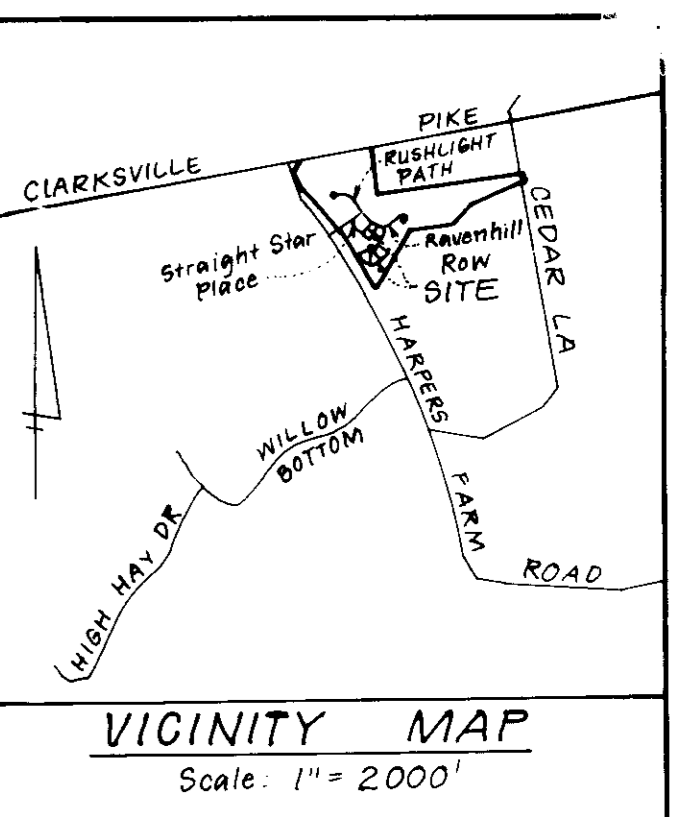
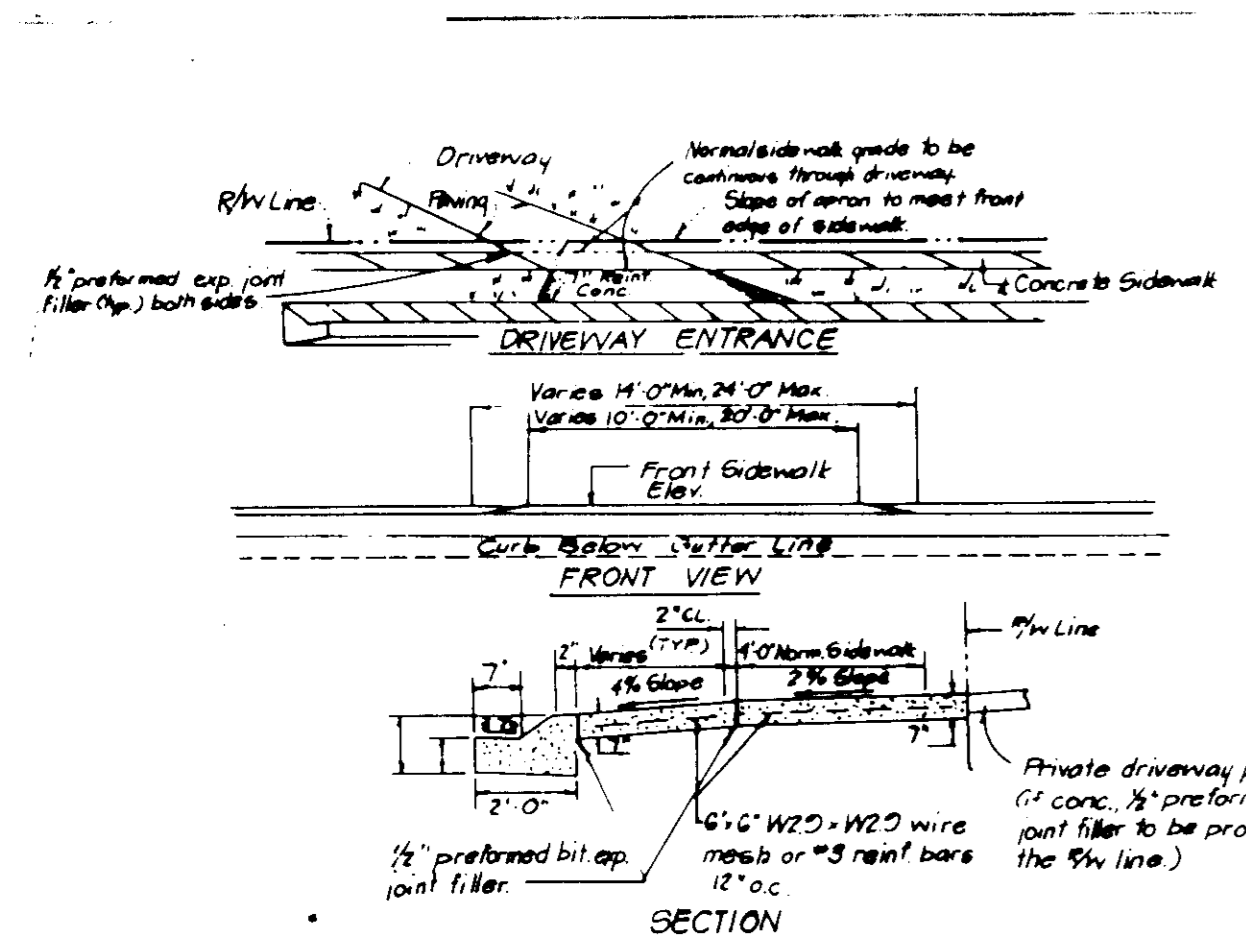


