ROOF DRAIN DRYWELL

7.00

7.00

LEGEND ENVIRONMENTAL CONCEPT PLAN ----368----EXISTING CONTOURS HIGH RIDGE PARK PROPOSED CONTOURS EXISTING STRUCTURE

LOTS 65 & 66, PLAT BOOK 111 PAGE 0597 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

7,500 SF

FF=270.9

BF=261.9

DW-2 2 CAR -

GARGAE

MCE ≠261.8

7,500 SF

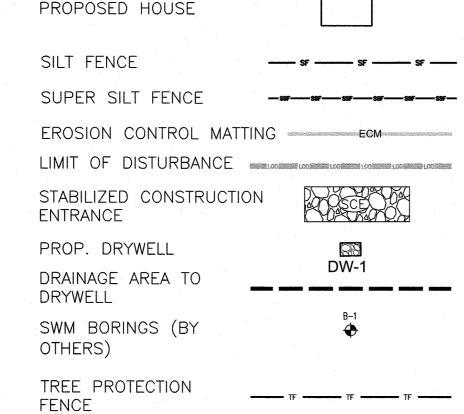
FF=270.9

BF=261.9

MCE=251.1

-/-2-CAR

/GARGAE



		· · · · · · · · · · · · · · · · · · ·
	E 1,352.	FIRST RIDGE -268 SECTION 1, AREA 1 PLAT NO. 6433 ZDNED: R—SC GRID NOR
	Ψ x x x	EA 1 OT 71 SC EX. SHED TO BE REMOVED MANUALLY. NO EQUIPMENT OR VEHICLE ACCESS OR STORAGE IS PERMITTED WITHIN THE TREE PROTECTION AREA.
EX. SHED HIGH RIDGE PARTICLE AND INCLUDENCE TO A CONTENT OF THE PARTICLE AND THE PARTICLE	RK RSEW RSS20 COPPE	AGE SOUTHERN RED OAK

EX. DWELLING

661

EX. 8" S 24-0927-D

PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.

INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

The "2000 Maryland Stormwater Design Manual" published by the Maryland Department

of the Environment states that stormwater management facilities utilizing infiltration, such

as the proposed drywells, shall have a Hydrologic Soil Group classification (HSG) of A or

The results of this study indicate that infiltration is feasible at Test Boring Nos. B-1 and B-

2. It should be noted that the bottom of any SWM facility utilizing infiltration should be

k-VALUE

* BASED ON THE ANALYSIS AND CONVERSATIONS WITH THE GEOTECH DRYWELLS ARE ACCEPTABLE FOR THIS SITE.

Stormwater Management Design Recommendations

located at least four feet above any groundwater or bedrock.

EX. 6" S 30-S

TRENCH DRAINAGE.

SHALL BE TAKEN.

URBAN LAND- CHILLUM-BELTSVILLE COMPLEX, 0 TO 5 PERCENT SLOPES

SOILS CHART - SOIL SURVEY HOWARD COUNTY, MARYLAND

SINCE THE SITE IS CLASSIFIED AS 'D' SOILS BY THE NRCS A GEOTECHNICAL ANALYSIS WAS PROVIDED. SEE GEOTECH RECOMMENDATIONS ABOVE

ALTERNATE

GROUP

HYDROLOGIC

GROUP

SYMBOL HYDRIC

WHICH THE FACILITY DRAINS.

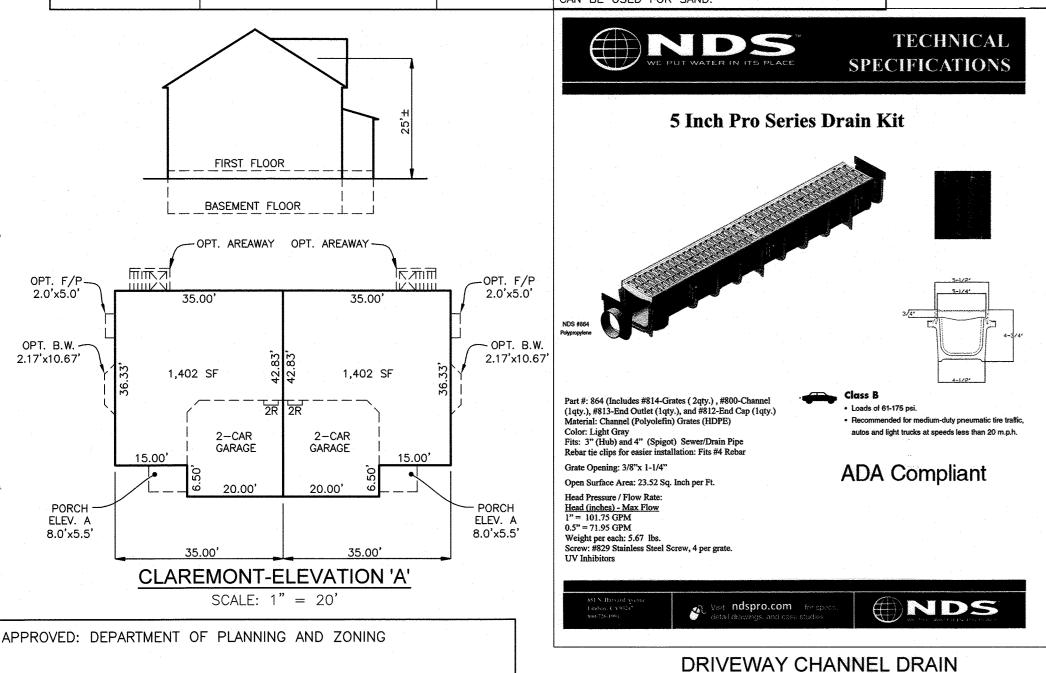
AND MAINTENANCE CRITERIA.

