GENERAL NOTES

- 1. THE SUBJECT PROPERTY IS ZONED R-12 PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO
- 4. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

BELL ATLANTIC TELEPHONE CO: HOWARD COUNTY BUREAU OF UTILITIES: 313-2366 AT&T CABLE LOCATION DIVISION: 393-3553 B.G.&E. CO. CONTRACTOR SERVICES: 850-4620 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL:

5. SITE ANALYSIS:

TOTAL AREA OF SITE: 169,938 SF (3.9057 AC) AREA OF PLAN SUBMISSION: 88,936 SF (2.04 AC) LIMIT OF DISTURBANCE: 75,866 SF (1.74 AC) PRESENT ZONING: R-12 PROPOSED USE OF SITE: SINGLE FAMILY DETACHED DWELLINGS TOTAL UNITS ALLOWED: 10 TOTAL UNITS PROPOSED: 10 TOTAL NUMBER OF BUILDABLE LOTS: 10

TOTAL NUMBER OF OPEN SPACE LOTS: 2 AREA OF OPEN SPACE REQUIRED: 20% OF GROSS AREA OF PARCEL (0.780 AC.) TOTAL AREA OF OPEN SPACE PROVIDED: 1.2293 ACRES

PROJECT BACKGROUND:

LOCATION: TAX MAP: 42 PARCEL: 41 GRID: 16 ZONING: R-12

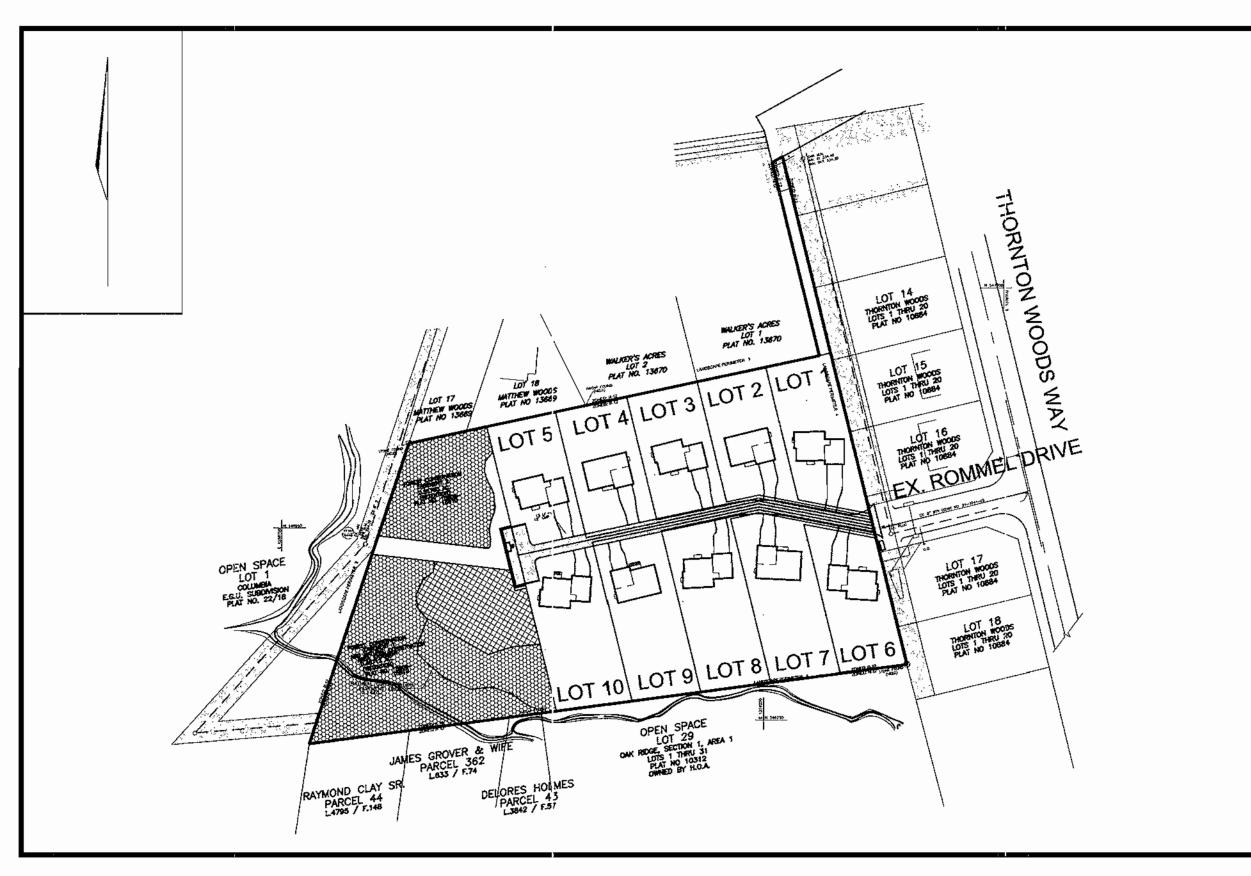
STATE HIGHWAY ADMINISTRATION:

- DEED REFERENCE: LIBER 45 FOLIO 175, LIBER 1123 FOLIO 712, LIBER 6212 FOLIO 415 AND LIBER 6212 FOLIO 418 DPZ REFERENCES: F-02-126, P-01-26, WP-01-85, S-01-07
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE
- 10. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING
- 12. SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED
- 13. COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 42R5 AND 42R6.
- 14. EXISTING TOPOGRAPHY IS BASED ON PLANS PREPARED BY A FIELD SURVEY PREPARED BY VOGEL & ASSOCIATES, DATED FEB. 10, 1999.
- 15. ACCESS TO WATER HAS BEEN PROVIDED UNDER CONTRACT NO. 24-4028-D. ACCESS TO SEWER HAS BEEN PROVIDED UNDER CONTRACT NO. 24-4028-D.
- 16. THERE ARE NO STEEP SLOPES WITH A CONTIGUOUS AREA OF GREATER THAN 20,000 SF LOCATED ON THIS PROPERTY.
- NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERT
- 18. 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.
- 19. ALL BASEMENTS WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE OPENABLE EMERGENCY ESCAPE AND RESCUE WINDOW OR EXTERIOR DOOR AS DESCRIBED IN SECTION R310 OF THE 2000 INTERNATIONAL RESIDENTIAL CODE.
- 20. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENT OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
- A) WIDTH 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE) B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING
- D) STRUCTURES (CULVERTS/BRIDGES) MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
- E) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE
- THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
- G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE
- 21. ALL DRIVEWAY APRONS TO BE PER HOWARD COUNTY STANDARD DETAIL NO.'S R-6.05 & R-6.01
- UNLESS OTHERWISE NOTED.
- 22. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE D.P.W. DEVELOPER'S PERMIT IN THE AMOUNT OF \$3900,00 FOR 13 SHADE TREES UNDER F-02-126.
- 23. THERE ARE STREAMS AND FLOODPLAIN ON THIS SITE. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- 24. NO 100 YEAR FLOODPLAINS EXISTS ON SITE.
- 25. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION AND BY PAYMENT OF FEE-IN-LIEU OF \$6,528.00 INTO THE HOWARD COUNTY CONSERVATION FUND UNDER F-02-126.
- 26. BASED ON THIS PLAN BEING SUBMITTED PRIOR TO 11/15/01, ON 06/28/01, IT (AND THE SUBDIVISION) IS "GRANDFATHERED" AND SUBJECT TO COMPLIANCE WITH THE FOURTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. IN ADDITION, BECAUSE THIS PLAN WAS NOT APPROVED PRIOR TO 11/01/01, IT (AND THE SUBDIVISION) IS SUBJECT TO COMPLIANCE WITH COUNTY COUNCIL BILL
- 50-2001, WHICH AMENDS PORTIONS OF THE ZONING REGULATIONS. 27. STORMWATER MANAGEMENT HAS BEEN PROVIDED FOR THE DEVELOPMENT BY BIORETENTION IN OPEN SPACE LOT 11 UNDER F-02-126.
- 28. THE DEVELOPER IS ADVISED THAT THIS PLAN CAN NOT RECEIVE SIGNATURE APPROVAL UNTIL THE PLAT F-02-126 HAS BEEN RECORDED.
- 29. THERE IS NO 100 YEAR FLOODPLAIN LOCATED ON-SITE.

