

Site Analysis Data Chart

- General Site Data
  - Present Zoning: R-12
  - Applicable DPA File References:
  - Proposed Use of Site or Structure(s): Residential
  - Proposed Water and Sewer Systems: Public - Private
  - Any Other Information Which May be Relevant: N/A
- Area Tabulation
  - Total Area of Parcel 1.14± Ac.
  - Area of Study: 1.12± Ac.
  - Approximate Wetlands area including buffer: N/A
  - Approximate Area of 100 Year Floodplain: N/A
  - Approximate Existing Forest area: 0.00± Ac.
  - Approximate Area of Steep Slopes (25% or Greater): 0.00± Ac.
  - Approximate Area of Steep Slopes (15% to 25%): 0.00± Ac.
  - Approximate Area of Erodeable Soils: N/A
  - Area of Limit of Disturbance: 0.92± Ac.
  - Proposed Land Use: Residential
  - Green Open Area within Study Area: 0.00± Ac.
  - Proposed Impervious Area within Study Area: 0.31± Ac.
  - Percent Impervious within Study Area: 29%

# SWM ENVIRONMENTAL CONCEPT PLAN FOR PRIMROSE PRESERVE

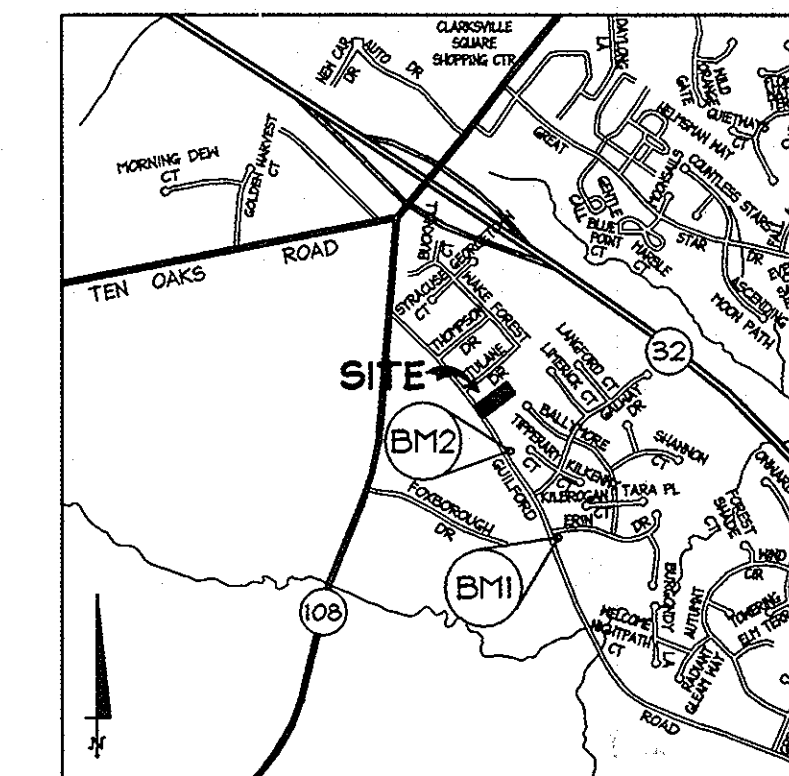
TAX MAP 34, GRID 2, PARCEL 226  
5TH ELECTION DISTRICT HOWARD COUNTY, MD

**BENCHMARK**

BENCHMARK #1  
N. 55749.91  
E. 13301.32  
B.M. 34FE - CONC MON  
ELEV. 406.15

BENCHMARK #2  
N. 55639.40  
E. 13301.02  
B.M. 34FE - CONC MON  
ELEV. 481.12

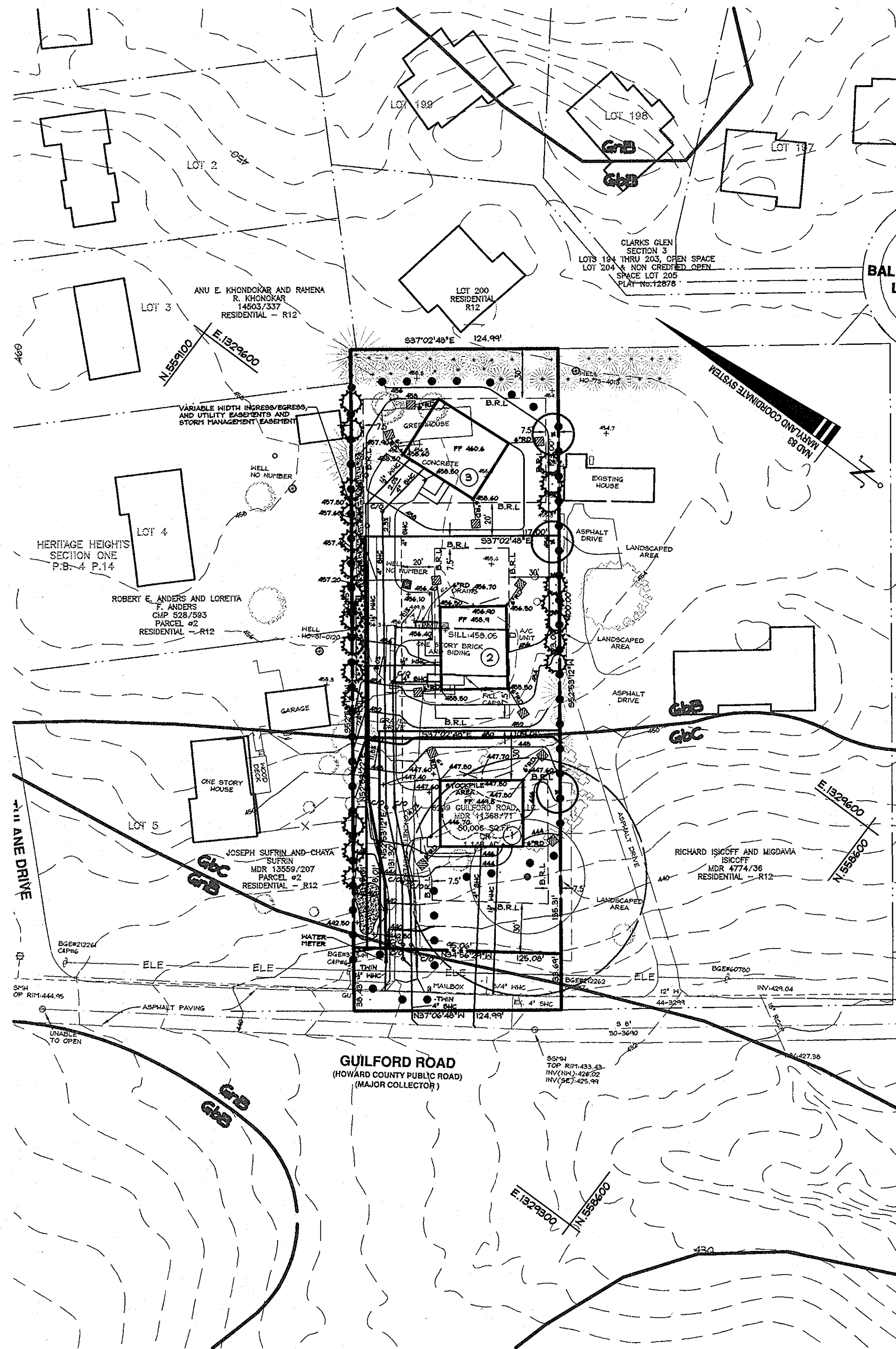
ADC MAP COORDINATES  
MAP 14 ES  
N 3912'00", E 76°56'20"



VICINITY MAP  
SCALE: 1"=200'