	HIG	H RIDGE	PARK,	LOTS 65	& 66	DATE:	07/07/20				
			Drywells (M	-5)	-	JOB NO:	3009				
			Target Pe	_	1.6	:	Porosity =	0.4		(M-5)	
	Drywell	Impervious	Drainage	Volumetric	ESDv	Length	Width	Depth	Volume	Full ESDv	
	Designation	Area (SF)	Area (SF)	Runoff	Required (CF)	(ft)	(ft)	(ft)	Provided (CF)	Provided?	Pe
	DW-1	733	733	0.95	92.85	7.00	7.00	5.00	98.00	yes	1.69
OT 66	DW-2	751	751	0.95	95.13	7.00	7.00	5.00	98.00	yes	1.65
	DW-3	654	654	0.95	82.84	7.00	7.00	5.00	98.00	yes	1.89
	DW-4	733	733	0.95	92.85	7.00	7.00	5.00	98.00	yes	1.69
OT 65	DW-5	751	751	0.95	95.13	7.00	7.00	5.00	98.00	yes	1.65
	DW-6	654	654	0.95	82.84	7.00	7.00	5.00	98.00	yes	1.89
	<u> </u>	4276	4276		542				588	L	1.74

MA	ATERIALS & SPECIF	ICATIONS FO	OR DRY WELLS
MATERIAL	SPECIFICATION	SIZE	NOTES:
GEOTEXTILE (CLASS "C")		N/A	PE TYPE 1 NONWOVEN
GRAVEL	AASHTO M 43	1 1/2" TO 2 1/2"	
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW; MINIMUM OF 2" OF GRAVEL OVER PIPES.
SAND	AASHTO M-6 OR ASTM-C-33	.02" TO .04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NT ROCK DUST CAN BE USED FOR SAND.

3 19 2020

10.7.20



ULTIMATE 50' R/W LOCAL PUBLIC ROAD THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION (IN FEET) THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD 1 inch = 20 ft.COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA

Site Analysis Data Sheet		
Gross Site Area	0.34 ac	
100yr Floodplain	0.00 ac	
Slopes 15% or greater (On-Site)	0.00 ac	
Wetlands	0.00 ac	
Wetlands Buffer	0.00 ac	
Forested Area	0.00 ac	
Erodible Soils	0.00 ac	
Limit of Disturbance	0.32 ac	
Impervious Area	0.11 ac	
Green Space	0.21 ac	
Public Road Right-of-Way	0.00 ac	
Site Use	RESIDENTIA	
Open Space	N/A	

SMH

DESIGN NARRITIVE This project is known High Ridge Park, Lots 65 & 66 located in Tax Map 50, Parcel 413 and is 0.34 acres. The parcel is zoned R-SC. The property slopes from the west to the east and is relatively moderate. There is an existing house and garage located on the property. The site consists of type 'D' soils per the NRCS soils classification but based on a geotechnical analysis of the site in 2 locations it is determined that the soils are characteristic of a type 'B' soil. A soil test report is included with this submission. The drainage area is

HIGH RIDGE PARK

LOTS 63 & \64

ADOLE JANASEK L. 440 F.152

ZONED: R-SC

EX. 8" 24-3329-D

EX. 8" S 24-3891-D

- SILT FENCE

Patuxent River Upper (02131104), and is a Class I stream. The target Pe for this site is 1.6 inch based on the imperviousness of the proposed conditions. The target Pe was treated using Environmental Site Design practices as outlined in Chapter 5 of the 2000 Maryland Stormwater Design Manual, as amended by Maryland's Stormwater Management Act of 2007. The selected methods of (3) Drywells (M-5) for each of the house, total of (6). There will be one for the rear of the house rooftop, one for the front rooftop and one for the driveway. The driveways will utilize trench drains to collect the runoff to the drywell. Based on the geotechnical analysis drywells are acceptable for his site.

