

3-2'X 2' DAK STAKES, NOTCH STAKES TO HOLD WIRE

REMOVE ANY COVERING FROM -

MAINTAIN GROUND LINE ---

VITH TOP OF ROOT CROWN

CONVEX BOTTOM 6' MIN. HT.

CONSTRUCT 3' SAUCER RIM-FLOOD-

VITH VATER TVICE VITHIN 24 HOURS

DOUBLE #12 GALVANIZED~ WIRE GUYS TWISTED

2-2″X 2″ DAK STAKES,— NOTCH STAKES TO HOLD ∀IRE

TREE PLANTING DETAIL

EVERGREEN PLANTING DETAIL

NOT TO SCALE

BUILDER/DEVELOPER'S/ CERTIFICATE

I/WE CERTIFY THAT THE REQUIRED LANDSCAPING WILL BE DONE ACCORDING TO THE

PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT

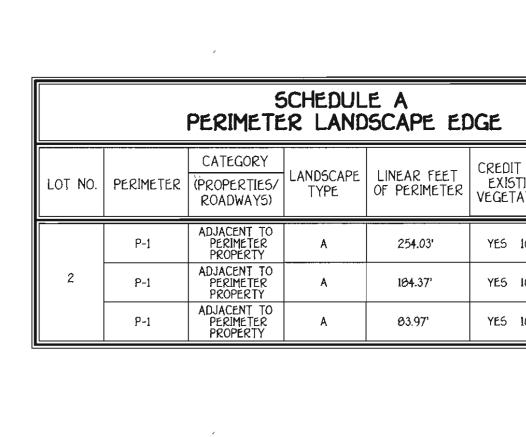
REGULATIONS AND THE LANDSCAPE MANUAL I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

(EXCEPT EVERGREENS)

TOP OF ROOT CROWN

WRAP TRUNK TO SECOND TIER-

OF BRANCHES WITH WATERPROOF TREE
WRAP, TIE AT 24' INTERVALS



CREDIT FOR EXISTING REMAINING VEGETATION YES 100% YES 100% YES 100%

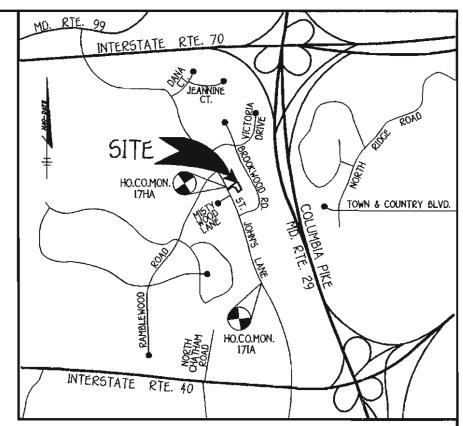
COMMON DIRIVEWAY DETAIL

DATE

BENCH MARKS

T.P. 17HA ELEV 436.34 N. 590.619.886 E. 1,360,433.475 LOC. BETWEEN MISTY WOOD LANE & RAMBLEWOOD ROAD ALONG ST. JOHN'S LANE

T.P. 17IA ELEV. 421.50 N. 588,803.676 E. 1,361,007.491 LOC. BETWEEN INT. RTE. 40 & BROOKWOOD ROAD ALONG ALONG ST. JOHN'S LANE



VICINITY MAP 5CALE: 1" = 2000'

GENERAL NOTES

. SUBJECT PROPERTY ZONED R-20 PER 10/18/93 COMPREHENSIVE ZONING PLAN.

TOTAL AREA OF SITE: 0.4924 ACRES TOTAL NUMBER OF LOTS SUBMITTED: 1 SFD

. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410)313-1880.

5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 40 HOURS PRIOR TO ANY EXCAVATION WORK. 6. THIS PROJECT IS SUBJECT TO HOWARD COUNTY FILES: F-97-148, W CONT. *11W,

5 CONT. *32-5. F. 04-093

7. THIS PLAN IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED ON OR ABOUT JUNE, 2003 BY FISHER, COLLINS & CARTER, INC.

6. HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS. HOWARD COUNTY MONUMENT 17HA N 590619.006 E 1360433.475 HOWARD COUNTY MONUMENT 171A N 588803.676 E 1361007.491

9. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE

10. THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY. IMPROVEMENTS SHOWN WITHIN THE RIGHTS-OF-WAY OF THIS S.D.P. ARE NOT USED FOR CONSTRUCTION. II. CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.

