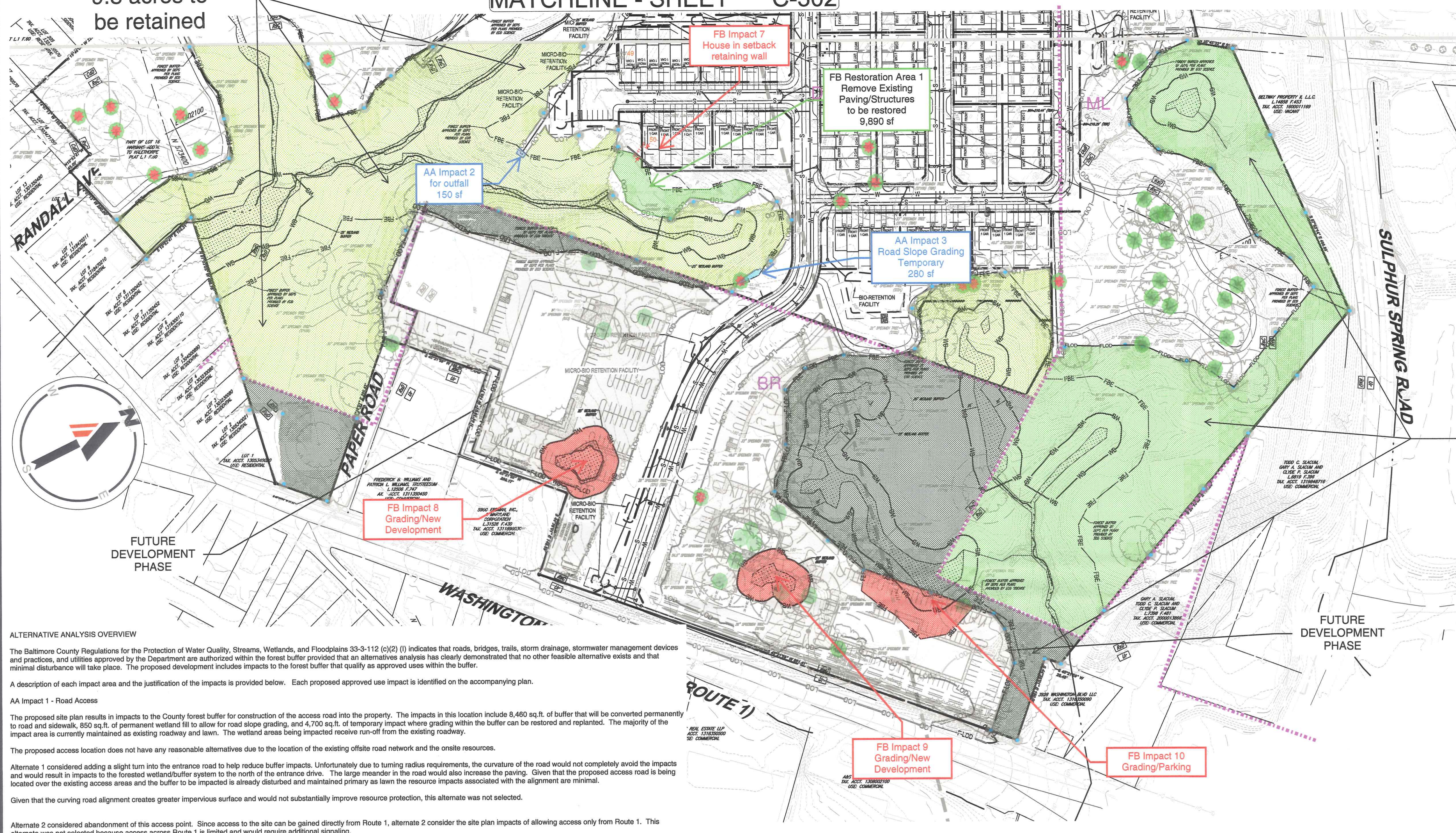
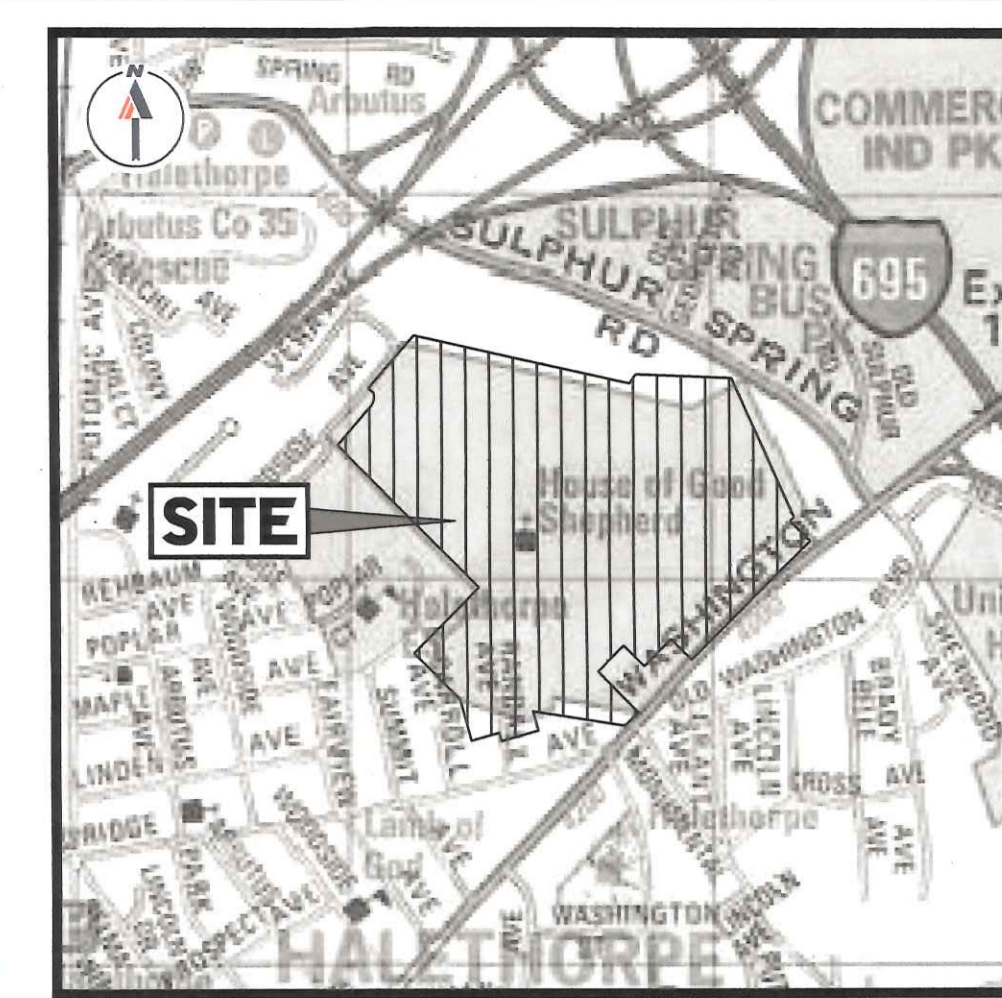


