

LEGEND

EXISTING

Boundary: - - - - -

Setback Lines: - - - - -

Soils Lines: - - - - -

Contours: - - - - -

Tree Lines: - - - - -

Buildings: []

Road Edge: - - - - -

Well & 100' circle: []

Ex. Specimen Tree: []

Ex. Steep Slopes ≥ 25.00%: []

Ex. Steep Slopes 15-24.99%: []

Vicinity Map - Scale: 1" = 2000'

MAP 4934 C3
ADC The Map People - Permitted Use # 20612205
BENCHMARK DESCRIPTIONS

The courses and coordinates shown herein are based on the following Howard County monuments:

| | | | |
|-------|---------------|----------------|-----------|
| Point | Northing | Easting | Elevation |
| 2908 | N 566826.1708 | E 1335265.8543 | 455.965 |
| 2905 | N 568341.218 | E 1335392.3757 | 387.358 |

THIS PLAN IS SUBJECT TO CONDITIONS OF APPROVAL OF WP-14-022 BELOW:

The purpose of this letter is to inform you that the Director of the Department of Planning and Zoning considered your request for a waiver of Subsections 16.11(a)(1), 16.11(a)(3), 16.12(b)(4)(i), 16.12(b)(4)(ii)(b) and 16.12(c)(2) of the Howard County Subdivision and Land Development Regulations. A waiver of these regulations would: 1) allow for grading, removal of vegetative cover and trees, paving and new structures within 25 feet of a wetland; 2) allow wetlands, streams and their buffers to be located on residential lots rather than on required open space or a non-buildable preservation parcel; 3) allow for the design of residential lots having an irregular, non-rectangular shape; 4) allow wetlands, streams and their buffers to be located on residential lots less than 10 acres in size; and, 5) allow for creation of a single-family detached lot not having public road frontage, respectively.

As of the date of this letter, the Planning Director approved your request to waive the aforementioned regulations as they apply to the proposed subdivision of the Balakirsky Property, subject to the following conditions:

- The petitioner shall obtain authorization of proposed activities in the existing public 20' drainage & utility easement from the applicable agency prior to the start of work.
- The petitioner shall obtain State and federal authorizations of activities proposed in non-tidal wetlands, the 25-foot nontidal wetland buffer and waters of the US.
- The petitioner shall provide a culvert or similar structure as part of the proposed driveway to maintain hydrologic conveyance in the wetland area.
- The petitioner shall submit a final subdivision plan application to the Department of Planning and Zoning for processing approval in compliance with County and State requirements.
- The petitioner shall delineate and label the existing recorded driveway access easement for Lot 1 on the final plat submission.
- Approval of this waiver is solely for the wetlands and buffer disturbance located at Chapel Estates Drive for the new driveway. No clearing, grading or disturbance is approved for the wetlands, stream and buffer located at the western corner of Lot 2.
- Both Lots 1 and 2 shall comply with the minimum 3-acre lot size requirement with the final plat submission.

| | | |
|---------------------|--|----------------------------------|
| OPTION 2: | EXEMPT/DOI | FOREST CONSERVATION DATA SUMMARY |
| File Number: | Project/Subdivision Name: | |
| ECP 14-030 | BALAKIRSKY PROPERTY | |
| Regulation Section: | Minor Subdivisions that create one additional lot have no further subdivision potential, based on existing zoning. | |

OWNER
Michael Balakirsky
11755 Bragdon Wood
Clarksville, MD 21029
Phone: 410-340-7823

CONTACT
Jeffrey L. Schwab
401 Washington Ave. Suite 303
Towson, MD 21029
Phone: 410-321-7600

**SITE ADDRESS: 11755 Bragdon Wood
Clarksville, MD 21024**

SHEET INDEX

| | |
|-----|---|
| C-1 | ENVIRONMENTAL CONCEPT PLAN |
| | EXISTING CONDITIONS |
| C-2 | ENVIRONMENTAL CONCEPT PLAN |
| | PROPOSED CONDITIONS |
| C-3 | PRELIMINARY SEDIMENT & EROSION CONTROL PLAN |

Tesseract
Tesseract Sites, Inc.
401 Washington Ave. Suite 303
Towson, Maryland, 21284
P: 410.321.7600
F: 410.321.7501

**Environmental Concept Plan
Balakirsky Property
Existing Conditions**
Howard County, Maryland

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. 14230, Expiration Date: 12/09/14.

| | |
|------------|----------|
| DATE: | 1/2/2014 |
| PROJECT #: | 13012 |
| SCALE: | 1" = 50' |
| DESIGN: | JLS |
| DRAWN: | MAS |
| CHECKED: | JLS |

