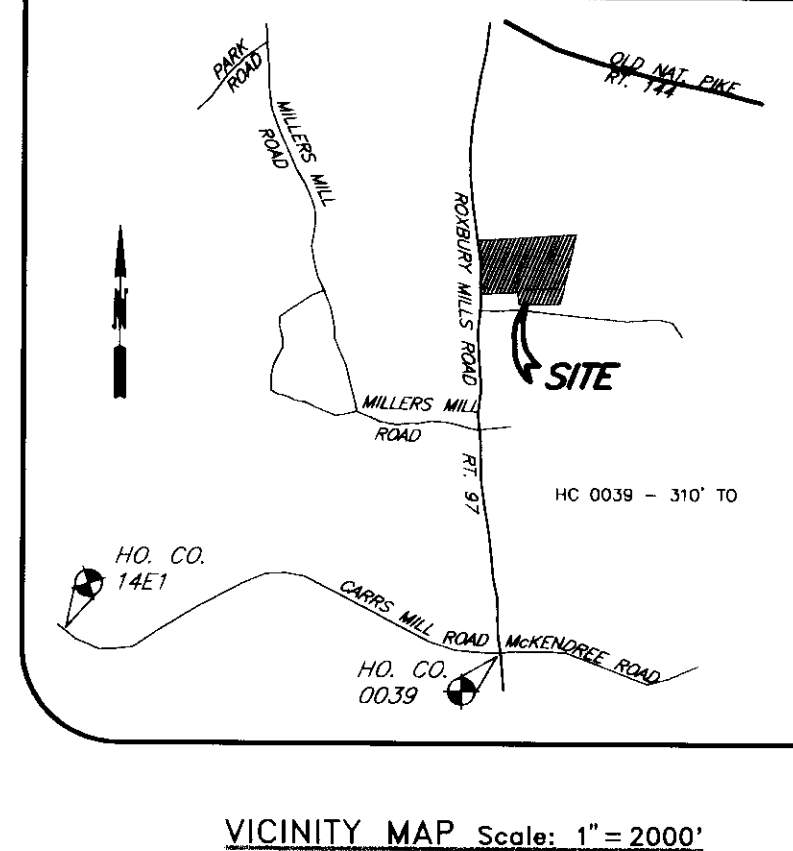


SHEET INDEX	
SHEET	TITLE
1	SITE DEVELOPMENT PLAN
2	GRADING AND SEDIMENT CONTROL PLAN
3	SEDIMENT CONTROL NOTES AND DETAILS
4	SEDIMENT CONTROL NOTES AND DETAILS
5	DETAILS AND STORM DRAIN PROFILES
6	SOILS AND PROPOSED DRAINAGE AREA MAP
7	LANDSCAPE PLAN



ALBERT D. McCracken  
718/501  
P. 34  
ZONE: RC DEO

13.90 AC  
ZONED: BR

AGRICULTURAL EASEMENT  
BRICE RIDGELY  
190/408  
P. 36  
ZONED: RC DEO

- GENERAL NOTES:
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
  - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410)-313-1880 AT LEAST FIVE (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.
  - PROJECT BACKGROUND:  
LOCATION: TAX MAP 14, PARCEL 162, 3RD ELECTION DISTRICT.  
ZONING: BR  
AREA: 13.9 AC.  
DPZ FILES: ZB 946M
  - TOPOGRAPHY BASED ON FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOCIATES, INC. ON JUNE 1995.
  - BOUNDARY BASED ON A SURVEY BY MILDENBERG, BOENDER AND ASSOCIATES, INC. ON JUNE 1995.
  - HORIZONTAL AND VERTICAL DATUM SHOWN ARE BASED ON NAD'83 HOWARD COUNTY CONTROL STATIONS 14E1 AND 0039.
  - SOILS BOUNDARY BASED ON HOWARD COUNTY SOILS SURVEY DATED 1968, SHEET 7.
  - NO SLOPES STEEPER THAN 15% EXIST ON SITE.
  - ALL SPOT ELEVATIONS ARE TO THE BOTTOM OF THE CURB UNLESS OTHERWISE NOTED.
  - THERE ARE NO EXISTING WOODS ON SITE.
  - THIS PROJECT IS EXEMPT FROM THE FOREST CONSERVATION ORDINANCE REQUIREMENTS.
  - THIS SITE WAS REZONED TO BR ON MARCH 11, 1994 BASED ON ZONING BOARD CASE NO. 946M. PRELIMINARY PLAN WAS APPROVED AS PART OF THE APPROVAL.
  - NO FLOODPLAIN OR WETLANDS EXIST ON SITE.
  - STORMWATER MANAGEMENT WILL BE PROVIDED BY DETENTION. WATER QUALITY WILL BE PROVIDED BY STORMCEPTOR, 2400 SERIES OR EQUIVALENT.
  - MAXIMUM DEPTH OF POND'S EMBANKMENT IS LESS THAN 3'. POND IS NOT REQUIRED TO MEET MD-378 REQUIREMENTS. POND WILL BE PRIVATE.
  - GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES INC., DATED JULY 26, 1995.
  - WATER AND SEWER WILL BE PRIVATE.
  - ALL PLAN DIMENSIONS AREA TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM AND ASSOCIATES, INC. IN NOVEMBER 1995 AND WAS APPROVED ON MARCH 21, 1996.
  - THE SEPTIC SYSTEM IS ONLY BEING PERMITTED FOR DISCHARGE OF DOMESTIC WASTE. THE PROJECT WILL NOT GENERATE ANY INDUSTRIAL DISCHARGE.
  - STATIONING ALONG MARYLAND ROUTE 97 IS ASSUMED STATIONING STARTING AT STA 0+00 AT THE SOUTHWESTERN MOST CORNER OF THE PROPERTY.
  - THE MAIN ENTRANCE TO EACH OF THE THREE (3) BUILDINGS SHALL BE ACCESSIBLE BY HANDICAPPED PERSONS.
  - APPLICANT RESERVES THE RIGHT TO MODIFY THE SEPTIC DESIGN BASED ON A MORE DETAILED LAYOUT. PROPOSALS ARE TO BE SUBMITTED TO THE HEALTH DEPARTMENT THROUGH THE PROJECT ENGINEER.
  - THE MAXIMUM RUN FROM THE BUILDING TO THE DISTRIBUTION BOX OF THE SEPTIC SYSTEM WITHOUT A CLEANOUT IS 75 FEET.
  - ALL SEPTIC TANKS THAT ARE DEEPER THAN THREE FEET AND ALL PUMP PITS REQUIRE MANHOLE CLEANOUTS.
  - EXISTING SHOULDERS ARE TO BE UTILIZED FOR AUXILIARY LANES, PROVIDED THAT CORING OF THE SHOULDER INDICATES A CROSS SECTION ACCEPTABLE TO MSHA.
  - SITE DATA:  
PROPOSED USE: GAS STATION, RETAIL  
LOT COVERAGE:  
MAXIMUM: 30%  
PROPOSED: 1.84% , 11,110 SQ. FT.  
PARKING:  
REQUIRED  
GAS STATION 3 SPACES  
RETAIL 9000 SQ. FT. AT 5 SPACES PER 1000 SQ. FT. 45 SPACES  
CONVENIENCE STORE, 2110 SQ. FT. AT 4 SPACES PER 1000 SQ. FT. 52 SPACES  
TOTAL REQUIRED PROVIDED 58 SPACES
  - THE MAXIMUM DAILY SEWAGE DESIGN FLOW FOR THE ENTIRE PROJECT IS 2,450 GPD. ASSUMING 800 GPD PER 10,000 SQ FT OF AVAILABLE SEPTIC AREA.
  - SEWAGE DISPOSAL AREA IS INTENDED TO SERVE 3 SEPARATE BUILDINGS, EACH WITH ITS OWN SEPTIC SYSTEM.
  - PROJECT IS SUBJECT TO THE CONDITIONS OF PERMIT # H0964010 (0).
- OWNER  
BRICE RIDGELY et ux & et al  
17270 HARDY ROAD  
MT. AIRY, MARYLAND 21771  
(410) 549-2488

MD. RT. 97 / ROXBURY MILLS ROAD  
MD. STATE ROAD  
60' R.O.W.  
+1250' TO MILLERS MILL ROAD + 2750' TO MD RT. 144

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
*Joseph M. Boyd* 6-4-96  
DATE  
HOWARD COUNTY HEALTH OFFICER

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Anna J. Swann* 6/14/96  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
*James K. Smith* 6/14/96  
DATE  
DIRECTOR

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
PARCEL 162	
BLDG A	2101 ROUTE 97
BLDG B	2105 ROUTE 97
BLDG C	2105 ROUTE 97

PROJECT NAME	SECTION/AREA	PARCEL #			
RIDGELY PROPERTY	N/A	162			
LIBER/FOLIO	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
2089/0230	5	BR	14	THIRD	6040
WATER CODE	SEWER CODE				
N/A	N/A				

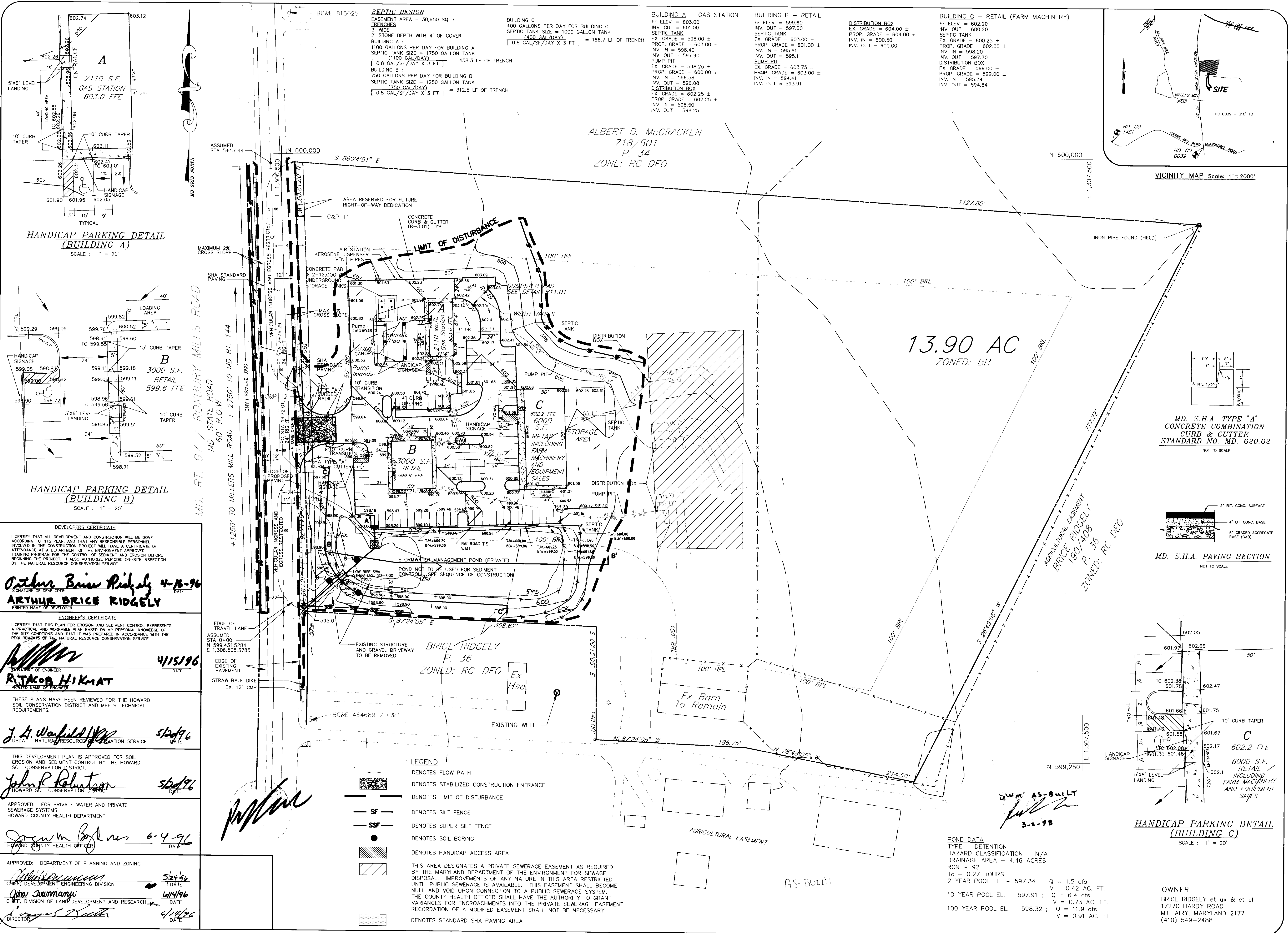
- LEGEND
- # DENOTES NUMBER OF PARKING SPACES
  - DENOTES A PASSED PERC HOLE
  - DENOTES A FAILED PERC HOLE
  - ▨ DENOTES HANDICAP ACCESS AREA
  - ▨ THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
  - ▨ DENOTES STANDARD SHA PAVING AREA

DATE	BY	TITLE
OCT 1995	Engineer	JG
95020	Planner	JG
	Surveyor	JG

NO.	DATE	DESCRIPTION
1	12/23/96	ADD PARKING SPACES & BALDWIN TIE WALL

TAX MAP 14 - PARCEL 162  
RIDGELY PROPERTY  
HOWARD COUNTY, MARYLAND  
FOURTH ELECTION DISTRICT  
SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0286 Fax: (301) 521-5521 Wash. (410) 397-0288 Fax



