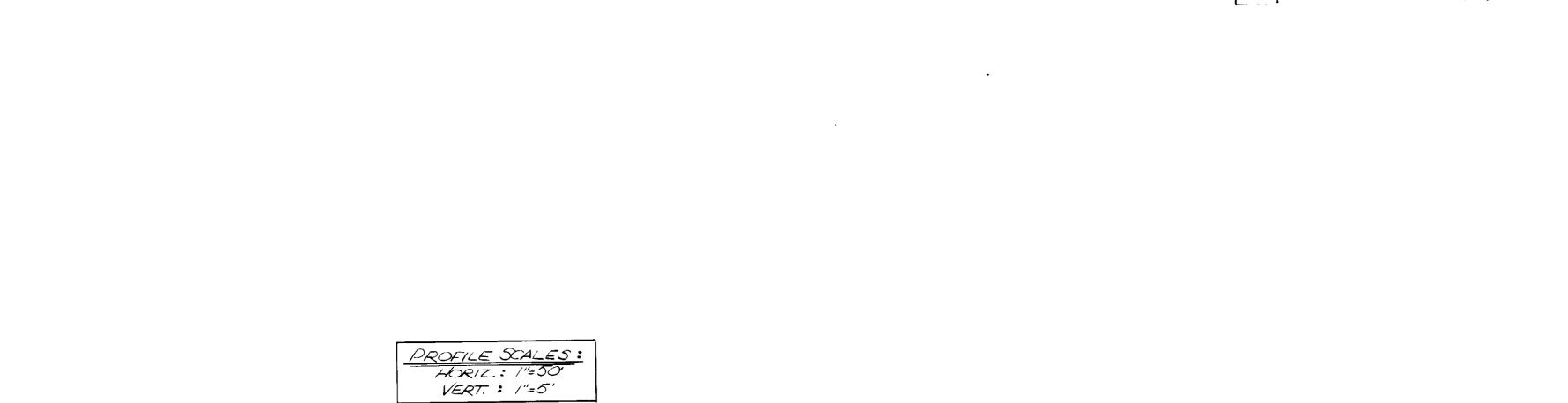
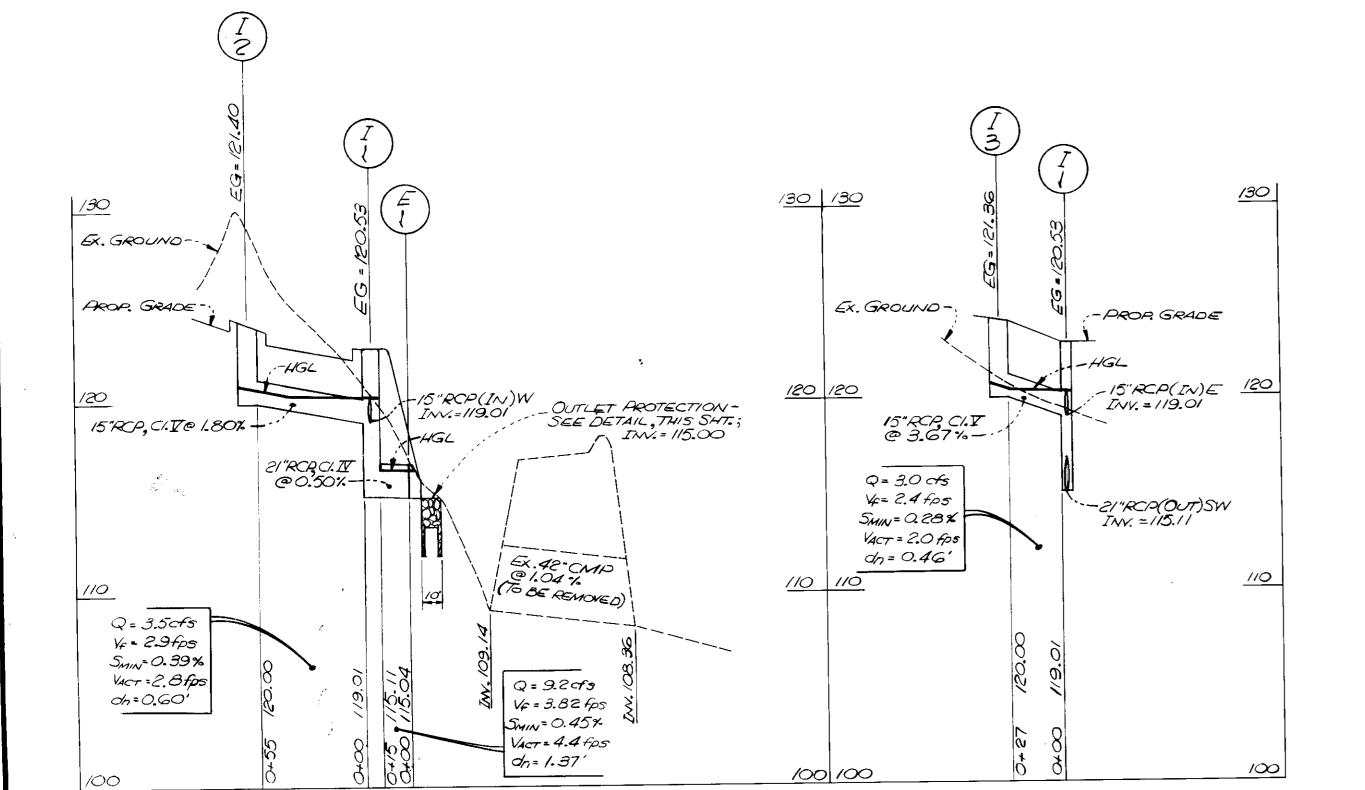
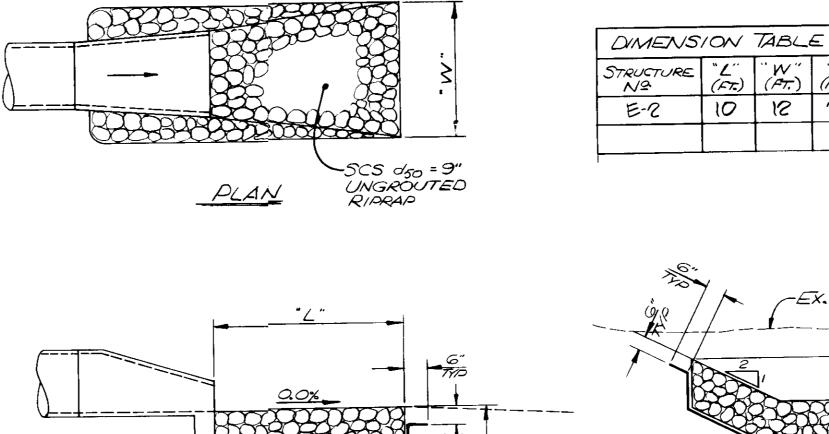


