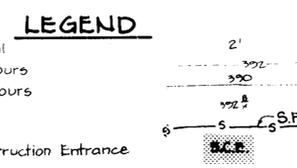
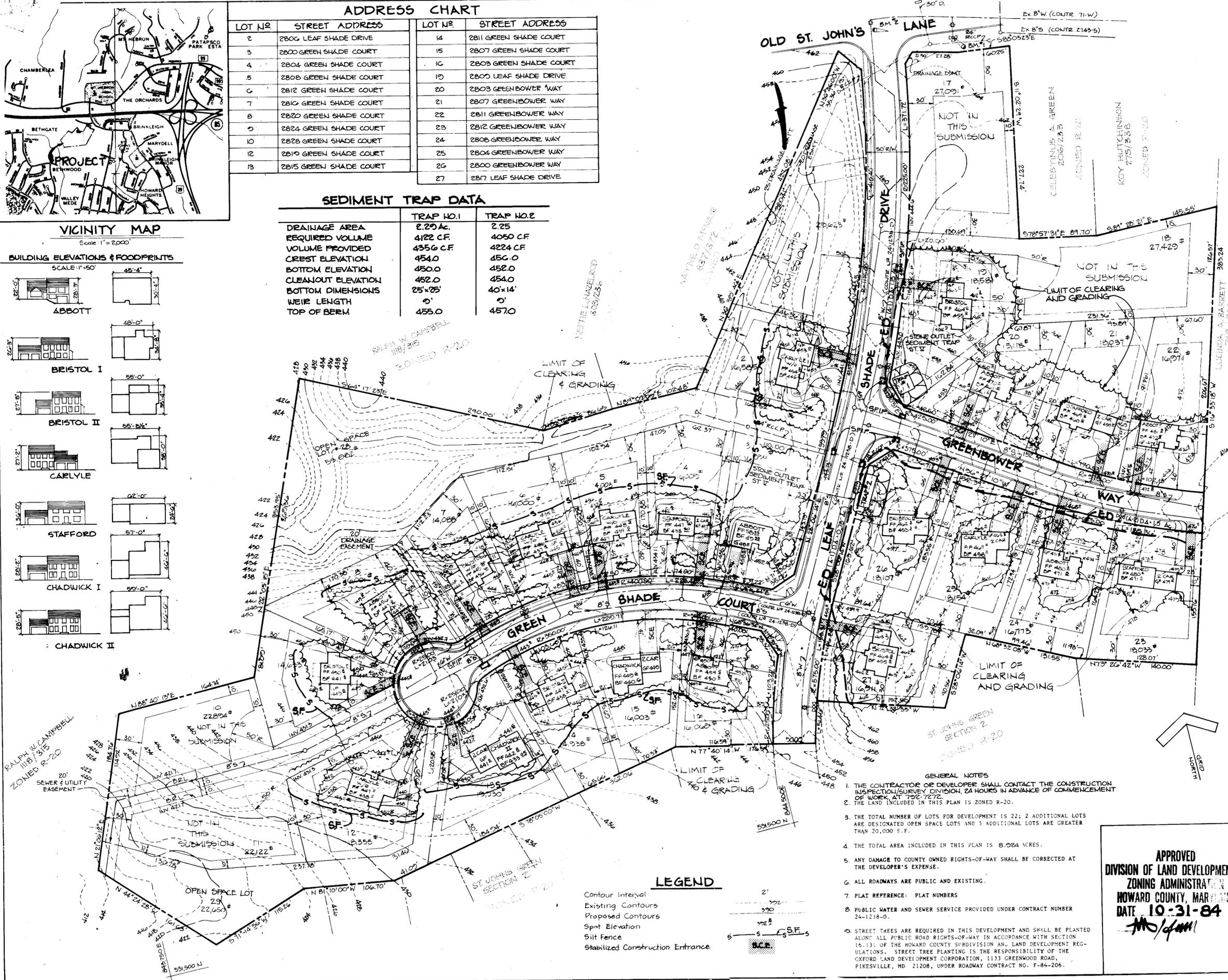


ADDRESS CHART			
LOT NO.	STREET ADDRESS	LOT NO.	STREET ADDRESS
2	2806 LEAF SHADE DRIVE	14	2811 GREEN SHADE COURT
3	2800 GREEN SHADE COURT	15	2807 GREEN SHADE COURT
4	2804 GREEN SHADE COURT	16	2803 GREEN SHADE COURT
5	2808 GREEN SHADE COURT	19	2805 LEAF SHADE DRIVE
6	2812 GREEN SHADE COURT	20	2803 GREENBOWER WAY
7	2816 GREEN SHADE COURT	21	2807 GREENBOWER WAY
8	2820 GREEN SHADE COURT	22	2811 GREENBOWER WAY
9	2824 GREEN SHADE COURT	23	2812 GREENBOWER WAY
10	2828 GREEN SHADE COURT	24	2808 GREENBOWER WAY
12	2810 GREEN SHADE COURT	25	2804 GREENBOWER WAY
13	2815 GREEN SHADE COURT	26	2800 GREENBOWER WAY
		27	2817 LEAF SHADE DRIVE

