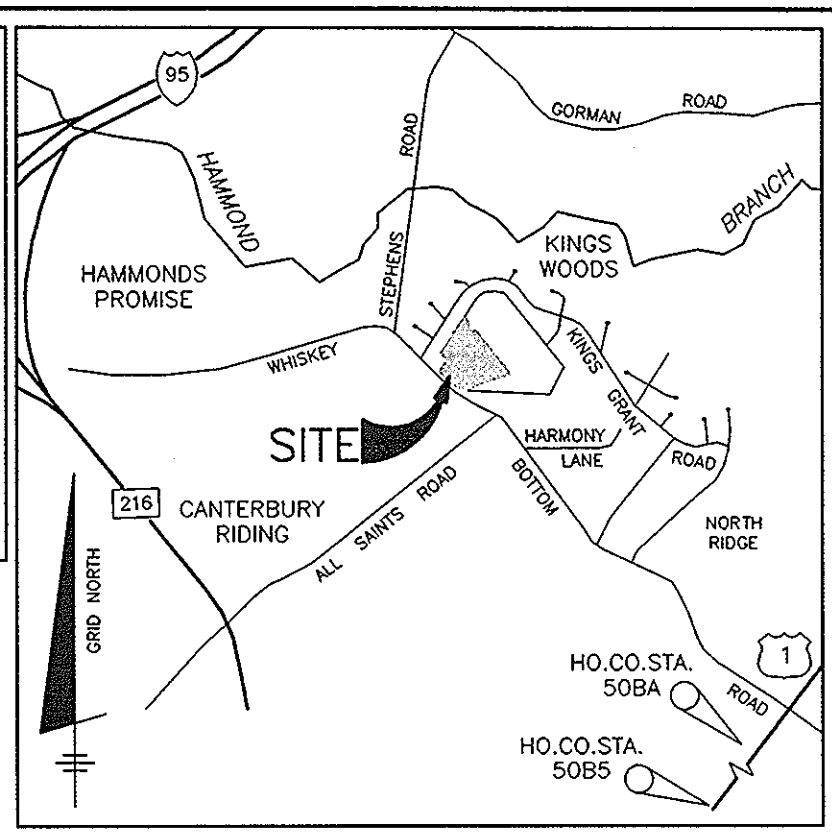




| CENTERLINE CURVE DATA |                          |         |         |           |         |                     |
|-----------------------|--------------------------|---------|---------|-----------|---------|---------------------|
| CURVE                 | STATION                  | RADIUS  | ARC     | DELTA     | TANGENT | CHORD               |
| C1                    | PC=8+44.80 PT=9+94.69    | 120.00' | 149.89' | 71°34'08" | 86.50'  | S80°56'07"W 140.34' |
| C2                    | PC=12+27.95 PT=13+01.48  | 50.00'  | 73.53'  | 84°15'31" | 45.22'  | N87°16'48"W 67.08'  |
| C3                    | PC=14+28.51 END=15+09.90 | 105.00' | 81.40'  | 44°24'55" | 42.87'  | S28°22'59"W 79.37'  |

| BENCHMARKS  |                |
|---|----------------|
| HO. CO. #508A (NAD '83)   | ELEV.=N/A      |
| STANDARD DISC ON CONCRETE MONUMENT BEING 39.7' SOUTHWEST OF THE CORNER OF A STONE PLANTER, 11.8' NORTHWEST OF THE CONC. CURB OF U.S. ROUTE 1 AND 42.9' NORTH OF THE INTERIOR CORNER OF THE CURB. N 527561.6702' E 1359772.5936' |                |
| HO. CO. #5085 (NAD '83)   | ELEV.=178.242' |
| STANDARD DISC ON CONCRETE MONUMENT BEING 73.9' NORTHEAST OF THE FRONT RIGHT CORNER OF #10100 U.S. ROUTE 1, 50.2' SOUTH OF A FIRE HYDRANT AND 2.9' WEST OF THE CURB OF U.S. ROUTE 1. N 524989.3640' E 1357925.6751'              |                |



- GENERAL NOTES**
- ALL ASPECTS OF THIS PROJECT SHALL BE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVER(S) HAVE BEEN APPROVED.
  - EX. TOPOGRAPHY SHOWN HEREON WAS TAKEN FROM A FIELD-RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. DATED FEBRUARY, 2003. CONTOUR INTERVAL IS TWO FEET.
  - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL MONUMENTS 508A & 5085, WHICH ARE BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
  - THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. WATER AND SEWER SHALL BE PUBLIC, CONNECTING TO CONTRACT 24-3496-D AND CONTRACT 142-W. DRAINAGE AREA IS IN THE LITTLE PATUXENT WATERSHED.
  - STORMWATER MANAGEMENT SHALL BE PROVIDED FOR THIS PROJECT BASED ON GUIDELINES ESTABLISHED BY THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES 1 & 2. STORMWATER MANAGEMENT SHALL BE PROVIDED BY USE OF A DRY EXTENDED DETENTION FACILITY AND A SAND FILTER. THESE FACILITIES SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
  - ALL SOILS HAVE LIMITATIONS, RANGING FROM SLIGHT TO SEVERE, FOR BUILDING HOMES, CONSTRUCTING ROADS AND PONDS, AND VARIOUS OTHER USES. PLEASE CONSULT THE SOIL SURVEY OF HOWARD COUNTY FOR DETERMINING SOIL TYPES AND THEIR SUITABILITY FOR DEVELOPMENT, ENGINEERING AND BUILDING.
  - EXISTING UTILITIES SHOWN ARE BASED ON APPROVED CONTRACT DRAWINGS AND FIELD LOCATIONS.
  - THERE ARE NO EXISTING STREAMS, STREAM BUFFERS OR 100-YR. FLOODPLAIN ON-SITE.
  - WETLAND STUDY AND A JOINT FOREST STAND DELINEATION & FOREST CONSERVATION PLAN WERE PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. IN NOVEMBER, 2001 AND APPROVED AS PART OF S-02-012.
  - TRAFFIC STUDY PREPARED BY THE MARS TRAFFIC GROUP, INC. IN NOVEMBER, 2001 AND APPROVED AS PART OF S-02-012.
  - NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
  - GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. DATED FEBRUARY 28th, 2006.
  - PROJECT BACKGROUND INFORMATION:  
SUBDIVISION NAME: KINGS WOODS, SECTION 5  
TAX MAP: 47, GRID 21, PARCEL 857  
ZONING: R-SC, ELECTION DISTRICT: 6th  
GROSS AREA OF PROPERTY TRACT: 6.74 AC.  
NET AREA OF PROPERTY TRACT: 6.74 AC.  
AREA OF PROPOSED LOTS OR PARCELS: 4.04 AC.  
AREA OF PROPOSED ROADS AND OPEN SPACE DEDICATION: 2.70 AC.  
AREA OF OPEN SPACE REQUIRED: 1.35 AC.  
AREA OF N/A OPEN SPACE PROVIDED: 1.81 AC.  
AREA OF NON-CREDITED OPEN SPACE: 0.07 AC.  
AREA OF CREDITED OPEN SPACE: 1.74 AC.  
NUMBER OF PROPOSED LOTS: 25 BUILDABLE, 2 OPEN SPACE
  - THE BOUNDARY SHOWN IS BASED ON A FIELD-RUN MONUMENTED BOUNDARY SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATED FEBRUARY, 2003.
  - TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
  - THE EXISTING RESIDENCE ON LOT 379 IS TO BE RAZED, THE EXISTING SHEDS NEAR LOT 362 ARE TO BE RAZED.
  - UNLESS NOTED AS "PRIVATE", ALL EASEMENTS ARE PUBLIC.
  - BRL INDICATES BUILDING RESTRICTION LINE.
  - THIS PLAN SHALL BE SUBJECT TO COMPLIANCE WITH THE 4TH EDITION OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.
  - ALL LANDSCAPING REQUIREMENTS FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL AND SECTION 16.124(b)(3)(i) OF THE SUBDIVISION REGULATIONS. PRESERVATION OF THE SPECIMEN TREES AND FORESTED LAND SHALL BE INCORPORATED IN THE PRELIMINARY AND FINAL PLANS TO THE EXTENT FEASIBLE. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT UNDER THE FINAL PLAT.
  - STREET LIGHTS PLACEMENT AND TYPE OF FIXTURE & SIGNING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE, 1993)".
  - TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
  - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM LOT DRIVEWAY.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES FOR THE FOLLOWING MINIMUM REQUIREMENTS:  
A) WIDTH: 12' (14' SERVING MORE THAN ONE RESIDENCE).  
B) SURFACE: 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING.  
C) GEOMETRY: MAX. 13% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.  
D) STRUCTURES (CULVERTS/BRIDGES): CAPABLE OF SUPPORTING 25 GROSS TONS (4250 LBS).  
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.
  - SIGHT DISTANCE ANALYSIS FOR ULSTER DRIVE TURNING ONTO CHATON ROAD WAS ANALYZED USING TABLE 2.01 OF DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES BECAUSE OF THE PROXIMITY OF SPEED CONTROL DEVICE #1. THIS SPEED CONTROL DEVICE ENDS 100' FROM THE INTERSECTION OF CHATON ROAD AND ULSTER DRIVE. THE MINIMUM DISTANCE BETWEEN SPEED CONTROL DEVICES IS 400' FOR THIS CLASSIFICATION OF ROAD. THEREFORE, IT CAN BE ASSUMED THAT VEHICLES THAT HAVE TRAVELED THROUGH THE SPEED CONTROL DEVICE WILL STILL BE CALMED WHEN THEY REACH THE INTERSECTION. THIS INTERSECTION ACTS AS IF IT IS WITHIN THE LIMITS OF A SPEED CONTROLLED SUBDIVISION FOR SIGHT DISTANCE LEFT. THEREFORE, TABLE 2.01 WAS APPLIED.
  - SUBJECT PROPERTY IS ZONED R-SC PER THE 2-2-04 COMPREHENSIVE ZONING PLAN.
  - OPEN SPACE LOT 388 IS DESIGNED TO PROVIDED STORM WATER MANAGEMENT AND IS TO BE DEDICATED TO THE HOMEOWNERS ASSOCIATION.
  - OPEN SPACE LOT 387 IS TO BE DEDICATED TO HOWARD COUNTY, MARYLAND.
  - THE FOREST CONSERVATION OBLIGATION FOR THIS SUBDIVISION WILL BE FULFILLED BY 0.27 ACRES OF ONSITE REFORESTATION AND 2.44 ACRES OF OFFSITE REFORESTATION ADJACENT TO FLOODPLAIN ON EDGEWOOD FARM, PHASE 1 (F-05-108). FINANCIAL SURETY WILL BE REQUIRED FOR FOREST REFORESTATION IN THE AMOUNT OF \$50,023.90 FOR THE 2.71 ACRES OF REFORESTATION. THE SURETY AMOUNT SHALL BE PAID AS PART OF THE DEVELOPER'S AGREEMENT UNDER THE FINAL PLAT.
  - ALL EXISTING WELLS AND SEPTICS LOCATED ON THIS PROPERTY SHALL BE ABANDONED AND VERIFICATION OF THE ABANDONMENT SHALL BE SUBMITTED TO THE HEALTH DEPARTMENT PRIOR TO RECORDECTION OF THE PLAT OF SUBDIVISION.

