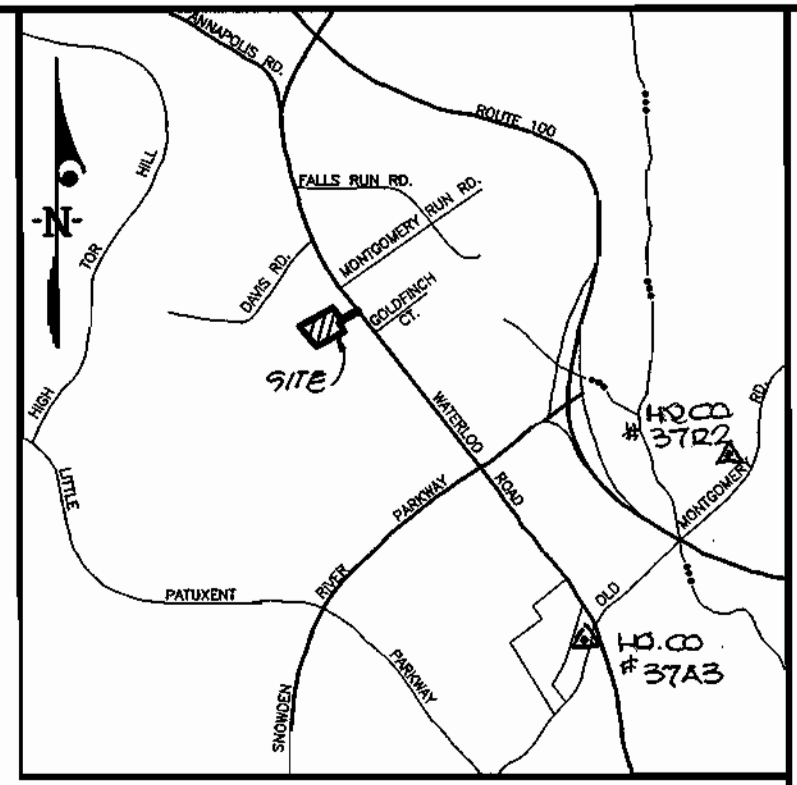
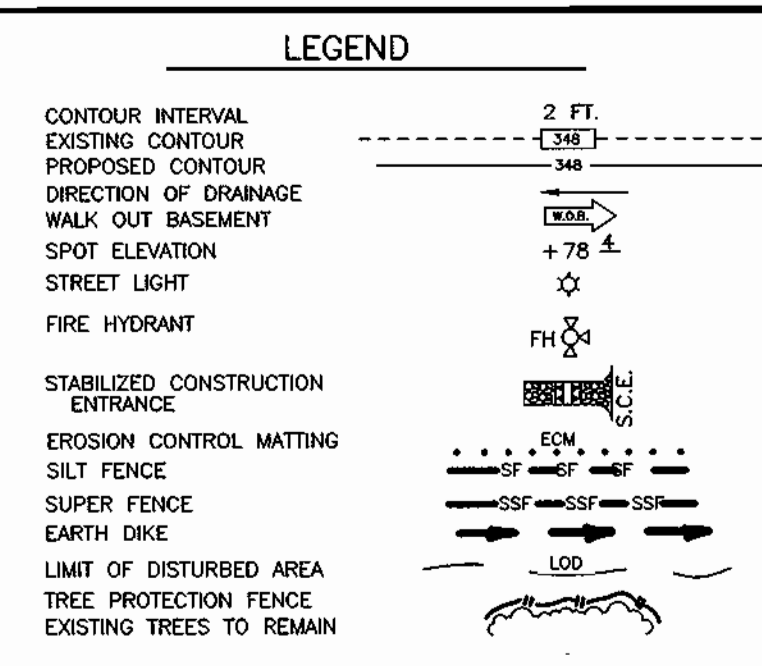


ADDRESS CHART

LOT NUMBER	STREET ADDRESS
1	5664 WATERLOO ROAD
2	5662 WATERLOO ROAD
3	5660 WATERLOO ROAD
4	5658 WATERLOO ROAD



BENCHMARKS:

Howard County Station #37R2
 N. 562,611.457
 E. 1,371,544.484
 ELEV. = 400.40'

Howard County Station #37A3
 N. 561,130.798
 E. 1,369,913.218
 ELEV. = 395.65'

- GENERAL NOTES:**
- Subject property is zoned: R-20 per the 10-18-93 Comprehensive Plan.
 - The total area included in this submission is: 2.41 Ac.
 - The total number of lots included in this submission is: 4
 - Improvement to property: Single Family Detached
 - Department of Planning and Zoning reference file numbers: P-02-14
 - Utilities shown as existing are taken from approved Water and Sewer plans Contract #248-W-547-5-B
 - Any damage to county owned rights-of-way shall be corrected at the developer's expense.
 - All roadways are public and existing.
 - Landscape, Forest Conservation and SWM Plans, Topography dated March 2001.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments Numbers: 37R2 & 37A3
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least 5 days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any setback.
 - For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R.6.03 & R.6.05.
 - In accordance with Section 128 of the Ho. Co. zoning regulations, bay windows, chimneys or exterior stairways not more than 16 feet in width may project not more than 4 feet into any setback; porches, or decks, open or enclosed may project not more than 10 feet into the front or rear yard setback.
 - The minimum setbacks for structures shall be as shown on approved Plat #15699
 - Water quality and quantity treatment for the proposed roadways and lots is being provided by bioretention facility, this facility will be privately owned and maintained by the homeowners association.
 - No clearing, grading or construction is permitted within the required wetland, stream buffers or forest conservation easement except for the work associated with the approved construction plans. All forest to remain within the areas shown as "Forest Conservation Easement" meet the minimum requirements of the forest conservation act.
 - Driveways shall be provided prior to residential occupancy to ensure safe access for fire and emergency vehicles per the following minimum requirements:
 - Width - 12 Feet (14 Feet serving more than one resident)
 - Surface - 6 Inches of compacted crusher run base with tar and chip coating.
 - Geometry - Minimum 15% grade, maximum 10% grade change and minimum of 45-foot turning radius.
 - Structures (Culvert/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.
 - Structure Clearances - Minimum 12 feet.
 - Maintenance - Sufficient to ensure all weather use.
 - Wetland delineation prepared by Wildman Environmental Services, Inc. as per plan F-02-14.
 - The Forest Conservation obligation will be met by the placement of 0.36 acres (15,681.6 sq. ft.) of forestation in a Forestation Conservation Easement area per the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act as per plan F-02-14.
 - Landscaping for lots 1 thru 4 has been provided in accordance with section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required landscaping has been posted as part of the DPW Developers Agreement in the amount of \$8,100.00 as per plan F-02-14.

SPECIAL NOTES:

This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Final Plan ESWM Plan F-02-14

OWNER/DEVELOPER

HAMILTON REED, LLC
 6000 MAIN STREET
 ELLICOTT, MARYLAND 21043

SUBDIVISION NAME		SECTION/AREA	LOTS/PARCELS	
WATERLOO ROAD PROPERTY			LOTS 1-4 PARCEL 721	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DIST.
15699	1	R-20	37	6TH
CENSUS TRACT		SEWER CODE		
6066.02				

CLARK · FINEFROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED	BC	SITE DEVELOPMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN	SCALE
DRAWN	BC / ZH		
CHECKED		WATERLOO ROAD PROPERTY	DRAWING
DATE	3-05-03		
		TAX MAP 37 PARCEL 721	JOB NO.
		SIXTH (6TH) ELECTION DISTRICT	02-090
		HOWARD COUNTY, MARYLAND	FILE NO.
		ELLICOTT CITY, MARYLAND 21043	02-090X

SHEET INDEX

NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN - SEDIMENT AND EROSION CONTROL PLAN
2	SEDIMENT AND EROSION CONTROL DETAILS

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Stephan F. Forney
 NAME DATE 3-24-03

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 prepared in accordance with the requirements of the Howard Soil Conservation District.

G. NELSON CLARK
 NAME DATE 4-3-03



Reviewed for HOWARD S.C.D. and meet Technical Requirements

Signature: Jim Wagner 8/4/03
 Date: 8/4/03
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: Jim Wagner 8/4/03
 Approved

APPROVED: DEPARTMENT OF PLANNING & ZONING

Signature: [Redacted] 8/5/03
 DATE: 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

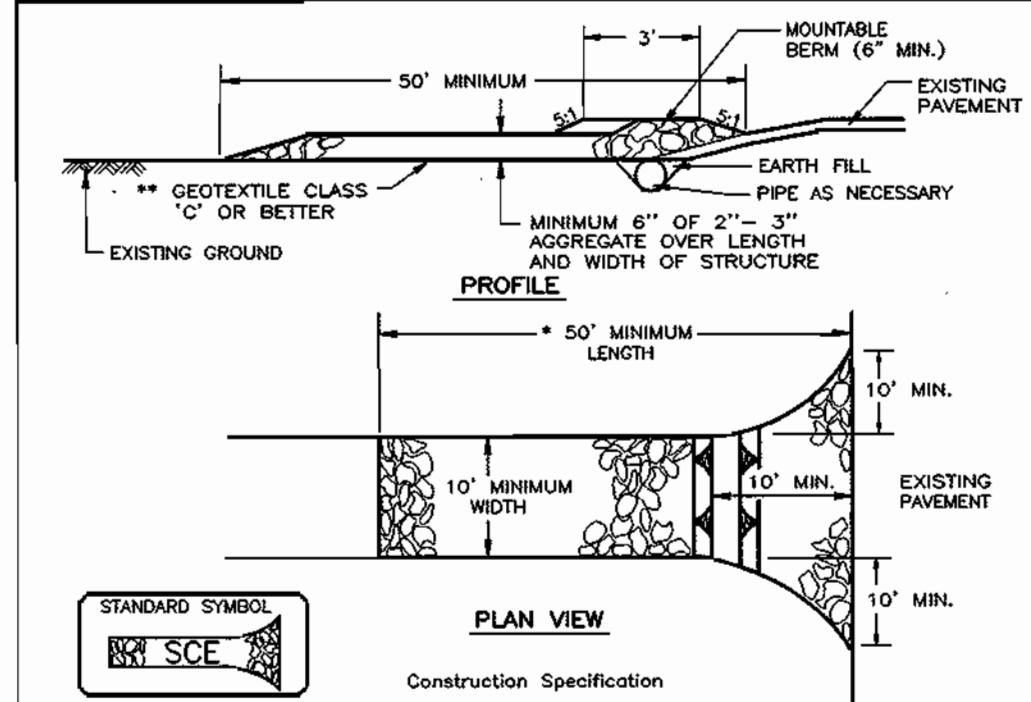
Signature: [Redacted] 8/5/03
 DATE: 8/5/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: [Redacted]
 DATE: 8/14/03
 DIRECTOR

VILLAGE OF LONGREACH
 SEC 1, AREA 11
 PLAT # 8324
 ZONED: NT

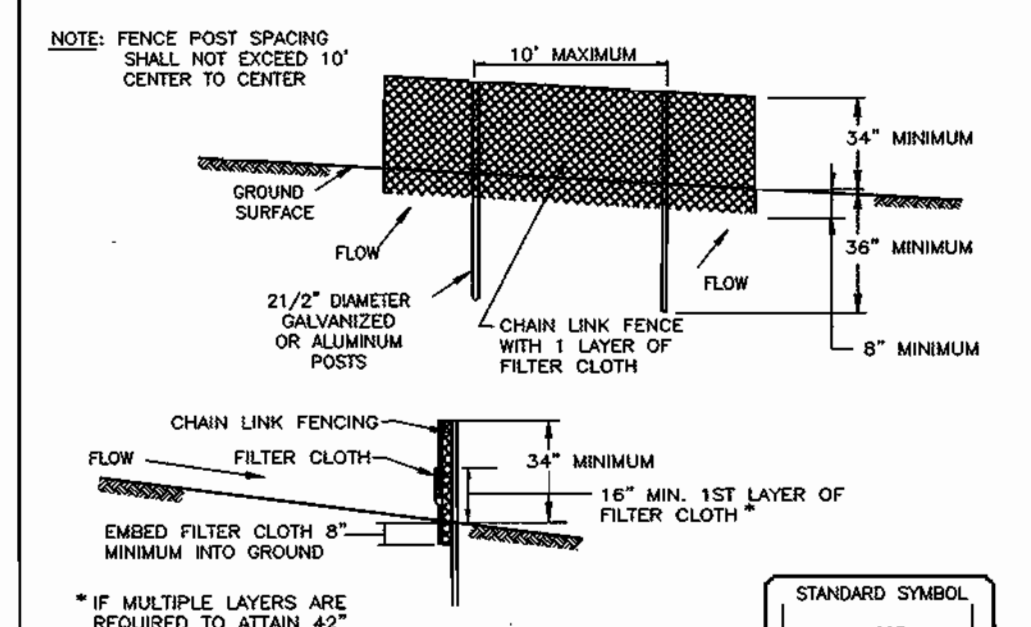
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DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