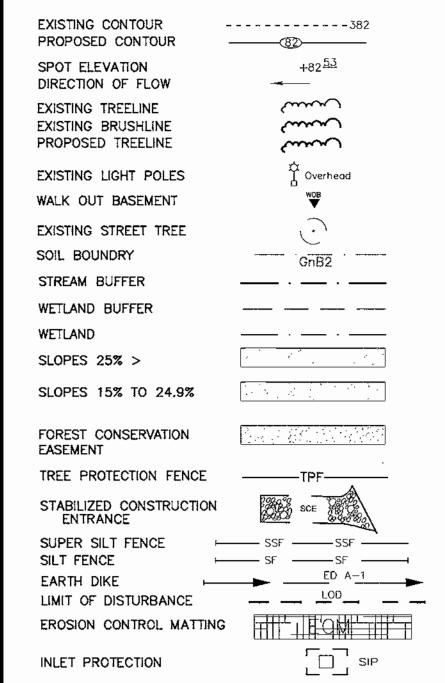
SITE DEVELOPMENT PLAN

THORNTON WOODS OVERLOOK

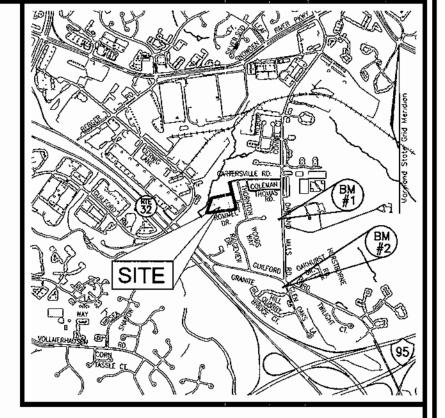
LOTS 1 -10 AND OPEN SPACE LOTS 11 & 12 HOWARD COUNTY, MARYLAND



LOCATION PLAN SCALE : 1"=100"



LEGEND



VICINITY MAP

BENCHMARKS				
NO.	NORTHING	EASTING	ELEVATION	
42R5	548,777.0609	1,360,3609768	391.54	
42R6	546,822.0895	1,360,340.6529	389.12	

ADDRESS CHART			
LOT #	STREET ADDRESS		
1	9514 ROMMEL DRIVE		
2	9518 ROMMEL DRIVE		
3	9522 ROMMEL DRIVE		
4	9526 ROMMEL DRIVE		
5	9530 ROMMEL DRIVE		
6	9515 ROMMEL DRIVE		
7	9519 ROMMEL DRIVE		
8	9523 ROMMEL DRIVE		
9	9527 ROMMEL DRIVE		
10	9531 ROMMEL DRIVE		

LOT NUMBER	
US TR 58.04	

	SHEET	INDEX		
	DESCRIPTION			SHEET NO.
COVER	SHEET			1 OF 3
SITE DE	/ELOPMENT PLAN		:	2 OF 3
DETAILS		ţ		3 OF 3

DATE

COVER SHEET

THORNTON WOODS OVERLOOK LOTS 1- 10 AND OPEN SPACE LOT 11 & 12

TAX MAP #42 GRID 16 PARCEL '41'
HOWARD COUNTY, MARYLAND TH ELECTION DISTRICT REF:F-02-126, P-01-26, WP-01-85, S-01-07, W&S 24-4028-D, PLAT #15809-



OWNER/DEVELOPER

TB! HOMES INC.

3675 PARK AVENUE, SUITE 301 ELLICOTT CITY, MD 21043

ROSION CONTROL,

(410) 480-0023

DANCE AT A DEPARTMENT

HOWARD SOIL

HING PROGRAM FOR THE CONTROL BEGGINING THE PROJECT. I ALSO

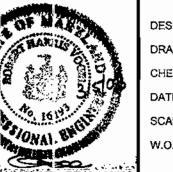
DEVELOPER'S CERTIFICATE

THIS PLAN FOR SEDIMENT AND

NATURE OF DEVELOPER - TBI HOMES, INC.

FREDERICK WARD ASSOCIATES, INC. ENGINEERS | 7125 Riverwood Drive Columbia, Maryland 21046-2354

ARCHITECTS | Phone: 410-290-9550 Fax: 410-720-6226 surveyors | Bel Air, Maryland Columbia, Maryland Warrenton, Virginia



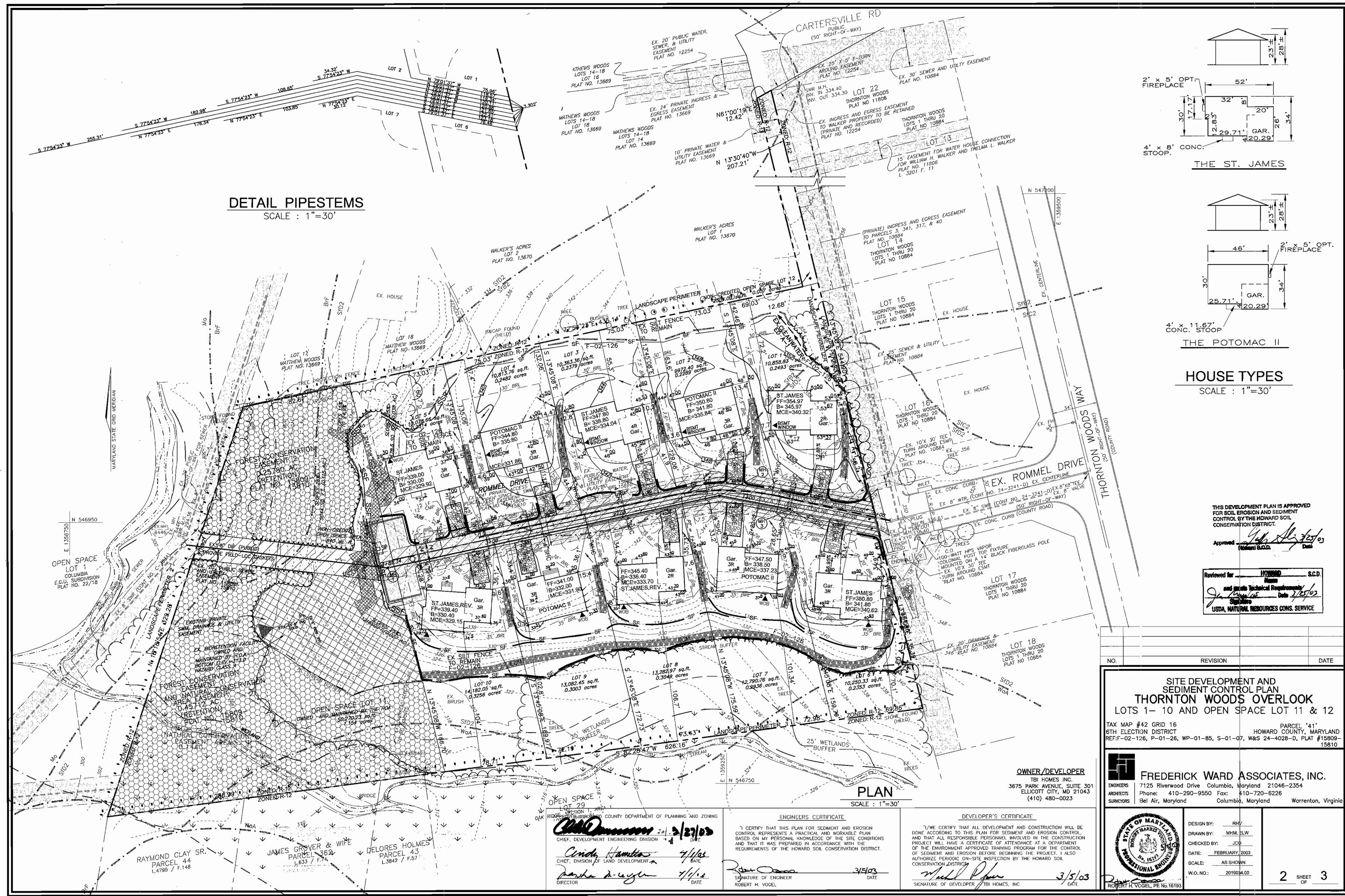
DESIGN BY: CHECKED BY: JCO DATE: FEBRUARY, 2003 W.O. NO.: 2019034.00