		STRUC	TURE			
	STRUCTURE	INVERT		TOP ELEV.		STANDAGE AND ARED
Nº	TYPE	Z/V	$\infty \tau$	UPPER	LOWER	STANDARD NUMBER
 =-1	21" O CONCRETE END SECTION	115,04	115,00			HOWARD CO. STD. 80 5.51
	A-10 INLET INSIDE WIDTH = 3'-6"	//9.0/	115.11	122.90	122.90	HOWARD CO. STD. 50 4.02
I-2	A-10 INLET INSIDE WIDTH = 3-6"		120.00	124.24	/23.88	HOWARD CO. STD. SD 4.02
1-3	A-10 INLET INSIDE WIDTH = 3'-G"		120.00	124.20	124.06	HOWARD CO. STD. SD 4.02
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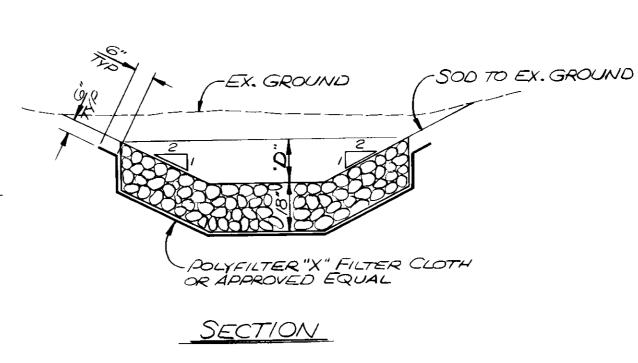






3'DEEP, SCS 050=9" GROUTED RIPRAP CUTOFF WALL (TYP)

ELEVATION



"L" W" "D" (FT.) (FT.)