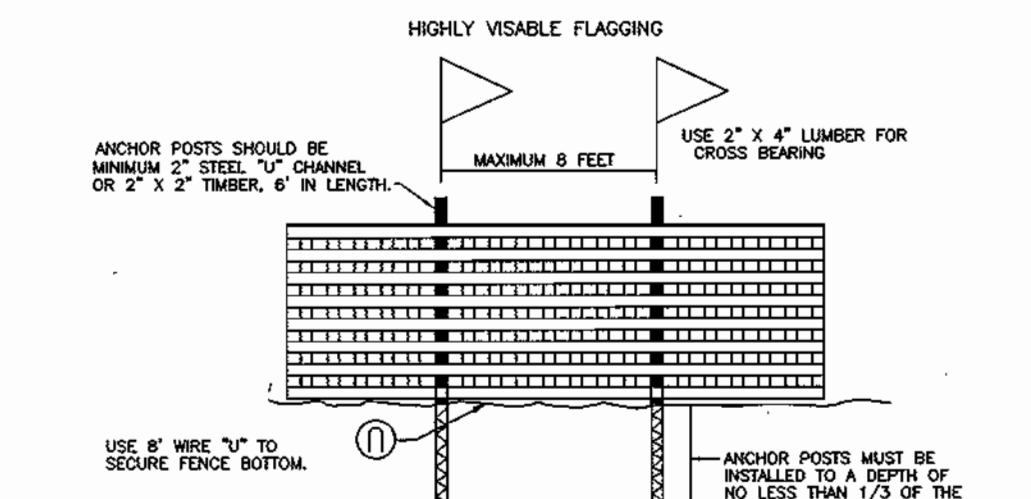
- Construction Specifications**
- Length - minimum of 50' (* 30' for a single residence lot).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
 - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed 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 placed through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable curb with 21 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.

DETAIL 33 - SUPER SILT FENCE



- Construction Specifications**
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
 - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - Filter cloth shall be embedded a minimum of 8" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
 - Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
 - Filter cloth 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 Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft ² /minute (max.)	Test: MSMT 322
Filtration Efficiency	75% (min.)	Test: MSMT 322

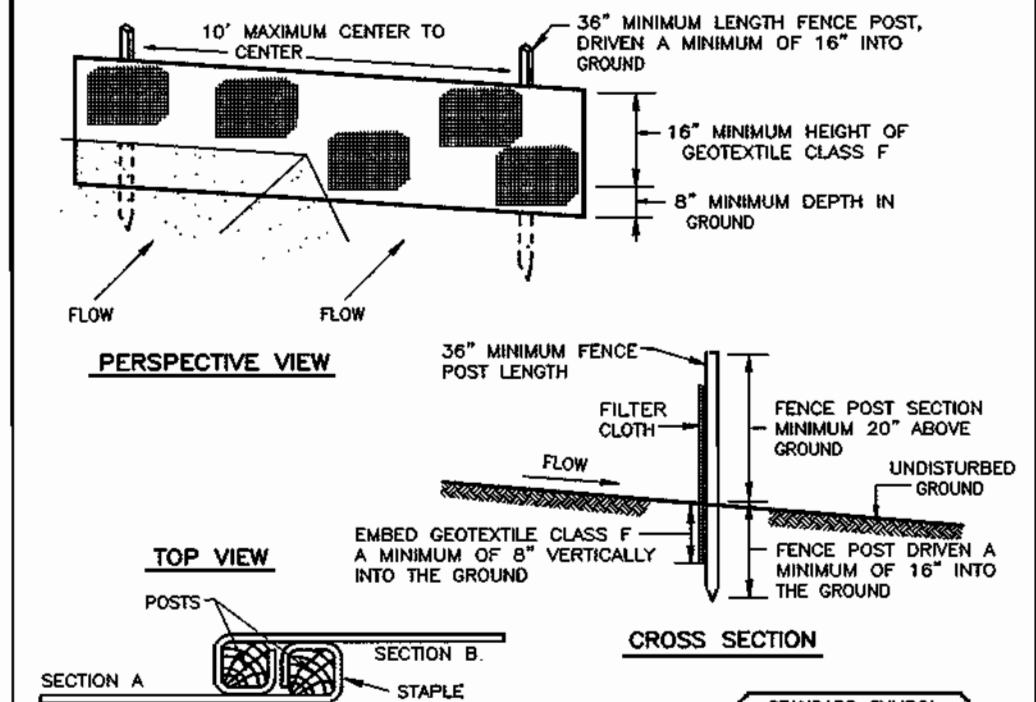


- NOTES:**
- Forest protection device only.
 - Retention area will be set as part of the review process.
 - Boundaries of retention area should be staked and flagged prior to installing device.
 - Root damage should be avoided.
 - Protection device should be used.
 - Device should be maintained throughout construction.

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL

APPROVED: DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division DATE 5/5/03
 Chief, Division of Land Development DATE 5/5/03
 Director DATE 6/12/03

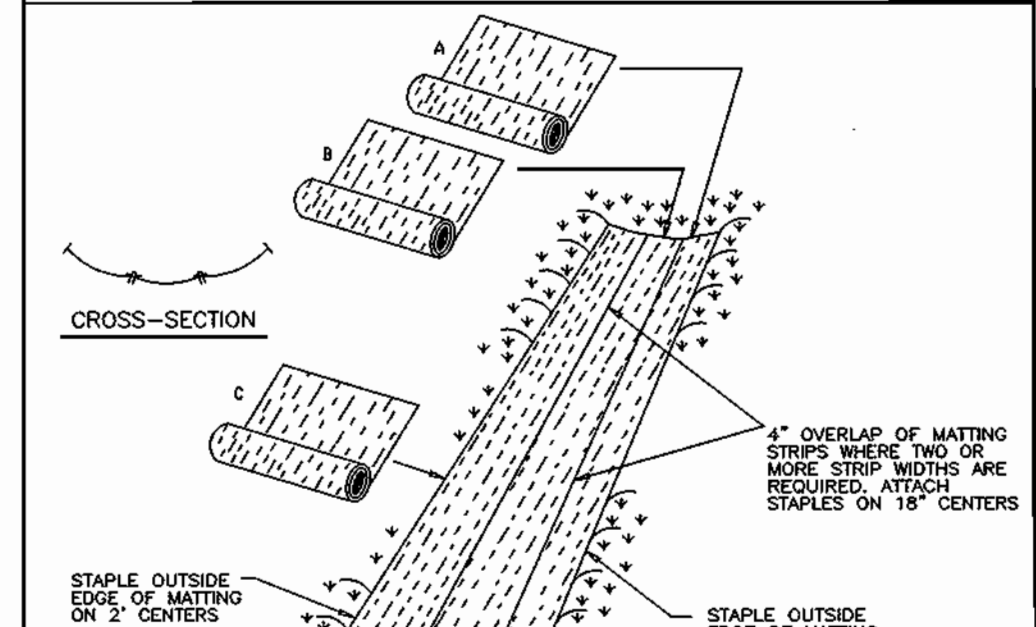
DETAIL 22 - SILT FENCE



- Construction Specifications**
- Fence posts shall be a minimum of 36" long, driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing 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 Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft ² /minute (max.)	Test: MSMT 322
Filtration 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 siltage occurs or when sediment accumulation reaches 50% of the fabric height.

DETAIL 30 - EROSION CONTROL MATTING



- Construction Specifications**
- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
 - Staple the 4" overlap in the channel center using an 18" spacing between staples.
 - Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
 - Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
 - Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
 - The discharge end of the matting liner should be similarly secured with 2 double rows of staples.
- Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition
 Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
 To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetable growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with lime is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil 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 Experimental Station.
 - Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil 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 a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, 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 topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.)
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use soil. Option (3) Seed with 60 lbs./acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (6 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (6 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.)

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass (5.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (6 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (6 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT AND EROSION CONTROL NOTES

1. 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 (313-1855).

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.

3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:

- 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1
- 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol.1, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. 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 seedings, sod, temporary seeding and mulching (Sec. 6). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. SITE ANALYSIS:

Total Area of Site:	2.41 ACRES
Area Disturbed:	1.05 ACRES
Area to be roofed or paved:	0.98 ACRES
Area to be vegetatively stabilized:	0.63 ACRES
Total Cut:	1100 CU.YD.
Total Fill:	3000 CU.YD.
Offsite Waste/Borrow Area Location:	

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

10. 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. Other building or grading inspection approvals may not be authorized until the initial approval by the inspection agency is made.

11. Trenches for the construction of utilities shall be backfilled and stabilized within one working day, or is limited to three pipe lengths.

12. The total amount of earth dikes = 530 LF.

13. The total amount of super silt fence = 170 LF.

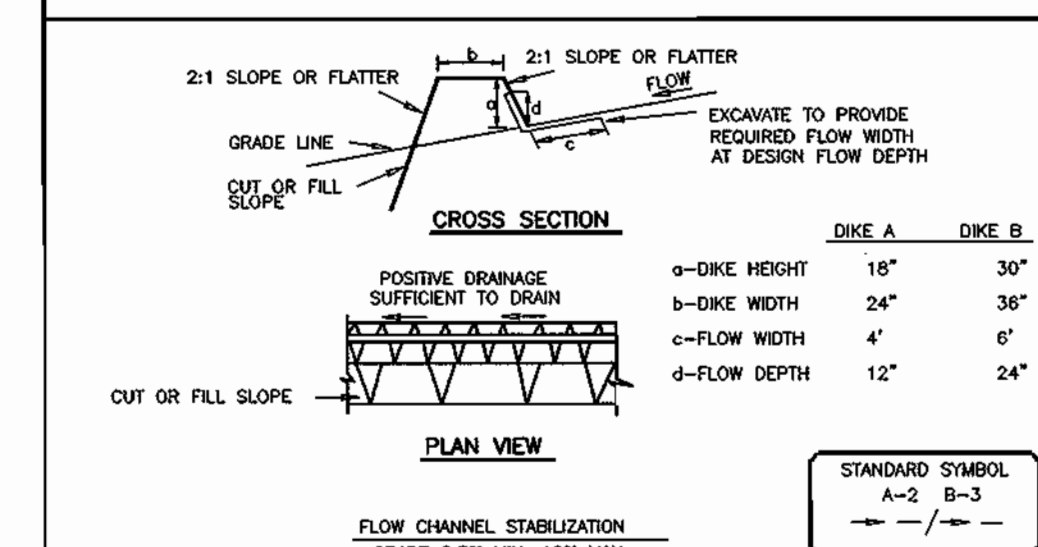
14. The total amount of 6'x12' FENCE = 70 LF.

* It is the responsibility of the contractor to identify the spot/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade and temporarily stabilize.	30
5. Construct structures, sidewalks and driveways.	60
6. Final grade, install Erosion Control Matting and stabilize in accordance with standards and specifications.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

DETAIL 1 - EARTH DIKE



- Construction Specifications**
- All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1:2.
 - Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 - Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
 - All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
 - The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 - Fill shall be compacted by earth moving equipment.
 - All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
 - Inspection and maintenance must be provided periodically and after each rain event.

