

## TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a

Seedbed Preparation: Loceen upper three inches of soil by roking discing or other acceptable means before seeding, if not previously

## Soil Amendments: Apply 600 lbs. per gcrs 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 rys (3.2 b per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 ibs. per acre of weeping lovegrass (0.07 ibs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon possible in the spring, or use sod.

Mulching: Apoly 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted smoll grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

#### PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further Seedbed Preparation: Loosen upper three inches of solf-by raking, discing or other acceptable means before seeding, if not previously loosened.

## Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred Apply 2 tons per ocre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 500 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
- 2) Acceptable Apply 2 tons per acre 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 acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Feecue. For the period May 1 thru July 31, seed with 50 lbs. Kentucky 31 Tail Fescus per acre and 2 lbs. per acre (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 acre of well-anchored mulch straw and seed as soor
- 3) Seed with 60 lbs. per acre Kentucky 31 Tail Fescue and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal.

<u>Maintenance</u>: <u>Inspect all seeded areas and make needed repairs</u> replacements and reseedings.

#### SEDIMENT CONTROL NOTES 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY

DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY

- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION 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 AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO OTHER STURBED OR GRADED AREAS ON THE PROJECT SITE. 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1. CHAPTER 12. OF
- 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFIED ABOVE IN ACCORDANCE WITH THE 1999 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONG CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND
- 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.

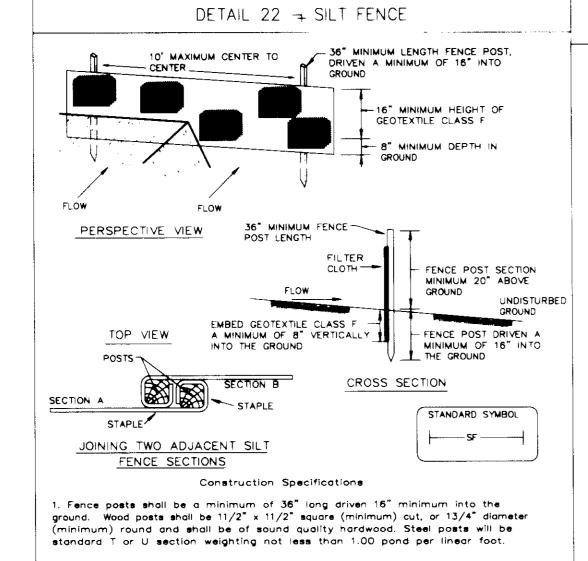
19 90 ACRES 18 92 ACRES

0.00 ACRES 10.92 ACRES

7. SITE ANALYSIS:

GRADING PERWIT.

- TOTAL AREA OF SITE AREA DISTURBED
  AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED
- 75,000 CU.YOS. WAST SITE: SEE IS. BELOW 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT
- 12. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY
- 13. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., 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 ACCIONS IS MADE. BY THE INSPECTION AGENCY IS MADE.
- 14. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER. 15. THE WASTE SITE WILL BE A SITE WITH A CURRENT, ACTIVE



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:

Test: MSMT 509

50 lbs/in (min.)

Tensile Strength

20 lbs/in (min.) Test: MSMT 509 Tensile Modulus Flow Rate 0.3 gai ft \*/ minute (max.) Test: MSMT 322 75% (min.) Test: MSMT 322 Filtering Efficiency

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. SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

CAP END UNLESS EQUAL TO OR GREATER, THAN ELEV. OF PRIMARY RISER CREST 1 PERFORATIONS - OO RISER---MINIMUM 6"DIA. CMP-- C FILTER CLOTH OVER WIRE MESH-BASE PLATE (1/4")\_ SIZE : 0 + 24" PERFORATIONS OR SLITS, MUST NOT
BE MADE ANY LOWER THAN 6" ABOVE PERFORATIONS - 6" SPACING HORZ. & VERT. LOCATED IN CO

## SEDIMENT BASIN DEWATERING DEVICE I WITH 6" PERFORATED RISER

# BASIN NOTES

Construction Specifications

1. Site Preparation: Perimeter sediment control devices must be installed prior to clearing and grubbing. Areas where the embankment is to be placed shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. The pool area shall not be cleared until completion of the dam embankment unless the pool area is to be used for borrow. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) shall be cleared of all brush, trees, and other objectionable materials.