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOLL

USDAL NATURAL RESOURCES CONS. SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

EXTS A PRACTICAL AND WOS BASED ON MY PERSO KNOWLEDGE C AND THAT IT WAS PREPARED IN ACC RDANCE WITH THE CONSERVATION DISTRICT. OF THE ENVIRONMENT APPROVED REQUIREMENTS OF THE HOWA OF SEDIMENT AND EROSION B AUTHORIZE PERIODIC ON CONSERVATION DIS



21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

iii. For sites having disturbed areas over 5 acres:

to bring the soil into compliance with the following:

1.5 percent by weight.

phyto-toxic materials.

Stabilization Methods and Materials.

natural topsoil

V. Topsoil Application

Sediment Traps and Basins.

8" higher in elevation.

or water pockets.

i. On soil meeting topsoil specifications, obtain test

results dictating fertilizer and lime amendments required

a. pH for topsoil shall be between 6.0 and 7.5. If

the tested soil demonstrates a pH of less than

6.0, sufficient lime shall be prescribed to raise

the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than

c. Topsoil having soluble salt content greater than

d. No sod or seed shall be placed on soil soil which

elapsed (14 days min.) to permit dissipation of

NOTE: Topsoil substitutes or amendments, as recommended

by a qualified agronomist or soil scientist and approved by

ii. Place topsoil (if required) and apply soil ammendments specified in 20.0 Vegetative Stabilization—Section I—Vegetative

i. When topsoiling, maintain needed erosion and

ii. Grades on the areas to be topsoiled, which have

iii. 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

iv. Topsoil shall not be place while the topsoil or

2:1 SLOPE OR FLATTER

CUT OR FILL SLOPE

the soil 7" minimum

functioning of the dike.

each rain event.

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED

FOR SOIL EROSION AND SEDIMENT

CONTROL BY THE HOWARD SPIL

CONSERVATION DESTRICT.

GRADE LINE

CUT OR FILL SLOPE

1. Seed and cover with straw mulch

POSITIVE DRAINAGE

SUFFICIENT TO DRAIN

PLAN VIEW

FLOW CHANNEL STABILIZATION

GRADE 0.5% MIN. 10% MAX.

2. Seed and cover with Erosion Control Matting or line with sod.

Construction Specifications

2. Runoff diverted from a disturbed area shall be conveyed to a sediment

3. Runoff diverted from an undisturbed area shall outlet directly into an

4. All trees, brush, stumps, obstructions, and other objectional material

shall be removed and disposed of so as not to interfere with the proper

5. 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

7. All earth removed and not needed for construction shall be placed so that

A - 1 - 6

8. Inspection and maintenance must be provided periodically and after

grade to an outlet. Spot elevations may be necessary for grades less than 1%.

3. 4" - 7" stone or recycled concrete equivolent pressed into

1. All temporary earth dikes shall have uninterrupted positive

undisturbed, stabilized area at a non-erosive velocity.

or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment.

it will not interfere with the functioning of the dike.

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 seedbed preparation.

or seeding can proceed with a minimum of additional soil

corrected in order to prevent the formation of depressions

preparation and tillage. Any irregularities in the surface

resulting from topsoiling or other operations shall be

sediment control practices such as diversions. Grade

Stabilization Structures, Earth Dikes, Slope Silt Fence and

been previously established, shall be maintained, albeit 4"

the appropriate approval authority, may be used in lieu of

used for weed control until sufficient time has

has been treated with soil sterilants or chemicals

500 ports per million shall not be used.

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:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. 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. c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with

II. 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.

II. Topsoil Specifications — Soil to be used as topsoil must meet the following:

i. 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 that 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. 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.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization -Section | - Vegetative Stabilization Methods and Materials.

SEDIMENT CONTROL NOTES

- 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1855).
- 2. All vegetation 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 redisturbance, 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 3:1, (b) 14 days as to all other disturbed or graded areas on the
- 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, 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 seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall 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 Area Disturbed Area to be roofed or paved Area to be vegetatively stabilized 1600 CY Total Cut Total Fill 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.

until this initial approval by the inspection agency is made.

9. Additional sediment controls must be provided, if deemed necessary by the

Howard County 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

11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter

* To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit

PERMANENT SEEDING NOTES

the following schedules:

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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking. discing or other acceptable means before seeding, if not previously SOIL AMENDMENTS: In lieu of soil test recommendations, use one of

1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 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.)

2) Acceptable-Apply 2 tons per acre dolomatic 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 sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored

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 8 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 reseedings.

TEMPORARY SEEDING NOTES

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

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 thr 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 (.07 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 8 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.

DIKE B

STANDARD SYMBOL

A-2 B-3

---/----

--- EXCAVATE TO PROVIDE

a-DIKE HEIGHT

b-DIKE WIDTH

c-FLOW WIDTH

d-FLOW DEPTH

REQUIRED FLOW WIDTH

AT DESIGN FLOW DEPT

MARYLAND DEPARTMENT OF ENVIRONMENT

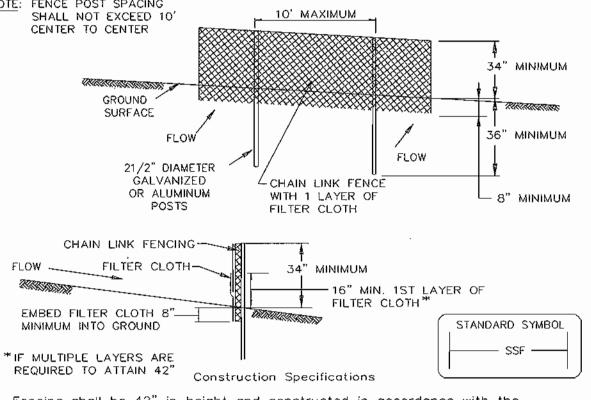
WATER MANAGEMENT ADMINISTRATION

and meets Technical Requirements
Date 3/25/03

USDA, NATURAL RESOURCES CONS. SERVICE

2:1 SLOPE OR FLATTER

DETAIL 33 - SUPER SILT FENCE (FINAL PLAN)



 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

2. 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.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section

4. Filter cloth shall be embedded a minimum of 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. 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 7. 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