p/o FCE #1
9.8 acres to
be retained

MATCHLINE - SHEET C-302



p/o FCE #2
9.7 acres to
be retained



LOCATION MAP
SCALE: 1"=1000'

ALTERNATIVE ANALYSIS OVERVIEW

The Baltimore County Regulations for the Protection of Water Quality, Streams, Wetlands, and Floodplains 33-3-112 (c)(2) (i) indicates that roads, bridges, trails, storm drainage, stormwater management devices and practices, and utilities approved by the Department are authorized within the forest buffer provided that an alternatives analysis has clearly demonstrated that no other feasible alternative exists and that minimal disturbance will take place. The proposed development includes impacts to the forest buffer that qualify as approved uses within the buffer.

A description of each impact area and the justification of the impacts is provided below. Each proposed approved use impact is identified on the accompanying plan.

AA Impact 1 - Road Access
The proposed site plan results in impacts to the County forest buffer for construction of the access road into the property. The impacts in this location include 8,460 sq.ft. of buffer that will be converted permanently to road and sidewalk, 850 sq.ft. of permanent wetland fill to allow for road slope grading, and 4,700 sq.ft. of temporary impact where grading within the buffer can be restored and replanted. The majority of the impact area is currently maintained as existing roadway and lawn. The wetland areas being impacted receive run-off from the existing roadway.