DEVELOPER'S/BUILDER'S CERTIFICATE

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Signature: Stephen F. Longy DATE: 3-24-03

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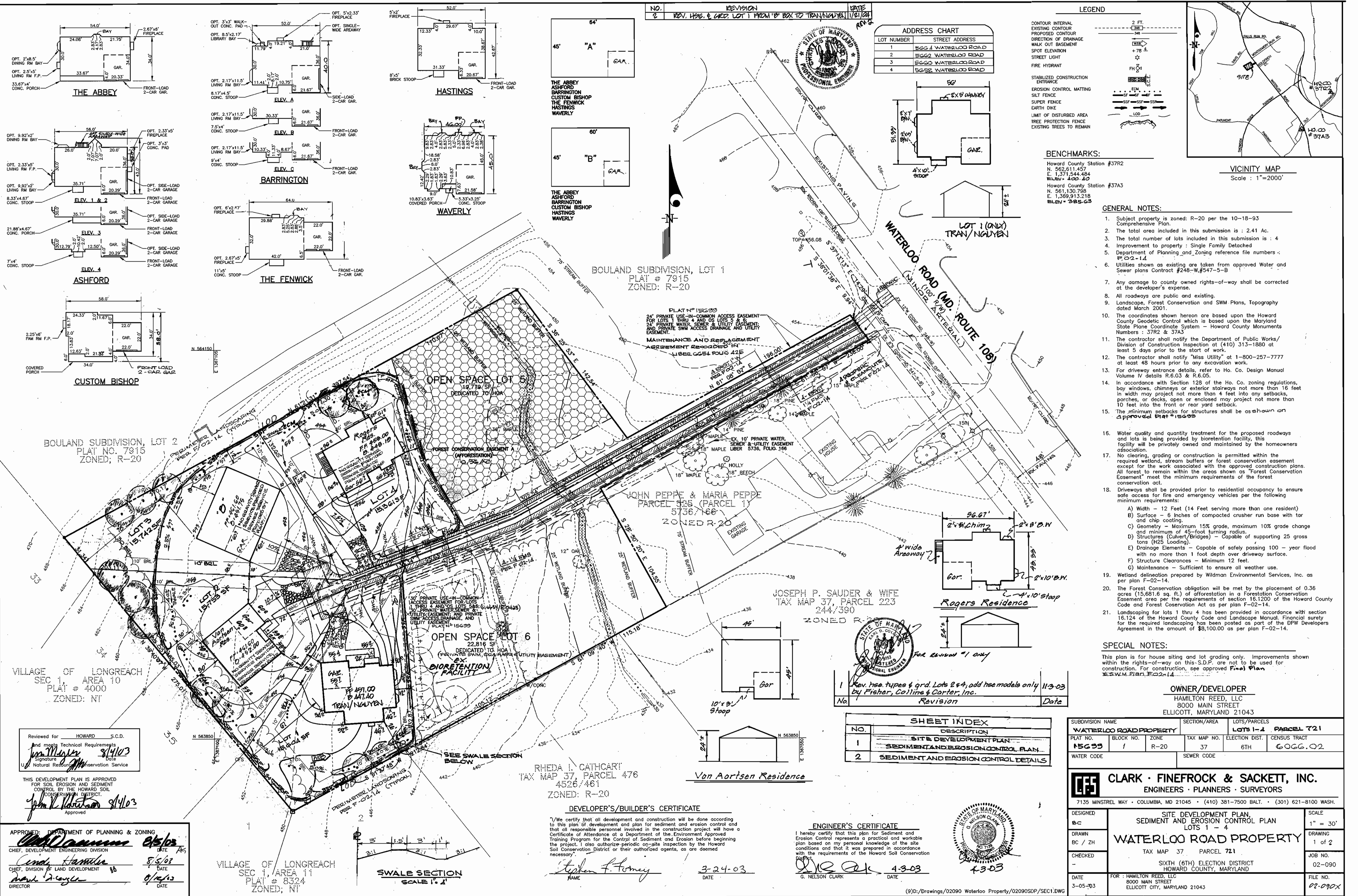


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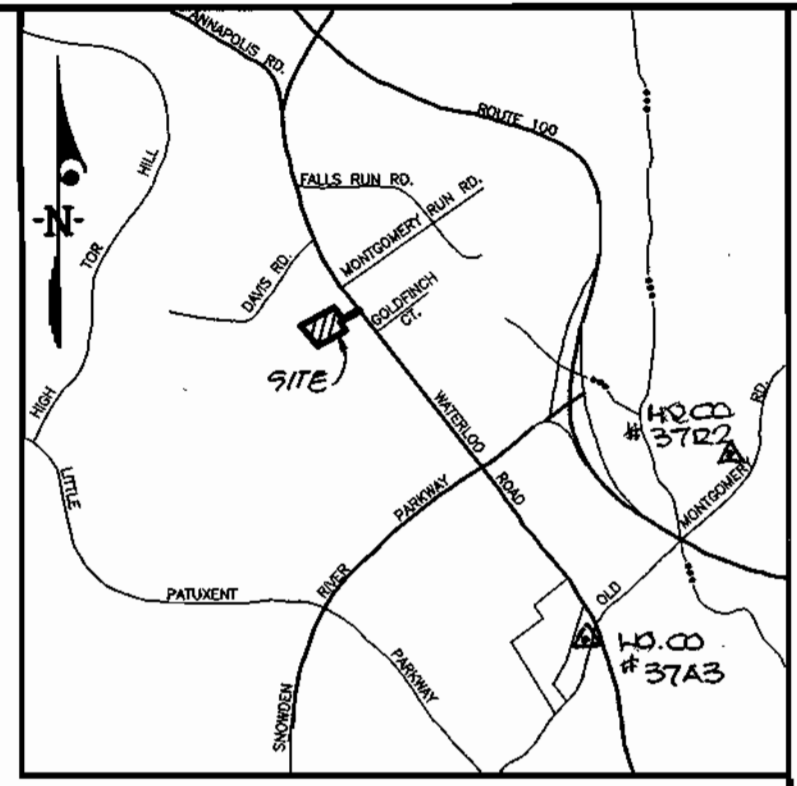
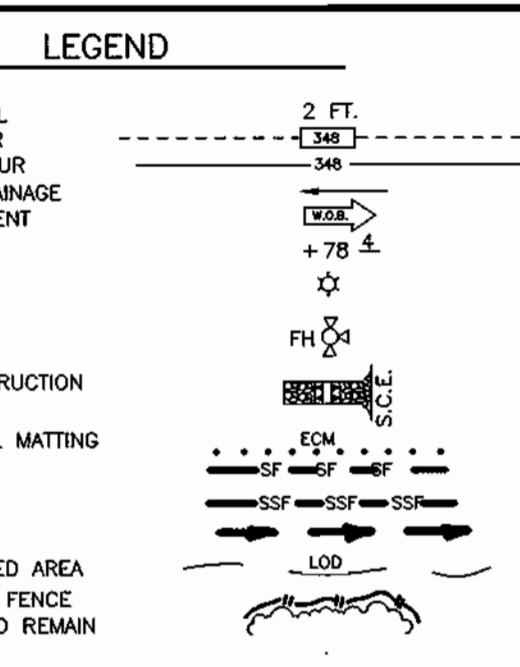
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	SCALE
BC	---
DRAWN	SEDIMENT AND EROSION CONTROL DETAILS
BC	LOTS 1 - 4
CHECKED	WATERLOO ROAD PROPERTY
DATE	TAX MAP 37 PARCEL 721
3-07-03	SIXTH (6TH) ELECTION DISTRICT
	HOWARD COUNTY, MARYLAND
FOR: HAMILTON REED	JOB NO.
8000 MAIN STREET	02-090
ELLICOTT CITY, MARYLAND	FILE NO.
	02-090X



NO.	REVISION	DATE
2	REV. HSE. & GRD. LOTS 2 & 4 FROM 'B' BOX TO TRAN/NGUYEN	11/01/03

LOT NUMBER	STREET ADDRESS
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 - F) Structure Clearances - Minimum 12 feet.
 - G) Maintenance - Sufficient to ensure all weather use.
 - Wetland delineation prepared by Wildman Environmental Services, Inc. as per plan F-02-14.
 - The Forest Conservation obligation will be met by the placement of 0.36 acres (15,681.6 sq. ft.) of afforestation in a Forestation Conservation Easement area per the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act as per plan F-02-14.
 - Landscaping for lots 1 thru 4 has been provided in accordance with section 16.124 of the Howard County Code and Landscape Manual. Financial surety for the required landscaping has been posted as part of the DPW Developers Agreement in the amount of \$8,100.00 as per plan F-02-14.

SPECIAL NOTES:
 This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Final Plan #SWM Plan, F-02-14

OWNER/DEVELOPER
 HAMILTON REED, LLC
 8000 MAIN STREET
 ELLICOTT, MARYLAND 21043

NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN - SEDIMENT AND EROSION CONTROL PLAN
2	SEDIMENT AND EROSION CONTROL DETAILS

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
WATERLOO ROAD PROPERTY		LOTS 1-4 PARCEL 721
PLAT NO. 15699	BLOCK NO. 1	ZONE R-20
TAX MAP NO. 37	ELECTION DIST. 6TH	CENSUS TRACT 6066.02
WATER CODE	SEWER CODE	

CLARK · FINEFROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS
 7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED	BC	SITE DEVELOPMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN	SCALE	1" = 30'
DRAWN	BC / ZH	WATERLOO ROAD PROPERTY	DRAWING	1 of 2
CHECKED		TAX MAP 37 PARCEL 721	JOB NO.	02-090
DATE	3-05-03	SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO.	02-090X

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan of development and plan 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

NAME: Stephen F. Torrey DATE: 3-24-03

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 prepared in accordance with the requirements of the Howard Soil Conservation District.

NAME: G. NELSON CLARK DATE: 4-3-03

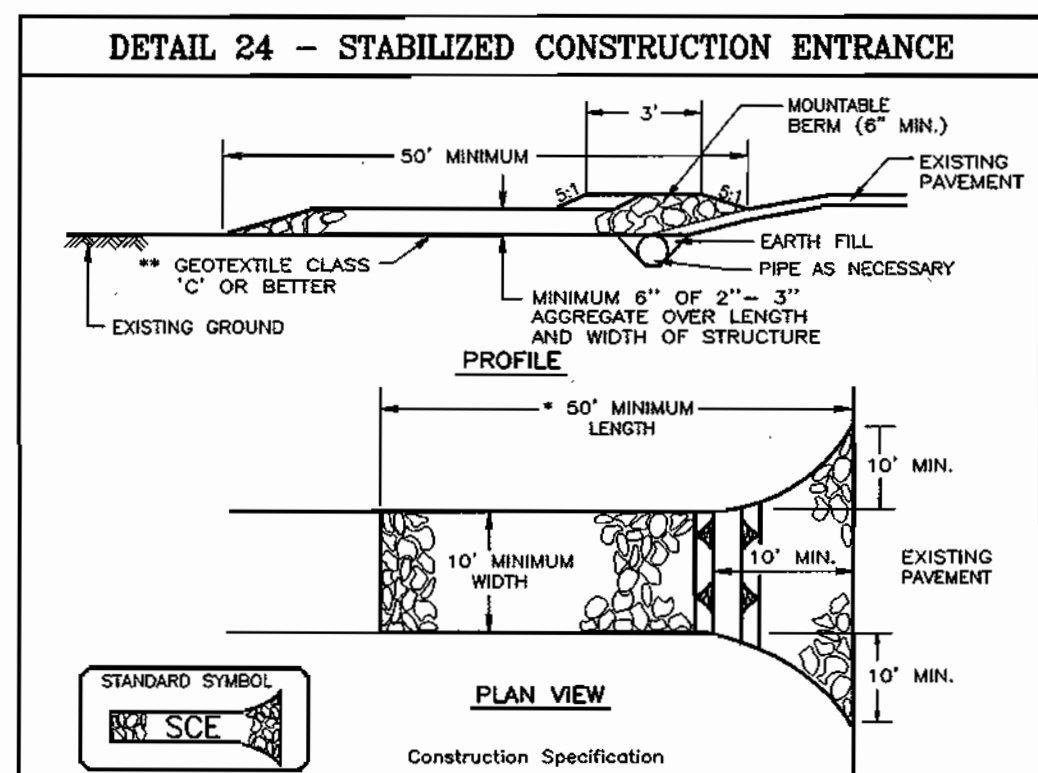


Reviewed for HOWARD S.C.D. and meets Technical Requirements
 Signature: [Signature] Date: 8/14/03
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: [Signature] 8/14/03

APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] DATE: 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE: 8/5/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE: 8/14/03
 DIRECTOR