ADC MAP 19 GRID K9  
VICINITY MAP  
SCALE: 1" = 2000'

**LEGEND**

| SOILS CLASSIFICATION          | AbC1 |
|-------------------------------|------|
| SOILS DELINEATION             | ---  |
| EXISTING CONTOURS             | 999  |
| LIMIT OF WETLANDS             | ---  |
| EXISTING WOODS LINE           | ---  |
| PROPOSED WOODS LINE           | ---  |
| EXISTING STRUCTURE            | ---  |
| PROPOSED STRUCTURE            | ---  |
| SPECIMEN TREE                 | ---  |
| STEEP SLOPES 15% TO 24.9%     | ---  |
| STEEP SLOPES GREATER THAN 25% | ---  |
| RECREATIONAL OPEN SPACE       | ---  |
| FOREST CONSERVATION EASEMENT  | ---  |
| EX. LANDSCAPE TREE            | ---  |
| SDP-97-112                    | ---  |
| OR F-96-139                   | ---  |

**COORDINATE TABLE**

| NO. | NORTHING     | EASTING        |
|-----|--------------|----------------|
| 200 | 531,174.6506 | 1,356,921.7028 |
| 201 | 531,182.1411 | 1,357,040.2564 |
| 202 | 531,215.4704 | 1,357,047.2736 |
| 203 | 531,244.8220 | 1,357,105.5828 |
| 204 | 531,262.6864 | 1,357,096.5902 |
| 205 | 531,405.7215 | 1,357,380.7403 |
| 206 | 531,776.7286 | 1,357,007.7747 |
| 207 | 531,749.5522 | 1,356,990.1890 |
| 208 | 531,827.4886 | 1,356,911.8411 |
| 209 | 531,857.3587 | 1,356,926.7185 |
| 210 | 531,945.9795 | 1,356,837.6298 |
| 211 | 531,589.7672 | 1,356,660.2122 |
| 212 | 531,487.7049 | 1,356,767.8324 |
| 213 | 531,309.9523 | 1,356,679.2996 |
| 214 | 531,188.2937 | 1,356,863.4639 |
| 215 | 531,173.0301 | 1,356,896.0543 |

**MINIMUM LOT SIZE CHART**

| LOT NO. | GROSS AREA  | PIPESTEM AREA | MIN. LOT SIZE |
|---------|-------------|---------------|---------------|
| 368     | 7,727 S.F.  | 813 S.F.      | 6,914 S.F.    |
| 371     | 10,726 S.F. | 2,918 S.F.    | 7,808 S.F.    |
| 372     | 9,141 S.F.  | 1,694 S.F.    | 7,447 S.F.    |
| 373     | 11,370 S.F. | 825 S.F.      | 10,545 S.F.   |
| 374     | 8,112 S.F.  | 533 S.F.      | 7,579 S.F.    |
| 382     | 7,304 S.F.  | 770 S.F.      | 6,534 S.F.    |
| 383     | 7,102 S.F.  | 1,092 S.F.    | 6,010 S.F.    |
| 384     | 6,899 S.F.  | 770 S.F.      | 6,129 S.F.    |

**SHEET INDEX**

| NO. | DESCRIPTION  |
|-----|--|
| 1   | PRELIMINARY PLAN AND SOILS MAP   |
| 2   | PRELIMINARY GRADING, SEDIMENT AND EROSION CONTROL PLAN   |
| 3   | PRELIMINARY LANDSCAPE AND STREET TREE PLAN   |
| 4   | PRELIMINARY FOREST CONSERVATION PLAN   |
| 5   | EDGEWOOD FARM PHASE 1, OFFSITE FOREST CONSERVATION FOR KINGS WOODS, PRELIMINARY SECTION 5 (P-07-001) |
| 6   | PRELIMINARY ROAD PROFILES AND DETAILS  |
| 7   | PRELIMINARY STORM DRAIN DRAINAGE AREA MAP  |

**Control Volumes and Water Surface Elevations**

| Drainage Area | Rev   | WQv     | CPv   | Qp10    | Qf100 |        |      |        |      |        |
|---------------|-------|---------|-------|---------|-------|--------|------|--------|------|--------|
| Ac.-Ft.       | Elev. | Ac.-Ft. | Elev. | Ac.-Ft. | Elev. |        |      |        |      |        |
| 1             | 0.09  | 295.00  | 0.28  | 298.55  | 0.38  | 294.01 | 0.75 | 296.33 | 1.15 | 297.83 |
| 2             | 0.00  | N/A     | 0.00  | N/A     | 0.00  | N/A    | 0.00 | N/A    | 0.00 | N/A    |
| 3             | 0.00  | N/A     | 0.00  | N/A     | 0.00  | N/A    | 0.00 | N/A    | 0.00 | N/A    |
| 4             | 0.00  | N/A     | 0.00  | N/A     | 0.00  | N/A    | 0.00 | N/A    | 0.00 | N/A    |

A dry extended detention facility is going to provide the required C<sub>pv</sub>, Q<sub>p10</sub> and Q<sub>f100</sub> control volumes. The developed condition 10 and 100 year discharges at study point number 1 are going to be less than the existing condition discharge at that same point. The 1 year developed condition discharge is slightly higher. The developed discharge is not going to be erosive and will discharge directly into a drainage system.

A Sand Filter is going to provide the required WQ<sub>v</sub>.

A stone chamber below the sand filter is going to provide the required ground water recharge.

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Mark A. Loyd*  
PLANNING DIRECTOR

5/31/07  
DATE

**SOILS LEGEND**

| MAP SYMBOL | SOIL TYPE | MAPPING UNIT   |
|------------|-----------|--|
| BeB2 *     | C         | BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED           |
| BeC2 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED          |
| BeC3 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED            |
| BeD2 *     | C         | BELTSVILLE SILT LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED         |
| Gp *       | A         | GRAVEL PITS AND QUARRIES   |
| L1 *       | D         | LEONARDTOWN SILT LOAM  |
| SsE        | B         | SASSAFRAS SOILS, 15 TO 40 PERCENT SLOPES                                 |
| SfC2       | B         | SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED |

\* - INDICATES HYDRIC SOILS  
TAKEN FROM SOILS SURVEY, ISSUED JULY 1968, MAP NO. 33

PLAN  
SCALE: 1" = 50'

**SITE DATA TABULATION**

- |  |  |
|--|--|
| 1) GENERAL SITE DATA                           | 3) LOT TABULATION  |
| a. PRESENT ZONING: R-SC                        | a. ALLOWABLE RESIDENTIAL LOT YIELD: .....                              |
| b. APPLICABLE DPZ FILE REFERENCES: S-02-012    | b. TOTAL NUMBER OF RESIDENTIAL LOTS PROPOSED ON THIS SUBMISSION: ..... |
| c. DEED REFERENCE: L5884 / F.0074              | c. TOTAL NUMBER OF OPEN SPACE LOTS PROPOSED ON THIS SUBMISSION: .....  |
| d. PROPOSED USE OF SITE: 25 SFD HOMES          | 4) OPEN SPACE DATA   |
| e. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC    | a. MINIMUM RESIDENTIAL LOT SIZE .....                                  |
| 2) AREA TABULATION                             | b. OPEN SPACE REQUIRED (20%) .....                                     |
| a. TOTAL AREA OF SITE .....                    | c. TOTAL AREA OF PROPOSED OPEN SPACE LOTS .....                        |
| b. AREA OF 100 YEAR FLOODPLAIN (APPROX.) ..... | d. TOTAL AREA OF NON-CREDITED NARROW O.S. .....                        |
| c. AREA OF STEEP SLOPES (25% OR GREATER) ..... | e. TOTAL CREDITED OPEN SPACE PROVIDED .....                            |
| d. NET AREA OF SITE .....                      | f. (OPEN SPACE AREA MINUS AREAS LESS THAN 35' IN WIDTH) ..             |
| e. AREA OF THIS PLAN SUBMISSION .....          | d. AREA OF RECREATIONAL OPEN SPACE REQUIRED .....                      |
| f. AREA OF PROPOSED BUILDABLE LOTS .....       | e. AREA OF RECREATIONAL OPEN SPACE PROVIDED .....                      |
| g. AREA OF OPEN SPACE LOTS .....               |  |
| h. AREA OF PROPOSED PUBLIC ROAD R/W .....      |  |

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 • fax: 410-465-6644  
email: bei@bei-civilengineering.com

NO. DATE REVISION

OWNER: JAMES H. KING  
9628 WHISKEY BOTTOM ROAD  
LAUREL, MD 20723

DEVELOPER: SECURITY DEVELOPMENT, LLC  
P.O. BOX 417  
ELLICOTT CITY, MD 21041  
410-465-4244

PROJECT: KINGS WOODS SECTION 5  
LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388

LOCATION: TAX MAP No. 47 - GRID No. 21  
PARCEL No. 857  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