SEDIMENT TRAP DATA		
	TRAP NO. 1	TRAP NO. 2
DRAINAGE AREA	2.29 Ac.	2.25
REQUIRED VOLUME	4122 C.F.	4050 C.F.
VOLUME PROVIDED	4356 C.F.	4224 C.F.
CREST ELEVATION	454.0	456.0
BOTTOM ELEVATION	450.0	452.0
CLEANOUT ELEVATION	452.0	454.0
BOTTOM DIMENSIONS	25'x25'	40'x14'
WEIR LENGTH	0'	0'
TOP OF BERM	455.0	457.0

**VICINITY MAP**  
Scale: 1" = 2000'

**BUILDING ELEVATIONS & FOOTPRINTS**  
SCALE: 1" = 50'



- GENERAL NOTES**
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION, 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK, AT 792-7272.
  - THE LAND INCLUDED IN THIS PLAN IS ZONED R-20.
  - THE TOTAL NUMBER OF LOTS FOR DEVELOPMENT IS 22; 2 ADDITIONAL LOTS ARE DESIGNATED OPEN SPACE LOTS AND 5 ADDITIONAL LOTS ARE GREATER THAN 20,000 S.F.
  - THE TOTAL AREA INCLUDED IN THIS PLAN IS 8.924 ACRES.
  - ANY DAMAGE TO COUNTY OWNED RIGHTS-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
  - ALL ROADWAYS ARE PUBLIC AND EXISTING.
  - PLAT REFERENCE: PLAT NUMBERS
  - PUBLIC WATER AND SEWER SERVICE PROVIDED UNDER CONTRACT NUMBER 24-1218-0.
  - STREET TREES ARE REQUIRED IN THIS DEVELOPMENT AND SHALL BE PLANTED ALONG ALL PUBLIC ROAD RIGHTS-OF-WAY IN ACCORDANCE WITH SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. STREET TREE PLANTING IS THE RESPONSIBILITY OF THE OXFORD LAND DEVELOPMENT CORPORATION, 1133 GREENWOOD ROAD, PIKESVILLE, MD 21208, UNDER ROADWAY CONTRACT NO. F-84-206.

**APPROVED**  
DIVISION OF LAND DEVELOPMENT &  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 10-31-84  
MS/dmm

BY THE DEVELOPER:  
I, Howard, 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.  
DEVELOPER: \_\_\_\_\_ DATE: \_\_\_\_\_

BY THE ENGINEER:  
I, Stephen J. Anderson, 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.  
ENGINEER: \_\_\_\_\_ DATE: 11/7/84

REVIEWED FOR: Howard S. C. D. NAME  
AND MEETS TECHNICAL REQUIREMENTS  
U.S. SOIL CONSERVATION SERVICE: 11-27-84 DATE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
STEPHEN J. ANDERSON 11/2/84  
HOWARD S. C. D. DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
John M. Boyd 12/6/84  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.  
James L. Harris 12-7-84  
PLANNING DIRECTOR DATE  
John M. Boyd 12-7-84  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
Ray F. Nemy 11-30-84  
DIRECTOR DATE

William S. Ryan 11-28-84  
CHIEF, BUREAU OF ENGINEERING DATE

OWNER/DEVELOPER  
OXFORD LAND DEVELOPMENT CORPORATION  
1133 GREENWOOD ROAD  
PIKESVILLE, MARYLAND 21208

PROJECT  
ST. JOHNS GREEN, 1/1  
LOT 2-10, 12-16, 19-27

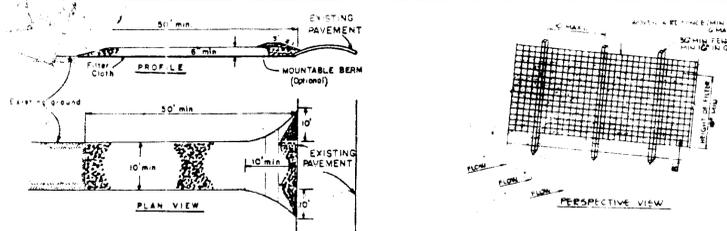
AREA  
TAX MAP NO. 17 PARCEL 68  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
SITE DEVELOPMENT PLAN