**GENERAL NOTES**

- The subject property is zoned R-12, in accordance with the 10/06/13 Comprehensive Zoning Plan.
- Deed Reference: 06551/00226
- Plat Reference: N/A
- Gross Area of Tract: 1.14± ac.
- Area of 100 Year Floodplain: N/A ac.
- Area of Steep Slopes (15% to 25%): 0.00± AC.
- 25% or Greater = 0.00± AC.
- Net Area of Tract: 1.12 ac.
- Number of Proposed Lots/Parcels: 3
- This project is in conformance with the latest Howard County Standards unless waivers have been approved.
- The existing topography shown hereon was field run by Development Design Consultants, Inc. in April, 2013.
- The forest conservation obligation for this development has been met with the fee in lieu.
- The coordinates shown hereon are based upon the Howard County Geodetic Control, which is based upon the Maryland State Coordinate System. Howard County Monument No's 34FB & 34FE were used for this project.
- This property is within the Metropolitan District.
- Stormwater management for this development will be provided by the following means: Dry Wells, Grass Swale and Landscape Infiltration facilities will be utilized.
- Existing utilities shown hereon are based on field surveys and record drawings. The contractor will be responsible for verifying these utilities in the field at the time of construction.
- No traffic study is required for this development.
- Project Background Information:
  - Property Name: 6209 Guilford Road
  - Tax Map/Parcel: 34/226
  - Zoning: R-12
  - Election District: 5th
  - Total (Gross) Tract Area: 1.14± ac.
  - Number of Proposed Lots/Parcels: 3
  - Applicable Department of Planning & Zoning File No.: N/A
- No evidence of well and septic was observed in the field.
- Sediment and erosion control measures are provided in accordance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 318-1884 at least five (5) working days prior to start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Water is public.
- Sewer is public.
- All sign posts used for traffic control signs installed in the County right-of-way shall be mounted on a 2" galvanized steel, perforated, square tube post (14 gauge) inserted into a 2-1/2" galvanized steel, perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
- A 95% compaction is required in all fill areas as per AASHTO T-99 standards.
- Ingress/Egress will be provided in the proposed Easement and the Declaration will be recorded with the Record Plat.
- Approval of this ECP does not constitute an approval of any subsequent and associated subdivision/plat and/or site development plan and/or red-line revision plan. Review of this project for compliance with the Howard County Subdivision and Land Development Regulations shall occur at the subdivision/plat and/or site development plan stages and/or red-line revision process. The applicant and consultant should expect additional and more detailed review comments (including comments that may alter the overall site design) as this project progresses through the plan review process.



**DRAWING LEGEND**

- 682 EXISTING MINOR CONTOUR (2' INTERVAL)
- 680 EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- N 06°45'45"N 120.00' EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- 682 PROPOSED MINOR CONTOUR (2' INTERVAL)
- 680 PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING EXPANSION
- PROPOSED SPOT ELEVATION & FLOW ARROW
- EXISTING TIE LINE
- SOIL DELINEATION LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED SWM D.A. TO FLOW PATH
- PROPOSED ORNAMENTAL TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SILT FENCE
- SUPER SILT FENCE
- EARTH DIKE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED SEWER HOUSE CONNECTION
- PROPOSED WATER HOUSE CONNECTION

**ENVIRONMENTAL SITE DESIGN SUMMARY TABLE**

FACILITY	PROJ ESD VOL	TARGET ESD VOL	NOTES
M-5 DRY WELLS	600 cf	261 cf	12 DRY WELLS
M-3 LANDSCAPE INFILTRATION (A)	851 cf	436 cf	
M-3 LANDSCAPE INFILTRATION (B)	566 cf	209 cf	
M-3 GRASS SWALE	107 cf	35 cf	
LAWN AREA (NOT INCLUDED ABOVE)		1,011 cf	
<b>TOTAL</b>	<b>15,701 cf</b>	<b>11,293 cf</b>	
<b>REQUIRED TOTAL</b>	<b>11,293 cf</b>		

**ESD FACILITY LEGEND**

- PROPOSED M-5 DRY WELLS
- PROPOSED M-3 LANDSCAPE INFILTRATION
- PROPOSED M-3 SWALE (GRASS SWALE)

