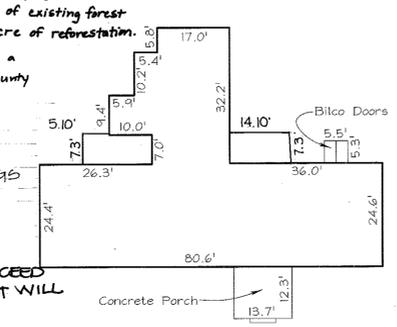


**GENERAL NOTES**

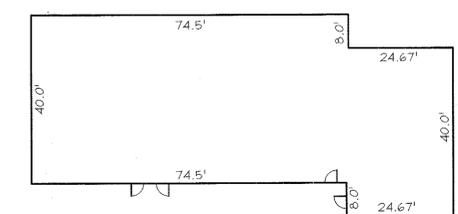
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- The contractor is to notify the following utilities or agencies at least five days before starting work on these drawings:
  - Miss Utility 1-800-257-7777
  - C & P Telephone company: 725-9976
  - Howard County Bureau of Utilities: 313-2366
  - AT&T Cable Location Division: 393-3553
  - B.G.#E. Co. Contractor Services: 850-4620
  - B.G.#E. Co. Underground Damage Control: 787-4620
  - State Highway Administration: 531-5533
- Site analysis:
  - Area of parcel: 5.4738 Ac.±
  - Present zoning: POR
  - Use of structure: General Office (Medical offices or clinics may not occupy more than 50% of any building without approval from the Department of Planning and Zoning for review of parking requirements.)
  - Building area: EX. BUILDING #5: 4,687 SF Proposed Building: 8,000 SF x 4 = 32,000 SF
  - BUILDING 2 EXPANSION: 1,589 SF TOTAL BUILDING AREA: 39,276 SF
  - Building coverage on site: 0.465 AC (20,400 SF) OR 0.50% OF GROSS AREA
  - Paved parking lot/area on site: 1.65 Ac. or 30.1% of gross area
  - Area of landscape island: 0.07 Ac. = 3,049.2sf
- Project background:
  - Location: Ellicott City, Md.; Tax Map 30, Parcel N-3
  - Zoning: POR
  - Section/Area: 2/5
  - Site Area: 5.4738 Acres
  - DPZ references: S-78-20, P-84-27, P-88-26, F-85-16, F-85-56, VP 87-97, F-88-37 F-89-25; Plat #8199
- The contractor 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 start of work.
- Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
- Existing utilities located from Road Construction Plans, Field Surveys and available record drawings. Approximate location of existing utilities are shown for the contractor's information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Estimates of earthwork quantities are provided solely for the purpose of calculating fees.
- Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test.
- All storm drain pipe bedding shall be Class 'C'.
- Coordinates and elevations are based on Howard County Right-of-Way Monuments.
- A noise study is not required for this project.
- Existing topography is based on a Topographic Survey performed by Vogel & Associates, Inc in August 1999.
- All paving to be light duty paving per detail, sheet 2 of 10, unless otherwise noted.
- All curb and gutter to be Howard County Standard concrete Detail 3.01 unless otherwise specified.
- Contractor responsible to construct all handicap parking and handicap access in accordance with current ADA requirements.
- Where drainage flows away from curb, contractor to reverse the gutter pan.
- Public Water available from Dorsey Hall Drive Contract No. 24-1727-D.
- Public Sewer available from Open Space Lot 4. On-site sewer main to be private.
- Stormwater Management is provided per F-85-16, Dorsey Hall section 2 area 1-Columbia Road; Water Quality is provided on site by a Stormceptor. Stormceptor is to be privately owned and maintained.
- All exterior lighting shall conform to Zoning Regulations Section 134.
- All elevations are to flowline/bottom of curb unless otherwise noted.
- All dimensions are to face of curb unless otherwise noted.
- All Buildings to have inside Water Meter settings.
- Contractor to construct underground electric conduits at time of site development.
- Contractor to consult Architect at time of courtyard lighting.
- Retaining Walls to be Allan Block, Classic Style, Mottled Brown color.
- There are no burial grounds or cemetery sites existing on this property.
- Department of Planning and Zoning, Development Engineering Division has approved the Traffic Analysis for this site on February 25, 2000.
- The Contractor to provide conduit between all proposed buildings and the existing building for future data lines.

34. The Forest Conservation obligations for this project have been met through retention of 0.52 acre of existing forest and payment of a fee-in-lieu for 0.90 acre of reforestation. The retention easement was recorded on a revision plat (#14276) in the Howard County Land Records.

PURPOSE OF REVISION  
 1. REFERENCE W.P. 05-72 APPROVED 3/28/03 TO WAIVE SECTION 14-156 m. 1.1 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW YEAR EXTENSION TO FILE BUILDING PERMITS FOR BUILDINGS 2 AND 3 BY 3/28/04  
 2. ELIMINATE 1" LHC FROM BUILDINGS 3 AND 4 AND PROVIDE 1" LHC FROM THE 6" WHC (SPRINKLER) TO PROVIDE CIRCULATION  
 3. REVISION 5 LIMIT OF DISTURBANCE IS 1575 SF. WHEN DISTURBANCES EXCEED 5000 SF, STORMWATER MANAGEMENT WILL BE REQUIRED



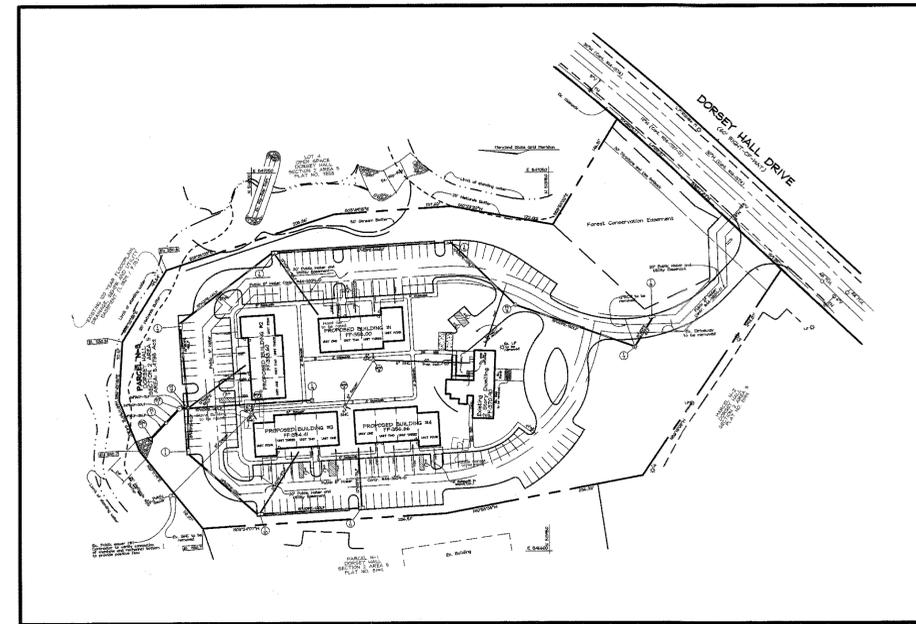
EXISTING BUILDING PLAN  
SCALE: 1"=20'



PROPOSED BUILDING PLAN (TYPICAL)  
SCALE: 1"=20'



PROPOSED BUILDING ELEVATION (TYPICAL)  
SCALE: 1"=20'



LOCATION MAP  
SCALE: 1"=100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Director: [Signature] DATE: 6/14/00  
 Chief, Division of Land Development: [Signature] DATE: 6/14/00  
 Chief, Development Engineering Division: [Signature] DATE: 6/14/00

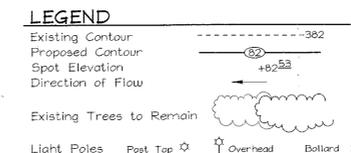
**PARKING TABULATION**

Parking Required: Total usable building area: 39,276 SF - General Office Use @ 3.3 spaces/1000 SF = 127 spaces

Parking Provided: 156 spaces  
 Handicap Spaces Required: 5 (4std./1van)  
 Handicap Spaces Provided: 7 (5std./2van)

**OWNER/DEVELOPER**  
 Dorsey Manor, LLC  
 c/o Richard Talkin  
 9175 Guilford Road, suite 301  
 Columbia, MD 21046

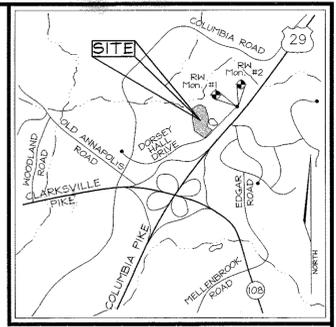
SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
Dorsey Hall	Section 2 Area 5	N-3
PLAT NO. BLOCK NO. ZONE	TAX/ZONE ELECT. DIST. CENSUS TR.	
8199 4 POR	30 2nd 6023.01	
WATER CODE: F08		SEWER CODE: 5750600



**BENCHMARKS**

R/W Monument #1  
 Rebar and Cap  
 NW side of Dorsey Hall Drive Cul-de-sac  
 Elev. 361.36

R/W Monument #2  
 Rebar and Cap  
 NE side of Dorsey Hall Drive Cul-de-sac  
 Elev. 361.41



VICINITY MAP  
SCALE: 1"=2000'

**SHEET INDEX**

DESCRIPTION	SHEET NO.
Cover Sheet	1 of 11
Site Development Plan	2 of 11
Sediment and Erosion Control Plan	3 of 11
Sediment and Erosion Control Details	4 of 11
Storm Drain Drainage Area Map	5 of 11
Storm Drain Profiles	6 of 11
Sewer Profiles and Miscellaneous Details	7 of 11
Landscape Plan	8 of 11
Retaining Wall Details	9 of 11
Retaining Wall Details	10 of 11
Forest Stand Delineation and Forest Conservation Plan	11 of 11

**ADDRESS CHART**

Building Number	Unit Number	Street Address
Ex. Building	-	5100 Dorsey Hall Drive
Proposed #1	Unit #1	5116 Dorsey Hall Drive
	Unit #2	5114 Dorsey Hall Drive
	Unit #3	5112 Dorsey Hall Drive
	Unit #4	5110 Dorsey Hall Drive
Proposed #2	Unit #1	5126 Dorsey Hall Drive
	Unit #2	5124 Dorsey Hall Drive
	Unit #3	5122 Dorsey Hall Drive
	Unit #4	5120 Dorsey Hall Drive
Proposed #3	Unit #1	5136 Dorsey Hall Drive
	Unit #2	5134 Dorsey Hall Drive
	Unit #3	5132 Dorsey Hall Drive
	Unit #4	5130 Dorsey Hall Drive
Proposed #4	Unit #1	5140 Dorsey Hall Drive
	Unit #2	5142 Dorsey Hall Drive
	Unit #3	5144 Dorsey Hall Drive
	Unit #4	5146 Dorsey Hall Drive

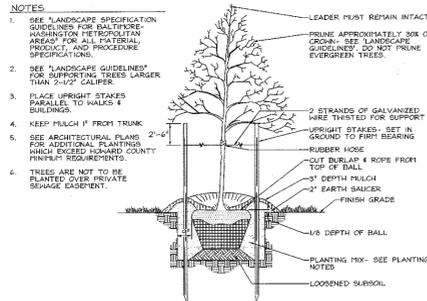
No.	REVISION	DATE
5	BUILDING # 2 EXPANSION	6/29/06
4	ADD PORCHES AND TRELLISES TO BLDG #2, #3, #4	0-23-05
3	ADD WAIVER NOTE	3/28/03
2	ADD BLDG ADDITION TO EX. BLDG.	
1	Revise Address Chart	8.23.00

**COVER SHEET**  
**DORSEY MANOR**  
 DORSEY HALL SECTION 2 AREA 5  
 TAX MAP #30 PARCEL N-3  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

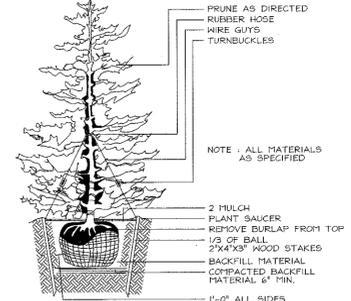
**VOGEL & ASSOCIATES**  
 ENGINEERS/SURVEYORS/PLANNERS  
 3891 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
 Tel 410.461.5828 Fax 410.465.3986



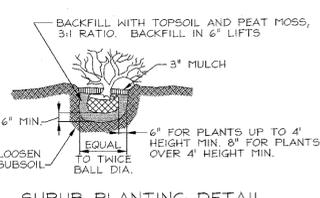
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 DRAWN BY: PS  
 CHECKED BY: RHV  
 DATE: May 16, 2000  
 SCALE: As Shown  
 W.O. NO.: 99-082



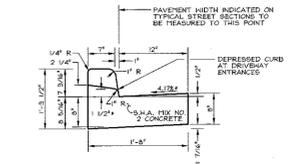
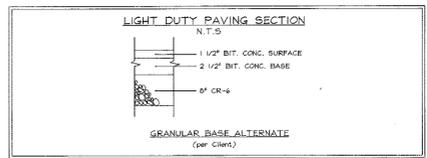
**TREE PLANTING AND STAKING**  
DECIDUOUS TREES UP TO 2-1/2" CALIPER  
NOT TO SCALE



