

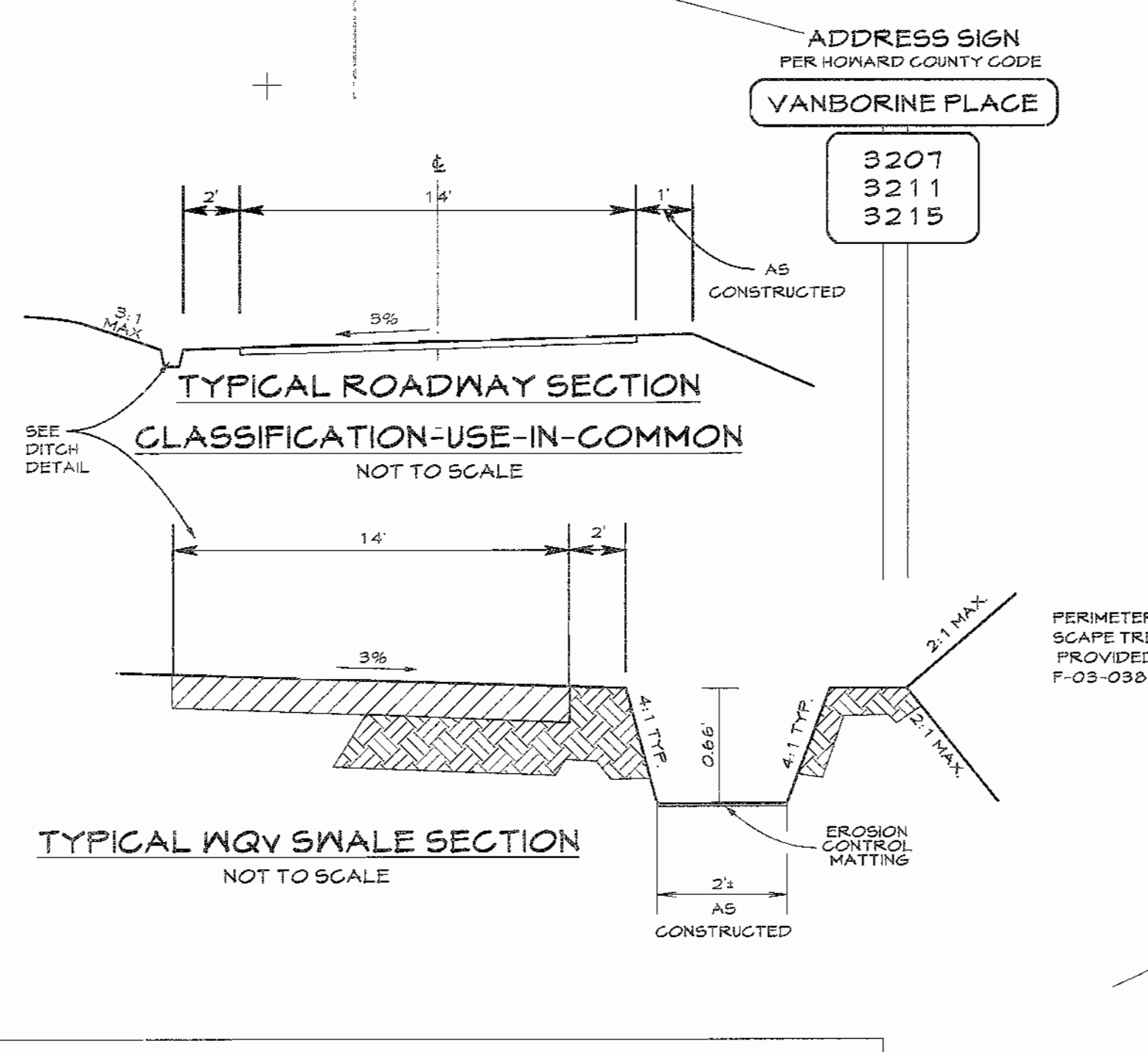
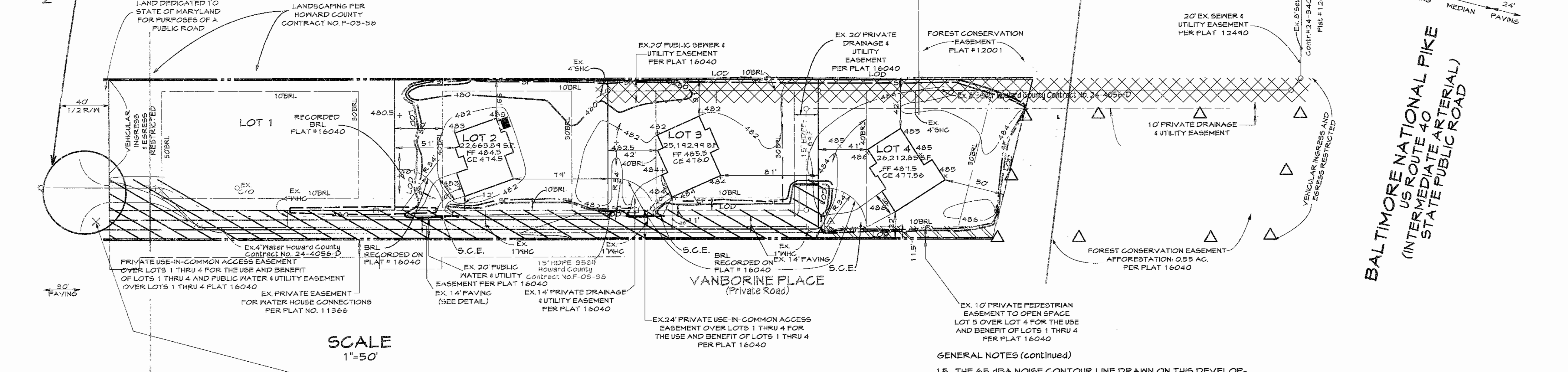
FREDERICK ROAD
MARYLAND ROUTE 144
MINOR ARTERIAL (SCENIC ROAD)
STATE PUBLIC ROAD

STANDARD MSHA RESIDENTIAL APRON TO BE INSTALLED BY SITE DEVELOPER (KNAUFF AND ASSOCIATES) IN ACCORDANCE WITH MSHA ACCESS PERMIT GUIDELINE UNDER F-03-03B.