2. Cut-off Trench: A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be four feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be two feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for the embankment. The trench shall be dewatered during the backfilling-compaction operations. For dewatering see Section D.

3. Embankment: The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) or organic materials (Unified Soil Classes OL and OH) shall not be placed in the embankment. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed in six-inch to eight-inch thick continuous lifts over the entire length of the fill. Compaction shall be obtained by routing and hauling the construction equipment over the fill so that the entire surface of each laver of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.

4. Principal Spillway: Steel risers shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. Concrete risers shall be poured with the principal spillway in place or precast with voids around the principal spillway filled with concrete or shrink proof grout for watertight connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. The barrel and riser shall be placed on a firm, smooth foundation of impervious soil as the embankment is constructed. Breaching the embankment to install the barrel is unacceptable. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the pipe spillway shall be placed in four inch lifts and hand compacted under and around the pipe to at least the same density as the adjacent embankment. A depth of 1.5 times the pipe diameter (min.) shall be backfilled over the principal spillway and hand compacted before crossing it with construction equipment.

5. Emergency Spillway: The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of <u>+</u> 0.2 feet.

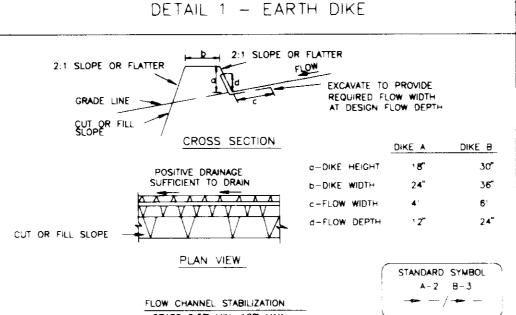
6. Vegetative Treatment: Stabilize the embankment in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon basin completion and monitored and maintained erosion free during the life of the basin.

7. Safety: Local requirements concerning fencing and signs shall be met, warning the public of hazards of soft sediment and floodwater.

8. Maintenance: Repair all damage caused by soil erosion and construction equipment at or before the end of each working day. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser as shown on the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain. Disposal areas must be stabilized.

9. Final Disposal: When temporary structures have served their intended purpose and the contributing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed and safely disposed of and the basin shall be backfilled with a structural fill. When the basin area is to remain open space, the pond may be pumped dry (using methods in Section D - Dewatering), graded, and back filled.

10. Conversion to Stormwater Management Structure: After permanent stabilization of all disturbed contributory drainage areas, temporary sediment basins, if initially built and certified to meet permanent standards, may be converted to permanent stormwater management structures. To convert the basin from temporary to permanent use, the outlet structure must be modified in accordance with approved stormwater management design plans. Additional grading may also be necessary to provide the required storage volume in the basin. Conversion can only take place after all disturbed areas have been permanently stabilized to the satisfaction of the inspection authority and storm drains have been flushed.



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

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%

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

Construction Specifications

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

STANDARD SYMBOL

🔀 RPS

--- ANTICIPATED WATER

LWEIGHT AS NECESSARY

INSTALL COLLAR WITH CORRUGATIONS VERTICAL.

U.S. DEFASTICENT OF ACRECULTURE SOEL COMMENCATION SERVICE

SIZE

4.5' × 4.5'

5.3' x 5.3'

BASIN NO.

\* 1

SURFACE ELEV.

undisturbed, stabilized area at a non-erosive velocity

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

it will not interfere with the functioning of the dike. each rain event. MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

2 2 2 3

2 0 0 0

2 3 2 3

(<u>0 0 0 29</u>)

2000

2000

2000

2 3 9 9

2 3 0 2 3

200

8' min.

