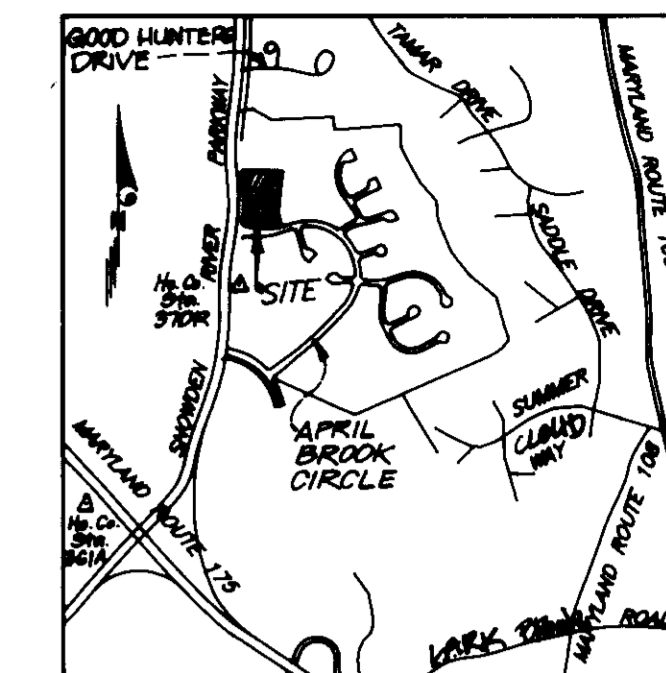


LOT NO.	STREET ADDRESS
B-1	Q201 DEEP RIVER CANYON
B-2	Q203 DEEP RIVER CANYON
B-3	Q205 DEEP RIVER CANYON
B-4	Q207 DEEP RIVER CANYON
B-5	Q209 DEEP RIVER CANYON
B-6	Q211 DEEP RIVER CANYON
B-7	Q213 DEEP RIVER CANYON
B-8	Q215 DEEP RIVER CANYON
B-9	Q217 DEEP RIVER CANYON
B-10	Q219 DEEP RIVER CANYON
B-11	Q221 DEEP RIVER CANYON
B-12	Q223 DEEP RIVER CANYON
B-13	Q225 DEEP RIVER CANYON
B-14	Q227 DEEP RIVER CANYON
B-15	Q229 DEEP RIVER CANYON
B-16	Q231 DEEP RIVER CANYON
B-17	Q233 DEEP RIVER CANYON
B-18	Q235 DEEP RIVER CANYON
B-19	Q237 DEEP RIVER CANYON
B-20	Q239 DEEP RIVER CANYON
B-21	Q241 DEEP RIVER CANYON
B-22	Q243 DEEP RIVER CANYON
B-23	Q245 DEEP RIVER CANYON
B-24	Q247 DEEP RIVER CANYON
B-25	Q249 DEEP RIVER CANYON
B-26	Q251 DEEP RIVER CANYON
B-27	Q253 DEEP RIVER CANYON
B-28	Q255 DEEP RIVER CANYON
B-29	Q257 DEEP RIVER CANYON
B-30	Q259 DEEP RIVER CANYON
B-31	Q261 DEEP RIVER CANYON
B-32	Q263 DEEP RIVER CANYON
B-33	Q265 DEEP RIVER CANYON
B-34	Q267 DEEP RIVER CANYON
B-35	Q269 DEEP RIVER CANYON
B-36	Q271 DEEP RIVER CANYON
B-37	Q273 DEEP RIVER CANYON
B-38	Q275 DEEP RIVER CANYON
B-39	Q277 DEEP RIVER CANYON
B-40	Q279 DEEP RIVER CANYON
B-41	Q281 DEEP RIVER CANYON
B-42	Q283 DEEP RIVER CANYON
B-43	Q285 DEEP RIVER CANYON
B-44	Q287 DEEP RIVER CANYON
B-45	Q289 DEEP RIVER CANYON
B-46	Q291 DEEP RIVER CANYON
B-47	Q293 DEEP RIVER CANYON
B-48	Q295 DEEP RIVER CANYON
B-49	Q297 DEEP RIVER CANYON
B-50	Q299 DEEP RIVER CANYON
B-51	Q301 DEEP RIVER CANYON
B-52	Q303 DEEP RIVER CANYON
B-53	Q305 DEEP RIVER CANYON
B-54	Q307 DEEP RIVER CANYON
B-55	Q309 DEEP RIVER CANYON
B-56	Q311 DEEP RIVER CANYON
B-57	Q313 DEEP RIVER CANYON
B-58	Q315 DEEP RIVER CANYON

LOT NO.	INT.	PL.	MIN. CELLAR
B-1	365.4	368.6	368.6
B-2	365.4	368.6	368.6
B-3	366.8	370.0	370.0
B-4	367.4	370.6	370.6
B-5	368.5	371.7	371.7
B-6	369.7	372.3	372.3
B-7	371.2	374.4	374.4
B-8	371.7	374.9	374.9
B-9	372.9	376.1	376.1
B-10	373.4	376.6	376.6
B-11	374.4	377.6	377.6
B-12	374.8	378.0	378.0
B-13	375.4	378.6	378.6
B-14	376.7	379.9	379.9
B-15	377.5	380.7	380.7
B-16	378.4	381.6	381.6
B-17	378.8	382.0	382.0
B-18	379.6	382.8	382.8
B-19	380.1	383.3	383.3
B-20	381.0	384.0	384.0
B-21	382.1	385.2	385.2
B-22	382.8	385.9	385.9
B-23	382.0	385.2	385.2
B-24	382.1	385.2	385.2
B-25	382.1	385.2	385.2
B-26	382.2	385.3	385.3
B-27	382.4	385.5	385.5
B-28	382.5	385.6	385.6
B-29	382.6	385.7	385.7
B-30	382.7	385.8	385.8
B-31	383.5	386.6	386.6
B-32	384.1	387.2	387.2
B-33	384.4	387.5	387.5
B-34	383.0	386.7	386.7
B-35	383.2	386.9	386.9
B-36	383.4	387.1	387.1
B-37	383.6	387.3	387.3
B-38	383.6	387.3	387.3
B-39	374.8	378.0	378.0
B-40	374.8	378.0	378.0
B-41	374.5	377.7	377.7
B-42	374.3	377.5	377.5
B-43	374.2	377.4	377.4
B-44	374.0	377.2	377.2
B-45	373.9	377.1	377.1
B-46	373.7	376.9	376.9
B-47	373.9	377.1	377.1
B-48	374.0	377.2	377.2
B-49	374.2	377.4	377.4
B-50	374.4	377.6	377.6
B-51	374.5	377.7	377.7
B-52	374.7	377.9	377.9
B-53	374.8	378.0	378.0
B-54	369.1	372.3	372.3
B-55	368.7	371.9	371.9
B-56	368.7	371.9	371.9
B-57	368.4	371.6	371.6
B-58	367.9	371.1	371.1