Test: MSMT 509 Tensile Strenath 50 lbs/in (min.) Test: MSMT 509 Tensile Modulus 20 lbs/in (min.) 0.3 gal/ft 1/minute (max.) Test: MSMT 322 Flow Rate Test: MSMT 322 Filtering Efficiency 75% (min.) U.S. DEPARTMENT OF AGRICULTURE

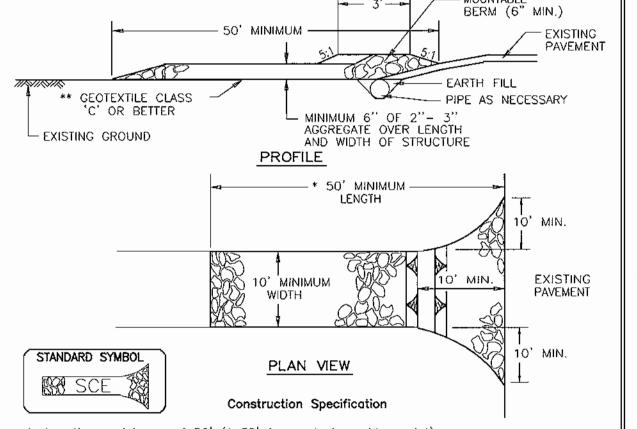
H - 26 - 3

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

10' MAXIMUM CENTER TO

— CENTER _____

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



1. Length - minimum of 50' (* 30' for a single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a

3. 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.

4. 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

5. 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 5:1 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 con-

_ 36" MINIMUM LENGTH FENCE POST,

DRIVEN A MINIMUM OF 16" INTO

GROUND

CROSS SECTION

-16" MINIMUM HEIGHT OF

GEOTEXTILE CLASS F

- 8" MINIMUM DEPTH IN

FENCE POST SECTION

UNDISTURBED

- MINIMUM 20" ABOVE

- FENCE POST DRIVEN A

THE GROUND

STANDARD SYMBOL

------ SF ------

Test: MSMT 509

Test: MSMT 509

Test: MSMT 322

Test: MSMT 322

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

MINIMUM OF 16" INTO

GROUND

DETAIL 22 - SILT FENCE

36" MINIMUM FENCE-

FLOW

FILTER

CLOTH ---

POST LENGTH

EMBED GEOTEXTILE CLASS F

INTO THE GROUND

SECTION B

1. 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

Steel posts will be standard T or U section weighing not less than 1.00

2. Geotextile shall be fastened securely to each fence post with wire ties or

3. Where ends of geotextile fabric come together, they shall be overlapped,

4. Silt Fence shall be inspected after each rainfall event and maintained when

bulges occur or when sediment accumulation reaches 50% of the fabric

stables at top and mid-section and shall meet the following requirements

50 lbs/in (min.)

20 lbs/in (min.)

75% (min.)

0.3 gal ft /minute (max.)

3/4" diameter (minimum) round and shall be of sound quality hardwood.

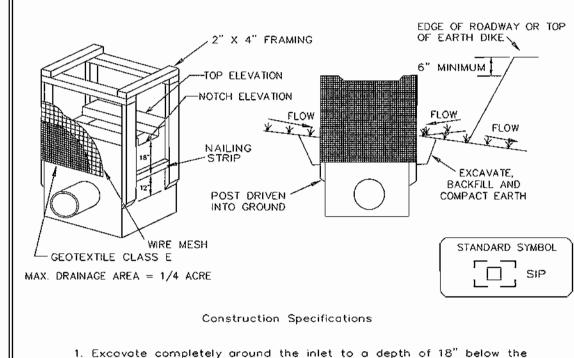
A MINIMUM OF 8" VERTICALLY _ \$

Construction Specifications

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

DETAIL 23A - STANDARD INLET PROTECTION



notch elevation. 2. Drive the 2" x 4" construction grade lumber posts 1' into the

ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlop joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and

should be at least 6" higher than the top of the frome.

top elevation on the sides. 6. If the inlet is not in a sump, construct a compacted earth dike

across the ditch line directly below it. The top of the earth dike

7. The structure must be inspected periodically and after each

rain and the geotextile replaced when it becomes cloaded.

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

1. Obtain grading permit. 2. Notify Howard County Bureau Of Inspections and Permits (410.313.1880)

at least 24 hours before starting any work. 3. Construct Stabilized Construction Entrances. (1 day)

4. Install silt fence. (2 days)

5. After obtaining permission from the sediment control inspector to

eed, rough grade site and install erosion control matting. (4 days) 6. Construct house. The first floor elevation cannot be more than 1' higher or 0.2' lower than the elevations shown on this plan. (4 months)

7. Final lot grade to be in substantial conformance with site

development plan. (2 days) 8. Upon stabilization of all disturbed areas and with the approval of the sediment control inspector, remove all sediment control devices. (3 days)

During grading and after each rainfall, the contractor shall inspect and provide the necessary maintenance on the sediment and erosion control measures shown

Following initial soil disturbance or redisturbance permanent or temporary stabilization shall be complied

A. 7 calendar days for all perimeter sediment control B. 14 calendar days for all other disturbed areas.

slopes and all slopes greater than 3:1.

DATE REVISION

structures, dikes, swales, ditch perimeter slopes

DETAIL SHEET THORNTON WOODS OVERLOOK LOTS 1- 10 AND OPEN SPACE LOT 11 & 12

TAX MAP #42 GRID 16 PARCEL '41' HOWARD COUNTY, MARYLAND STH ELECTION DISTRICT REF:F-02-126, P-01-26, WP-01-85, S-01-07, W&S 24-4028-D, PLAT #15809-

FREDERICK WARD ASSOCIATES, INC. ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354 Phone: 410-290-9550 Fax: 410-720-6226

Columbia, Maryland

3675 PARK AVENUE, SUITE 30 ELLICOTT CITY, MD 21043 SURVEYORS | Bel Air, Maryland

> DESIGN BY: DRAWN BY: CHECKED BY:

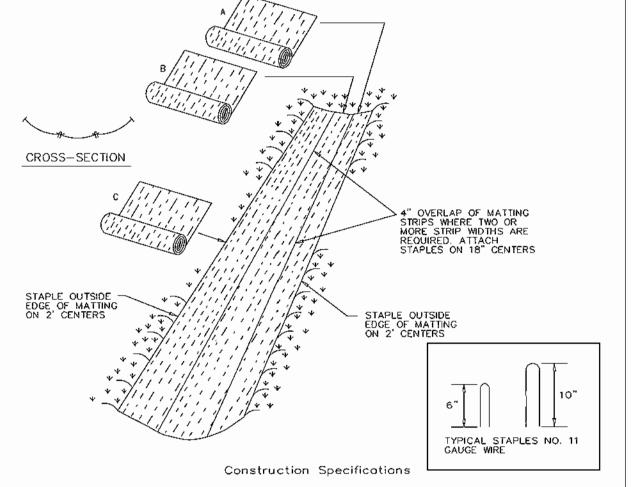
MHM, ELW FEBRUARY, 2003 AS SHOWN W.O. NO.:

2019034.00 SHEET

DETAIL 30 - EROSION CONTROL MATTING DETAIL 1 - EARTH DIKE (FINAL PLAN)

Geotextile Class F:

SOIL CONSERVATION SERVICE



1. 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". 2. Staple the 4" overlap in the channel center using an 18" spacing between stoples

3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil. 4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.

5. 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", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" aport in a staggered pattern on either side.

6. 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. MARYLAND DEPARTMENT OF ENVIRONMENT

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

WATER MANAGEMENT ADMINISTRATION

I 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.

