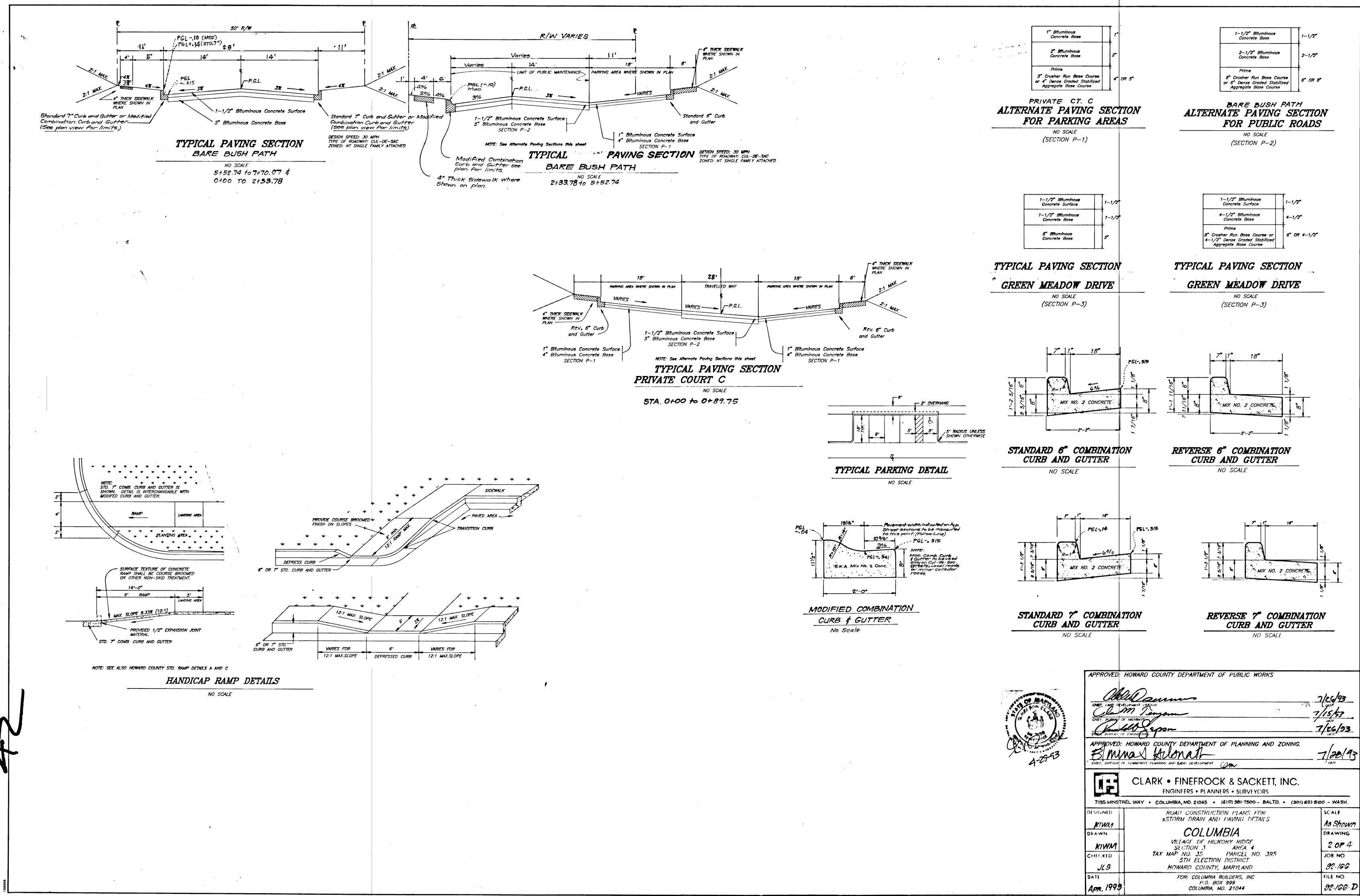