LOT NO.	AREA
B-1	1875 sf
B-2	1800 sf
B-3	1800 sf
B-4	1500 sf
B-5	1500 sf
B-6	2000 sf
B-7	1830 sf
B-8	1563 sf
B-9	1594 sf
B-10	1499 sf
B-11	1499 sf
B-12	1594 sf
B-13	1876 sf
B-14	1875 sf
B-15	1600 sf
B-16	1800 sf
B-17	1500 sf
B-18	1500 sf
B-19	2000 sf
B-20	1825 sf
B-21	1400 sf
B-22	1400 sf
B-23	1350 sf
B-24	1500 sf
B-25	1500 sf
B-26	1750 sf
B-27	1750 sf
B-28	1500 sf
B-29	1500 sf
B-30	1400 sf
B-31	1400 sf
B-32	1500 sf
B-33	1875 sf
B-34	2000 sf
B-35	1500 sf
B-36	1800 sf
B-37	1500 sf
B-38	2000 sf
B-39	1875 sf
B-40	1500 sf
B-41	1600 sf
B-42	1600 sf
B-43	1500 sf
B-44	1500 sf
B-45	1800 sf
B-46	2000 sf
B-47	1750 sf
B-48	1400 sf
B-49	1500 sf
B-50	1500 sf
B-51	1400 sf
B-52	1400 sf
B-53	1875 sf
B-54	2000 sf
B-55	1800 sf
B-56	1500 sf
B-57	1500 sf
B-58	2000 sf



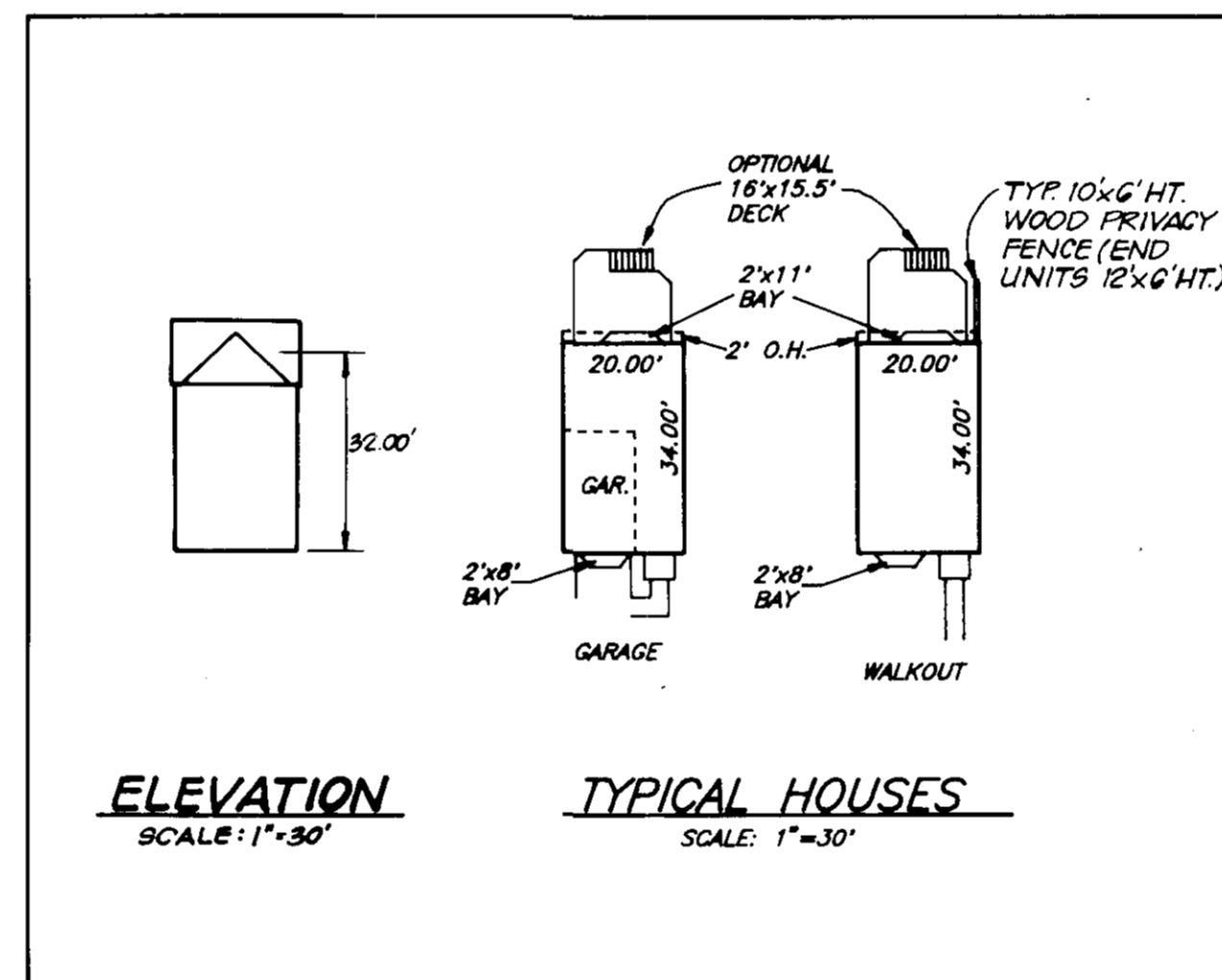
VICINITY MAP  
SCALE: 1"=2000'

**SITE ANALYSIS:**

- Subject property is zoned: NT-SFA per 10/18/95 comprehensive zoning plan, FDP phase 216
- Unit type proposed: Single Family attached
- Number of lots proposed: 60
  - Number of O.S. Lots: 58
  - Number of Townhouse Lots: 2
- Number of parking spaces required: 116 (2 spaces per unit)
- Number of parking spaces provided: 141 (Total) (2.4 spaces per unit)
  - Driveways and Garage: 48
  - Courts: 93
- Area tabulation:
  - Total area of the parcel: 5.3 acres or 234,753 S.F.
  - Total lot area: 2.1 acres or 40%
  - Total impervious area: 2.3 acres or 43%
  - Public road area: 0.9 acres or 17%
- Building coverage permitted: N/A
- Building coverage proposed: 0.95 acres or 18%

