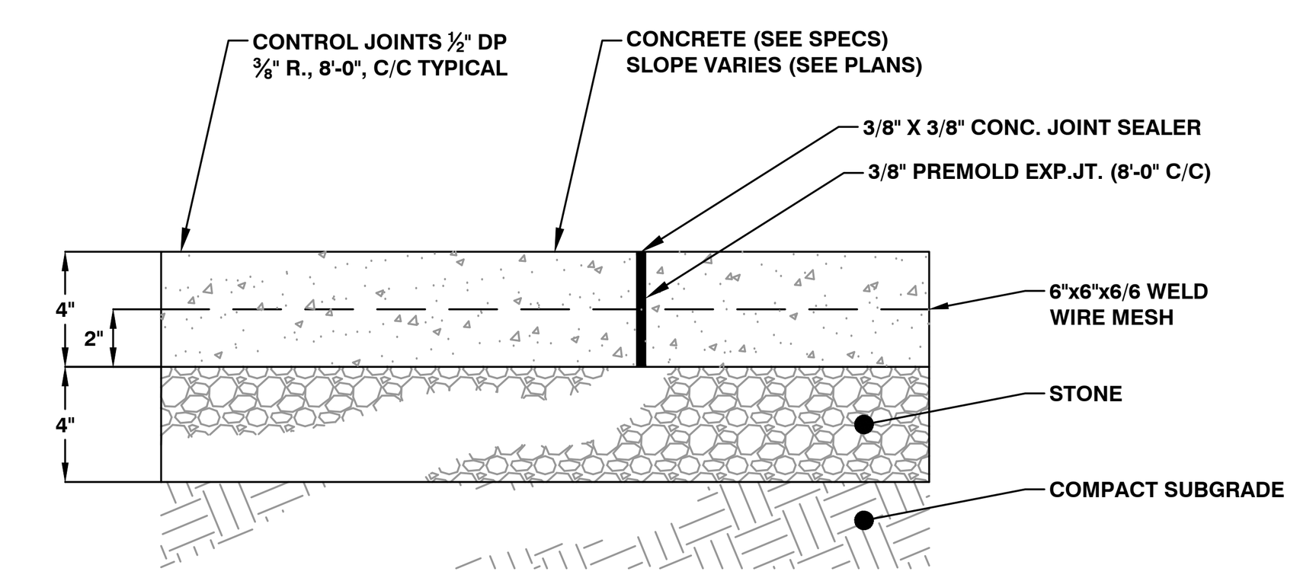
SECTION



NOTES:
Geotechnical Engineer shall specify location of expansion and control joints. Detail of expansion and control joints to be specified by site Geotechnical Engineer.

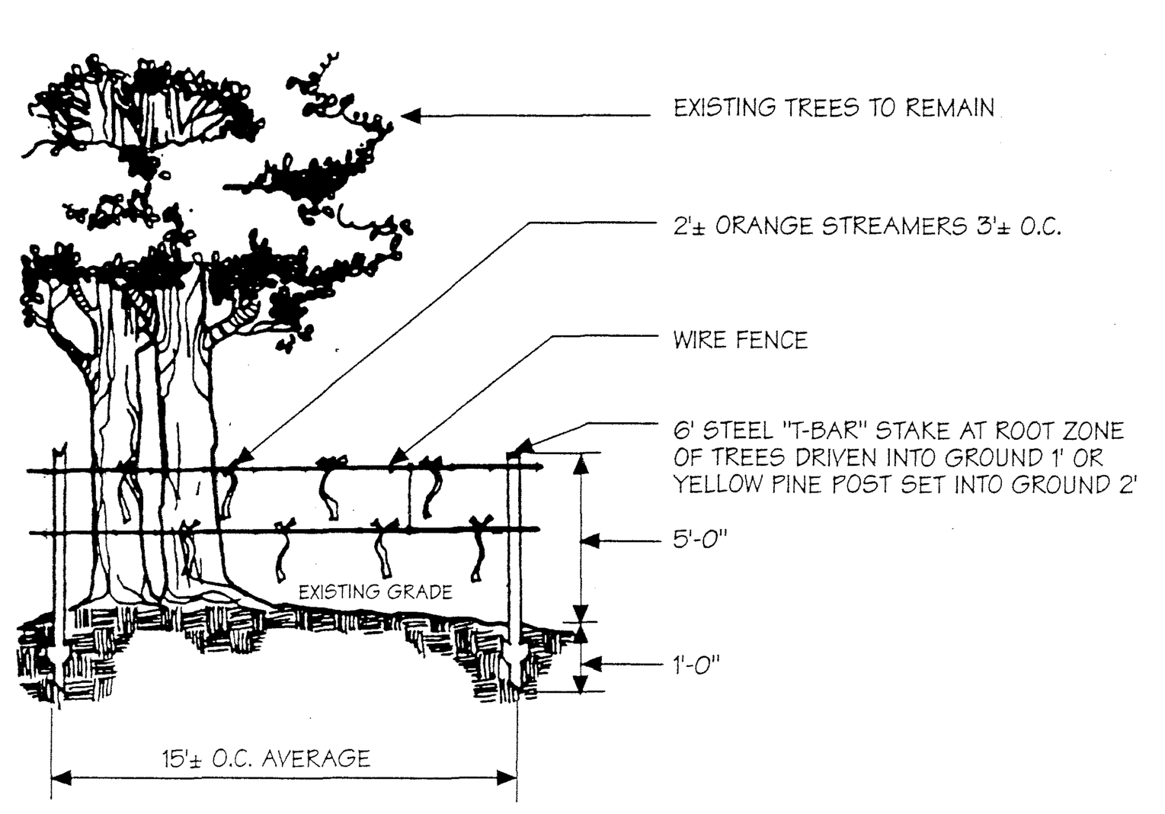
02 / C-502 **PAVEMENT - CONCRETE**
NOT TO SCALE

SECTION



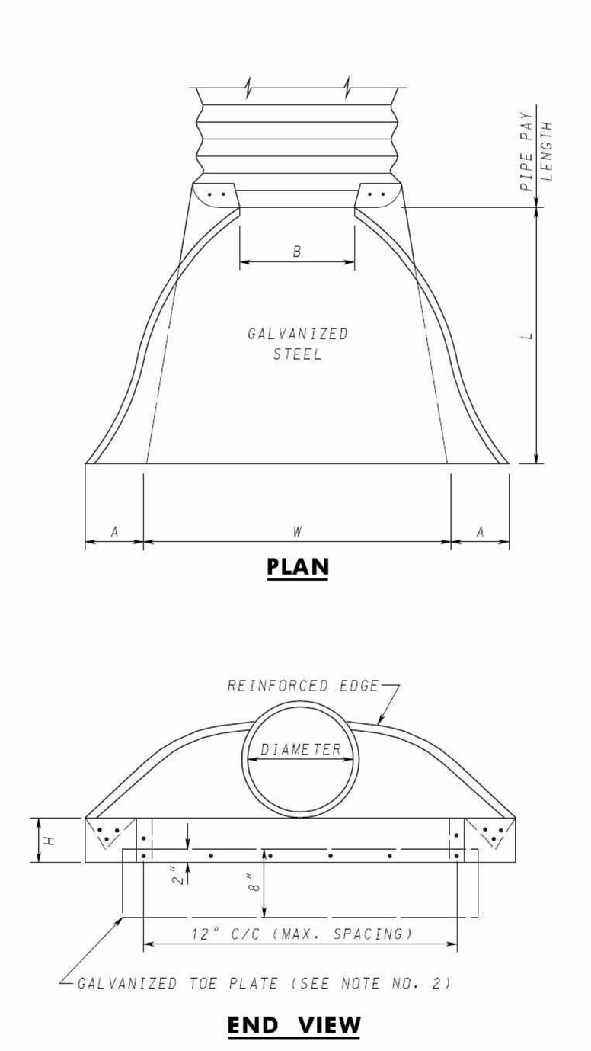
NOTES:
1. Class P-I Air Entrained Concrete
2. Sidewalk to have 3/8" contraction joints scored at 5'-0" intervals.
3. Construct 3/8" expansion joints spaced every 20' and between curb and sidewalk where adjacent.
4. Sidewalk to be brush finished.

03 / C-502 **SIDEWALK - CONCRETE**
NOT TO SCALE

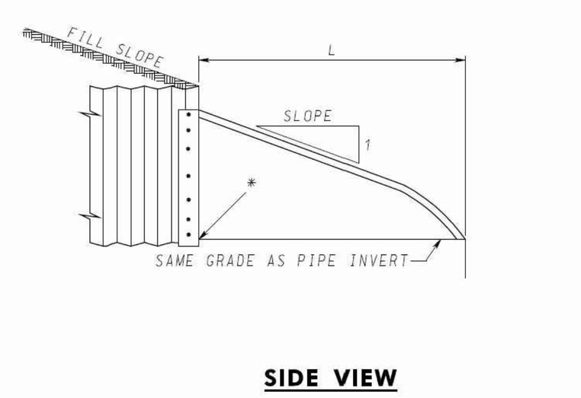


Notes:
1. Wire fence for forest protection device only.
2. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device.
4. Avoid root damage when placing anchor posts.
5. Wire should be securely attached to posts.
6. Device should be properly maintained throughout construction.
7. Protection signs are also required, see Figure C-4.
8. Locate fence outside the Critical Root Zone.

Wire Tree Protection Fence — Figure C-6



DIMENSIONS								
PIPE DIA.	GA.	A 1"±	B MAX.	H 1"±	L 1½"±	W 2"±	APPROX. SLOPE	UNIT
12"	16	6"	6"	6"	21"	24"	2½	1 PC.
15"	16	7"	8"	6"	26"	30"	2½	1 PC.
18"	16	8"	10"	6"	31"	36"	2½	1 PC.
21"	16	9"	12"	6"	36"	42"	2½	1 PC.
24"	16	10"	13"	6"	41"	48"	2½	1 PC.
30"	14	12"	16"	8"	51"	60"	2½	1 PC.
36"	14	14"	19"	9"	60"	72"	2½	2 PC.



* INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON THE CONSTRUCTION PLANS.

NOTES

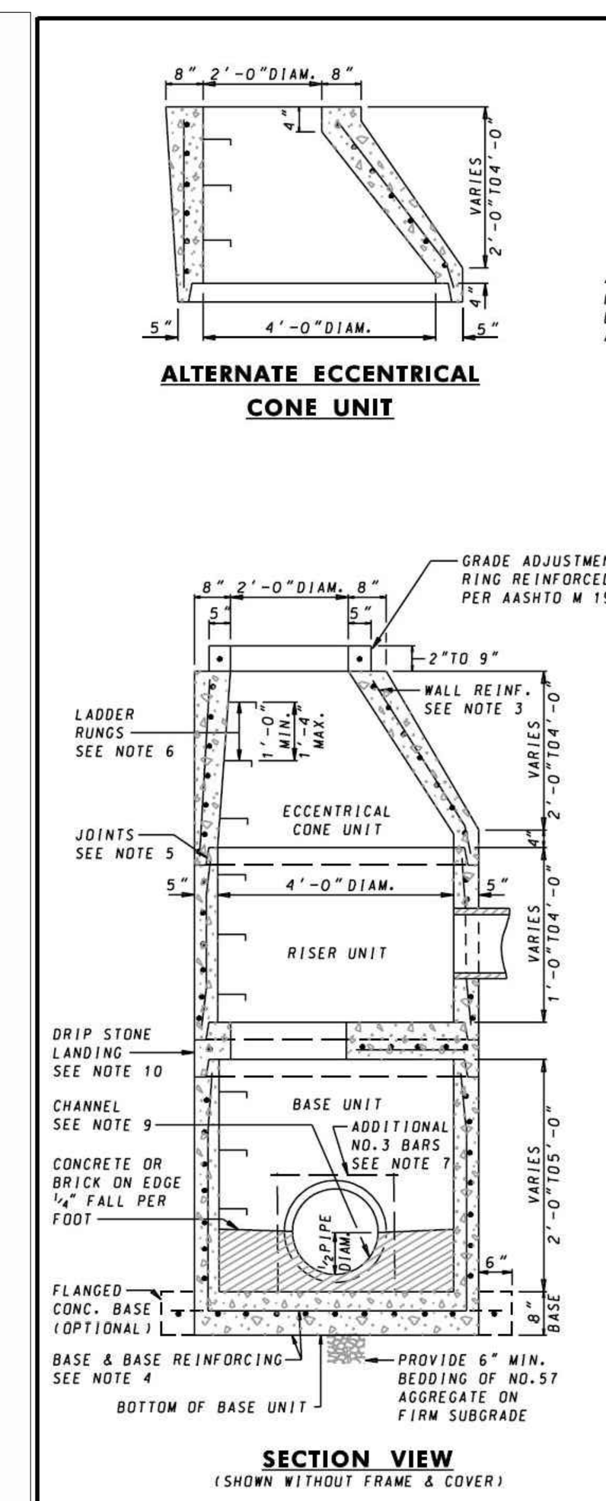
1. METAL END SECTIONS SHALL BE GAGE 16 FOR PIPES RANGING FROM 15" THRU 24", AND GAGE 14 FOR PIPES RANGING FROM 30" THRU 36" . MULTIPLE PANEL UNITS TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY ⅜" DIAMETER GALVANIZED RIVETS OR BOLTS.
2. TOE PLATES SHALL BE USED WHEN SPECIFIED ON THE PLANS. THICKNESS OF END PLATE TO BE SAME AS END SECTION. COST OF TOE PLATE TO BE INCIDENTAL TO THE BID PRICE PER EACH OF METAL END SECTION.

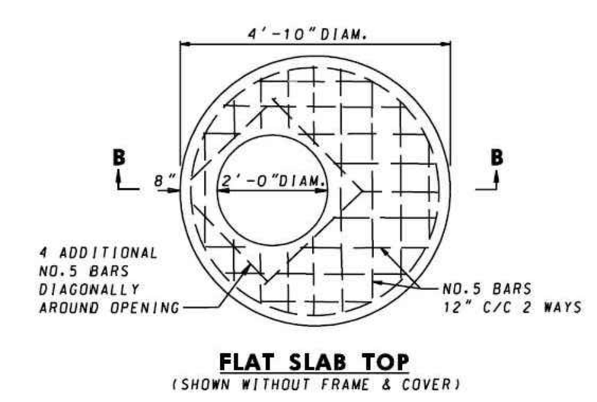
SPECIFICATION 303	CATEGORY CODE ITEMS	
APPROVED	Kirk G. McClelland — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL 8-28-86	APPROVAL 12-12-86	
REVISED 10-1-01	REVISED 7-27-09	
REVISED 7-1-09	REVISED	
REVISED	REVISED	

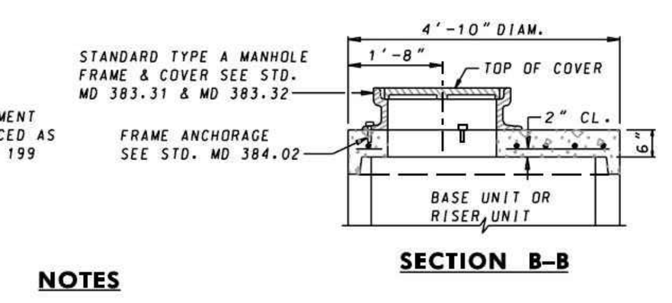
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD METAL END SECTION ROUND METAL PIPE

STANDARD NO. MD 370.01







NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS. RISER UNITS AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BASE OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 IN. 2 FT. FOR THE 48" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82. REINFORCEMENT BARS SHALL MEET ASTM A 615.GRADE 60.
4. BASE REINFORCEMENT SHAII BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.14 IN. 2 FT. THE BASE MAY BE CAST MONOLITHIC WITH THE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THIER DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING (WHERE APPLICABLE) MORTER. RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-4" MAXIMUM C/C. RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 383.92 LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISOR UNIT IS LESS THAN 6" ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STD. MD 384.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 9'-0" MEASURED FROM THE BOTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 9'-0". THE COST OF THE DRIP STONE LANDING. NO. 57 AGGREGATE GROUT. SEALANT. AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.

SPECIFICATION 305	CATEGORY CODE ITEMS	
APPROVED	Kirk G. McClelland — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL 2-22-91	APPROVAL 1-2-91	
REVISED 10-1-01	REVISED	
REVISED	REVISED	
REVISED	REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES

STANDARD NO. MD 384.01

REVISED PER ADDENDUM #3
REVISED PER AGENCY COMMENTS 09.22.2023

STATE OF MARYLAND — TREVOR M. FREDERICK — 49808 — PROFESSIONAL ENGINEER
10/12/2023

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08/24/2024.

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ADDITION & RENOVATIONS

CONSTRUCTION DETAILS & NOTES STORMWATER & SITE
C-502
10 OF 10 SHEETS
DATE : 07/21/23

SP-23-014

ELECTRICAL GENERAL NOTES

GENERAL
UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS IS NEW WORK TO BE PROVIDED UNDER THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE PROJECT DOCUMENT SET, INCLUDING ALL SPECIFICATIONS, CONTRACT DRAWINGS, ADDENDUMS, ETC. PRIOR TO THEIR BID, THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS. IF WORK ON OTHER TRADE DRAWINGS OR WITHIN OTHER DIVISION SPECIFICATIONS HAS EQUIPMENT, DEVICES, APPURTENANCES, ETC. INCLUDED WITHIN THEM REQUIRING ELECTRICAL EQUIPMENT OR POWER FEEDS IN ORDER TO PROVIDE A COMPLETE OPERATIONAL SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE WITHIN THEIR BID AND PAY FOR ALL ELECTRICAL WORK REQUIRED TO COMPLETE THOSE SYSTEMS. THE CONTRACTOR SHALL SUBMIT REQUESTS FOR INFORMATION DURING THE BIDDING PHASE FOR ALL DISCREPANCIES, CONFLICTS, CONSTRUCTABILITY ISSUES, AND CLARIFICATIONS NEEDED IN ORDER FOR THE CONTRACTOR TO PROVIDE COMPLETE OPERATIONAL SYSTEMS FOR THIS PROJECT.

COORDINATION
COORDINATE AND COOPERATE WITH ALL TRADES ON THE PROJECT.

RECORD DRAWINGS
SECURE AN EXTRA SET OF ELECTRICAL DRAWINGS TO BE KEPT ON SITE AND MARK, DAILY, THE DRAWINGS IN RED AS THE PROJECT PROGRESSES IN ORDER TO KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK SHOWN ON THE DRAWINGS AND THE WORK WHICH IS ACTUALLY INSTALLED. THESE MARKED DRAWINGS SHALL REFLECT ANY AND ALL CHANGES AND REVISIONS TO THE ORIGINAL DESIGN WHICH EXISTS IN THE COMPLETED WORK. DELIVER THE MARKED DRAWINGS TO THE OWNER AT PROJECT CLOSE OUT.

TESTS
TEST ALL WIRING FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR DEVICES. PERFORM INSULATION RESISTANCE TESTS ON ALL WIRING #8 OR LARGER TO ENSURE THAT ALL PORTIONS ARE FREE FROM SHORT-CIRCUITS AND GROUNDS. PROVIDE TYPEWRITTEN SIGNED REPORTS TO ENGINEER WITH RESULTS.

INSPECTIONS
ARRANGE ALL NECESSARY INSPECTIONS. DELIVER ALL REQUIRED INSPECTION CERTIFICATES TO THE OWNER.

GROUNDING
PROVIDE GROUNDING IN ACCORDANCE WITH THE NEC FOR THE ELECTRICAL SYSTEM INCLUDING EQUIPMENT FRAMES, CONDUITS, SWITCHES, CONTROLLERS, WIRE-WAYS, NEUTRAL CONDUCTORS, AND OTHER EQUIPMENT. PROVIDE A GROUNDING CONDUCTOR IN ALL POWER CIRCUITS.

LABELS
PROVIDE LABELS FOR ALL PANELBOARDS, CABINETS, SAFETY SWITCHES, MOTOR-DISCONNECT SWITCHES, AND MOTOR CONTROLLERS. LABELS SHALL BE MACHINE ENGRAVED, LAMINATED PLASTIC, PERMANENTLY ATTACHED WITH SELF-TAPPING SCREWS OR RIVETS. DO NOT USE SELF ADHESIVE LABELS. PROVIDE ADDITIONAL LABELS FOR CLARITY AT THE ENGINEER'S REQUEST.

J-BOX LABELING
LABEL ALL JUNCTION BOXES WITH PERMANENT MARKER IDENTIFYING CIRCUIT NUMBER AND PANELBOARD OF CIRCUITS WITHIN.

CONDUCTOR SIZE
USE #10 AWG CONDUCTORS (MINIMUM) FOR ALL 20 AMP, 120 VOLT CIRCUIT RUNS GREATER THAN 50' ONE WAY FROM PANELBOARD TO FIRST DEVICE/FIXTURE. USE #10 AWG CONDUCTORS (MINIMUM) FOR ALL 20 AMP, 277 VOLT CIRCUIT RUNS GREATER THAN 100' ONE WAY FROM PANELBOARD TO FIRST DEVICE/FIXTURE.

PANEL DIRECTORY
PROVIDE TYPEWRITTEN PANELBOARD DIRECTORY CARD IN EACH PANELBOARD INCLUDING EXISTING PANELBOARDS MODIFIED FOR THIS PROJECT WITH CIRCUIT LOAD INFORMATION AND ROOM NUMBER CLEARLY IDENTIFIED. USE ACTUAL ROOM NUMBERS IN THE BUILDING, NOT THE ROOM NUMBERS SHOWN ON THE CONTRACT DRAWINGS, AS THEY ARE OFTEN DIFFERENT.

CLEAN UP
ON PROJECT CLOSE-OUT, CLEAN ALL ELECTRICAL DEVICES, LIGHTING FIXTURES, LAMPS AND LENSES, AND REMOVE ALL PAINT SPATTERS FROM DEVICES, FIXTURES, AND PLATES. REPLACE ALL INOPERATIVE LAMPS.

OWNER FURNISHED EQUIPMENT
CONTRACTOR SHALL OBTAIN CUT SHEETS, INSTALLATION DATA, AND ROUGH-IN REQUIREMENTS FOR OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT AND COORDINATE ROUGH-IN AND POWER REQUIREMENTS WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY ASSOCIATED WORK.

CONDUIT ROUTING
ALL CONDUIT RUN OVERHEAD SHALL BE RUN AT THE BOTTOM OF THE FLOOR, ROOF STRUCTURE, OR LOWEST CHORD OF JOIST SPACE (AS APPLICABLE) ABOVE IN ORDER TO AVOID CONFLICTS WITH OTHER TRADES. ALL CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES AND USE RIGHT ANGLE OFFSETS TO CHANGE DIRECTION.

EQUIPMENT DEMONSTRATION
PROVIDE A DEMONSTRATION OF THE OPERATION OF ALL ELECTRICAL COMPONENTS UPON REQUEST OF THE OWNER. REFER TO SPECIFICATION SECTION 260501 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

TEMPORARY ELECTRICAL SERVICE
PROVIDE TEMPORARY ELECTRICAL SERVICE AS REQUIRED FOR CONSTRUCTION PROJECT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

UNDERGROUND WORK
THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA THREE WORKING DAYS PRIOR TO DIGGING. NOTIFY THE STATE AUTHORITY HAVING JURISDICTION AND AWAIT THE REQUIRED TIME BEFORE COMMENCING EXCAVATION.

CONFLICT NOTIFICATION
NOTIFY THE OWNER'S REPRESENTATIVE, ARCHITECT, AND ENGINEER PRIOR TO PROCEEDING WITH WORK IF A CONFLICT IS FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND/OR FIELD CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS AND CONSEQUENCES IF THE ABOVE LISTED PARTIES ARE NOT CONTACTED FOR A RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.

WIRE SIZE NOTE
ALL 15A AND 20A BRANCH AND LIGHTING CIRCUITS OVER 100 FEET IN LENGTH SHALL UTILIZE #10 AWG FOR HOT CONDUCTORS AND #12 FOR GROUND CONDUCTORS UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS.

GENERAL

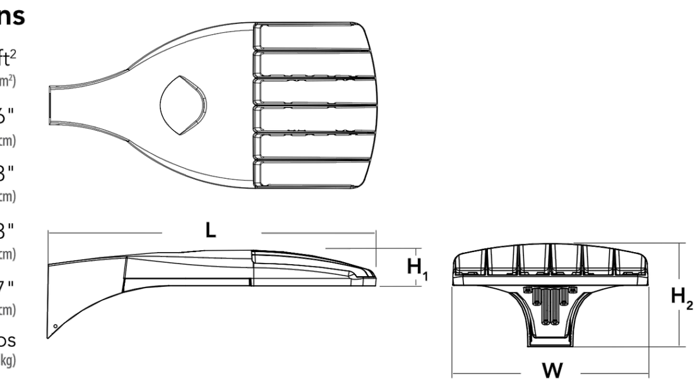
#	NUMBERED NOTE
DET # / SHEET	DETAIL OR SECTION NOTATION
	POLE MOUNTED SITE LIGHTING FIXTURE
	SQUARE WALL MOUNTED LIGHTING FIXTURE
XR	EXISTING TO REMAIN

D-Series Size 0
Legacy LED Area Luminaire

Catalog Number
Notes
Type
Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft^2 (.09 m^2)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
$Height_1$:	3" (7.62 cm)
$Height_2$:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD G1

DSX0 LED

Series	LEDs	Color temperature	Distribution		Voltage	Mounting
DSX0 LED	**Forward optics** P1, P5, P2, P6, P3, P7[1], P4[1] **Rotated optics** P10[2], P12[2], P11[2], P13[1,2]	30K 3000 K; 40K 4000 K; 50K 5000 K	T1S Type I short (Automotive); T2S Type II short; T2M Type II medium; T3S Type III short; T3M Type III medium; T4M Type IV medium; TFTM Forward throw medium; T5VS Type V very short[3]	T5S Type V short[3]; T5M Type V medium[3]; T5W Type V wide[3]; BLC Backlight control[4]; LCCO Left corner cutoff[4]; RCCO Right corner cutoff[4]	MVOLT (120V-277V)[5,6]; XVOLT (277V-480V)[7,8,9]; 120[6]; 208[6]; 240[6]; 277[6]; 347[6]; 480[6]	**Shipped included** SPA Square pole mounting; RPA Round pole mounting[10]; WBA Wall bracket[3]; SPUMBA Square pole universal mounting adaptor[11]; RPUMBA Round pole universal mounting adaptor[11] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[12]

Control options		Other options	Finish (required)	Generation (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled[13,14]; PIRHN Network, high/low motion/ambient sensor[15]; PER NEMA twist-lock receptacle only (control ordered separate)[16]; PER5 Five-pin receptacle only (control ordered separate)[16,17]; PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separate)[16,17]; DMG 0-10V dimming extend out back of housing for external control (control ordered separate)[18]	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[19,20]; PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[19,20]; PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[19,20]; PIRH1FC3V High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[19,20]; FAO Field adjustable output[19,21]	**Shipped installed** HS House-side shield[22]; SF Single fuse (120, 277, 347V)[6]; DF Double fuse (208, 240, 480V)[6]; L90 Left rotated optics[2]; R90 Right rotated optics[2]; DDL Diffused drop lens[22]; HA 50°C ambient operations[1]; BAA Buy America(n) Act Compliant **Shipped separately** BS Bird spikes[23]; EGS External glare shield	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white	G1 Generation 1

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com

DSX0 LED G1
Rev. 01/11/23
Page 1 of 8

NuGem

LED 3-Wattage Semi Cutoff Wall Pack

LUMINAIRE

The NuGem LED 3-Wattage Semi Cutoff Wall Pack, Select (3-Wattages), 135 lm/W, IP65 Wet Location Rated, Dimmable + Smart Ready

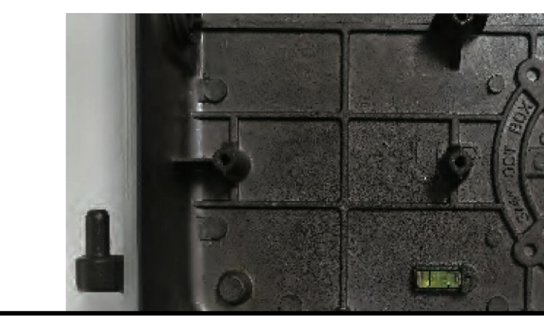
Project:	
Date:	
Catalog No:	
Prepared By:	

FEATURES

Lumen Output	5850 to 15600 lumens
Efficacy	135 lm/W
Input Voltage	120-277V
Dimmable	0-10V Continuous
CCT	4000K or 5000K
Rating	IP65 Wet Location
Warranty	5 Years

80W Max and 120W Max Tunable Models

Includes Mounting Level and Silicone Water Repellent Ring



APPLICATIONS
Premium outdoor luminaire suitable for wall mounting on building exteriors for entrances, courtyards, alleys, and pedestrian walkways.

CONSTRUCTION
Manufactured for weather-proof durability using solid heavy duty die cast aluminum housing with anti-UV polyester coating to resist water, salt, corrosion, discoloration, and scratching. IP65 Wet Location rated for dust-tight, water jets: IEC 60529.

ELECTRICAL
Input voltages 120-277V models with 0-10V Continuous Dimming. Includes 3X-Wattage Tuning Switches inside housing. Operating temperatures -4°F to 113°F (-20°C to 45°C).

LUMINAIRE

SPECIFICATIONS

ENERGY DATA
Input Voltage: 120-277V
Input Frequency: 50/60 Hz
Wattage: Select (45W, 60W, 80W), (90W, 100W, 120W)
Power Factor: >0.9
Total Harmonic Distortion (THD): <20%
Operating Temperature: -4°F to 113°F (-20°C to 45°C)

LIGHTING DATA
Lumens: Select (6075, 8100, 10800), (12150, 13500, 16200)
Lumens Per Watt: 135 lm/W
Color Correlated Temperature (CCT): 4000K, 5000K
Dimmable: 0-10V
Color Rendering Index (CRI): >80
L70: 75000 hours

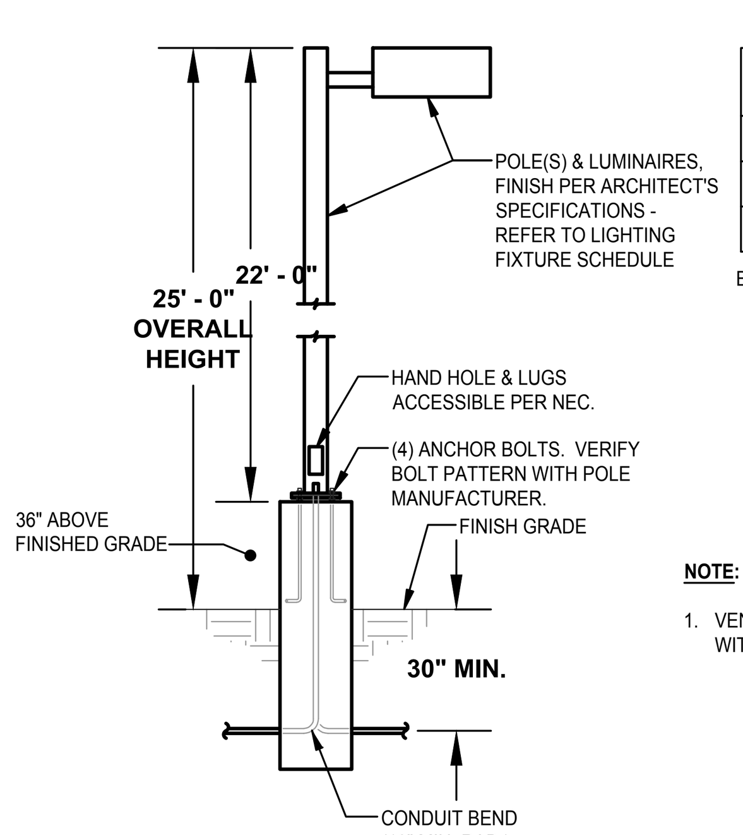
ORDERING INFORMATION

Model	Wattage	Voltage	Current	Lumens	Efficacy	CCT	Dimming	Color	Dimensions	Weight
ETH-TWP-80W-G3-4000K	(45W, 60W, 80W)	120-277V	0.38A@120V, 0.16A@277V 0.50A@120V, 0.22A@277V 0.67A@120V, 0.29A@277V	6075 8100 10800	135 lm/W	4000K	0-10V	Dark Bronze	14.21"L x 9.27"W x 7.31"D	9.04 lbs
ETH-TWP-80W-G3-5000K	(45W, 60W, 80W)	120-277V	0.38A@120V, 0.16A@277V 0.50A@120V, 0.22A@277V 0.67A@120V, 0.29A@277V	6075 8100 10800	135 lm/W	5000K	0-10V	Dark Bronze	14.21"L x 9.27"W x 7.31"D	9.04 lbs
ETH-TWP-120W-G3-4000K	(90W, 100W, 120W)	120-277V	0.75A@120V, 0.32A@277V 0.83A@120V, 0.36A@277V 1.00A@120V, 0.43A@277V	12150 13500 16200	135 lm/W	4000K	0-10V	Dark Bronze	14.21"L x 9.27"W x 7.31"D	9.96 lbs
ETH-TWP-120W-G3-5000K	(90W, 100W, 120W)	120-277V	0.75A@120V, 0.32A@277V 0.83A@120V, 0.36A@277V 1.00A@120V, 0.43A@277V	12150 13500 16200	135 lm/W	5000K	0-10V	Dark Bronze	14.21"L x 9.27"W x 7.31"D	9.96 lbs

Sensor	
PC	INSTALLED - Button Photocell Sensor
(Blank)	None

ORDERING GUIDE

ETH	TWP	80W	G3	5000K	PC
ETH	Group	Max Wattage	Form Factor	CCT	Sensor

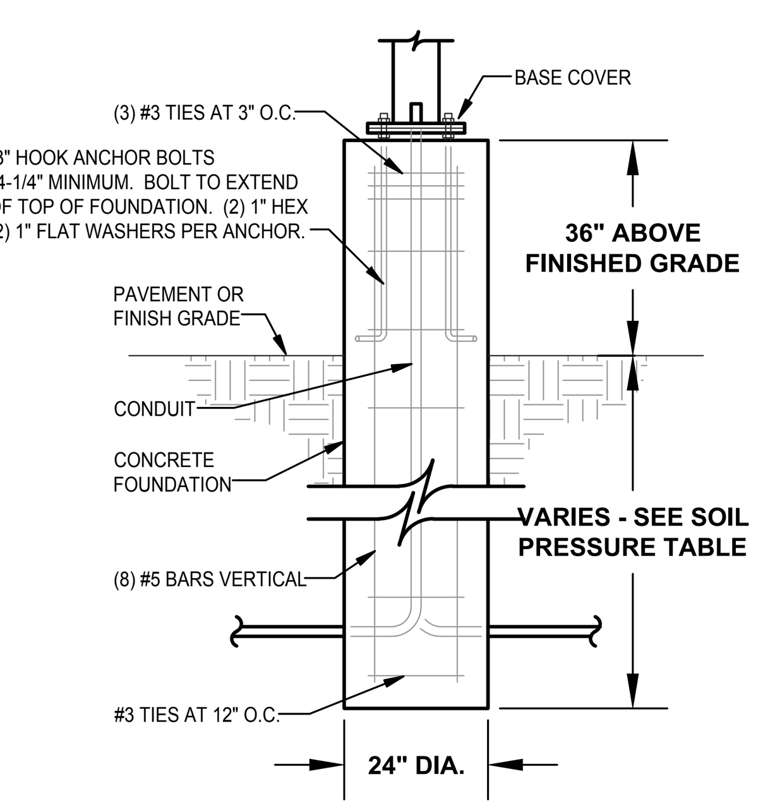


ALLOWABLE SOIL PRESSURE (PSF)	DEPTH
8,000 OR GREATER	3' - 6"
2,500 TO 8,000	6' - 0"
1,500 TO 2,500	7' - 6"

BASED UPON 90 MPH WIND LOAD

NOTE:

1. VENDOR TO SUPPLY CONTRACTOR WITH ANCHOR BOLT TEMPLATE.



1 / SE-001 **LIGHT POLE BASE DETAIL**
NO SCALE

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	CATALOG / MODEL NUMBER	BEAM DIST	LUMENS	COLOR TEMP	CRI	WATTS	VOLTS	CONTROL	MOUNTING	ACCESSORIES
P1	LED POLE LIGHT	LITHONIA LIGHTING	DSX0 LED P7 40K 80CRI TFTM HS	NA	17,000	4000K	70	166W	120/277	PHOTOCELL	POLE	DLL127F1.5JU
W1	LED WALL LIGHT	ETHERIUM	ETH-TWP-100W-4000K	NA	13,500	4000K	70	100W	120/277	0-10	WALL	

LIGHTING FIXTURE SCHEDULE NOTES:
1. ALL LEDS SHALL HAVE A CRI MINMUM OF 80 AND A COLOR TEMPERATURE OF 3500K UNLESS OTHERWISE NOTED.
2. SUBSTITUTIONS MUST BE SUBMITTED FOR APPROVAL.
3. VERIFY FIXTURE FINISHES AND COLOR WITH ARCHITECT.

CJL ENGINEERING
5285 Westview Drive
Suite 203
Frederick, MD 21703
P 301.695.9424
CJL Project # 22-0851

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
fsa-inc.com
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301.791.3650
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717.597.1007
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717.701.8111
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7531

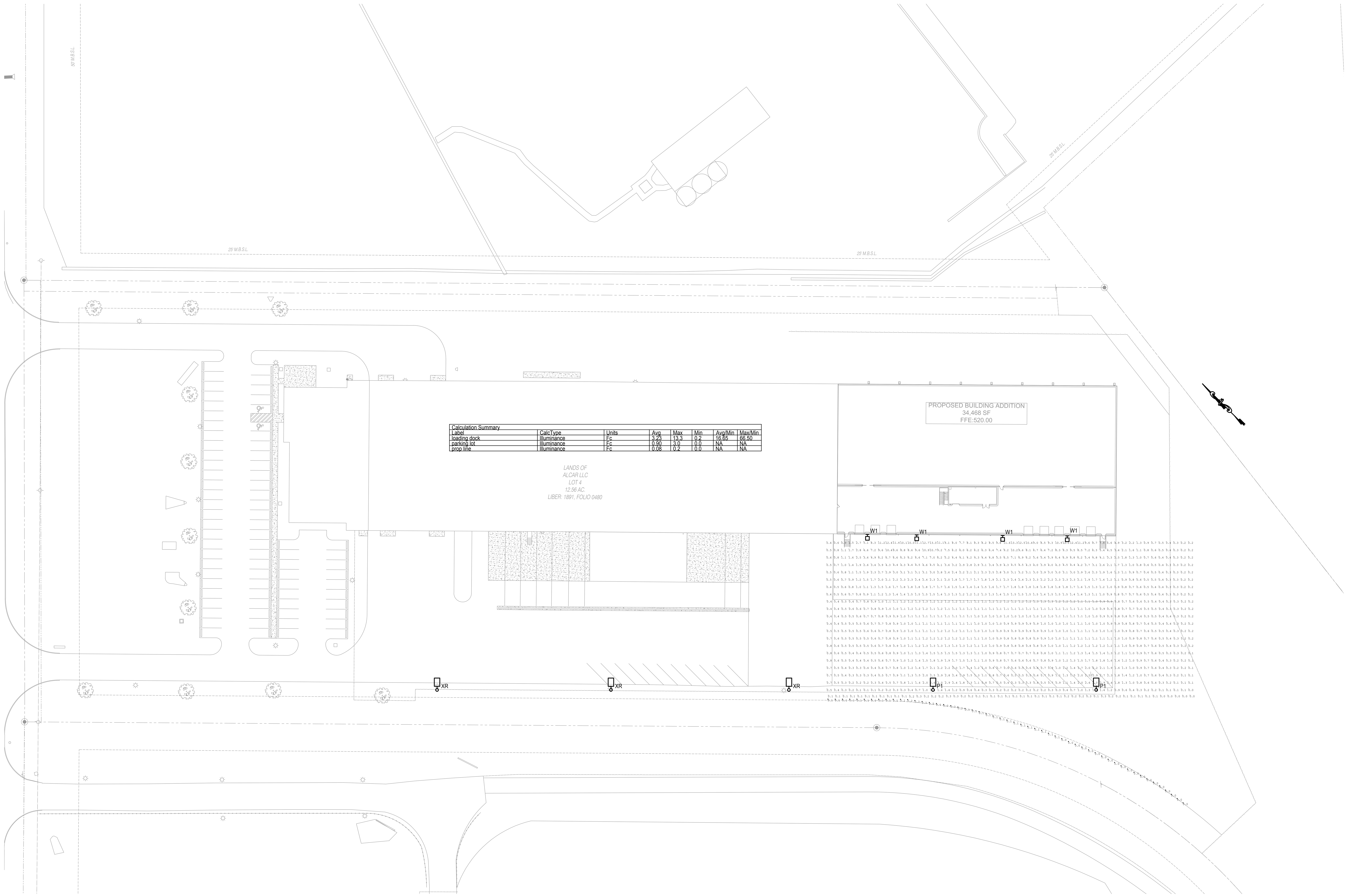
DATE:	MARK	DESCRIPTION

WANTZ DISTRIBUTORS
SITUATE AT 11743 HOPEWELL RD, HAGERSTOWN 21740-0000
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

WANTZ DISTRIBUTORS
11743 HOPEWELL ROAD, HAGERSTOWN, MD 21740
301-733-3131

PROJECT NO.	4286.1
DWN BY	ABRAM MYERS
DATE	01.11.2023
PROJECT MANAGER:	T. FREDERICK
EMAIL:	TFREDERICK@FSA-INC.COM
TX MAP - GRID - PARCEL:	0048 - 0006 - 0907
SCALE	AS SHOWN
SHEET TITLE	ELECTRICAL SCHEDULES AND DETAILS

SE-001
SHEET 1 OF 2



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
loading dock	Illuminance	Fc	3.23	13.3	0.2	16.65	66.50
parking lot	Illuminance	Fc	0.90	3.0	0.0	NA	NA
prop line	Illuminance	Fc	0.08	0.2	0.0	NA	NA

1 SE-002 PHOTOMETRIC SITE PLAN

1" = 40'-0"

CJL ENGINEERING
5285 Westview Drive
Suite 203
Frederick, MD 21703
P 301.695.9424
CJL Project # 22-0851

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49808, Expiration Date 08-24-2024.