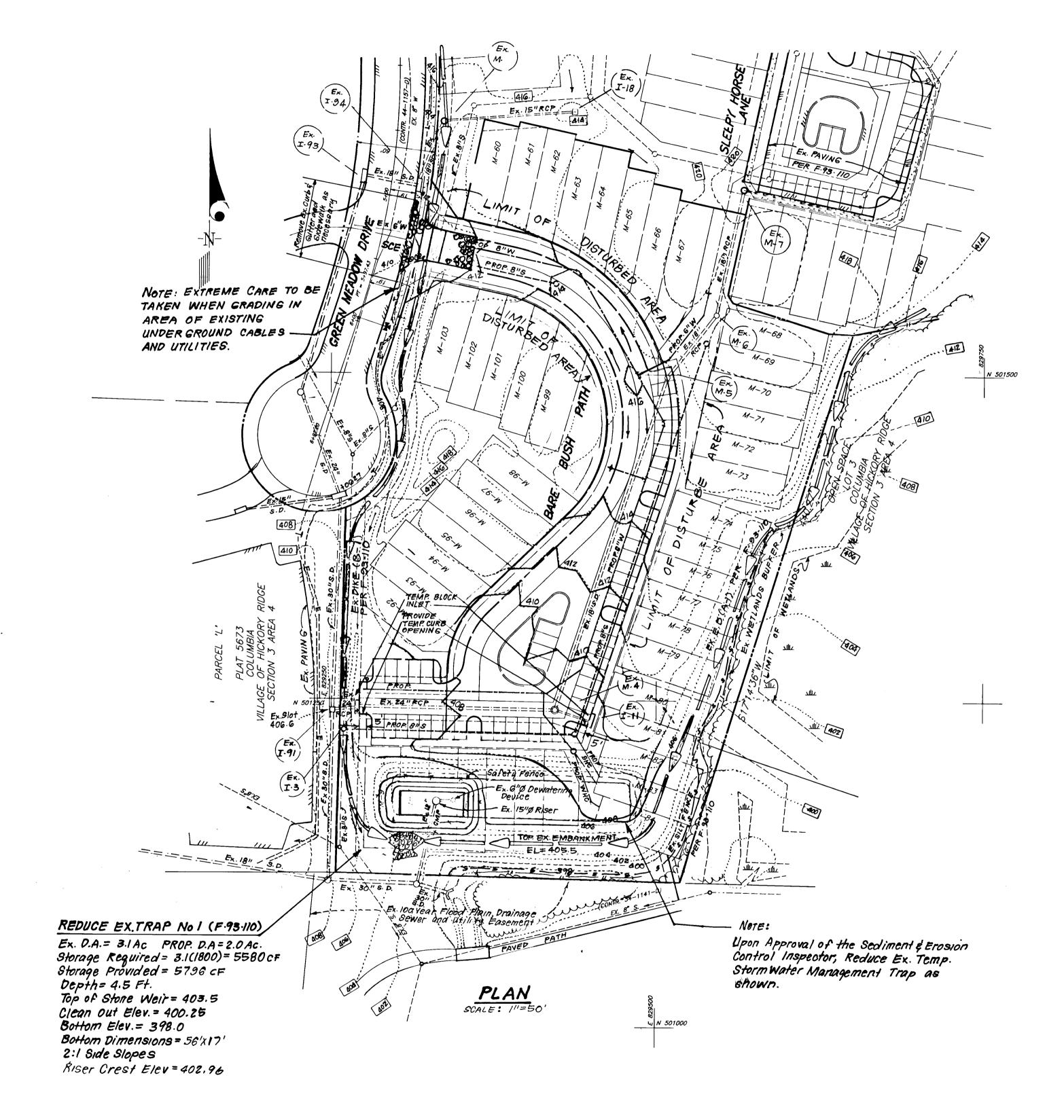