**DESIGN NARRATIVE**

- The parcel has been investigated, and no wetlands or forest retention / reforestation areas of interest were found.
- The natural flow patterns are maintained by providing an outfall that safely conveys water via overland flow into the right of way.
- The Site is within a Residential area, and all of the paving shown on the plan is necessary to provide access to the individual lots, and to provide the required parking per house. Paving was minimized onsite by using a shared driveway for the garage. Concrete Curb and Gutter is not used on site to allow for overland and sheet flow to the ESD facilities.
- None of the filtering practices will be installed prior to the drainage area being stabilized.
- The hydrology has been developed based on the proposed improvements. The ESD practices to be utilized will be a combination of M-3 Landscape Infiltration, M-5 Dry Wells and M-3 Grass Swales. The facilities have been sized to treat 100% of the new impervious areas.
- Dry Wells (M-5) will be connected to each corner of the proposed houses via 6" roof drains. The houses are set on a slope, and do not have basements, therefore the risk for basement flooding is irrelevant. The Dry Wells provide an efficient option for treating roof runoff onsite. Pretreatment for the dry wells will be provided by a Gutter Drain Filter in order to block sediment, leaves, or other debris from entering the system.
- Landscape Infiltration (M-3) will be the main ESDV treatment feature for the site, there are no basements onsite, an existing/proposed underground structures that will interfere with the design. Pretreatment will be provided to the landscape infiltration areas by overland flow, and the grass swale running along the northern side boundary. The landscape areas will not only provide effective ESDV treatment, but will give the property an aesthetic design feature.
- A Swale (M-3) will be located parallel to the driveway in order to treat runoff coming from a small portion of the driveway, and surrounding area. The swale will be a Dry Grass Swale, and will have pretreatment provided by overland flow, and the landscape infiltration located directly above the swale.
- There will be no request for Design Manual Waivers for the environmental or stormwater design.
- The ESD Volume will be planted per the required Landscape Screening Requirements.
- The ESD volume can be fully collected and treated within the proposed M-5 Dry Wells, M-3 Landscape Infiltration, and M-3 Swale Facilities.

**DATA SOURCES:**

ONSITE BOUNDARY AND TOPOGRAPHY IS BASED UPON A FIELD RUN SURVEY PERFORMED BY DEVELOPMENT DESIGN CONSULTANTS, INC. IN APRIL, 2013. EXISTING SOILS SHOWN PER USDA WEB SOIL SURVEY.

EXISTING OFFSITE TOPOGRAPHY SHOWN PER HOWARD COUNTY OIT/GIS, BASED ON MARYLAND COORDINATE SYSTEM, NAD-83(1991), NAVD-88.

Planners  
Surveyors  
Engineers  
Landscape Architects

192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

**DDC**  
Development Design Consultants

OWNER / DEVELOPER:  
6209 GUILFORD ROAD, LLC  
10116 BACON DRIVE  
BELTSVILLE, MD

SITE ADDRESS:  
6209 GUILFORD ROAD  
CLARKSVILLE, MD 21029

PRIMROSE PRESERVE  
ENVIRONMENTAL CONCEPT  
PLAN COVER SHEET

TAX MAP 34, PARCEL 226  
5TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
TAX ACC. # 1405363411	DES. BY: JHK			
ZONE / USE: R-12	DRN. BY: JHK			
DWG. SCALE: 1"=50'	CHK. BY: PGC			
DATE: 1/30/2014				
DDC JOB#: 11102.1				

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. 27020, Expiration Date: 01/30/16.

1/30/2014  
DATE

PAUL G. CAVANAUGH  
PROFESSIONAL ENGINEER NO. 27020

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Chief, Bureau of Highways \_\_\_\_\_ Date \_\_\_\_\_

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
County Health Officer \_\_\_\_\_ Date \_\_\_\_\_  
Howard County Health Department

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division \_\_\_\_\_ Date 2/27/14  
Chief, Division of Land Development \_\_\_\_\_ Date 2/04/14

SOILS CHART			
CODE (CLASS)	NAME	HYDRIC (Y/N/INCL.)	K VALUE
GbB (B)	Gladstone Loam - 3 to 8 Percent Slopes	N	0.20
GbC (B)	Gladstone Loam - 8 to 15 Percent Slopes	N	0.20
GmB (C)	Glenville-Baile Silt Loams - 0 to 8 Percent Slopes	Y	0.37