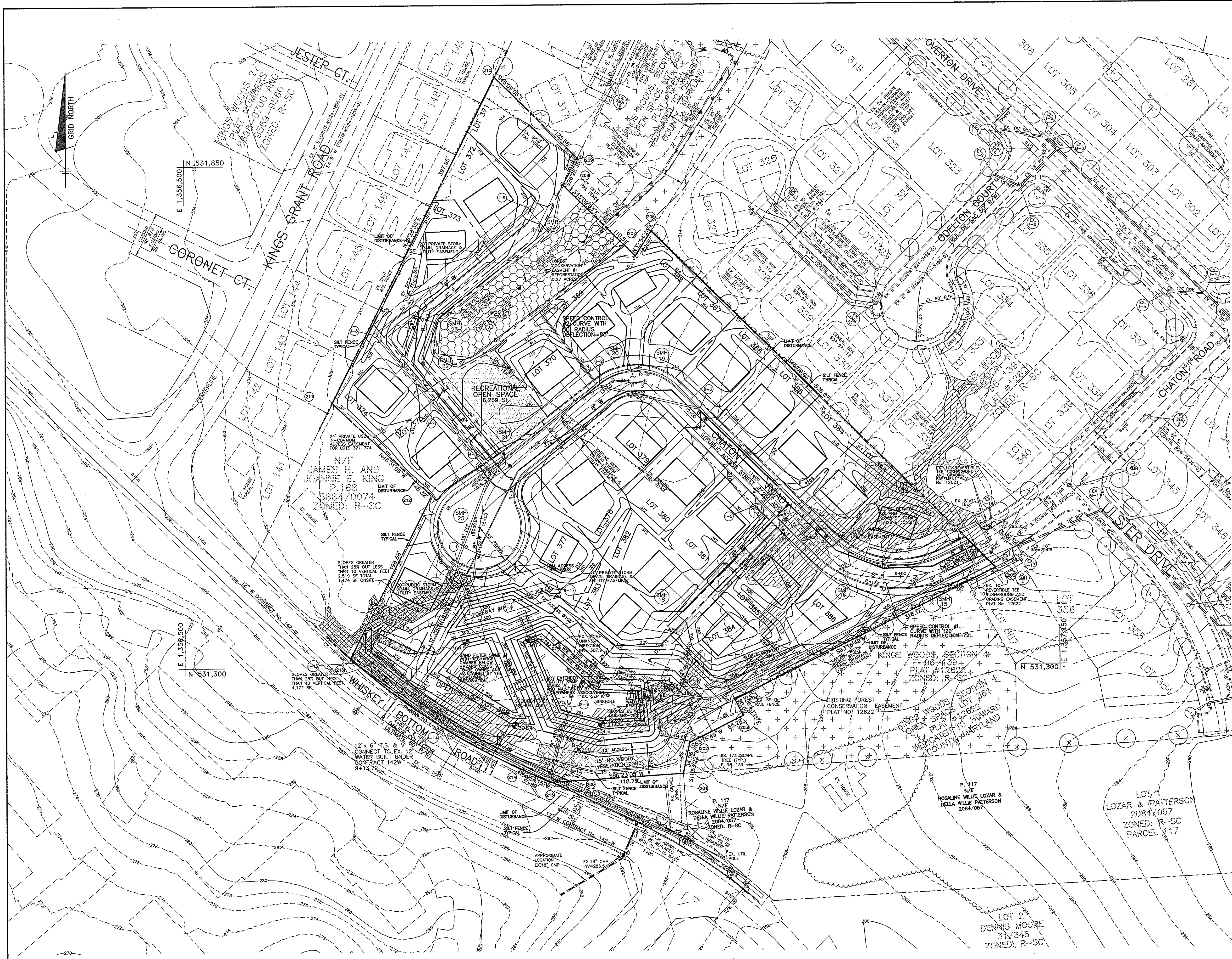
FILE: S-02-12

TITLE: PRELIMINARY PLAN AND SOILS MAP

DATE: JULY, 2006 PROJECT NO. 1504  
MAY, 2007 DRAWING NO. 1 OF 7

Design: JMC Draft: WEO Check: DAM SCALE: AS SHOWN





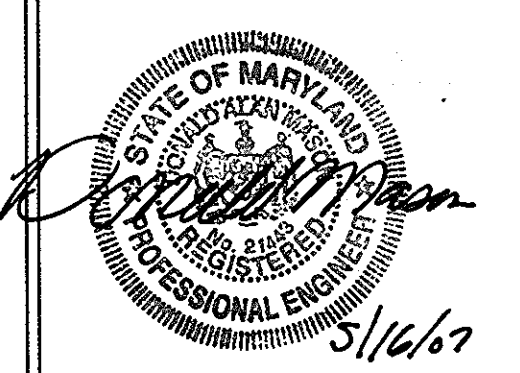
TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Patrick L. Lough*  
PLANNING DIRECTOR

5/24/07  
DATE

PLAN  
SCALE: 1" = 50'

|  |  |      |  |          |  |
|--|--|------|--|----------|--|
| NO.  |  | DATE |  | REVISION |  |
| <b>BENCHMARK</b><br>ENGINEERS • LAND SURVEYORS • PLANNERS<br><b>ENGINEERING, INC.</b><br>8480 BALTIMORE NATIONAL PIKE • SUITE 418<br>ELLICOTT CITY, MARYLAND 21043<br>phone: 410-465-6105 • fax: 410-465-6644<br>email: bei@bei-civilengineering.com |  |      |  |          |  |
| OWNER:   |  |      | PROJECT:   |          |  |
| JAMES H. KING<br>9628 WHISKEY BOTTOM ROAD<br>LAUREL, MD 20723  |  |      | KINGS WOODS<br>SECTION 5<br>LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388                           |          |  |
| DEVELOPER:   |  |      | LOCATION:  |          |  |
| SECURITY DEVELOPMENT, LLC<br>P.O. BOX 417<br>ELLICOTT CITY, MD 21041<br>410-465-4244   |  |      | TAX MAP No. 47 - GRID No. 21<br>PARCEL No. 857<br>6TH ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND |          |  |
| TITLE:   |  |      | DATE:  |          |  |
| PRELIMINARY GRADING<br>SEDIMENT AND EROSION<br>CONTROL PLAN  |  |      | JULY, 2006<br>MAY, 2007  |          |  |
| Design: JMC  |  |      | PROJECT NO. 1504   |          |  |
| Draft: WEO   |  |      | SCALE: AS SHOWN  |          |  |
| Check: DAM   |  |      | DRAWING 2 OF 7   |          |  |





NOTE:

AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.

LANDSCAPE NOTES:

- TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
- TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
- SEE TREE PLANTING DETAIL - THIS SHEET.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED PERIMETER AND STORMWATER MANAGEMENT LANDSCAPING SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT UNDER THE FINAL PLAN FOR THIS PROJECT.

NOTE:

THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

LEGEND

- EXISTING TREELINE
- PROPOSED TREELINE
- STREAM
- LIMIT OF WETLANDS
- LIMIT OF SUBMISSION
- PROPOSED FOREST CONSERVATION EASEMENT
- LANDSCAPE PERIMETER DESIGNATION
- STREET TREES
- EVERGREEN SWM PLANTINGS

| STREET TREE SCHEDULE |                      |    |
|----------------------|----------------------|----|
| ROAD NAME            | PERIMETER TREES REQ. |    |
| CHATON ROAD          | 1,651                | 41 |
| WHISKEY BOTTOM ROAD  | 781                  | 20 |

| PUBLIC STREET TREE PLANTING LIST |          |   |                                      |  |
|----------------------------------|----------|---|--------------------------------------|--|
| SYMBOL                           | QUANTITY | NAME  | REMARKS                              |  |
|                                  | 61       | ACER RUBRUM<br>'OCTOBER GLORY'<br>(October Glory Red Maple) | 2 1/2" MIN. CAL.<br>B&B<br>FULL HEAD | STREET TREES TO BE PROVIDED BY THE DEVELOPER |

NOTE:  
1. LANDSCAPING FOR THIS SUBMISSION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.

| NO. | DATE | REVISION |
|-----|------|----------|
|     |      |          |

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105    FAX: 410-465-6644  
email: bai@bci-civilengineering.com

|  |   |
|--|---|
| OWNER:<br>JAMES H. KING<br>9628 WHISKEY BOTTOM ROAD<br>LAUREL, MD 20723                            | PROJECT:<br>KINGS WOODS SECTION 5<br>LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388                               |
| DEVELOPER:<br>SECURITY DEVELOPMENT, LLC<br>P.O. BOX 417<br>ELLICOTT CITY, MD 21041<br>410-465-4244 | LOCATION:<br>TAX MAP No. 47 - GRID No. 21<br>PARCEL No. 857<br>6th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND |
| TITLE:<br>PRELIMINARY LANDSCAPE AND STREET TREE PLAN   |   |
| DESIGN: JMC    DRAFT: WEO    CHECK: DAM  | DATE: JULY, 2006<br>MAY, 2007    PROJECT NO. 1504   |
| SCALE: 1" = 50'  | DRAWING 3 OF 7  |



| SCHEDULE A PERIMETER LANDSCAPE EDGE  |                                  |      |      |     |                      |     |       |
|--|----------------------------------|------|------|-----|----------------------|-----|-------|
| CATEGORY   | ADJACENT TO PERIMETER PROPERTIES |      |      |     | ADJACENT TO ROADWAYS |     | TOTAL |
|  | ①A                               | ②A   | ③A   | ④A  | ⑤B                   | ⑥B  |       |
| LANDSCAPE BUFFER TYPE  | 318'                             | 527' | 705' | 99' | 62'                  | 54' |       |
| LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER  |                                  |      |      |     |                      |     |       |
| CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | NO                               | NO   | NO   | NO  | NO                   | NO  |       |
| CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | NO                               | NO   | NO   | NO  | NO                   | NO  |       |
| NUMBER OF PLANTS REQUIRED  | 5                                | 9    | 12   | 2   | 1                    | 1   | 30    |
| SHADE TREES  | -                                | -    | -    | -   | -                    | -   | 3     |
| EVERGREEN TREES  | -                                | -    | -    | -   | -                    | -   | 1     |
| OTHER TREES (2:1 SUBSTITUTE)   | -                                | -    | -    | -   | -                    | -   | 1     |
| SHRUBS (10:1 SUBSTITUTE)   | -                                | -    | -    | -   | -                    | -   | 1     |