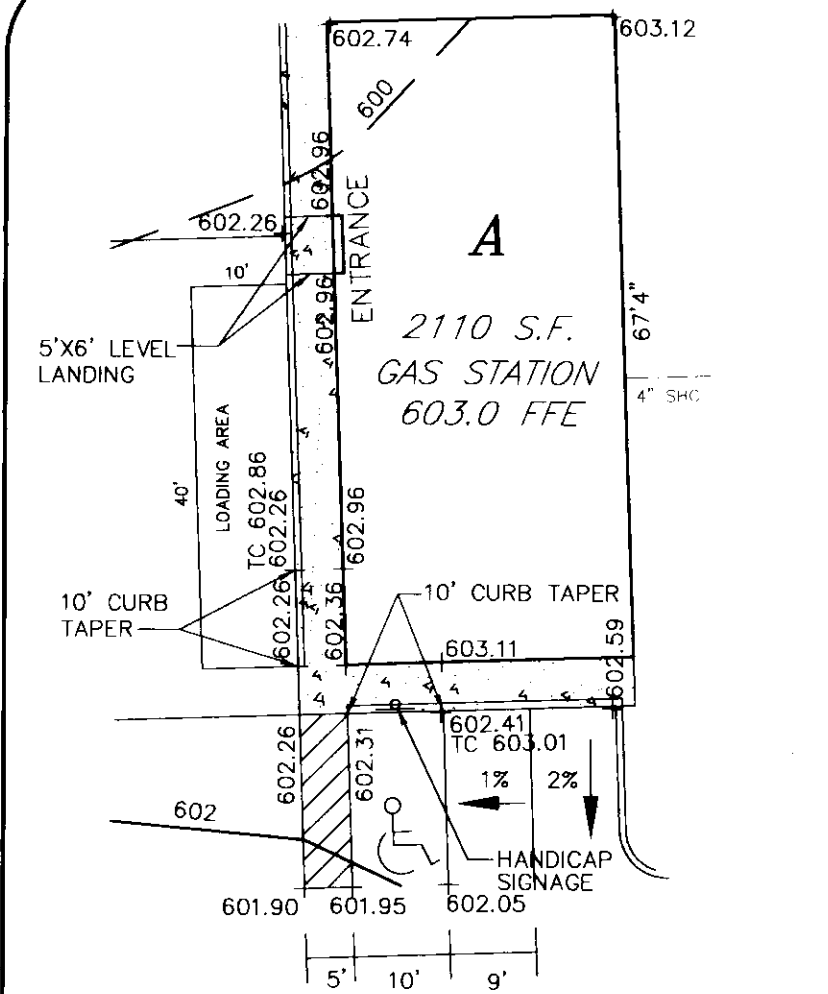
**SEPTIC DESIGN**  
 EASEMENT AREA = 30,650 SQ. FT.  
 TRENCHES  
 3' WIDE  
 2' STONE DEPTH WITH 4' OF COVER  
 BUILDING A :  
 1100 GALLONS PER DAY FOR BUILDING A  
 SEPTIC TANK SIZE = 1750 GALLON TANK  
 (1100 GAL/DAY) = 458.3 LF OF TRENCH  
 [ 0.8 GAL/SF/DAY X 3 FT ]  
 BUILDING B :  
 750 GALLONS PER DAY FOR BUILDING B  
 SEPTIC TANK SIZE = 1250 GALLON TANK  
 (750 GAL/DAY) = 312.5 LF OF TRENCH  
 [ 0.8 GAL/SF/DAY X 3 FT ]

**BUILDING C - GAS STATION**  
 FF ELEV. = 603.00  
 INV. OUT = 601.00  
**SEPTIC TANK**  
 EX. GRADE = 598.00 ±  
 PROP. GRADE = 603.00 ±  
 INV. IN = 598.40  
 INV. OUT = 597.90  
**PUMP PIT**  
 EX. GRADE = 598.25 ±  
 PROP. GRADE = 600.00 ±  
 INV. IN = 596.58  
 INV. OUT = 596.08  
**DISTRIBUTION BOX**  
 EX. GRADE = 602.25 ±  
 PROP. GRADE = 602.25 ±  
 INV. IN = 598.50  
 INV. OUT = 598.25

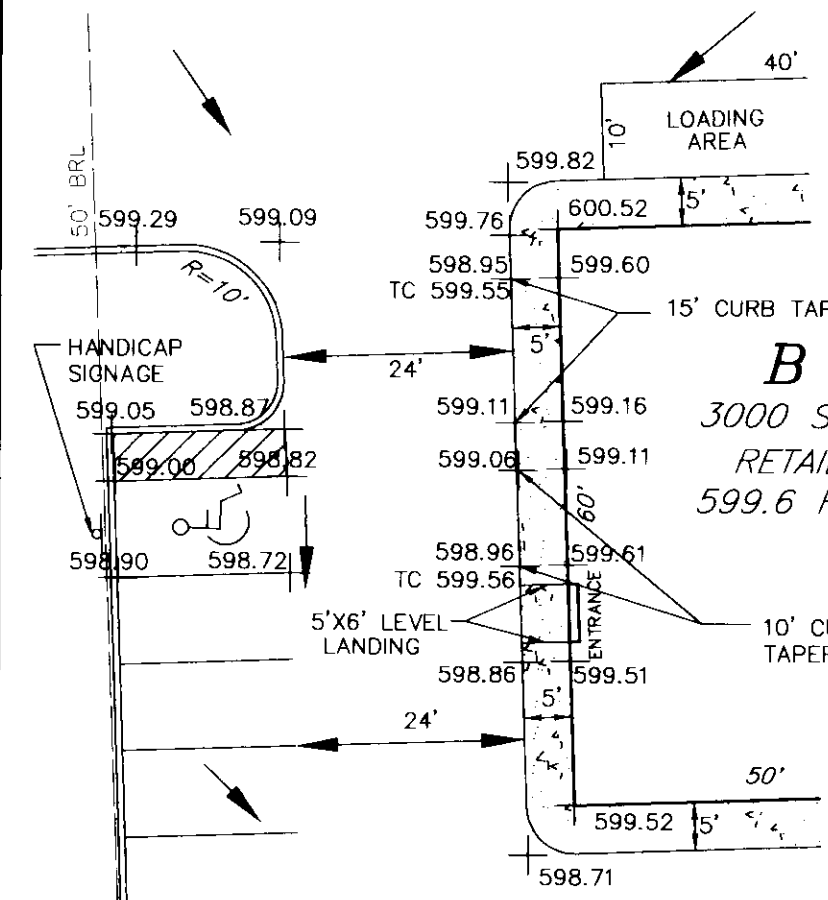
**BUILDING B - RETAIL**  
 FF ELEV. = 599.60  
 INV. OUT = 597.60  
**SEPTIC TANK**  
 EX. GRADE = 603.00 ±  
 PROP. GRADE = 601.00 ±  
 INV. IN = 595.61  
 INV. OUT = 595.11  
**DISTRIBUTION BOX**  
 EX. GRADE = 603.75 ±  
 PROP. GRADE = 603.00 ±  
 INV. IN = 594.41  
 INV. OUT = 593.91

**DISTRIBUTION BOX**  
 EX. GRADE = 604.00 ±  
 PROP. GRADE = 604.00 ±  
 INV. IN = 600.50  
 INV. OUT = 600.00

**BUILDING C - RETAIL (FARM MACHINERY)**  
 FF ELEV. = 602.20  
 INV. OUT = 600.20  
**SEPTIC TANK**  
 EX. GRADE = 600.25 ±  
 PROP. GRADE = 602.00 ±  
 INV. IN = 598.20  
 INV. OUT = 597.70  
**DISTRIBUTION BOX**  
 EX. GRADE = 599.00 ±  
 PROP. GRADE = 599.00 ±  
 INV. IN = 595.34  
 INV. OUT = 594.84



**HANDICAP PARKING DETAIL (BUILDING A)**  
 SCALE: 1" = 20'



**HANDICAP PARKING DETAIL (BUILDING B)**  
 SCALE: 1" = 20'

**DEVELOPER'S CERTIFICATE**  
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.  
 Arthur Brice Ridgely 4-18-96  
 SIGNATURE OF DEVELOPER  
**ARTHUR BRICE RIDGELY**  
 PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**  
 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 NATURAL RESOURCE CONSERVATION SERVICE.  
 R. JACOB HIKMAT 4/15/96  
 SIGNATURE OF ENGINEER  
**R. JACOB HIKMAT**  
 PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 J. A. Wainfield 5/24/96  
 USDA - NATURAL RESOURCE CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 John P. Robertson 5/24/96  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 Joseph M. Fox 6-4-96  
 HOWARD COUNTY HEALTH OFFICER

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division 5/24/96  
 Chief, Division of Land Development and Research 6/14/96  
 Director 6/14/96

MD CRD NORTH  
 ASSUMED STA 5+57.44  
 N 600,000  
 E 1,306,500  
 MD. RT. 97 / ROXBURY MILLS ROAD  
 MD. STATE ROAD  
 60' R.O.W.  
 +1250' TO MILLERS MILL ROAD + 2750' TO MD RT. 144  
 3N1 SSV4B 055

VEHICULAR INGRESS AND EGRESS RESTRICTED  
 MAXIMUM 2% CROSS SLOPE  
 SHA STANDARD PAVING  
 EDGE OF PROPOSED PAVING  
 EDGE OF EXISTING PAVING  
 STRAW BALE DIKE EX. 12" CMP  
 BC&E 464689 / C&P

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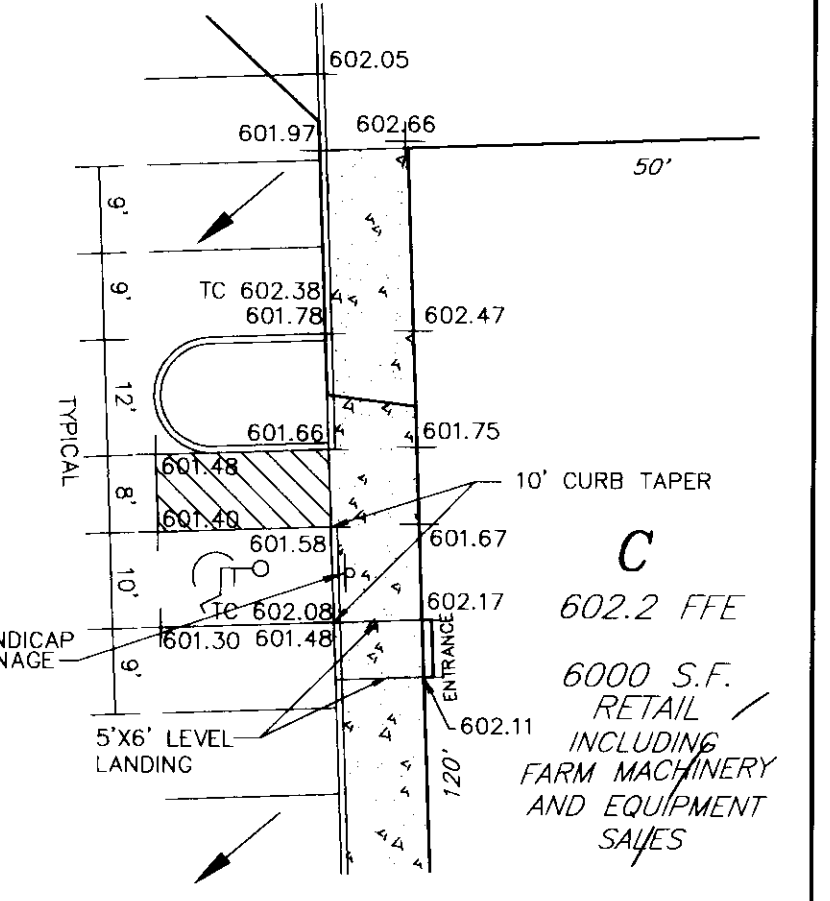
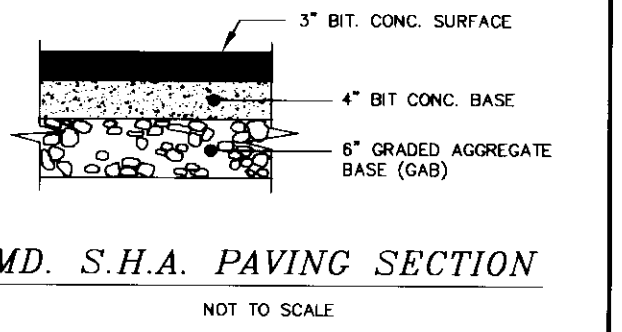
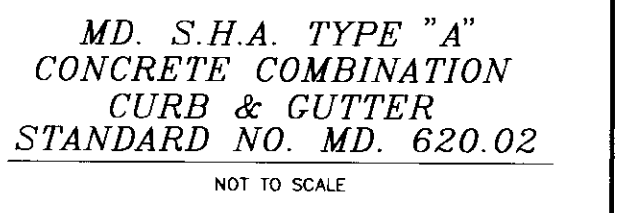
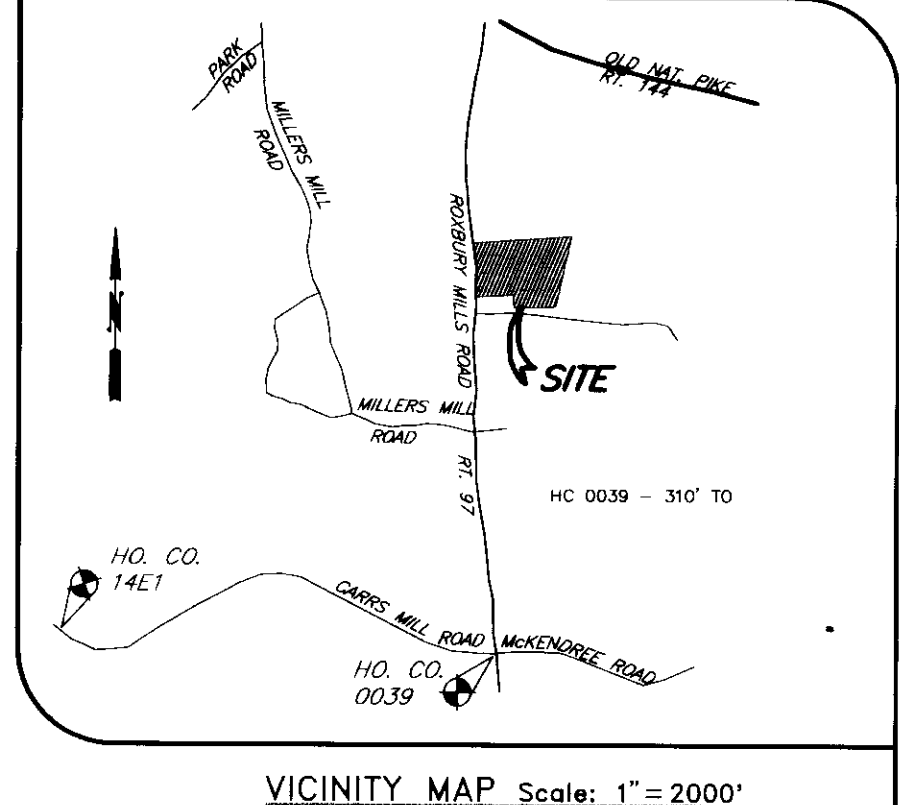
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- LEGEND**
- DENOTES FLOW PATH
  - DENOTES STABILIZED CONSTRUCTION ENTRANCE
  - DENOTES LIMIT OF DISTURBANCE
  - DENOTES SILT FENCE
  - DENOTES SUPER SILT FENCE
  - DENOTES SOIL BORING
  - DENOTES HANDICAP ACCESS AREA
  - THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
  - DENOTES STANDARD SHA PAVING AREA



**POND DATA**

TYPE - DETENTION	HAZARD CLASSIFICATION - N/A
DRAINAGE AREA - 4.46 ACRES	RCN - 92
Tc - 0.27 HOURS	2 YEAR POOL EL. - 597.34 ; Q = 1.5 cfs
10 YEAR POOL EL. - 597.91 ; Q = 6.4 cfs	V = 0.42 AC. FT.
100 YEAR POOL EL. - 598.32 ; Q = 11.9 cfs	V = 0.73 AC. FT.
	V = 0.91 AC. FT.