FSA
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fsa-inc.com
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CARLISLE, PA 17013
717.701.8111
15 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717.275.7531

MARK	DESCRIPTION	DATE

WANTZ DISTRIBUTORS

SITUATE AT 11743 HOPEWELL RD, HAGERSTOWN 21740-0000

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY

WANTZ DISTRIBUTORS
11743 HOPEWELL ROAD, HAGERSTOWN, MD 21740
301-733-3131

PROJECT NO. 4286.1

DWN BY: ABRAM MYERS
DATE: 01.11.2023

PROJECT MANAGER: T. FREDERICK
EMAIL: TFREDERICK@FSA-INC.COM

TX MAP - GRID - PARCEL: 0048 - 0006 - 0907

SCALE: AS SHOWN

SHEET TITLE: SITE PLAN - PHOTOMETRICS

SE-002

SHEET 2 OF 2

Washington County
MARYLAND
DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Senior Planner

DATE: December 4, 2023

RE: Forest Conservation Plan Approval for Wantz Distributors (SP-23-014)

Attached you will find supporting documentation for a request to meet forest conservation requirements for this project. The applicant is requesting is to remove 3 specimen trees from the site as a part of its development.

Enclosed for your review are two documents in support of the applicant's request. These include the forest conservation plan; which shows the specimen trees to be removed as part of development expansion; and the justification letter from Qualified Professional Shannon Stotler that make their case for this request.

The removal of specimen trees requires that approval of a variance under Article 15 of the FCO. The applicant must demonstrate the conditions of hardship that exist to warrant the removal of the specimen trees and show that their removal would not adversely affect water quality.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Senior Planner
(240) 313-2432
tallen@washco-md.net

FREDERICK, SEIBERT & ASSOCIATES, INC.

128 South Potomac Street, Hagerstown, MD 21740
301-791-3650 fsa-md.com

CIVIL ENGINEERING | SURVEYING | LANDSCAPE ARCHITECTURE

MEMO — Specimen Tree Removal Variance **SUBJECT —** FCP for Wantz Distributors SP-23-014

TO — Washington County Planning Commission

CC — Travis Allen

FROM — Shannon Stotler

REMARKS:

The proposed development area for the site plan of Wantz Distributors consist of approximately 12.56 acres. Within the site, the proposed clearing of forest for the development is 4.32 acres. Out of the total clearing of forest, 3 specimen trees are proposed for removal.

This tract area is zoned IG – Industrial General. A total of six (6) specimen trees exist on site. Three (3) specimen trees shall remain as they will be locked up within a retention easement. The three (3) specimen trees proposed for clearing fall within areas of proposed development. If the specimen trees remained in-place, the additional development of this site could not occur as is. This site is unique with the forest and specimen trees all within the middle of site and on the highland where the most desired developable land exists. Water Quality will not be affected due to that more surface area is treated with a grass root verses a tree root. On behalf of the property owner, I request a variance for the removal of three (3) specimen trees due to the hardship as stated above.

Sincerely,

Shannon Stotler

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
FC1	7829.44'	70.82'	70.82'	S 34°11'32" W	0°31'06"
FC2	448.34'	253.60'	250.23'	N 11°02'10" E	32°24'33"
FC3	7829.44'	311.27'	311.25'	S 32°01'35" W	2°16'40"

LINE	BEARING	DISTANCE
FL1	N 39°03'57" W	50.72'
FL2	N 46°42'30" W	85.37'
FL3	N 67°00'43" W	58.40'
FL4	N 46°17'07" W	29.81'
FL5	N 25°32'13" W	25.88'
FL6	N 44°01'03" W	54.85'
FL7	N 09°03'18" W	54.90'
FL8	N 45°35'17" W	351.23'
FL9	N 11°12'28" W	44.44'
FL10	S 45°36'26" E	704.11'
FL11	S 05°56'31" W	431.37'
FL12	S 43°31'58" W	99.65'
FL13	S 43°33'56" W	51.57'
FL14	S 42°26'08" W	154.83'
FL15	N 50°28'51" W	64.97'
FL16	N 86°28'21" E	49.04'
FL17	N 25°50'49" E	44.40'
FL18	N 30°08'01" E	80.98'
FL19	N 19°24'14" E	65.06'
FL20	N 43°48'01" E	116.73'
FL21	N 30°27'16" E	27.05'
FL22	N 43°26'28" E	70.61'
FL23	N 08°32'04" E	36.60'
FL24	S 85°03'56" W	71.34'
FL25	N 49°50'35" W	31.35'
FL26	N 46°36'33" E	101.63'
FL27	N 32°26'47" E	251.80'
FL28	S 57°33'13" E	60.61'

WATER METER EASEMENT PER PLAT FOLIO 7397

MD STATE PLANE NAD 83 NAVD 88

HOPEWELL ROAD

15' S/S EASEMENT

381.90' N 43°53'27" E

50' M.B.S.L.

SANDFILTER

SEDIMENT FOREBAY

SWM BASIN

10' ACCESS EASEMENT TO FOREST AREA PER PLAT FOLIO 7397–7398

S 45°36'26" E

START/END TREE PROTECTION FENCING

25' M.B.S.L.

FL9

C-4

LANDS OF ALCAR LLC
LIBER 1891 FOLIO 0480
12.56 AC.

FL8

N/F
PAVESTONE LLC
C/O QUIKRETE COMPANIES INC
LIBER 4214 FOLIO 0388

C-6

FL10

FL7

FL6

FL5

FL4

FL3

FL2

FL1

FL23

FL22

FL21

C-4

FL20

C-6

FL11

AMENDED FOREST RETENTION EASEMENT #1
2.47 AC.±

START/END TREE PROTECTION FENCING

PROPOSED TREELINE

1

C-6

EX. FOREST RETENTION EASEMENT TO BE REMOVED

8' DRAINAGE EASEMENT PLAT 5098–5099

20' DRAINAGE EASEMENT PLAT 5098–5099

25' M.B.S.L.

N/F
CHEVRON PHILLIPS CHEMICAL CO LP
LIBER 1624 FOLIO 0021

MATCHLINE

2

EX. FOREST RETENTION EASEMENT TO BE REMOVED

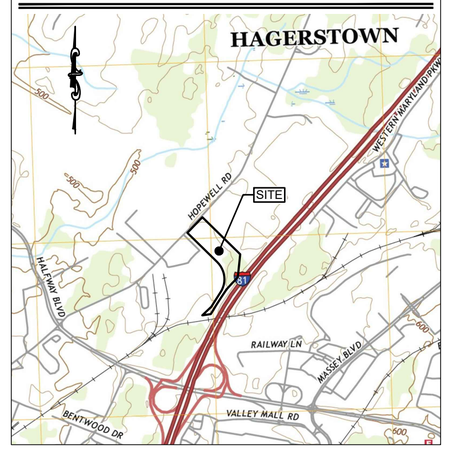
FL19

N/F
MD ROADS COMMISSION
LIBER 0450 FOLIO 0265

VICINITY MAP

SCALE: 1" = 2,000'

ADC MAP 20, D8
USGS MAPS (HAGERSTOWN, MARYLAND)



CERTIFICATE OF APPROVAL

FINAL APPROVAL GRANTED

DATE:_____

BY:_____

WASHINGTON COUNTY PLANNING COMMISSION
FINAL APPROVAL GOOD FOR ONE HUNDRED EIGHTY (180) DAYS FROM ABOVE DATE

MISC PLAT NO_____
DATE
WASHINGTON COUNTY

SPECIMEN TREES

1. TO BE REMOVED
2. TO BE REMOVED
3. TO BE REMOVED
4. TO REMAIN
5. TO REMAIN
6. TO REMAIN

QUALIFIED PROFESSIONAL

I certify that I am a qualified professional per requirements of COMAR 08.19.06.01 for qualified professional status and, therefore, am qualified to prepare the attached Forest Conservation Plan. I further certify that this plan was prepared by me or under my supervision using the methods provided by the Washington County Forest Conservation Ordinance and Forest Conservation Manual. I certify that this Forest Retention Easement Plat is accurate and complete.

Shannon Stotler — Date 4-24-23

FORESTATION NOTES

1. Forest areas shown hereon ▭ have be reviewed and approved by the Washington County Planning Commission and are in compliance with the requirements of the Washington County Forest Conservation Ordinance. Clearing of forested areas have not been approved. Those areas noted as "Forest Retention Areas" are not to be disturbed by a regulated activity as defined in the Forest Conservation Ordinance until that regulated activity and its associated forest disturbance is reviewed and approved by the Washington County Planning Commission according to the requirements and standards of the Forest Conservation Ordinance in effect at the time.
2. Property owners are advised that there are penalties and fines associated with violation of these restrictions. Activities of a recreational or passive mature, as long as there is no forest disturbance, removal of the existing forest, or inhibition of its natural growth processes are permitted in these forest areas.
3. This note or reference to its existence on this plat shall be included in each and every deed of conveyance for any lot shown on this plat.
4. The Retention Area shown ▨ on this plat is to be retained by the respective property owners in a natural forested condition, pursuant to the Washington County Forest Conservation Ordinance of 1993. Furthermore, the use of the Retention and Planting Area shall be limited to forest conservation practices activities which are consistent with the preservation of the Retention Area as natural forest land, as stipulated by the same Ordinance.

FORESTATION TABLE

FOREST REQUIRED	**2.97 AC.±**
FOREST PROVIDED	
EASEMENT #1	**2.47 AC.±**
EASEMENT #2	**0.50 AC.±**
TOTAL FOREST PROVIDED	**2.97 AC.±**

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

P:\SHARED FOLDERS\PROJECTS\4286\4286 LDW\4286-1 AMENDED FCP.DWG 2023-11-07

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20 WEST BALTIMORE STREET
GREENCASTLE, PA. 17225
717.597.1007
128 SOUTH POTOMAC STREET
HAGERSTOWN, MD. 21740
301.791.3650

ALCAR, LLC

SITUATE AT 11743 HOPEWELL ROAD, NORTH OF HALFWAY BOULEVARD
WEST OF INTERSTATE 81 AND SOUTH OF WEST WASHINGTON STREET

WASHINGTON COUNTY, MARYLAND

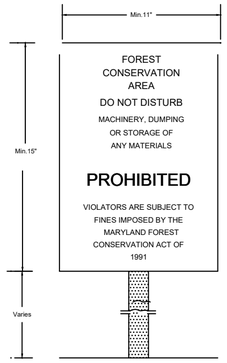
ALCAR, LLC
13205 WOODBINE LN.
HAGERSTOWN, MD 21742

PROJECT NO. 4286.1
DWN BY DWH | DATE 03-22-2023
PROJECT MANAGER: Trevor Frederick
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP-GRID-PARCEL 0048-0006-0907
SCALE 1" = 60'

SHEET TITLE

AMENDED FOREST CONSERVATION EASEMENT PLAN

C-101
SHEET 01 OF 02



Notes:
1. Bottom of signs to be higher than top of tree protection fence.
2. Signs to be placed approximately 50 feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
2. Attachment of signs to trees is prohibited.

- RETENTION AREA PROTECTIVE MEASURES SHALL BE INSTALLED WITHIN 30 DAYS OF SUBDIVISION PLAT APPROVAL.
- AFTER INSTALLED NOTIFY PLANNING DEPARTMENT (240-313-2430) FOR AN INSPECTION

Source: Adapted from Forest Conservation Manual, 1991

Construction Signs and Permanent Signs | Figure C-4

Notes:
1. Wire fence for forest protection device only.
2. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device.
4. Avoid root damage when placing anchor posts.
5. Wire should be securely attached to posts.
6. Device should be properly maintained throughout construction.
7. Protection signs are also required, see Figure C-4.
8. Locate fence outside the Critical Root Zone.

Wire Tree Protection Fence | Figure C-6

FOREST CONSERVATION SEQUENCE OF CONSTRUCTION

1. All temporary protection devices and/or permanent devices shall be put into place.
   - Permanent signage will be place as shown on the plan around the perimeter of the entire Forest Area within 30 days of subdivision plat approval and/or completion of construction.
   - During any building or site construction, the forest retention area(s) shall be protected by highly visible, well anchored temporary fencing.
   - All temporary fencing shall be in place prior to any grading or land clearing.
   - All temporary fencing shall be maintained throughout construction and until all graded areas have been stabilized.
   - Attachment of signs or any other objects to trees is prohibited.
   - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.

2. A pre-construction meeting will be required after the boundaries of the limits of disturbance have been staked and flagged, the forest protection devices have been installed, and before any disturbance has taken place on the site. It is the owner and/or developer's responsibility to arrange for the pre-construction meeting. The owner and/or developer shall contact the Washington County Planning and Zoning Department (240-313-2430) for inspection of the installed devices prior to the start of construction with at least five (5) days notice. If the inspection reveals improperly installed protection devices, corrections will have to be made and re-inspected prior to the start of construction.

3. Once approval has been granted by the Washington County Plan Review & Permitting Department, clearing and/or grading of the site for construction of street, utility, and building areas may commence.

4. A post-construction meeting will be required after all construction has ceased and graded areas have been stabilized, all temporary protective devices shall be removed and replaced with the appropriate permanent signage. It is the owner and/or developer's responsibility to arrange for the post-construction meeting. The owner and/or developer shall contact the Washington County Department of Plan Review and Permitting (240-313-2430) for inspection of the final installed devices with at least five (5) days notice. If the inspection reveals improperly installed permanent protection devices, corrections will have to be made and re-inspected prior to the completion of site stabilization.

FOREST CONSERVATION WORKSHEET 2.2

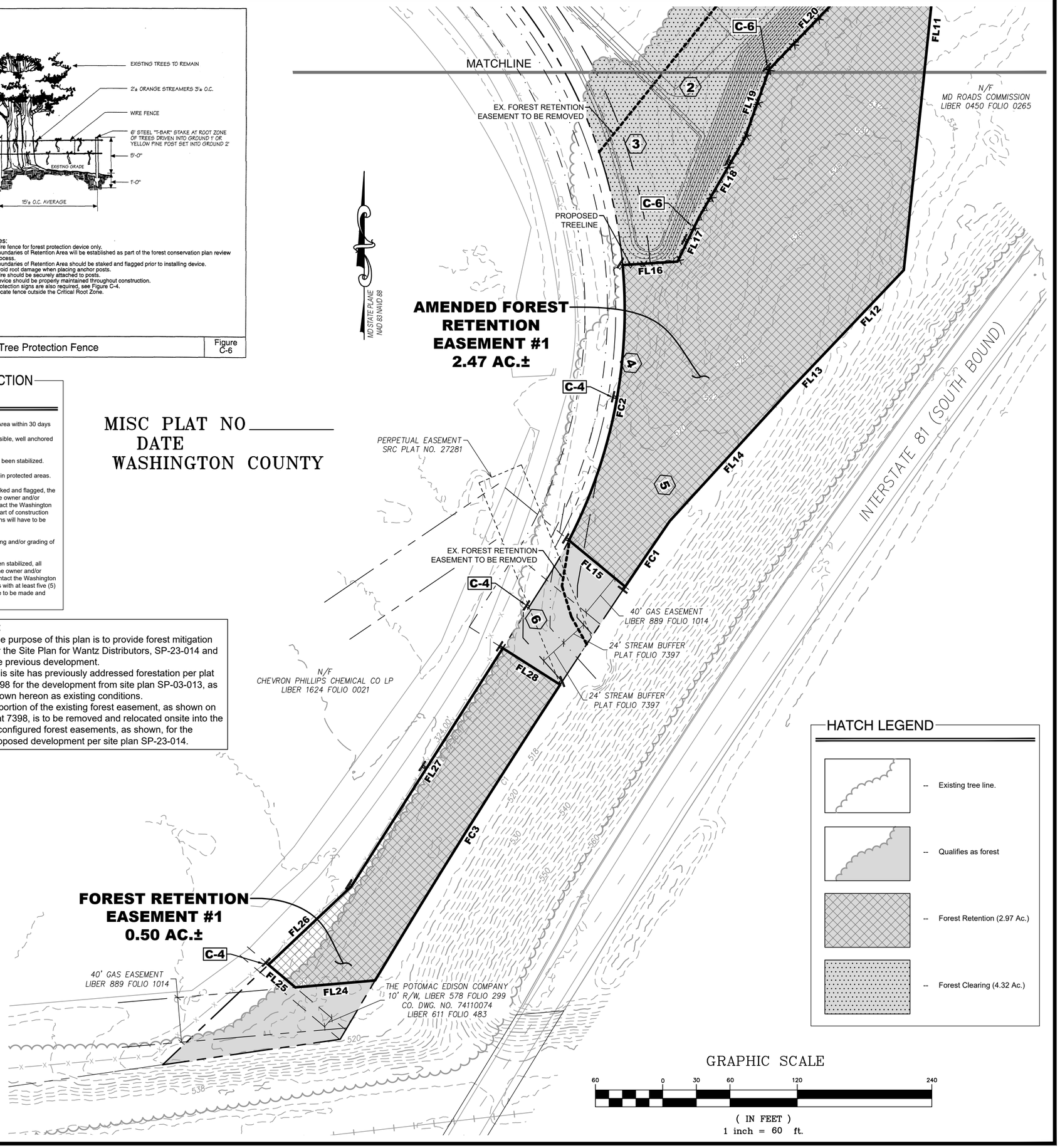
NET TRACT AREA	
A. Total Tract Area	=12.56 Ac.
B. Deductions	= 0.00 Ac.
C. Net Tract Area	=12.56 Ac.
LAND USE CATEGORY CIA	
D. Afforestation Threshold (Net Tract Area x 15%)	= 1.88 Ac.
E. Conservation Threshold (Net Tract Area x 15%)	= 1.88 Ac.
EXISTING FOREST COVER	
F. Existing Forest Cover within the Net Tract Area	= 7.29 Ac.
G. Area of Forest Above Conservation Threshold	= 5.41 Ac.
BREAK EVEN POINT	
H. Break Even Point	= 2.97 Ac.
I. Forest Clearing Permitted Without Mitigation	= 4.32 Ac.
PROPOSED FOREST CLEARING	
J. Total Area of Forest to be Cleared	= 4.32 Ac.
K. Total Area of Forest to be Retained	= 2.97 Ac.
PLANTING REQUIREMENTS	
L. Reforestation for Clearing Above the Conservation Threshold	= 0.00 Ac.
M. Reforestation for Clearing Below the Conservation Threshold	= 0.00 Ac.
N. Credit for Retention above the Conservation Threshold	= 0.00 Ac.
P. Total Reforestation Required	= 0.00 Ac.
Q. Total Afforestation Required	= 0.00 Ac.
R. Total Planting Requirement	= 0.00 Ac.
or	0 S.F.

FORESTATION TABLE

FOREST REQUIRED	**2.97 AC.±**
FOREST PROVIDED	
EASEMENT #1	**2.47 AC.±**
EASEMENT #2	**0.50 AC.±**
TOTAL FOREST PROVIDED	**2.97 AC.±**

MISC PLAT NO _____
DATE
WASHINGTON COUNTY

Notes:
1. The purpose of this plan is to provide forest mitigation for the Site Plan for Wantz Distributors, SP-23-014 and the previous development.
2. This site has previously addressed forestation per plat 7398 for the development from site plan SP-03-013, as shown hereon as existing conditions.
3. A portion of the existing forest easement, as shown on plat 7398, is to be removed and relocated onsite into the reconfigured forest easements, as shown, for the proposed development per site plan SP-23-014.



HATCH LEGEND

- -- Existing tree line.
- -- Qualifies as forest
- -- Forest Retention (2.97 Ac.)
- -- Forest Clearing (4.32 Ac.)

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740, 301 791 3650
20 WEST BALTIMORE STREET, GREENCASTLE, PA 17225, 717 597 1007
606 SOUTH HANOVER STREET, CARLISLE, PA 17013, 717 701 8111
15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717 275 7531

ALCAR, LLC

SITUATE AT 11743 HOPEWELL ROAD, NORTH OF HALFWAY BOULEVARD
WEST OF INTERSTATE 81 AND SOUTH OF WEST WASHINGTON STREET

WASHINGTON COUNTY, MARYLAND

ALCAR, LLC
13205 WOODBINE LN.
HAGERSTOWN, MD 21742

PROJECT NO. 4286.1
DWN BY DWH | DATE 03-22-2023
PROJECT MANAGER: Trevor Frederick
EMAIL: TFREDERICK@FSA-INC.COM
TAX MAP-GRID-PARCEL 0048-0006-0907
SCALE 1" = 60'
SHEET TITLE

AMENDED FOREST CONSERVATION EASEMENT PLAN

C-102
SHEET 02 OF 02

P:\SHARED FOLDERS\PROJECTS\4286\4286.1\DWG\4286.1 AMENDED FCP.DWG 2023-11-07

Washington County
MARYLAND
DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Comprehensive Planner

DATE: December 4, 2023

RE: Forest Conservation Mitigation Approval for Bowman 2000, LLC Lots 4-9 (S-23-052)

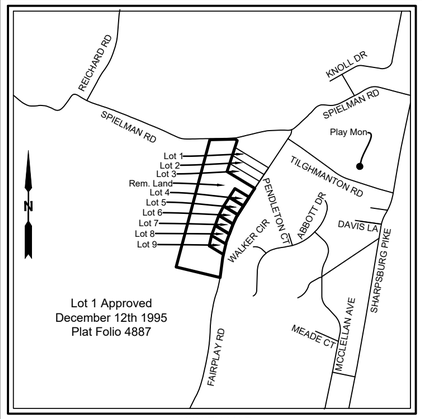
Attached you will find supporting documentation for a request to meet forest conservation requirements for this project. The applicant is requesting is to establish an offsite easement to satisfy the majority of the forest mitigation requirement for a six-lot subdivision located at 7816-7880 Fairplay Road.

Enclosed for your review are two documents in support of the applicant's request. These include the subdivision plat; which shows the intended onsite and offsite easement locations; and the justification letter from Qualified Professional Shannon Stotler that make their case for this request.

Article 10.1 of the Washington County Forest Conservation Ordinance (FCO) describes the Preferred Sequence of Techniques for Mitigation for forest conservation plans. This list describes a hierarchy of mitigation techniques ranging from those most preferred (onsite retention or planting) to those least preferred (the payment of fee in lieu). The overall intent of the FCO is to preserve or create as much forest onsite as is feasible within the constraints of each development project before meeting mitigation obligations offsite.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Senior Planner
(240) 313-2432
tallen@washco-md.net



VICINITY MAP
SCALE 1"=2000'

LEGEND

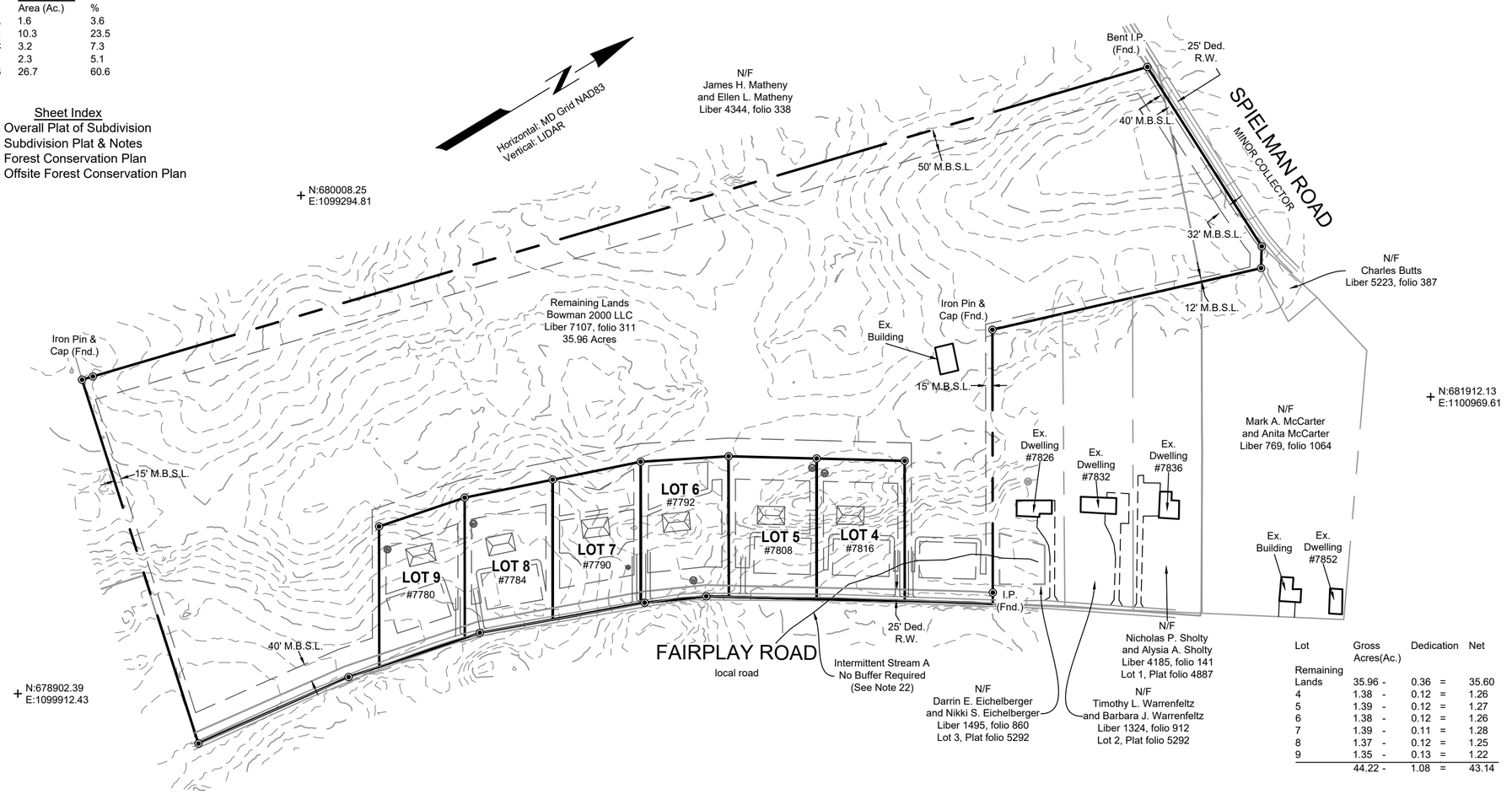
- = PROPERTY LINE
- = PROPOSED PROPERTY LINE
- = PROPERTY LINE TO BE VACATED
- = RIGHT OF WAY
- = PROPERTY CORNER
- H O = TEST PIT; PERC

Soil Table

Soil	Area (Ac.)	%
DsA	1.6	3.6
DsB	10.3	23.5
DsC	3.2	7.3
Hab	2.3	5.1
HbB	26.7	60.6

Sheet Index

Sheet 1 - Overall Plat of Subdivision
Sheet 2 - Subdivision Plat & Notes
Sheet 3 - Forest Conservation Plan
Sheet 4 - Offsite Forest Conservation Plan



Lot	Gross Acres(Ac.)		Dedication		Net
Remaining Lands	35.96	-	0.36	=	35.60
4	1.38	-	0.12	=	1.26
5	1.39	-	0.12	=	1.27
6	1.38	-	0.12	=	1.26
7	1.39	-	0.11	=	1.28
8	1.37	-	0.12	=	1.25
9	1.35	-	0.13	=	1.22
	44.22	-	1.08	=	43.14

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 200 ft.

Owner:
Bowman 2000 LLC
10228 Governor Lane Blvd. Suite 3004
Williamsport, MD 21795

PLAT NO _____
DATE _____
WASHINGTON COUNTY

FSA
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15 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717.275.7531
505 SOUTH HANOVER STREET
CARLISLE, PA 17013
717.701.8111
20 WEST BALTIMORE STREET
GREENCASTLE, PA 17225
717.597.1007
128 SOUTH POTOMAC STREET
HAGERSTOWN, MD 21740
301.791.9850

PRELIMINARY/FINAL PLAT OF SUBDIVISION
OF
LOTS 4-9
FOR
BOWMAN 2000, LLC
SITUATE ALONG WEST SIDE OF FAIRPLAY ROAD AND SOUTH SIDE OF SPIELMAN ROAD
WASHINGTON COUNTY, MARYLAND

PROJECT NO. 3092.1
DWN BY CTF | DATE 7-13-2023
PROJECT MANAGER FMF
EMAIL ffredrick@fsa-inc.com
ELECTION DISTRICT 12
PROPERTY INFORMATION 67-8-42
ACCOUNT NO. 002461
SCALE 1" = 200'
SHEET TITLE

OVERALL PLAT OF SUBDIVISION

S-23-052
SHEET 01 OF 04

P:\SHARED FOLDERS\PROJECTS\3092\3092-1 BOWMAN\DWGS\BDIVISION\3092-1 SUBDIVISION.2023.DWG 11/8/2023

Tracking Notes

1. This residential subdivision plat is subject to all applicable local, state and federal laws and regulations. Any further potential of subdivision of any lots or remaining lands created by this subdivision is subject to the requirements of the Maryland Annotated Code, Environment Article, Section 9-206 and all applicable local, state and federal laws and regulations.
2. In accordance with the requirements of the Maryland Annotated Code, Environment Article, Section 9-206, upon recordation of this plat, a total of 7 residential lots, plats, building sites, or other division of land have been created from the parent parcel or tract since October 1, 2012. In accordance with Maryland Annotated Code, Environment Article, Section 9-206, and subject to all other applicable local, state and federal laws, there are not more than 0 (remaining) residential lots, plats, building sites, or other divisions of land allowed as a subdivision.
3. This residential minor subdivision may not be resubdivided or further subdivided into an additional building lot(s). Please note, for a simplified plat, notes 1 and 2 will apply. However, any new lot created under a simplified plat and denoted "not for development" will not be counted toward the 7 lot limit until such lot is submitted as a residential subdivision final plat.

Address Assignments

Remaining Lands -
Lot 4-
Lot 5 -
Lot 6 -
Lot 7 -
Lot 8 -
Lot 9 -

Note: Each address is based on the entrance as shown on this plat. If the driveway is constructed at a different location from that shown hereon, the address listed above may VOID and the owner/developer of the lot must reapply to the Planning Commission for a new address assignment.

Density Calculations

Original Acreage	44.70 Acres
Less Lot 6	1.38 Acres
Less Lot 8	1.37 Acres
Less Lot 9	1.35 Acres
	40.60 Acres Remaining

40.60 Acres available for density lots
5 Ac/Lot permitted
8 Density Lots Available
4 Density Lot used as Lot 5, 7, and 9

Certificate of Approval of Individual Water Supply and Individual Sewage System

I hereby certify that the minimum ownership area complies with the minimum width and minimum area requirements specified in C.O.M.A.R. 26.04.03.03. Such minimum ownership shall remain equal to the minimum width and minimum area set forth in C.O.M.A.R. 26.04.03.A (2) until community sewerage and water have been made available. Not more than one principle building may be erected or constructed on a lot or lots contained in the minimum ownership areas established by C.O.M.A.R. 26.04.03.A (2) until community sewerage has been made available.

_____
Date County Health Officer

Land Surveyor's Certification

I hereby certify that the plan shown hereon is correct; that it is a subdivision of part of the lands conveyed by Thomas A. Shaull and Charity L. Shaull, to Bowman 2000 LLC, by deed dated September 9th 2022, and recorded in the Land Records of Washington County, Maryland in Liber No. 7107, folio 311; and that stones marked ☐ and/or bars marked ○ have been placed as indicated.
I hereby certify that these documents were prepared by me or under my responsible charge, and that I am a duly licensed Professional Land Surveyor under the Laws of the State of Maryland, License No. LS-10731 Expiration Date 1/16/2024.

_____
Date Professional Land Surveyor

General Notes

1. 10,000 square feet is hereby reserved for sewage disposal. No permanent physical objects are permitted in this area.
2. There is a 10 ft. wide drainage and utilities easement along all front lot lines and an 8 ft. wide drainage and utilities easement along all side and rear lot lines hereby reserved unless otherwise shown hereon.
3. Bearings, distances and coordinates are based on MD Grid NAD83.
4. Soil types are as shown hereon.
5. Minimum Building Setbacks: front yard- 40'; side yard- 15'; rear yard- 50'. Minimum Building Setback Lines are based on the current Washington County Zoning Ordinance. Accessory structures may be constructed in accordance with Section 4.10 and Section 23.5 (b). Accessory Structures are not permitted without the placement of the principal permitted structure. Zoned AR .
6. Total upstream watershed affecting this subdivision: is less than 400 Acres.
7. This parcel does not lie in the 100 year flood plain per FEMA Flood Insurance Rate Map, Community Panel No. 24043C0295D dated August 15, 2017, Flood Zone X.
8. Contours based on Washington County Aerial Topography and boundary is based on a field survey performed by FSA, Inc.
9. There are no floodplains, streams, steep slopes, and other related buffers, or habitat of threatened or endangered species as required to be shown by Sections 306, 307 and 314 of the Washington County Subdivision Ordinance and Section 4.21 (C&D) of the Washington County Zoning Ordinance. This subdivision is not within 1000' of the Appalachian Trail.
10. This subdivision is not within the Edgemont Reservoir Watershed, Smithsburg Reservoir Watershed, or the Upper Beaver Creek Drainage Basin per Washington County Watershed Mapper.
11. No other wells or septics lie within 100 feet of the Lot Lines except as shown hereon.
12. All grading on each lot, done either before or after the construction of a dwelling or their appurtenances, shall be the full responsibility of the lot owner.
13. No permanent structures (fences, sheds, play equipment, retaining walls, etc.) shall be permitted within any storm drainage easement, either shown or described, on the Final Plat of Subdivision.
14. This plat has been reviewed and approved per the A(R) Zoning District. Any development/construction shall be in accordance with the Washington County Zoning Ordinance currently being enforced.
15. This plat was prepared without the benefit of a title report and therefore may not indicate all encumbrances on this property.
16. Any development must comply with the Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control Ordinance.
17. The proposed structure(s) shown hereon is for general purposes only and are not to be construed as the only approved location for a proposed structure(s).
18. Lots 6, 8, and 9 as shown on this subdivision plat are zoned A(R) and has been determined to be an exemption lot per section 5A.4 of the Washington County Zoning Ordinance. Lots 6, 8, and 9 do not meet density requirements per section 5A.3 of the Zoning Ordinance, thus they cannot be further subdivided.
19. An additional right of way 25 feet in width as measured from the centerline of Fairplay Rd. is hereby dedicated for the purpose of future road widening.
20. An additional right of way 25 feet in width as measured from the centerline of Spielman Rd. is hereby dedicated for the purpose of future road widening.
21. This plan is exempt from school related Washington County Adequate Public Facilities Ordinance I requirements per Section 5.2(c).
22. To meet road related Washington County Adequate Public Facilities Ordinance and A Policy for Determining Adequacy of Existing Highways and Streets the Owner/Developer has provided a plan and security for widening Fairplay Road to minimum 16 feet of pavement width from the site out to Spielman Road
23. Intermittent stream A does not have evidence of persistent flow, defined channel, has a drainage area of less than 40 acres and therefore does not require a stream buffer as outlined in the WASH Co. sub. Ordinance.
24. The remaining lands is not a legally established lot under COMAR 26.04.03 and may not be considered for development until such time as either the parcel can be served by a community sewage disposal system or evaluation of the parcel demonstrates that the parcel meets the provisions et forth in the Code of Maryland Regulations for subdivision of land in place at the time the proposal is submitted. Furthermore, development must be consistent with applicable State and County Codes, regulations, and laws, and the parcel may not be served by non-convention means of on-site sewage disposal. The designation of the remaining lands as an "Ag Parcel Only" does not infer it was created by means of the Simplified Plat process, it is only to emphasize that the remaining lands may not be developed until the Washington County Health Department has approved the appropriate health facilities. As Remaining Lands, a Development Plat is NOT required in order develop the property for permitted uses.

Dedication for Individuals

I/we do hereby certify, for ourselves and our personal representatives, heirs and assigns, that I/we are the legal and true owner(s) of the property shown and described on this plat and that I/we hereby adopt the plan of subdivision shown hereon, hereby establish the minimum building restriction lines shown hereon, hereby dedicate to public use all utility and drainage easement areas and all alley, street, and road rights of way designated on this plat, hereby agree to keep open all spaces and recreation areas shown hereon and hereby agree that said dedication shall not impose any responsibility on the Board of County Commissioners of Washington County regarding the subjects of such dedications until legal acceptance thereof by said Board, and I/we hereby reserve the fee simple title to the land underlying said easements, rights of way, open spaces and recreation areas and with regard to said easements and rights of way, hereby agree to convey the same to said Board for the use of said Washington County, without consideration, upon the legal acceptance of said easements and/or rights of way by said Board.
This deed and agreement of dedication shall be binding upon my/our grantees, assigns, successors, heirs, and personal representatives.
There are no suits, actions at law, leases, liens, mortgages, trusts, easements, or rights of way affecting the property included on this plan of subdivision except the following:

_____

and all parties having an interest therein have here unto affixed their signatures, indicating their assent to this plan of subdivision.
I/We do hereby assent to this plan of subdivision.

Witness our hands and seals this date _____.

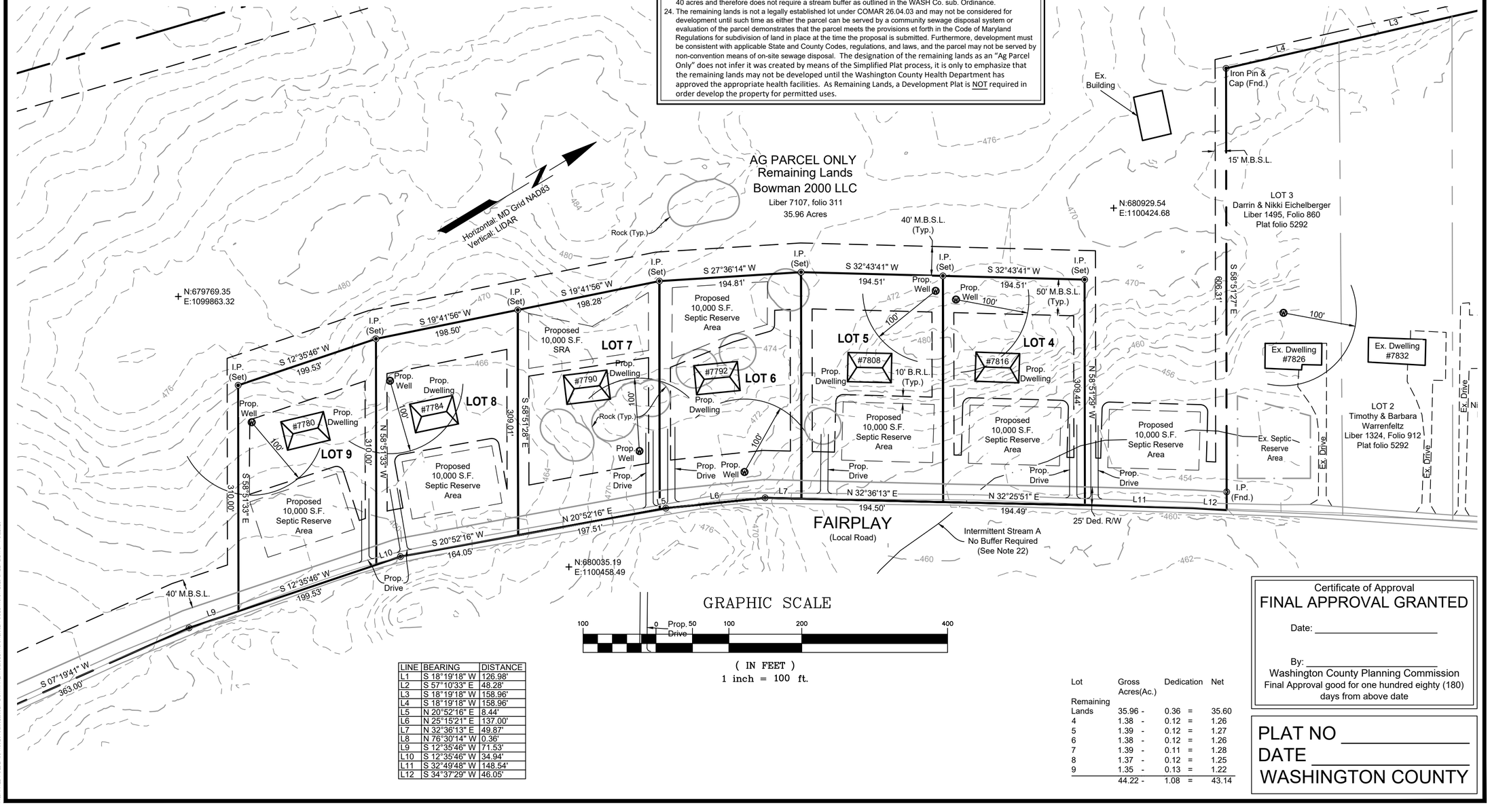
_____(Seal)
Owner: Bowman 2000 LLC

_____
Witness

Interim Facilities Provision Certification

In compliance with C.O.M.A.R. 26.03.01.05 B.(1) and (2), the individual water supply and individual sewer systems are hereby permitted on a temporary interim basis. Future lot owners are advised that the individual systems serving the lot(s) indicated on this plat are of a temporary interim nature and that connection to a future community system shall be made within one (1) year or less after the system become available.