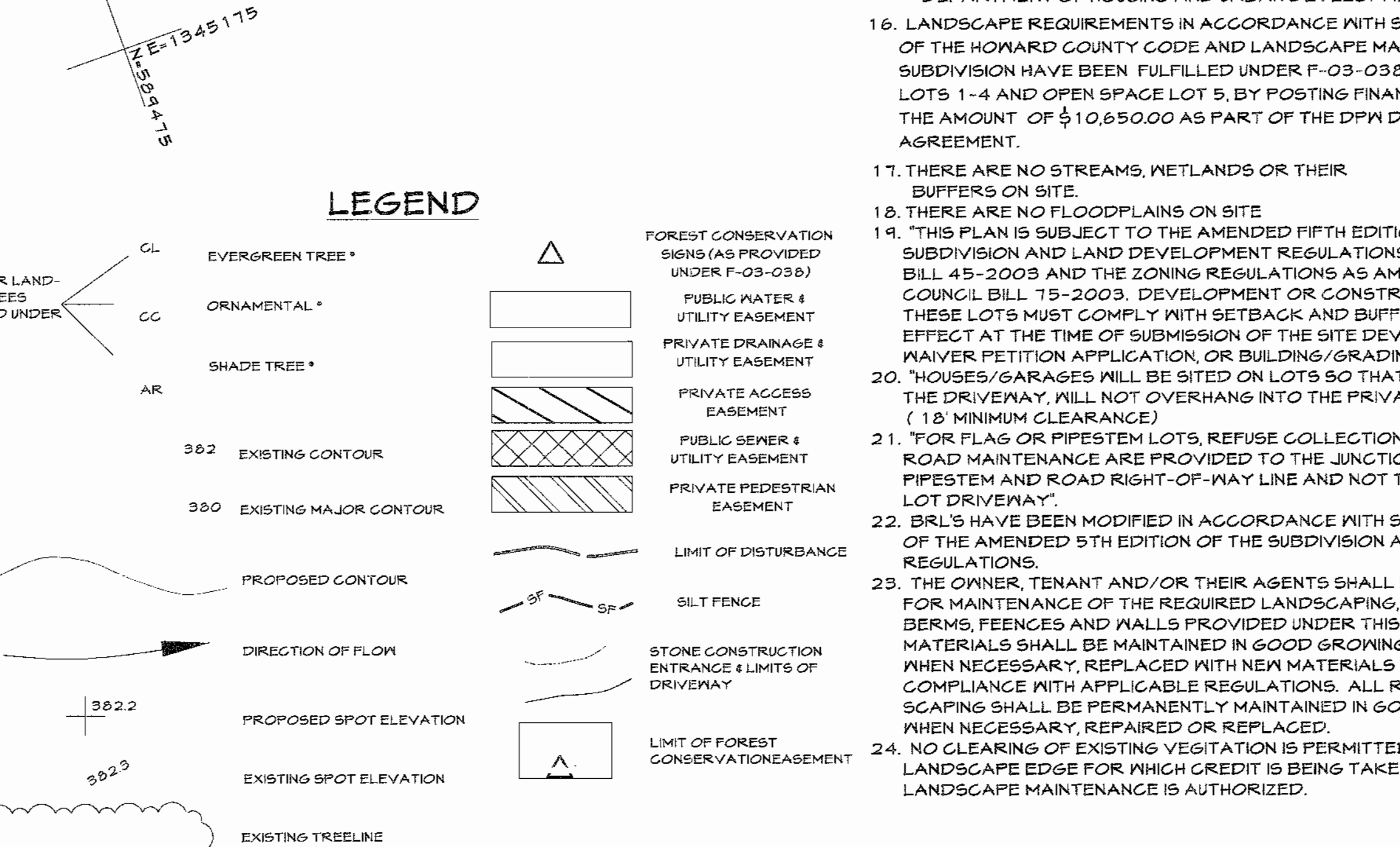
LOT USE & SIZE		
LOT 2	RESIDENTIAL	22,663.89 ft ²
LOT 3	RESIDENTIAL	25,142.94 ft ²
LOT 4	RESIDENTIAL	26,212.85 ft ²

OPTION 3: PREVIOUSLY ADDRESSED (INCLUDING USE OF FC BANK)		FOREST CONSERVATION DATA SUMMARY	
FILE NUMBER:	SDP-05-126	PROJECT/SUBDIVISION NAME:	VANBORINE PLACE
COMMENT ADDRESSED BY: F-03-03B VANBORINE PLACE			

BENCHMARKS
 STA. 161A-N 179682.8211, E410388.3677 - EL- 141.3280 (meters)
 N 589509.388, E 1346343.658 - EL- 463.674 (feet)



LOT #	INV. @ MAIN	INV. @ EASEMENT	MIN. SEWERABLE ELEV.	PROP. BASEMENT ELEV.
2	467.95	467.76	473.47	474.50
3	468.12	468.92	473.00	476.00
4	470.14	470.54	475.00	477.56



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jim Magnus 9-1-05 DATE

USDA NATURAL RESOURCE CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

Heather W. Selwyn 9-1-05 DATE

APPROVED: *[Signature]* 2/14/05 DATE

DEPARTMENT OF PLANNING & ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 9/13/05 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 9/13/05 DATE

DIRECTOR

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Alfred L. Hanzard 8/11/05 DATE

ALFRED L. HANZARD
 PROFESSIONAL ENGINEER REG. NO. 23446

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Patrick Costello 8/11/05 DATE

PATRICK COSTELLO

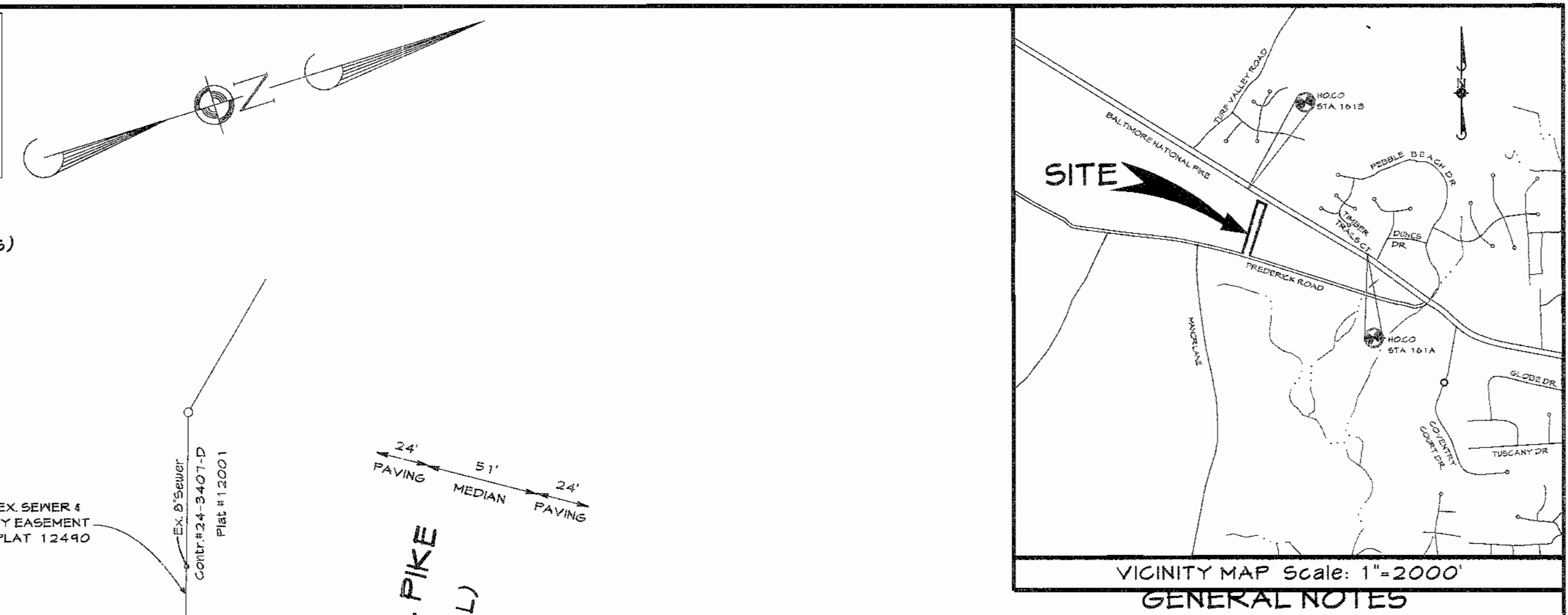
PREVIOUS HOWARD COUNTY FILES

5-01-22, P-02-198
 F-03-38
 WATER AND SEWER CONTRACT NO. 24-4056-D

OWNER / DEVELOPER

FORTY WEST GROUP
 3230 BETHANY LANE
 ELLICOTT CITY, MARYLAND 21042
 410-418-8900 FAX 410-203-9984

SHEET 1 OF 4



- THE SUBJECT PROPERTY IS ZONED R-20 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN.
- 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 (APPLIES FOR RESIDENTIAL SDP'S)
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS, OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- DRIVEWAYS SHALL BE PROVIDED TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH- 12' (14' SERVING MORE THAN ONE RESIDENCE)
 - SURFACE- 6" OF COMPACTED CRUSHER RUN BASE W/ TAR AND CHIP COATING (1-1/2" MIN.)
 - GEOMETRY- MAX. 15% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES)- CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - DRAINAGE ELEMENTS- CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - MAINTENANCE- SUFFICIENT TO INSURE ALL WEATHER USE.