Specimen Tree Chart

| Key | Species | Size (inches dbh) | CRZ Diameter (feet) | Condition |
|-----|--------------|-------------------|---------------------|-----------|
| A | White oak | 43 | 64.5 | good |
| B | Tulip poplar | 34 | 51 | good |
| C | Tulip poplar | 30 | 45 | good |
| D | Tulip poplar | 44.5 | 68.75 | good |
| E | Tulip poplar | 43.5 | 65.25 | good |
| F | Black oak | 31.5 | 47.25 | good |
| G | Tulip poplar | 35 | 52.5 | good |
| H | Tulip poplar | 51 | 76.5 | good |
| I | Tulip poplar | 41 | 61.5 | good |
| J | Tulip poplar | 37 | 55.5 | good |

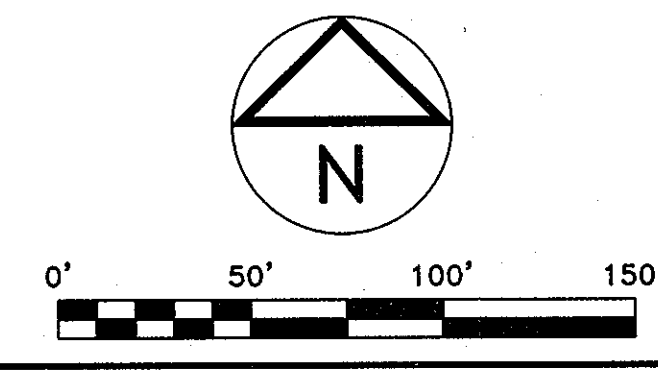
Howard County, Maryland (MAP #27)
Map Unit Symbol Map Unit Name Acres in AOI Percent of AOI K Factor Rock Free K Factor Whole Soil