\* EXISTING VEGETATION TO REMAIN

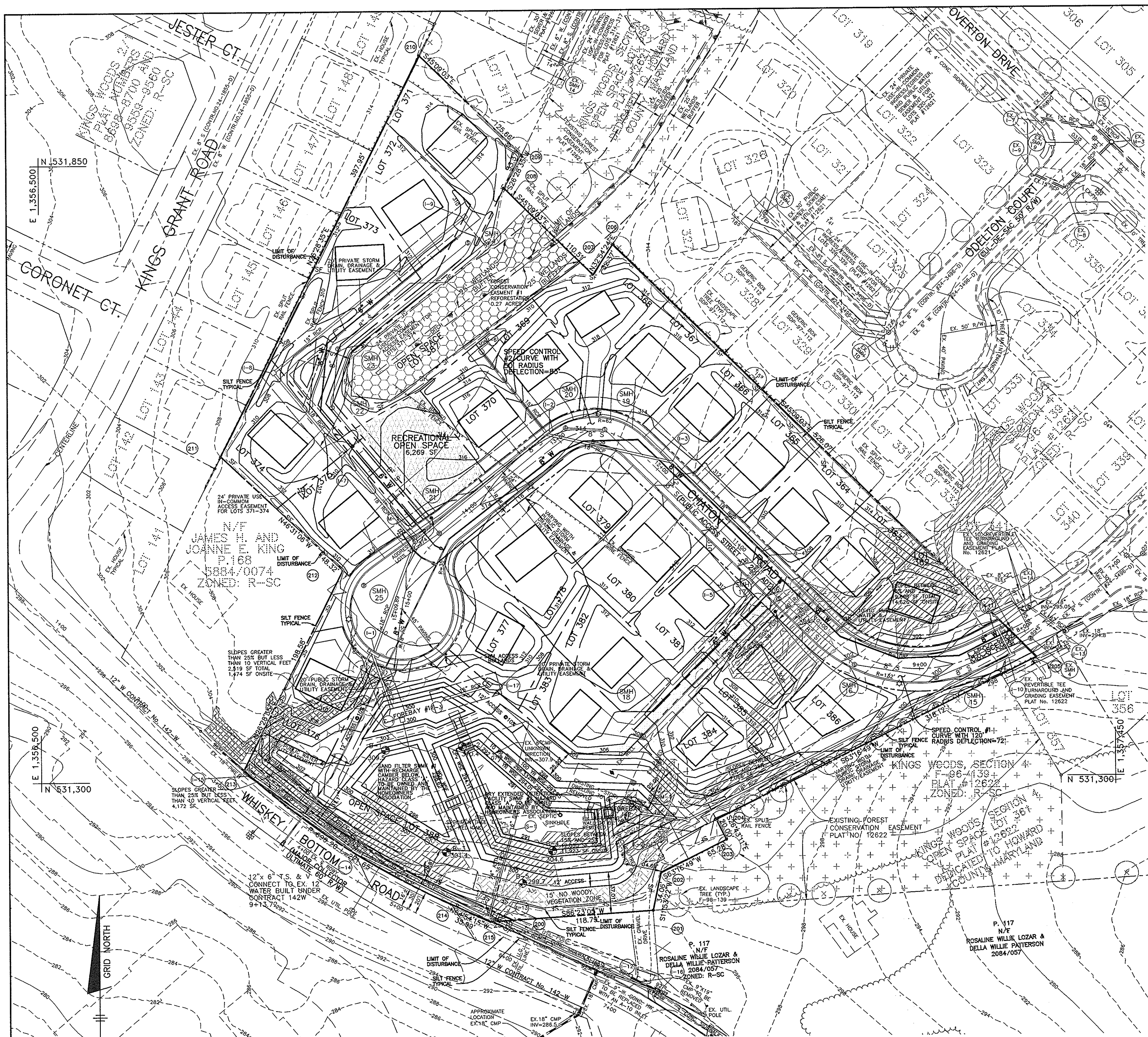
| SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING |                 |
|---|-----------------|
| LINEAR FEET OF PERIMETER                          | ⑦ 981' TYPE 'B' |
| NUMBER OF TREES REQUIRED                          | 20              |
| SHADE TREES (1:50)                                | 25              |
| EVERGREEN TREES (1:40)                            |                 |
| CREDIT FOR EXISTING VEGETATION (NO, YES AND %)    | YES, 74%        |
| CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)      | 10%             |
| CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)      | NO              |

\* EXISTING VEGETATION TO REMAIN

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Mark A. Leagle*  
PLANNING DIRECTOR    86    DATE 5/31/07





ACRES OF AFFORESTATION  
(APPENDIX E) FOREST CONSERVATION WORKSHEET

I. BASIC SITE DATA

|   |           |
|---|-----------|
| GROSS SITE AREA (INCLUSIVE OF ALL PROPOSED LOTS)    | 6.74 AC.± |
| AREA WITHIN 100 YEAR FLOOD PLAIN                    | 0.00 AC.  |
| AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL | 0.00 AC.  |
| AREA WITHIN UNDERGROUND TRANSMISSION LINES          | 0.00 AC.  |
| NET TRACT AREA                                      | 6.74 AC.± |
| LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/O, I)       | HR        |

II. INFORMATION FOR CALCULATIONS

|  |           |
|--|-----------|
| (A) NET TRACT AREA                               | 6.74 AC.± |
| (B) REFORESTATION THRESHOLD (20% x NTA)          | 1.35 AC.± |
| (C) AFFORESTATION MINIMUM (15% x NTA)            | 1.01 AC.± |
| (D) EXISTING FOREST ON NET TRACT AREA            | 1.39 AC.± |
| (E) EXISTING FOREST ABOVE CONSERVATION THRESHOLD | 0.04 AC.± |
| (F) BREAK EVEN POINT (IF APPLICABLE)             | 0.03 AC.± |
| (G) FOREST AREAS TO BE CLEARED                   | 1.39 AC.± |
| (H) FOREST AREAS TO BE RETAINED (RETENTION)      | 0.00 AC.  |

SELECT THE ALTERNATE THAT APPLIES:

1. No clearing below the minimum

If existing forests are less than the afforestation minimum (if D is less than C) and no clearing is proposed, the following calculations apply:

|   |       |
|---|-------|
| Total afforestation required  | C - D |
| Afforestation must make total forest area equal the minimum required. | C - D |

2. Clearing below the minimum

If existing forest area less than the afforestation minimum (if D is less than C) and clearing is proposed, the following calculations apply:

|  |                   |
|--|-------------------|
| Afforestation for unforested areas below minimum | C - D             |
| Afforestation for Clearing below Minimum         | E x 2             |
| TOTAL AFFORESTATION REQUIRED                     | (C - D) + (E x 2) |

Afforestation required the total forest area be equal to the minimum and it requires compensation for clearing

GO TO SECTION V

IV. REFORESTATION CALCULATIONS

|  |      |
|--|------|
| A. NET TRACT AREA  | 6.74 |
| B. REFORESTATION THRESHOLD (20% x A)   | 1.35 |
| C. AFFORESTATION MINIMUM (15% x NTA)   | 1.01 |
| D. EXISTING FOREST ON NET TRACT AREA   | 1.39 |
| E. FOREST AREAS TO BE CLEARED  | 1.39 |
| F. FOREST AREAS TO BE RETAINED   | 0.00 |
| G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D-F, if F equals or is greater than B, Alternate 1) (D-B, if F is less than B, Alternate 2) | 0.04 |
| H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B-F, if applicable)   | 1.35 |
| I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F-B, Retention Credit, if applicable)  | 0.00 |

SELECT THE ALTERNATE THAT APPLIES:

1. Clearing above the threshold only

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

|  |                      |
|--|----------------------|
| REFORESTATION FOR CLEARING ABOVE THRESHOLD       | C x 1/4              |
| CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD | I = Retention Credit |
| TOTAL REFORESTATION REQUIRED                     | (C x 1/4) - I        |

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

2. Clearing below the threshold

If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:

|  |      |
|--|------|
| REFORESTATION FOR CLEARING ABOVE THRESHOLD | 0.01 |
| REFORESTATION FOR CLEARING BELOW THRESHOLD | 2.70 |
| TOTAL REFORESTATION REQUIRED               | 2.71 |

Since clearing occurs below the threshold, no forest retention credit is possible

**Eco-Science Professionals, Inc.**  
CONSULTING ECOLOGISTS

MD DNR Qualified Professional  
USACOE Wetland Delinenter  
Certification # MD061004423

John P. Canoles

P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

PLAN  
SCALE: 1" = 50'

**SITE DATA**

|   |           |
|---|-----------|
| GROSS AREA (INCL. ALL PROP. LOTS)           | 6.74 AC.± |
| PRES. PARCELS, TRANS. LINE R/W & FLOODPLAIN | 0.00 AC.  |
| NET TRACT AREA (NTA)                        | 6.74 AC.± |
| EXISTING FOREST (NTA)                       | 1.39 AC.± |
| AFFORESTATION THRESHOLD                     | 1.01 AC.± |
| AFFORESTATION PROPOSED                      | 0.00 AC.  |
| OFF-SITE REFORESTATION                      | 2.71 AC.± |

**SITE DATA TABULATION**

|   |           |
|---|-----------|
| 1) GENERAL SITE DATA  |           |
| a. PRESENT ZONING: R-SC                                       |           |
| b. APPLICABLE DPZ FILE REFERENCES: S-02-012                   |           |
| c. DEED REF.: 4208/403  |           |
| d. PROPOSED USE OF SITE: 25 BUILDABLE LOTS, 2 OPEN SPACE LOTS |           |
| e. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC                   |           |
| 2) AREA TABULATION  |           |
| a. TOTAL AREA OF SITE   | 6.74 AC.± |
| b. AREA OF 100 YEAR FLOODPLAIN (APPROX.)                      | 0.00 AC.  |
| c. AREA OF STEEP SLOPES (25% OR GREATER AND 10 VERTICAL FEET) | 0.00 AC.± |
| d. NET AREA OF SITE   | 6.74 AC.± |
| e. AREA OF THIS PLAN SUBMISSION                               | 6.74 AC.± |
| f. AREA OF PROPOSED BUILDABLE LOTS                            | 4.05 AC.± |
| g. AREA OF PROPOSED OPEN SPACE LOTS                           | 1.81 AC.± |
| h. AREA OF PROPOSED PUBLIC ROAD R/W                           | 0.89 AC.± |

- FCP NOTES:**
- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
  - FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
  - LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
  - THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
  - NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
  - TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 25 FEET OF THE PROPOSED LIMITS.
  - PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS. SIGNS SHALL BE MOUNTED ON A PERMANENT WOOD POST OR METAL STAKE. FCE SIGNS SHALL NOT BE ATTACHED TO TREES.
  - THE FOREST CONSERVATION OBLIGATION FOR THIS SUBDIVISION WILL BE FULFILLED BY 0.27 ACRES OF REFORESTATION ON-SITE AND 2.44 ACRES OF OFF-SITE REFORESTATION IN AND ADJACENT TO STREAM BUFFERS AND FLOODPLAIN ON THE EDGEWOOD FARM, PHASE 1 (F-08-108) SUBDIVISION.
  - FINANCIAL SURETY WILL BE REQUIRED FOR FOREST CONSERVATION IN THE AMOUNT OF \$99,023.80 FOR THE 0.27 ACRES OF ON-SITE REFORESTATION AND THE 2.44 ACRES OF OFF-SITE REFORESTATION. THE SURETY AMOUNT SHALL BE PAID AS PART OF THE DEVELOPER'S AGREEMENT UNDER THE FINAL PLAT.