**THE RIEMER GROUP, INC.**  
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM  
5105 HEALTH PARK DRIVE, ELLICOTT CITY, MARYLAND 21043  
301-861-2600

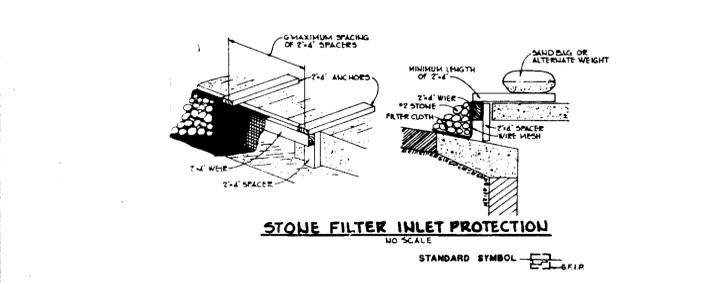
DESIGNED BY: DK  
DRAWN BY: DK  
PROJECT NO: 006500  
DATE: 09/27/84  
SCALE: 1" = 50'  
DRAWING NO: 1 OF 3

SDP-85-65 NOVEMBER 2, 1984 DAM

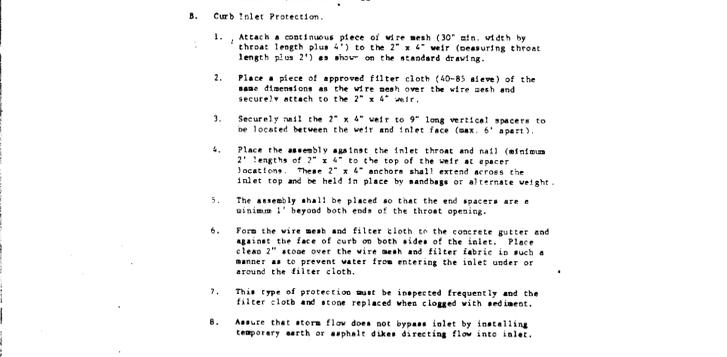
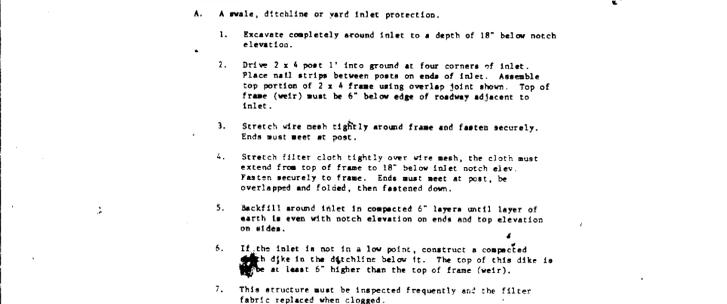


- CONSTRUCTION SPECIFICATIONS**
- Stone Size - Use 2" stone, or recycled concrete equivalent.
  - Length - As required, but not less than 50 feet except on a single residence lot where a 30 foot minimum length will apply.
  - Thickness - Not less than 18" inches.
  - Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
  - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  - Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 3:1 slopes will be permitted.
  - Maintenance - The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Periodic inspection and needed maintenance shall be provided after each rain.

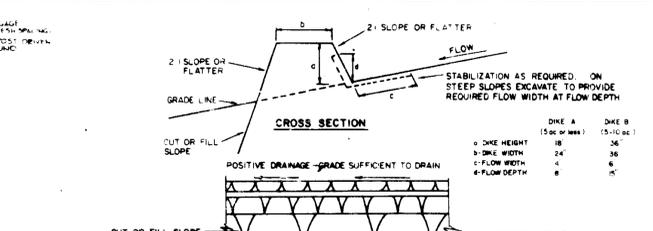
**STABILIZED CONSTRUCTION ENTRANCE** NO SCALE  
**SILT FENCE** NO SCALE



- CONSTRUCTION SPECIFICATIONS**
- Materials**
    - Wooden frame is to be constructed of 2" x 4" construction grade lumber.
    - Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
    - Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, 80-100, to allow sufficient passage of water and removal of sediment.
    - Stone is to be 2" in size and clean, since fines would clog the cloth.
  - Procedure**
    - A weal, ditchline or yard inlet protection.
      - Excavate completely around inlet to a depth of 18" below notch elevation.
      - Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
      - Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
      - Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
      - Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
      - If the inlet is not in a low point, construct a compacted earth dike to the depth below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
      - This structure must be inspected frequently and the filter fabric replaced when clogged.
    - Curb Inlet Protection.
      - Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
      - Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
      - Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6" apart).
      - Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
      - The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
      - Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
      - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
      - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.



