

**SHEET INDEX**

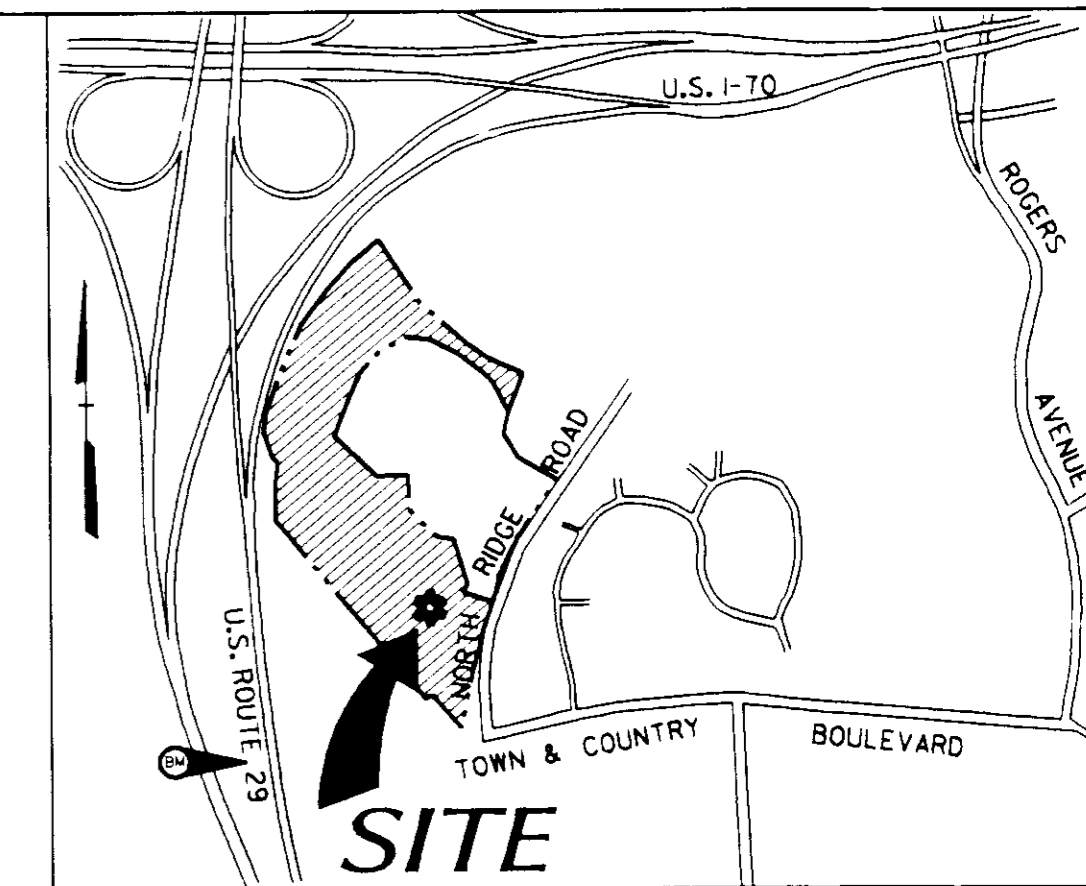
SHEET	DESCRIPTION
1	COVER SHEET
2	SITE PLAN
3	SITE DETAILS
4	STORM DRAIN DRAINAGE AREA MAP
5	UTILITY PROFILES
6	UTILITY PROFILES
7	SEDIMENT AND EROSION CONTROL PLAN
8	SEDIMENT AND EROSION CONTROL DETAILS
9	SEDIMENT AND EROSION CONTROL DETAILS
10	SWM EXISTING DRAINAGE AREA MAP
11	SWM PROPOSED DRAINAGE AREA MAP
12	SWM PLAN AND DETAILS
13	SWM PROFILES AND DETAILS
14	SWM PROFILES AND DETAILS
15	SWM SOIL BORINGS
16	LANDSCAPE PLAN

# SITE DEVELOPMENT PLAN

## FOR

# The Heartlands Residence

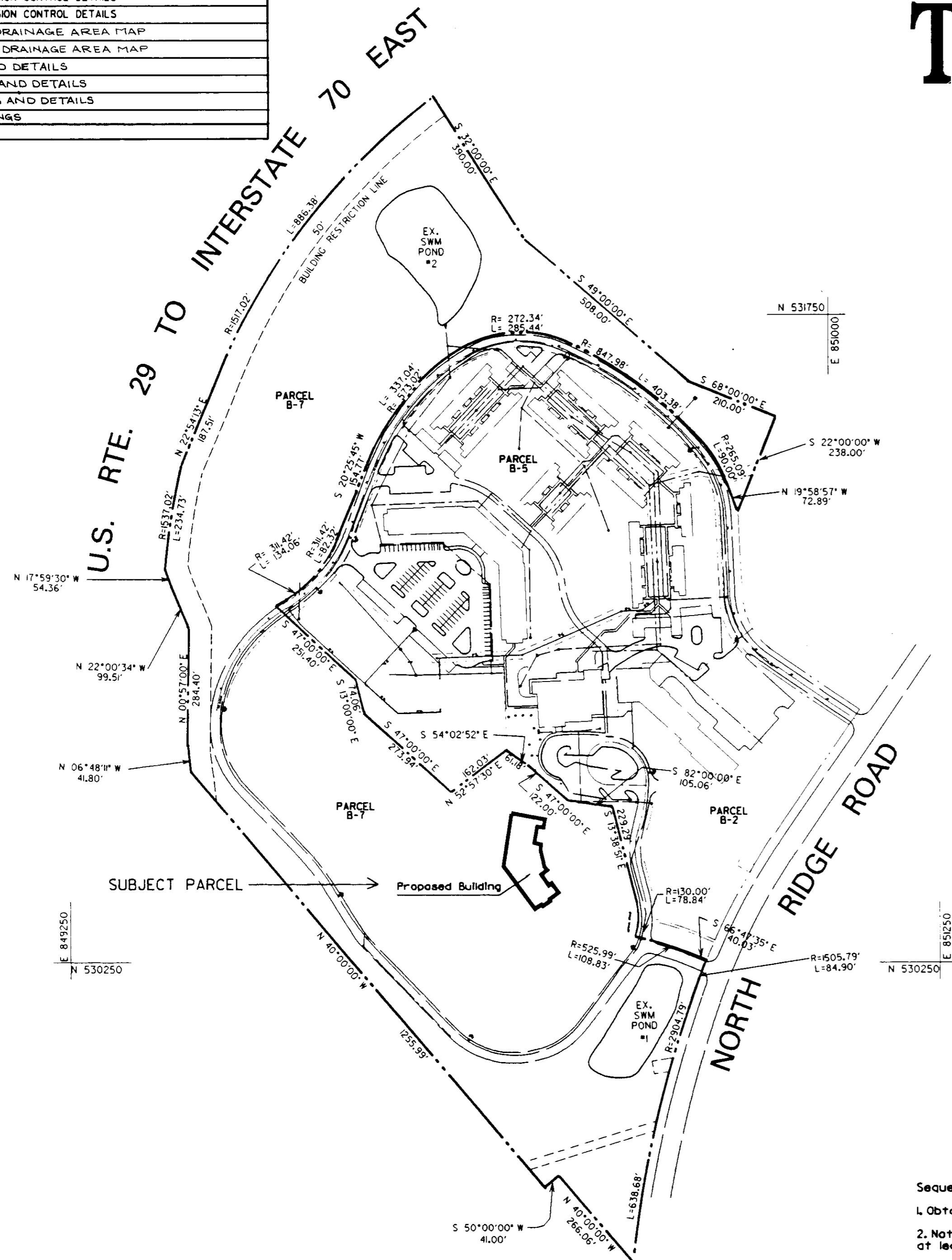
### An Assisted Living Facility



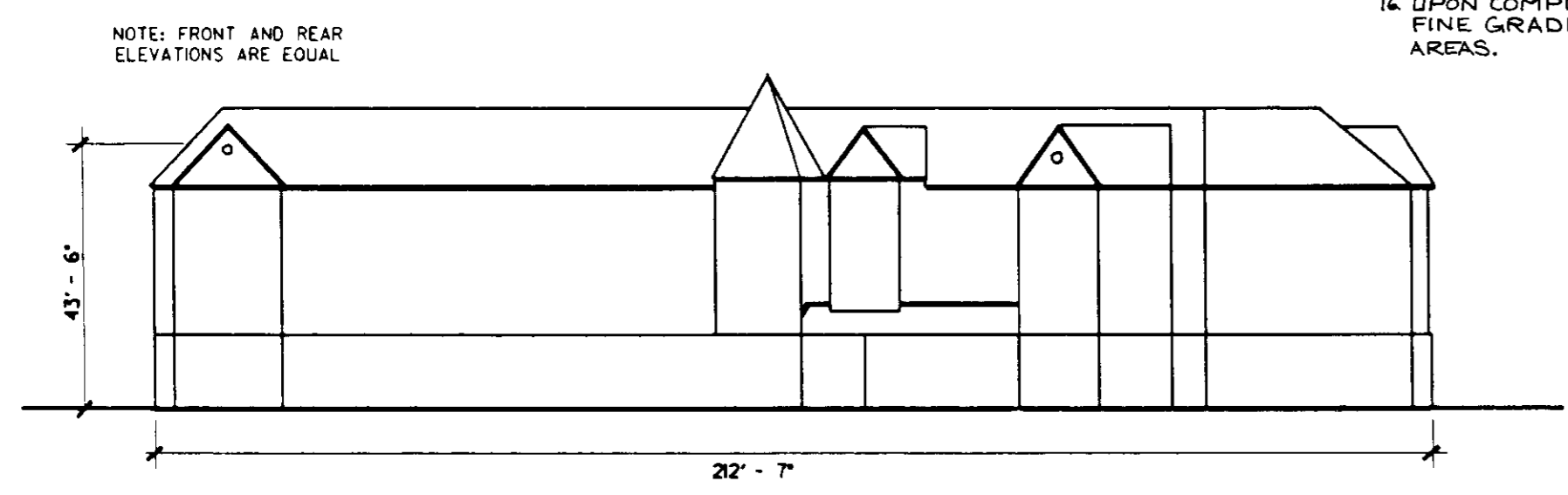
**LOCATION MAP**

SCALE: 1" = 1000'

ELEVATION 469.057 CONTROL STATION 3342001  
 BENCHMARK: HOWARD COUNTY, MARYLAND  
 BEING A CONCRETE MONUMENT ON TOP OF HOGSBACK BETWEEN MD. RTE. 29 NORTH AND SOUTH, 4000' +/- NORTH OF U.S. RTE. 40



**OVERALL PROPERTY PLAN**  
 SCALE 1" = 200'



**BUILDING ELEVATION**  
 NTS

- Sequence of Operations**
1. Obtain all necessary permits for construction.
  2. Notify Howard County Office of Inspections and Permits (410) 313-1855 at least 48 hours in advance of starting any construction (2 days).
  3. Notify Engineer in charge of the as-built inspection at (410) 296-3333 at least 24 hours in advance of starting any construction.
  4. Install utility lines along temporary swale at sediment trap #1 and across loop road to pond, using utility outside sediment control note found on sheet 8 of 16.
  5. Clear and grub for and install sediment controls only, EXCEPT FOR SUPER SILT FENCE AT SWM POND #1. INSTALL PIPE OUTLET TO MANHOLE 2 FROM SEDIMENT TRAP #1.
  6. With the approval of the erosion and sediment control inspector, clear and grub remainder of site. DO NOT DISTURB SWM POND #1 AT THIS TIME.
  7. Mass grade site and provide dust controls as needed. Contractor shall maintain positive drainage to Sediment Trap #2 in borrow area.
  8. Begin building construction, install remaining utilities. Block all proposed inlets. Stabilize all non-active graded surfaces with temporary seeding.
  9. Fine grade all paved surfaces, install curb and gutter. Apply road subbase.
  10. Fine grade all lawn areas and stabilize with permanent seeding.
  11. Complete building construction.
  12. CONSTRUCT MEDIAN AT NEW ENTRANCE.
  13. Pave all parking areas and driveways.
  17. With the prior permission of the Sediment Control Inspector and the Howard County Sediment Control Division, remove sediment controls which convey flow to sediment traps.
  18. Fine grade and stabilize area around Sediment Trap #1 and adjacent earth dikes to design contours as shown on sheet 2 of 16 of site plan.
  19. Fine grade and stabilize area draining to outer silt fence.
  20. Remove outer silt fence.
  21. Install landscaping.

**General Notes**

1. All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable or as specified.
2. Approximate location of existing utilities are shown from best available information. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
3. The contractor shall test all existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
4. The contractor shall notify "Miss Utility" at 1-800-257-777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
5. Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
6. All plan dimensions are to face of curb unless otherwise noted.
7. There is no floodplain on this site.
8. There are WETLANDS THAT EXIST IN AND AROUND THE EXISTING SWM POND #1. THEY HAVE BEEN FIELD LOCATED AND ARE SHOWN ON THIS PLAN SET.
9. Storm Water Quantity AND QUALITY MANAGEMENT WILL BE PROVIDED ON-SITE BY RETROFITTING AN EXISTING PRIVATE STORMWATER MANAGEMENT POND. (POND #1)
10. The existing topography is taken from a field run survey with the two foot contour intervals prepared by Duff McCune Walker, Inc., dated February, 1996.
11. All inlets shall be constructed in accordance with Howard County Standards or MSHA Standards as specified on a structure schedule.
12. Operating existing valves, switches, services or start up of new services shall be coordinated with the owner's representative.
13. Required siltation and sedimentation control plans shall be provided, installed and maintained.
14. Contractor shall carefully remove from the area to be disturbed all trees, shrubs and plant materials using procedures recommended by the American Nurseryman's Association so as to maximize the continual survival and health of the materials. These trees, shrubs and plant materials shall be transported to a designated location on the owner's property, and heeled into a mulch holding bed for future use by the owner in locations other than those involved in the contract work.
15. Where demolition is indicated on the drawings, it means to completely demolish feature, clear area of all debris, and dispose of off-site at a legal dumpsite. Abandon means to leave in place and cut where required, and bulkhead all cut ends with a plug or cap, or construct a 3" thick brick and mortar bulkhead conforming to existing utility materials.
16. Public water per Capital Project No. S-6204.
17. There are no known grave sites or cemeteries on this site.
18. The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State plane coordination system. Howard County monument numbers 3443003 and 3342001 were used for this project.
19. No traffic study is required for this project.
20. SEE ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND BUILDING DETAILS.

SITE ANALYSIS DATA CHART	
<b>1. General Site Data</b>	
a. Present Zoning:	ROR
b. Applicable DPZ File Reference:	F-179-03, S-28-24, F-82-09, F-82-76, F-86-77, PLAT NO. 659-6553, WP 99-130
c. Proposed Use of Site or Structure:	ASSISTED LIVING FACILITY 68 UNITS
d. Proposed Water and Sewer Systems:	Public - YES WATER Private - YES SEWER
e. Any Other Information Which May Be Relevant:	PUBLIC WATER & SEWER SYSTEMS PROVIDED UNDER CAPITAL PROJECT NO. S-6204
<b>2. Area Tabulation</b>	
a. Total Project Area:	30.97 (PARCEL B-7) Acres
b. Net Area of Site:	30.97 Acres
c. Area of This Plan Submissions:	8.20 Acres
d. Building Coverage of Site:	0.36 Acres and 1.5% of Gross Area (Proposed)
f. Maximum number of beds:	74
<b>4. Open Space Data</b>	
a. Open Space Required on Site:	N/A Acres % of Gross Area of POR Area
b. Open Space Provided:	N/A Acres % of POR Area
<b>5. Parking Space Data</b>	
a. Floor Space on Each Level per Building(s) per Use:	588 s.f. - Basement 8466 s.f. - First Floor 8466 s.f. - Second Floor 8466 s.f. - Third Floor
b. Number of Parking Spaces Required by Zoning Regulations:	18
c. Total Number of Parking Spaces Provided On-Site:	18
d. Number of Handicapped Parking Spaces Provided:	2

ADDRESS CHART	
PARCEL NUMBER	STREET ADDRESS
PARCEL B-7	3097 NORTH RIDGE ROAD

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 10/2/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/6/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

*[Signature]* 10/8/96  
 DIRECTOR DATE

Date	No.	Revision Description
4/11/97	4	PER ARCH. REQUEST
2/4/97	3	REVISED SITE DEVELOPMENT PLAN
11/8/96	2	ADDED SWM POND #1 RETROFIT
5/7/96	1	Per Comments

## The Heartlands Residence

### An Assisted Living Facility

Howard County, Maryland

OWNER / DEVELOPER  
 THE HEARTLANDS RETIREMENT COMMUNITY -  
 ELLICOTT CITY 1, INC.  
 c/o CONSTELLATION HEALTH SERVICES, INC.  
 8815 CENTRE PARK DRIVE, SUITE 308  
 COLUMBIA, MARYLAND 21045

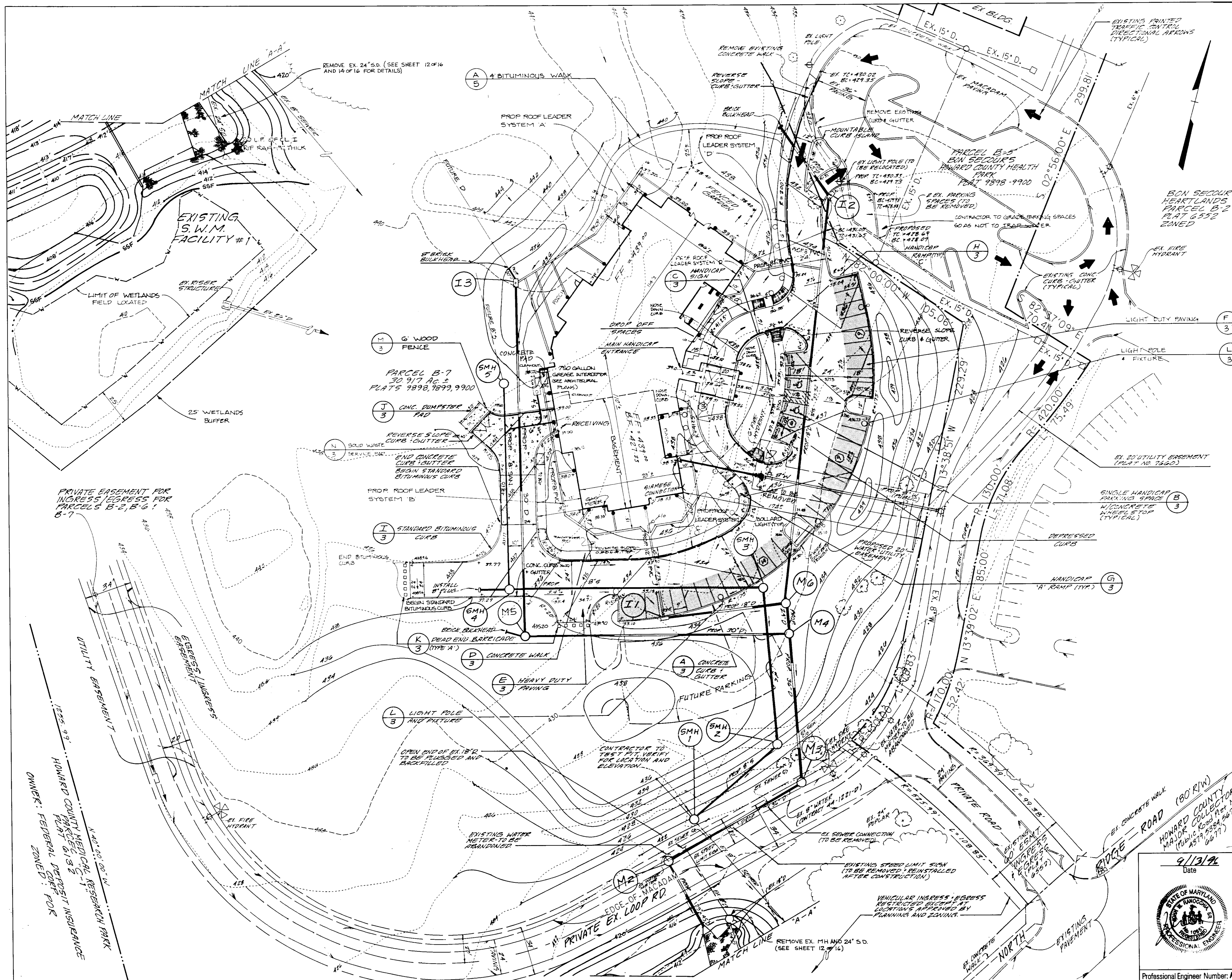
**DMW**  
 Duff McCune Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3358  
 Fax 296-4706

A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

9/13/96  
 Date

Professional Engineer Number: 10557

DESIGNER	SCALE	AS SHOWN	PROJ. NO.
Des By MM	Scale AS SHOWN		Proj. No. 81015Q
Drn By CLZ	Date 2-22-96		
Chk By JWR	Approved		<b>10F16</b>



**LEGEND**

- EXISTING TOPOGRAPHY
- PROPOSED TOPOGRAPHY
- EXISTING TREE LINE
- EXISTING EDGE OF PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED SIDEWALK
- PROPOSED CURB & GUTTER
- PROPOSED HANDICAP RAMP
- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE
- PROPOSED PARKING COUNT
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED REVERSE CURB AND GUTTER
- PROPOSED LIGHT DUTY PAVEMENT
- EXISTING TREE
- ROOF LEADER
- BOLLARD LIGHT
- LIMIT OF WETLANDS

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*[Signature]* 10/3/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 10/2/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

*[Signature]* 10/16/96  
 DIRECTOR DATE

Date	No.	Revision Description
6/11/97	4	REV. SAN. WATER CONC., DOOR LOCATIONS
2/4/97	2	REVISED SITE DEVELOPMENT PLAN
11/8/96	1	ADDED SWM POND #1 RETROFIT

**The Heartlands Residence**  
 AN ASSISTED LIVING FACILITY  
 HOWARD COUNTY, MD

OWNER / DEVELOPER  
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 ELLICOTT CITY 1, INC.  
 c/o CONSTELLATION HEALTH SERVICES, INC.  
 8815 CENTRE PARK DRIVE, SUITE 308  
 COLUMBIA, MARYLAND 21045

**DMW**  
 Dan McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 286-3333  
 Fax 286-4706

A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

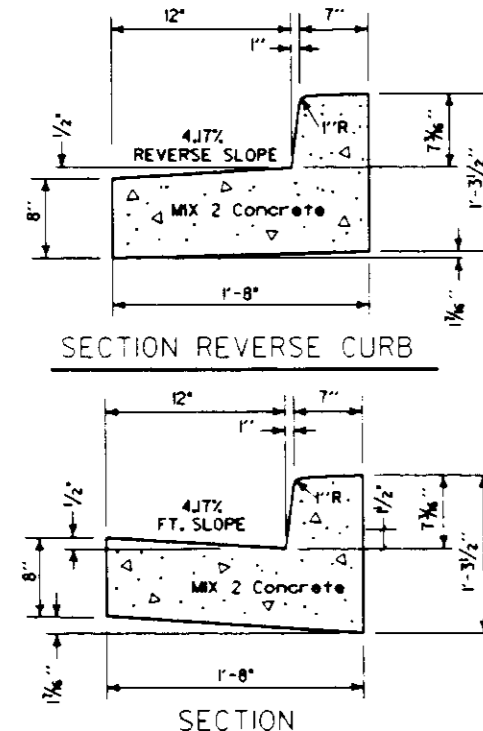
9/13/96  
 Date

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER

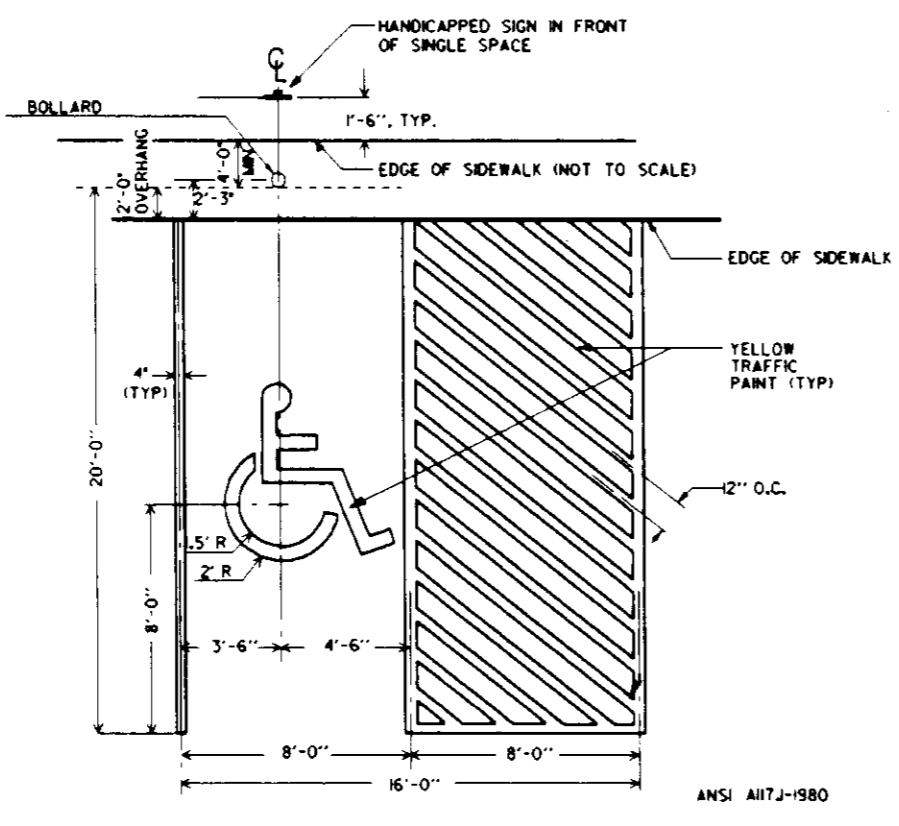
Professional Engineer Number: A357

TITLE		
SITE DEVELOPMENT PLAN		
Des By	MM	Scale 1" = 30'
Dim By	ML	Proj. No. 81015Q
Chk By	JWR	Date
		Approved
		2 OF 16