**SOILS LEGEND**

| MAP SYMBOL | SOIL TYPE | MAPPING UNIT   |
|------------|-----------|--|
| Bb2 *      | C         | BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED           |
| BbC2 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED          |
| BbC3 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED            |
| BbD2 *     | C         | BELTSVILLE SILT LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED         |
| GP *       | A         | GRAVEL PITS AND QUARRIES   |
| L1 *       | D         | LEONARDTOWN SILT LOAM  |
| SsE        | B         | SASSAFRAS SOILS, 15 TO 40 PERCENT SLOPES                                 |
| SfC2       | B         | SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED |

\* - INDICATES HYDRIC SOILS  
TAKEN FROM SOILS SURVEY, ISSUED JULY 1988, MAP NO. 33

THIS PLAN IS FOR FOREST CONSERVATION ONLY

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

Mark A. Coyle  
PLANNING DIRECTOR

5/31/07  
DATE

|     |      |          |
|-----|------|----------|
| NO. | DATE | REVISION |
|     |      |          |

**BENCHMARK ENGINEERS, LAND SURVEYORS & PLANNERS**  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 fax: 410-465-6644  
email: bei@bei-civilengineering.com

OWNER: JAMES H. KING  
9628 WHISKEY BOTTOM ROAD  
LAUREL, MD 20723

DEVELOPER: SECURITY DEVELOPMENT, LLC  
P.O. BOX 417  
ELLICOTT CITY, MD 21041  
410-465-4244

PROJECT: KINGS WOODS SECTION 5  
LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388

LOCATION: TAX MAP No. 47 - GRID No. 21  
PARCEL No. 857  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: PRELIMINARY FOREST CONSERVATION PLAN, NOTES AND DETAILS

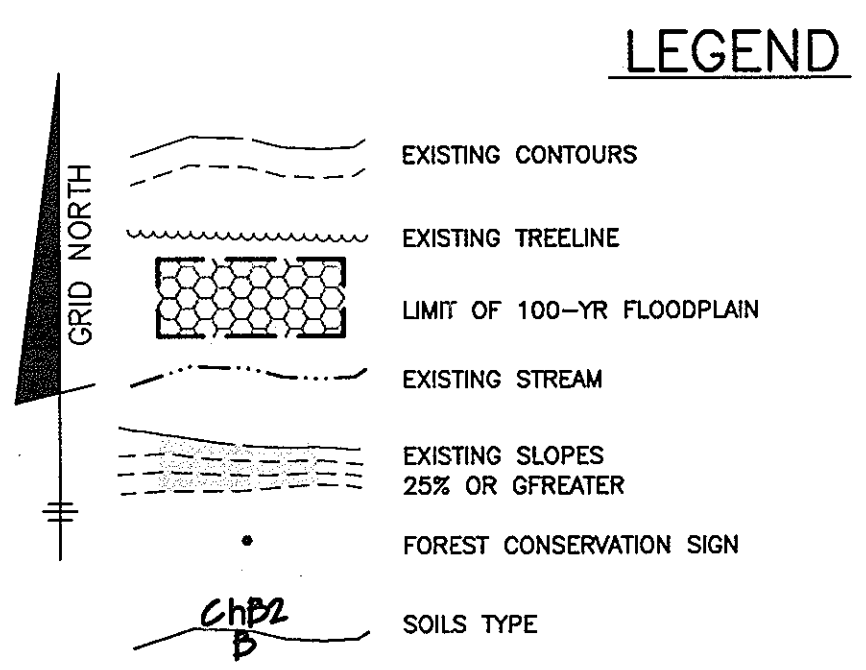
DATE: JULY 2006  
MAY, 2007

PROJECT NO. 1504

SCALE: AS SHOWN DRAWING 4 OF 7

Design: JMC Draft: WEO Check: DAM

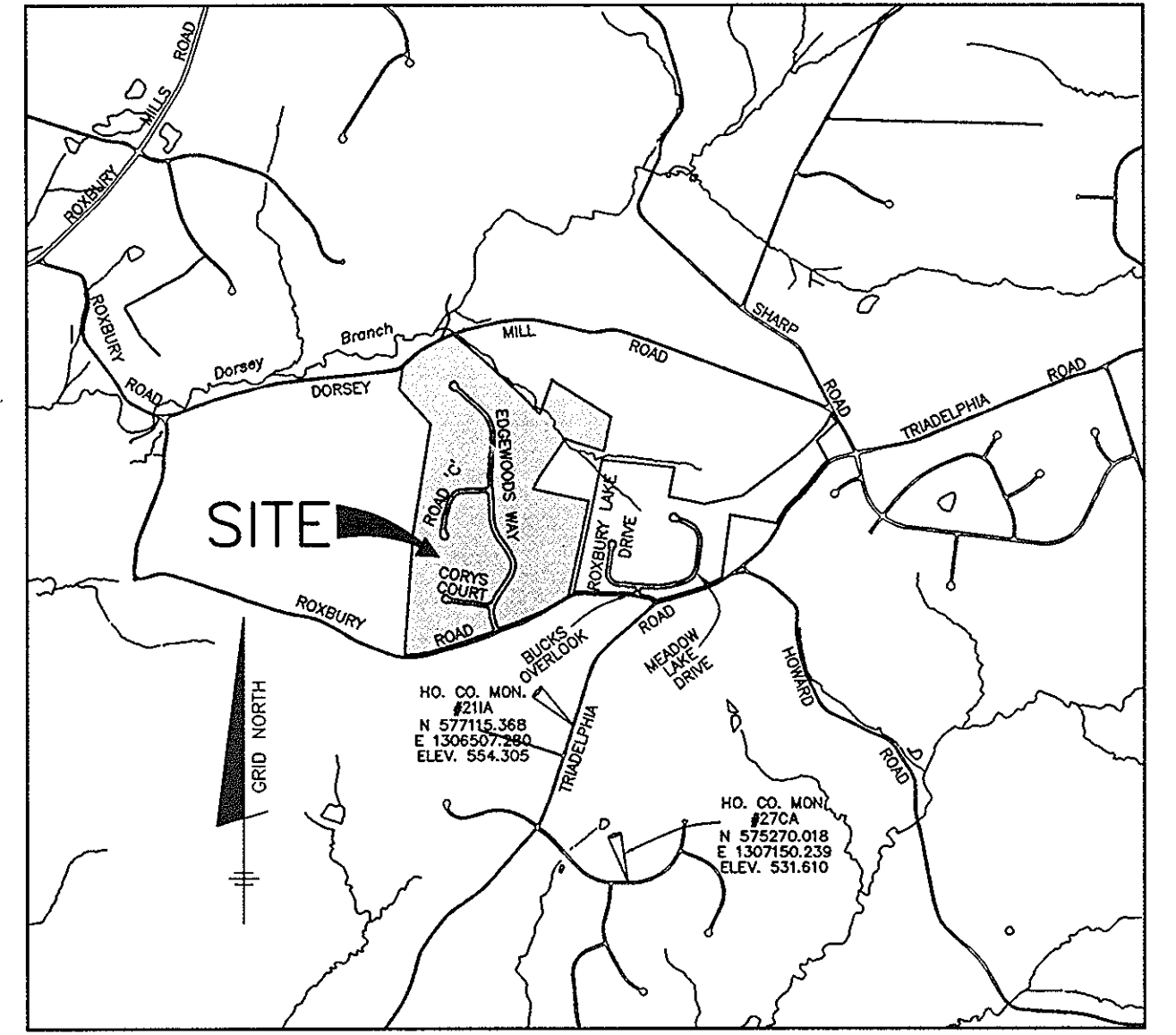




| FCE ACREAGE CHART |                 |               |
|-------------------|-----------------|---------------|
| EASEMENT          | RETENTION (NTA) | REFORESTATION |
| FCE #1A           | N/A             | 2.44 AC.*     |
| TOTALS            | N/A             | 2.44 AC.*     |

\* 2.44 ACRES OF REFORESTATION IS REQUIRED FOR THE KINGS WOODS, SECTION 5, SUBDIVISION (P-07-001).