**OWNER**  
 BRICE RIDGELY et ux & et al  
 17270 HARDY ROAD  
 MT. AIRY, MARYLAND 21771  
 (410) 549-2488

TAX MAP 14 - PARCEL 162  
**RIDGELY PROPERTY**  
 HOWARD COUNTY, MARYLAND  
 FOURTH ELECTION DISTRICT  
**GRADING AND SEDIMENT CONTROL PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0296 Fax: (301) 621-5521 Wash. (410) 397-0298 Fax.

DATE: OCT 1995  
 DRAWN BY: SJD  
 CHECKED BY: SJD  
 SCALE: 1" = 50'

2 OF 7  
 SDP-96-64



HOWARD SOIL CONSERVATION DISTRICT  
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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE OF 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 DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA FORM FERTILIZER (9 LBS./1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE OF 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 DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 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 (.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 OF 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING 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 OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 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 WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- 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) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER 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 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (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.

DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION OF THIS 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 PERSON ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

*Arthur Brice Ridgely* 4/16/96  
SIGNATURE OF DEVELOPER DATE  
**ARTHUR BRICE RIDGELY**  
PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE

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 NATURAL RESOURCE CONSERVATION SERVICE.

*R. Jacob HIKMAT* 4/15/96  
SIGNATURE OF ENGINEER DATE  
**R. JACOB HIKMAT**  
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*J. L. Warfield* 5/24/96  
USDA - NATURAL RESOURCE CONSERVATION SERVICE DATE

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

*John R. Kolat* 5/24/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

*Joseph B. Dine* 6-4-96  
HOWARD COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

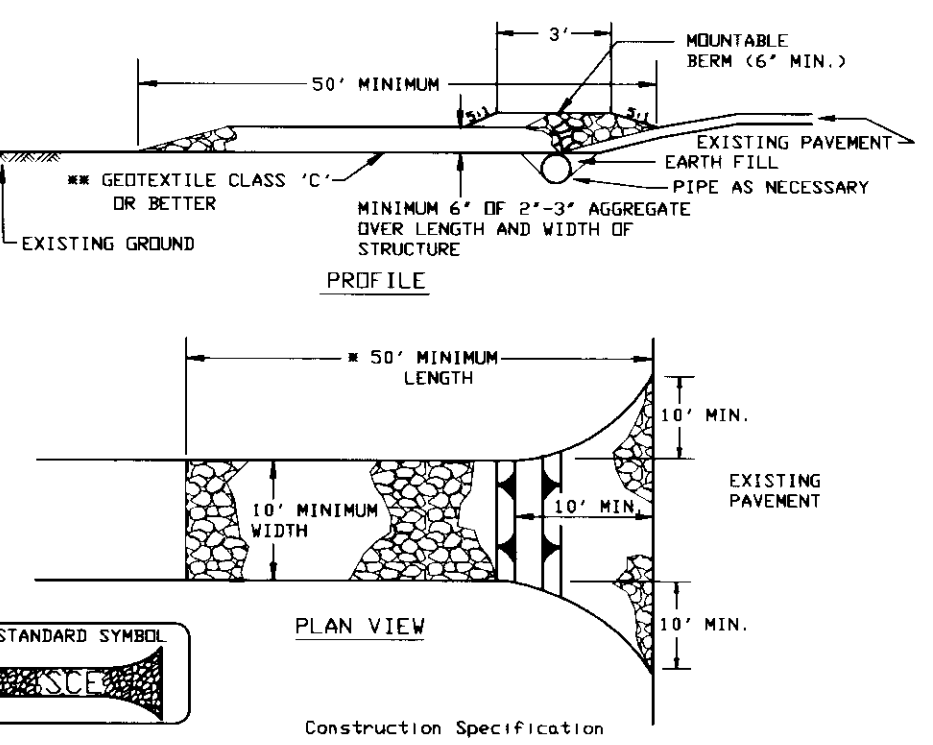
*Anna Shumway* 6/14/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*Anna Shumway* 6/14/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

20-SEN-01.DWG

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON PLAN. ONE (1) DAY.
- CONSTRUCT SUPER SILT FENCE AND SEDIMENT CONTROL MEASURES AS SHOWN. ONE (1) DAY.
- CONSTRUCT THE LOW FLOW RISER STRUCTURE. THREE (3) DAYS.
- PERFORM MASS GRADING AND CONSTRUCT THE STORM DRAIN SYSTEM. BLOCK INLETS WITH SAND BAGS. SEVEN (7) DAYS.
- EXCAVATE AREA FROM THE STORMCEPTOR TO THE OUTLET STRUCTURE WITHIN THE POND. (THE BODY OF THE SWM POND MAY BE EXCAVATED TO ELEVATION 596.5 IF NEEDED.) ONE (1) DAY.
- AFTER THE SITE IS PAVED, REMOVE THE SAND BAGS. ONE (1) DAY.
- AFTER THE SITE IS PERMANENTLY STABILIZED. EXCAVATE THE POND TO FINAL GRADE AND STABILIZE. THREE (3) DAYS.
- WHEN ALL UPSTREAM AREAS OF A SEDIMENT CONTROL DEVICE HAVE BEEN PERMANENTLY STABILIZED, AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE THESE DEVICES AND SEED AND MULCH THE RESULTING DISTURBED AREAS.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- Length - minimum of 50' (<math>30^{\circ}</math> for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (<math>2^{\circ}</math> to <math>3^{\circ}</math>) or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-2 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

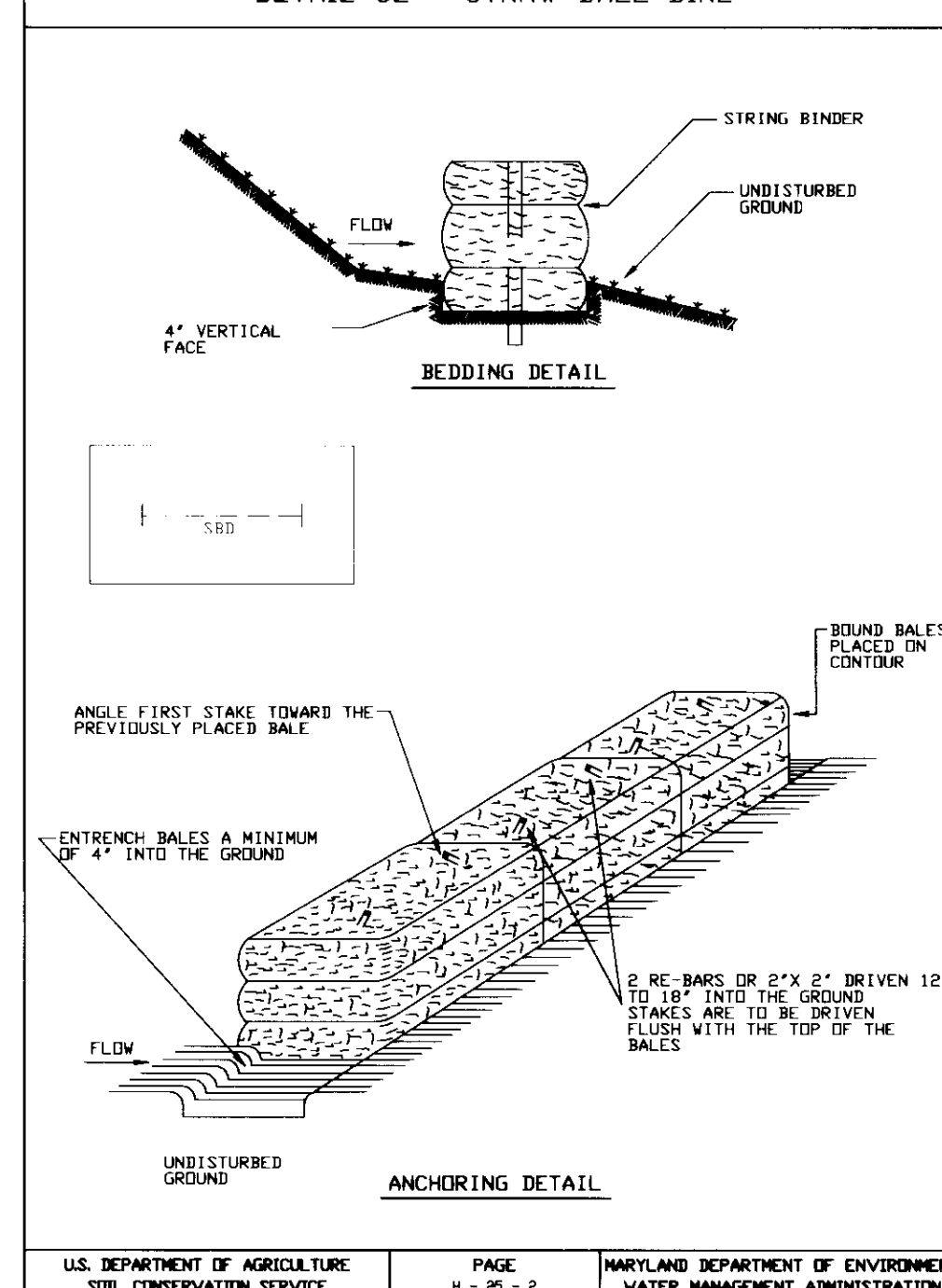
STABILIZED CONSTRUCTION ENTRANCE

Construction Specifications

- Length - minimum of 50' (<math>30^{\circ}</math> for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (<math>2^{\circ}</math> to <math>3^{\circ}</math>) or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
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U.S. DEPARTMENT OF AGRICULTURE PAGE 19-2 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL 32 - STRAW BALE DIKE



Construction Specifications

- Bales shall be placed at the toe of a slope, on the contour, and in a row with the ends of each bale tightly abutting the adjacent bales.
- Each bale shall be entrenched in the soil a minimum of 4" and placed so the bindings are horizontal.
- Bales shall be securely anchored in place by either two stakes or rebar driven through the bale 12" to 18" into the ground. The first stake in each bale shall be driven toward the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the top of the bale.
- Straw bale dikes shall be inspected frequently and after each rain event and maintenance performed as necessary.
- All bales shall be removed when the site has been stabilized. The trench where the bales were located shall be graded flush and stabilized.

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-2 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

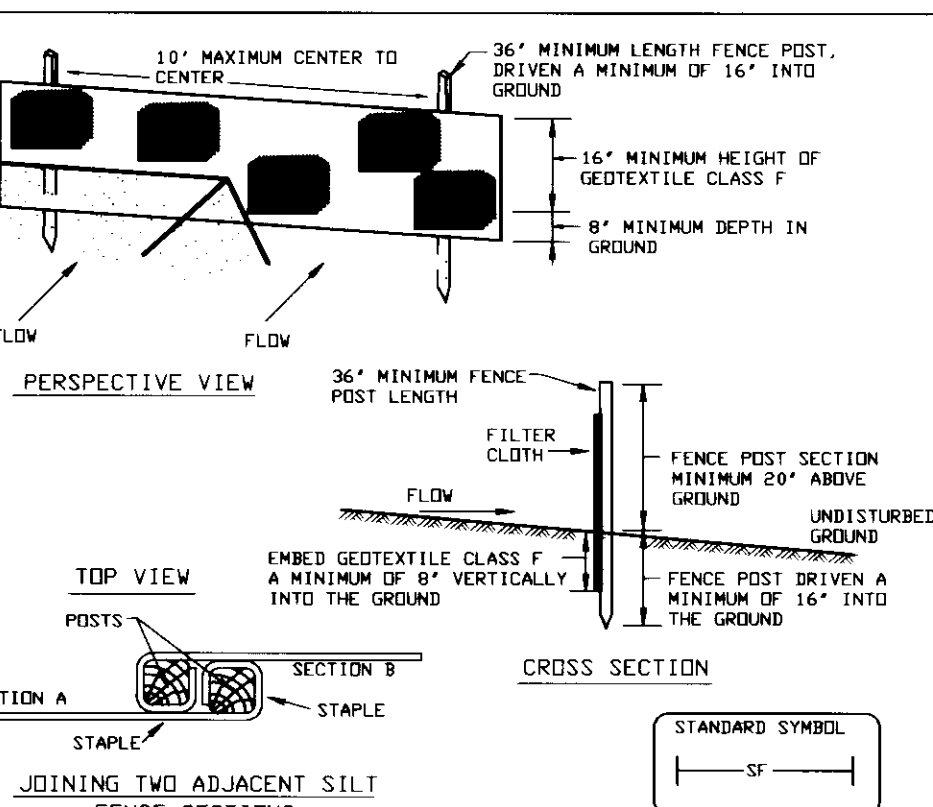
STRAW BALE DIKE

Construction Specifications

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U.S. DEPARTMENT OF AGRICULTURE PAGE 19-2 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