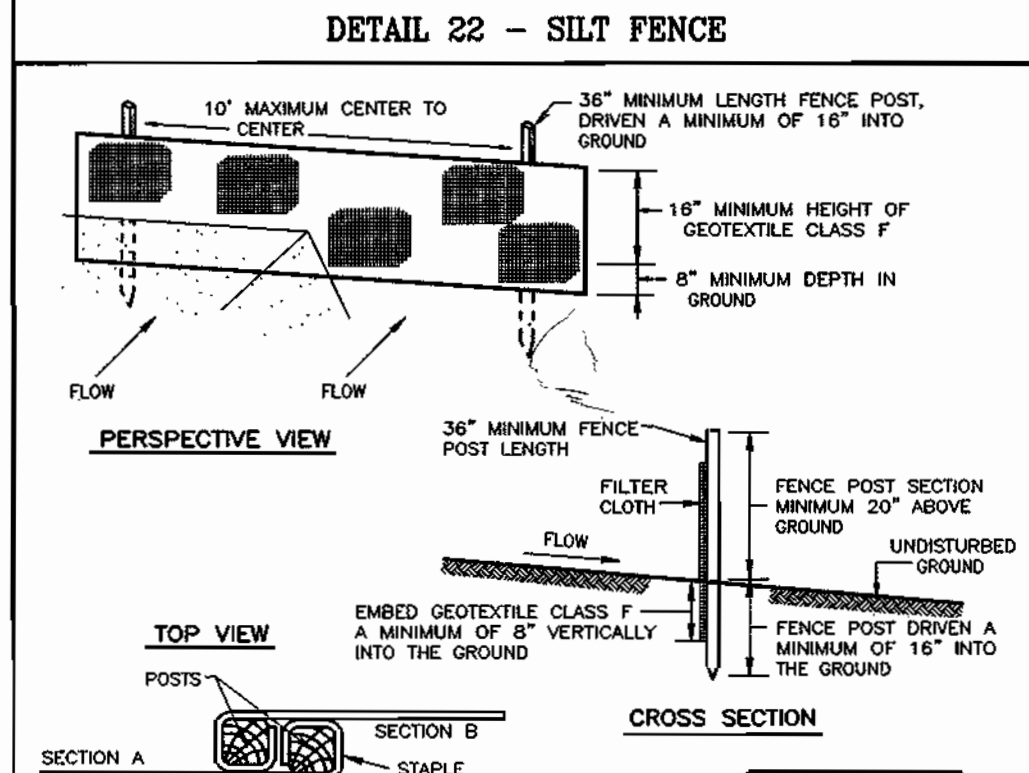
VILLAGE OF LONGREACH
 SEC 1, AREA 11
 PLAT # 8324
 ZONED: NT



Construction Specifications

- Length - minimum of 50' (+ 30' for a single residence lot).
- Width - 10' 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 placing 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 placed 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 24" 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.

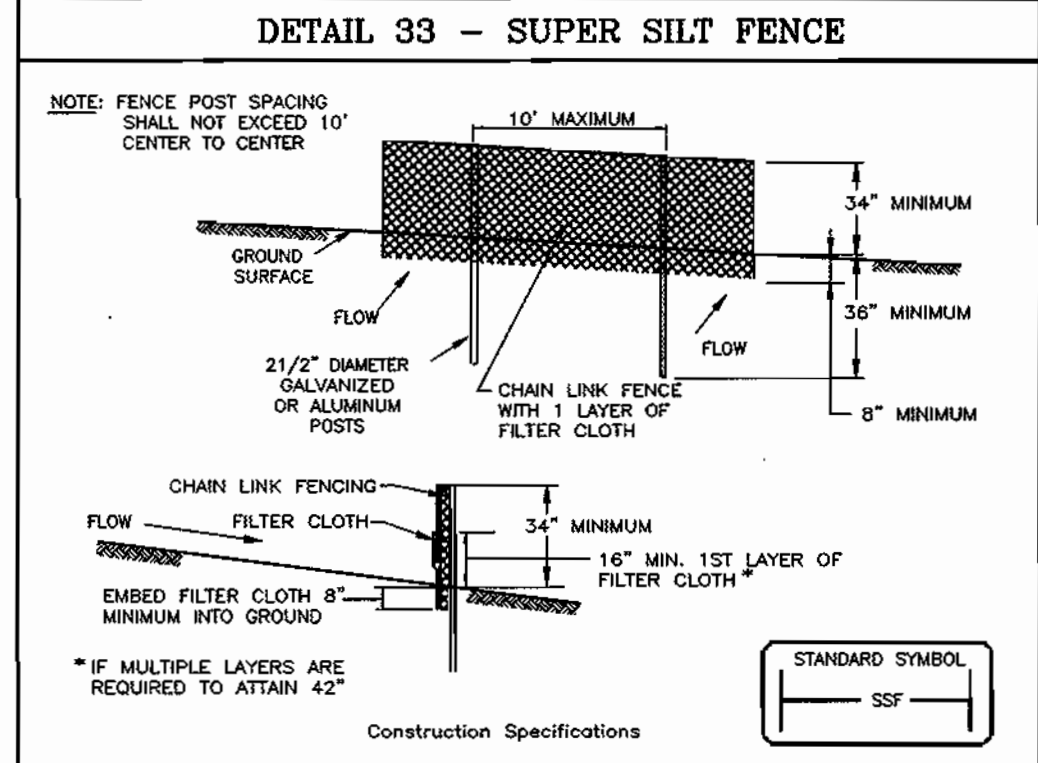
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE 7 - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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Construction Specifications

- Fence posts shall be a minimum of 36" long, driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing 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-sections and shall meet the following requirements for Geotextile Class F:
Tensile Strength: 50 lbs/in (min.) Test: MSMT 509
Tensile Modulus: 20 lbs/in (min.) Test: MSMT 509
Flow Rate: 0.3 gal/ft²/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 reaches 50% of the fabric height.

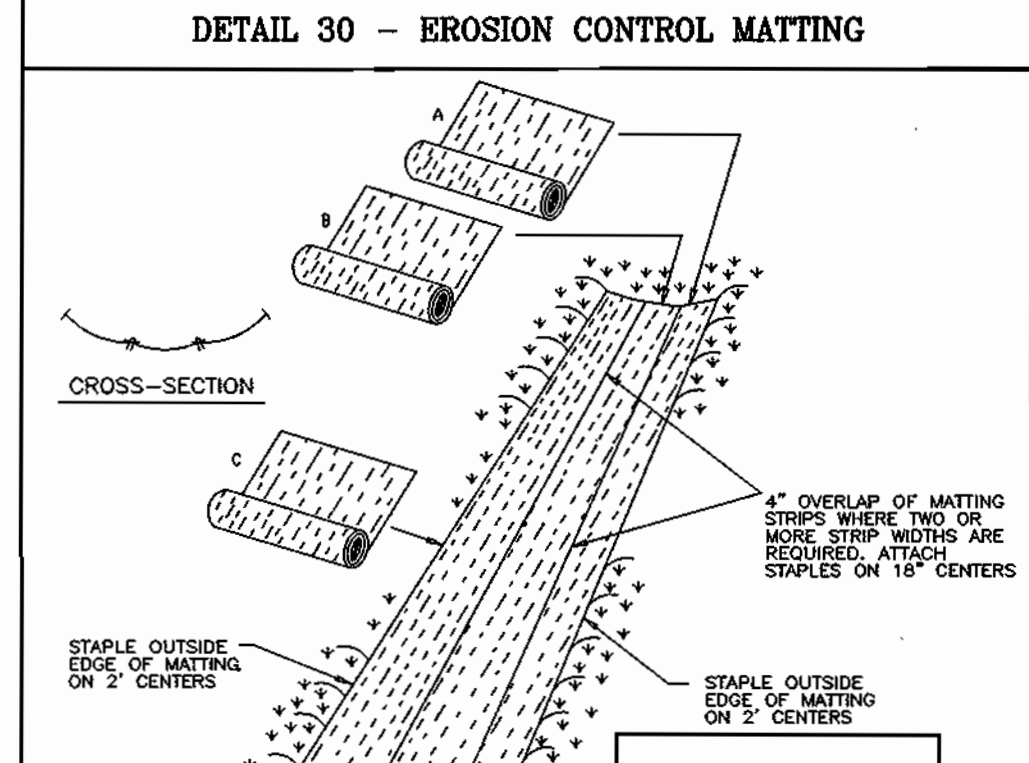
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 18 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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Construction Specifications

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and all bulges removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth 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 Class F:
Tensile Strength: 50 lbs/in (min.) Test: MSMT 509
Tensile Modulus: 20 lbs/in (min.) Test: MSMT 509
Flow Rate: 0.3 gal/ft²/minute (max.) Test: MSMT 322
Filtering Efficiency: 75% (min.) Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 28 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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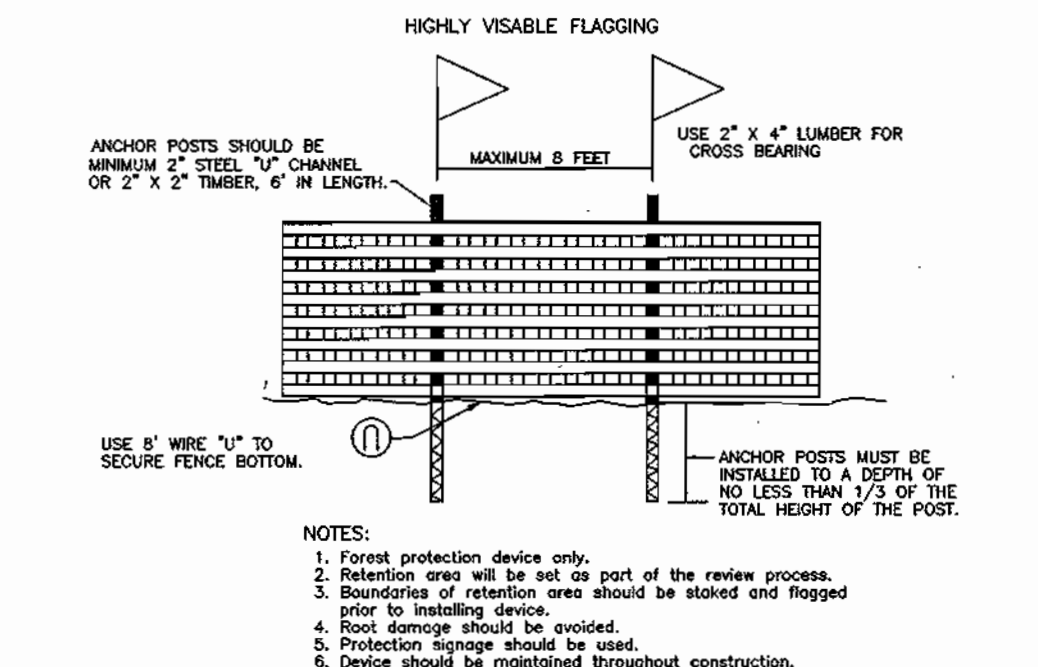


Construction Specifications

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2" apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 28 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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BLAZE ORANGE PLASTIC MESH

APPROVED: DEPARTMENT OF PLANNING & ZONING
DATE: 5/5/03
DATE: 5/5/03
DATE: 5/5/03

APPROVED: DEPARTMENT OF PLANNING & ZONING
DATE: 5/5/03
DATE: 5/5/03
DATE: 5/5/03

Reviewed for HOWARD S.C.D.
Signature: [Signature]
Date: 8/4/03
Signature: [Signature]
Date: 8/4/03

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

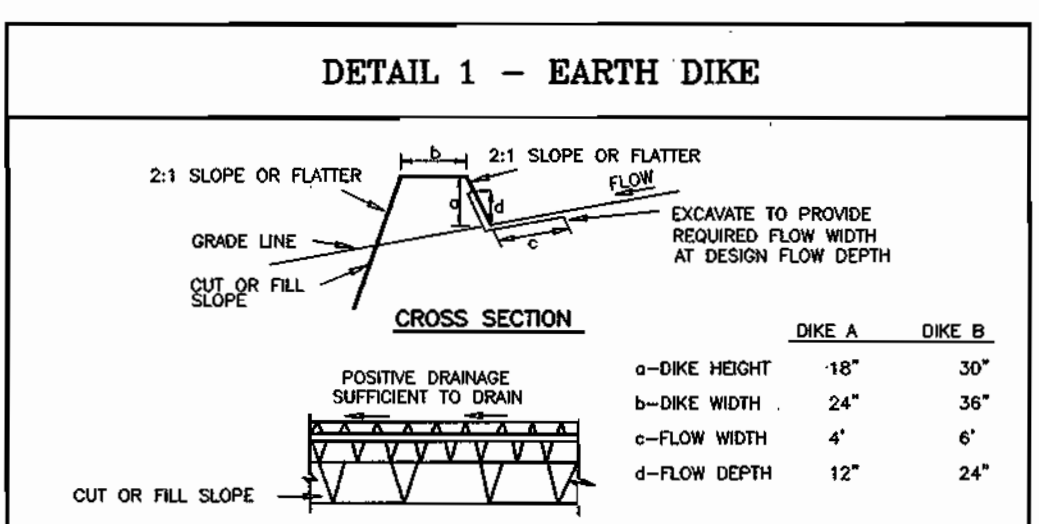
- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil 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 a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, bitiste, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, 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 topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

Construction Specifications

- Temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
- Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
- Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
- All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
- The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
- Fill shall be compacted by earth moving equipment.
- All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
- Inspection and maintenance must be provided periodically and after each rain event.