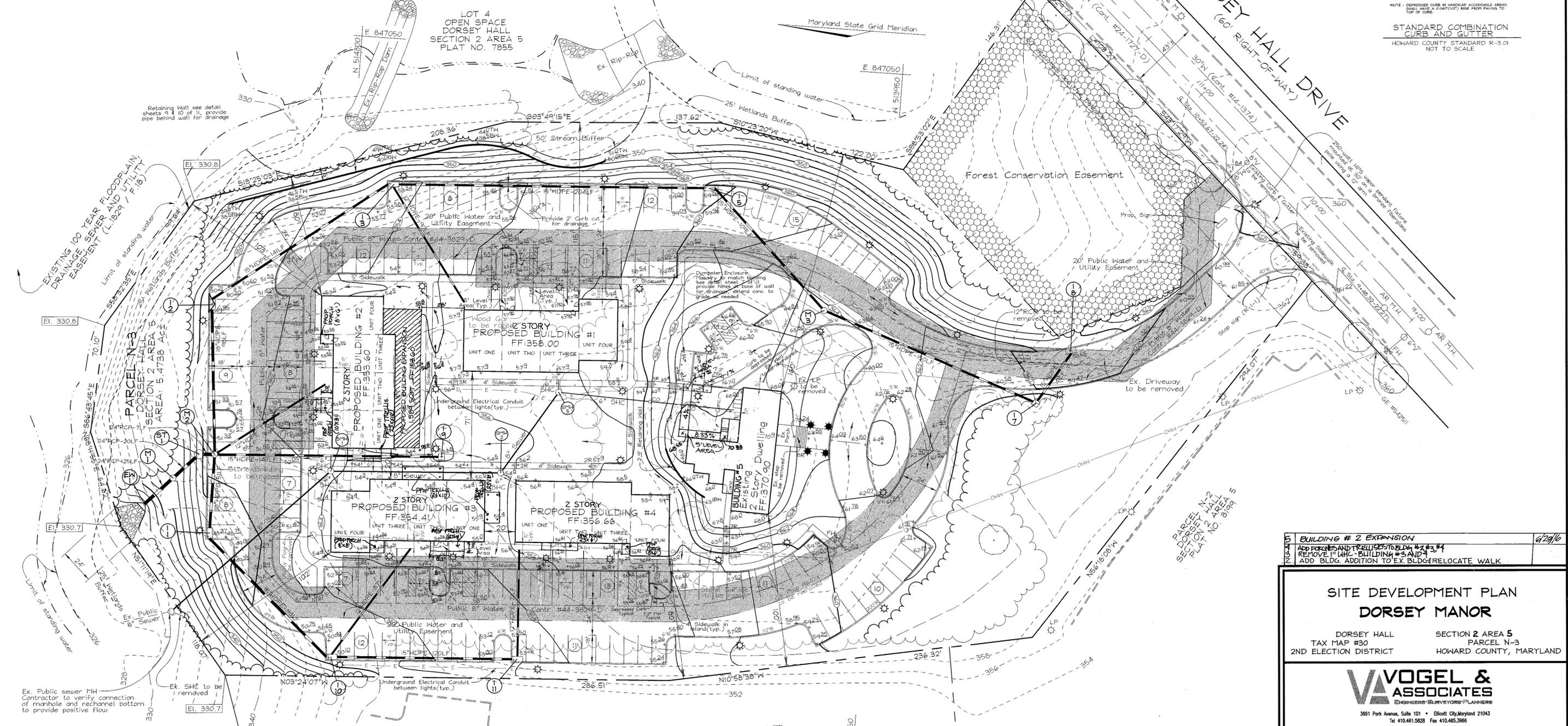
**TYPICAL EVERGREEN TREE PLANTING DETAIL**  
NOT TO SCALE



**SHRUB PLANTING DETAIL**  
NOT TO SCALE



**STANDARD COMBINATION CURB AND GUTTER**  
HOWARD COUNTY STANDARD R-3.01  
NOT TO SCALE



5	BUILDING # 2 EXPANSION	6/29/06
4	ADD PORCHES AND TERRACES TO BLDG #2 & #3	
3	REMOVE 1" DHC BUILDING #3 AND 1"	
2	ADD BLDG. ADDITION TO EX. BLDG & RELOCATE WALK.	

**SITE DEVELOPMENT PLAN**  
**DORSEY MANOR**

DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
ENGINEERS • SURVEYORS • PLANNERS

3691 Park Avenue, Suite 101 • Elliott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966



DESIGN BY: PS  
DRAWN BY: PS  
CHECKED BY: RHV  
DATE: May 16, 2000  
SCALE: 1"=30'  
W.O. NO.: 99-082

2 SHEET OF 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 6/14/00  
DIRECTOR DATE

*[Signature]* 6/14/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 6/16/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

PARCEL N-1  
DORSEY HALL  
SECTION 2 AREA 5  
PLAT NO. 8199

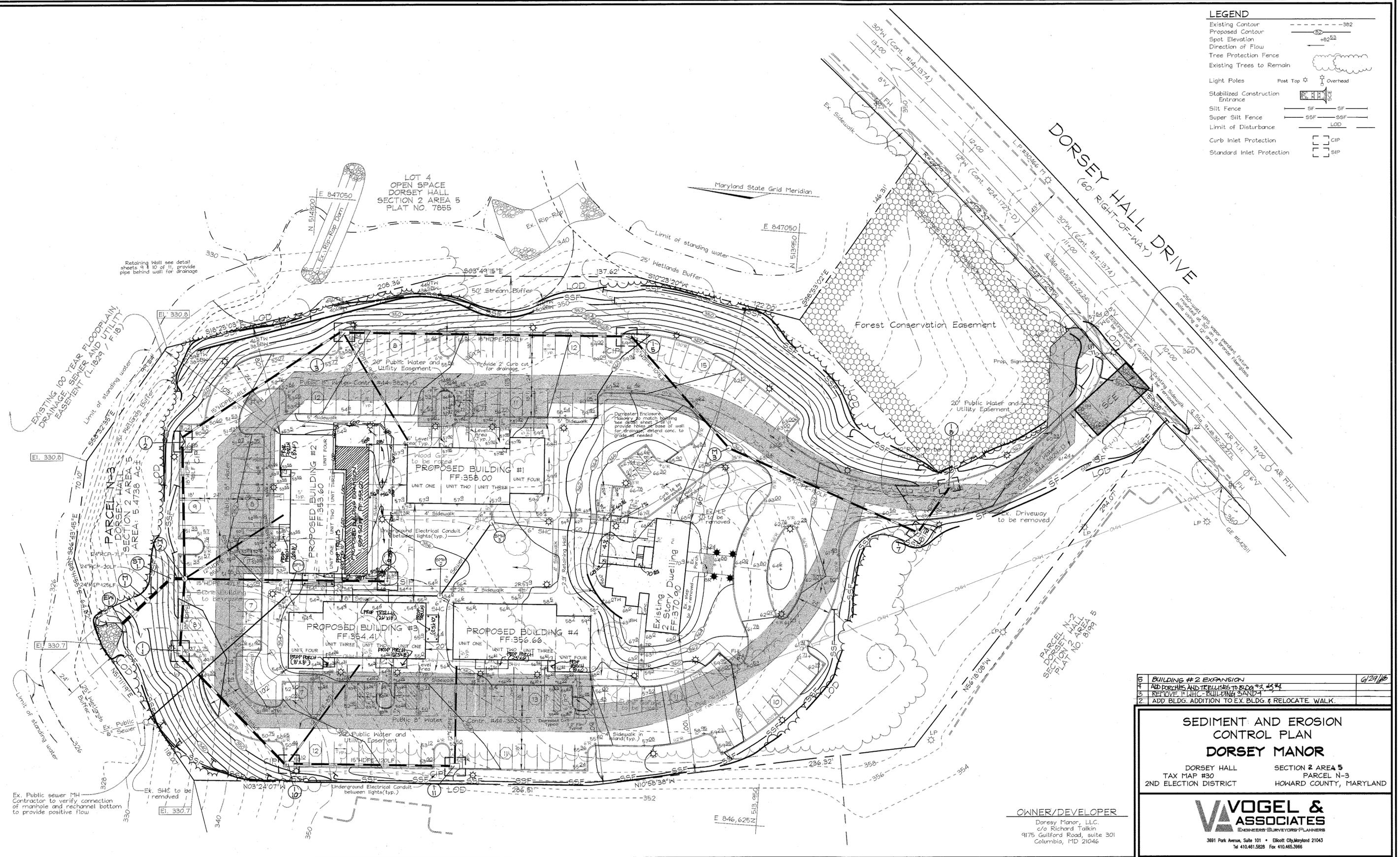
Ex. Building

E 846600 N 513990

**OWNER/DEVELOPER**  
Dorsey Manor, L.L.C.  
c/o Richard Talkin  
9175 Guilford Road, suite 301  
Columbia, MD 21046

**LEGEND**

Existing Contour	---	362
Proposed Contour	---	362
Spot Elevation	+	82.52
Direction of Flow	---	
Tree Protection Fence	---	
Existing Trees to Remain	---	
Light Poles	Post Top	Overhead
Stabilized Construction Entrance	---	
Silt Fence	SF	SF
Super Silt Fence	SSF	SSF
Limit of Disturbance	LOD	LOD
Curb Inlet Protection	CIP	CIP
Standard Inlet Protection	SIP	SIP



5	BUILDING #2 EXPANSION	G/29/16
4	ADD PORCHES AND TERRACES TO BLDG #2, #3, #4	
3	REMOVE 1" W/C BUILDING SAND	
2	ADD BLDG. ADDITION TO EX. BLDG. & RELOCATE WALK.	

**SEDIMENT AND EROSION CONTROL PLAN**  
**DORSEY MANOR**

DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
ENGINEERS SURVEYORS PLANNERS  
3691 Park Avenue, Suite 101 • Elkott City, Maryland 21043  
Tel 410.481.5828 Fax 410.485.3666

OWNER/DEVELOPER  
Dorsey Manor, LLC  
c/o Richard Talkin  
9175 Guilford Road, Suite 301  
Columbia, MD 21046

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 6/14/00  
DIRECTOR DATE

*[Signature]* 6/15/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 6/16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**ENGINEER'S CERTIFICATE**

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*[Signature]* 5/18/00  
SIGNATURE OF ENGINEER DATE  
ROBERT H. VOGEL

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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."

Dorsey Manor, LLC  
*[Signature]* 5/18/00  
SIGNATURE OF DEVELOPER DATE

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

*[Signature]* 5/31/00  
HOWARD SOIL CONSERVATION DISTRICT DATE

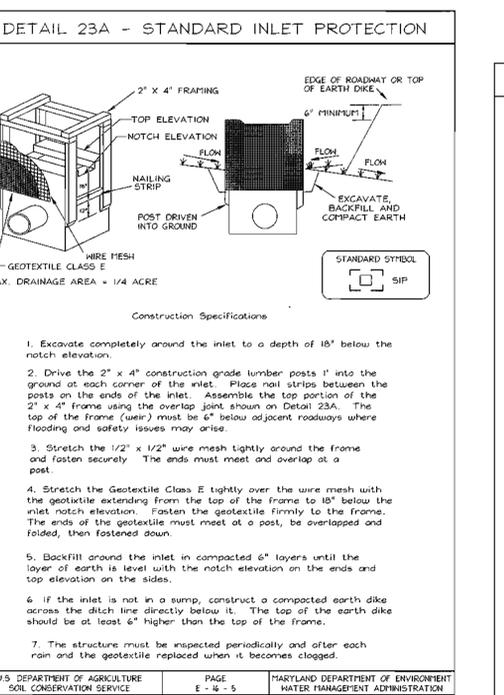
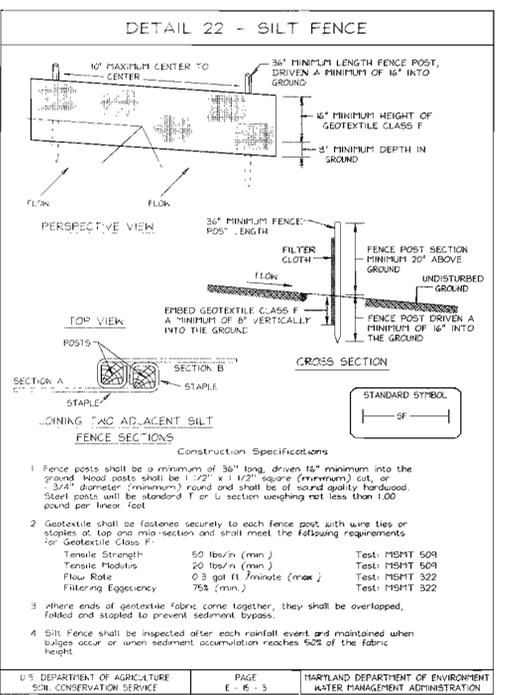
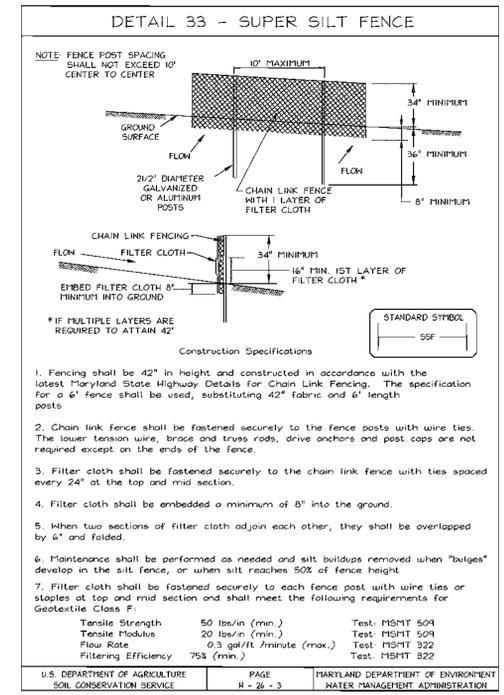
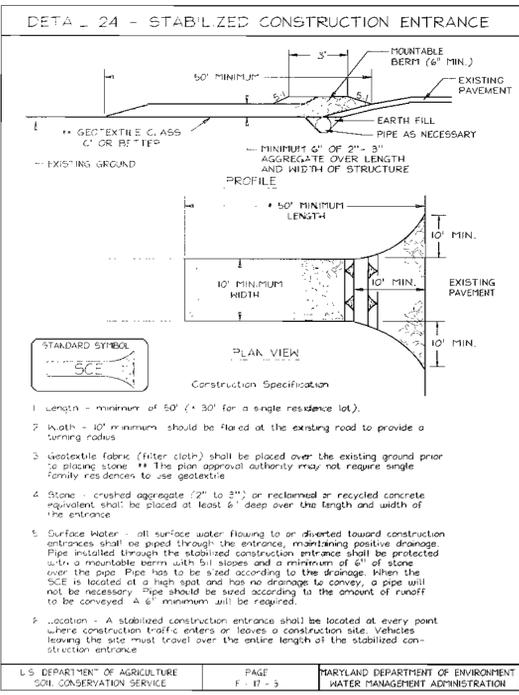
THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*[Signature]* 5/18/00  
DA-NATURAL RESOURCES CONSERVATION SERVICE DATE

STATE OF MARYLAND  
ROBERT H. VOGEL  
REGISTERED PROFESSIONAL ENGINEER  
NO. 16193  
EXPIRES 12/31/00

DESIGN BY: PS  
DRAWN BY: PS  
CHECKED BY: RHY  
DATE: May 15, 2000  
SCALE: 1"=30'  
W.O. NO.: 99-082

3 SHEET OF 11



### PERMANENT SEEDING NOTES

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

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

**SOIL AMENDMENTS:** In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./100 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

**SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (14 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) lime sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 34b gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

### TEMPORARY SEEDING NOTES

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

**SOIL AMENDMENTS:** Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.).

**SEEDING:** For periods March 1 thru April 30 and August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 34b gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