SCALE : NONE

OUTLET PROTECTION DETAIL

DORSEY BUSINESS CENTER LIMITED PARTNERSHIP 7223 PARKWAY DRIVE HANOVER, MARYLAND 21076

REVISION	 DATE	BY	
	 1		
	 		

ENGINEER\$ • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS • PHOTOGRAMMETRISTS GREENHORNE & O'MARA, INC.

2 RESEARCH PLACE, ROCKVILLE, MARYLAND 20850 (301) 948-0900

ANNAPOLIS, MD ◆ ATLANTA, GA ◆ BECKLEY, WV ◆ CULPEPER, VA ◆ DENVER, CO ◆ EXPORT, PA ◆ FAIRFAX, VA GREENBELT, MD ● MONROE, MI ● RALEIGH, NC ● TAMPA, FL ● WILLISTON PARK, NY

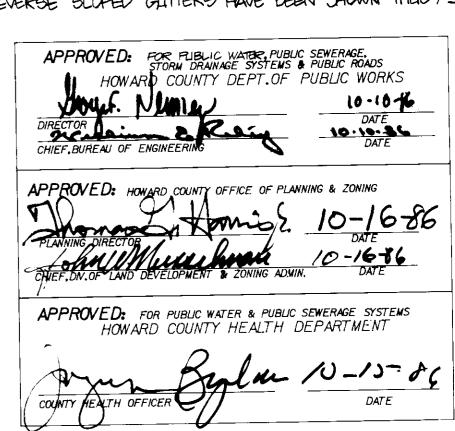
STORM DRAIN PROFILES & DETAILS DORSEY BUSINESS CENTER SECTION ONE PARCEL K

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN DESIGN JOP DRAWN 4 OF 8 RHM CHECKED R-1327-X FILE No. MAY, 36 DATE JOB No. SDP-86-246