ELEVATION (CUT AWAY)

Construction Specifications

1. The outer pipe should be 48° dia, or shall, in any case, be at least 4° greater in diameter than the center pipe. The outer pipe shall be wrapped with  $\frac{1}{2}$ ° hardward cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2° aggregate or clean gravel.

3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12° and 36° in diameter. The perforations shall be  $\frac{1}{2}$ ° X.6° stifts or 1° diameter holes 6° on center. The center pipe shall be wropped with  $\frac{1}{2}$ ° hordware cloth first, then wropped again with Geotextile Class E.

4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when devatering a basin.

REMOVABLE PUMPING STATION

NO SCALE

MINIMUM LAST
TWO
CORRUGATIONS
ON EACH END
MUST BE
ANNULAR OR
FLANGE

CONTINUOUS WELD THE FULL CIRCUMFERENCE OF THE COLLAR ON BOTH SIDES

DETAIL 14 - TYPICAL ANTI-SEEP COLLARS

COLLAR WELDED IN PLACE ON BARREL SECTION

ANTI-SEEP COLLAR DESIGN

COLLAR FOR FLANGE JOINT PIPE

Rece 2

CLEAN GRAVEL

-Perforated (removable)

12" - 36" pipe wrapped w/ 1/ hardware cloth and Geotexti

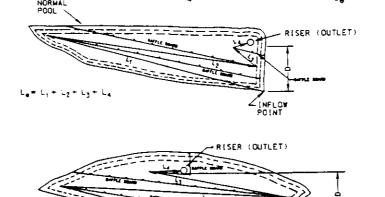
3" MIN.

PERFORATED 48" PIPE

WRAPPED WITH 1/2"
HARDWARE CLOTH

PIPE W/ WATERTIGHT

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 where construction traffic enters or leaves a construction site. Vehicles eaving the site must travel over the entire length of the stabilized construction entrance. WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE PLAN VIEWS INFLOW D/2 D = DISTANCE BETWEEN
INFLOW AND OUTFLOW A = AREA OF NORMAL POOL W. = EFFECTIVE WIDTH = A/D la = L, + L, FORMULA: = 2



DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

MINIMUM 6" OF 2"-3" AGGREGATE

OVER LENGTH AND WIDTH OF

PROFILE

PLAN VIEW

Length - minimum of 50' (+30' for single residence lot)

Construction Specification

2. 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  $\delta''$  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

---- • 50' MINIMUM--

\*\* GEGTEXTILE CLASS 'C'-

OR BETTER

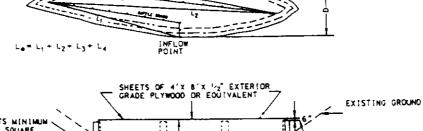
- EXISTING GROUND

STANDARD SYMBOL

BERM (6" MIN.)