AA Impact 2 - SWM Outfall
The proposed site plan will result in 150 sq.ft. of buffer impact in this location to allow for the installation of a stormdrain outfall. The location of the outfall is driven by the elevation of the associated drainage and SWM systems. There are no other alternate locations that can provide an appropriate outfall elevation that is outside the buffer.

AA Impact 3 - Temporary Grading
The proposed site plan will result in 280 sq.ft. of temporary disturbance to allow for tie-in grading for the proposed access road. The road alignment in this location has been configured to follow the natural slope of the land to the extent practicable and turns along the top of the slope to maintain proper road grades. The grading that is proposed will establish 3:1 side slopes for the road which is the County standard.

AA Impact 4 - Road Grading
The proposed plan will result in 3,796 sq.ft. of impact to the buffer in this location for the grading of a road side slope. This road impact is necessary to facilitate access to developable areas along the ridge between two easement areas. The location and design of the central cul-de-sac was planned to allow and future extension of the north/south road into the developable plateau area north of the cul-de-sac. The location of the future road is a natural ridge between the starting points of two separate streams which flow in different directions away from the ridge. The impacts shown are the minimum necessary to build an access road through this constricted ridge area while meeting the County's road width and geometry standards. Retaining walls are not proposed in this area as those are not permitted within public road right-of-ways.

FB Impact 7 - House in setback retaining wall
The project engineer also considered Alternate 2 which would lower the grades of the road to reduce the width of the tie in grading. This alternate would result in more grading to the west of the proposed impact area that would then cause greater buffer where the road alignment currently passes at grade along the edge of the buffer. In consideration of the temporary nature of the proposed buffer impact in this location, this alternate was also rejected.

FB Impact 8 - Grading/New Development
The specific uses proposed for the plateau area shown conceptually on the enclosed exhibit remain subject to zoning and regulatory review and approval in later phases. But, residential uses are anticipated for this area as the Phase I plans only proposed approximately 78% (196 of 252) of the residential density for this area that would be allowed under DR5.5 Zoning.

FB Impact 9 - Grading/New Development
In evaluating the access possibilities to this portion of the site several alternatives were considered but there are no other alternatives that can be used with less resource impact. The proposed alternative makes use of an existing ridge that is not encumbered by an easement. All other points of access to the developable plateau would require wetland/stream crossing. The proposed alternative will have minimal wetland fill and will not bisect a resource corridor and therefore was considered the least impacting alternate.

FB Impact 10 - Grading/Parking
The project engineer also considered Alternate 2 which would lower the grades of the road to reduce the width of the tie in grading. This alternate would result in more grading to the west of the proposed impact area that would then cause greater buffer where the road alignment currently passes at grade along the edge of the buffer. In consideration of the temporary nature of the proposed buffer impact in this location, this alternate was also rejected.

FB Restoration Area 1 - Remove Existing Paving/Structures to be restored 9,890 sf
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LEGEND

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- [] SOILS LABEL
- WB --- WB --- WETLAND BUFFER
- WETLANDS --- WETLANDS
- STREAM CENTERLINE --- STREAM CENTERLINE
- FBE --- FBE --- FOREST BUFFER
- EX. TREELINE --- EX. TREELINE
- WETLAND AREA --- WETLAND AREA
- EX. CONTOURS --- EX. CONTOURS
- PROP. STORM DRAIN --- PROP. STORM DRAIN
- PROP. ROOF DRAIN --- PROP. ROOF DRAIN
- PROP. WATER LINE --- PROP. WATER LINE
- PROP. SANITARY SEWER --- PROP. SANITARY SEWER
- MICROWAVE PATH --- MICROWAVE PATH
- FIRE HYDRANT --- FIRE HYDRANT
- SPECIMEN TREE TO BE REMOVED/PHASE 1 LATER PHASE --- SPECIMEN TREE TO BE REMOVED/PHASE 1 LATER PHASE
- PERMANENT PROTECTIVE SIGNAGE --- PERMANENT PROTECTIVE SIGNAGE