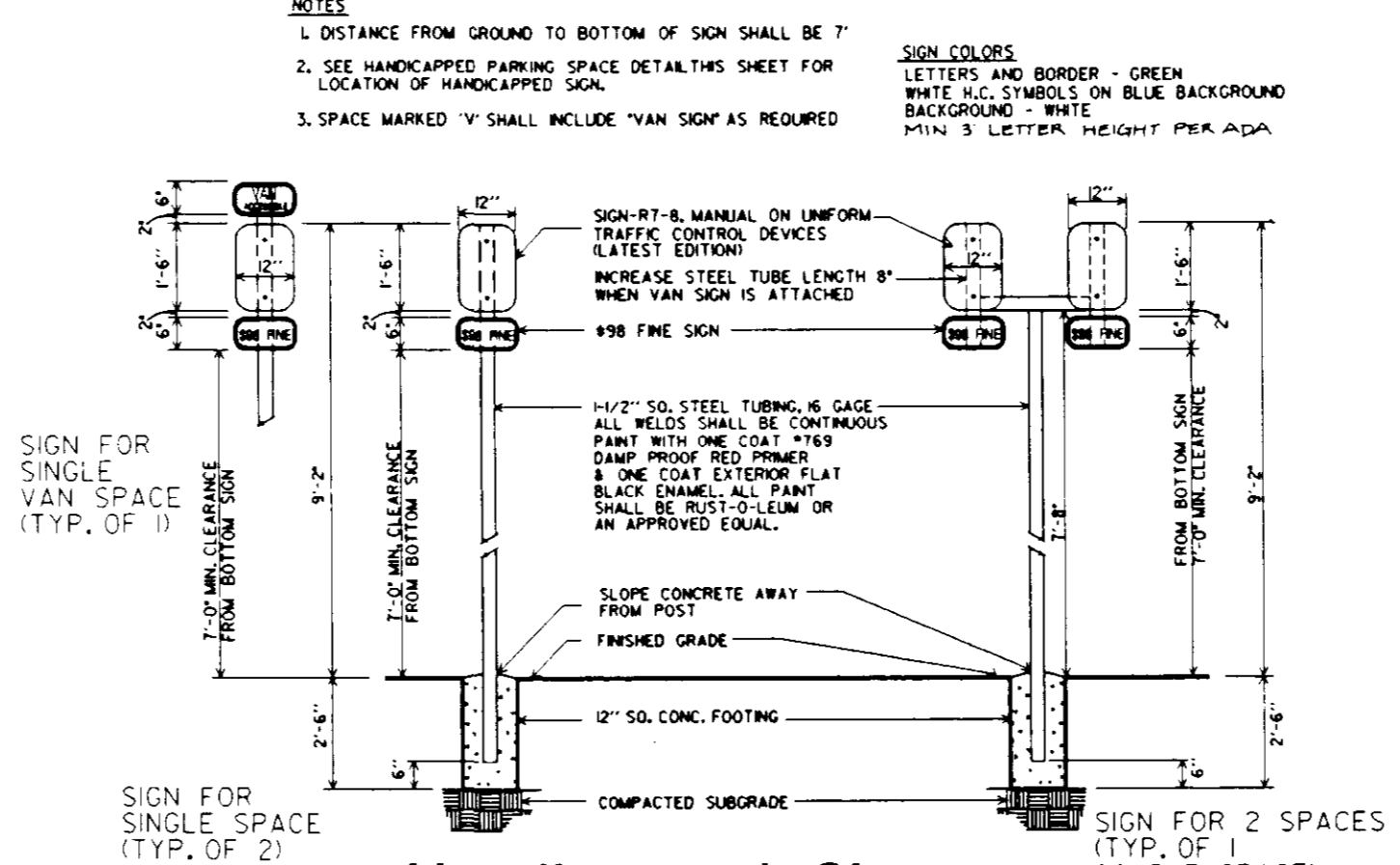
SDP 96-104



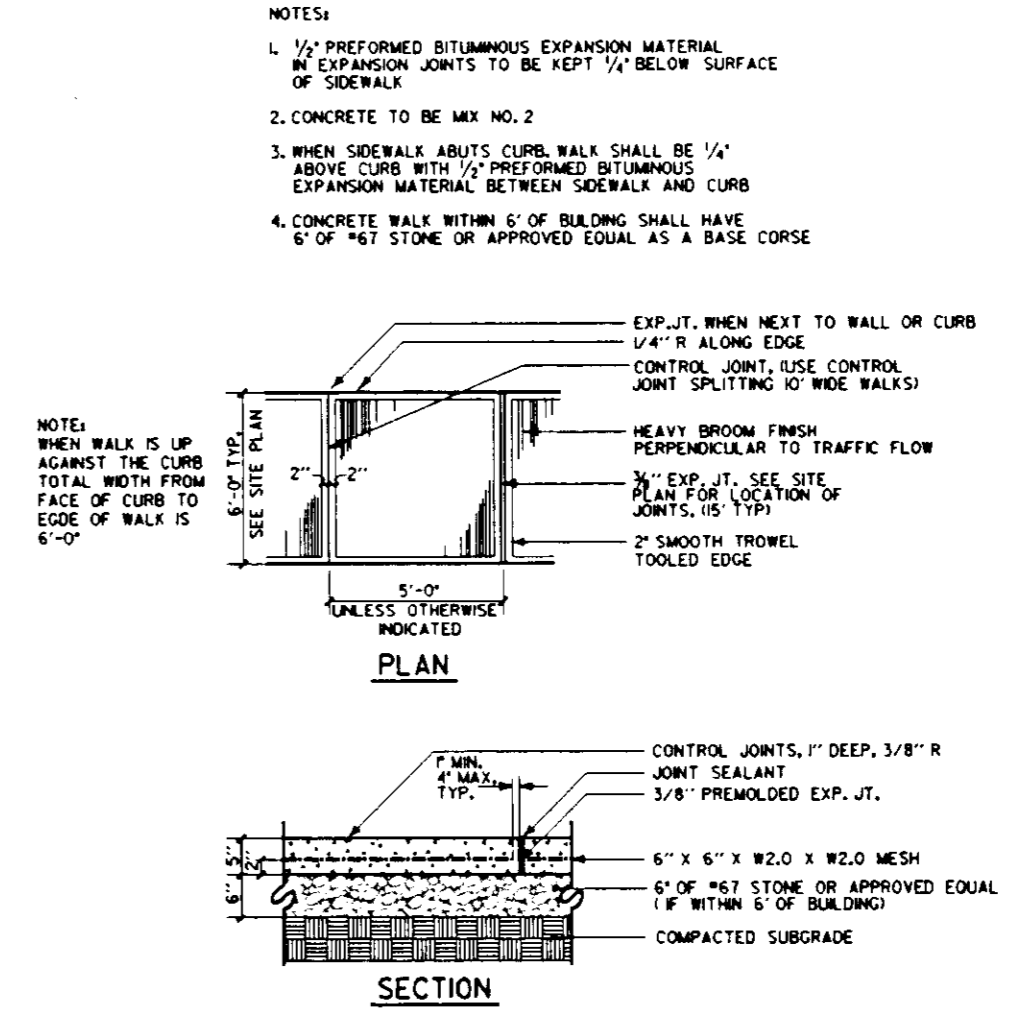
**A** Concrete Curb, Typ.  
3 Not To Scale



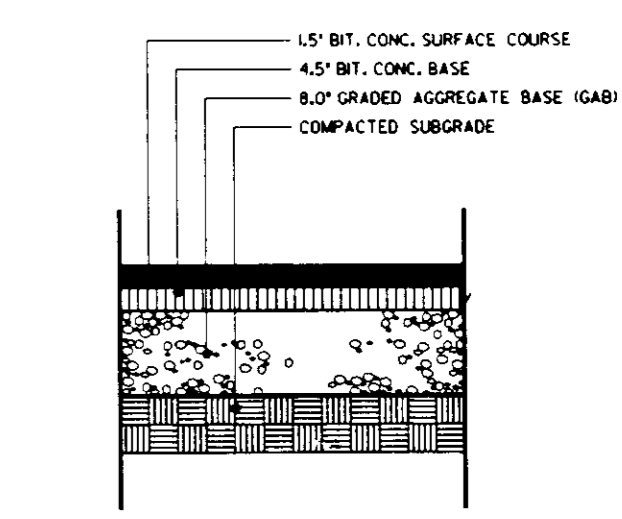
**B** Handicapped Van Parking Space  
3 Not To Scale



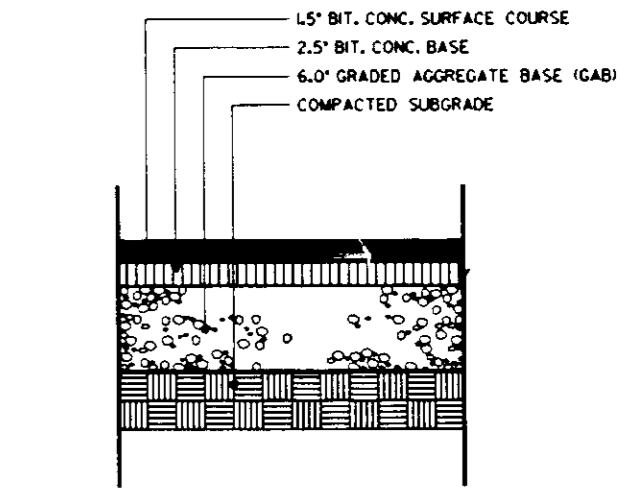
**C** Handicapped Signs  
3 Not To Scale



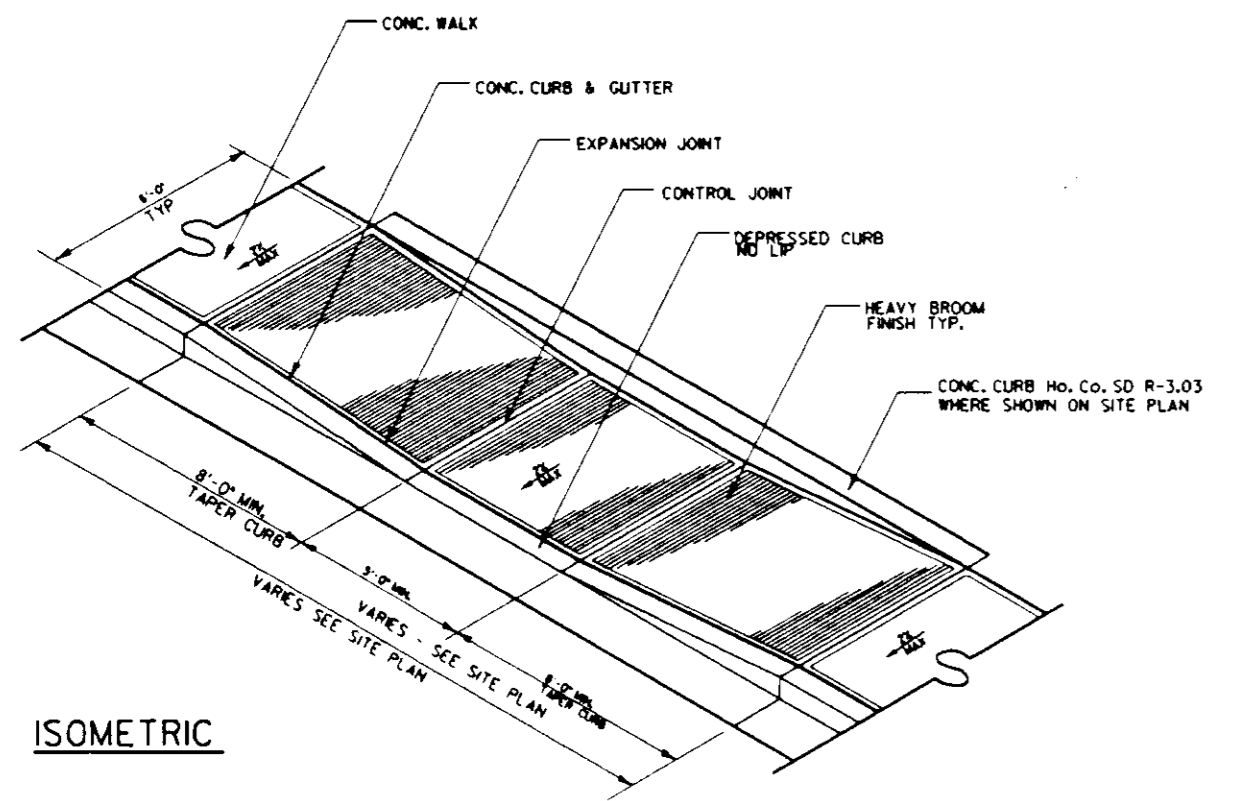
**D** Concrete Walk  
3 Not To Scale



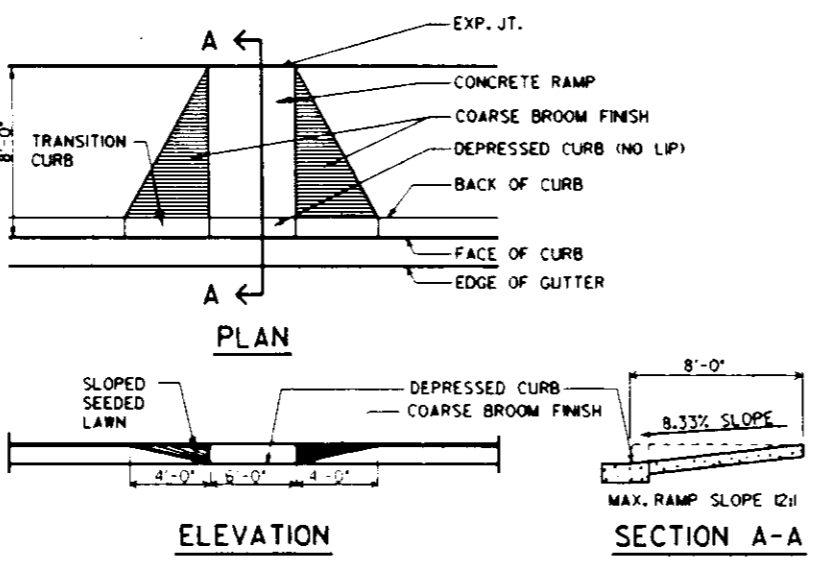
**E** Heavy Duty Paving P-3  
3 Not To Scale



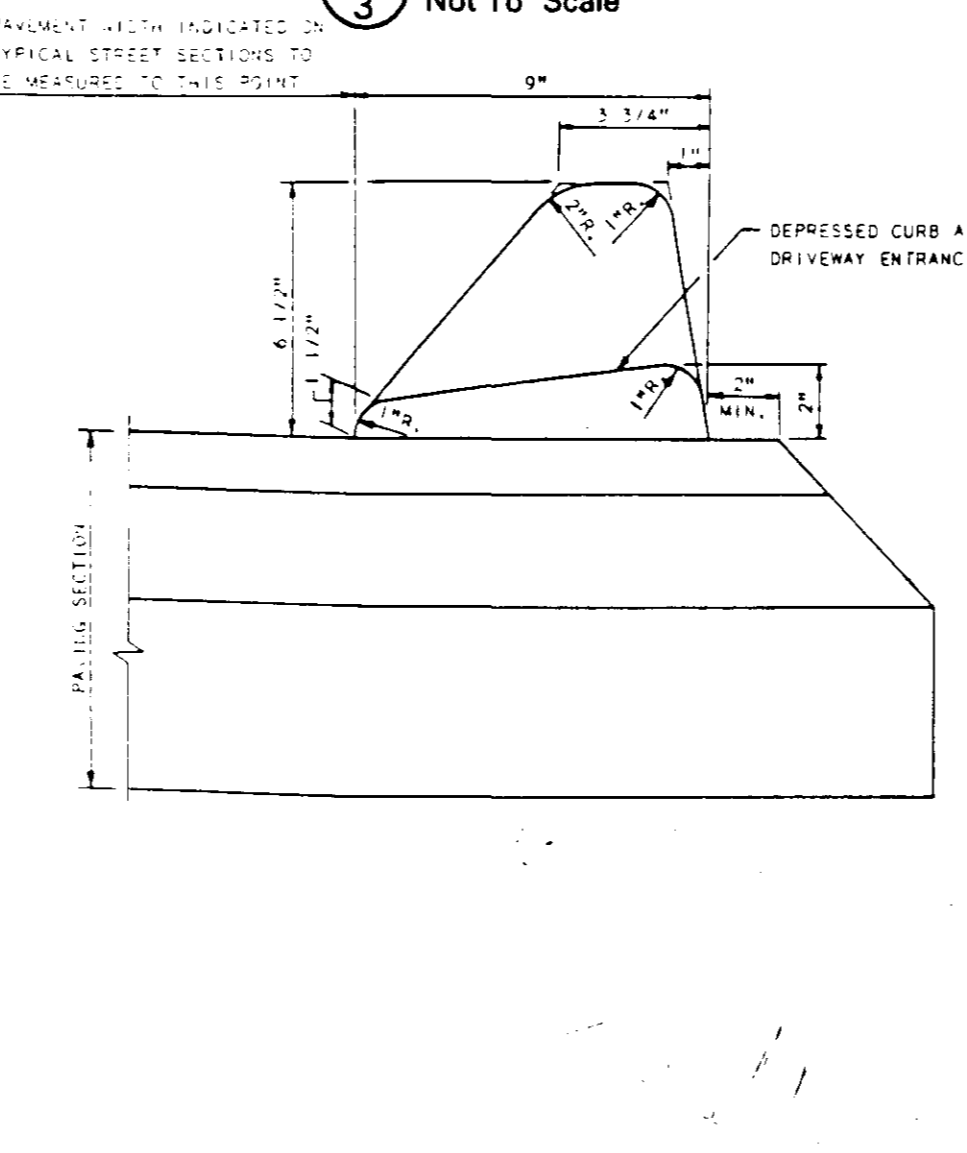
**F** Light Duty Paving P-2  
3 Not To Scale



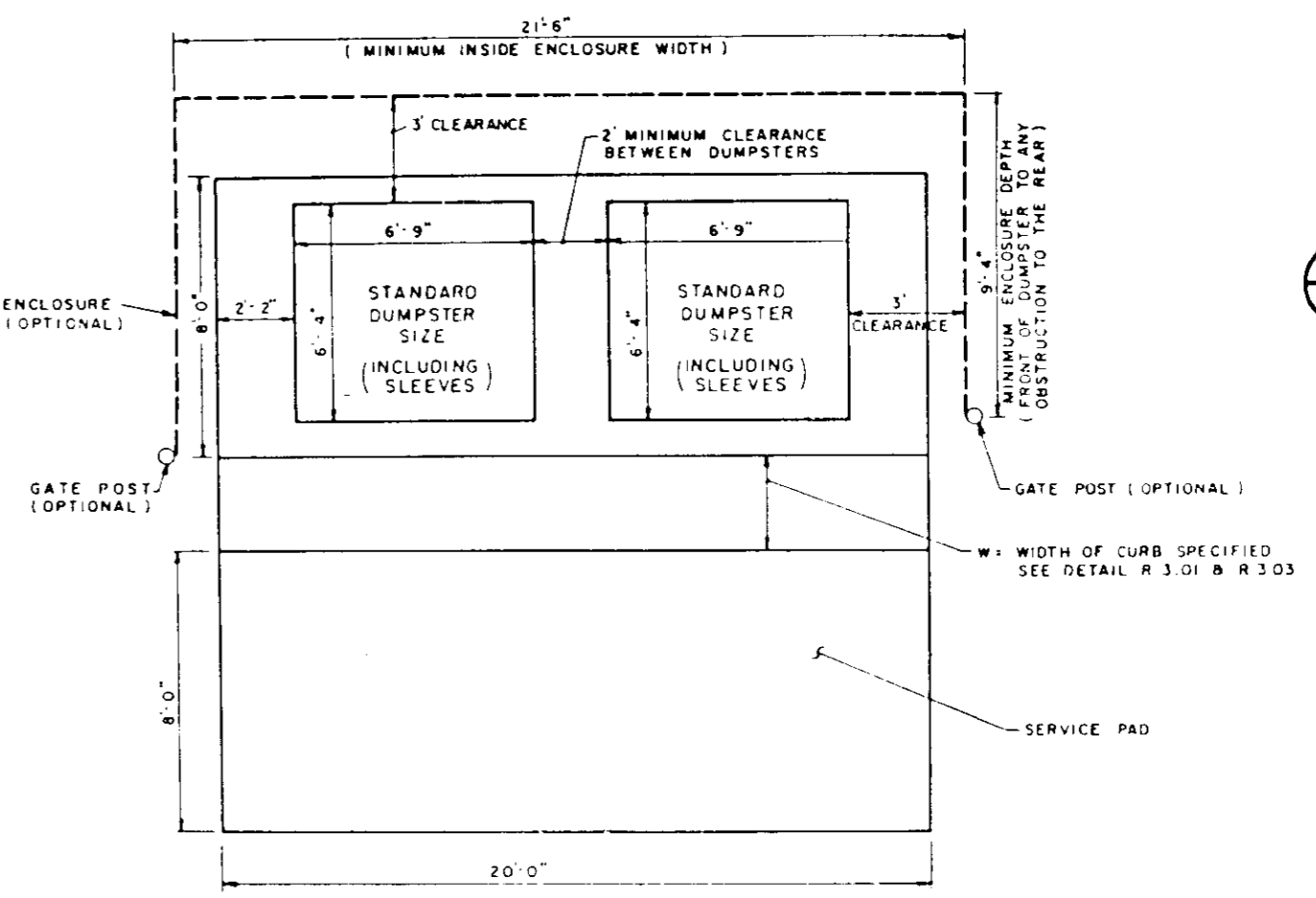
**G** Handicapped Ramp - A  
3 Not To Scale



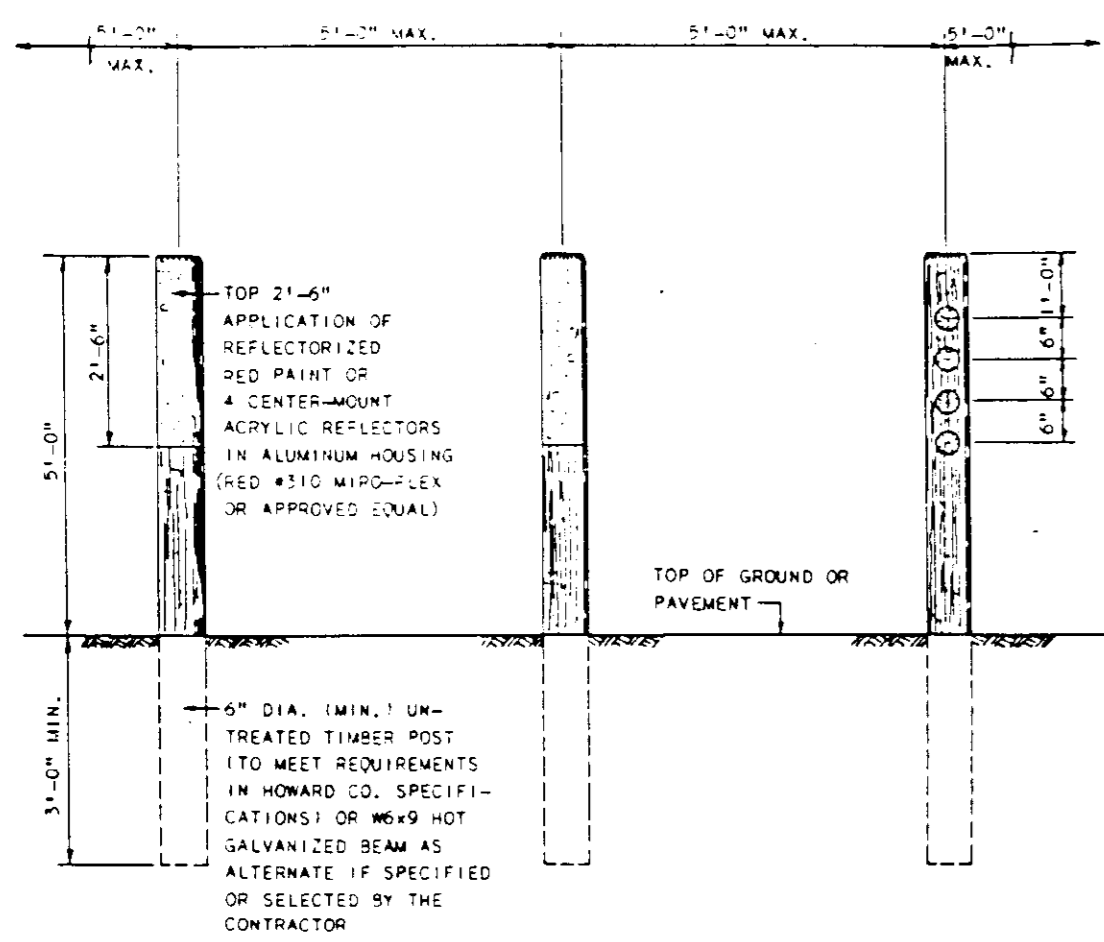
**H** Handicapped Ramp - C  
3 Not To Scale



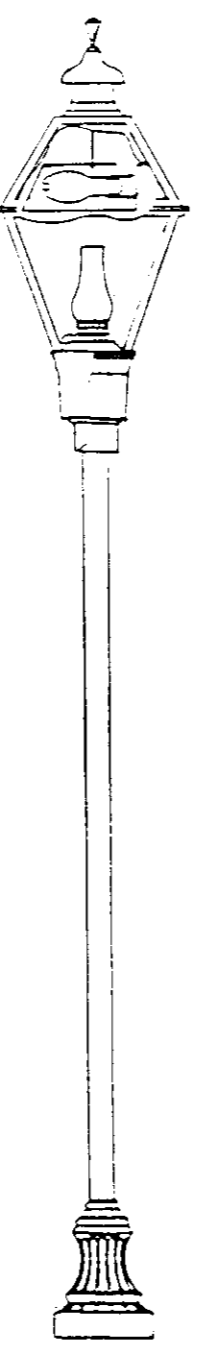
**I** Standard Bituminous Curb  
3 Not To Scale



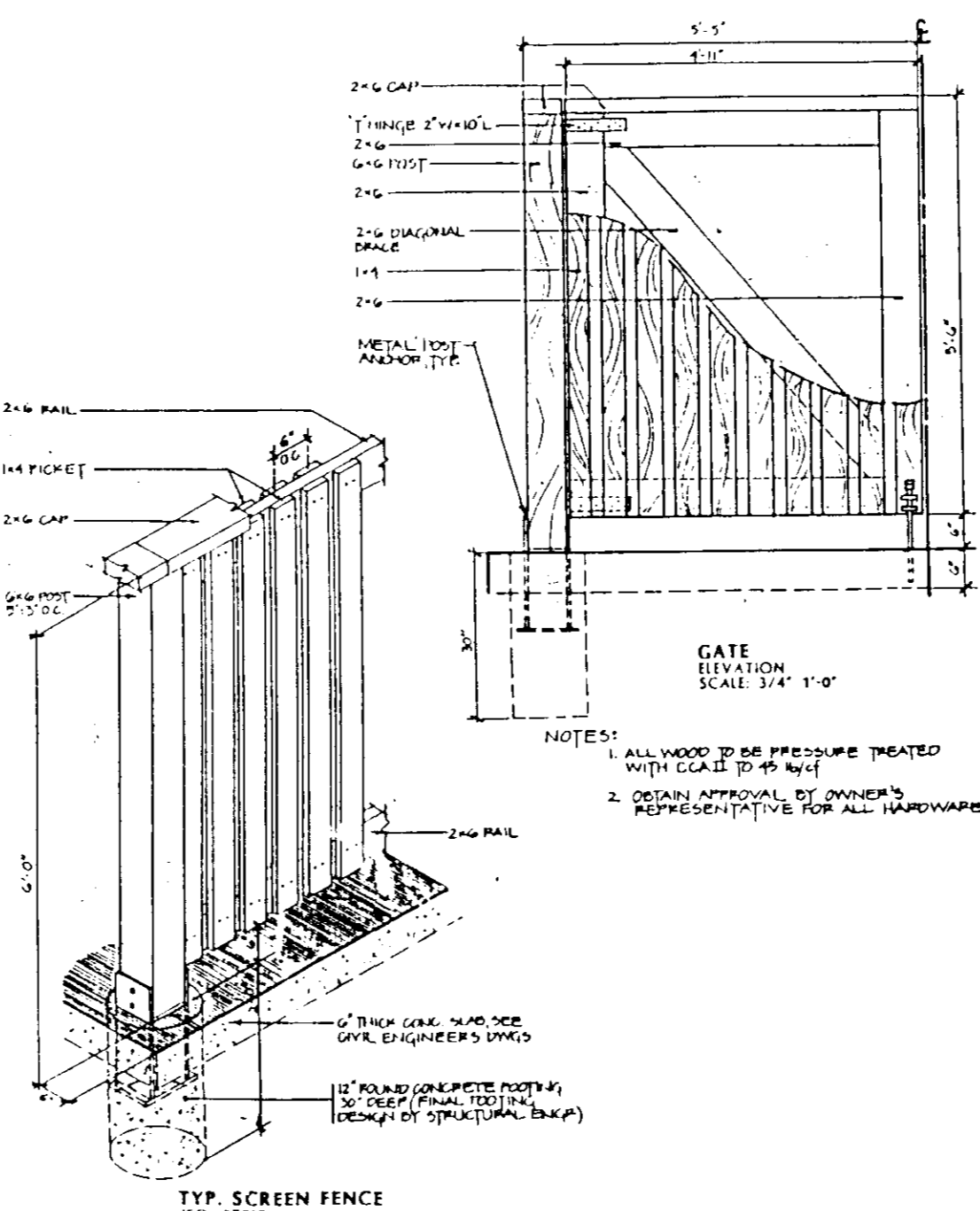
**J** Solid Waste Double Container Exposure  
3 Not To Scale