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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

- Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.)
- Acceptable-Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 15 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed, Option (3) Use seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseeding.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.)

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT AND EROSION 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 (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1
 - 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins must be fenced and warning signs posted around their perimeters in accordance with Vol.1, Chapter 7, 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 seedings, sod, temporary seeding and mulching (Sec. 6). 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 in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- SITE ANALYSIS:
Total Area of Site: 241 ACRES
Area Disturbed: 1.95 ACRES
Area to be roofed or paved: 2.92 ACRES
Total Area to be vegetatively stabilized: 267 ACRES
Total Cut: 1102 CU YD
Total Fill: 3802 CU YD
Offsite Waste/Borrow Area Location: *
- 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 DPW 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. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities shall be backfilled and stabilized within one working day, or is limited to three pipe lengths.
- The total amount of earth dike = 932 LF
- The total amount of super silt fence = 170 LF
- The total amount of silt fence = 70 LF

* It is the responsibility of the contractor to identify the spot/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE:

	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
3. Install sediment and erosion control devices and stabilize.	14
4. Excavate for foundations, rough grade and temporarily stabilize.	30
5. Construct structures, sidewalks and driveways.	60
6. Final grade, install Erosion Control Matting and stabilize in accordance with standards and specifications.	14
7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7

OWNER / DEVELOPER
HAMILTON REED
8000 MAIN STREET
ELLICOTT CITY, MARYLAND 21043

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ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED BC	SEDIMENT AND EROSION CONTROL DETAILS	SCALE
DRAWN BC	LOTS 1 - 4 WATERLOO ROAD PROPERTY	DRAWING
CHECKED	TAX MAP 37 PARCEL 721 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 02-090
DATE 3-07-03	FOR : HAMILTON REED 8000 MAIN STREET ELLICOTT CITY, MARYLAND	FILE NO. 02-090X

DESIGNED: BC
DRAWN: BC
CHECKED: [Signature]
DATE: 3-07-03

FOR : HAMILTON REED
8000 MAIN STREET
ELLICOTT CITY, MARYLAND

DEVELOPER'S/BUILDER'S CERTIFICATE

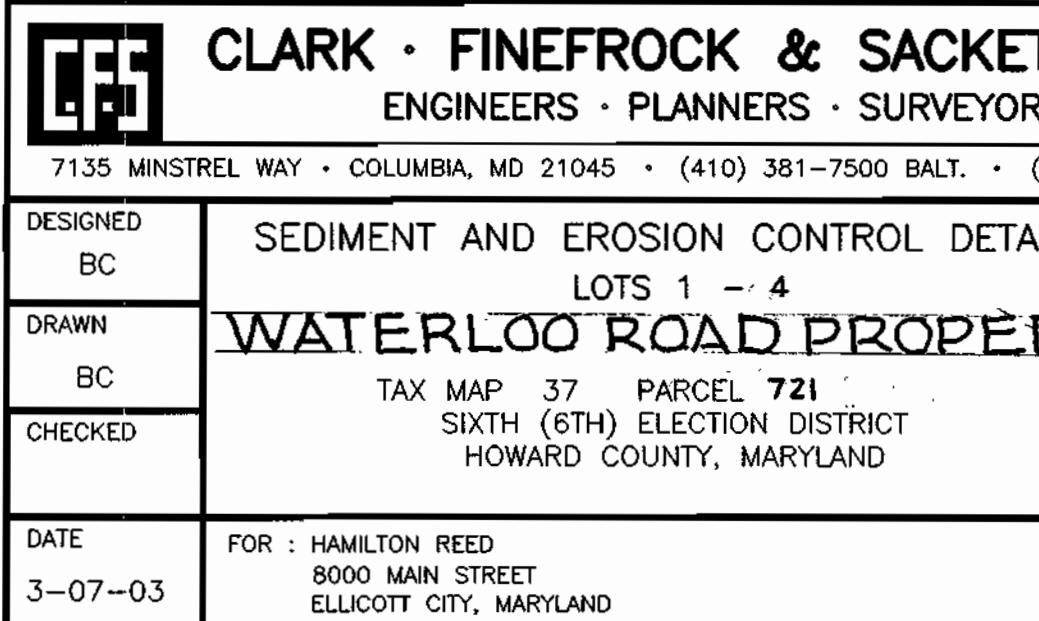
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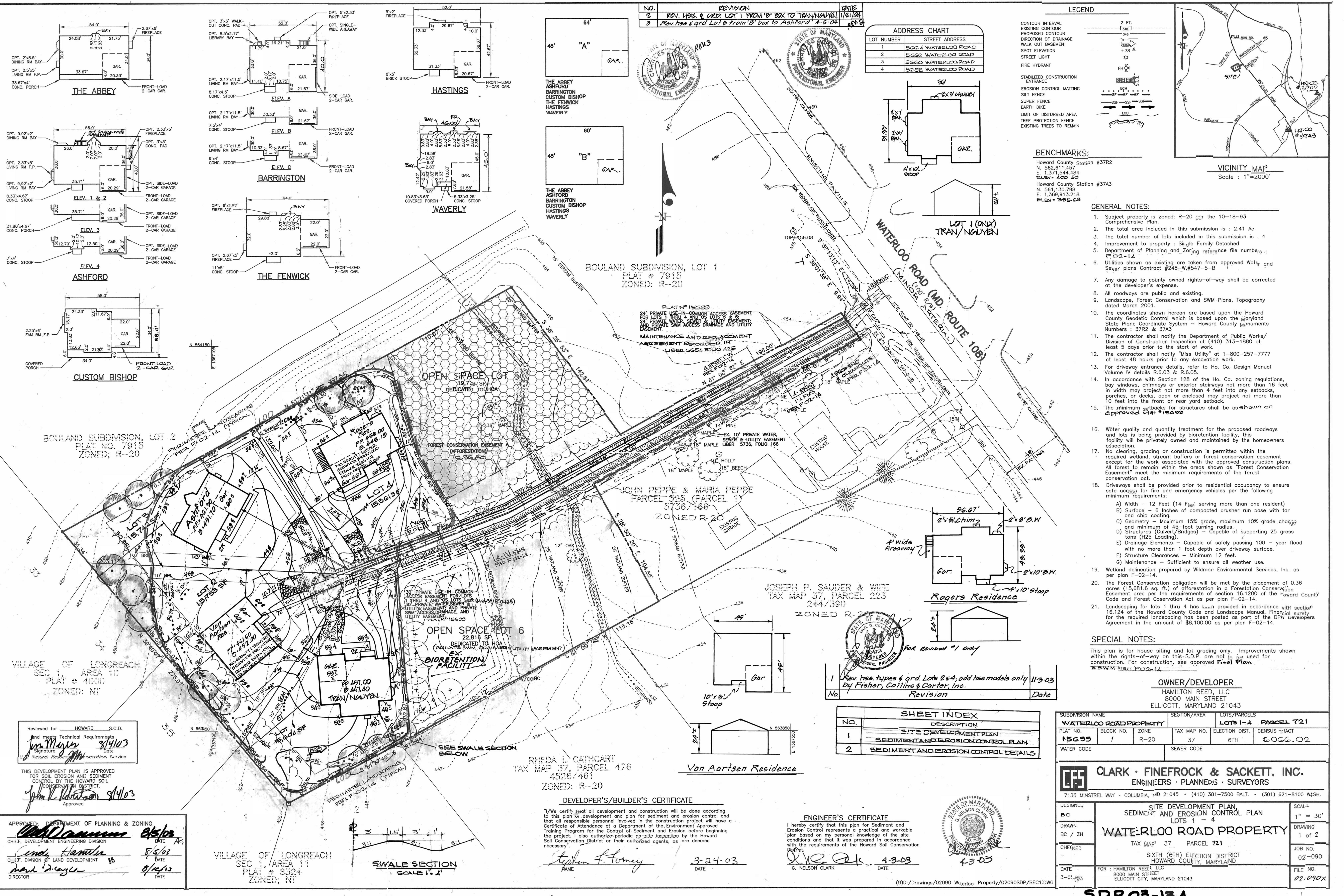
Signature: [Signature]
Date: 3-24-03

ENGINEER'S CERTIFICATE

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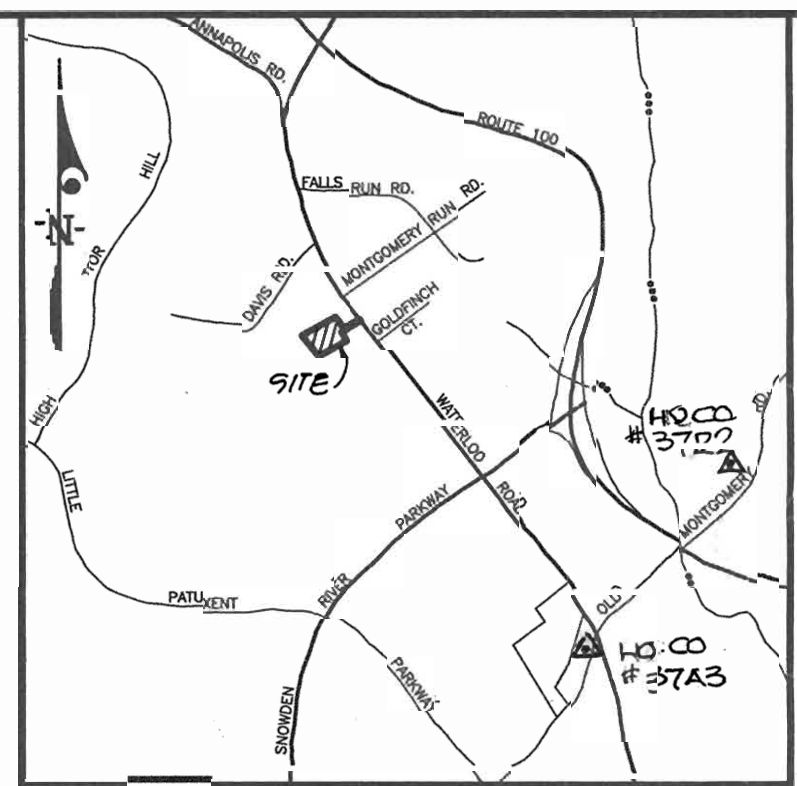
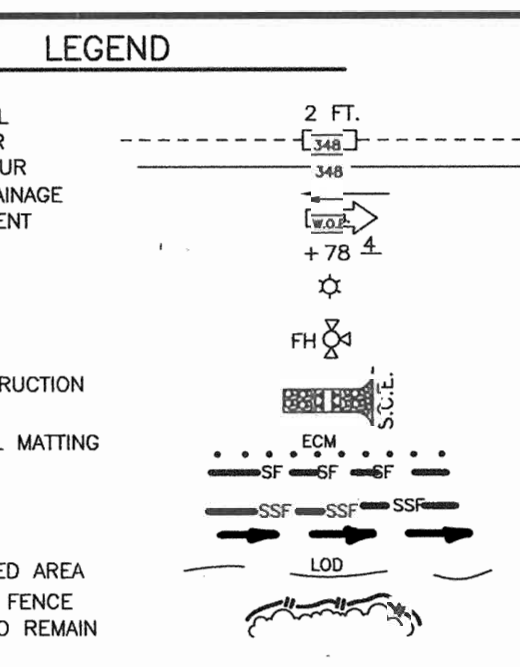
Signature: [Signature]
Date: 4-30-03