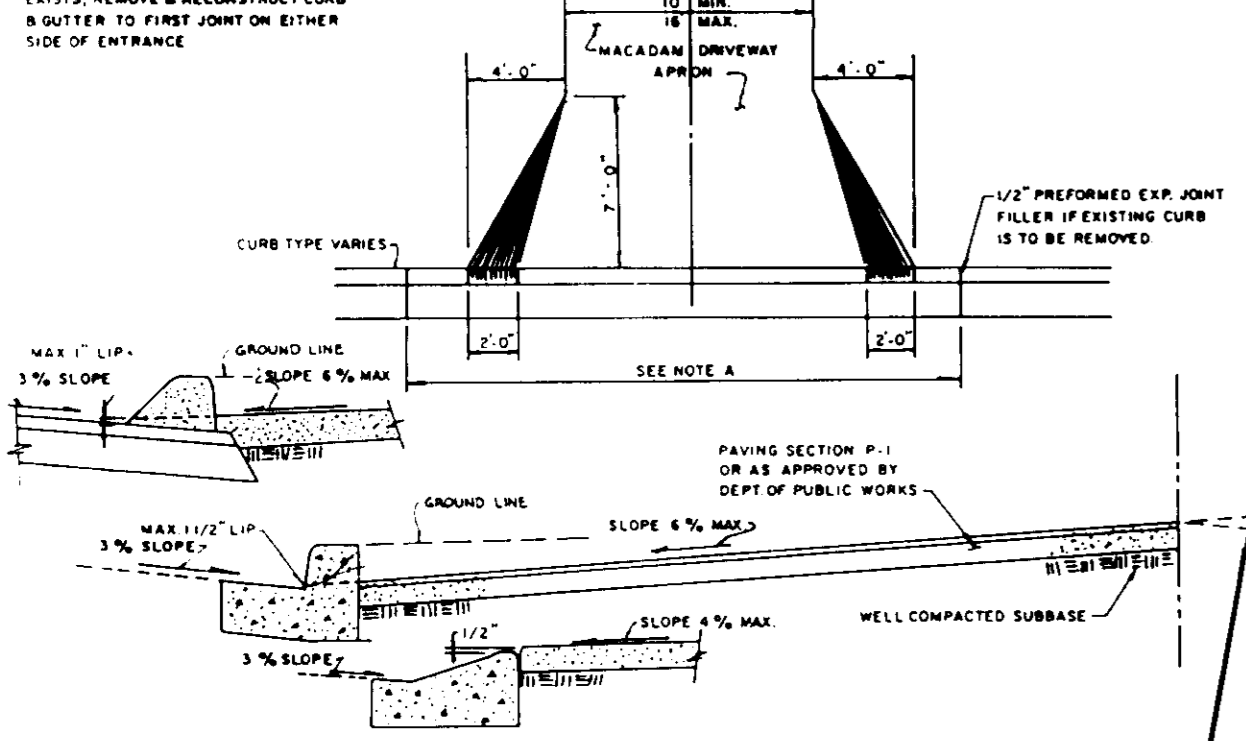
NO	REVISION	DATE
1	Rev. see 49rd lot 32 from Barrington to Regency, Lot 33 from Whitehall to McLean/Calvert.	7-2-91
2	Rev. see 49rd lot 32, Add see. Typical	4-4-91