Construction Specifications

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:  
Tensile Strength 50 lbs/in (min.) Test: MSMT 509  
Tensile Modulus 20 lbs/in (min.) Test: MSMT 509  
Flow Rate 0.3 gal ft<sup>2</sup>/minute (max.) Test: MSMT 322  
Filtering Efficiency 75% (min.) Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-3 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

SILT FENCE

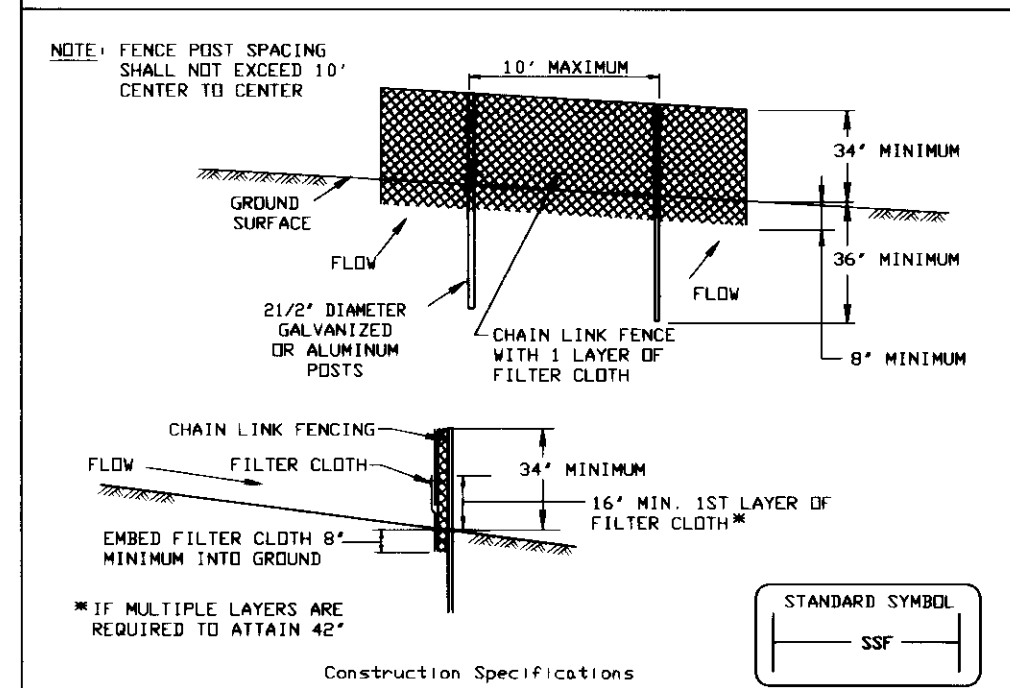
Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 Feet	1,000 Feet
10:1 to 5:1	100 Feet	750 Feet
5:1 to 3:1	60 Feet	500 Feet
3:1 to 2:1	40 Feet	250 Feet
2:1 and steeper	20 Feet	125 Feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-3 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for 6" fence shall be used, substituting 42" fabric and 6" length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:  
Tensile Strength 50 lbs/in (min.) Test: MSMT 509  
Tensile Modulus 20 lbs/in (min.) Test: MSMT 509  
Flow Rate 0.3 gal ft<sup>2</sup>/minute (max.) Test: MSMT 322  
Filtering Efficiency 75% (min.) Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-3 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE

Design Criteria

Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited
10 - 20%	10:1 - 5:1	200 Feet
20 - 33%	5:1 - 3:1	100 Feet
33 - 50%	3:1 - 2:1	100 Feet
50% +	2:1 +	50 Feet

U.S. DEPARTMENT OF AGRICULTURE PAGE 19-3 MARYLAND DEPARTMENT OF ENVIRONMENT  
SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

OWNER  
BRICE RIDGELY et ux & et al  
17270 HARDY ROAD  
MT. AIRY, MARYLAND 21771  
(410) 549-2488

DATE: OCT 1995  
DRAWN BY: SJD  
CHECKED BY: SJD  
SCALE: N.T.S.

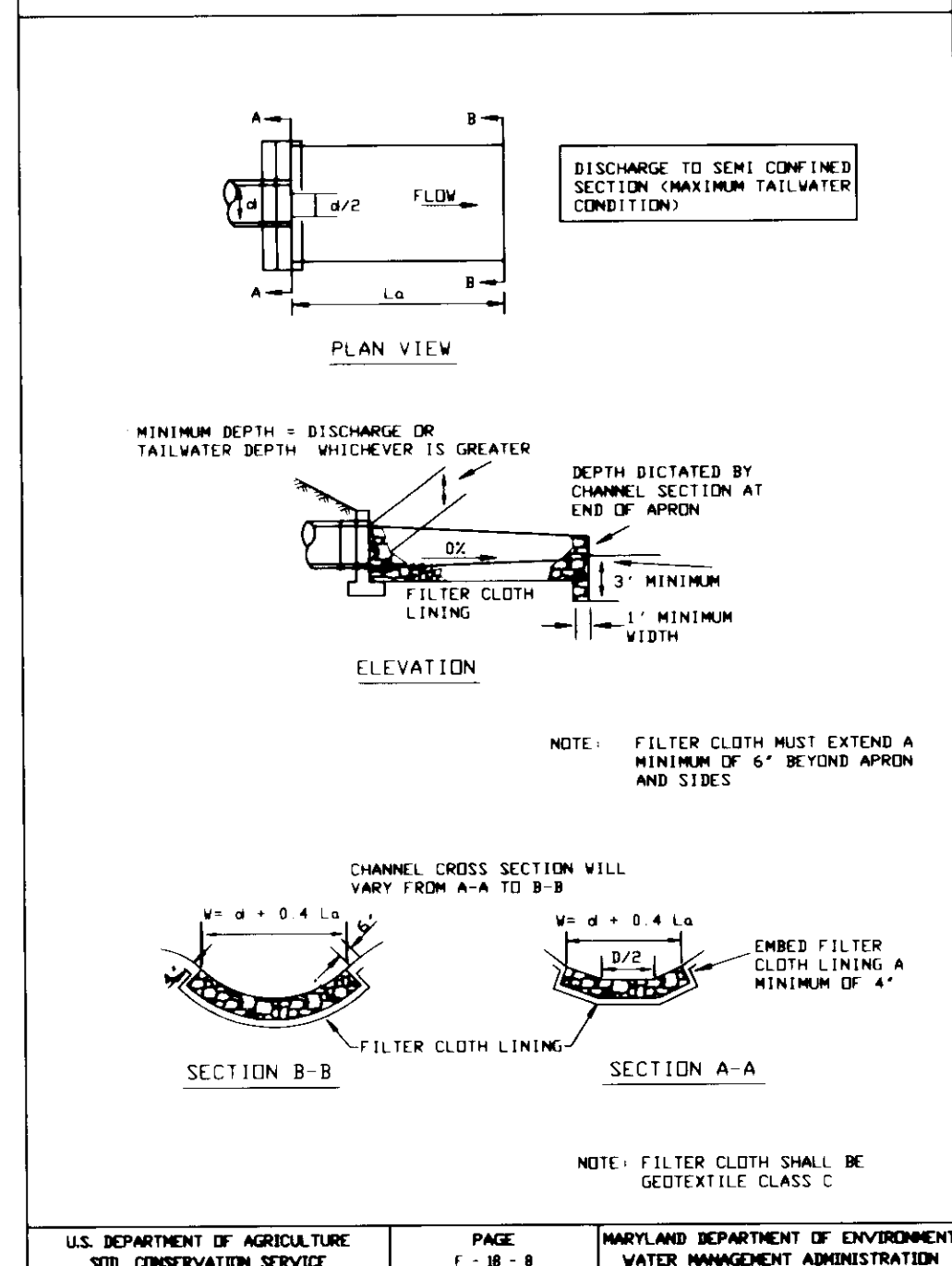
DATE: 5/24/96  
DRAWN BY: SJD  
CHECKED BY: SJD  
SCALE: N.T.S.

TAX MAP 14 - PARCEL 162  
RIDGELY PROPERTY  
HOWARD COUNTY, MARYLAND  
FOURTH ELECTION DISTRICT  
SEDIMENT CONTROL NOTES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Beltsville, Maryland 21042  
(410) 987-0286 Fax (301) 621-5521 Wash. (410) 997-0288 Fax

3 OF 7  
SDP-96-64

**DETAIL 25 - ROCK OUTLET PROTECTION I**



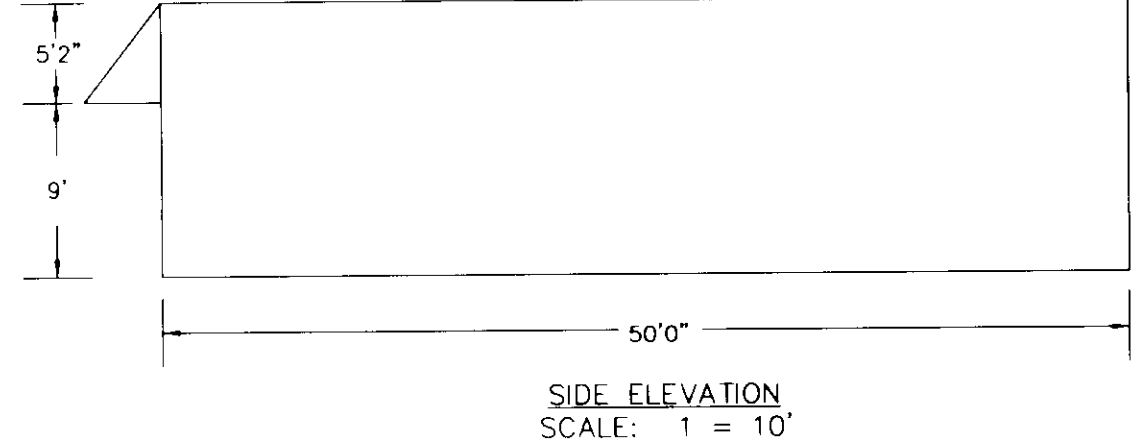
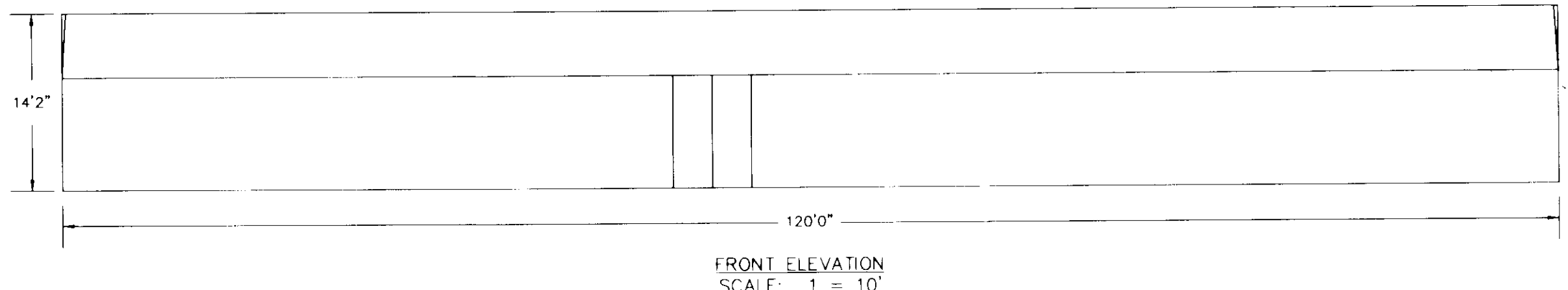
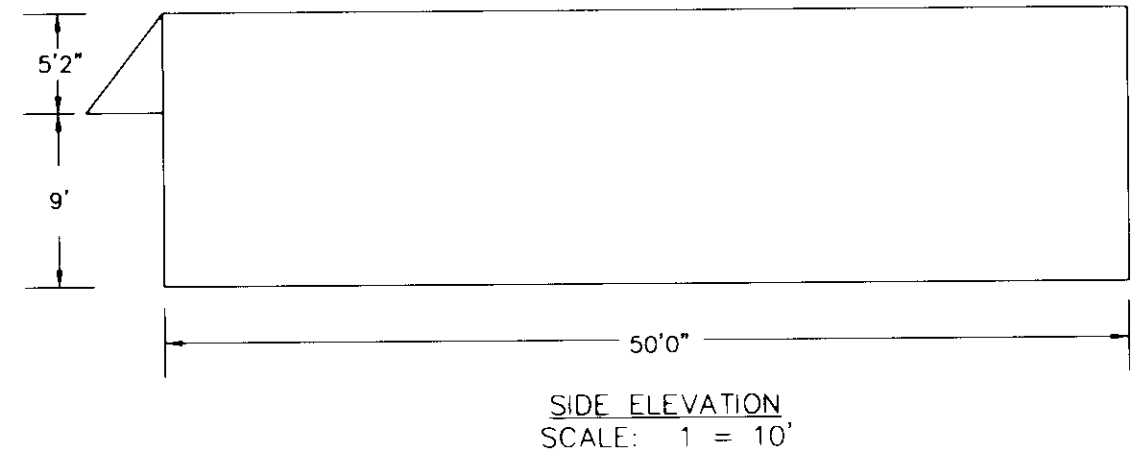
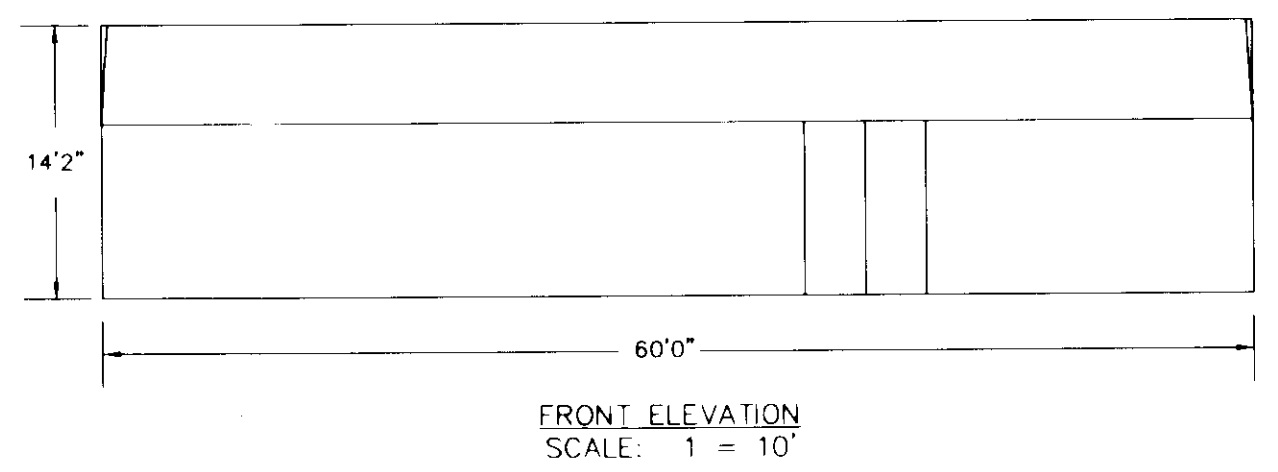
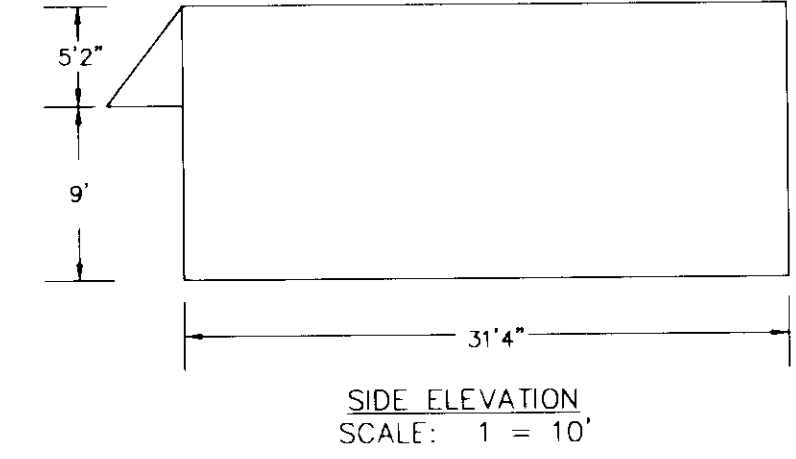
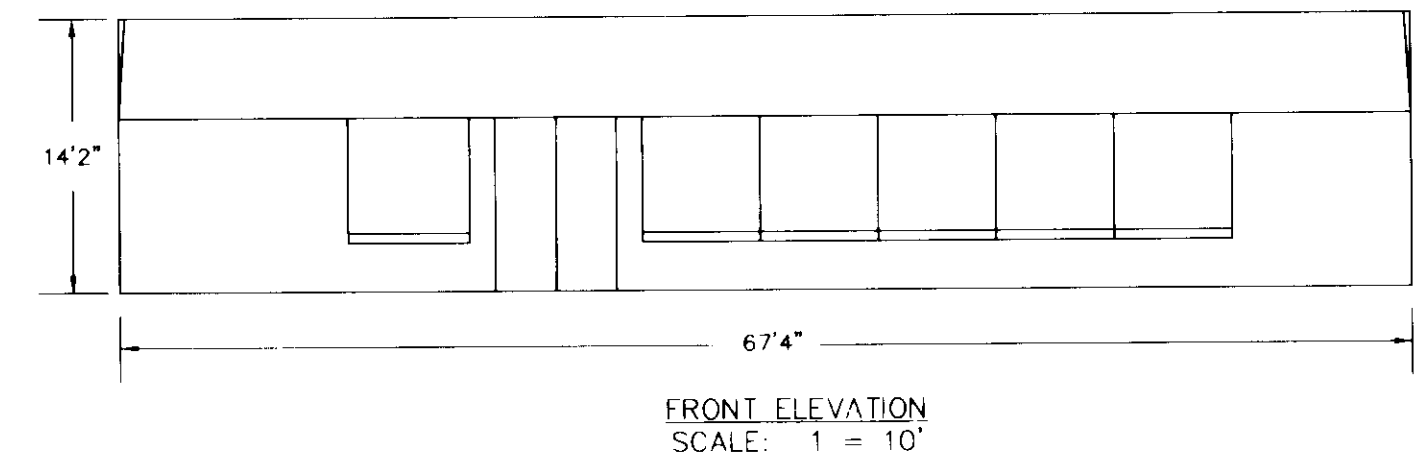
**ROCK OUTLET PROTECTION**