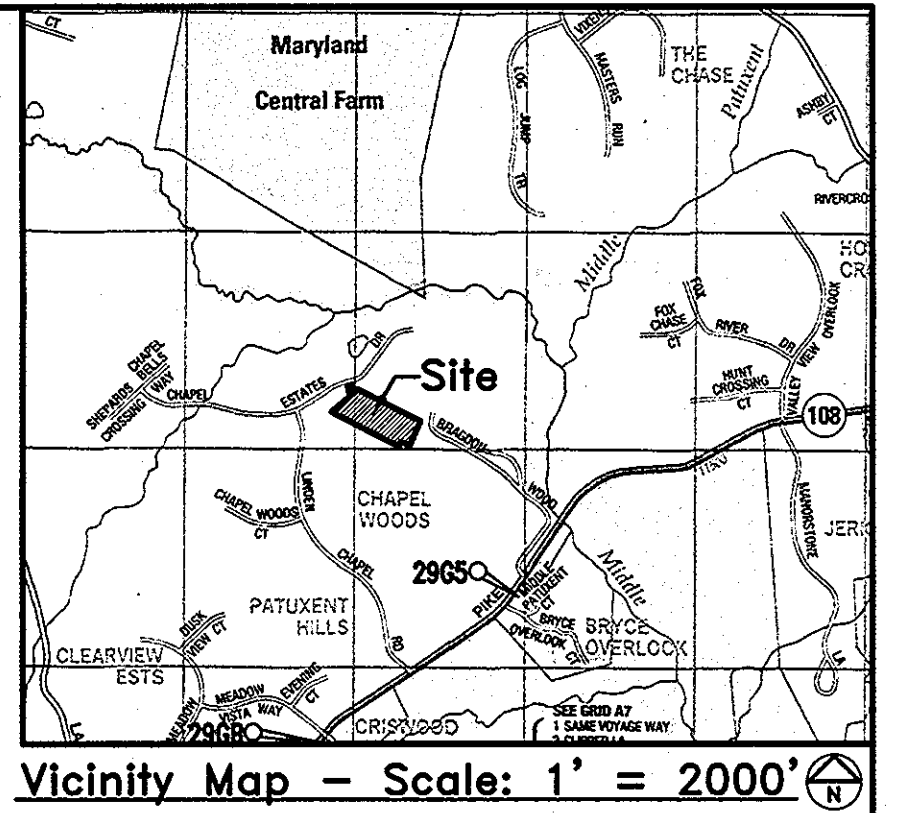
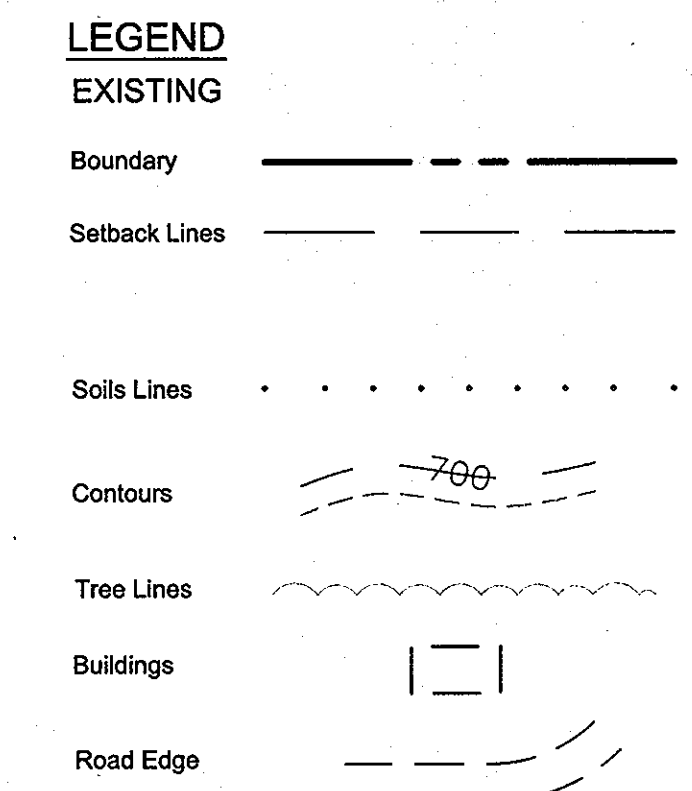
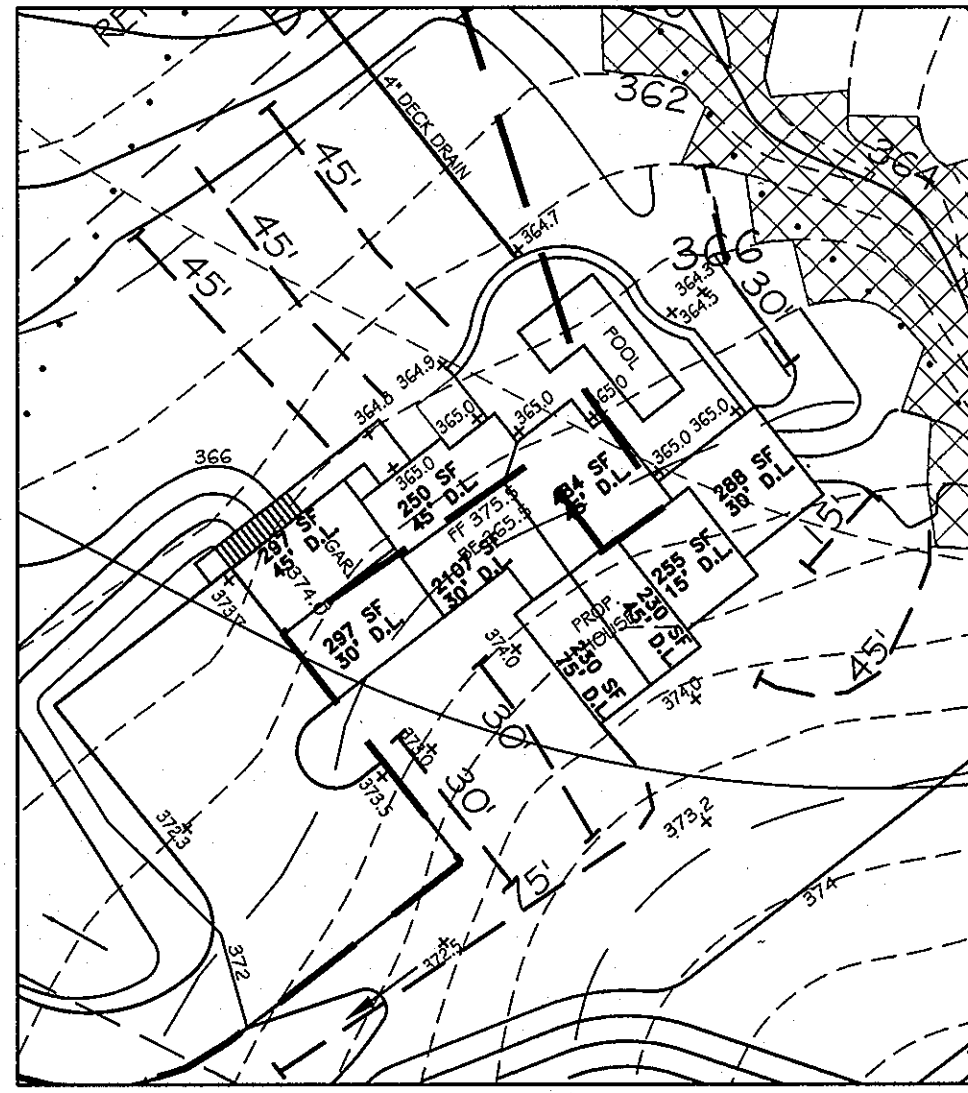
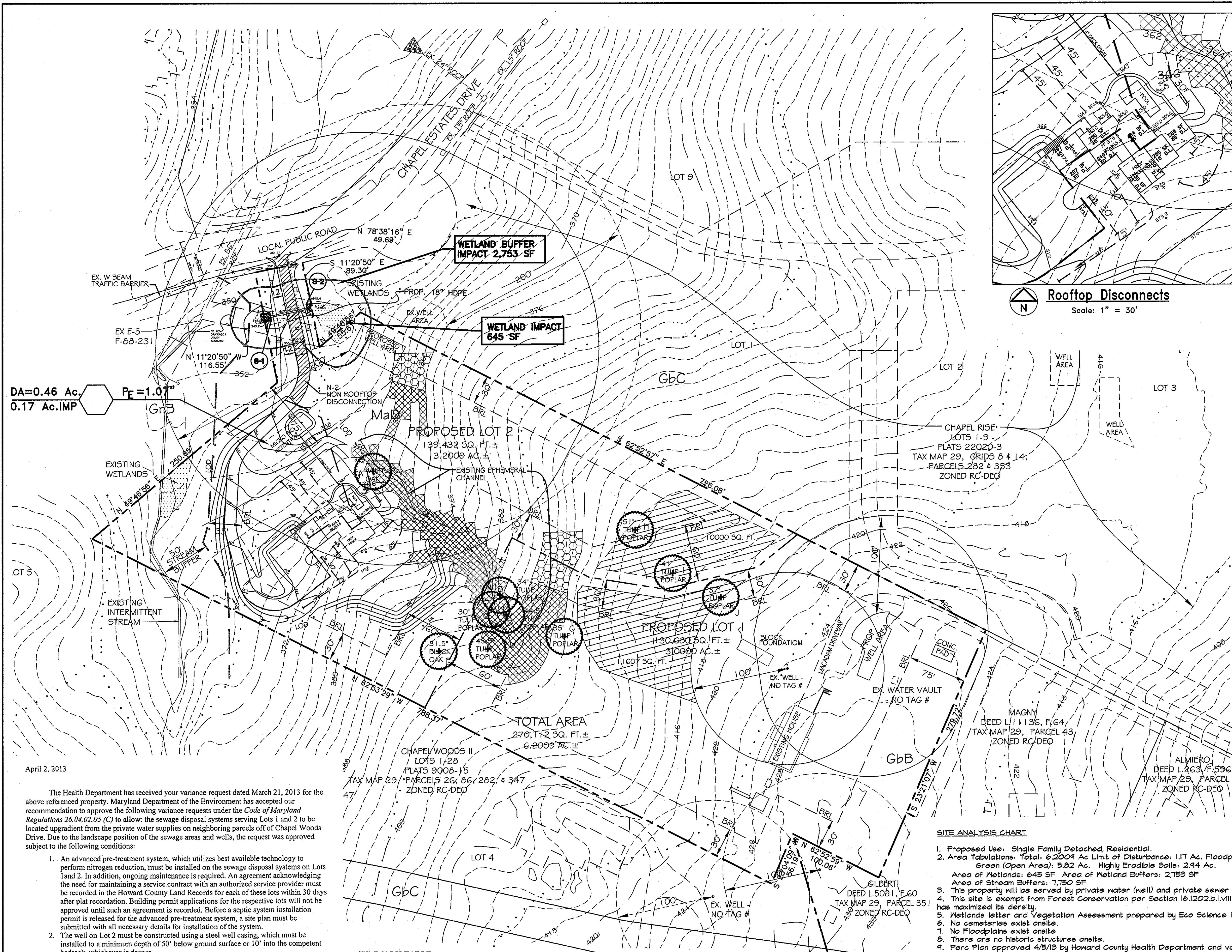
| | | | | | |
|-----|--|------|-----|-----|-----|
| GbB | Gladstone loam, 3 to 8 percent slopes | 1.18 | 19% | .24 | .20 |
| GbC | Gladstone loam, 8 to 15 percent slopes | 2.08 | 34% | .24 | .20 |
| GnB | Glennville-Baile silt loams, 0 to 8 percent slopes (Highly Erodible) | .70 | 11% | .43 | .37 |
| MaD | Manor loam, 15 to 25 percent slopes (Highly Erodible) | 2.24 | 36% | .28 | .24 |