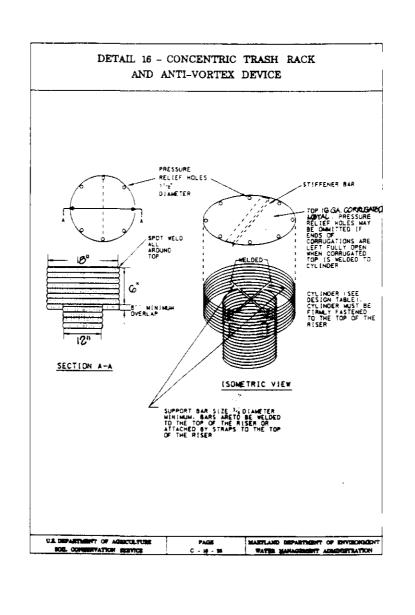
PIPE AS NECESSARY

EXISTING PAVEMENT

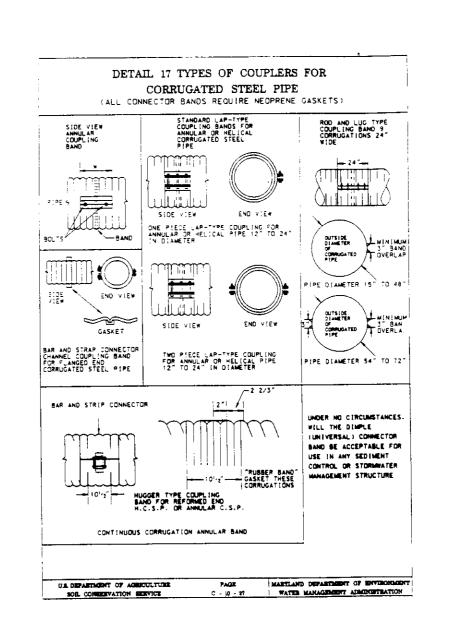


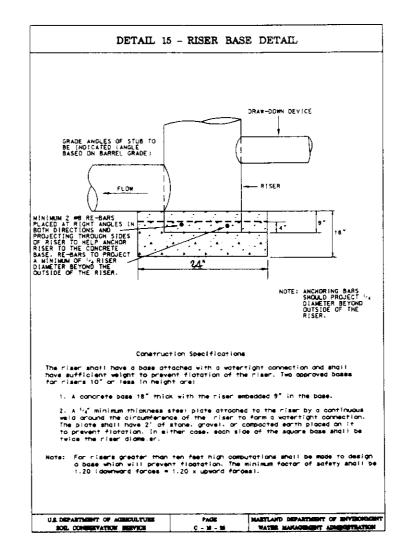
BAFFLE DETAIL

# SEDIMENT BASIN BAFFLES



BENCH MARKS B.M. 305 P.K. NAIL SET IN CURB N 491838 E 865271 B.M. 306 P.K. NAIL SET IN CURB N 491795 E 865607





APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND

DATE

5/20/96

ZONING.

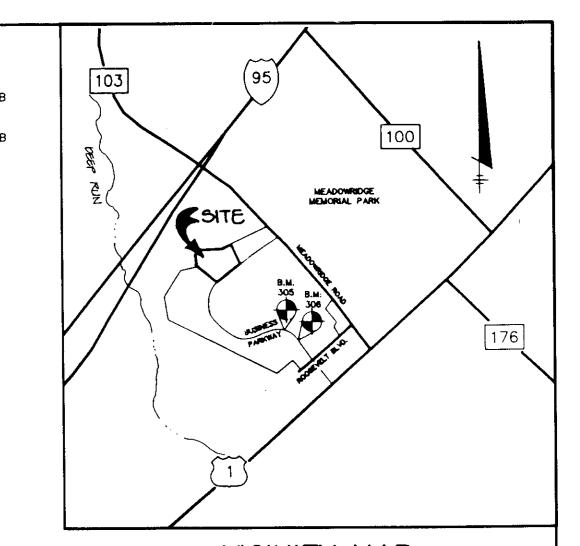
Gina Drummanji

AND RESEARCH

My James

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF EAND DEVELOPMENT



VICINITY MAP

BY THE DEVELOPER

/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER

BY THE ENGINEER

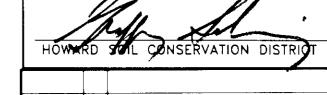
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE

ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL

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



DATE NO. OWNER / DEVELOPER

> WINCHESTER HOMES, INC. 6305 IVY LANE, SUITE 700 GREENBELT, MARYLAND 20770 (301) 489-1200

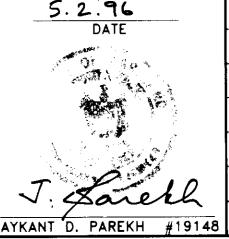
REVISION

MEADOWRIDGE BUSINESS PARK PARCELS G.1 & H AREA TAX WAP Nº 37 PARCELS GILL PLAT#11503 + 9042

> 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES, INC Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282



DESIGNED BY : CUR DRAWN BY: MAD PROJECT NO: めろちろ DATE : WAY 2, 1996 SCALE : AS SHOWN DRAWING NO. 2 OF 3