12. STORMWATER MANAGEMENT IS NOT REQUIRED BECAUSE THE LIMITS OF DISTURBANCE IS UNDER 5,000 SQUARE FEET.

13. LANDSCAPING IS IN ACCORDANCE WITH THE SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL.

14. AS A CONSEQUENCE OF THIS SUBMISSION, ON AUGUST 26, 2003, THIS SOP IS SUBJECT TO THE 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING

REGULATIONS AS AMENDED BY COUNCIL BILL 50-2001. 15. IN ACCORDANCE WITH SECTION 120 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 SETBACKS. 16. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE

FOLLOWING (MINIMUM) REQUIREMENTS: A.) WIDTH - 12' (14' IF SERVING MORE THAN ONE RESIDENCE) BJ SURFACE - 6" OF COMPACTED CRUSHER RUN BASE W/TAR AND CHIP COATING (1-1/2" MIN.)

C.) GEOMETRY MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45 FOOT TURNING RADIUS. DJ STRUCTURES - (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS

(H25-LOADING) E.) DRAINAGE ELEMENTS CAPABLE OF SAFETY PASSING 100 YEAR FLOOD WITH NO

MORE THAN I FOOT DEPTH OVER DRIVEWAY SURFACE. F) STRUCTURE CLEARANCES - MINIMUM 12 FEET

G.) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE 17. A \$1,500.00 DOLLAR FEE HAS BEEN PAID IN-LIEU OF PROVIDING OPEN SPACE, WITH F-97-140.

18. THE FOREST CONSERVATION REQUIREMENT WAS ADDRESSED UNDER F-97-148. 19. A WAIVER HAS BEEN GRANTED, LETTER DATED JULY 10, 2003, BY THE DEPARTMENT OF PLANNING RESIDENTIAL DRIVEWAY TO REMAIN AT 12', IN ORDER TO SAVE THE EXISTING MATURE TREES ALONG SIDES OF THE DRIVEWAY.

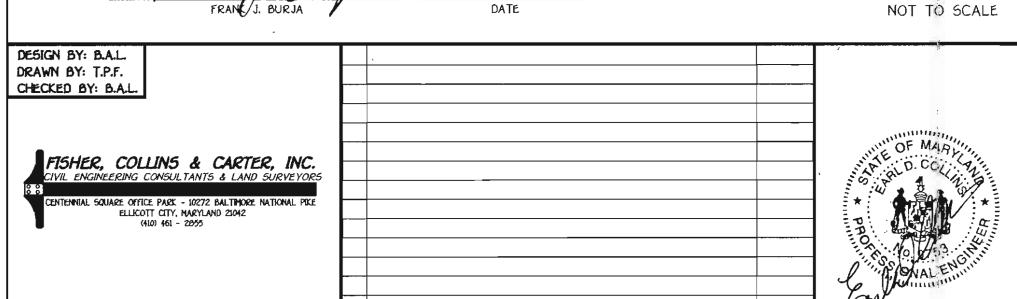
> ADDRESS CHART LOT NUMBER | STREET ADDRESS 2 3041 ST. JOHN'S LANE

INDEX CHART			
SHEET	DESCRIPTION		
SHEET 1	SITE DEVELOPMENT PLAN & SEDIMENT/ EROSION CONTROL PLAN		
SHEET 2	SEDIMENT/ EROSION CONTROL NOTES & DETAILS		

MINIMUM LOT AREA TABLE

LOT NO. | GROSS AREA | PIPESTEM AREA | 100 YR. FLOODPLAIN | MINIMUM LOT AREA 2 21,447 SQ.FT. 2,415 SQ.FT. N/A

LEGEND		
5YMBOL	DESCRIPTION	
	EXISTING CONTOUR 2' INTERVAL	
+362.2	SPOT ELEVATION	
MOR>	PROPOSED WALKOUT	
-5F —5F—	SILT FENCE	
A-1 ED	EARTH DIKE	
LOD	LIMIT OF DISTURBANCE	



-1/2 OF TREE HEIGHT

ENGINEER'S CERTIFICATE "I certify that this plan for erosion and sediment 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." EARL D. COLLINS

1-1/2" TAR & CHIP COATING

RUN BASE

6" COMPACTED CRUSHER

EXISTING

DWELLING

LOT 22

ZONED: R-20

10' EXISTING PRIVATE

DRAINAGE EASEMENT -PLAT BOOK 6, FOLIO 89

FILE NO. C-1392

EXISTING

BRINKLEICH WAYCR

FF 452.30

B 443.60

PLAT BOOK 6 FOLO 89

LANDSCAPE BUFFER

DWELLING

ZONED: R-20

BUILDER/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 any 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 peginning the project. I also authorize periodic on-site inspection by the Howard Soil Frank Bury
Signature of Developer FRANK J. BURJA

Reviewed for HOWARD SCD and meets Technical Requirements.