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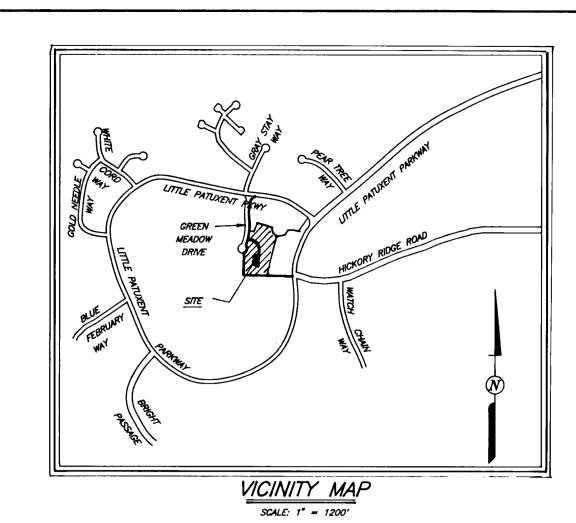


F-93-122

PHASE II



LEGEND CONTOUR INTERVAL EXISITNG CONTOUR 2 FT. PROPOSED CONTOUR DIRECTION OF DRAINAGE WALK OUT BASEMENT EXISITNG SEWER MAIN EXISITNG WATER MAIN EXISTING STORM DRAIN EXISTING TREES TO REMAIN ELECTRIC CONDUIT TELEPHONE CONDUIT CABLE TELEVISION SILT FENCE EXISTING EARTH DIKE STABILIZED CONSTRUCTION ENTRANCE LIMIT OF DISTURBED AREA E.D. (A-2) EXISITNG EARTH DIKE TO BE UTILIZED PROPOSED SEWER MAIN PROPOSED WATER MAIN



CONSTRUCTION SEQUENCE: NO. OF DAYS A. Obtain grading permit B. Refurbish existing sediment controls as required. Temporarily block existing
Str. I—11 and I—3 and Provide temporary curb openings where shown in plan.
Upon approval of the inspector, reduce existing trap #1 (F—93—110) as shown. Construct Utilities. — Construct paving and sidewalk. Final grade and stabilize in accordance with Stds. and Specs. — Upon approval of the sediment control inspector, remove sediment

and erosion control devices and stabilize.

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 condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District

G. Nelson Clark

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT TOWN

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 — BALTO. • (301) 621-8100 — WASH. DESIGNED ROAD CONSTRUCTION PLANS SEDIMENT AND EROSION CONTROL PLAN AsShown KIWM COLUMBIA DRAWING DRAWN 30F4 VILLAGE OF HICKORY RIDGE KIWM SECTION 3 AREA 4 JOB NO. CHECKED 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND 92-166 UL S FILE NO. DATE FOR: COLUMBIA BUILDERS, INC. P.O. BOX 999 APR., 1993 02-166-D COLUMBIA, MD. 21044