LOOUT COMO SIGNATURE OF ENGINEER ROBÉRT H. VOGEL

ENGINEERS CERTIFICATE

<u>3/5/03</u>

SECTION A

STAPLE

pound per linear foot.

for Geotextile Class F:

Tensile Strength

Filtering Eggeciency

folded and stapled to prevent sediment bypass

Tensile Modulus

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Flow Rate

JOINING TWO ADJACENT SILT

FENCE SECTIONS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Hamite

DEVELOPER'S CERTIFICATE "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS 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. Jul !

SIGNATURE OF DEVELOPER - TBL/HOMES, INC.

OWNER/DEVELOPER

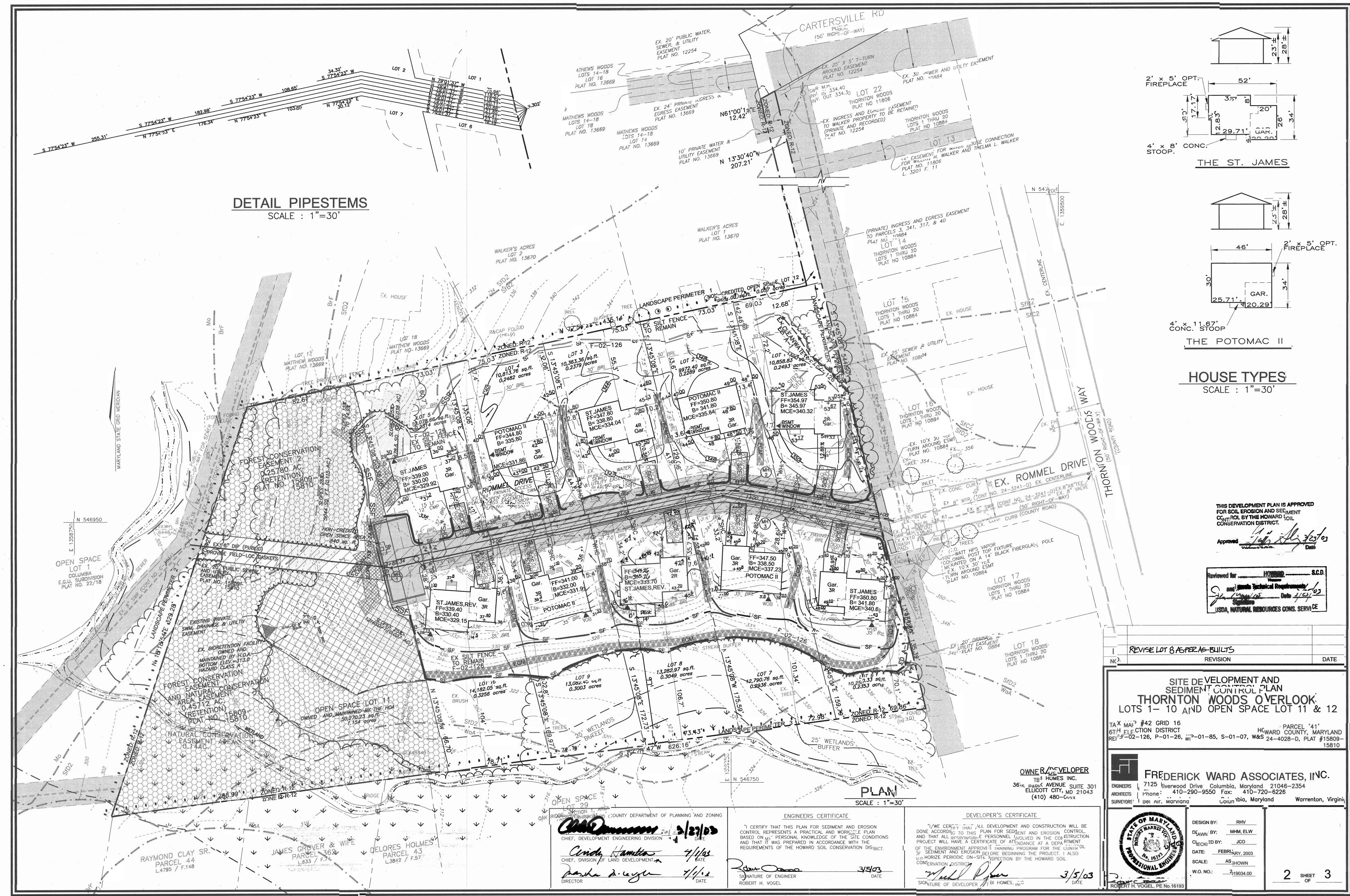
TBI HOMES INC.

(410) 480-0023



SDP-03-071

Warrenton, Virgin



GENERAL NOTES

- 1. THE SUBJECT PROPERTY IS ZONED R-12 PER THE 10/18/93 COMPREHENSIVE ZONING PLAN.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO
- 4. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY BELL ATLANTIC TELEPHONE CO: HOWARD COUNTY BUREAU OF UTILITIES: 313-2366 AT&T CABLE LOCATION DIVISION: B.G.&E. CO. CONTRACTOR SERVICES: 850-4620 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620

AREA OF PLAN SUBMISSION: 88,936 SF (2.04 AC) LIMIT OF DISTURBANCE: 75,866 SF (1.74 AC) PRESENT ZONING: R-12 TOTAL UNITS ALLOWED: 10 TOTAL UNITS PROPOSED: 10 TOTAL NUMBER OF BUILDABLE LOTS: 10 TOTAL NUMBER OF OPEN SPACE LOTS: 2

AREA OF OPEN SPACE REQUIRED: 20% OF GROSS AREA OF PARCEL (0.780 AC.) TOTAL AREA OF OPEN SPACE PROVIDED: 1.2293 ACRES

LOCATION: TAX MAP: 42 PARCEL: 41 GRID: 16 ZONING: R-12

DEED REFERENCE: LIBER 45 FOLIO 175, LIBER 1123 FOLIO 712, LIBER 6212 FOLIO 415 AND LIBER 6212 FOLIO 418 DPZ REFERENCES: F-02-126, P-01-26, WP-01-85, S-01-07

- 7. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR
- 8. ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERUPTED SERVICE. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY INCURRED DUE TO
- EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 11. ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING

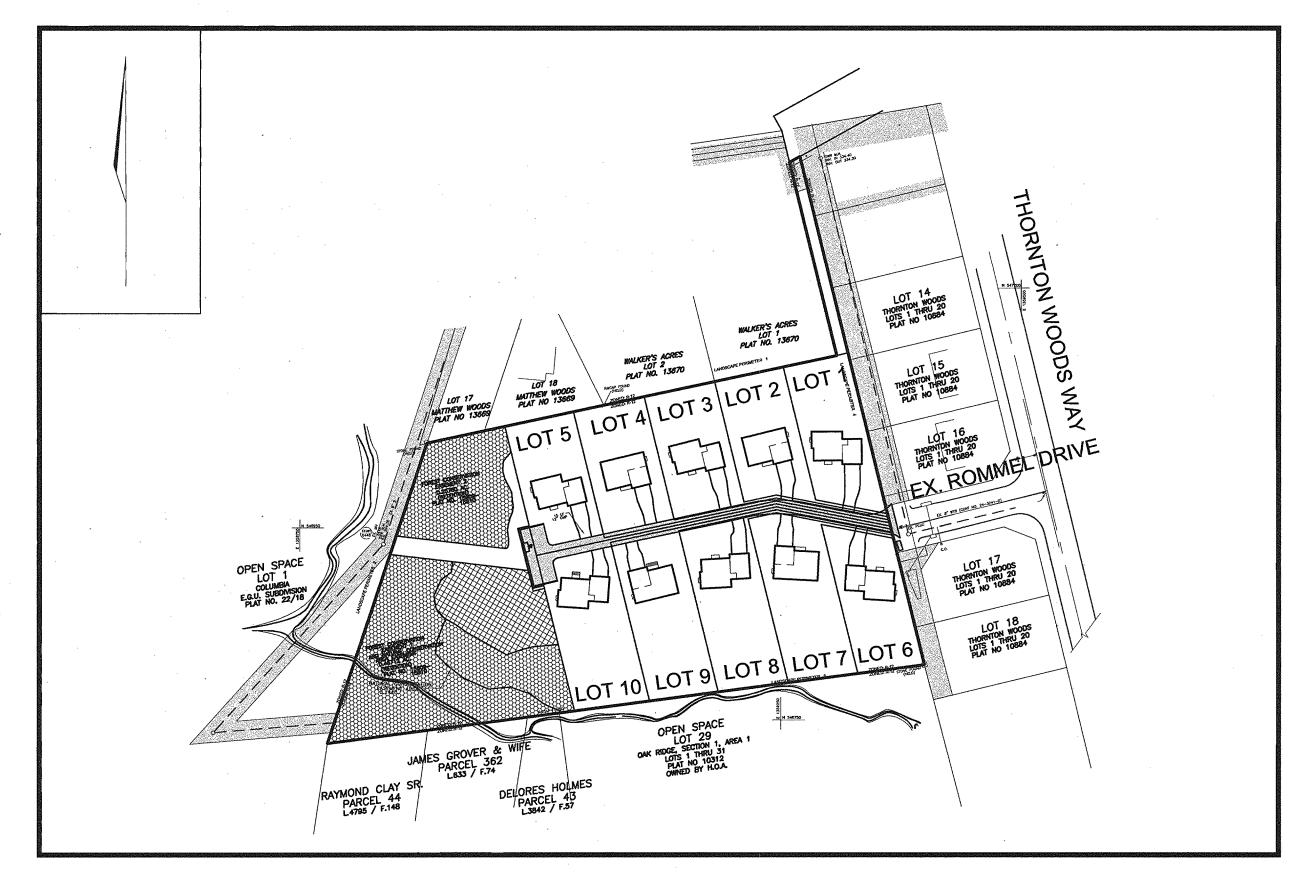
TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST

- 12. SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED
- 13. COORDINATES AND ELEVATIONS ARE BASED ON HOWARD COUNTY MONUMENT NO'S. 42R5 AND 42R6.
- 14. EXISTING TOPOGRAPHY IS BASED ON PLANS PREPARED BY A FIELD SURVEY PREPARED BY VOGEL & ASSOCIATES, DATED FEB. 10, 1999.
- 15. ACCESS TO WATER HAS BEEN PROVIDED UNDER CONTRACT NO. 24-4028-D. ACCESS TO SEWER HAS BEEN PROVIDED UNDER CONTRACT NO. 24-4028-D.
- 16. THERE ARE NO STEEP SLOPES WITH A CONTIGUOUS AREA OF GREATER THAN 20,000 SF LOCATED ON THIS PROPERTY.
- 17. NO BURIAL GROUNDS OR CEMETERIES ARE LOCATED ON THIS PROPERTY.
- 18. 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.
- 19. ALL BASEMENTS WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE OPENABLE EMERGENCY ESCAPE AND RESCUE WINDOW OR EXTERIOR DOOR AS DESCRIBED IN SECTION R310 OF THE 2000 INTERNATIONAL RESIDENTIAL CODE.
- 20. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENT OCCUPANCY TO INSURE SAFE ACCESS FOR
- FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS: A) WIDTH - 12 FEET (14 FEET IF SERVING MORE THAN ONE RESIDENCE)
- B) SURFACE 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING
- D) STRUCTURES (CULVERTS/BRIDGES) MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
- E) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
- F) STRUCTURE CLEARANCES MINIMUM 12 FEET
- G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE
- 21. ALL DRIVEWAY APRONS TO BE PER HOWARD COUNTY STANDARD DETAIL NO.'S R-6.05 & R-6.01 UNLESS OTHERWISE NOTED.
- 22. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE D.P.W. DEVELOPER'S PERMIT IN THE AMOUNT OF \$3900.00 FOR 13 SHADE TREES UNDER F-02-126.
- 23. THERE ARE STREAMS AND FLOODPLAIN ON THIS SITE. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- 24. NO 100 YEAR FLOODPLAINS EXISTS ON SITE.
- 25. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION AND BY PAYMENT OF FEE-IN-LIEU OF \$6,528.00 INTO THE HOWARD COUNTY CONSERVATION FUND UNDER F-02-126.
- 26. BASED ON THIS PLAN BEING SUBMITTED PRIOR TO 11/15/01, ON 06/28/01 IT (AND THE SUBDIVISION) IS "GRANDFATHERED" AND SUBJECT TO COMPLIANCE WITH THE FOURTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. IN ADDITION, BECAUSE THIS PLAN WAS NOT APPROVED PRIOR TO 11/01/01, IT (AND THE SUBDIVISION) IS SUBJECT TO COMPLIANCE WITH COUNTY COUNCIL BILL 50-2001, WHICH AMENDS PORTIONS OF THE ZONING REGULATIONS.
- 27. STORMWATER MANAGEMENT HAS BEEN PROVIDED FOR THE DEVELOPMENT BY BIORETENTION IN OPEN SPACE LOT 11 UNDER F-02-126.
- 28. THE DEVELOPER IS ADVISED THAT THIS PLAN CAN NOT RECEIVE SIGNATURE APPROVAL UNTIL THE PLAT F-02-126 HAS BEEN RECORDED.
- 29. THERE IS NO 100 YEAR FLOODPLAIN LOCATED ON-SITE.

SITE DEVELOPMENT PLAN

THORNTON WOODS OVERLOOK

LOTS 1-10 AND OPEN SPACE LOTS 11 & 12 HOWARD COUNTY, MARYLAND



LOCATION PLAN SCALE : 1"=100"

<u> </u>	
EXISTING CONTOUR PROPOSED CONTOUR	382
SPOT ELEVATION DIRECTION OF FLOW	+82 ⁵³
EXISTING TREELINE EXISTING BRUSHLINE PROPOSED TREELINE	~~~~ ~~~~~ ~~~~~
EXISTING LIGHT POLES	☆ ☐ Overhead
WALK OUT BASEMENT	WOB
EXISTING STREET TREE	, +
SOIL BOUNDRY	
STREAM BUFFER	
WETLAND BUFFER	
WETLAND	
SLOPES 25% >	
SLOPES 15% TO 24.9%	
FOREST CONSERVATION EASEMENT	
TREE PROTECTION FENCE	TPF
STABILIZED CONSTRUCTION ENTRANCE	SCE SCE
SUPER SILT FENCE -	SSFSSF

SILT FENCE EARTH DIKE

PROJECT WILL HAVE A CER

OF SEDIMENT AND EROSION

AUTHORIZE PERIODIC

OF THE ENVIRONMENT APPROVE

LIMIT OF DISTURBANC

INLET PROTECTION

EROSION CONTROL MATTING

VICINITY MAP

BENCHMARKS				
NO.	NORTHING	EASTING	ELEVATION	
42R5	548,777.0609	1,360,3609768	391.54	
42R6	546,822.0895	1,360,340.6529	389.12	