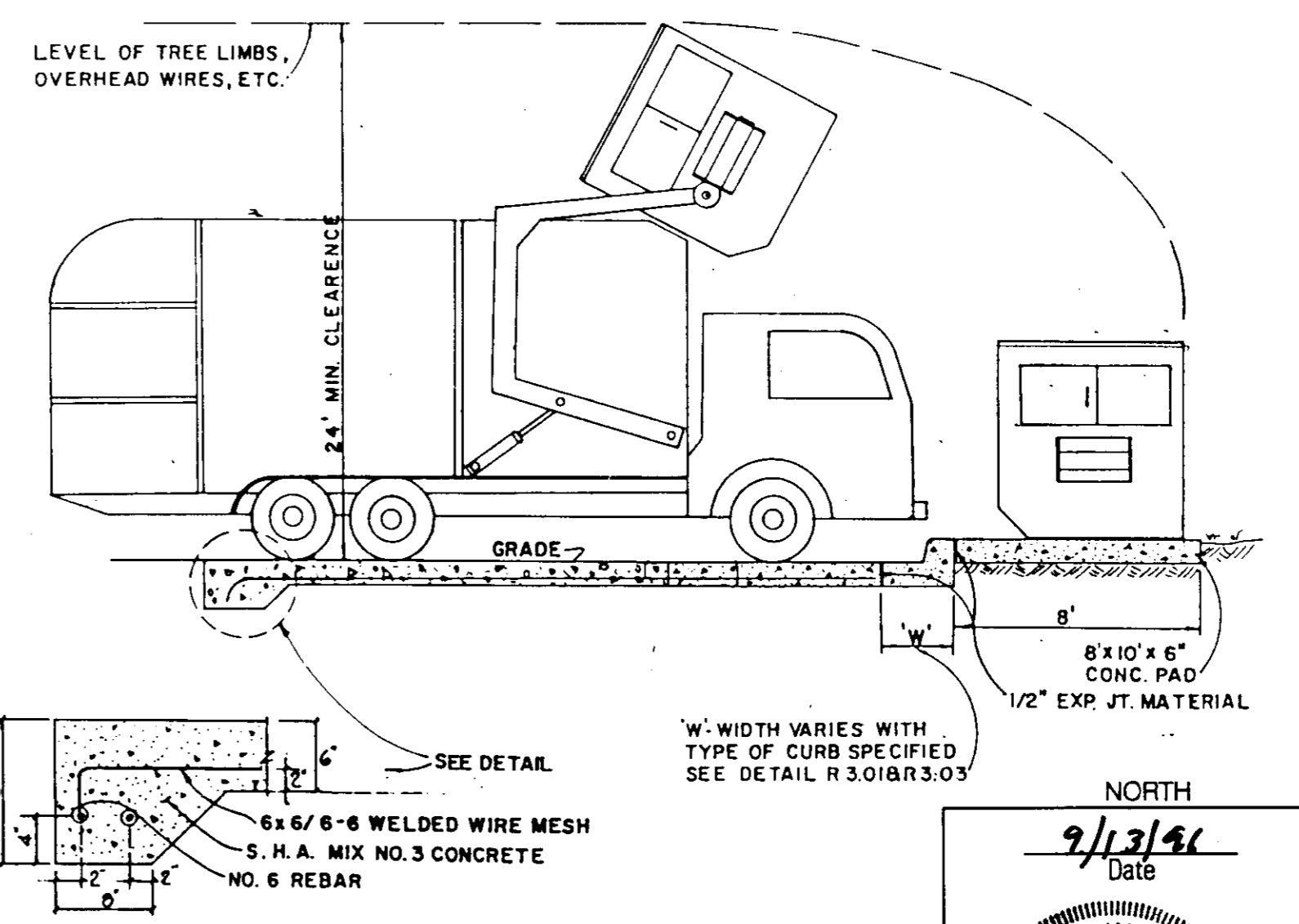
**K** Dead End Barricade (Type A)  
3 Not To Scale



**L** Light Pole And Fixture  
3 Not To Scale



**M** Wood Fence  
3 Not To Scale



**N** Solid Waste Service Pad  
3 Not To Scale

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Howard County* 10/2/96 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Richard Blood* 10/2/96 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH

*Long S. Smith* 10/2/96 DATE  
DIRECTOR

Date	No.	Revision Description
2/4/97	3	REVISED SITE DEVELOPMENT PLAN
11/8/96	2	ADDED SW1 POND #1 RETROFIT
5/9/96	1	Per Comments

**The Heartlands Residence**  
An Assisted Living Facility  
Howard County, Maryland

OWNER / DEVELOPER:  
THE HEARTLANDS RETIREMENT COMMUNITY -  
ELLCOTT CITY 1, INC.  
c/o CONSTELLATION HEALTH SERVICES, INC.  
885 CENTRE PARK DRIVE, SUITE 308  
COLUMBIA, MARYLAND 21045

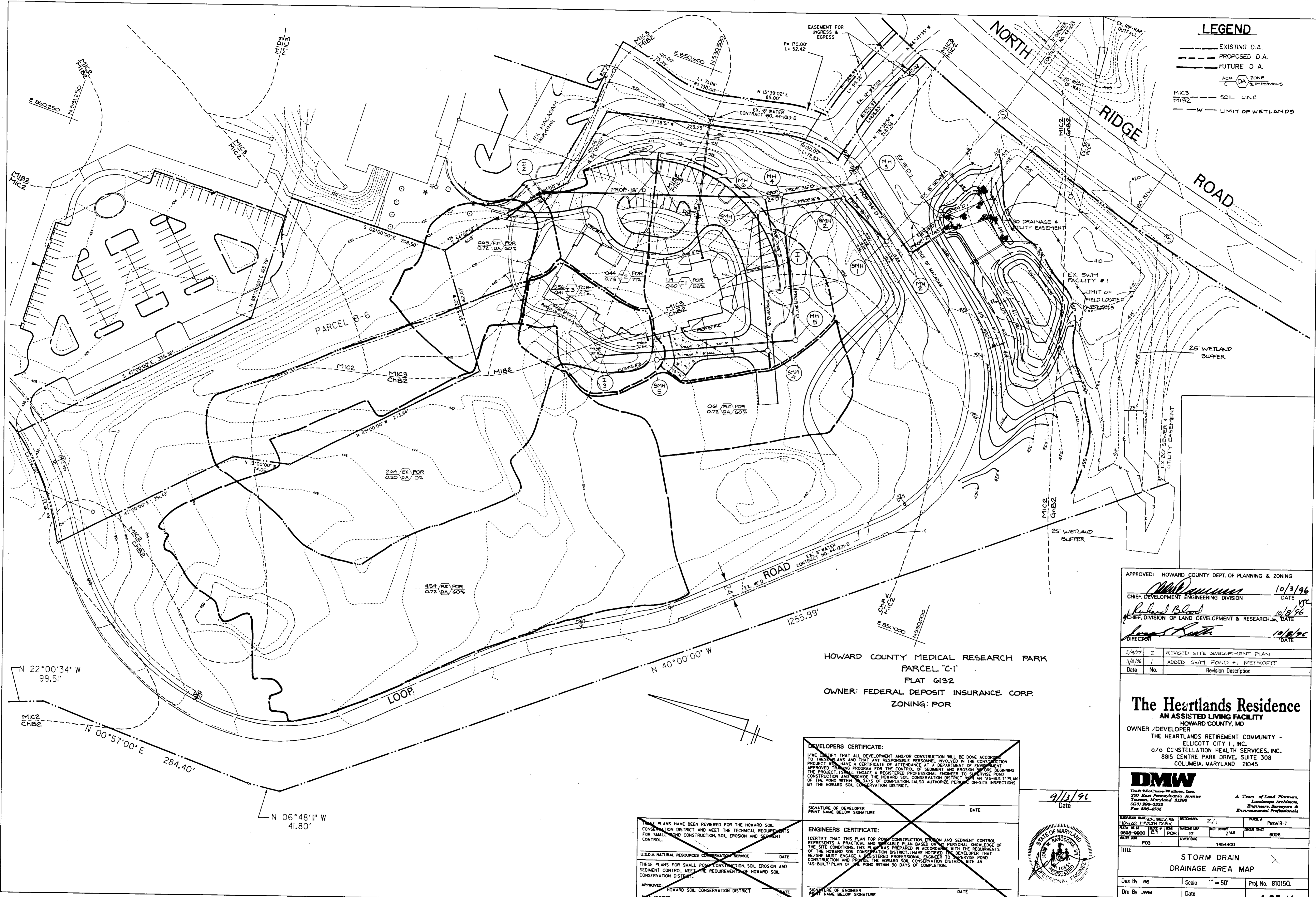
**DMW**  
Dawn McCreary-Walkers, Inc.  
300 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3353  
Fax: 296-4702

A Team of Land Planners,  
Landscape Architects,  
Engineers, Surveyors &  
Environmental Professionals

SECTION NAME	SECTION NO.	TOTAL	PARCEL #
Bon Secours Ho. Co. Health Part	21	17	PARCEL B-7
PLAN OR LOT	BLOCK	ZONE	PLAT
5896-5900	23	2ND	6026
PLAT	DATE	RECORD	BOOK
F03	1984	1454400	

TITLE: **SITE DETAILS**

Des By: MM Scale: As Noted Proj. No.: 81015Q  
 Dm By: CLZ Date: 3 OF 16  
 Chk By: JWR Approved: Professional Engineer Number: 10357



**LEGEND**

- EXISTING D.A.
- - - PROPOSED D.A.
- FUTURE D.A.
- AC% DA ZONE
- MIC3
- MIB2
- SOIL LINE
- W LIMIT OF WETLANDS

HOWARD COUNTY MEDICAL RESEARCH PARK  
 PARCEL "C-1"  
 PLAT G132  
 OWNER: FEDERAL DEPOSIT INSURANCE CORP.  
 ZONING: POR

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

<i>[Signature]</i>	10/3/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	10/8/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH	DATE
<i>[Signature]</i>	10/8/96
DIRECTOR	DATE

2/4/97	2	REVISED SITE DEVELOPMENT PLAN
11/8/96	1	ADDED SWM POND #1 RETROFIT
Date	No.	Revision Description

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 AN ASSISTED LIVING FACILITY  
 HOWARD COUNTY, MD  
 OWNER / DEVELOPER  
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 Draft/McCune/Walker, Inc.  
 300 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 298-3333  
 Fax 298-4706

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 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

DESIGNED	DATE	SCALE	PROJECT
1/10/96	1/10/96	1" = 50'	Parcel B-7
1/10/96	1/10/96	1" = 50'	Parcel B-7
1/10/96	1/10/96	1" = 50'	Parcel B-7
TITLE	STORM DRAIN DRAINAGE AREA MAP		
Des By	RS	Scale	1" = 50'
Dim By	JWM	Date	10/8/96
Chk By	JWR	Approved	<i>[Signature]</i>
			4 OF 16

**DEVELOPERS CERTIFICATE:**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_  
 PRINT NAME BELOW SIGNATURE

**ENGINEERS CERTIFICATE:**  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED IN THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 PRINT NAME BELOW SIGNATURE

9/13/96  
 Date

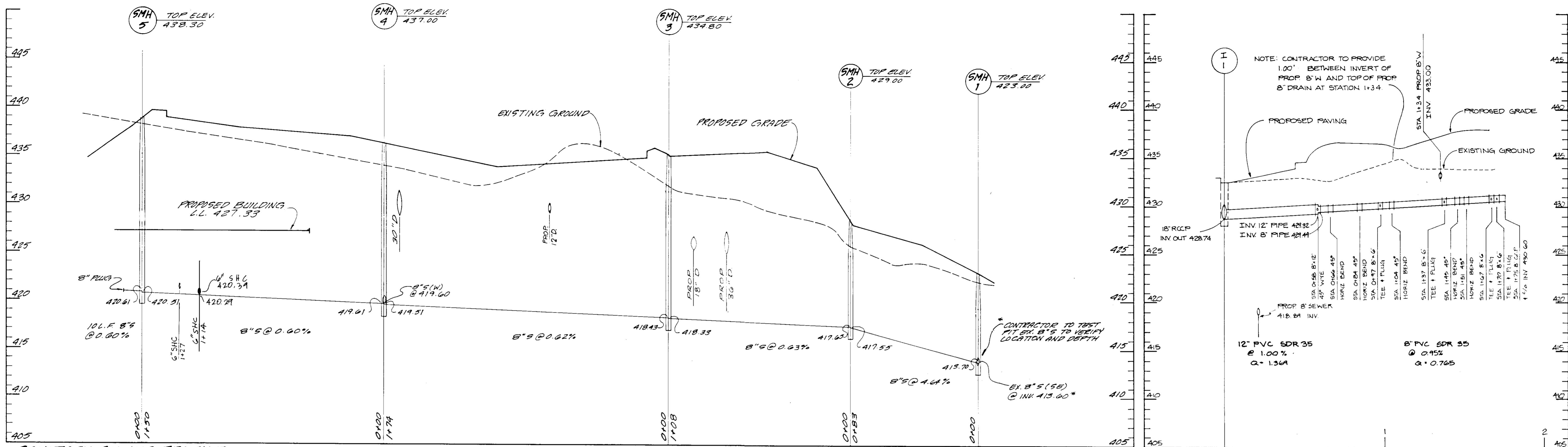


THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

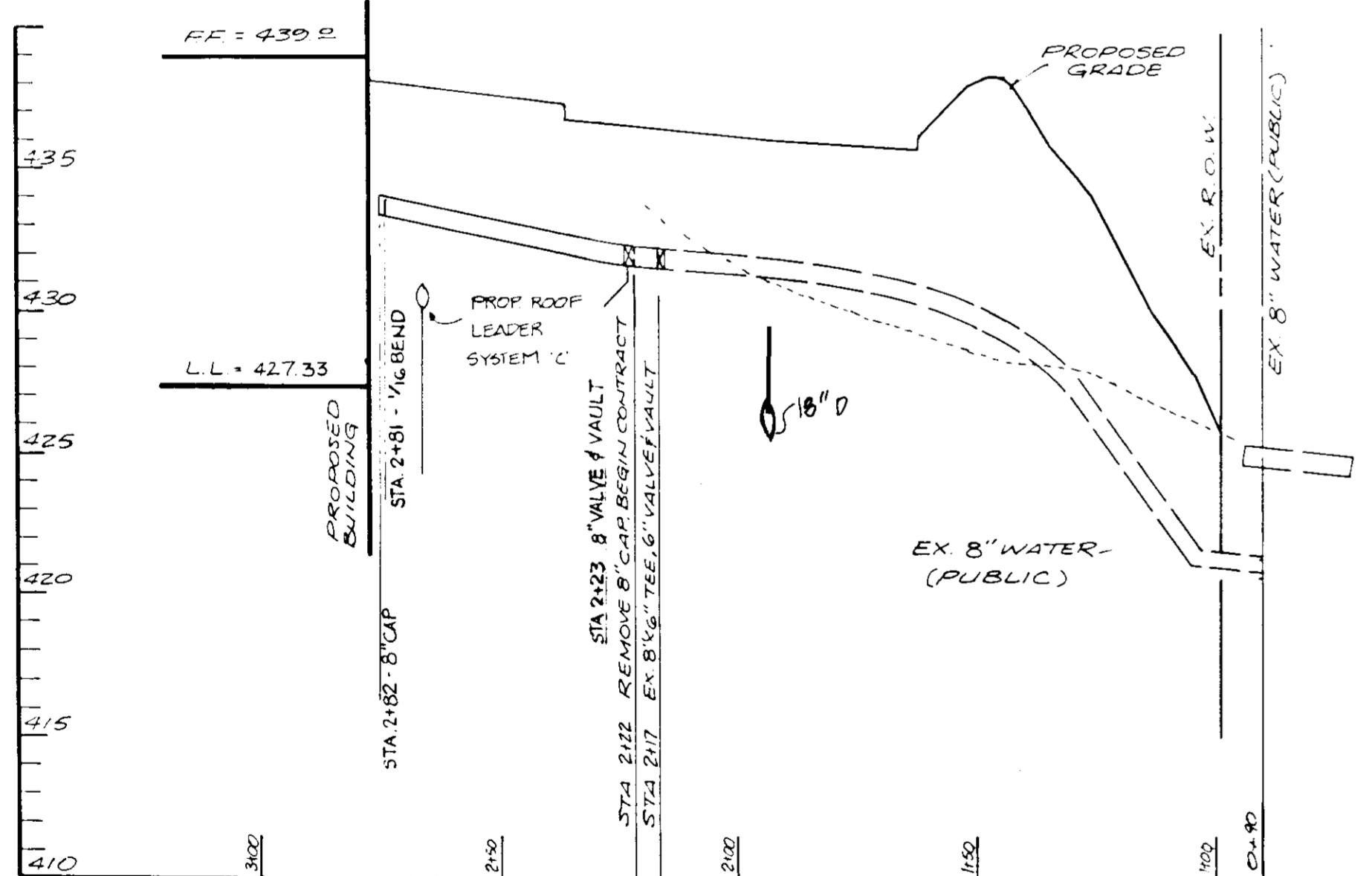
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE \_\_\_\_\_

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

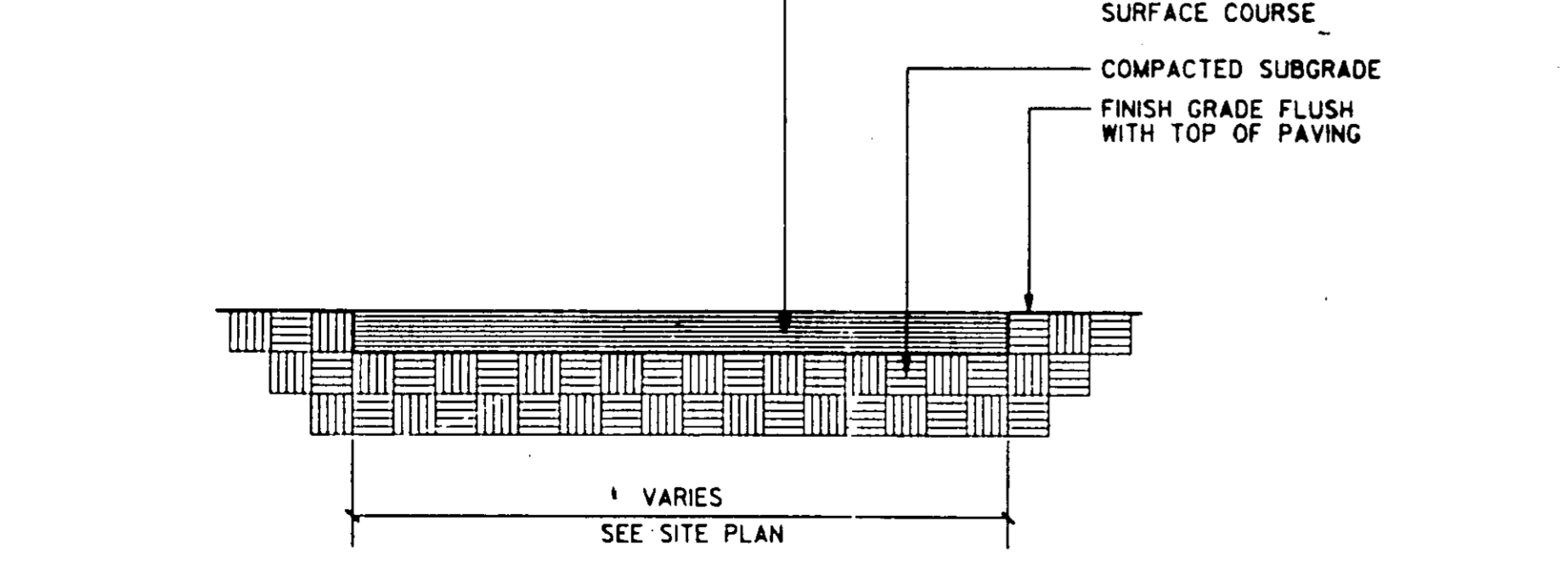
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 HOWARD SOIL CONSERVATION DISTRICT



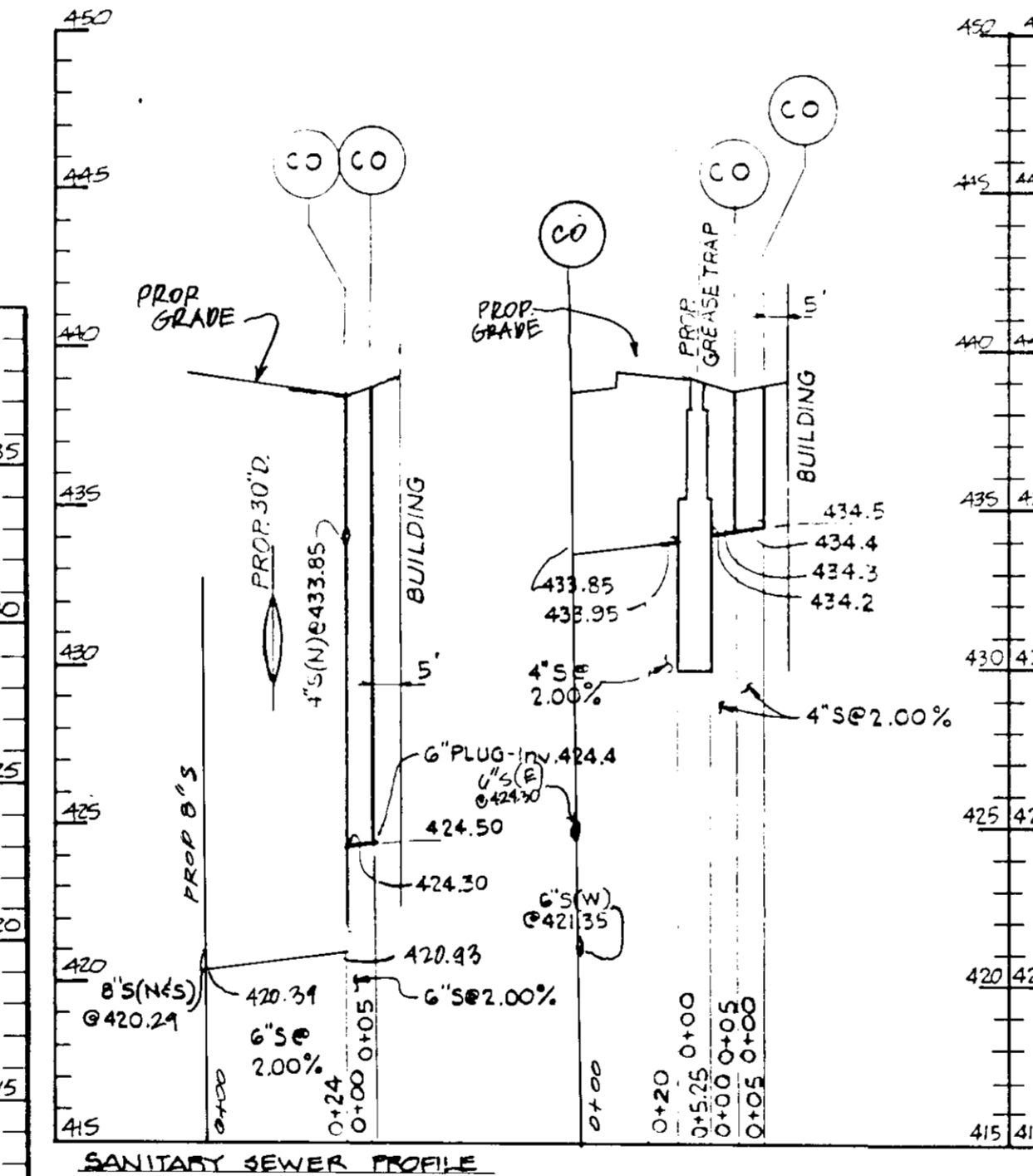
**SANITARY SEWER PROFILE**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



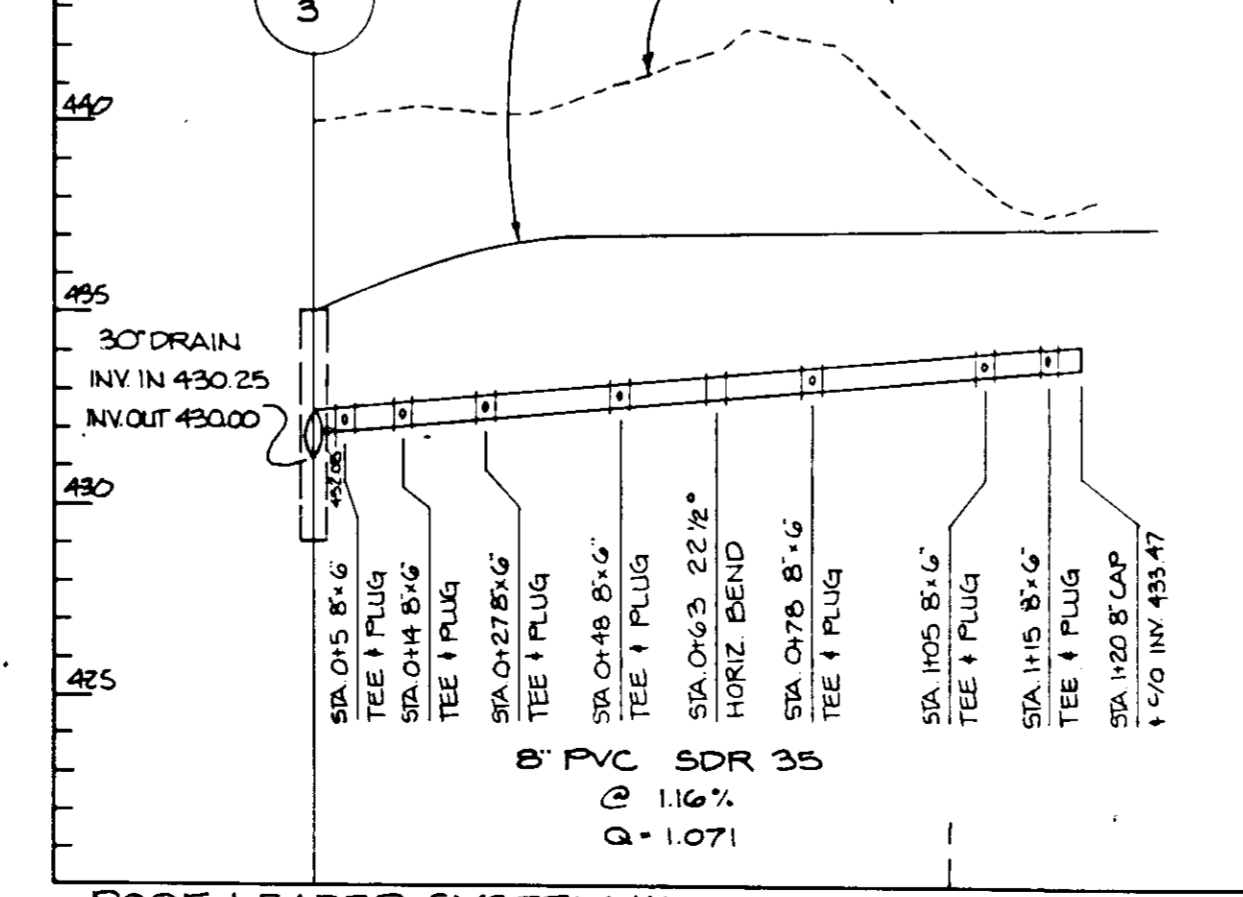
**8" WATERLINE PROFILE**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



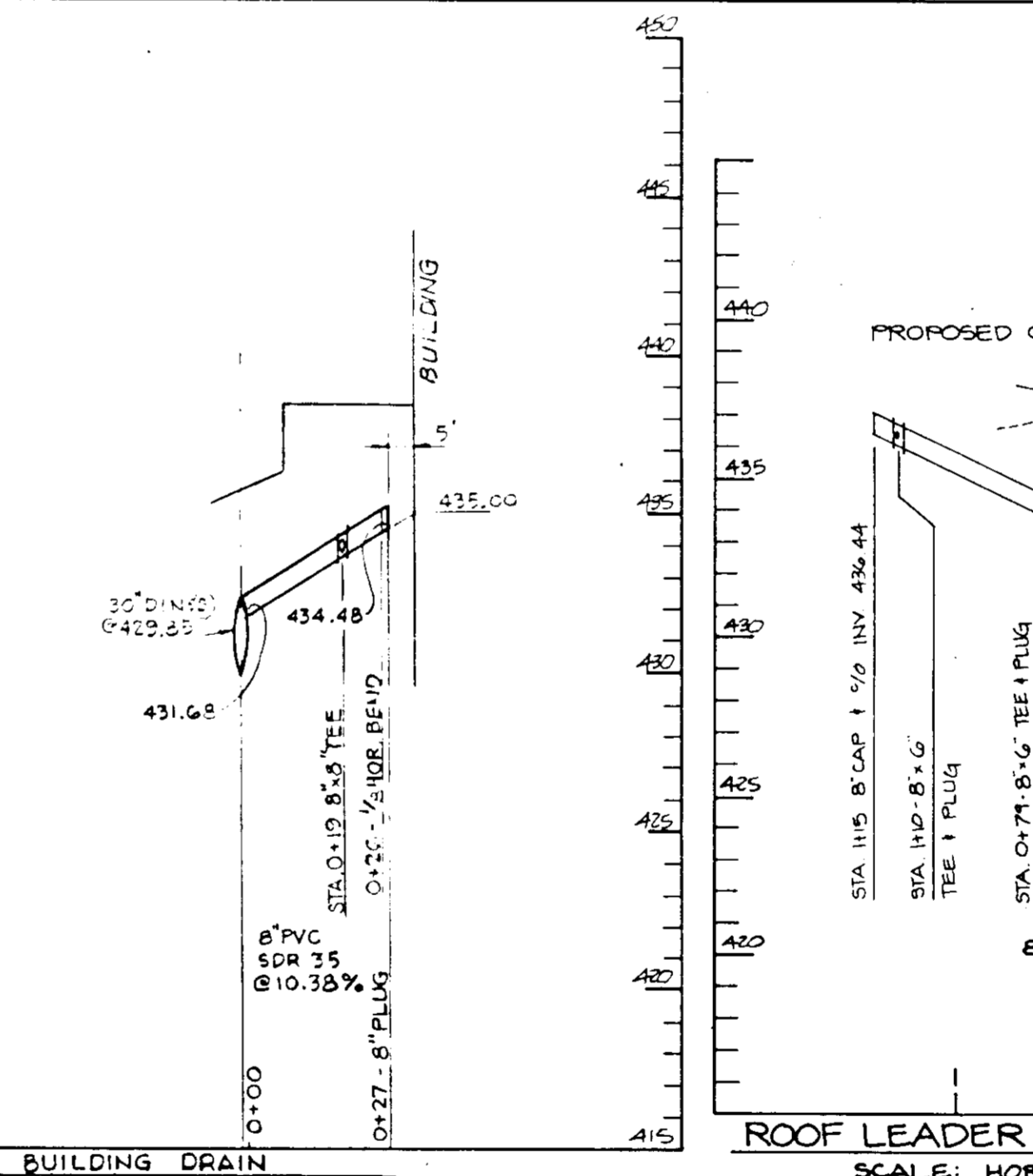
**BITUMINOUS WALK**  
 N.T.S.