_____(Seal)
Owner: Bowman 2000 LLC



GRAPHIC SCALE
100 0 Prop. Drive 50 100 200 400
(IN FEET)
1 inch = 100 ft.

LINE	BEARING	DISTANCE
L1	S 18°19'18" W	126.98'
L2	S 57°10'33" E	48.28'
L3	S 18°19'18" W	158.96'
L4	S 18°19'18" W	158.96'
L5	N 20°52'16" E	8.44'
L6	N 25°15'21" E	137.00'
L7	N 32°36'13" E	49.87'
L8	N 76°30'14" W	0.36'
L9	S 12°35'46" W	71.53'
L10	S 12°35'46" W	34.94'
L11	S 32°49'48" W	148.54'
L12	S 34°37'29" W	46.05'

Lot	Gross Acres(Ac.)		Dedication		Net
Remaining Lands	35.96	-	0.36	=	35.60
4	1.38	-	0.12	=	1.26
5	1.39	-	0.12	=	1.27
6	1.38	-	0.12	=	1.26
7	1.39	-	0.11	=	1.28
8	1.37	-	0.12	=	1.25
9	1.35	-	0.13	=	1.22
	44.22	-	1.08	=	43.14

Certificate of Approval
FINAL APPROVAL GRANTED
Date: _____
By: _____
Washington County Planning Commission
Final Approval good for one hundred eighty (180) days from above date

PLAT NO _____
DATE _____
WASHINGTON COUNTY

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7531
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717.701.8111
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717.597.1007
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301.791.9650

PRELIMINARY/FINAL PLAT OF SUBDIVISION
OF
LOTS 4-9
FOR
BOWMAN 2000, LLC
SITUATE ALONG WEST SIDE OF FAIRPLAY ROAD AND SOUTH SIDE OF SPIELMAN ROAD
WASHINGTON COUNTY, MARYLAND

PROJECT NO. 3092.1
DWN BY CTF
DATE 7-13-2023
PROJECT MANAGER FMF
EMAIL ffredrick@fsa-inc.com
ELECTION DISTRICT 12
PROPERTY INFORMATION 67-8-42
ACCOUNT NO. 002461
SCALE 1" = 200'
SHEET TITLE

SUBDIVISION PLAT & NOTES

S-23-052
SHEET 02 OF 04

P:\SHARED FOLDERS\PROJECTS\3092\3092.1-BOWMAN\DWGS\BRW\SNOW\3092.1 SUBDIVISION 2023 SHEET 2.DWG 7/18/2023

FORESTATION NOTES

1. Forest areas shown hereon [ ] have been reviewed and approved by the Washington County Planning Commission and are in compliance with the requirements of the Washington County Forest Conservation Ordinance. Clearing of forested areas have not been approved. Those areas noted as "Forest Retention Areas" are not to be disturbed by a regulated activity as defined in the Forest Conservation Ordinance until that regulated activity and its associated forest disturbance is reviewed and approved by the Washington County Planning Commission according to the requirements and standards of the Forest Conservation Ordinance in effect at the time.

2. Property owners are advised that there are penalties and fines associated with violation of these restrictions. Activities of a recreational or passive mature, as long as there is no forest disturbance, removal of the existing forest, or inhibition of its natural growth processes are permitted in these forest areas.

3. This note or reference to its existence on this plat shall be included in each and every deed of conveyance for any lot shown on this plat.

4. The Retention Area shown [ ] on this plat is to be retained by the respective property owners in a natural forested condition, pursuant to the Washington County Forest Conservation Ordinance of 1993. Furthermore, the use of the Retention and Planting Area shall be limited to forest conservation practices activities which are consistent with the preservation of the Retention Area as natural forest land, as stipulated by the same Ordinance.

FOREST CONSERVATION SEQUENCE OF CONSTRUCTION

1. All temporary protection devices and/or permanent devices shall be put into place.
   - Permanent signage will be place as shown on the plan around the perimeter of the entire Forest Area within 30 days of subdivision plat approval and/or completion of construction.
   - During any building or site construction, the forest retention area(s) shall be protected by highly visible, well anchored temporary fencing.
   - All temporary fencing shall be in place prior to any grading or land clearing.
   - All temporary fencing shall be maintained throughout construction and until all graded areas have been stabilized.
   - Attachment of signs or any other objects to trees is prohibited.
   - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.

QUALIFIED PROFESSIONAL

I certify that I am a qualified professional per requirements of COMAR 08.19.06.01 for qualified professional status and, therefore, am qualified to prepare the attached Forest Conservation Plan. I further certify that this plan was prepared by me or under my supervision using the methods provided by the Washington County Forest Conservation Ordinance and Forest Conservation Manual. I certify that this Forest Retention Easement Plat is accurate and complete.

Shannon Stotler — Date 8-21-23

[ ] PROPOSED FOREST CLEARING 1.52 AC.±

LINE	BEARING	DISTANCE
FL1	N 58°51'29" W	156.43'
FL2	N 09°55'53" E	168.88'
FL3	S 58°51'27" E	95.36'
FL4	S 22°55'25" E	107.34'
FL5	S 10°40'16" W	100.81'

FOREST CONSERVATION WORKSHEET 2.2

NET TRACT AREA
- A. Total Tract Area ..... = 8.26 Ac.
- B. Deductions ..... = 0.00 Ac.
- C. Net Tract Area ..... = 8.26 Ac.

LAND USE CATEGORY mdr
- D. Afforestation Threshold (Net Tract Area x 20%) ..... = 1.65 Ac.
- E. Conservation Threshold (Net Tract Area x 25%) ..... = 2.07 Ac.

EXISTING FOREST COVER
- F. Existing Forest Cover within the Net Tract Area ..... = 1.52 Ac.
- G. Area of Forest Above Conservation Threshold ..... = 0.00 Ac.

BREAK EVEN POINT
- H. Break Even Point ..... = 1.52 Ac.
- I. Forest Clearing Permitted Without Mitigation ..... = 0.00 Ac.

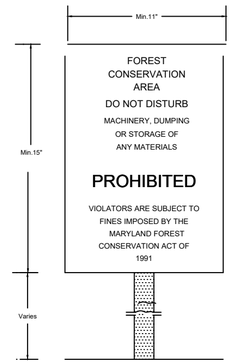
PROPOSED FOREST CLEARING
- J. Total Area of Forest to be Cleared ..... = 1.52 Ac.
- K. Total Area of Forest to be Retained ..... = 0.00 Ac.

PLANTING REQUIREMENTS
- L. Reforestation for Clearing Above the Conservation Threshold ..... = 0.00 Ac.
- M. Reforestation for Clearing Below the Conservation Threshold ..... = 3.04 Ac.
- N. Credit for Retention above the Conservation Threshold ..... = 0.00 Ac.
- P. Total Reforestation Required ..... = 3.04 Ac.
- Q. Total Afforestation Required ..... = 0.13 Ac.
- R. Total Planting Requirement ..... = 3.17 Ac.

or 138,085.2 S.F.

FORESTATION TABLE

FOREST REQUIRED ..... 3.17 AC.±
FOREST PROVIDED:
EASEMENT ..... 0.52 AC.±
REMAINING FOREST REQUIRED ..... 2.65 AC.±
AT 2:1 OFFSITE ..... 5.30 AC.±
FOREST PROVIDED OFFSITE:
EASEMENT #1 ..... 1.53 AC.±
EASEMENT #2 ..... 3.77 AC.±

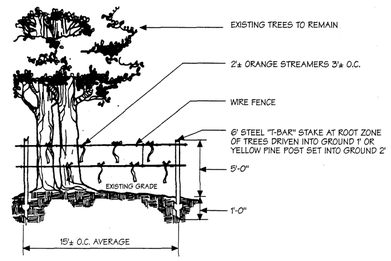


Notes:
1. Bottom of signs to be higher than top of tree protection fence.
2. Signs to be placed approximately 50 feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
2. Attachment of signs to trees is prohibited.

- RETENTION AREA PROTECTIVE MEASURES SHALL BE INSTALLED WITHIN 30 DAYS OF SUBDIVISION PLAT APPROVAL.
- AFTER INSTALLED NOTIFY PLANNING DEPARTMENT (240-313-2430) FOR AN INSPECTION

Source: Adapted from Forest Conservation Manual, 1991

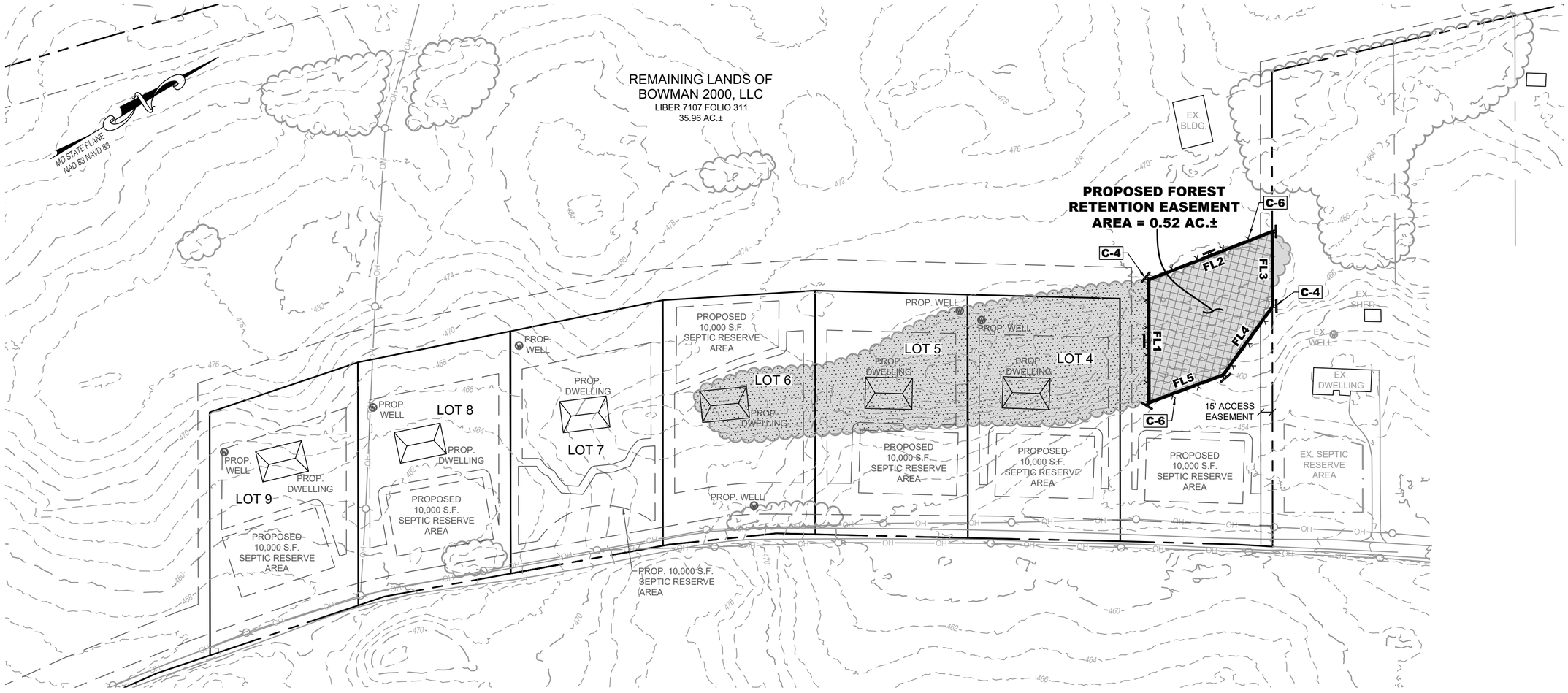
Construction Signs and Permanent Signs — Figure C-4



Notes:
1. Wire fence for forest protection device only.
2. Boundaries of Retention Area will be established as part of the forest conservation plan review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device.
4. Avoid root damage when placing anchor posts.
5. Wire should be securely attached to posts.
6. Device should be properly maintained throughout construction.
7. Protection signs are also required, see Figure C-4.
8. Locate fence outside the Critical Root Zone.

Wire Tree Protection Fence — Figure C-6

LONG TERM PROTECTION NOTES:
Long term protection for land shown hereon as Existing Forest or Afforestation Areas shall be provided by way of a perpetual conservation easement. This deed restriction, recorded with the land records of this property, limits the use of the existing forest and afforestation areas to those activities which are consistent with the conservation of forest such as recreational activities, forest management, and wildlife management. Activities of a recreational or passive nature, as long as there is no forest disturbance, removal of forest, or inhibition of its natural growth are permitted in the forest areas. The County or its agents are authorized to inspect the Forest Conservation and Afforestation Easement Areas. A Proposed 15 foot Right-of-way to serve as access for the purpose of ingress and egress of the Existing Forest and Afforestation Areas.



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PLAT NO _____
DATE _____
WASHINGTON COUNTY

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717-276-7551
305 SOUTH HANOVER STREET, CARLISLE, PA 17013, 717-701-9111
20 WEST BALTIMORE STREET, GREENCASTLE, PA 17225, 717-597-1007
128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740, 301-791-3600

BOWMAN 2000, LLC
SITUATE ALONG THE WESTERN SIDE OF FAIRPLAY ROAD SOUTH OF SPIELMAN ROAD, MARYLAND ROUTE 63
WASHINGTON COUNTY, MARYLAND
BOWMAN 2000, LLC
10228 GOVERNOR LN. BLVD. SUITE 3004
WILLIAMSPORT, MD 21795

PROJECT NO. 3092.1
DWN BY DWH | DATE 08-18-2023
PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
TAX MAP-GRID-PARCEL 0067-0008-0042
SCALE 1" = 100'
SHEET TITLE

PRE/FINAL FOREST CONSERVATION PLAN

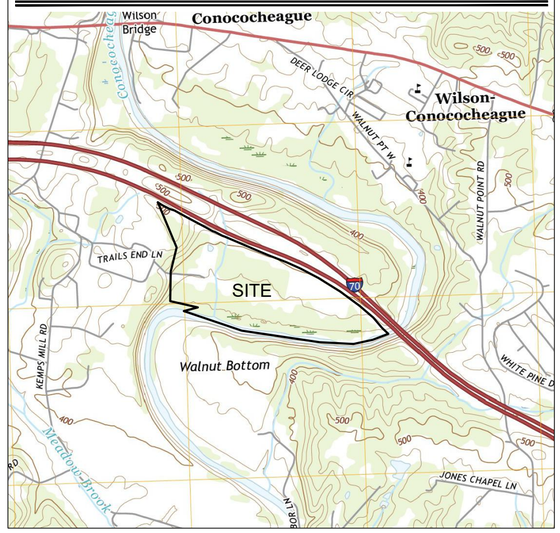
S-23-052
SHEET 03 OF 04

P:\SHARED FOLDERS\PROJECTS\3092\3092.1 BOWMAN\DWG\3092.1 FCP.DWG 2023-11-06

VICINITY MAP

SCALE: 1" = 2,000'

ADC MAP 19, G5
MASON DIXON, PENNSYLVANIA



FOREST CONSERVATION WORKSHEET 2.2

NET TRACT AREA
A. Total Tract Area..... = 8.26 Ac.
B. Deductions..... = 0.00 Ac.
C. Net Tract Area..... = 8.26 Ac.

LAND USE CATEGORY mdr
D. Afforestation Threshold (Net Tract Area x 20%)..... = 1.65 Ac.
E. Conservation Threshold (Net Tract Area x 25%)..... = 2.07 Ac.

EXISTING FOREST COVER
F. Existing Forest Cover within the Net Tract Area..... = 1.52 Ac.
G. Area of Forest Above Conservation Threshold..... = 0.00 Ac.

BREAK EVEN POINT
H. Break Even Point..... = 1.52 Ac.
I. Forest Clearing Permitted Without Mitigation..... = 0.00 Ac.

PROPOSED FOREST CLEARING
J. Total Area of Forest to be Cleared..... = 1.52 Ac.
K. Total Area of Forest to be Retained..... = 0.00 Ac.

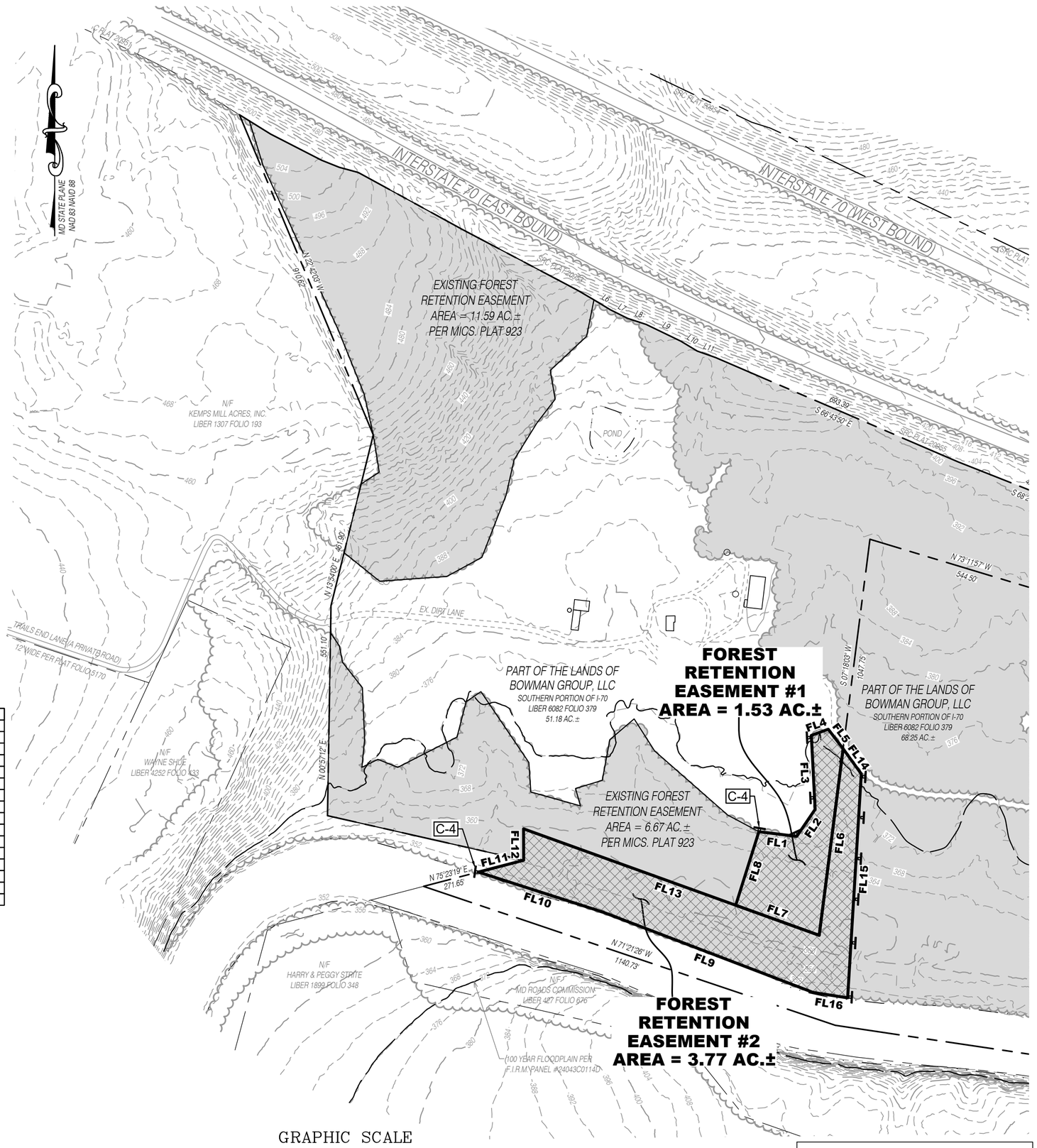
PLANTING REQUIREMENTS
L. Reforestation for Clearing Above the Conservation Threshold..... = 0.00 Ac.
M. Reforestation for Clearing Below the Conservation Threshold..... = 3.04 Ac.
N. Credit for Retention above the Conservation Threshold..... = 0.00 Ac.
P. Total Reforestation Required..... = 3.04 Ac.
Q. Total Afforestation Required..... = 0.13 Ac.
R. Total Planting Requirement..... = 3.17 Ac.
or 138,085.2 S.F.

FORESTATION TABLE

FOREST REQUIRED	**3.17 AC.±**
FOREST PROVIDED:	
EASEMENT	**0.52 AC.±**
REMAINING FOREST REQUIRED	**2.65 AC.±**
AT 2:1 OFFSITE	**5.30 AC.±**
FOREST PROVIDED OFFSITE:	
EASEMENT #1	**1.53 AC.±**
EASEMENT #2	**3.77 AC.±**

NOTE:
The Washington County Planning Commission has granted the variance of off-site forest easements to satisfy forest mitigation requirements for the Subdivision Plan for Bowman 2000, LLC at the meeting on _____.

LINE	BEARING	DISTANCE
FL1	S 82°57'01" E	100.18'
FL2	N 34°15'56" E	85.91'
FL3	N 02°56'54" W	194.27'
FL4	N 70°04'12" E	47.28'
FL5	S 37°19'13" E	64.25'
FL6	S 07°18'03" W	493.60'
FL7	N 70°11'57" W	233.00'
FL8	N 17°28'36" E	202.27'
FL9	N 69°05'10" W	592.12'
FL10	N 72°12'05" W	342.37'
FL11	N 75°23'19" E	123.02'
FL12	N 00°11'57" W	82.50'
FL13	S 70°11'57" E	825.00'
FL14	S 35°50'16" E	81.45'
FL15	S 03°29'04" W	588.96'
FL16	N 81°04'01" W	91.62'



GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OWNER:
BOWMAN GROUP, LLC
10228 GOVERNOR LANE BLVD. SUITE 3002
WILLIAMSPORT, MD 21795

PLAT NO _____
DATE _____
WASHINGTON COUNTY

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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15 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068, 717-276-7501
305 SOUTH HANOVER STREET, CARLISLE, PA 17013, 717-701-9111
20 WEST BALTIMORE STREET, GREENCASTLE, PA 17225, 717-597-1007
128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740, 301-791-3600

BOWMAN 2000, LLC

SITUATE ALONG THE WESTERN SIDE OF FAIRPLAY ROAD SOUTH OF SPIELMAN ROAD, MARYLAND ROUTE 63

WASHINGTON COUNTY, MARYLAND

BOWMAN 2000, LLC
10228 GOVERNOR LN. BLVD. SUITE 3004
WILLIAMSPORT, MD 21795

PROJECT NO. 3092.1
DWN BY DWH | DATE 08-21-2023
PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
TAX MAP-GRID-PARCEL 0035-0024-0246
SCALE 1" = 200'
SHEET TITLE

PRE/FINAL FOREST CONSERVATION PLAN

S-23-052
SHEET 04 OF 04

P:\SHARED FOLDERS\PROJECTS\3092\DWG\3092FCP (FAIRPLAY SUBDIVISION).DWG 2023-11-08

Washington County
MARYLAND

DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Senior Planner

DATE: December 4, 2023

RE: RB Overlay District - Land Use Change Request

Attached you will find supporting documentation for a request to add an additional land use to an existing Rural Business Zoning District (RB) located at 19112 Keep Tryst Rd. Rural Business Zoning Districts are established as floating zones which permit only the land uses specified at the time their creation through a rezoning map amendment. A restaurant (the Guide House Grill) currently operates on the proposed parcel. The owner of the property is requesting to update the RB District to authorize the development of an additional 800 SF retail building with a drive-through. This prospective project was previously brought before the Planning Commission as a preliminary consultation (PC-23-004) at the July 2023 meeting.

Enclosed for your review are four documents in support of the applicant's request. These documents include: a letter outlining the nature of their request, a preliminary site plan, a concept plan and meeting minutes from the preliminary consultation which outline agency comments on the concept plan.

The criteria for change in land use requests for RB Districts is specified in Section 5E.7 of the Washington County Zoning Ordinance. The Planning Commission must determine whether or not the proposal would constitute a significant change in the use and intensity of the property from the existing land uses that were previously authorized by the establishment of the RB District. If the requested change is not deemed significant, the applicant may proceed with the submission of a site plan. If the requested change is deemed significant, the applicant would first need to apply for a new rezoning to authorize the expanded land use on the property.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Senior Planner
(240) 313-2432
tallen@washco-md.net

PRELIMINARY CONSULTATION
PC-23-004 – Heffner Property

A preliminary consultation was held on May 10, 2023 at 10 a.m. in the Washington County Administrative Annex at 747 Northern Avenue, Room 124, Hagerstown, MD. A concept plan was presented for a proposed retail store at 19112 Keep Tryst Road in Knoxville. The property is currently zoned RV (Rural Village) with an RB (Rural Business) overlay.

The following were in attendance: Jennifer Kinzer, Deputy Director; Heather Williams, Planner; Travis Allen, Comprehensive Planner; Meghan Jenkins, GIS Coordinator and HDC staff; and Debra Eckard, Administrative Assistant, Washington County Department of Planning & Zoning; Rebecca Calimer, Chief of Plan Review, Washington County Division of Engineering; Anthony Mace, Washington County Department of Water Quality; George Heffner, property owner; and Meagan Judge, Morris & Ritchie Associates, consultant.

Ms. Williams introduced the project which is a proposed retail store for the sale of baked goods produced elsewhere and brought here for sale. She noted for the initial evaluation the proposed project is being treated as a bakery for land use zoning review and as a commercial/retail sales use for the parking requirements.

Washington County Department of Planning & Zoning

Ms. Williams stated that the property is currently zoned RV (Rural Village) with an RB (Rural Business) overlay. An update is needed to the RB overlay to include the proposed use because the existing RB overlay approval is specific to the current restaurant use on the site. The method of sewage disposal, storm drainage, water supply and other utilities will need to be addressed. A lighting plan, photometric plan and landscaping plan will be required with the site plan submission. The shared use of the entrance along the southeastern boundary with the residential property will need to be clarified in order to determine the proper placement of screening between the proposed use and the existing residential use.

Ms. Kinzer noted that a summary of the preliminary consultation will be prepared. Following review of the summary by staff, it will be presented to the Planning Commission during one of its regular meetings. After the Planning Commission reviews the concept plan and makes its comments, the consultant may submit the site plan for review. She also noted that a Forest Stand Delineation will be required prior to the site plan submission.

Forest Conservation

Mr. Allen stated that the project will need to comply with the County's Forest Conservation Ordinance requirements. The first step would be the submission of a Forest Stand Delineation. A Forest Conservation Plan would then need to be submitted as part of the site plan process as well as the intended method for mitigating forest conservation requirements.

Washington County Engineering Department

Ms. Calimer stated that all projects disturbing more than 5,000 sq. ft. and/or 100 CY of earth must comply with the Washington County Stormwater Management, Grading and Soil Erosion and Sediment Control Ordinance. She noted there was insufficient information included with the concept plan submission to satisfy the ESD concept phase for stormwater management. It appears this may qualify as a "redevelopment" project which would be eligible for a combined plan application in accordance with Section 3.7.1.B of the aforementioned ordinance.

Ms. Calimer stated that the project must comply with the County's Adequate Public Facilities Ordinance (APFO) for road adequacy. Commercial development generating more than 15 peak hour trips require traffic evaluation. If the proposed development will generate less than 15 peak hour trips, trip generation computations referencing the ITE code or professional and industry data used must be provided. If a traffic evaluation is required, a Traffic Impact Study scoping request must be submitted for review by the Engineering Department as well as the State Highway Administration.

Washington County Department of Water Quality (DWQ)

Mr. Mace stated there is limited capacity in this area. Mr. Heffner stated the restaurant is on public water and sewer. It is his intention to purchase 1 EDU for the proposed use. He noted that according to Mr. Bradshaw, Director of DWQ, there are 10 taps currently available.

Washington County Department of Environmental Health

A representative was not present at the consultation; however, the following written comments were provided. "On May 14, 1992 the septic system that was installed in 1969 was failing to the surface of the ground. In that same year a septic repair had to be completed. In 1995 rezoning case RZ-95-07 was routed to our office for comments. Basically, 19110 Keep Tryst Road and 19112 Keep Tryst Road share a septic system which is located on #19112. In 1995 the septic system was determined to be marginal at best and the restaurant has not been allowed to expand. The wells in the area are questionable as far as yield and quality. It was also determined in 1995 that there was no additional room for a repair and recommended that the facility be extended public water and sewer."

Washington County Soil Conservation District

A representative was not present at the consultation; however, the following written comments were provided. "Provide a copy of the soils map, from the hard copy and/or digitized version of the Soil Survey, for your project, with the boundaries clearly delineated (the Web Soil Survey does not have an accurate stream layer). Evaluate any streams and/or drainage ways, sinkholes, steep slopes, etc. and provide any and all required documentation. If in your review, you find buffers are required, please incorporate into your design and include with your next submission. Please ensure any required buffers are shown on the Soil Erosion and Sediment Control Plan, particularly, if affected by the proposed project and/or are within close proximity to the project area.

Closing Comments

All reviewing agencies will receive a copy of the written summary. If there are any discrepancies in the written summary, the Department of Planning & Zoning should be notified immediately. The summary will also be submitted to the Planning Commission for its review and comment. Planning Commission comments will be made a part of the record and should be addressed by the developer as the plan moves through the approval process.

Respectfully submitted,

Heather Williams, Planner
Washington County Department of
Planning & Zoning

Know what's below. Call before you dig.

PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

HEFFNER RETAIL BUILDING

SITE PLAN

KEEP TRYST ROAD, WASHINGTON COUNTY, MARYLAND

PC-23-004

SITE NOTES

1. SITE ANALYSIS:

ACCOUNT ID:	DISTRICT-11, ACCOUNT NUMBER-007465, MAP:0087, GRID:0018, PARCEL:0026
ZONING:	RB RURAL BUSINESS DISTRICT
OVERLAYS:	HISTORIC PRESERVATION OVERLAY
TOTAL SITE AREA:	3.15 ACRES
DISTURBED AREA:	0.11 ACRES
EXISTING USE:	PARKING LOT/VACANT
PROPOSED USE:	RETAIL

2. GENERAL REQUIREMENTS:

	REQUIRED:	PROVIDED:
MIN LOT SIZE	0.42 ACRES	3.15 ACRES
MAX DENSITY	N/A	2 BUILDINGS
MIN FRONTAGE:	40'	45.6'
MAX BUILDING HEIGHT:	35'	≤ 35'
MIN STREET SETBACK:	15'	105'
MIN INTERIOR SETBACK:	25'	45.6'
MIN REAR SETBACK:	25'	173.5'
MAX IMPERVIOUS SURFACE RATIO:	0.65	0.36
PARKING SETBACK FROM RIGHT-OF-WAY:	10'	12'

3. PROJECT DESCRIPTION: CONSTRUCTION OF A RETAIL BUILDING WITH A DRIVE THRU AND PARKING LOCATED ON THE SAME PARCEL.

4. PARKING CALCULATION:

PARKING CALCULATION TABLE

USE	MINIMUM REQUIRED	PROVIDED
COMMERCIAL RETAIL SALES	5 SPACES PER 1000 SQ. FT. OF GLA 800 SF x (5/1000) = 4 SPACES	4 SPACES (INCLUDING 0 HC SPACES)
TOTAL EXISTING	N/A	0 SPACES (INCLUDING 0 HC SPACES)
TOTAL PROPOSED	N/A	4 SPACES (INCLUDING 0 HC SPACES)

5. IMPERVIOUS AREA: EXISTING = 1.14 AC.
PROPOSED = 1.14 AC.
(4,043 SF PAVED AREA, 800 SF BUILDING FOOTPRINT)

EXISTING ISR: 1.14 AC IMPERVIOUS /3.15 AC = 0.36
PROPOSED ISR: 1.14 AC IMPERVIOUS /3.15 AC = 0.36
TOTAL IMPERVIOUS AREA: 1.14 AC.
VEGETATIVE AREA: 2.01 AC.

6. PROPERTY IS CONNECTED TO PUBLIC WATER AND SEWER.

7. EXISTING TOPOGRAPHY AND BOUNDARY INFORMATION IS TAKEN FROM A FIELD RUN SURVEY WITH 1 FOOT CONTOUR INTERVALS PREPARED BY MORRIS AND RITCHIE ASSOCIATES, INC. JULY 6TH, 2023.

8. THERE ARE NO HISTORIC RESOURCES, ARCHEOLOGICAL SITES, CEMETERIES, WOODLANDS, WETLANDS, STREAMS, OR THEIR BUFFERS WITHIN THE PROJECT SITE.

9. ALL GRADING FOR THIS PROJECT SHALL BE THE FULL RESPONSIBILITY OF THE PROPERTY OWNER.

10. THERE IS A 10' WIDE DRAINAGE AND UTILITIES EASEMENT ALONG ALL FRONT LOT LINES AND AN 8' WIDE DRAINAGE AND UTILITIES EASEMENT ALONG ALL SIDE AND REAR LOT LINES HEREBY RESERVED UNLESS OTHERWISE SHOWN HEREON.

11.

12. A PUBLIC WORKS AGREEMENT AND PERFORMANCE SECURITY WILL BE REQUIRED FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY THAT ARE NOT OTHERWISE REGULATED UNDER A UTILITY PERMIT OR ENTRANCE PERMIT.

13.

14. A UTILITY PERMIT WILL BE REQUIRED FOR ANY PROPOSED UTILITY WORK LOCATED WITHIN THE COUNTY RIGHT-OF-WAY.

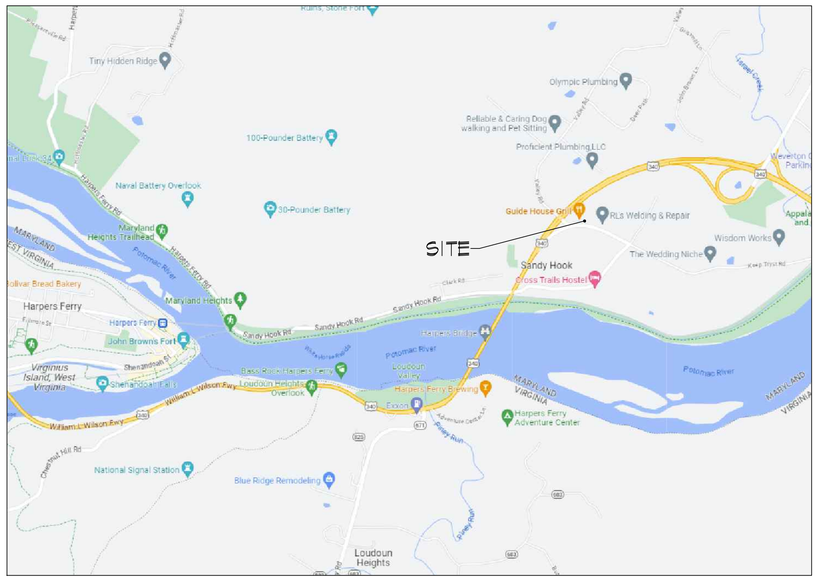
15. A COMPLETE SET OF APPROVED PLANS AND A COPY OF THE GRADING PERMIT MUST BE ON SITE AND AVAILABLE FOR USE BY THE INSPECTOR, OR OTHER REPRESENTATIVE OF WASHINGTON COUNTY DIVISION OF ENGINEERING & CONSTRUCTION.

16. PLEASE BE ADVISED THAT ANY PROJECT WHICH CREATES A DISTURBANCE OF ONE (1) ACRE OR MORE WILL REQUIRE A NOTICE OF INTENT TO COMPLY WITH THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (NOI). THE NOI IS REQUIRED UNDER THE CLEAN WATER ACT AS STATED IN 40 CFR 122.26 AND CODE OF MARYLAND REGULATIONS COMAR 26.08.04.09A AND IS REGULATED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE). THE NOI IS TO BE SUBMITTED WITH THE APPROPRIATE FEES DIRECTLY TO THE MDE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. NO LAND DISTURBING ACTIVITY THAT REQUIRES A GRADING PERMIT FROM WASHINGTON COUNTY SHOULD PROCEED UNTIL THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (MDR10) HAS BEEN ISSUED BY MDE.

17. NO PERMANENT STRUCTURES (FENCES, SHEDS, PLAY EQUIPMENT, RETAINING WALLS, ETC.) SHALL BE PERMITTED WITHIN ANY STORM DRAINAGE EASEMENT EITHER SHOWN OR DESCRIBED ON THE FINAL PLAT OF SUBDIVISION.

18. DEVELOPER/CONTRACTOR MUST CONTACT THE CERTIFYING ENGINEER AND THE COUNTY AT LEAST 5 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE STORM WATER MANAGEMENT SYSTEM TO SCHEDULE AND COORDINATE INSPECTION TIME TABLES.

19. IN CONFORMANCE WITH THE STORM WATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY, A PERFORMANCE SECURITY AND EXECUTED MAINTENANCE AND ACCESS AGREEMENT SHALL BE REQUIRED FROM THE DEVELOPER PRIOR TO ISSUANCE OF ANY BUILDING OR GRADING PERMIT FOR CONSTRUCTION PER THESE PLANS. THE DEVELOPMENT OF THIS PROJECT DOES NOT REQUIRE A SWM PLAN ACCORDING TO ARTICLE 3.11.C OF THE WASHINGTON COUNTY, MARYLAND STORMWATER MANAGEMENT, GRADING, SOIL EROSION AND SEDIMENT CONTROL ORDINANCE.



VICINITY MAP
SCALE: 1"=2000'

NORTH

SHEET LIST TABLE	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS
3	GRADING & UTILITY PLAN
4	E&S CONTROL PLAN

APPLICANT/OWNER
GEORGE HEFFNER JR.
19 DECLARATION DRIVE
CHARLES TOWN, WV 25414
CONTACT: GEARGE HEFFNER JR.
EMAIL: GEORGE@HFADVENTURECENTER.COM

PREPARED BY
MORRIS & RITCHIE ASSOCIATES, INC.
205 E. HIRST RD, SUITE 1065
PURCELLVILLE, VIRGINIA 20132
CONTACT: TODD HECK
EMAIL: THECK@MRAGTA.COM

SHEET: 1

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 HIRST ROAD, SUITE 106
PURCELLVILLE, VA 20132
(410) 792-9792 / (301) 776-1690
MRAGTA.COM

STATE OF MARYLAND — JOHN K. ERICSON — No. 46128 — PROFESSIONAL ENGINEER
10/10/2023

MD PROFESSIONAL CERTIFICATION:

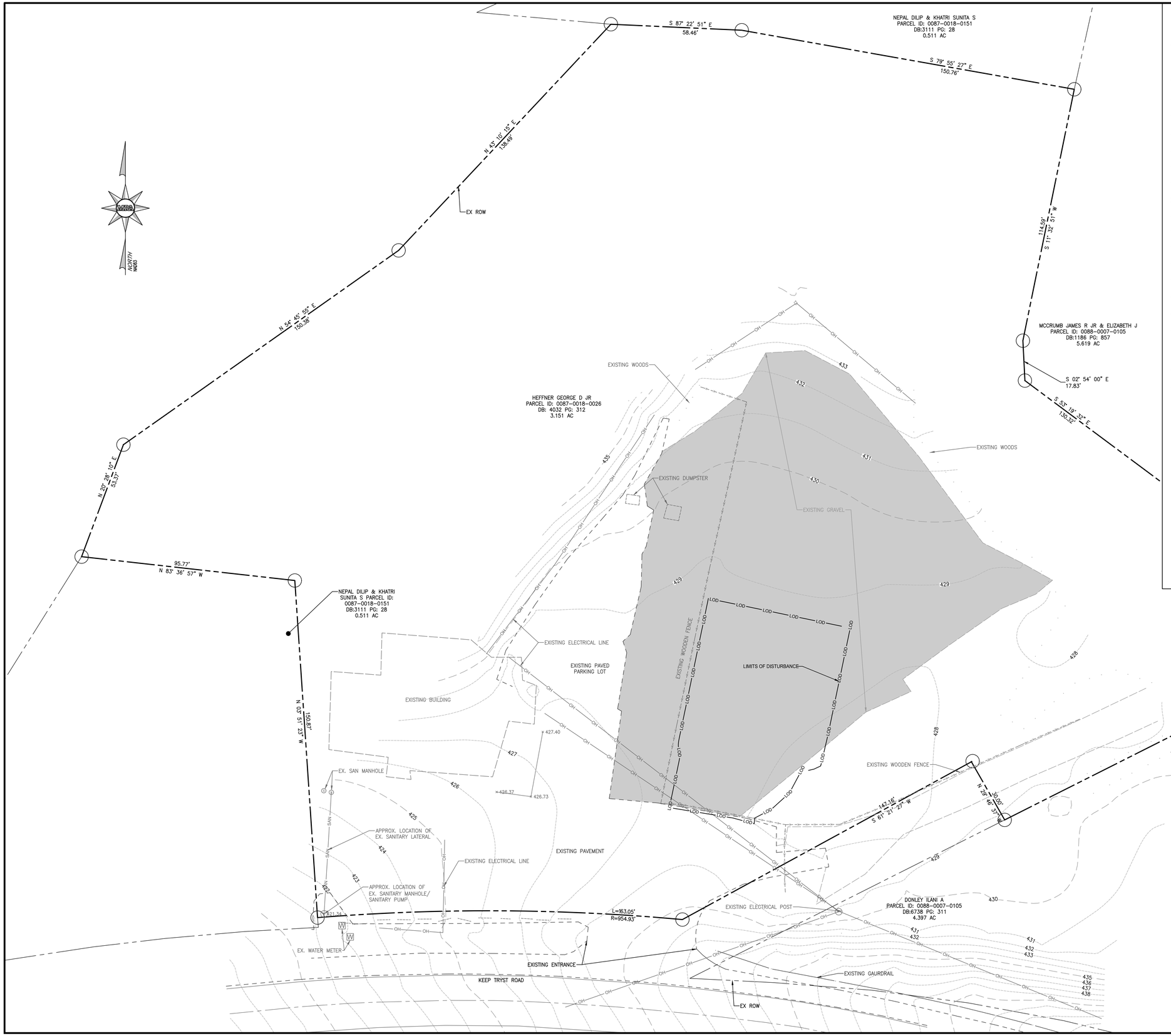
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 46128, EXPIRATION DATE: 11/24/2024.