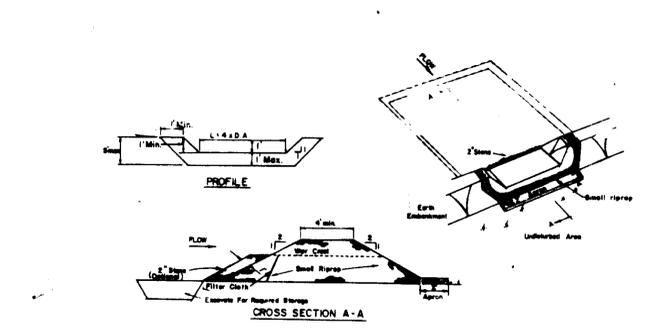
**RESIDENTIAL DRIVEWAY ENTRANCE** NO SCALE



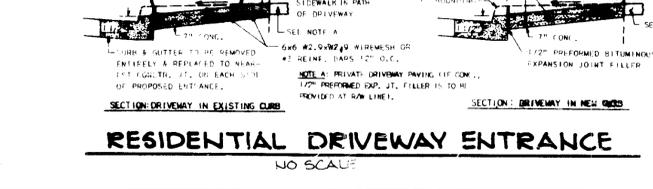
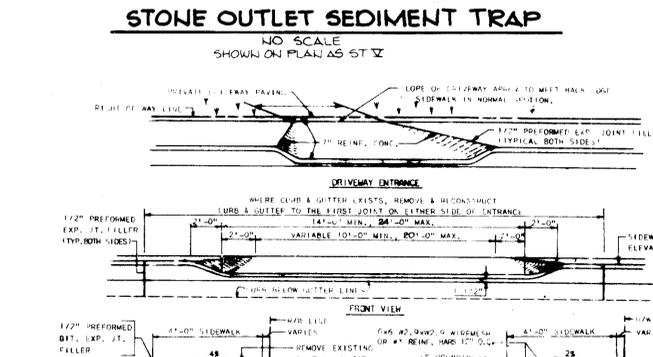
- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSTOR; SOG; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOG; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

**EARTH DIKE** NOT TO SCALE



1. OBTAIN GRADING PERMIT.
2. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROLS ONLY.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, INLET BLOCKING, EARTH DIKES AND SEDIMENT TRAPS NO. 1 AND 2. STABILIZE ALL EARTH BERMS IN ACCORDANCE WITH THE TEMPORARY SEEDING NOTES.
4. COMPLETE REMAINING CONSTRUCTION.
5. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
6. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROLS AND STABILIZE AREAS DISTURBED BY THEIR REMOVAL IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.



**TYPICAL SINGLE LOT SEDIMENT CONTROL** NO SCALE

**SEDIMENT CONTROL CONSTRUCTION NOTES**

**GENERAL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permit prior to the start of any construction. (992-7437).
- All sediment control structures will be installed in accordance with '1983 Maryland Standards and Specification for Soil Erosion and Sediment Control' as published by Soil Conservation Service, Water Resources Administration and State Soil Conservation Commission.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- All perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1 will be stabilized with in (7) seven calendar days and all other disturbed or graded areas on the site with in (14) fourteen calendar days.
- Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.
- Fertilizer and lime rates may be changed through authorization by the Howard Soil Conservation District if soil test determine a reduction in the specified rates is justified.
- 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.
- References called for on the sediment control construction plan and details are made to '1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control'.
- Sediment control will be installed before clearing and grubbing remainder of the site.
- All sediment traps and basins shall be fenced and warning signs posted around their perimeter in accordance with Volume 1, Chapter 12 of the Howard County Design Manual.

