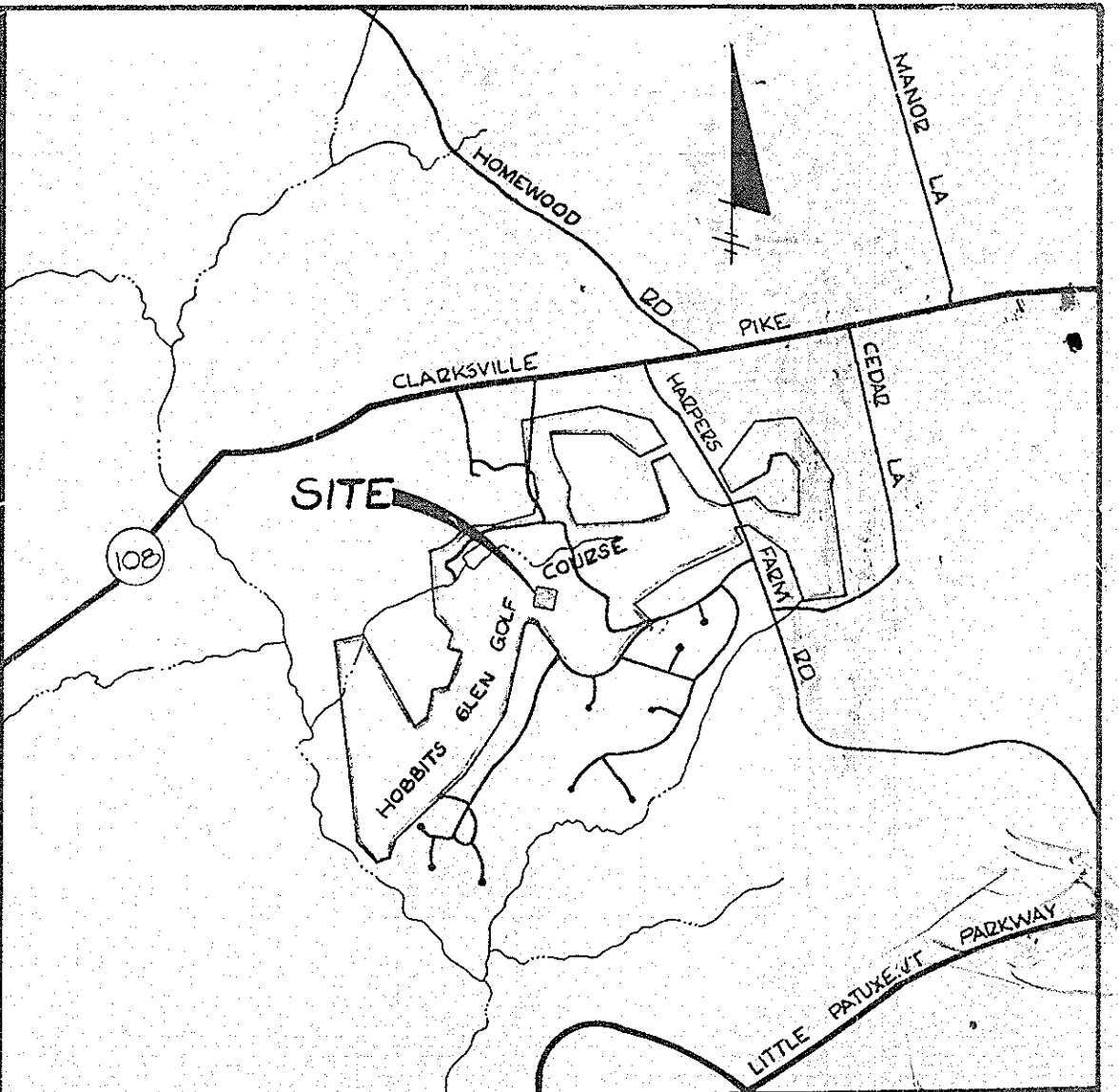


INDEX OF SHEETS	
NO.	TITLE
1	SITE DEVELOPMENT PLAN
2	LOCATION MAP
3	UTILITY PROFILES
4	SEDIMENT CONTROL PLAN
5	NOTES & DETAILS
6	D.A. MAP, SWM PLAN, DETAILS, SECTIONS & SPECS.



- NOTES:**
- UNDERGROUND STORAGE TANKS (UST) TO BE REMOVED UNDER PROPER SUPERVISION OF AN ENVIRONMENTAL ENGINEER AND IN ACCORDANCE WITH MDE REGULATIONS.
  - REPLACE EXISTING USTS WITH A 2000 FIREWARD ABOVE GROUND STORAGE TANK. MUST COMPLY WITH ALL NFPA 30A REQUIREMENTS, INCLUDING ANY ASSOCIATED FIRE EXTINGUISHER REQUIREMENTS.
  - REMOVE EXISTING FUEL PUMPS AND REPLACE WITH NEW FUEL DISPENSER, FILL RATE FR-101.



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVISED FOR REVISION 4 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16144, EXPIRATION DATE: 08/19/14.

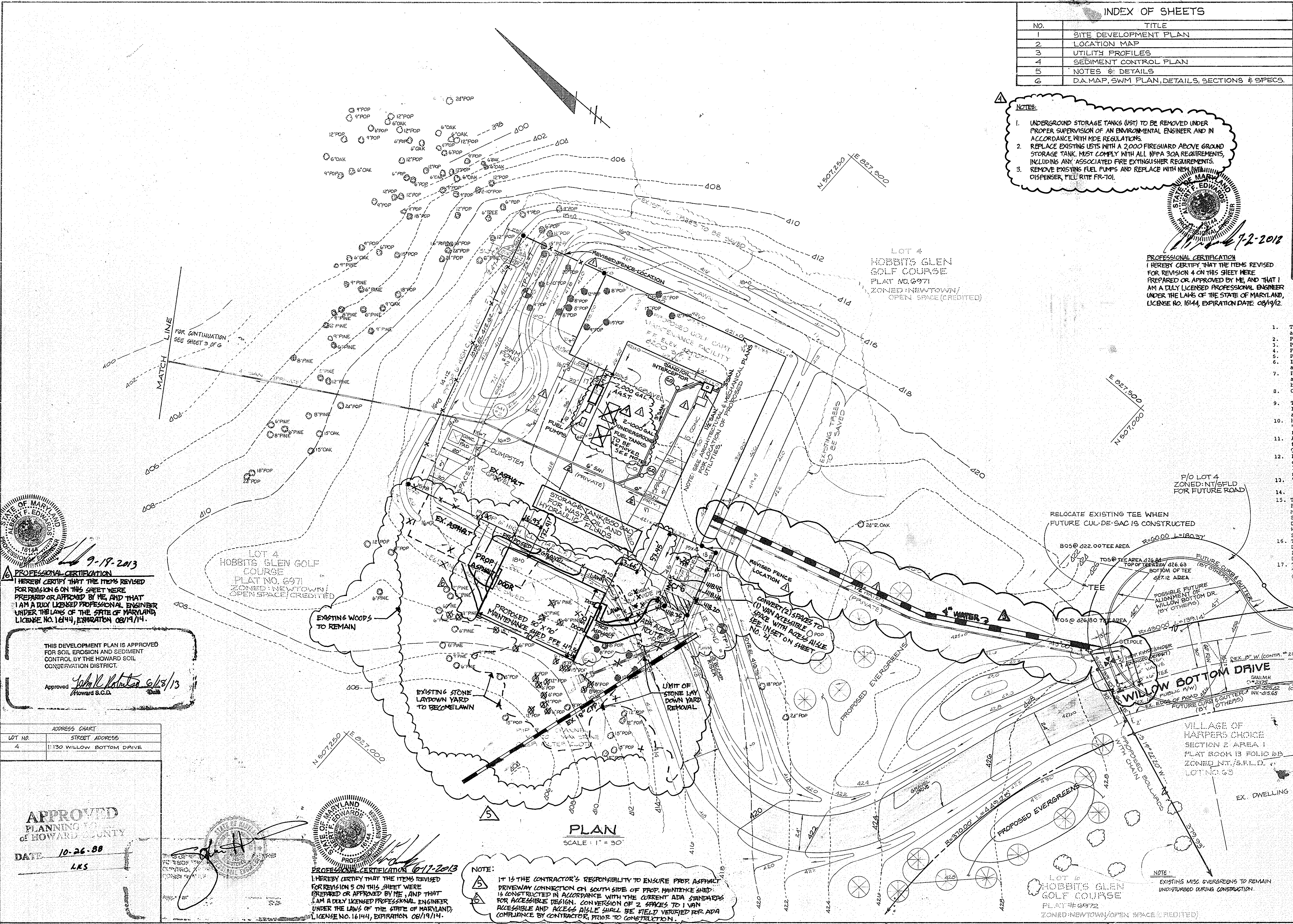
**VICINITY MAP**  
 SCALE: 1" = 2,000'  
 GENERAL NOTES

- Total area: (LOT 4): 109,627 AC.
- Limit of submission: 2.74 AC.
- Present zoning: New Town - Open Space - Credited.
- Property is recorded on Plat No. 6970-G-972.
- Final development plan phase 5-A is recorded on Plat No. 3054A-8-67-871.
- Property is shown in Tax Map 29, Parcel 135.
- Intended use: Maintenance building for golf carts & lawn maintenance equipment.
  - Total area of building: 8200 S.F. (0.19 AC) ON 0.75% COVERAGE.
  - Total number of spaces required: (15 SPACES) (EMPLOYEES) (15-2-8)
  - Total number of spaces provided: (12 SPACES) (1 INC. SPACE) (13 TOTAL SPACES)
- Parking data: (TOTAL NUMBER OF SPACES) (13) (TOTAL NUMBER OF SPACES) (13) (TOTAL NUMBER OF SPACES) (13)
- Open space (green area) within limit of submission: 1.93 AC. (1.70%)
- The contractor shall notify the Howard County Construction Inspection/Survey Division 24 hours prior to commencement of work at 392-2437.
- Handicapped facilities to be constructed in accordance with the "Design of Barrier Free Facilities" and the "Maryland Building Code for the Handicapped and Aged".
- All paving and storm drain construction shall be in accordance with the Howard County Road Construction Code and Standard Specifications.
- Existing utilities shown hereon have been located from field and office information. The contractor shall determine the exact location of existing utilities to his own satisfaction before making any connection thereto or excavating in the area thereof.
- The contractor shall notify Miss Utility 559-0100 a minimum of three days prior to beginning any construction shown hereon.
- See architectural drawings for building dimensions.
- THE COMBINATION SAND/OIL INTERCEPTOR SHOWN ON THESE PLANS ARE PRE-ENGINEERED UNITS MANUFACTURED BY WADE DIVISION/TYLER PIPE MODEL W-5335. THE OVERFLOW OIL TANK SHALL HAVE A MINIMUM SIZE OF 550 GALLONS. OILS AND HYDRAULIC FLUIDS WHICH ARE DRAINED DIRECTLY FROM MOTOR VEHICLES SHALL BE EMPTIED TO A SEPARATE WASTE OIL TANK WHICH SHALL NOT BE CONNECTED TO THE SANITARY SEWER OR SAND/OIL INTERCEPTOR SYSTEM.
- THE PROPOSED FIRE HYDRANT SHOWN WILL BE BUILT UNDER AN ADVANCED DEPOSIT ACCOUNT. THE LOCATION OF THE HYDRANT SHOULD BE SET TO PROVIDE FOR THE ULTIMATE FUTURE ALIGNMENT OF THE WILLOW BOTTOM DRIVE CUL-DE-SAC.
- THERE ARE NO WETLANDS LOCATED WITHIN THE LIMIT OF SUBMISSION OF THIS SITE DEVELOPMENT PLAN AND NO WETLANDS PERMITS WILL BE REQUIRED.

- LANDSCAPE LEGEND**
- 17- PINUS STROBUS (WHITE PINE) 2'-2 1/2" MIN. CALIPER, 6'-8" MIN. HEIGHT
  - EX. TREES TO REMAIN
  - EX. TREES TO BE REMOVED

REVISIONS		
NO.	DATE	REVISION
1	3/6/09	PER MCC, INC. REVISION/BUILDING PERMIT
2	3/13/09	PER MCC, INC. REVISION/STATE HEALTH DEPT
3	10/5/14	ADD 4" WHC ABANDON 1 1/2" WHC
4	7/2/12	FUEL TANK REVISIONS
5	6/11/13	PROPOSED MAINTENANCE SHED
6	8/28/13	MAINTENANCE SHED DOOR REVISION

**OWNER & DEVELOPER**  
  
 COLUMBIA ASSOCIATION  
 9861 BROKENLAND PKWY, STE. 300  
 COLUMBIA, MD. 21046  
 381-0020

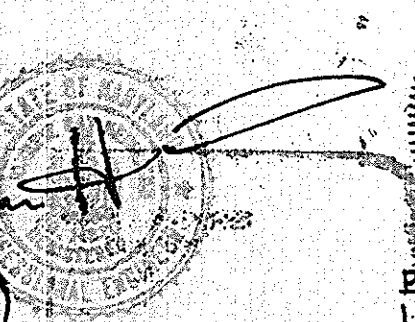


**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVISED FOR REVISION 6 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16144, EXPIRATION 08/19/14.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Approved: *John R. Roberts* 6/15/13  
 Howard S.C.D.

ADDRESS CHART	
LOT NO.	STREET ADDRESS
4	1130 WILLOW BOTTOM DRIVE

**APPROVED PLANNING**  
 OF HOWARD COUNTY  
 DATE: 10-26-88  
 LKS



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVISED FOR REVISION 5 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16144, EXPIRATION 08/19/14.

**NOTE:**  
 IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROP ASPHALT DRIVEWAY CONNECTION ON SOUTH SIDE OF PROP. MAINTENANCE SHED IS CONSTRUCTED IN ACCORDANCE WITH THE CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN. CONNECTION OF 2 SPACES TO 1 VAN ACCESSIBLE AND ACCESSIBLE SHALL BE FIELD VERIFIED FOR ADA COMPLIANCE BY CONTRACTOR PRIOR TO CONSTRUCTION.

**Dewberry & Davis**  
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS  
 3300 N. Ridge Road  
 Suite 100  
 Ellicott City, Maryland  
 21043  
 (301) 461-7478 BALTIMORE  
 (301) 621-4970 WASHINGTON

**THOMAS L. WILEY**  
 REGISTERED PROFESSIONAL ENGINEER  
 LICENSE NO. 16144  
 EXPIRATION DATE: 08/19/14

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16144, EXPIRATION DATE: 08/19/14.

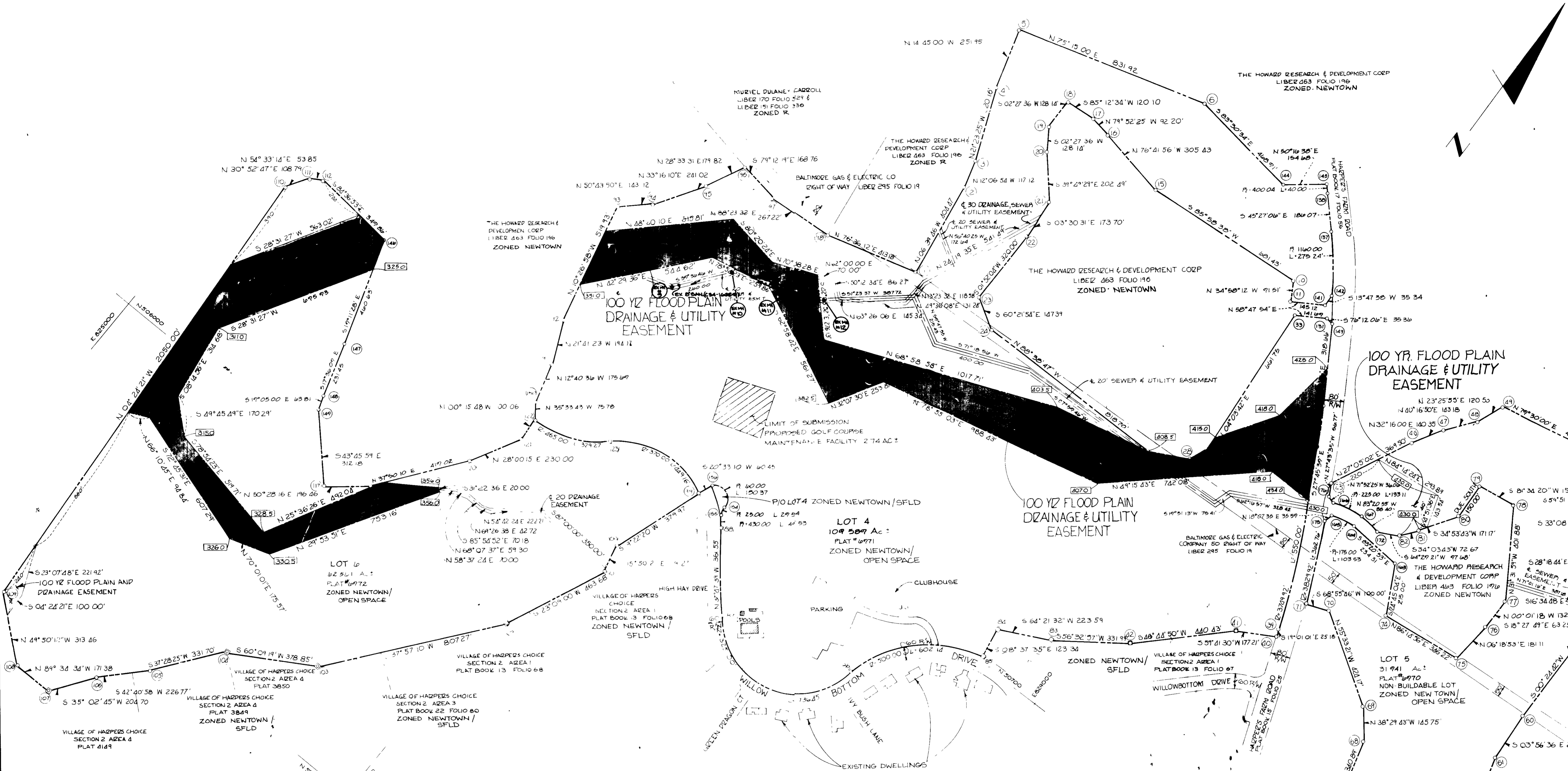
**HOWARD SOIL CONSERVATION DISTRICT**  
 APPROVED: OFFICE OF PLANNING AND ZONING  
 DATE: 11-21-88  
 PLANNING DIRECTOR

**HOWARD SOIL CONSERVATION DISTRICT**  
 APPROVED: OFFICE OF PLANNING AND ZONING  
 DATE: 12-1-88  
 PLANNING DIRECTOR


**HOWARD COUNTY HEALTH DEPARTMENT**  
 APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 11-28-88  
 DIRECTOR, PUBLIC WORKS

**HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS**  
 APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 11-28-88  
 DIRECTOR, PUBLIC WORKS

**SITE DEVELOPMENT PLAN**  
 COLUMBIA ASSOCIATION  
 VILLAGE OF HARPER'S CHOICE  
 HOBBIT'S GLEN GOLF COURSE  
 MAINTENANCE FACILITY  
 5th ELECTION DISTRICT HOWARD CO, MD  
 SCALE: 1" = 30'  
 APRIL 4, 1988  
 REVISED JULY 25, 1988  
 SHEET 1 OF 6  
 DESIGNED: D.R.R. DRAWN: D.R.R. CHECKED: B.D.B.  
 S.D.P. - 88-184C




**APPROVED PLANNING**  
of HOWARD COUNTY  
DATE 10-26-88  
AKS

**OWNER & DEVELOPER**  
  
**COLUMBIA ASSOCIATION**  
9861 BROKENLAND PKWY. STE. 300  
COLUMBIA, MD. 21046  
381-0020

REVISIONS		
NO.	DATE	REVISION
1	3/6/89	PER MCC, INC REVISION/BUILDING PERMIT
2	3/15/89	PER MCC, INC REVISION/STATE HEALTH DEPT.