FINAL SITE PLAN
HEFFNER RETAIL BUILDING
PC-23-004

COVER SHEET

ZONED: RB ~ TAX MAP: 0087
PARCEL: 0026
6TH ELECTION DISTRICT
WASHINGTON COUNTY
MARYLAND

DATE	REVISIONS	JOB NO.: 22299
		SCALE: AS SHOWN
		DATE: TBD
		DRAWN BY: KM
		DESIGN BY: KM
		REVIEW BY: JKE
		SHEET: 1 OF 4



LEGEND

EX. R/W LINE	PROP. R/W LINE
EX. PROPERTY LINE	PROP. PROPERTY LINE
EX. ADJ. PROPERTY LINE	PROP. LOT LINE
EX. 10' CONTOUR	PROP. 1' CONTOUR
EX. 2' CONTOUR	PROP. 2' CONTOUR
EX. TREE LINE	PROP. 10' CONTOUR
EX. BUILDING	PROP. BUILDING
EX. EASEMENT	PROP. BLDG SETBACK LINE
EX. PAVEMENT	PROP. CURB
EX. CURB	PROP. ROAD CENTER LINE
EX. WALKWAY	PROP. LIMITS OF DISTURBANCE
EX. STORM DRAIN	PROP. EASEMENT LINE
EX. WATER LINE	PROP. SANITARY LINE
EX. SANITARY LINE	PROP. STORM DRAIN LINE
EX. OVERHEAD LINE	PROP. WATER LINE
EX. UNDERGROUND CONDUIT	PROP. OVERHEAD LINE
EX. GAS LINE	PROP. UNDERGROUND CONDUIT
EX. FENCE LINE	PROP. CABLE TV LINE
SOILS LINE	PROP. ELECTRIC LINE
EX. RETAINING WALL	PROP. GAS LINE
EX. SIGN	PROP. HYDRANT
EX. LIGHT POLE	PROP. VALVE
EX. UTILITY POLE	PROP. SIAMESE CONNECTION
EX. SPOT ELEVATION	PROP. SPOT ELEVATION
	PROP. SIGN
	PROP. LIGHT POLE

EXISTING CONDITIONS NARRATIVE

THE SITE CURRENTLY CONSISTS OF AN EXISTING RESTAURANT WITH AN ADJACENT PAVED PARKING LOT, A LARGE GRAVEL LOT, AND A HEAVILY WOODED AREA. THE AREA IN WHICH IS BEING DEVELOPED CONSISTS OF 100% IMPERVIOUS AREA.

20 0 20 40 60

Scale 1" = 20'

SHEET: 2

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 HIRST ROAD, SUITE 106
PURCELLVILLE, VA 20132
(410) 792-9792 / (301) 776-1690
MRAGTA.COM

FINAL SITE PLAN
HEFFNER RETAIL BUILDING
PC-23-004

EXISTING CONDITIONS

ZONED: RB ~ TAX MAP: 0087
PARCEL: 0026
6TH ELECTION DISTRICT
WASHINGTON COUNTY
MARYLAND

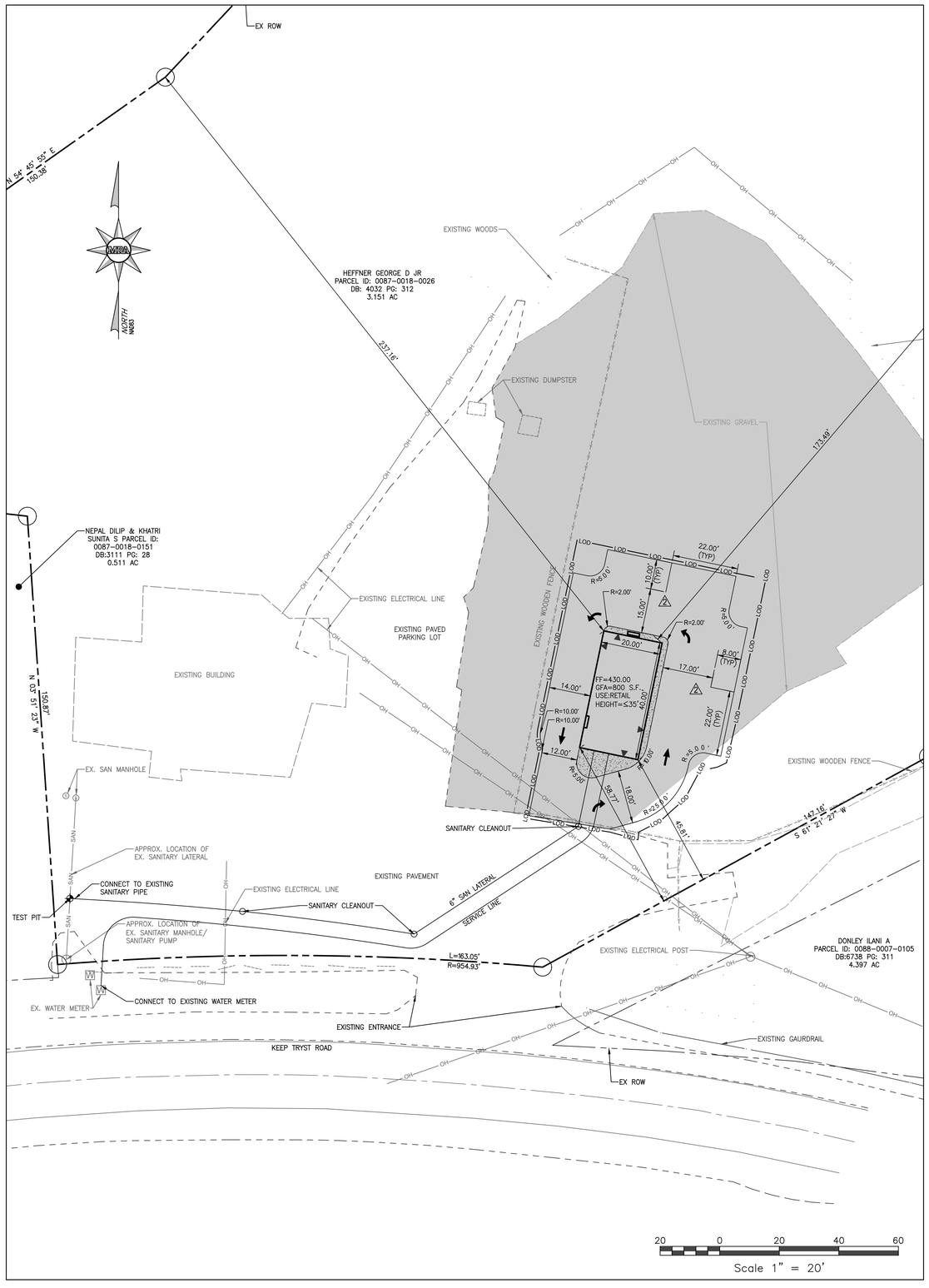
STATE OF MARYLAND — JOSEPH K. ERICSON — No. 46128 — PROFESSIONAL ENGINEER

10/10/2023

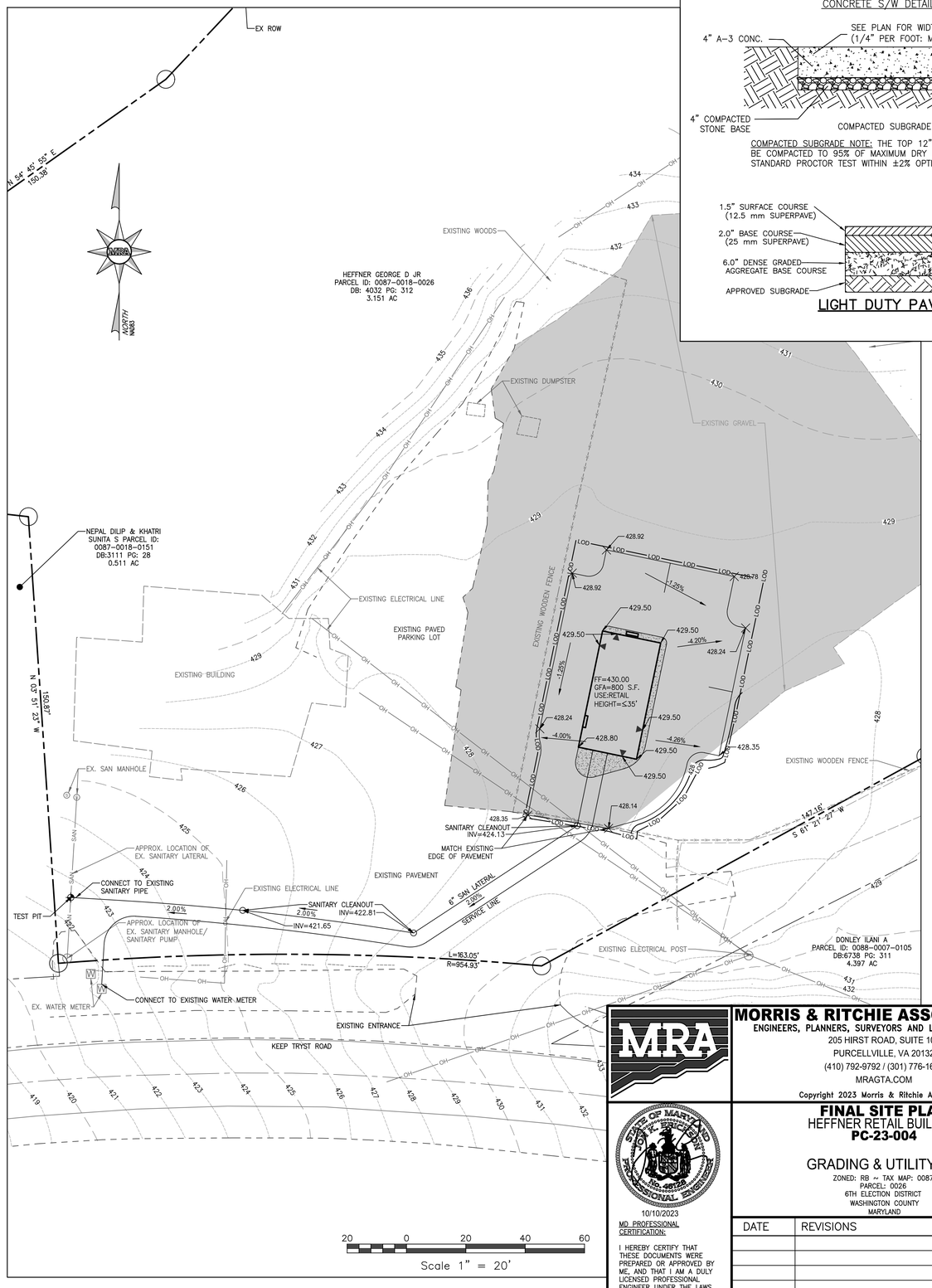
MD PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 46128, EXPIRATION DATE: 11/24/2024.

DATE	REVISIONS	
		JOB NO.: 22299
		SCALE: 1"=20'
		DATE: TBD
		DRAWN BY: KM
		DESIGN BY: KM
		REVIEW BY: JKE
		SHEET: 2 OF 4

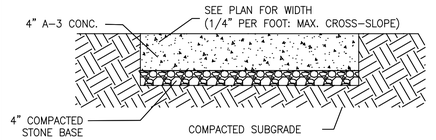


UTILITY PLAN

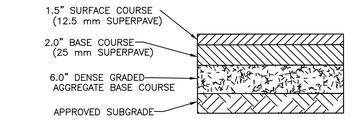


GRADING PLAN

CONCRETE S/W DETAIL (N.T.S.)



COMPACTED SUBGRADE NOTE: THE TOP 12" OF SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR TEST WITHIN ±2% OPTIMUM MOISTURE.



LIGHT DUTY PAVEMENT SECTION
Not to Scale

SHEET: 3

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 HIRST ROAD, SUITE 106
PURCELLVILLE, VA 20132
(410) 792-9792 / (301) 776-1690
MRAGTA.COM

STATE OF MARYLAND · KYLE K. ENGLISH · No. 46128 · PROFESSIONAL ENGINEER

10/10/2023

MD PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 46128, EXPIRATION DATE: 11/24/2024.

FINAL SITE PLAN
HEFFNER RETAIL BUILDING
PC-23-004

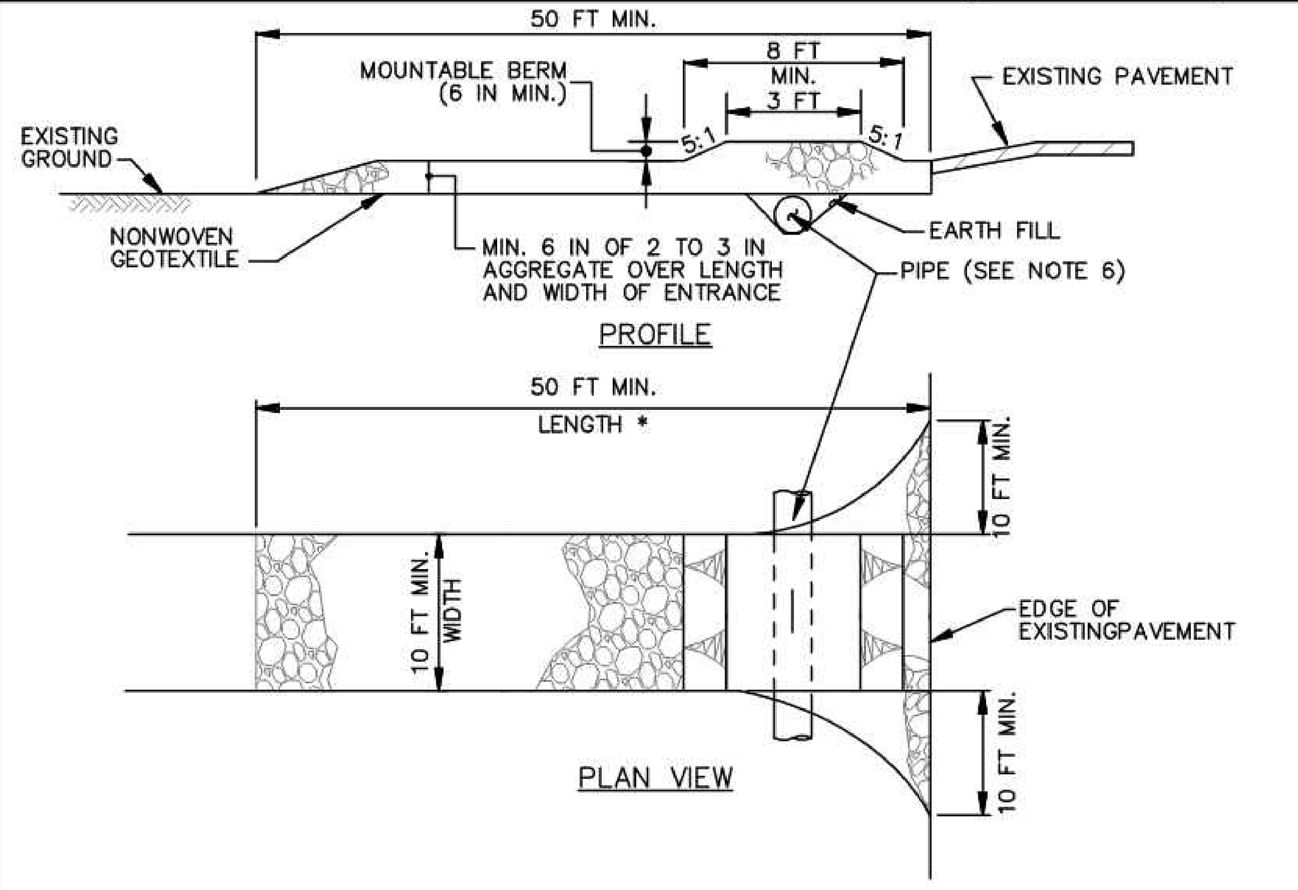
GRADING & UTILITY PLAN

ZONED: RB ~ TAX MAP: 0087
PARCEL: 0026
6TH ELECTION DISTRICT
WASHINGTON COUNTY
MARYLAND

DATE	REVISIONS	JOB NO.: 22299
		SCALE: 1"=20'
		DATE: TBD
		DRAWN BY: KM
		DESIGN BY: KM
		REVIEW BY: JKE
		SHEET: 3 OF 4

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

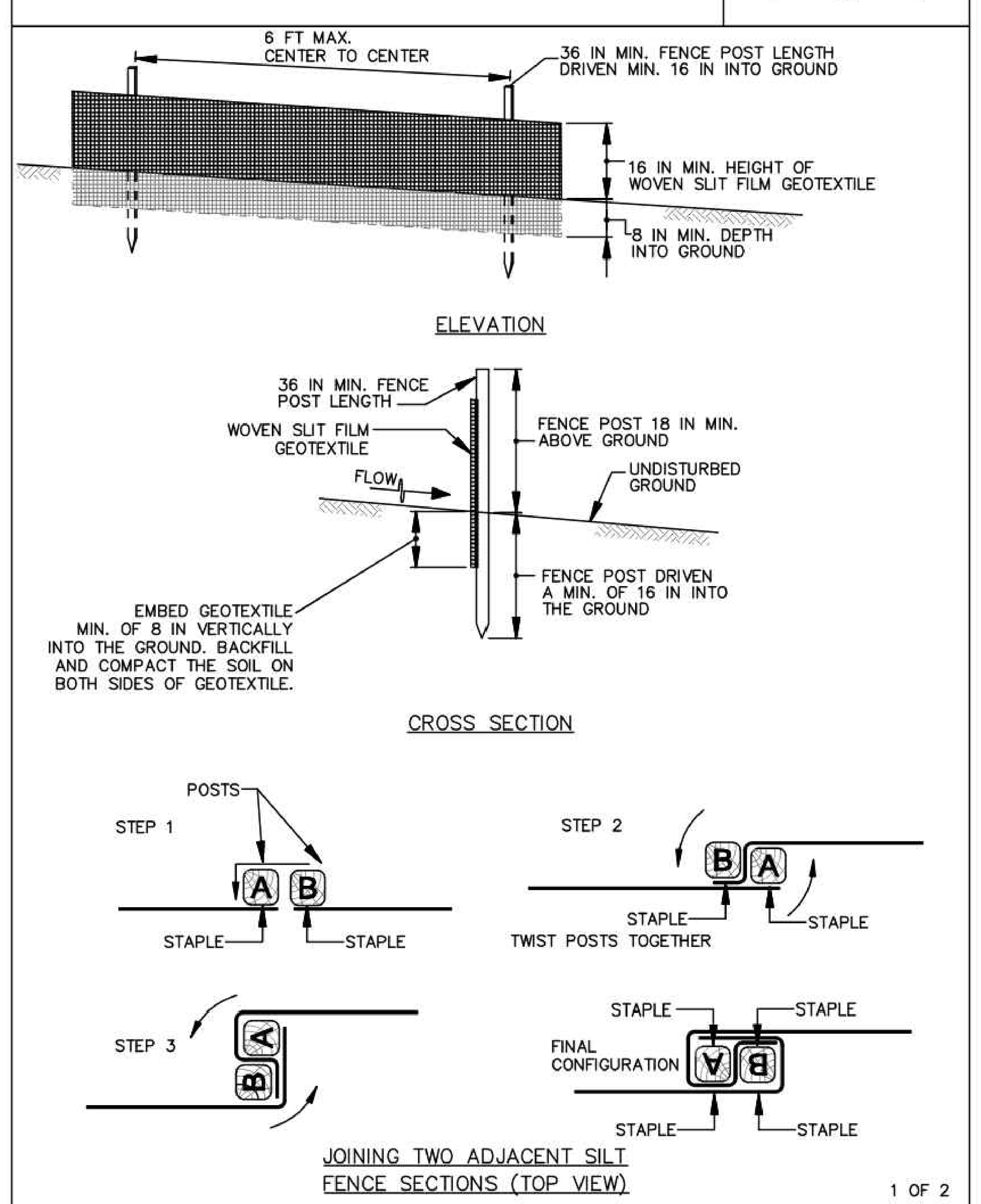
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING 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

B.2

DETAIL E-1 SILT FENCE

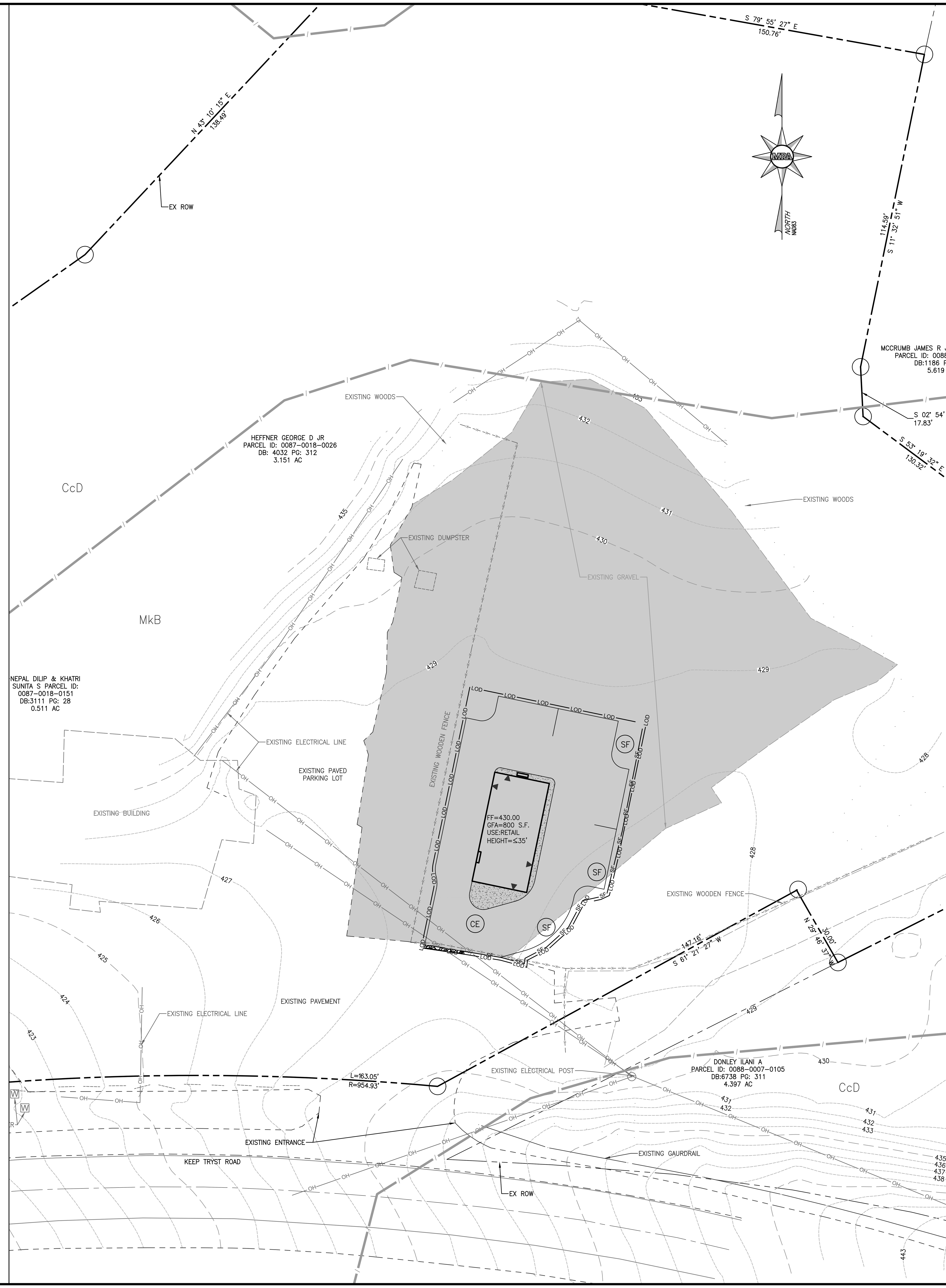
STANDARD SYMBOL: —SF—



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

E.2



ESC NARRATIVE

THIS PROJECT IS FOR THE CONSTRUCTION OF AN 800SF RETAIL BUILDING AND THE ASSOCIATED INFRASTRUCTURE. THE APPROXIMATE LIMITS OF DISTURBANCE IS 0.11 AC.

THE PORTION OF THE PROPERTY IN WHICH IS BEING DEVELOPED CURRENTLY CONSISTS OF A VACANT GRAVEL LOT.

SWM NARRATIVE

THE PRE-DEVELOPED IMPERVIOUS AREA FOR THIS PROJECT IS 0.11 AC. THE POST-DEVELOPED IMPERVIOUS AREA PROPOSED WITH THE DEVELOPMENT OF THIS PROJECT IS ALSO 0.11 AC. THERE WILL BE NO INCREASE IN THE AMOUNT OF IMPERVIOUS AREA DUE TO THIS DEVELOPMENT, THEREFORE POST-DEVELOPMENT FLOWS WILL NOT EXCEED PRE-DEVELOPMENT FLOWS. THE DEVELOPMENT OF THIS PROJECT DOES NOT REQUIRE A SWM PLAN ACCORDING TO ARTICLE 3.1.1.C OF THE WASHINGTON COUNTY, MARYLAND STORMWATER MANAGEMENT, GRADING, SOIL EROSION AND SEDIMENT CONTROL ORDINANCE.

LANDSCAPE NARRATIVE

NO ADDITIONAL ON-SITE LANDSCAPING IS BEING PROPOSED WITH THIS APPLICATION.

PER SECTION 22.11.1 (B) EXPANSION OF EXISTING DEVELOPMENT. FOR EXPANSIONS OF DEVELOPMENT THAT EXISTED PRIOR TO THE ADOPTION OF THESE REQUIREMENTS, THE FOLLOWING SHALL APPLY:

1. AFTER THE ENACTMENT OF THIS ARTICLE, CUMULATIVE EXPANSIONS OF EXISTING DEVELOPMENT NOT EXCEEDING TWENTY-FIVE PERCENT (25%) OF THE EXISTING GROSS FLOOR AREA AND NOT REQUIRING OR INVOLVING ADDITIONAL PARKING AREAS SHALL BE EXEMPT FROM THE PROVISIONS OF THIS ARTICLE.

THE EXISTING FLOOR AREA OF THE PROPERTY IS 4,108 SF AND THE PROPOSED EXPANSION IS 800 SF EQUAL TO LESS THAN 20%. THE PARKING PROPOSED IS WITHIN THE GRAVEL AREA ALREADY USED FOR PARKING.

PER ARTICLE 22.12.F.8.I: MINIMUM AREAS REQUIRED. ALL SURFACE PARKING FACILITIES OF 10,000 SQUARE FEET OR MORE SHALL HAVE LANDSCAPED AREAS WITHIN THE CONFINES OF THE FACILITY, WHICH CONSTITUTE A MINIMUM OF 5% OF THE TOTAL IMPERVIOUS AREA OF THE PARKING FACILITY.

THE PROPOSED PARKING AREA IS LESS THAN 10,000 SQUARE FEET AND THEREFORE NO PARKING LOT LANDSCAPING IS PROPOSED.

SOIL INFORMATION

CcD: CATOCTIN-MYERSVILLE CHANNERY LOAMS, 15 TO 25 PERCENT SLOPES
MkB: MT. ZION GRAVELLY SILT LOAM, 3 TO 8 PERCENT SLOPES

SOILS LINE

20 0 20 40 60
Scale 1" = 20'

SHEET: 4

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
205 HIRST ROAD, SUITE 106
PURCELLVILLE, VA 20132
(410) 792-9792 / (301) 776-1690
MRAGTA.COM

FINAL SITE PLAN
HEFFNER RETAIL BUILDING
PC-23-004

E&S CONTROL PLAN
ZONED: RB ~ TAX MAP: 0087
PARCEL: 0026
6TH ELECTION DISTRICT
WASHINGTON COUNTY
MARYLAND

STATE OF MARYLAND JON K. ERICKSON No. 46128 PROFESSIONAL ENGINEER
10/10/2023

MD PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 46128, EXPIRATION DATE: 11/24/2024.

DATE	REVISIONS	
		JOB NO.: 22299
		SCALE: 1"=20'
		DATE: TBD
		DRAWN BY: KM
		DESIGN BY: KM
		REVIEW BY: JKE
		SHEET: 4 OF 4

NOTES:

1. EXISTING ZONING DISTRICT = (RV) WITH (RB) ZONING OVERLAY
2. PARCEL = 19.078 AC.
3. PARKING: COMMERCIAL RETAIL SALES (5) SPACES PER 1000 SQ. FT. OF GFA
   (800 SF / 1000 X (5) = 4 SPACES REQUIRED
   5 SPACES PROVIDED (5) DRIVE THROUGH STACKING SPACES PROVIDED
   (DRIVE-UP/DRIVE THRU FACILITIES. IN ADDITION TO THE PARKING SPACES REQUIRED SHALL PROVIDE ON-SITE SPACES SUFFICIENT FOR VEHICLES QUEUING TO BE SERVED BY OR OTHERWISE WAITING TO DO BUSINESS AT THE FACILITY.)
4. THIS EXHIBIT IS FOR ILLUSTRATIVE PURPOSES ONLY.

19112 KEEP TRYST RD

WASHINGTON COUNTY, MD

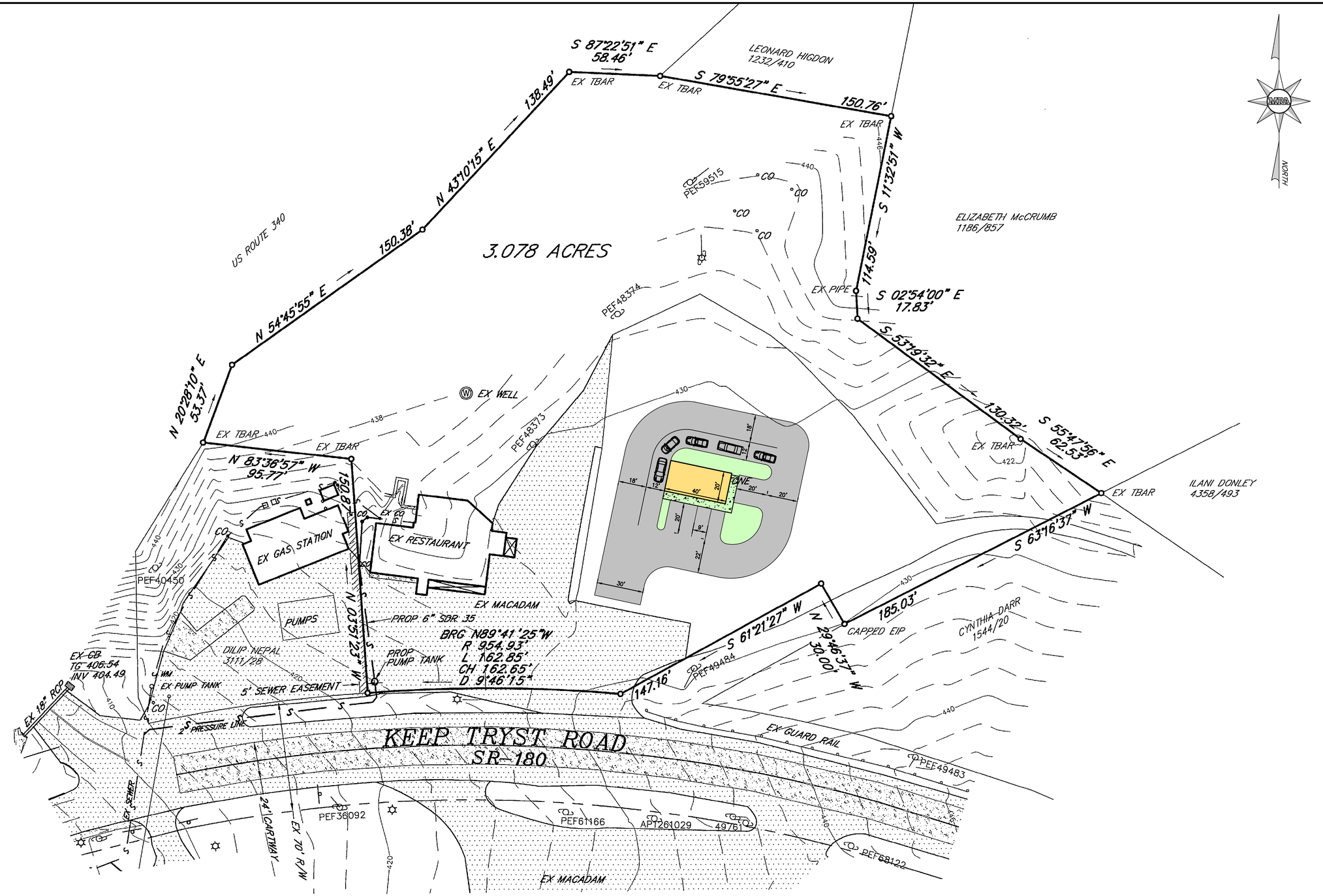
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
604 SOUTH KING STREET, STE 200
LEESBURG, VA 20175
(703) 994-4047
MRAGTA.COM

CONCEPTUAL LAYOUT

DATE: 02/27/23
SCALE: 1"=30'

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'



MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

604 SOUTH KING STREET, STE 200
LEESBURG, VA 20175
(703) 994-4047

MRAGTA.COM

NOTES:

1. EXISTING ZONING DISTRICT = (RV) WITH (RB) ZONING OVERLAY
2. PARCEL = 13.078 AC
3. PARKING: COMMERCIAL RETAIL SALES (5) SPACES PER 1000 SQ. FT. OF GFA
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   5 SPACES PROVIDED (5) DRIVE THROUGH STACKING SPACES PROVIDED
   (DRIVE-UP/DRIVE THRU FACILITIES, IN ADDITION TO THE PARKING SPACES REQUIRED SHALL PROVIDE ON-SITE SPACES SUFFICIENT FOR VEHICLES QUEUING TO BE SERVED BY OR OTHERWISE WAITING TO DO BUSINESS AT THE FACILITY.)
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19112 KEEP TRYST RD

WASHINGTON COUNTY, MD

CONCEPTUAL LAYOUT

DATE: 02/27/23
SCALE: 1"=30'

30 15 0 30 60 90

GRAPHICAL SCALE: 1" = 30'

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

Land Development Reviews							
Record #	**Type**	**Status**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
AR-23-004	APFO Road Adequacy	Paid	20-Oct-23	13955 PATRIOT WAY - LOT 146 - FREEDOM HILLS - SECT. C-1	13955 PATRIOT WAY HAGERSTOWN, MD 21740	ADMAR CUSTOM HOMES	FREEDOM HILL HOMES LLC
AR-23-005	APFO Road Adequacy	Paid	20-Oct-23	13953 PATRIOT WAY - LOT 145 - FREEDOM HILLS - SECT. C-1	13953 PATRIOT WAY HAGERSTOWN, MD 21740	ADMAR CUSTOM HOMES	FREEDOM HILL HOMES LLC
S-23-060	Final Plat	Pending	25-Oct-23	TOWNES AT ROCKSPRING PHASE 2 & 3 FINAL PLAT			HEKBEL LLC
FS-23-030	Forest Stand Delineation	Received	12-Oct-23	FOREST STAND DELINEATION FOR WANTZ DISTRIBUTORS	11743 HOPEWELL ROAD HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	ALCAR LLC
SIM23-057	IMA	Active	06-Oct-23	17710 OAK RIDGE DRIVE HN	17710 OAK RIDGE DRIVE HAGERSTOWN, MD 21740		GUEVARA GARCIA JOSE A GUEVARA GARCIA LISETH
SIM23-058	IMA	Active	11-Oct-23	WAWA CONVENIENCE STORE	10335 SUPERCENTER DRIVE HAGERSTOWN, MD 21740	FOX & ASSOCIATES INC	ARNETTS INC
TWN-23-006	Improvement Plan	In Review	16-Oct-23	TOWN OF SMITHSBURG WATERLINE LOOP	KIMBER LANE SMITHSBURG, MD 21783		SMITHSBURG TOWN OF
TWN-23-007	Improvement Plan	In Review	17-Oct-23	PENNSYLVANIA AVENUE PUMP STATION AND GRAVITY SEWER REPLACEMENT	126 WE HIGH STREET HANCOCK, MD 21750		HANCOCK TOWN OF
TWN-23-008	Improvement Plan	In Review	30-Oct-23	CLOVERLY PHASE 2			CLOVERLY HILL LLC
S-23-059	Preliminary-Final Plat	In Review	17-Oct-23	KRINER LOT 5	11175 DAM NUMBER 5 ROAD CLEAR SPRING, MD 21722	FREDERICK SEIBERT & ASSOCIATES	KRINER KENNETH E
SP-16-034.R01	Redline Revision	Approved	12-Oct-23	DAILY DRIVE AUTO SALES REDLINE FOR 1750 SF BUILDING ADDITION	DALEY ROAD W/S	FREDERICK SEIBERT & ASSOCIATES	MARTIN CARLIN & CHERYL 14204 DALEY ROAD
SI-23-009	Simplified Plat	Revisions Required	06-Oct-23	TAMMY CORSBIE, PARCEL A	20914 OLD FORGE ROAD HAGERSTOWN, MD 21742	FREDERICK SEIBERT & ASSOCIATES	HASTINGS EARL C
SI-23-010	Simplified Plat	Approval Letter Issued	16-Oct-23	WILLIAM BODDICKER FAMILY TRUST PARCEL A	1116 WILLIAM WAY KNOXVILLE, MD 21758	FREDERICK SEIBERT & ASSOCIATES	BODDICKER MICHAEL R
SI-23-011	Simplified Plat	Received	28-Oct-23	FREDERICK F. WALLS	LANE MO	GEHR DANIEL R. SURVEYING	WALLS FREDERICK F WALLS EMMA K
SP-23-039	Site Plan	Received	13-Oct-23	HEFFNER RETAIL BUILDING	19112 KEEP TRYST ROAD KNOXVILLE, MD 21758	MORRIS & RITCHIE ASSOCIATES, INC.	HEFFNER GEORGE D JR
SP-23-040	Site Plan	In Review	19-Oct-23	BURKHOLDER PROPERTY WAREHOUSE	12440 BURKHOLDER LANE HAGERSTOWN, MD 21740	DYNAMIC ENGINEERING	MARTIN LAWAYNE A & MARTIN MARGARET J
SP-23-041	Site Plan	In Review	19-Oct-23	BOWMAN LIGHTNER - PHASE 3	0 LAPPANS ROAD WILLIAMSPORT, MD 21795	FREDERICK SEIBERT & ASSOCIATES	BOWMAN SPIELMAN LLC
GP-23-019	Site Specific Grading Plan	In Review	19-Oct-23	COURIE DOON LOT 4	4555 COURIE DOON LANE ROHRERSVILLE, MD 21779	FOX & ASSOCIATES INC	COURIE DOON FARM
SGP-23-072	Standard Grading Plan	Approved	02-Oct-23	FREEDOM HILLS LOTS 145 & 146	13955 PATRIOT WAY HAGERSTOWN, MD 21740		FREEDOM HILL HOMES LLC