**Construction Specifications**

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION



HILLIS - CARNES  
ENGINEERING ASSOCIATES, INC.

**RECORD OF SOIL EXPLORATION**

Project Name: Ridgely Property  
Location: Roxbury Mills Road, Howard County, Maryland  
Boring #: B-1  
Job #: 95229A

Datum: Burt. Elev. \_\_\_\_\_  
Date Started: 7-25-95

SAMPLER  
Hammer Wt. 140 Lbs.  
Hole Diameter 8"  
Hammer Drop 30 Inches  
Rock Core Dia. \_\_\_\_\_  
Pipe Size 2.0 Inches OD  
Boring Method HSA  
Foreman: D. Deckman  
Inspector: Coleman  
Date Completed: 7-25-95

ELEV.	SOIL DESCRIPTION <small>Color, Moisture, Density, Size, Proportion</small>	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC.	BORING & SAMPLING NOTES
	SURFACE		0.0					
	Brown, moist dense silty fine to medium sand (SM) (loamy sand)			D	14-23-18	1	0"	(stone/topsoil at surface) No groundwater encountered while drilling
				I	10-14-17	2	14"	
				I	2-3-3	3	16"	
	Brown, traces of gray, moist to very moist hard to medium stiff silt with some sand		7.0	I	2-2-3	4	14"	
	Traces of mica in samples S-3 and S-4 (SM) (sandy loam)		10					
			12.0	D	2-3-7	5	13"	
	Bottom of at 12.0'							
			15					
			20					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED.  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

SAMPLE CONDITIONS: AT COMPLETION  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

GROUND WATER DEPTH: AT COMPLETION  
Dry FT.  
48 Hrs. Dry FT.

BORING METHOD: HSA-HOLLOW STEM AUGERS  
CFA-CONT. FLIGHT AUGERS  
DC-DRIVING CASING  
MD-MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

HILLIS - CARNES  
ENGINEERING ASSOCIATES, INC.

**RECORD OF SOIL EXPLORATION**

Project Name: Ridgely Property  
Location: Roxbury Mills Road, Howard County, Maryland  
Boring #: B-2  
Job #: 95229A

Datum: Burt. Elev. \_\_\_\_\_  
Date Started: 7-25-95

SAMPLER  
Hammer Wt. 140 Lbs.  
Hole Diameter 8"  
Hammer Drop 30 Inches  
Rock Core Dia. \_\_\_\_\_  
Pipe Size 2.0 Inches OD  
Boring Method HSA  
Foreman: D. Deckman  
Inspector: Coleman  
Date Completed: 7-25-95

ELEV.	SOIL DESCRIPTION <small>Color, Moisture, Density, Size, Proportion</small>	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC.	BORING & SAMPLING NOTES
	SURFACE		0.0					
	Grayish brown, moist medium dense silty medium sand (SM) (loamy sand)			D	15-13-10	1	18"	(stone at surface)
				D	3-4-4	2	12"	Caved at 9.7' (at completion)
	Reddish brown, moist, loose silty fine to medium sand (SM) (loamy sand)		4.0	I	2-4-4	3	16"	
	Reddish brown, brown, moist, medium stiff to very stiff sandy silt with traces of mica (ML) (silt loam)		5					
				D	4-6-9	4	18"	
			10					
			12.0	D	5-10-11	5	12"	
	Bottom of Boring at 12.0'							
			15					
			20					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED.  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

SAMPLE CONDITIONS: AT COMPLETION  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

GROUND WATER DEPTH: AT COMPLETION  
Dry FT.  
48 Hrs. Dry FT.

BORING METHOD: HSA-HOLLOW STEM AUGERS  
CFA-CONT. FLIGHT AUGERS  
DC-DRIVING CASING  
MD-MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

HILLIS - CARNES  
ENGINEERING ASSOCIATES, INC.

**RECORD OF SOIL EXPLORATION**

Project Name: Ridgely Property  
Location: Roxbury Mills Road, Howard County, Maryland  
Boring #: B-3  
Job #: 95229A

Datum: Burt. Elev. \_\_\_\_\_  
Date Started: 7-25-95

SAMPLER  
Hammer Wt. 140 Lbs.  
Hole Diameter 8"  
Hammer Drop 30 Inches  
Rock Core Dia. \_\_\_\_\_  
Pipe Size 2.0 Inches OD  
Boring Method HSA  
Foreman: D. Deckman  
Inspector: Coleman  
Date Completed: 7-25-95

ELEV.	SOIL DESCRIPTION <small>Color, Moisture, Density, Size, Proportion</small>	STRA. DEPTH	DEPTH SCALE	CON	SAMPLE BLOWS 6"	NO.	REC.	BORING & SAMPLING NOTES
	SURFACE		0.0					
	Reddish brown moist medium dense silty fine to medium sand with trace of clay (CL) (loam)			D	10-10-7	1	1"	(stone at surface) No groundwater encountered while drilling
				I	6-9-13	2	11"	
	Reddish brown, brown, moist, medium dense, micaceous silty fine to medium sand (SM) (loamy sand)		4.5	I	4-6-7	3	15"	Caved at 9.6' (at completion)
				D	3-6-7	4	15"	
			10					
			12.0	D	3-6-8-12	5	16"	
	Bottom of Boring at 12.0'							
			15					
			20					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED.  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

SAMPLE CONDITIONS: AT COMPLETION  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

GROUND WATER DEPTH: AT COMPLETION  
Dry FT.  
48 Hrs. Dry FT.

BORING METHOD: HSA-HOLLOW STEM AUGERS  
CFA-CONT. FLIGHT AUGERS  
DC-DRIVING CASING  
MD-MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

**DEVELOPER'S CERTIFICATE**

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Arthur Brice Ridgely 4-16-96  
SIGNATURE OF DEVELOPER DATE  
ARTHUR BRICE RIDGELY  
PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**

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 NATURAL RESOURCE CONSERVATION SERVICE.

R. JACOB HIKMAT 4/15/96  
SIGNATURE OF ENGINEER DATE  
R. JACOB HIKMAT  
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. H. Wayfield 5/6/96  
SIGNATURE OF NRCSD DATE  
J. H. WAYFIELD  
PRINTED NAME OF NRCSD

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

John R. Robertson 5/20/96  
SIGNATURE OF HOWARD SOIL CONSERVATION DISTRICT DATE  
JOHN R. ROBERTSON  
PRINTED NAME OF HOWARD SOIL CONSERVATION DISTRICT

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

6-4-96  
SIGNATURE OF HEALTH OFFICER DATE  
HEALTH OFFICER  
PRINTED NAME OF HEALTH OFFICER

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

5/24/96  
SIGNATURE OF DEVELOPMENT ENGINEERING DIVISION DATE  
5/24/96  
SIGNATURE OF LAND DEVELOPMENT AND RESEARCH DATE  
5/24/96  
SIGNATURE OF DIRECTOR DATE  
DIRECTOR

OWNER  
BRICE RIDGELY et ux & et al  
17270 HARDY ROAD  
MT. AIRY, MARYLAND 21771  
(410) 549-2488

DATE: OCT 1995  
JOB NO: 95020  
DRAWN BY: SJD  
CHECKED BY: SJD  
SCALE: N.T.S.  
REVISIONS: N/A

TAX MAP 14 - PARCEL 162  
RIDGELY PROPERTY  
HOWARD COUNTY, MARYLAND  
FOURTH ELECTION DISTRICT  
SEDIMENT CONTROL NOTES AND DETAILS

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
5072 Jersey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0286 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax



# POND SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

## SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.

AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED TO THE PLANS. TREES, BRUSH AND STUMPS SHALL BE CUT APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORMWATER MANAGEMENT PONDS, A MINIMUM OF A 50 FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DAM AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

## EARTH FILL

MATERIAL—THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6", FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH, OR CL. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGN AND CONSTRUCTION ARE SUPERVISED BY A GEOTECHNICAL ENGINEER.

PLACEMENT—AREAS ON WHICH FILL IS TO BE SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPILLWAY MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

COMPACTION—THE MOVEMENT OF AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TRED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT.

WHERE A MINIMUM REQUIRED DENSITY IS SPECIFIED, IT SHALL NOT BE LESS 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN ± 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTION IS TO BE DETERMINED BY AASHTO METHOD 1-99.

CUT OFF TRENCH—THE CUT OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE COVERED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

## STRUCTURE BACKFILL

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A CONCRETE FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE.

## PIPE CONDUITS

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE—ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

1. MATERIALS—(STEEL PIPE)—THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A WITH WATER TIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. STEEL PIPES WITH POLYMERIC COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10 MIL) ON BOTH SIDES OF THE PIPE. THE FOLLOWING COATINGS OR AN APPROVED EQUAL MAY BE USED: NEXON, PLASTI-COTE, BLAC-KLAD, AND BETH-CU-LOY. COATED CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-245 AND M-246.

MATERIALS—(ALUMINUM COATED STEEL PIPE)—THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.

MATERIALS—(ALUMINUM PIPE)—THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-196 OR M-211 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

2. COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC. MUST BE COMPOSED OF THE SAME MATERIAL AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE RUBBER OR PLASTIC INSULATING MATERIALS AT LEAST 24 MILS IN THICKNESS.

3. CONNECTIONS—ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATER TIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATER TIGHT. DUMPLE BANDS ARE NOT CONSIDERED TO BE WATER TIGHT.