SOILS

SOIL TYPE	DESCRIPTION	HYDROLOGIC SOIL RATING
CdB	CHILLUM-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	D
CdD	CHILLUM-URBAN LAND COMPLEX, 5 TO 15 PERCENT SLOPES	C
KuB	KEYPORT-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES	D
RaB	RUSSETT FINE SANDY LOAM, 2 TO 5 PERCENT SLOPES	C
RaC	RUSSETT FINE SANDY LOAM, 5 TO 10 PERCENT SLOPES	C
RaD	RUSSETT FINE SANDY LOAM, 10 TO 15 PERCENT SLOPES	C
RuD	RUSSETT - URBAN LAND COMPLEX, 5 TO 15 PERCENT SLOPES	C
Ur	URBAN LAND, 0 TO 8 PERCENT SLOPES	D
UuB	URBAN LAND-UDORTHTENTS COMPLEX, 0 TO 8 PERCENT SLOPES	D

- Notes**
- Any Forest Conservation Easement (FCE) and Forest Buffer Easement shown hereon is subject to protective covenants which may be found in the Land Records of Baltimore County and which restrict the disturbance and use of these areas.
 - There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement and Forest Buffer Easement, except as permitted by Baltimore County DEPS.
 - No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements or as Forest Buffer Easements.
 - Permanent signage shall be placed 100' apart along the boundaries of all areas included in Forest Conservation/Buffer Easements.
 - Temporary protective fencing shall be installed along the perimeter of all forest retention areas occurring within 50 feet of a proposed easement. Specimen tree protection is addressed separately.
 - The proposed development of the site will be processed in phases. This plan has been prepared to accompany the Forest Buffer Variance and Alternative Analysis applications for Phase 1 of the project.
 - A Forest Conservation Special Variance is required for the proposed removal of specimen trees, this has been submitted separately.
 - A formal Forest Buffer Protection Plan will be prepared to address the buffer enhancement/ restoration to be performed as mitigation for the proposed buffer impacts. The FBPP will be submitted upon approval of the variance and AA requests based on the approved impacts/mitigation requirements. The applicant proposes that the submission of Forest Buffer Protection Plans be made in coordination with the submission of the final development plans for each phase of the project to ensure that each phase accurately addresses and accounts for actual mitigation requirements.

LIMIT OF DISTURBANCE = 1,099,805 SF OR 25.25 AC.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	7/1/21	Updated for DEPS Comment after dated 6.17.21		

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

FOR CONCEPT PURPOSES ONLY
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PROJECT: MD19211031
DRAWN BY: RLB
CHECKED BY: BRR
DATE: 2/24/21
CAD ID.: SWC-0

SOUTHERN CROSSROADS
SITE LOCATION
4100 MAPLE AVENUE
BALTIMORE COUNTY
HALETHORPE, MD 21227
TAX MAP 109, GRID 6, PARCEL 861
TAX ACCT. 2500015832
TAX MAP 109, GRID 1, PARCEL 393
TAX ACCT. 1600007730
TAX MAP 109, GRID 1, PARCEL 578
TAX ACCT. 2500015833
GROWTH TIER I
ELECTION DISTRICT: 15TH
COUNCILMANIC DISTRICT: 15T

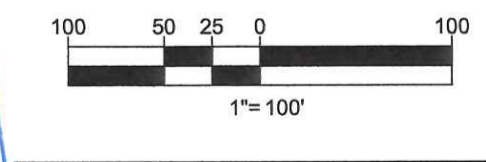
BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21284
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

SHEET TITLE:
PLAN TO ACCOMPANY FOREST BUFFER VARIANCE & ALTERNATIVE ANALYSIS APPLICATIONS

SHEET NUMBER:
SHEET 1 OF 2

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
P.O. BOX 906 GLEN MILLS, MARYLAND 21117