### 20.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

**Definition:** Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

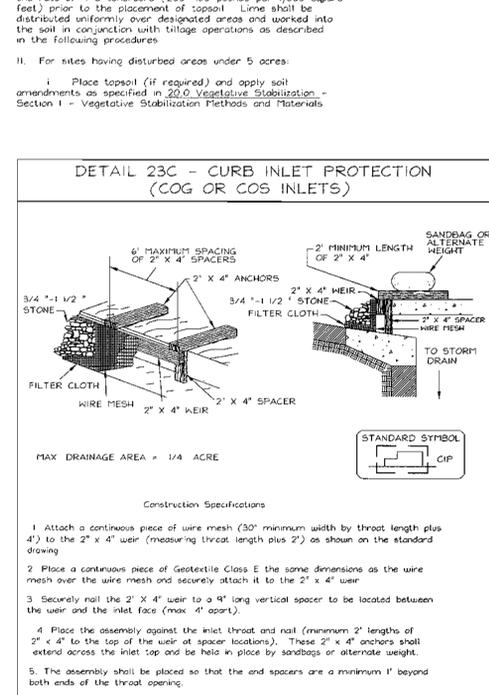
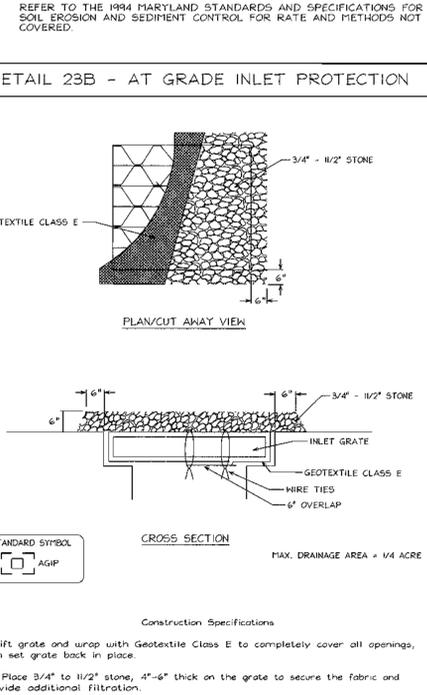
**Purpose:** To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

**Conditions Where Practice Applies:**

- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

**Construction and Material Specifications:**

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
  - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, spurge, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.



### SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (319-1855).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. For permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 

Total Area	5,4738 Acres
Area Disturbed	4.0 Acres
Area to be roofed or paved	2.9 Acres
Area to be vegetatively stabilized	17.7 Acres
Total Cut	12,200 CY
Total Fill	11,200 CY
Offsite waste/borrow area location	
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

\* To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

### SEQUENCE OF CONSTRUCTION

- Obtain grading permit.
- Notify Howard County Bureau of Inspections and Permits at (410)313-1800 at least 24 hours before starting any work.
- Install Stabilized Construction Entrances, Silt Fence and Super Silt Fence.
- Install Retaining wall.
- Regrade site and remove existing auxiliary buildings and storm drain (3 weeks).
- Construct water, sewer and any remaining utilities (3-4 weeks).
- Connect existing house to public water and abandon existing well. (Contractor to contact Howard County Health Department) (1 week).
- Construct Storm Drain, Stormcatcher and install inlet protection (3-4 weeks).
- Begin building construction (6 mo. - 1 year).
- As building construction continues fine grade site. (1 week)
- Install curb and gutter, paving and sidewalks. (1 month)
- Install Landscaping (1 week)
- With permission of the Inspector, flush Storm Drain System, clean Stormcatcher and remove all Sediment Controls from the site. Stabilize all disturbed areas immediately (1 week).
- During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the Sediment Control measures on this plan.
- Following initial soil disturbances or redistribution permanent or temporary stabilization shall be completed within:
  - 7 calendar days for all perimeter Sediment Control Structures, Dikes, Swales and all slopes greater than 3:1.
  - 14 calendar days for all other disturbed areas.

## SEDIMENT AND EROSION CONTROL DETAILS

### DORSEY MANOR

DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**OWNER/DEVELOPER**  
Dorsey Manor, LLC.  
c/o Richard Talkin  
9175 Guilford Road, suite 301  
Columbia, MD 21046

**VOGEL & ASSOCIATES**  
ENGINEERS-SURVEYORS-PLANNERS  
3891 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.481.5828 Fax 410.465.3986

DESIGN BY: PS  
DRAWN BY: PS  
CHECKED BY: RHV  
DATE: May 16, 2000  
SCALE: As Shown  
W.O. NO.: 99-082

4 SHEET OF 11

SDP-00-071

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*John R. Roberts* 6/14/00  
DIRECTOR DATE

*Wendy Harville* 6/14/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*John R. Roberts* 6/14/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**ENGINEERS CERTIFICATE**

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Robert H. Vogel* 5/16/00  
SIGNATURE OF ENGINEER DATE  
ROBERT H. VOGEL

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, 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."

*John R. Roberts* 5/31/00  
SIGNATURE OF DEVELOPER DATE  
HOWARD SOIL CONSERVATION DISTRICT

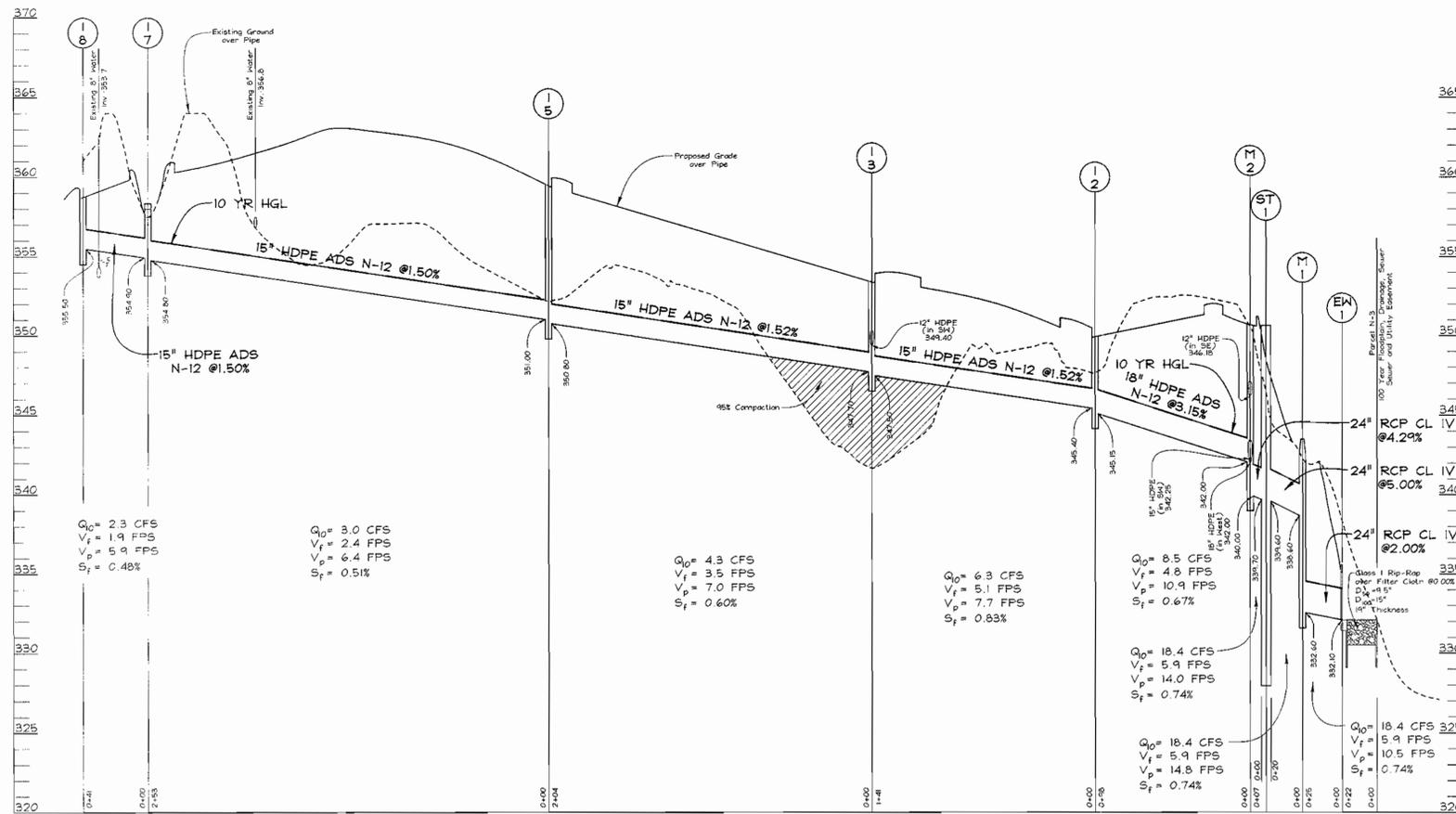
THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John R. Roberts* 5/31/00  
SIGNATURE OF DEVELOPER DATE  
HOWARD SOIL CONSERVATION DISTRICT

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

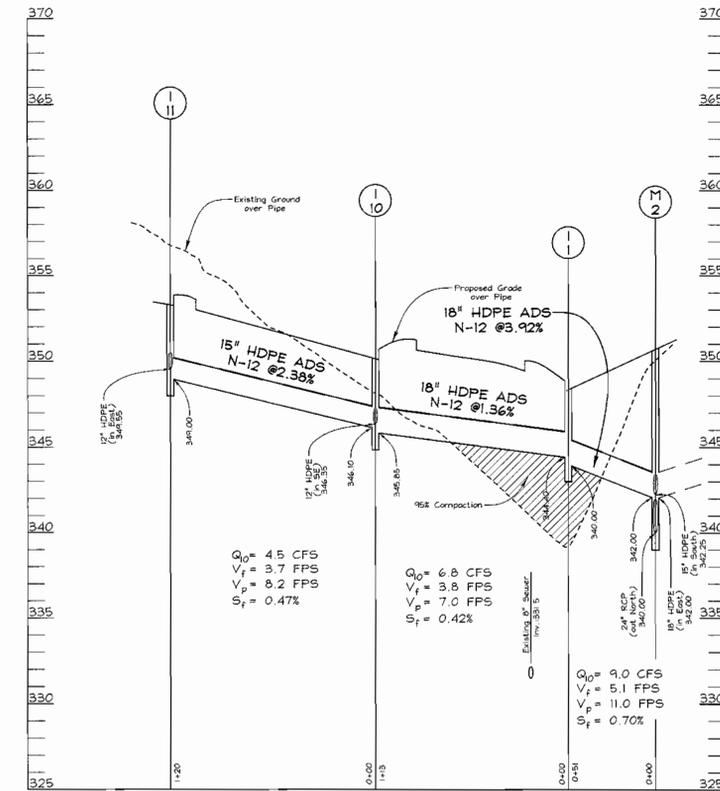
*John R. Roberts* 5/31/00  
SIGNATURE OF DEVELOPER DATE  
HOWARD SOIL CONSERVATION DISTRICT





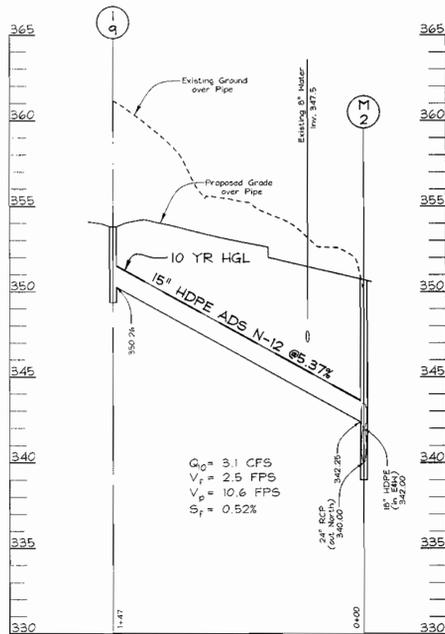
STORM DRAIN PROFILES

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



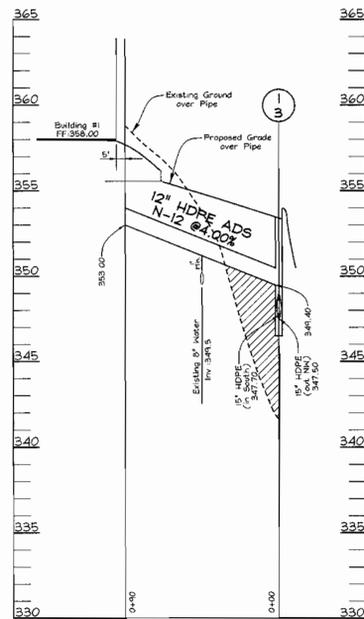
STORM DRAIN PROFILES

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



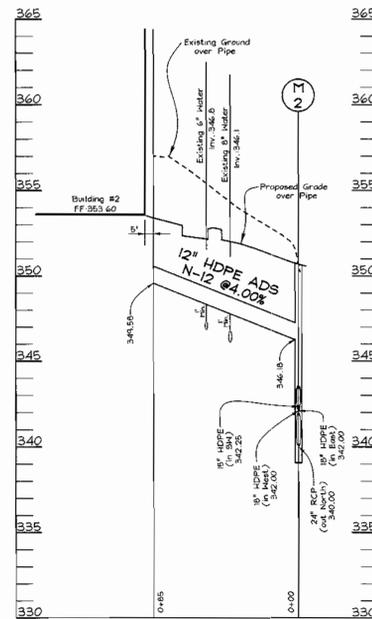
STORM DRAIN PROFILES

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



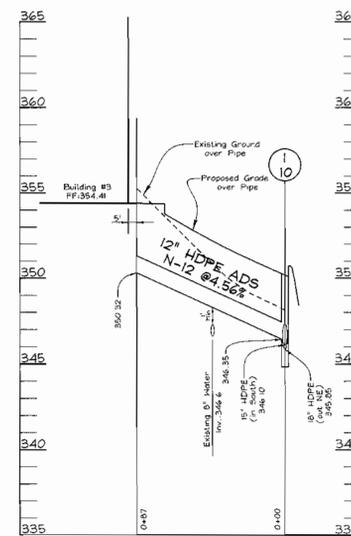
ROOF LEADER PROFILES

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



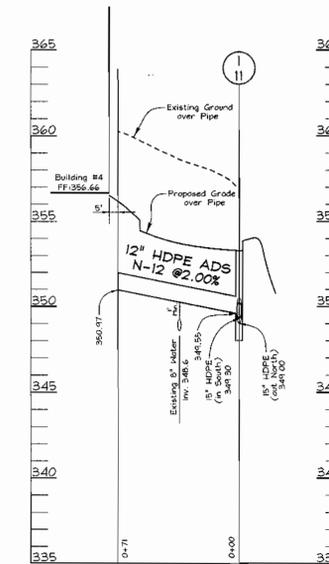
ROOF LEADER PROFILES

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



ROOF LEADER PROFILES

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



ROOF LEADER PROFILES

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

OWNER/DEVELOPER

Dorsey Manor, LLC.  
c/o Richard Talkin  
9175 Guilford Road, suite 301  
Columbia, MD 21046