Forest Conservation Area  
**REFORESTATION PROJECT**  
*Trees for Your Future*  
 MIN. 11"  
 SIGNAGE  
 NOT TO SCALE



21A - STAMPED BRASS DISC SET 1"-2" BELOW SURFACE ON A CONCRETE COLUMN (3" DEEP).  
 LOCATED 4' FROM WEST EDGE OF TRIADAPHA ROAD 99' FROM BOE POLE (#134679).  
 27CA - STAMPED BRASS DISC SET 1"-2" BELOW SURFACE ON A CONCRETE COLUMN (3" DEEP).  
 LOCATED 2.2' FROM PK VIAL IN MAGADAM CURB ON NORTH SIDE OF MICHELLE DRIVE.  
 (APPROX. 150' FROM SAPLING DRIVE).  
**VICINITY MAP**  
 SCALE: 1" = 2000'  
 ADC MAP PAGE 9, GRID D11

| SOILS LEGEND |            |   |
|--------------|------------|---|
| MAP SYMBOL   | SOIL GROUP | SOIL TYPE   |
| AhB2         | C          | ALDINO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED  |
| Cs           | C          | COROCUS SILT LOAM   |
| Bs           | C          | BAILE SILT LOAM   |
| ChB2         | B          | CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED |
| CuB          | B          | COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 PERCENT SLOPES      |
| GIB2         | B          | GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED      |
| GIC2         | B          | GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED     |
| EkB2         | B          | ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED  |
| GIC3         | B          | GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED       |
| GnA          | C          | GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES                  |
| GnB2         | C          | GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MORETELY ERODED |
| MIB2         | B          | MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED        |
| MLD3         | B          | MANOR LOAM 15 TO 25 PERCENT SLOPES, SEVERELY ERODED         |
| MIC2         | B          | MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED       |
| MIE          | B          | MANOR SILT, 25 TO 45 PERCENT SLOPES                         |

\* INDICATES HYDRIC SOILS  
 TAKEN FROM SOILS SURVEY, ISSUED JULY 1988, MAP NO. 17 AND 13

**Eco-Science Professionals, Inc.**



MD DNR Qualified Professional  
 USACE Wetland Delineator  
 Certification # WDCP03MD061004412

P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

John P. Canoles 5/16/07

- NOTES:**
1. THERE ARE STREAMS, STREAM BUFFERS AND FLOODPLAINS LOCATED ON THIS SITE.
  2. THIS OFF-SITE PLANTING WILL BE REQUIRED TO SATISFY THE FOREST CONSERVATION REQUIREMENTS FOR THE KINGS WOODS, SECTION 5 (P-07-001) SUBDIVISION.
  3. SURETY REQUIRED FOR THE OFF-SITE REFORESTATION IN THE AMOUNT OF \$59,023.80 SHALL BE REQUIRED FOR THE FINAL PLAN SUBMISSION OF THE KINGS WOODS, SECTION 5 (P-07-001).
  4. THE OBLIGATION OF 2.44 ACRES OF REFORESTATION FOR THE KINGS WOODS, SECTION 5 (P-07-001) WILL BE PROVIDED ON THE EDGEWOOD FARM, PHASE 1 (F-06-108).
  5. 2.44 ACRES OF REFORESTATION ARE REQUIRED FOR THE KINGS WOODS, SECTION 5 (P-07-001) SUBDIVISION AND 2.44 ACRES IS PROVIDED.

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

PLANNING DIRECTOR: *Mark A. Weger* 5/14/07  
 DATE

- FCP NOTES:**
1. ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
  2. FORESTED AREAS OCCURRING OUTSIDE OF THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
  3. LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
  4. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
  5. NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
  6. TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 25 FEET OF THE PROPOSED LIMITS.
  7. PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS. SIGNS SHALL BE MOUNTED ON A PERMANENT WOOD POST OR METAL STAKE. FCE SIGNS SHALL NOT BE ATTACHED TO TREES.
  8. THE FOREST CONSERVATION OBLIGATION FOR THIS SUBDIVISION WILL BE FULFILLED BY 0.27 ACRES OF REFORESTATION ON-SITE AND 2.44 ACRES OF OFF-SITE REFORESTATION IN AND ADJACENT TO FLOODPLAIN ON THE EDGEWOOD FARM, PHASE 1 (F-06-108) SUBDIVISION.
  9. FINANCIAL SURETY WILL BE REQUIRED FOR FOREST CONSERVATION IN THE AMOUNT OF \$59,023.80 FOR THE 0.27 ACRES OF ON-SITE REFORESTATION AND THE 2.44 ACRES OF OFF-SITE REFORESTATION. THE SURETY AMOUNT SHALL BE PAID AS PART OF THE DEVELOPER'S AGREEMENT UNDER THE FINAL PLAT.

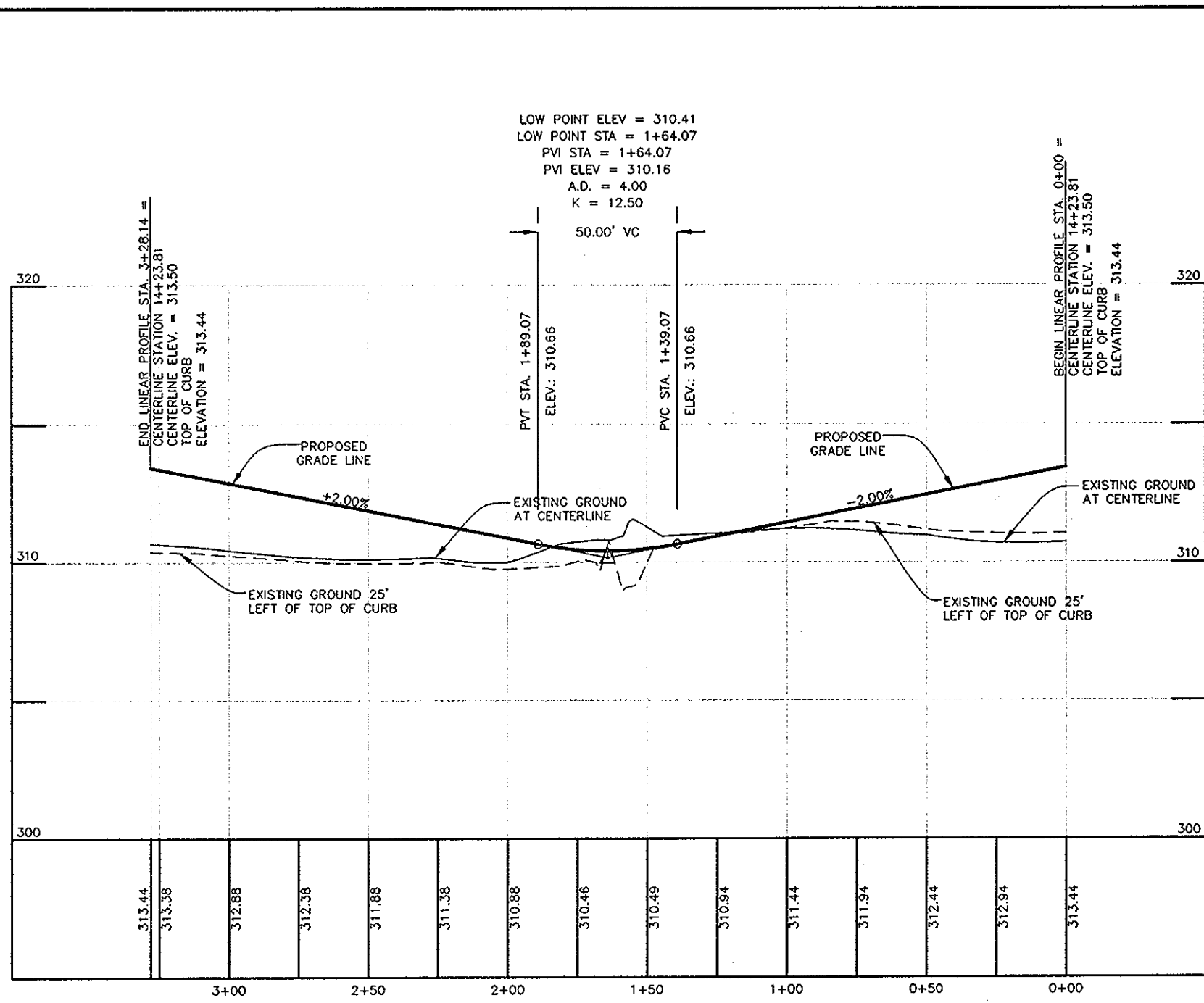
THIS PLAN IS FOR FOREST CONSERVATION ONLY

| NO. | DATE | REVISION |
|-----|------|----------|
|     |      |          |

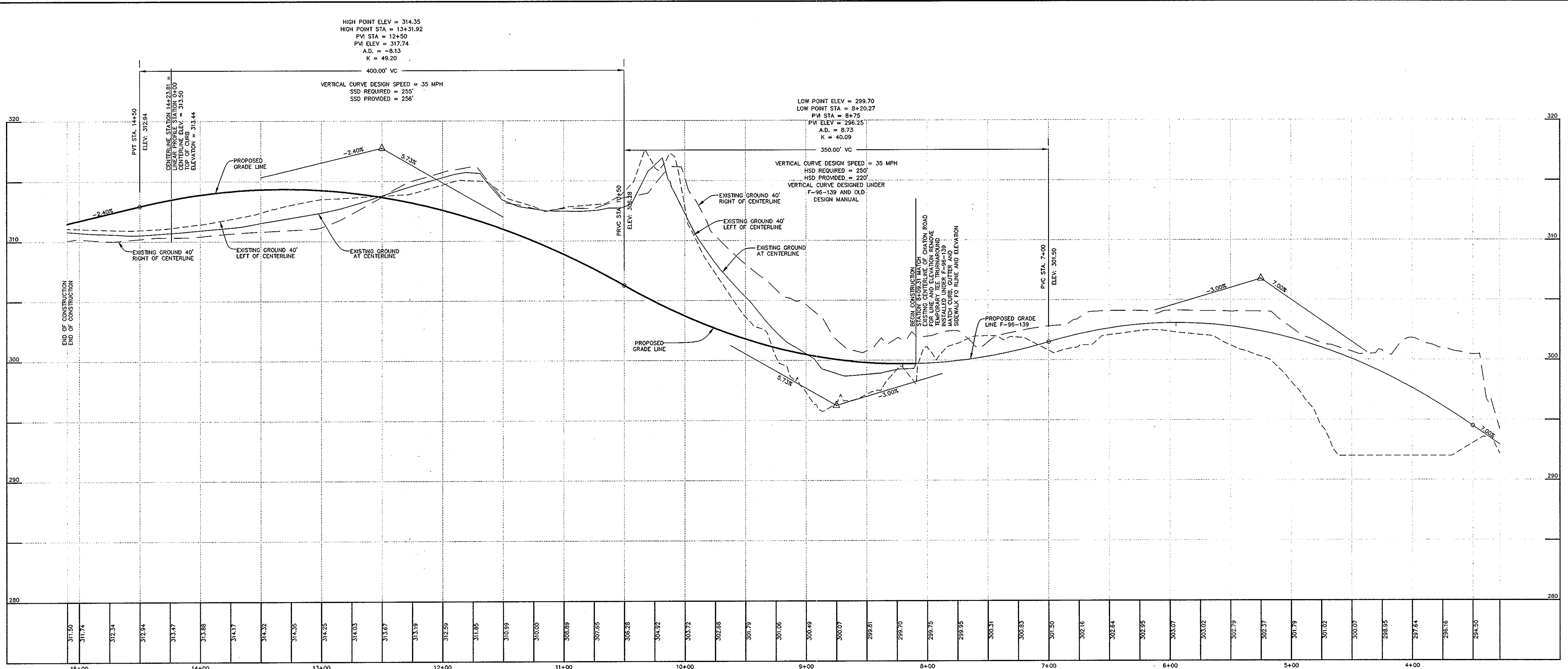
**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS  
 8480 BALTIMORE NATIONAL PIKE • SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 • fax: 410-465-6644  
 email: bei@civlengineering.com