F-93-122

PHASE II

7/ZIGAZ

DATE

7/26/93

HOWARD

Name

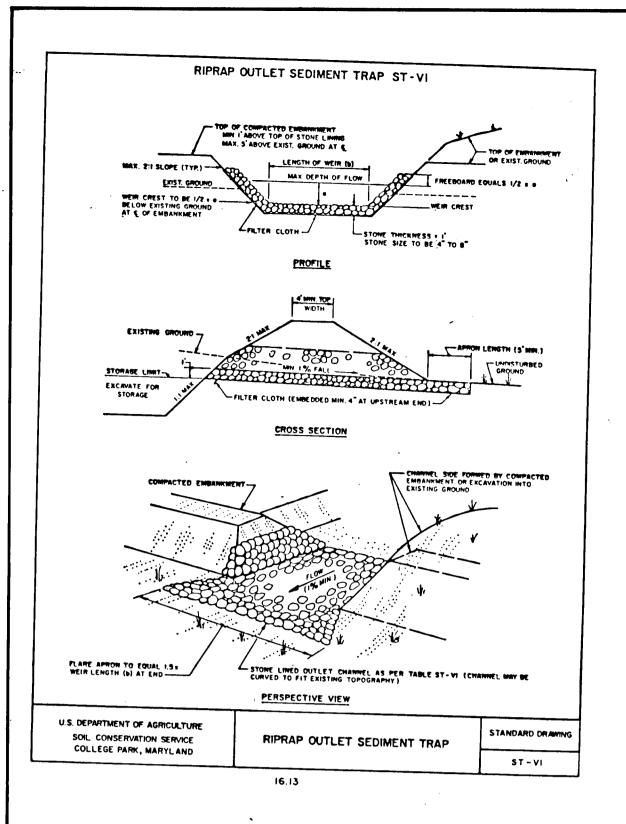
US Soil Conservation Service

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

DEVELOPER'S/BUILDER'S CERTIFICATE

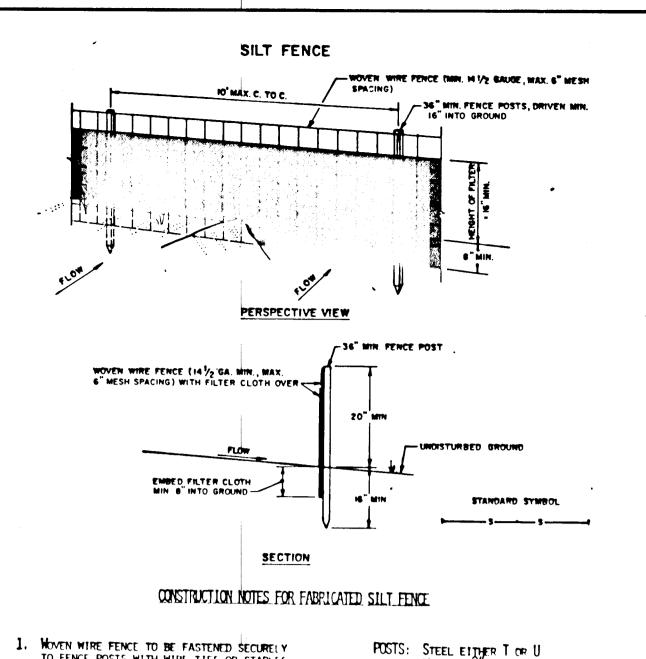
"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training 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 pecessary."

B. JAMES GREENFIELD.



CONSTRUCTION SPECIFICATIONS FOR ST-VI

- 1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- 2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment
- 3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- 4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- 5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the
- 6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel. 7. Stone used in the outlet channel shall be four (4) to eight(8) inches
- (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- 8. 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. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- 9. The structure shall be inspected after each rain and repaired as needed.
- 10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
- 11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- 12. Drainage area for this practice is limited to 15 acres or less.



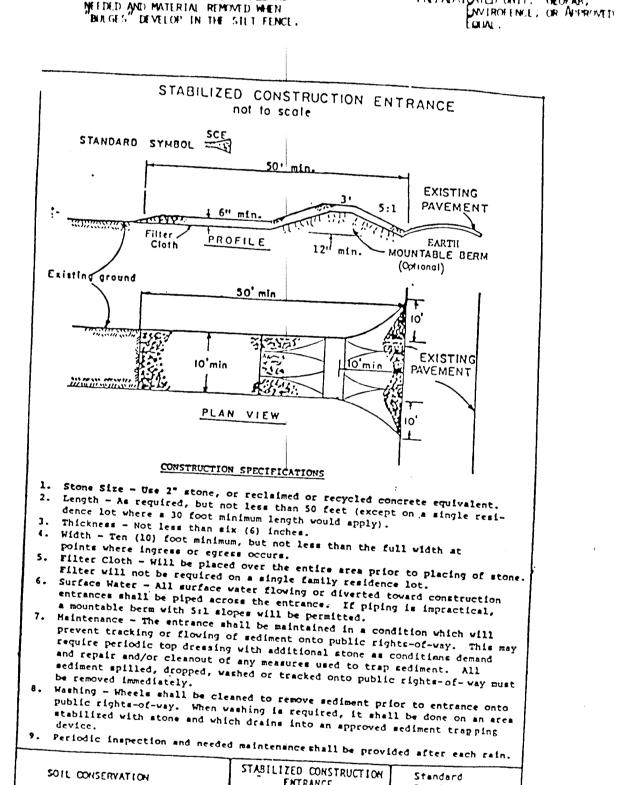
TYPE OR 2" HARDWOOD

LINKA TI40N OR APPROVED

FENCE: Moven wire, 14: Ga. 6" Max, Mesh Opening

FILTER CLOTH: FILTER X, MIRAFI 100X, STABI-

PRETABRICATED UNIT: GEOFAR,



O 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.