- GENERAL NOTES (continued)**
- THE CONTACTOR 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.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-1177 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM THE VANBORINE PLACE FINAL PLAN WITH 2 FOOT CONTOUR INTERVALS PREPARED BY FSH ASSOCIATES DATED MARCH 5, 2003.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY MONUMENT #S 161A AND 161B WERE USED FOR THIS PROJECT. (SEE VICINITY MAP FOR LOCATION)
 - STORMWATER MANAGEMENT IS PROVIDED PER THE APPROVED VANBORINE PLACE FINAL PLAN (APPROVED 4/28/03)
 - OPV IS NOT REQUIRED
 - WATER QUALITY (WQV) FOR LOTS 2 THRU 4 AND THE DRIVEWAY IS PROVIDED BY DISCONNECTION ROOFS AND DRIVEWAYS.
 - RECHARGE (REV) FOR LOTS 2 THRU 4 AND THE DRIVEWAY IS PROVIDED BY DISCONNECTING THE ROOFS AND DRIVEWAYS UTILIZING THE AREA EQUIVALENT CREDIT.
 - EXISTING UTILITIES ARE BASED ON VANBORINE PLACE FINAL PLAN.
 - ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPERS EXPENSE.
 - SHG ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE. DENOTES PUBLIC FOREST CONSERVATION EASEMENT THE FOREST CONSERVATION EASEMENT SHOWN HEREON HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. SURETY HAS BEEN POSTED AS PART OF DEVELOPER AGREEMENT NO. F-03-03B IN THE AMOUNT OF \$1,801.00 FOR 0.45 ACRES OF ON-SITE AFFORESTATION. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENTS ARE ALLOWED. TOTAL EASEMENT AREA 0.55 AC. +/-
 - FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAILS-

SITE ANALYSIS DATA CHART

- LIMIT OF DISTURBANCE: 3.02 AC. (131,551 FT²)
- CURRENT ZONING: R-20
- PROPOSED USE: SINGLE FAMILY RESIDENTIAL
- NUMBER OF UNITS ALLOWED: 3
- NUMBER OF UNITS PROPOSED: 3
- SUBDIVISION OPEN SPACE REQUIREMENTS PROVIDED UNDER F-03-03B
- HOWARD COUNTY FINAL PLAN # F-03-03B
- ON APRIL 10, 2001 THE PLANNING DIRECTOR APPROVED WAIVER PETITION WP-01-09 FROM SECTION 16.121E(1) TO ALLOW OPEN SPACE LOT 5 TO HAVE ZERO(0) FEET FRONTAGE ON A PUBLIC ROAD SUBJECT TO:
 - PROVIDING A 24' WIDE SHARED ACCESS EASEMENT TO LOTS 1-4 AND;
 - OPEN SPACE LOT 5 SHALL BE DEDICATED TO THE HOMEOWNERS ASSOCIATION.
- HOWARD COUNTY SOILS MAP # 15; GEODETIC CONTROL STATIONS: 161A & 161B
- ASSOCIATED DPZ FILE NUMBERS: 5-01-22, P-02-19, F-03-03B AND WP-01-089
- NUMBER OF PARKING SPACES REQUIRED: 2 PER LOT- 8 BY HOWARD COUNTY ZONING REGULATIONS
- NUMBER OF PARKING SPACES PROVIDED: 2 PER LOT- 8

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO. 12
VANBORINE PLACE	N/A	LOTS 2,3 & 4
PLAT # OR L/F #	GRID #	ZONING
PLAT # 16040	23	R-20
TAX MAP #	16	ELECT. DIST.
2	6022.00	CENSUS TRACT
WATER CODE: J01	SEWER CODE: 602200	

ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
LOT 2	3207 VANBORINE PLACE
LOT 3	3211 VANBORINE PLACE
LOT 4	3215 VANBORINE PLACE

VANBORINE PLACE

LOTS 2 THROUGH 4
 SINGLE FAMILY DWELLINGS AND THE
 SHARED DRIVEWAY WHICH CROSSES AND SERVES THE
 EXISTING DWELLING ON LOT 1

JUNE 2005 SCALE 1" = 50'

TAX MAP 16, GRID 23 PARCEL 12
 2nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

County File No. SDP-05-126

**HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (S 13-105B).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 1:1; b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins/storm must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for permanent seeding (Sec. 5-1), sod (Sec. 5-4), temporary seeding (Sec. 5-1) and mulching (Sec. 5-2). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained:
 - Operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Area Disturbed	0.82 Acres
Total Area of Site	3.22 Acres
Area to be graded or paved	0.24 Acres
Total Cut	535 Cu Yds.
Area to be vegetatively stabilized	0.55 Acres
Total Fill	535 Cu Yds.

 Offsite waste/borrow area location will be to a site with an approved sediment control plan and an approved and open grading permit.
- Any sediment control practice, which is disturbed by grading activity for placement of utilities, must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 - On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Owner building or grading inspection approval may not be authorized until this initial approval by the inspection agency is made.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

- Rev. 9/99
- Topsail Notes**
Construction and Material Specifications
1. Topsail salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsail to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsail specifications - Soil to be used as topsail must meet the following:
 - Topsail shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist at a approved by the appropriate approval authority. Regardless, topsail shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.
 - Topsail must be free of plants or plant parts such as bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsail. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
 - For sites having disturbed areas under 5 acres:
 - Place topsail (if required) and apply soil amendments as specified in 2.00 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil meeting topsail specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

Application	Seeding	Seeding
Rate (lb/ac)	Dates	Depths
N/A Kentucky-31	3/1 to 11/15	1"
Annual Rye	3/1 to 11/15	1/4" - 1/2"
 - Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

- V. Topsoil Application**
- When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.
 - Grades on the areas to be topsoiled, which have been previously established shall be maintained, albeit 4"-8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil.
 - Preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
- Page 3
Topsail Notes
v. Topsail shall not be placed where the topsail or subsoil is in a frozen or muddy condition when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seeded preparation.
- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
 - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

NOTE:
ALL SEDIMENT CONTROL MEASURES SHOWN HEREON ARE TEMPORARY UNLESS OTHERWISE NOTED.