U.S.D.A.-Natural Resource Technical Requirements.

\$P

ST. JOHN'S LANE (PUBLIC MINOR COLLECTOR)

EXISTING DWELLING

EXISTING

DWELLING

ZONED: R-20

528°15'18"E ~ 184.17"

PRIVEWAY DRIVEWAY

ENYCH PROPERTY ZONED R-20

111

EXISTING

DWELLING

LOT 19

ZONED: R-20

OWNER/BUILDER/DEVELOPER FRANK J. BURJA 410 CROSBY ROAD BALTIMORE, MARYLAND 21228 410-788-5623

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ZINKEWYCH PROPERTY TAX/ZONE ELEC. DIST. CENSUS TR 12989 **4** R-20 SECOND WATER CODE SEWER CODE

5754700

EXISTING DWELLING

9° Wide —Areaway

SITE & SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED

ZINKEWYCH PROPERTY

TAX MAP NO: 17 GRID NO.: 23 PARCEL NO.: 142 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1"= 30' DATE: AUGUST, 2003 SHEET 1 OF 2

Using vegetation as cover for barren soil to protect it from forces that cause erosion

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources. CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration O(up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary Soil Stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc. EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

A. Site Preparation Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding. iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer. iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains

at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a •100 mesh sieve and 90-100% will pass through a •20

mesh sieve.
iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. Seedbed Preparation

Temporary Seeding a. Seedbed preparation shall consist of loosening soil to a depth of 3 to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater

running parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans. c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. ii. Permanent Seeding

than 3:1) should be tracked leaving the surface in an irregular condition with ridges

Minimum soil conditions required for permanent vegetative establishment:

1. Soil pH shall be between 6.0 and 7.0.

Soluble salts shall be less than 500 parts per million (ppm). The soil shall contain less than 40% clay, but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedezas is to be planted, then a sandy soil (30% silt pius clay) would be acceptable.

Soil shall contain 1.5% minimum organic matter by weight. Soil must contain sufficient pore space to permit adequate root penetration If these conditions cannot be met by soils on site, adding topsoil is required

in accordance with Section 21 Standard and Specification for Topsoil. b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from slidina down a slope.

Apply soil amendments as per soil test or as included on the plans.

Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this Job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used. ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75°-80° F. can weaken bacteria and make the inoculant less effective.

Methods of Seeding Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast

or drop seeded, or a cultipacker seeder. a. If fertilizer is being applied at the time of seeding, the application rates amounts will not

exceed the following: nitrogen, maximum of 100 lbs. per acre total of soluble nitrogen, P205 (phosphorous); 200 lbs/ac; K20 (potassium): 200 lbs/ac. Lime - use only ground agricultural limestone, (Up to 3 tons per acre may be applied by Normally, not more than 2 tons are applied by hydroseeding at any one

time. Do not use burnt or hydrated lime when hydroseeding. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction F. Mulch Specifications (In order of preference)

Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law. ii. Wood Cellulose Fiber Mulch (WCFM)

WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed

in contact with the soil without inhibiting the growth of the grass seedlings. WCFM material shall contain no elements or compounds at concentration levels that

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. It used on sloping land, this practice should be used on the contour if possible. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and

the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and crest of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70 Petroset, Terra Tax

II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

1. Incremental Stabilization - Cut Slopes All cuts slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes

shall be excavated and stabilized in equal increments not to exceed 15'. ii. Construction sequence (Refer to Figure 3 below):

a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation Perform Phase 1 excavation, dress, and stabilize. Perform Phase 2 excavation, dress and stabilize. Overseed Phase 1 areas as

necessary. Perform final phase excavation, dress and stabilize. Overseed previously seeded

areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions int he operation of completing the operation

out of the seeding season will necessitate the application of temporary stabilization J. Incremental Stabilization of Embankments - Fill Slopes

Embankments shall be constructed in lifts as prescribed on the plans.

ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches
15", or when the grading operation ceases as prescribed in the plans.
iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge
of the embankment to intercept surface runoff and convey it down the slope in a non-crosive manner to a sediment trapping device. Construction sequence: Refer to Figure 4 (below).

Excavate and stabilize all temporary swales, side ditches, or berms that will be used o divert runoff around the fill. Construct slope silt fence on low side of fill as shown

in Figure 5, unless other methods shown on the plans address this area. Place Phase 1 embankment, dress and stabilize. Place Phase 2 embankment, dress and stabilize

Place final phase embankment, dress and stabilize. Overseed previously seeded

Once the placement of fill has begun the operation should be continuous from grubbing through the completion of and placement of topsoil (if required) grading and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization

SEDIMENT CONTROL NOTES

1) A MINIMUM OF 40 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES 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 MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER 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 12, 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 SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN

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.

ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER

7) SITE ANALYSIS: TOTAL AREA OF SITE 0.4924 ACRES AREA DISTURBED 0.1137 ACRES AREA TO BE ROOFED OR PAVED 0.0780 ACRES AREA TO BE VEGETATIVELY STABILIZED 0.0357 ACRES TOTAL CUT 300.74 CU.YDS. TOTAL FILL 63.67 CULYDS

OFFSITE WASTE/BORROW AREA LOCATION B) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE

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

9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED

SAME DAY OF DISTURBANCE.

BY THE INSPECTION AGENCY IS MADE. 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGHTS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL

PERMANENT SEEDING NOTES

Apply to graded or cleared oreas nat 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 occeptable 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. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) befare seeding. Horrow ar disc into upper three inches of sail. At time of seeding, opply 400 lbs. per ocre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).

2) Acceptable - Apply 2 tons per ocre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per ocre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Toll Fescue. Far the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per ocre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

1) 2 tons per ocre of well-onchored mulch strow and seed as soon os possible in the spring.

Use sod.

3) Seed with 60 lbs. per ocre Kentucky 31 Tail Fescue and mulch with 2 tons per ocre well onchored strow.

Mulching: Apply 1-1/2 to 2 tons per ocre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small groin straw immediately after seeding. Anchor mulch immediately after opplication using mulch anchoring tool or 218 gal. per acre (5 gol. per 1000 sq.ft.) of emulsified aspholt on flat oreas. On slopes, 8 ft. or higher, use 347 gol. per ocre (8 gol. per 1000 sq.ft.) for onchoring.

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

36" MINIMUM LENGTH FENCE POST.

DRIVEN A MINIMUM OF 16" INTO

GROUND

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other occeptable means before seeding, if not previously

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per ocre of weeping lovegross (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per ocre of well anchored strow mulch ond 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. per 1000 sq.ft.) of unrotted small grain strow immediately after seeding. Anchor mulch immediately after opplication using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified osphalt on flat areas. On slopes, 8 ft. or higher, use 347 gol. per acre (8 gol. per 1000 sq.ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rote and methods not covered.

SEQUENCE OF CONSTRUCTION

7 DAYS

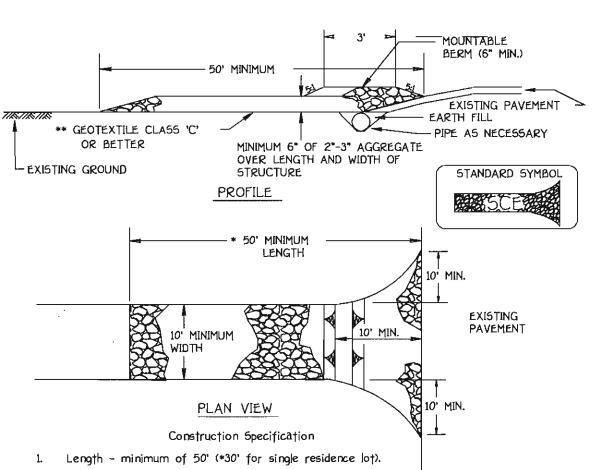
7 DAYS

1. OBTAIN GRADING PERMIT ' 2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN 3. CLEAR AND GRUB TO LIMITS OF DISTURBANCE

4 DAYS 4. INSTALL TEMPORARY SEEDING 2 DAYS 5. CONSTRUCT BUILDINGS 60 DAYS

6. FINE GRADE SITE. INSTALL PERMANENT SEEDING AND LANDSCAPE AND 14 DAYS
7. REMOVE SEDIMENT CONTROL DEVICES AS UPLAND AREAS ARE STABILIZED