STORM DRAIN PROFILES  
DORSEY MANOR

DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966

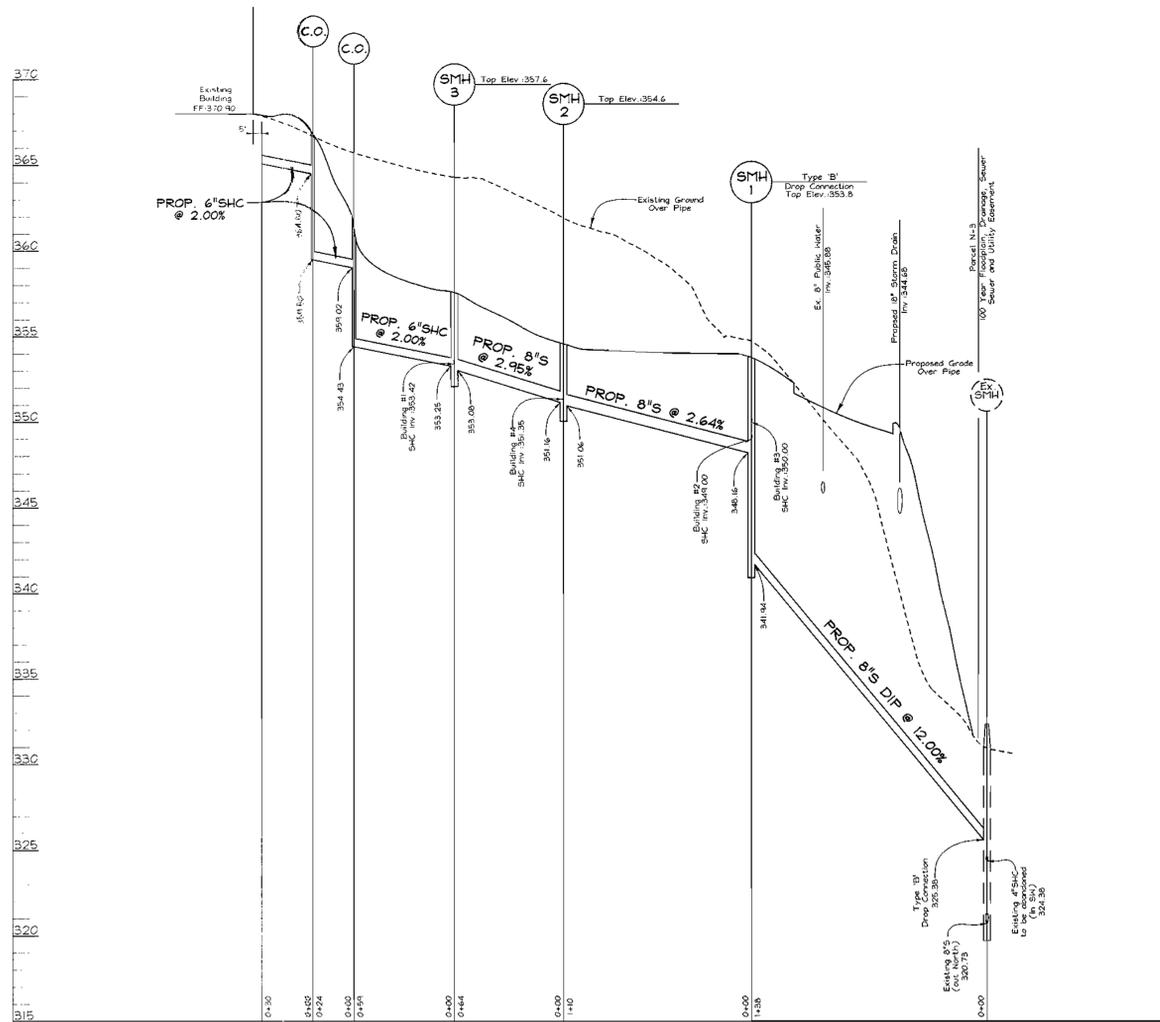
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director: *[Signature]* 6/13/00 DATE  
Chief, Division of Land Development: *[Signature]* 6/14/00 DATE  
Chief, Development Engineering Division: *[Signature]* 6/14/00 DATE

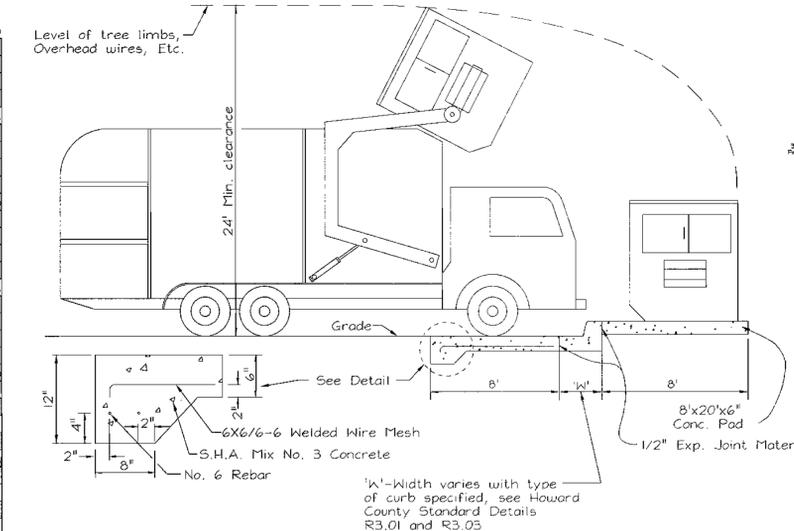


DESIGN BY: RHV  
DRAWN BY: PS  
CHECKED BY: RHV  
DATE: May 16, 2000  
SCALE: As Shown  
W.O. NO.: 99-082

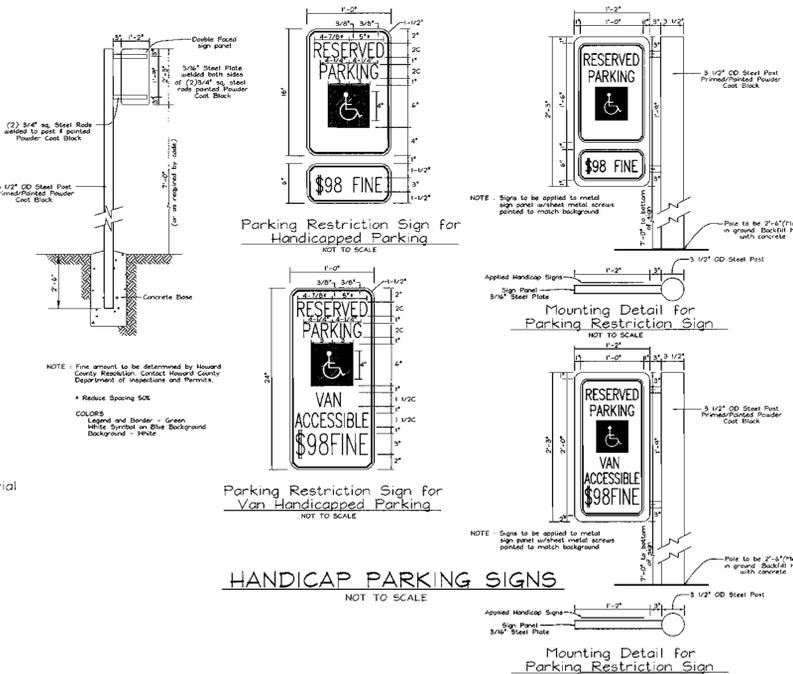
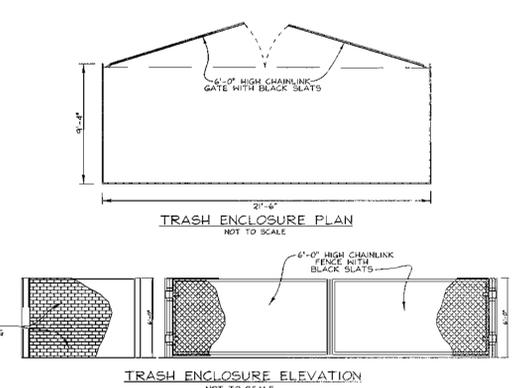
6 SHEET OF 11



**SEWER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



**SOLID WASTE SERVICE PAD**  
HOWARD COUNTY STD. R II.01  
NOT TO SCALE



**HANDICAP PARKING SIGNS**  
NOT TO SCALE

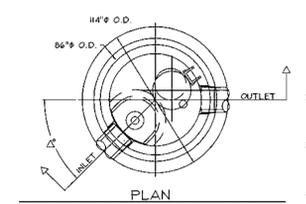
PIPE SCHEDULE					
FROM	TO	SIZE	TYPE	LENGTH	REMARKS
EW-1	M-1	24"	RCP CLASS IV	25 LF	
M-1	ST-1	24"	RCP CLASS IV	20 LF	
ST-1	M-2	24"	RCP CLASS IV	7 LF	
M-2	1-2	18"	HDPE ADS N-12	98 LF	
1-2	1-3	15"	HDPE ADS N-12	141 LF	
1-3	1-5	15"	HDPE ADS N-12	204 LF	
1-5	1-7	15"	HDPE ADS N-12	253 LF	
1-7	1-8	15"	HDPE ADS N-12	41 LF	
M-2	1-1	18"	HDPE ADS N-12	51 LF	
1-1	1-10	18"	HDPE ADS N-12	113 LF	
1-10	1-11	15"	HDPE ADS N-12	120 LF	
M-2	1-9	15"	HDPE ADS N-12	147 LF	

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
1-1	MD SHA WR inlet	N 514,375 E 846,720	349.17	344.40	340.00	MD 374.04
1-2	MD SHA WR inlet	N 514,384 E 846,868	350.71	345.40	345.15	MD 374.04
1-3	MD SHA WR inlet	N 514,272 E 846,955	354.20	347.70	347.50	MD 374.04
1-5	MD SHA WR inlet	N 514,069 E 846,967	360.21	351.00	350.80	MD 374.04
1-7	Standard pre-cast Type 'D' inlet	N 513,848 E 846,842	357.50	354.90	354.80	SD-4.11
1-8	MD SHA WR inlet	N 513,829 E 846,879	359.40	-	355.50	MD 374.04
1-9	Yard inlet	N 514,229 E 846,780	353.80	-	350.26	SD-4.14
1-10	MD SHA WR inlet	N 514,291 E 846,645	350.94	346.50	345.85	MD 374.04
1-11	MD SHA WR inlet	N 514,171 E 846,652	354.08	348.50	349.00	MD 374.04
M-1	Standard Manhole	N 514,401 E 846,754	343.50	338.60	332.60	G-5.12
M-2	Standard Manhole	N 514,375 E 846,771	350.70	-	340.00	G-5.12
ST-1	STC-3600	N 514,385 E 846,771	350.64	339.70	339.60	MD 374.04
EW-1	Type 'A' Headwall	N 514,418 E 846,736	335.6	-	332.10	SD-5.11

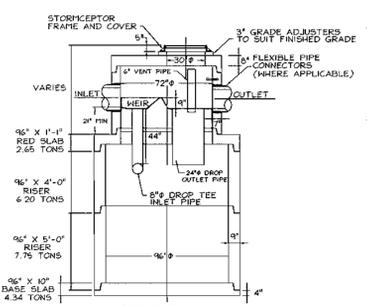
NOTE: 1. Top elevations are to the center of the structure at top of curb for WR inlets, throat opening for Type 'D' inlets and top of grate for Yard inlets.  
2. For top slab slopes see grading plan.

\* M-2 Inv. In: 12" 346.18  
15" 342.25  
18" 342.00  
18" 342.00

**STC 3600 PRECAST CONCRETE STORMCEPTOR**



- GENERAL NOTES**
- STORMCEPTOR SECTIONS SHALL CONFORM TO ASTM C 478, PROFILE GASKETED JOINTS CONFORMING TO ASTM C 448.
  - MANHOLE STEPS PROVIDED ABOVE INSERT @ 12" O.C. AND SHALL BE COPOLYMER POLYPROPYLENE PLASTIC ENCAPSULATED GR. 60 STEEL.
  - MINIMUM CONCRETE STRENGTH: f'c = 4,000 PSI; MINIMUM STEEL STRENGTH: fy = 60,000 PSI.
  - REINFORCEMENT DESIGN SHALL MEET ASTM C 478.
  - FLEXIBLE PIPE CONNECTORS SHALL MEET ASTM C 763.
  - HANDLING: A. ALL RISERS SHALL HAVE 2 EA. 1/2" HOLES FOR LIFTING @ 1/3 WAY DOWN FROM SPIGOT. B. ALL LG. DIAM. BASE SECTIONS, FLATTOPS, AND REDUCERS TO HAVE LIFT HOLES.
  - DESIGNED FOR AASHTO H-20 LOADING.
  - FIBERGLASS STORMCEPTOR INSERT REFERENCE DRAWING # CA-0225-01



**STORMCEPTOR ORDER INFORMATION**

STORMCEPTOR MODEL: 3600  
STRUCTURE: ST-1  
TOP ELEVATION: 350.64  
INLET PIPE INVERT: 339.70  
OUTLET PIPE INVERT: 339.60  
PIPE SIZE: 24" RCP

NOTE: SEE DRAINAGE AREA MAP FOR CONTRIBUTING IMPERVIOUS AREA TO STORMCEPTOR.  
AREA: 2.3

**OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY STRUCTURE**

- The Stormceptor Water Quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor inspection/monitoring form. Inspections shall be done by using a clear Plexiglass tube ("sludge/judge") to extract a water column sample. When the sediment depths exceed the level specified in table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
- The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
- The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
- The inlet and outlet pipes shall be checked for any obstructions at least once ever six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
- The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

**Precast Concrete Stormceptor® Order Request Form**

**CONTRACTOR INFORMATION**  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

**OWNER INFORMATION**  
Name: Dorsey Manor, LLC  
Phone: 410.893.9126  
Fax: \_\_\_\_\_

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: 2.3 Acres

Stormceptor Model: \_\_\_\_\_  
User: Site  
Top Elevation (ft): 350.64  
Inlet Pipe Invert (ft): 339.70  
Outlet Pipe Invert (ft): 339.60