**GENERAL NOTES:**

- The existing topography shown was taken from approved road construction plan F-93-98 prepared by Clark, Finckel & Sackett, Inc.
- Department of Planning & Zoning reference file numbers: FDP ph. 216, F-95-25, S-93-16, WP-95-33, SP-95-02, F-95-88.
- The coordinates shown herein are based upon plat mention for Village of Longreach, Md. Co. control sta. 3814 El. 400.81 and 370R El. 380.34.
- The contractor shall notify the Department of Public Works/ Bureau of Construction Inspection at (410) 313-1870 at least (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- Utilities shown as existing are taken from approved water and sewer plan, Contract #84-8480 approved road construction plans F-95-88.
- Stormwater management is provided off site for quality & quantity control in the existing SWM facilities on F-95-25, WP-95-33 approved WP-95-33 approved 11/11/94 to waive section 16.119 (e)(5) allowing a public R.O.W. intersection w/o a truncation.
- Vehicle ingress & egress into public right of way is restricted except at locations approved by Howard County Dept. of Planning and Zoning.
- Public water and sewer is to be utilized. (Contract No. 24-3400-D)
- Any damage to county owned right of way to be corrected at the developer's expense.
- The area included in this submission is located on Tax Map No. 37 Parcel 254 & 255.
- All materials and construction is to be in accordance with the Howard County road construction codes and specifications.
- The minimum building setback restrictions from the property lines and the right of ways of any public road to be in accordance with the Final Development Plan, Phase 216.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location of utilities by digging test pits, by hand, at all crossings prior to construction.
- Installation of traffic control devices shall be in accordance with the latest edition to the "Manual of Uniform Traffic Control".
- Environmental analysis was submitted with previously approved Preliminary Plan Equivalent Sketch Plan SP-95-02.
- Limit of Submission includes lots B-1 thru B-60.
- Garages cannot be made into living space because the minimum parking required includes garage parking.
- For Driveway Entrance Details, refer to Howard County Design Manual Volume IV Standard Detail R-8.03.
- All water/sewer connections are 1" minimum as per Approved Water and Sewer Plans dated 9-24-98 (Contract #84-8400-D)



ELEVATION  
SCALE: 1"=30'

TYPICAL HOUSES  
SCALE: 1"=30'

**LEGEND**

- CONTOUR INTERVAL 2 FT
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DIRECTION OF DRAINAGE
- WALK OUT BASEMENT
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORM DRAIN
- EXISTING TREES TO REMAIN
- TREE PROTECTION FENCE
- FIRE LANE

SHEET INDEX	
DESCRIPTION	SHEET No.
SITE DEVELOPMENT COVER SHEET	1
SITE DEVELOPMENT PLAN	2
SEDIMENT AND EROSION CONTROL PLAN	3
SEDIMENT AND EROSION DETAIL SHEET	4
LANDSCAPE PLAN	5

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCELS
COLUMBIA VILLAGE OF LONGREACH	4/2	B-1 TO B-60 (PHASE 1)
PLAT NO. 11720-11722	ZONE NT SFA	TAX MAP NO. 37 ELECTION DIST. 6th CENSUS TRACT 6067.03
WATER CODE E-07	SEWER CODE 3460000	

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

COUNCIL MEMBERS OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR DATE 6/1/95

CHIEF DIVISION OF DEVELOPMENT AND RESEARCH DATE 5/1/95

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

DIRECTOR DATE 5/1/95

CHIEF BUREAU OF ENGINEERING DATE 5/1/95

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE 13 April 95

OWNER / DEVELOPER

THE HOWARD RESEARCH GROUP AND DEVELOPMENT CORPORATION  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MD 21044



**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 • BALTO. • (301) 621-8100 • WASH.

DESIGNED MJP	<b>SITE DEVELOPMENT PLAN</b> LOTS B-1 THRU B-58 & O.S. LOTS B-59 & B-60 <b>COLUMBIA VILLAGE OF LONGREACH</b> PARCEL B PHASE 1 SECTION 4 AREA 2 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE As Shown
DRAWN ZAH		1 of 5
CHECKED jmw		JOB NO. 04-005
DATE 2-21-95		FOR: COLUMBIA BUILDERS, INC. P.O. BOX 999 COLUMBIA, MARYLAND 21044
		FILE NO. 24005



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

COMMUNITY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
DIRECTOR *James S. Smith* DATE 6/15/95  
CHIEF DIVISION OF DEVELOPMENT AND RESEARCH *JM* DATE 6/15/95

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

DICTIONARY *James P. Lee* DATE 5/15/95  
DATE 5/11/95

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE 13 April 95

NO.	REVISION	DATE
1.	Per HRD Comments Rev. Site Grading Adjacent to Lots B-1 & B-58	



<b>CLARK • FINEROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.		
DESIGNED M.J.F.	<b>SITE DEVELOPMENT PLAN</b> <b>LOTS B-1 THRU B-58 &amp; O.S. LOTS B-59 &amp; B-60</b> <b>COLUMBIA</b> <b>VILLAGE OF LONGREACH</b> <b>PARCEL B PHASE 1</b> SECTION 4 AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 20'
DRAWN FD		DRAWING 2-1-B
CHECKED JW		JOB NO. 74-025
DATE 2-21-95		FILE NO. 74-025-X

OWNER/DEVELOPER:  
THE HOWARD RESEARCH  
AND DEVELOPMENT CORP.  
LITTLE LITTLE PATENT  
PARKWAY  
COLUMBIA, MD 21044

FOR COLUMBIA BUILDERS, INC.  
P.O. BOX 990  
COLUMBIA, MARYLAND 21044





APPROVED  
DATE 13 April 95

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT	
COMMISSIONER OFFICER	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	6/15/95
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	5/15/95
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	5/11/95

**Sediment Trap No 1 91ST ST-III**

Existing Drainage Area	14 ac.
Proposed Drainage Area	14 ac.
Storage Required	2520 cf.
Storage Provided	2520 cf.
Inlet Wier Elev	371.3
Clean Out Elev	368.5
Bottom Elev	367.0
Storage Depth	3'
Bottom Dim	18' X 37'
1:1 Side Slopes in Cut	

**SEDIMENT TRAP No 2 50ST ST-IV**

EXISTING DRAINAGE AREA	0.02 AC
PROPOSED DRAINAGE AREA	0.02 AC
STORAGE REQUIRED	117 CF
STORAGE PROVIDED	1524 CF
TOP OF STAKE CREST	372.0
CLEAN-OUT ELEV.	369.0
BOTTOM ELEV.	367.0
STORAGE DEPTH	2.0
1:1 SIDE SLOPES IN CUT	
BOTTOM DIM	4' X 10'

NOTE: IF THE SEDIMENT TRAP PER PLAN-SPE EXISTS, INSTALL CLEAN, WATER DIVERSIONAL GULLY DRAIN SIZE TRAP SIZE AND UTILIZE IF THE TRAP DEES NOT EXIST EXCAVATE TRAP AND INSTALL S & E CENTRALS AS SHOWN.