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chad Chandler
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kat DeLoach
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

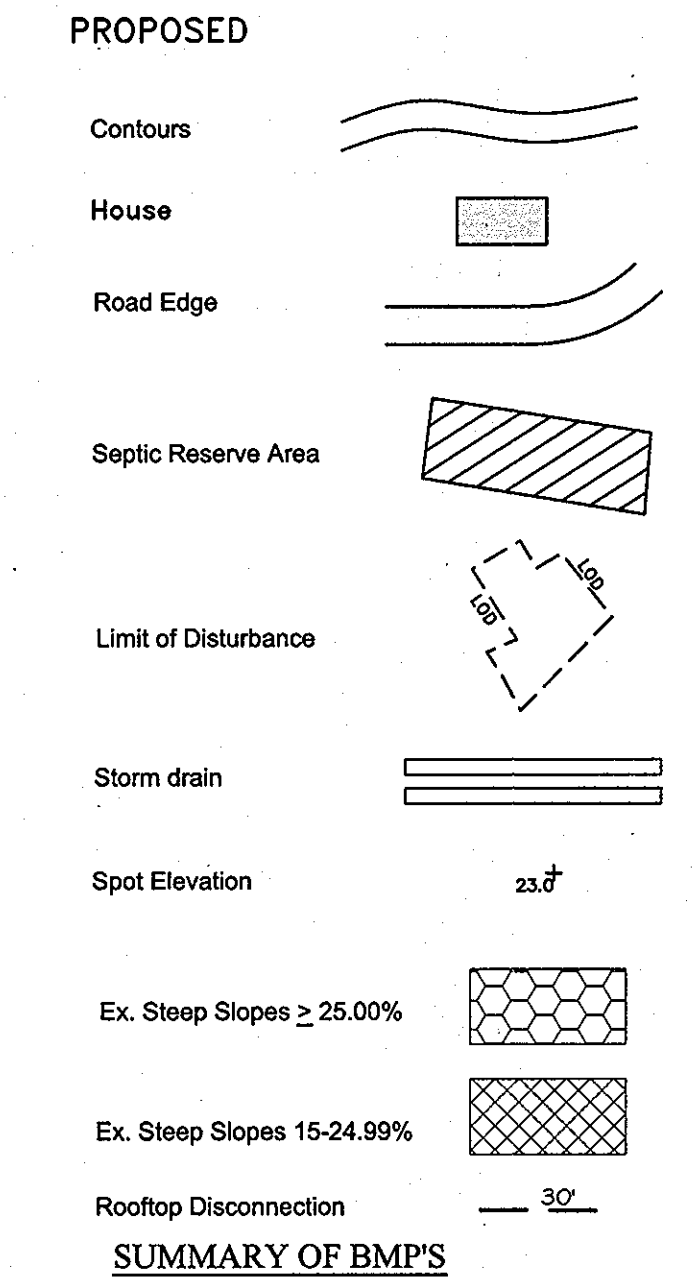




Vicinity Map - Scale: 1" = 2000'
 MAP 4934 C3
 ADC The Map People - Permitted Use # 20612205
 BENCHMARK DESCRIPTIONS
 The courses and coordinates shown hereon are based on the following Howard County monuments:
 Point Northing Easting Elevation
 2968 N 566826.1708 E 1333265.8543 455.965
 2965 N 568341.218 E 1335392.3757 387.358

DESIGN NARRATIVE
 The Balakirsky Property is located on the south side of Chapel Estates Drive approximately 600 feet east of Linden Chapel Road. The proposed development for the property is two 3 acre residential lots and the property is zoned RC-DEO. An existing residence is located on the easternmost part of the site, accessed off of Bragdon Wood. This residence will remain and is not included in the calculations for stormwater management.

The majority of the site drains to the northwest to an existing 36" RCP culvert under Chapel Estates Drive (F 88-231). The existing drainage patterns will be maintained by the proposed development and by making no changes to the existing residence. Natural resources including steep slopes, wetlands, streams, buffers, and specimen trees have been protected to the maximum extent possible. An existing wetland and buffer will be impacted by the proposed driveway and culvert construction which is necessary to provide access to the proposed house. Perimeter sediment and erosion control will be provided using super silt fence and super fence diversion to minimize clearing and disturbance of the existing forest. These measures will be coordinated with the construction of the culvert and stormwater management to minimize potential for erosion. Reduction of impervious areas using alternative surfaces is not practical for the construction of the proposed house. Pervious concrete paving is not practical because the majority of the driveway is in fill and a green roof is not practical due to the slope of the roofs.
 A proposed driveway to serve the proposed house will be constructed across the existing wetland and buffer in the 50 foot side access strip from Chapel Estates Road. Subdivision waivers (WP 14-022) were also granted to allow environmental features on lots, and impacts to the wetlands and buffers. A variance was also granted by the Health Department for a sewage disposal system located upgradient from private water supplies on the adjoining parcels off Chapel Estates Drive.
 Stormwater management for the proposed driveway and houses will be provided by environmental site design to the maximum extent practical. The environmental site design volume will be based on the disturbed area and the proposed impervious area within that area. Rooftop disconnections will be used for the proposed house and portions of the driveways will use non rooftop disconnections. The remaining area will be managed by a micro bio retention facility which will discharge as sheet flow to the proposed culvert (for large storms) and have an underdrain which will discharge into the riprap at the outfall of the proposed culvert. It is our opinion that the proposed non structural measures and micro practices provide environmental site design to the maximum extent practical.