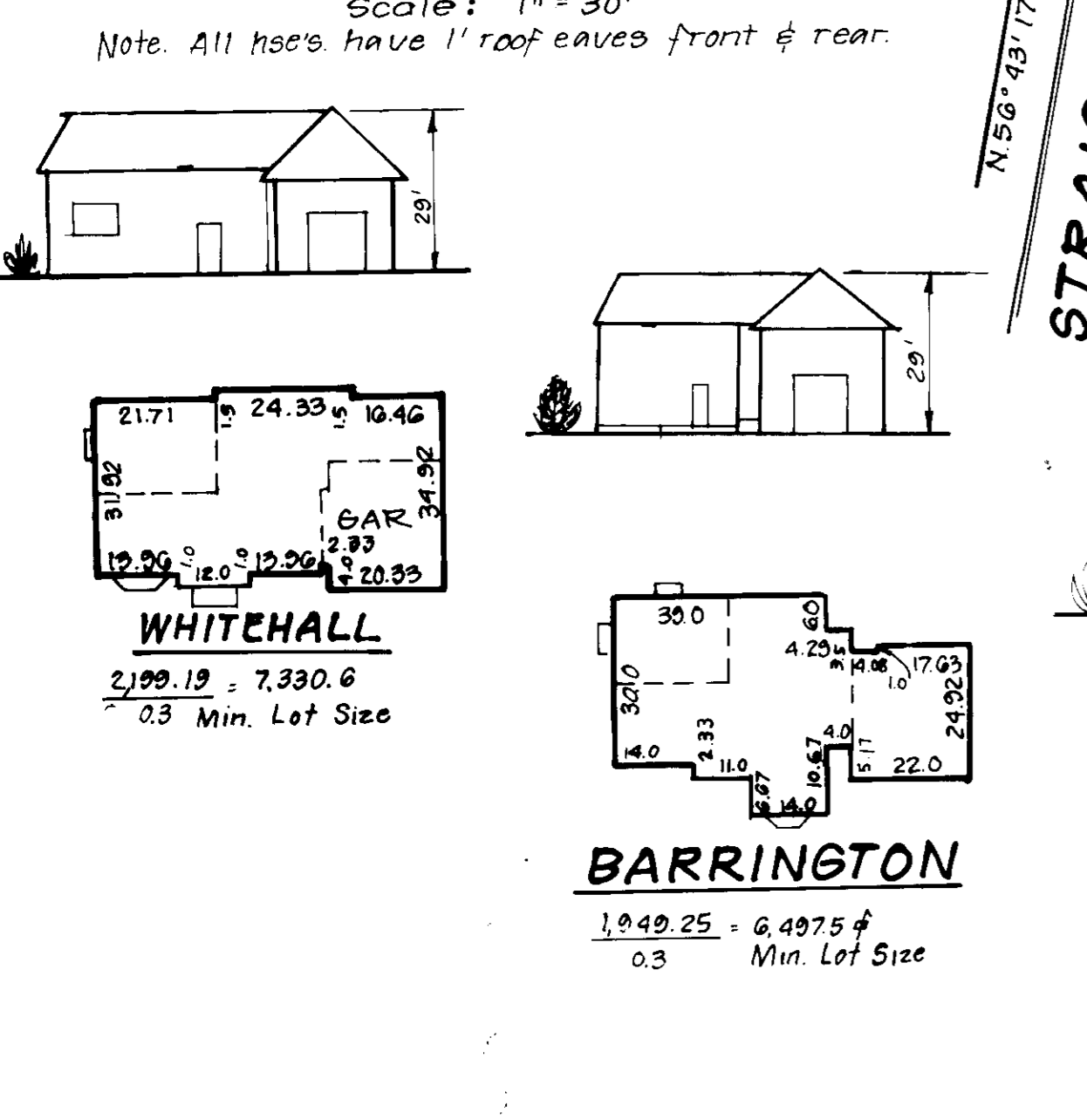
DRIVEWAY ABUTTING CLOSED SECTION WITH MODIFIED COMB CURB & GUTTER & SIDEWALK



DRIVEWAY ABUTTING CLOSED SECTION WITHOUT CONCRETE SIDEWALK



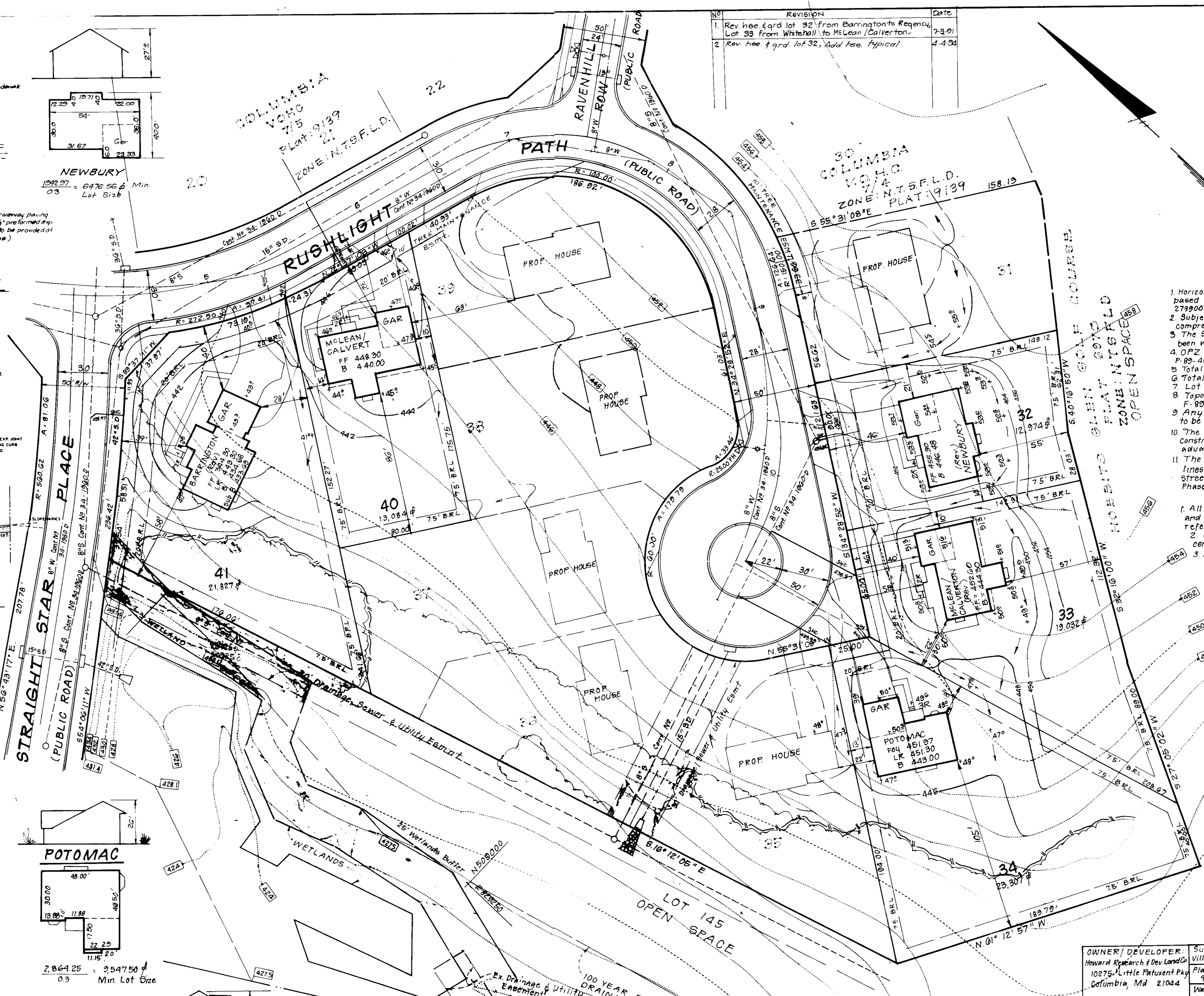
TYPICAL HOUSES



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 4-19-90

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: *[Signature]* DATE: 4/21/90

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 4/16/90



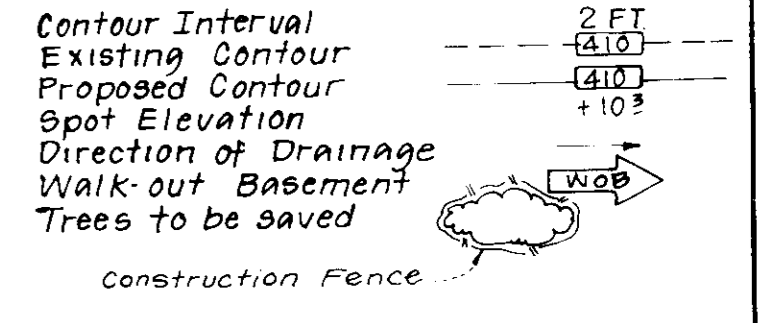
GENERAL NOTES

- Horizontal and Vertical control shown herein is based upon Howard County Geodetic Control Stations 2739002 & 2739003.
- Subject property zoned N.T.B.F.L.D. per 8-2-85 comprehensive zoning plan and F.D.P. 204.
- The S.W.M. requirements for the subject property have been waived as per D.P.W. action dated Sept. 6, 1988.
- OPZ File no's approved Sept. 29, 1988 are: 5-88-101, P-88-46, WP-88-14 & F-88-201.
- Total number of lots: 5
- Total area of lots: 2.071 Acres
- Lot Coverage is 30% Maximum
- Topography taken from Road Construction drawings F-88-201, prepared by Kiddle Consultants, Inc.
- Any damage done to county owned rights-of-way to be corrected at the Developer's Expense.
- The Contractor or Developer shall contact the Construction/Inspection survey division 24 hours in advance of commencement of work @ 702-2630.
- The minimum setback restrictions from property lines and the right-of-way of any public road or street to be in accordance with reworked S.D.P. Criteria Phase 204 recorded as plat 3054 A, 1066 thru 1071.

SPECIAL NOTES

- All Road Construction Storm Drainage facilities and Public Water and Sewer are shown for reference only.
- Use approved H²O plans for all phases of construction.
- 10' Tree Maintenance Easement on all road frontages.

LEGEND



ADDRESS CHART

Lot	Street Address
32	5024 Rushlight Path
33	5068
34	5072
40	5037
41	5033 Rushlight Path

OWNER/DEVELOPER: Howard Research & Dev Land Co. 10275 Little Patuxent Pkwy Columbia, Md 21044	Subdivision Name Village of Harpers Choice	Sect./Area 7/4	Lots 32-34 & 40-41
Plat No 9/39	Block No 1G	Zone N.T.B.F.L.D.	Tax/Map No 29
Water Code I03	Sewer Code 6740000	Elec. Dist. 5th	Census Tr. G059.01

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7371 MINNIE WAY • COLUMBIA, MD 21046 • (410) 730-7200