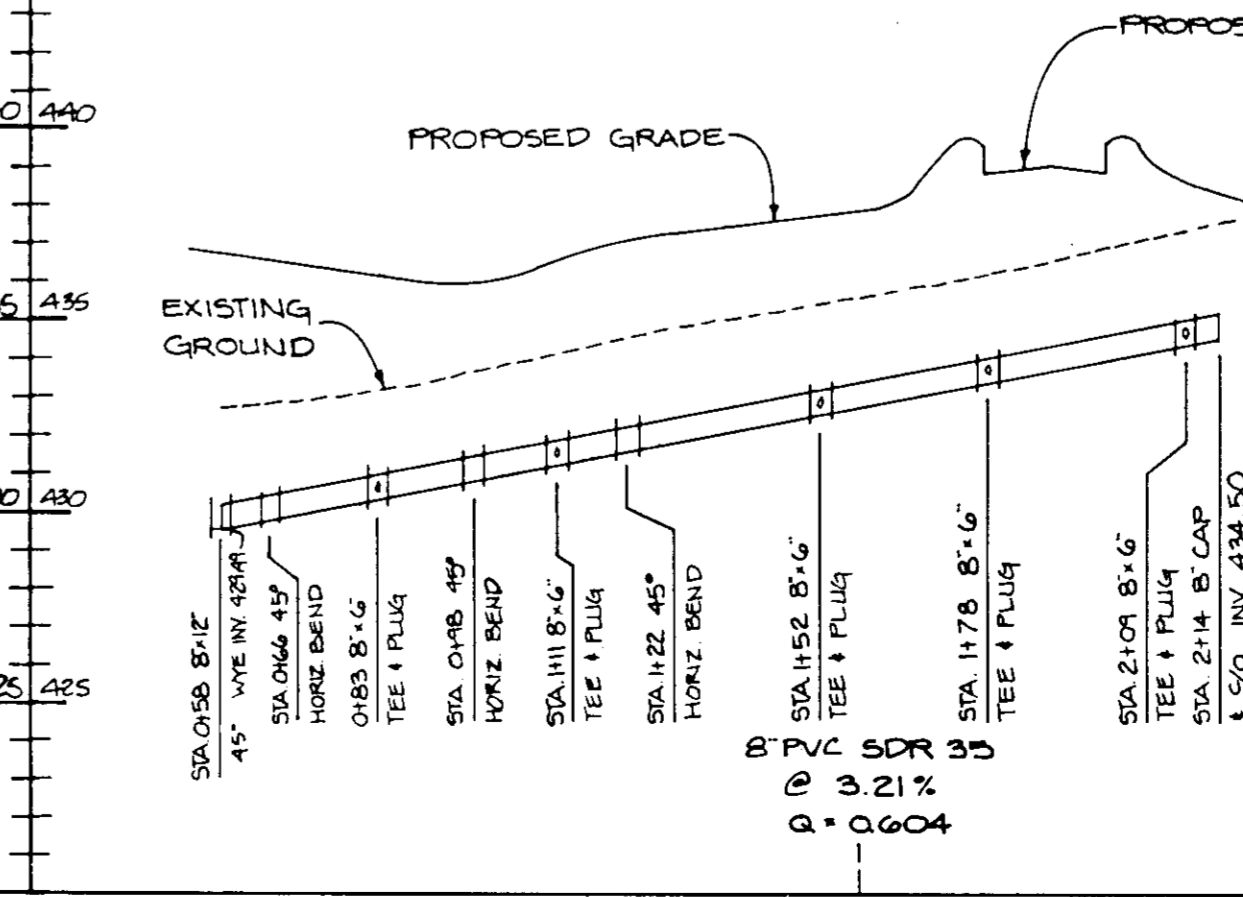
**SANITARY SEWER PROFILE**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



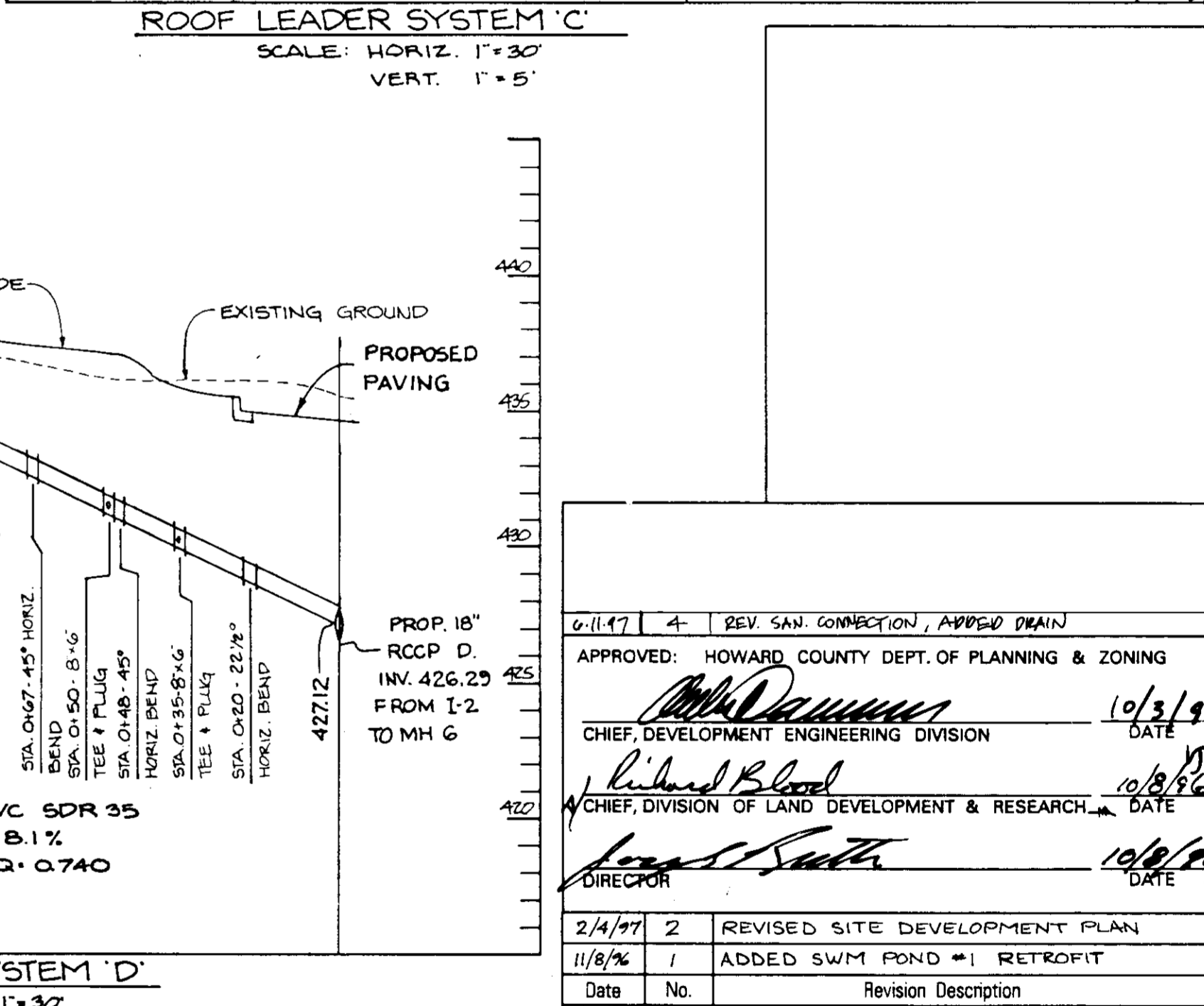
**ROOF LEADER SYSTEM 'A'**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



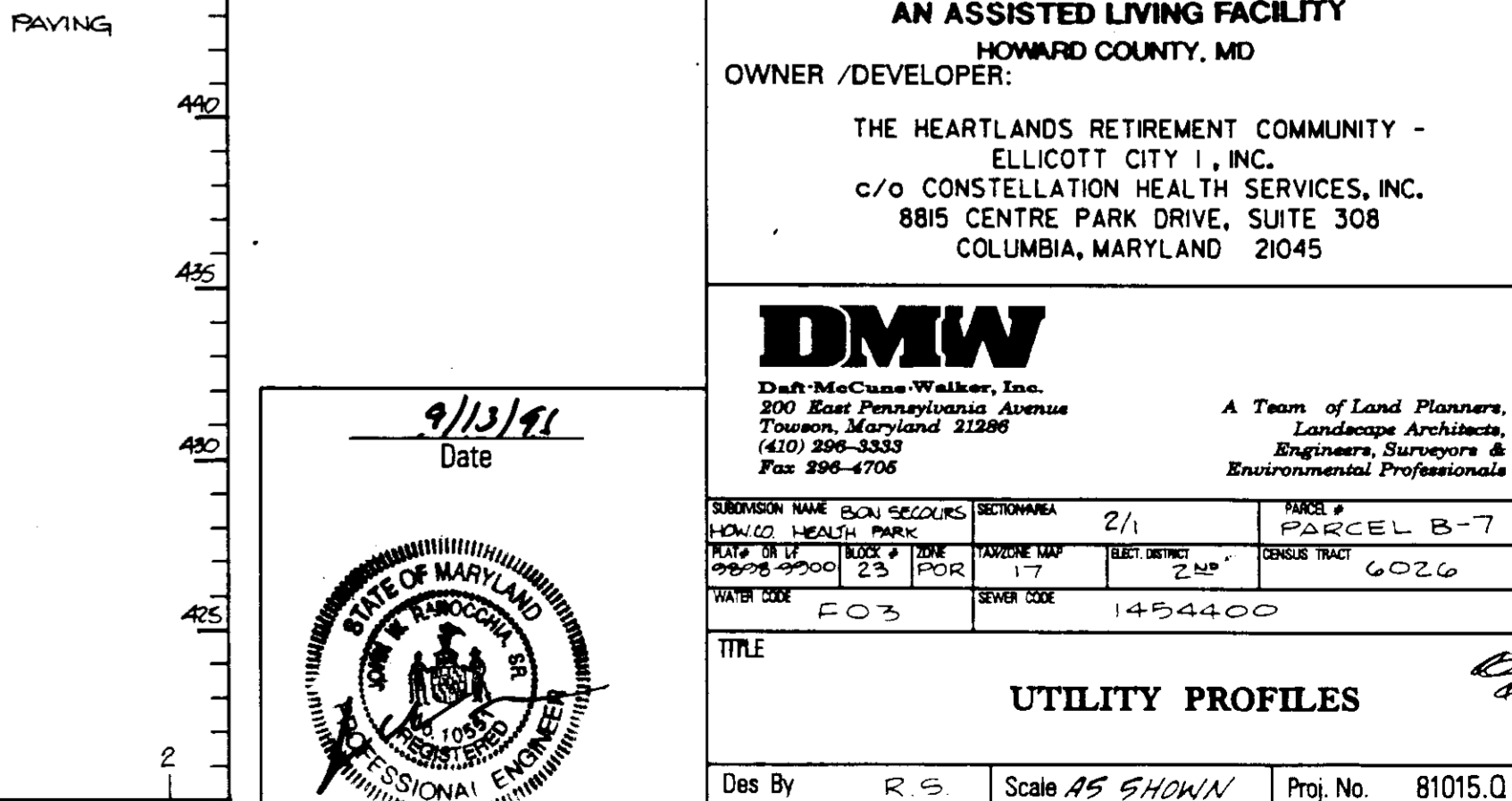
**ROOF LEADER SYSTEM 'B'**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



**ROOF LEADER SYSTEM 'C'**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



**ROOF LEADER SYSTEM 'D'**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'



**ROOF LEADER SYSTEM 'E'**  
 SCALE: HORIZ. 1" = 30'  
 VERT. 1" = 5'

0/1/17	4	REV. SAN. CONNECTION, ADDED DRAIN
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING		
[Signature]		10/3/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE
[Signature]		10/8/96
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH		DATE
[Signature]		10/6/96
DIRECTOR		DATE
2/4/97	2	REVISED SITE DEVELOPMENT PLAN
11/8/96	1	ADDED SWM POND #1 RETROFIT
Date	No.	Revision Description

**The Heartlands Residence**  
 AN ASSISTED LIVING FACILITY  
 HOWARD COUNTY, MD  
 OWNER / DEVELOPER:  
 THE HEARTLANDS RETIREMENT COMMUNITY -  
 ELLICOTT CITY I, INC.  
 c/o CONSTELLATION HEALTH SERVICES, INC.  
 8815 CENTRE PARK DRIVE, SUITE 308  
 COLUMBIA, MARYLAND 21045

**DMW**  
 Draft-McCune-Walker, Inc.  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 (410) 296-3333  
 Fax 296-4705

A Team of Land Planners,  
 Landscape Architects,  
 Engineers, Surveyors &  
 Environmental Professionals

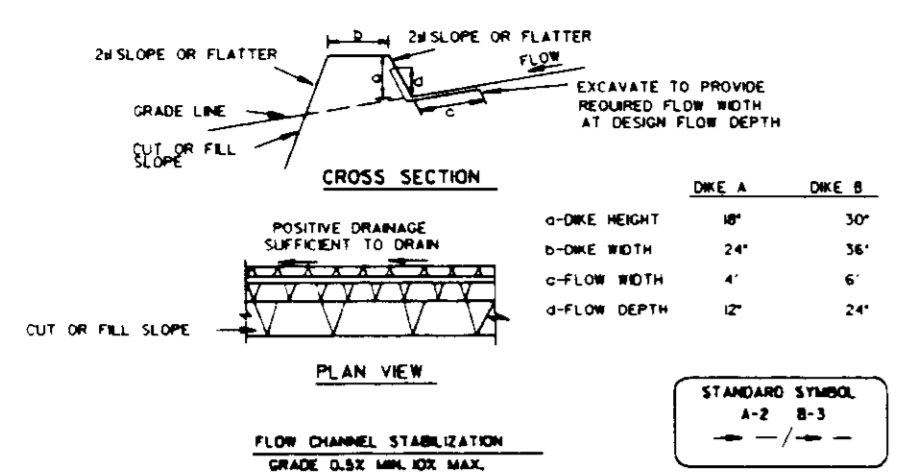
9/13/96  
 Date

Professional Engr. No. 10557

SUBMISSION NAME: SDP SEQUENCES				REVISIONS: 2/1	PAGES: 7
NO.:	DATE:	BY:	REASON:	DATE:	NO.:
1	10/3/96	RS	ISSUE FOR PERMITS	10/3/96	1
2	10/8/96	ML	REVISED PERMITS	10/8/96	2
3	10/13/96	J.W.R.	ADDED SWM POND #1 RETROFIT	10/13/96	3
TITLE: UTILITY PROFILES				PROJECT NO.: 81015.0	
DATE: 3/13/96				SHEET NO.: 5 OF 16	



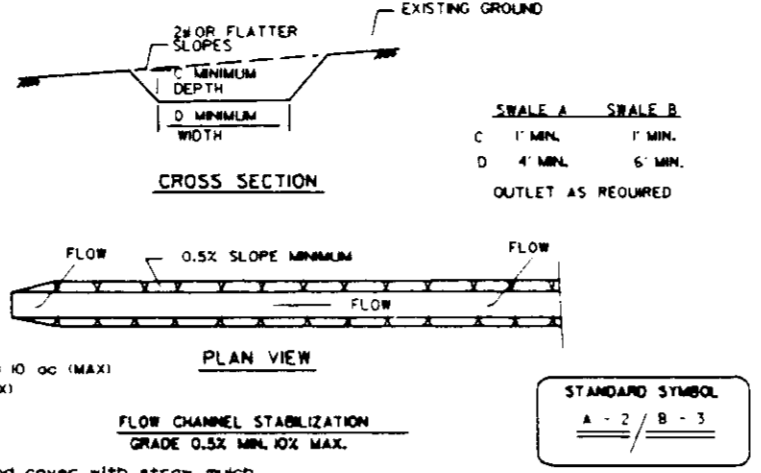




- Construction Specifications**
1. Seed and cover with straw mulch.
  2. Seed and cover with Erosion Control Matting or line with sod.
  3. 1" stone or recycled concrete equivalent pressed into the soil surface.
1. Temporary earth dikes and/or unobstructed positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
  2. Runoff diverted from a disturbed area and/or conveyed to a sediment trapping device.
  3. Runoff diverted from an undisturbed area and/or directly into an undisturbed, stabilized area of a non-erodible velocity.
  4. All trees, brush, stumps, obstructions, and other objectionable materials shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
  5. The dike shall be excavated or shaped to the grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
  6. If necessary, shall be compacted by earth moving equipment.
  7. As earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
  8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE A - 2 - 4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

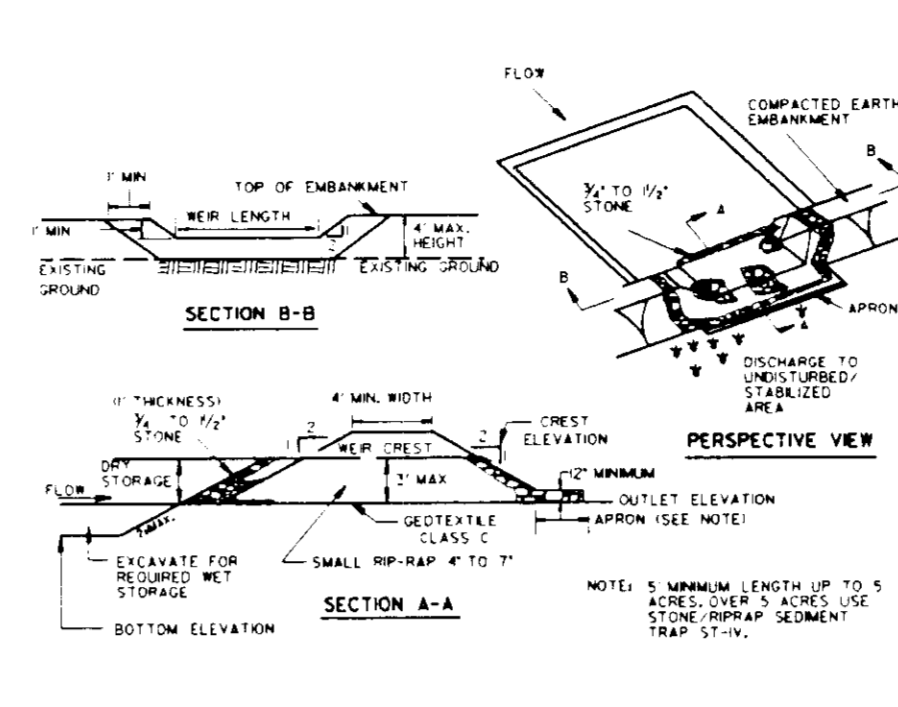
**EARTH DIKE**



- Construction Specifications**
1. Temporary swales and/or unobstructed positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
  2. Runoff diverted from a disturbed area and/or conveyed to a sediment trapping device.
  3. Runoff diverted from an undisturbed area and/or directly into an undisturbed, stabilized area of a non-erodible velocity.
  4. All trees, brush, stumps, obstructions, and other objectionable materials shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
  5. The swale shall be excavated or shaped to the grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
  6. If necessary, shall be compacted by earth moving equipment.
  7. As earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
  8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE A - 2 - 4 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

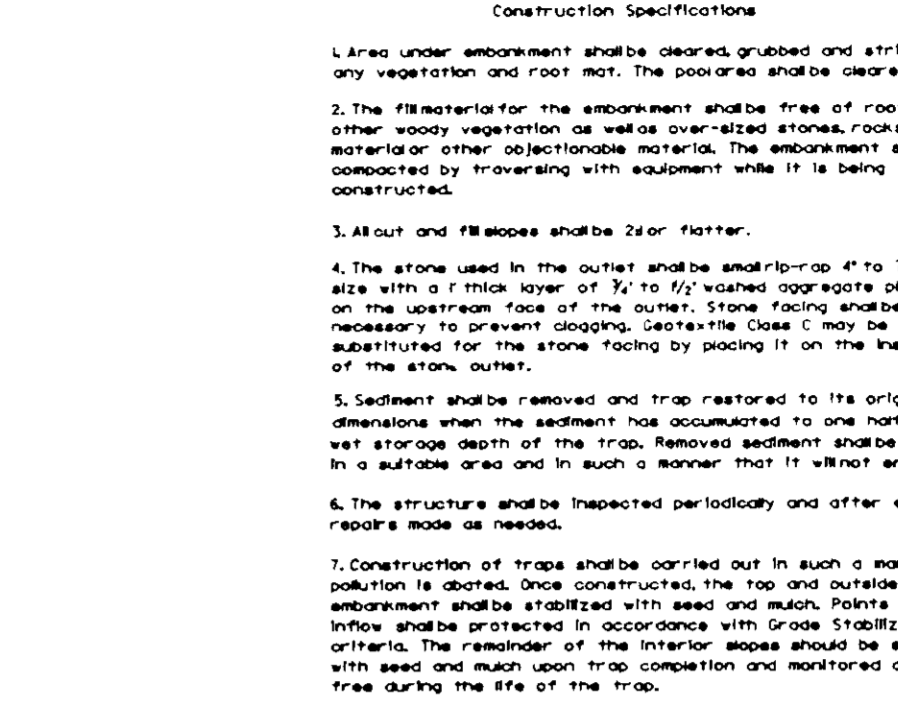
**TEMPORARY SWALE**



- Construction Specifications**
1. The area under the embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The debris shall be disposed.
  2. The materials for the embankment shall be free of roots or other woody material and shall be compacted with heavy equipment. The embankment shall be constructed by traversing with equipment while it is being constructed.
  3. All cut and fill areas shall be 2:1 or flatter.
  4. The stone used in the outlet shall be angular and 4 to 7 inches in size with a 1/2 inch layer of 3/4 to 1/2 inch aggregate placed on the upstream face of the outlet. Stone facing shall be necessary to prevent sloughing. Gravel Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
  5. Sediment shall be removed and trap restored to the original dimensions when the sediment has accumulated to one half of the net storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
  6. The structure shall be inspected periodically and after each rain and repairs made as needed.
1. Construction of traps shall be carried out in such a manner that erosion and water pollution are avoided. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slope shall be stabilized (one third with seed and mulch) until trap completion and monitored and maintained erosion free during the life of the trap.
  1. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
  1. Refer to Section D for specifications concerning trap dewatering.
  1. Minimum trap depth shall be measured from the water elevation.
  1. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
  1. Gravel Class C shall be placed over the bottom and sides of the outlet channel to the placement of stone. Sections of filter cloth must overlap at least 12 inches with the section nearest the entrance based on top. The filter cloth shall be secured to the existing ground at the entrance of the outlet channel.
  1. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stone channel.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**STONE OUTLET SEDIMENT TRAP - ST II**



- Construction Specifications**
1. The area under the embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The debris shall be disposed.
  2. The materials for the embankment shall be free of roots or other woody material and shall be compacted with heavy equipment. The embankment shall be constructed by traversing with equipment while it is being constructed.
  3. All cut and fill areas shall be 2:1 or flatter.
  4. The stone used in the outlet shall be angular and 4 to 7 inches in size with a 1/2 inch layer of 3/4 to 1/2 inch aggregate placed on the upstream face of the outlet. Stone facing shall be necessary to prevent sloughing. Gravel Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
  5. Sediment shall be removed and trap restored to the original dimensions when the sediment has accumulated to one half of the net storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
  6. The structure shall be inspected periodically and after each rain and repairs made as needed.
1. Construction of traps shall be carried out in such a manner that erosion and water pollution are avoided. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slope shall be stabilized (one third with seed and mulch) until trap completion and monitored and maintained erosion free during the life of the trap.
  1. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
  1. Refer to Section D for specifications concerning trap dewatering.
  1. Minimum trap depth shall be measured from the water elevation.
  1. The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
  1. Gravel Class C shall be placed over the bottom and sides of the outlet channel to the placement of stone. Sections of filter cloth must overlap at least 12 inches with the section nearest the entrance based on top. The filter cloth shall be secured to the existing ground at the entrance of the outlet channel.
  1. Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stone channel.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**STONE OUTLET SEDIMENT TRAP - ST II**

1. A minimum of 24 hours notice must be given to the HOWARD COUNTY DEPT. OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (902-2431).
2. ALL VEGETATIVE AND EROSION CONTROL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING METAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - a. SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3%.
  - b. FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADING AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND GRADING SOAK PILES AROUND THEM FENCED IN ACCORDANCE WITH VOL. CHAPTER 22 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEDIMENTS (SECTION 40.500 SECTION 40.501) TEMPORARY SEDIMENT CONTROL AND MULCHING (SECTION 40.502). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEDIMENT DATES DO NOT ALLOW FOR PROPER CORROSION 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	30.8 ACRES
AREA DISTURBED	8.0 ACRES
AREA TO BE SOFTENED OR PAVED	3.8 ACRES
AREA TO BE VEGETATIVELY STABILIZED	19.0 ACRES
TOTAL CUT	1800 CUBIC YARDS
TOTAL FILL	1800 CUBIC YARDS
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITIES FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED FROM COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTOR APPROVALS MAY NOT BE WITHHELD UNTIL THE INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

**DUST CONTROL SPECIFICATIONS**

Temporary Methods

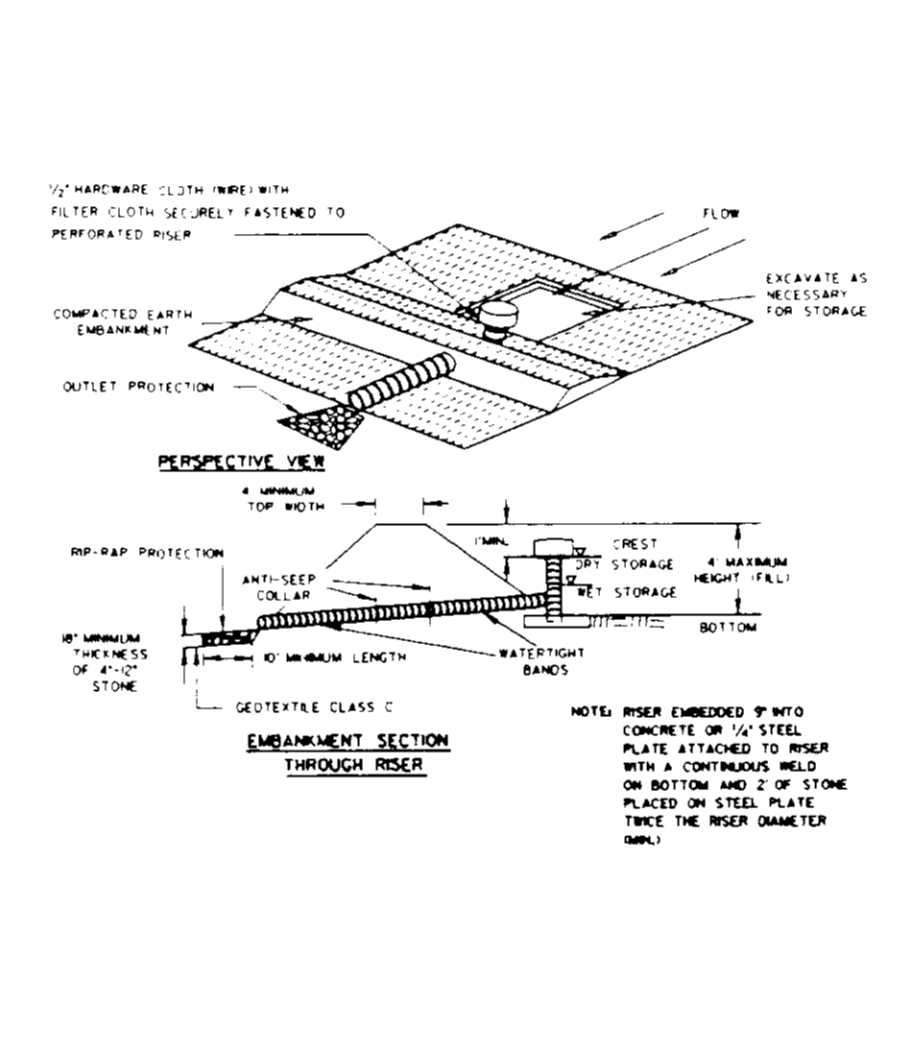
1. Mulch - See standards for grass/legume stabilization with mulch only. Do not use straw mulch. Thin shales may be used instead of mulch to stabilize.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Spray-on treatments - On unpaved roads not effective on much soil, keep traffic off these areas.