AND PERMISSION IS GRANTED BY E/S CONTROL INSPECTOR. 7 DAYS



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

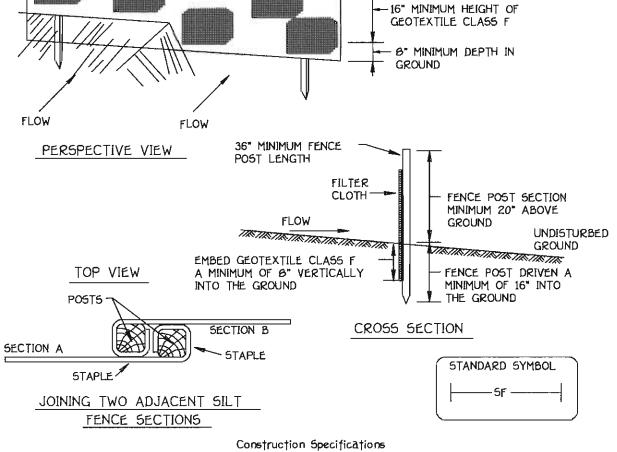
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family

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 the

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 construction entrance.

STABILIZED CONSTRUCTION ENTRANCE



10' MAXIMUM CENTER

- CENTER.

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pond 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 Test: MSMT 509 Test: M5MT 509 Tensile Modulus 20 lbs/in (min.) 0.3 gal ft / minute (max.)2 Flow Rate Test: MSMT 322 Filtering Efficiency Test: M5MT 322 75% (mîn.) 3. Where ends of geotextile fabric come together, they shall be overlapped, 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 reached 50% of the fabric height. Silt Fence Design Criteria

50:1 to 10:1

10:1 to 5:1

3:1 to 2:1

2:1 and steeper

(Maximum) Silt Fence Length Slope Steepness Slope Length 125 fee 1.000 fee 750 feet 100 fee 500 feet

250 feet

125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control

20 feet

SILT FENCE NOT TO SCALE

L b 2:1 SLOPE OR FLATTER OR FLATTER EXCAVATE TO PROVIDE REQUIRED FLOW WIDTH AT DESIGN FLOW DEPTH CROSS SECTION DIKE A DIKE B a-DIKE HEIGHT 18" POSITIVE DRAINAGE SUFFICIENT TO DRAIN b-DIKE WIDTH 24" c-FLOW WIDTH \lor \lor \lor \lor \lor \lor d-FLOW DEPTH 12* PLAN VIEW ANDARD SYMBOL FLOW CHANNEL STABILIZATION A-2 B-3

GRADE 0.5% MIN. 10% MAX. 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

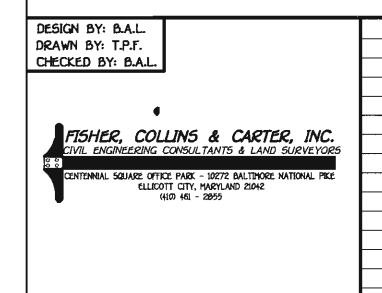
sediment trapping device. 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectionable

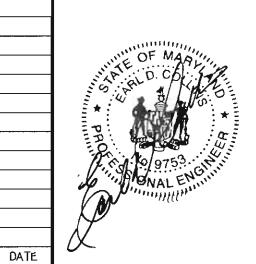
material shall be removed and disposed of so as not to interfere with the proper functioning of the dike. 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be

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.

EARTH DIKE





ENGINEER'S CERTIFICATE "I certify that this plan for erosion and sediment 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."

2.3.04 EARL D. COLLINS BUILDER/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 any 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." Burju 2-4-04 tranh + Signature of Developer FRANK J. BURJA

Refiewed for HOWARD SCD and meets Technical Requirements plan is approved for soil erosion and sediment control by 3/2/04

OWNER/BUILDER/DEVELOPER FRANK J. BURJA 410 CROSBY ROAD BALTIMORE, MARYLAND 21228 410-788-5623

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING INKEWYCH PROPERTY TAX/ZONE | ELEC. DIST. BLOCK NO. CENSUS TR 12989 23 R-20 SECOND 6022.00 WATER CODE SEWER CODE 5754700

SEDIMENT/EROSION CONTROL NOTES & DETAILS

SINGLE FAMILY DETACHED

ZINKEWYCH PROPERTY

GRID NO.: 23 PARCEL NO.: 142 TAX MAP NO.: 17 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: AUGUST, 2003 SHEET 2 OF 2

SOP 04-37

ADDRESS CHART OT NUMBER STREET ADDRESS 3041 ST. JOHN'S LANE

INTERSTATE RTE. 7

HO.CO.MON.