**Dewberry & Davis**  
ARCHITECTS, ENGINEERS, PLANNERS, SURVEYORS  
3300 K. & L. Road  
Suite 1000  
Ellicott City, Maryland  
21043  
(301) 481-7475  
(301) 621-4970 FAX

  
**Thomas L. Wiley**  
REGISTERED PROFESSIONAL ENGINEER  
11-2-88

**Art Curtis**  
11-3-88

**Howard Soil Conservation District**  
**Stephen L. Smith**  
11/21/88

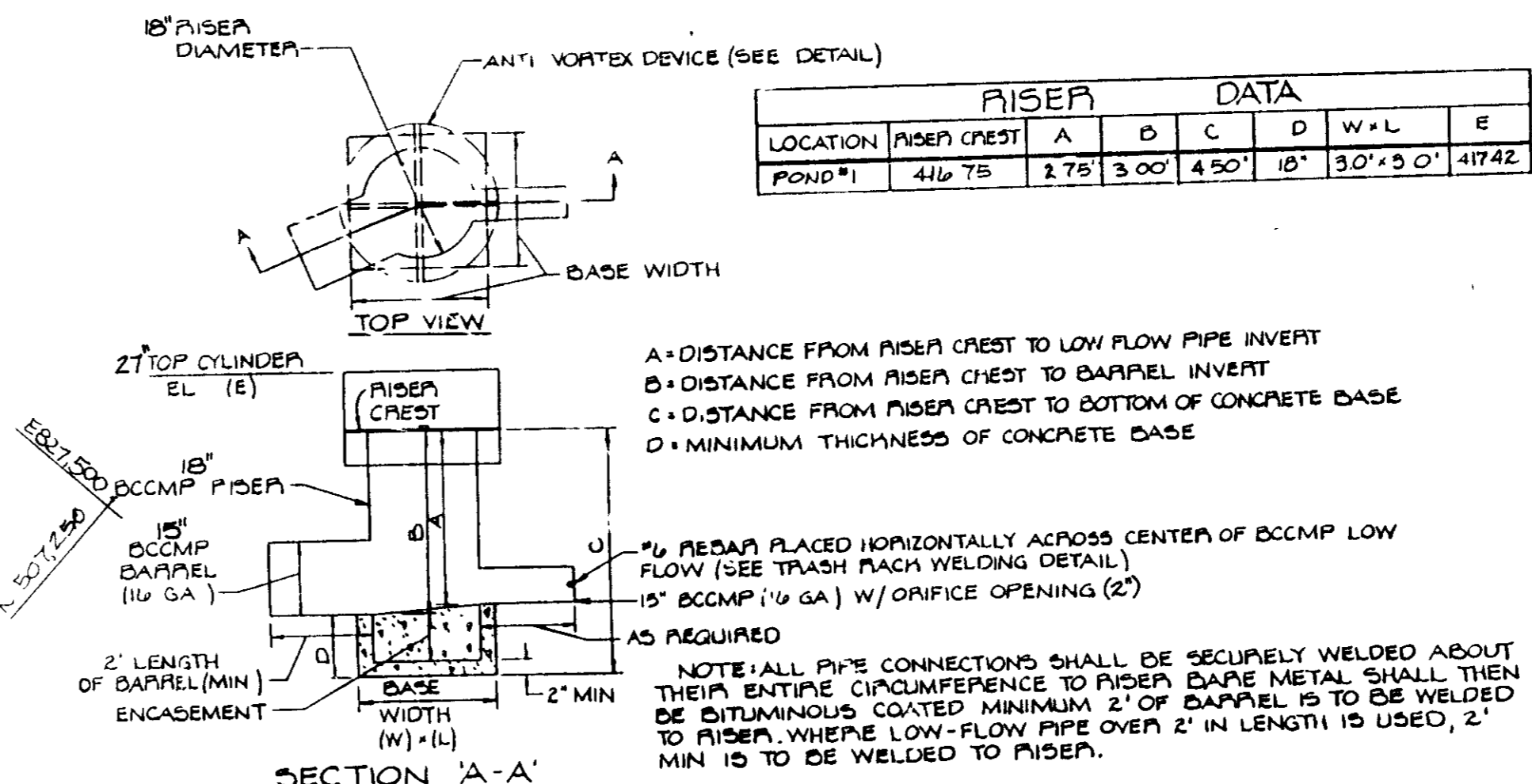
**Urban**  
12.13.88  
**James V. Campbell**  
12-28-88  
COMMUNITY PLANNING  
AND LAND DEVELOPMENT  
**John P. Blum**  
12-1-88

SUBDIVISION NAME		LOT NO.	PARCEL NUMBER
VILLAGE OF HARPERS CHOICE HOBBIT'S GLEN GOLF COURSE		4	35
PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE
6971	11	R-1	27
WATER CODE		SEWER CODE	
I-03		6740000	

**LOCATION MAP**  
COLUMBIA  
OPEN SPACE LOT 4 PLAT # 6971  
VILLAGE OF HARPERS CHOICE  
HOBBIT'S GLEN GOLF COURSE  
MAINTENANCE FACILITY  
5<sup>th</sup> ELECTION DISTRICT HOWARD CO., MD  
SCALE: 1"=200' APRIL 1988  
REVISED JULY 25, 1988  
SHEET 2 OF 6  
**S.D.P. - 88-184C**

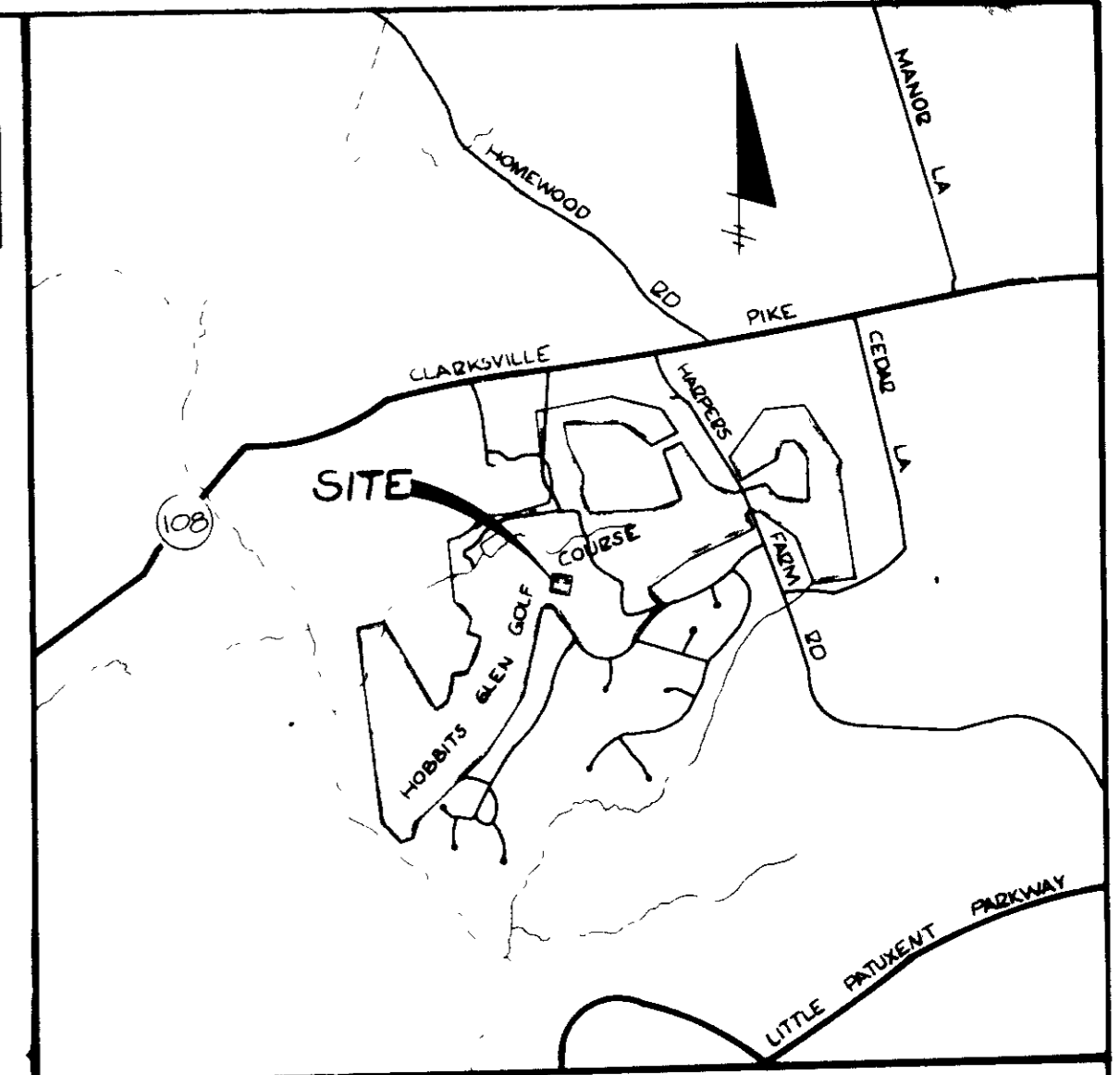
**TEMPORARY STONE OUTLET TRAP #2**

DRAINAGE AREA 1.08 AC ±  
 STORAGE REQUIRED 172.56 CY  
 STORAGE PROVIDED 134 CY  
 LENGTH OF OUTLET 5'  
 BOTTOM SIZE 75x15 (IRREGULAR)  
 TRAP DEPTH 3'  
 SIDE SLOPE 2:1  
 BOTTOM ELEVATION 409.00  
 OUTLET CREST 412.71  
 CLEANOUT ELEVATION 410.50

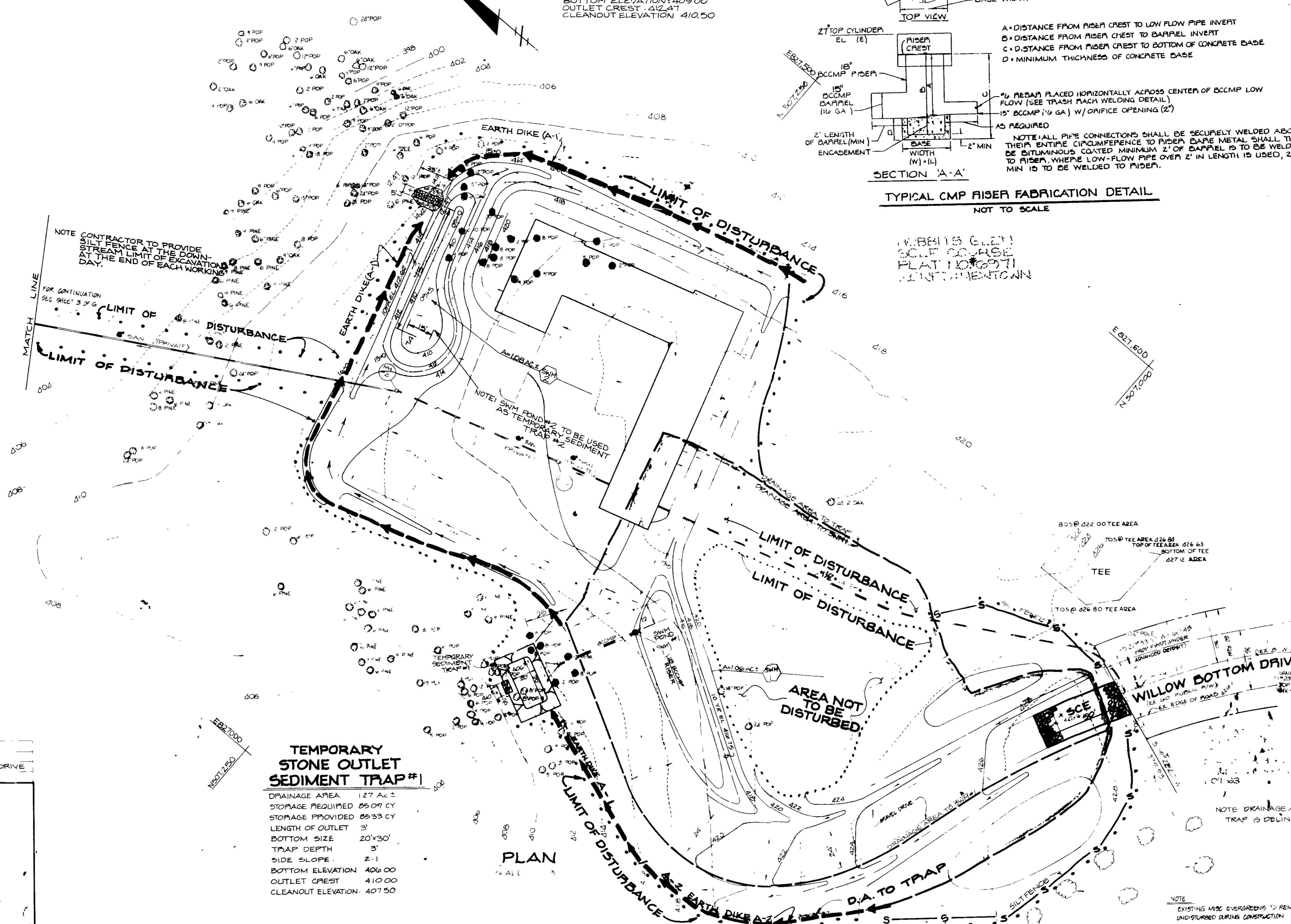


RISE		DATA					
LOCATION	RISE CREST	A	B	C	D	W x L	E
POD #1	416.75	2.75	3.00	4.50	15'	3.0' x 5.0'	417.42

TYPICAL CMP RISER FABRICATION DETAIL  
 NOT TO SCALE



VICINITY MAP  
 SCALE 1" = 2,000'



- Sequence of Construction
1. Obtain grading permit
  2. Construct stabilized construction entrance as shown on plan.
  3. Excavate temporary sediment traps to required dimensions as shown on plan. Construct silt fence. Use excavated material to construct earth dikes. Compact dikes and stabilize with temporary seeding mixture and straw mulch.
  4. Clear and grub remainder of site and grade to subgrade.
  5. Construct 15" BCCMP pipe under driveway w/ riser.
  6. Construct on-site utilities.
  7. Begin building construction.
  8. Sediment shall be removed from the sediment traps when the cleanout elevation has been reached.
  9. The contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon, after each rainfall and on a daily basis.
  10. The sediment traps shall be dewatered by pumping. The sediment from the traps shall be placed up-grade from the sediment trap in such a manner not to interfere with construction operations or cause erosion down grade from the sediment traps.
  11. Remove sediment from roadways and dress stone construction entrances as required.
  12. Remove stone construction entrances.
  13. Install gravel parking area and gravel driveway.
  14. Backfill temporary sediment trap #1 stabilize with permanent seeding mixture and straw mulch.
  15. CONVERT TEMPORARY SEDIMENT TRAP #2 TO SWM POND #2 REGRADE TO CONTOURS SHOWN ON PLAN AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH.
  16. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MIXTURE.