ADDRESS CHART				
LOT #	STREET ADDRESS			
1	9514 ROMMEL DRIVE			
2	9518 ROMMEL DRIVE			
3	9522 ROMMEL DRIVE			
4	9526 ROMMEL DRIVE			
5	9530 ROMMEL DRIVE			
6	9515 ROMMEL DRIVE			
7	9519 ROMMEL DRIVE			
8	9523 ROMMEL DRIVE			
9	9527 ROMMEL DRIVE			
10	9531 ROMMEL DRIVE			

PROJECT NAME SECTION/ THORNTON WOODS OVERLOOK N/A	P		
		LOT NUMBER	
PLAT REF. GRID NO. ZONE TAX MAP 15809-15810 16 R-12 42	ELECT. DI	ST. CENSUS TR. 6068.04	
WATER CODE: E-14 SEWER CODE: 5201300			

SHEET	INDEX	
DESCRIPTION		SHEET NO.
COVER SHEET		1 OF 3
SITE DEVELOPMENT PLAN		, 2 OF 3
DETAILS		3 OF 3

HOW THE RESTAU

THORNTON WOODS OVERLOOK LOTS 1- 10 AND OPEN SPACE LOT 11 & 12

COVER SHEET

6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND REF:F-02-126, P-01-26, WP-01-85, S-01-07, W&S 24-4028-D, PLAT #15809-

<u>OWNER/DEVELOPER</u>

TBI HOMES INC.

3675 PARK AVENUE, SUITE 301 ELLICOTT CITY, MD 21043

(410) 480-0023

ANCE AT A DEPARTMENT

THE PROJECT. I ALSO

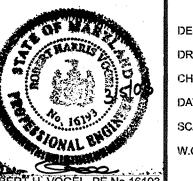
HOWARD SOIL

NG PROGRAM FOR THE CONTROL

OSION CONTROL,

FREDERICK WARD ASSOCIATES, INC. ENGINEERS | 7125 Riverwood Drive Columbia, Maryland 21046-2354

Phone: 410-290-9550 Fax: 410-720-6226 SURVEYORS | Bel Air, Maryland Columbia, Maryland



Warrenton, Virginia DESIGN BY: DRAWN BY: MHM, ELW CHECKED BY: JCO DATE: FEBRUARY, 2003 AS SHOWN *N*.O. NO.: 2019034.00 SHEET __ OF __

THIS DEVELOPMENT PLAN IS APPROVED CONTROL BY THE HOWARD SOLL

AND THAT IT WAS PREPAR DANCE WITH THE CONSERVATION DISTRICT. REQUIREMENTS OF THE HOWA

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

iii. For sites having disturbed areas over 5 acres:

to bring the soil into compliance with the following:

1.5 percent by weight.

phyto-toxic materials.

Stabilization Methods and Materials.

V. Topsoil Application

Sediment Traps and Basins.

- 8" higher in elevation.

or water pockets.

results dictating fertilizer and lime amendments required

a. pH for topsoil shall be between 6.0 and 7.5. It

the tested soil demonstrates a pH of less than

6.0, sufficient lime shall be prescribed to raise

the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than

c. Topsoil having soluble salt content greater than

d. No sod or seed shall be placed on soil soil which

used for weed control until sufficient time has

elapsed (14 days min.) to permit dissipation of

NOTE: Topsoil substitutes or amendments, as recommended

by a qualified agronomist or soil scientist and approved by

ii. Place topsoil (if required) and apply soil ammendments

sediment control practices such as diversions, Grade

Stabilization Structures, Earth Dikes, Slope Silt Fence and

been previously established, shall be maintained, albeit 4"

specified in 20.0 Vegetative Stabilization—Section I—Vegetative

When topsoiling, maintain needed erosion and

ii. Grades on the greas to be topsoiled, which have

iii. Topsoil shall be uniformly distributed in a 4" -

iv. Topsoil shall not be place while the topsoil or

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

corrected in order to prevent the formation of depressions

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 seedbed preparation.

preparation and tillage. Any irregularities in the surface

resulting from topsoiling or other operations shall be

the appropriate approval authority, may be used in lieu of

has been treated with soil sterilants or chemicals

500 parts per million shall not be used.

i. On soil meeting topsoil specifications, obtain test

DEFINITION

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

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

1. This practice is limited to areas having 2:1 or flatter

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. 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. c. The original soil to be vegetated contains

material toxic to plant growth. d. The soil is so acidic that treatment with

II. 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

1. 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.

II. Topsoil Specifications — Soil to be used as topsoil must meet the following:

i. 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 that 1 and 1/2" in

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. 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.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization -Section 1 - Vegetative Stabilization Methods and Materials.

SEDIMENT CONTROL NOTES

- 1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection. License and Permits Sediment Control Division prior to the start of any construction (313-1855).
- 2. All vegetation 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.
- 3. Following initial soil disturbance or redisturbance, 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 3:1, (b) 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 perimeter in accordance with Vol. 1, Chapter 7, 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 seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall 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

Tòtal Area Area Disturbed Area to be roofed or paved Area to be vegetatively stabilized Total Cut ___ Total Fill 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.
- Additional sediment controls 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. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- * To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit

PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 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.)

2) Acceptable-Apply 2 tons per acre dolomatic 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 sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sa. 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 8 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 reseedings.

TEMPORARY SEEDING NOTES

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

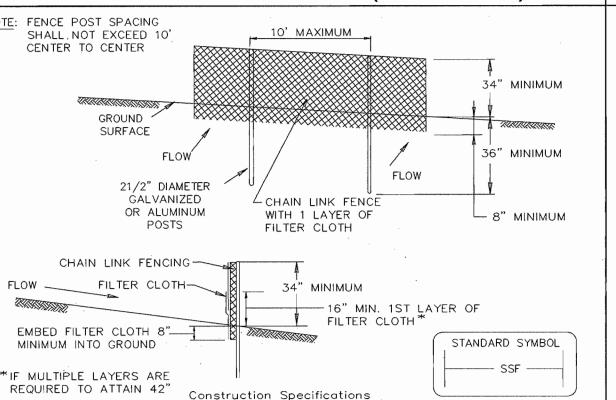
SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft).

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 (.07 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

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 8 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.

DETAIL 33 - SUPER SILT FENCE (FINAL PLAN)



Fencing shall be 42" in height and constructed in accordance with the atest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length

2. 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.

4. Filter cloth shall be embedded a minimum of 8" into the ground.

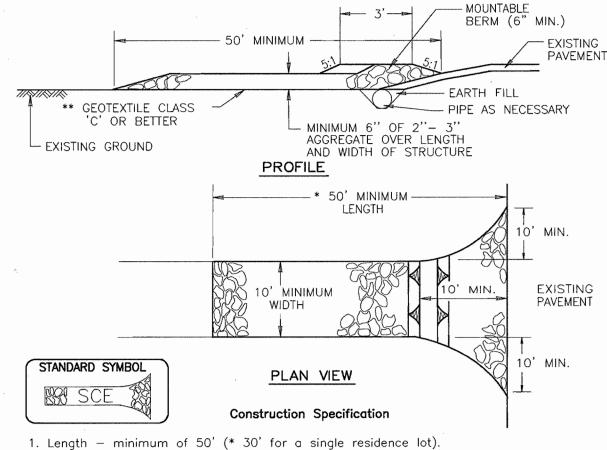
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

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 7. 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:

50 lbs/in (min.) Test: MSMT 509 Tensile Strength 20 lbs/in (min.) Test: MSMT 509 Tensile Modulus 0.3 gal/ft ½minute (max.) Test: MSMT 322 Flow Rate Test: MSMT 322 Filtering Efficiency 75% (min.)