Note: Provide Inlet Protection for all unprotected Inlets.

Reviewed for HOWARD S.C.D.  
and meets Technical Requirements  
Signature: [Signature] Date: 5/23/95  
U.S. Soil Conservation Service

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

Approved: [Signature] Date: 5/23/95  
Barbara B.C.D.



OWNER/DEVELOPER:  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
10115 LITTLE PATUXENT PARKWAY  
COLUMBIA, MD 21044

<b>CLARK • FINEROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.		
DESIGNED Z.A.L.	SEDIMENT & EROSION CONTROL PLAN LOTS B-1 THRU B-58 & O.S. LOTS B-59 & B-60 <b>COLUMBIA VILLAGE OF LONGREACH</b> PARCEL B PHASE 1 SECTION 4 AREA 2 SIXTH (8th) ELECTRON DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=20'
DRAWN P.C./C.L.I.		DRAWING 3285
CHECKED [Signature]		JOB NO. 7495
DATE 2-21-95	FOR: COLUMBIA BUILDERS, INC. P.O. BOX 899 COLUMBIA, MARYLAND 21044	FILE NO. [Blank]



**PERMANENT SEEDING NOTES**

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

- SEEDING PREPARATION:** Loosen upper three inches of soil 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 acre dolomitic limestone (92 lbs/1000 sq ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft.)  
 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs/1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil.

**SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 5000 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.5 lbs/1000 sq ft) of creeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

**MAINTENANCE:** Inspect all seeded areas and make needed repairs, replacements and reseeding.

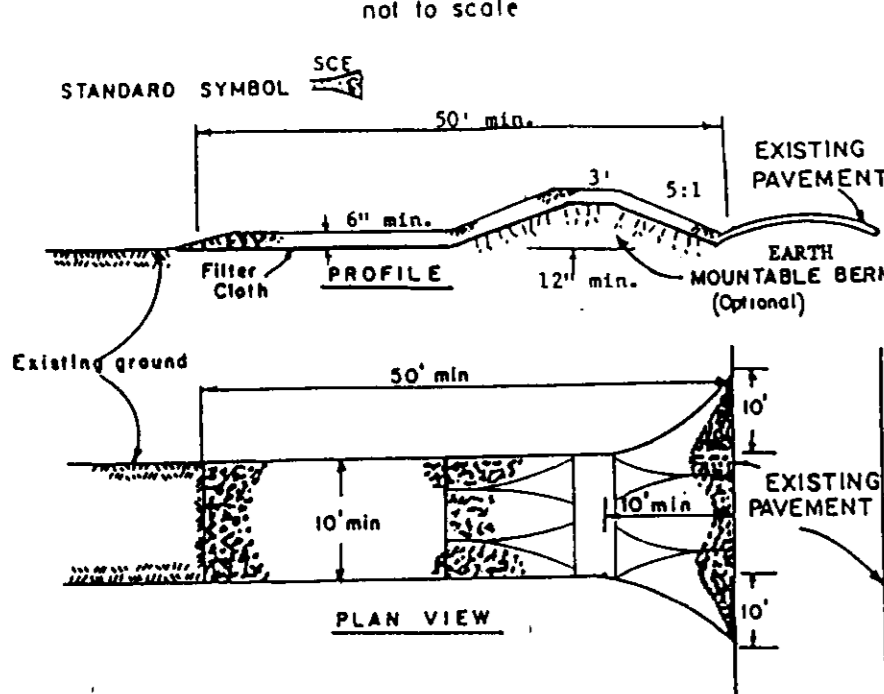
**TEMPORARY SEEDING NOTES**

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

- SOIL AMENDMENTS:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).  
**SEEDING:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of creeping lovegrass (0.7 lbs/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 as possible in the spring, or use sod.  
**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

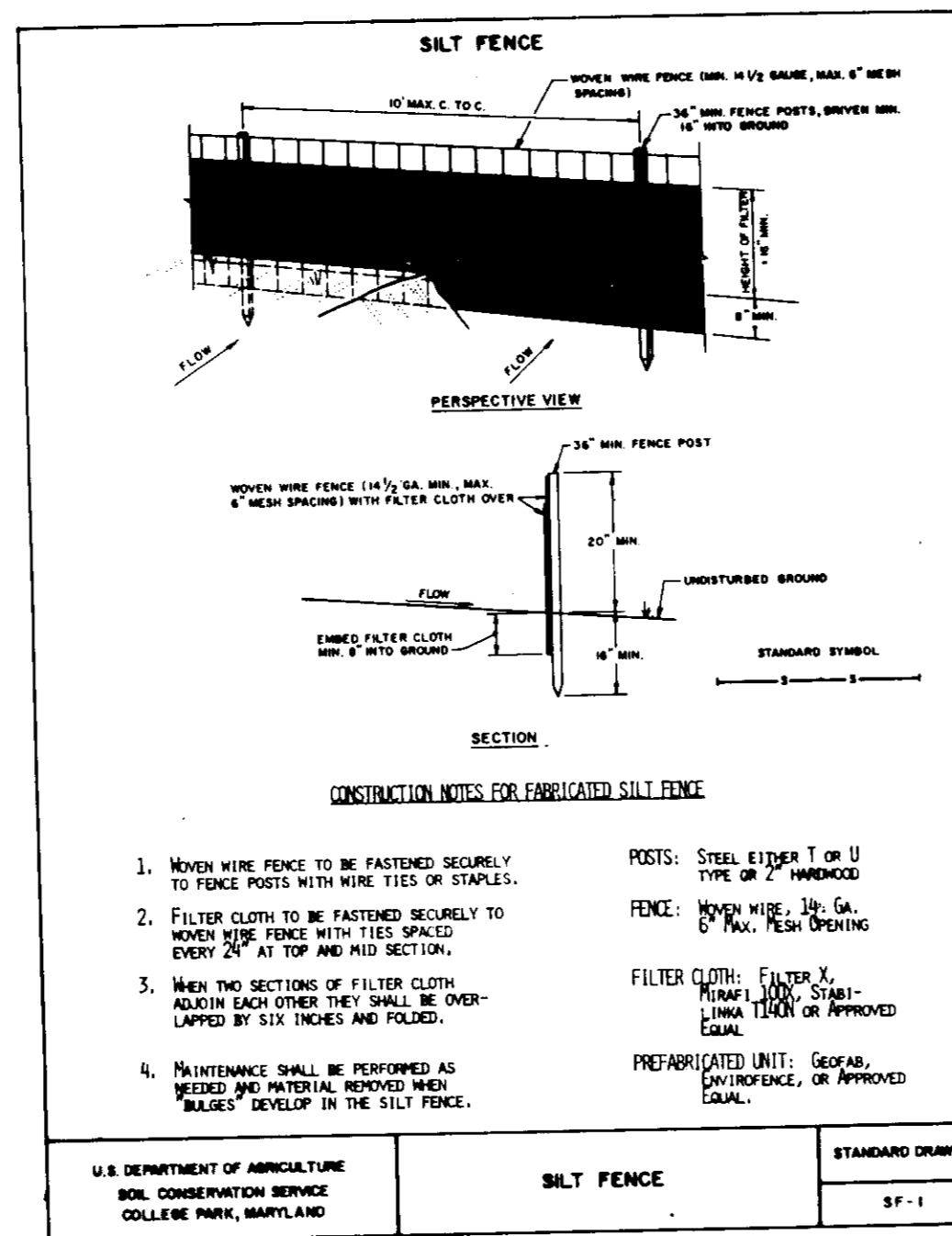
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