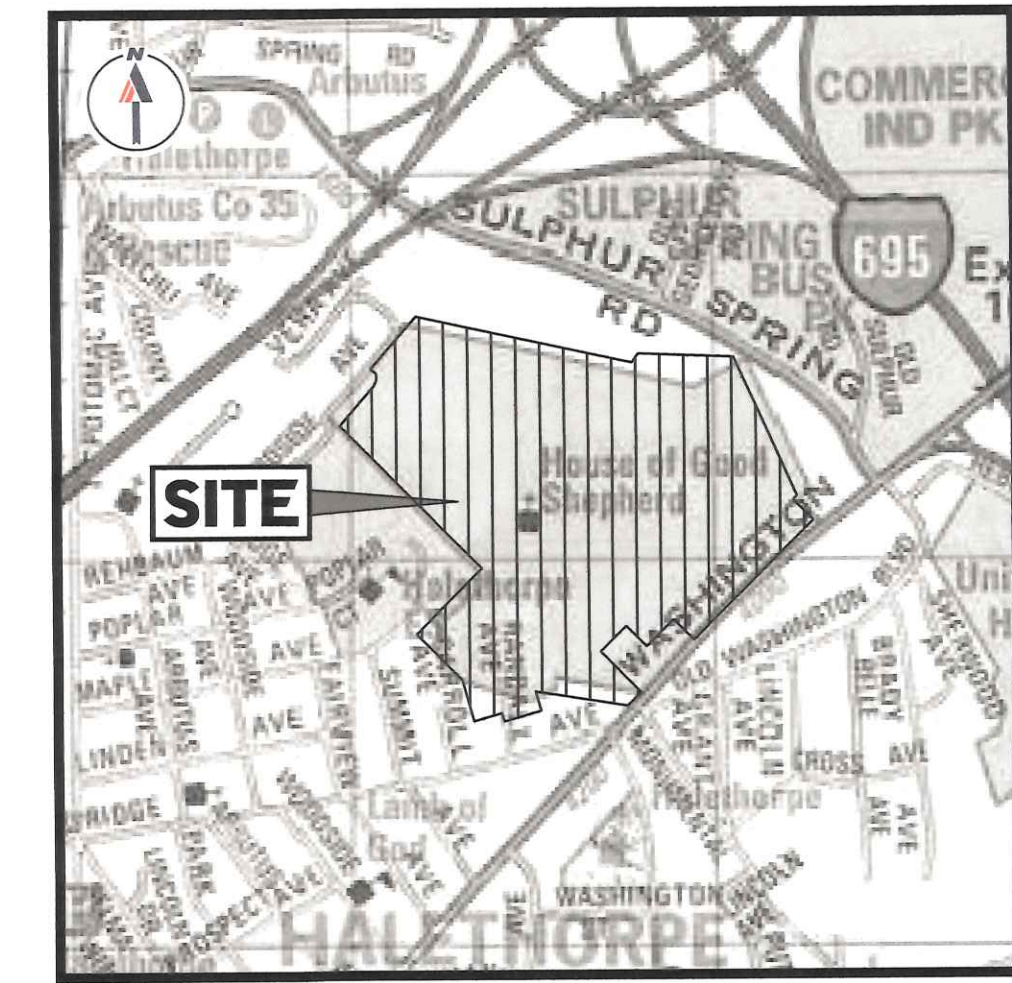
PLAN PREPARED BY:
JOHN CANOLES
MD DNR FCA QUALIFIED PROFESSIONAL



TRACKING NUMBER: MAJ-2020-00010
PAI NUMBER: 13-0239

OWNER/DEVELOPER
H & H ROCK COMPANIES
6800 DEERPATH ROAD, SUITE 100
ELK RIDGE, MD 21075
CONTACT: MARK L. LEVY (PRESIDENT)
PHONE: 410-579-2442

PREPARER OF PLAN
BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MD 21204
PHONE: 410-821-7900
DATE: 6/26/20



LOCATION MAP
SCALE: 1"=1000'

p/o FCE #3
10.7 acres
to be
retained

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
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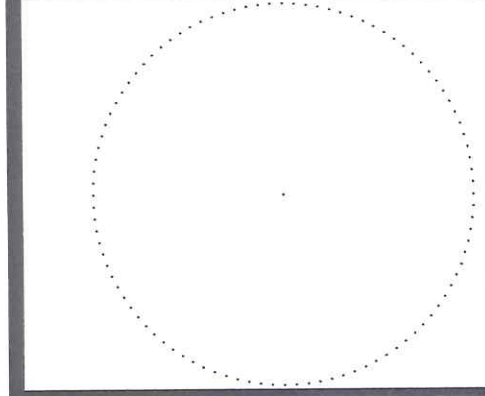
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ELECTION DISTRICT: 13TH
COUNCILMANIC DISTRICT: 15T

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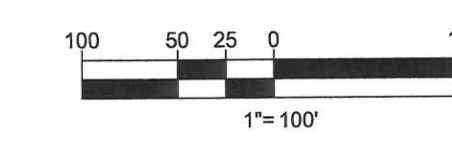
SHEET NUMBER:
SHEET 2 OF 2