|  |   |
|--|---|
| OWNER:<br>EDGEWOOD FARM, LLC<br>14919 ROXBURY ROAD<br>GLENELG, MARYLAND 21737                      | PROJECT:<br>KINGS WOODS SECTION 5<br>LOTS 362-386 AND OPEN SPACE LOTS 387 & 388                                 |
| DEVELOPER:<br>SECURITY DEVELOPMENT, LLC<br>P.O. BOX 417<br>ELLICOTT CITY, MD 21041<br>410-465-4244 | TITLE:<br>EDGEWOOD FARM, PHASE 1, PRELIMINARY OFF-SITE FOREST CONSERVATION<br>KINGS WOODS, SECTION 5 (P-07-001) |
| Design: JMC Draft: WEO Check: DAM  | DATE: MAY, 2007 PROJECT NO. 1504<br>SCALE: AS SHOWN DRAWING 5 OF 7  |

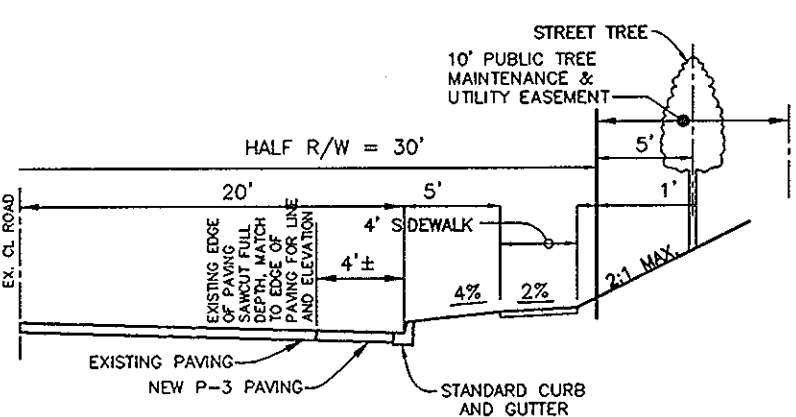




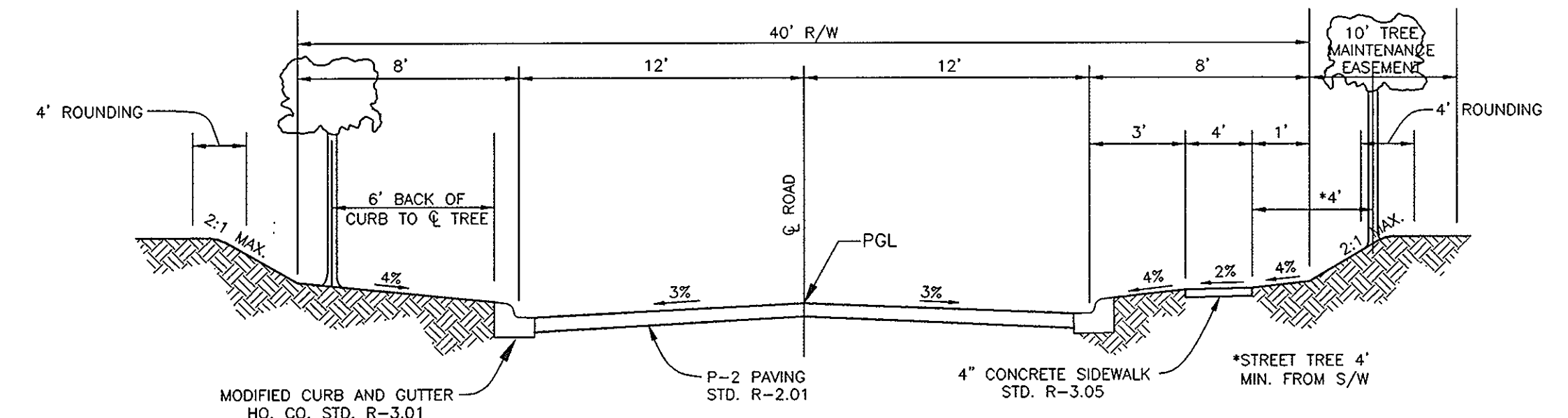
**CHATON ROAD LINEAR PROFILE**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'



**CHATON ROAD PROFILE**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'

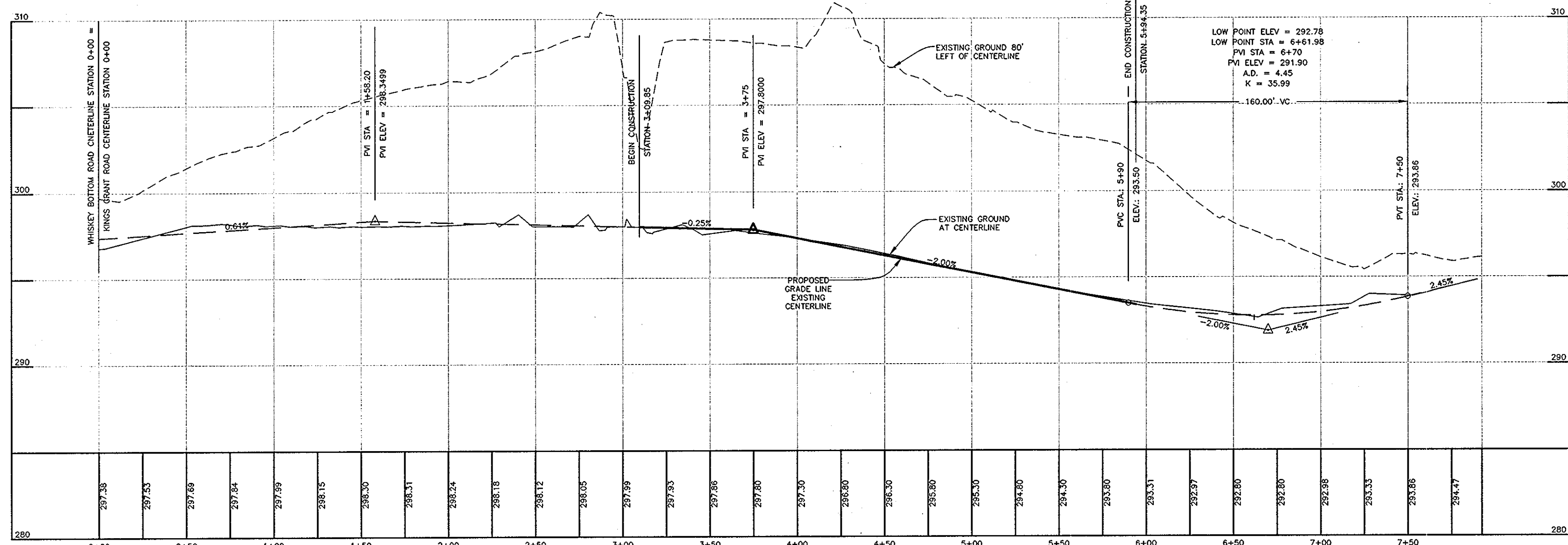


**TYPICAL ROADWAY SECTION**  
 WHISKEY BOTTOM ROAD  
 NOT TO SCALE  
 MAJOR COLLECTOR



**TYPICAL ROADWAY SECTION**

**CHATON ROAD**  
 (PUBLIC ACCESS STREET - LESS THAN 500 ADT)  
 DESIGN SPEED: 25 MPH  
 STA. 8+09.31 TO STA. 15+36.69  
 NOT TO SCALE