**STABILIZED CONSTRUCTION ENTRANCE**

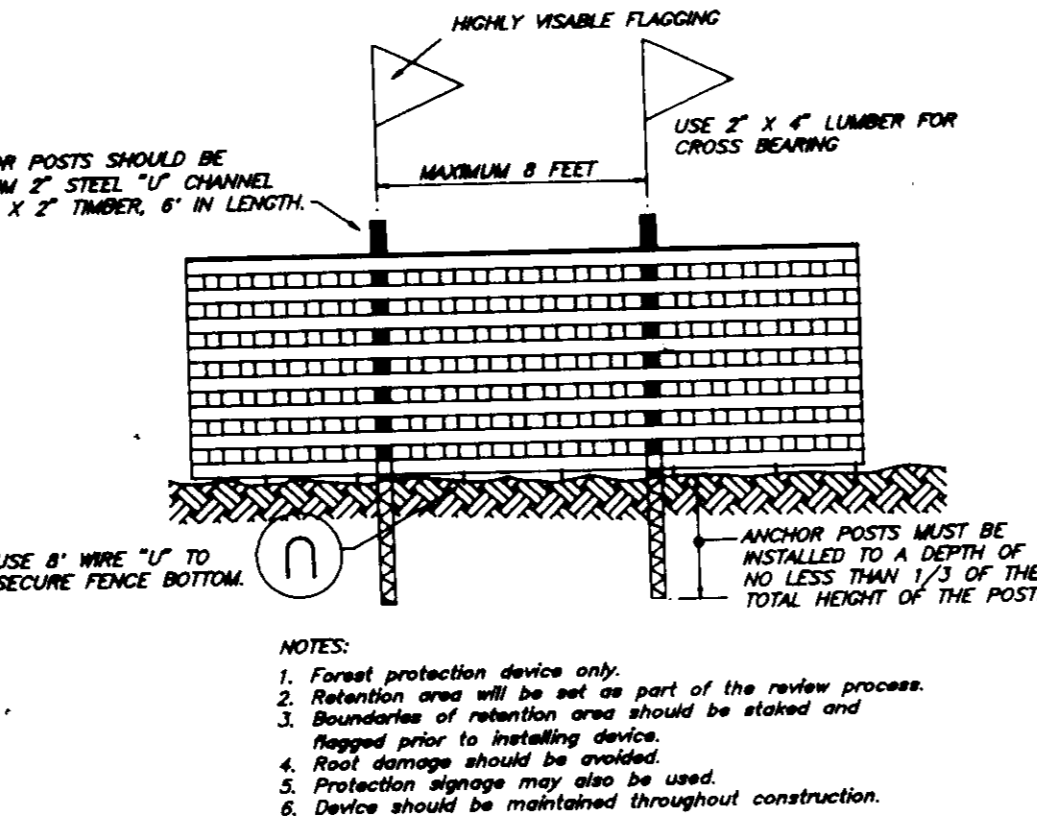


- CONSTRUCTION SPECIFICATIONS**
- Stone size - Use 2" stone, or reclaimed or recycled concrete equivalent.
  - Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  - Thickness - Not less than six (6) inches.
  - Width - Ten (10) 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 directed toward construction entrance shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
  - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing 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 measure 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.

CONSTRUCTION SEQUENCE:	NO. OF DAYS
1. Obtain grading permit	7
2. Install sediment and erosion control devices, grade areas as shown on plan to convey runoff to traps and stabilize.	14
3. Excavate for foundations, rough grade and temporarily stabilize.	30
4. Construct structures, sidewalks and driveways.	60
5. Final grade and stabilize in accordance with Stds. and Specs.	14
6. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize.	7



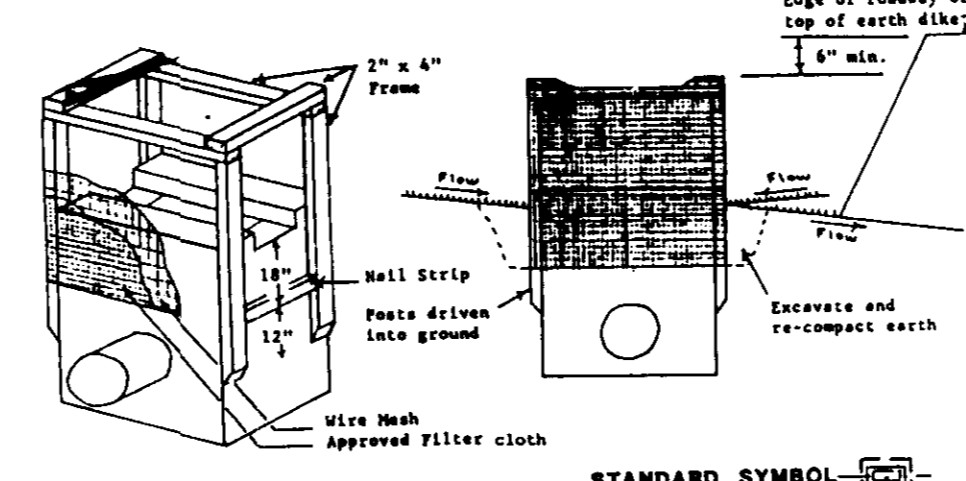
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- MOVIE WIRE FENCE TO BE FASTENED SECURELY TO FRAME POSTS WITH WIRE TIES OR STAPLES.
  - FILTER CLOTH TO BE FASTENED SECURELY TO MOVIE WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



- NOTES:**
- Formed protection device only.
  - Retention area will be set as part of the review process.
  - Boundaries of retention area should be staked and flagged prior to installing device.
  - Root damage should be avoided.
  - Protection signage may also be used.
  - Device should be maintained throughout construction.