NO.	REVISION	DATE
1	REV. HSE. & GRD LOT 1 FROM 'B' BOX TO TRAN/NGUYEN	1/21/04
2	REV. HSE. & GRD LOT 2 FROM 'B' BOX TO ASHFORD & G. O.	6/2/04

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
1	5561 WATERLOO ROAD
2	5562 WATERLOO ROAD
3	5563 WATERLOO ROAD
4	5564 WATERLOO ROAD



BENCHMARKS:
 Howard County Station #37R2
 N. 562,611.457
 E. 1,371,544.484
 ELEV. = 400.40
 Howard County Station #37A3
 N. 561,130.798
 E. 1,369,913.218
 ELEV. = 385.63

- GENERAL NOTES:**
- Subject property is zoned: R-20 per the 10-18-93 Comprehensive Plan.
 - The total area included in this submission is: 2.41 Ac.
 - The total number of lots included in this submission is: 4
 - Improvement to property: Single Family Detached
 - Department of Planning and Zoning reference file numbers: F-02-14
 - Utilities shown as existing are taken from approved Water and Sewer plans Contract #248-W-547-5-B
 - Any damage to county owned rights-of-way shall be corrected at the developer's expense.
 - All roadways are public and existing.
 - Landscape, Forest Conservation and SWM Plans, Topography dated March 2001.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Meritments Numbers: 37R2 & 37A3
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least 5 days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
 - For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R.6.03 & R.6.05.
 - In accordance with Section 128 of the Ho. Co. 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.
 - The minimum setbacks for structures shall be as shown on approved plat #15699
 - Water quality and quantity treatment for the proposed roadways and lots is being provided by bioretention facility, this facility will be privately owned and maintained by the homeowners association.
 - No clearing, grading or construction is permitted within the required wetland, stream buffers or forest conservation easement except for the work associated with the approved construction plans. All forest to remain within the areas shown as "Forest Conservation Easement" meet the minimum requirements of the forest conservation act.
 - Driveways shall be provided prior to residential occupancy to ensure safe access for fire and emergency vehicles per the following minimum requirements:
 - Width - 12 Feet (14 Feet serving more than one resident)
 - Surface - 6 Inches of compacted crusher run base with tar and chip coating.
 - Geometry - Maximum 15% grade, maximum 10% grade change and minimum of 45-foot turning radius.
 - Structures (Culvert/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.
 - Structure Clearances - Minimum 12 feet.
 - Maintenance - Sufficient to ensure all weather use.
 - Wetland delineation prepared by Wildman Environmental Services, Inc. as per plan F-02-14.
 - The Forest Conservation obligation will be met by the placement of 0.36 acres (15,661.8 sq. ft.) of afforestation in a Forestation Conservation Easement area per the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act as per plan F-02-14.
 - Landscaping for lots 1 thru 4 has been provided in accordance with section 16.124 of the Howard County Code and Landscape Manual. Financial surty for the required landscaping has been posted as part of the DPW developers Agreement in the amount of \$8,100.00 as per plan F-02-14.

SPECIAL NOTES:
 This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Final Plan #2-SWM-Plan-F02-14

OWNER/DEVELOPER
 HAMILTON REED, LLC
 8000 MAIN STREET
 ELLICOTT, MARYLAND 21043

SHEET INDEX	
NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL DETAILS

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
WATERLOO ROAD PROPERTY		LOTS 1-4 PARCEL 721
PLAT NO.	BLOCK NO.	ZONE
15699	1	R-20
TAX MAP NO.	ELECTION DIST.	CENSUS TRACT
37	6TH	6066.02
WATER CODE	SEWER CODE	

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 ENGINEERS · PLANNERS · SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	BC	DATE	8/5/03
DRAWN	BC / ZH	DATE	8/5/03
CHECKED		DATE	8/12/03
DATE	3-01-03	FOR: HAMILTON REED, LLC	
		8000 MAIN STREET	
		ELLICOTT CITY, MARYLAND	

WATERLOO ROAD PROPERTY
 TAX MAP 37 PARCEL 721
 SIXTH (6TH) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 30'
 DRAWING: 1 of 2
 JOB NO.: 02-090
 FILE NO.: 02-090X

RHEDA L. CAHNCART
 TAX MAP 37, PARCEL 476
 4526/461
 ZONED: R-20

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Stephen F. Torrey
 NAME DATE 3-24-03

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 prepared in accordance with the requirements of the Howard Soil Conservation District."

G. Nelson Clark
 NAME DATE 4-3-03

Reviewed for HOWARD S.C.D. and meets Technical Requirements
Jim Wagner 8/14/03
 Signature Date
 U.S. Natural Resources Conservation Service

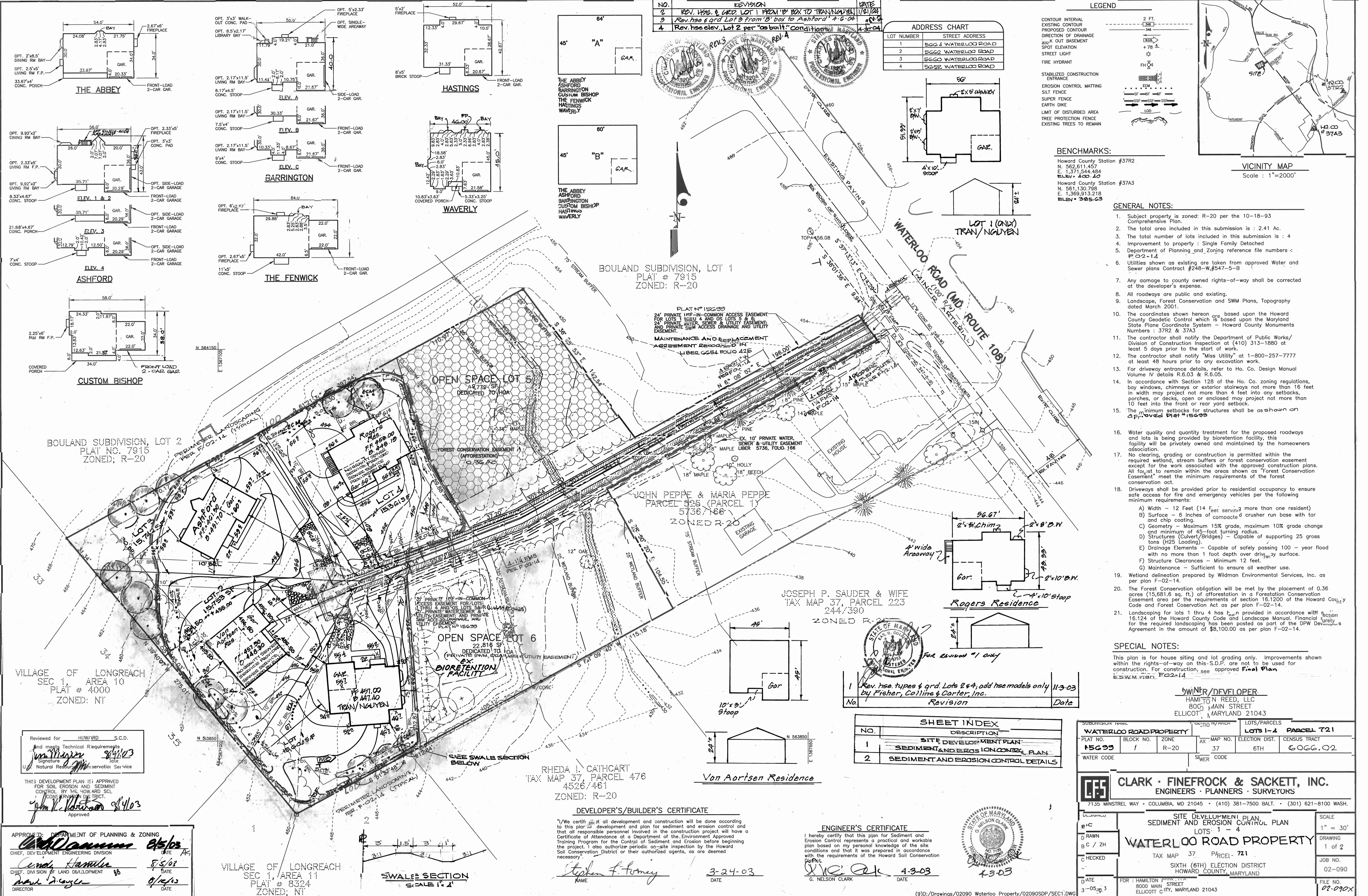
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Jim K. Robertson 8/14/03
 Approved

APPROVED: DEPARTMENT OF PLANNING & ZONING
Chris O'Connell 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Uma Hamula 8/5/03
 CHIEF, DIVISION OF LAND DEVELOPMENT
David A. Cagle 8/12/03
 DIRECTOR

VILLAGE OF LONGREACH
 SEC 1, AREA 11
 PLAT # 8324
 ZONED: NT

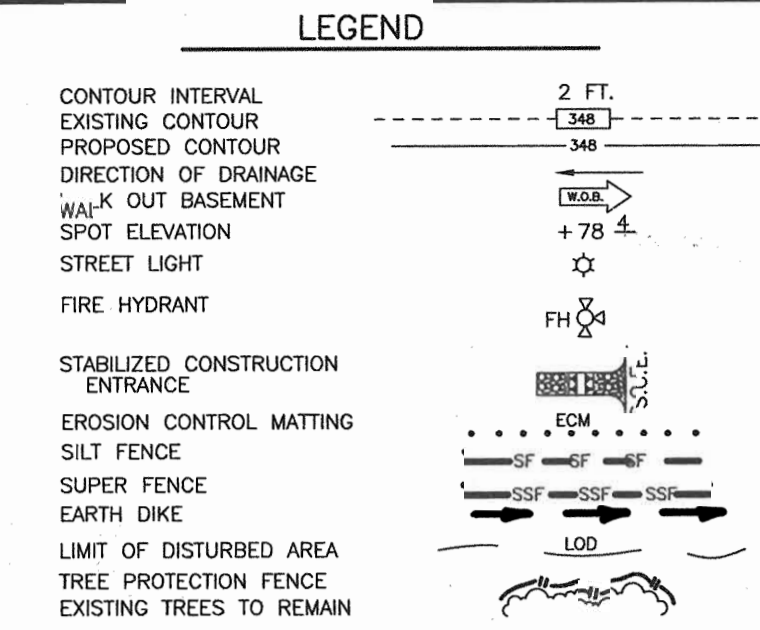
SWALE SECTION
 SCALE 1" = 4'





NO.	REVISION	DATE
2	REV. HSE. & GRD. LOT 1 FROM 'B' BOX TO TRAN/NGUYEN	1/21/04
3	Rev. hse. & grd. Lot 2 from 'B' box to Ashford	4-6-04
4	Rev. hse. elev. Lot 2 per 'as built' conditions	4-2-04

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
1	5650 WATERLOO ROAD
2	5652 WATERLOO ROAD
3	5654 WATERLOO ROAD
4	5652 WATERLOO ROAD



BENCHMARKS:

Howard County Station #37R2	N. 562,611.457
	E. 1,371,544.484
	ELEV. = 400.40
Howard County Station #37A3	N. 561,130.798
	E. 1,369,913.218
	ELEV. = 385.63

- GENERAL NOTES:**
- Subject property is zoned: R-20 per the 10-18-93 Comprehensive Plan.
 - The total area included in this submission is: 2.41 Ac.
 - The total number of lots included in this submission is: 4
 - Improvement to property: Single Family Detached
 - Department of Planning and Zoning reference file numbers: F-02-14
 - Utilities shown as existing are taken from approved Water and Sewer plans Contract #248-W, #547-5-B
 - Any damage to county owned rights-of-way shall be corrected at the developer's expense.
 - All roadways are public and existing.
 - Landscape, Forest Conservation and SWM Plans, Topography dated March 2001.
 - The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System - Howard County Monuments Numbers: 37R2 & 37A3.
 - The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 313-1880 at least 5 days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
 - For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R.6.03 & R.6.05.
 - In accordance with Section 128 of the Ho. Co. 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.
 - The minimum setbacks for structures shall be as shown on approved Plat #15699
 - Water quality and quantity treatment for the proposed roadways and lots is being provided by bioretention facility, this facility will be privately owned and maintained by the homeowners association.
 - No clearing, grading or construction is permitted within the required wetland, stream buffers or forest conservation easement except for the work associated with the approved construction plans. All forest to remain within the areas shown as "Forest Conservation Easement" must meet the minimum requirements of the forest conservation act.
 - Driveways shall be provided prior to residential occupancy to ensure safe access for fire and emergency vehicles per the following minimum requirements:
 - A) Width - 12 Feet (14 Feet serving more than one resident)
 - B) Surface - 6 inches of concrete/crusher run base with tar and chip coating.
 - C) Geometry - Maximum 15% grade, maximum 10% grade change and minimum of 45-foot turning radius.
 - D) Structures (Culvert/Bridges) - Capable of supporting 25 gross tons (H25 Loading).
 - E) Drainage Elements - Capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface.
 - F) Structure Clearances - Minimum 12 feet.
 - G) Maintenance - Sufficient to ensure all weather use.
 - Wetland delineation prepared by Wildman Environmental Services, Inc. as per plan F-02-14.
 - The Forest Conservation obligation will be met by the placement of 0.36 acres (15,681.6 sq. ft.) of afforestation in a Forestation Conservation Easement area per the requirements of section 16.1200 of the Howard County Code and Forest Conservation Act as per plan F-02-14.
 - Landscape for lots 1 thru 4 has been provided in accordance with section 16.124 of the Howard County Code and Landscape Manual. Financial action for the required landscaping has been posted as part of the DPW Development Agreement in the amount of \$8,100.00 as per plan F-02-14.