STABILIZATION SPECIFICATIONS

- TEMPORARY SEEDING NOTES**
Scope: Planting short term (no more than 1 year) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.
- Standards:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See G-20 Sec. 1-C.
 - Fertilizer shall consist of a mixture of 10-10-10 and be applied at a rate of 600 lb per acre (15 lb per 1,000 sq. ft.) and will meet the requirements in G-20 Sec. 1-B.
 - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1,000 sq. ft.) and shall meet the requirements in G-20 Sec. 1-B.
 - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in G-20 Sec. 1-C.
 - Mulching will be applied immediately after seeding and will need to meet the requirements in G-20 Sec. 1-F, G and H.
 - Seeding mixtures shall be selected from or will be equal to those on Table 26.
 - The following is one option, approved equals may be used.

Temporary Seeding Summary

No. Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths
N/A Kentucky-31	20	3/1 to 11/15	1"
Annual Rye	80	3/1 to 11/15	1/4" - 1/2"

- PERMANENT SEEDING NOTES**
Scope: Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 1 year.
- Standards:** The following notes shall conform to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service, and the State Soil Conservation Committee.
- The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See G-20 Sec. 1-C.
 - For sites over 5 ac, soil tests will be performed to determine the exact mixture and application rates for both lime and fertilizer. Soil tests will be prepared by the University of Maryland or a recognized commercial laboratory. If the existing soil does not meet the minimum conditions as stated in G-20 Sec. 1-C-II, then topsail will need to be obtained that meets these conditions and applied so as to meet the requirements in G-21.
 - For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply.
 - Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates:

N=40 lb per acre (2 lb per 1,000 sq. ft.)	P2O5=175 lb per acre (4 lb per 1,000 sq. ft.)
K2O=175 lb per acre (4 lb per 1,000 sq. ft.)	Fertilizer shall meet the requirements in G-20 Sec. 1-B.
 - Lime shall be applied at a rate of 2 tons per acre (100 lb per 1,000 sq. ft.) and shall meet the requirements in G-20 Sec. 1-B.
 - Seed tags shall be made available to the inspector to verify the type and rate of seed used. The seed must meet the requirements in G-20 Sec. 1-C.
 - Mulching will be applied immediately after seeding and will need to meet the requirements in G-20 Sec. 1-F, G and H.
 - Refer to G-20 Sec. 1-E for Methods of seeding specifications.
 - Refer to G-20 Sec. 4 for Sod specifications.
 - Refer to G-20 Sec. 5 for Turfgrass Establishment specifications.
 - Seeding mixtures shall be selected from or will be equal to those on Table 25.
 - The following is one option, approved equals may be used.

Permanent Seeding Summary

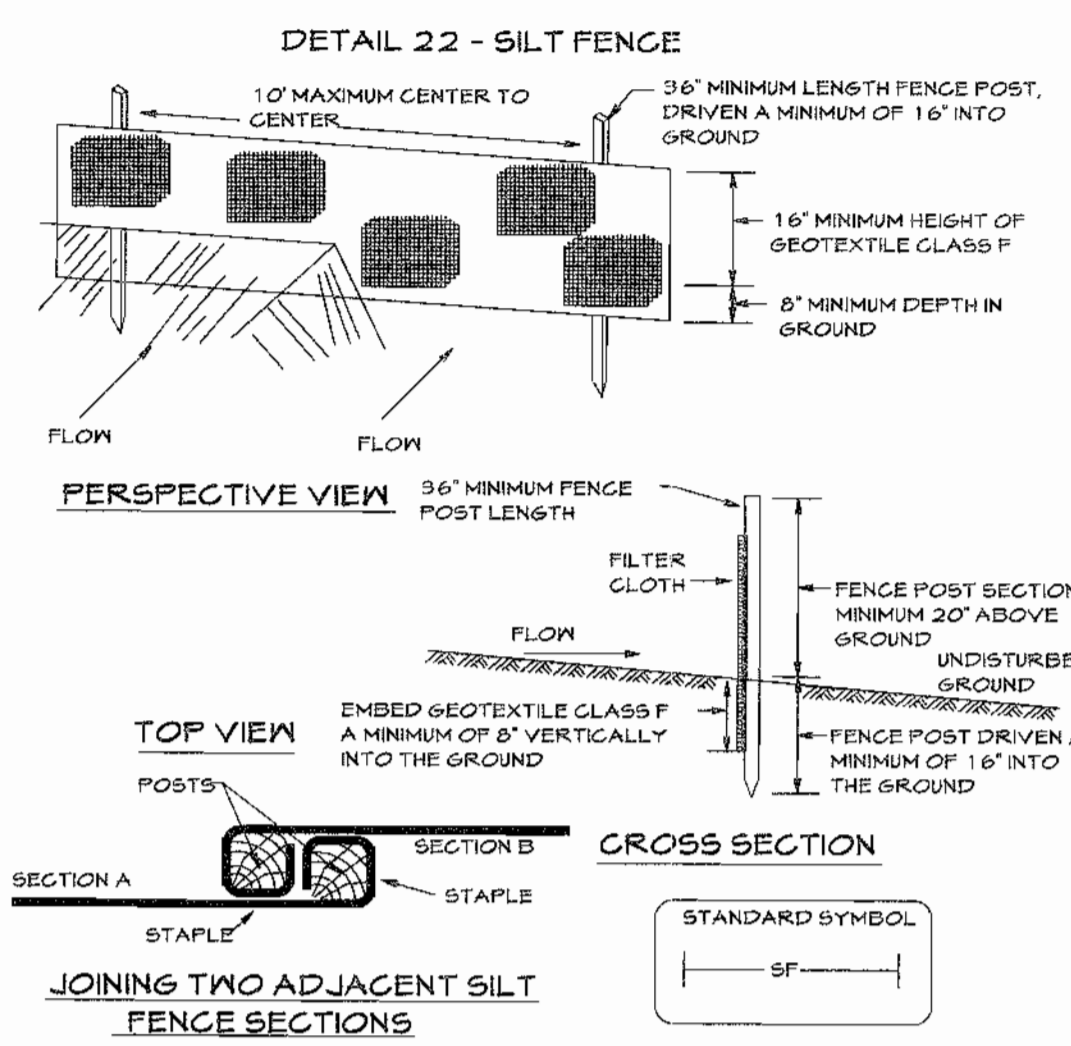
No. Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths
N/A Triple Fine Fescue	160	3/1 to 10/30	1"-2"
Perennial Rye	40	3/1 to 10/30	1"-2"

Tracking note:
On areas where the slope is 3:1 or steeper and the height is 8' or greater, contractor shall track the slope using cleared dozer prior to placing asphalt binder. Dozer shall run up-and-down so that clear marks are horizontal. Where tracking is required, it shall be done from existing grade level to finished grade level within the limits established by the 8' height criteria.