**WHISKEY BOTTOM ROAD PROFILE**  
 HORIZONTAL SCALE: 1" = 50'  
 VERTICAL SCALE: 1" = 5'

TENTATIVELY APPROVED  
 DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY

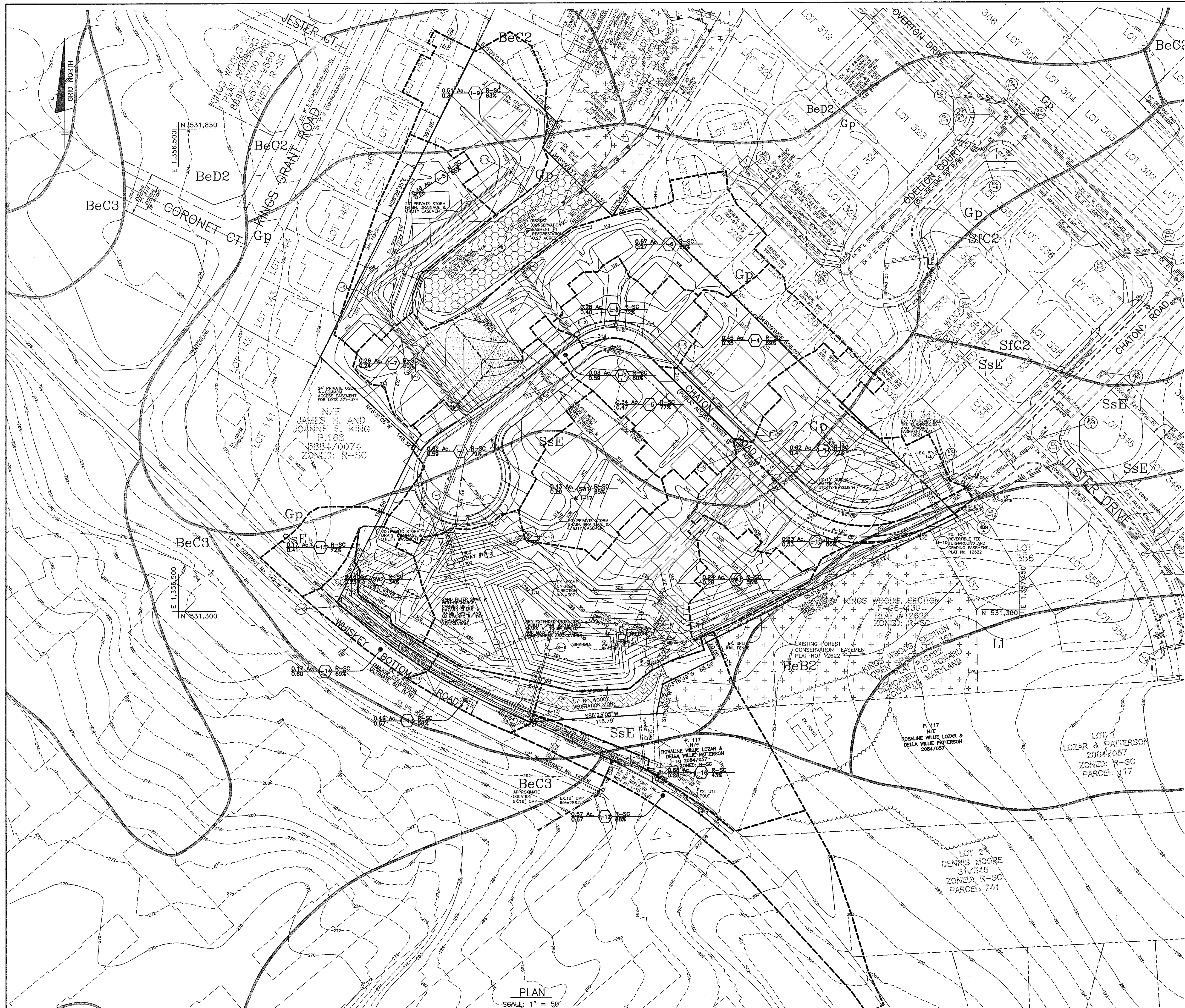
*David DeWyle*  
 PLANNING DIRECTOR  
 DATE: 5/11/07

| NO. | DATE | REVISION |
|-----|------|----------|
|     |      |          |

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS  
 8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 ▲ fax: 410-465-6644  
 email: be@be-civilengineering.com

|  |   |
|--|---|
| OWNER:<br>JAMES H. KING<br>9628 WHISKEY BOTTOM ROAD<br>LAUREL, MD 20723                            | PROJECT:<br>KINGS WOODS SECTION 5<br>LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388                               |
| DEVELOPER:<br>SECURITY DEVELOPMENT, LLC<br>P.O. BOX 417<br>ELLICOTT CITY, MD 21041<br>410-465-4244 | LOCATION:<br>TAX MAP No. 47 - GRID No. 21<br>PARCEL No. 857<br>6th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND |
| DATE:<br>JULY, 2006<br>MAY, 2007   | TITLE:<br>PRELIMINARY ROAD PROFILE AND DETAILS  |
| Design: JMC   Draft: WEO   Check: DAM  | PROJECT NO. 1504<br>SCALE: AS SHOWN   DRAWING 6 OF 7  |





**RUNOFF COMPUTATIONS**

PROJECT: KINGS WOODS, SEC. 5      DATE: 04/05/07      DESIGNED BY: JMC      JOB: 1604

| DA. #      | AREA (Ac.) | "C" (< 25 Yr) | "C" (> 25 Yr) | t <sub>0</sub> (min) | t <sub>s</sub> (hr) | t <sub>p</sub> (hr) | t <sub>100</sub> (hr) | Q <sub>2</sub> (cfs) | Q <sub>10</sub> (cfs) | Q <sub>100</sub> (cfs) |
|------------|------------|---------------|---------------|----------------------|---------------------|---------------------|-----------------------|----------------------|-----------------------|------------------------|
| 1-1        | 0.62       | 0.69          | 0.68          | 10.0                 | 4.50                | 6.60                | 10.00                 | 1.65                 | 2.41                  | 3.96                   |
| 1-2        | 0.03       | 0.52          | 0.62          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.07                 | 0.10                  | 0.16                   |
| 1-3        | 0.28       | 0.40          | 0.49          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.50                 | 0.74                  | 1.12                   |
| 1-4        | 0.45       | 0.35          | 0.44          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.71                 | 1.04                  | 1.58                   |
| 1-5        | 0.34       | 0.47          | 0.57          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.72                 | 1.05                  | 1.60                   |
| 1-6        | 0.67       | 0.27          | 0.36          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.81                 | 1.19                  | 1.81                   |
| 1-7        | 0.26       | 0.24          | 0.32          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.28                 | 0.41                  | 0.62                   |
| 1-8        | 0.46       | 0.28          | 0.37          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.58                 | 0.85                  | 1.29                   |
| 1-9        | 0.51       | 0.31          | 0.40          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.71                 | 1.04                  | 1.58                   |
| 1-10       | 0.33       | 0.53          | 0.62          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.79                 | 1.15                  | 1.75                   |
| 1-11       | 0.62       | 0.41          | 0.50          | 10.0                 | 4.50                | 6.60                | 10.00                 | 1.14                 | 1.69                  | 2.54                   |
| 1-12       | 0.57       | 0.67          | 0.77          | 10.0                 | 4.50                | 6.60                | 10.00                 | 1.72                 | 2.52                  | 3.82                   |
| 1-13       | 0.16       | 0.57          | 0.64          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.41                 | 0.60                  | 0.91                   |
| 1-14       | 0.17       | 0.60          | 0.68          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.46                 | 0.67                  | 1.02                   |
| 1-15       | 0.17       | 0.41          | 0.50          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.31                 | 0.46                  | 0.70                   |
| 1-16       | 0.68       | 0.28          | 0.35          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.86                 | 1.29                  | 1.90                   |
| SW1 & 1-17 | 0.43       | 0.29          | 0.38          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.59                 | 0.82                  | 1.25                   |
| SW2        | 0.16       | 0.23          | 0.30          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.17                 | 0.24                  | 0.37                   |
| SW3        | 0.24       | 0.28          | 0.36          | 10.0                 | 4.50                | 6.60                | 10.00                 | 0.30                 | 0.44                  | 0.67                   |

**AREA AND "C" FACTOR TABULATION**

PROJECT: KINGS WOODS, SEC. 5      FILE: STORM DRAIN      DATE: 04/05/07      JMC

| PARCEL | INLET #    | ZONING | SUBAREA (B) | AREA (A) | "C" FACTOR (C) | % IMPERVIOUS (P) CALCULATED |
|--------|------------|--------|-------------|----------|----------------|-----------------------------|
|        | 1-1        | R-SC   |             | 0.62     | 0.59           | 79                          |
|        | 1-2        | R-SC   |             | 0.03     | 0.52           | 80                          |
|        | 1-3        | R-SC   |             | 0.28     | 0.40           | 72                          |
|        | 1-4        | R-SC   |             | 0.45     | 0.35           | 66                          |
|        | 1-5        | R-SC   |             | 0.34     | 0.47           | 77                          |
|        | 1-6        | R-SC   |             | 0.67     | 0.27           | 60                          |
|        | 1-7        | R-SC   |             | 0.26     | 0.24           | 50                          |
|        | 1-8        | R-SC   |             | 0.46     | 0.28           | 65                          |
|        | 1-9        | R-SC   |             | 0.51     | 0.31           | 63                          |
|        | 1-10       | R-SC   |             | 0.33     | 0.53           | 80                          |
|        | 1-11       | R-SC   |             | 0.62     | 0.41           | 72                          |
|        | 1-12       | R-SC   |             | 0.57     | 0.67           | 88                          |
|        | 1-13       | R-SC   |             | 0.16     | 0.57           | 88                          |
|        | 1-14       | R-SC   |             | 0.17     | 0.60           | 69                          |
|        | 1-15       | R-SC   |             | 0.17     | 0.41           | 72                          |
|        | 1-16       | R-SC   |             | 0.68     | 0.28           | 43                          |
|        | SW1 & 1-17 | R-SC   |             | 0.43     | 0.29           | 65                          |
|        | SW2        | R-SC   |             | 0.16     | 0.23           | 34                          |
|        | SW3        | R-SC   |             | 0.24     | 0.28           | 56                          |

**SOILS LEGEND**

| MAP SYMBOL | SOIL TYPE | MAPPING UNIT   |
|------------|-----------|--|
| BeB2 *     | C         | BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED           |
| BeC2 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED          |
| BeC3 *     | C         | BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED            |
| BeD2 *     | C         | BELTSVILLE SILT LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED         |
| Gp *       | A         | GRAVEL PITS AND QUARRIES   |
| L1 *       | D         | LEONARDTOWN SILT LOAM  |
| SsE        | B         | SASSAFRAS SOILS, 15 TO 40 PERCENT SLOPES                                 |
| Sfc2       | B         | SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED |
| Sd         | C         | SANDY AND CLAYEY LAND, MODERATELY SLOPING                                |

\* - INDICATES HYDRIC SOILS  
TAKEN FROM SOILS SURVEY, ISSUED JULY 1968, MAP NO. 33

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Paul A. Lytle*  
PLANNING DIRECTOR      5/6/07  
DATE

| NO. | DATE | REVISION |
|-----|------|----------|
|     |      |          |
|     |      |          |

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 • fax: 410-465-6644  
email: bei@bei-civilengineering.com

|  |   |
|--|---|
| OWNER:<br>JAMES H. KING<br>9628 WHISKEY BOTTOM ROAD<br>LAUREL, MD 20723                            | PROJECT:<br>KINGS WOODS SECTION 5<br>LOTS 362 - 386 AND OPEN SPACE LOTS 387 & 388                               |
| DEVELOPER:<br>SECURITY DEVELOPMENT, LLC<br>P.O. BOX 417<br>ELLICOTT CITY, MD 21041<br>410-465-4244 | LOCATION:<br>TAX MAP No. 47 - GRID No. 21<br>PARCEL No. 857<br>6th ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND |
| DESIGN: JMC    DRAFT: WEO    CHECK: DAM  | TITLE:<br>PRELIMINARY STORM DRAIN DRAINAGE AREA MAP   |
| DATE: JANUARY, 2007<br>MAY, 2007   | PROJECT NO. 1504  |
| SCALE: AS SHOWN  | DRAWING 7 OF 7  |