Project Name: Dorsey Manor, Executive Offices  
Approximate time frame of delivery (weeks): Three months  
Delivery Address Street: 5102 Dorsey Hall Drive  
City: Ellicott City, State: Maryland, Zip Code: 21042  
Designer Company: Vogel & Associates, Inc.  
Designer Contact: Rob Vogel, Phone: 410.461.5828, Fax: 410.465.3968

PLEASE FILL OUT COMPLETELY AND FAX TO: **CSR Hydro Conduit**  
ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)313-6389  
FOR TECHNICAL ASSISTANCE PLEASE CALL MIKE BARG, PHONE (703)313-6399

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
DIRECTOR: *Joseph R. Smith* DATE: 6/14/00  
CHIEF, DIVISION OF LAND DEVELOPMENT: *Andy Hamilton* DATE: 6/14/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *CE* DATE: 6/14/00

**OWNER/DEVELOPER**  
Dorsey Manor, LLC,  
c/o Richard Tolkin  
9175 Guilford Road, suite 301  
Columbia, MD 21046

**SEWER PROFILES AND MISCELLANEOUS DETAILS**  
**DORSEY MANOR**  
DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
ENGINEERS/SURVEYORS/PLANNERS  
3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966

DESIGN BY: PS  
DRAWN BY: PS  
CHECKED BY: RHY  
DATE: May 16, 2000  
SCALE: As Shown  
W.O. NO.: 98-082

STATE OF MARYLAND  
ROBERT H. VOGEL, PE No. 16193  
PROFESSIONAL ENGINEER

7 SHEET OF 11

*Frank R. Smith* 6/14/00  
 DIRECTOR DATE  
*Chris Bennett* 6/14/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
 4/10  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

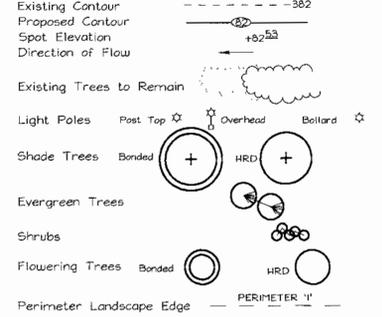
SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of parking spaces	157
Number of islands and trees required	8
Number of islands and trees provided	
Shade Trees	9
Other Trees (2:1 Substitution)	-

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	REM
AR	48	Acer Rubrum October Glory Red Maple	2 1/2"-3" Cal.	B & B
BP	50	Juniperus c. 'Blue Pacific' Blue Pacific Shore Juniper	2 Gallon	Cont.
CL	12	Cladostis lutea Yellowwood	2 1/2"-3" Cal.	B & B
FP	37	Fraxinus p. 'Patmore' Patmore Green Ash	2 1/2"-3" Cal.	B & B
PC	13	Prunus c. x 'Okame' Okame Cherry	1 1/2"-2" Cal.	B & B
PL	80	Prunus l. 'Schipkaensis' Schipka Laurel	24 - 30" Ht.	B & B
PR	11	Prunus c. 'Newport' Newport Flowering Plum	1 1/2"-2" Cal.	B & B
PS	42	Pinus Strobus Eastern White Pine	6'-8' Ht.	B & B

**GENERAL NOTES**

- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. The required parking and perimeter landscaping will be bonded per this submission.
- Financial Surety for the required landscaping must be posted as part of the Developer's Agreement in the amount of \$3,300.00 for 8 shade trees and 6 ornamental trees.
- Light poles to be 30' bronze fiberglass with 12' arm. Fixture to be 250 Watt HPS cutoff.
- Light bollards to coordinate with porch lighting treatment.
- See sheet 2 of 10 for planting details.

**LEGEND**



**SCHEDULE A  
PERIMETER LANDSCAPE EDGE \*\***

CATEGORY	ADJ TO ROAD
Perimeter/Frontage Designation	B
Linear Feet of Roadway	205
Frontage/Perimeter	
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	Yes* 180'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No
Number of Plants Required	
Shade Trees	1:50 1
Evergreen Trees	1:40 1
Shrubs	
Number of Plants Provided	
Shade Trees	1
Evergreen Trees	1
Other Trees (2:1 Substitution)	1
Shrubs (10:1 Substitution)	1
Describe Plant Substitution Credits Below if needed	

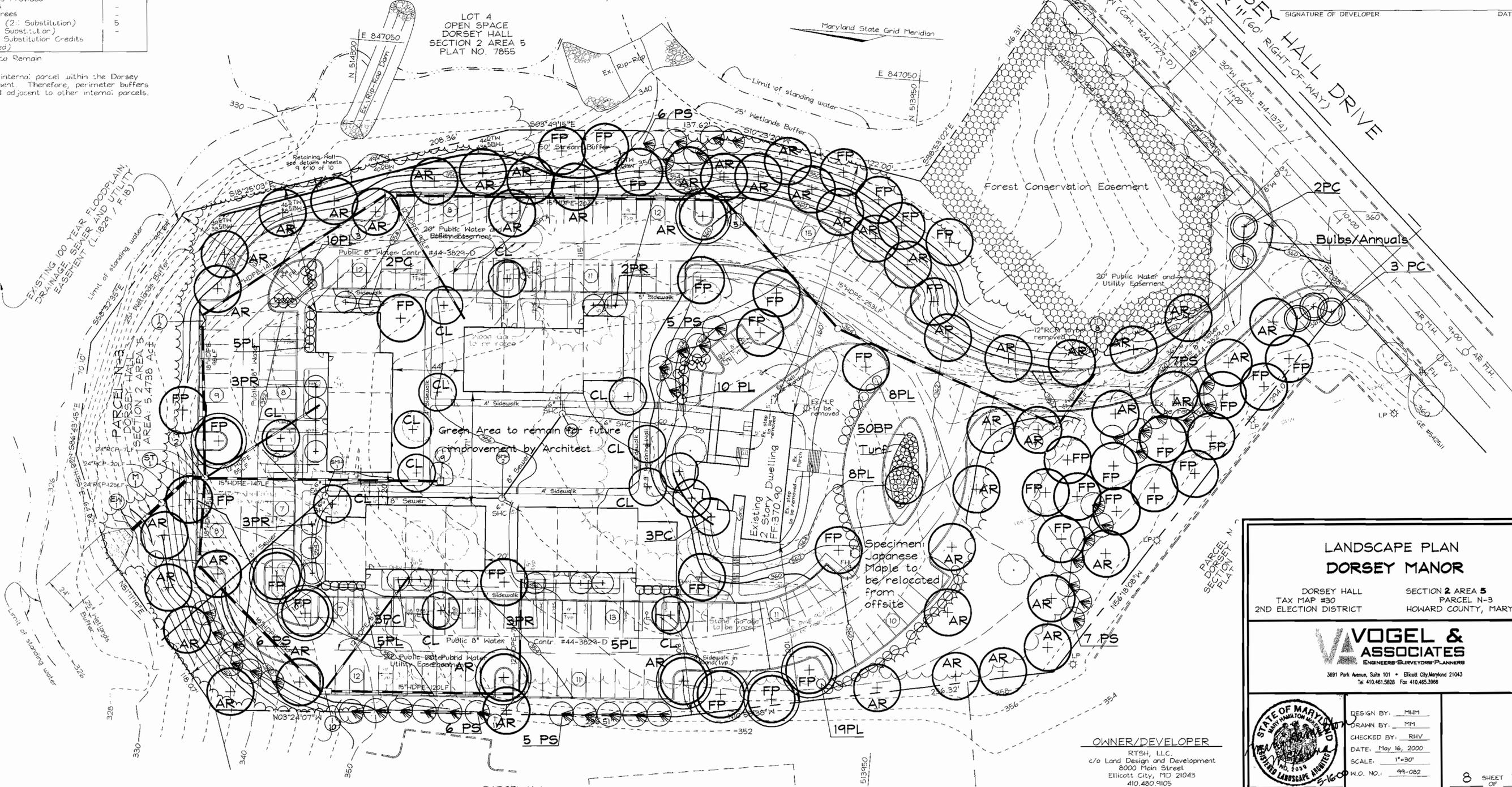
\* Existing Woods to Remain

\*\* This site is an internal parcel within the Dorsey Manor Development. Therefore, perimeter buffers are not required adjacent to other internal parcels.

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_



**LANDSCAPE PLAN  
DORSEY MANOR**

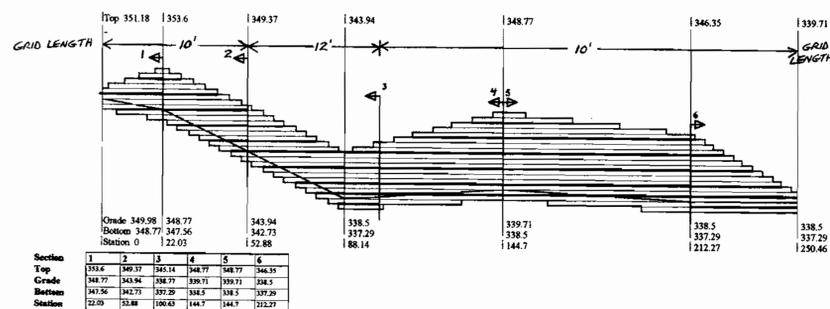
DORSEY HALL SECTION 2 AREA 5  
 TAX MAP #30 PARCEL N-3  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
 ENGINEERS/SURVEYORS/PLANNERS  
 3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
 Tel 410.461.5828 Fax 410.465.3966



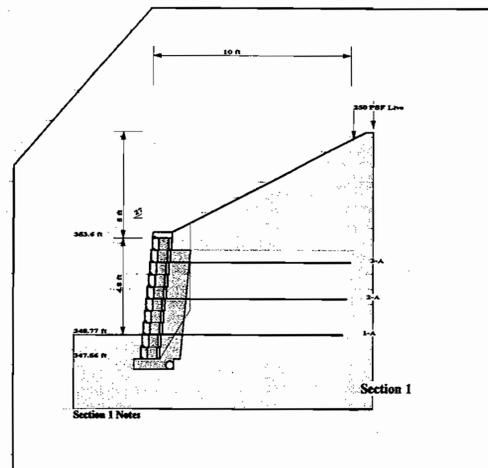
DESIGN BY: MMH  
 DRAWN BY: MMH  
 CHECKED BY: RHV  
 DATE: May 16, 2000  
 SCALE: 1"=30'  
 W.O. NO.: 99-082

**OWNER/DEVELOPER**  
 RTSI, LLC  
 c/o Land Design and Development  
 8000 Main Street  
 Ellicott City, MD 21043  
 410.480.9105



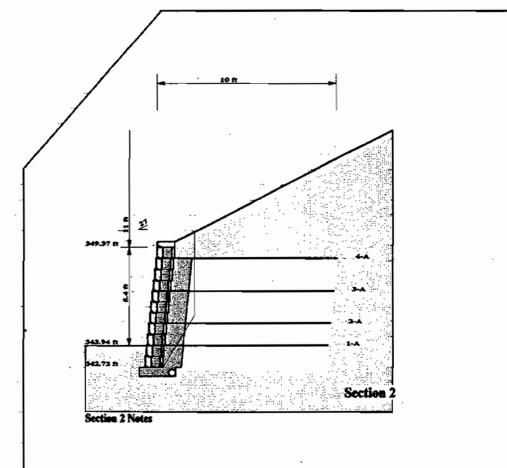
**Allan Block Retaining Wall Elevation -**  
Horizontal Scale: 1" = 30'-0" Vertical Scale: 1" = 10'-0"

THE FOLLOWING FIVE CROSS SECTIONS CORRESPOND TO THE AREA INDICATED ON THE ELEVATION VIEW.



**Project Name:** DORSEY MANOR  
**Location:** Howard County, MD  
**Project Number:** DS991028  
**Wall Number:**  
**Designer:** DKS  
**Date:** 2-4-00

AB Classic	
Total Wall Height	= 6.04 Feet
Block Height	= 0.604 Feet
Angle of Setback	= 6 Deg
Depth of Block	= 0.97 Feet
Length of Block	= 1.469 Feet
Infill Soil	Retained Soil
Friction Angle = 28 Deg	Friction Angle = 28 Deg
Unit Weight = 120 PCF	Unit Weight = 120 PCF
Foundation Soil	Cohesion = 0 PSF
Friction Angle = 28 Deg	
Unit Weight = 120 PCF	
Bearing Capacity	Factor of Safety = 4.17
Safety Factors Static	Actual Sliding = 1.623
Actual Overturning	= 5.088
Safety Factors Seismic	Actual Sliding = N.A.
Actual Overturning	= N.A.
General Legend	A-Minard 3XT B-Minard 5XT C-Minard 7XT g-Crushed Concrete Min. Length of Geogrid = 10 Feet

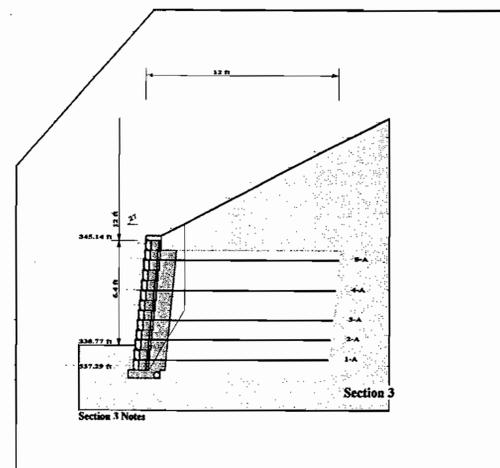


**Project Name:** DORSEY MANOR  
**Location:** Howard County, MD  
**Project Number:** DS991028  
**Wall Number:**  
**Designer:** DKS  
**Date:** 2-4-00

AB Classic	
Total Wall Height	= 6.04 Feet
Block Height	= 0.604 Feet
Angle of Setback	= 6 Deg
Depth of Block	= 0.97 Feet
Length of Block	= 1.469 Feet
Infill Soil	Retained Soil
Friction Angle = 28 Deg	Friction Angle = 28 Deg
Unit Weight = 120 PCF	Unit Weight = 120 PCF
Foundation Soil	Cohesion = 0 PSF
Friction Angle = 28 Deg	
Unit Weight = 120 PCF	
Bearing Capacity	Factor of Safety = 3.34
Safety Factors Static	Actual Sliding = 1.57
Actual Overturning	= 5.092
Safety Factors Seismic	Actual Sliding = N.A.
Actual Overturning	= N.A.
General Legend	A-Minard 3XT B-Minard 5XT C-Minard 7XT g-Crushed Concrete Min. Length of Geogrid = 10 Feet