SOIL MAP NUMBER 23

**DRAWING LEGEND**

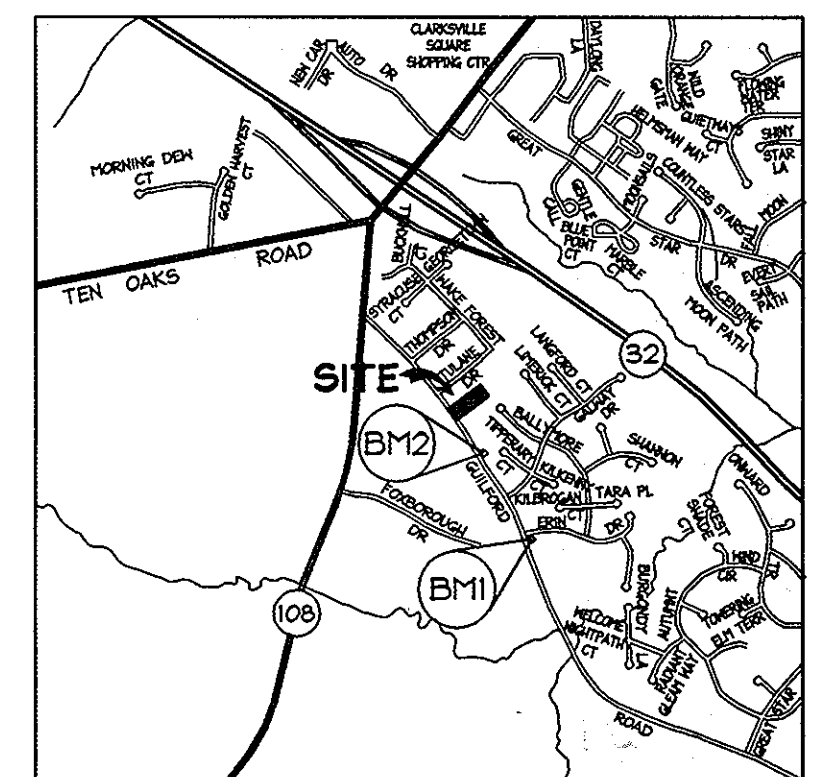
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- EXISTING TREELINE
- SOIL DELINEATION LINE
- CONCEPT DRAINAGE DIVIDE
- CONCEPT SWM D.A. TO FLOW PATH
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- 4" SHC --- PROPOSED SEWER HOUSE CONNECTION
- 1/2" WHC --- PROPOSED WATER HOUSE CONNECTION
- STEEP SLOPES 15%-25% (0.27± Ac.)
- STEEP SLOPES 25%+ (0.04± Ac.)
- EXISTING TREES
- EXISTING SPECIMEN TREE
- SPECIMEN CRITICAL ROOT ZONE
- PROPOSED ORNAMENTAL TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE

**BENCHMARK**

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 ELEV. 406.15

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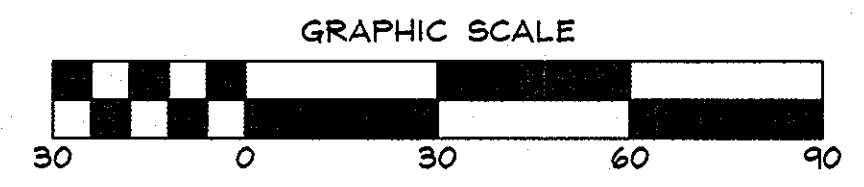
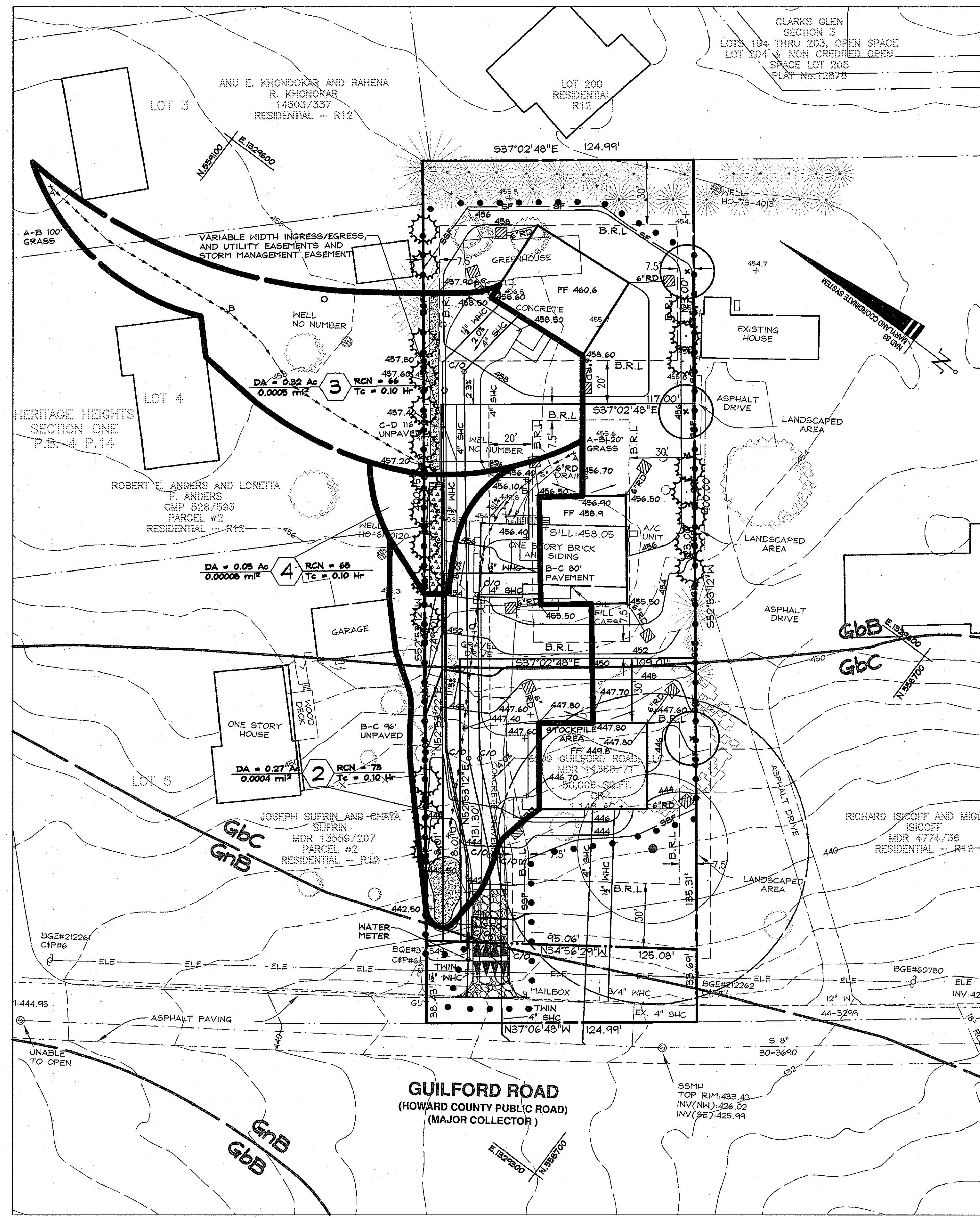
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**PRIMROSE PRESERVE  
 ENVIRONMENTAL CONCEPT  
 PLAN WITH SEC OVERLAY**

TAX MAP 34, PARCEL 226  
 5TH ELECTION DISTRICT HOWARD COUNTY

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NO. DESCRIPTION OF CHANGES DRN. REV. DATE

TAX ACC. # DES. BY: JHK

ZONE / USE DRN. BY: JHK

DWG. SCALE: 1"=30' CHK. BY: PGC

DATE: 01/30/2014

DDC JOB#

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. 21020, Expiration Date: 01/31/18.

01/30/2014  
 DATE

PAUL G. CAVANAUGH  
 PROFESSIONAL ENGINEER NO. 27020

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways \_\_\_\_\_ Date \_\_\_\_\_

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County Health Officer  
 Howard County Health Department \_\_\_\_\_ Date \_\_\_\_\_

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division \_\_\_\_\_ Date 2-27-14

Chief, Division of Land Development \_\_\_\_\_ Date 2/24/14

Director \_\_\_\_\_ Date \_\_\_\_\_