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

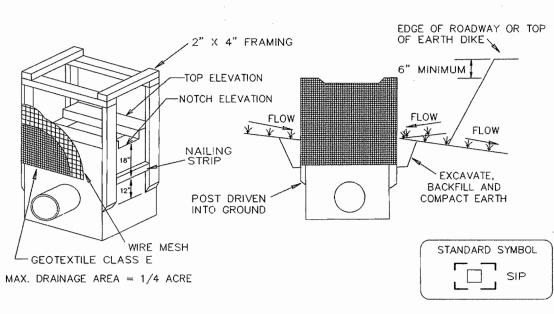


family residences to use geotextile.

- 2. Width 10' minimum, should be flared at the existing road to provide a
- 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ** The plan approval authority may not require single
- 4. 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
- 5. 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 5:1 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.
- 6. 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 con-

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23A - STANDARD INLET PROTECTION



Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

SEQUENCE OF CONSTRUCTION

5. After obtaining permission from the sediment control inspector to

than 1' higher or 0.2' lower than the elevations shown on

6. Construct house. The first floor elevation cannot be more

7. Final lot grade to be in substantial conformance with site

approval of the sediment control inspector, remove all

During grading and after each rainfall, the contractor

Following initial soil disturbance or redisturbance

shall inspect and provide the necessary maintenance

on the sediment and erosion control measures shown

permanent or temporary stabilization shall be complied

A. 7 calendar days for all perimeter sediment control

structures, dikes, swales, ditch perimeter slopes

B. 14 calendar days for all other disturbed areas.

slopes and all slopes greater than 3:1.

REVISION

DETAIL SHEET

THORNTON WOODS OVERLOOK

LOTS 1- 10 AND OPEN SPACE LOT 11 & 12

REF:F-02-126, P-01-26, WP-01-85, S-01-07, W&S 24-4028-D, PLAT #15809-

8. Upon stabilization of all disturbed areas and with the

at least 24 hours before starting any work.

3. Construct Stabilized Construction Entrances. (1 day)

2. Notify Howard County Bureau Of Inspections and Permits (410.313.1880)

proceed, rough grade site and install erosion control matting. (4 days)

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes cloaged.

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT

SOIL CONSERVATION SERVICE

1. Obtain grading permit.

4. Install silt fence. (2 days)

this plan. (4 months)

NOTES

development plan. (2 days)

sediment control devices. (3 days)

SOIL CONSERVATION SERVICE

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.

2. 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.)

Filtering Eggeciency 75% (min.) folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

TBI HOMES INC.

ELLICOTT CITY, MD 21043 (410) 480-0023

ENGINEERS | 7125 Riverwood Drive Columbia, Maryland 21046-2354 Phone: 410-290-9550 Fax: 410-720-6226 Warrenton, Virgin



DESIGN BY: DRAWN BY: MHM, ELW CHECKED BY: DATE: FEBRUARY, 2003 AS SHOWN SCALE:

2019034.00

SHEET

PARCEL '41' HOWARD COUNTY, MARYLAND

DATE

2:1 SLOPE OR FLATTER

DETAIL 1 - EARTH DIKE (FINAL PLAN)

2:1 SLOPE OR FLATTER EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH GRADE LINE AT DESIGN FLOW DEPT DIKE B a-DIKE HEIGHT POSITIVE DRAINAGE SUFFICIENT TO DRAIN b-DIKE WIDTH c-FLOW WIDTH d-FLOW DEPTH CUT OR FILL SLOPE PLAN VIEW STANDARD SYMBOL A-2 B-3FLOW CHANNEL STABILIZATION -> -/-> --GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. 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

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

trappina device.

4. 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.

5. 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.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

CROSS-SECTION

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

"I 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.

Kopert Cocaso 3/5/03 SIGNATURE OF ENGINEER DATE ROBERT H. VOGEL

ENGINEERS CERTIFICATE

Flow Rate

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS 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

SIGNATURE OF DEVELOPER - TBI HOMES, INC

SDP-03-071

CONTROL BY THE HOWARD SOIL STRICT. CONSERVATION

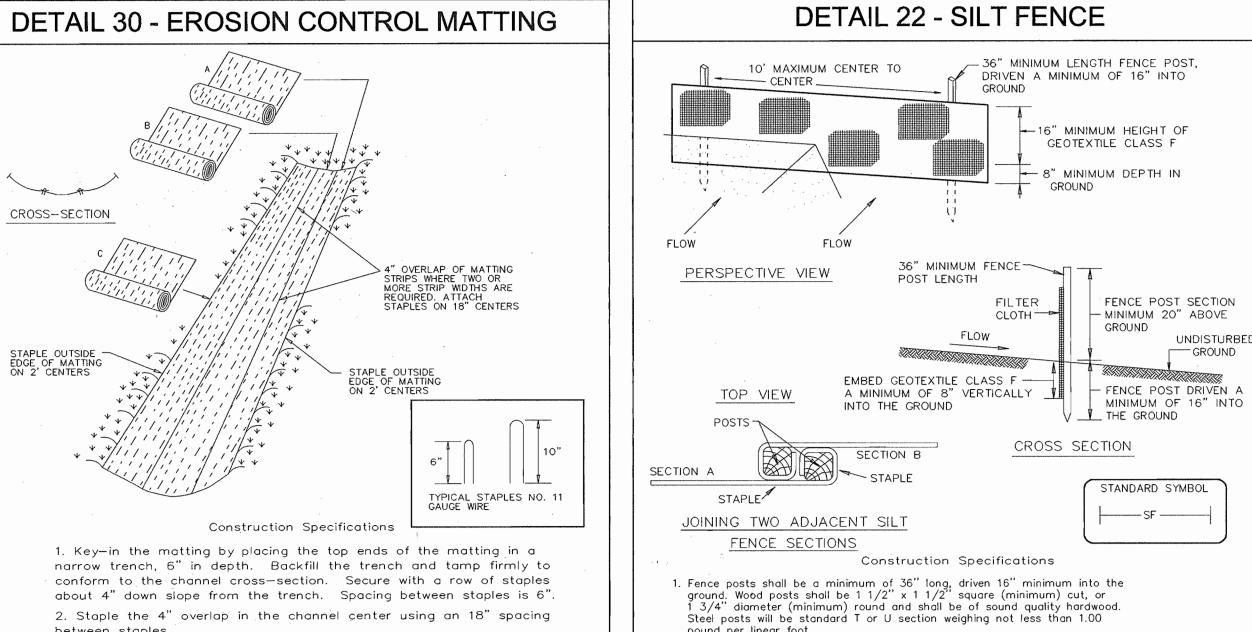
THIS DEVELOPMENT PLAN IS APPROVED

FOR SOIL EROSION AND SEDIMENT

and meets Technical Requirements

TYPICAL STAPLES NO. 11 GAUGE WIRE Construction Specifications 1. 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". 2. Staple the 4" overlap in the channel center using an 18" spacing 3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil. 4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center. 5. 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", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side. 6. 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



U.S. DEPARTMENT OF AGRICULTURE

Test: MSMT 509 Tensile Modulus 20 lbs/in (min.) Test: MSMT 509 Test: MSMT 322

0.3 gal ft /minute (max.)

3. Where ends of geotextile fabric come together, they shall be overlapped,

MARYLAND DEPARTMENT OF ENVIRONMENT

OWNER/DEVELOPER

3675 PARK AVENUE, SUITE 301 DEVELOPER'S CERTIFICATE

AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Test: MSMT 322

WATER MANAGEMENT ADMINISTRATION

FREDERICK WARD ASSOCIATES, INC. ARCHITECTS

FAX MAP #42 GRID 16

6TH ELECTION DISTRICT

SURVEYORS | Bel Air, Maryland Columbia, Maryland