REVISIONS

NO.	DATE	REVISION
1	3/6/88	PER MCC, INC. REVISION/BUILDING PERMIT
2	3/15/88	PER MCC, INC. REVISION/SITE HEALTH DEPT

SITE ANALYSIS

1	TOTAL AREA	10.9589 Ac ±
2	TOTAL DISTURBED AREA	2.74 Ac ±
3	TOTAL IMPEVIOUS AREA	0.81 Ac ±
4	TOTAL AREA TO BE VEGETATIVELY STABILIZED	1.73 Ac ±

OWNER & DEVELOPER  
  
 COLUMBIA ASSOCIATION  
 9861 BROKENLAND PKWY.  
 SUITE 300  
 COLUMBIA, MARYLAND 21045  
 381-0020

ADDRESS CHART

LOT NO.	STREET ADDRESS
4	11190 WILLOW BOTTOM DRIVE

**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 10-26-88  
 LKS

**TEMPORARY STONE OUTLET SEDIMENT TRAP #1**

DRAINAGE AREA 1.27 AC ±  
 STORAGE REQUIRED 85.09 CY  
 STORAGE PROVIDED 85.33 CY  
 LENGTH OF OUTLET 3'  
 BOTTOM SIZE 20x30'  
 TRAP DEPTH 3'  
 SIDE SLOPE 2:1  
 BOTTOM ELEVATION 406.00  
 OUTLET CREST 410.00  
 CLEANOUT ELEVATION 407.50

**Dewberry & Davis**  
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS  
 5000 RIVERCREEK DRIVE  
 SUITE 100  
 CLARKSBURG, MARYLAND 21031  
 301-461-478  
 301-681-1000

Thomas L. Wiley, MD REG. NO. 49273  
 11-2-88

*Arthur Curtis*  
 11-3-88

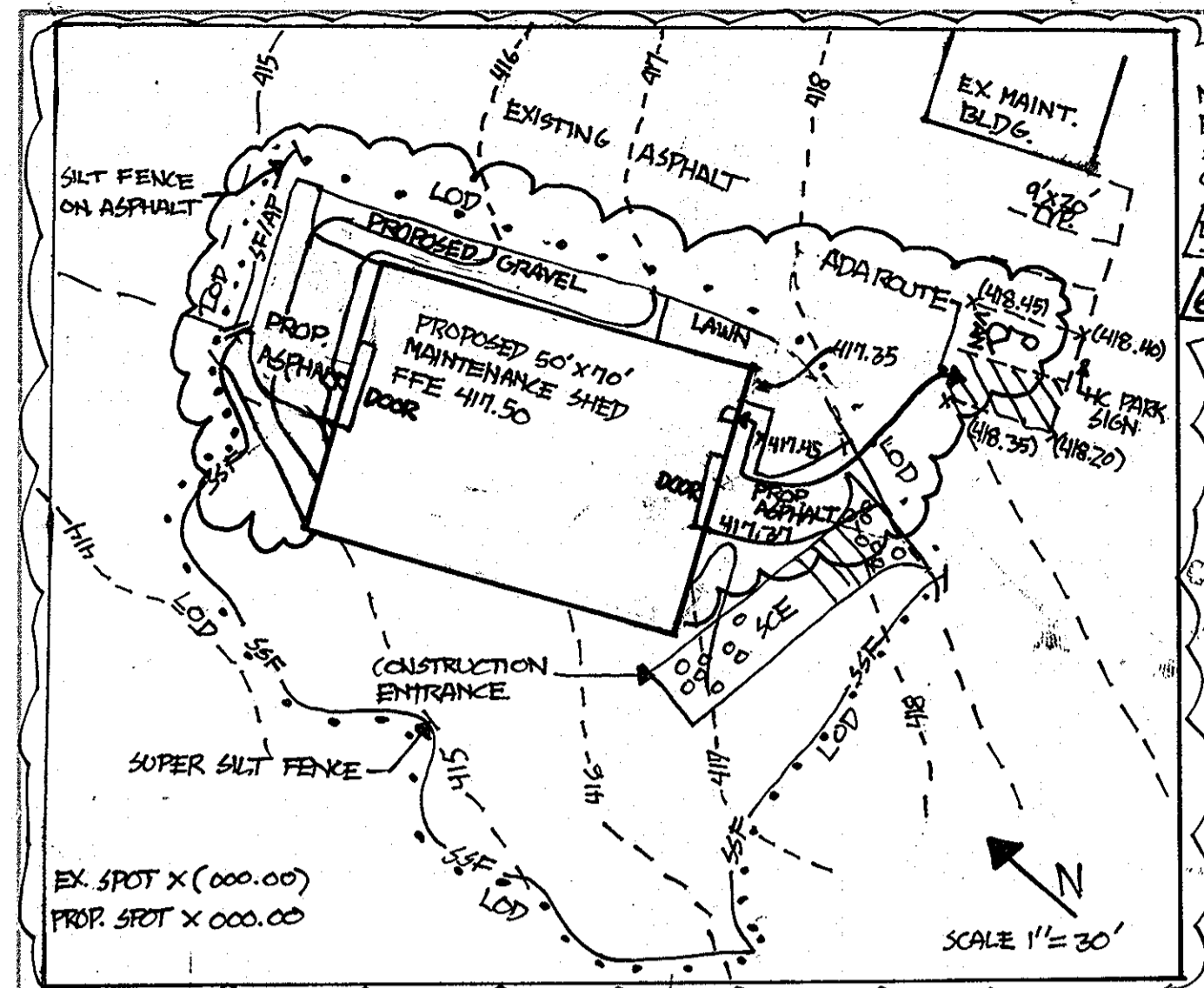
REVISIONS FOR HOWARD COUNTY SUBMITTAL  
 DATE 11-21-88  
 DATE 11-21-88  
 DATE 11-21-88  
 DATE 11-21-88

*James M. Hinkle*  
 11-21-88  
 DATE 11-21-88  
 DATE 11-21-88

*James J. Hinkle*  
 11-21-88  
 DATE 11-21-88  
 DATE 11-21-88

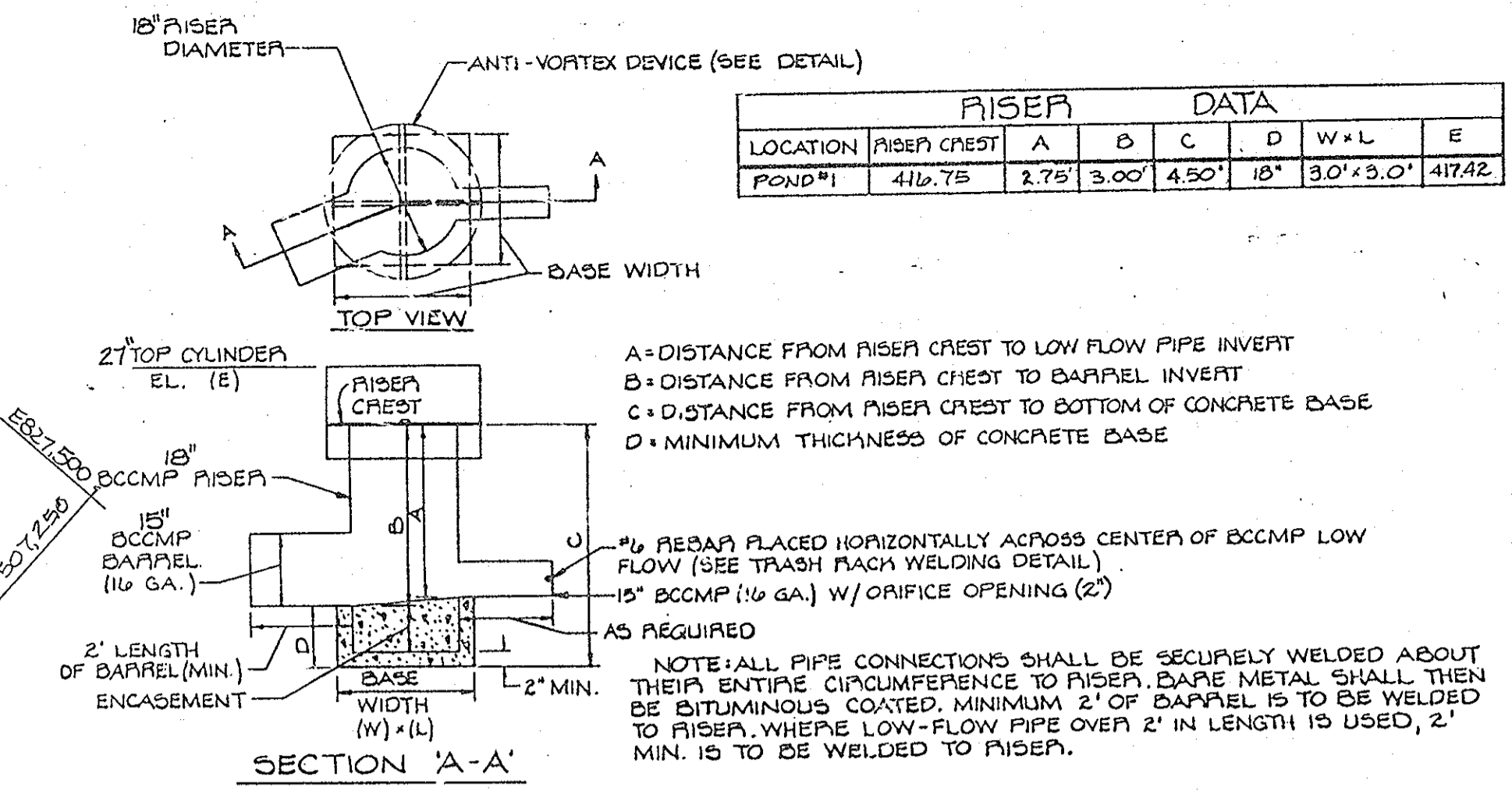
SUBDIVISION NAME	LOT NO.	PARCEL NUMBER
VILLAGE HARPER'S CHOICE	4	135
HOBBIT'S GLEN GOLF COURSE		
PLAT NO. BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR.		
4971 14 2-8 2-9 5TH 4033 01		
WATER CODE I-03 SEWER CODE U740000		

**SEDIMENT CONTROL PLAN**  
 COLUMBIA  
 OPEN SPACE LOT #4 PLAT #6971  
 VILLAGE OF HARPER'S CHOICE  
 HOBBIT'S GLEN GOLF COURSE  
 MAINTENANCE FACILITY  
 5th ELECTION DISTRICT HOWARD CO., MD  
 SCALE: 1"=30' APRIL 4, 1988  
 REVISED: JULY 25, 1988  
 SHEET 4 OF 6  
 S.D.P. - 88-184C

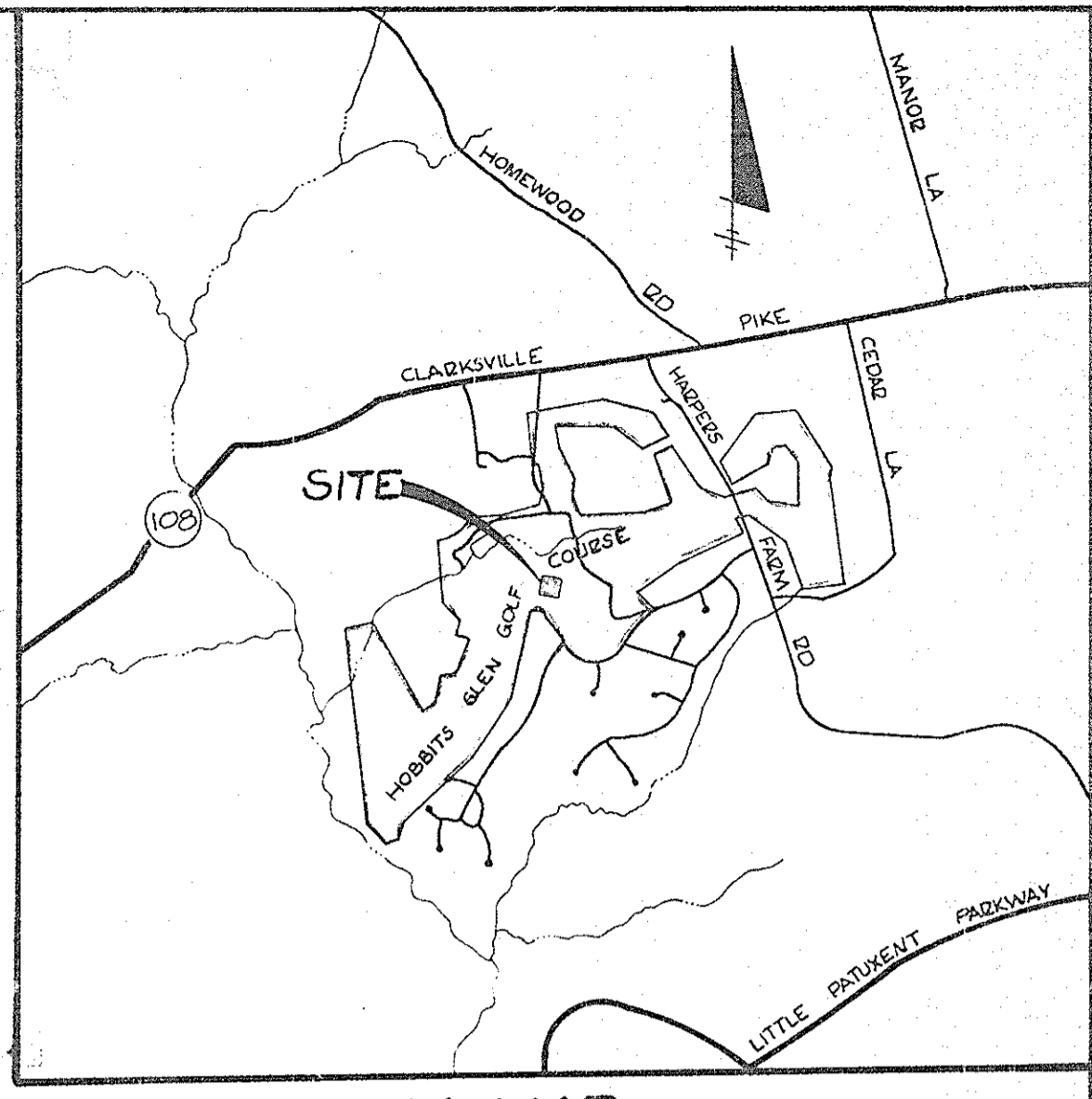


**TEMPORARY STONE OUTLET TRAP #2**

DRAINAGE AREA: 1.02 AC ±  
 STORAGE REQUIRED: 12.36 CY  
 STORAGE PROVIDED: 134 CY  
 LENGTH OF OUTLET: 8'  
 BOTTOM SIZE: 15"x15" (IRREGULAR)  
 TRAP DEPTH: 3'  
 SIDE SLOPE: 2:1  
 BOTTOM ELEVATION: 409.00  
 OUTLET CREST: 412.41  
 CLEANOUT ELEVATION: 410.50

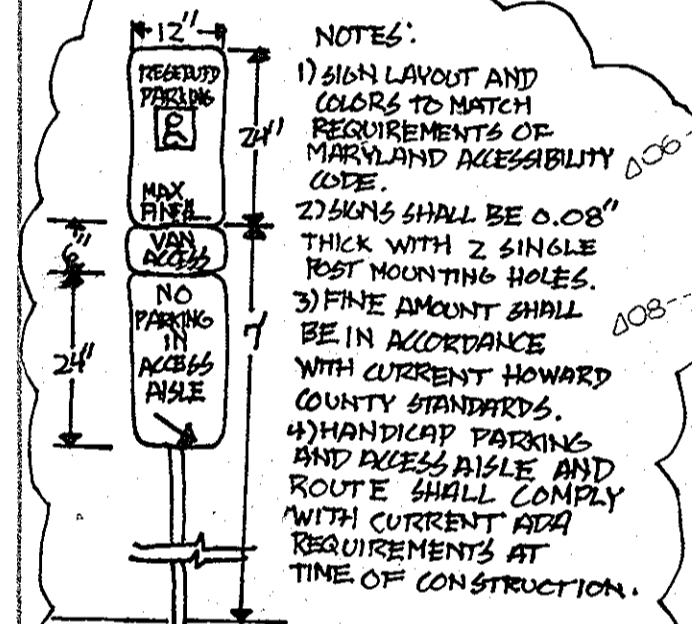


RISER DATA						
LOCATION	RISER CREST	A	B	C	D W+L	E
POND #1	416.75	2.75	3.00	4.50	15' 30" x 9.0'	417.42



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVIEWED FOR REVISION 5 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16144, EXPIRATION 08/19/14.

6-17-2013



**ACCESSIBLE PARKING SIGNS**

**PARKING NOTE:**  
 AS NOTED ON SHEET 1 OF THIS SET, 8 PARKING SPACES ARE REQUIRED, WHILE 14 HAVE BEEN PROVIDED, THE INCORPORATION OF 1 VAN ACCESSIBLE SPACE AND ACCESSIBLE RESULTS IN THE LOSS OF 1 SPACE. TOTAL PARKING IS NOW 12 STANDARD + 1HC = 13 PARKING SPACES.

**APPROVED PLANNING BOARD OF HOWARD COUNTY**

DATE: 10-26-88

LKS

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVIEWED FOR REVISION 6 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16144, EXPIRATION 08/19/14.

9-19-2013

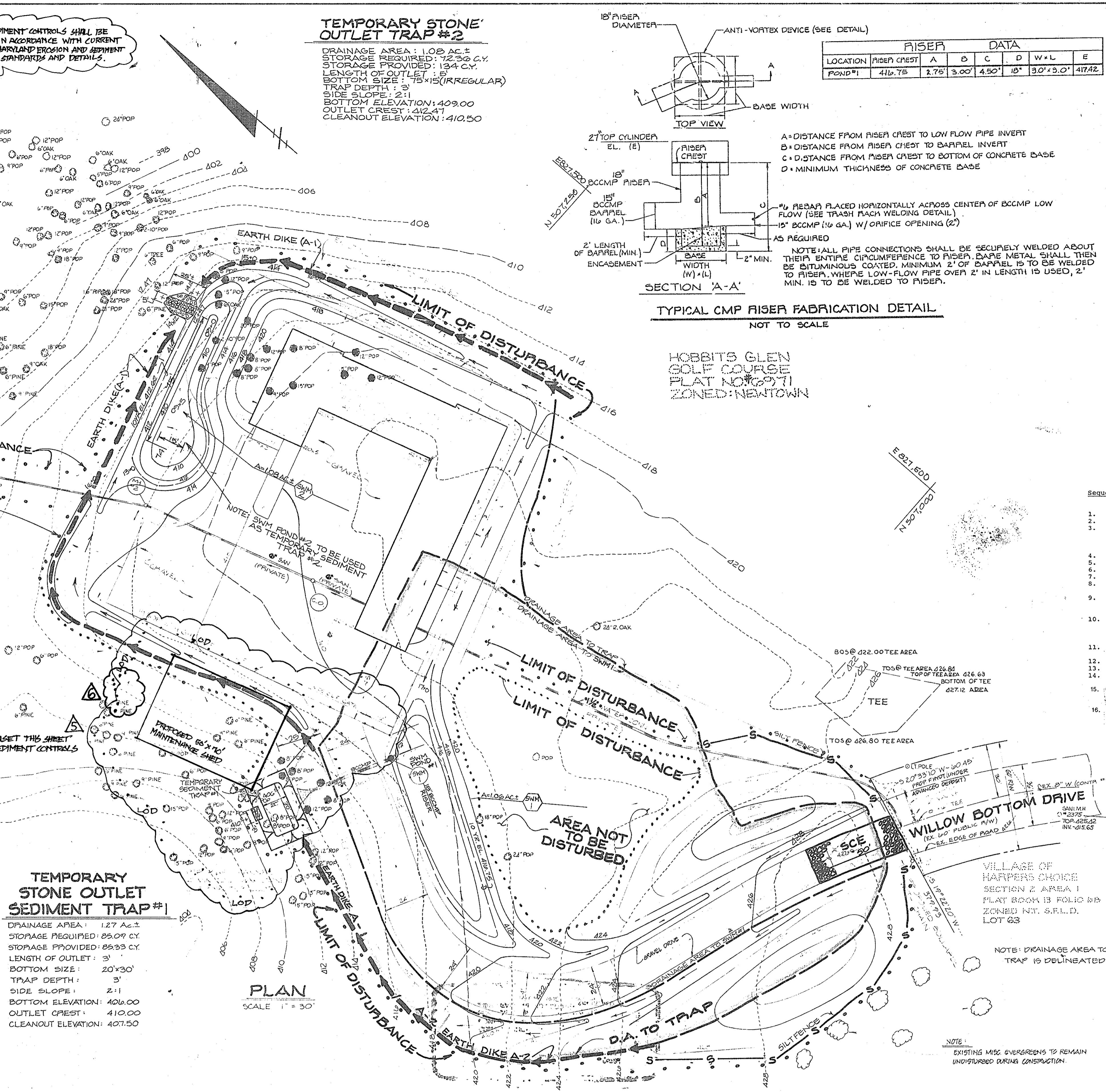
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ITEMS REVIEWED FOR REVISION 6 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16144, EXPIRATION 08/19/14.