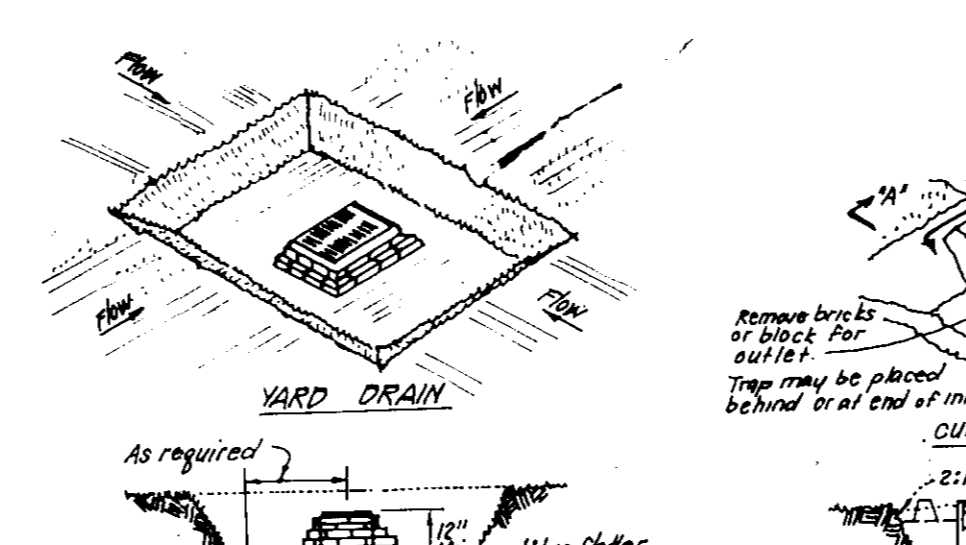
**ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL 1/2" CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH.**

**ANCHOR POSTS MUST BE INSTALLED TO A DEPTH OF NO LESS THAN 1/3 OF THE TOTAL HEIGHT OF THE POST.**



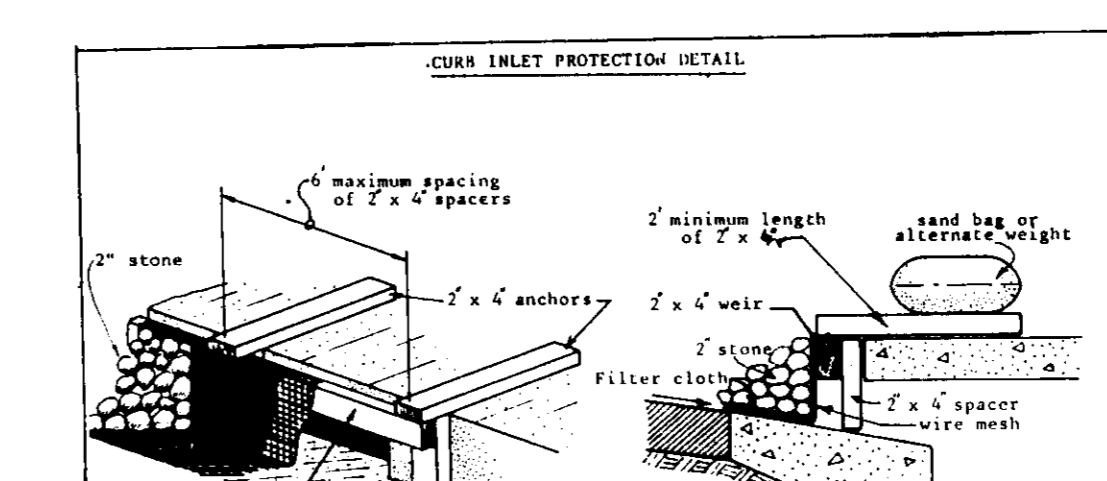
- CONSTRUCTION SPECIFICATIONS**
- Wooden frame is to be constructed of 2" x 4" construction grade lumber.
  - Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
  - Filter cloth must be of a type approved for this purpose; resistant to sunlight with slant size, 80R, 40-85, 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.

- II. Procedure**
- A weals, 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 wall 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 level. Fasten securely to frame. Stone 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 in the ditchline 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 damaged.



- CONSTRUCTION SPECIFICATIONS:**
- Sediment shall be removed and the trap restored to its original condition when sediment has accumulated to 1/2 the design depth of the trap. Sediment shall be deposited in a suitable area not in such a manner that it will not erode.
  - The volume of sediment storage shall be 1000 cu. ft. per acre of contributing drainage.
  - The structure shall be inspected after each rain and repairs made as needed.
  - Drainage operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
  - The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
  - All cut slopes shall be 1:1 or flatter.

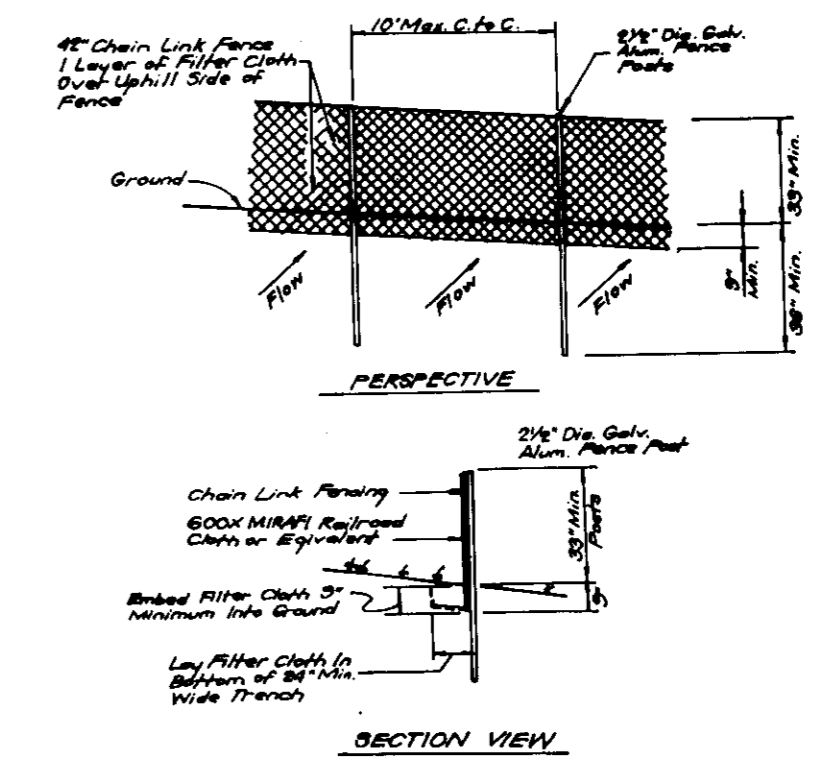
**STORM INLET SEDIMENT TRAP (SIST) ST III**



- CONSTRUCTION SPECIFICATIONS**
- 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 4") 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 weebars 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.