- UTILITY CONSTRUCTION NOTES**
- Place all excavated material on the high side of the trench.
 - Only do as much work as can be done in one day so backfilling, final grading, and permanent stabilization can occur.
 - Any sediment control measures disturbed by the utility construction will be repaired the same day.
- STOCKPILE/TOPSOIL NOTES**
- Stockpiling will not be allowed on any impervious area.
 - All stockpiles left at the end of the day will need to be temporarily stabilized until they are again disturbed, unless they are within existing perimeter sediment controls.
 - All stockpile areas shall be confined within perimeter controls. In the event that stockpile areas must be located outside disturbed areas, the location shall be as directed by the inspector in the field.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
- INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN PER LOT. (2 DAYS)
- CONSTRUCT DWELLING. (90 DAYS)
- FINE GRADE LOT AND INSTALL DRIVEWAY. (1 DAY)
- INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
- INSTALL LANDSCAPING. (1 DAY)
- ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E 4 S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)



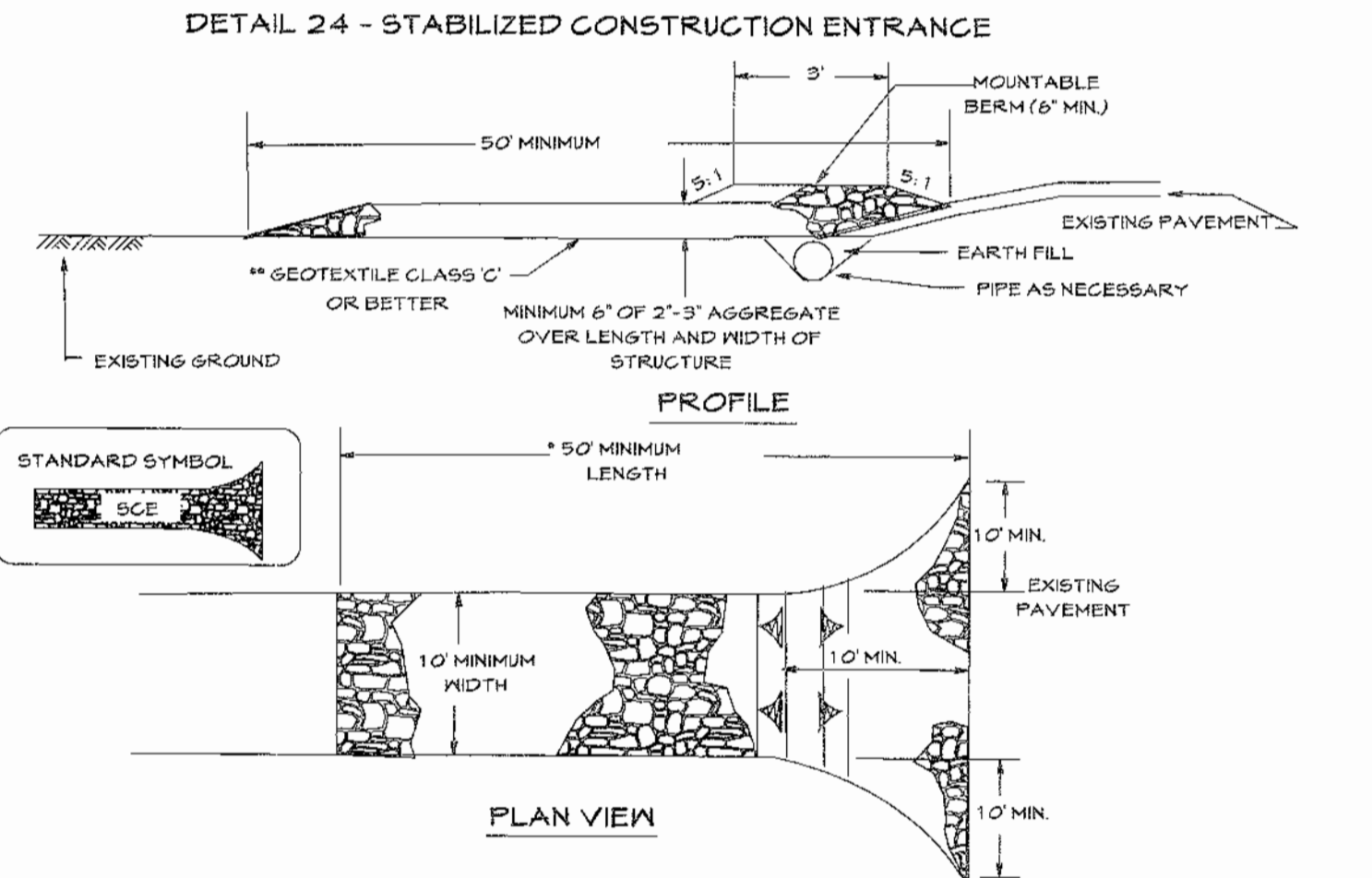
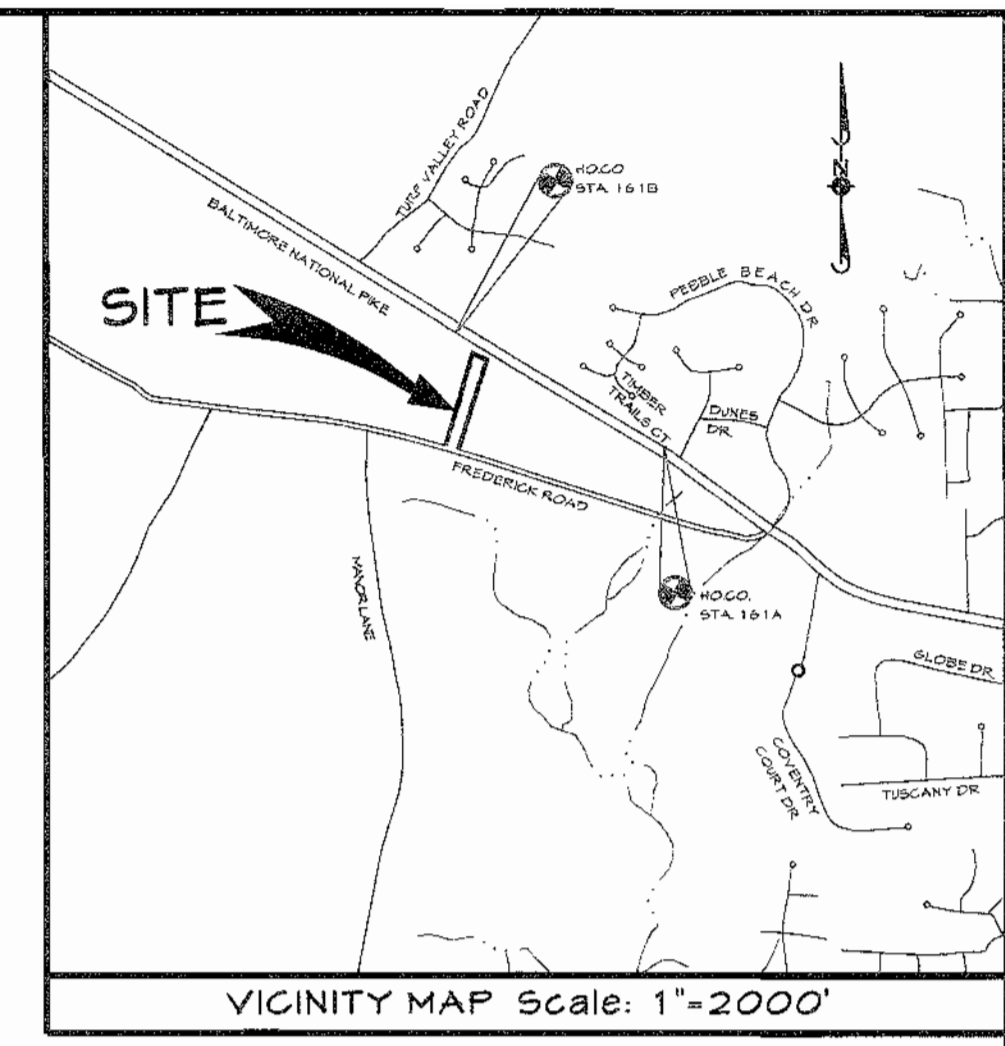
- Construction Specifications**
- FENCE POSTS SHALL BE A MINIMUM OF 3'6" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT OR 1 1/2" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHTS NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
 - GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE GLASS F:

TENSILE STRENGTH	50 LBS/(IN MIN)	TEST: MSMT 504
TENSILE MODULUS	20 LBS/(IN MIN)	TEST: MSMT 501
FLOW RATE	0.3 GAL FT ² / MINUTE (MAX)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN)	TEST: MSMT 322
 - WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
 - SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.