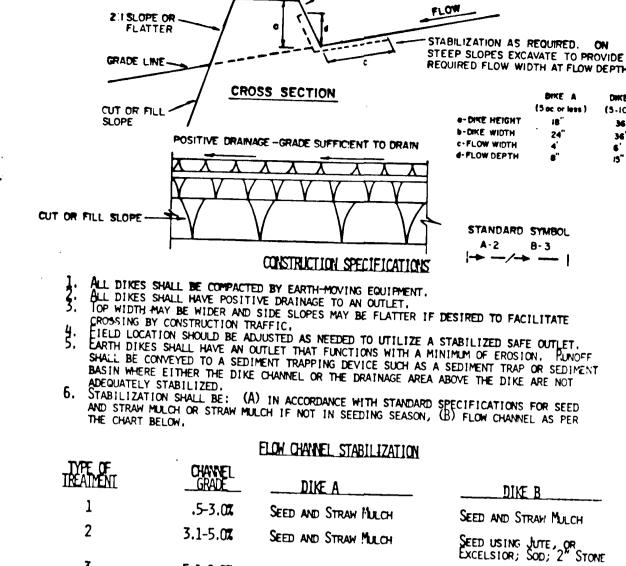
WHEN TWO SECTIONS OF FILTER CLOTH

LAPPED BY SIX INCHES AND FOLDED.

4. MAINTENANCE SHALL BE PERFORMED AS

SOIL CONSERVATION

ADJOIN EACH OTHER THEY SHALL BE OVER-



SEED WITH JUTE, OR SOD;

INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO

APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

LINED RIP-RAP 4-8"

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3

LINED RIP-RAP 4-8"

ENGINEERING DESIGN

EARTH DIKE

Angle of stub to be shown Angle based on barrel grade Barret Ordin (optional) 12"CMP 2- 8 (min) Bars placed at right angles and projecting intosides of riser to help •

2.5

8.1-207

RISER BASE DETAIL

anchor Riser to concrete

- I. The concrete base shall be poured in such a manner to insure that the concrete fills the bottom of the riser to the invert of the outlet pipe to prevent the riser from breaking away from the base.
- 2 With aluminum or aluminized pipe, the embedded section mist be pointed with zinc chromate or equivalent.
- 3 Riser base, may be sized as computed using floatation with a factor of safety of 12.

PERMANENT SEEDING NOTES

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

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other

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/100 sgft.) 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 dolomatic limestone (92 lbs/1000 sa ft.) and 1000 lbs. per acre 10-10-10- fertilizer (23 lbs./1000 sg 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 60lbs 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 (.05 lbs/1000 sq ft) of weeping 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 unrotted 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, repalcements and reseedinas.

TEMPORARY SEEDING NOTES

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

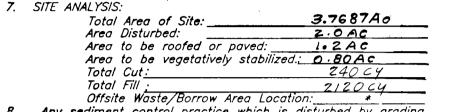
SOIL AMENDMENTS: Apply 600 lbs per acre 10-10-10 fertilizer (14lbs/1000 sq ft). SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sg ft). For the period May I thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sa 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 unrotted 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.

SEDIMENT AND EROSION CONTROL NOTES

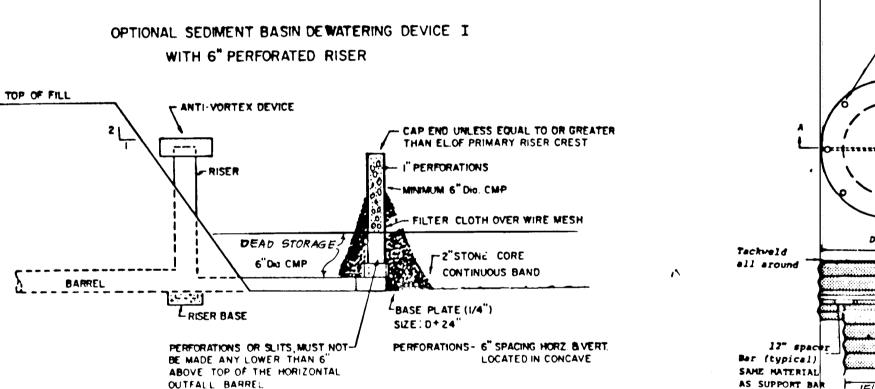
project site.