SUMMARY OF BMP'S

| | | | | |
|-------|-----|----------------------------|-----------|-----------|
| LOT 2 | N-1 | ROOFTOP DISCONNECTIONS | 2,311 SF | 0.053 Ac. |
| | N-2 | NON ROOFTOP DISCONNECTIONS | 1,800 SF | 0.041 Ac. |
| | M-6 | MICRO BIORETENTION | 19,602 SF | 0.450 Ac. |

OWNER CONTACT
 Michael Balakirsky
 11755 Bragdon Wood
 Clarksville, MD 21029
 Phone: 410-340-7823

CONTACT
 Jeffrey L. Schwab
 401 Washington Ave. Suite 303
 Towson, MD 21029
 Phone: 410-321-7600

SITE ADDRESS: 11755 Bragdon Wood Clarksville, MD 21024

SITE ANALYSIS CHART

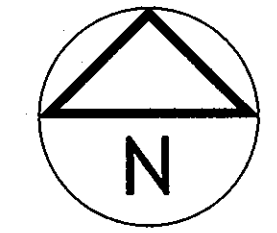
- Proposed Use: Single Family Detached, Residential.
- Area Tabulations: Total: 6.2009 Ac Limit of Disturbance: 1.17 Ac. Floodplain: 0 Ac Green (Open Area): 5.82 Ac. Highly Erodible Soils: 2.94 Ac. Area of Wetlands: 645 SF Area of Wetland Buffers: 2,753 SF
- Area of Stream Buffers: 1,750 SF
- This property will be served by private water (well) and private sewer (septic).
- This site is exempt from Forest Conservation per Section 16.1202.b.1.viii a minor subdivision which is creating 1 new lot and has maximized its density.
- Wetlands letter and Vegetation Assessment prepared by Eco Science Inc., dated 10/30/13.
- No cemeteries exist onsite.
- No Floodplains exist onsite.
- There are no historic structures onsite.
- Peric Plan approved 4/5/13 by Howard County Health Department and variance request to allow the sewage disposal system to be located upgradient from the private water supplies on neighboring parcels, approved 4/2/15.
- Approval of the ECP does not constitute approval of any subsequent and associated subdivision plat or site development plan and/or rezoning. Review of this project for compliance with the Subdivision and Land Development and Zoning Regulations shall occur at the applicable plan stage process. Review of applicable future plans will generate additional comments as the project progresses through the plan review process.
- Erosion control matting shall be provided in all swales.
- Boundary from field run survey by Shanaberger & Lane dated March 2013, offsite topo and topography outside LOD for proposed house from Howard County GIS. Remaining topography from field run survey by Shanaberger & Lane dated March 2013.
- Ho. Co. DPZ Files WF-14-022.
- Standard sediment & erosion control plan can not be used for this project.

April 2, 2013
 The Health Department has received your variance request dated March 21, 2013 for the above referenced property. Maryland Department of the Environment has accepted our recommendation to approve the following variance requests under the Code of Maryland Regulations 26.04.02.05 (C) to allow: the sewage disposal systems serving Lots 1 and 2 to be located upgradient from the private water supplies on neighboring parcels off of Chapel Estates Drive. Due to the landscape position of the sewage areas and wells, the request was approved subject to the following conditions:

- An advanced pre-treatment system, which utilizes best available technology to perform nitrogen reduction, must be installed on the sewage disposal systems on Lots 1 and 2. In addition, ongoing maintenance is required. An agreement acknowledging the need for maintaining a service contract with an authorized service provider must be recorded in the Howard County Land Records for each of these lots within 30 days after plat recordation. Building permit applications for the respective lots will not be approved until such an agreement is recorded. Before a septic system installation permit is released for the advanced pre-treatment system, a site plan must be submitted with all necessary details for installation of the system.
- The well on Lot 2 must be constructed using a steel well casing, which must be installed to a minimum depth of 50' below ground surface or 10' into the competent bedrock, whichever is deeper.
- A low pressure dosing system will be required for the sewage disposal systems on Lots 1 and 2.

SUMMARY TABLE

| TYPE | ESD _v PROVIDED |
|---------------------------------|---------------------------|
| NON ROOFTOP DISCONNECTION N-2 | 150 CF |
| ROOFTOP DISCONNECTION N-1 | 102 CF |
| MICRO BIO RETENTION M-6 | 916 CF |
| TOTAL ESD _v PROVIDED | 1168 CF |
| ESD _v REQUIRED | 1089 CF |
| RECHARGE VOLUME REQUIRED % AREA | 2208 SF |
| RECHARGE VOLUME PROVIDED % AREA | 4341 SF |



Note: Wells and Septic Systems shall be installed and stabilized the same day.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 1-9-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 1/7/14
 CHIEF, DIVISION OF LAND DEVELOPMENT