Water	Type of Sediment	Apply
Intrinsic deposit emission	Loose gravel	1200
Loose sediment	1/4" Fine Spray	200
Re-suspension sediment	1/4" Fine Spray	150

Permanent Methods

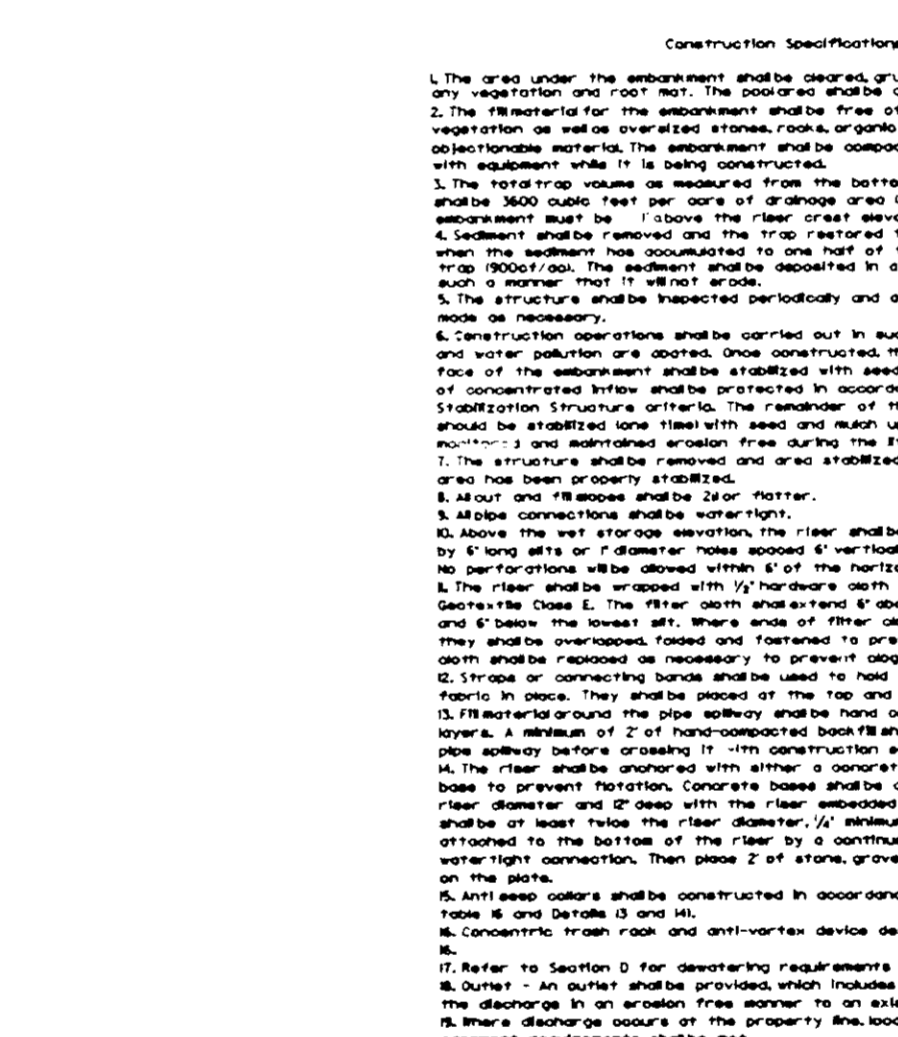
1. Permanent vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod, trees or 30% erythrae may afford valuable protection if left in place.
2. Tearing - Covering with seed and mulch. See standards for seeding.
3. Stone - Cover surface with crushed stone or coarse gravel.

**DUST CONTROL SPECIFICATIONS**



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

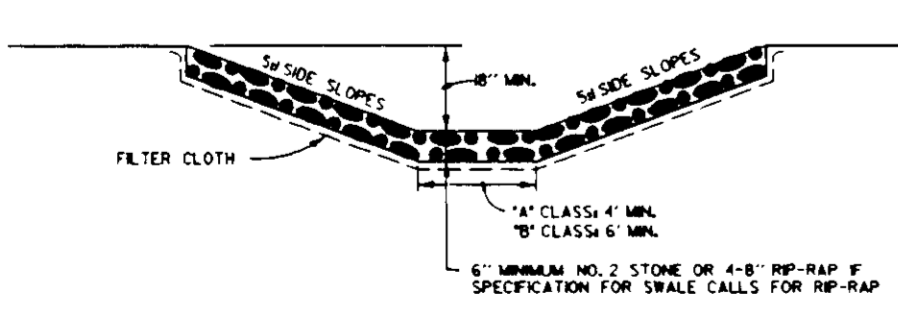
**PIPE OUTLET SEDIMENT TRAP - ST I**



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**PIPE OUTLET SEDIMENT TRAP - ST I**

**HOWARD COUNTY SEDIMENT CONTROL GENERAL NOTES**



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**CROSSABLE SWALE**

**UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL**

- UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES**
1. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.
  2. IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (MULCHED, SEED, AND/OR SOODED MECHANICAL STABILIZATION AT THE END OF EACH WORK DAY.
  3. SILENT FENCES SHALL BE PLACED IMMEDIATELY DOWN STREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE WORKING DAY. SILENT FENCE AS PER SCS STANDARD DRAWING - 57-10.
  4. THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.
  5. ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL**

**PIPE OUTLET SEDIMENT TRAP - ST I**

**DEVELOPERS CERTIFICATE:**

I/we 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 of a Department of the Environment of the Approved Training Program for the Control of Sediment and Erosion before beginning the project. (also authorize periodic on-site inspection by the Howard Soil Conservation District.

By the HOWARD SOIL CONSERVATION DISTRICT.

*James W. Jeffcoat* 9/14/91  
SIGNATURE OF DEVELOPER DATE  
PRINT NAME BELOW SIGNATURE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**PIPE OUTLET SEDIMENT TRAP - ST I**

**PIPE OUTLET SEDIMENT TRAP - ST I**

**ENGINEERS 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 Howard Soil Conservation District.

*John W. Ranochia* 7/23/96  
SIGNATURE OF ENGINEER DATE  
PRINT NAME BELOW SIGNATURE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C - 2 - 10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NOT TO SCALE

**PIPE OUTLET SEDIMENT TRAP - ST I**

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

N/A COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*John W. Ranochia* 10/3/96  
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

*James W. Jeffcoat* 10/3/96  
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

*James W. Jeffcoat* 10/18/96  
DIRECTOR DATE

Date	No.	Revision Description
2/4/97	2	REVISED SITE DEVELOPMENT PLAN
11/8/96	1	ADDED SWIM POND #1 RETROFIT

**The Heartlands Residence**  
An Assisted Living Facility  
Howard County, Maryland

OWNER / DEVELOPER:  
THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.  
c/o CONSTELLATION HEALTH SERVICES, INC.  
8815 CENTRE PARK DRIVE, SUITE 308  
COLUMBIA, MARYLAND 21045

**DMW**  
Dawn M. Walker, Inc.  
2000 East Pennsylvania Avenue  
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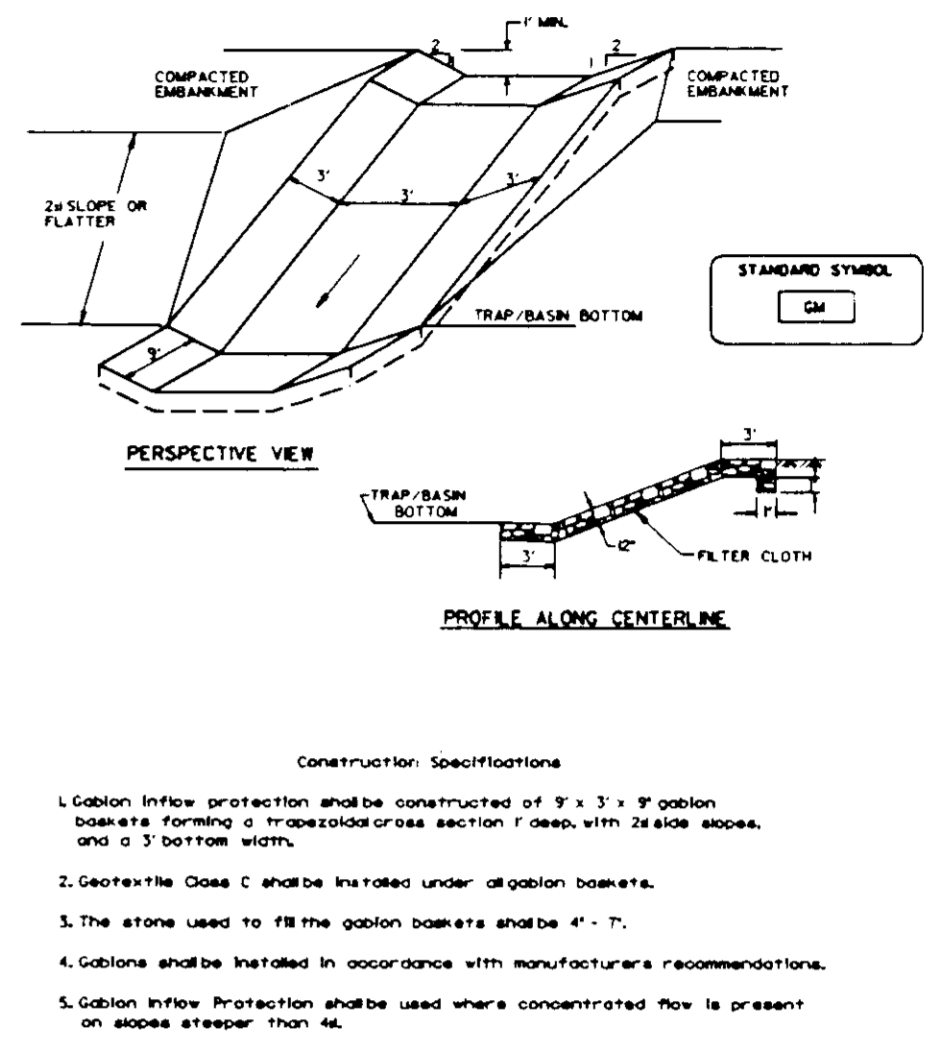
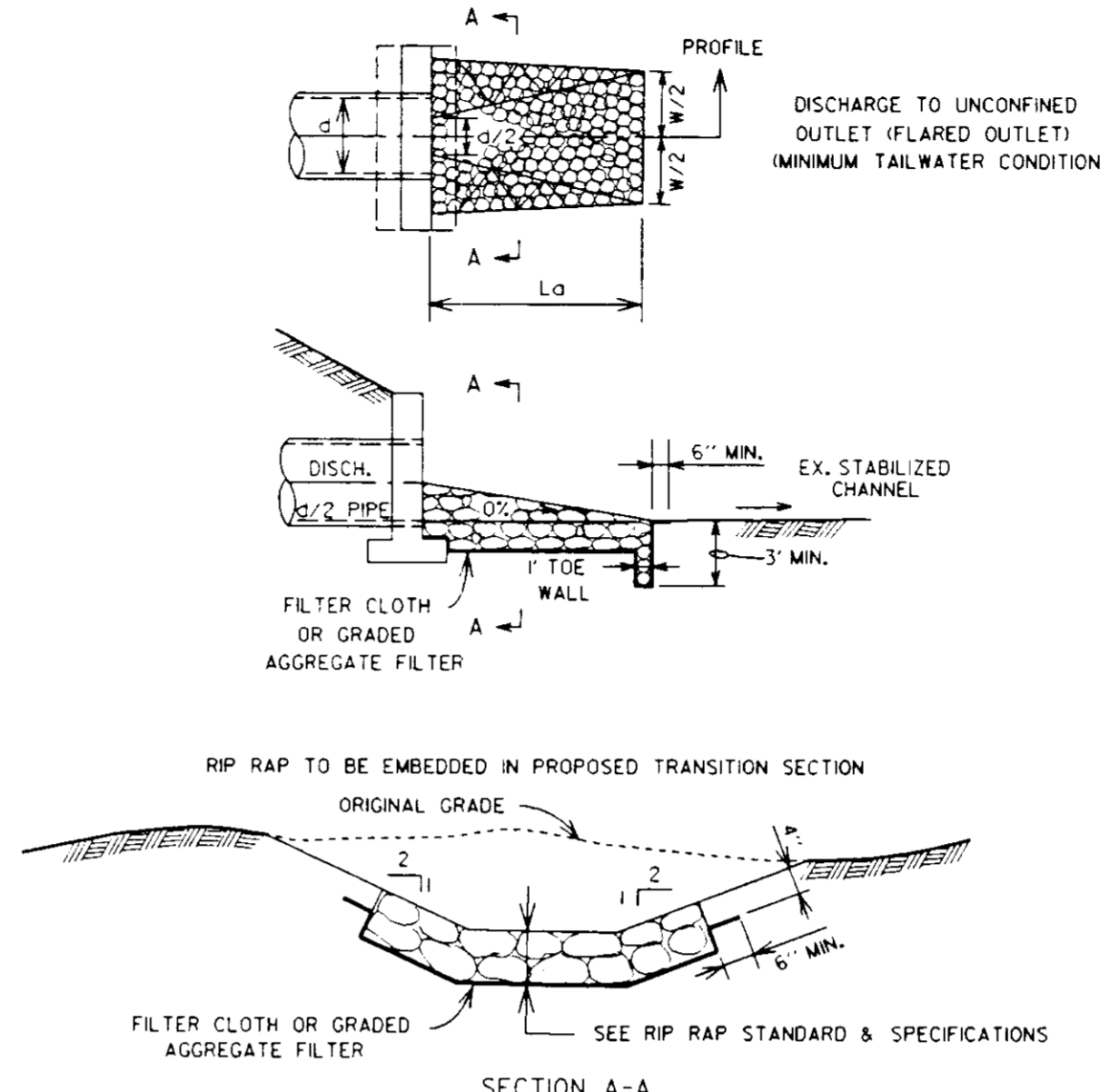
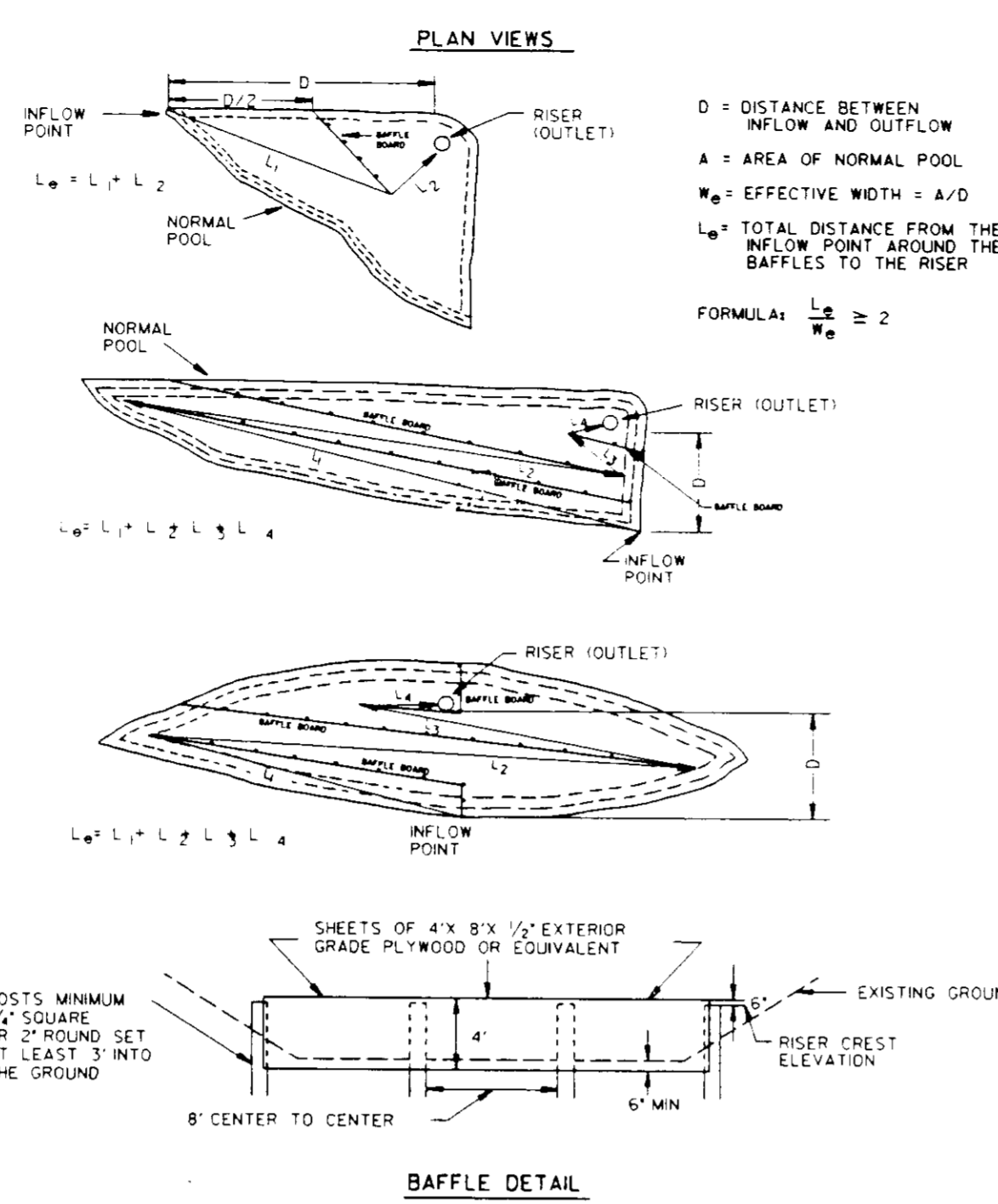
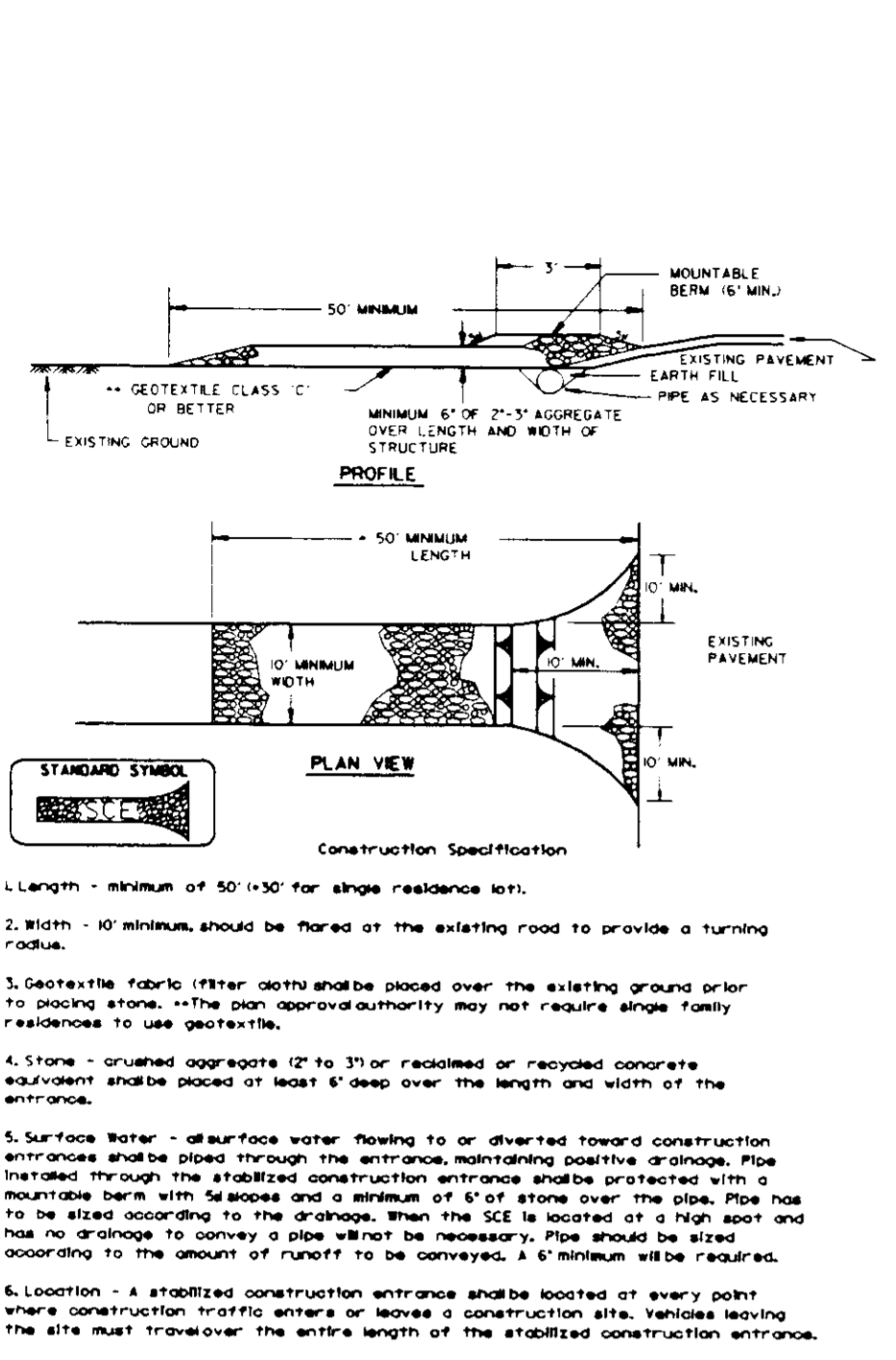
DIVISION NAME	SECTION	DISTRICT #	PARCEL #
Bon Secours Ho. Co. Health Park	Z1		8-7
BLDG OR USE	BLDG OR USE	BLDG OR USE	BLDG OR USE
2000-000	Z1	2ND	8026
WATER CODE	SEWER CODE		
F03	1454400		

TITLE: **SEDIMENT & EROSION CONTROL DETAILS**

Des By	MJK	Scale	AS NOTED	Proj. No.	81015Q
Drn By	CLZ	Date			
Chk By	JWR	Approved			<b>8 OF 16</b>

Professional Engr. No. 1454400





U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**STABILIZED CONSTRUCTION ENTRANCE** NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE C-10-38

**SEDIMENT BASIN BAFFLES** NOT TO SCALE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**RIPRAP OUTLET PROTECTION I** NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**GABION INFLOW PROTECTION** NOT TO SCALE

**Permanent Seeding Notes**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent vegetative cover is needed.

**Seeded Topsoil** - Loosen upper 3 inches of soil by raking, disking, or other acceptable means prior to seeding, if not previously assessed.

**Soil Preparation** - In fall of each year, recommendations use one of the following schedules:

- Grass** - Apply 2 tons per acre organic limestone (92 lbs./1,000 sq. ft.) and 1,000 lbs. per acre 0-40-0 fertilizer (23 lbs./1,000 sq. ft.) before seeding, narrow or disk into upper 3 inches of soil.
- Acres** - Apply 2 tons per acre organic limestone (92 lbs./1,000 sq. ft.) and 1,000 lbs. per acre 0-40-0 fertilizer (23 lbs./1,000 sq. ft.) before seeding, narrow or disk into upper 3 inches of soil.

**Seeds** - For the period March through April 30, and August through October 15, seed with 50 lbs. per acre 1/2" diameter sorghum (12 lbs./1,000 sq. ft.) for the period May through August 15, seed with 60 lbs. per acre 3/8" diameter sorghum (12 lbs./1,000 sq. ft.) for the period September 15 through February 28, protect site by applying 2 tons per acre of mulched straw mulch and seed as soon as possible in the spring. Option 2: Use seed, Option 1: Seed with 60 lbs. per acre Kentucky 31 Tallgrass and mulch with 2 tons per acre mulched straw.

**Mulching** - Apply 1/2 to 2 tons per acre (10 to 30 lbs./1,000 sq. ft.) of untreated mulch straw immediately after seeding. Mulch must immediately offer protection using mulch amounting to 28 gallons per acre (18 lbs./1,000 sq. ft.) of mulch applied on top of area. On slopes 8 feet or higher, use 348 gallons per acre (18 lbs./1,000 sq. ft.) for anchoring.

**Maintenance** - Inspect of seeds, area and make needed repairs, reseed, and reseed.

**Temporary Seeding Notes**

Apply to graded or cleared areas that may be redistributed where a short-term vegetative cover is needed.

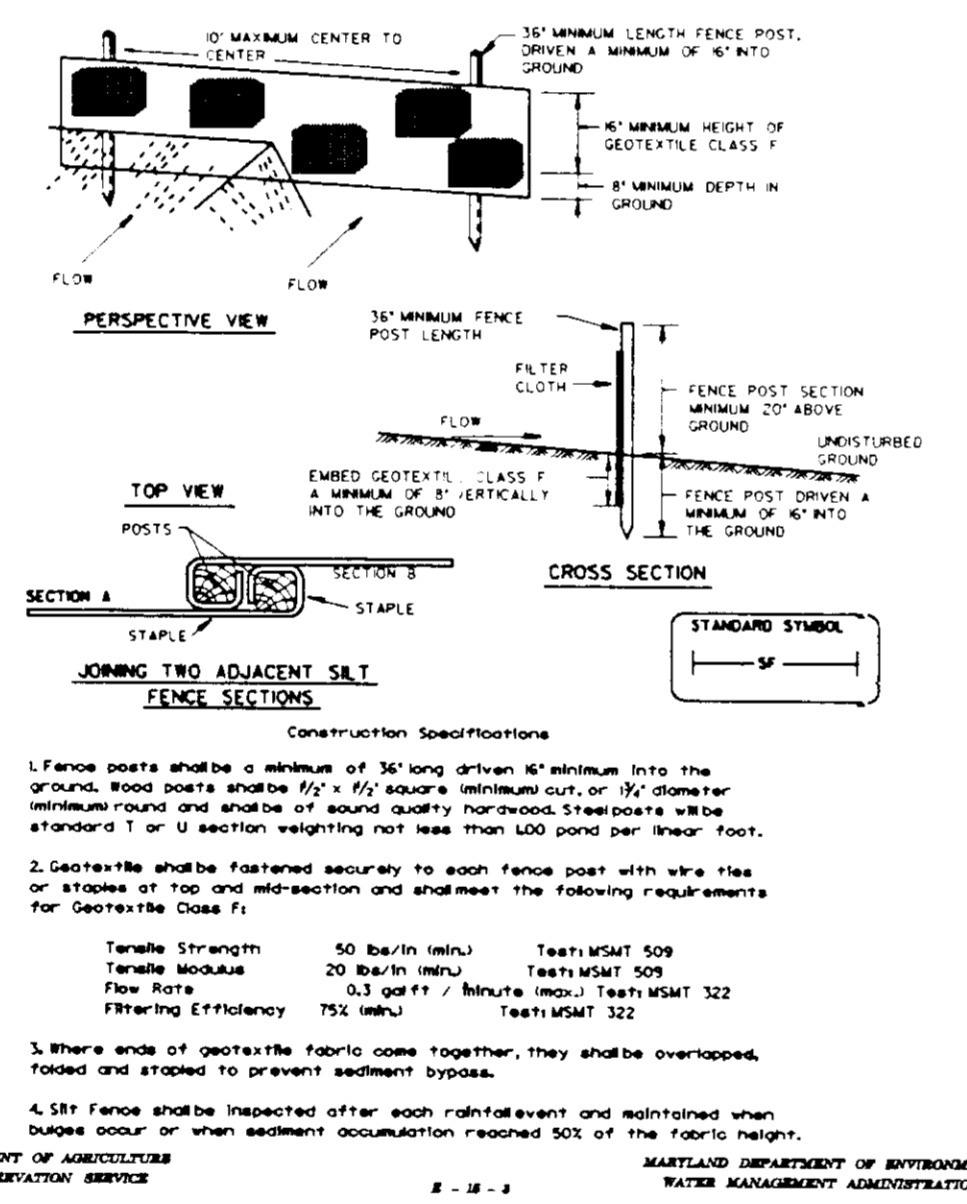
**Seeded Topsoil** - Loosen upper 3 inches of soil by raking, disking, or other acceptable means prior to seeding, if not previously assessed.

**Soil Preparation** - Apply 60 lbs. per acre 0-40-0 fertilizer (23 lbs./1,000 sq. ft.)

**Seeds** - For the period March through April 30, and August through October 15, seed with 2 1/2 bushels per acre of annual ryegrass (12 lbs./1,000 sq. ft.) for the period May through August 15, seed with 18 lbs. per acre of seedling sorghum (12 lbs./1,000 sq. ft.) for the period September 15 through February 28, protect site by applying 2 tons per acre of mulched straw mulch and seed as soon as possible in the spring. Option 2: Use seed, Option 1: Seed with 60 lbs. per acre Kentucky 31 Tallgrass and mulch with 2 tons per acre mulched straw.