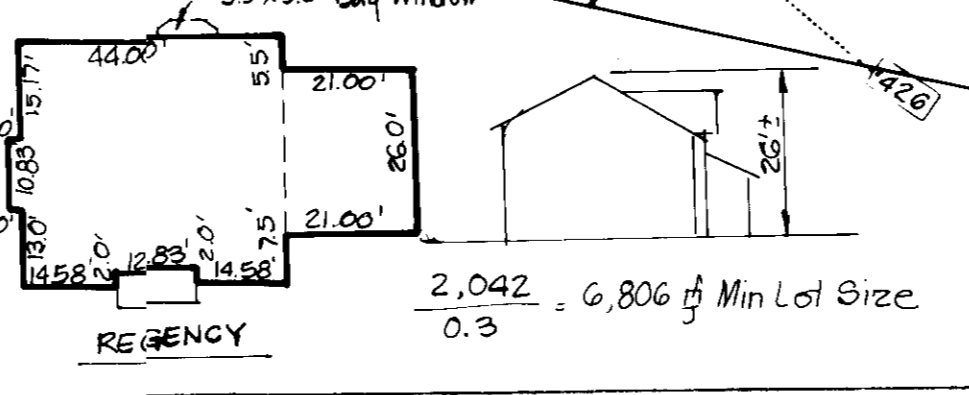
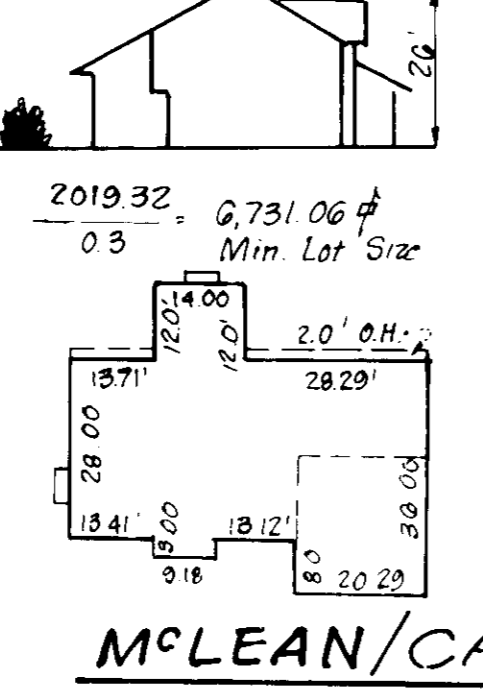
DESIGNED: JME
 DRAWN: JME
 CHECKED: JME
 DATE: 2-23-90

SITE DEVELOPMENT PLAN
 LOTS 32-34 & 40-41
COLUMBIA
 VILLAGE OF HARPERS CHOICE
 SECTION 7 AREA 4
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

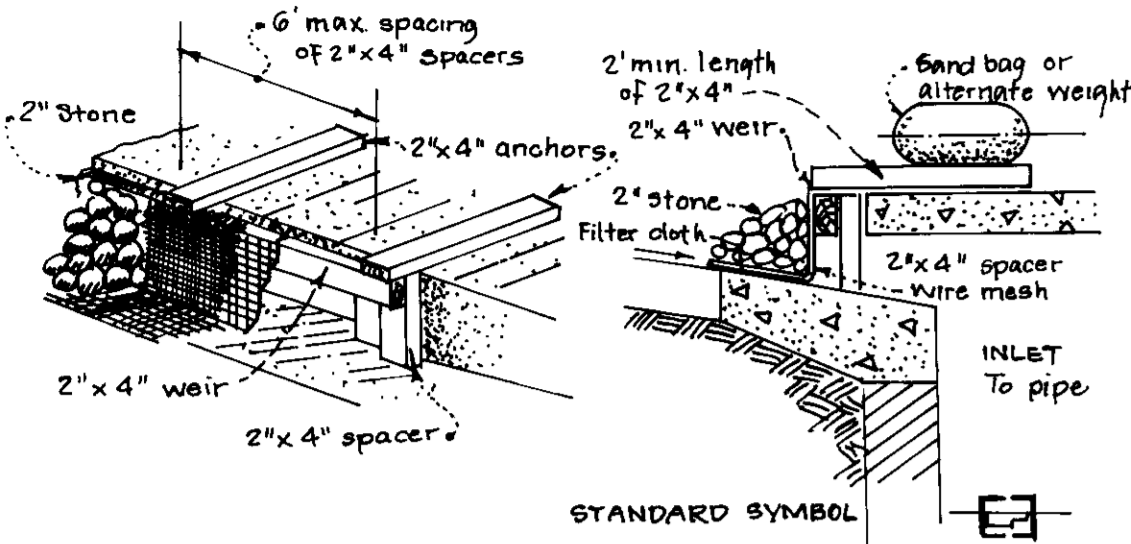
SCALE: 1" = 30'
 DRAWING: 1 of 1
 SHEET NO.: 90-033
 FILE NO.: 90-033

For: The Rutland Group, Inc. (Civil Div.)
 7130 Inverness Way
 Columbia, MD 21044

SPECIAL NOTE
 The Wetland buffer indicated on this Site Development Plan does not effect the initial construction of a residential unit on any lot. It does prohibit subsequent clearing, grading or construction in the buffer area. Maintenance of residences, landscaping, and utilities is permitted.



CURB INLET PROTECTION DETAIL



B. Curb Inlet Protection

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2"x4" weir (measuring throat length plus 2") as shown in the standard drawing.
2. 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"x4" weir.
3. Securely nail the 2"x4" weir to 5" long vertical spacers to be located between the weir and inlet face (max 6' apart).
4. Place the assembly against the inlet throat and nail (min 2" lengths of 2"x4" to the top of the weir at spacer locations. These 2"x4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a min. 1' beyond both ends of the throat opening.
6. 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.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged w/ sediment.
8. Ensure the storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

**INLET PROTECTION
NO SCALE**

Reviewed for: **HOWARD** S.C.
James M. [Signature] 4/19/90
 U.S. Environmental Protection Agency

THE DESIGN OF THIS PROJECT IS SUBJECT TO THE EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.

John [Signature] 4/19/90
 approved Date

DEVELOPERS/BUILDERS CERTIFICATE

"We certify that all development and construction will be done according to the plan of development and plan for erosion and sediment control and that all personnel involved in the construction project will have completed a course of instruction at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion during the project. I also authorize periodic on-site inspection by the District for Conservation District or their authorized agents, as may be necessary."

Maureen M. [Signature] 2-26-90
 Signature of Developer/Builder Date

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

Joseph [Signature] 4-19-90
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 4/25/90
 DIRECTOR DATE