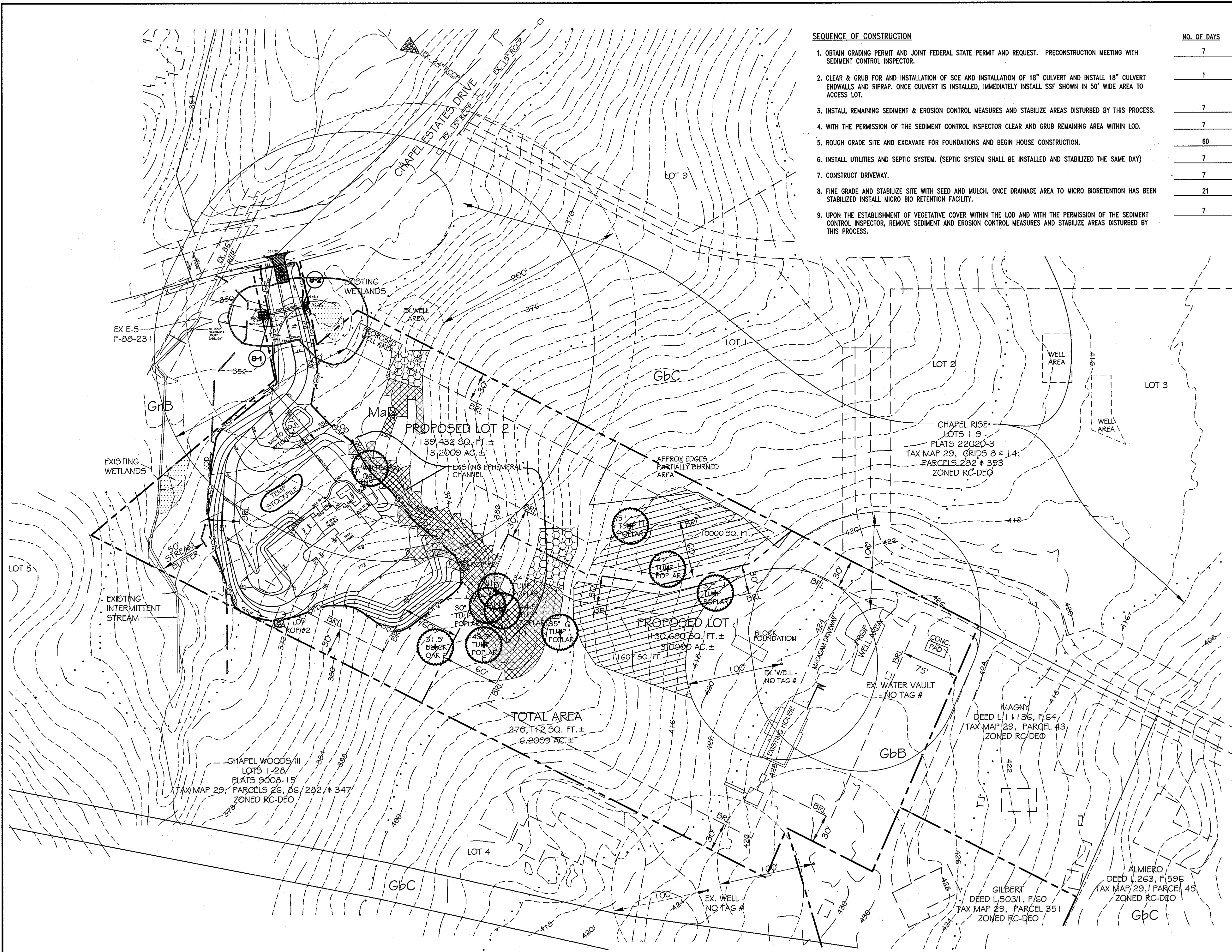
Tesseract
 TESSERACT SITES, INC
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 p. 410.321.7600
 f. 410.321.7601

**Environmental Concept Plan
 Balakirsky Property
 Proposed Conditions**
 Howard County, Maryland

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. 14230, Expiration Date: 12/09/14.

| | | |
|------------|---------------------|---------------|
| PARCEL: 42 | LOD/PLAT: 14885/154 | PLAT: N/A |
| GRID: 14 | ZONE: RC-DEO | ELECTRICTY: 5 |

Date: 1/2/2014
 Proj. #: 13012
 Scale: 1" = 50'
C-2
 DESIGN: JLS DRAWING: MMS CHECKED: JLS



- SEQUENCE OF CONSTRUCTION**
1. OBTAIN GRADING PERMIT AND JOINT FEDERAL STATE PERMIT AND REQUEST. PRECONSTRUCTION MEETING WITH SEDIMENT CONTROL INSPECTOR.
 2. CLEAR & GRUB FOR AND INSTALLATION OF SCE AND INSTALLATION OF 18" CULVERT AND INSTALL 18" CULVERT ENDWALLS AND RIPRAP. ONCE CULVERT IS INSTALLED, IMMEDIATELY INSTALL SSF SHOWN IN 50' WIDE AREA TO ACCESS LOT.
 3. INSTALL REMAINING SEDIMENT & EROSION CONTROL MEASURES AND STABILIZE AREAS DISTURBED BY THIS PROCESS.
 4. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB REMAINING AREA WITHIN LOD.
 5. ROUGH GRADE SITE AND EXCAVATE FOR FOUNDATIONS AND BEGIN HOUSE CONSTRUCTION.
 6. INSTALL UTILITIES AND SEPTIC SYSTEM. (SEPTIC SYSTEM SHALL BE INSTALLED AND STABILIZED THE SAME DAY)
 7. CONSTRUCT DRIVEWAY.
 8. FINE GRADE AND STABILIZE SITE WITH SEED AND MULCH. ONCE DRAINAGE AREA TO MICRO BIORETENTION HAS BEEN STABILIZED INSTALL MICRO BIO RETENTION FACILITY.
 9. UPON THE ESTABLISHMENT OF VEGETATIVE COVER WITHIN THE LOD AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL MEASURES AND STABILIZE AREAS DISTURBED BY THIS PROCESS.