VICINITY MAP

INDEX CHART DESCRIPTION SITE DEVELOPMENT PLAN & SEDIMENT/ EROSION CONTROL PLAN SHEET 2 SEDIMENT/ EROSION CONTROL NOTES & DETAILS

MINIMUM LOT AREA TABLE LOT NO. | GROSS AREA | PIPESTEM AREA | 100 YR. FLOODPLAIN | MINIMUM LOT AREA N/A 19,032 SQ.FT. 21,447 SQ.FT. 2,415 SQ.FT.

LEGEND **DESCRIPTION** ----- EXISTING CONTOUR 2' INTERVAL +362.2 | SPOT ELEVATION PROPOSED WALKOUT -SF-SF-SILT FENCE A-1 ED EARTH DIKE

LOD LIMIT OF DISTURBANCE

SITE & SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED

ZINKEWYCH PROPERTY

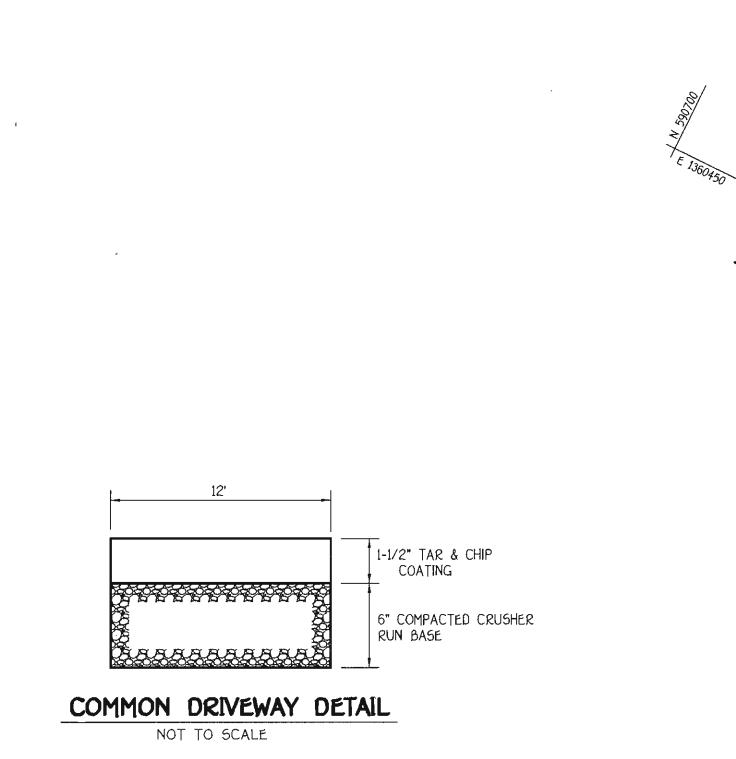
LOT 2

TAX MAP NO: 17 GRID NO.: 23 PARCEL NO.: 142 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1"= 30' DATE: AUGUST, 2003 SHEET 1 OF 2



Rev. grd., Add Conc. Patio & Walk to show Ex. Cond. 11.19 -04

Added Wroporound Porch



"I certify that this plan for erosion and sediment 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."	Reviewed for HOV U.50.ANatural R Conservation Serv
EARL D. COLLINS BUILDER/DEVELOPER'S CERTIFICATE	This development the HOVIRD SOIL HOVIARD SCD
"I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that any 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." Land Buy 2-4-04	0

OWARD SCD and meets Technical Requirements.

Resource 2444 3/2/04 soil erosion and sediment control by OWNER/BUILDER/DEVELOPER 410 CROSBY ROAD

BALTIMORE, MARYLAND 21228

410-788-5623

. JOHN'S LANE (PUBLIC MINOR COLLECTOR)

EXISTING DWELLING

\$

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING INKEWYCH PROPERTY BLOCK NO. ZONE TAX/ZONE | ELEC. DIST. | CENSUS TR. .2989 **1** 23 R-20 WATER CODE SEWER CODE

5754700

F06

Steps to

DESIGN BY: B.A.L.

DRAWN BY: T.P.F.

CHECKED BY: B.A.L

FISHER, COLLINS & CARTER, INC.