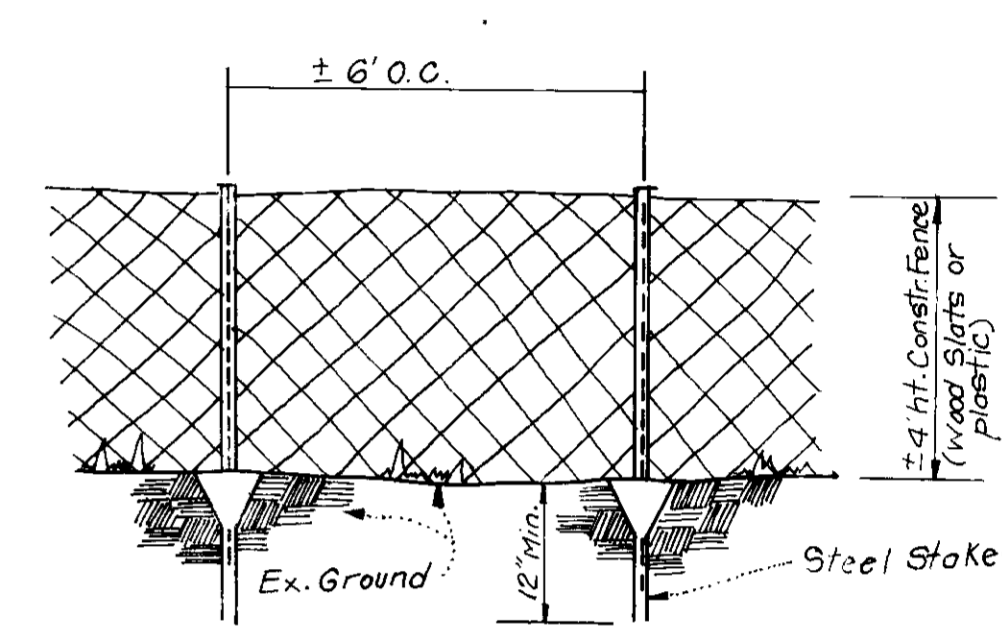
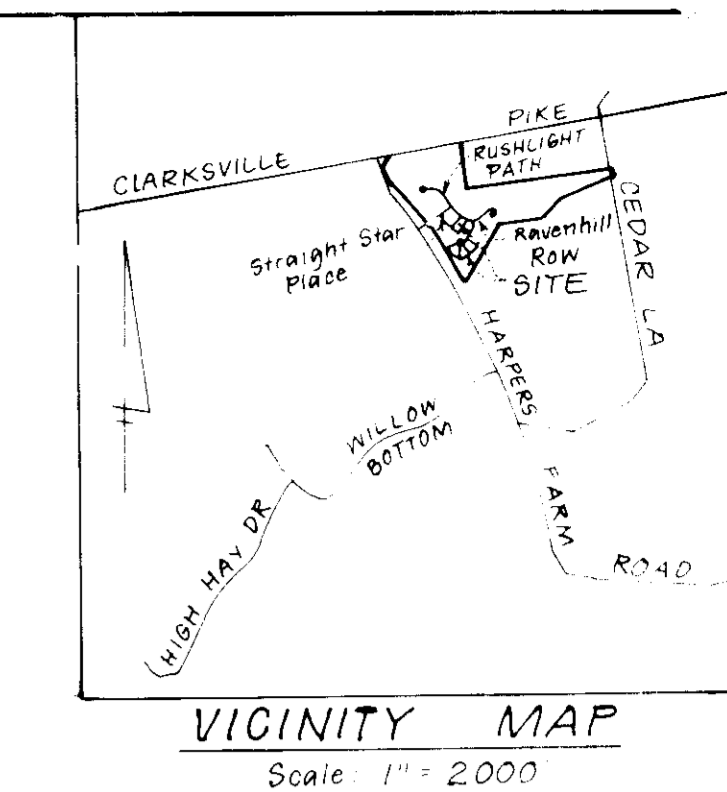
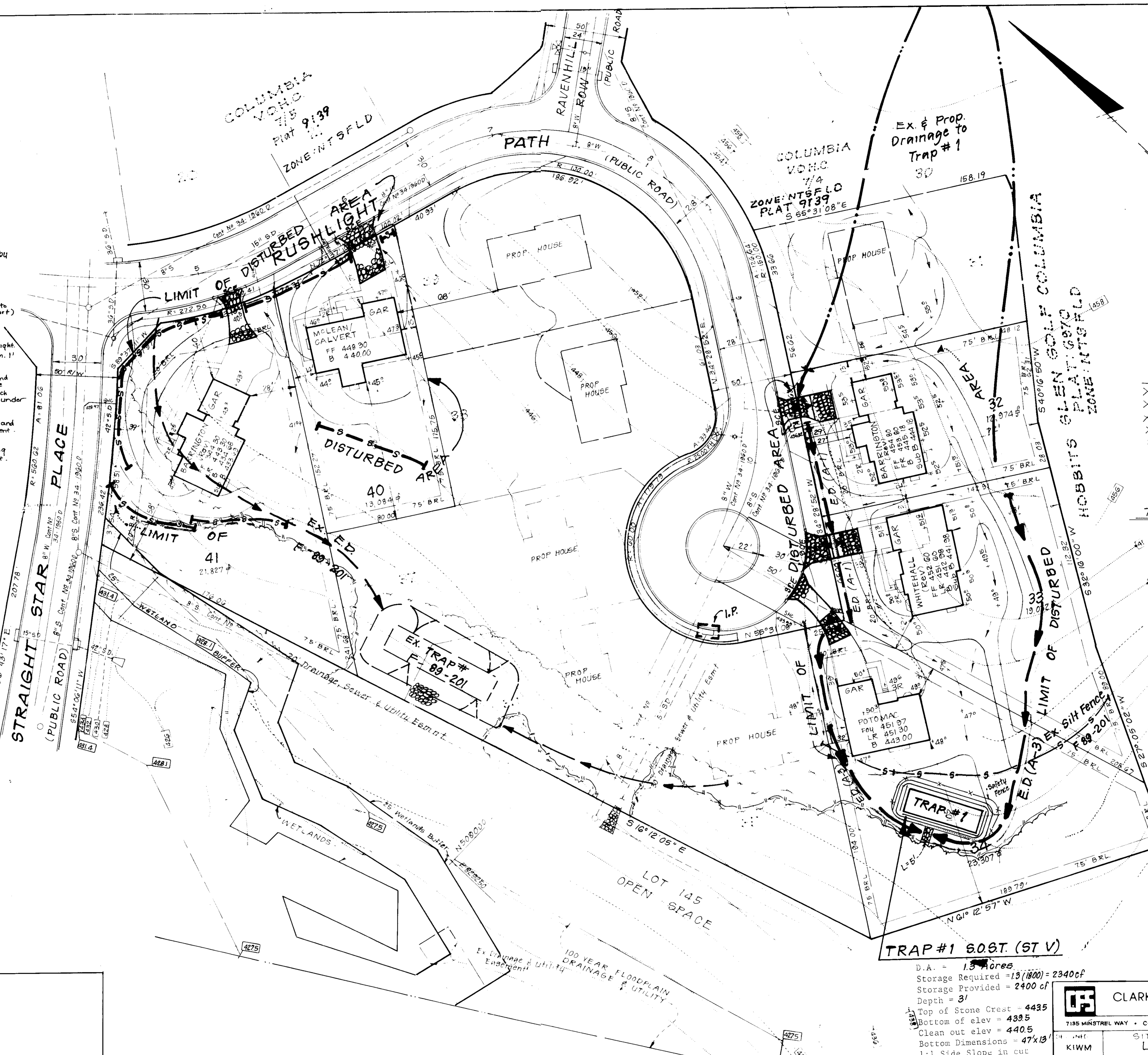
CHIEF DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT
[Signature] 4/25/90
 DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 4/16/90
 DIRECTOR DATE

[Signature] 4-16-90
 CHIEF BUREAU OF ENGINEERING DATE

[Signature] 4-16-90
 DATE



TYPICAL TREE PROTECTION FENCE DETAIL

- LEGEND**
- Contour Interval 2 FT
 - Existing Contour 41.0
 - Proposed Contour 41.0
 - Spot Elevation 41.0
 - Direction of Drainage
 - Walk-out Basement Trees to be Saved
 - Construction Fence
 - Earth Dike
 - Silt Fence
 - Stabilized Constr. Entrance
 - Prop. Drainage Divide
 - Ex. Drainage Divide
 - Inlet Protection
 - I.P.