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

Land Development Reviews							
Record #	**Type**	**Status**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
SGP-23-073	Standard Grading Plan	In Review	14-Oct-23	EMILY & CHUCK GORDON	3909 HARPERS FERRY ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	GORDON CHARLES E GORDON EMILY D
SGP-23-075	Standard Grading Plan	Approved	24-Oct-23	MARC REEVES & EVELYN BONNETT	20214 LEHMANS MILL ROAD HAGERSTOWN, MD 21742	FREDERICK SEIBERT & ASSOCIATES	REEVES MARC O MONNETT EVELYN R
SWCP23-023	Stormwater Concept Plan	In Review	12-Oct-23	OLIVER DRIVE RETAIL BLDG	13721 OLIVER DRIVE HAGERSTOWN, MD 21740		GHATTAS ENTERPRISES MAUGANS AVE LTD PARTNERSHIP
SWCP23-024	Stormwater Concept Plan	In Review	12-Oct-23	ELMWOOD FARM REVISED SECTION 5D	10033 WILKES DRIVE WILLIAMSPORT, MD 21795		
SSWP23-058	Stormwater Standard Plan	Approved	13-Oct-23	WILLIAMS AG STRUCTURE	4800 CHURCHEY ROAD SHARPSBURG, MD 21782		WILLIAMS KURT A WILLIAMS JULIE A
SSWP23-059	Stormwater Standard Plan	Approved	24-Oct-23	MARC REEVES & ELEYLN BONNETT		FREDERICK SEIBERT & ASSOCIATES	REEVES MARC O MONNETT EVELYN R
TIS-23-009	Traffic Impact Study	Traffic Impact Study Received	13-Oct-23	THE VILLAGE AT VALENTIA RIDGE			VALENTIA LAND DEVELOPMENT LLC
TYU-23-015	Two Year Update	Pending Documents	13-Oct-23	FIX N GO TRUCK REPAIR	SOUTHWEST SIDE OF LAPPANS ROAD	FREDERICK SEIBERT & ASSOCIATES	AKHMEDOV IZMIR A
GPT-23-083	Type 2 Grading Plan	Approved	04-Oct-23	ELMWOOD 185 10026 WILKES DR	10026 WILKES DRIVE WILLIAMSPORT, MD 21795	RICHMOND AMERICAN HOMES OF MARYLAND, INC	FELIXS FOLLY LLC
GPT-23-084	Type 2 Grading Plan	Approved	04-Oct-23	GAVER MEADOWS LOT 59	108 CHARLOTTE STREET HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	DAVID C LYLES DEVELOPERS LLC
GPT-23-086	Type 2 Grading Plan	Approved	10-Oct-23	GAVER MEADOWS LOT 74	13 PATTI LANE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
GPT-23-087	Type 2 Grading Plan	Approved	11-Oct-23	GAVER MEADOWS LOT 77	14 PATTI LANE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
GPT-23-088	Type 2 Grading Plan	Approved	11-Oct-23	GAVER MEADOWS LOT 89	29 BESSY NAOMI DRIVE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
GPT-23-089	Type 2 Grading Plan	Approved	11-Oct-23	GAVER MEADOWS LOT 71	102 RAYMOND CROSSI HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	DAVID C LYLES DEVELOPERS LLC
GPT-23-090	Type 2 Grading Plan	Approved	11-Oct-23	GAVER MEADOWS LOT 90	33 BESSY NAOMI DRIVE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
GPT-23-091	Type 2 Grading Plan	Approved	11-Oct-23	GAVER MEADOWS LOT 73	9 PATTI LANE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
GPT-23-092	Type 2 Grading Plan	Approved	25-Oct-23	GAVER MEADOWS LOT 48	115 CHARLOTTE STREET HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	DAVID C LYLES DEVELOPERS LLC
GPT-23-093	Type 2 Grading Plan	Approved	25-Oct-23	GAVER MEADOWS LOT 63	109 RAYMOND CROSSI HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	DAVID C LYLES DEVELOPERS LLC
GPT-23-094	Type 2 Grading Plan	Approved	25-Oct-23	GAVER MEADOWS LOT 72		FREDERICK SEIBERT & ASSOCIATES	

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

Permits Reviews							
Record #	**Type**	**Status**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
2023-05098	Entrance Permit	In Progress	03-Oct-23	STICK BUILT HOME	S-23-011 5933 CLEVELANDTOWN ROAD, TRACT B	GROSSNICKLE CONSTRUCTION LLC	HARRISVILLE LAND LLC
2023-05123	Entrance Permit	In Progress	03-Oct-23	STICK BUILT HOME	LOR SMALLWOOD TERRACE, LOT 23		CHANEY ERIC
2023-05137	Entrance Permit	Approved	04-Oct-23	STICK BUILT HOME	S-21-019 10026 WILKES DRIVE, LOT 185		FELIXS FOLLY LLC
2023-05145	Entrance Permit	In Progress	05-Oct-23	SEMI-DETACHED HOME	S-21-031 19642 LAVENDER LANE, LOT 85		DAN RYAN BUILDERS MID ATLANTIC INC
2023-05148	Entrance Permit	In Progress	05-Oct-23	SEMI-DETACHED HOME	S-21-031 19640 LAVENDER LANE, LOT 86	DAN RYAN BUILDERS INC	DAN RYAN BUILDERS MID ATLANTIC INC
2023-05152	Entrance Permit	In Progress	05-Oct-23	SEMI-DETACHED HOME	S-21-031 19612 LAVENDER LANE, LOT 89	DAN RYAN BUILDERS INC	DAN RYAN BUILDERS MID ATLANTIC INC
2023-05156	Entrance Permit	In Progress	05-Oct-23	SEMI-DETACHED HOME	S-21-031 19610 LAVENDER LANE, LOT 90	DAN RYAN BUILDERS INC	DAN RYAN BUILDERS MID ATLANTIC INC
2023-05202	Entrance Permit	In Progress	09-Oct-23	SEMI-DETACHED HOME	S-22-006 13345 DIAMOND POINTE DRIVE, LOT 124	PAUL CRAMPTON CONTRACTORS INC	EMERALD POINTE INC
2023-05215	Entrance Permit	In Progress	09-Oct-23	SEMI-DETACHED HOME	SP-22-006 13347 DIAMOND POINTE DRIVE, LOT 123	PAUL CRAMPTON CONTRACTORS INC	EMERALD POINTE INC
2023-05258	Entrance Permit	Approved	10-Oct-23	SEMI-DETACHED HOME	S-15-022.R01 13953 PATRIOT WAY, LOT 145		FREEDOM HILL HOMES LLC
2023-05271	Entrance Permit	Approved	11-Oct-23	SEMI-DETACHED HOME	S-15-022.R01 13955 PATRIOT WAY, LOT 146		FREEDOM HILL HOMES LLC
2023-05398	Entrance Permit	In Progress	18-Oct-23	STICK BUILT HOME	S-21-006 7060 GILARDI ROAD, LOT 1		REITER WILLIAM A ENGLEHART SARAH E
2023-05415	Entrance Permit	In Progress	19-Oct-23	SEMI-DETACHED HOME	S-21-031 19652 LAVENDER LANE, LOT 81		DAN RYAN BUILDERS MID ATLANTIC INC
2023-05422	Entrance Permit	In Progress	19-Oct-23	SEMI-DETACHED HOME	S-21-031 19650 LAVENDER LANE, LOT 82		DAN RYAN BUILDERS MID ATLANTIC INC
2023-05464	Entrance Permit	In Progress	23-Oct-23	STICK BUILT HOME	S-18-035 9351 ALLOWAY DRIVE, LOT 77		DRB GROUP MID ATLANTIC LLC
2023-05480	Entrance Permit	In Progress	23-Oct-23	STICK BUILT HOME	S-18-035 9351 ALLOWAY DRIVE, LOT 225		WESTFIELDS INVESTMENT LLC
2023-05487	Entrance Permit	In Progress	23-Oct-23	STICK BUILT HOME	LOR 20214 LEHMANS MILL ROAD		REEVES MARC O MONNETT EVELYN R
2023-05522	Entrance Permit	In Progress	25-Oct-23	STICK BUILT HOME	S-22-012 13807 PULASKI DRIVE, LOT 66		PARADISE HEIGHTS LAND
2023-05546	Entrance Permit	Review	26-Oct-23	STORAGE BUILDING	S-90-147 19137 VALLEY OVERLOOK COURT, LOT 8	ELLIS SCOTT A	TYLER DAVID W JR & TYLER CHRISTIE A
2023-05630	Entrance Permit	In Progress	31-Oct-23	COMMERCIAL	SP-23-033 19729 LONGMEADOW ROAD	OLIVER HOMES INC	OLIVER JOHN R COMPANY INC
2023-05268	Floodplain Permit	Review	11-Oct-23	FLOODPLAIN	LOR 20815 MOUSETOWN ROAD		RUSSELL DONALD G RUSSELL JACQULINE C
2023-05528	Floodplain Permit	Review	25-Oct-23	FLOODPLAIN	LOR 14241 FALLING WATERS ROAD, LOT 235		POTOMAC FISH & GAME CLUB
2023-05609	Floodplain Permit	Review	31-Oct-23	HEAVY USE AREA	LOR 13255 PECKTONVILLE ROAD		PETERSON ROBERT BRAD II
2023-05621	Floodplain Permit	Review	31-Oct-23	FLOODPLAIN	TOWN OF SMITHSBURG WATER LOOP PROJECT		SMITHSBURG TOWN OF
2023-05099	Grading Permit	In Progress	03-Oct-23	STICK BUILT HOME	S-23-011 5933 CLEVELANDTOWN ROAD, TRACT B	GROSSNICKLE CONSTRUCTION LLC	HARRISVILLE LAND LLC
2023-05124	Grading Permit	In Progress	03-Oct-23	STICK BUILT HOME	LOR SMALLWOOD TERRACE, LOT 23		CHANEY ERIC

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

Permits Reviews							
Record #	**Type**	**Status**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
2023-05132	Grading Permit	In Progress	04-Oct-23	STICK BUILT HOME	LOR 17710 OAK RIDGE DRIVE		GUEVARA GARCIA JOSE A GUEVARA GARCIA LISETH
2023-05138	Grading Permit	Approved	04-Oct-23	ELMWOOD 185 10026 WILKES DR	S-21-019 10026 WILKES DRIVE, LOT 185		FELIXS FOLLY LLC
2023-05139	Grading Permit	Approved	04-Oct-23	GRADING FOR GAVER MEADOWS LOT 59	TWN-20-006 108 CHARLOTTE STREET, LOT 59	NVR, INC. T/A NV HOMES AND RYAN HOMES	DAVID C LYLES DEVELOPERS LLC
2023-05146	Grading Permit	In Progress	05-Oct-23	ROSEHILL MANOR LOT #85	S-21-031 19642 & 19640 LAVENDER LANE, LOT 85 & 86	DAN RYAN BUILDERS INC	DAN RYAN BUILDERS MID ATLANTIC INC
2023-05153	Grading Permit	In Progress	05-Oct-23		S-21-031 19612 & 19610LAVENDER LANE, LOT 89 & 90	DAN RYAN BUILDERS INC	DAN RYAN BUILDERS MID ATLANTIC INC
2023-05203	Grading Permit	In Progress	09-Oct-23	SEMI-DETACHED HOME	S-22-006 13345 DIAMOND POINTE DRIVE, LOT 124 & LOT 123	PAUL CRAMPTON CONTRACTORS INC	EMERALD POINTE INC
2023-05259	Grading Permit	Approved	10-Oct-23	SEMI-DETACHED HOME	S-15-022.R01 13953 PATRIOT WAY, LOT 145 & LOT 146		FREEDOM HILL HOMES LLC
2023-05262	Grading Permit	Approved	10-Oct-23	GAVER MEADOWS LOT 74 GRADING	TWN-19-007 13 PATTI LANE, LOT 74		
2023-05273	Grading Permit	In Progress	11-Oct-23	COMMERCIAL	SP-22-041 10335 SUPERCENTER DRIVE		ARNETTS INC
2023-05275	Grading Permit	Approved	11-Oct-23	GRADING FOR GAVER MEADOWS LOT 77	TWN-19-007 14 PATTI LANE, LOT 77		
2023-05277	Grading Permit	Approved	11-Oct-23	GRADING FOR GAVER MEADOWS LOT 89	TWN-19-007 29 BESSY NAOMI DRIVE, LOT 89		
2023-05278	Grading Permit	Approved	11-Oct-23	GRADING FOR GAVER MEADOWS LOT 71	TWN-19-007 102 RAYMOND CROSSING, LOT 71		DAVID C LYLES DEVELOPERS LLC
2023-05280	Grading Permit	Approved	11-Oct-23	GRADING FOR GAVER MEADOWS LOT 90	TWN-19-007 33 BESSY NAOMI DRIVE, LOT 90		
2023-05416	Grading Permit	In Progress	19-Oct-23	ROSEHILL MANOR LOT #81	S-21-031 19652 LAVENDER LANE, LOT 81		DAN RYAN BUILDERS MID ATLANTIC INC
2023-05465	Grading Permit	In Progress	23-Oct-23		S-18-035 9351 ALLOWAY DRIVE, LOT 77		DRB GROUP MID ATLANTIC LLC
2023-05481	Grading Permit	In Progress	23-Oct-23	WESTFIELDS LOT #225	S-18-035 9351 ALLOWAY DRIVE, LOT 225		WESTFIELDS INVESTMENT LLC
2023-05486	Grading Permit	In Progress	23-Oct-23	MARC REEVES & EVELYN MONNETT	LOR 20214 LEHMANS MILL ROAD		REEVES MARC O MONNETT EVELYN R
2023-05496	Grading Permit	In Progress	24-Oct-23	STICK BUILT HOME	S-23-016 3909 HARPERS FERRY ROAD, LOT 1	XS DESIGN BUILD	GORDON CHARLES E GORDON EMILY D
2023-05517	Grading Permit	Approved	25-Oct-23	GRADING FOR GAVER MEADOWS LOT 48	TWN-20-006 115 CHARLOTTE STREET, LOT 48		DAVID C LYLES DEVELOPERS LLC
2023-05518	Grading Permit	Approved	25-Oct-23	GRADING FOR GAVER MEADOWS LOT 63	TWN-20-006 109 RAYMOND CROSSING, LOT 63		DAVID C LYLES DEVELOPERS LLC
2023-05520	Grading Permit	Approved	25-Oct-23	GRADING FOR GAVER MEADOWS LOT 72	TWN-19-007 5 PATTI LANE, LOT 72		
2023-05524	Grading Permit	In Progress	25-Oct-23	PH 66	S-22-012 13807 PULASKI DRIVE, LOT 66		PARADISE HEIGHTS LAND
2023-05627	Grading Permit	In Progress	31-Oct-23	COMMERCIAL	SP-23-033 19729 LONGMEADOW ROAD	OLIVER HOMES INC	OLIVER JOHN R COMPANY INC
2023-05282	Grading Permit	Approved	11-Oct-23	DEMO	14616 PENNSYLVANIA AVENUE		WASH CO COMMISSIONERS BOARD OF
2023-05542	Grading Permit	Review	26-Oct-23	DOWNSVILLE PIKE GAS LINE INSTALLATION	16968 EDWARD DOUB ROAD WILLIAMSPORT, MD 21795		DEATRICH NANCY L LAPOLE EDWARD W

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

Permits Reviews							
Record #	**Type**	**Status**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
2023-05265	Non-Residential New Construction Permit	Review	10-Oct-23	COMMERCIAL	SP-23-033 19729 LONGMEADOW ROAD	OLIVER HOMES INC	OLIVER JOHN R COMPANY INC
2023-05235	Utility Permit	Review	10-Oct-23	POINT BROADBAND FIBER HTF09A-C01	BUCKY AVENUE, GARDENWOOD DRIVE, RICHWOOD DRIVE, INSURANCE WAY	PURE LIFE CABLE	DEPP JONATHAN D & VALERIE J
2023-05243	Utility Permit	Approved	10-Oct-23		16714 CUSTER COURT	OLIVER HOMES INC	OLIVER MARK B
2023-05401	Utility Permit	Approved	18-Oct-23	SEWER TAP	13823 PARADISE CHURCH ROAD		RYAN DANIEL
2023-05603	Utility Permit	Review	30-Oct-23	ANTIETAM BROADBAND	17088 BAKERSVILLE ROAD	ANTIETAM CABLE TELEVISION INC	RUFFNER DAVID L
2023-05604	Utility Permit	Review	30-Oct-23	ANTIETAM BROADBAND	17243 COLE ROAD	ANTIETAM CABLE TELEVISION INC	FCPT HOLDINGS LLC
2023-05092	Utility Permit	Approved	02-Oct-23	POTOMAC EDISON	GAYWOOD DRIVE AND MEADOWOOD DRIVE	POTOMAC EDISON	WOODS GEORGE W
2023-05345	Utility Permit	Approved	16-Oct-23	COLUMBIA GAS	18133 MAUGANS AVENUE	COLUMBIA GAS OF MD	MARVIN GARDENS PROPERTIES LLC
2023-05346	Utility Permit	Approved	16-Oct-23	POTOMAC EDISON	17824 COLLEGE ROAD	POTOMAC EDISON	MARTIN EDWINNA M
2023-05377	Utility Permit	Approved	17-Oct-23	COLUMBIA GAS	11023 LINCOLN AVENUE	COLUMBIA GAS OF MD	FRANKLIN AMY F & MARY L
2023-05547	Utility Permit	Review	27-Oct-23		20546-20602 WOODBRIDGE DRIVE	ANTHONY MAIETTA	VAZQUEZ ELVIN & VAZQUEZ LENORA
2023-05620	Utility Permit	Approved	31-Oct-23		1185 MOUNT AETNA ROAD	CITY OF HAGERSTOWN (WATER DEPT)	MT AETNA 1185 ASSOCIATES LLP
2023-05247	Utility Permit	Review	10-Oct-23	VERIZON	PEARRE ROAD, EXLINE ROAD, WOODMONT ROAD	VERIZON	MEISTER ALEXANDER H

Plan Review Projects Initialized - October 01, 2023 - October 31, 2023

	Type	Total
LandDev Total by Group: 38	APFO Road Adequacy	2
	Final Plat	1
	Forest Stand Delineation	1
	IMA	2
	Improvement Plan	3
	Preliminary-Final Plat	1
	Redline Revision	1
	Simplified Plat	3
	Site Plan	3
	Site Specific Grading Plan	1
	Standard Grading Plan	3
	Stormwater Concept Plan	2
	Stormwater Standard Plan	2
	Traffic Impact Study	1
	Two Year Update	1
	Type 2 Grading Plan	11
Permits Total by Group: 64	Entrance Permit	20
	Floodplain Permit	4
	Grading Permit	27
	Non-Residential New Construction Permit	1
	Utility Permit	12
Total		102

Memorandum

To: Planning Commission members

From: Jill Baker, Director Planning and Zoning

Date: November 17, 2023

Re: Comprehensive Plan public comments

Members,

As you are aware, the comment period for the draft plan ended on October 31, 2023. We have received over 100 comments from citizens and agencies regarding the draft plan. To make going through these comments more manageable, Staff is working through review of all the comments in several segments. The first batch of comments we are reviewing are agency comments. We have received comments from five agencies including the City of Hagerstown, the Board of Education, Maryland Department of Planning, County Public Works, and the airport director.

You will find copies of these comments included within your packet so please take some time to read over them for the next meeting. Obviously, it will take some time to digest all of the information, but we wanted to make sure that you had time to at least review the information and get a feel for the characterization of the comments.

Staff is currently working on point-by-point responses to the agency comments but likely won't have them all ready for the December meeting so we will be prepared for some general discussion but not necessarily firm recommendations or responses. If you have any questions or concerns prior to the meeting, please let me know.

CITY OF HAGERSTOWN, MARYLAND

Planning & Code Administration Department
One East Franklin Street • Hagerstown, MD 21740
E-mail: planning@hagerstownmd.org
Telephone: 301-739-8577, ext. 138 • Website: www.hagerstownmd.org

MEMORANDUM

TO: Jill Baker, County Planning Director

FROM: Kathleen A. Maher, Director

DATE: September 25, 2023

SUBJECT: City of Hagerstown Comments on Draft County Comprehensive Plan 2040

City Planning staff reviewed proposed comments on the draft County Comprehensive Plan with the Mayor and City Council on September 12 and with the Hagerstown Planning Commission on September 13. Both bodies approved forwarding of comments as presented to them.

The City appreciates the hard work undertaken by the County's Planning staff and Planning Commission in preparation of an in-house update to the 2002 Comprehensive Plan. This plan provides a great deal of information to educate the public on important issues and services affecting our citizens and businesses. The City took our responsibility seriously to review the plan and prepare comments on issues affecting the city since the County Comprehensive Plan has an impact on growth and service planning in our region, as well as provides direction for other important planning documents effecting the Hagerstown region, such as the County Water & Sewer Plan and the Board of Education's Facilities Master Plan.

Attached is a document of recommended edits to facts and figures in the draft plan and comments on policy issues in the plan. There are four major issues of the plan that we feel need particular emphasis in our comments and we acknowledge that most of these are difficult topics with alternative positions well represented in the community. We hope that our comments receive a thoughtful review as the plan review process continues.

Utility Capacity and Growth Planning – While the draft plan is recommending a reduction in the area included in the Urban Growth Area (UGA), it will still recommend a growth area that is far larger than the City and the County have the capacity to serve with utilities. Since 2008, the City has indicated that we do not have enough water capacity to serve the full buildout of the City's identified, smaller growth area – the Medium Range Growth Area (MRGA) - with our current permit of 15 MGD or even with a larger permit from the State of 18 MGD. What we have indicated is that we believe we can serve the projected amount of growth we might see

in the MRGA over the life of the 20-year plan. State law required the City comp plan to limit growth to an area we project can be served. To continue to indicate that the UGA is the planned public water service area conflicts with the City's plan. To provide a more realistic picture of the planned public water service area and provide clear direction to the Health Department, it would be helpful if the County Comp Plan and the County W&S Plan did not continue to indicate the Urban Growth Area is the planned service area, but either 1). retracted the UGA to be more in line with the City's MRGA; or 2) identified the areas outside the MRGA in the UGA as not planned for City water service.

In order to maximize water and wastewater service capacity for planned growth areas, the City also recommends the following:

1. In order to increase the permit for the City Water Treatment Plant from 15 MGD to 18 MGD, it will be necessary to upgrade the hydraulic capacity of the plant and its transmission lines which carries a hefty price tag. If a greater ability to serve beyond the City's borders and annexable area is desired by the County and community in a nearer term timeframe, funding assistance will be necessary to make such upgrades possible.
2. A great deal of capacity at the City Wastewater Treatment Plan (WWTP) is utilized by development outside of the city in the north and east sides of the UGA. It would be helpful to investigate transferring even more of the JSSAA on the north side of the UGA over to the County Wastewater Treatment Plant, so the City WWTP can accommodate the growth expected within the city and the east side of the MRGA/UGA.
3. The County will need to investigate alternative public water sources which is a recommendation of the draft plan, if there is a continued desire for a County growth area which is larger than the City's MRGA.

Land Use Recommendations – The Future Land Use map of the draft plan only has one residential category. The text of the draft plan recommends fairly low density levels for low-density and moderate-density development. Currently, the County's lowest density residential category is identified as suitable for the fringes of the Urban Growth Area, however it is placed on raw land along the city borders. It would be helpful if the Future Land Use Map included different residential land use categories for anticipated different density levels, so the plan will guide the future comprehensive rezoning and municipal growth planning. It would also be helpful if the land use categories placed along the city's borders were more compatible with the City's projected density levels or with the development in place in those areas.

Sidewalks – The draft plan recommends developing a comprehensive and cohesive pedestrian system in the growth areas. The City supports this recommendation and urges that sidewalks be required within the growth areas along public streets. The City has expended a great deal of effort and resources to fill gaps in the pedestrian network in the city, particularly along the Dual Highway. State grant sources have been greatly helpful as we worked on that effort. We also require developers to construct sidewalks along the frontage of their projects and to connect to the nearest sidewalk. This sidewalk connectivity issue is a major goal of the city that is at times thwarted by the County when sidewalks are not allowed or not required to be

placed in County or State rights-of-way. We appreciate the recommendation to work on this connectivity issue in the County plan.

Schools – The draft plan takes a system-wide look at school capacity and indicates that all levels are below the State rated capacity. This downplays the fact that there are significant school capacity issues within the growth area. Since the draft plan is projecting demand for a huge increase in residential units in the county, the plan should also be addressing what needs to be done so there is sufficient school capacity to serve that growth. The City is aware that the County would like the City to re-adopt an Adequate Public Facilities Ordinance (APFO) for schools because of the capacity constraints in the growth area. If that is a County goal, the County comp plan should identify the capacity issues as a significant problem and priority to address and outline recommendations for a pace of construction to meet current deficits and growth projection needs. Without a realistic plan to build capacity in the growth area schools, the draft plan's residential growth projections are on a collision course with the school capacity issues in the UGA.

> **APFO for Schools** - For the City of Hagerstown to come back to the table on the school APFO issue, County planning would need to realistically address the identified and projected school capacity shortages in the UGA and devise a funding plan in the Capital Improvement Program (CIP) to tackle identified capacity deficits to serve existing needs and growth projections. The Maryland standard for adopting an APFO requires "adequate facilities to be reasonably probable of fruition in the foreseeable future." When the City had an APFO for schools from 2006-2014, we were informed of school capacity deficits in the UGA that would prevent development plan approval. Those capacity deficits in the UGA are still being experienced today but with no plans in the County CIP to address them. If the City re-adopted an APFO for schools at this point, we would have no assurances that adequate school facilities would be coming online in the UGA in the foreseeable future.

Again, we appreciate the opportunity to comment on the County's draft comprehensive plan. We would be happy to meet to further discuss these issues as public input on the draft plan is evaluated.

Attachment
C: Mayor and City Council
Hagerstown Planning Commission
City Directors Team
Mark Bradshaw, County Director of Environmental Management
Jonathan Horowitz, County Director of Business & Economic Development
Chad Criswell, Washington County Public Schools Facilities Planning & Development

City of Hagerstown Comments on Draft County Comprehensive Plan

POLICY/PLAN COMMENTS

Utility Capacity and Growth Planning

1. **Chapter 13 – Water Resources Element - Page 302** – **Addressing Issues of Concern – Drinking Water – 2nd paragraph** – The City of Hagerstown's water service area is defined in the City Comprehensive Plan and the UGA is not the planned limits of service for the City water utility. The City's Comprehensive Plan has indicated since 2008 that the potential ultimate build-out of the MRGA plus prior commitments to the Towns of Smithsburg, Funkstown, and Williamsport and pre-2008 pre-annexation agreements is larger than can be served by City water at its existing capacity of 15 MGD and if expanded to 18 MGD. For the County Comp Plan to continue to identify a larger area than the MRGA as the planned area of service for the City's water utility would require the County to identify alternative water resources to serve the UGA.
2. **Chapter 14 – Growth Management - Page 343 – Development Capacity Analysis** – It seems that this data is to help justify the UGA boundary adjustment recommendation, however it excludes the lands within municipalities in the growth areas that also contribute to demand on the utilities. This would give an incomplete picture of the growth demands in the UGA and TGAs. Municipal Comp Plans are required to not only consider the development capacity of the land but also the infrastructure capacity to serve the projected demand. State law requires the municipalities to limit their growth to an area the plan determines can be served. For Hagerstown's plan the MRGA is encompassing an area we project can be served over the life of the plan (20 years) and our annexation activities and utility services are limited to that area. The City plan acknowledges that we do not have infrastructure capacity to serve the full buildout of the MRGA.
3. **Chapter 14 – Growth Management - Page 351-352 – Growth Areas** – The plan indicates that growth areas are where development is to be encouraged and that they surround urban locations where the required infrastructure to support intensive development is in existence or planned. The plan observes that the Water Resource Element highlighted significant deficiencies in drinking water and wastewater resources which are potential impediments to increased growth. Rather than acknowledging that this is a reason to designate a smaller Urban Growth Area which is capable of being served, the plan indicates the UGA is being forced to be smaller because of the City's growth planning for its municipal utilities which creates deficiencies for County growth. As a result of these factors, the County is removing large areas of residentially zoned land from the UGA, which result in a higher-than-average amount of residential development occurring within the municipal boundaries in the UGA. The City offers the following comments on these conclusions:

a. The fact is the City serves more county customers than it does city customers, so it has accommodated a great deal of growth outside its boundaries in the UGA.
b. Another fact is that all of our water and wastewater resources – City, Towns, and County – are finite unless there is a scientific and fiscal means of increasing the capacity to serve more customers in the future.
c. The City does not plan to serve outside its State-mandated MRGA, because we do not have the capacity at present to serve what the development capacity analyses tell us the land could yield outside the MRGA. The State required all municipalities to limit their growth to areas that analysis showed could be served.
d. It would be prudent and good planning for the counties to take that same approach, even though not required to do so by the State, so that the County Commissioners know what is capable of being served and growth boundaries are established to encompass what realistically can be served on municipal, town, and county water and wastewater infrastructure.
e. When we have the infrastructure capacity to serve a larger growth area, that would be the time to include other lands into the growth areas.
f. Having residential growth occur within municipalities is precisely what Smart Growth tenets recommend since the municipal areas typically do have infrastructure in close proximity to vacant land to accommodate new growth.

4. **<u>Chapter 14 – Growth Management - Page 353 – Conclusions</u>** – The plan indicates that the projected demand for new residential growth can be accommodated in the UGA and TGA's, however the demand for public water could exceed capacity and treatment capabilities at some facilities within the life of this plan. The City offers the following comments on this conclusion:
    g. The City would contend that is a reason to have a UGA that realistically reflects what can be served. It will take time to investigate and fund the costly and potentially regulatorily challenging possible alternative solutions to increase capacity.
    h. The City agrees that working on potential solutions together makes good planning sense. However, the City would recommend that the County plan not continue to indicate that public water and wastewater infrastructure is planned for areas we know we do not have the ability to serve in the near and probably mid-to-far term time to serve.
    i. The City and the County have already negotiated and updated the Joint Sewer Service Area Agreement for areas of the UGA that have customers on County pipes being treated at the City WWTP. The Flow Transfer Agreement on the west side of the city was also addressed as part of the JSSAA update. This shifting of wastewater customers on the northwest and west sides of the UGA will see some benefits for both City and County customers, however more could be done to free up capacity to serve planned and potential future residential growth on the north and east sides of the UGA. In addition to raw residentially zoned land present on the north and east sides of the UGA, there are a large

number of dwelling units already approved in these areas with wastewater service expected at the City wastewater treatment plant. The hospital area is expecting a great deal of new non-residential and residential growth which also expects to be served by the City WWTP. Scientific constraints are limiting capacity at the City WWTP. In order to accommodate the projected growth on the north and east side of the UGA, it might be prudent to plan for shifting even more of the County customers on the north side of the UGA to the County plant to free up capacity at the City WWTP for projected growth in the city as well as outside the city in the east areas of the MRGA/UGA.

5. **Chapter 15 – Implementation - Page 364 – Goal 2 – maintain and update the "Infrastructure Assessment for Washington County and the City of Hagerstown"** - Such an effort would be helpful in identifying costs and potential funding sources for needed or desired upgrades, but any recommendations developed for City utilities need to be respectful of the utility owner's goals and plans.
6. **Chapter 15 – Implementation - Page 372 – Goal 5 – incorporate water and wastewater information from the plan into the next revision of the County Water & Sewerage Plan** – While the City's MRGA goals are included in the W&S Plan, the UGA is still shown as the planned service area for public water and wastewater. The Health Department does not recognize the MRGA and only uses the UGA for decisions on approval or denial of well and septic requests. If a tract is outside the MRGA (and not eligible for an exception for City service in the City's W&WW Policy) but inside the UGA, the property owner will likely have a great deal of trouble gaining Health Department approval of well and septic for the tract.
7. **Chapter 15 – Implementation - Pager 373 – Goal 5 – coordinate with City on needed upgrades to the City WWTP to determine if inter-county connection will be necessary** – Already provided a comment for page 353 on whether it would be prudent to shift more of the JSSAA area in the north UGA over to the County WWTP to free up capacity at the City WWTP to serve the city and the east side of the MRGA/UGA.
8. **Chapter 15 – Implementation - Page 373 – Goal 5 – explore opportunities to supplement the water supply to the UGA through potential ground water treatment facilities** – Would likely be faster and more easily approved by MDE to cooperate on upgrades to the City's existing surface water treatment facility so a larger permit can be issued to draw from the Potomac to serve growth projections within the MRGA. Alternative sources would need to be explored by the County to serve areas outside the MRGA in the UGA. (See p. 302 comment - page 1 of this document.)

LAND USE CHANGE RECOMMENDATIONS

1. **Chapter 14 – Growth Management - Page 348 – Map 14-6: Future Land Use** – Recommend having more than one residential land use category on the Future Land Use map. There is a great deal of difference between moderate- and high-density residential development in terms of impact on infrastructure. If only one land use category, it does not provide guidance on desired densities for the future comprehensive rezoning and for municipal growth planning.

2. **Chapter 14 – Growth Management - Page 354** – **Land Use Categories Associated with Growth Areas – Residential** – The plan expects residential growth to include low to moderate density development with the majority of it occurring within the municipalities. The plan expects lower density development (2-4 units per acre) at the edges of the UGA and more moderate density development (4-6 units per acre) at the edges of the City's MRGA. It would be helpful if the County's Future Land Use Map (Map 14-6) delineated where these different areas are planned. In terms of consistency of planning efforts, the City's plan identifies moderate density as 3-5 units per acre, medium density as 5-10 units per acre, and high density as 10-16 units per acre.
3. **Chapter 14- Growth Management - Page 360 – Land Use & Growth Recommendations – Coordination with Municipalities** – The plan recommends coordinating with municipalities to plan for future annexation areas and for compatible land uses along common boundaries. The City typically looks to be compatible with the County's land use plan and zoning for the non-residential areas as much as possible when creating the City plan's Future Land Use map for the MRGA. Even then it is tricky because the City has no zone like HI. Difficulties arise in the residential areas since the County comp plan gives no guidance on the Future Land Use map for density intent for residential zoning and the County zoning ordinance has residential densities and uses that are quite different from the City's zoning. To ease compatibility goals, the City would recommend that proximity to corporate boundaries within the MRGA, which is where land is annexable, not be categorized as on "the fringes of the UGA" for RT zoning. Rather it would be more compatible if those areas were classified as RS, RU, or RM depending upon other residential zonings or development in the area.

SIDEWALKS

1. **Chapter 7 – Transportation - Page 140-141 – Bicycle, Pedestrian and Trail – A. Urban Growth Area** – It would be helpful if this section recommended requiring public sidewalks on collector and arterial roadways as part of the development review process.
2. **Chapter 14 – Growth Management - Page 360 – Land Use & Growth Recommendations – Improve Community Design Standards** – The City applauds the recommendation to develop a comprehensive and cohesive pedestrian system in designated growth areas. The City's efforts to ensure safe pedestrian connections are frustrated at times when the County refuses to allow or refuses to require the construction of a public sidewalk in the right-of-way of a County or State roadway. An adjustment to that position would be much appreciated.
3. **Chapter 15 – Implementation - Page 366 – Goal 3 – amend APFO to include the provision of bicycle, pedestrian and/or transit facilities** – The City supports this recommendation to ensure new development at least provides sidewalks along roadways.

SCHOOLS

1. **Chapter 8 – Community Facilities - Page 153-159 - Educational Facilities – Public Elementary, Middle, and High Schools** – The plan's description of the existing school enrollment is systemwide and thus indicated at the snapshot in time of the review that all school levels were below the State Rate Capacity (because of surplus capacity in Hancock). The WCPS educational facilities master plan projects deficits in certain out years at certain school levels, again systemwide. When you drill down in the WCPS data, it is shown that a number of schools serving the UGA are exceeding the State Rated Capacity. The plan indicates that South High has capacity issues and that additional capacity at the high school level will have to be created at some point in the relatively near future. The WCPS plan is quoted as saying that the "current County CIP plan and funding commitment is unsustainable, and will not support Washington County's long-term community, educational, and economic needs." The first recommendation on page 179 is to conduct a cost benefit analysis to determine the most fiscally responsible and feasible option to handle the fluctuating school enrollment numbers. The City offers the following comments on this issue:
    a. Despite having an APFO for schools for over 20 years and collecting mitigation fees from developers who were creating development in projected over-capacity school attendance areas, funding has not been committed sufficient to create new capacity necessary to address the capacity deficits projected from growth and currently experienced as a result of growth in the last 20 or more years. The City participated in the County APFO for schools from 2006-2014, until repealing the APFO due to lack of growth to justify such a growth control device. The schools identified as having projected capacity deficits at that time are still discussed as having projected capacity deficits today. The City is willing to engage in serious discussions on the school capacity challenges, particularly as this plan and the City's own recent development experience and development capacity analysis show a significant increase in housing units having been built, planned or potentially coming from land in Hagerstown. However, until a real commitment is made by the County to identify/raise funds for construction of additional school capacity to address enrollment needs in the UGA, it is not logical nor fiscally prudent for the City to re-subject itself and its developers to a County APFO for schools.
2. **Chapter 15 – Implementation - Page 363 – Goal 1** – recommend including a CIP statement like included for Goal 2 – "Ensure that the annual CIP for the County furthers efforts to maintain and expand necessary school facilities to attract residential growth that helps provide a diverse range of housing opportunities."
3. **Chapter 15 – Implementation - Page 372 – Goal 5** – coordinate with WCPS to efficiently identify and locate future school facilities to meet the needs of expanding school enrollment – Recommend adding "and to meet the needs of existing overcrowding in the growth area schools." Also recommend adding "coordinate with County CIP to fund expansion needs of the school system."

SUGGESTED EDITS OR CORRECTIONS

Chapter 6 – Housing

1. **Page 89 – Code Enforcement and Building Inspections** – The City's department name is Hagerstown Planning & Code Administration Department. The City also administers a rental licensing program that provides for annual exterior inspections and periodic interior inspections to ensure that rental housing is safe for tenants and does not detract from the quality of life of the surrounding neighborhood.

Chapter 8 - Community Facilities

2. **Page 150 – Water and Sewerage Facilities** – Recommend mentioning the municipal utilities which serve the municipalities in the county and often serve unincorporated areas around the boundaries of the municipalities, too.
3. **Page 152 – Municipal parks** – The City of Hagerstown has ~~21~~ 22 parks and playgrounds and 60 miles of bike lanes and paths.
4. **Page 162 – Hagerstown Police Department** – no comment at this time.
5. **Page 164-167 – Emergency Services and Fire** - The draft plan does not mention the City of Hagerstown Fire Department as a provider of emergency services within the UGA and beyond. Recommend adding information about this significant service provider. The following is recommended language:
    a. The City of Hagerstown Fire Department (HFD) is a combination Fire Department, providing all-hazard fire-rescue and EMS services to the City of Hagerstown and large portions of Washington County. HFD serves the community from five strategically located fire stations – one owned by the City and four owned by volunteer fire company partners. HFD guarantees 16 trained and certified personnel on-duty at all times and is the provider of the fire-fighting apparatus deployed from all five stations in the city. HFD has an all-hazards mission working collaboratively with law enforcement and all other public safety agencies throughout the county. An automatic aid agreement has been established between the City and the County that recommends the closest fire-rescue resource be dispatched to emergencies. HFD also operates a Confined Space Rescue Team and assists the Washington County Special Operations team on other types of specialized emergencies. HFD operates a training facility for hands-on fire and rescue training that has been fully available to all Washington County fire-rescue companies since 1966 and is equipped with a class-A burn building, five-story training tower, drafting pit, classroom, and propane props. The Hagerstown Fire Marshal's Office (FMO) is a division of HFD whose primary responsibility is plan review for new construction and renovations to existing buildings, inspections for compliance with Life Safety Code, Fire Prevention Code, and sprinkler codes, and cause-and-origin investigations of fires that occur within the city and prosecution of offenders as required.

b. **Page 166 – Table 8-3 – City of Hagerstown Fire Companies** – Recommend the following modifications to this table to more accurately reflect the operations at these stations and properties:

Table 8-3: City of Hagerstown Fire ~~Companies~~ Department

Station	Volunteer Agency	Resources
HFD Station 1	First Hagerstown Hose Company	Engine 1
HFD Station 2	Antietam Fire Company	Engine 2
HFD Station 3 (City owned)	Independent Junior Fire Company and Pioneer Hook & Ladder Company	Engine 3 Truck 3
HFD Station 4	Western Enterprise Company	Engine 4 Truck 4
HFD Station 5	South Hagerstown Fire Company	Engine 5
HFD Administrative Office	N/A	Shift commander
HFD Training Academy	N/A	Live-Fire Training Props Tower Practical Training Areas

Chapter 9 – Economic Development

1. **Page 207 – Map 9-5 - Hopewell Valley North** – The map shows the Bostetter annexation into the City of Hagerstown (effective August 4, 2023) with an agriculture land use recommendation. The tract was annexed with the City's RMOD zoning and the plan is for a residential development.
2. **Page 210 – Urban Revitalization/Municipalities** – Recommend including:
    a. large municipal and State projects that will have significant impact on the future of downtown;
    b. the cultural trail.
3. **Page 212 – Reinvest Maryland** – Recommend including:
    a. private redevelopment including commercial and mixed-use buildings throughout the core;
    b. the State, City, and USMH's efforts to support student housing in the downtown utilizing Community Legacy Funding;
    c. the Main Street program;
    d. the City's Invest Hagerstown program;
    e. grants awarded to the City to pass through to downtown developers to assist with the costs to upgrade water lines for sprinkler systems.