**Mulching** - Apply 1/2 to 2 tons per acre (10 to 30 lbs./1,000 sq. ft.) of untreated mulch straw immediately after seeding. Mulch must immediately offer protection using mulch amounting to 28 gallons per acre (18 lbs./1,000 sq. ft.) of mulch applied on top of area. On slopes 8 feet or higher, use 348 gallons per acre (18 lbs./1,000 sq. ft.) for anchoring.

Refer to the 1982 Maryland Standards and Specifications for Soil Erosion and Sediment Control for additional notes and methods not covered.

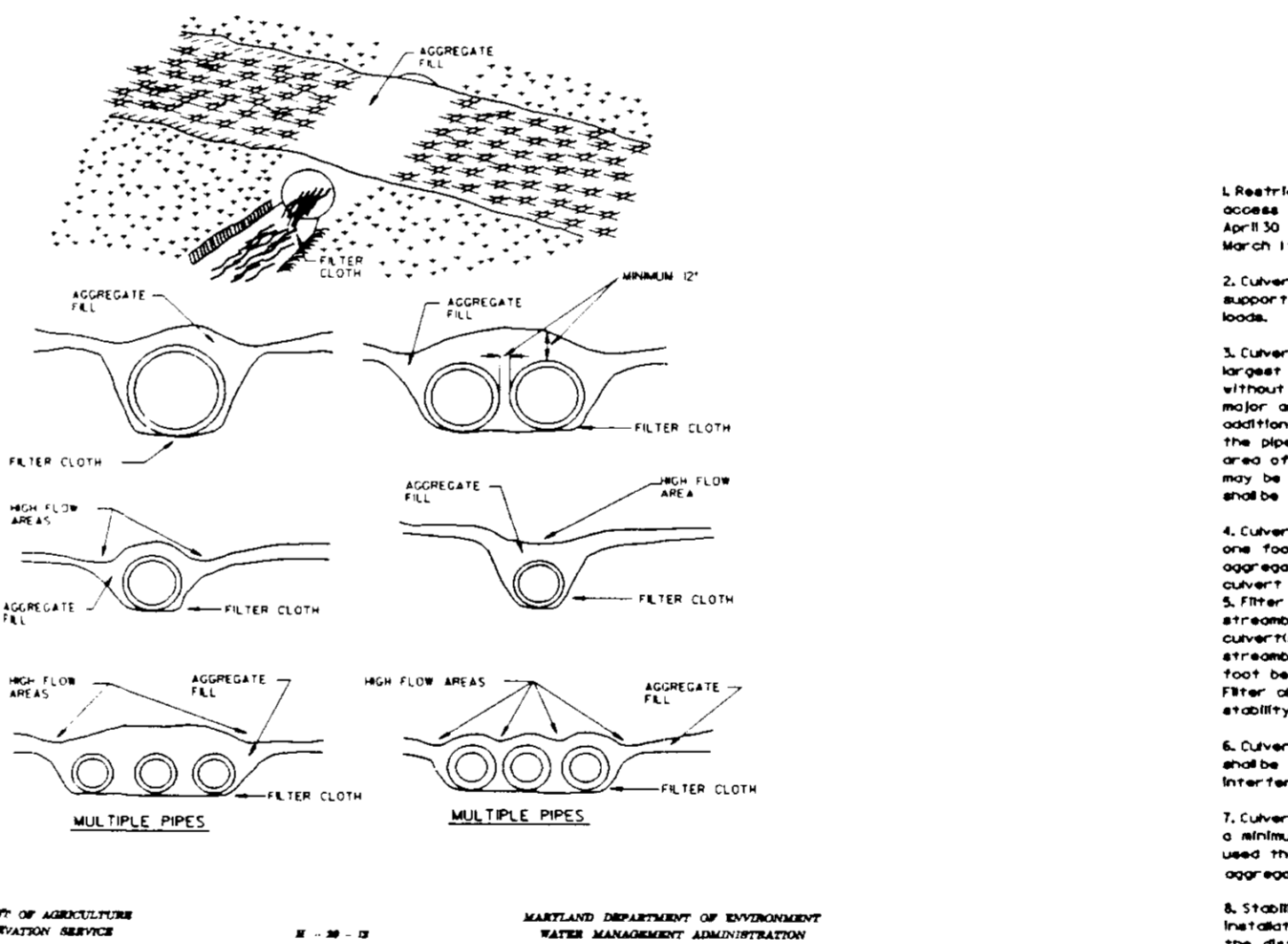


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**SEEDING NOTES** NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**SILT FENCE** NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

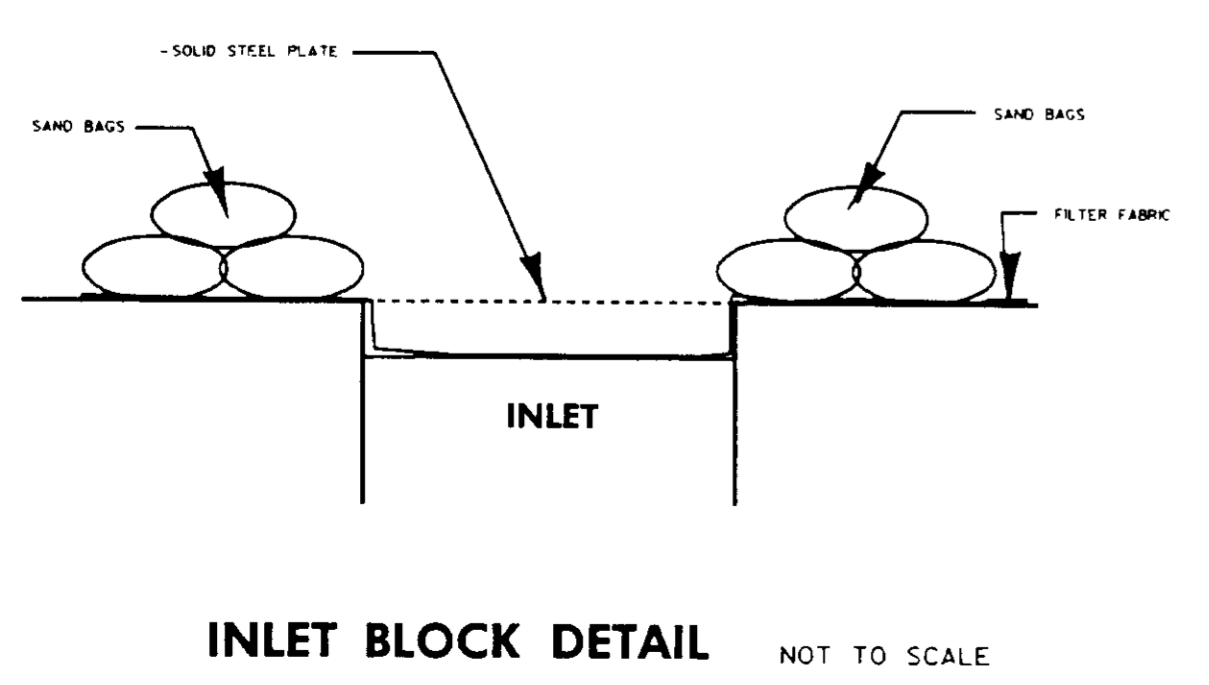
**SEEDING NOTES** NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**SILT FENCE** NOT TO SCALE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**TEMPORARY ACCESS CULVERT** NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**SEEDING NOTES** NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE P-17-2

**SILT FENCE** NOT TO SCALE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

**TEMPORARY ACCESS CULVERT** NOT TO SCALE

**DEVELOPERS CERTIFICATE:**

I/We 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/We authorize periodic on-site inspection by the Howard Soil Conservation District.

BY THE HOWARD SOIL CONSERVATION DISTRICT.

*James W. Jeffcoat* 9/14/96  
SIGNATURE OF DEVELOPER DATE  
PRINT NAME BELOW SIGNATURE JAMES W. JEFFCOAT

**ENGINEERS 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 Howard Soil Conservation District.

*John W. Rancovich* 7/23/96  
SIGNATURE OF ENGINEER DATE  
PRINT NAME BELOW SIGNATURE JOHN W. RANCOVICH

Reviewed for Howard S.C.D. and meets Technical Requirements

*J. D. Wankel* 9/23/96  
U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: *John R. Plauton* 7/16/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN NUMBER

Professional Engr. No. 10557

9/10/96  
Date

Professional Engr. No. 10557

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Richard Blood* 10/3/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Richard Blood* 10/3/96  
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

*James W. Jeffcoat* 10/3/96  
DIRECTOR DATE

Date	No.	Per comments	Revision Description
2/4/97	1	REVISED SITE DEVELOPMENT PLAN	
1/19/96	1	ADDED SWFT POND #1	
5/7/96	1	Per comments	

**The Heartlands Residence**  
An Assisted Living Facility  
Howard County, Maryland

OWNER /DEVELOPER:  
THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.  
c/o CONSTELLATION HEALTH SERVICES, INC.  
8815 CENTRE PARK DRIVE, SUITE 308  
COLUMBIA, MARYLAND 21045

**DMW**  
Dunn-McCree, Weathers, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 294-3333  
Fax 294-4706

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBMISSION NAME	SECTION	DATE	DATE	DATE	DATE
Bon Secours No. Co. Health Park	SECTION 21	DISPENSE #			
FORM 101 - SOIL EROSION CONTROL PLAN	SECTION 23	PERMITS			
WATER CODE	FO3	SEWER CODE	145400		

TITLE

**SEDIMENT & EROSION CONTROL DETAILS**

Des By	MJK	Scale	AS NOTED	Proj. No.	81015Q
Drn By	CLZ	Date			
Chk By	JWR	Approved			

9 OF 16

SDP-96-104

Sequence of Construction

1. Obtain all necessary permits for construction.
2. Notify Howard County Office of Inspections and Permits (410) 313-1855 a minimum of 48 hours prior to the start of any construction. Notify the Maryland Department of the Environment Nontidal Wetlands and Waterways Inspection and Compliance Division (410) 631-3510 at least five (5) days prior to any in-stream construction.
3. Notify the engineer-in-charge of the As-built inspection at (410) 296-3333.
4. Clear, grub for and install sediment control measures only. Coordinate all work with the approved erosion and sediment control plan sequence of operations. Also refer to the notes "Conditions and Management Practices for Working in Nontidal Wetlands and Buffers" shown on this sheet.
5. Excavate for the forebay and water quality wet pool. Remove appropriate storm drain manholes and sections of 18" and 36" storm drain pipes as shown on plans, and immediately install proposed storm drain pipe sections and end sections as shown on plans.
6. Install rip rap inflow protection, construct forebay berm and place rip rap protection along entire face of berm, install gabion basket forebay weir.
7. Stabilize disturbed areas with seed and mulch.
8. With prior approval of the Sediment Control Inspector and the Howard County Sediment Control Division, remove sediment controls. Fine grade and stabilize these areas.
9. Conduct "as-built" survey of storm drain modifications, forebay, water quality wet pool, and outfall areas and submit to appropriate agencies within 30 days of completion.

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY WET POND

ROUTINE MAINTENANCE

1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

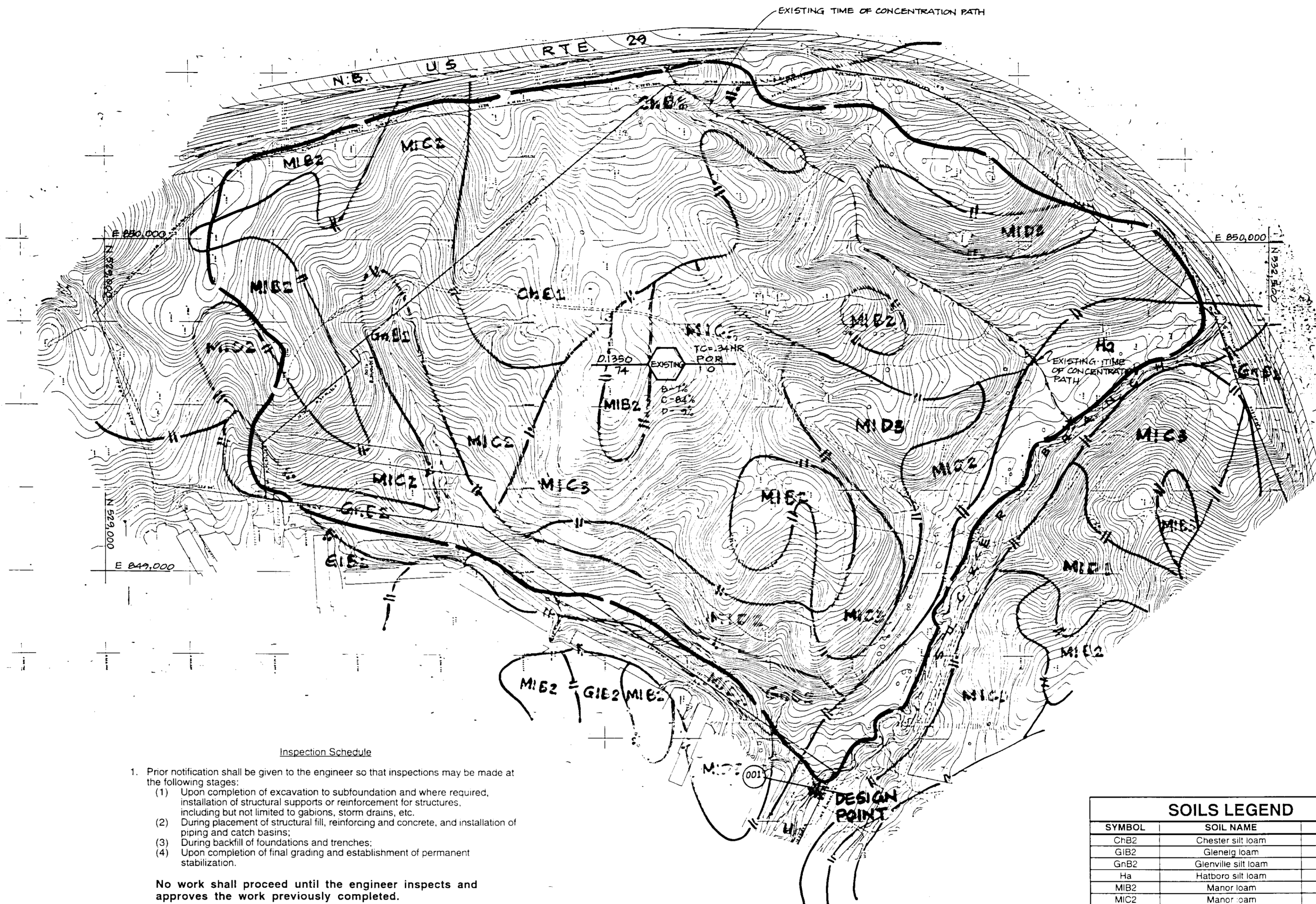
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
2. Sediment should be removed FROM THE POND no later than when the capacity of the pond is half full of sediment, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

Inspection Schedule

1. Prior notification shall be given to the engineer so that inspections may be made at the following stages:
    - (1) Upon completion of excavation to subfoundation and where required, installation of structural supports or reinforcement for structures, including but not limited to gabions, storm drains, etc.
    - (2) During placement of structural fill, reinforcing and concrete, and installation of piping and catch basins.
    - (3) During backfill of foundations and trenches.
    - (4) Upon completion of final grading and establishment of permanent stabilization.
- No work shall proceed until the engineer inspects and approves the work previously completed.
2. Geotechnical compaction testing of the facility fill area is required. Certification must be provided to the designated engineer in charge of the as-built.
  3. A copy of all material supply tickets must be given to the designated engineer in charge of the as-built.

General Notes:

1. Unless otherwise noted, all construction and workmanship shall be in accordance with:
  - A. Howard County standards and specifications.
  - B. Maryland Soil Conservation Service Standards and Specifications Pond Code 378 November, 1992.
  - C. Maryland Department of Transportation State Highway Administration, October, 1993, Standard Specifications for Construction and Materials.
2. This site lies within the Patuxent River watershed.
3. This facility is private and shall be maintained by the developer.
4. Two, 10 and 100 year stormwater management is required and provided.
5. Drainage Area limit and Pre-Developed peak discharge rates are taken from sheet 9 of the approved SDP 82-75 titled "Bon Secours, Howard County Health Park, Parcel B-1".
6. Current (1995) Conditions peak discharge rates are taken from the approved SDP-90-204.
7. For Current (1995) Conditions Drainage Area Map refer to SDP-82-75 sheet 23.



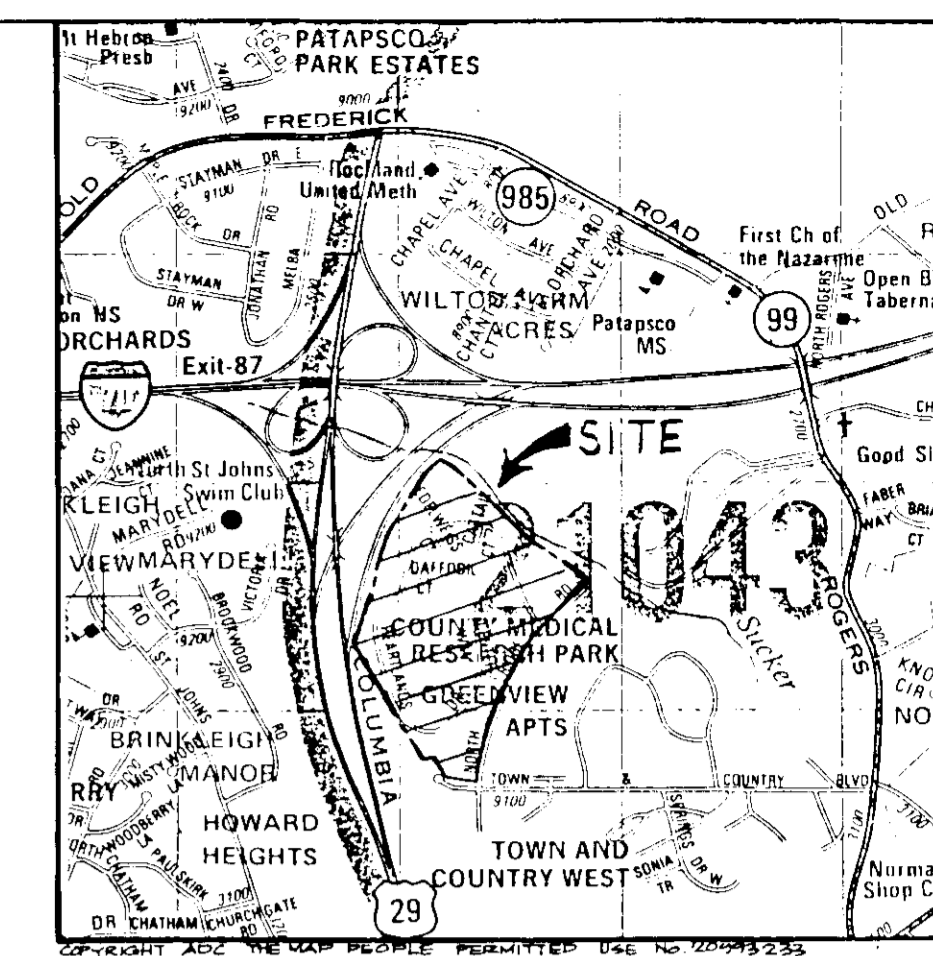
EXISTING DRAINAGE AREA MAP  
SCALE: 1" = 200'

SOILS LEGEND		
SYMBOL	SOIL NAME	GROUP
ChB2	Chester silt loam	B
GIB2	Glennville loam	B
GnB2	Glennville silt loam	C
Ha	Hatboro silt loam	D
MIB2	Manor loam	B
MIC2	Manor loam	B
MIC3	Manor loam	B
MID2	Manor loam	B
MID3	Manor loam	B

"Conditions and Management Practices for Working in Nontidal Wetlands and Buffers"

1. Remove excavated material, construction material or debris to an upland disposal area outside of any waterway, floodplain, nontidal wetland, or buffer.
2. If backfill is obtained, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
3. Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland;
4. Maintain the hydrologic regime of nontidal wetlands outside the limits of disturbance.
5. Rectify any nontidal wetlands and buffers temporarily impacted by the permitted activity. All stabilization in the wetland and buffer shall be of the following recommended species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Oats (*Avena sativa*), and/or Five (*Secale cereale*). Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division, Kentucky 31 rescue shall not be utilized in the wetland or buffer. All temporary fills shall be removed in their entirety on or before the completion of construction;
6. To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:
  - Use I Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
7. No removal of vegetation, grading, filling, draining or other alteration of the nontidal wetlands or buffer outside the limits of disturbance shall occur without written authorization from the Water Management Administration.

REVISION: ELIMINATED STORM WATER DESIGN DRAWINGS, ADDED SWM POND #1 (RETROFIT DRAWINGS IN THIS PLACE). WATER QUALITY WILL NOW BE PROVIDED BY FOREBAY IN POND #1.



LOCATION MAP  
SCALE: 1" = 2000'  
ELEVATION 469.087 CONTROL STATION 3342001  
ELEVATION: HOWARD COUNTY, MARYLAND BEING A CONCRETE MONUMENT ON TOP OF HOGSBACK BETWEEN MD. RTE 29 NORTH AND SOUTH, 4000 +/- NORTH OF U.S. RTE 40.

HOWARD COUNTY DEPT. OF PLANNING & ZONING

2/14/97 DATE

CHIEF DEVELOPMENT ENGINEERING DIVISION VSC

2/15/97 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

2/20/97 DATE

DIRECTOR

Date	No.	REVISION SITE DEVELOPMENT PLAN	Revision Description
2-9-97	1	REVISED SITE DEVELOPMENT PLAN	

REPLACEMENT SHEET  
**The Heartlands Residence**  
An Assisted Living Facility  
Howard County, Maryland

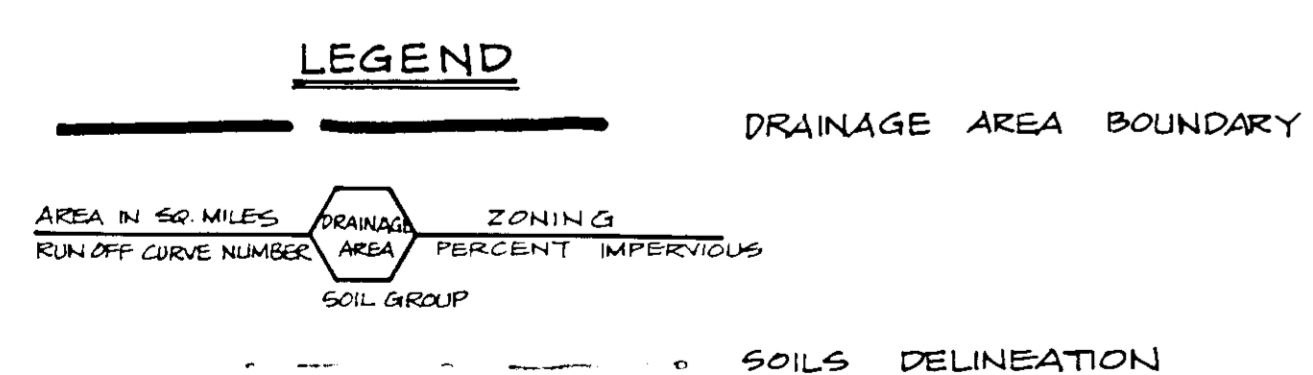
OWNER / DEVELOPER  
THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.  
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COLUMBIA, MARYLAND 21045

**DDMIW**  
Dan McCune-Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3333  
Fax 296-4706

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

2-6-97  
Date

Professional Engineer Number: 16872



DRAINAGE AREA BOUNDARY

SOILS DELINEATION

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN NUMBER

DEVELOPERS CERTIFICATE:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: VP. DATE: 2-7-97

ENGINEERS CERTIFICATE:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Signature: Max Kantzer DATE: 2-6-97

TITLE  
**EXISTING DRAINAGE AREA MAP**

Des By: Scale: 1" = 200' Proj. No. B1015 QX  
Drn. By: DBS Date: 7-26-96  
Chk. By: MK Approved: 10 OF 16



**Design Flow Summary**

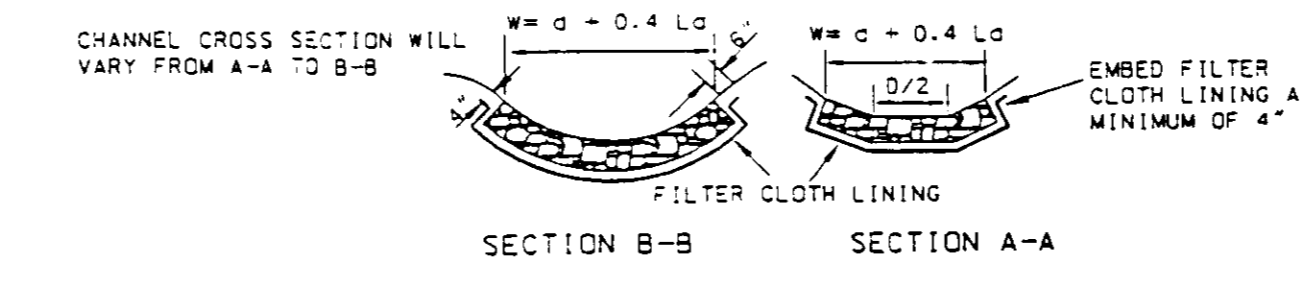
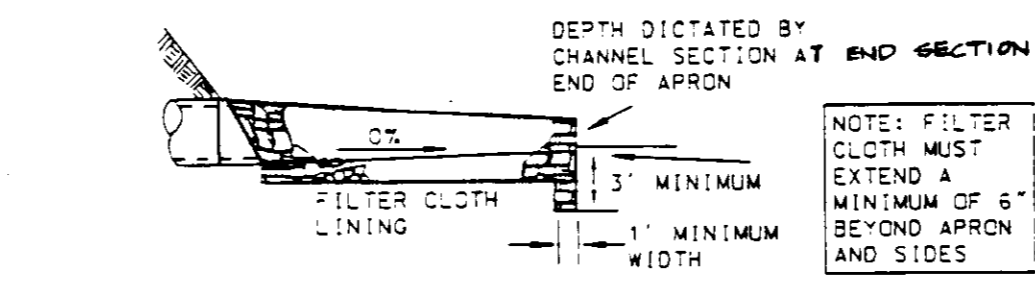
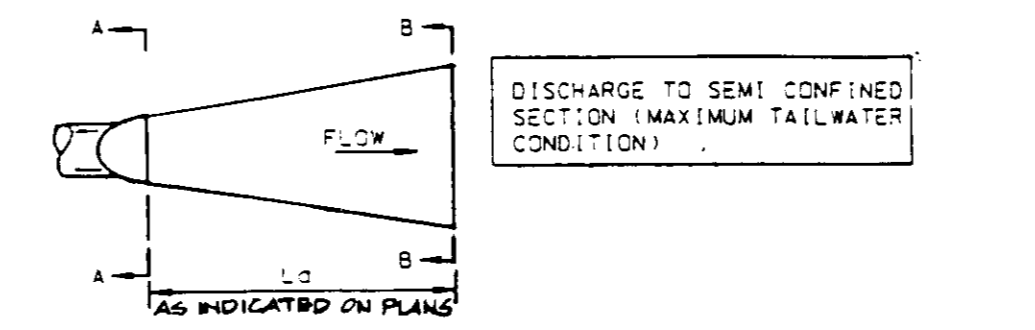
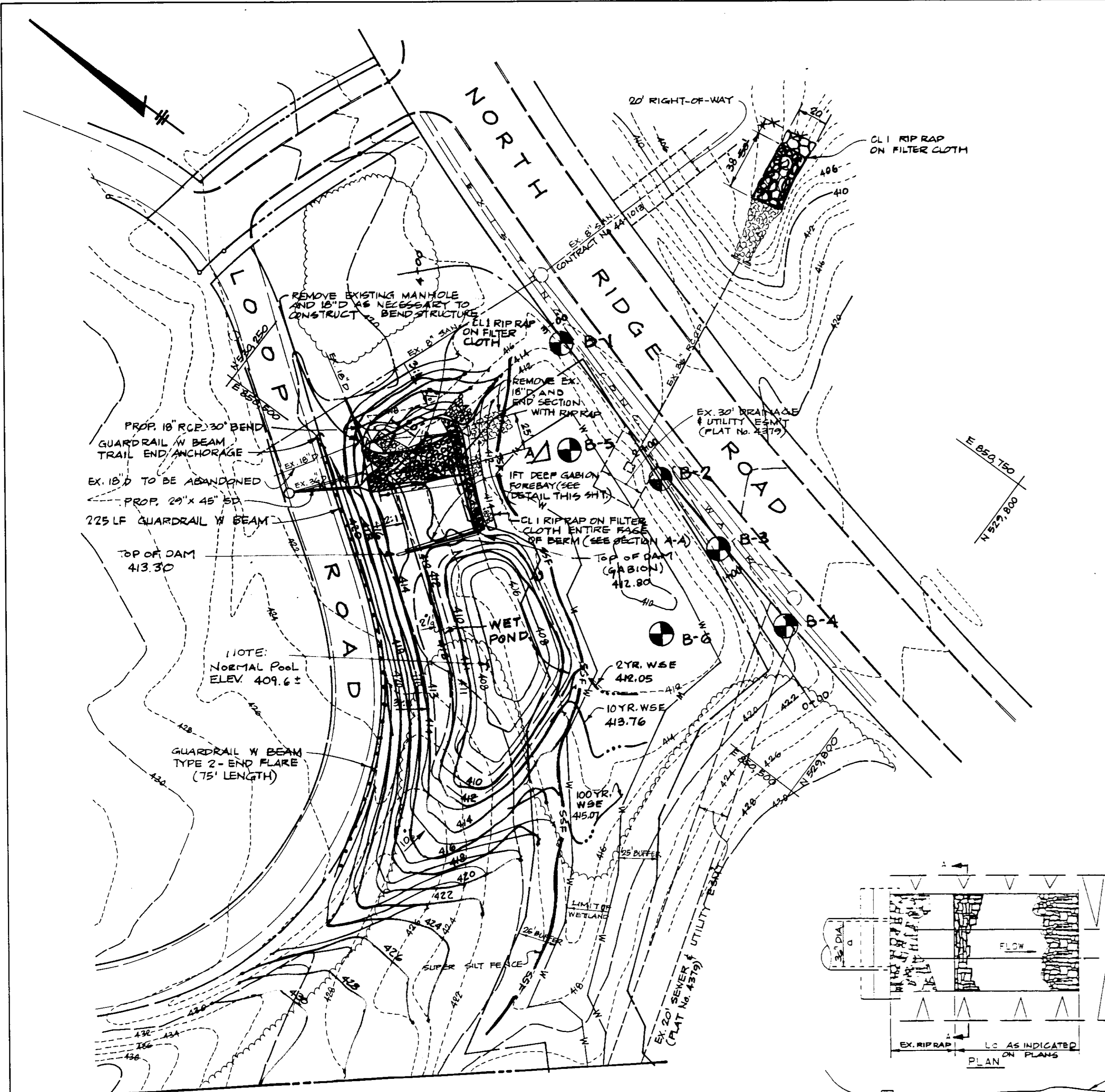
Design Point @ Confluence of Sucker Branch and Unnamed Tributary