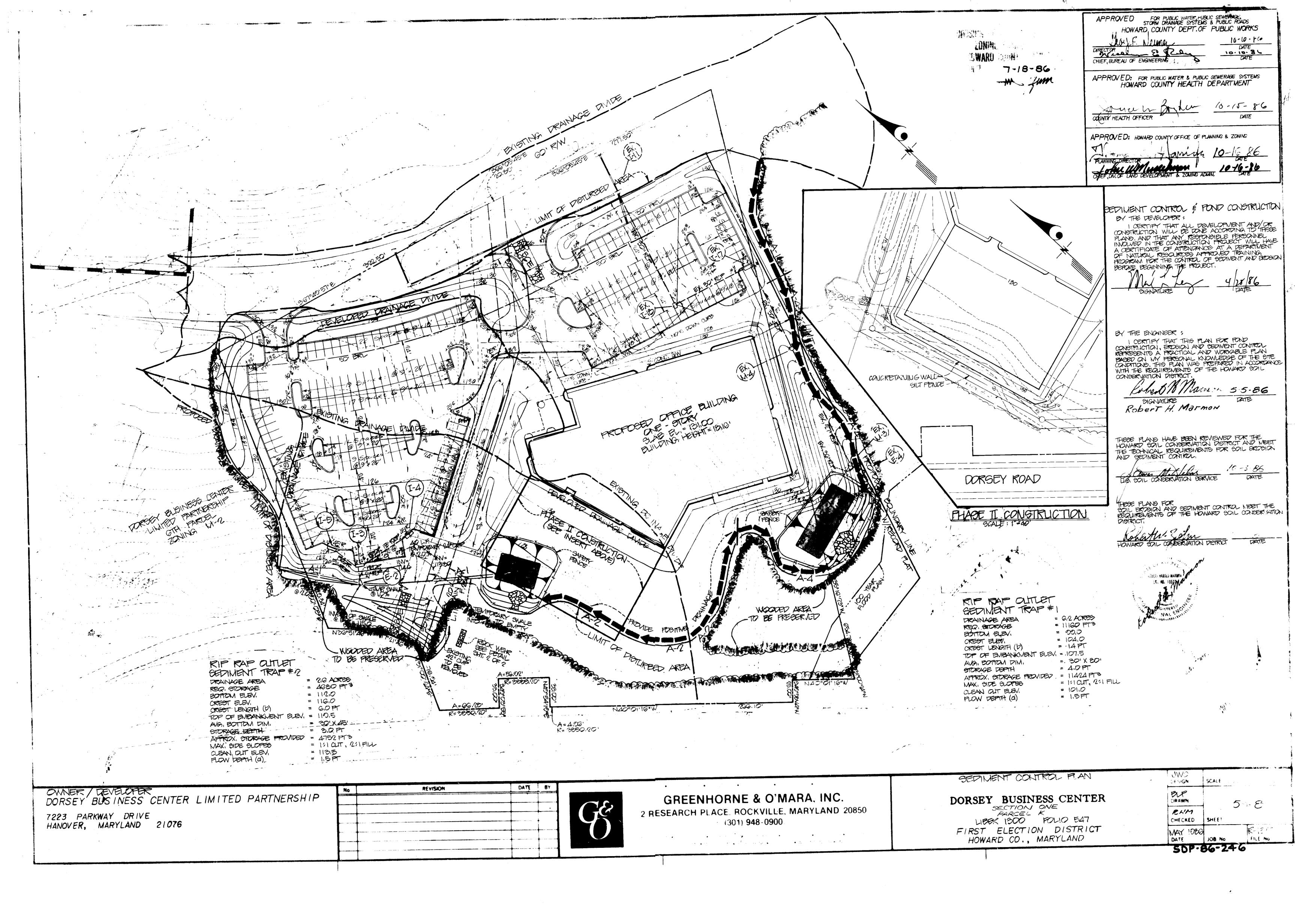
GENERAL NOTES

- I. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOL. IV, DETAILS AND SPECIFICATIONS FOR CONSTRUCTION.
- 2. ALL UTILITY COMPANIES SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF CONSTRUCTION.
- 3. ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN. 4. ALL STREET CURB RETURNS SHALL HAVE A 30.0' RADHUNLESS OTHERWISE
- 5. STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS.
- 6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR
 SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING
 UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE
 INCURRED DUE TO CONTRACTOR'S OPERATIONS SHALL BE REPAIRED
 IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 7. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES WHERE DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY CONSTRUCTION.
- 8. TEMPORARY COMPACTED 18" HIGH EARTH FILL DIVERSION DIKES SHALL BE CONSTRUCTED ABOUT THE LIPS OF FILL SLOPES ON THE R.O.W. CONCURRENTLY WITH THE INITIAL GRADING AND DIRECTED TO UNDISTURBED SOD AREAS AT THE END OF EACH DAY.
- 9. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE NO. 992-2436.
- IO. ALL DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPLETED.
- II. ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I..
- 12. ALL SWALES AND SLOPES SHALL BE PERMANENTLY SEEDED. SEE THE SEED SPECIFICATIONS ON SHEET 12.
- 13. TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL BE IN ACCORD-ANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1981
- 14. POLY-FILTER-X OR EQUAL SHALL BE PLACED UNDER ALL STONE RIP RAP (FULL WIDTH AND LENGTH OF STONE).
- 15. STONE FOR RIP RAP SHALL BE AS SPECIFIED ON THE DRAWINGS. ALL RIP RAP SHALL BE UNPAVED UNLESS OTHERWISE NOTED.
- 16. STUBS FOR 6 P.V.C. UNDERDRAIN PIPE TO BE INSTALLED AT CENTER OF
- EACH WALL OF EVERY INLET. 17. Contractor shall notify the following utilities or agencies at least five (5) working days before starting work shown on these plans:
 - State Highway Administration 531-5533
 - Baltimore Gas & Electric Company Underground Electric Distribution
 - Customer Service 685-0123 Baltimore Gas & Electric Company - Ungerground Gas Distribution Customer Service - 685-0123
 - Chesapeake & Potomac Telephone Company 725-9976
 - American Telephone & Telegraphe Cable Location Division 393-3553
- 16. WHEREVER DRAINAGE IS AWAY FROM CLIRB LINE, REVERSE SLOTED GLITTER CONFORMING TO THE PAVEMENT ORDED SLOTE SHALL BE PROVIDED, CLIRBS HAVING REVERSE SLOPED GLITTERS HAVE BEEN SHOWN THUS;