To protect natural resources, it is important to minimize and adequately treat the stormwater runoff. The final design will incorporate adequate treatment and storage in order to create the least possible stormwater runoff in general compliance with this concept plan. The runoff will be treated on-site using approved

Maintenance of the natural flow patterns is provided by limiting the site disturbance and by the use of drywells opposed to structural practices altering the drainage patterns and limiting concentrated flows. Utilizing (6) drywells, a nonstructural practice, makes for a better site design as well as maintaining the original drainage patterns.

As a result of fully addressing the stormwater management by use of Drywells the land conditions have theoretically been returned to woods in good condition. Therefore, providing the reduction in impervious areas through non-structural practices we have met the ESD requirements for this site

Sediment and erosion control shall comply with the latest edition of the MDE Standards and Specifications for Sediment Control and has been limited to the areas necessary to conduct ESD practices and onsite

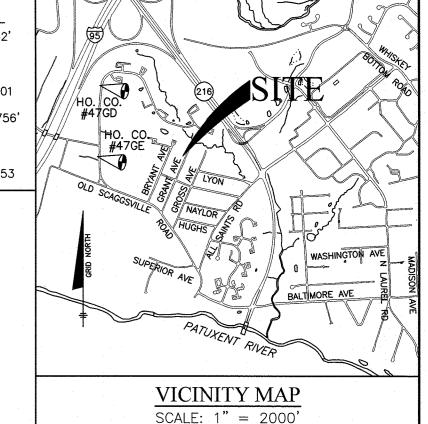
This site is less than 40,000 square feet; therefore, the site is exempt from the requirements of section 16.1200 of the Howard County Code for forest conservation and forest stand delineation requirements per section 16.1202(B)(1)(i) of the Subdivision Regulations for Development on land which is less than 40.000 square feet in size. The development was design to limit the area of disturbance and to minimize clearing of

It is concluded that all ESD to the MEP requirements as defined in the Stormwater Management Act of 2007 have been met for the proposed development. The Water Quality has been provided by the

BENCH MARKS (NAD83)

HO. CO. No. 47GD ELEV. 312.32 NEAR 9028 OLD SCAGGSVILLE ROAD 6 FEET FROM FIRE HYDRANT 33.9 FEET FROM BGE 315258 N 530494.447

HO. CO. No. 47GE ELEV. 335.756' BY 9160 OLD SCAGGSVILLE ROAD 19.8 FEET FROM WATER METER 76.5 FEET FROM BGE 31000 N 529044.964 E 1350854.953