Chapter 12 – Sensitive Areas

1. **Page 290 – Sensitive Areas Recommendations** – The City is not abandoning the Edgemont Reservoir and so recommends deleting the last arrow-bullet about the Edgemont Reservoir Watershed Special Planning Area no longer being needed.

Chapter 13 – Water Resources Element

1. **Page 298 – Public Water Systems** – The William M. Breichner treatment facility has a permitted appropriation permit of 750,000 gpd (not 700,000).
2. **Page 302 – Addressing Area of Concern – Drinking Water – 2nd paragraph** – The City recommends the following modifications to 4th sentence to be more accurate:
    a. The city treatment facility is currently approved for 15 MGD and in future can increase its withdrawal permit; however, ~~treatment of the water supply is currently at its peak due to the age of the system~~ the plant and ~~their~~ its transmission lines would need to be upgraded to handle the increased hydraulic capacity.
3. **Page 303 – Surface Water Sources – first bullet** – Any language that discusses upgrades to the City water treatment plant to accommodate growth goals of the County should not assume only the City would fund those upgrades. Recommend adding language about allocation of County funds for improvements to the City's water system to help facilitate service to the MRGA/UGA.
4. **Page 303 – Surface Water Sources – first bullet** - Recommend correction to 4th sentence:
    a. Significant investment will need to be made ~~by the City~~ to the hydraulic capacity of RC Willson WTP and its existing transmission mains to accommodate an increase in allocation.
5. **Page 307 – Point Source Nutrient Loads and Assimilative Capacity** – Recommend including a comment regarding MDE's Nutrient Caps and the impact of those Caps. Also, the City's WWTP is approved for 8 MGD, not 8.5 MGD.
6. **Page 310 – Addressing Issues of Concern – Wastewater – 2nd paragraph** – The City's WWTP is built to meet the nitrogen requirements at 10.5 MGD (not 10 MGD), but only approved for 8 MGD (not 8.5 MGD) because of the limiting factor of phosphorous.
7. **Page 328-329 – Water Resource Recommendations** – Recommend adding the following:
    a. Water Resources – add language on upgrades that will be required for PFAs/PFOs.
    b. Wastewater Resources – add language about climate resiliency and PFAs and PFOs. Both will require significant funding for compliance.

Chapter 14 – Growth Management and Land Use

2. **Page 343 – Map 14-5: Sustainable Growth and Preservation Act Tiers Map** – It would be helpful if this analysis included a footnote that any Tier 2 areas outside the City's MRGA would not be planned for City water or wastewater service.

K. Maher, COH PCAD, September 5, 2023

Airport

Overview

Operated by the Washington County Division of Public Works, the Hagerstown Regional Airport—Richard A. Henson Field (HGR) is the only commercial service airport in Western Maryland and within our Interstate 81 corridor, four-state region. The 700-acre facility is located on US 11, adjacent to I-81, and four miles north of downtown Hagerstown. The Airport is home to more than 150 based aircraft and 30+ aeronautical and non-aeronautical businesses. Hagerstown Regional Airport also regularly supports VIP movements to and from nearby Camp David, and has the ability to serve regular flights by Group III aircraft such as the Boeing 737 and even occasional visits by larger Group IV aircraft such as the Boeing 757. HGR has a staffed Airport Fire Station and Federal Contract Tower providing air traffic control services (one of only six air traffic control facilities operated at Maryland's public-use airports). In 2007, the airport's primary Runway 09-27 was expanded to the east, in a project involving the installation of bridges and tunnels over U.S. Highway 11. This lengthened its dimensions to 7,000' x 150', now one of the largest runways in the State of Maryland. HGR additionally features state-of-the-art navigational aids such as Category I Instrument Landing Systems on both ends of Runway 09-27. HGR's terminal has the capacity to house 2-3 airlines, and space for several concessions and rental car agencies.

The Airport is also the centerpiece of a major office/industrial park. Numerous private commercial businesses are located on and immediately adjacent to the airport property. These include a fixed base operator offering large corporate aircraft hangar rentals, and a suite of onsite pilot and passenger services and amenities; Maryland's only post-secondary aviation mechanics school, an aviation museum, two restaurants, two flight schools, and a variety of other corporate entities offering aviation-related services such as aircraft airframe and engine maintenance, repair and overhaul, aircraft painting, avionics, damaged aircraft retrieval, restorations, modifications and aircraft brokerage. HGR is also bordered by a number of industrial properties housing a variety of other businesses including logistics and warehousing.

A 2018 study by the Maryland Aviation Administration found that HGR ranked third in total Economic Impact among Maryland's 35 public use airports with some $306.7 million in annual economic activity. This included $130.1 million in business revenue, $50.8 million in local purchases and $21.4 million in taxes. Additionally, the business activity generated by the Airport supported jobs for 1,800 people and $104.4 million in total personal income.

Currently, Allegiant Airlines offers year-round flights to Orlando-Sanford (SFD) airport in Florida along with 9-10 months of service to Florida's St. Petersburg/Clearwater (PIE) airport and summer seasonal service to Myrtle Beach (MYR), South Carolina. Between 2012-2023, Allegiant Airline's partnership with the Hagerstown Regional Airport has served nearly half a million passenger arrivals and departures.

After the airline industry was de-regulated in 1978, Hagerstown was selected for participation in the Essential Air Service program. EAS provides federal subsidies to airlines that agree to provide a minimal level of scheduled flight service to communities that would otherwise not be commercially viable or profitable. A succession of airlines provided these services between 1978 and 2019.

Most recently, Southern Airways Express provided daily commercial air service to Pittsburgh (PIT) and Baltimore/Washington International (BWI) airports. By October 2019, however, the United States Department of Transportation announced the termination of the Essential Air Service (EAS) Waiver eligibility for Hagerstown, contending that HGR no longer met minimum requirements to receive the Federal subsidy. Subsidy requirements included a minimum number of enplanements (a count of each person boarding each flight) per service day, and caps related to the cost to subsidize each passenger ticket. Washington County unsuccessfully appealed the DOT's decision to the U.S. Court of Appeals in Washington, D.C., in April 2020. Additional remedies through the court system were judged unlikely to succeed by the County Attorney's Office, ending the County's effort to restore the Federal subsidy. The County's geographical position within roughly 80 miles of three large hub airports in Washington D.C. and Baltimore presented a significant hurdle in its case for the Essential Air Service Waiver. 1

Planned Improvements

Despite the setback outlined above, the County has completed a number of notable improvements to the Airport in recent years and has more planned for the future. Private entities operating at the Airport have also continued to invest in business expansions and service improvements at HGR. Significant projects planned or recently completed at the Airport are noted below.

• A $6 million terminal expansion project at Hagerstown Regional Airport was completed in March 2021. This project involved a 5,000 square foot addition to the hold room, doubling its capacity from 150 to 300 passengers. Restrooms were also relocated, and the TSA screening checkpoint was relocated and improved.

• Preliminary Design for an approximately 4,800-square-foot terminal expansion that will allow for additional ticket counters, baggage processing, and ground service vehicle storage has also commenced.

• HGR is finalizing acquisition of approximately three acres for the design and construction of a project to promote both the clearance of the Runway Visibility Zone and the Runway Object Free Area to improve safety on the airfield.

• The construction phase involving the partial relocation and reconstruction of Taxiway 'F' will begin in FY24.

Wes Moore, Governor
Aruna Miller, Lt. Governor

Rebecca L. Flora, AICP, Secretary

Maryland
DEPARTMENT OF PLANNING

September 27, 2023

Clint Wiley, Planning Commission Chair
Washington County
747 Northern Ave
Hagerstown, MD 21742

Dear Mr. Wiley:

Thank you for the opportunity to comment on the Draft 2040 Washington County Comprehensive Plan (Draft Plan). The Maryland Department of Planning (MDP) believes that good planning is important for efficient and responsible development that adequately addresses resource protection, adequate public facilities, housing, community character, and economic development. Please keep in mind that MDP's attached review comments reflect the agency's thoughts on ways to strengthen the Draft Plan, as well as satisfy the requirements of Maryland's Land Use Article.

The Department forwarded a copy of the Draft Plan to several State agencies for review, including: the Maryland Historical Trust and the Departments of Transportation, Environment, Natural Resources, Commerce, and Housing & Community Development. To date, we have received comments from the Maryland Historical Trust and the Departments of Natural Resources, Environment, and Housing & Community Development. These comments have been included with this letter. Any plan review comments received after the date of this letter will be forwarded upon receipt.

MDP respectfully requests that this letter and accompanying review comments be made part of the county's public hearing record. Furthermore, MDP also asks that the county consider state agency comments as revisions are made to the Draft Plan, and to any future plans, ordinances, and policy documents that are developed.

Please feel free to contact me at chuck.boyd@maryland.gov or Joe Rogers, Western Maryland Regional Planner at joseph.rogers@maryland.gov.

Sincerely,

Charles W. Boyd, AICP,
Director, Planning Coordination

Enclosures: Comments on the draft 2040 Washington County Comprehensive Plan.

cc: Jill Baker, Washington County Planning Director
Joseph Griffiths, Manager, Local Assistance and Training
David Cotton, Director, Western MD Regional Office

Maryland Department of Planning Review Comments
September 27, 2023
Draft 2040 Washington County Comprehensive Plan

The Maryland Department of Planning (MDP) has reviewed the Draft 2040 Washington County Comprehensive Plan (Draft Plan) and offers the following comments for your consideration. These comments are offered as suggestions to improve the draft comprehensive plan and better address the statutory requirements of the Land Use Article. Other state agencies as noted have contributed comments. Still others may have comments submitted under separate cover. If comments from other agencies are subsequently received by MDP, they will be forwarded to the county in a timely manner.

Summary of the Draft Comprehensive Plan

This is a complete update to the 2002 Washington County Comprehensive Plan, last amended in 2011. Washington County encompasses approximately 468 square miles of land located in the western part of the state between Allegany County, which lies to the west, and Frederick County which lies to the east. The rest of the County boarders Pennsylvania to the north and West Virginia and Virginia to the south.

The Draft Plan is needed as an update to the 2011 amended plan for the county and helps tie together a variety of planning documents that exist within the region. Comprehensive plans follow laws and guidance set forth by the state and share a direct relationship with the Zoning Ordinance, Subdivision Ordinance, Forest Conservation Ordinance, Capital Improvement Program, Stormwater Management and Erosion and Sediment Control Ordinance, Floodplain Management Ordinance, Adequate Public Facilities Ordinance, Water and Sewerage Plan, Land Preservation, Parks and Recreation Plan, Solid Waste Management and Recycling Plan, Building and Housing Codes, Hazard Mitigation Plan, County Watershed Improvement Plans, and comprehensive plans of incorporated municipalities. The Draft Plan provides a much-needed update to the previous plan as a response to development and other changes have taken shape around the region and in Washington County specifically.

Many legislative updates have taken place since the 2002 plan was adopted. The Draft Plan addresses the expanded 12 visions of the state as well as the other required elements, which include a Housing Element resulting from HB 1045. This element and the 12 state visions are expanded upon in the corresponding sections of this Draft Plan review. The Draft Plan follows a similar organizational structure compared to the previous plan with the addition of the required elements.

Plan Implementation Progress

The Draft Plan updates past implementation goals and sets new benchmarks in the “Implementation Element” located in chapter 15. The element clearly details how this planning document overlaps with other county land and development ordinances and stresses the importance of measuring success in each plan elements, which are examined in detail with delineated success measures. As part of this review, MDP commends the county on the submission of the five-year implementation reports as required by Land Use Article Section 1-207(c)(6) and encourages the county to continue to submit these implementation reports to update the status of the Draft Plan’s goals and objectives.

Maryland State Visions

Land Use Article Section 1-201 requires Maryland jurisdictions with planning & zoning authority to implement the state's twelve planning visions (visions) through a comprehensive plan. The visions reflect the state's ongoing aspiration to develop and implement sound growth and development policy. The visions address: quality of life and sustainability; public participation; growth areas; community design; infrastructure; transportation; housing; economic development; environmental protection; resource conservation; stewardship; and implementation approaches.

Plan Analysis

Washington County lists the state visions and describes their role within the Draft Plan in chapter 3, which focuses on the "Visions, Goals, and Objectives". This chapter describes the Draft Plan's goals and their relationship to its overall objectives. This chapter also illustrates how the state visions play into desired Drat Plan objectives.

The Draft Plan is centered around eight overarching goals, which could also be described as visions/objectives for the county. These eight goals are:

1. Provide a diverse range of housing for citizens that promote sustainable, livable and affordable housing opportunities.
2. Promote a balanced and diversified economy.
3. Provide a safe, efficient, and interconnected multi-modal transportation system.
4. Maintain policies and strategies that direct growth to areas where the County can provide adequate infrastructure and community resources for existing and future development.
5. Provide residents with a high quality of life through the impactful planning and delivery of fundamental community facilities and services.
6. Enhance the County's rich historic and cultural heritage through land preservation and historic preservation efforts.
7. Provide adequate protections for, and enhanced stewardship of, environmental resources and sensitive areas.
8. Encourage infill development and revitalization of existing communities using context sensitive development strategies to maintain and enhance community character.

The following is an analysis of each of the 12 Visions and comments relating to the Draft Plan's relationship to each vision.

(1) Quality of life and sustainability: a high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment;

The Draft Plan contains many references for providing a continued quality of life for all residents. Plan goal and objective one states the county wishes to "Provide a diverse range of housing for citizens that promote sustainable, livable and affordable housing opportunities." This goal and how to attain it feature prominently within the Draft Plan's housing element, located on Pg. 64. The county will explore innovative development strategies and the incorporation of overlay zones to achieve a wide variety of housing types for diverse individuals when considering future growth and expansion of existing housing.

(2) Public participation: citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals;

Washington County hosts an interactive website that posts information about the Draft Plan and allows for public interaction. The county also hosts a Facebook page where Draft Plan updates and current information are shared. A series of public information hearings have also been held pertaining to the comprehensive plan. These hearings are hosted by the county and take place at various locations within Washington County. Public hearings have taken place in Williamsport, Smithsburg, Hagerstown, Hancock, Clear Spring, and Boonsboro. Public input was gathered from the comprehensive plan website, Facebook page, and the public hearings. These comments were then integrated into the Draft Plan.

(3) Growth areas: growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers;

A municipal growth element is not required since this is a county plan. Goal two notes the county wishes to "Promote a balanced and diversified economy." This goal and vision are detailed in the economic development chapter on Pg. 180. In this chapter development trends and industrial use locations are discussed, with an emphasis placed on existing businesses and their economic impact on the county. The Draft Plan references strategically placing new industries within the county and identifies recent employment additions, such as Amazon Fulfillment centers, that have opened within Washington County providing economic opportunities and creating of over 500 new jobs for the region.

(4) Community design: compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archaeological resources;

The Draft Plan mentions mixed-use development and mixed-use corridors to offer a wide variety of housing and commercial activities in the land use chapter on Pg. 355. The community facility, historic, and transportation chapters highlight the existing facilities, historically significant sites, and transportation routes in and around Washington County. These chapters help guide community design in the county and shape future land use patterns.

(5) Infrastructure: growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner;

The county delineates its infrastructure limitations by calculating the available water and sewer in their water resource chapter on Pg. 291. The Draft Plan also matches population trends with census data from the 2020 census and compares that growth to available water and sewer capacity. This aligns with existing infrastructure and denotes how and where expansion can occur in the county.

(6) Transportation: a well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;

The Draft Plan covers different transportation strategies in the transportation chapter on Pg. 96. A complete street design criteria is noted and ensures sidewalks, bike lanes, green spaces, and other site considerations are planned for when developing new roads and subdivisions. The county also identifies complete street locations and recommended design standards. Interstates 70 and 81 are major routes for intra-county movement but are also major freight corridors for the transport of goods and services.

(7) Housing: a range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;

The Draft Plan highlights several policies that address the county's current housing market. The housing section also details future needs for both workforce and affordable housing. Different housing providers, lenders, and state agencies that assist with affordable housing in the county, their specific programs, and developments are referenced in the housing section in chapter 6 on Pg. 64.

(8) Economic development: economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities are encouraged;

The economic development chapter on Pg. 180 notes the various types of industry in Washington County. Major employers in the healthcare, packaging, and manufacturing industries offer a wide variety of jobs to people at all socioeconomic levels. The Draft Plan also notes that workers travel to Pennsylvania, West Virginia, Virginia, and to other counties in Maryland to work, as the county's location affords for lower travel times for commuters who take advantage of the geographic location of Washington County.

(9) Environmental protection: land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;

The sensitive area chapter on Pg. 261 examines the natural resources and waterways that exist in the county. This chapter focuses on protecting the county's natural resources and the Chesapeake Bay, and details what measures are being taken to grow while simultaneously protecting these natural features. Wildlife corridors, greenways, and stream protection are key goals the Draft Plan detailed in this chapter, as well as how to ensure the protection of water, air, and animal species that currently exist in Washington County.

(10) Resource conservation: waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;

The Draft Plan discusses issues relating to environmental sustainability in the Sustainable Environment chapter, addressing the visions of "protection of the environment" and "resource conservation". Protection of the natural environment is one of the main visions reiterated throughout the Draft Plan. This vision is clear and decisive in this section, which lists environmental highlights and describes goals and future plans for each. Protecting the environment is key and integral to sustaining future generations in the county since it will be tied to all aspects of community and economic development.

(11) Stewardship: government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and

The Draft Plan discusses wildlife corridors and greenways on Pg. 280. These areas expand on DNR's "GreenPrint" tool that is used for proactive land conservation planning. Maps and figures help explain how the county is protecting its land and where areas of concern lie within the county. Two areas that have come from this effort are "Hubs" and "Corridors." Hubs are large, ecologically significant, natural areas that provide habitat for native plants and wildlife. They may include protected areas such as county, state, or national parks that are managed for preservation purposes as well as private lands where natural features and ecological processes are protected or restored. Corridors are linear features that tie the hubs together and serve as biological conduits for native plants and wildlife. They often follow streams and

their adjacent upland areas, which provide cross watershed connections. Greenway is a term often used interchangeably with corridors, within this model of ecological preservation. These lands represent contiguous areas in the county worth considering for new or additional sensitive resource protection in the future.

(12) Implementation: strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.

The implementation chapter on Pg. 361 notes policies for growth and expansion and helps address local, regional, and state concerns pertaining to growth. This chapter is very detailed and lays out a roadmap of how to accomplish the goals listed throughout the Draft Plan. This chapter also notes how this document ties into existing ordinances and programs the county has in place. This section notes the eight goals of the plan which come out of the visions and provides implementation priorities of short, medium, and long timeframes for completion. Along with the timelines, this chapter references how existing plans overlap with the Draft Plan, establishing coordinated pathways for future success.

MDP finds that all 12 of the visions have been integrated into the Draft Plan, making it clear that the county has considered each. However, MDP recommends highlighting each of the 12 visions where they are referenced throughout the Draft Plan as the eight county goals combine some of the visions and may make them difficult for the reader to distinguish.

Minimum Planning Requirements

Land Use Article Section 3-102 describes the required and optional elements for non-charter county and municipal comprehensive plans but does not mandate how they are to be addressed. As such, local governments have addressed these required elements in a manner that fits the needs of their community and the resources available to respond to the issues explored during the planning process. The following checklist summarizes an assessment as to whether each required local plan element is addressed in the Draft 2040 Washington County Comprehensive Plan.

Checklist of Maryland Code (Land Use Article) Element Requirements for Non-Charter Counties and Municipalities			
Comprehensive Plan Requirements	MD Code Reference	Additional MD Code Reference	Draft 2040 Washington County Comprehensive Plan Reference
(1) A comprehensive plan for a non-charter county or municipality must include:	L.U. § 3-102(a)		
(a) a community facilities element	L.U. § 3-102(a)(1)(i)	L.U. § 3-108 -- Community facilities element.	144-179
(b) an area of critical state concern element	L.U. § 3-102(a)(1)(ii)	L.U. § 3-109 -- Areas of critical State concern element	261-290
(c) a goals and objectives element	L.U. § 3-102(a)(1)(iii)	L.U. § 3-110 -- Goals and objectives element	19-22
(d) a housing element	L.U. § 3-102(a)(1)(iv)	L.U. § 3-114 -- Housing element SB-687(2021)	64-95
(d) a land use element	L.U. § 3-102(a)(1)(v)	L.U. § 3-111 -- Land use element	330-360

Checklist of Maryland Code (Land Use Article) Element Requirements for Non-Charter Counties and Municipalities			
Comprehensive Plan Requirements	MD Code Reference	Additional MD Code Reference	Draft 2040 Washington County Comprehensive Plan Reference
(e) a development regulations element	L.U. § 3-102(a)(1)(vi)	L.U. § 3-103 -- Development regulations element	330-360
(f) a sensitive areas element	L.U. § 3-102(a)(1)(vii)	L.U. § 3-104 -- Sensitive areas element	261-290
(g) a transportation element	L.U. § 3-102(a)(1)(viii)	L.U. § 3-105 -- Transportation element	380-392
(h) a water resources element	L.U. § 3-102(a)(1)(ix)	L.U. § 3-106 -- Water resources element	291-329
(i) a mineral resources element, IF current geological information is available	L.U. § 3-102(a)(2)	L.U. § 3-107 -- Mineral resources element	214-225
(j) for municipalities only, a municipal growth element	L.U. § 3-102(a)(3)	L.U. § 3-112 -- Municipal growth element	N/A
(k) for counties only if located on tidal waters, a fisheries element	L.U. § 3-102(a)(4)	L.U. § 3-113 -- Fisheries element	N/A
Optional: (2) A comprehensive plan for a non-charter county or municipality **MAY** include: (a) a community renewal element; (b) a conservation element; (c) a flood control element; (d) a natural resources element; (e) a pollution control element; (f) information concerning the general location and extent of public utilities; and (f) a priority preservation area (PPA) element	L.U. § 3-102(b)	L.U. § 3-102(b)(2)(i)	N/A
(3) Visions -- A local jurisdiction SHALL through the comprehensive plan implement the 12 planning visions established in L.U. § 1-201	L.U. § 3-201(c)	L.U. § 1-201 -- The 12 Planning Visions	19-22
Optional: (4) Growth Tiers -- If the local jurisdiction has adopted growth tiers in accordance with L.U. § 1-502, the growth tiers must be incorporated into the jurisdiction's comprehensive plan	L.U. § 1-509		N/A but a growth management section is on Pg. 393

As shown in the above checklist, the Draft Plan includes the required elements as identified in §3-102 of the Land Use Article of the Maryland Annotated Code.

Washington County has not adopted growth tiers, but they do have a Growth Management section listed at the end of the document. Many of the county's municipalities have adopted tier maps and the county defers to their tier maps when considering growth and expansion during the annexation process.

Since this is a county plan, they do not address the municipal growth element. They note that other municipalities have included this element in their plans, and they also use population statistics from the 2020 census data that are linked on MDP's website for their projections and future trends. Trends in their land use, housing, and goals section help prepare for projected growth and development that the county feels will arise over the next decade.

Conformance with Section 3-102 of the Land Use Article

The following analyzes whether the Draft Plan meets the requirements of Non-Charter County comprehensive plan elements, in accordance with the Land Use Article.

1. Development Regulations Element– Synopsis

The element is required to include the planning commission's recommendations for land development regulations to implement the plan. Regulations are required to be flexible to promote innovative and cost saving site design, protect the environment and identify areas of growth. The areas identified for growth are required to encourage flexible regulations, which should further promote economic development using innovative techniques, streamlining the review of applications, including permit review and subdivision processing.

Plan Analysis

The Draft Plan addresses its regulatory mechanisms in several area – housing regulation assessment can be found on pages 87-89 of the document and proposed housing regulation recommendations are on pages 91 to 95, while land use and growth recommendations are listed on page 360.

2. Land Use Element– Synopsis

The land use element is required to reasonably project into the future the most appropriate and desirable patterns for the general location, character, extent, and interrelationship of the uses of public and private land.

Plan Analysis

The Draft Plan does not have a stand-alone development regulation element. Development regulations and land use patterns are discussed in the "Growth Management and Land Use Element" of the plan located on Pg. 330. For that reason, MDP is commenting on both chapters at the same time. Existing conditions and land use patterns are analyzed throughout this chapter and the county notes creative development strategies to align with future growth trends in Washington County.

- In reference to Table 14-3, Pg. 25, MDP feels it would be helpful to see the sum total of the available residential units in the Urban and Town Growth area (35,144 units) and Rural area (27,471 units) (Total 62,615) mentioned in the conclusions of development capacity analysis. Since this is for the growth areas before they are retracted, it would be helpful to label the table accordingly.

- It is confusing that there are two development capacity sections. Please consider combining the tables to show the old area to the new area in one table.
- The Growth Areas text under Table 14-9, Pg. 351 describes "retracting a significant amount of delineated residential land use areas and some commercial and employment areas". A table showing the new acreage of each growth area would be helpful.
- The colors on the Map 14-1: Land Use & Land Cover map, Pg. 332, are not very distinct. Consider using a different color for urban/built-up land.
- Map 14-6: Future Land Use, Pg. 348, appears to show the growth areas discussed in Table 14-3, Pg. 344, but the growth area boundary color in the map is hard to see against the roads. MDP recommends using a lighter color of the roads so that the growth boundaries can be seen. It would also be helpful to label all the growth areas that are listed in the table. MDP also suggests adding the Priority Funding Area (PFA) boundary to the map.
- The standard PFA residential density criterion is 3.5 dwelling units per acre, a lot size of 12,446 sq. ft. (Reference: MDP's Local Government Planning FAQs). Please make corrections on Pg. 360.

3. Housing Element - Synopsis

The housing element is required to address the need for housing within the jurisdiction that is affordable to low-income and workforce households. It is also required to assess fair housing and ensure that a jurisdiction is affirmatively furthering fair housing through its housing and urban development programs.

Plan Analysis

The Draft Plan has a housing element in chapter 6, starting on Pg. 64. This element addresses population trends and housing strategies to accommodate future growth in Washington County. The Draft Plan also notes that additional partners and strategies are listed in the "Growth Management and Land Use" appendix on Pg. 393.

- On Pgs. 72-73, the housing element includes an analysis of Area Median Income (AMI) for Washington County using the U.S. Department of Housing and Community Development's 2020 AMI data. Using a 2020 AMI of $79,800 for the county and American Community Survey (ACS) data, the housing element calculates the number of households that fall within the extremely low income (0% - 31% AMI), low income (31.3% to 62.6% AMI), and moderate income (62.6% to 125% AMI) ranges. The housing element notes, and MDP acknowledges, that AMI and ACS income ranges do not align. MDP appreciates that the county combined the two data sets to establish the need for affordable housing, by households. However, the housing element requirements outlined in Land Use Article section 3-114, which reference definitions in Housing and Community Development Article section 4-1801, set the AMI income ranges for which affordable housing must be addressed in a housing element as 60% or less for low income, 60% - 120% for workforce ownership, and 50% - 100% for workforce rental. MDP encourages the county to consider updating the analysis on Pgs. 72-73 to calculate households within these ranges. More information can be found on MDP's Housing Data Dashboard.
- Though fair housing is defined in this element, a more detailed fair housing assessment as required by LUA 3-114 (d)(2), could be added to breakdown racial, financial, and geographic details that would better support the housing element in this plan.
- While MDP notes that LUA 3-114 does not define the requirements for a fair housing assessment in comprehensive plans, a traditional US HUD assessment of fair housing includes an analysis of the following four housing issues in a community.

1. Patterns of segregation/integration: Areas within the jurisdiction that are residentially segregated by protected class.
2. Racially or Ethnically Concentrated Areas of Poverty (R/ECAPS): US HUD defines r/ecaps in metropolitan areas as census tracts with a non-white population of 50 percent or more and a poverty rate of 40 percent or more (or a poverty rate that is three or more times the average tract poverty rate for the metropolitan area, whichever threshold is lower). For rural areas, HUD lowers the non-white percentage threshold to 20 percent.
3. Disparities in access to opportunity: Areas within the community/jurisdiction that provide access to opportunity, such as good schools, medical facilities, employment centers, positive public health outcomes, and low crime rates. A fair housing assessment would consider if protected classes have less access to such areas.
4. Disproportionate housing needs: An analysis considering whether certain areas or populations within a community, particularly protected classes, have disproportionate housing needs than other areas or populations.

- The Draft Plan lists partners and strategies with some mentioned in the appendix. MDP suggests that incorporating these partnerships and strategies into the housing element chapter itself could better support this element within. A full list of partners, non-profits, or others would be helpful for Draft Plan readers. This could even be used by future developers as a tool to use for possible partnerships in future housing developments.
- Housing strategies, such as infill or overlay zones, are referenced and defined, but the exact location or preferred location for these types of zones is not clearly labeled. A more detailed location map of the primary areas primed for development that could benefit from overlay zones could be created to help show where housing strategies may be applied.
- DHCD has developed an "Affirmatively Furthering Fair Housing" survey that can help counties address fair housing in their communities. AFFH survey. MDP recommends taking part in this survey and incorporating the results into the housing element.

4. Sensitive Areas Element, Agriculture and Forestry Element, Areas of Critical Concern Element - Synopsis

The critical state concern element is required to include planning commission recommendations to determine, identify, and designate areas that are of critical state concern.

The sensitive areas element is required to include the goals, objectives, principles, policies, and standards designed to protect sensitive areas from the adverse effects of development (more recently referred to as climate change impacts). The LUA also assigns sensitive areas element data provision and review responsibilities to the Maryland Departments of the Environment and Natural Resources.

Plan Analysis

The "Sensitive Areas Element" can be found in chapter 12 on Pg. 261 in the Draft Plan. MDP is combining comments for this element with the Agriculture and Forestry Element found in chapter 11 on Pg. 226 and with the Areas of Critical State Concern element, which is not listed as a specific element in the Draft Plan. Areas of Critical State Concern and special planning areas are discussed in the sensitive area's element. This chapter is broad and covers future planning efforts for stream buffers, forest buffers, floodplain management, and wildlife/endangered species. Special planning areas that host significant environmental features are also mapped and discussed as part of this chapter. Forest and agriculture land is a special consideration for Washington County, which has adopted a "right to farm' initiative to assist with agricultural land uses.

MDP encourages Washington County to review the list of designated areas, plans, studies, and programs in the State Development Plan, A Better Maryland, and address areas of critical state concern that should be considered in their comprehensive/master plan and its implementation.

- Continue to update and expand on state and local programs geared towards preservation and the protection of land and wildlife. DNR's GreenPrint program has detailed areas of special state concerns and enabled the county to help identify what areas it should protect and why. This analysis should be expanded in future planning cycles.
- Preservation efforts such as the Rural Legacy program can continue to be successful if used and planned for by the county. Expansion of this program and others may help the county achieve its sensitive areas objectives and goals.
- Federal and state level programs "Environmental Site Assessments (ESA's), and Rural Legacy Program (RLP)" exist to protect wildlife and land and should be incorporated and referenced by the county to achieve sensitive areas objectives.
- Tourism programs centered around the GAP trail have been used successfully in surrounding areas of the state. Consider adopting similar trail programs or incentives to increase trail usage as this also helps with preservation efforts of wildlife and woodland areas.
- Ensure land development and similar ordinances align with the goals of this chapter, especially when considering site design in wetlands or areas with steep slope issues.
- Prime soil makes up over 80 percent of the county according to the soils map 11-1 listed on Pg. 228. This abundance aligns with the goal of allowing agricultural uses to continue and expand. Incentivizing farms and agricultural uses will encourage development of agriculture and uses accessory to farming operations.
- Solar and wind farms are becoming popular land uses throughout the state. The county should consider adopting or referencing green regulations in the Draft Plan so that readers can gauge how newer technologies are being adopted and accepted in the county.
- The section on Alternative Energy and Other Non-Agricultural Uses (Pgs. 247 – 248) should include information on Washington County's policy regarding solar panels on farmland, if it has one. Also, the Draft Plan could say more about agriculture that is compatible with solar panels that are vertical or elevated.
- A section heading on Pg. 246 states, "De Facto Farmland Through Agricultural Stewardship." Should the word "Preservation" be inserted after "Farmland"?
- The county should continue to pursue incentives for tourism centered around agriculture. Uses such as wineries and breweries have become local economic and agricultural development tools in Western Maryland. MDP recommends that the Draft Plan consider and describe if and how the county intends to promote such uses.
- The discussion of Priority Preservation Areas (PPAs) on Pg. 244 should mention that PPAs and a PPA plan element are required for counties whose farmland preservation program is certified by MALPF and MDP, and that certification allows the county to retain 75% rather than 33% of locally generated agricultural land transfer tax.
- The county has a countywide land preservation goal of 50,000 acres, which was created before the advent of PPAs. However, it's MDP's understanding that when the 80% acreage preservation goal inside the PPA is achieved and combined with preserved acreage outside the PPA, the total will exceed 50,000. If this is the county's conclusion as well, it should be stated within the Draft Plan.

5. Transportation Element - Synopsis

The transportation element is required to reasonably project into the future the most appropriate and desirable location, character, and extent of transportation facilities to move individuals and goods, provide for bicycle and pedestrian access and travelways, and estimate the use of proposed improvements.

Plan Analysis

The Draft Plan addresses all applicable modes of transportation. Overall, the transportation goals and recommendations presented and discussed in the Plan are consistent with the Maryland Economic Growth, Resources Protection, and Planning Policy, known as the 12 Visions in Subtitle 5-7A of the State Finance and Procurement Article.

- The Infrastructure Investment and Jobs Act (IIJA) provides unprecedented federal funding for various transportation programs and projects. The county should investigate IIJA funding opportunities to help implement the Draft Plan. For more information regarding federal transportation grant opportunities, visit MDOT's website here.
- MDP staff suggests that the Draft Plan include a recommendation to monitor and address the teleworking (working from home) trend and its effects on transportation and economic development. The mode share of "Worked from home" among "Commuting To Work" in Washington County has been increasing (see the ACS 5-year data for 2016-2020 and 2017-2021) since 2020, as it is elsewhere in other Maryland counties and many places of the nation. Teleworking may have positive effects such as helping reduce peak-hour traffic congestion; however, in many urban areas and employment centers, teleworking drives up commercial building vacancy rates resulting negative ripple effects on surrounding businesses. It is unclear if and how remote work has affected the county, but monitoring the trend would help the county prepare for and address the matter.
- The Draft Plan should include a recommendation(s) to support the building of electric vehicle (EV)/alternative fuel vehicle charging infrastructure in the county. Interstate-70 and Interstate-81 are two of the designated Alternative Fuel Corridors (AFCs) in Maryland, which are targeted for federal EV charging station investments. Since the county has a robust e-commerce sector, there will be a need to provide electric heavy-duty vehicle (HDV) charging infrastructure in the county. The 2023 Maryland General Assembly passed legislation to require new construction of homes to include EV charging stations or electric pre-wiring for EV charging (Reference: 2023 HB 830). Since providing EV charging stations for multifamily housing is more challenging than installing EV charging for single-family housing, the county should consider support for EV charging for multifamily housing. For more information local EV and EV infrastructure programs and efforts, visit Maryland EV Website here.
- Map 7-7 Highways Plan on Pg. 116: The Draft Plan should include the projects in the MDOT SHA's Highway Needs Inventory if they are not included.
- Table 7-6 Highways Plan Detail on Pg. 117: It would be helpful to add a column indicating the source plan or program for each project.
- In reference to "Rail Freight" on Pg. 135: The Draft Plan should include the information about if, what, and how business sectors in the county are served by the active railroad companies. It is unclear if CSX and Norfolk Southern are just passing by the county or they serve certain businesses in the county. What businesses do Winchester & Western serve in Hagerstown? Is there any ongoing partnership or coordination between the county and these railroad companies to address freight rail related matters?
- The Draft Plan should also discuss if there are any railroad crossing safety and incompatible land use issues along the railroads in the county. To preserve railroad operations and industrial lands as valuable economic development resources, MDP suggests that the Draft Plan address freight rail safety and compatible land use and designs along the railroad corridors. The 2012 Transportation Research Board's National Cooperative Freight Research Program Report 16 – Preserving and Protecting Freight Infrastructure and Routes, provides useful guidance on how to avoid conflicting land use and mitigate existing uses to achieve rail-compatible development, e.g.,

compatible zoning, minimum setback standards, and designs on lots and building layouts. In addition, MDOT also provides technical assistance to help local jurisdictions to address freight safety and freight-related land use planning issues as part of MDOT's efforts to implement the Maryland State Freight Plan and the Maryland State Rail Plan.

- In reference to "Roads" Pg. 138 and 139: MDP suggests the county include a recommendation calling for evaluating the county's Adequate Public Facilities Ordinance (APFO) for roads to provide less stringent Level of Service (LOS) roadway standards for Urban and/or Town Growth Areas that would help build context sensitive roadway infrastructure and encourage walkable and transit supportive land uses.
- In reference to "Transportation Recommendations" on page 138: Add the MPO's current "TIP" to the first Recommendation under "Roads."
- In reference to the second Recommendation under "Roads" on Pg. 138: Suggest editing and adding (in **bold**) "……with an emphasis on adequate right of way, ~~and~~ access spacing needs, **and compatible to adjacent land use**."
- In reference to the Recommendation, "Consider formally adopting a Complete Streets Policy for **County roads**……" on Pg. 138: Suggest deleting "for County roads." A complete streets policy should also address multi-modal issues on state roads in the county although the county may not be responsible for maintaining and improving state routes. The county can proactively work with the State/MDOT as well as municipalities to address complete streets issue on non-county roads to help implement the county's complete streets policy. As a reference, Howard County's Complete Streets Policy, recognized as the "Best Complete Streets Policy in 2023" by Smart Growth America, includes a complete streets network approach that involves state routes and non-county roads in neighboring communities and counties.
- In reference to "Transit" on Pg. 139: Consider adding "TDM" in the title as "Transit and TDM" since some recommendation here are Transportation Demand Management (TDM) related such as working with employers to promote non-single occupancy vehicle (SOV) travel and supporting park & ride facilities.
- In reference to "Transit" on Pgs. 139-140: The Draft Plan should include a recommendation calling for the implementation of the county's Transit Development Plan and Human services transportation Plan beginning on Pg. 121.
- In reference to "Transit" on Pg. 139-140: Suggest the county consider a recommendation calling for exploring micro-transit options to address transit needs and gaps in certain areas of the county. Here are some reference sources on Micro-Transit: (1) MDOT MTA's Share Mobility Work Plan; (2) APTA's Micro-transit resources; (3) FTA's How Can Micro-transit Help Rural Mobility ; and (4) How Do We Move Older Citizens in Rural Areas Using New Technologies?
- In reference to the Recommendation on Pg. 143, "Consider creating, with input from transportation planning partners, a Bicycle and Pedestrian Plan specifically **for County roadways**." It is good that the county plans to develop a countywide Bicycle and Pedestrian Plan. MDP suggests deleting "for County roadways" from the language. The county should address pedestrian and bicycle travel needs on state roadways even though the county may not be responsible for maintaining and improving them. Proposed improvements on state roads in a local transportation plan can help the state to identify priority projects and allocate funding to support local needs. The county should also ensure the proposed pedestrian and bicycle facility improvements to support the types of existing and future land uses that they serve.
- Travel safety for vulnerable roadway users (e.g., pedestrians and bicyclists) could become a major issue along the proposed Mixed-Use Corridors on Pg. 348, Map 14-6: Future Land Use and on Pg. 355 when developments build up on both sides of the roadways. If there were no changes to the nature of high vehicle traffic volumes and speed on these arterial roadways, pedestrian and bicycle crossing over these roadways could be extremely challenging and unsafe. A complete streets approach to provide safe and convenient travel for all users including pedestrians, bicycles, and transit should be considered along and across the highways in Mixed Use Corridors.

MDP suggests the Draft Plan include a recommendation(s) calling for building complete streets for these roadways and integrating transportation and land use planning to build walkable and transit supportive communities along the Mixed-Use Corridors.

6. Water Resource Element - Synopsis

The water resource element (WRE) is required to consider available data provided by the Maryland Department of the Environment (MDE) to identify drinking water that will be adequate for the needs of existing and future development proposed in the plan, as well as suitable receiving waters and land areas to meet stormwater management and wastewater treatment and disposal needs. MDE and MDP are available to provide technical assistance to prepare the water resources element, ensuring consistency with MDE programs and goals. MDE and MDP jointly developed WRE guidance to demonstrate how local governments can ensure compliance with the WRE requirements. Local jurisdictions are expected to implement the most important aspects of the MDE/MDP WRE guidance (please see attached checklist).

Plan Analysis

The WRE concludes with 19 recommendations regarding water resources, wastewater resources, and nonpoint sources. The recommendations address upgrading the Hagerstown water treatment facility to serve the UGA; supplementing the UGA water supply through potential ground water treatment facilities; conducting Source Water Assessments with MDE and adopting a wellhead protection ordinance; incorporating information from this comprehensive plan into the next water and sewer plan update; implementing a water conservation education program; continuing to map well failures; coordinating with Hagerstown to upgrade the WWTP and explore inter-county connection if needed; continuing inflow and infiltration mitigation; continuing abatement of failing septic systems; working with MDE to receive nutrient credits; working with MDE to identify land application areas; promoting water reuse opportunities; mapping septic failures; continuing environmental site design to the maximum extent feasible; identifying locations for stormwater retrofits to address hotspots and environmentally sensitive areas; promoting funding of retrofit program; updating local stormwater management ordinances; and encouraging the use of rain barrels.