**TEMPORARY SEEDING**

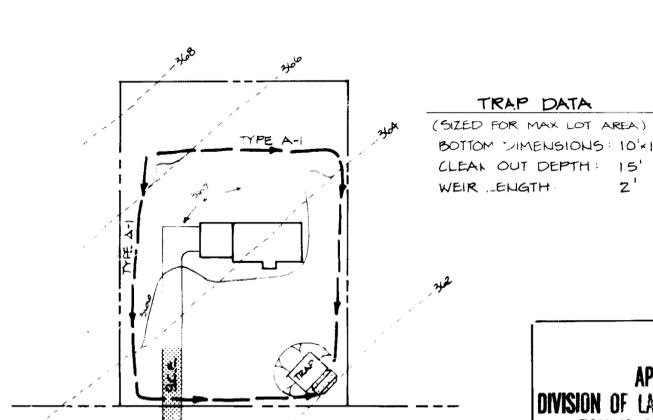
- Area to be seeded shall be recently loosened. If the ground is packed, crusted or hard, the top layer of soil shall be loosened by discing, raking or other acceptable means.
- Apply 10-20-10 fertilizer (or equivalent) at the rate of 600 lbs. per acre or 15 lbs. per 1000 square feet.
  - Where soil is known to be highly acid, apply dolomitic limestone at the rate of 1 ton per acre.
  - Seed both into soil and seed with cyclone seeder, drill, cultipacker seeder or hydro-seeder (slurry will include seed and fertilizer) at the rate of 40 lbs. per acre of Italian or perennial ryegrass.
  - Mulch with unweathered small grain straw at the rate of 1 1/2 to 2 tons, per acre and anchor with a cutback asphalt or emulsified asphalt at the rate of 5 gal. per 1000 square feet.

**PERMANENT SEEDING**

- Final stabilization will take place as soon as possible as weather conditions permit, as follows:
- Apply dolomitic limestone at the rate of 2 tons per acre (one ton per acre if application of ton per acre was made for temporary seeding.)
  - Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3" lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding apply 400 pounds of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.
  - Seed with a mixture of certified 'Merion' Kentucky bluegrass - 40 lbs. per acre; common Kentucky bluegrass @ 40 lbs. per acre; Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre.
  - Mulch with unweathered small grain straw at the rate of 1 1/2 to 2 tons per acre and anchor with a cutback asphalt or emulsified asphalt at the rate of 5 gallons per 1000 square feet.
  - Seed all slopes with a mixture of certified Kentucky 31 tall fescue @ 50 lbs. per acre and inoculated Korean Lespedeza @ 15 lbs. per acre.
  - Sodded swales shall be Kentucky 31 tall fescue.

**SEQUENCE OF CONSTRUCTION**

1. OBTAIN GRADING PERMIT.
  2. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROLS ONLY.
  3. INSTALL STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, INLET BLOCKING, EARTH DIKES AND SEDIMENT TRAPS NO. 1 AND 2. STABILIZE ALL EARTH BERMS IN ACCORDANCE WITH THE TEMPORARY SEEDING NOTES.
  4. COMPLETE REMAINING CONSTRUCTION.
  5. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
  6. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROLS AND STABILIZE AREAS DISTURBED BY THEIR REMOVAL IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
- \* SEDIMENT CONTROLS SHOWN ARE TO BE INSTALLED ONLY IF THE CONTROLS PLACED UNDER F-84-206 HAVE BEEN REMOVED OR ROADWAY HAS BEEN PAVED.  
\*\* SEE SINGLE LOT SEDIMENT CONTROL PLAN WHEN HOUSES ARE BEING BUILT ON AN AS-SOLD BASIS. IF ANY TWO (2) LOTS WITH COMMON PROPERTY LINES ARE TO BE GRADED, THE SEDIMENT CONTROLS AS PROPOSED ON SHEET 1 OF 2 MUST BE INSTALLED.



**TYPICAL SINGLE LOT SEDIMENT CONTROL** NO SCALE

BY THE DEVELOPER  
I, 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.  
*Edward M. White* 11-7-84  
DEVELOPER DATE

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.  
*Stephen L. Fisher* 11/1/84  
ENGINEER DATE

REVIEWED FOR *Howard* NAME S C D  
AND MEETS TECHNICAL REQUIREMENTS  
*James M. Selton* 11-27-84  
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
*Stephen L. Fisher* 11/27/84  
HOWARD S. C. D. DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*John D. Boyd* 12/6/84  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*Thomas L. Harris* 12-7-84  
PLANNING DIRECTOR DATE  
*John M. Harrison* 12-7-84  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Ray F. Newmyer* 11-20-84  
DIRECTOR DATE  
*James M. Selton* 11-29-84  
CHIEF, BUREAU OF ENGINEERING DATE

DATE	NO.	REVISION
OWNER, DEVELOPER OXFORD LAND DEVELOPMENT CORPORATION 193 GREENWOOD ROAD PIKESVILLE, MARYLAND 21208		
PROJECT ST. JOHNS GREEN, 1/1		
AREA	TAX MAP NO. 17	PARCEL 68
	2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE DETAILS LOT 2-10, 12-16, 10-27		
THE RIEMER GROUP, INC. A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301-451-6591		
DESIGNED BY JLR		
DRAWN BY CK		
PROJECT NO. 800-500		
DATE 09/27/84		
SCALE AS SHOWN		
DRAWING NO. 85-65-2		
SDP-85-65		