| NO. OF DAYS |
|-------------|
| 7 |
| 1 |
| 7 |
| 7 |
| 60 |
| 7 |
| 7 |
| 21 |
| 7 |

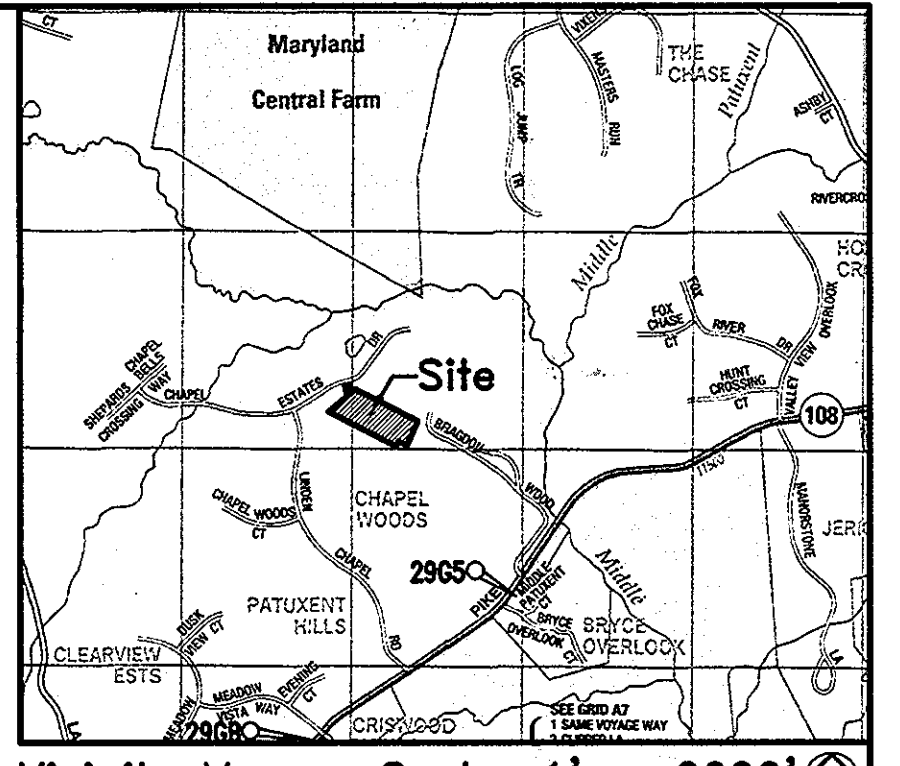
LEGEND

EXISTING

- Boundary
- Setback Lines
- Soils Lines
- Contours
- Tree Lines
- Buildings
- Road Edge
- Well & 100' circle
- Ex. Specimen Tree

PROPOSED

- Contours
- House
- Road Edge
- Septic Reserve Area
- Limit of Disturbance
- Storm drain
- Spot Elevation
- Super Silt Fence
- Super Fence Diversion
- Stabilized Construction Entrance w/ Mountable Berm
- Ex. Steep Slopes ≥ 25.00%
- Ex. Steep Slopes 15-24.99%



Vicinity Map - Scale: 1" = 2000'

MAP 4934 C3
 ADC The Map People - Permitted Use # 20612205

BENCHMARK DESCRIPTIONS

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| Point | Northing | Easting | Elevation |
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| 29GB | N 566826.1708 | E 1333265.8543 | 455.965 |
| 29G5 | N 568341.218 | E 1335392.3757 | 387.358 |

LIMIT OF DISTURBANCE: 51,026 SF = 1.17 Ac.

**SITE ADDRESS: 11755 Bragdon Wood
 Clarksville, MD 21024**

| | |
|--|--|
| OWNER Michael Balakirsky | CONTACT Jeffrey L. Schwab |
| 11755 Bragdon Wood Clarksville, MD 21029 Phone: 410-340-7823 | 401 Washington Ave. Suite 303 Towson, MD 21029 Phone: 410-321-7600 |

Tesseract
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**Environmental Concept Plan
 Balakirsky Property
 Preliminary Sediment &
 Erosion Control Plan**
 Howard County, Maryland

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. 14230, Expiration Date: 12/09/14.

| PARCEL | AREA/ACRES | FEET |
|--------|------------|------|
| 42 | 14885/154 | N/A |

| GRID | ZONE | TAX ZONE MAP | ELECTRICAL | GENUS TRACT |
|------|--------|--------------|------------|-------------|
| 14 | RC-DEO | 29 | 5 | |

Date: 1/2/2014
 Proj. #: 13012
 Scale: 1" = 50'

C-3

DESIGN: JLS DRAWING: MAS CHECKED: JLS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Development Engineering Division 1-9-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chief, Division of Land Development 1/2/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