SPECIAL NOTES:

This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction, see approved Final Plan E.S.W.M. plan F-02-14

OWNER/DEVELOPER:
 HAMILTON REED, LLC
 800 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043

SHEET INDEX	
NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN

WATERLOO ROAD PROPERTY		LOTS/PARCELS	
PLAT NO. 15699	BLOCK NO. 1	AX MAP NO. 37	ELECTION DIST. 6TH
ZONE R-20			CENSUS TRACT 6066.02
WATER CODE		SEWER CODE	

CLARK · FINEFROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS

7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

SITE DEVELOPMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN
 LOTS 1 - 4
WATERLOO ROAD PROPERTY

TAX MAP 37, PARCEL 721
 SIXTH (6TH) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FOR: HAMILTON REED, LLC
 800 MAIN STREET
 ELLICOTT CITY, MARYLAND 21043

SCALE: 1" = 30'
 DRAWING: 1 of 2
 JOB NO: 02-090
 FILE NO: 02-090X

DEVELOPER'S/BUILDER'S CERTIFICATE

I/we certify that all development and construction will be done according to this plan and development and plan 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 the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Stephen F. Toney
 NAME
 3-24-03
 DATE

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 prepared in accordance with the requirements of the Howard Soil Conservation District.

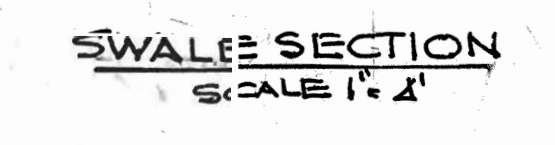
G. Nelson Clark
 NAME
 4-3-03
 DATE

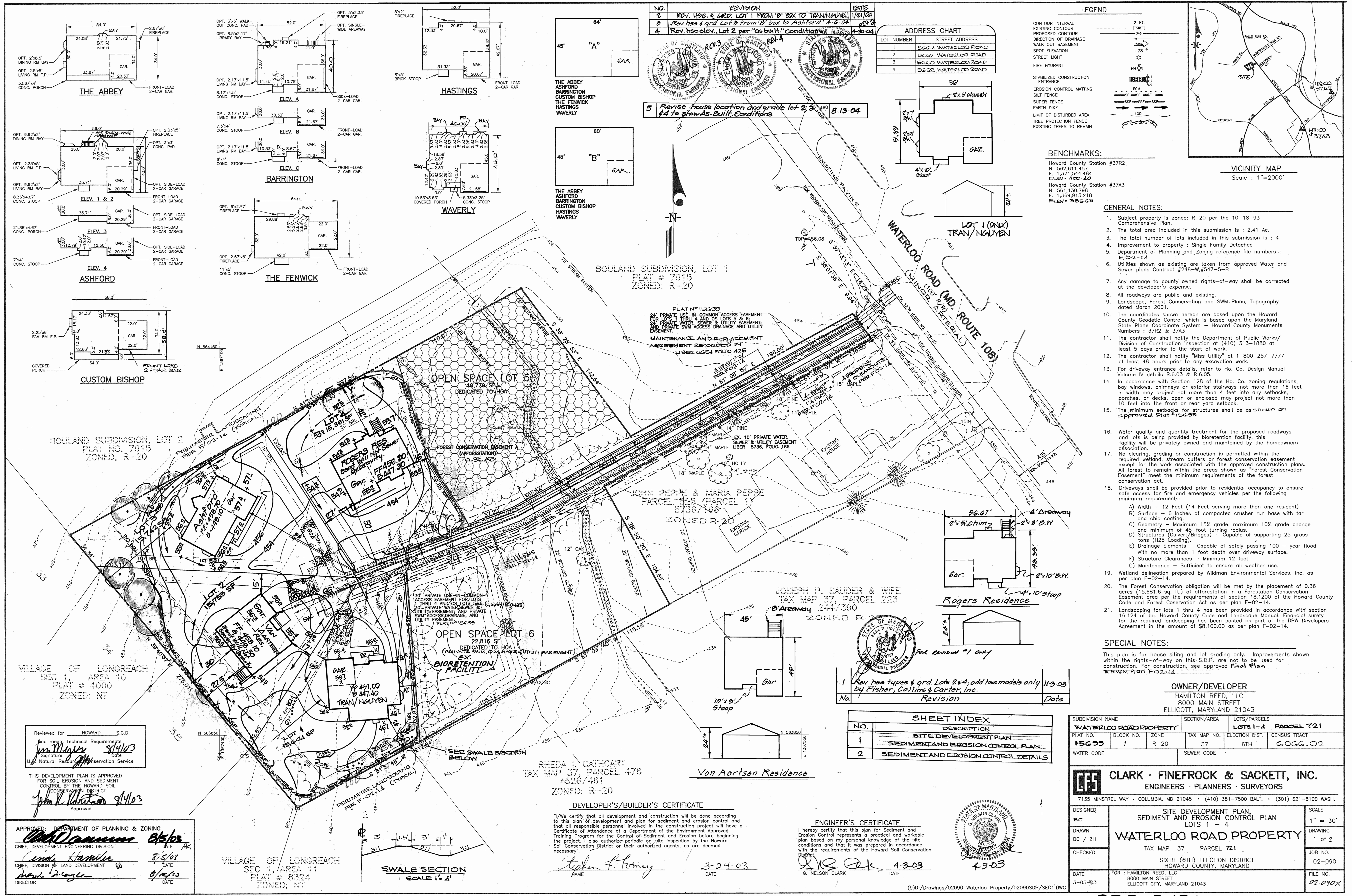
Reviewed for H.U.W.R.D. S.C.D. and meets Technical Requirements
 Signature: [Signature] 3/1/03
 Title: [Title]
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature] 3/1/03
 Approved

APPROVED: DEPARTMENT OF PLANNING & ZONING
 Signature: [Signature] 3/5/03
 DATE: 3/5/03
 Signature: [Signature] 3/14/03
 DATE: 3/14/03

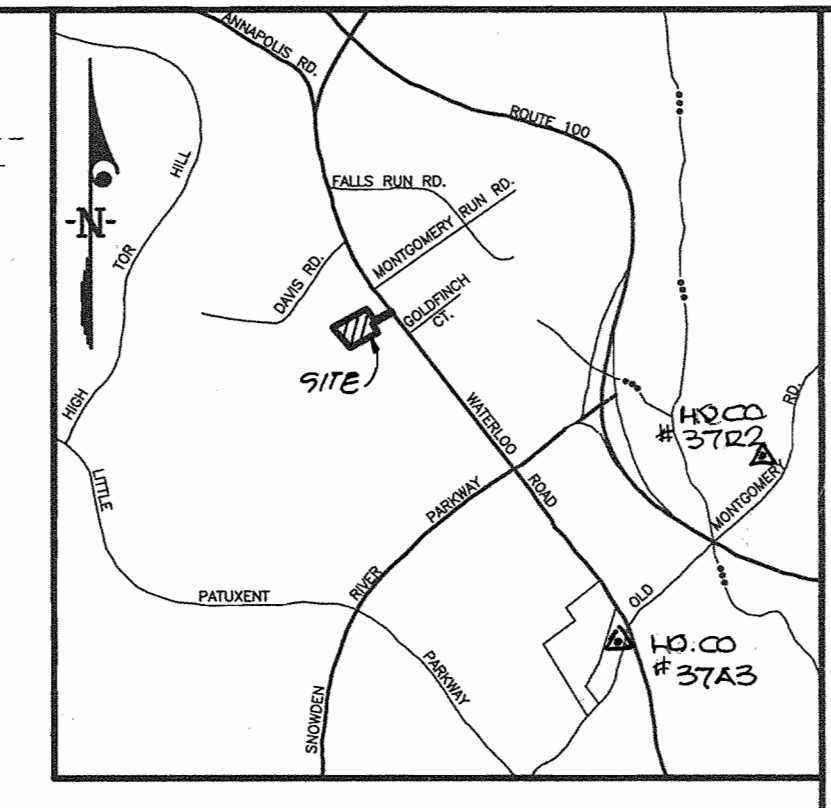
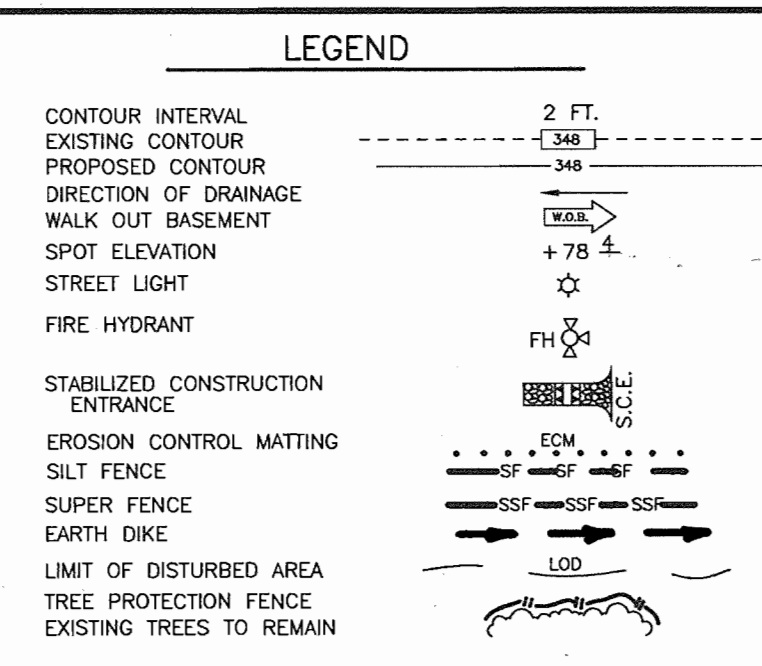
VILLAGE OF LONGREACH
 SEC 1, AREA 11
 PLAT # 8324
 ZONED: NT





NO.	REVISION	DATE
1	REV. HSE. & GRD LOT 1 FROM 'B' BOX TO TRAN/NGUYEN	1/10/04
2	REV. HSE. & GRD LOT 2 FROM 'B' BOX TO ASHFORD	4-6-04
3	REV. HSE. ELEV. LOT 2 PER "AS BUILT" CONDITIONS	4-30-04
4	REV. HSE. ELEV. LOT 2 PER "AS BUILT" CONDITIONS	4-30-04
5	REVISE HOUSE LOCATION AND GRADE LOT 2, 3 & 4 TO SHOW AS-BUILT CONDITIONS	8-13-04