- Pg. 292 states that there are ten 8-digit watersheds located in whole or in part in Washington County, and that they are shown on Map 13-1 on Pg. 293; however, only 9 watersheds appear to be shown on the map. MDP recommends that this discrepancy between the text and Map 13-1 be addressed.
- The text on Pg. 299 before Table 13-3 states that "[u]nder a moderate growth scenario, there are two facilities that may exceed their current permitted allocation"; however, only one facility (Boonsboro/Keedysville) is depicted in the table with "Projected Available Capacity 2040" in the red (insufficient). MDP recommends that this discrepancy between the text and Table 13-3 be addressed so it is clear which second facility is projected to exceed permitted capacity under the moderate growth scenario.
- Pg. 306 notes that there are 59,600 septic systems in the county. This seems to be a typo and MDP recommends this be corrected. The most recent figure MDP has seen for septic systems in Washington County is closer to 19,000.
- Table 13-4 on Pg. 307 shows the five county-owned/operated wastewater treatment plants (WWTPs) and two locally-managed plants that are included in county-designated growth areas. MDP assumes that the three other WWTPs described on Pg. 305 are not included in Table 13-4 because they are not included in county-designated growth areas, but MDP recommends adding a statement in the text before Table 13-4 to clarify this detail. In addition, a textual summary of the

Table 13-4 findings is not included. MDP recommends that a similar summary of the table as the one provided for Table 13-3 be added.

- There seem to be some discrepancies between the impairments listed for the UGA watersheds between Table 13-6 on Pg. 308 and Tables 13-10 through 13-13 on Pgs. 318-319. MDP recommends these discrepancies be corrected and/or explained.
- Pg. 323 notes "[t]he determination was made through the analyses of this element as well as the Land Use Element, that the UGA would need to be significantly reduced to limit sprawl and potential pollution issues." However, it is unclear whether the proposed UGA in the Draft Plan is the same as the reduced UGA developed in response to the pollution risk assessment. If not, MDP recommends that the UGA in the Draft Plan be updated to reflect the pollution risk assessment finding.
- Denitrification at the top of Pg. 326 appears to be misspelled.
- A checklist of best practices to identify and plan for suitable receiving waters is within the 2022 WRE Guidance at https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/02/framework-checklist.aspx. The state requests that local governments meet the best practices in this WRE Guidance Update as best as they can within the limitations of cost and time. The county has done an excellent job of addressing many of these elements in its WRE, such as discussing water quality standards; describing in detail the assessment status of their waters and the annual water quality monitoring results; conducting a pollution risk assessment and determining that the UGA would need to be reduced and evaluating what the resulting TN and TP would be under the reduced UGA; describing how the county's Tier II water and other sensitive waterbodies are being protected through county programs and public and private land conservation efforts; and detailing the county's Clean County Initiative's actions toward managing water quality restoration efforts. Some examples of best practices from the checklist that the town should consider implementing include load reduction tracking; strategies for ensuring a higher-than-minimum-requirements-level of water quality restoration and protection; and identification of recurrent flooding areas and evaluation of whether climate change and planned development will worsen those conditions, along with changes to the land use plan where warranted.
- All local jurisdictions in Maryland are and will continue to experience climate change impacts on water resources and water infrastructure (water, sewer, and stormwater), as well as water impacts on communities. The WRE should be adjusted to include strategies focused on improving local understanding of current or expected water-related climate change impacts at the local level, and if sufficient information exists, the chapter should add strategies to address these impacts. Best practices for integrating water-related climate change adaptation into the comprehensive plan are listed at https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/03/climatechange-checklist.aspx.
- If the land use changes in the Draft Plan are planned in a watershed(s) prone to riverine or urban flooding, then the WRE should be adjusted to incorporate the flooding-related components of the 2022 WRE guidance. See https://planning.maryland.gov/Pages/OurWork/envr-planning/water-resources-mg/2022/02/framework-cwa-wqfloodmgmt.aspx. At a minimum, the WRE should indicate the extent of current local knowledge concerning flood-prone areas and should discuss whether implementation of the land use plan will increase, decrease, or have no effect on those flood-prone areas. If the local government does not know what type of impact implementation of the land use plan will have on flood-prone areas, then at a minimum, the WRE should call for a study to determine this. MDP acknowledges that the county comprehensive plan discusses

flooding and mitigation policies; however, there does not seem to be a specific evaluation of how the growth scenarios would affect flood-prone areas.

7. Goals and Objectives Element - Synopsis

This element requires that comprehensive plan goals, objectives, principles, policies, and standards guide the development, economic growth, and social well-being of the community.

Plan Analysis

Goals and objectives are listed early in the plan on Pg. 19 in chapter 3. An implementation element is listed at the end of the document on Pg. 361 in chapter 15. The goals and objectives are discussed throughout the document and the final chapter performs a chapter-by-chapter breakdown of how implementation of these goals and objectives will occur. This design should set the county up for success in measuring benchmarks and success in future planning cycles.

- Referring to "Economic Growth, Resource Protection, and Planning Act of 1992" on Pg. 15: Please add the following information in the paragraph: The 1992 Planning Act established the State Planning Policy, which through subsequent legislation has evolved to and is currently known as the 12 Visions.
- On Pg. 20, change "Eight Visons" to "Seven Visions" in the first paragraph. The Maryland General Assembly added an eight vision in 2000.
- On Pg. 22, there are only eight goal statements and no objective statements. Should the Draft Plan delete or add "objectives" to avoid confusion?
- Supporting documents and ordinances referenced in this chapter should be updated to reflect the goals and objectives of the Draft Plan so that all planning documents align with each other.
- Short, mid-range, and long-range goals should be reported to MDP in the five-year reporting requirements. This is an ideal time to highlight the goals that are referenced in the plan that have been accomplished.
- The county should continue to work with local municipalities who will be updating and completing comprehensive plan amendments soon. Two municipalities who are about to undertake comprehensive plan updates are Hancock and Williamsport. Partnerships during the initial planning stages will ensure the documents align and have similar attainable goals and outcomes.

8. Community Facilities Element - Synopsis

The community facilities element is required to propose, as far into the future as is reasonable, the most appropriate and desirable patterns for the general location, character, and extent of public and semipublic buildings, land, and facilities. These facilities may include, but are not limited to fire stations, libraries, cultural facilities, hospitals, places of worship, school and education facilities, and parks.

Plan Analysis

The "Community Facilities and Services" element is in chapter 8 starting on Pg. 144 in the Draft Plan. This element does a great job highlighting the facilities and resources Washington County has to offer residents and visitors. A capital improvement plan is also discussed as part of this chapter and the Draft Plan accounts for capital projects that are targeted to support the goals of the comprehensive plan and other county functional plans. The chapter includes an APFO, that ensures that public facilities and

services needed to support new development shall be available concurrently with the impacts of such new developments.

- MDP is encouraged to see a wide variety of plans, Solid Waste Management, Land Preservation, Water and Sewer, Public Schools and more incorporated into this element and encourages the county to update any necessary plans with new information or goals that arise from the adopted version of the Draft Plan.
- Technical and vocational schools are referenced in this chapter and specialized job training has become popular around the state. Expanding these programs and offering new innovative job skills training may help with both development and population growth in the county. The Appalachian Regional Commission (ARC) has funding available for job creation and may be a suitable partner to develop and maintain these types of schools and programs. ARC is focused on creating jobs and workforce development. Partnering with Washington County and including this funding source in the Draft Plan could be a win for both the county and the ARC Western Maryland office.
- ARC also has funding available for broadband projects and can assist with connectivity in the region. A partnership could be added to the plan that explains the impact of high-speed internet and its availability or lack of availability within the county. This can help in the education sector and may also boost the chances of attracting new teleworking residents to the county. Teleworking and high-speed internet have become more of a focal point for development and growth because of the pandemic and its physical limitations.
- The Draft Plan explains that Meritus Heath is in the process of partnering with ARC for grant funding related to their new 78-million-dollar facility to help create jobs and to provide adequate medical care to surrounding residents. Specific programs and job training/opportunities may be something the county highlights in this chapter of the Draft Plan.

9. Mineral Resources Element - Synopsis

If current geological information is available, a comprehensive plan is required to include a mineral resources element. It should identify land that remains undeveloped to provide a continuous supply of minerals, which are defined in the Environment Article. They include clay, diatomaceous earth, gravel, marl, metallic ores, sand, shell, soil, and stone. The element is required to further identify post excavation land uses and incorporate strategies that balance resource extraction with other land uses and prevent, as much as possible, preempting mineral extraction in the jurisdiction.

Plan Analysis

The mineral resource element is in chapter 10 on Pg. 214 of the Draft Plan. The county has a rich history of mineral extraction with coal pockets residing in this part of the state. The Draft Plan does a great job of referencing regulations from DNR and other agencies that govern how and where minerals/resources are extracted and used in Washington County. Strip mining in Washington County has become more prominent and visible in recent years and MDP recommends that the county continue to plan for it and consider regulations to lessen the impact. County zoning that focuses on the importance of safely extracting resources is vital for smart growth and industrial success.

- Pg. 223 mentions a floating zone that allows for mining and other accessory uses. A streamlined process for approval and review is discussed and MDP encourages safeguards to be in place to properly review floating zone uses as they pertain to mineral extraction.
- Since new innovative mining strategies have been developed, the county should consider adopting current regulations to address them. Guidance from the Department of Natural

Resources (DNR) or other regulatory agencies may offer support for ordinances and regulations in reference to new mineral extracting procedures.

- MDP recommends ensuring proper watershed protection measures are in place where mining activities occur. Buffers or other protective measures should be added to mining overlay zones that are created by the county.
- Continue to pursue reclamation incentives and programs offered by state agencies, such as DNR. Funding may be available to help reclaim these sites and can be used for site stabilization to help future development in and around reclaimed mining sites. These programs and the areas they have helped or can target in the future should be referenced or mapped in this element in the Draft Plan.

10. Growth Tiers - Synopsis

A growth tiers map is not considered adopted until it is incorporated into a comprehensive plan. Therefore, a growth tiers map is required to be included in a jurisdiction's comprehensive plan if the county or municipality wants to allow major residential subdivisions with on-site septic systems. Otherwise, if no growth tiers maps is included, a jurisdiction is only allowed to approve minor residential subdivisions with on-site septic systems.

Plan Analysis

- MDP acknowledges that Pg. 343 of the Draft Plan includes a draft growth tier map under the Sustainable Growth and Preservation Act of 2012 (SB 236). Under Section 1-504 of the Land Use Article, if Washington County adopts a comprehensive plan that includes a growth tier map, then the county must notify and provide MDP with all information necessary to allow for the department's detailed review required under Section 1-505 of the Land Use Article. If requested, MDP can complete a detailed review of the proposed tier map before the plan is adopted.
- Pg. 342 indicates "Diverging opinions between the State and County revolve around a clause in the laws that states, Tier 4 areas should include "areas dominated by agricultural lands, forest land or other natural areas. The state has strictly interpreted that clause to mean any land with an agricultural assessment or forested land use category." However, the areas MDP identified as "dominated by agriculture and forest" generally excluded dual residential/agricultural parcels within large-lot subdivisions (along with other urban land uses as defined in the 2010 land use land cover methodology), as well as agricultural and forested areas less than 100 contiguous acres. MDP recommends correcting the above statement to clarify that the areas dominated by agriculture and forest include blocks of undeveloped agricultural, forested, or other natural land areas of at least 100 acres.
- SB236 requires growth areas planned for sewer either in the comprehensive plan or the water/sewer plan to be designated Tier 2. Pgs. 342-343 include helpful information about the sewer service categories used to map Tier 2 and clearly depict the proposed growth areas. Pg. 342 also indicates the sewer plan will need to be updated to reflect the new growth areas. Does this mean the growth areas are planned for sewer in the Draft Plan? MDP recommends stating the sewer policy for the growth areas within this discussion to clarify county-specific tier criteria.
- Pg. 342 also includes a helpful discussion about criteria underlying Tier 4 areas in the draft tier map. As noted on Pg. 341, SB236 requires areas planned or zoned for conservation to be designated Tier 4 if sewer is not planned. In addition to the statements about Rural Legacy Areas, Priority Preservation Areas, areas dominated by agriculture and forest, and land preservation easements, MDP recommends clarifying which areas are planned or zoned for conservation and, therefore, qualify for Tier IV where sewer is not planned. In particular, it would be helpful to understand the relationship between the proposed growth tiers and:

1) areas planned for Agriculture, Environmental Conservation, and Urban Open Space uses in Map 14-6 on Pg. 349 and
2) any areas zoned for conservation, such as certain rural zoning districts discussed on Pg. 344.

Having this clarity facilitates MDP's tier map reviews when jurisdictions clearly state sewer policies and other criteria used to develop the tier map. One option would be for the county to include a table that shows how the above areas relate to the tier designations along with any related notes to explain the county’s reasoning.

Maryland Department of Planning Review Comments
Draft Plan

STATE AGENCY COMMENTS

The following are state agency comments in support of MDP's review of the draft plan. Comments not included here may be submitted under separate cover, or via the State Clearinghouse. If comments from other agencies are received by MDP, the department will forward them to Washington County as soon as possible.

Attachments

Page # 19: Maryland Department of the Environment

Page # 22: Maryland Department of Natural Resources

Page # 23 Maryland Department of Housing and Community Development

Page # 26: Maryland Historical Trust

Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

September 7, 2023

Mr. Joe Roger
Maryland Department of Planning
301 West Preston Street
Suite 1101
Baltimore, MD 21201

RE: Local Plan Review: Washington County, MD Comprehensive Plan 2040
MD202300726-0645

Dear Mr. Roger,

Below are the comments from the Maryland Department of the Environment regarding the above referenced project. Our response code is R1.

1. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land and Materials Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

2. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.

3. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Resource Management Program at (410) 537-3314 for additional information regarding recycling activities.

4. The Solid Waste Program should be contacted directly at (410) 537-3315 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.

5. Any contract specifying “lead paint abatement” must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1978 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

6. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please Land Restoration Program at (410) 537-3437.

7. The project may cause contaminated runoff from an animal feeding operation (AFO). Please contact the AFO Division at (410) 537-4423 to determine if this AFO will require registration under the General Discharge Permit for Animal Feeding Operations.

8. The project will result in increased numbers of confined animals at this animal feeding operation (AFO) and therefore necessitate registration under the General Discharge Permit for Animal Feeding Operations. Please contact the AFO Division at (410) 537-4423 to determine if this AFO will require registration under this permit.

9. Borrow areas used to provide clean earth back fill material may require a surface mine permit. Disposal of excess cut material at a surface mine may requires site approval. Contact the Mining Program at (410) 537-3557 for further details.

10. Emissions from mobile sources are one of the primary contributors to both climate change and local air pollution, vehicles powered by electricity are one way to reduce the impacts of these emissions. A variety of funding initiatives are becoming available to allow for the faster adoption of electric vehicles, any funding opportunity that can help with this should be examined, especially for electric vehicle charging or refueling infrastructure.

11. The County’s Comprehensive Plan Water Resources Element chapter provides projected drinking water and sewer usages and capacities. The County’s 2009 Water and Sewerage Plan should be updated to incorporate this new information along with any improvements to provide drinking water or sewer.

12. Page 326: Typo in the header of Septic Denitrification

Please let me know if you have any questions or concerns.

Sincerely,

Amanda R. Redmiles
Interdepartmental Information Liaison
Maryland Department of the Environment

Maryland Department of Planning
301 West Preston Street
Suite 1101
Baltimore, MD 21201

August 22, 2023

Memo: Draft Washington County Comprehensive 2040 Plan

To: Joe Roger
cc: Rita Pritchett

The Draft Washington Comprehensive Plan was distributed to appropriate contacts at the Maryland Department of Natural Resources and reviewed. Maryland DNR found the overall plan to be well-researched and comprehensive.

As always, thank you for the opportunity to review the draft plan. If you have any questions or need further information, feel free to reach out to me 443-534-4151 or christine.burns1@maryland.gov.

Best,
Christine Burns

Maryland
DEPARTMENT OF HOUSING
AND COMMUNITY DEVELOPMENT

WES MOORE
Governor
ARUNA MILLER
Lt. Governor
JACOB R. DAY
Secretary
OWEN McEVOY
Deputy Secretary

August 14, 2023

Joseph Griffiths
Manager of Local Assistance and Training
Maryland Department of Planning
301 West Preston Street, 11th Floor
Baltimore, MD 21201

Dear Mr. Griffiths,

Thank you for the opportunity to review and comment on the Washington County Comprehensive Plan 2040 (the "Plan"). When reviewing plans, the Maryland Department of Housing and Community Development ("DHCD") comments on items for which political subdivisions can strategically leverage DHCD's resources to accomplish their housing and community development goals. DHCD also reviews comprehensive plans for consistency with relevant statutes and, if appropriate, Sustainable Communities Action Plans.

Overall, DHCD staff were impressed with the quality of the Plan. Staff in the DHCD Division of Neighborhood Revitalization reviewed the plan and provided the following comments, which are meant to help realize the Plan's goals. We present the following in no particular order:

1. Washington County has seven areas designated as Sustainable Communities by the State of Maryland: Hagerstown, Fort Ritchie-Cascade, Boonsboro, Hancock, Sharpsburg, Smithsburg, and Williamsport. The housing and economic development components of the Plan are consistent with and build upon the respective communities' Action Plans.

2. The DHCD's Community Legacy Program grants could assist with the Plan's stated goals to revitalize municipal downtowns and mainstreets. Planning staff can learn more about Community Legacy online at https://dhcd.maryland.gov/Communities/Pages/programs/CL.aspx or contact Sara Jackson at (410) 209-5812 or sara.jackson@maryland.gov.

3. DHCD can assist with home repairs that improve comfort, livability, and accessibility for homeowners through its Special Loan Programs. Planning staff and residents can learn more about these programs at https://dhcd.maryland.gov/Residents/Pages/SpecialLoans.aspx or contact the program directly at 301-429-7409 or DHCD.SpecialLoans@maryland.gov.

4. The Plan identifies a need to encourage infill development for which DHCD's Strategic Demolition Fund (SDF) grants could assist. Planning staff can learn more about SDF

online at https://dhcd.maryland.gov/Communities/Pages/programs/SDF.aspx or contact Sara Jackson at (410) 209-5812 or sara.jackson@maryland.gov.

5. The Plan does not show that Washington County has conducted a point-in-time count to identify the total number of people experiencing homelessness in Washington County, and the Plan does not identify goals or actions regarding services for people experiencing homelessness. For information on DHCD's programs addressing homelessness, please see more online at https://dhcd.maryland.gov/HomelessServices/Pages/GrantFunding.aspx or contact the Homelessness Solutions Program Manager, Suzanne Korff, at 410-209-5850 or Suzanne.Korff@maryland.gov. Persons experiencing homelessness who need assistance should contact 301-797-4161.

6. The Plan identifies the community's needs with respect to income and poverty. Washington County or non-profits active in Washington County may be eligible to apply for discretionary Community Services Block Grant (CBSG) funds administered by DHCD in order to provide services for low-income individuals and families at or below 125% of poverty. Planning staff can learn more about CBSG programs online at https://dhcd.maryland.gov/Communities/Pages/programs/CSBG.aspx or contact the Poverty Solutions Team at 301-429-7525 or csbg.dhcd@maryland.gov.

7. The Plan identifies a need for affordable housing, including workforce and low-income housing. Portions of Washington County are within HUD Qualified Low-Income Housing Tax Credit (LIHTC) Census Tracts. If planning staff want to support further affordable housing development with LIHTC or other DHCD programs, information is available online at https://dhcd.maryland.gov/HousingDevelopment/Pages/lihtc/default.aspx or contact Edward Barnett, Director of Rental Lending, at 301-429-7740 or edward.barnett@maryland.gov.

8. A portion of Washington County is within a Maryland Mortgage Program ("MMP") target area and residents therefore have enhanced eligibility for the state's homeownership incentives. Planning staff and residents may learn more about Maryland's homeownership programs at https://mmp.maryland.gov/pages/default.aspx.

9. There are two Maryland-designated Main Streets in Washington County: downtown Hagerstown and downtown Williamsport. More information on the revitalization benefits associated with this designation can be found online at https://dhcd.maryland.gov/communities/pages/programs/mainstreet.aspx or by contacting Keith Mainhart at 410-209-5851 or keith.mainhart@maryland.gov.

10. The Plan identifies a need to support businesses in the County's urban cores. Info on DHCD's support for businesses can be found online at https://dhcd.maryland.gov/Business/Pages/SmallBusinesses.aspx or by contacting Mike Haloskey, Director of Business Lending Programs, at 301-429-7523 or Michael.Haloskey@maryland.gov.

1. The Plan identifies a need for infrastructure improvements that increase the town's overall safety. DHCD's Community Safety Works program is a potential resource to support these projects. More information on the program can be found online at https://dhcd.maryland.gov/Communities/Pages/csw/default.aspx or by contacting Todd Scott, Program Director, at 410-209-5818 or todd.scott@maryland.gov.

11. The Plan identifies a need to increase energy efficiency for buildings, including single-family and multifamily homes. DHCD has several programs that support energy efficiency, and more information on those programs can be found online at https://dhcd.maryland.gov/Pages/EnergyEfficiency/default.aspx.

12. The Plan does not identify whether there is a need to fill vacant commercial properties in Washington County. DHCD's Project Restore can be leveraged to attract and retain businesses that occupy vacant properties. More information on the program can be found online at https://dhcd.maryland.gov/Pages/ProjectRestore/default.aspx or by contacting the Program Manager at 410-209-5851 keith.mainhart@maryland.gov.

13. The Plan acknowledges its requirement to describe how Washington County has affirmatively furthered fair housing under HB 90 (2023). On Page 92, the Plan notes that a few of the County's mixed-income developments have accomplished the objectives identified in HB 90, but it does not explain how those developments meet the requirements of HB 90. The Plan should provide more detail on how these developments overcome patterns of segregation, foster inclusive communities, address disparities in opportunities and housing, and comply with civil rights and fair housing laws. For technical assistance in development of the Plan's Housing Element, please contact staff at the Maryland Department of Planning.

We in the Division of Neighborhood Revitalization look forward to continuing our productive partnership with Washington County in its future initiatives. Again, thank you for the opportunity to comment on the Plan. If you have any questions regarding the comments above, please contact me at carter.reitman@maryland.gov or 410-209-5849.

Sincerely,

Carter Reitman
Program Manager, State Revitalization Programs

Cc: Joe Rogers, Maryland Department of Planning
Sara Jackson, DHCD Division of Neighborhood Revitalization
John Papagni, DHCD Division of Neighborhood Revitalization

August 25, 2023

Mr. David V. Cotton
ARC Program Manager
Director, Western Maryland Regional Office
Maryland Department of Planning
113 Baltimore St., Suite 302
Cumberland, MD 21502

Dear Mr. Cotton:

Thank you for the opportunity to review the draft Washington County Comprehensive Plan 2040 and submit comments on behalf of the Maryland Historical Trust (MHT). Overall, we appreciate the depth of information provided in the Historic Element (pp. 30-63) and the recommendations listed on p. 63. The specific comments listed below suggest some ways this content could be streamlined and/or clarified, and we have pointed out a few inaccuracies.

As a general matter, we recommend adding hyperlinks as well as additional maps of historic property distribution to the document to help orient readers. We also appreciate the inclusion of historic preservation goals throughout the rest of the plan and encourage you to cross-reference any recommendations related to historic preservation in the Historic Element chapter (for example, p. 139: "Investigate the creation of an inventory and ranking system of Rural Roads with scenic, historic or environmentally significant resources").

The most critical substantive comment is that MHT's Maryland Inventory of Historic Properties (MIHP) is a repository of information that can inform planning, but it should not be used as a regulatory tool. It is our understanding that the County does have a local designation process, but in several parts of the Historic Element (noted below), it reads as though the County is using the MIHP to regulate properties, rather than going through a local designation process prior to regulatory review by the historic district commission. I would be happy to discuss this further, as well as provide any additional technical assistance for this section, as desired.

p. 30 Please clarify "Their stewardship of the land prior to colonization left the County largely open and full of resources" - does this refer to developed agricultural land? Crops? Etc.

Recommend adding some details, to the extent possible, about the types of archaeological and cultural resources in the county connected to indigenous populations. (For example, were Native trails used as the foundation for later colonial transportation routes?)

Recommend adding a bit more information about the background of European settlers in the region during this period.

p. 31 Readers may not know about the land grant system – who was conveying grants and for whom?

Recommend blending the "Transportation Networks" subsection (pp. 33-34) into the time-based sections, since transportation has such a central role in development.

p.35 The box "What Makes a Resource Historic?" may not be clear to people who are unfamiliar with cultural resources. We suggest clarifying that historic and cultural properties can be archaeological or architectural; they may be cultural and historic landscapes, objects like or structures like bridges and dams, etc. (similar to what you have laid out on pp. 36-37). Whether or not those properties are considered "historic" or "significant" is based on certain criteria, most commonly the criteria for the National Register of Historic Places. We recommend linking to the program and referencing the subsequent National Register section. Properties may also be determined "historic" or "significant" as part of designation and regulation by a local historic preservation commission, such as the Washington County Historic District Commission.

In the "Defining Preservation" subsection, the use of the word "object" is unusual – recommend instead using "historic site/place/property." Under "Restoration," we may be able to help you find a local example, if desired. If not, please use "National Trust for Historic Preservation" instead of "National Historic Trust."

p. 36 The "Historic Inventories" section contains some of what we suggested for the "What Makes a Resource Historic?" box. Wherever this content is addressed, we recommend including the information and distinctions listed in the comment for p. 35.

Of the inventory list, please remove "Maryland Register of Historic Properties" - this term appears in legislation for specific programs but simply refers to properties listed in or determined eligible for listing in the National Register; it is not a term we generally use for the public. (For example, there is no way to Google or search Medusa for properties listed in the "Maryland Register of Historic Properties.")

On the inventory list, we recommend that you add who is responsible for maintaining each item. In particular, please make clear that the National Register and the list of National Historic Landmarks are maintained by the National Park Service, although properties are evaluated first by the state through MHT. It may be helpful to provide hyperlinks to these different programs. Readers may explore both the National Register and the MIHP, as well as propertied determined eligible for the National Register and MHT easement properties, through a map-based application on our website called Medusa.

Please also add that Washington County has -- per the comment for p. 35 – locally designated properties as well.

Please strike the sentence "Each of these inventories represents a different evaluation level of historical significance." Typically inventories like the MIHP are not actually evaluated for historic significance, while designations like the National Register or local landmarks go through an evaluation process. This is an important distinction, as designations carry a range of regulatory implications.

"It is the goal of both the County and State to document resources to determine eligibility for the National Register of Historic Places. Therefore, the definition of a historic resource used by both is derived from the National Register guidelines." This statement suggests that the local commission uses the National Register criteria to designate properties for regulatory purposes. This is good information, but perhaps could be stated more directly, especially as National Register designation (generally honorific, but with implications for project review and compliance) and local designation (regulatory) have different processes and effects.

p. 38 Similarly, the National Register subsection states that the goal of the county and state is to document all properties for National Register evaluation. While this is one goal, many culturally significant properties will not meet National Register criteria, and the documentation of these properties is still important. We recommend also striking the sentence about period of significance, as this is a challenging concept even for professionals. Otherwise, the first paragraph describing the National Register is helpful. We note that the rest of the subsection, while accurate, provides more information about the National Register than may be necessary for the purposes of this plan.

p. 39 Please retain the list of National Register properties in the county but change "National Historic Registry" to "National Register."

p. 40 As per previous, recommend removing the section on the "Maryland Register" and simply noting in the National Register section that properties listed or determined eligible for listing are typically (not always) treated the same way by federal and state regulatory reviews and financial incentive programs.

Please change the subsection "National Historic Properties" to "National Historic Landmarks" (NHLs) and indicate that this list, like the National Register, is maintained by the National Park Service and evaluated according to federal criteria. There are typically no regulatory differences in treatment for NHLs compared to National Register-listed properties. However, some financial incentive programs may privilege sites designated as NHLs.

p. 41 Please use "MIHP" not "the Inventory" as the shorthand for the Maryland Inventory of Historic Properties. Please make clear that the MIHP is separate from the National Register, although properties may be documented in both, and both sets of data are visible – and searchable – in Medusa. As noted previously, the primary distinction is that

properties in the MIHP have not been evaluated, unless they have a formal determination of eligibility or an additional National Register listing. Their inclusion in the MIHP is simply for informational and planning purposes and has no bearing on regulation or financial incentives.

It is very helpful to state that the County uses the MIHP as its local inventory. However, we note that the Washington County Historic District Commission web page refers to a "Historic Sites Survey" - is this the same as the MIHP? Or is that another catalogue of data that should be presented here?

p. 43 Please add a section on Washington County locally designated historic sites (that is, sites that have been designated as historic by the local government) and what this designation means in terms of regulatory review.

p. 44 Much of the "Policies, Programs and Regulations" subsection could probably be pared down, eliminated, and/or combined with other sections. At a minimum, we recommend removing the content related to the National Trust – which, as you note, has no properties in the County – as well as the Advisory Council, since most readers and users of the plan will never interact with this body. The section on State Historic Preservation Officers could be combined with the section on MHT (p. 45) and the section on the National Register and 106 review can be pared down and added to the National Register section (the state also reviews state projects for impacts to historic properties, based on the same criteria as federal projects).

p. 45 Please use "MHT" as shorthand for the Maryland Historical Trust instead of "the Trust." You do not need to list out these key programs of MHT, as you have already covered them previously. However, you might add that MHT administers financial incentives, including tax credits, grants, and loans for qualifying properties and projects. Recommend also adding information about MHT preservation easements, which can impact the treatment of historic properties.

Recommend creating a separate subsection for the Maryland Heritage Areas Authority (MHAA) and the content in the plan related to the Maryland Heritage Areas Program. MHAA is an entity distinct from MHT but administered by MHT staff.

p. 48 Recommend adding a subsection on federal and state parks with historic and cultural properties.

Under the Certified Local Government (CLG) subsection, recommend changing "Eligibility to compete for funds to conduct projects that promote preservation, CLG sub-grant funds, ability to participate in the CLG Educations Set Aside Program" to "Eligibility to compete for funds to conduct projects that promote preservation" and (separately) "Eligibility to receive funds annually for commission training and education."

Please note that CLG evaluations take place every four years, not annually. CLGs are required to submit an annual report on activities, but this does not necessarily need to be included in the plan.

p. 49 Please explain the difference between the Historic Advisory Committee and the Historic District Commission.

Historic District Commission subsection: please see comment above for p. 43, regarding locally landmarked (designated) properties. Have these properties listed gone through a local landmarking process? Can other properties be put forward for designation? Etc.

"In addition, applications affecting properties on the Maryland Inventory of Historic Properties (MIHP) are also reviewed." Please clarify how the commission uses the MIHP and that it does not use the MIHP as a basis for design review. If you have questions about this, please reach out to me to discuss.

See previous comments: are the "Washington County Historic Sites" the same as the Washington County sites listed in the MIHP?

p. 50 Consider indicating which rural villages are Historic Rural Villages and which have Rural Village zoning on Map 5-2. Recommend explaining more about what the Rural Village zoning classification means.

Ditto comment above regarding the MIHP: it should not be used for regulatory purposes.

p. 57 Economic Benefits subsection: recommend combining sections on tax credits into a single subsection, as well as sections on MHAA/heritage tourism, and eliminating this subsection.

p. 59 The Challenges subsection mentions that there are 50 identified rural villages; it would be helpful to have those mapped in addition to the ones on Map 5-2.

Recommend changing the references to Table 3 and Table 4 to, respectively, 5-3 and 5-4.

Please clarify: does "Adoption of the resulting surveys" mean local designation by the historic district commission?

Please clarify: what does "properties listed individually" mean? Listed in the National Register?

Please use "MHT's *Standards and Guidelines for Architectural and Historical Investigations in Maryland"* instead of "MHT Guidelines and Standards."

"The MIHP is meant to catalog what exists that is older 50 years and examine it for National Register qualification." This may have been true at one point, but the vision for

the MIHP has expanded over time. Recommend something closer to "The MIHP compiles information on historic and cultural properties sufficient to evaluate them for National Register eligibility." That is not the only purpose of the MIHP, but it does affect what and how resources are recorded.

p. 63 We would love to see one or more recommendations for an expansion in locally designated properties, if possible.

Thank you again for the opportunity to comment on the plan. If you have any questions, please contact me at (410) 697-9592 or by email at nell.ziehl@maryland.gov.

Sincerely,

Nell Ziehl
Chief, Office of Planning, Education and Outreach

cc: Joseph Griffiths, MDP
Rita Pritchett, MDP

October 30, 2023

Jill Baker, Director
Planning and Zoning Administration
747 Northern Avenue
Hagerstown, MD 21742

RE: 2040 Comprehensive Plan Comments

ATTN: Jill Baker

Thank you for the effort that the Planning and Zoning staff has taken to draft the 2040 Comprehensive Plan. Public Works provides the following comments and feedback on the proposed plan. There is a shared interest in positively shaping the County's landscape and future for its citizens and to better understand how that will be achieved. Following the public comment period, we request a meeting between Planning and Public Works staff to discuss the comments and review particular areas of interest and importance as well as understand what public feedback may have been provided on these topics.

Chapter 5 – Historic

1. The demolition permits and alternatives analysis should be stronger. Historic properties like open space contribute to the cultural landscape of the County, however, presently there aren't the same preservation incentives or deterrents against demolition or neglect. A person can knowingly purchase a historic property with the intention of demolition for alternative use with limited restrictions. There should be greater guards in place or similar to Ag land transfer taxes a sliding scale demolition fee paid based on the condition of the structure. The fee should be based upon the historical value of the resource and the condition of the structure at the time of property purchase to guard against demolition by neglect. Fees for demolition could be used to support protecting other resources. This would not apply in cases where an alternative analysis indicates there are no viable alternatives or an inability to conform to current design or safety standards.
2. Concur that the incentives program in place is underutilized and as structured does not provide sufficient benefit and alternative programs should be explored and implemented. Ideally a residential program that provides annual relief benefit for ongoing exterior maintenance for qualified properties would be more impactful. Commercial owners may still be more interested in one time renovation/conversion options. The program as structured could still be used to match state incentives for larger projects.

Chapter 6 – Housing

3. Data is from 2020 which housing prices have increased substantially and affordable housing will be a primary concern to ensure that adequate housing stock is being added to avoid even greater disparity and % of income spent for housing. Market trends are towards developing custom and higher income housing versus affordable or starter housing.
4. Support increasing the % of housing developed inside the Priority Funding Areas as these residents will be closer to existing resources and infrastructure.
5. Support a more concentrated development pattern encouraging redevelopment and mixed-use developments to provide affordable housing within the PFA.
6. Short Term Rentals should pay a lodging/Hotel Rental Tax fee as they are geared towards that audience and those fees help support tourism and recreational activities in the community. Rentals should be required to be registered. While it is noted short term rentals are not yet a problem affecting the supply of housing affordability many communities failed to act before it became a problem and are now dealing with the effects and battling industry lobbies to change course.
7. Support the Housing Recommendations particularly the following.
    a. Support the investigation of reducing or eliminating off-street parking requirements which consumes a significant amount of land. These standards are overly conservative and reinforces automobile dependency and discourages density.
    b. Support density bonuses that created affordable housing units.

Chapter 7 - Transportation

8. WCT will be starting its 5-year Transit Development Plan that will incorporate many of the land use planning and transportation recommendations in the Comp Plan. The plan will consider future possibility of microtransit and more demand response services. Need to understand the relationship between new economic/industry centers and employee dwelling locations. Consideration for improved intercity/county connections.
9. Transit Map on Page 119. Needs updated. Service now extends to South end Walmart. There may be other changes as well.
10. Complete Streets and Bike and Pedestrian Facilities. The solution needs to be based on location and density and not a one size fits all. In some applications bicycle facilities may not be an effective commuting option, but recreational and the desired function and safety considerations need to be evaluated. Recommend allowing for ways that dedicated bike and pedestrian corridors can be linked together between adjoining developments that may not include location in the street section.
11. Page 135. The Rail line through Maugansville is NSX not CSX.
12. I hesitate to “solicit town wish lists” for dedicated bicycle and pedestrian facilities on County Roads as a basis for capital budgeting. Roads should be vetted not only for the benefit, but the cost, safety and feasibility of providing such accommodations. Providing bike amenities can be a double edge sword as those amenities represent such a small % of potential users, but a high % of fatalities and accidents on the road. I much more prefer off roadway dedicated bike and pedestrian facilities in rural/suburban areas. Urban areas provide greater opportunities for biking as a transportation alternative while in rural areas it is a more recreational activity. I fear

this approach will result in a laundry list of requests from the towns without a clear funding mechanism or assurance that those facilities will be used.

13. There is a blurred line about where e-bikes, mopeds and similar micro mobility vehicles fit in as they often staddle the line of where in the roadway cross section they should be. There are already issues locally with these vehicles and four wheelers not obeying traffic laws. In the next 20 years I anticipate greater adoption of e-bikes and scooters and what type of infrastructure should be planned for their use? I suggest a section about how those types of vehicles are categorized and captured in the plan.

Chapter 8 – Community Facilities

14. Page 155. Map 8-4. Does not appear to show the middle schools correctly. There are also High Schools shown.

Chapter 9 – Economic Development

15. Information on Barr Construction Institute should be updated for its new location.
16. The limits of the growth area around the Airport has decreased and lands previously zoned Airport are now agricultural. Parcel 36 is of particular interest as with the property to the south offers large contiguous area with access to the airfield. It is adjacent to existing industrial land and there are public utilities nearby which could easily provide service. This parcel has been looked at by prospective developers and should remain available for potential development and not downzoned. Parcel 37 further to the east would be more difficult to develop for aeronautical use and would be a more likely candidate to downzone.
17. I am unclear what the zoning changes for the Airport terminal parcel from Airport to Institution mean for future land use if anything. It appears in later sections that the Airport zoning will remain in effect. The current industrial zoning on the New Heights Property may be problematic for the Hagerstown Aviation Museum and their design to function more as an event center. Airport zoning may be more appropriate for their property. The Airport overlay appears to remain in effect. Zoning around the airport should prohibit residential development.

Chapter 11 - Agriculture and Forest Resources

18. Land Preservation Programs should keep the priority ranking system prioritizing blocks of preserved land and environmentally sensitive resources and not be used as a tool to prevent development of land that would be more suitable for population and economic growth in the future. These rural preserved areas can then retain their rural character in perpetuity and not have conflicting land use problems in the future. There will be better control and predictability over the type of infrastructure and amenities that should be planned for.
19. Funding Support. Consider allowing the Real Estate Transfer tax to also go towards Historic Preservation. As more land is preserved there is also a balance of making sure the buildings and historic structures on those properties can be preserved and maintained. Citizens appreciate having the viewsheds of the working farm and historic structures that dot the landscape as much as the open land and space.
20. Support capping the Ag Preservation District Program. As indicated it may be used as a tax offset as not all landowners are actually interested in a permanent easement or would subdivide and develop during the 10-year period. While applicants can ultimately apply and get a MALPF

easement there is no permanent easement conversion guarantee and landowners could still let the term expire and develop the property at their choosing in which case nothing of lasting value was gained. There are still exemptions for subdividing family residential units and while there is a holding period, ultimately doesn't truly preserve the land in its original condition. There are also problems with allowing family lot subdivisions as they often have shared driveways and private lanes. This is allowed as a benefit, but after this period there becomes mixed ownership and civil problems between owners about maintenance and conflicting uses and expectations that the County gets pulled into. Funds could be limited and prioritized towards other preservation needs or directly supporting Agricultural industries/businesses through other means.

21. Solar Energy Generating Systems – support restricting commercial sized generating facilities in priority preservation areas. Not only are they often incompatible with the adjoining rural land uses they degrade rural viewsheds and often require supplemental distribution infrastructure. Support allowing SEGS on rocky pasturelands and nonproductive farmland outside the UGA and preservation areas. Rural undeveloped farmland should not be seen as a first option due to lower SEGS site development costs. While the State controls the approval of large SEGS, the County should institute a PILOT program or special solar exemption taxes that incentivizes where SEGS can be built to in effect disincentivize or penalize development on land the County wants to protect from this development. In general, over the next 20 years there will need to be and will be a lot more SEGS built of all scale and size and the location of such facilities needs to be more clearly defined so that the development and infrastructure can be effectively managed.
22. Forest Health – Recommend that invasive species trees should not be counted as trees in a forest survey and forest resources should only apply towards native forest cover.
23. Tree Planting as part of streetscapes or developments should have diversity requirements of genus, species, etc. to prevent monocultures and susceptibility to disease and pests (Chestnut Blight, Dutch Elms, emerald ash borer, etc.)
24. Page 284. There are other Class III streams than Beaver Creek and Marsh Run. Little Antietam in Smithsburg and Camp Spring west of Clear Spring.

Chapter 13 - Water Resources

25. The County needs to initiate a plan with the City of Hagerstown for additional water resources. If additional water resources are not developed the County's future growth and development will be limited. Presently development opportunities and growth are limited due to the City of Hagerstown's preference towards a more limited service area and pre-annexation agreement requirements. Consider options such as additional capacity at RC Wilson, bringing Edgemont Reservoir back online, expanding or interconnecting Highfield/Cascade or groundwater supplementation.