[Signature] 2-26-90
 ENGINEERS' CERTIFICATE

ENGINEERS' CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control was prepared by me or under my direct supervision and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[Signature] 2-26-90
 G. Nelson Clark DATE

TRAP #1 6.0GT. (ST V)

D.A. = 1.5 Acres
 Storage Required = 137,1000 = 2340cf
 Storage Provided = 2400 cf
 Depth = 3'
 Top of Stone Crest = 4435
 Bottom of elev = 4385
 Clean out elev = 4405
 Bottom Dimensions = 47x18'
 1:1 Side Slope in cut
 L = 5'

OWNER/DEVELOPER
 Howard Research & Dev. Land Co.
 10275 L. Hile Potomac Pkwy
 Columbia, Md. 21044

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINISTREL WAY • COLUMBIA MD 21045 • (301) 961-7500 BALTO • (301) 621-8100

SITE DEVELOPMENT PLAN
 LOTS 32-34 & 40-41
COLUMBIA
 VILLAGE OF HARPERS CHOICE
 SECTION 7 AREA 4
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 1" = 30'

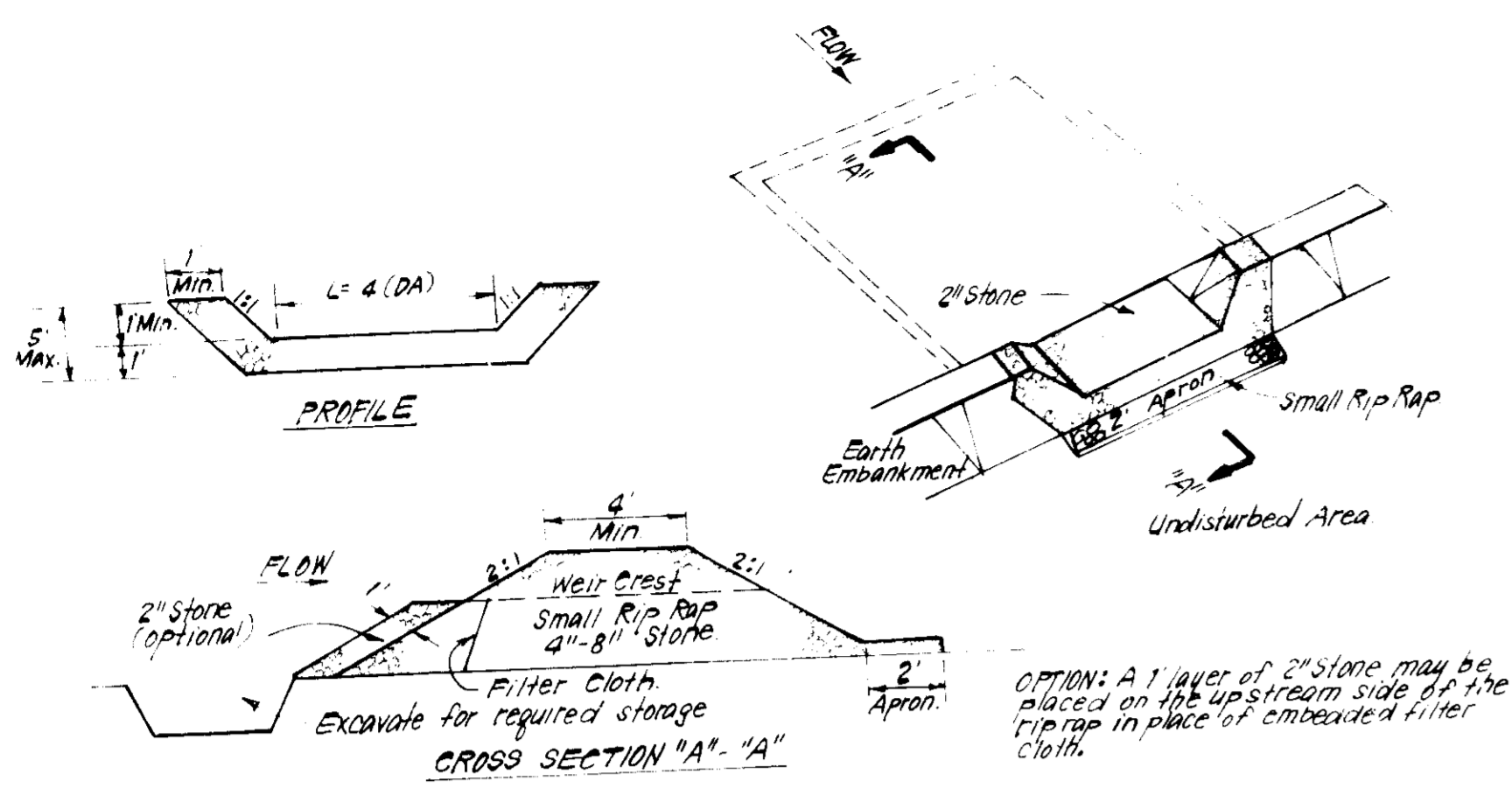
DRAWING
 2 of 3

JOB NO.
 90 033

FILE NO.
 90 0335E

DATE
 2-23-90

For The Rutland Group, Inc. (Civil Div.)
 7130 Ministrel Way
 Columbia, MD 21044
 S.D.P. 90 168



CONSTRUCTION SPECIFICATIONS:

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The top area shall be compacted.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as over sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted sized stones, rocks, organic material or other objectionable material.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small rip-rap 4"-8" along with 1" thickness of 2" aggregate placed on the up-grade side of the small rip-rap or embedded filter cloth in the rip-rap.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap and repairs made as needed.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET SEDIMENT TRAP (S.O.ST.) ST.V.
NO SCALE