6/8/13

**APPROVED PLANNING BOARD OF HOWARD COUNTY**

DATE: 10-26-88

LKS



- Sequence of Construction**
1. Obtain grading permit.
  2. Construct stabilized construction entrance as shown on plan.
  3. Excavate temporary sediment traps to required dimensions as shown on plan. Construct silt fence. Use excavated material to construct earth dikes. Compact dike and stabilize with temporary seeding mixture and straw mulch.
  4. Clear and grub remainder of site and grade to subgrade.
  5. Construct 15" BCCMP pipe under driveway, w/riser.
  6. Construct on-site utilities.
  7. Begin building construction.
  8. Sediment shall be removed from the sediment traps when the cleanout elevation has been reached.
  9. The contractor shall inspect and provide necessary maintenance on the sediment and erosion control structures shown hereon, after each rainfall and on a daily basis.
  10. The sediment traps shall be dewatered by pumping. The sediment from the traps shall be placed up-grade from the sediment traps in such a manner not to interfere with construction operations or cause erosion down grade from the sediment traps.
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  14. Backfill temporary sediment trap #1 stabilize with permanent seeding mixture and straw mulch.
  15. CONVERT TEMPORARY SEDIMENT TRAP #2 TO SWM POND #2 REGRADE TO CONTOURS SHOWN ON PLAN AND STABILIZE WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH.
  16. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MIXTURE.

REVISIONS	
NO.	DATE
1	3/6/89 PER MCC, INC. REVISION/BUILDING PERMIT
2	3/13/89 PER MCC, INC. REVISION/STATE HEALTH DEPT
5	6/11/13 PROPOSED MAINTENANCE SHED
6	8/28/13 MAINTENANCE SHED DOOR REVISION

**SITE ANALYSIS**

1. TOTAL AREA: 10.9589 AC ±
2. TOTAL DISTURBED AREA: 2.74 AC ±
3. TOTAL IMPEVIOUS AREA: 0.81 AC ±
4. TOTAL AREA TO BE VEGETATIVELY STABILIZED: 1.93 AC ±

**OWNER & DEVELOPER**

**COLUMBIA ASSOCIATION**

COLUMBIA ASSOCIATION  
 9861 BROKENLAND PKWY.  
 SUITE 300  
 COLUMBIA, MARYLAND 21045  
 381-0020

**Dewberry & Davis**  
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS

3300 N. Ridge Road  
 Suite 100  
 Elkton City, Maryland  
 21043

301-461-7478 (MD) (M) (F)  
 301-621-4970 (WASHINGTON)

**PROFESSIONAL ENGINEER**

THOMAS L. WILEY, MD REG. NO. 1273

11-2-88

**PROFESSIONAL ENGINEER**

11-3-88

**REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.**

11-21-88

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

12-13-88

**APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER AND SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.**

11-29-88

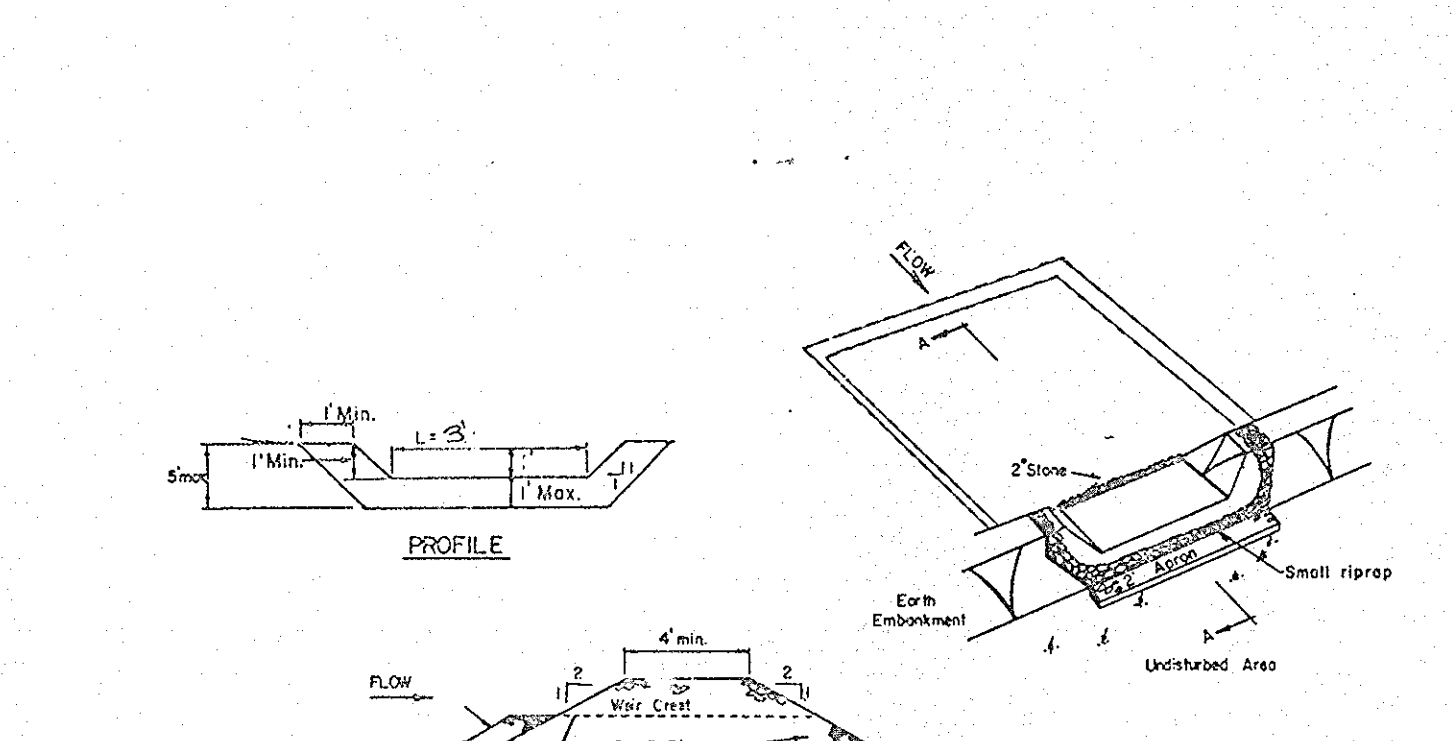
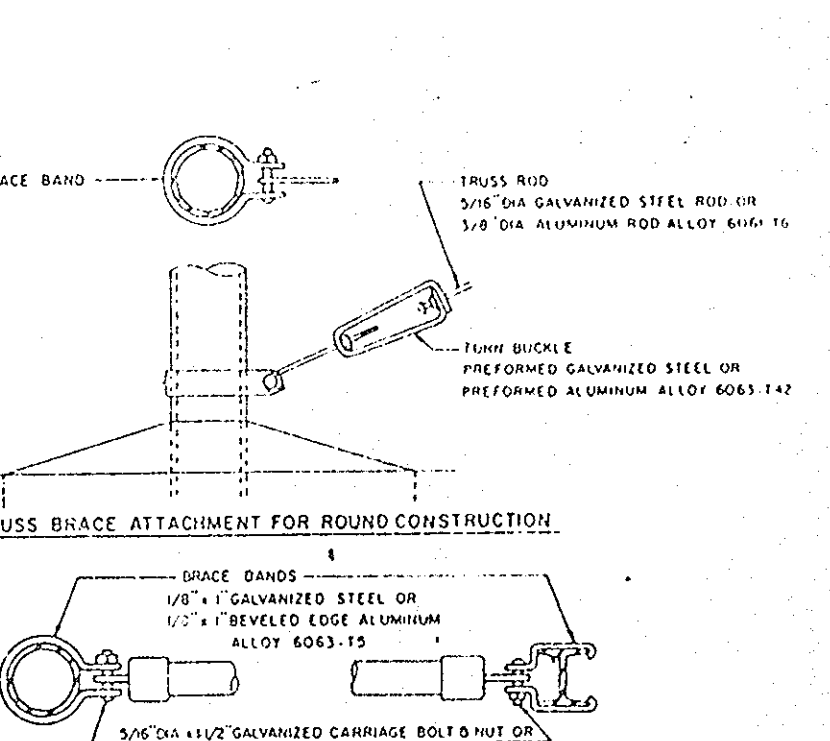
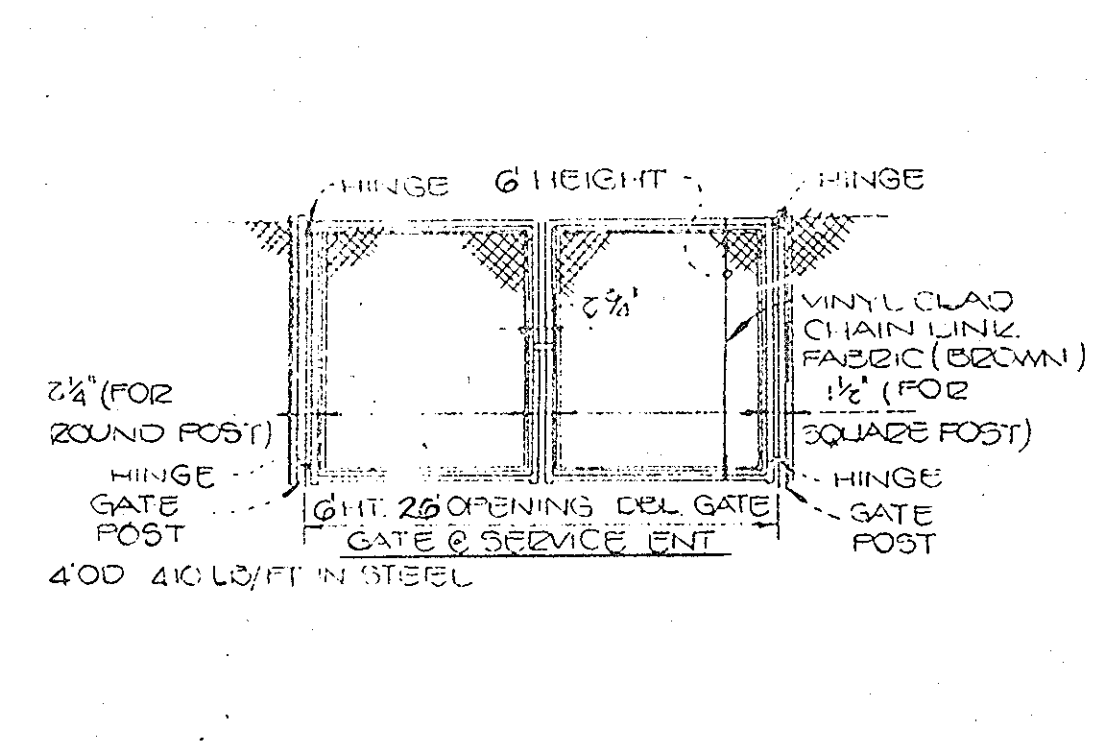
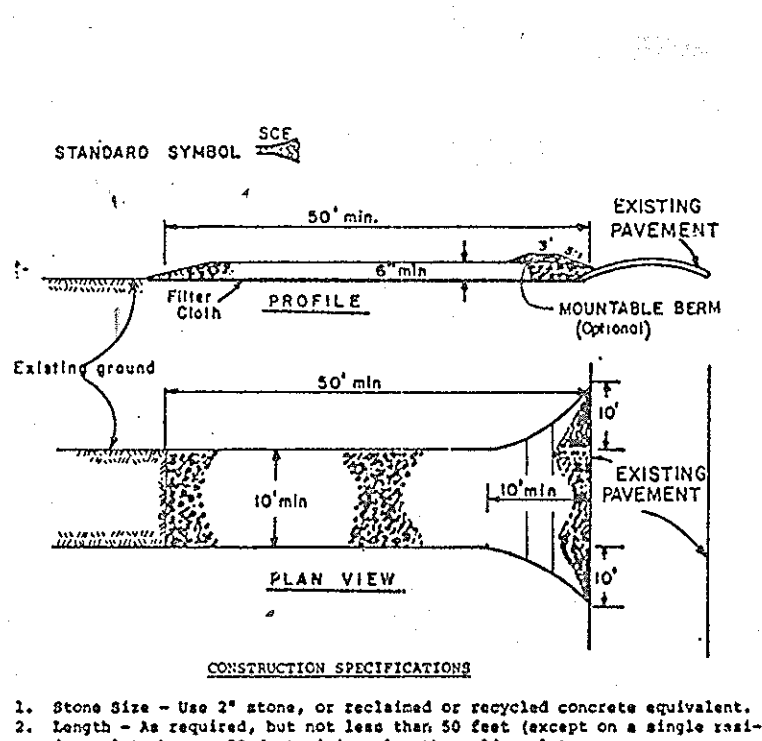
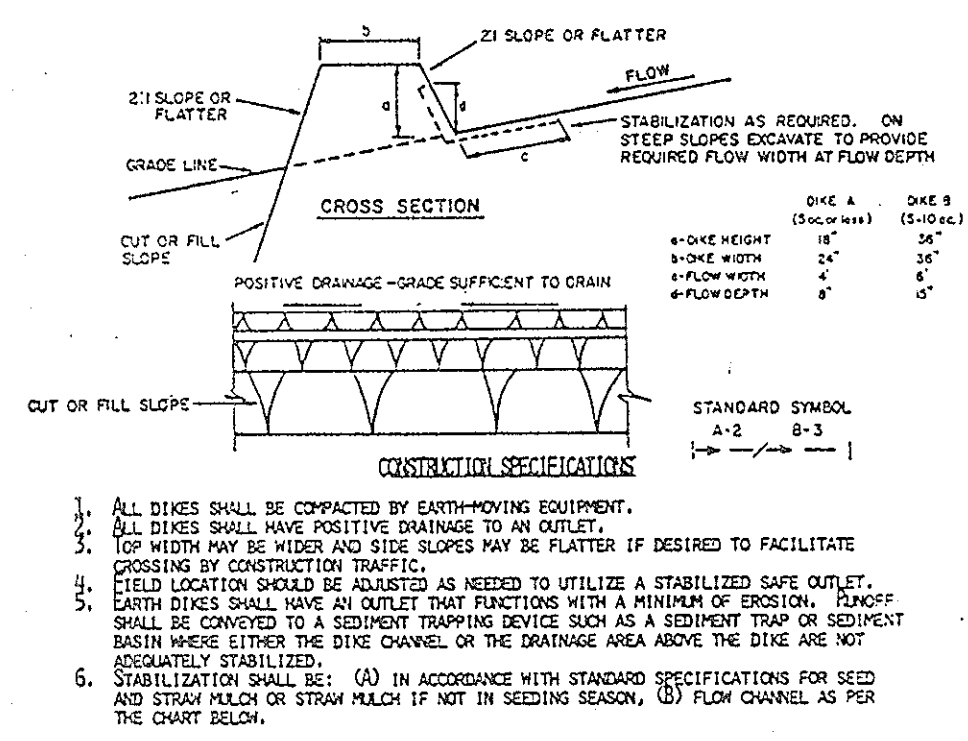
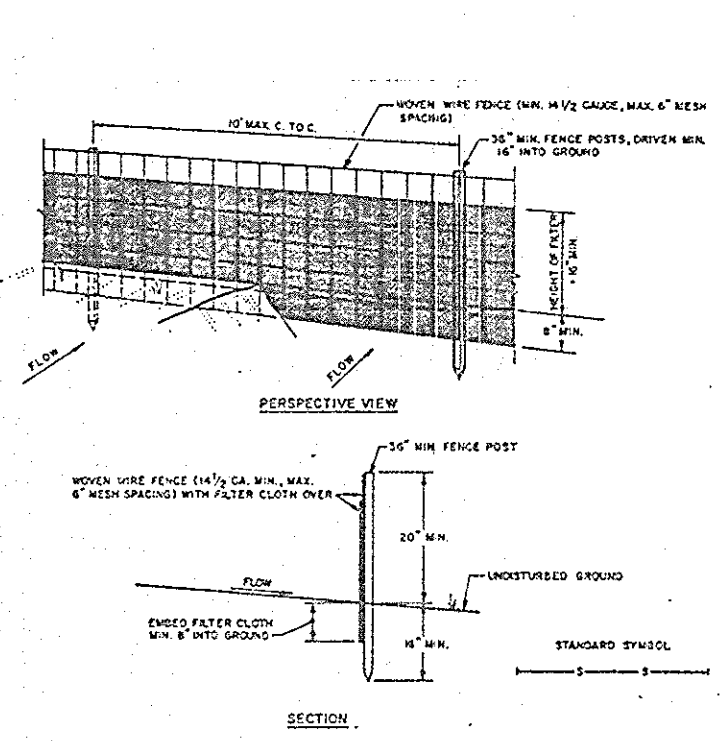
**APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PUBLIC WATER AND SEWERAGE SYSTEMS.**

12-1-88

**SEDIMENT CONTROL PLAN**

COLUMBIA ASSOCIATION  
 OPEN SPACE LOT # G971  
 VILLAGE OF HARPER'S CHOICE  
 HOBBIT'S GLEN GOLF COURSE  
 MAINTENANCE FACILITY  
 5th ELECTION DISTRICT HOWARD CO., MD  
 SCALE: 1"=30' APRIL 4, 1988  
 REVISED: JULY 25, 1988  
 SHEET 4 OF 6

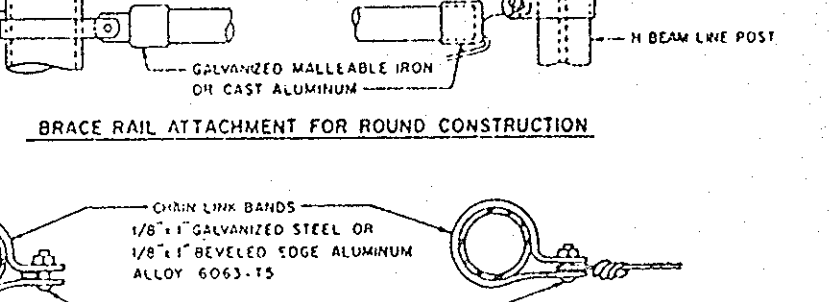
S.D.P. - 88-184C



- CONSTRUCTION NOTES FOR EMBANKMENT SILT FENCE**
1. REMOVE WEEDS FROM THE FACING REGULARLY TO PREVENT ROOTS FROM PENETRATING THE SILT FENCE.
  2. FILTER CLOTH SHALL BE FASTENED TO THE TOP OF THE SILT FENCE AT 10' INTERVALS.
  3. THE TOP OF THE SILT FENCE SHALL BE OVERLAPPED BY THE INCHES AND APPROVED MATERIAL SHALL BE PLACED OVER THE JOINTS.
  4. MAINTENANCE SHALL BE PROVIDED AS NECESSARY TO KEEP THE SILT FENCE OPERATIONAL.