Chapter 14 - Growth Management and Land Use

26. Table 14-3. The RU Yield for the Urban area appears to be lower than it should and produces a density of 1 unit per 3 acres when it should be closer to 1 acre yields 5 units based on the other town calculations.

27. Location comments
    a. Support limiting the UGA boundary along the Leitersburg Pike corridor. Those parcels largely contained floodplain of Marsh Run, a sensitive area and would provide limited development potential.
    b. See earlier comment 16 about the reduction of the Airport zoning.
    c. Support locations along Robinwood Corridor/Mt. Aetna remaining sites for mixed use developments with higher density, but the road network needs to be improved and interconnected to Robinwood Drive as part of the developments.
    d. Support increased density or mixed-use development for lands adjacent to Eastern Blvd Extended. Given the roadway characteristics and access, a higher density could be supported. More than likely the land will be annexed into the City which has higher density development to the west. This land will be near many public services including a future regional park.
    e. Support limiting the UGA along College Road as many of these parcels are already developed residentially and it is unlikely that large subdivisions or developments would occur.
    f. What will be the impact of reducing the UGA for the lands along Rench Road? While this area is outside the City's water service area, this location has parallel interstate access and is sandwiched between two developed areas. Future road improvements to provide parallel access may be difficult to achieve if not in the UGA. Will these Ag lands be eligible for preservation in the future? That would make lands that at some point in the future would be ideal for development potentially restricted.
    g. Support limiting the residential development between Kendle and Sterling Road. Both roads are in need of improvements and unless the development could support those efforts the problems and cost would fall on the County. Already receive citizen concerns about traffic and condition of Sterling Road. Likely the APFO fees associated with this endeavor makes this area less attractive.
    h. What are the impacts of the tannery/Redland Brick property if it is not in the UGA? Are the same options available for development if it becomes Rural Village?
    i. In Kemps Mill the residential land to the west of the RR has limited Road access, and many sensitive areas and could be downzoned to outside the UGA.
    j. Agree with downzoning of residential areas southwest of I-70/MD 63 east of Walnut Point. The road would need extensive improvement and Kemps Mill Road has extensive sections in the floodplain.
    k. I see the residential lands south of Maugansville as a desirable future growth potential. There will also need to be better connector roads between Broadfording Road, Cearfoss Pike and Maugansville Road which aren't included in the long-range transportation plan. Unclear how the reduction of land in the UGA to match the water boundary growth affects future road connections if these areas would be subdivided under Agriculture zoning in the future. McDade Road appears as though it should extend to the North. Concerned if these residential lands become preserved in easements or developed without planning for these future road connections.
    l. Table 14-10. The RU Yield for the Urban area appears to be calculated correctly. Why was the yield in Smithsburg reduced so significantly? I did not see any major reduction in the

UGA. Did this land get annexed into the Town. The yield comparison should be revisited to see the effects to make sure the same metrics are applied to both analyses. I have a long-term concern about housing affordability and the density should be increased to make up for the lost potential land to maximize the yield and place those developments near where existing infrastructure is located.

m. If the UGA is reduced and residential lands become Agriculture what is the development potential of these lands on well/septic?
n. How will stream buffers be applied as Environmental Conservation zoning? Will this zoning split parcel boundaries into potentially two zoning districts and downzone the development potential on the entire parcel? I.e., EC stream buffer on otherwise Agriculture zoned land?
o. Unclear in the new maps which areas changed between Agriculture, Preservation, and Environmental Conservation. There appears to be more land zoned Agriculture and the Preservation district is being phased out in exchange for an overlay. Does that mean that land zoned agriculture with a preservation overlay would be 1 dwelling unit per 30 acres and not 1 per 5?

28. Will the definition of what applies to a rural business overlay be evaluated? Some citizens move to the country to enjoy the rural character and do not want businesses and the associated traffic/noise, while others see it as the only way for their property to be self-supporting. When it comes to roads, some citizens want rural roads to remain as is to prevent additional traffic or to keep barriers in place that will restrict rural business development (i.e., narrow weight restricted bridges). This is counter to initiatives that promote safety, modernizes infrastructure to current design standards and removes barriers for economic development or heritage tourism.
29. Will what constitutes operating a business in a residential zoned dwelling unit be evaluated? I have received complaints from citizens about certain types of activities in residential locations. Also, with hybrid and remote work increasing what is an appropriate amount of business activity or vehicular traffic that would constitute operating a business?
30. There needs to be a plan and improved coordination among the municipalities and particularly the City of Hagerstown on future annexation and on zoning uses along common boundaries. Annexation should require acceptance of the underlying infrastructure and give consideration for how services are provided to the citizens. The current method is a gerrymandered disservice to the citizens that results in significant confusion on who their service providers are. Example, a property owner signs an annexation agreement to obtain City water, is annexed into Hagerstown, but the fronting road remains the maintenance responsibility of the County, the nearest first responders are County EMS and Sheriff's Office. If the City expands its geographic footprint, there needs to be steps taken to cover those new service requirements that don't rely on the County.
31. The County may have limited control over the municipalities assessing APFO fees, however, as a condition for any annexation and rezoning APFO fees need to be assessed to cover the cost of additional services.
32. Support the development of new interior streets rather than relying on high order highways. New developments should have multiple points of ingress/egress and improved connectivity within the development and adjacent properties. Communities with many culs-de-sac and limited access to the higher order highway may be desirable from a property owner's

prospective, but are not desirable from a traffic operations, maintenance, and emergency response standpoint and perpetuate those problems when adjoining parcels are developed. There is a preference for standards that provide a linked road network.

Chapter 15 - Implementation

33. In the Transportation Recommendations, the Transit Development Plan should be the driving factor for whether County Commuter expands its hours of operation to include Sundays and evening service. Those items were included in the previous Transit Plan as long-range goals. The "County Commuter" is generally identified as the fixed route service and so even if the goal of expanded evening or Sunday service is achieved it may not be through under the County Commuter but another Washington County Transit program. Request changing "County Commuter" to "County Transit" so that investigating the feasibility is not associated and tied to one transit service model.
34. Concern with accommodating bicycle infrastructure on rural roads for safety reasons. Also need to define what constitutes a "bicycle" and the type of vehicle to be accommodated by these facilities.
35. I disagree with the approach of indiscriminately expanding bicycle facilities. I do not believe that in a rural or suburban area offering bicycle infrastructure will provide significant "modal switching and reduce traffic congestion." There is concern with promoting a plan that requires such infrastructure to be built and maintained that offers little in the way of congestion relief or may cause safety concerns (bike and ped 2% of modal activity, but 25% of fatalities) with new conflict points. Most citizens questioned will like the appearance of streets with these amenities over the alternative, however, it doesn't mean they will be used. I believe that in rural/suburban settings that such infrastructure should be based upon density or geared towards a recreational and quality of life user. A bike and pedestrian recreation user experience is different, and therefore, the desired infrastructure should be tailored to the user. For example, I rarely see bicyclist commuting on the rural highways where there are marked shared use and wide shoulders versus in Hagerstown where there are people that use the dedicated bike lanes. I do see the occasional recreational bicyclist on a rural road. On Yale Drive, there is a separated shared use pathway offering a high level of comfort for the user and the majority of the users are recreational. I believe the use of the facility is more dependent on the experience of the user than the location of the facility. The Appendix information on the BLOC and LTS bear those results on user comfort. I have not observed any intersection locally where providing bicycle facilities would significantly improve level of service. Rather than polling citizens on where these facilities should be located it should be based upon where there is existing bicycle traffic and how to incrementally improve results with a higher level of comfort and expanding the network's connectivity to those links. This could include improving facilities feeding into the C&O Canal or other recreational corridors. The perspective of improving bicycle facilities in the rural areas of the County should not be under the guise of offering significant congestion relief but largely providing a recreational amenity. Autonomous vehicles and e-bikes are different. Class 3 e-bikes are not allowed on a bicycle path unless it is adjacent to a highway or right-of-way, or they are specifically allowed by the local authority or state agency with jurisdiction.
36. Believe that emerging transportation technologies should have more focus and will reshape our planning more so than accounting for existing options like only bicycles. Autonomous vehicles

and microtransit options will require less parking and potentially different infrastructure to support (charging/docking facilities).

37. Agree with strengthening bicycle and pedestrian connections between activity centers.
38. Is the Comp plan recommending the County conduct a feasibility study on the Civil War Rail Trail or another entity? I believe in the long-term merits and breaking the deadlock and potentially a building pilot section, but it is state owned land and current direction is for County staff to not pursue. Is this topic going to be specifically discussed in further detail and if the plan is approved is the expectation that the County would undertake this planning effort?
39. The Transit Development Plan should dictate whether transit service is needed to all major subdivisions and employment centers. Not sure what falls into that definition and not all these locations would necessarily be transit users or come from within our service area.
40. Would the recommended inventory and ranking system of rural roads with scenic, historic or environmentally significant resources be something similar to the MD Scenic Byways program? Would it include viewshed analysis or restrict only what can be done within the right of way? If viewshed would that tie into the Historic Preservation incentives for structures if on private property? Support preserving the entirety of the vista and not only the open space but want to know what corresponding road maintenance encumbrances there may be on tree removal/ infrastructure replacement with such a program.

Sincerely,

Andrew Eshleman, P.E.
Director, Public Works
100 West Washington Street
Hagerstown MD, 21740
240-313-2252
aeshleman@washco-md.net

cc: Kevin Cerrone, Transit
Neil Doran, Airport
Zane Rowe, Highways
Jaime Dick, Parks and Recreation
Danny Hixon, Buildings, Grounds and Facilities

Educational Facilities

Primary and Secondary Education Overview

Washington County Public Schools (WCPS) serves more than 22,000 students at 46 schools ~~facilities~~. Educational facilities under jurisdiction of Washington County Public Schools include elementary, middle and high schools, special programs and administrative centers ~~facilities~~. Private educational institutions also provide educational services to residents of Washington County.

School facility needs are determined by projecting school enrollment system-wide, and at various grade levels. The forecasting of school enrollment in Washington County requires the analysis of multiple data sources including birth rates, local and regional housing trends, educational program changes, boundary changes, the local economy, and an understanding of the individual communities within the County. School population projections are most reliable when enrollment is projected for large geographic areas for one or two years in the future. System-wide projections for near years have a higher degree of certainty than the estimates for later years. Additionally, the accuracy of the projections diminishes as the geographic area becomes smaller. Maryland Department of Planning guidelines require enrollment forecasts to be prepared or updated annually.

In June of 2015, the BOE approved an attendance zone realignment that took effect during the 2016-2017 school year. This realignment did not significantly alter any existing middle or high school attendance zones, but did make changes to the elementary attendance zone boundaries of several schools. These realignments were needed as a result of the opening of one new elementary school and the closure of two others in the 2015-2016 school year. Attendance zone realignment also seeks to balance enrollment amongst all schools to the greatest extent possible.

A new, larger capacity Bester Elementary facility was opened in August of 2014, replacing the original, smaller facility on the same property. In 2016, the closure of aging and obsolete Conococheague and Winter Street Elementary Schools~~, whose facilities had become obsolete,~~ and the concurrent opening of Jonathan Hager Elementary School resulted in a decrease of 83 seats at the elementary level as calculated using the State Rated Capacity (SRC) formula provided by the Maryland Public School Construction Program. Jonathan Hager Elementary was, however, sited and designed ~~with~~ to allow future expansion ~~in mind~~ to absorb future enrollment growth within its service area. ~~A new, larger Bester Elementary facility was opened in August of 2014, replacing the original, smaller facility.~~ A new Sharpsburg Elementary facility also opened in August 2020, replacing the original facility, some of which was constructed in ~~that dated back to~~ 1936.

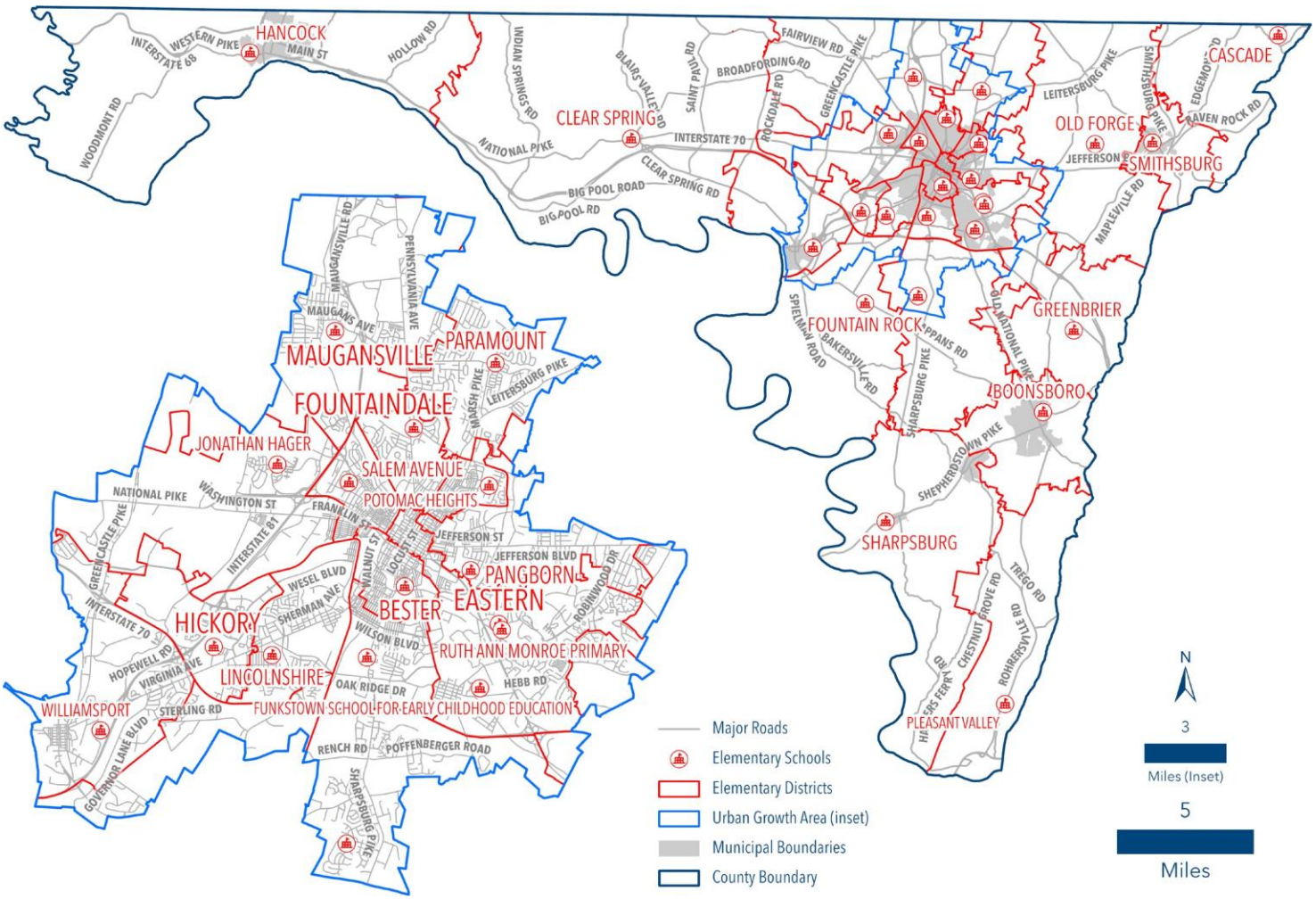
Bester Elementary School -

Elementary Schools

~~Washington County Public Schools~~ WCPS currently operates 25~~-~~ ~~26~~ elementary schools. Most elementary schools in the ~~Washington County~~ school system are organized in a pre-kindergarten through Grade 5 format. ~~In some cases,~~ One elementary service area~~s~~ ~~are combined and~~ is split between two schools~~: such as at Funkstown (Pre-K) and Emma K. Doub (Grades 1-5), and~~ Ruth Ann Monroe Primary (Pre-K to Grade 2) and Eastern Elementary (Grades 3-5). ~~Twelve schools offer pre-kindergarten classes~~. Several elementary schools have been newly constructed since the last Comprehensive Plan including: Bester, Jonathan Hager, Maugansville, Pangborn, Rockland Woods, Ruth Anne Monroe, and Sharpsburg. A new elementary school to replace and consolidate Fountain Rock and Hickory elementary schools is currently in the planning stages, with a planned opening in 2027.

As of September 2021 ~~2020~~, the SRC for County elementary schools totaled 11,577 students according to ~~BOE~~ the WCPS ~~2020-2021~~ Facilities Fact Sheet, or ~~In total Washington County had 9,996 equat- ed elementary school children enrolled (Equated - defines kindergarten and prekindergarten students as half full-time equivalents) as of that same date. Therefore, as a whole, the elemen- tary school system was at~~ 90 ~~86.3~~ percent of the combined SRC (11,557 student seats) of all elementary schools. A measure of adequate capacity for elementary schools is capped at 90% of State Rated Capacity (SRC) under Washington County's Adequate Public Facilities Ordinance. Elementary schools and their districts are shown on ~~the~~ Map 8.3 below. It is noted that the Funkstown School for Early Childhood Education facility (a previous elementary age facility) is now being utilized as a facility to house the Academy of Blended Learning Education (ABLE) which serves all grade levels.

Map 8-3: Elementary School Districts and Schools

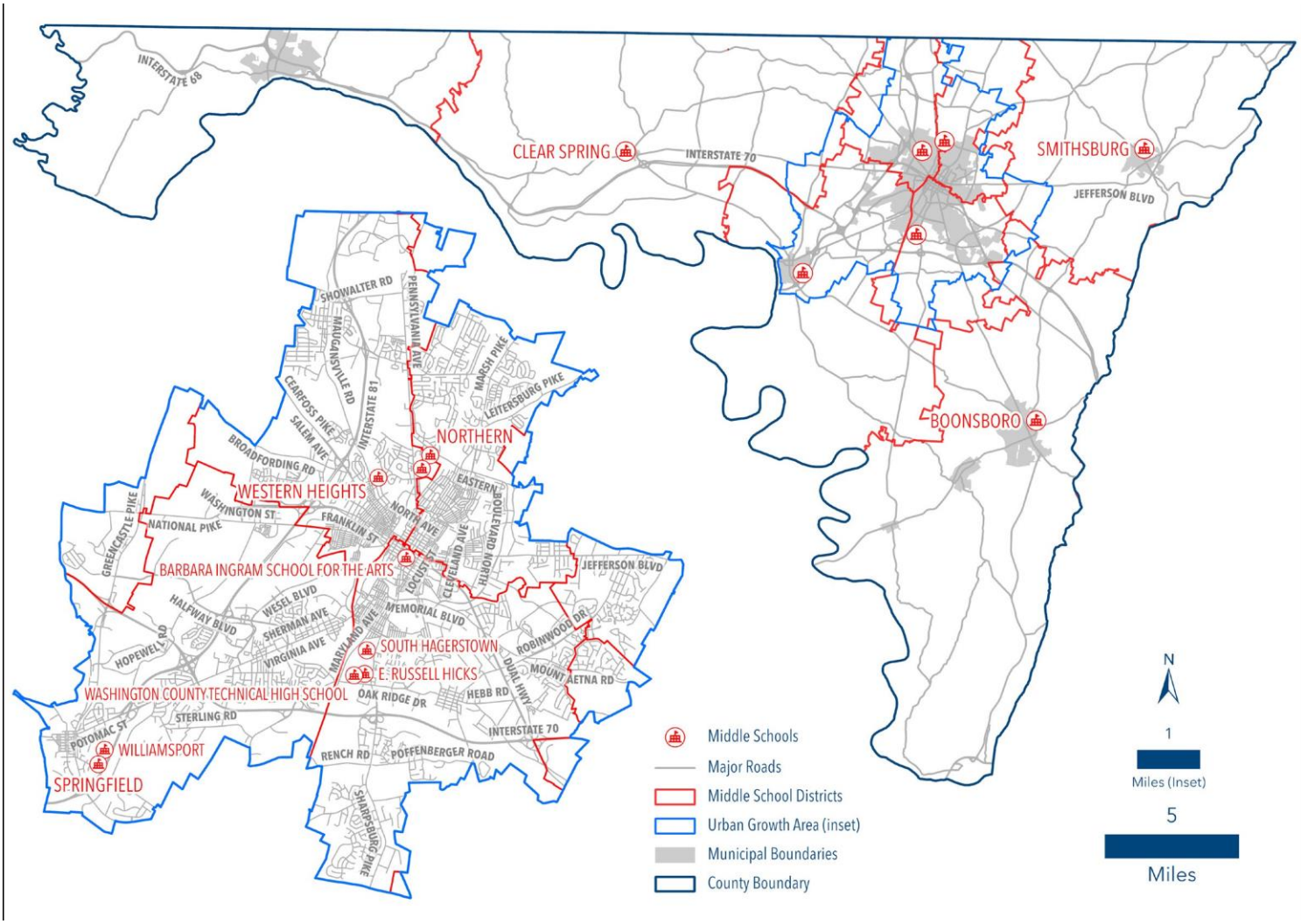

HANCOCK
WESTERN PIKE
INTERSTATE 68
MAIN ST
HOLLOW RD
WOODMONT RD
INDIAN SPRINGS RD
CLEAR SPRING
NATIONAL PIKE
BLAIRS VALLEY RD
SAINT PAUL RD
BROADFORDING RD
FAIRVIEW RD
GREENCASTLE PIKE
ROCKDALE RD
INTERSTATE 70
CLEAR SPRING RD
BIG POOL ROAD
BIG POOL RD
CASCADE
LEITERSBURG PIKE
OLD FORGE
RAVEN ROCK RD
JEFFERSON
SMITHSBURG
SMITHSBURG PIKE
EDGEMONT RD
MAPLEVILLE RD
MAUGANSVILLE RD
PENNSYLVANIA AVE
MAUGANS AVE
MAUGANSVILLE
PARAMOUNT
MARSH PIKE
LEITERSBURG PIKE
FOUNTAINDALE
JONATHAN HAGER
SALEM AVENUE
POTOMAC HEIGHTS
NATIONAL PIKE
WASHINGTON ST
FRANKLIN ST
INTERSTATE 81
JEFFERSON ST
JEFFERSON BLVD
GREENCASTLE PIKE
WALNUT ST
LOCUST ST
PANGBORN
EASTERN
ROBINWOOD DR
WESEL BLVD
SHERMAN AVE
BESTER
HICKORY
INTERSTATE 70
WILSON BLVD
RUTH ANN MONROE PRIMARY
HOPEWELL RD
VIRGINIA AVE
LINCOLNSHIRE
OAK RIDGE DR
HEBB RD
WILLIAMSPORT
STERLING RD
FUNKSTOWN SCHOOL FOR EARLY CHILDHOOD EDUCATION
GOVERNOR LANE BLVD
RENCH RD
POFFENBERGER ROAD
SHARPSBURG PIKE
FOUNTAIN ROCK
SPIELMAN ROAD
BAKERSVILLE RD
APPANS RD
OLD NATIONAL PIKE
GREENBRIER
BOONSBORO
SHARPSBURG PIKE
SHEPHERDSTOWN PIKE
SHARPSBURG
TREGO RD
ROHRERSVILLE RD
CHESTNUT GROVE RD
HARPERS FERRY RD
PLEASANT VALLEY
Major Roads
Elementary Schools
Elementary Districts
Urban Growth Area (inset)
Municipal Boundaries
County Boundary
N
3
Miles (Inset)
5
Miles

Middle Schools

~~The Washington County Public School system~~ WCPS operates seven middle schools covering grades 6 through 8. An eighth school, Hancock, is located within the same facility as Hancock High School with grades 6 through 12 being served. All but Western Heights Middle School are located on the same campus or in close proximity ~~as~~ to their associated high schools, thereby permitting some use of shared facilities ~~and transportation~~.

System-wide, as of September 2021 ~~2020~~, Washington County had 4,903 ~~5,044~~ middle school students enrolled. The total SRC for the seven ~~County~~ middle schools was 6,396 ~~6,162~~ student seats ~~as of that same date~~. Therefore, ~~the~~ middle school enrollment ~~system~~ was at 77 ~~81.9~~ percent of the combined SRC of all middle schools. The location of public middle schools and the boundaries of the districts are shown on the Map 8-4 ~~that follows~~.

Map 8-4: Middle School Districts and Schools



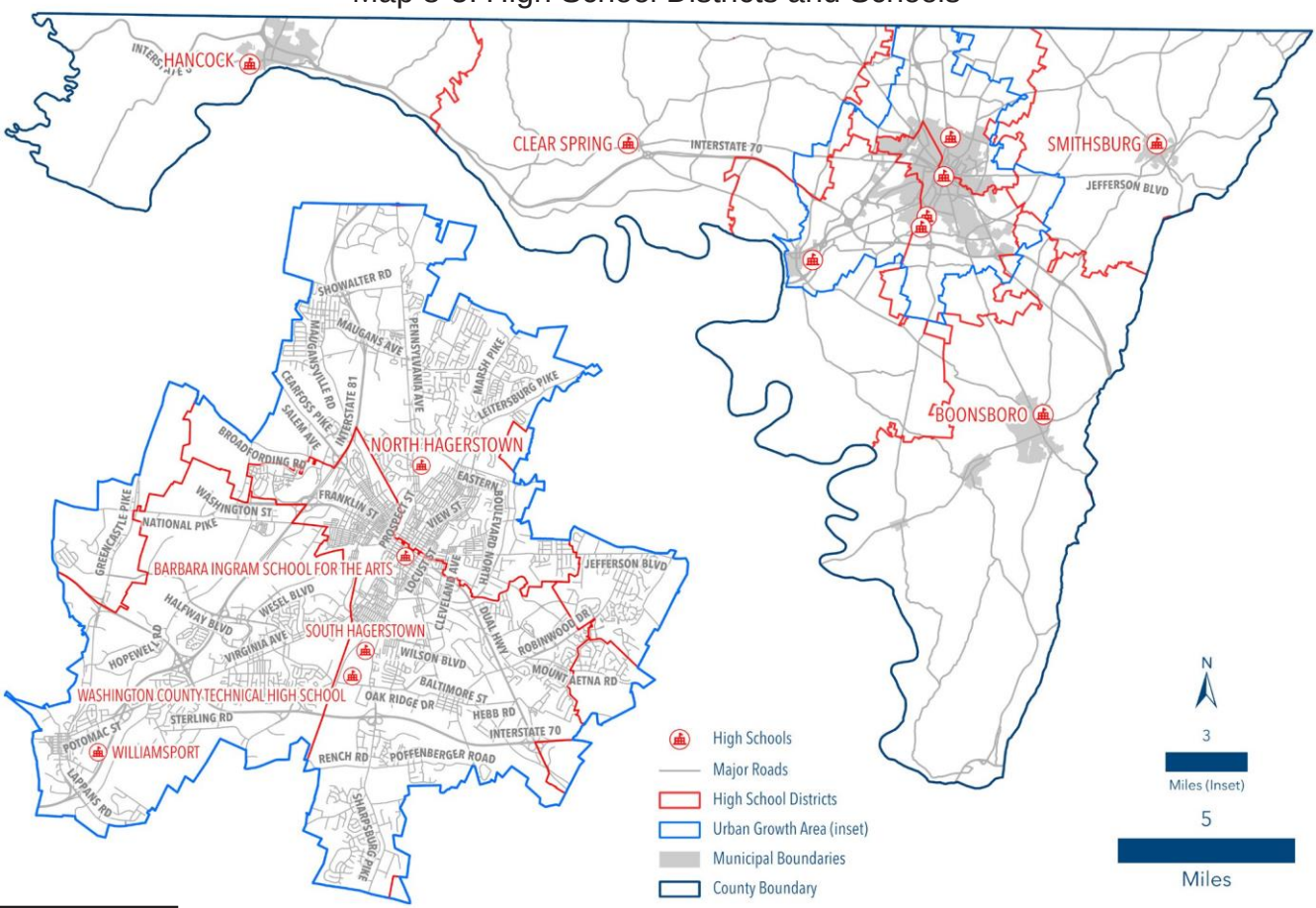
High Schools

Students in grades 9 through 12 attend one of nine ~~Washington County~~ high schools (including Hancock Middle/High School). System-wide as of September, 2021 ~~2020~~ ~~Washington County~~ WCPS had 6,780 ~~6,824~~ students enrolled in ~~grades 9 to 12~~ in these schools which have ~~with~~ an overall SRC of 7,960 ~~8,194~~ student seats. Therefore, ~~the~~ high school ~~system~~ enrollment was at 85% ~~83.3%~~ of SRC. The location of individual high schools and their respective districts are shown below on ~~the~~ Map 8-5.

A notable addition to the County's high school network in the time since the County's last Comprehensive Plan was made when the Barbara Ingram School for the Arts (BISFA) was opened in the renovated former Henry's Theatre on South Potomac Street in Hagerstown in 2009. The school offers rigorous arts instruction and training in ~~six different~~ various areas of concentration and collaborates with ~~other neighboring institutions in downtown Hagerstown such as~~ the adjacent Maryland Theater ~~and the University of Maryland Hagerstown Center~~ to share facility space. In 2020 the Vincent Rauth Groh Academic Center classroom addition was opened to accommodate the school's academic offerings. The school ~~now serves as the center of arts programs for County schools and~~ has been recognized as one of the top arts schools in the country.[1]

Another unique high school in the County system is the Boyd J. Michael, III Technical High School, located near South Hagerstown High School and available to students in grades 10 through ~~- , 11 and~~ 12. In addition to a more typical core high school curriculum, ~~technical high school~~ students can take courses in ~~nineteen~~ a number of different career and technology programs ranging from carpentry to criminal justice to digital communications, to the newly added diesel technology program. Some courses provide college credit through agreements with

Map 8-5: High School Districts and Schools



Hagerstown Community College and other two- and four-year institutions. The school has been open since 1972 ~~and currently enrolls 642 students as of September 2020~~.

1 Washington County Public Schools, Barbara Ingram School for the Arts: About. http://wcpsmd.com/schools/high-schools/barbara-ingram-school-arts/about, 2016.

Special Programs

The Marshall Street School serves students with developmental, intellectual or learning disabilities, autism, or orthopedic impairment from ages 3-21. Within the Marshall Street School, The Washington County Job Development Center Program (JDC) serves the vocational training needs of special needs students ages 14 to 21. Students receive vocational training and academics including language arts, math, computer skills and hand- writing. They also receive life and work skills training including food service, housekeeping, building maintenance/woodworking, horticulture/grounds keeping, industrial assembly, work preparation/job placement skills, adaptive physical education and other individualized instruction designed with the student's needs in mind. Students receive an educational program designed to enable them to earn a Maryland public high school certificate. The Marshall Street School serves approximately 75 students each year, with 35 of those students in the JDC program.

~~Both schools are based at the Mar- shall Street School in Hagerstown's West End. Combined, the two programs serve 75 students as of September 2020 - 41 at Marshall Street School, 34 at the Job Development Program.~~

~~"The **Washington County Job Development Center Program (JDC)** serves the vocational training needs of special needs students ages 14 to 21. The students live at home and are served educationally through this public school program. Each student is placed in the JDC program through Special Education guidelines and placement process. All students receive vocational training and academics including language arts, math, computer skills and hand-writing. They also receive life and work skills training including food service, housekeeping, building maintenance/woodworking, horticulture/grounds keeping, industrial assembly, work preparation/job placement skills, adaptive physical education and other individualized instruction designed with the student's needs in mind. Students receive an educational program designed to enable them to earn a Maryland public schools high school certificate."~~[1]

~~**The Marshall Street School** serves students with developmental, intellectual or learning disabilities, autism, or orthopedic impairment from ages 3-21. Both schools are based at the Marshall Street School in Hagerstown's West End. Combined, the two programs serve 75 students as of September 2020 - 41 at Marshall Street School, 34 at the Job Development Program.~~

The Claud E. Kitchens Outdoor School at Fairview provides environmental education for 5th grade students who spend three school days at the school near Clear Spring High School. The ~~annual trip~~ program is available to all 5th graders in the Washington County Public Schools system as a part of their regular school year.

Antietam Academy, located near the South Hagerstown school complex, provides an alternative educational facility for students demonstrating difficulties in the areas of behavioral and emotional adjustment to the traditional school setting. The Evening High School Program allows students to earn up to two credits toward graduation requirements each semester.

Magnet Programs are provided for highly gifted and talented students, covering a variety of subjects, at a number of elementary, middle and high schools throughout Washington County

Public Schools. ~~Students must be invited to apply to these highly competitive programs.~~

Administrative Facilities

Washington County Public Schools (WCPS) administrative offices are located at 10435 Downsville Pike in Hagerstown. ~~The~~ WCPS ~~Office of Information Services notes~~ ~~staffing~~ employs over 3,500 teachers, support staff and administrators throughout the school system. ~~levels of 214 administrative employees, 1,772 teachers and 1,236 support staff, as of 2022, on the WCPS website.~~

Private Schools in Washington County

According to the Private School Review, the private school enrollment in Washington County for the K-12 population was 3,064 students in 2022. This represents 12 % of the overall K-12 student population in the County. There are 22 private schools in Washington County, the majority of which are religiously affiliated.[2]

~~1 Washington County Public Schools, Marshall Street School/Job Development Program. http://wcpsmd.com/schools/special-programs/marshall-street-schooljob-development-program, 2022.~~

2 Private School Review, Washington County Private Schools. http://www.privateschoolreview.com/maryland/washington-county, 2022.

Public Education Facility Needs and Projection Analysis

Enrollment Projections

The annually updated Washington County Public Schools Educational Facilities Master Plan (EFMP) ~~(2021)~~ provides an overview of the last 20 years in enrollment trends. Between the years of ~~noting that from~~ 2000-2006, a housing boom and increase in population for the County resulted in an enrollment increase~~d by~~ of 1800 students. Between 2007 and 2013, slow but steady enrollment growth continued. In 2014 and 2015, the public school system saw decreases in enrollment for the first time since 2000. Between 2016 and 2019 enrollment increased annually due in part to the expansion of Pre-K programs. However, in 2020 during the COVID-19 pandemic the school system saw a decrease of more than 1,000 students. Prior to the pandemic the student enrollment population could generally be considered "static" for grades kindergarten through twelve for several years.

The table below, taken from the 2022 Washington County ~~Educational Facilities Master Plan~~, EFMP shows the projected surplus and deficit in seats from 2022-2028 ~~2020-2027~~.

Table 8-1: Projected School Capacity 2022-2028
~~2020-2027~~

Elementary Schools	Actual 2021	2022	2023	2024	2025	2026	2027	2028
State-rated capacity	11,577	11,577	11,577	11,577	11,577	11,577	11,666	11,666
Enrollment totals	10,405	10,603	10,833	10,961	11,097	11,249	11,341	11,405
Projected seat surplus/deficit	1,172	974	744	616	480	328	325	261
Percent of SRC	90%	92%	94%	95%	96%	97%	97%	98%
Net annual change	409	198	230	128	136	152	92	64
Percent of projected growth	3.9%	1.9%	2.1%	1.2%	1.2%	1.4%	0.8%	0.6%
Middle Schools	**Actual 2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
State-rated capacity	6,396	6,396	6,396	6,396	6,396	6,396	6,396	6,396
Enrollment totals	4,903	4,928	4,878	4,939	4,917	4,981	5,073	5,152
Projected seat surplus/deficit	1,493	1,468	1,518	1,457	1,479	1,415	1,323	1,244
Percent of SRC	77%	77%	76%	77%	77%	78%	79%	81%
Net annual change	-244	25	-50	61	-22	64	92	79
Percent of projected growth	-5.0%	0.5%	-1.0%	1.2%	-0.4%	1.3%	1.8%	1.5%
High Schools	**Actual 2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
State-rated capacity	7,960	7,960	7,960	7,960	7,960	7,960	7,960	7,960
Enrollment totals	6,780	6,900	6,999	6,960	6,770	6,662	6,641	6,701
Projected seat surplus/deficit	1,180	1,060	961	1,000	1,190	1,298	1,319	1,259
Percent of SRC	85%	87%	88%	87%	85%	84%	83%	84%
Net annual change	59	120	99	-39	-190	-108	-21	60
Percent of projected growth	0.9%	1.7%	1.4%	-0.6%	-2.8%	-1.6%	-0.3%	0.9%

Source: 2022 Washington County Public Schools Educational Facilities Master Plan ~~(2020-2027)~~

Enrollment projections are updated annually, and change quite frequently, and sometimes significantly, for future years. Projections for near years have a higher degree of certainty than the estimates for later years. The forecasting of school enrollment analyzes multiple data sources to create the most realistic model possible based on known or anticipated conditions. These figures, when compared against available or projected capacity, serve as a useful tool in

determining future decisions. Middle school capacity appears, at first glance, to be of least concern according to these projected enrollment figures, as enrollment generally hovers below 80 ~~around 90~~ percent of SRC during the time period surveyed. The available high school capacity is anticipated to slightly less, as projected enrollment is to reach almost 90% of available capacity during the projected period.

Elementary ~~and high~~ school capacity is shown to be of ~~greater~~ greatest concern according to these projections. The County's APFO restricts elementary school capacity to 90 percent of SRC. In all seven of the years estimated in the 2022 document ~~surveyed~~, the projected ~~or actual~~ enrollment of the overall elementary schools system exceeded 90 percent (**Percent of SRC)** in the chart. ~~High school capacity is expected to reach 100% during the projected period before declining through 2027 to 81%.)~~

The available seating capacity shown in the above chart ~~at the middle and high school level~~ is a bit misleading based on several factors. The first is because of where many available seats are located. A large number of available seats are located at the easternmost (Smithsburg), westernmost (Hancock) and southernmost (Boonsboro) schools, which can make ~~Hancock Middle/High School, making~~ redistricting impractical to fill those seats from elsewhere in the County. The second is based on how capacity is calculated. The state of Maryland dictates how school capacity is calculated, despite different educational delivery methods between counties. The actual middle school capacity is functionally lower by almost 10% based on the Washington County educational model for grades 6-8. ~~In addition, previous increases in elementary enrollment during the early to mid- 2000s will matriculate through the middle and high school grade levels in future years. As a re- sult, several middle schools are expected to see enrollment growth, including Western Heights and Springfield which are anticipated to exceed SRC for the foreseeable future.~~[1]

A rebounding housing market locally has spurred renewed interest in the potential buildout of a number of larger subdivisions at various stages of development.[2] Strong residential and commercial development in the southern portion of the Urban Growth Area, in particular, must be closely monitored for potential impacts on County Schools. South Hagerstown High was already at 111 percent of SRC in September 2020 according to the BOE Facilities Fact Sheet. These trends provide some indication that additional capacity at the high school level will have to be created at some point in the relatively near future. As birthrates return to pre-pandemic levels and as in-migration of population for available and cheaper housing than those areas to the west continues, enrollment will likely continue to increase across all grade levels, beyond what is shown in this plan.

The BOE's Report listed the following schools as exceeding SRC:

Elementary – Boonsboro, Emma K. Doub, Fountain Rock, Fountaindale, Hickory, Paramount, Potomac Heights.

Middle – None

High – North Hagerstown High and South Hagerstown High

Facility Needs (Funded or Identified)

The EFMP lists projects for the public school system including new school construction, additions, modernizations, and systemic renovation projects. Like enrollment projections, this document is updated annually and is adjusted based on many factors. In 2021, the list ~~currently~~ included ~~includes~~ many ~~modernization~~ building system updates to keep facilities in use rather than build new or replace existing structures. The EFMP serves as the guide to formulate the Capital Improvement Program (CIP) and prompts discussion on how to proceed with funding the identified facility needs. The current County CIP ~~has~~ includes funding for capital maintenance (building system replacements) in the immediate fiscal years ~~with~~ and one new elementary school planned to open in 2027. With 25 of the 47 WCPS ~~centers~~ facilities reaching 50 years of age in the next ~~10~~ 7 years, ~~and~~ many of ~~those~~ the buildings ~~being inefficient and not up to current education standards,~~ are in need of replacement or complete modernization ~~would be recommended~~. ~~However, the current EFMP states the "current County CIP plan and funding commitment is unsustainable, and will not support Washington County's long-term community, educational, and economic needs."~~[3] Funding a capital renewal program to meet these needs will be challenging, but would support long term community, educational, and economic needs. The figure below illustrates County's current commitment to the listed projects, which totals $198

million.

Figure 8-1: 2023-2032 CIP Education Budget

Page	Project Costs	Total	Prior Appr.	Budget Year 2023	2024	Ten Year Capital Program 2025	2026	2027	Future
	Education								
	Board of Education								
108	Capital Maintenance - BOE	162,673,224	15,653,224	14,036,000	13,776,000	13,916,000	15,008,000	13,888,000	76,396,000
109	Replacement Elementary School	36,320,000	0	0	0	1,500,000	16,000,000	16,020,000	2,800,000
	Board of Education Total	**198,993,224**	**15,653,224**	**14,036,000**	**13,776,000**	**15,416,000**	**31,008,000**	**29,908,000**	**79,196,000**

1 Ibid, p. 3.

2 Lovelace, C.J. “Housing market’s return leads to potential Washington County Public Schools enrollment increases.” https://www.heraldmailmedia.com/news/local/housing-market-s-return-leads-to-potential-washington-county-public/article_292d8ffc-b5ce-11e7-8e9c-b3984b86f027.html. October 21, 2017.

3 ~~Washington County Public Schools Educational Facilities Master Plan (2021)~~