No. of Days

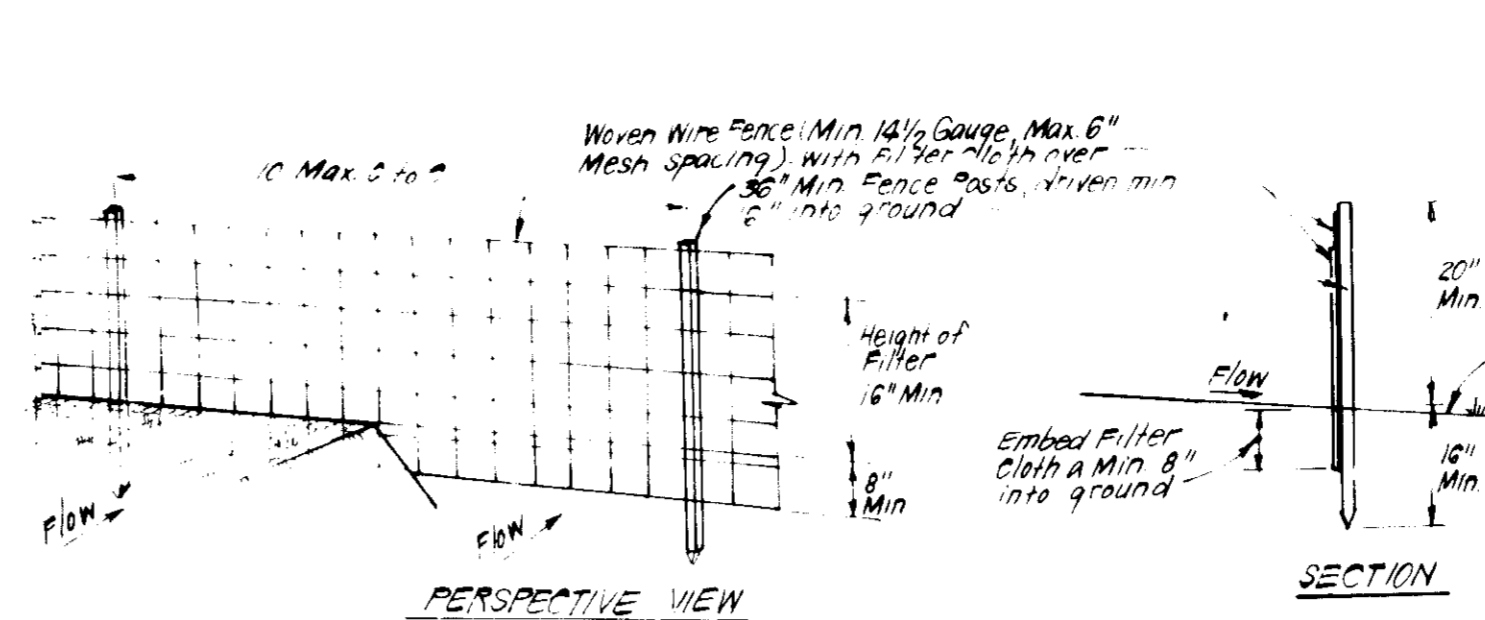
Activity	No. of Days
Obtain Grading Permit and Install Sediment and Erosion Control Structures and Stabilize	7
Excavate for Foundations and Rough Grading	30
Construct Structures, Sidewalks and Driveways	120
Final Grade and Stabilize in accordance with this plan	30
Final approval of the sediment control structures	7
Remove Sediment and Erosion Controls and Site Clean Up	7

Reviewed for HOWARD COUNTY S.O.D. and meets Technical Requirements
James M. Helm 4/16/90
U.S. District Court Judge

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL CONSERVATION DISTRICT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
John L. Robertson 4/16/90
Approved Date

Joseph Boyle 4-19-90
DEPT. OF COMMUNITY PLANNING AND LAND DEVELOPMENT
Joseph Booth 4/25/90
John J. J. J. 4/25/90
James M. Helm 4/16/90
William E. Kelly 4-16-90

- 1) A permit for this plan shall be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All vegetative and structural practices are to be installed in accordance to the provisions of this plan and the performance criteria of the 1981 MARYLAND EROSION AND SEDIMENT CONTROL ACT AND REGULATIONS AND THE EROSION AND SEDIMENT CONTROL ACT.
- 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) 15 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 11, 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 1981 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 31) and (Sec. 32), temporary seedings (Sec. 30) and mulching (Sec. 31). Temporary stabilization with mulch alone can only be done when recommended seeding rates do not allow for seed germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
Total Area of Site: 2.07 Acres
Area Disturbed: 1.41 Acres
Area to be paved or sealed: 0.37 Acres
Area to be vegetatively stabilized: 1.04 Acres
Total Cur: 4109.91 Cu. Yds.
Total Fill: 1441.00 Cu. Yds.
Average water/borrow area location: undetermined
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment control must be provided, if deemed necessary by the Howard County DWM sediment control inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 11) If houses are to be constructed on an "As-Sold" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
12) All pipes to be blocked at the end of each day (see detail below). N/A
13) The total amount of straw bales/silt fence equals 380 L.F.

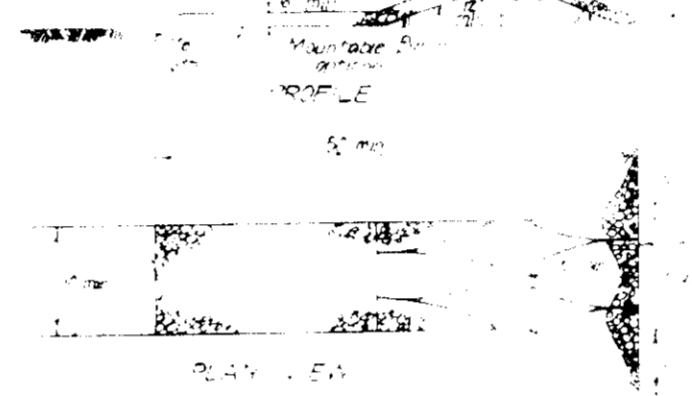


CONSTRUCTION SPECIFICATIONS:

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and stapled.
4. Maintenance shall be performed as needed and material removed when "bales" have set in silt fence.

POSTS: Steel, either T or U Type or 2" Hardwood
FENCE: Woven Wire, 14 1/2 Gauge, 6" Max. Mesh Opening
FILTER CLOTH: Filterk, Mirafix 1000, Stabilink, T1400 or Approved
PREFABRICATED UNIT: Geofab, Envirofence or Approved equal

SILT FENCE DETAIL (S)
NO SCALE



TEMPORARY SEEDING NOTES:

Apply to eroded or exposed areas 100 lbs. of 10-10-10 fertilizer per acre in upper three inches of soil by raking, broadcasting, or other suitable method.

Apply to eroded or exposed areas 100 lbs. of 10-10-10 fertilizer per acre in upper three inches of soil by raking, broadcasting, or other suitable method.