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH LENGTH SHALL BE ROLLED AND ADEQUATE NUMBER OF CORRUGATIONS PLACED UNDER THE PIPE AND BAND WIDTH. THE FOLLOWING TYPE CONNECTIONS ARE ACCEPTABLE FOR PIPE LESS THAN 24" IN DIAMETER: FLANGES ON BOTH ENDS OF THE PIPE, A 12" WIDE STANDARD LAP TYPE BAND WITH 12" WIDE BY 3/8" THICK CLOSED CELL CELLULAR NEOPRENE GASKET, AND A 12" WIDE HUGGER TYPE BAND WITH G-RING GASKETS HAVING MINIMUM DIAMETER OF 1/2" GREATER THAN THE CORRUGATION DEPTH. PIPES 24" IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24" LONG ANNULAR CORRUGATED BAND USING ROSS AND GASKETS. 12" WIDE BY 3/8" THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED ON THE END OF EACH PIPE FOR A TOTAL OF 24".

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

4. BEDDING—THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

6. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE—ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

1. MATERIALS—REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM DESIGNATION C-361.

2. BEDDING—ALL REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING FOR THEIR ENTIRE LENGTH. THIS BEDDING SHALL CONSIST OF HIGH STRENGTH CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE, AT LEAST 10% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 3 INCHES, OR AS SHOWN ON THE DRAWINGS.

3. LAYING PIPE—BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LENGTH, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN 2 FEET FROM THE RISER.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

POLYVINYL CHLORIDE (PVC) PIPE—ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR POLYVINYL CHLORIDE (PVC) PIPE:

1. MATERIALS—PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D-1785 OR ASTM D-2241.

2. JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATER TIGHT.

3. BEDDING—THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

## CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 905.

THE RIPRAP SHALL BE PLACED TO THE REQUIRED THICKNESS IN ONE OPERATION. THE ROCK SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL INSURE THE RIPRAP IS PLACED AS A REASONABLY HOMOGENEOUS WITH THE LARGER ROCKS UNIFORMLY DISTRIBUTED AND FIRMLY IN CONTACT ONE TO ANOTHER WITH THE SMALLER ROCKS FILLING THE VOIDS BETWEEN THE LARGER ROCKS. FILTER CLOTH SHALL BE REPLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 919.12.7.

## CARE OF WATER DURING CONSTRUCTION

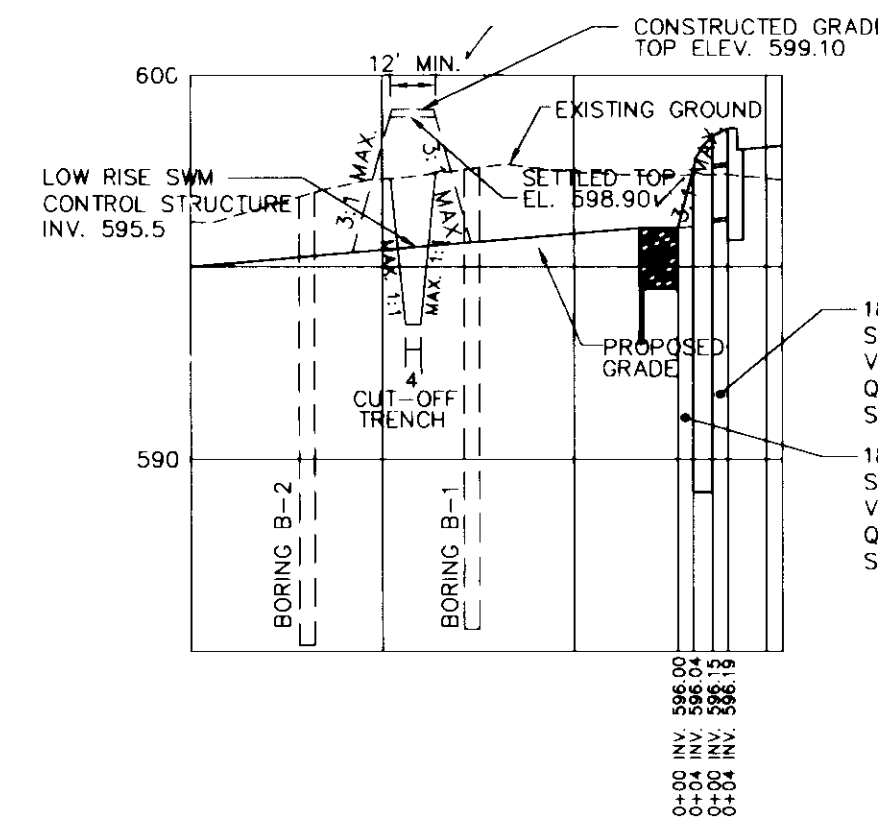
ALL WORK ON THE PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE AND MAINTAIN ALL NECESSARY PUMPING AND OTHER EQUIPMENT REQUIRED FOR REMOVAL OF WATER FROM THE VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION AND OTHER PARTS OF THE WORK FREE FROM WATER AS REQUIRED OR DIRECTED BY THE ENGINEER FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION IN ANY DEGREE WHATSOEVER OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS, SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. THE REMOVAL OF WATER FROM THE REQUIRED EXCAVATION AND THE FOUNDATION SHALL BE ACCURATELY CARRIED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND BOTTOM OF THE REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL AND CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIALS IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING REFILLED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER TO PUMPS FROM WHICH THE WATER SHALL BE PUMPED.

## STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SLOPE AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE MARYLAND SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-342) OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.

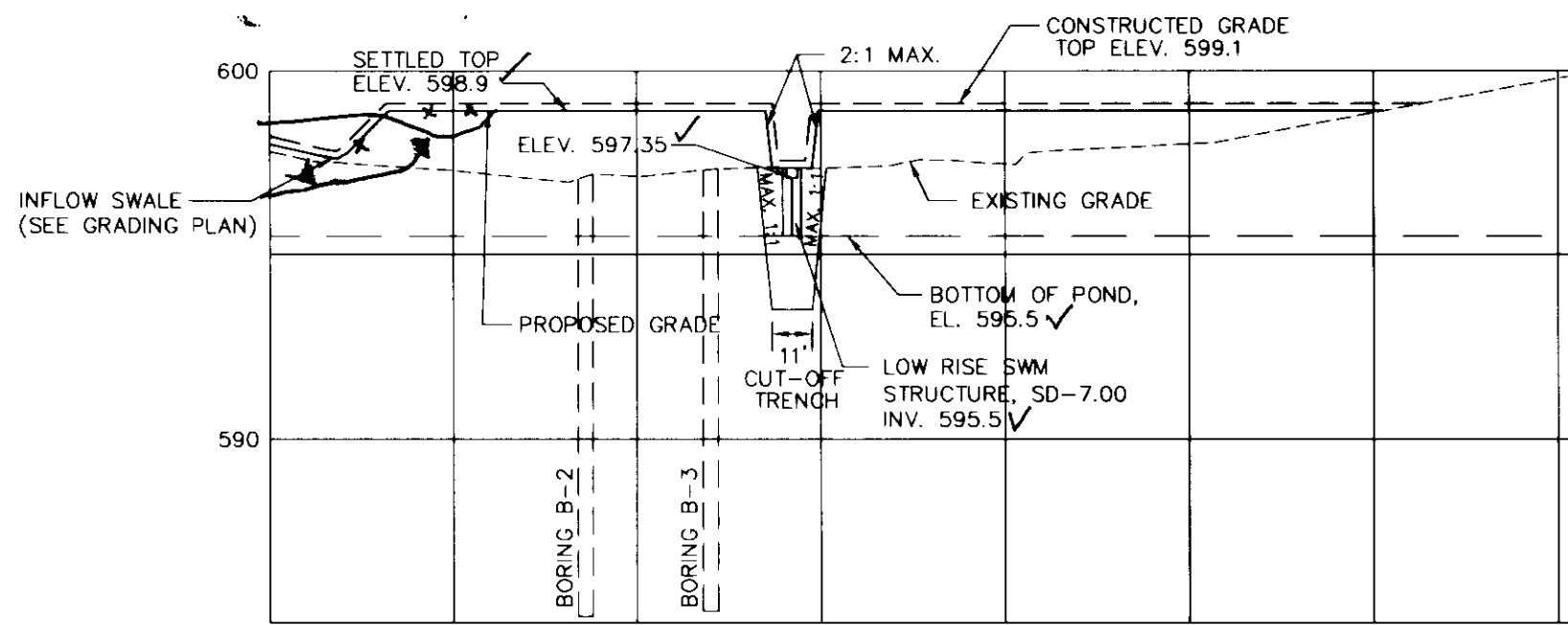
## EROSION AND SEDIMENT CONTROL

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND AIR POLLUTION MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES TO BE EMPLOYED DURING THE CONSTRUCTION PROCESS.



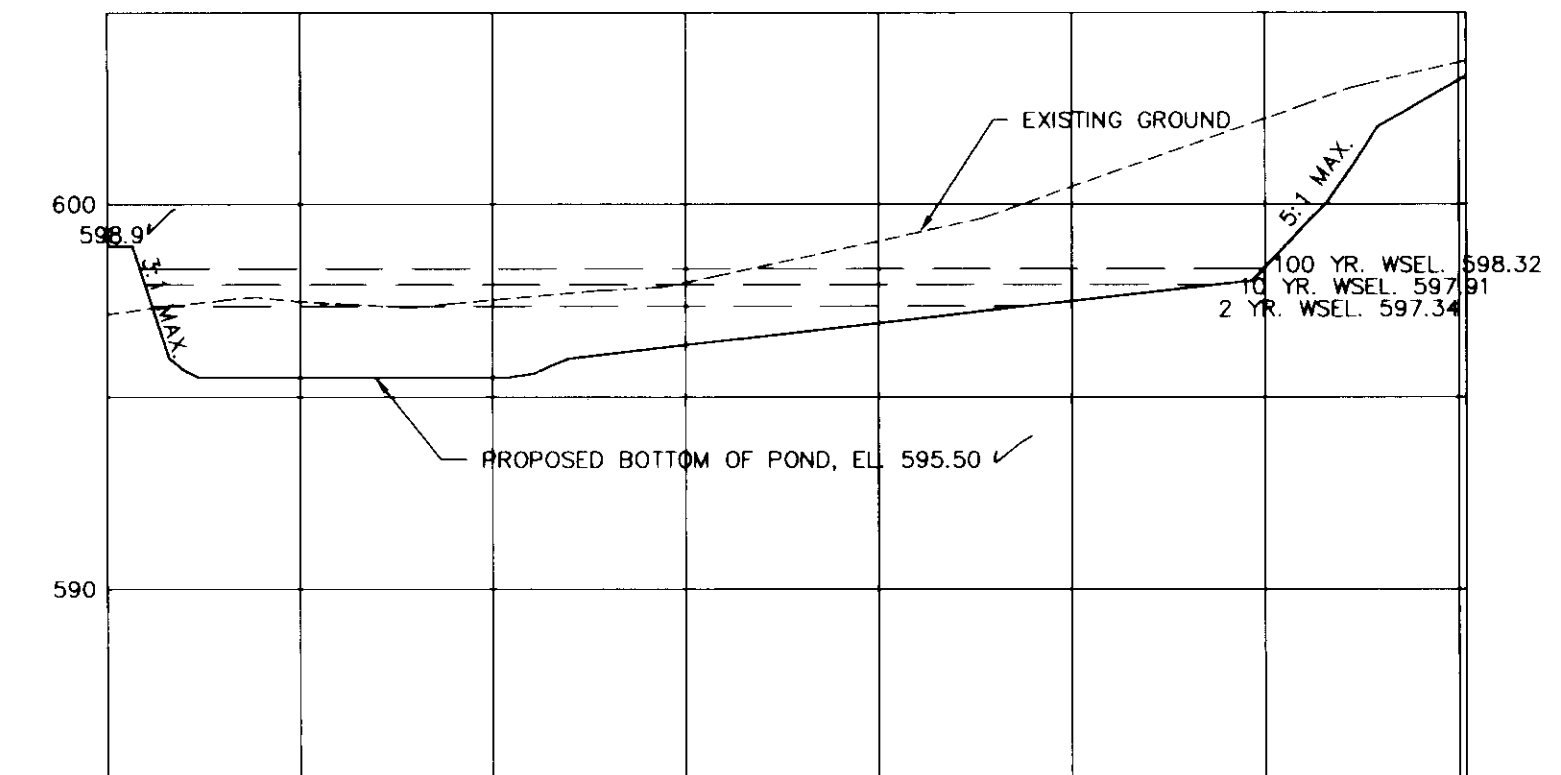
POND SECTION A - A'

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



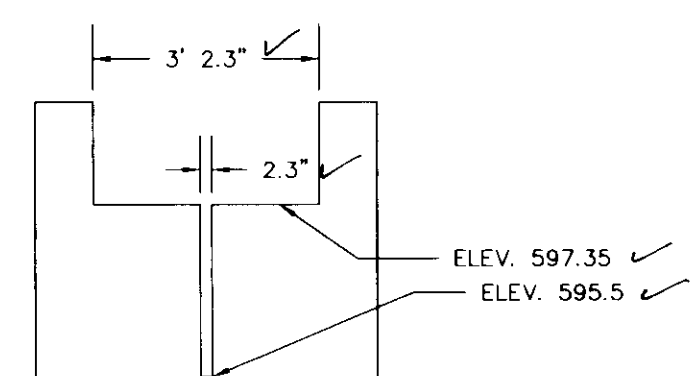
POND SECTION C - C'

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



POND SECTION B - B'

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'