- III. Procedure**
- 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 wall 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 level. Fasten securely to frame. Stone 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 in the ditchline 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 damaged.

**SUPER SILT FENCE**



- CONSTRUCTION SPECIFICATIONS:**
- Sediment shall be removed and the trap restored to its original condition when sediment has accumulated to 1/2 the design depth of the trap. Sediment shall be deposited in a suitable area not in such a manner that it will not erode.
  - The volume of sediment storage shall be 1000 cu. ft. per acre of contributing drainage.
  - The structure shall be inspected after each rain and repairs made as needed.
  - Drainage operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
  - The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
  - All cut slopes shall be 1:1 or flatter.

**STORM INLET SEDIMENT TRAP (SIST) ST III**

**SEDIMENT AND EROSION CONTROL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (S-13-2437)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- SITE ANALYSIS:**  
 Total Area of Site: 2.24 AC.  
 Area to be roofed or paved: 1.14 AC.  
 Area to be vegetatively stabilized: 1.10 AC.  
 Total Cut: 0.00 AC.  
 Total Fill: 0.00 AC.  
 Offsite Waste/Borrow Area Location: \_\_\_\_\_  
 Area to be roofed or paved: \_\_\_\_\_  
 Area to be vegetatively stabilized: \_\_\_\_\_  
 Total Cut: \_\_\_\_\_  
 Total Fill: \_\_\_\_\_
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector, for their removal 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.
- If houses are to be constructed on an "as sold" basis, at random, Single Family Sediment Control, as shown below shall be implemented.
- The total amount of silt fence = \_\_\_\_\_

It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

**APPROVED**  
 PLAN NUMBER \_\_\_\_\_  
 OF HOWARD COUNTY  
 DATE 13 April 95

APPROVED: Howard County Dept. of Planning and Zoning  
 Director: \_\_\_\_\_ Date: 6/2/95  
 Chief of Division of Development and Research: \_\_\_\_\_ Date: 6/15/95

APPROVED: For Public Water and Public Sewerage, Storm Drainage Systems and Public Roads  
 Howard County Department of Public Works  
 Director: \_\_\_\_\_ Date: 5/11/95  
 Chief Bureau of Engineering: \_\_\_\_\_ Date: 5/11/95

**OWNER/DEVELOPER**  
 THE HOWARD RESEARCH AND DEVELOPMENT CENTER  
 LEWIS LITTLE PATRICK PARKWAY  
 COLUMBIA, MD 21044



**ENGINEER'S CERTIFICATE**

I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

G. NELSON CLARK  
 DATE 2-21-95

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/we certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

B. JAMES BRIDGEMAN  
 DATE 2-21-95

Reviewed for HOWARD S.C.D. and meets Technical Requirements  
 Patricia S. Johnson 5/23/95  
 US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 John P. Roberts 5/23/95  
 Approved

**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 • BALTO. • (301) 621-8100 - WASH.

DESIGNED Z.A.L.	<b>SEDIMENT &amp; EROSION CONTROL DETAILS</b> LOTS B-1 THRU B-58 & O.S. LOTS B-59 & B-60 <b>COLUMBIA VILLAGE OF LONGREACH</b> PARCEL B PHASE I SECTION 4 AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE As Shown
DRAWN P.D.		DRAWING 4-PS
CHECKED jmc		JOB NO. 04-005
DATE 2-21-95		FILE NO. 0402505
		FOR: COLUMBIA BUILDERS, INC. P.O. BOX 999 COLUMBIA, MARYLAND 21044





KEY	QTY	PLANT SPECIES	SIZE	REMARKS
<b>SHADE TREES</b>				
⊙	36	ACER RUBRUM "RED SUNSET" Red Sunset Maple	2 1/2-3" CAL. 12-14' HT.	B & B
⊕	37	ACER SACCHARUM "BONFIRE" Bonfire Sugar Maple	2 1/2-3" CAL. 12-14' HT.	B & B
⊖	21	QUERCUS PALUSTRIS Pin Oak	2 1/2-3" CAL. 12-14' HT.	B & B
<b>FLOWERING/EVERGREEN TREES</b>				
○	16	MAGNOLIA SOULANGIANA Saucer Magnolia	2-2 1/2" CAL. 10-12' HT.	B & B
●	16	PRUNUS X THUNDERCLOUD Purpleleaf Flowering Plum	2-2 1/2" CAL. 10-12' HT.	B & B
+	23	PRUNUS SERRULATA "KWANSAN" Kwanzan Cherry	2-2 1/2" CAL. 10-12' HT.	B & B
⊗	71	PICEA EXCELSA Norway Spruce	6-8' HT.	B & B
⊘	34	PINUS STROBUS White Pine	6-8' HT.	B & B

- NOTES**
- All planting shall be done in accordance with Columbia HRD planting specifications.
  - Contractor shall verify location of all underground utilities prior to digging.
  - Final location of plant materials may vary to meet final field conditions.
- Number of plants required per H.R.D. standards = 174  
 Number of plants provided = 174  
 (2 Flowering/Evergreen Trees = 1 shade tree)