TYPE OF TREATMENT	CHANNEL SIZE	DIKE A	DIKE B
1	5-5.00	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.00	SEED AND STRAW MULCH	SEED AND STRAW MULCH
3	5.1-9.00	SEED WITH MULCH, OR SOIL	LINED RIP-RAP 4-8"
4	8.1-20.00	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

- CONSTRUCTION SPECIFICATIONS**
1. Stone size - Use 2" stone, or crushed or recycled concrete equivalent.
  2. Length - As required, but not less than 50 feet (except on a single easement easement less than a 30 foot minimum length would apply).
  3. Thickness - Not less than six (6) inches.
  4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress of water occurs.
  5. Filter cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single easement easement.
  6. Surface water - All surface water flowing or diverted toward construction entrance shall be piped across the entrance. If piping is impractical, a portable berm with 3/4" slope will be permitted.
  7. Maintenance - The entrance shall be maintained in a condition which will prevent flooding or erosion of adjacent public easement-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleaning of any measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public right-of-way must be removed immediately.
  8. Marking - Markers shall be cleaned to remove sediment prior to entrance onto public right-of-way. When marking is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  9. Periodic inspection and needed maintenance shall be provided after each rain.



- OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.**
1. 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 and 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.
  3. All cut and fill slopes shall be 2:1 or flatter.
  4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the riprap.
  5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap.
  6. The structure shall be inspected after each rain and repairs made as needed.
  7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
  8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

**SILT FENCE**  
NOT TO SCALE

**EARTH DIKE**  
NOT TO SCALE

**STABILIZED CONCRETE ENTRANCE**  
NOT TO SCALE

**BRACE ATTACHMENT FOR ROUND CONSTRUCTION**

**STONE OUTLET SEDIMENT TRAP**  
NOT TO SCALE

**SEEDING NOTES:**

APPLY TO GRADED OR CLEARED AREA 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 SCHEDULE.

1. PREFERRED - APPLY 2 TONS PER ACRE CALCULATED LIMESTONE (90 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 TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 NITROGEN FERTILIZER (8 LBS/1000 SQ. FT.).
2. ACCEPTABLE - APPLY 2 TONS PER ACRE CALCULATED LIMESTONE (90 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (20 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL.

**SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ. FT.) OF WHEAT 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 SOIL. OPTION (3) SEED WITH 60 LBS PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELLS ANCHORED STRAW MULCH. APPLY 1/2 TO 2 TONS PER ACRE (70 TO 140 LBS/1000 SQ. FT.) OF UNWORN SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF CRUSHER ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 340 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 UNDER A SHORT-TERM 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:** APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).