- LENGTH - MINIMUM OF 30' (30' FOR SINGLE RESIDENCE LOT).
- WIDTH - 1'0" MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO FLAGGING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE FLAGGED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 3:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jan Morgan 9-1-05 DATE

USDA-NATURAL RESOURCES CONSERVATION SERVICE
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

Jeffrey W. Schomig 9-1-05 DATE

APPROVED: *Condy Hensel* 9/14/05 DATE

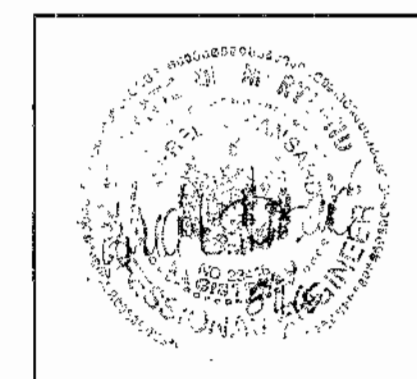
CHIEF, DIVISION OF LAND DEVELOPMENT

William J. Schomig 9/16/05 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

William J. Schomig 9/16/05 DATE

DIRECTOR



ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Alfred L. Hansard 9/16/05 DATE

ALFRED L. HANSARD
PROFESSIONAL ENGINEER REG. NO. 23446

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Alfred L. Hansard 9/16/05 DATE

OWNER / DEVELOPER

FORTY WEST GROUP
3230 BETHANY LANE
ELLCOTT CITY, MARYLAND 21042
410-418-8900 FAX 410-203-9984

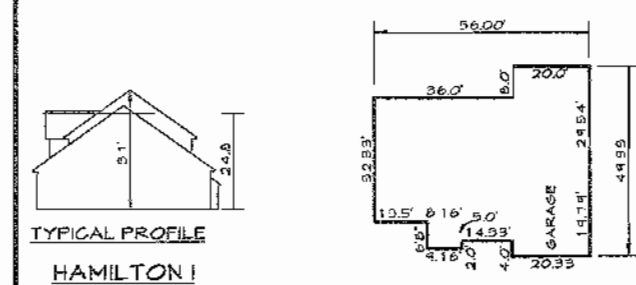
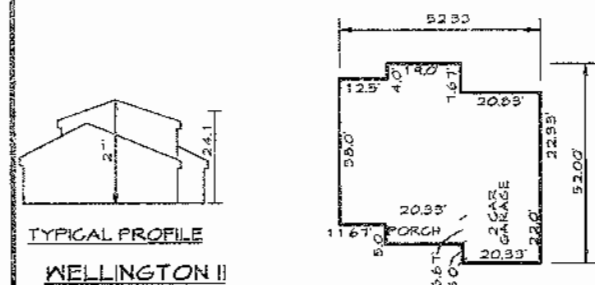
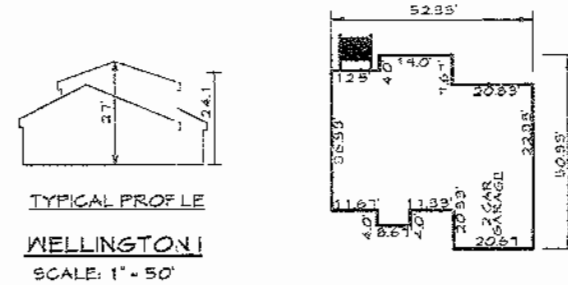
VANBORINE PLACE
LOTS 2 THROUGH 4
SEDIMENT CONTROL NOTES AND DETAILS
SINGLE FAMILY DWELLINGS AND THE SHARED DRIVEWAY WHICH CROSSES AND SERVES THE EXISTING DWELLING ON LOT 1

JUNE 2005 TAX MAP 16, GRID 23 PARCEL 12 SCALE 1" = 50'

2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
County File No. SDP-05-126

CAD Drawing File Name:

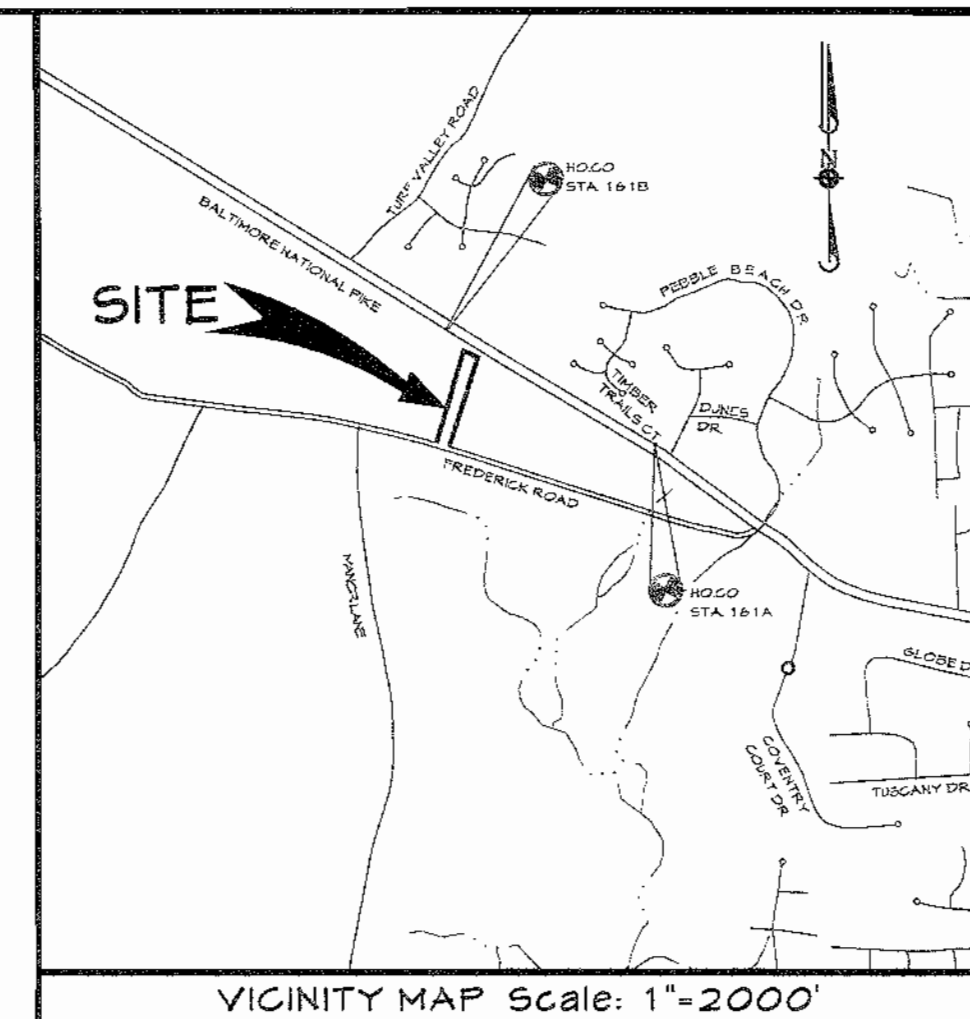
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LOT 2