DIVISION OF LAND DEVELOPMENT & **ZONING ADMINISTRATION** HOWARD COUNTY, MARYLAND DATE 7-18-86 -M fun

PIP	PIPE SCHEDULE				
SIZE (IN.)	TYPE	LENGTH (FT.)			
/5"	RCP, C/.V	82			
2/"	RCP, CI. IV	15			



SEDIMENT CONTROL NOTES

. 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)

2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, 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.

4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm

5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1933 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52.) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6) 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

7) Site Analysis: 7.11 Acres Total Area of Site Area Disturbed 6.0 Acres Area to be roofed or paved 3.0 Acres
Area to be vegetatively stabilized 5.0 A
Total Cut 26584 Cu. yds Total Fill 36207 Cu. yds Offsite waste/borrow area location

S) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance

9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.

10) 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.

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

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules: 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs

per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or 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 (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thre July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/ acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 1 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq fr' for anchoring.

Matinenance - Inspect all seeded areas and make needed repairs, replacements and

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed. #

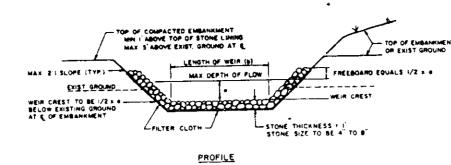
Seedbed Pieparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)

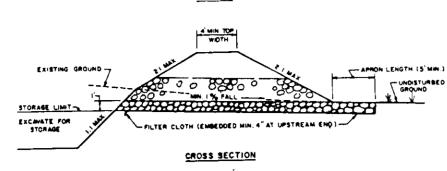
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

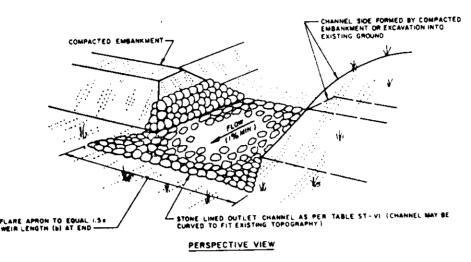
Mulching: Apply 11 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



RIPRAP OUTLET SEDIMENT TRAP ST . VI





CONSTRUCTION SPECIFICATIONS FOR ST-VI

1. The area under embankment shall be cleared, grubbed and scripped of any vegetation and root mat. The pool area shall be cleared.

2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment

3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.

4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.

5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.

6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.

7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.

8. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

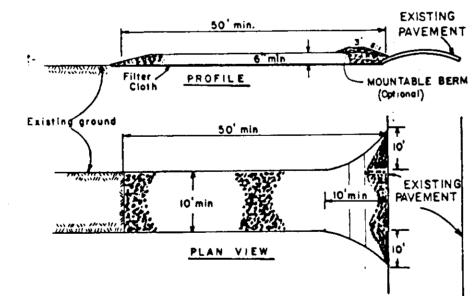
9. The structure shall be inspected after each rain and repaired as needed. 10. Construction operations shall be carried out in such a manner that erosion

11. The structure shall be removed and the area stabilized when the drainage

area has been properly stabilized. 12. Drainage area for this practice is limited to 15 acres or less.

STABILIZED CONSTRUCTION ENTRANCE not to scale

STANDARD SYMBOL



CONSTRUCTION SPECIFICATIONS

i. Stone Size - Use 2° stone, or reclaimed or recycled concrete equivalent. 2. Length - As required, but not less than 50 feet (except on a single resi-

dence lot where a 30 foot minimum length would apply). Thickness - Not less than six (6) inches.