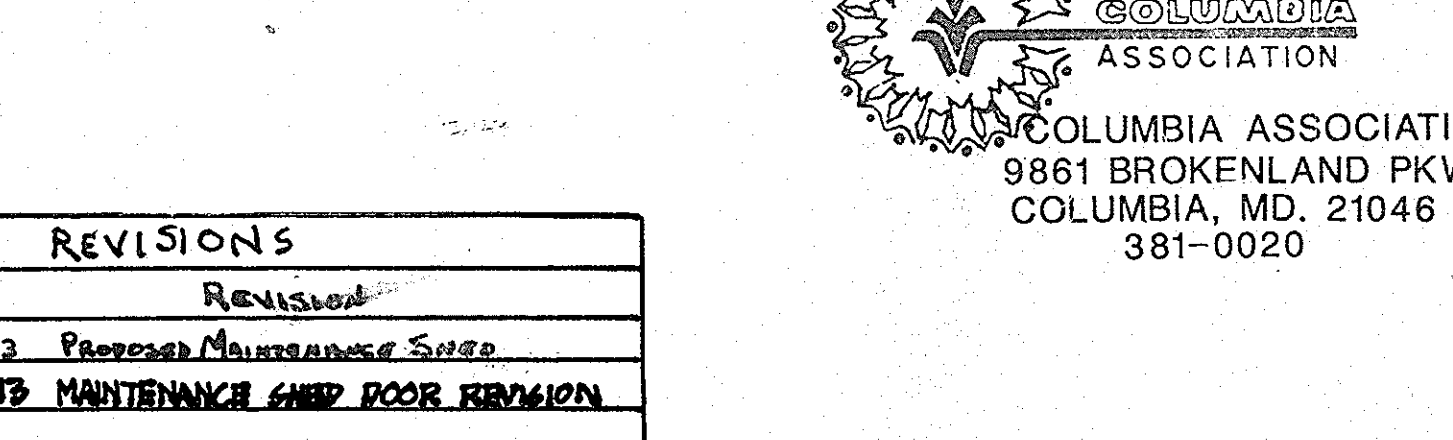
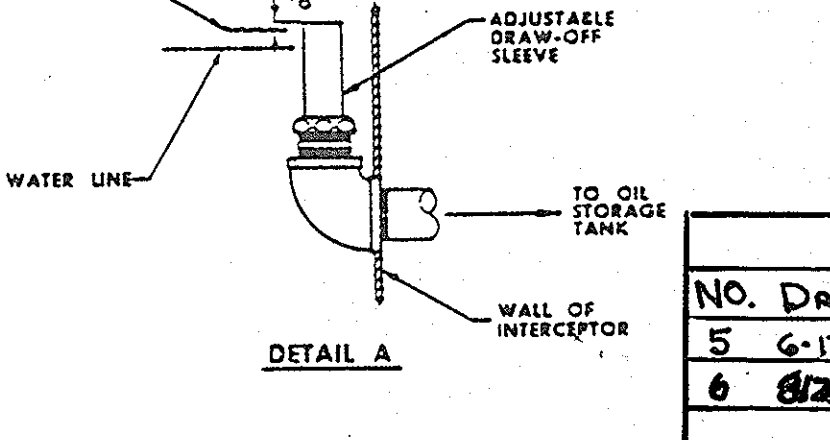
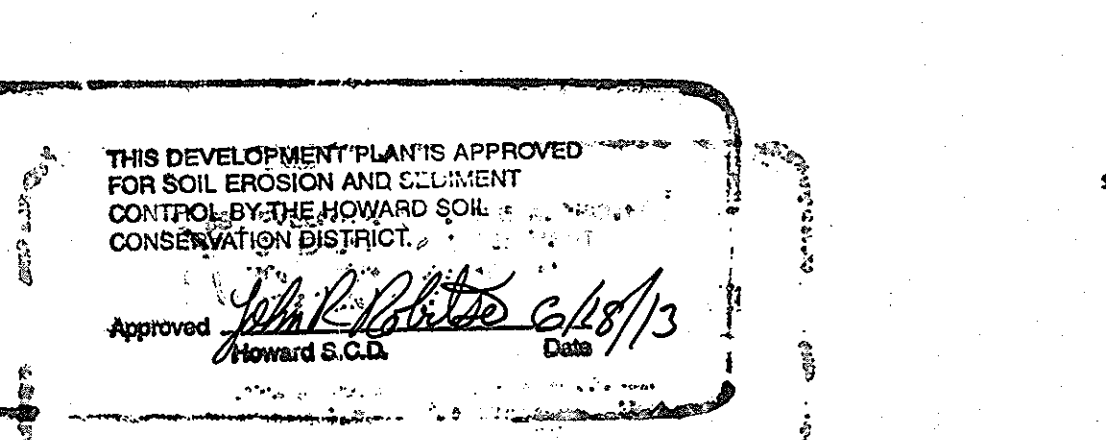
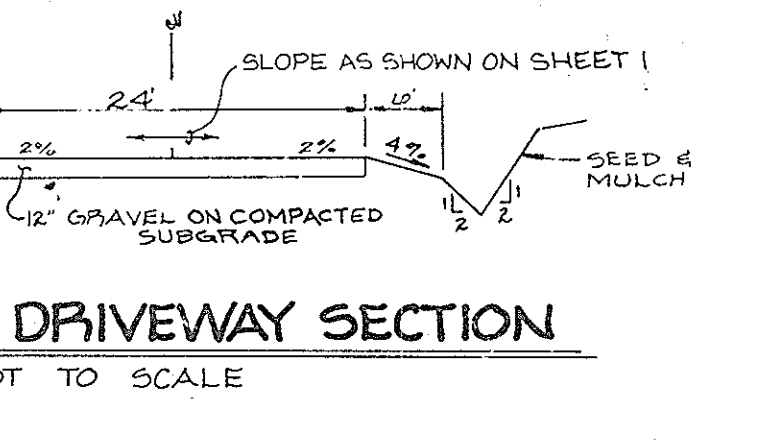
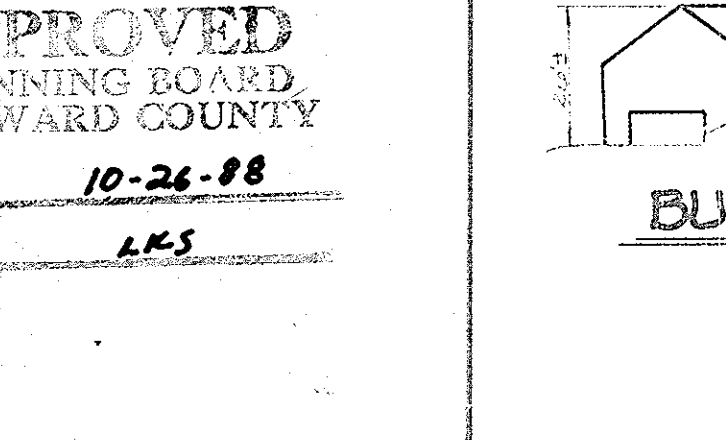
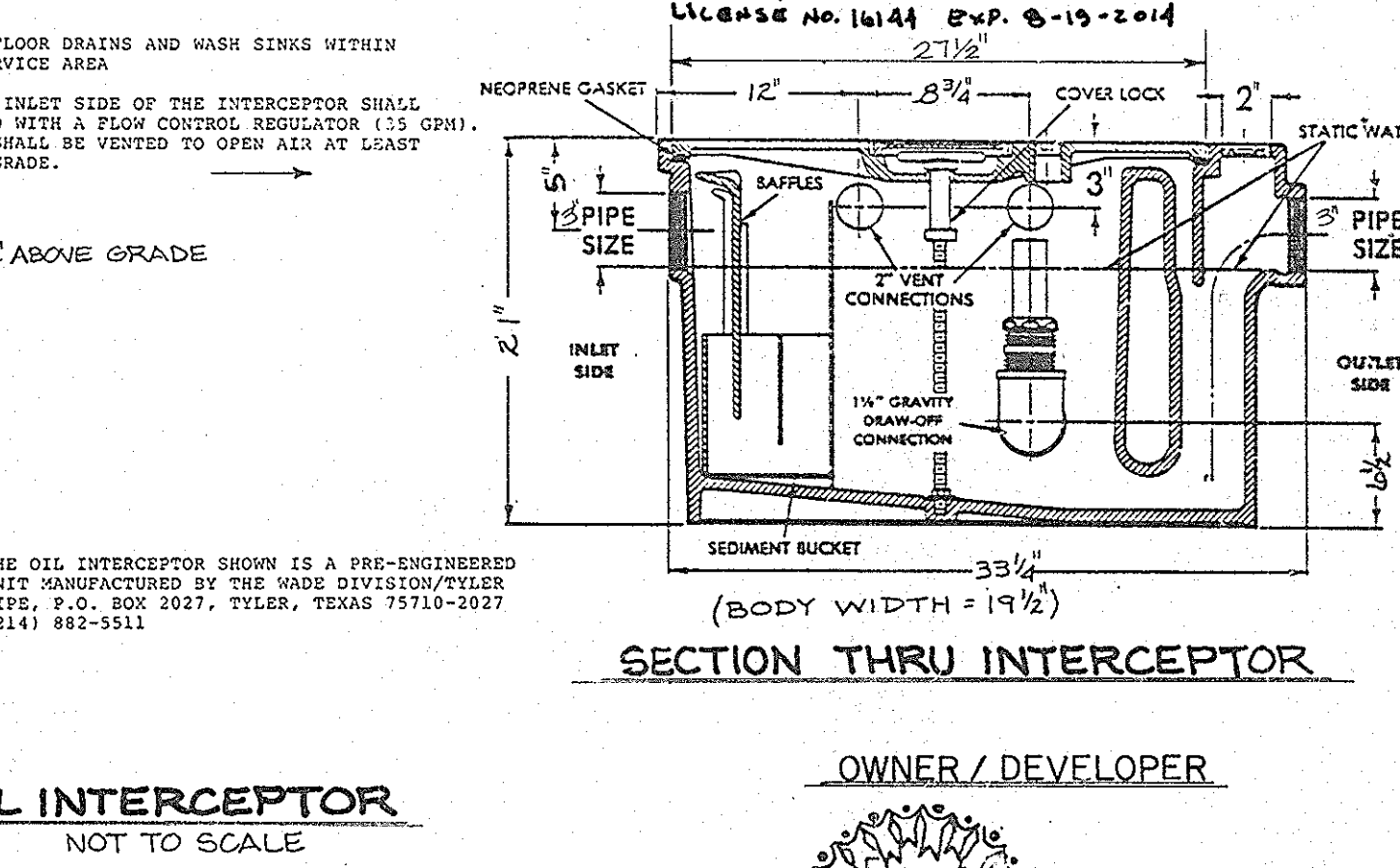
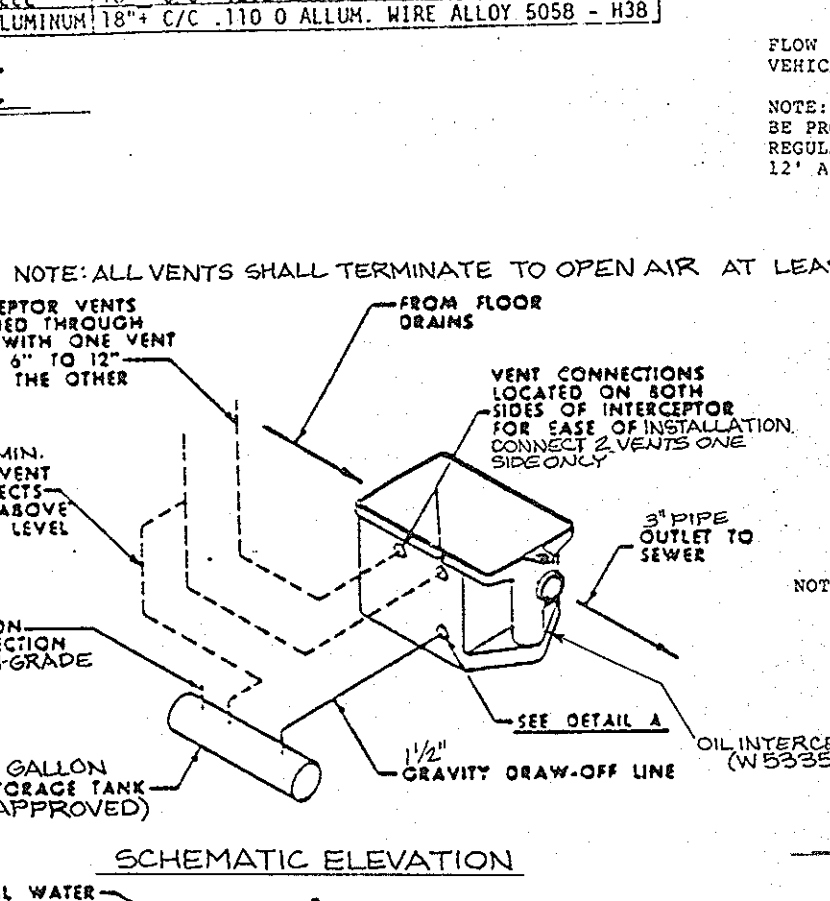
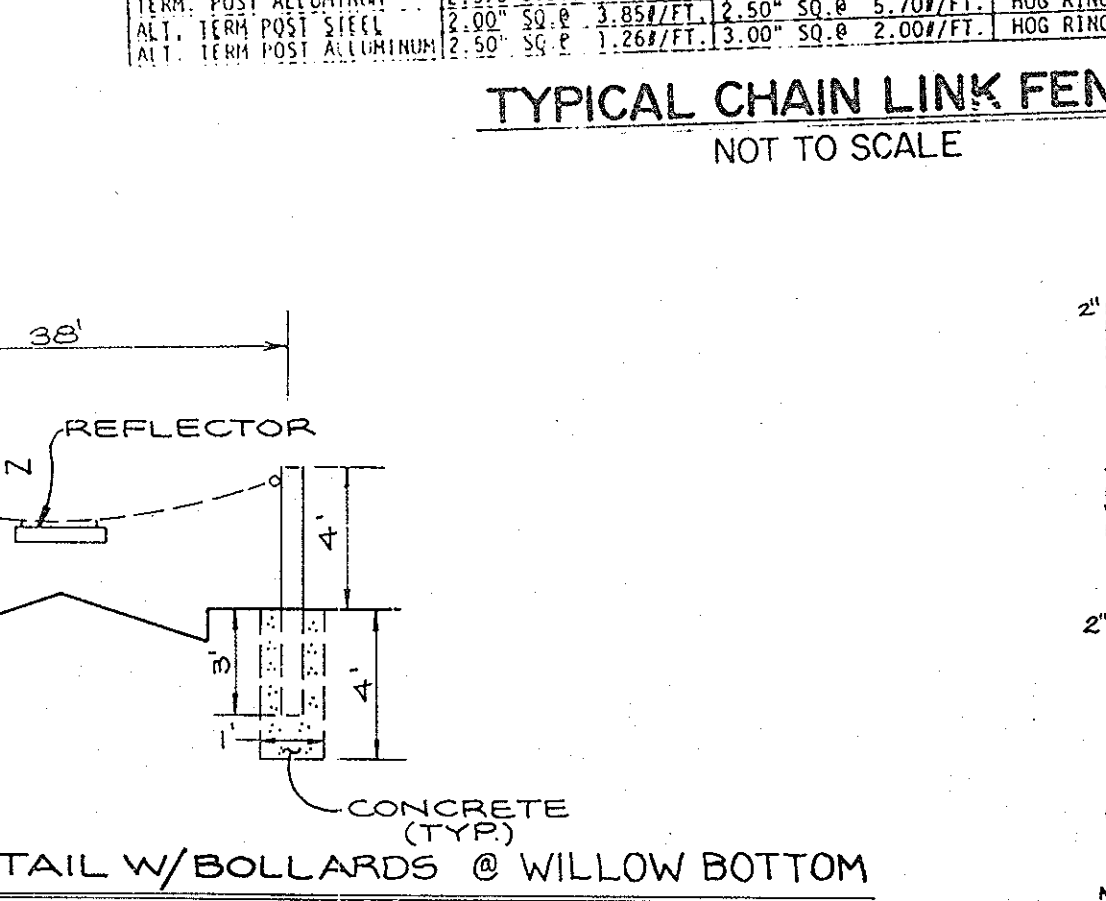
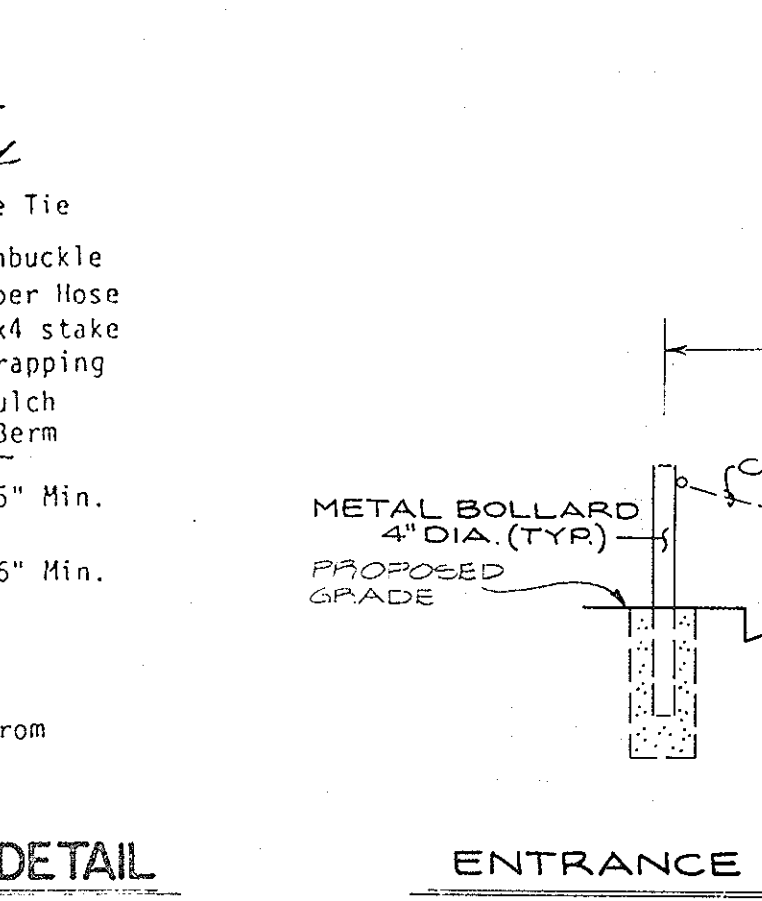
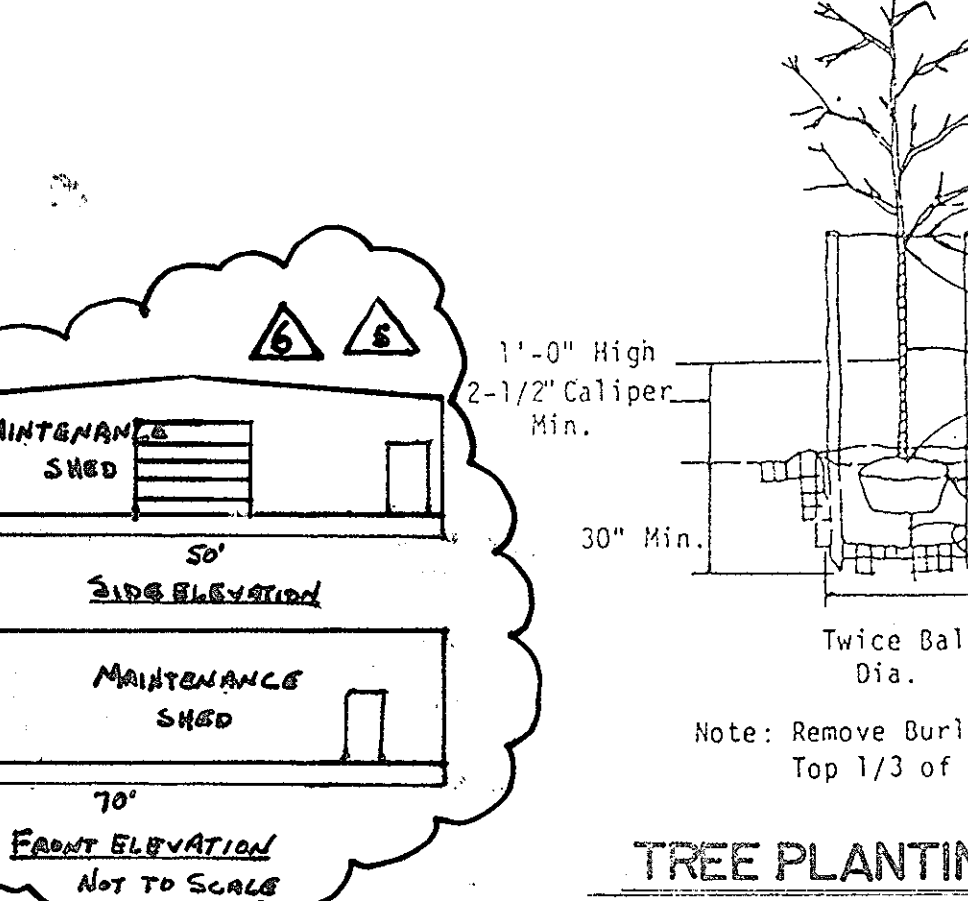
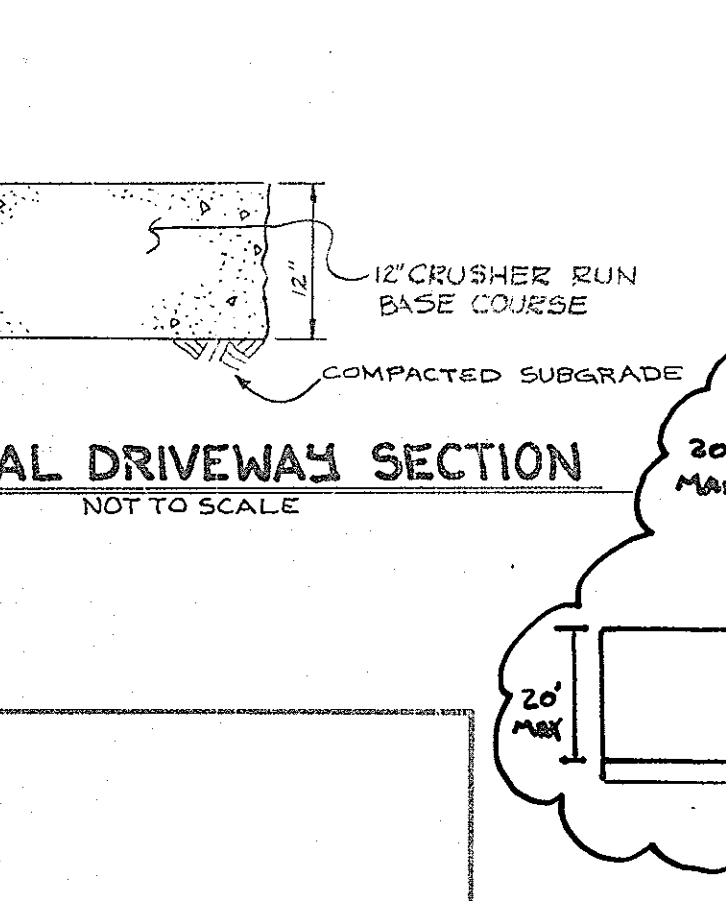
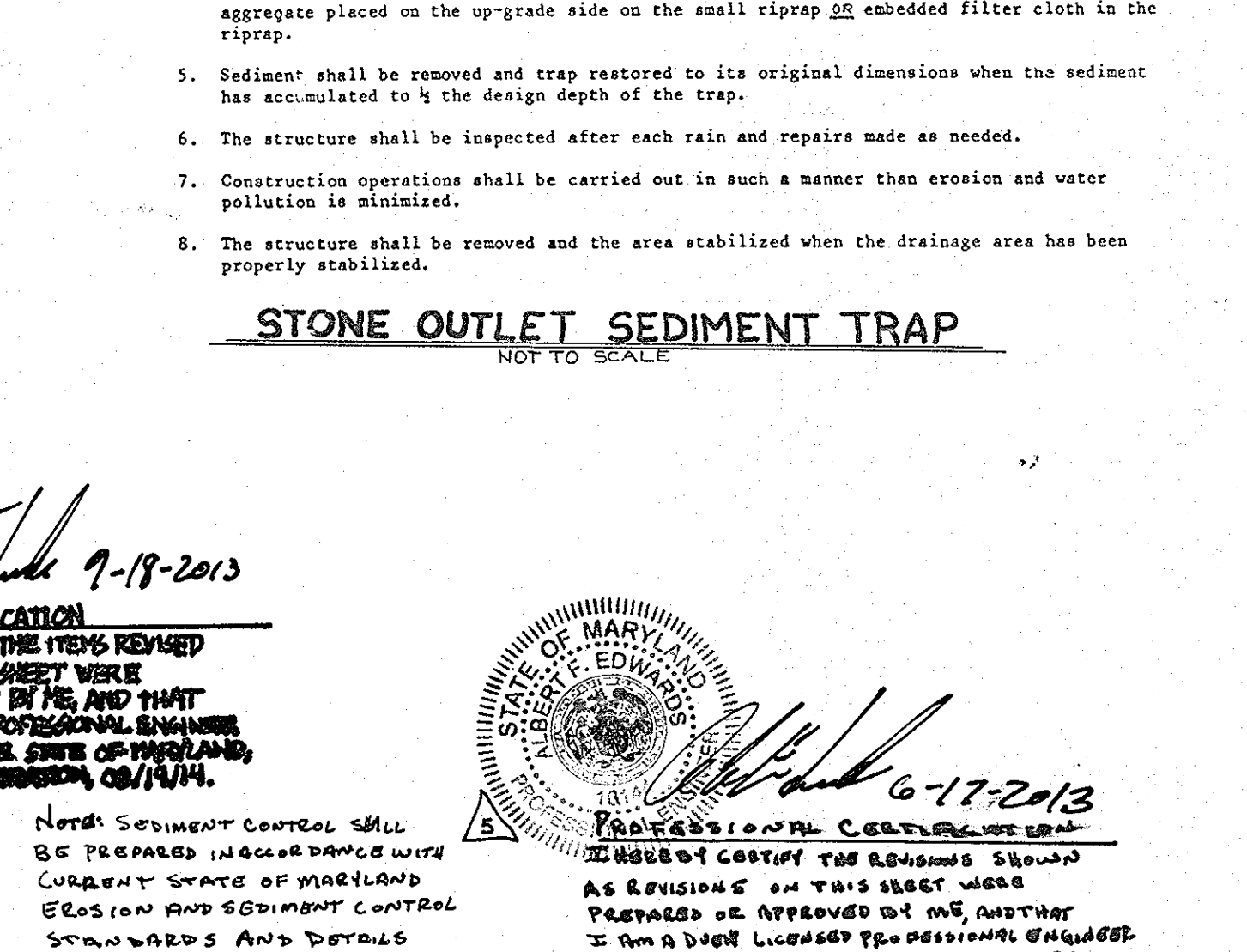
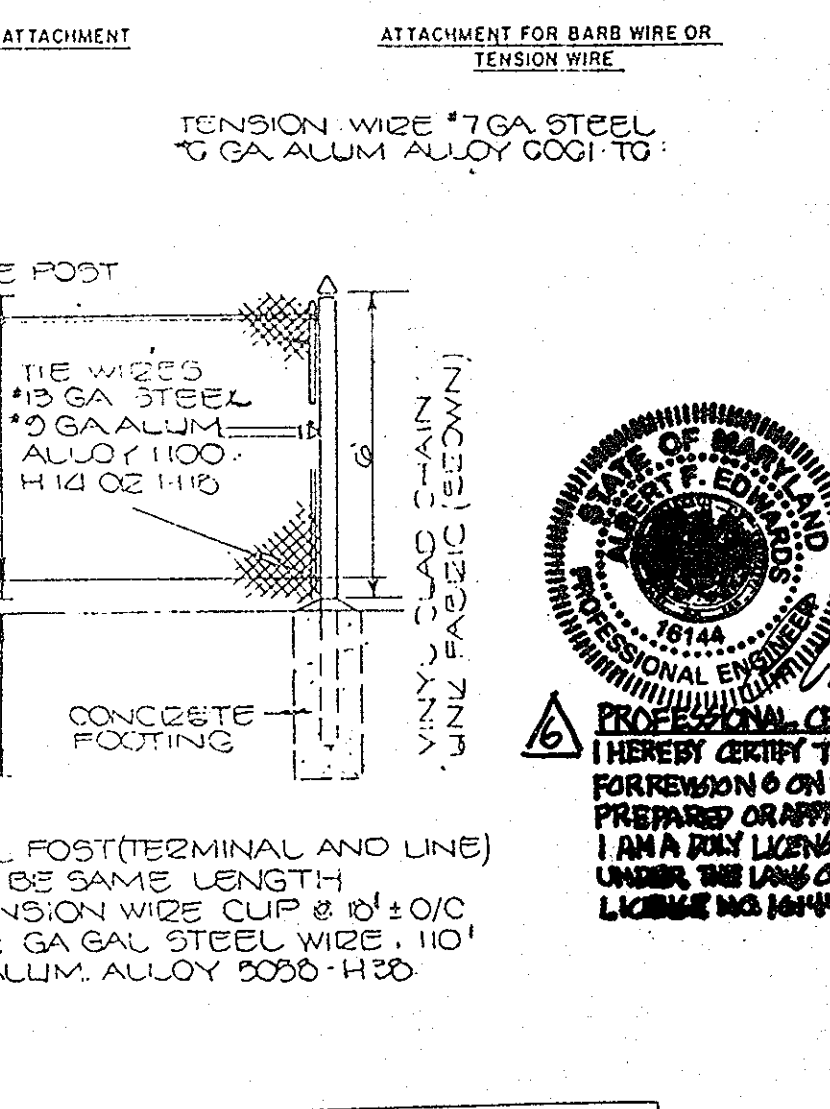
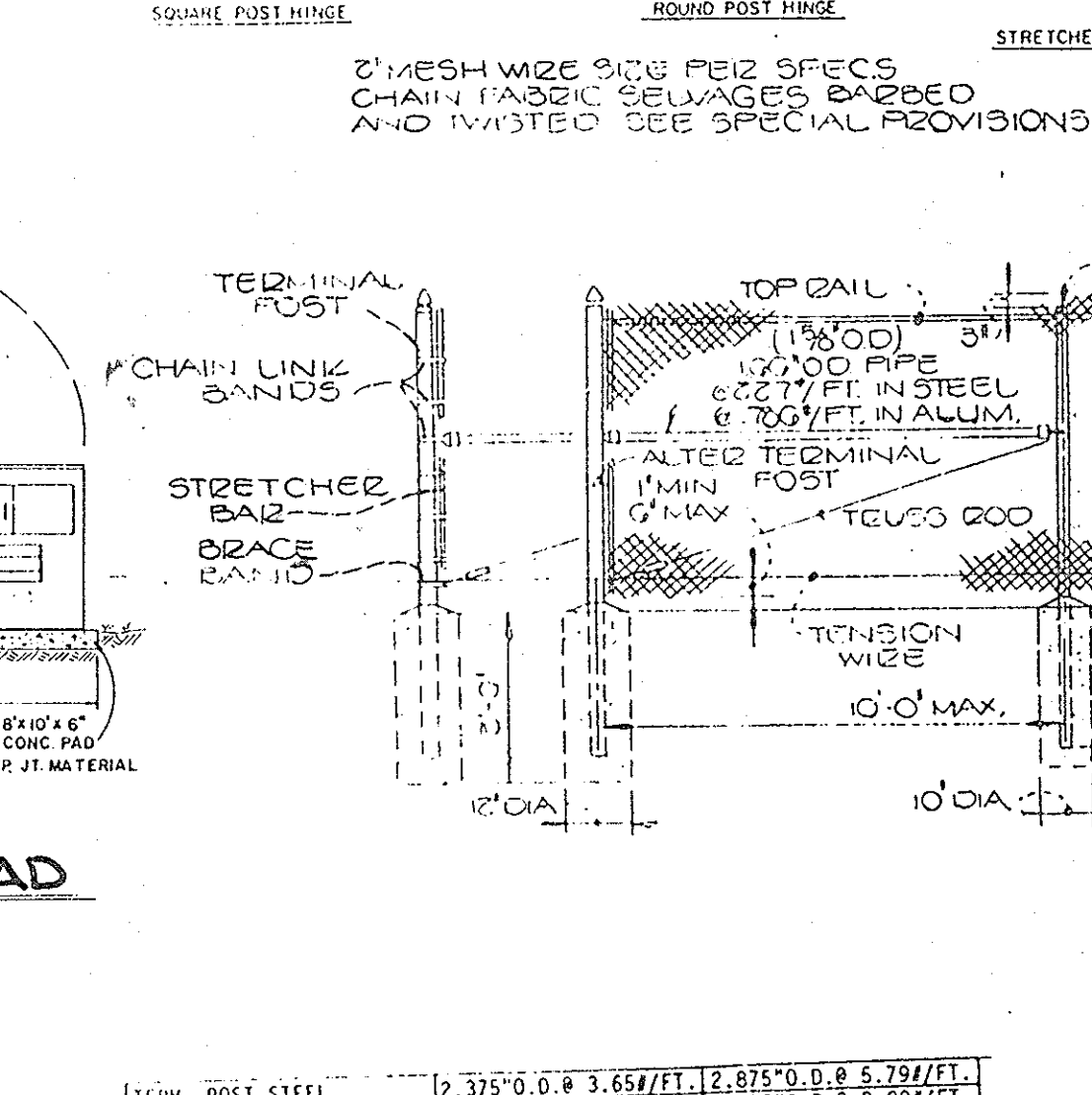
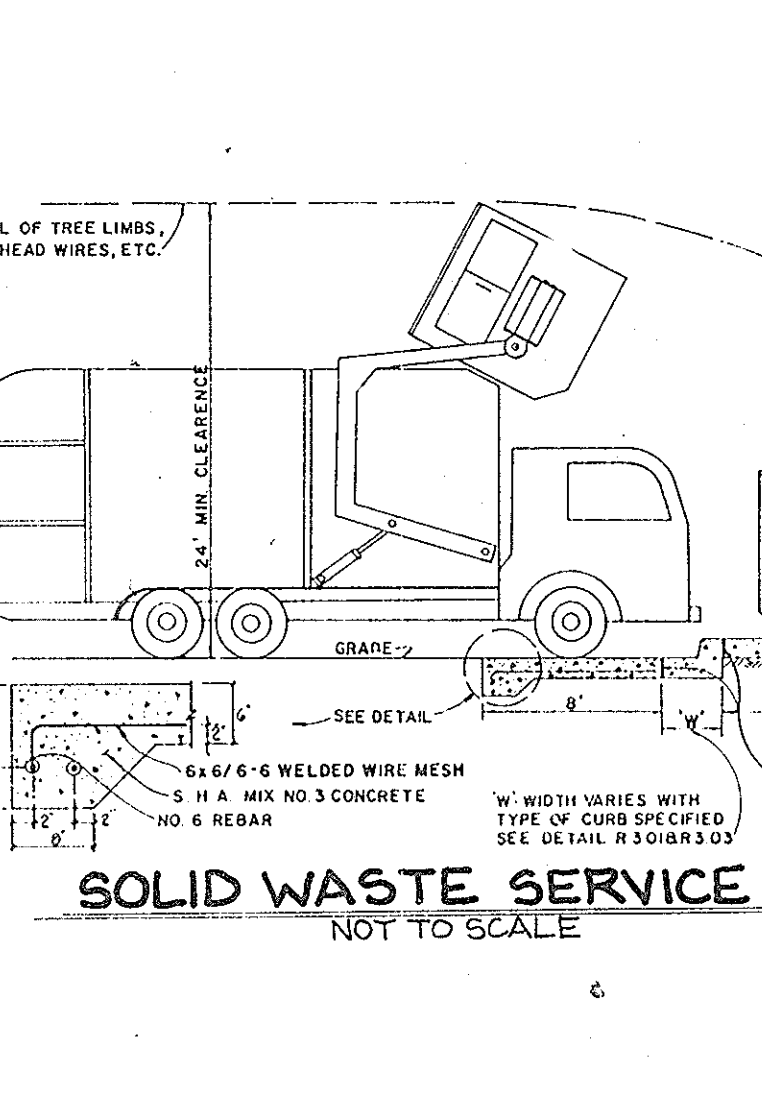
**SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 50 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ. FT.) OF WHEAT LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELLS ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOIL. OPTION (3) SEED WITH 60 LBS PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELLS ANCHORED STRAW MULCH. APPLY 1/2 TO 2 TONS PER ACRE (70 TO 140 LBS/1000 SQ. FT.) OF UNWORN SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF CRUSHER ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 340 GAL PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