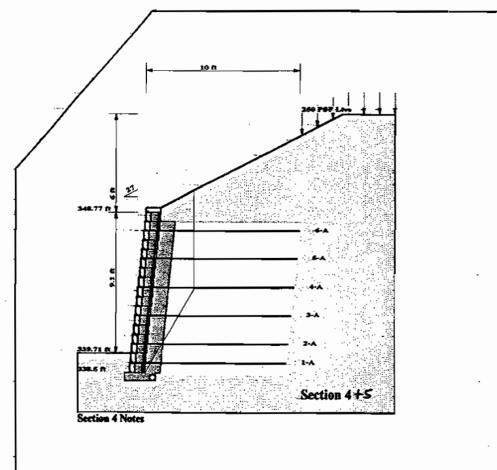
# ALLAN BLOCK RETAINING WALL SYSTEM

AS MANUFACTURED BY NITTERHOUSE MASONRY PRODUCTS, LLC Chambersburg, PA 717-267-4500



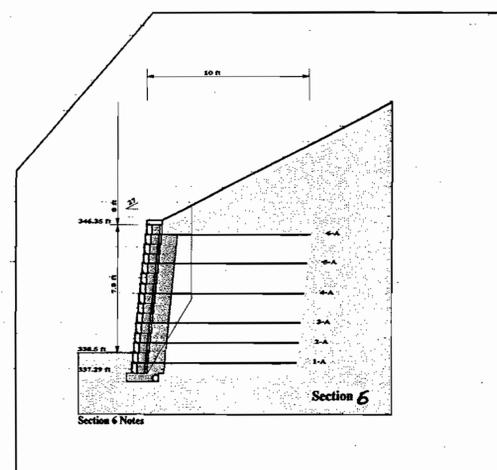
**Project Name:** DORSEY MANOR  
**Location:** Howard County, MD  
**Project Number:** DS991028  
**Wall Number:**  
**Designer:** DKS  
**Date:** 2-4-00

AB Classic	
Total Wall Height	= 7.85 Feet
Block Height	= 0.604 Feet
Angle of Setback	= 6 Deg
Depth of Block	= 0.97 Feet
Length of Block	= 1.469 Feet
Infill Soil	Retained Soil
Friction Angle = 28 Deg	Friction Angle = 28 Deg
Unit Weight = 120 PCF	Unit Weight = 120 PCF
Foundation Soil	Cohesion = 0 PSF
Friction Angle = 28 Deg	
Unit Weight = 120 PCF	
Bearing Capacity	Factor of Safety = 3.09
Safety Factors Static	Actual Sliding = 1.568
Actual Overturning	= 5.088
Safety Factors Seismic	Actual Sliding = N.A.
Actual Overturning	= N.A.
General Legend	A-Minard 3XT B-Minard 5XT C-Minard 7XT g-Crushed Concrete Min. Length of Geogrid = 10 Feet



**Project Name:** DORSEY MANOR  
**Location:** Howard County, MD  
**Project Number:** DS991028  
**Wall Number:**  
**Designer:** DKS  
**Date:** 2-4-00

AB Classic	
Total Wall Height	= 10.27 Feet
Block Height	= 0.604 Feet
Angle of Setback	= 6 Deg
Depth of Block	= 0.97 Feet
Length of Block	= 1.469 Feet
Infill Soil	Retained Soil
Friction Angle = 28 Deg	Friction Angle = 28 Deg
Unit Weight = 120 PCF	Unit Weight = 120 PCF
Foundation Soil	Cohesion = 0 PSF
Friction Angle = 28 Deg	
Unit Weight = 120 PCF	
Bearing Capacity	Factor of Safety = 2.49
Safety Factors Static	Actual Sliding = 1.781
Actual Overturning	= 4.513
Safety Factors Seismic	Actual Sliding = N.A.
Actual Overturning	= N.A.
General Legend	A-Minard 3XT B-Minard 5XT C-Minard 7XT g-Crushed Concrete Min. Length of Geogrid = 10 Feet



**Project Name:** DORSEY MANOR  
**Location:** Howard County, MD  
**Project Number:** DS991028  
**Wall Number:**  
**Designer:** DKS  
**Date:** 2-4-00

AB Classic	
Total Wall Height	= 9.06 Feet
Block Height	= 0.604 Feet
Angle of Setback	= 6 Deg
Depth of Block	= 0.97 Feet
Length of Block	= 1.469 Feet
Infill Soil	Retained Soil
Friction Angle = 28 Deg	Friction Angle = 28 Deg
Unit Weight = 120 PCF	Unit Weight = 120 PCF
Foundation Soil	Cohesion = 0 PSF
Friction Angle = 28 Deg	
Unit Weight = 120 PCF	
Bearing Capacity	Factor of Safety = 2.89
Safety Factors Static	Actual Sliding = 1.774
Actual Overturning	= 4.908
Safety Factors Seismic	Actual Sliding = N.A.
Actual Overturning	= N.A.
General Legend	A-Minard 3XT B-Minard 5XT C-Minard 7XT g-Crushed Concrete Min. Length of Geogrid = 10 Feet

## RETAINING WALL DETAILS DORSEY MANOR

TAX MAP #30  
2ND ELECTION DISTRICT

PARCEL N-3  
HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
ENGINEERS-SURVEYORS-PLANNERS  
3801 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.9229 Fax 410.465.3888

DESIGN BY: DKS  
DRAWN BY: DKS  
CHECKED BY: WKR  
DATE: FEBRUARY 2000  
SCALE: AS SHOWN  
W.O. NO.:

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* DATE: 6/14/00  
DIRECTOR  
*[Signature]* DATE: 6/14/00  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* DATE: 6/14/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**SPECIFICATION FOR SEGMENTAL RETAINING WALL SYSTEMS**

**PART 1: GENERAL**

- 1.01 Description
- A. Work includes furnishing and installing segmental retaining wall (SRW) units to the lines and grades designated on the construction drawings. Also included is furnishing and installing appurtenant materials required for construction of the retaining wall as shown on the construction drawings.
- 1.02 Reference Standards
- A. Segmental Retaining Wall Units
1. ASTM C 140 - Sampling and Testing Concrete Masonry Units
- B. Geosynthetic Reinforcement
1. ASTM D 4595 - Tensile Properties of Geotextiles by the Wide-Width Strip Method
  2. ASTM D 5262 - Test Method for Evaluating the Unconfined Creep Behavior of Geosynthetics
  3. GRI-GG1 - Single-Rib Geogrid Tensile Strength
  4. GRI-GG5 - Geogrid Pullout
- C. Soils
1. ASTM D 698 - Moisture Density Relationship for Soils, Standard Method
  2. ASTM D 422 - Gradation of Soils
  3. ASTM 4318 - Atterberg Limits of Soil
- D. Drainage Pipe
1. ASTM 3034 - Specification for Polyvinyl Chloride (PVC) Plastic Pipe
  2. ASTM D1248 - Specification for Corrugated Plastic Pipe
- E. Where Allan Block specifications and reference documents conflict with these specifications, these specifications hold precedence.

**PART 2: MATERIALS**

- 2.01 Segmental Retaining Wall Units
- A. SRW units shall be machine formed, Portland Cement concrete blocks specifically designed for retaining wall applications. SRW unit currently approved for this project is:
- Allan Block Retaining Wall Units as manufactured by Nitterhouse Masonry Products.
- B. SRW units shall be capable of being erected with the horizontal gap between adjacent units not exceeding 1/8 inches.
- C. SRW units shall have a minimum 4" overlap of units on each successive course so that walls are interlocked and continuous.

- and proper installation of wall system.
- B. Contractor's field construction supervisor shall have demonstrated experience and be qualified to direct all work at the site.
- 4.02 Excavation
- A. Contractor shall excavate to the lines and grades shown on the project plans. Contractor shall take precautions to minimize over-excavation. Over-excavation shall be filled with compacted infill material or as directed by the Geotechnical Engineer.
- B. Contractor shall verify location of existing structures and utilities prior to excavation. Contractor shall ensure all surrounding structures are protected from the effects of wall excavation. Excavation support (shoring), if required, is the responsibility of the Contractor.
- 4.03 Foundation Preparation
- A. Following the excavation, the foundation soil shall be examined by the Owner's Geotechnical Engineer to assure actual foundation soil strength meets or exceeds the assumed design bearing strength. Soils not meeting the required strength shall be removed and replaced with select structural fill approved by the Owner's Geotechnical Engineer.
- B. Foundation soil shall be proofrolled and compacted to 95% standard Proctor density and inspected by the Owner's Geotechnical Engineer prior to placement of leveling pad materials.
- 4.04 Leveling Pad Construction
- A. Leveling pad shall be placed as shown on the construction drawings with a minimum thickness of 6 inches. The leveling pad should at a minimum extend laterally at least a distance of 6 inches from the toe and heel of the lower most SRW Unit.
- B. Soil leveling pad material shall be compacted with a vibratory plate compactor to provide a firm, level-bearing surface on which to place the first course of units. Well-graded sand can be used to smooth the top 1/2 to 1/4 inch of the leveling pad. Compaction will be with mechanical plate compactors to achieve 95% of maximum standard Proctor density (ASTM D 698).
- 4.05 SRW Unit Installation
- A. All SRW units shall be installed at the proper elevation and orientation as shown on the wall profiles and details on the construction plans. The SRW units shall be installed in general accordance with the manufacturer's recommendations. The design engineer of record (Ryan & Associates) specifications and drawings shall govern in any conflict between the two requirements.
- B. First course of SRW units shall be placed on the leveling pad. The units shall be leveled side-to-side, front-to-rear and with adjacent units, and aligned to ensure intimate contact with the leveling pad. The first course is the most important to ensure accurate and acceptable results. No gaps shall be left between the front of adjacent units. Alignment may be done by means of a string line or offset from base line to the back of the units.
- C. Clean all excess debris from top of units and install next course.
- D. Lay out of curves and corners shall be installed in accordance with the plan details or in general

- D. SRW units shall be sound and free of cracks or other defects that would interfere with the proper placing of the unit or significantly impair the strength or permanence of the structure. Cracking or excessive chipping may be grounds for rejection. Units showing cracks longer than 1/2" shall not be used within the wall. Units showing chips visible at a distance of 30 feet from the wall shall not be used within the wall.
- E. Concrete used to manufacture SRW units shall have a minimum 28 days compressive strength of 3,000 psi and a maximum moisture absorption rate, by weight, of 8% as determined in accordance with ASTM C 140. Compressive strength test specimens shall conform to the saw-cut coupon provisions of Section 5.2.4 of ASTM C140 with the following exception: Coupon shall be taken from the least dimension of the unit of a size and shape representing the geometry of the unit as a whole.
- F. SRW units' molded dimensions shall not differ more than ± 1/8 inch from that specified, except height which shall be ± 1/16 inch as measured in accordance with ASTM C140.
- 2.02 Geosynthetic Reinforcement
- A. Geosynthetic reinforcement shall consist of geogrids or geotextiles as indicated on the design plans. No grid substitutions shall be permitted without approval of Ryan & Associates.
- 2.03 Leveling Pad
- A. Material for leveling pad shall consist of compacted sand, gravel, or combination thereof and shall be a minimum of 6 inches in depth. Lean concrete with strength of 200-300 psi and three inches thick maximum may also be used as a leveling pad material. The leveling pad should extend laterally at least a distance of 6 inches from the toe and heel of the lowermost SRW unit. Install geosynthetic grid in level pads as directed in the design plans.
- 2.04 Drainage Aggregate
- A. Drainage aggregate shall be angular, clean stone or granular fill meeting the following gradation as determined in accordance with ASTM D422

Sieve Size	Percent Passing
1 inch	+100
3/4 inch	75-100
No. 4	0-60
No. 40	0-50
No. 200	0-5

- 2.05 Drainage Pipe
- A. The drainage collection pipe shall be a 4" perforated or slotted PVC, or corrugated HDPE pipe. The drainage pipe may be wrapped with a geotextile to function as a filter.
- B. Drainage pipe shall be manufactured in accordance with ASTM D 3034 and/or ASTM D 1248
- C. A drain pipe to daylight is mandatory on all walls 4' exposed height or taller.
- 2.06 Reinforced (Infill) Soil

- accordance with SRW manufacturer's installation guidelines. Walls shall be interlocked by overlapping successive courses.
- E. Repeat procedures to extent of wall height.
- F. The wall face cant shall not differ more than ± 2 degrees from that specified.
- 4.06 Geosynthetic Reinforcement Placement
- A. All geosynthetic reinforcement shall be installed at the proper elevation and orientation as shown on the wall profiles and details on the final construction plans. Partial grid coverage is not acceptable- no gaps shall be present between grid sections.
- B. At the elevations shown on the plans, the geosynthetic reinforcement shall be laid horizontally on compacted infill and on top of the concrete SRW units. Embedment of the geosynthetic in the SRW units shall be consistent with SRW manufacturer's recommendations. Correct orientation of the geosynthetic reinforcement shall be verified by the Contractor to be in accordance with the geosynthetic manufacturer's recommendations. The highest strength direction of the geosynthetic must be perpendicular to the wall face.
- C. Geosynthetic reinforcement layers shall be one continuous piece for their entire embedment length. Overlap of the geosynthetic in the design strength direction (perpendicular to the wall face) is not permitted.
- D. Tracked construction equipment shall not be operated directly on the geosynthetic reinforcement. A minimum of 6 inches of backfill is required prior to operation of tracked vehicles over the geosynthetic. Turning should be kept to a minimum. Rubber-tired equipment may pass over the geosynthetic reinforcement at slow speeds (less than 5 mph).
- E. The geosynthetic reinforcement shall be in tension and free of wrinkles prior to placement of soil fill. The nominal tension shall be applied to the reinforcement and secured in place with staples, stakes or by hand tensioning until reinforcement is covered by six inches of fill.
- 4.07 Drainage Materials
- A. Drainage aggregate shall be installed to the line, grades, and sections shown on the final plans. Drainage fill shall be placed to the minimum thickness shown on the construction plans between and behind units.
- B. Drainage collection pipes shall be installed to maintain gravity flow of water outside the reinforced soil zone. The drainage collection pipe shall daylight into a storm sewer manhole or along a slope at an elevation lower than the lowest point of the pipe within the aggregate drain.
- 4.08 Backfill Placement
- A. The reinforced backfill shall be placed as shown in the construction plans in the maximum compacted lift thickness of 10 inches and shall be compacted to a minimum of 95% of standard Proctor density (ASTM D 698) at a moisture content within 2% of optimum. The backfill shall be placed and spread in such a manner as to eliminate wrinkles or movement of the geosynthetic reinforcement and the SRW units. Compaction testing shall be done at 25%, 50%, 75%, and 100% of the wall height or as specified by the site geotechnical engineer.