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
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2	5552 WATERLOO ROAD
3	5550 WATERLOO ROAD
4	5548 WATERLOO ROAD



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 E. 1,371,544.484
 ELEV. = 400.40
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 N. 561,130.798
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OWNER/DEVELOPER				
HAMILTON REED, LLC 8000 MAIN STREET ELLCOTT, MARYLAND 21043				
SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS	PARCEL 721	
WATERLOO ROAD PROPERTY		LOTS 1-4	PARCEL 721	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECTION DIST.
15699	1	R-20	37	6TH
WATER CODE	SEWER CODE	CENSUS TRACT		
		6066.02		

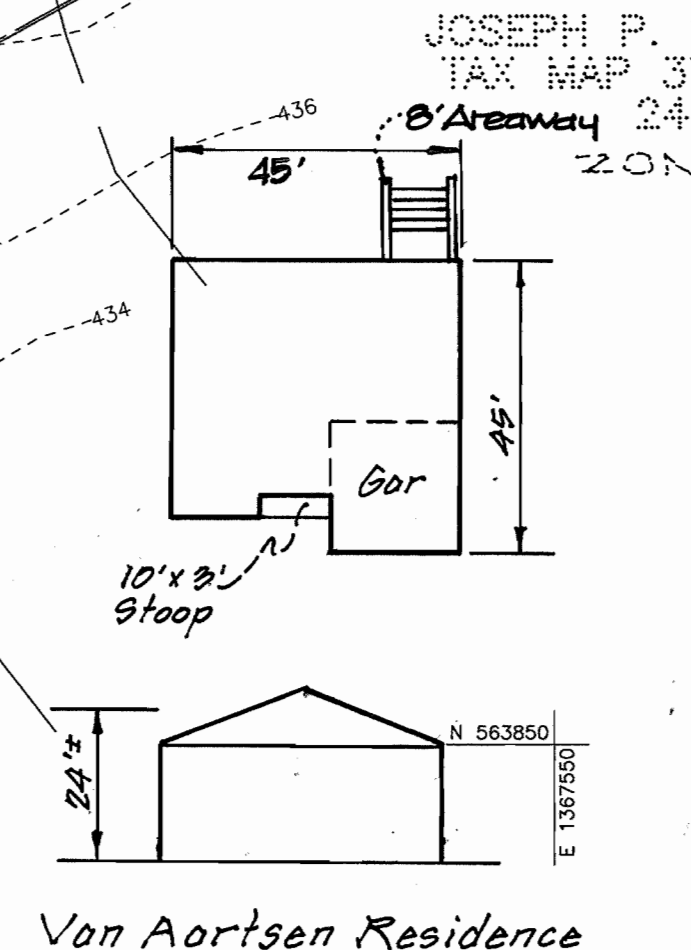
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DESIGNED bc	SITE DEVELOPMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN LOTS 1 - 4	SCALE 1" = 30'
DRAWN BC / ZH	WATERLOO ROAD PROPERTY	DRAWING 1 of 2
CHECKED -	TAX MAP 37 PARCEL 721	JOB NO. 02-090
DATE 3-05-03	SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO. 02-090X

FOR: HAMILTON REED, LLC
8000 MAIN STREET
ELLCOTT CITY, MARYLAND 21043

SHEET INDEX	
NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT AND EROSION CONTROL PLAN
3	SEDIMENT AND EROSION CONTROL DETAILS

No.	Revision	Date
1	Rev. hse. types & grd. Lots 2 & 4, add hse models only	11-3-03
	by Fisher, Collins & Carter, Inc.	



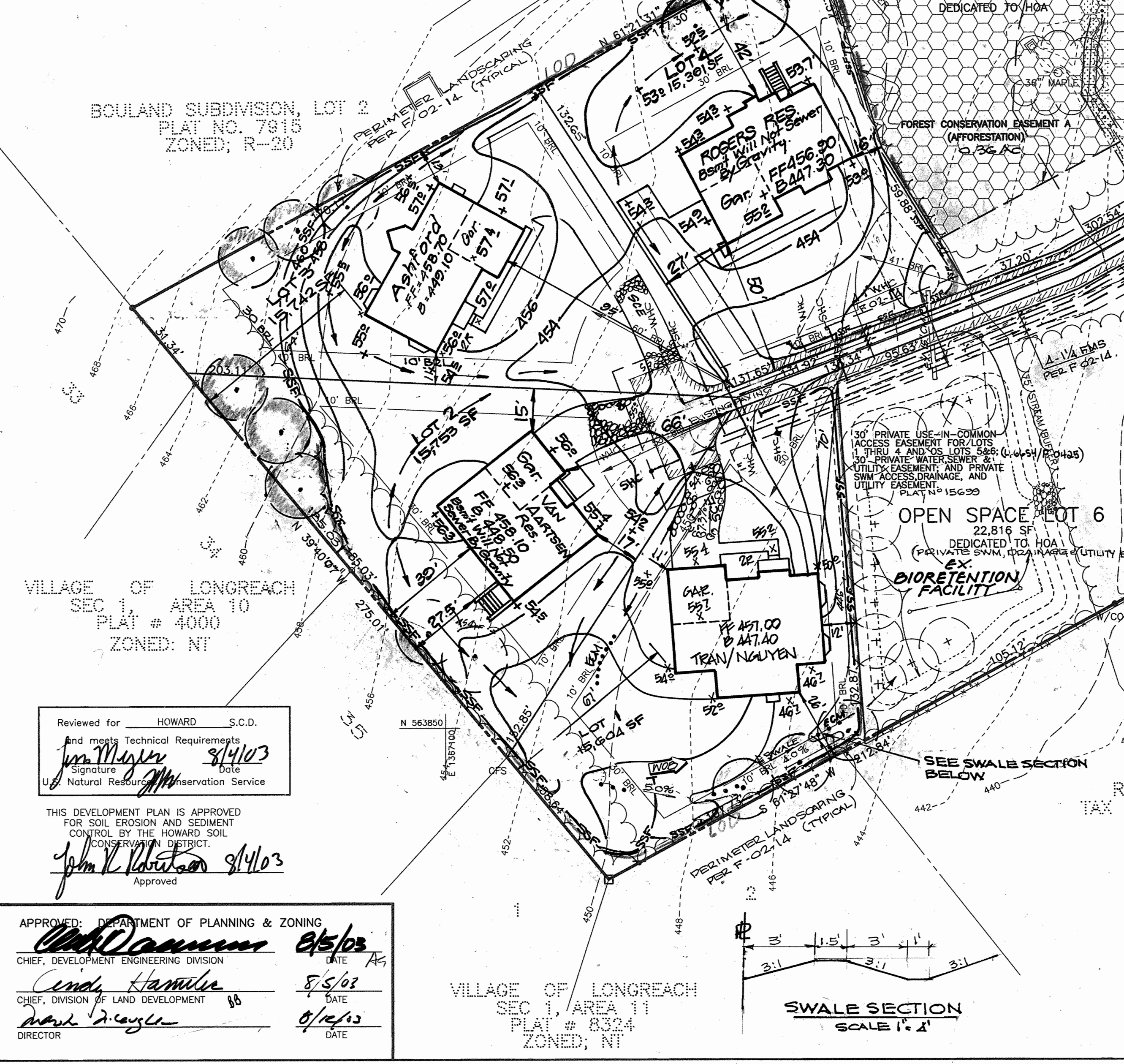
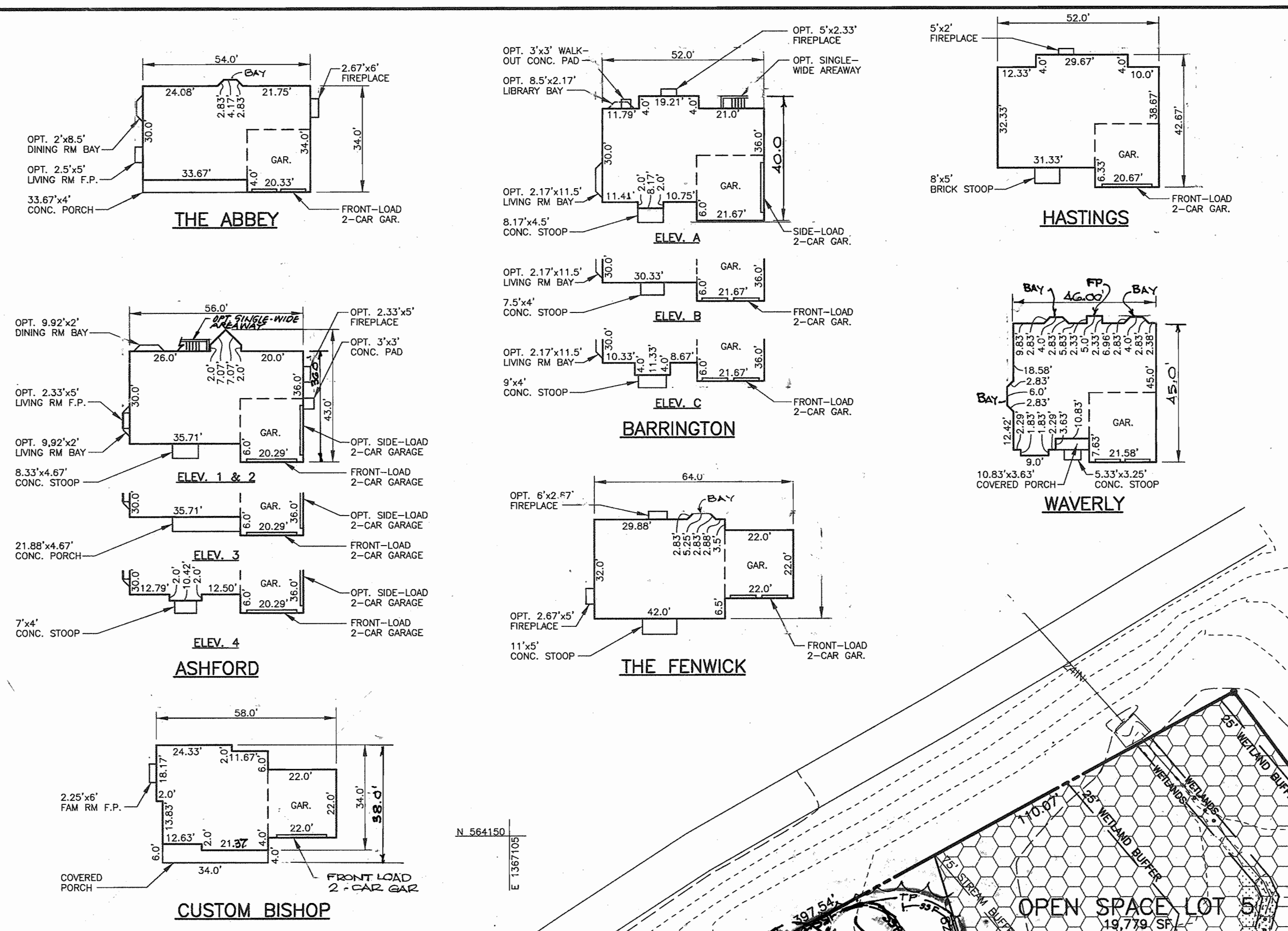
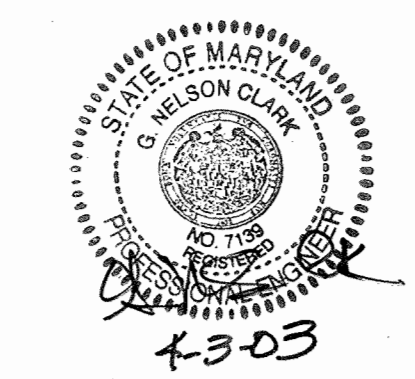
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Signature: Stephen F. Pomey
 DATE: 3-24-03

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Signature: G. Nelson Clark
 DATE: 4-3-03



Reviewed for HOWARD S.C.D. and meets Technical Requirements
 Signature: Jim Wagner
 Date: 8/4/03
 U.S. Natural Resources Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: Jim K. Liberman
 Date: 8/4/03
 Approved

APPROVED: DEPARTMENT OF PLANNING & ZONING
 Signature: [Signature]
 DATE: 8/5/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: [Signature]
 DATE: 8/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: [Signature]
 DATE: [Date]
 DIRECTOR

40995