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

**SEDIMENT CONTROL NOTES:**

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.
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 HANDBOOK STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHALL BE PERMANENT AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN HANDBOOK, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 HANDBOOK STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING (SEC. 51) AND (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DOES NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:
 

TOTAL AREA OF SITE	2.74 ACRES
AREA TO BE REEDED OR PAVED	0.01 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.01 ACRES
TOTAL CUT	2142 CU. YDS.
TOTAL FILL	0.00 CU. YDS.
8. ALL OFFSITE WASTE/BARROR AREA LOCATION AND ALL SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.



**Dewberry & Davis**  
ARCHITECTS ENGINEERS PLANNERS SURVEYORS

3300 N. Ridge Road  
Suite 100  
Ellicott City, Maryland  
21043

(301) 461-7478 BALTIMORE  
(301) 621-4970 WASHINGTON

**ENGINEER'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND NEARLY PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS.

THOMAS L. WILEY, MD REG. NO. 9273  
DATE: 11-2-88

**DEVELOPER'S CERTIFICATE**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

DATE: 11-3-88

**REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.**

DATE: 11-21-88

**APPROVED: OFFICE OF PLANNING AND ZONING.**

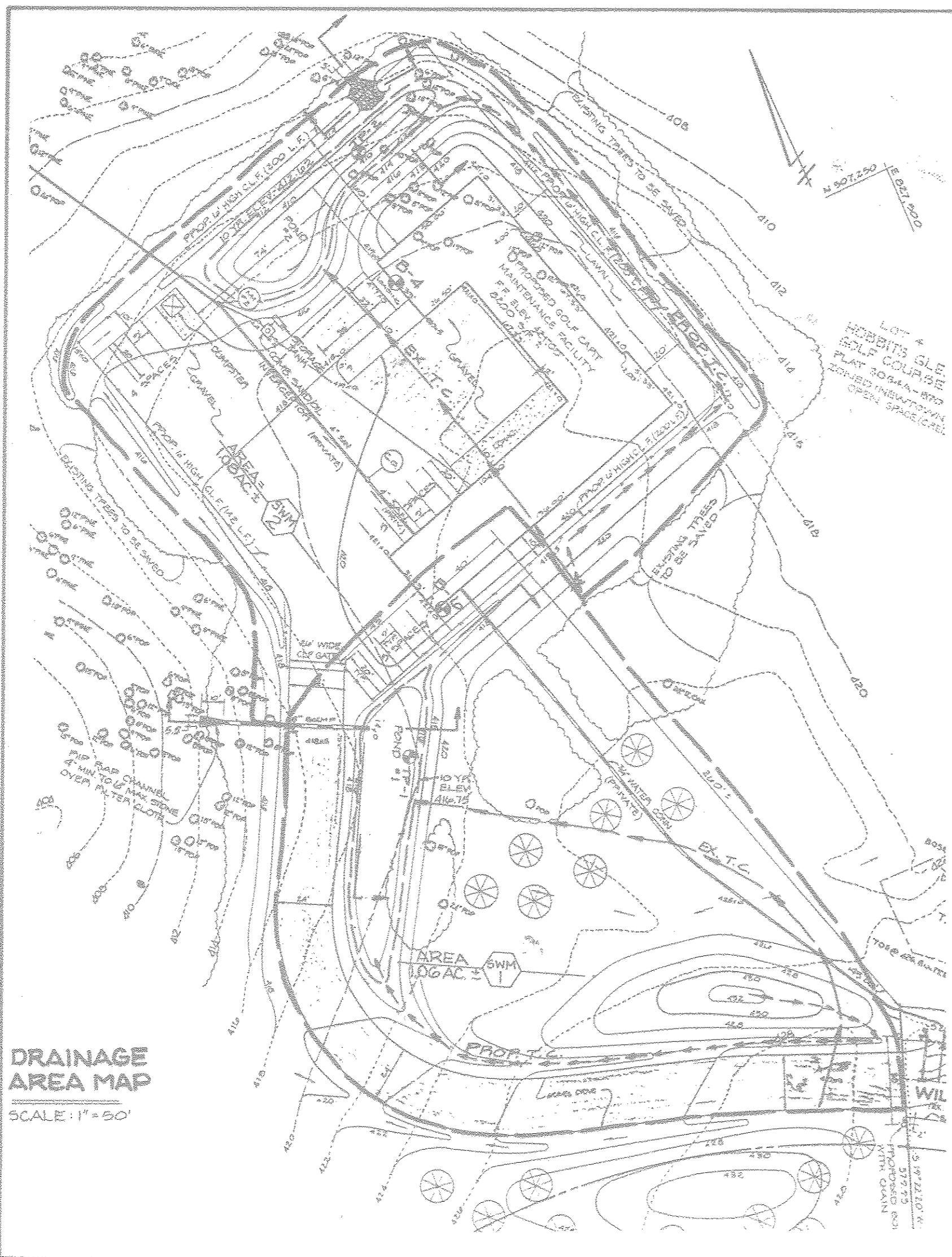
DATE: 12-13-88

**APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER AND SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.**

DATE: 11-29-88

**NOTES AND DETAILS**

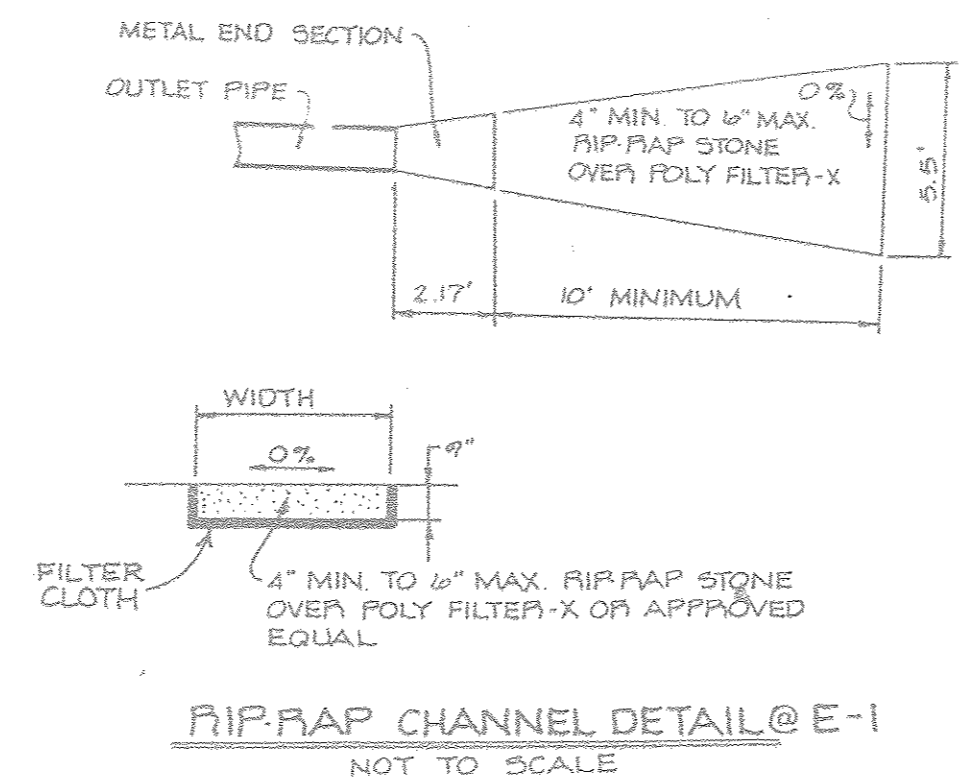
COLUMBIA ASSOCIATION  
OPEN SPACE LOT 4 PLAT #6971  
VILLAGE OF HARPER'S CHOICE  
HOBBIT'S GLEN GOLF COURSE  
MAINTENANCE FACILITY  
5<sup>TH</sup> ELECTION DISTRICT HOWARD CO., MD  
SCALE: AS SHOWN APRIL 1988  
REVISED JULY 25, 1988  
SHEET 5 OF 6  
S.D.P. - 88-184C



DRAINAGE AREA MAP  
SCALE: 1" = 50'

**RIPRAP CHANNEL  
CONSTRUCTION SPECIFICATIONS**

- The subgrade for the filter, riprap 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 riprap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stones for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stones for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



**CONSTRUCTION SPECIFICATIONS FOR PERMANENT STORMWATER MANAGEMENT INFILTRATION BASIN**

The construction of all infiltration basins shall comply with the criteria set forth in the Maryland SCS Standards and Specifications 178-Ponds dated July, 1981, or subsequent revisions and the additional criteria provided below.

**Schedule**

The sequence of various phases of basin construction shall be coordinated with the overall project construction schedule. A program shall schedule rough excavation of the basin with the rough grading phase of the project to permit use of the material as fill in earthwork areas. The partially excavated basin could serve as a sedimentation basin in order to assist in erosion and sediment control during construction. However, basins near final stages of excavation should never be used prematurely for runoff disposal. Drainage from untreated, freshly constructed slopes within the watershed area would load the newly formed basin with a heavy concentration of sediment. This could seriously impact the natural infiltration characteristics of the basin floor. Final grade of an infiltration basin shall not be attained until after its use as a sediment control basin is completed.

Specifications for basin construction should state: (1) the earliest point in progress when storm drainage may be directed to the basin, and (2) the means by which this delay in use is to be accomplished. Due to the variety of conditions encountered among projects, each should be separately evaluated in order to postpone use as long as is reasonably possible.

**Excavation**

Initial basin excavation should be carried to within 1 foot of the final elevation of the basin floor. Final excavation to the finished grade should be deferred until all disturbed areas on the watershed have been stabilized or protected. The final phase excavation should remove all accumulated sediment. Relatively light tracked equipment is recommended for this operation to avoid compaction of the basin floor. After the final grading is completed, the basin floor should be deeply tilled by means of rotary tillers or disc harrows to provide a well-aerated, highly porous surface texture.

**Lining Material**

Infiltration basins may be lined with a 6- to 12-inch layer of filter material such as coarse sand to help prevent the buildup of impervious deposits on the soil surface. The filter layer can be replaced or cleaned when it becomes clogged. When a drain layer of coarse organic material is specified for duffing (such as hulls, leaves, stems, etc.) or spading into the basin floor to increase the permeability of the soil, the basin floor should be exposed or inundated for a brief period, then allowed to dry subsequent to this operation. This induces the organic material to decay rapidly, loosening the soil layer.

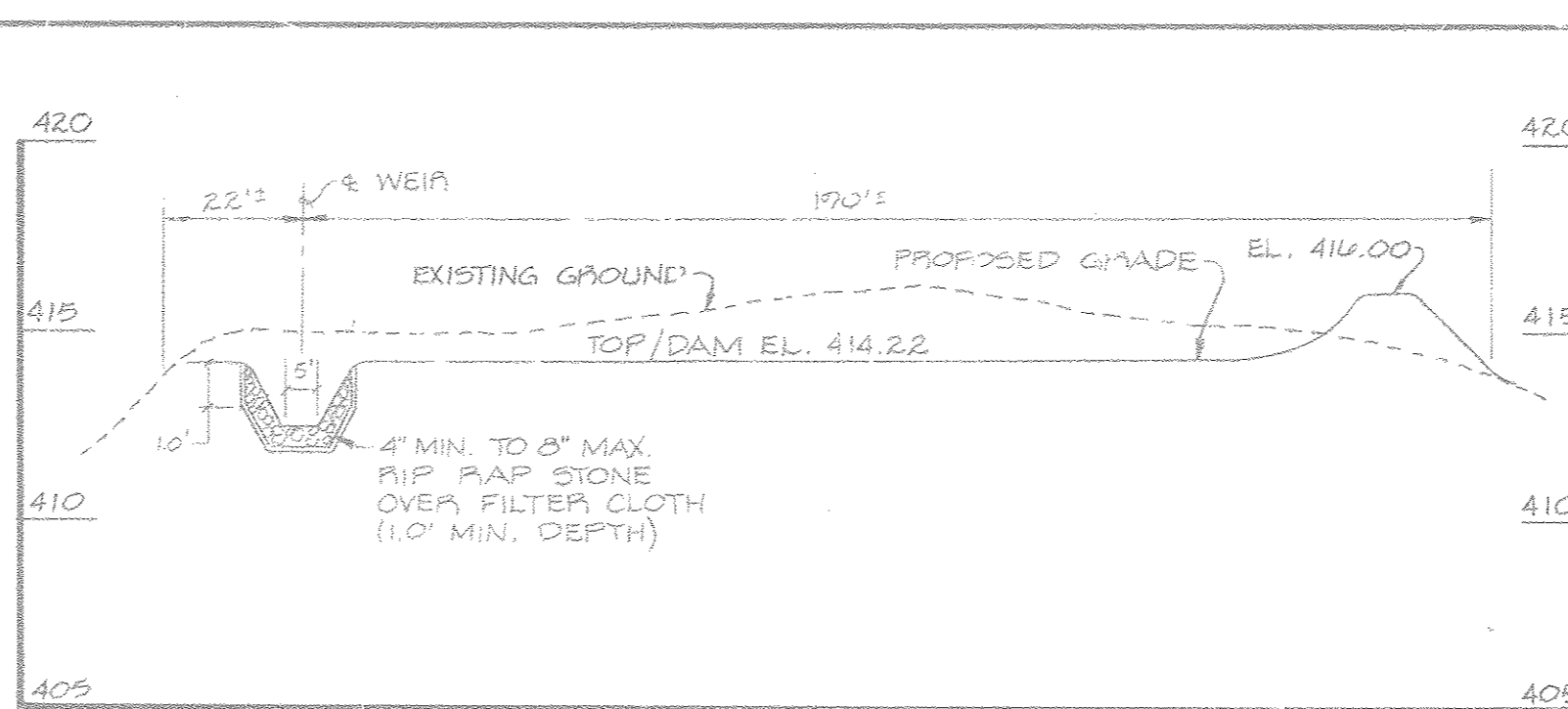
Establishing dense vegetation on the basin side slopes and floor is recommended. A dense vegetative stand will not only prevent erosion and sloughing, but will also provide a natural means of maintaining relatively high infiltration. Erosion protection of inflow points to the basin shall also be provided. Removal of accumulated sediment is a problem only at the basin floor. Little maintenance is normally required to maintain the infiltration capacity of slope areas.

Selection of suitable vegetative materials for the side slope and all other areas to be stabilized with vegetation and application of required fertilizer and mulches shall be done in accordance with the Maryland Standards and Specifications for Soil Erosion and Sediment Control. Local Extension Agencies should also be consulted.