WEIR DIMENSION DETAIL  
SECTION B - B' OF SD-7.00  
NOT TO SCALE

## SWM POND MAINTENANCE REQUIREMENTS

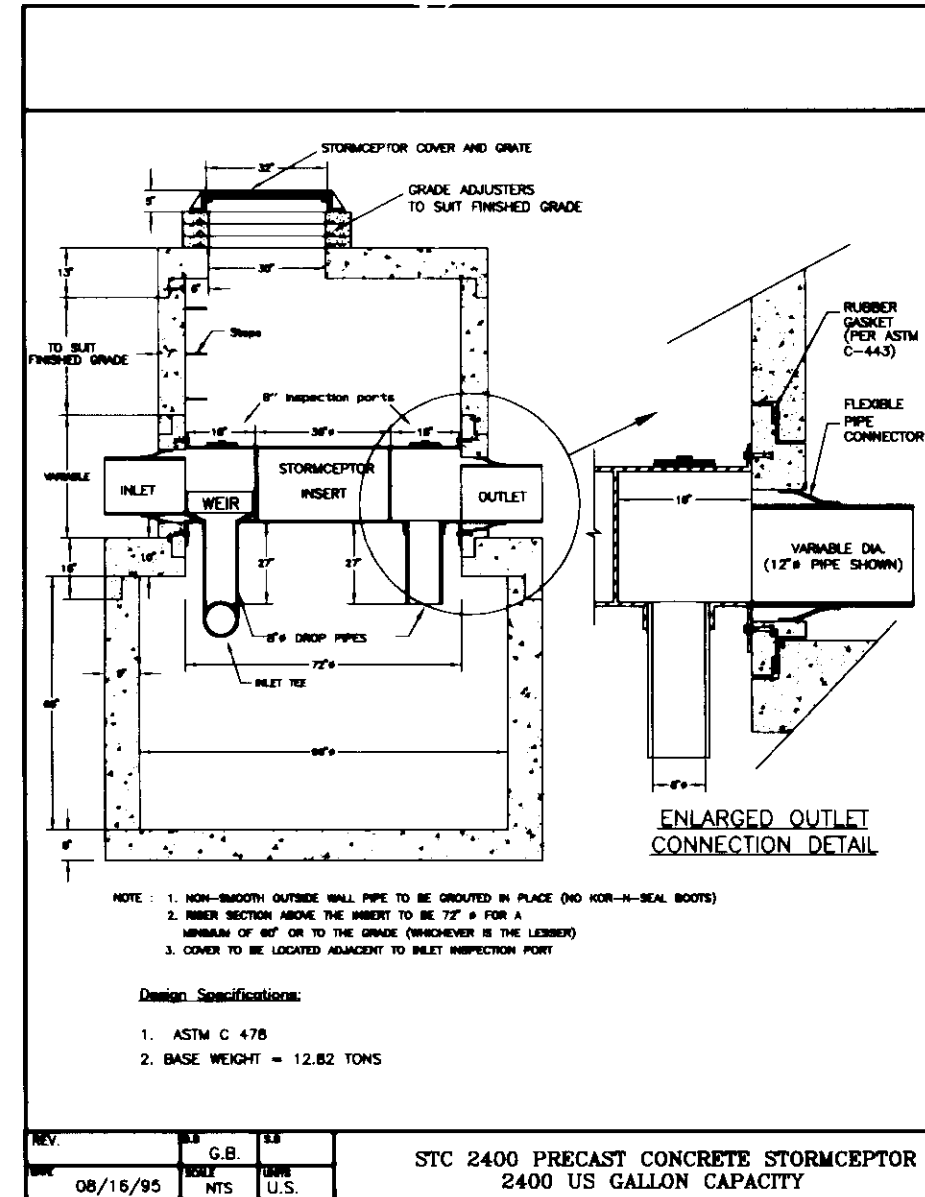
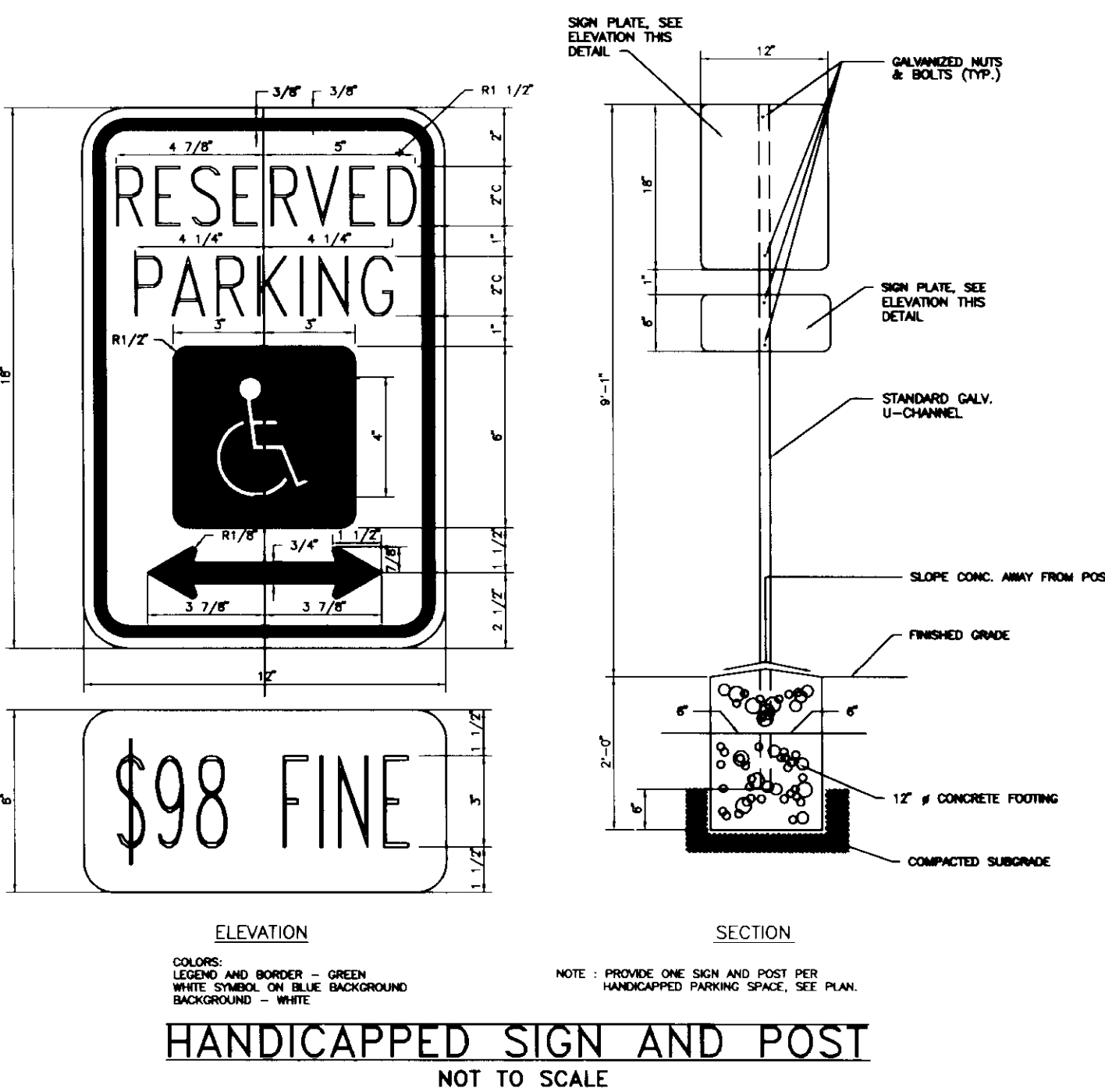
- SILT SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS SIX (6) INCHES IN BASIN OR FOUR (4) INCHES IN THE FOREBAY.
- ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
- ANNUAL INSPECTION AND REPAIR, IF REQUIRED, OF THE STRUCTURE SHALL BE PERFORMED.

## OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVE

- STORMCEPTOR WATER QUALITY STRUCTURES WILL REQUIRE PERIODIC INSPECTION AND CLEANING TO MAINTAIN OPERATION AND FUNCTION. OWNERS WILL HAVE THE STORMCEPTOR UNIT INSPECTED YEARLY OR AS REQUIRED BY HOWARD COUNTY, UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS CAN BE DONE BY USING A CLEAR PLEXIGLAS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLES. WHEN SEDIMENT DEPTHS EXCEED THE SPECIFIED LEVEL (TABLE 6 OF TECHNICAL MANUAL) THEN CLEANING OF THE UNIT IS REQUIRED.
- STORMCEPTOR WATER QUALITY STRUCTURES MUST BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS, CONTACT APPROPRIATE REGULATORY AGENCIES.
- MAINTENANCE OF STORMCEPTOR UNITS SHOULD BE DONE BY A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN UNIT. THE PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED.
- INLET AND OUTLET PIPES MUST BE CHECKED FOR ANY OBSTRUCTIONS AND IF ANY OBSTRUCTIONS AREA FOUND THEY MUST BE REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR WILL BE REPAIRED AS NEEDED.
- OWNER SHALL RETAIN AND MAKE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

NO.	LOCATION	STRUCTURE SCHEDULE		COMMENTS	
		RIM ELEV.	INV. OUT		
I-1	N 599,535.9052 E 1,306,617.5122	598.00 516.63	---	596.12 574.53	SD 4.01
SC	N 599,528.2401 E 1,306,617.6600	598.00 601.64	596.00 516.53	596.04 574.46	SEE DETAIL
ES1	N 599,522.2413 E 1,306,617.7757	---	596.00 516.11	---	SD 5.52

NOTE:  
INLET LOCATION IS TO THE CENTERLINE OF THE INLET ALONG THE FACE OF CURB. STORMCEPTOR LOCATION IS TO CENTERLINE OF MANHOLE COVER. END SECTION LOCATION 'S' AT THE INTERSECTION OF THE END SECTION AND THE DRAINAGE PIPE ALONG THE CENTERLINE.



**Concrete Stormceptor® Order Request Form \***

**Contractor Information**  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

**Owner Information**  
Name: HIGLEY PROPERTY  
Phone: (410) 859-3636  
Fax: \_\_\_\_\_

**Stormceptor® Model**  
900  3600   
1200  4800   
1800  6000   
2400  7200

**Insert Size**  
22"   
32"   
44"   
Custom

**Manhole Number**  
Top Elevation (ft) 598.35  
Inlet Pipe Invert (ft) 574.53  
Outlet Pipe Invert (ft) 574.46  
Pipe Type: ECP  
Pipe Inside Diameter (in) (ID) 18"  
Pipe Outside Diameter (in) (OD) 19.25"

**Project Name:** RIDGELY PROPERTY  
Approximate time frame until required delivery (weeks): \_\_\_\_\_  
Delivery Address: Street 2141 ROUTE 97  
City COOKESVILLE State MD Zip Code 21723  
Designer Company: MILDENBERG, BOENDER & ASSOC., INC.  
Designer Contact: JACOB HIKMAT Phone 997-0276 Fax 997-0238

**For Technical Assistance and Stormceptor Order Information**  
Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1 (800) 762-4783

\* TO BE INCLUDED ON SWM PLAN BY DESIGNER 1/20/91

**DEVELOPER'S CERTIFICATE**  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Arthur Bruce Ridgely 4-10-96  
SIGNATURE OF DEVELOPER DATE  
**ARTHUR BRUCE RIDGELY**  
PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**  
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RUBEN HIKMAT 4/11/96  
SIGNATURE OF ENGINEER DATE  
**RUBEN HIKMAT**  
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. H. Warfield 5/22/96  
USDA NATURAL RESOURCE CONSERVATION SERVICE DATE

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

John P. Robinson 5/22/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

John P. Robinson 6-4-96  
HOWARD COUNTY HEALTH DEPARTMENT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John P. Robinson 6/4/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John P. Robinson 6/4/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

John P. Robinson 6/4/96  
DIRECTOR DATE

TAX MAP 14 - PARCEL 162  
RIDGELY PROPERTY  
DETAILS AND STORM DRAIN PROFILES

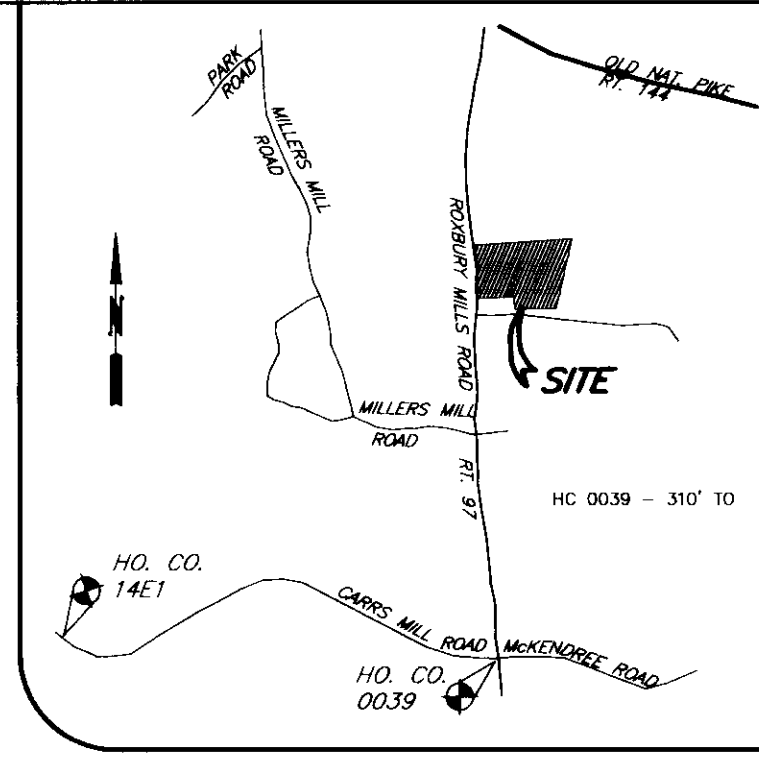
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, State 202, Ellicott City, Maryland 21042  
(410) 997-0236 Balt. (301) 621-5521 Wash. (410) 997-0238 Fax

5 OF 7  
SDP-96-64



NOTE: THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSES OF A SOILS AND DRAINAGE AREA MAP DELINEATION ONLY.