- A. The reinforced soil material shall be free of debris. Unless otherwise noted on the plans, the reinforced material shall consist of the inorganic USCS soil types GP, GW, GM, GC, SW, SP, SM, SC meeting the following gradation, as determined in accordance with ASTM D422:
- | Sieve Size | Percent Passing |
|------------|-----------------|
| 4 inch     | 100             |
| No. 4      | 20-100          |
| No. 40     | 0-60            |
| No. 200    | 0-35            |
- B. The maximum particle size of poorly graded gravels (GP) (no fines) should not exceed 3/4 inch unless geosynthetic strength is reduced to account for additional installation damage from particles larger than this maximum.
- C. The plasticity index of the fine fraction shall be less than 20, with the liquid limit less than 50.

**PART 3: DESIGN PARAMETERS**

- 3.01 Soil
- A. Should the actual soil conditions observed during construction differ from those used for the design (as indicated on the plans), the site geotechnical engineer and the design engineer (Ryan & Associates) must be notified.
- 3.02 Design
- A. Scope: The retaining wall design engineer (Ryan & Associates) scope consists of: reviewing the design provided by the block manufacturer or the Allan Block corporation, or preparing the entire wall design themselves and professionally sealing to enable the contractor to obtain the necessary permits. The design considers the internal and local stability of the reinforced soil mass and shall be in accordance with acceptable engineering practice and these specifications. Services outside this scope such as responding to the owners engineering firm (civil, structural, geotechnical or otherwise), provision of quality control testing & inspection, investigation of failed or non-conforming walls or any other services may be provided time & materials or for a negotiated fee.
- B. For constructability considerations, maximum vertical spacing between geogrid layers shall be three courses on 3 and 6 degree walls and four courses on 12 degree walls.
- C. Stormwater Management: The segmental retaining wall is not a stormwater management structure. Therefore, it is absolutely essential that surface water be prevented from entering the reinforced zone. This is usually accomplished by the site engineer (owner's civil engineer) grading the surface behind the wall to direct surface water to swales that issue the water around the wall ends, to inlets or over the top of the wall through scuppers. If water is directed to the wall, the top six inches of compacted fill over the reinforced zone must have impermeable soil such as GC, SC, CL or an underlying geomembrane (geosynthetic liner).

**PART 4: CONSTRUCTION**

- 4.01 Inspection
- A. The Owner or Owner's Representative is responsible for verifying that the contractor meets all the requirements of the specification. This includes all submittals for materials and design, qualifications,
- B. Only a vibratory plate or small-scale vibratory smooth drum compactor equipment shall be allowed within 3 feet of the front of the wall face. Compaction within the 3 feet behind the wall face shall be achieved by at least three (3) passes of the lightweight mechanical plate compactor or roller.
- C. At the end of each day's operation, the Contractor shall slope the last level of backfill away from the wall facing to direct water runoff away from the wall face.
- D. At completion of wall construction, backfill shall be placed level with final top of wall elevation. If final grading, paving, landscaping, and/or storm drainage installation adjacent to the wall is not placed immediately after wall completion, temporary surface drainage shall be provided to ensure water runoff is not directed at the wall nor allowed to collect or pond behind the wall until final construction adjacent to the wall is completed.
- 4.09 SRW Caps
- A. SRW caps shall be properly aligned and glued to underlying units with a flexible, high-strength concrete adhesive. Rigid adhesive or mortar is not acceptable.
- 4.10 Construction Adjacent to Completed Wall
- A. The Owner or Owner's Representative is responsible for ensuring that construction adjacent to the wall by others does not disturb the wall or place temporary construction loads on the wall that exceed design loads, including loads such as water pressure, temporary grades, or equipment loading. Heavy paving or grading equipment shall be kept a minimum of three feet behind the back of the wall face. Equipment with wheel loads in excess of 150 psf live load shall not be operated within 10 feet of the face of the retaining wall during construction adjacent to the wall. Care should be taken by the General Contractor to ensure water runoff is directed away from the wall structure until final grading and surface drainage collection systems are completed.

END OF SECTION

**Project Information**

Project Name: **DORSEY MANOR**  
 Location: **Howard County, MD**  
 Project Number: **DS991028**  
 Wall Number:  
 Designer: **DKS**  
 Date: **2-4-00**



Allan Block Corp.  
 7400 Metro Blvd.  
 Suite 183  
 Ellicott City, MD 21043  
 Phone 410-883-5300  
 Fax 410-883-5301  
 http://www.allanblock.com

Nitterhouse Masonry Prod  
 839 Cleveland Ave. PO Box 692  
 Chambersburg, PA 17001  
 717-261-4500  
 717-264-7535 - fax

**General Notes**

- 1 - Retaining wall units and installation shall conform to the Allan Block Design Manual, the Allan Block Installation Manual #2 for Geogrid Reinforced Retaining Walls, and the Ryan & Associates "Specification for Segmental Retaining Wall Systems" (Part 1:1.01 through Part 4.1.0).
  - 2 - A 4" perforated drain tile must be installed on all walls 4m exposed height and taller. This pipe must be vented to daylight at the end(s) of the wall or at the central low point of the wall. If this is not possible, vent to daylight through the wall, above finished grade, at a minimum of 10m intervals.
  - 3 - Soil compaction tests shall be taken on the prepared base and at 25%, 50%, 75%, and 100% of the wall height or as specified by the site geotechnical engineer. Bearing capacity of the footer shall be verified prior to installation of stone. The minimum bearing capacity allowed for this project is 2,000 PSF.
  - 4 - The geo-grid used in this design is Mirafi 3XT which has a LTDS of 1328. Ryan & Associates shall be notified before any substitutions are made in the field.
  - 5 - At the time of this design no geo-technical report was available. Ryan & Associates has assumed an internal angle of friction of 28 for the site soil on this project. Howard County typically has native soil types of CL (lean clay) or ML (silt) therefore 28 degrees was used in this design. The following soil types will be acceptable within the impact area of the wall (an area defined as the reinforced geo-grid area and an area extending to twice the wall height in front of and behind the wall): CL, GC, GM, GP, GW, ML, SC, SM, SP, and SW. The following soil types will not be acceptable: CH, MH, and OH. If encountered they shall be removed and replaced with soils meeting or exceeding a friction angle of 28. The on site geo-technical engineer shall verify that during the construction process.
- Surface Drainage Notes**
- 6 - If water is encountered in the area of the wall during excavation or construction, a drainage system (chimney, composite or blanker) must be installed as directed by the geotechnical or site engineer.
  - 7 -
  - 8 - At the end of each day's construction and at final completion, grade the backfill to avoid water accumulation behind wall or in the reinforced zone.
  - 9 - Surface water must not be allowed to pond or be trapped in the area above the wall or at the toe of the wall.
  - 10 - Establish final grade with a positive gradient away from the wall structure. Concentrations of surface water runoff should be managed by providing necessary structures, such as paved ditches, drainage swales, catchbasins, etc.
  - 11 - All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry storm water from the structure to reduce the possibility of soil saturation and/or erosion. The connection should be in a closed conduit, which discharges at an approved location away from the wall structure.
  - 12 - Cut and fill slopes shall be constructed so that surface water will not be allowed to drain over the top of the slope face and/or wall. This may require berms along the top of fill slopes and surface drainage ditches above cut slopes.
  - 13 - Irrigation activities at the site should be done in a controlled and reasonable manner.
  - 14 - The consulting geotechnical or site engineer for the project must address any design drainage features or site features, discovered during excavation.
  - 15 - Contain sources of concentrated water flow such as roof scuppers, drainage swales, parking lots, etc... and route around wall.

**RETAINING WALL DETAILS**

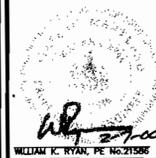
**DORSEY MANOR**

TAX MAP #30 PARCEL N-3  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



3001 Park Avenue, Suite 501 • Ellicott City, Maryland 21043  
 Tel 410.461.8828 Fax 410.465.3999

DESIGN BY: DKS  
 DRAWN BY: DKS  
 CHECKED BY: WKR  
 DATE: FEBRUARY 2000  
 SCALE: AS SHOWN  
 W.O. NO.:



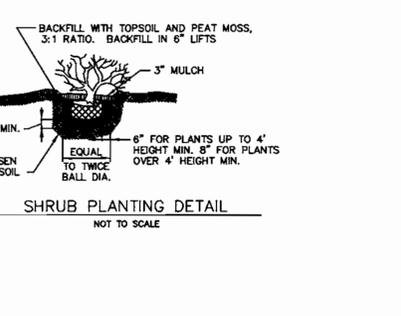
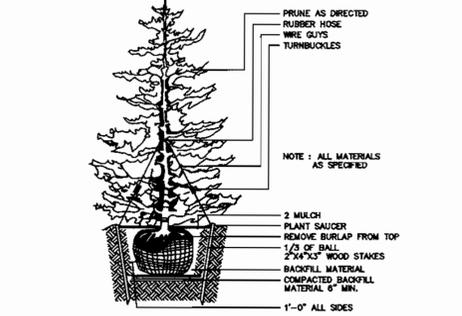
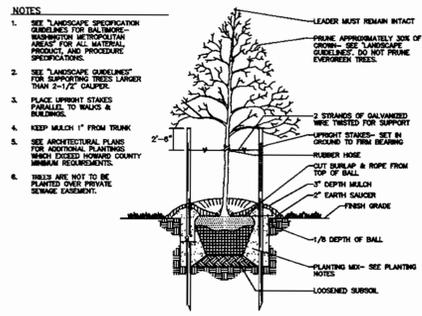
10 SHEET OF 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/14/00  
 DIRECTOR DATE

[Signature] 2/14/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 2/14/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



**SPECIMEN TREE LIST**

ST#	SPECIES	DIAMETER	CONDITION
1	ELM	40"	POOR
2	RED MAPLE	50"	POOR
3	SILVER MAPLE	40"	FAIR
4	SILVER MAPLE	36"	POOR
5	RED MAPLE	50"	POOR
6	WHITE ASH	48"	GOOD

**FOREST STAND TABULATION**

FS#	AREA
1	0.80 Ac.±
2	1.20 Ac.±

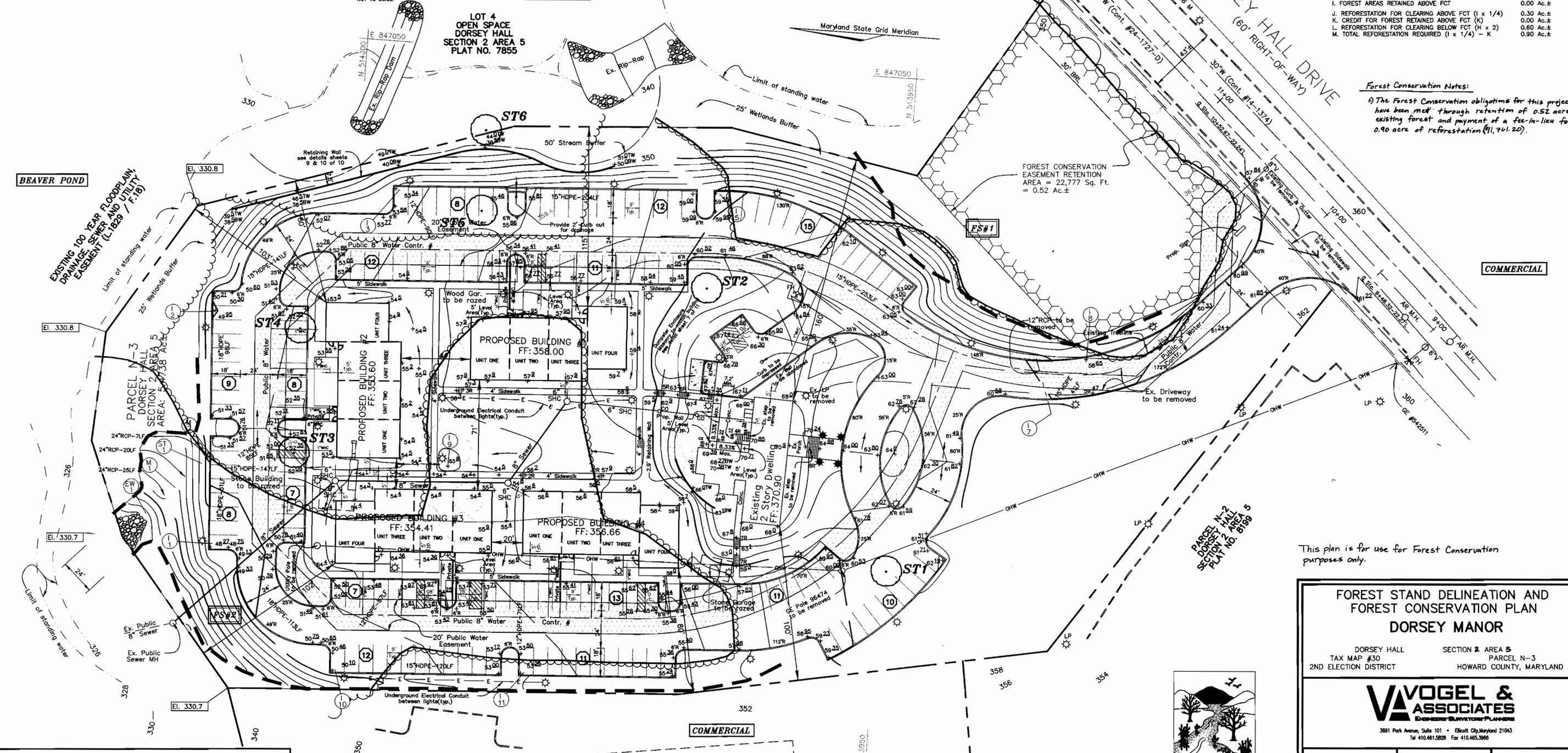
DENOTES FOREST STAND AREAS  
 DENOTES PROPOSED FOREST CONSERVATION EASEMENT 0.52 Ac.±