4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.

5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot. 6. Surface Water - All surface water flowing or diverted toward construction

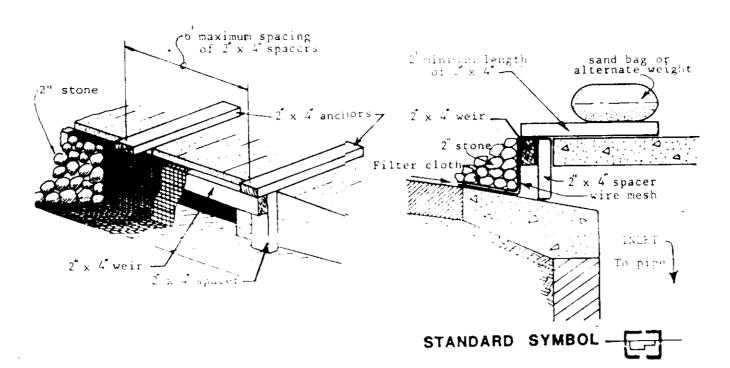
a mountable berm with 5:1 slopes will be permitted. 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All

entrances shall be piped across the entrance. If piping is impractical,

sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately. \$. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area

stabilized with stone and which drains into an approved sediment trapping 9. Periodic inspection and needed maintenance shall be provided after each rain.

CURB INLET PROTECTION DETAIL



Curb Inlet Protection.

Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.

2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.

3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).

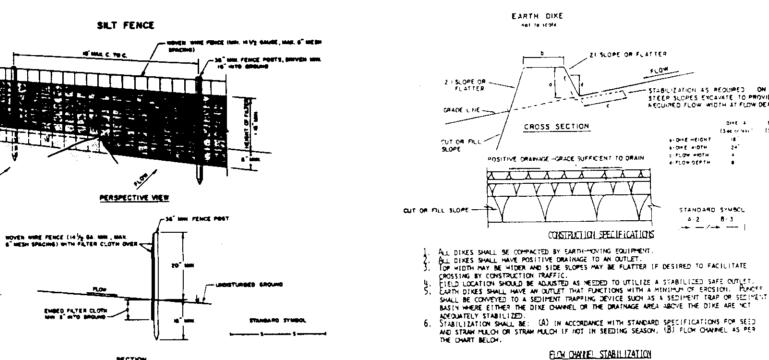
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" > 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening

6. Form the wire mesh and filter cloth to the concrete gutter and egainst the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.



CONSTRUCTION NOTES FOR FARRICATED SILT FENCE

2. FILTER CLOTH TO BE FASTENED SECURELY TO MOVEN HIRE PENCE HITH TIES SPACED EVERY 24" AT TOP AND HID SECTION.

FENCE: Moven wine, 14. Ga. 6 hax. Tesh Opening

EXICTING SAMULL

ROCK WEIR DETAIL

TOP OF FIFRAF

ELEVATION

EXISTING STREAM NUERT

25 MIN

EXCHIPTIO.

BEHIND

__DIKE A _____B.B.____ SEED AND STRAW PLACE. SEED AND STRAH MUCH 3.1-5.0% SEED AND STRAW MULCH 5.1-8.0% SEED HITH JUTE, OR SOD: LINED RIP-RAP 4-8" 8.1-20 LINED RIP-RAP 4-8" ENGINEERING DESIGN

CC dec = 12" - 1116 RAPE

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SQIL WITH CONSTRUCTION EQUIPMENT.

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

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

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

Cut or Fill Existing Ground -10:1 8/opas CROSS SECTION Positive drainage - Grade sufficient to arain "Cut or Fill Blope PLAN VIEW MOUNTABLE BERM

STANDARD SYMBOLS

TEMPORARY SWALE

Dmin. LEVEL

PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SHALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.

2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING

DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.

4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SHALE.

THE SHALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS

ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL
NOT INTERFERE WITH THE FUNCTIONING OF THE SHALE.