ALBERT D. McCracken  
718/501  
P. 34  
ZONE: RC DEO

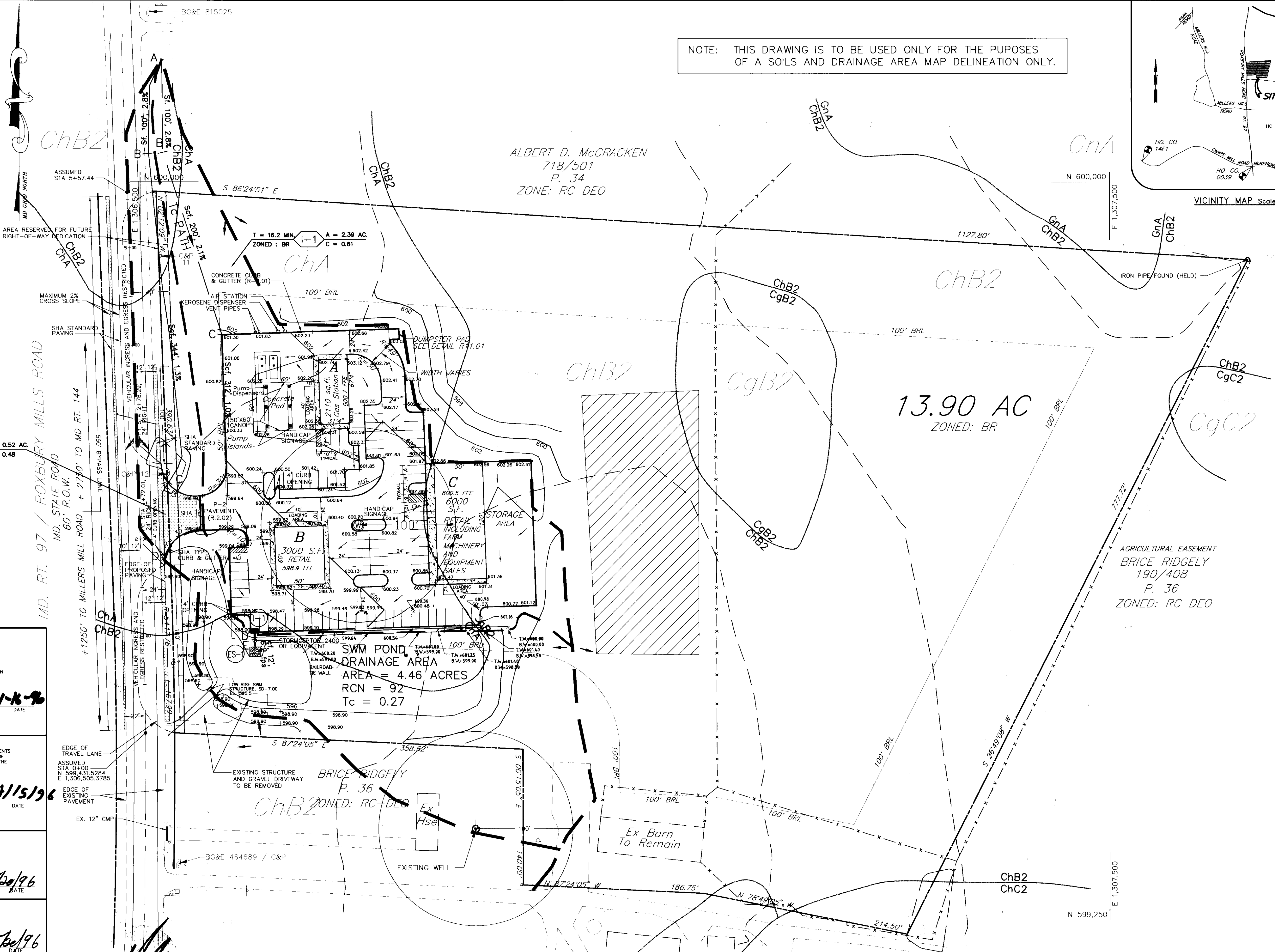
T = 15.6 MIN  
A = 0.52 AC  
C = 0.48  
ZONED: BR

13.90 AC  
ZONED: BR

AGRICULTURAL EASEMENT  
BRICE RIDGELY  
190/408  
P. 36  
ZONED: RC DEO

SWM POND  
DRAINAGE AREA  
AREA = 4.46 ACRES  
RCN = 92  
Tc = 0.27

BRICE RIDGELY  
P. 36  
ZONED: RC-DEO



**LEGEND**

- DENOTES FLOW PATH
- DENOTES HANDICAP ACCESS AREA
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.
- DENOTES STANDARD SHA PAVING AREA

**SOIL CLASSIFICATIONS**

SYMBOL	DESCRIPTION
CgB2	CHESTER GRAVELLY SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE B
GcB2	CHESTER GRAVELLY SILT LOAM, 8% TO 15% SLOPES, MODERATELY ERODED --- TYPE B
ChA	CHESTER SILT LOAM, 0% TO 3% SLOPES --- TYPE B
ChB2	CHESTER SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE B
ChC2	CHESTER SILT LOAM, 8% TO 15% SLOPES, MODERATELY ERODED --- TYPE B
GcA	GLENVILLE SILT LOAM, 0% TO 3% SLOPES --- TYPE C

**OWNER**  
BRICE RIDGELY et ux & et al  
17270 HARDY ROAD  
MT. AIRY, MARYLAND 21771  
(410) 549-2488

**DEVELOPER'S CERTIFICATE**  
I 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 APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *Arthur Brice Ridgely* DATE: 4-16-96  
**ARTHUR BRICE RIDGELY**  
 PRINTED NAME OF DEVELOPER

**ENGINEER'S CERTIFICATE**  
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 NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *R. HIKMAT* DATE: 4/15/96  
**R. HIKMAT**  
 PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *J.H. Warfield* DATE: 5/20/96  
**J.H. Warfield**  
 USDA - NATURAL RESOURCE CONSERVATION SERVICE

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

Signature: *John R. Robertson* DATE: 5/20/96  
**John R. Robertson**  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT

Signature: *Joseph P. ...* DATE: 6-4-96  
**Joseph P. ...**  
 HOWARD COUNTY HEALTH OFFICER

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *...* DATE: 5/21/96  
**...**  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: *...* DATE: 6/14/96  
**...**  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

Signature: *...* DATE: 6/14/96  
**...**  
 DIRECTOR

TAX MAP 14 - PARCEL 162  
**RIDGELY PROPERTY**  
 HOWARD COUNTY, MARYLAND  
 FOURTH ELECTION DISTRICT  
**SOILS AND PROPOSED DRAINAGE AREA MAP**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5092 Dorsey Hall Drive, Suite 202, Belkott City, Maryland 21042  
 (410) 997-0396 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax

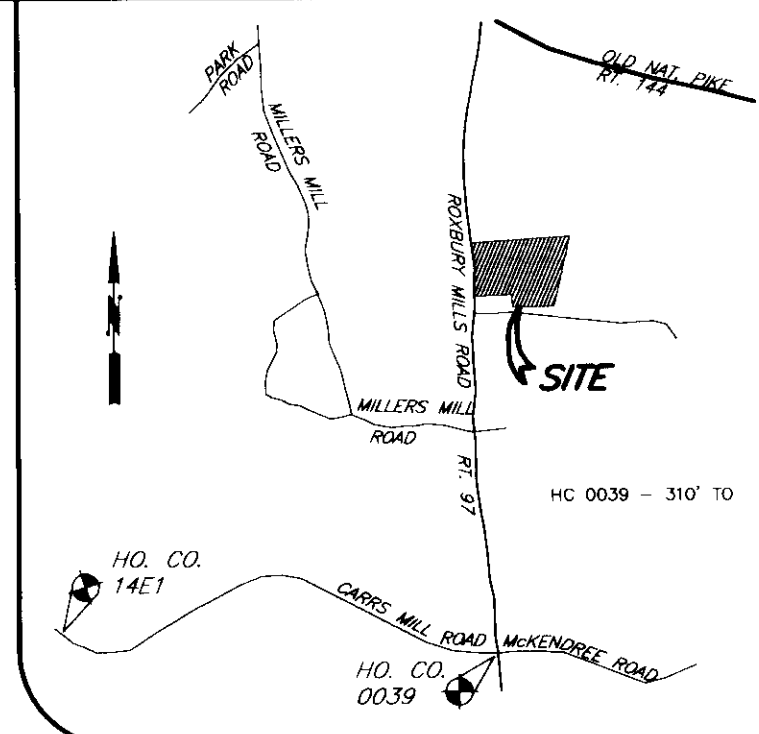
6 OF 7  
 SDP-96-64

ALBERT D. McCracken  
718/501  
P. 34  
ZONE: RC DEO

GnA  
N 600,000  
E 1,307,500

13.90 AC  
ZONED: BR

AGRICULTURAL EASEMENT  
BRICE RIDGELY  
190/408  
P. 36  
ZONED: RC DEO



PERIMETER EDGE TYPE

PERIMETER	EDGE TYPE
PERIMETER 1	E
NON-RES FRONT TO ROAD - 120 LF	
1 SHADE TREE / 40 LF	3
1 SHRUB / 4 LF	30
PERIMETER 2	E
PARKING TO ROAD - 69 LF	
1 SHADE TREE / 40 LF	2
1 SHRUB / 4 LF	17
PERIMETER 3	E
NON-RES FRONT TO ROAD - 370 LF	
1 SHADE TREE / 40 LF	9
1 SHRUB / 4 LF	93
PERIMETER 4	C
NON-RES TO RES - 580 LF	
1 SHADE TREE / 40 LF	15
1 EVERGREEN / 20 LF	29
PERIMETER 5	A
NON-RES TO NON-RES - 460 LF	
1 SHADE TREE / 60 LF	8
PERIMETER 6	A
NON-RES TO NON-RES - 137 LF	
1 SHADE TREE / 60 LF	2
PERIMETER 7	A
NON-RES TO NON-RES - 101.67 LF	
1 SHADE TREE / 60 LF	2
PERIMETER 8	C
NON-RES TO RES - 358.62 LF	
1 SHADE TREE / 40 LF	9
1 EVERGREEN / 20 LF	18
<b>TOTAL PLANTING OBLIGATION</b>	
SHADE TREES	50
EVERGREEN TREES	47
SHRUBS	140

SCHEDULE B : PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	75
NUMBER OF TREES REQUIRED	4
NUMBER OF TREES PROVIDED	14 SHADE TREES 0 SUBSTITUTION TREES

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	400'
NUMBER OF TREES REQUIRED	8 SHADE TREES 10 EVERGREEN TREES
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	N/A
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 100% 11 SHADE TREES AND 22 EVERGREEN TREES AS PART OF THE PERIMETER EDGE REQUIREMENT.
NUMBER OF TREES PROVIDED	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES

NOTE:  
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.  
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$11,000.00.

SOIL CLASSIFICATIONS

SYMBOL	DESCRIPTION
CgB2	CHESTER GRAVELLY SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE B
CgC2	CHESTER GRAVELLY SILT LOAM, 8% TO 15% SLOPES, MODERATELY ERODED --- TYPE B
ChA	CHESTER SILT LOAM, 0% TO 3% SLOPES --- TYPE B
ChB2	CHESTER SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE B
ChC2	CHESTER SILT LOAM, 8% TO 15% SLOPES, MODERATELY ERODED --- TYPE B
GnA	GLENVILLE SILT LOAM, 0% TO 3% SLOPES --- TYPE C

LEGEND

#	DENOTES PERIMETER EDGE NUMBER
---	DENOTES LIMIT OF DEVELOPMENT
▨	DENOTES HANDICAP ACCESS AREA

THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR SEWER DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED EASEMENT SHALL NOT BE NECESSARY.

OWNER  
BRICE RIDGELY et ux & et al  
17270 HARDY ROAD  
MT. AIRY, MARYLAND 21771  
(410) 549-2488

NOTE: THIS DRAWING IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

SCHEDULE A : PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES	
	E	C	A	
LANDSCAPE TYPE				
LINEAR FEET OF PERIMETER	559 LF.	938.62 LF	698.67 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	
NUMBER OF PLANTS REQUIRED				
SHADE TREES	14	24	12	
EVERGREEN TREES	8	47	0	
SHRUBS	160	0	0	
NUMBER OF PLANTS PROVIDED				
SHADE TREES	0	23	12	
EVERGREEN TREES	0	44	0	
OTHER TREES (2:1 SUBSTITUTION)	8	0	0	
SHRUBS (10:1 SUBSTITUTION)	240	40	0	

SCREEN CALCULATIONS  
SCREEN #1  
DUMPSTER - 20 LF - TYPE D BUFFER  
0 SHADE TREE AND 2 EVERGREENS REQUIRED  
1 SHADE TREE AND 3 EVERGREENS PROVIDED  
SCREEN #2  
STORAGE AREA - 249 LF - TYPE C SCREEN  
6 SHADE TREES AND 11 EVERGREENS REQUIRED  
6 SHADE TREES AND 11 EVERGREENS PROVIDED

LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
110	⊙	ABELIA X GRANDIFLORA	GLOSSY ABELIA	2 1/2' - 3' HT.
29	⊙	ACER PIBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2' - 3' CAL.
22	⊙	CLIPPESSOCYPARIS LEYLANDI	LEYLAND CYPRESS	5' - 6' HT.
130	○	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	2' - 2 1/2' HT.
29	⊙	PINUS STROBUS	EASTERN WHITE PINE	6' - 8' HT.
8	⊙	PRUNUS CERASIFERA ATROPURPUREA 'THUNDERCLOUD'	THUNDERCLOUD PURPLELEAF PLUM	1 1/2' - 2' CAL.
23	⊙	QUERCUS RUBRA	NORTHERN RED OAK	2 1/2' - 3' CAL.
14	⊙	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2 1/2' - 3' CAL.
40	⊙	TAXUS BACCATA 'REPADENS'	SPREADING ENGLISH YEW	2 1/2' - 3' HT.
<b>TOTAL</b>				
405 TREES AND SHRUBS (59 SHADE TREES, 8 SMALL DECIDUOUS TREES, 58 EVERGREEN TREES, 280 SHRUBS)				

STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
2	⊙	QUERCUS RUBRA	NORTHERN RED OAK	2 1/2' - 3' CAL.
<b>TOTAL</b>				
2 STREET TREES				

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
*James M. Boyle*  
HOWARD COUNTY HEALTH OFFICER  
DATE: 6-4-96

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Anna Swannan*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH  
DATE: 6/4/96

*Paul [Signature]*  
4-15-96

OCT 1995  
95020  
SID  
1"=50'

CHANGE LANDSCAPING & ASSOCIATED CHANGES  
2  
12/23/96

TAX MAP 14 - PARCEL 162  
RIDGELY PROPERTY  
HOWARD COUNTY, MARYLAND  
FOURTH ELECTION DISTRICT  
LANDSCAPE PLAN

MILDENBERG, & ASSOC., INC.  
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