- I. BASIC SITE DATA**
- GROSS SITE AREA: 5.47 Ac.±
  - AREA WITHIN 100 YEAR FLOODPLAIN: 0.00 Ac.±
  - AREA WITHIN AGRICULTURE OR PRESERVATION PARCEL ZONING: 0.00 Ac.±
  - NET TRACT AREA: 5.47 Ac.±
- II. INFORMATION FOR CALCULATIONS**
- A. NET TRACT AREA: 5.47 Ac.±
  - B. FOREST CONSERVATION THRESHOLD (FCT) (15%a): 0.82 Ac.±
  - C. AFFORESTATION THRESHOLD (15%a): 0.82 Ac.±
  - D. EXISTING FOREST ON NET TRACT AREA: 2.00 Ac.±
  - E. EXISTING FOREST ABOVE FCT: 1.18 Ac.±
  - F. BREAK EVEN POINT (the amount of forest to be retained w/o mitigation):  $\{(E \times 0.2) + B\}$ : 0.84 Ac.±
  - G. FOREST TO BE RETAINED: 0.52 Ac.±
  - H. FOREST TO BE CLEARED AND/OR NOT IN AN EASEMENT: 1.48 Ac.±
- III. REFORESTATION CALCULATIONS**
- A. NET TRACT AREA: 5.47 Ac.±
  - B. FOREST CONSERVATION THRESHOLD (FCT) (25%a): 0.82 Ac.±
  - C. EXISTING FOREST ON NET TRACT AREA: 2.00 Ac.±
  - D. EXISTING FOREST ABOVE FCT: 1.18 Ac.±
  - E. FOREST AREAS TO BE CLEARED AND/OR NOT IN EASEMENT: 1.48 Ac.±
  - F. FOREST AREAS TO BE RETAINED IN EASEMENT: 0.52 Ac.±
  - G. FOREST AREAS CLEARED ABOVE FCT: 1.18 Ac.±
  - H. FOREST AREAS CLEARED BELOW FCT: 0.30 Ac.±
  - I. FOREST AREAS RETAINED ABOVE FCT: 0.00 Ac.±
  - J. REFORESTATION FOR CLEARING ABOVE FCT  $(I \times 1/4)$ : 0.00 Ac.±
  - K. CREDIT FOR FOREST RETAINED ABOVE FCT (K): 0.00 Ac.±
  - L. REFORESTATION FOR CLEARING BELOW FCT  $(H \times 2)$ : 0.60 Ac.±
  - M. TOTAL REFORESTATION REQUIRED  $(I \times 1/4) - K$ : 0.90 Ac.±

**TREE PLANTING AND STAKING**  
DECIDUOUS TREES UP TO 2-1/2" CALIPER  
NOT TO SCALE

**TYPICAL EVERGREEN TREE PLANTING DETAIL**  
NOT TO SCALE

**SHRUB PLANTING DETAIL**  
NOT TO SCALE



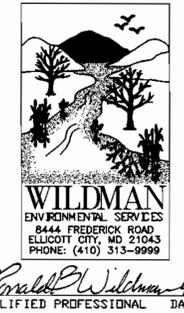
**Forest Conservation Notes:**

1) The Forest Conservation obligations for this project have been met through retention of 0.52 acre of existing forest and payment of a fee-in-lieu for 0.90 acre of reforestation (\$1,701.20).

This plan is for use for Forest Conservation purposes only.

**FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN**  
**DORSEY MANOR**

DORSEY HALL SECTION 2 AREA 5  
TAX MAP #30 PARCEL N-3  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] DATE: 6/14/20  
 DIRECTOR  
 [Signature] DATE: 6/14/20  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 [Signature] DATE: 6/14/20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER/DEVELOPER  
 RTSH, LLC.  
 c/o Land Design and Development  
 8000 Main Street  
 Ellicott City, MD 21043  
 410.480.9105

DESIGN BY: PS  
 DRAWN BY: PS  
 CHECKED BY: RHV  
 DATE: April 18, 2000  
 SCALE: 1"=30'  
 W.O. NO.: 99-082

WILDMAN ENVIRONMENTAL SERVICES  
 8444 FREDERICK ROAD  
 ELLICOTT CITY, MD 21043  
 PHONE: (410) 313-9999

PARCEL N-1 DORSEY HALL SECTION 2 AREA 5 PLAT NO. 8199  
 PARCEL N-2 DORSEY HALL SECTION 2 AREA 5 PLAT NO. 8189

11 SHEET OF 11  
 SDP 0071

**GENERAL NOTES**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- The contractor is to notify the following utilities or agencies at least five days before starting work on these drawings:
  - Miss Utility: 1-800-257-7777
  - C & P Telephone company: 725-9976
  - Howard County Bureau of Utilities: 313-2366
  - AT&T Cable Location Division: 393-3553
  - B.G.#E. Co. Contractor Services: 850-4620
  - B.G.#E. Co. Underground Damage Control: 787-4620
  - State Highway Administration: 531-5533
- Site analysis:
  - Area of parcel: 5.4738 Ac.±
  - Present zoning: POR
  - Use of structure: General Office (Medical offices or clinics may not occupy more than 50% of any building without approval from the Department of Planning and Zoning for review of parking requirements.
  - Building area: Existing Building: 2,693.55sf; Proposed Building: 3,967.49sf x 4=15,869.96sf; Total building area: 18,563.51
  - Building coverage on site: 0.43 Ac. or 7.8% of gross area
  - Paved parking lot/area on site: 1.65 Ac. or 30.1% of gross area
  - Area of landscape island: 0.07 Ac. = 3,049.2sf
- Project background:
  - Location: Ellicott City, Md.; Tax Map 30, Parcel N-3
  - Zoning: POR
  - Section/Area: 2/5
  - Site Area: 5.4738 Acres
  - DPZ references: S-78-20, P-84-27, P-88-26, F-85-16, F-85-56, VP 87-97, F-88-37, F-89-25, Plat #8199
- The contractor 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 start of work.
- Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
- Existing utilities located from Road Construction Plans, Field Surveys and available record drawings. Approximate location of existing utilities are shown for the contractor's information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Estimates of earthwork quantities are provided solely for the purpose of calculating fees.
- Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test.
- All storm drain pipe bedding shall be Class 'C'.
- Coordinates and elevations are based on Howard County Right-of-Way Monuments.
- A noise study is not required for this project.
- Existing topography is based on a Topographic Survey performed by Vogel & Associates, Inc. in August 1999.
- All paving to be tight duty paving per detail, sheet 2 of 10, unless otherwise noted.
- All curb and gutter to be Howard County Standard concrete Detail 3.01 unless otherwise specified.
- Contractor responsible to construct all handicap parking and handicap access in accordance with current ADA requirements.
- Where drainage flows away from curb, contractor to reverse the gutter pan.
- Public Water available from Dorsey Hall Drive Contract No. 24-1727-D.
- Public Sewer available from Open Space Lot 4. On-site sewer main to be private.
- Stormwater Management is provided per F-85-16, Dorsey Hall section 2 area 1-Columbia Road; Water Quality is provided on site by a Stormceptor. Stormceptor is to be privately owned and maintained.
- All exterior lighting shall conform to Zoning Regulations Section 134.
- All elevations are to flowline/bottom of curb unless otherwise noted.
- All dimensions are to face of curb unless otherwise noted.
- All Buildings to have Inside Water Meter settings.
- Contractor to construct underground electric conduits at time of site development.
- Contractor to consult Architect at time of courtyard lighting.
- Retaining Walls to be Allan Block, Classic Style, Mottled Brown color.
- There are no burial grounds or cemetery sites existing on this property.
- Department of Planning and Zoning, Development Engineering Division has approved the Traffic Analysis for this site on February 25, 2000.
- The Contractor to provide conduit between all proposed buildings and the existing building for future data lines.

# SITE DEVELOPMENT PLAN DORSEY MANOR

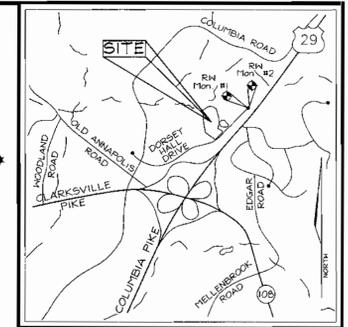
**LEGEND**

- Existing Contour
- Proposed Contour
- Spot Elevation
- Direction of Flow

- Existing Trees to Remain
- Light Poles
- Post Top
- Overhead
- Ballford

**BENCHMARKS**

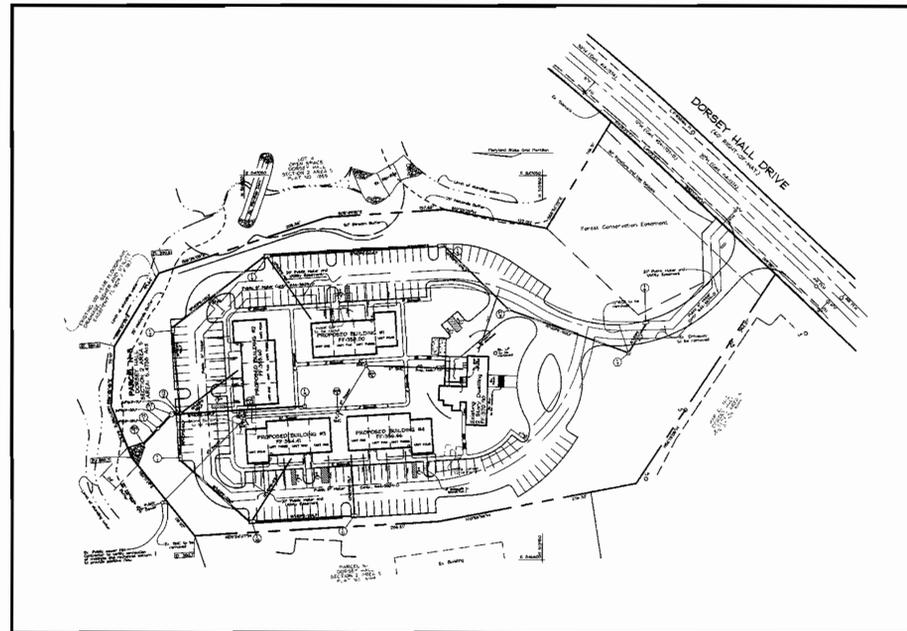
- R/4 Monument #1  
Rebar and Cap  
NW side of Dorsey Hall Drive Cul-de-sac  
Elev. 361.36
- R/4 Monument #2  
Rebar and Cap  
NE side of Dorsey Hall Drive Cul-de-sac  
Elev. 361.41



VICINITY MAP  
SCALE: 1"=2000'

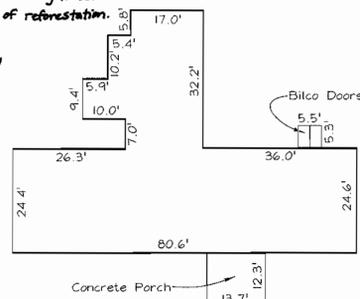
SHEET INDEX	
DESCRIPTION	SHEET NO.
Cover Sheet	1 of 11
Site Development Plan	2 of 11
Sediment and Erosion Control Plan	3 of 11
Sediment and Erosion Control Details	4 of 11
Storm Drain Drainage Area Map	5 of 11
Storm Drain Profiles	6 of 11
Sewer Profiles and Miscellaneous Details	7 of 11
Landscape Plan	8 of 11
Retaining Wall Details	9 of 11
Retaining Wall Details	10 of 11
Forest Stand Delineation and Forest Conservation Plan	11 of 11

ADDRESS CHART		
Building Number	Unit Number	Street Address
Ex. Building	-	5100 Dorsey Hall Drive
Proposed #1	Unit #1	5116 Dorsey Hall Drive
	Unit #2	5114 Dorsey Hall Drive
	Unit #3	5112 Dorsey Hall Drive
	Unit #4	5110 Dorsey Hall Drive
Proposed #2	Unit #1	5126 Dorsey Hall Drive
	Unit #2	5124 Dorsey Hall Drive
	Unit #3	5122 Dorsey Hall Drive
	Unit #4	5120 Dorsey Hall Drive
Proposed #3	Unit #1	5136 Dorsey Hall Drive
	Unit #2	5134 Dorsey Hall Drive
	Unit #3	5132 Dorsey Hall Drive
	Unit #4	5130 Dorsey Hall Drive
Proposed #4	Unit #1	5140 Dorsey Hall Drive
	Unit #2	5142 Dorsey Hall Drive
	Unit #3	5144 Dorsey Hall Drive
	Unit #4	5146 Dorsey Hall Drive

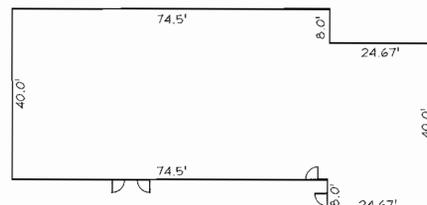


LOCATION MAP  
SCALE: 1"=100'

34. The Forest Conservation obligations for this project have been met through retention of 0.52 acre of existing forest and payment of a fee-in-lieu for 0.90 acre of reforestation. The retention easement was recorded on a revision plat (#14276) in the Howard County Land Records.



EXISTING BUILDING PLAN  
SCALE: 1"=20'



PROPOSED BUILDING PLAN (TYPICAL)  
SCALE: 1"=20'



PROPOSED BUILDING ELEVATION (TYPICAL)  
SCALE: 1"=20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] DIRECTOR 6/14/00  
 [Signature] CHIEF, DIVISION OF LAND DEVELOPMENT 6/14/00  
 [Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION 6/14/00

**PARKING TABULATION**

Parking Required: Total usable building area=36,341.92sf  
 General Office Use @ 3.3 spaces/1000 SF=120 spaces  
 Parking Provided: 156 spaces  
 Handicap Spaces Required: 5(4std./1van)  
 Handicap Spaces Provided: 7(5std./2van)

**OWNER/DEVELOPER**

Dorsey Manor, LLC  
 c/o Richard Tolkin  
 9175 Guilford Road, suite 301  
 Columbia, MD 21046

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBER
Dorsey Hall	Section 2 Area 5	N-3
PLAT NO. 8199	BLOCK NO. 4	ZONE FOR
TAX/ZONE ELECT. 30	DIST. 2nd	CENSUS TR. 6023.01
WATER CODE: F08	SEWER CODE: 5750600	

1. Revise Address Chart 8,23.00  
 No. REVISION DATE

COVER SHEET  
**DORSEY MANOR**  
 DORSEY HALL SECTION 2 AREA 5  
 TAX MAP #30 PARCEL N-3  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
 ENGINEERS SURVEYORS PLANNERS  
 3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
 Tel 410.461.5828 Fax 410.465.3966

DESIGN BY: PS  
 DRAWN BY: PS  
 CHECKED BY: RHY  
 DATE: May 16, 2000  
 SCALE: As Shown  
 W.O. NO.: 99-082  
 1 SHEET OF 11