	2 - Year	10 - Year	100 - Year
Pre-Developed / Original Existing (cfs)	88.21	216.34	373.26
Current (1995) (cfs)	69.89	164.99	326.48
Proposed Ultimate Development (cfs)	70.58	158.15	320.30
% Reduction (Pre-Devel. to Prop. Ult. Devel.)	19.9	26.8	14.1

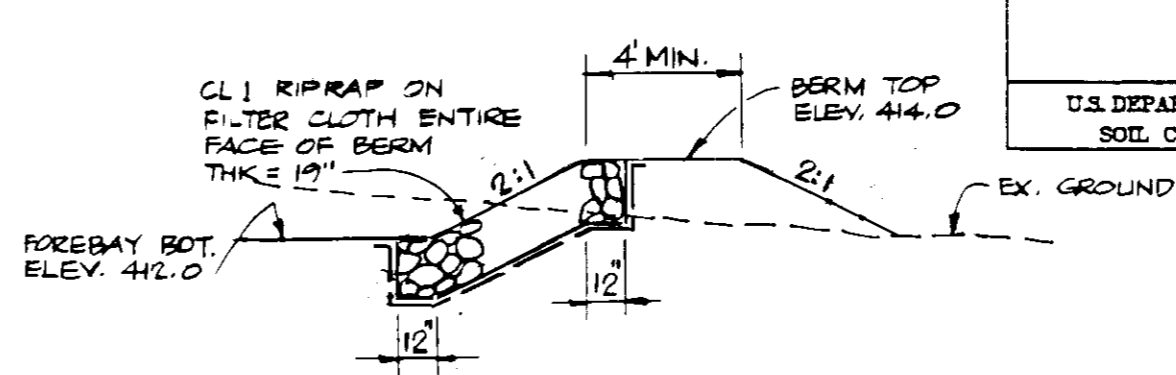
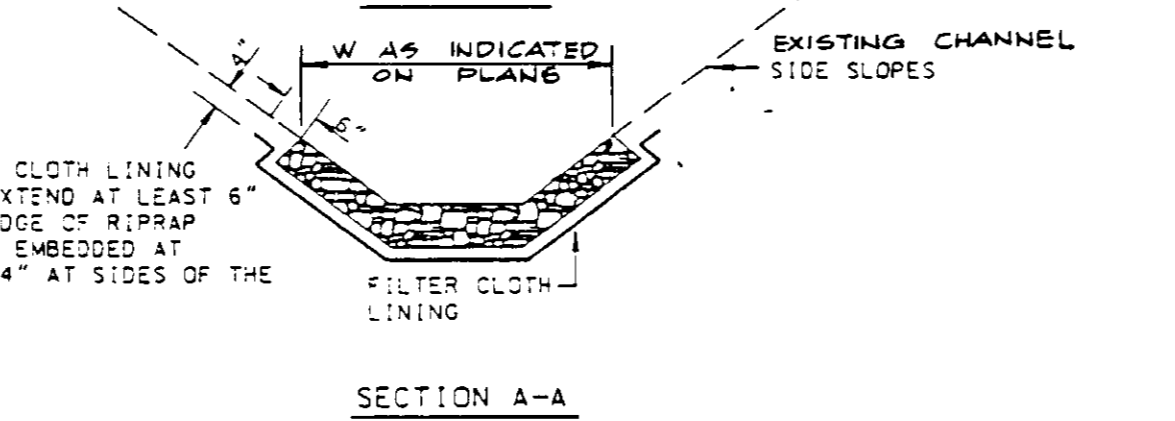
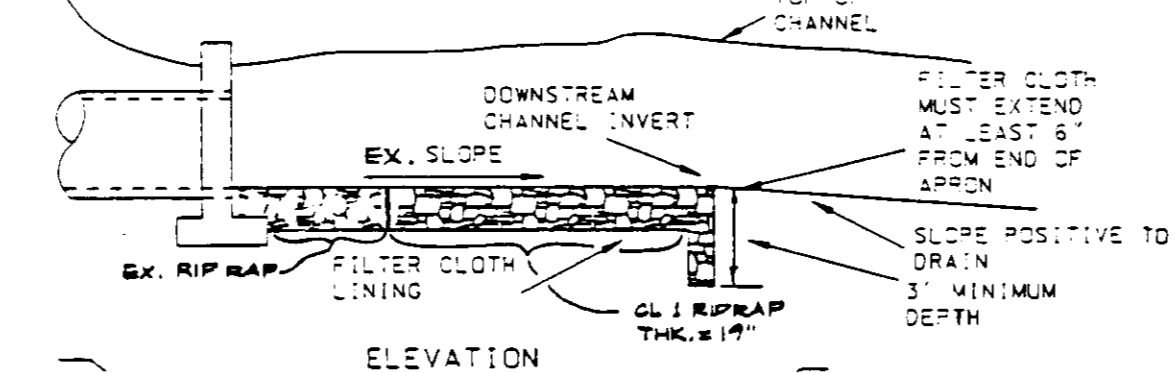
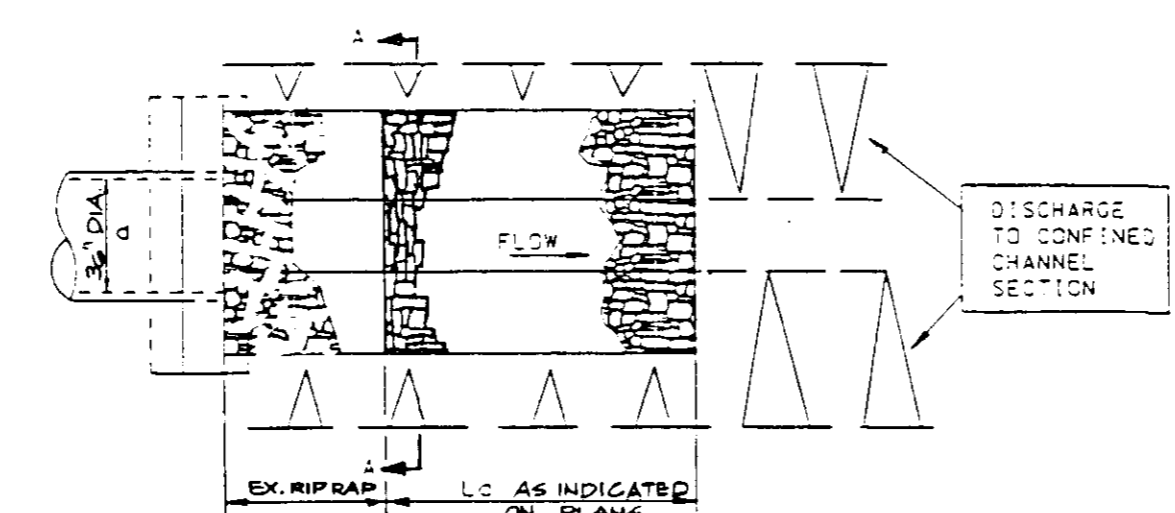
**Pond #1 (Proposed Ultimate Developed Conditions)**

	2 - Year	10 - Year	100 - Year
Inflow (cfs)	48.09	116.00	198.65
Outflow (cfs)	7.01	42.70	78.13
W.S.E. (Ft)	412.05	413.76	415.07
Volume of Storage (Ac-Ft)	0.89	2.25	3.72

Structure Type	Embankment, Wet Pond
Structure Classification	A
Structure Location	Urban
Total Drainage Area (Ac)	32.96
Water Quality Volume (Ac-Ft)	8.14
Prop. Ult. Impervious Area to Facility (Ac)	0.74 (0.68 Req'd)
Water Quality Volume (Ac-Ft)	0.08 (0.07 Req'd)
Forebay Volume (Ac-Ft)	14.5
Maximum Height of Fill (Ft)	111.9
Storage Height Product (Ac-Ft)	85
Minimum Top Width (Ft)	415.07
100 Yr. W.S.E. (Ft)	2.83 (2 Ft. Req'd)
Freeboard Provided (Ft)	1
Stream Classification	



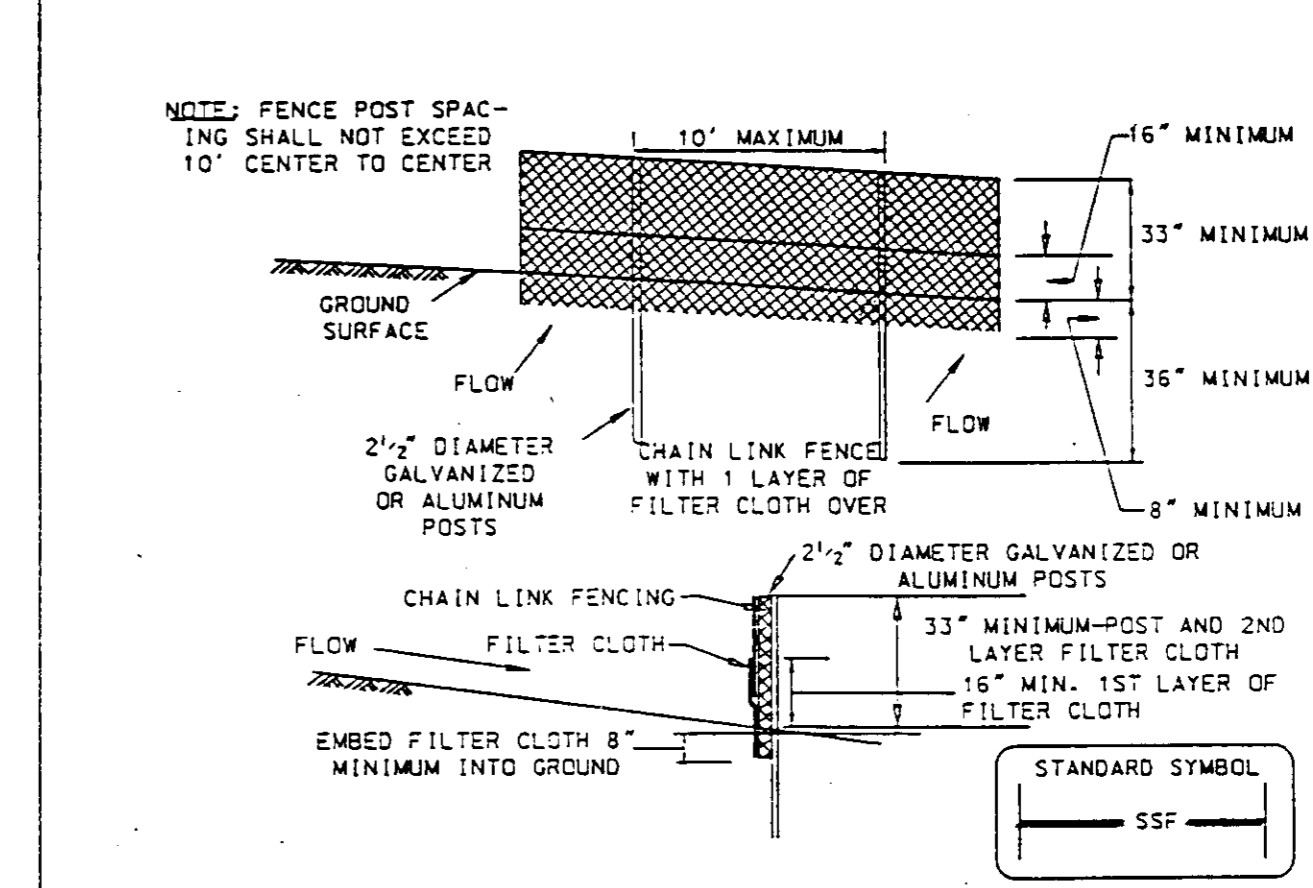
**RIP RAP INFLOW PROTECTION**  
24" AND 36" INFLOWS  
28' x 36'



**RIP RAP OUTFALL PROTECTION**  
36" PRINCIPAL SPILLWAY OUTFALL

**FOREBAY BERM SECTION A-A**  
SCALE: 1" = 5'

**DETAIL 33 - SUPER SILT FENCE**



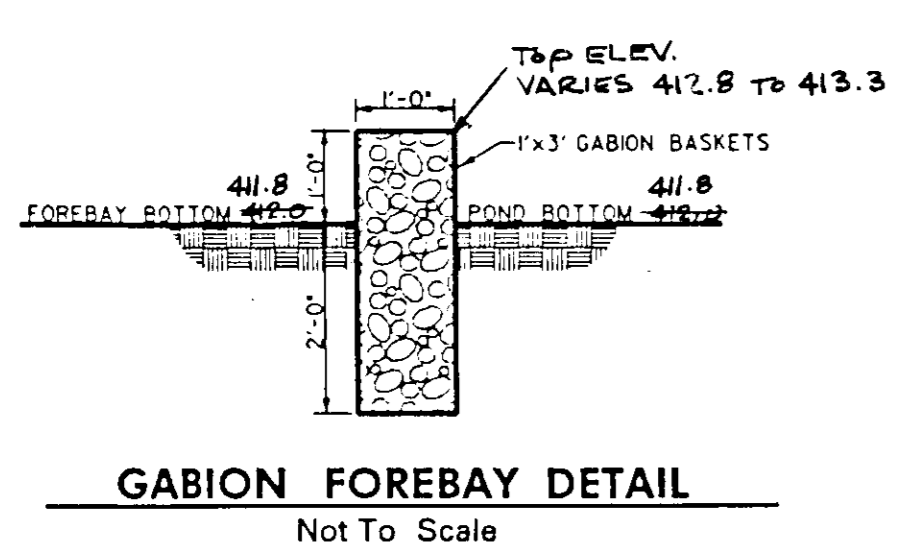
**Construction Specifications**

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

- The poles do not need to set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
- 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 6" 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 "buires" develop in the silt fence.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE 28-3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTE: FIELD RUN AS-BUILT INFORMATION SUPPLIED BY DMW, INC. ON SEPT. 15, 1997.



**AS-BUILT CERTIFICATION**

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS STANDARDS AND SPECIFICATIONS FOR PONDS (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE | DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT | DATE

PLAN NUMBER

**DEVELOPERS CERTIFICATE:**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: [Signature] V.P. | DATE: 2-7-97

**ENGINEERS CERTIFICATE:**

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: [Signature] MAX KANTZER | DATE: 2-6-97

**AS-BUILT CERTIFICATION**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: [Signature] | PE No. 18378 | DATE: 3/26/98

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION, THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

2-6-97

Professional Engineer Number: 16872

HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE: 2/14/97

CHIEF, DIVISION OF LAND DEVELOPMENT | DATE: 2/18/97

DIRECTOR | DATE: 2/20/97

3-24-98 2. ADDED AS-BUILT INFORMATION

2-3-97 1. REVISED SITE DEVELOPMENT PLAN

Date No. Revision Description

SUPPLEMENTARY SHEET

**The Heartlands Residence**  
An Assisted Living Facility

Howard County, Maryland

OWNER / DEVELOPER  
THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.  
c/o CONSTELLATION HEALTH SERVICES, INC.  
8815 CENTRE PARK DRIVE, SUITE 308  
COLUMBIA, MARYLAND 21045

**DMW**  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3338  
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

REVISION: ELIMINATE STORM CEPTOR DESIGN DRAWINGS, ADDED SWIM POND +1 RESTRICT DRAWINGS IN THEIR PLACE. WATER QUALITY WILL NOW BE PROVIDED BY FOREBAY IN POND #1.

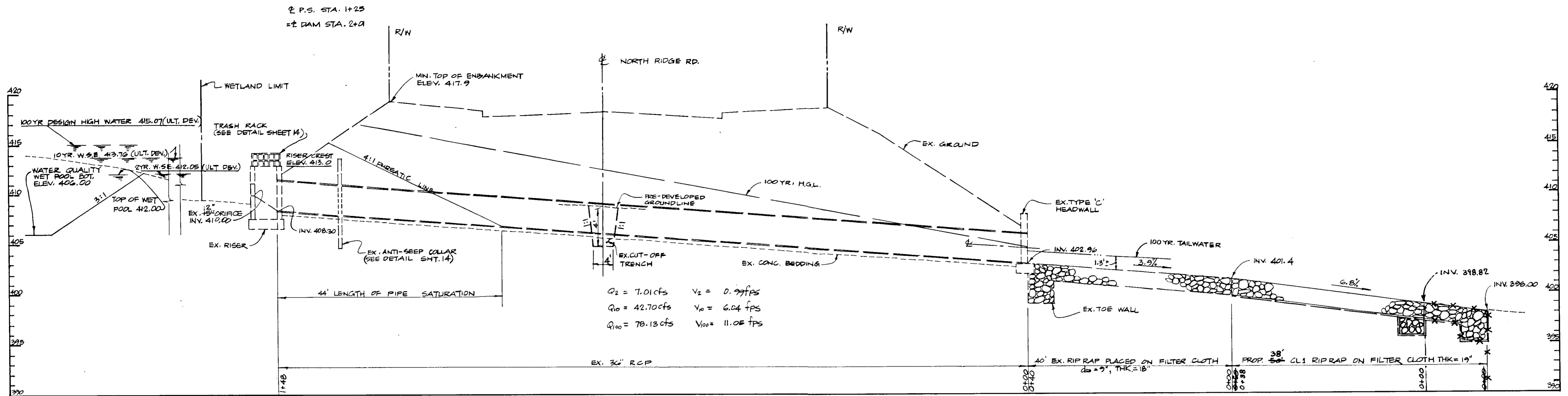
DATE: 2-6-97

TITLE: **PLAN & DETAILS**  
"AS-BUILT"

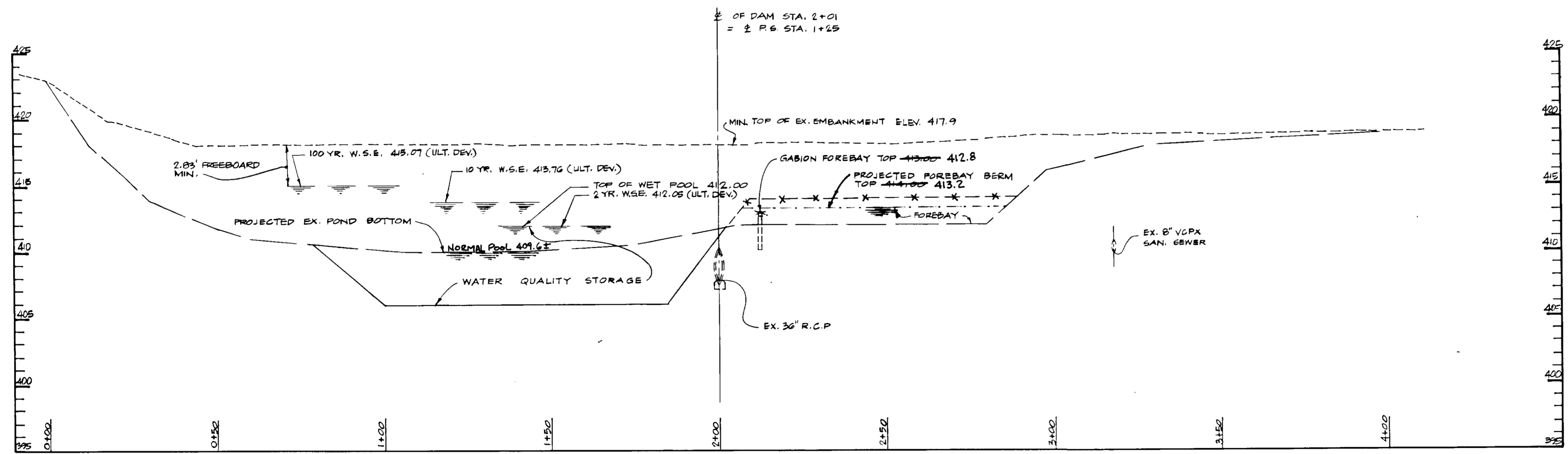
Des By: CJN | Scale: AS SHOWN | Proj. No. 81015 QX

Dm By: DBS | Date: 7-26-96 | 12 OF 16

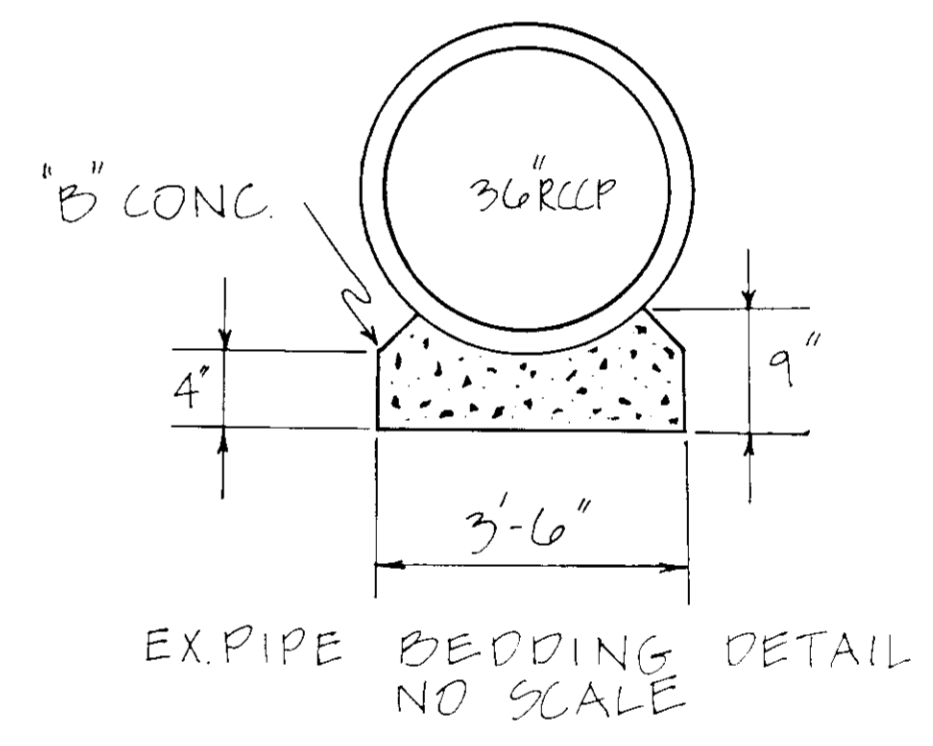
Chk By: JDP MK | Approved



**PROFILE ALONG PRINCIPAL SPILLWAY**  
 SCALE: HORIZ. 1" = 10'  
 VERT. 1" = 5'



**PROFILE ALONG EMBANKMENT**  
 SCALE: HORIZ. 1" = 20'  
 VERT. 1" = 5'



**AS-BUILT CERTIFICATION**  
 INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS STANDARDS AND SPECIFICATIONS FOR PONDS (40-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE    DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:    HOWARD SOIL CONSERVATION DISTRICT    DATE

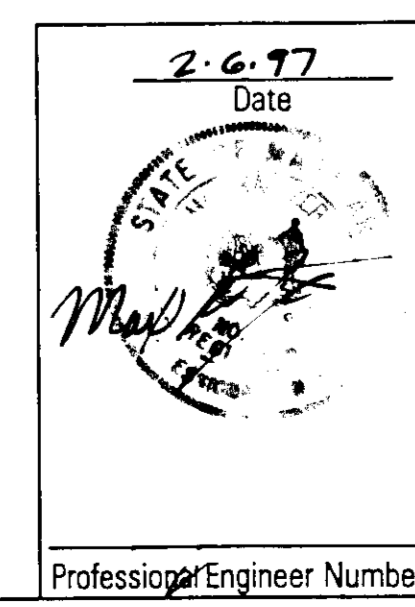
**DEVELOPERS CERTIFICATE:**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: *[Signature]* VP    DATE: 2-7-97

**ENGINEERS CERTIFICATE:**  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: *[Signature]*    DATE: 2-6-97  
 PRINT NAME BELOW: MAX KANTZER

REVISION: ELIMINATED STORM CEPTOR DESIGN DRAWINGS, ADDED SWM POND #1 RETROFIT DRAWINGS IN THEIR PLACE. WATER QUALITY WILL NOW BE PROVIDED BY FOREBAY IN POND #1.



HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION    DATE: 2/14/97  
 CHIEF, DIVISION OF LAND DEVELOPMENT    DATE: 2/15/97  
 DIRECTOR    DATE: 2/20/97

3-24-98	2	ADDED AS-BUILT INFORMATION
2-3-97	1	REVISED SITE DEVELOPMENT PLAN

SUPPLEMENTARY SHEET  
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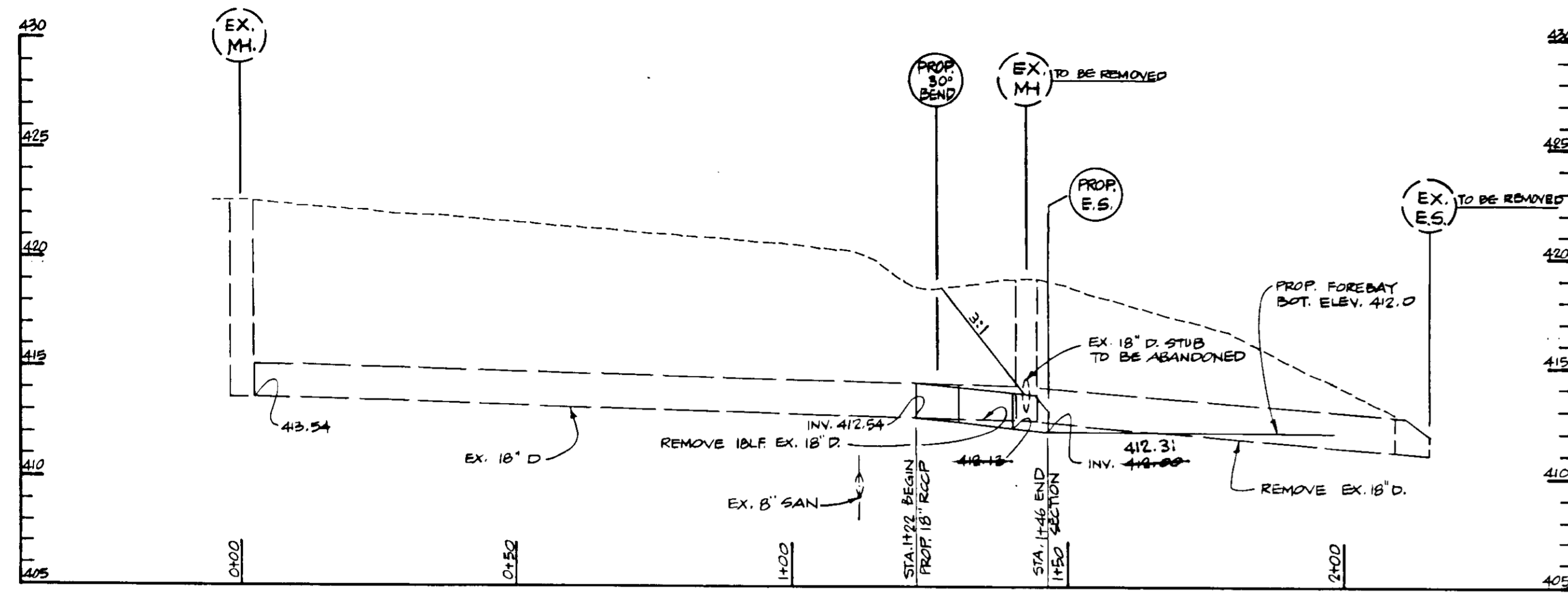
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 Towson, Maryland 21286  
 (410) 296-3333  
 Fax 296-4706  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

DATE: 2-6-97

DESIGNED BY	SCALE	AS SHOWN	PROJECT NO.	81015 9X
DRAWN BY	DATE	7-26-96		13 OF 16
CHECKED BY	APPROVED			

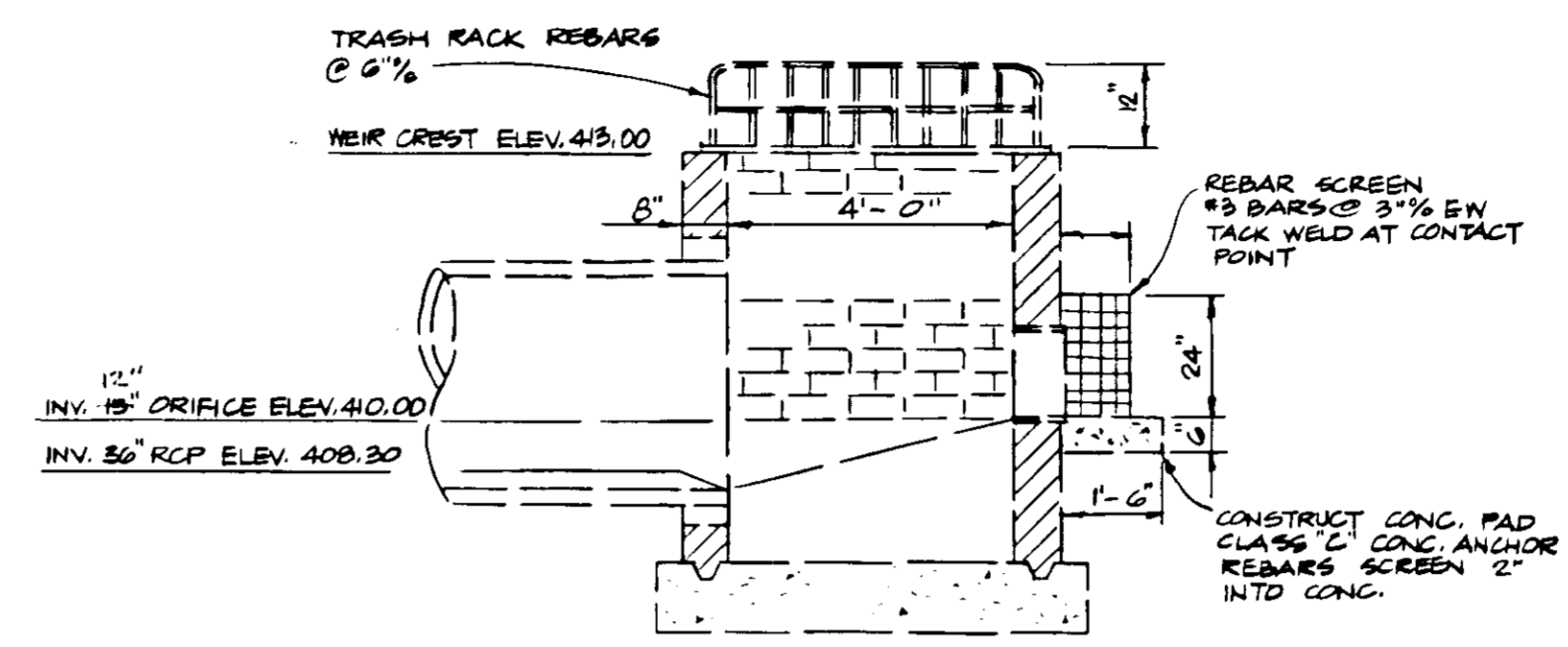
TITLE: **PROFILES AND DETAILS**  
 "AS-BUILT"

PROFESSIONAL ENGINEER NUMBER: 6872



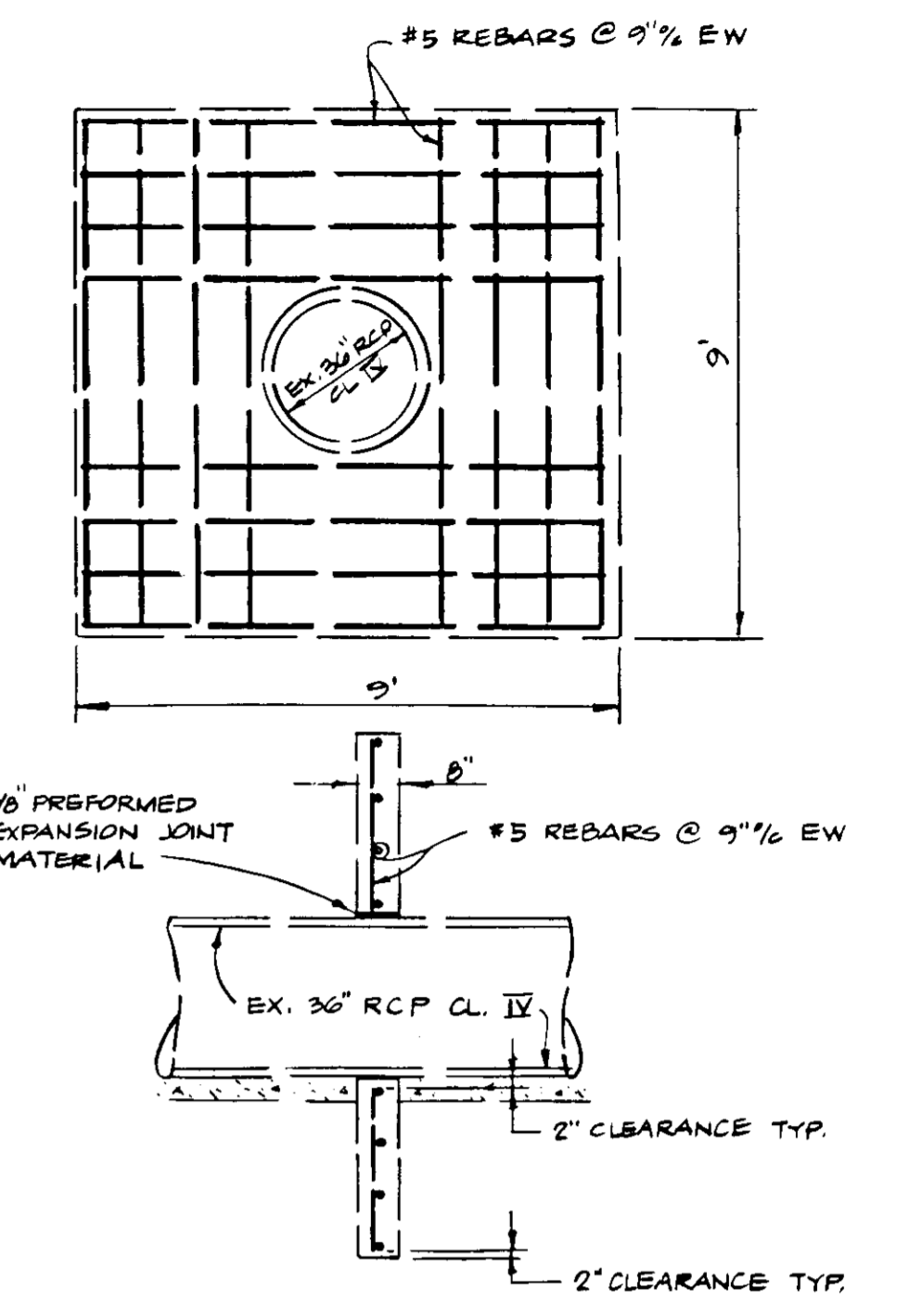
**REMOVAL OF PORTION OF 18" STORM DRAIN**

SCALE: HORIZ. 1" = 20'  
VERT. 1" = 5'



**EXISTING RISER AND TRASH RACK DETAIL**

NOT TO SCALE



**EXISTING ANTI SEEP COLLAR**

NOT TO SCALE

A letter of authorization 896-NI-0728, 199663144 has been issued by the state of Maryland to allow 4300 S.F. of disturbance to the 25 foot non-tidal wetland buffer. The work also includes extension of rip-rap outlet protection at the SWM pond pipe outfall. The work is subject to the following conditions:

**STANDARD CONDITIONS:**

- Validity:** Authorization is valid only for use by Authorized Person. Authorization may be transferred only with prior written approval of the Administration. In the event of transfer, transferee agrees to comply with all terms and conditions of Authorization.
- Initiation of Work, Modifications, and Extension of Term:** Authorized Person shall initiate authorized activities within two (2) years of the Effective Date of this Authorization or the Authorization shall expire. Authorized Person may submit written requests to the Administration for (a) extension of the period for initiation of work, (b) modification of Authorization, including the approved plan, or (c) not later than 45 days prior to expiration date, an extension of the term. Requests for modification shall be in accordance with applicable regulations and shall state reasons for changes, and shall indicate the impacts on nontidal wetlands, streams, and the floodplain, as applicable. The Administration may grant a request at its sole discretion.
- Responsibility and Compliance:** Authorized Person is fully responsible for all work performed and activities authorized by this Authorization shall be performed in compliance with this Authorization and approved plan. Authorized Person agrees that a copy of the Authorization and approved plan shall be kept at the construction site and provided to its employees, agents and contractors. A person (including Authorized Person, its employees, agents or contractors) who violates or fails to comply with the terms and conditions of this Authorization, Approved plan or an administrative order may be subject to penalties in accordance with §§-514 and §5-511, Environment Article, Annotated Code of Maryland.
- Failure to Comply:** If Authorized Person, its employees, agents or contractors fail to comply with this Authorization or approved plan, the Administration may, in its discretion, issue an administrative order requiring Authorized Person, its employees, agents and contractors to cease and desist any activities which violate this Authorization, or the Administration may take any other enforcement action available to it by law, including filing civil or criminal charges.
- Suspension or Revocation:** Authorization may be suspended or revoked by the Administration, after notice of opportunity for a hearing, if Authorized Person: (a) submits false or inaccurate information in Permit application or subsequent submittals; (b) deviates from the approved plan, specifications, terms and conditions; (c) violates or is about to violate terms and conditions of this Authorization; (d) violates, or is about to violate, any regulation promulgated pursuant to Title 5, Environment Article, Annotated Code of Maryland as amended; (e) fails to allow authorized representatives of the Administration to enter the site for authorized activities at any reasonable time to conduct inspections and evaluations; (f) fails to comply with the requirements of an administrative action or order issued by the Administration; (g) does not have vested rights under this Authorization and new information changes in site conditions, or amended regulatory requirements necessitate revocation or suspension.
- Other Provisions:** Authorization does not authorize any injury to private property, any invasion of rights, or any infringement of Federal, State or local laws or regulations, nor does it obviate the need to obtain required authorizations or approvals from other State, Federal or local agencies as required by law.
- Site Access:** Authorized Person shall allow authorized representatives of the Administration access to the site of authorized activities during normal business hours to conduct inspections and evaluations necessary to assure compliance with this Authorization. Authorized Person shall provide necessary assistance to effectively and safely conduct such inspections and evaluations.
- Inspection Notification:** Authorized Person shall notify the Administration's Enforcement Division at least five (5) days before starting authorized activities and five (5) days after completion. For Frederick, Washington, Allegany and Garrett counties, Authorized Person shall call (202) 885-8454. For all other counties, call the Baltimore office at (410) 631-3510.
- Setback Control:** Authorized Person shall obtain approval from the Howard Soil Conservation District for a grading and sediment control plan specifying soil erosion control measures. The approved grading and sediment control plan shall be included in the approved plan, and shall be available at the construction site.
- Federally Mandated State Authorizations:**
  - Water Quality Certification:** Authorized activities shall be performed in accordance with Maryland Department of the Environment Water Quality Certification.
  - N/A Coastal Zone Consistency:** This Authorization constitutes official notification that authorized activities are consistent with the Maryland Coastal Zone Management Act of 1972, as amended. Activities within the following counties are not subject to this requirement: Allegany, Carroll, Frederick, Garrett, Howard, Montgomery, and Washington.
  - Best Management Practices During Construction:** Authorized Person, its employees, agents and contractors shall conduct authorized activities in a manner consistent with the Best Management Practices specified by the Administration.
  - Disposal of Excess:** Unless otherwise shown on the approved plan, all excess fill, spoil material, debris, and construction material shall be disposed of outside of nontidal wetlands, nontidal wetland buffers, and the 100-year floodplain, and in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands.
  - Temporary Staging Areas:** Temporary construction trailers or structures, staging areas and stockpiles shall not be located within nontidal wetlands, nontidal wetland buffers, or the 100-year floodplain unless specifically included on the Approved plan.
  - Temporary Stream Access Crossings:** Temporary stream access crossings shall not be constructed or utilized unless shown on the approved plan. If temporary stream access crossings are determined necessary prior to initiation of work or at any time during construction, Authorized Person, its employees, agents or contractors shall submit a written request to the Administration and secure the necessary permits or approvals for such crossings before installation of the crossings. Temporary stream access crossings shall be removed and the disturbance stabilized prior to completion of authorized activity or within one (1) year of installation. (Discharge: runoff or accumulated water containing sediment or other suspended materials shall not be discharged into waters of the State unless treated by an approved sediment control device or structure.)
  - Instream Construction Prohibition:** To protect important aquatic species, motor driven construction equipment shall not be allowed within stream channels unless on authorized ford crossings. Activities within stream channels are prohibited as determined by the classification of the stream (COMA 26.08.02.081). **Under Reach:** No use of waterway; instream work (COMA 26.08.02.081) is prohibited. **Under Reach:** No use of waterway; instream work (COMA 26.08.02.081) is prohibited.
  - Instream Blasting:** Authorized Person shall obtain prior written approval from the Administration before blasting or using explosives in the stream channel.
  - Minimum Disturbance:** Any disturbance of stream banks, channel bottom, wetlands, and wetland buffer authorized by Permit or approved plan shall be the minimum necessary to conduct permitted activities. All disturbed areas shall be stabilized vegetatively no later than seven (7) days after construction is completed or in accordance with the approved grading or sediment and erosion control plan.
  - Restoration of Degraded Stream:** Authorized Person shall restore the construction site upon completion of authorized activities. Underscoring, meandering or degradation of the stream banks or channel bottom, any deposition of sediment or other materials, and any alteration of wetland vegetation, soils, or hydrology, resulting directly or indirectly from construction or authorized activities, shall be corrected by Authorized Person as directed by the Administration.

**CONDITIONS AND MANAGEMENT PRACTICES FOR WORK CONDUCTED IN NONTIDAL WETLAND AND BUFFER**

- Remove excess fill or construction material or debris to an upland disposal area;
- Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of remaining nontidal wetland or waterway;
- Maintain the hydrologic regime of the nontidal wetlands upstream, downstream, or adjacent to the regulated activity;
- Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands in excess of nontidal wetlands lost under the original structure or fill.

**AS-BUILT CERTIFICATION**

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS STANDARDS AND SPECIFICATIONS FOR PONDS (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN NUMBER

**DEVELOPERS CERTIFICATE:**

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Max Kantzer* V.P. 2-7-97

SIGNATURE OF DEVELOPER PRINT NAME BELOW SIGNATURE DATE

**ENGINEERS CERTIFICATE:**

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*Max Kantzer* 2-6-97

SIGNATURE OF ENGINEER PRINT NAME BELOW SIGNATURE DATE

REVISION: ELIMINATED STORM CEPTOR DESIGN DRAWINGS, ADDED SWM POND #1 RETROFIT DRAWINGS IN THEIR PLACE. WATER QUALITY WILL NOW BE PROVIDED BY FOREBAY IN POND #1.

HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>Richard Bluest</i>	2/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Richard Bluest</i>	2/18/97
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Max Kantzer</i>	2/20/97
DIRECTOR	DATE

3-14-96	2.	ADDED AS-BUILT INFORMATION
2-3-97	1	REVISED SITE DEVELOPMENT PLAN
Date	No.	Revision Description

**SUPPLEMENTARY SHEET**

**The Heartlands Residence**

An Assisted Living Facility

Howard County, Maryland

OWNER /DEVELOPER

THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.

c/o CONSTELLATION HEALTH SERVICES, INC.

8815 CENTRE PARK DRIVE, SUITE 308

COLUMBIA, MARYLAND 21045

<b>DMW</b>		A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals	
200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3333 Fax 296-4705			
DATE WHEN BUILT	SECTION	DATE	PARCEL B-7
2-6-97	2/1	2/1	6026
PLAN NO. 23	FOR	DATE	
23	FOR	2	
TRAIL CODE	FO3	SERIAL CODE	1454400
TITLE			
PROFILES AND DETAILS "AS-BUILT"			
Des By	CUN	Scale	AS SHOWN
Drn By	DPS	Date	7-26-96
Chk By	MK JOF	Approved	
Professional Engineer Number: 16872			14 OF 16

2-6-97

Date

*Max Kantzer*

Professional Engineer Number: 16872

PROJECT: The Heartlands  
Ellicott City, Maryland  
BORING No.: B-1  
PROJECT No.: 95-218  
ELEV: 417±  
HAMMER: 140 Lbs  
BORING METHOD: HSA  
DATE START: 9/11/95 FINISH: 9/11/95  
HAMMER DROP: 30 in. SPOON O.D.: 2 in. FOREMAN: T. Potter  
ROCK CORE DIA.

ELEV	DESCRIPTION	DEPTH	SCALE NO.	Blows / 6 in	TYPE	REC	NOTES
417.0	Brown micaceous silty SAND, trace of gravel (fill)	0	1	3 - 4 - 4	DS	0.8	1" Topsoil Obtained bag sample 0'-5'
		2	2	3 - 4 - 6	DS	1.0	
		3	3	3 - 4 - 10	DS	0.8	
407.5	Gray micaceous silty SAND, trace of gravel (fill)	9.5	4	2 - 2 - 6	DS	0.5	
404.5	Gray micaceous silty SAND, trace of clay	12.5	5	3 - 16 - 16	DS	1.3	
402.0	Bottom of Boring at 15.0 feet	15.0	6	3 - 6 - 7	DS	1.5	

LEGEND  
DS DRIVEN SPOON  
ST SHELBY TUBE  
PS PISTON SAMPLE  
RC ROCK CORE  
HSA HOLLOW STEM AUGER  
DC DRIVEN CASING  
MD MUD DRILLING

GROUND WATER  
WATER ON RODS:  
AT COMPLETION: Dry  
AT Hours  
CAVED: 5.5 feet  
WATER: CAVED:

PROJECT: The Heartlands  
Ellicott City, Maryland  
BORING No.: B-2  
PROJECT No.: 95-218  
ELEV: 418±  
HAMMER: 140 Lbs  
BORING METHOD: HSA  
DATE START: 9/11/95 FINISH: 9/11/95  
HAMMER DROP: 30 in. SPOON O.D.: 2 in. FOREMAN: T. Potter  
ROCK CORE DIA.

ELEV	DESCRIPTION	DEPTH	SCALE NO.	Blows / 6 in	TYPE	REC	NOTES
418.0	Brown micaceous silty SAND, trace of gravel (fill)	0	1	11 - 7 - 5	DS	1.5	1" Topsoil
		2	2	11 - 8 - 8	DS	1.3	
		3	3	15 - 10 - 9	DS	0.7	
		4	4	4 - 7 - 8	DS	1.2	
408.5	Gray-brown micaceous silty SAND, trace of gravel (fill)	9.5	5	11 - 17 - 18	DS	1.0	
405.5	Gray silty SAND, trace of clay	12.5	6	4 - 5 - 8	DS	1.5	
403.0	Bottom of Boring at 15.0 feet	15.0	7	4 - 5 - 8	DS	1.5	

LEGEND  
DS DRIVEN SPOON  
ST SHELBY TUBE  
PS PISTON SAMPLE  
RC ROCK CORE  
HSA HOLLOW STEM AUGER  
DC DRIVEN CASING  
MD MUD DRILLING

GROUND WATER  
WATER ON RODS:  
AT COMPLETION: Dry  
AT Hours  
CAVED: 5.5 feet  
WATER: CAVED:

PROJECT: The Heartlands  
Ellicott City, Maryland  
BORING No.: B-3  
PROJECT No.: 95-218  
ELEV: 419±  
HAMMER: 140 Lbs  
BORING METHOD: HSA  
DATE START: 9/11/95 FINISH: 9/11/95  
HAMMER DROP: 30 in. SPOON O.D.: 2 in. FOREMAN: T. Potter  
ROCK CORE DIA.

ELEV	DESCRIPTION	DEPTH	SCALE NO.	Blows / 6 in	TYPE	REC	NOTES
419.0	Brown micaceous silty SAND, trace of gravel (fill)	0	1	4 - 6 - 7	DS	0.8	1" Topsoil
		2	2	11 - 7 - 6	DS	1.0	
		3	3	7 - 9 - 9	DS	1.2	
412.0	Gray-brown micaceous silty SAND, trace of decomposed rock fragments (fill)	7.0	4	13 - 10 - 11	DS	1.4	
406.5	Gray micaceous silty SAND, trace of clay	12.5	5	5 - 6 - 5	DS	1.2	
404.0	Bottom of Boring at 15.0 feet	15.0	6	3 - 5 - 7	DS	1.2	

LEGEND  
DS DRIVEN SPOON  
ST SHELBY TUBE  
PS PISTON SAMPLE  
RC ROCK CORE  
HSA HOLLOW STEM AUGER  
DC DRIVEN CASING  
MD MUD DRILLING

GROUND WATER  
WATER ON RODS:  
AT COMPLETION: Dry  
AT Hours  
CAVED: 4.5 feet  
WATER: CAVED:

PROJECT: The Heartlands  
Ellicott City, Maryland  
BORING No.: B-4  
PROJECT No.: 95-218  
ELEV: 422±  
HAMMER: 140 Lbs  
BORING METHOD: HSA  
DATE START: 9/11/95 FINISH: 9/11/95  
HAMMER DROP: 30 in. SPOON O.D.: 2 in. FOREMAN: T. Potter  
ROCK CORE DIA.

ELEV	DESCRIPTION	DEPTH	SCALE NO.	Blows / 6 in	TYPE	REC	NOTES
422.0	Brown micaceous silty SAND, trace of gravel (fill)	0	1	3 - 4 - 6	DS	0.7	1" Topsoil Obtained bag sample 0'-5'
		2	2	7 - 5 - 5	DS	1.2	
		3	3	5 - 6 - 7	DS	1.3	
		4	4	5 - 6 - 6	DS	0.5	
409.5	Gray-white micaceous silty SAND (fill)	12.5	5	3 - 5 - 5	DS	1.3	
407.0	Bottom of Boring at 15.0 feet	15.0	6	3 - 5 - 6	DS	1.3	

LEGEND  
DS DRIVEN SPOON  
ST SHELBY TUBE  
PS PISTON SAMPLE  
RC ROCK CORE  
HSA HOLLOW STEM AUGER  
DC DRIVEN CASING  
MD MUD DRILLING

GROUND WATER  
WATER ON RODS:  
AT COMPLETION: Dry  
AT Hours  
CAVED: 5.5 feet  
WATER: CAVED:

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.

RECORD OF SOIL EXPLORATION

Project Name Heartlands  
Location Ellicott City, MD  
Boring # B-5  
Job # 96059A  
Datum Surf. Elev. 410.70  
Date Started 3-30-96  
Hammer Wt. 140 Lbs  
Hammer Drop 30 in  
Pipe Size 2 in  
SAMPLER  
Hole Diameter 3"  
Rock Core Dia. 2 in  
Boring Method Hand Auger  
Foreman W. Massey  
Inspector  
Date Completed 3-30-96

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
0.0	SURFACE	0.0						Topsoil 2"
1.5	Brown very moist sandy silty (ML) (Loam)	1.5						Water encountered at 3.0' while Augering
2.0	Greenish brown moist micaceous silty sand (SM) (loamy sand)	2.0						Water encountered on auger at 4.0'
4.0	Greenish gray damp micaceous silt some sand (ML) (Loam)	4.0						
5.0	Brown to green moist to wet micaceous silty fine to coarse sand (SM) (Loamy Sand)	5.0						Backfilled at completion
5.0	Bottom of Hole at 5.0'							

SAMPLER TYPE  
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED.  
PT-PRESSED SHELBY TUBE  
CA-CONTINUOUS FLIGHT AUGER  
RC-ROCK CORE  
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

GROUND WATER DEPTH  
AT COMPLETION: Dry  
AFTER: FT.

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

Project Name Heartlands  
Location Ellicott City, MD  
Boring # B-6  
Job # 96059A  
Datum Surf. Elev. 410.40  
Date Started 3-30-96  
Hammer Wt. 140 Lbs  
Hammer Drop 30 in  
Pipe Size 2 in  
SAMPLER  
Hole Diameter 3"  
Rock Core Dia. 2 in  
Boring Method Hand Auger  
Foreman W. Massey  
Inspector  
Date Completed 3-30-96

ELEV.	SOIL DESCRIPTION	DEPTH	SCALE	CON	SAMPLE	NO.	REC.	BORING & SAMPLING NOTES
0.0	SURFACE	0.0						Topsoil 2"
1.5	Brown damp micaceous sandy silt (ML) (Loam)	1.5						Water encountered at 3.0' while Augering
3.5	Brown moist to wet micaceous silty fine to coarse sand (SM) (Loamy Sand)	3.5						
4.0	Green moist mica. silty. some sand (ML) (Loam)	4.0						Backfilled at completion
5.0	Bottom of Hole at 4.0'							

SAMPLER TYPE  
DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED.  
PT-PRESSED SHELBY TUBE  
CA-CONTINUOUS FLIGHT AUGER  
RC-ROCK CORE  
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

SAMPLE CONDITIONS  
D-DISINTEGRATED  
I-INTACT  
U-UNDISTURBED  
L-LOST

GROUND WATER DEPTH  
AT COMPLETION: 4.0 FT.  
AFTER: FT.

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

AS-BUILT CERTIFICATION

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS STANDARDS AND SPECIFICATIONS FOR PONDS (WD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN NUMBER

DEVELOPERS CERTIFICATE:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature] DATE: 2-1-97

ENGINEERS CERTIFICATE:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Signature: [Signature] DATE: 2-6-97

REVISION: ELIMINATED STORM CEPTOR DESIGN DRAWINGS, ADDED SWM POND #1 RETROFIT DRAWINGS IN THEIR PLACE. WATER QUALITY WILL NOW BE PROVIDED BY FOREBAY IN POND #1.

HOWARD COUNTY DEPT. OF PLANNING & ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR

2/14/97 DATE  
15c  
2/18/97 DATE  
2/20/97 DATE

2-3-97 1 REVISID SITE DEVELOPMENT PLAN  
Date No. Revision Description

SUPPLEMENTARY SHEET  
The Heartlands Residence  
An Assisted Living Facility  
Howard County, Maryland  
OWNER / DEVELOPER  
THE HEARTLANDS RETIREMENT COMMUNITY - ELLICOTT CITY 1, INC.  
c/o CONSTELLATION HEALTH SERVICES, INC.  
885 CENTRE PARK DRIVE, SUITE 308  
COLUMBIA, MARYLAND 21045

DMW  
Dan McCann Walker, Inc.  
200 East Pennsylvania Avenue  
Towson, Maryland 21286  
(410) 296-3353  
Fax: 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

2-6-97  
Date  
Professional Engineer Number: 16972

SECTION ONE EAST-PENNSYLVANIA AVENUE  
STATE OF MARYLAND HEALTH DEPARTMENT  
DATE OF ISSUE 2/3/97  
FOLDER NO. 23  
PARCEL B-7  
APPROVED BY 2/1  
EXPIRES 2/17  
ORDER NO. 6026  
SHEET NO. 15 OF 16

TITLE  
SOILS BORINGS

Des By CJN Scale AS 5/16 Proj. No. 81015 6X  
Dm By PBS Date 7-26-96  
Chk By MK Approved 15 OF 16