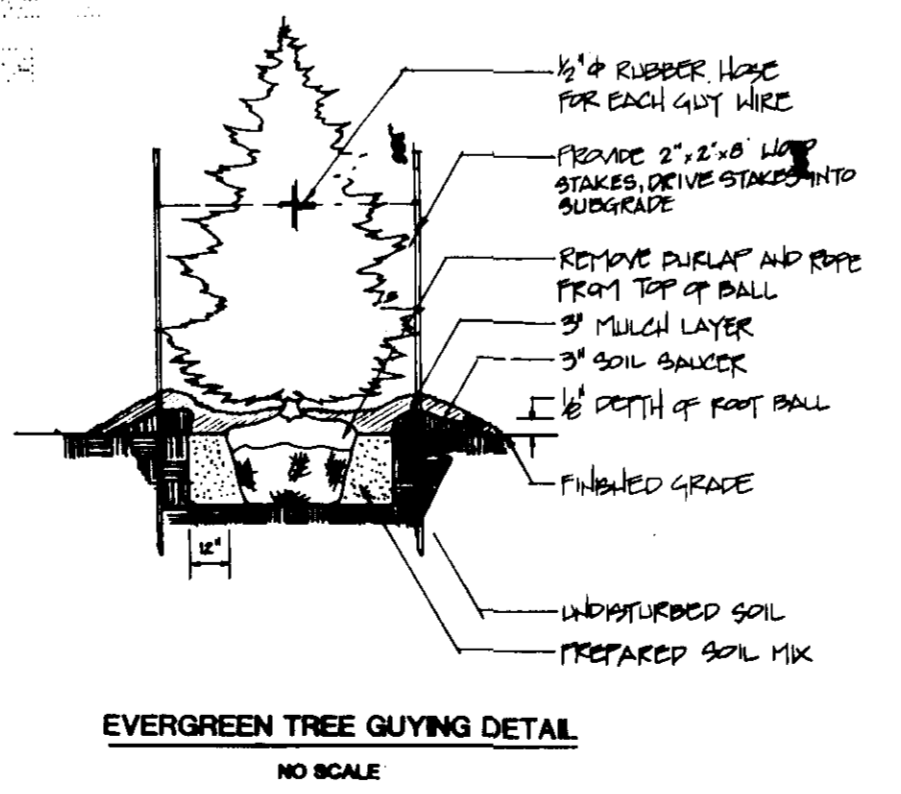
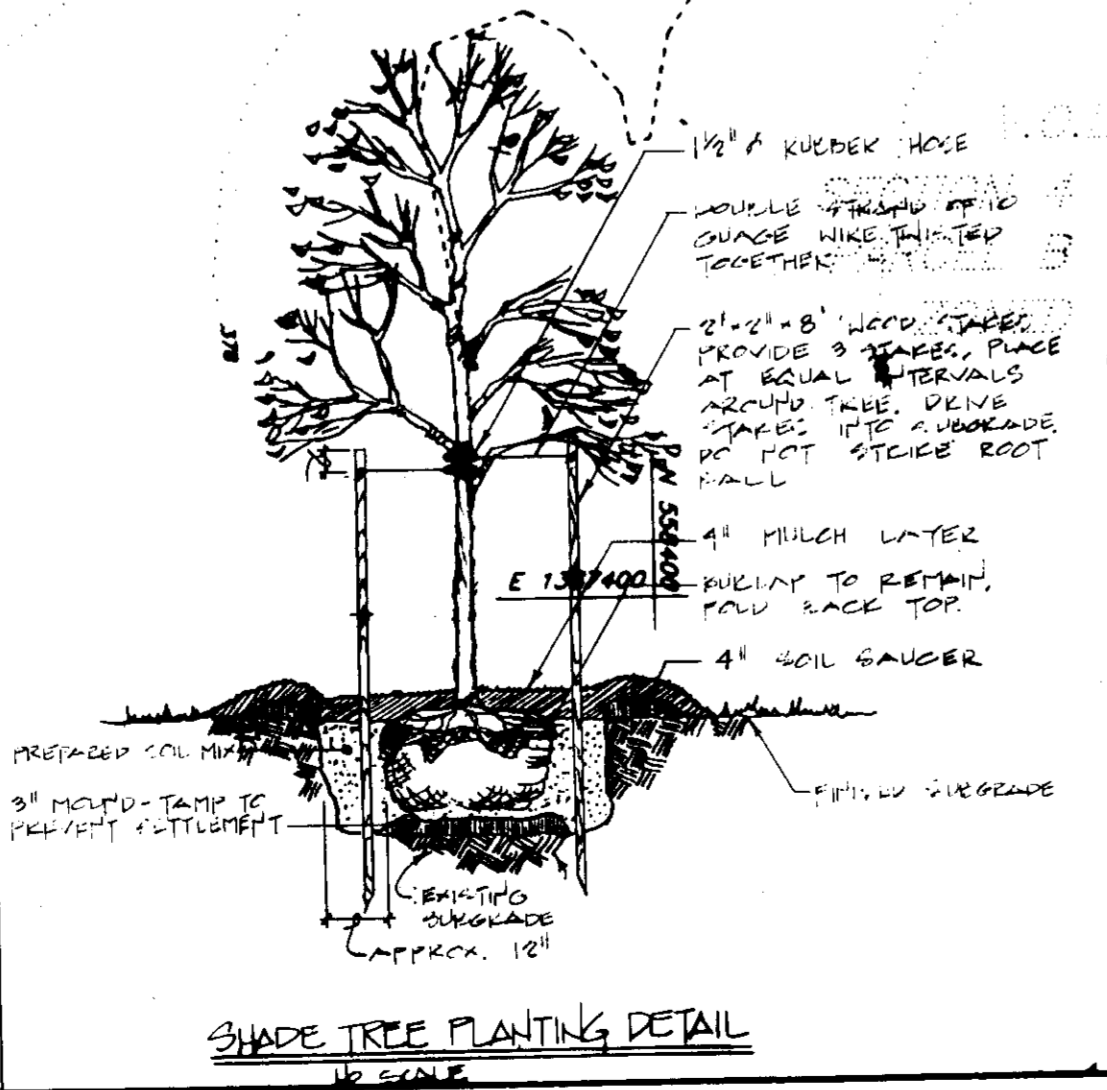
**LANDSCAPE BONDING NOTE:**  
 THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE ALTERNATIVE COMPLIANCE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.

FINANCIAL SURETY FOR THE ALTERNATIVE COMPLIANCE LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$7,200.00. (58 UNITS X 1 = 58 TREES, 141 PARKING SPACES 1/2 = 10 = 14 TREES; 58 TREES + 14 TREES = 72 X \$100 = \$7,200.00)

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

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

APPROVED  
 DATE 13 April 95



**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.

DESIGNED MJP	<b>LANDSCAPE PLANTING PLAN</b> LOTS B-1 THRU B-58 & O.S. LOTS B-89 & 60 <b>COLUMBIA</b> <b>VILLAGE OF LONGREACH</b> <b>PARCEL B PHASE 1</b> SECTION 4, AREA 2 SIXTH (6th) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN MJP		DRAWING 5 of 5
CHECKED WHT		JOB NO. 94-075
DATE 2.20.95		FILE NO. 94-075-13

OWNER/DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 1415 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044

DATE 2.20.95

SEP 95-7A