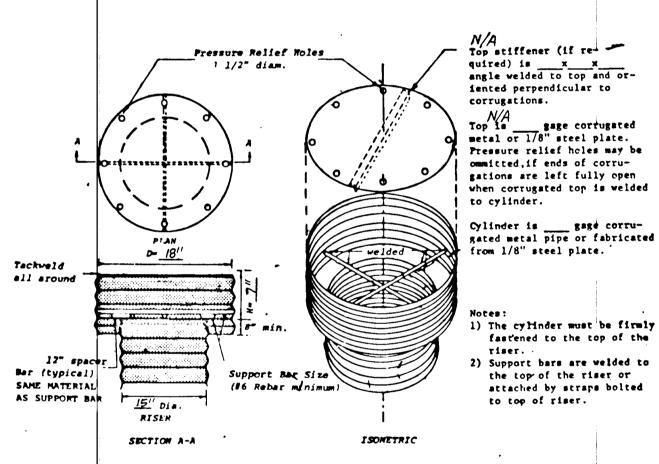
- 1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. 313-2437).
- 2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the
- 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) sod (Sec.54), temporary seeding (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.



- 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 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
- If houses are to be constructed on an "as sold" basis, at random, Single Family Sediment Control, as shown below shall be implemented.
- All pipes to be blocked at the end of each day (see detail this sheet).
- 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.

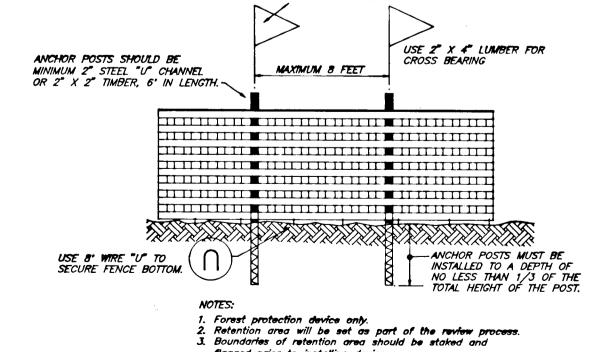
gage corrugated





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

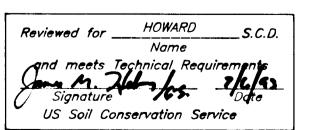
CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE (not to scale)



flagged prior to installing device. 4. Root damage should be avoided. Protection signage may also be used.
 Device should be maintained throughout construction.

HIGHLY VISABLE FLAGGING

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL



Drawing

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

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

B. JAMES GREENFIELD

4.29.93

(5 oc. or less) (5-10 ac.)

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 condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

ENGINEER'S CERTIFICATE

G. NELSON CLARK

DATE



7/26/93 APPROYED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. CHIEF, DIVISION OF COMMUNITY PLANNING AND LIAND DEVELOPMENT CLARK • FINEFROCK & SACKETT, INC. **ENGINEERS • PLANNERS • SURVEYORS** - 7135 MINSTREL WAY: ● COLUMBIA, MD: 21045 • (301) 381-7500 -- BALTO: ● (301) 621-8100 -- WASH DESIGNED ROAD CONSTRUCTION PLANS FOR SSTORM DRAIN AND PAVING DETAILS AS SHOW KIWM COLUMBIA DRAWING DRAWN VILLAGE OF HICKORY RIDGE 40P4 KIWM SECTION 3 AREA 4 PARCEL NO. 395 TAY MAP NO. 35 HECKED JOB NO 5TH ELECTION DISTRICT 92-16G HOWARD COUNTY, MARYLAND FOR: COLUMBIA BUILDERS, INC FILE NO. P.O. BOX 999 92-166-D COLUMBIA, MD. 21044 PHASE II

F-93-122