ADC MAP 40, GRID B8

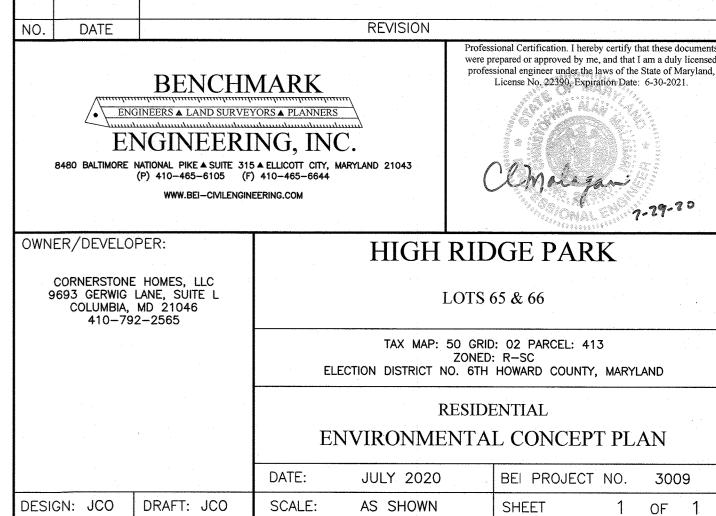
GENERAL NOTES

- SUBJECT PROPERTY IS ZONED R-SC PER THE 10-6-2013 COMPREHENSIVE ZONING PLAN. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DATED OCTOBER 7, 2007.
- 3. PROJECT LIMITS ARE BASED ON A BOUNDARY SURVEY PERFORMED BY BENCHMARK ENGINEERING INC., ON OR ABOUT APRIL 2020. 4. TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD SPOT ELEVATIONS SURVEY PREPARED BY BENCHMARK ENGINEERING, INC., DATED APRIL 2020 AND SUPPLEMENTED WITH HOWARD COUNTY
- GIS. CONTOUR INTERVAL IS 2'. 5. THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL. WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT
- NOS. 47GD AND 47GE WERE USED FOR THIS PROJECT. . THERE ARE NO STEEP SLOPES (25% OR GREATER) IN EXCESS OF 20,000 SF ON THIS SITE
- THERE ARE NO FLOODPLAINS, STREAMS OR WETLANDS LOCATED ON-SITE. . 8. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED
- 9. A NOISE STUDY IS NOT REQUIRED FOR THIS PLAN. 10. THIS SITE IS LOCATED WITHIN THE METROPOLITAN DISTRICT AND THE PLANNED SERVICE AREA. WATER AND SEWER WILL BE PUBLIC.
- 11. THE SITE AREA IS LESS THAN 40,000 SF. THEREFORE, THE SITE SHALL BE EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION AND FOREST STAND DELINEATION PER SECTION 16.1202(B)(1)(i) OF THE SUBDIVISION REGULATIONS
- FOR DEVELOPMENT ON LAND WHICH IS LESS THAN 40,000 SF IN SIZE.

 12. THIS SUBDIVISION WAS CREATED PRIOR TO THE EFFECTIVE DATE OF THE 1993 EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ENACTMENT OF THE LANDSCAPE
- MANUAL AND THESE LOTS ARE CONSIDERED INTERNAL TO THE DEVELOPMENT. LANDSCAPING IS NOT 13. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
- A) WIDTH 12' (16' SERVING MORE THAN ONE RESIDENCE). B) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
- C) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM 45' TURNING D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25
- E) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY. F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
- G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
- 14. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED, MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- 15. IN ACCORDANCE WITH SECTION 16.108.(b)(28.1)(v), A PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROJECT IS NOT REQUIRED, AS THIS PROJECT IS PART OF A RECORDED SUBDIVISION THAT AUTHORIZED AN EQUAL OR GREATER NUMBER OF RESIDENTIAL UNITS THAN PROPOSED ON THIS
- 16. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING
- DAYS PRIOR TO THE START OF WORK. 17. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR
- TO ANY EXCAVATION WORK BEING DONE 18. EXISTING UTILITIES SHOWN ARE BASED ON A FIELD SURVEY, HOWARD COUNTY GIS. AND INFORMATION OF RECORD.
- 19. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDER'S EXPENSE CONTRACTOR SHALL ADJUST ELEVATIONS OF STRUCTURES AS NECESSARY
- 20. SHC ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE OWNER. 21. STORMWATER MANAGEMENT METHODS WERE DESIGNED BASED ON THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II. TREATMENT IS PROVIDED USING ENVIRONMENTAL SITE DESIGN METHODS, INCLUDING DRYWELLS. THE FACILITIES SHALL BE OWNED AND MAINTAINED BY THE LOT
- 22. BRL INDICATES ZONING BUILDING RESTRICTION LINE, OTHER RESTRICTIONS MAY APPLY. 23. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- 24. THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED. 25. TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE TIME FRAME PROVIDED WITHIN THE 2011 MD
- STANDARDS & SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL; WHICHEVER IS MORE
- 26. FOR DRIVEWAY ENTRANCE DETAIL, SEE HOWARD COUNTY STANDARDS DETAIL 6.05.
- 7. THIS PROJECT DISTURBANCE IS LESS THAN 30,000 SF, AND SEDIMENT CONTROL SHALL BE UNDER THE STANDARD SEDIMENT CONTROL PLAN. 28. IF ANY WELL OR SEPTIC ARE FOUND BEFORE AND OR DURING CONSTRUCTION THEY MUST BE PROPERLY ABANDONED WITH DOCUMENTATION SENT TO THE HEALTH DEPT.
- 29. PREVIOUS HOWARD COUNTY FILE REFERENCE: PLAT BOOK 111, FOLIO 597 30. A GEOTECHNICAL ANALYSIS WAS PREPARED BY GEOLAB, INC. DATED MAY 2020.

REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION AND/OR SITE DEVELOPMENT PLAN STAGES. THEREFORE THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED COMMENTS (INCLUDING THOSE THAT MAY ALTER

OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES.



J:\3009_High Ridge Park_9112 Grant Ave\dwg\8000ECP.dwg, 7/30/2020 11:43:07 AM

CHIEF, DIVISION OF LAND DEVELOPMENT

ECP-20-050