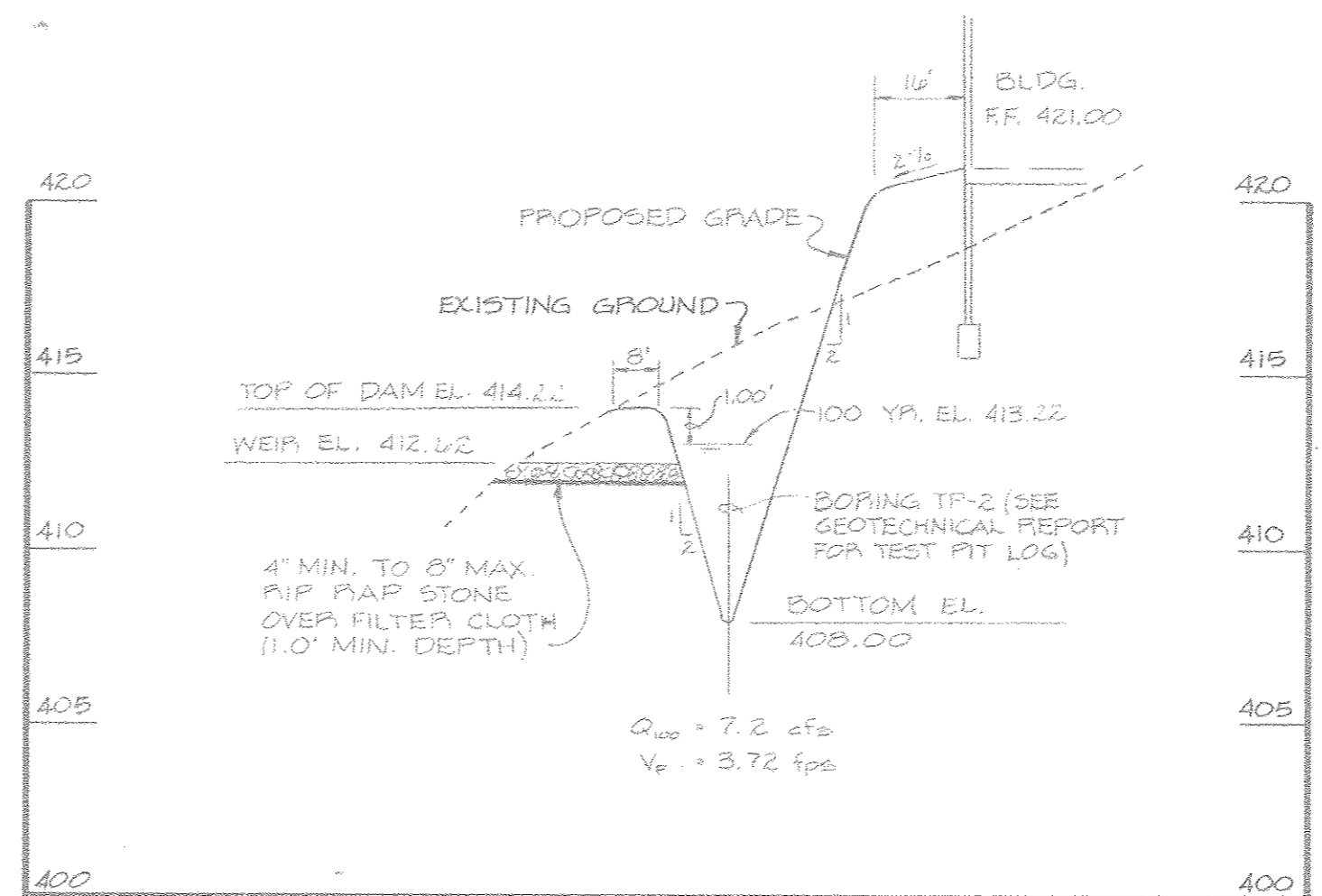
**Maintenance**

**Inspection Schedule**

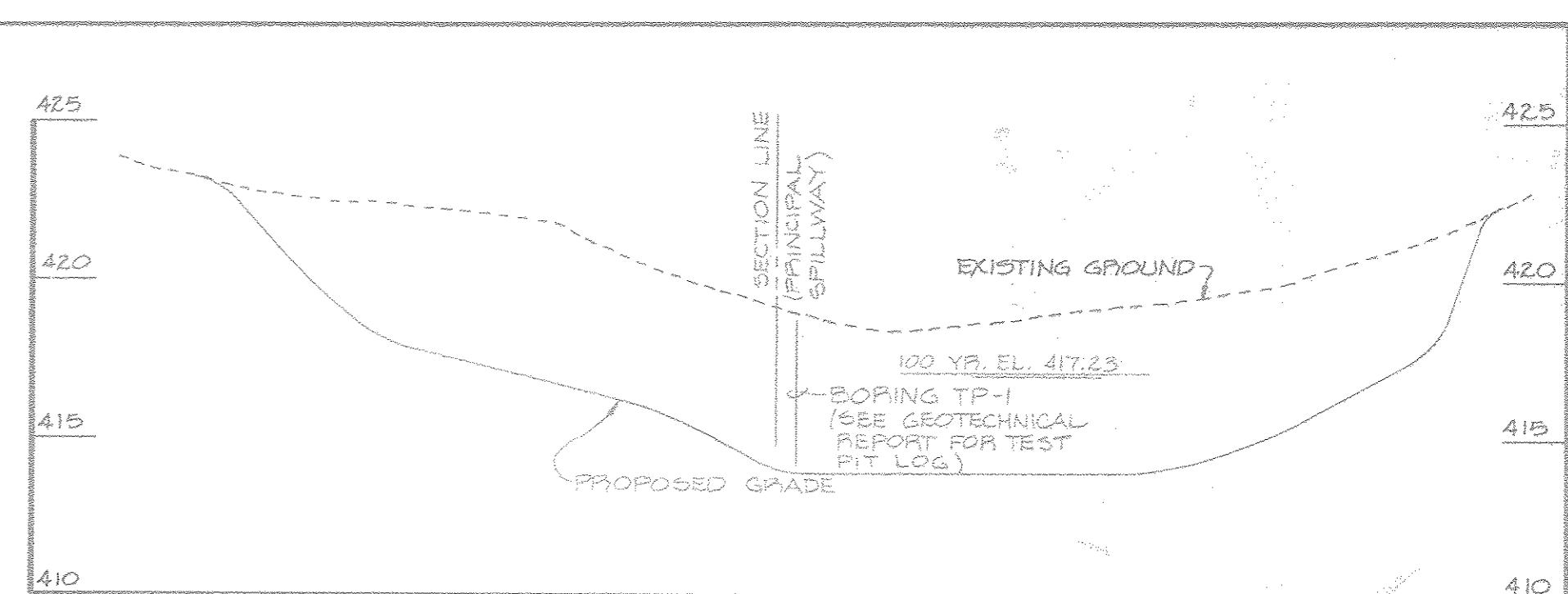
Drainage systems must be inspected on a routine basis to ensure that they are functioning properly. Inspections can be on a semiannual basis but should always be conducted following major storms.



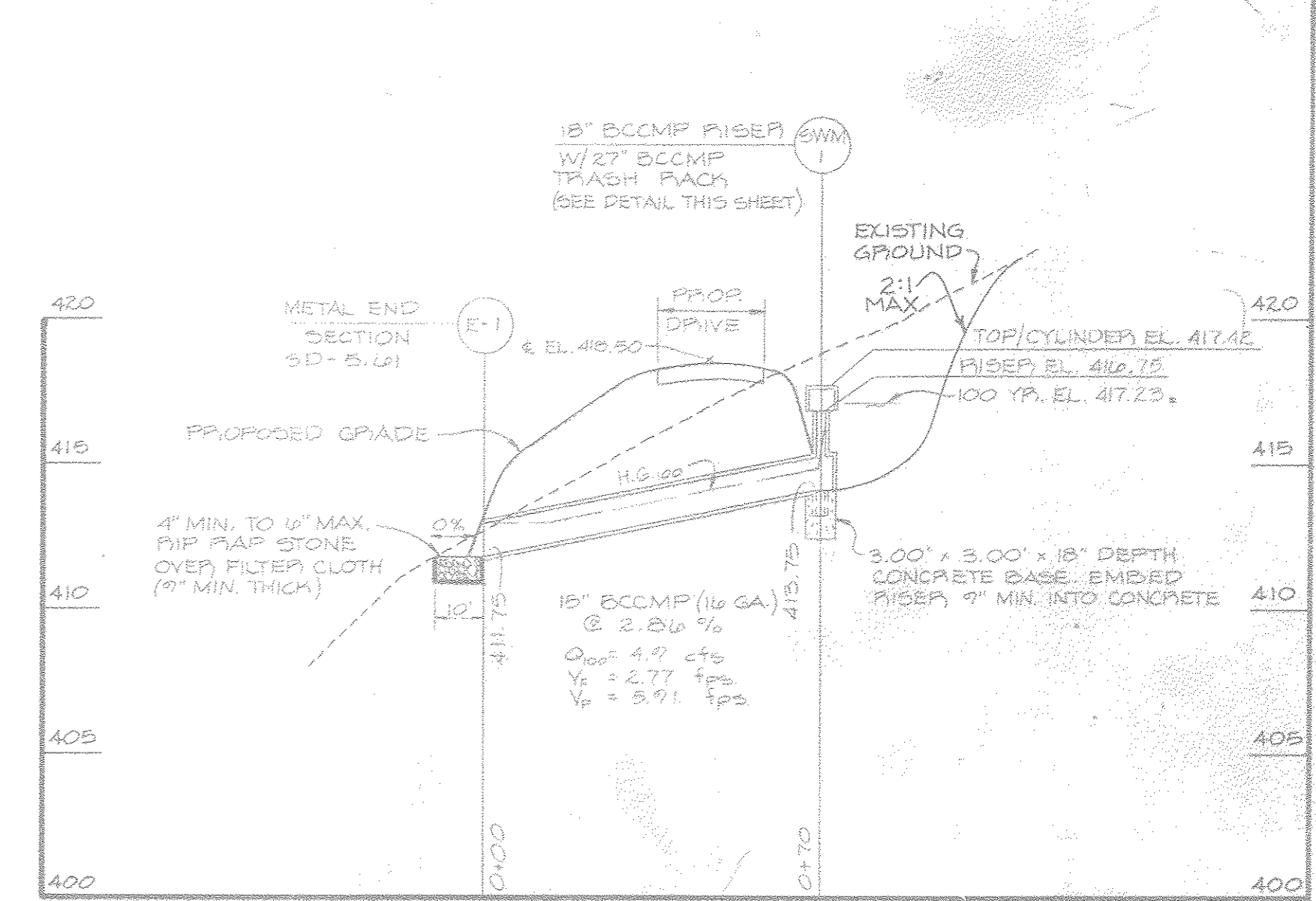
SECTION ALONG TOP OF DAM - POND #2  
SCALE: 1" = 20' HORIZ.  
1" = 5' VERT.



SECTION THRU STORMWATER MANAGEMENT POND #1  
SCALE: 1" = 30' HORIZ.  
1" = 5' VERT.



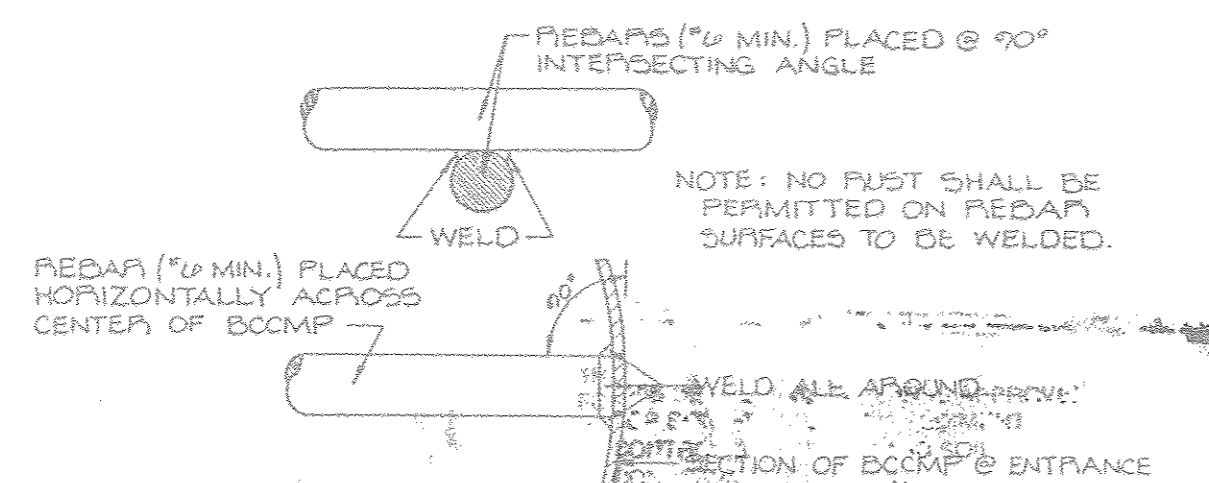
SECTION THRU STORMWATER MANAGEMENT POND #1  
SCALE: 1" = 30' HORIZ.  
1" = 5' VERT.



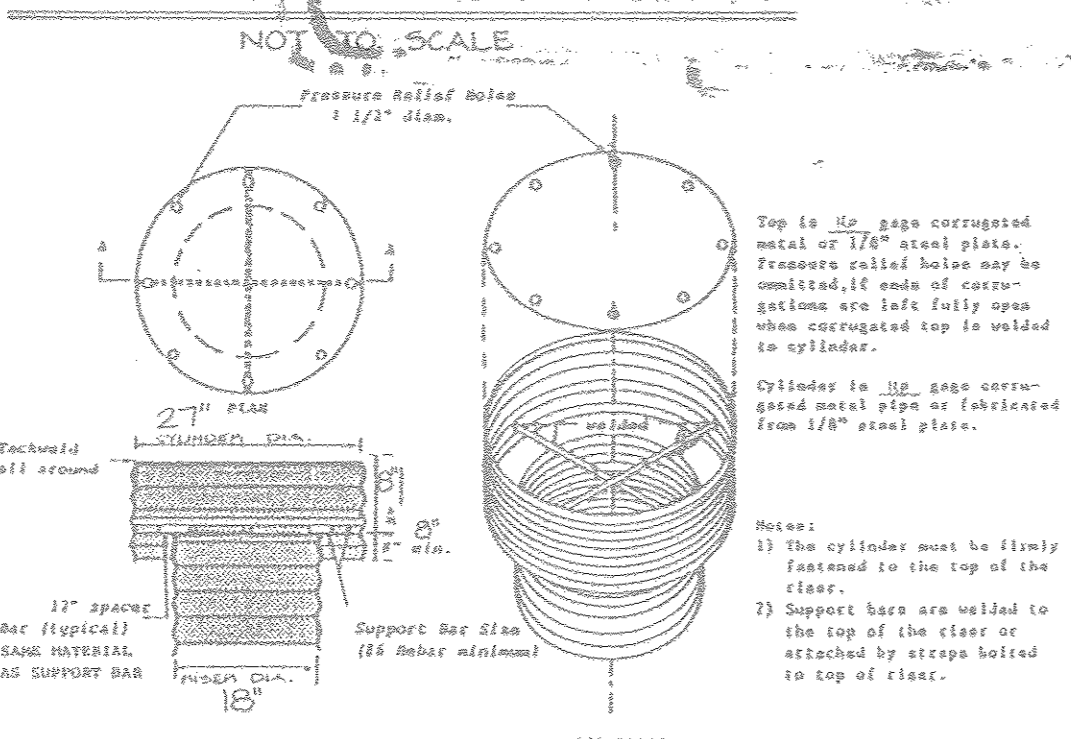
SECTION THRU PRINCIPAL SPILLWAY - POND #2  
SCALE: 1" = 30' HORIZ.  
1" = 5' VERT.

**STORMWATER MANAGEMENT POND SECTIONS**  
SCALE: AS NOTED

NOTE: STORMWATER MANAGEMENT REQUIREMENTS HAVE BEEN MET WITH A 50% REDUCTION OF IMPERVIOUS SURFACES WITHIN PROTECT LIMITS. SEE SWM REPORT FOR ECP-12-066 FOR ADDITIONAL INFORMATION.



**TRASH RACK WELDING DETAIL**  
NOT TO SCALE



RISE/ DATA				
LOCATION	RISE/ DIA.	BARREL DIA.	CYL. DIA.	H
POND #1	18"	15"	27"	8"

**CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE**  
NOT TO SCALE

APPROVED PLANNING BOARD OF HOWARD COUNTY  
DATE: 10-26-88  
LMS

**Dewberry & Davis**  
ARCHITECTS ENGINEERS PLANNERS SURVEYORS

3300 N. Ridge Road  
Suite 100  
Ellicott City, Maryland  
21043  
(301) 461-7478 BALTIMORE  
(301) 621-4970 WASHINGTON



ENGINEER'S CERTIFICATE  
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
THOMAS L. WILEY, MD, REG. NO. 9273  
DATE: 11-2-88

DEVELOPER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THIS PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS DEEMED NECESSARY.  
DATE: 9-16-88  
DATE: 9-16-88

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
APPROVED: [Signature] 11-21-88  
DATE: 11-21-88  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: [Signature] 12-12-81  
DATE: 12-12-81  
PLANNING DIRECTOR  
[Signature] 12-21-81  
DATE: 12-21-81  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
LMS  
APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PUBLIC WATER AND SEWERAGE SYSTEMS.  
[Signature] 12-1-88  
DATE: 12-1-88  
HEALTH OFFICER

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER AND SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.  
[Signature] 11/24/88  
DATE: 11/24/88  
DIRECTOR, PUBLIC WORKS  
[Signature] 11-29-88  
DATE: 11-29-88  
CHIEF, BUREAU OF ENGINEERING  
SUBDIVISION NAME: VILLAGE HAMPERS CHOICE HOBBITS GLEN GOLF COURSE  
LOT NO.: 4  
PARCEL NUMBER: 135  
PLAT NO.: 6471  
BLOCK NO.: 15  
ZONING: 6-5  
TAX/ZONE: 29  
ELEC. DIST.: 5th  
CENSUS TR.: 6093.01  
WATER CODE: I-03  
SEWER CODE: 6740000

STORM WATER MANAGEMENT, DRAINAGE AREA MAP  
COLUMBIA ASSOCIATION  
OPEN SPACE LOT 4, PLAT # 6971  
VILLAGE OF HARPER'S CHOICE  
HOBBIT'S GLEN GOLF COURSE  
MAINTENANCE FACILITY  
5th ELECTION DISTRICT HOWARD CO., MD  
SCALE: AS SHOWN APRIL 1988  
REVISED JULY 2, 1988  
SHEET 6 OF 6  
S.D.P. - 88-1849

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THE THESE REVISED FOR REVISION 6 ON THIS SHEET WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16144, EXPIRATION 05/19/14.  
OWNER / DEVELOPER  
COLUMBIA ASSOCIATION  
9861 BROKENLAND PKWY. STE. 300  
COLUMBIA, MD. 21046