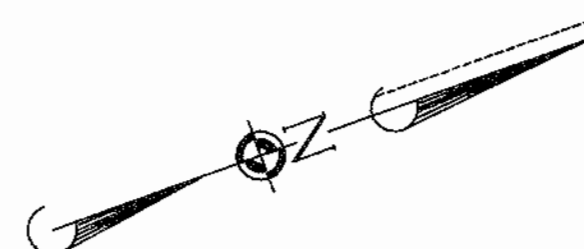
LOT 3

LOT 4

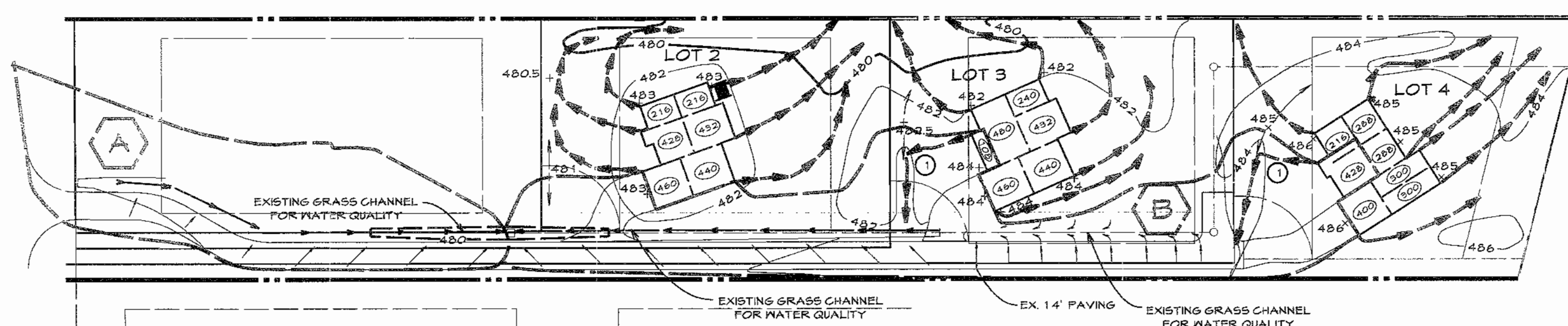


LEGEND

- ROOFTOP DRAINAGE DIVIDES
- DISCONNECT FLOW PATHS (15' MIN. @ 5% OR LESS)
- FLOW PATH OF EXISTING WQ CHANNEL AND EXISTING DRIVEWAY PAVING
- ◆ PROPOSED SPOT ELEVATIONS
- ROOFTOP AREA SQFT.
- ⊗ DRAINAGE AREA DESIGNATION
- DRAINAGE AREA BOUNDARY



FREDERICK ROAD
 MARYLAND ROUTE 144
 MINOR ARTERIAL (SCENIC ROAD)
 STATE PUBLIC ROAD



VANBORINE PLACE
(Private Road)

BALTIMORE NATIONAL PIKE
 US ROUTE 40
 (INTERMEDIATE ARTERIAL)
 STATE PUBLIC ROAD

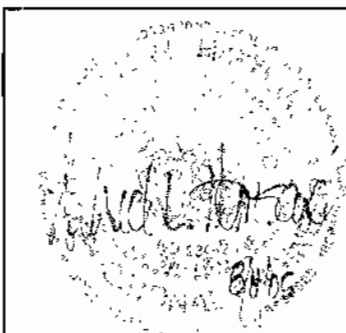
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
Jim May 9-1-05 DATE
 USDA NATURAL RESOURCES CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

APPROVED: *Jeffrey W. Schomig* 9-1-05 DATE
 HOWARD SCD

DEPARTMENT OF PLANNING & ZONING
Janet Hamilton 9/14/05 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
Michael... 9/13/05 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Janet... 8/24/05 DATE
 DIRECTOR



FREDERICK OFFICE: 5711 Pegasus Court, Suite B, Frederick, MD 21704-8318
 WESTMINSTER OFFICE: 439 East Main Street, Westminster, MD 21157-5539



Alfred L. Hansard
 Professional Engineer Registration No. 23446

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Alfred L. Hansard 8/1/05 DATE
 PROFESSIONAL ENGINEER REG. NO. 23446

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
Forty West Group 8/1/05 DATE

① DRAINS TO OPEN SECTION ROAD PER 7/03 BULLETIN DISCONNECT REDUCED TO 60' (75' PROVIDED)