LEGEND

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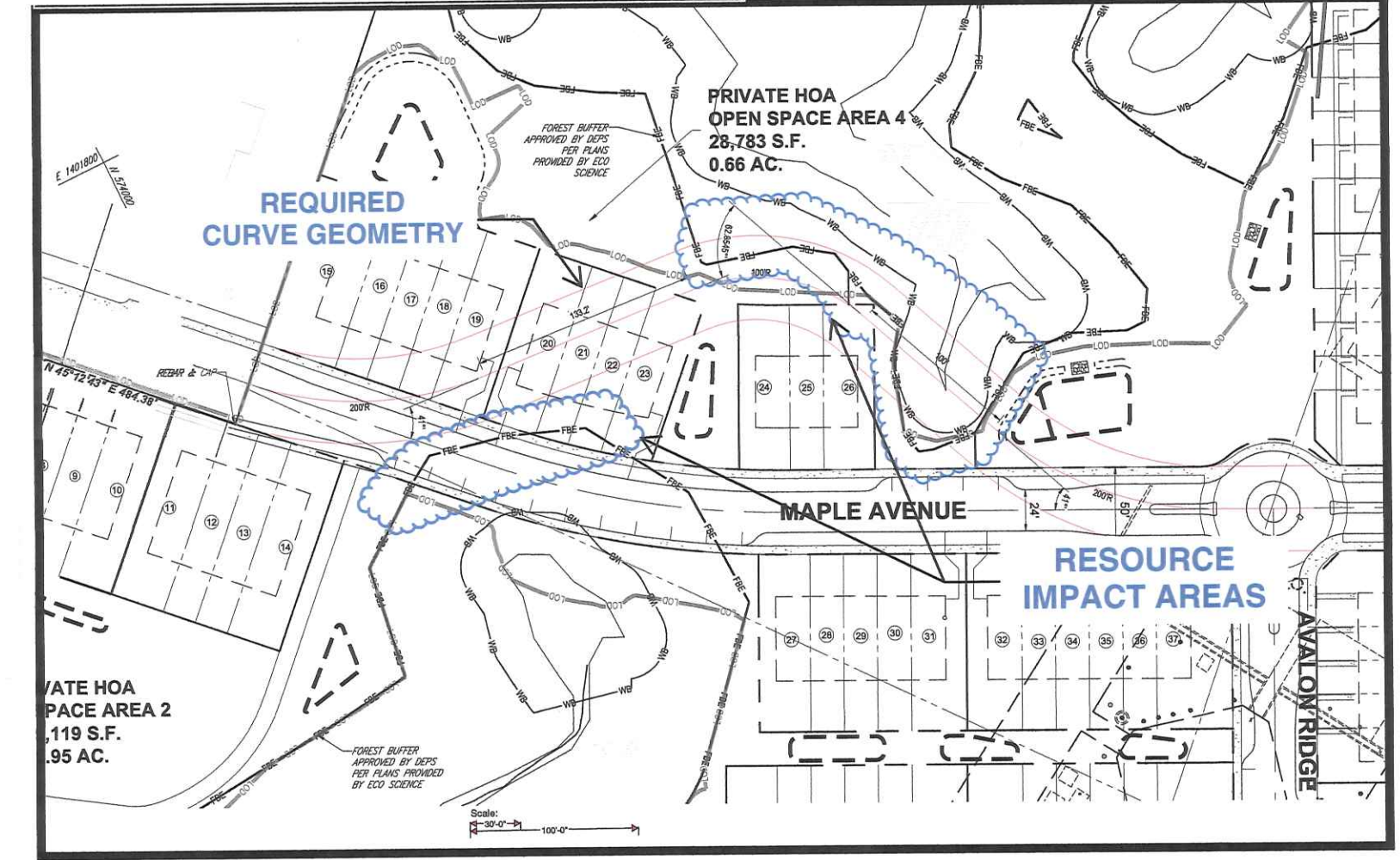
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MATCHLINE - SHEET C-301

AA 1 - ALTERNATE 1 ROAD ALIGNMENT



Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS
P.O. BOX 1006, ELK RIDGE, MD 21075

PLAN PREPARED BY:
JOHN GANGLER
MD DNR FCA QUALIFIED PROFESSIONAL