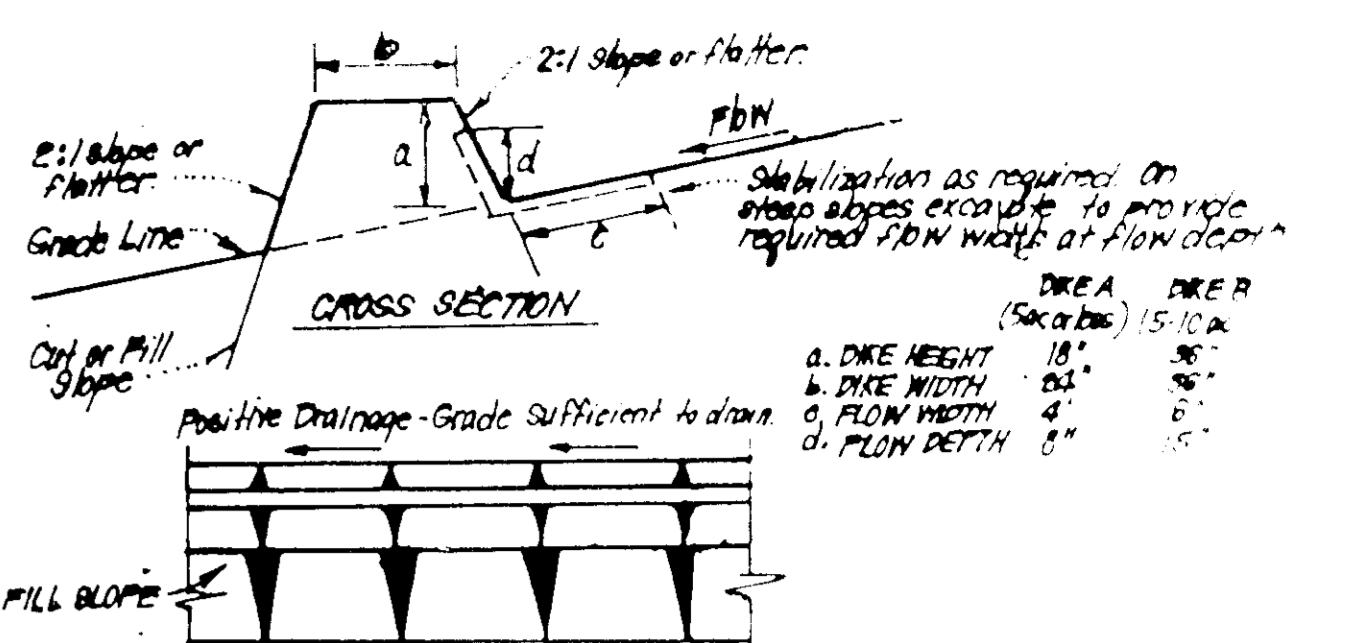
Apply to eroded or exposed areas 100 lbs. of 10-10-10 fertilizer per acre in upper three inches of soil by raking, broadcasting, or other suitable method.

DEVELOPER'S / BUILDER'S CERTIFICATE

I, the undersigned, certify that all development and construction will be done according to the plan of development and plan for erosion and sediment control and that if responsible personnel are used in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.
Maurice M. Campbell 2-26-90
Signature of Developer/Builder Date

[Signature] 2-26-90

ENGINEER'S CERTIFICATE
I hereby 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.
G. Nelson Clark 2-26-90
Date



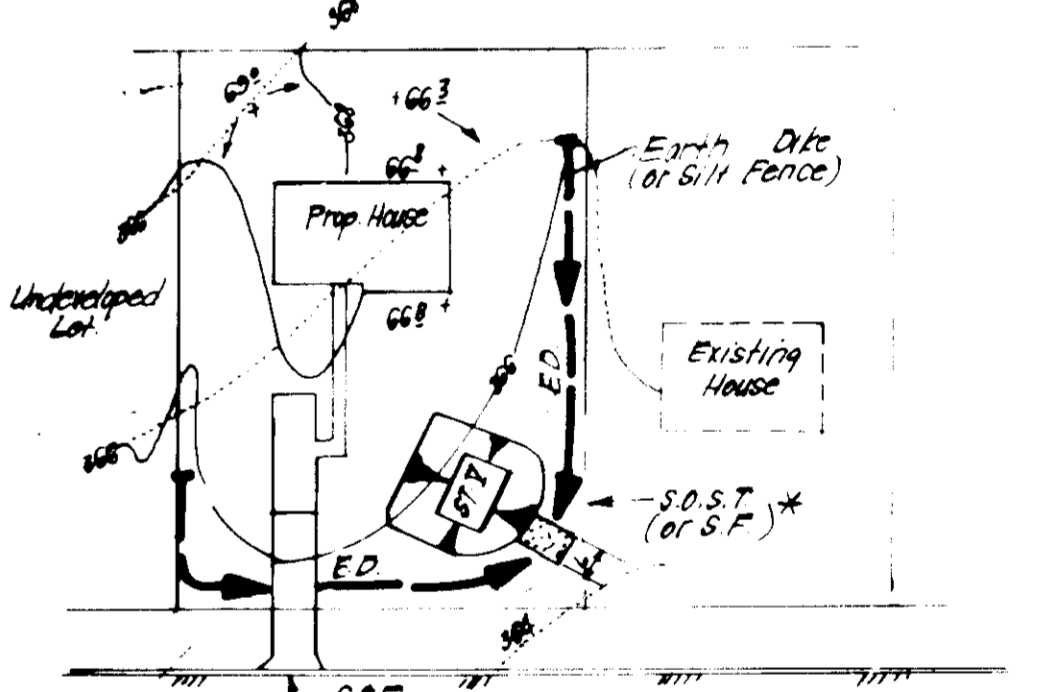
CONSTRUCTION SPECIFICATIONS:

1. All dikes shall be compacted by earth-moving equipment.
2. All dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired, to facilitate crossing by construction traffic.
4. Field location should be adjusted as needed to utilize a stabilized side outlet.
5. Earth dikes shall have an outlet that functions with a minimum of erosion. Remain 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.
6. 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 chart below.

TYPE OF TREATMENT	FLOW CHANNEL STABILIZATION	
	DIKE A	DIKE B
1	0.5 - 3.0% Seed & Straw Mulch	Seed or Straw Mulch
2	3.1 - 8.0% Seed & Straw Mulch	Seed w/White or Excelsior Seed, 2" Stone
3	8.1 - 20.0% Seed w/White or Straw, 2" Stone	Lined Rip Rap 4"-8" Stone Engineering Design
4	20.1 - 30.0% Lined Rip Rap 4"-8" Stone	Engineering Design

A. Stone to be 2" Stone, or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.
B. Rip Rap to be 4"-8" in a layer of least 3" thick, pressed into soil.
C. Approved equivalents can be substituted for any of the above materials.
7. Periodic inspection and required Maintenance must be provided after each rain.

EARTH DIKE DETAIL (E.D.)
NO SCALE



* NOTE: Single lot detail can not be utilized if any two lots sharing common property lines are to be disturbed at the same time or on any lots showing a sediment trap.
+ can be adjusted in field, but permit area must be as given or larger.

SINGLE LOT SEDIMENT CONTROL PLAN
NO SCALE

OWNER/DEVELOPER:
Howard Research & Dev. Land, Co.
10275 Little Patuxent Pkwy.
Columbia, Md. 21044

CLARK • FINEROCK • SACK
SEDIMENT & EROSION CONTROL PLAN
LOTS 32-34 & 40-41
COLUMBIA
SECTION 7 AREA 7
5th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
For: The Ryland Group, Inc. (Col. Div.)
7130 Minstrel Way
Columbia, Maryland 21044
S.D.P. 90-163