OWNER / DEVELOPER

FORTY WEST GROUP
 3230 BETHANY LANE
 ELLICOTT CITY, MARYLAND 21042
 410-418-8900 FAX 410-203-9984

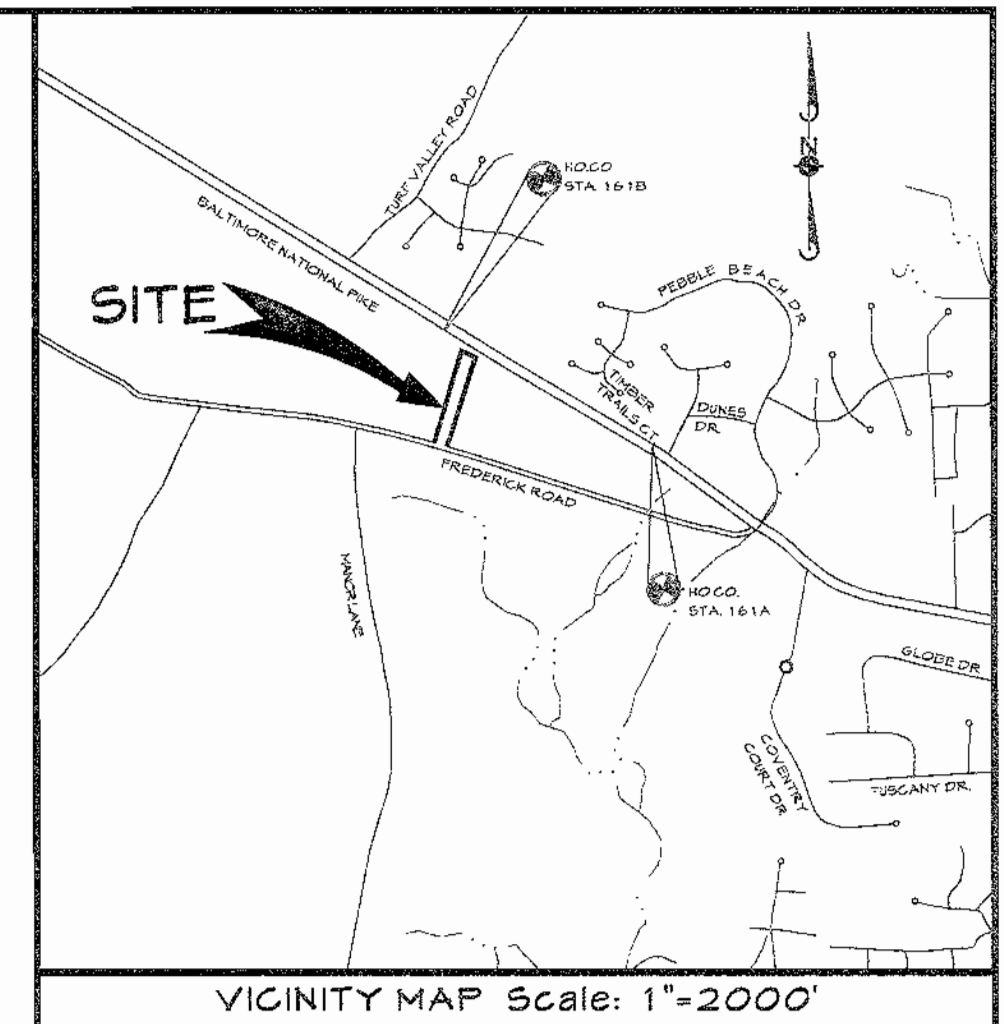
SHEET 3 OF 4

VANBORINE PLACE
 LOTS 2 THROUGH 4
 SINGLE FAMILY DWELLINGS AND THE SHARED DRIVEWAY WHICH CROSSES AND SERVES THE EXISTING DWELLING ON LOT 1
LOT MATRIX PLAN
 AND SWM/ WQ DISCONNECT/ TREATMENT PLAN
 TAX MAP 16, GRID 23 PARCEL 12
 2nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

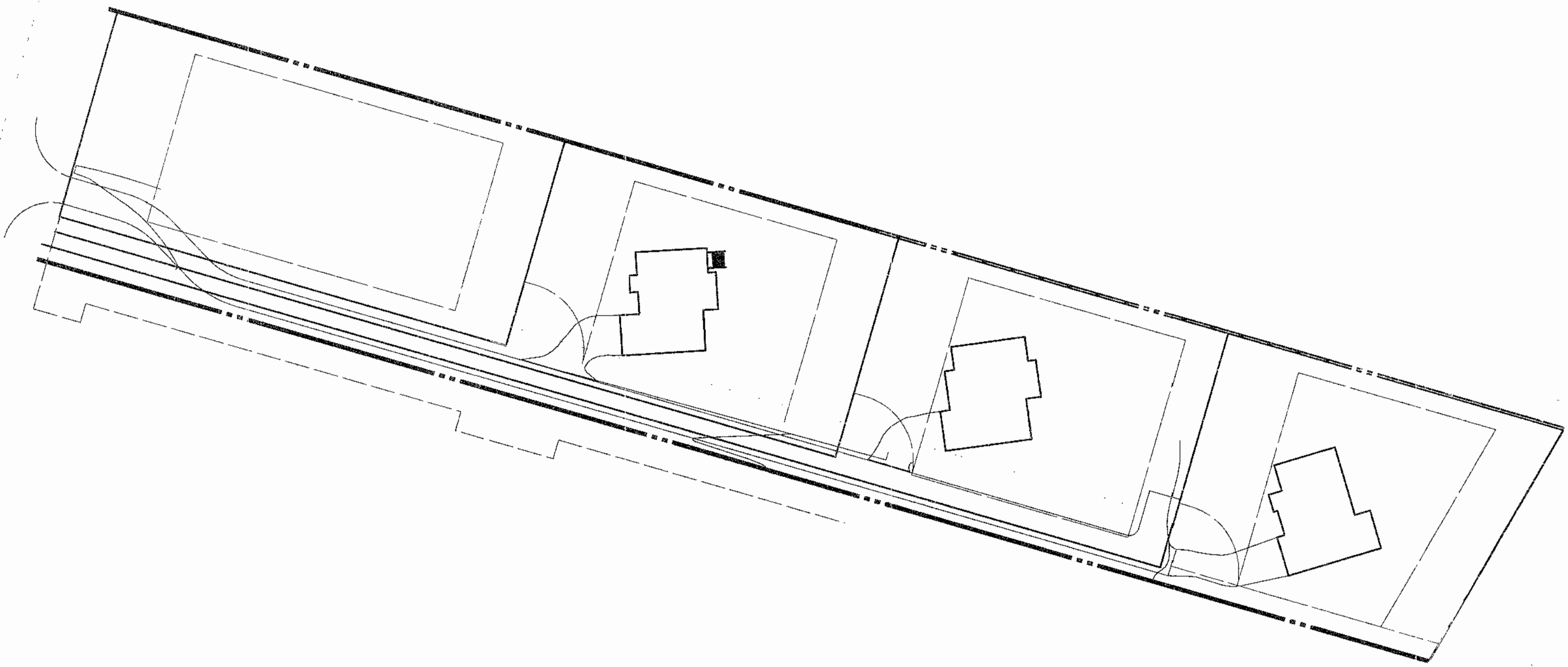
County File No. SDP-05-126

CAD Drawing File Name:

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FREDERICK ROAD
MARYLAND ROUTE 144
MINOR ARTERIAL (SCENIC ROAD)
STATE PUBLIC ROAD



FREDERICK ROAD
MARYLAND ROUTE 144
INTERMEDIATE ARTERIAL (SCENIC ROAD)
STATE PUBLIC ROAD

SOIL SYMBOL	SOIL SERIES	HYDROLOGIC SOIL GROUP
ChA	CHESTER SILT LOAM	B
ChC2	CHESTER SILT LOAM	B
ChB2	CHESTER SILT LOAM	B
MgC2	MANOR GRAVELLY LOAM	B
MID2	MANOR LOAM	B
MID3	MANOR LOAM	B
GnA*	GLENVILL SILT LOAM	C

* HYDRIC SOIL

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

John M. ... 9-1-05
DATE

HOWARD SCD APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING & ZONING
Cinda ... 9/1/05
DATE

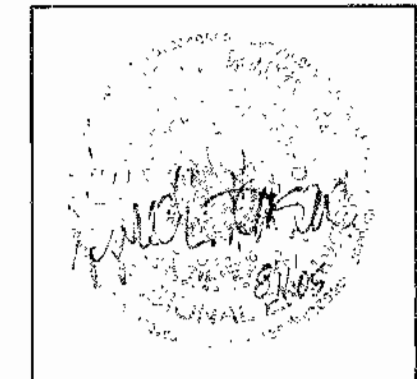
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 9/1/05
DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 9/1/05
DATE

DIRECTOR
[Signature] 9/1/05
DATE



FREDERICK OFFICE: 3111 Reggus Court, Suite B, Frederick, MD 21704-8318, (301) 662-1799, FAX (301) 662-3004
WESTMINSTER OFFICE: 439 East Main Street, Westminster, MD 21157-5539, (410) 848-1799, FAX (410) 848-1791



ENGINEER'S CERTIFICATE

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Alfred L. Hansard 9/1/05
ALFRED L. HANSARD DATE
PROFESSIONAL ENGINEER REG. NO. 23446

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[Signature] 9/1/05
DATE

SHEET 4 OF 4

OWNER / DEVELOPER

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3230 BETHANY LANE
ELLCOTT CITY, MARYLAND 21042
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VANBORINE PLACE

LOTS 2 THROUGH 4
SINGLE FAMILY DWELLING AND THE
SHARED DRIVENWAY WHICH CROSSES AND SERVES THE
EXISTING DWELLING ON LOT 1
SOILS PLAN
TAX MAP 16, GRID 23 PARCEL 12
2 nd. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
County File No. SDP-05-126

CAD Drawing File Name:

10/1/05 10:00 AM