FLOW CHANNEL STABILIZATION

A (5 AC OR LESS)

SEED AND STRAIN MULCH

SEED AND STRAW MULCH

LINED 4-8" RIP-RAP

-18 Min A Flow

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

Machine

OR OTHER IRREGULARITIES WHICH WILL IMPECE NORMAL FLOW,

6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.

8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

0.5-3.0%

3.1-5.0%

CROSS SECTION

0.5% OR STEEPER DEPENDENT ON TOPOGRAPHY

Earth Dike

Silt Fence

Straw Bale Dike

Temporary Swale

Entrance

Inlet Protection

Stabilized Construction

Perimeter Dike/Swake

FOR PUBLIC WATER PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT.OF PUBLIC WORKS

10-10-56 CHIEF, BUREAU OF ENGINEERING 1

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

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

SEDIMENT CONTROL

Provide the following cortification blocks on sediment control plans:

By the Developer:

"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 Natural Resources Approved Training Program for the Control of Seidment and Erosion

before beginning the project." Signature of Developer MARTANI L LEVY

🙀 By, **C**he Engineer:

Y certify that this plan for erosion and sediment control represents a practical and workable plan based on my mersonal knowledge of the site conditions and that it was prepared in accordance with the requirements of

the Movard Soil Conservation District." Signature of Engineer REPERT H MARMON

Reviewed for HOWARD S.C.D. and Teets Technical Requirements.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

> **APPROVED DIVISION OF LAND DEVELOPMENT &** ZONING ADMINISTRATION HOWARD COUNTY: MARYLAND DATE 7-18-86

SEQUENCE OF CONSTRUCTION

Phase I

B (5 AC - 10 AC)

SEED AND STRAW MULCH

SEED USING JUTE OR

ENGTNEERED DESIGN

1. Clear and grub areas necessary to construct stabilized construction entrance(s), sediment traps and earth dikes and construct these sediment control devices. Take care to save all mature trees.

2. Install temporary 24" CMP under entrance road maintaining 1 foot of cover over pipe throughout construction.

NO SCALE

3. Clear and grub area necessary and dig temporary swale as shown so as not to encroach upon existing stream bed. Construct swale to drain into 24" CMP

and into sediment trap #2. 4. Clear and grub remainder of site and begin grading. 5. Construct all remaining storm drain structures and connecting pipes. Grade as necessary around structure E-1 to allow drainage into temporary swale. Also construct temporary 24" CMP from existing structure M-3 to sediment trap #1 and brick off pipe from existing M-3 to existing E-4 from the inside

6. Upon completion of rough site grading, commence construction of utilities and building.

Upon completion of all site utilities begin construction of curb and gutter.

8. Fine grade paving areas and begin paving construction. 9. At such time when the access road at the southwestern edge of property is no longer needed, construct temporary rock weir downmatream of 42" CMP.

10. Remove 42" CMP and grade stream channel back to normal section and install barricades.

11. Upon stabilization of all disturbed areas flush clean all storm drain pipes and remove all temporary sediment control devices including both 24" CMP's at the approval of the Sediment Control Inspector. 12. Construct outfall at structure E-1 and remove brick bulkhead from inside structure M-3. Stabilize any remaining disturbed areas.

1. Clear and grub areas necessary and construct silt fence and stabilized construction entrance as shown for Phase II. 2. Clear and grub remainder of Phase II area and begin grading.

3. Construct concrete retaining wall as per architectural drawings.

4. At such time grading is complete and all areas properly compacted, begin building construction. 5. Upon completion of all construction stabilize all disturbed areas.

6. At such time entire site is stabilized, remove all sediment control devices at the approval of onsite inspector.

NO SLALE ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS • PHOTOGRAMMETRISTS

GREENHORNE & O'MARA, INC. 2 RESEARCH PLACE, ROCKVILLE, MARYLAND 20850 (301) 948-0900

ANNAPOLIS. MD ● ATLANTA GA ● BECKLEY, WV ● CULPEPER, VA ● DENVER, CO ● EXPORT, PA ● FAIRFAX, VA GREENBELT MD ● MONROE, MI ● RALEIGH, NC ● TAMPA, FL ● WILLISTON PARK, NY

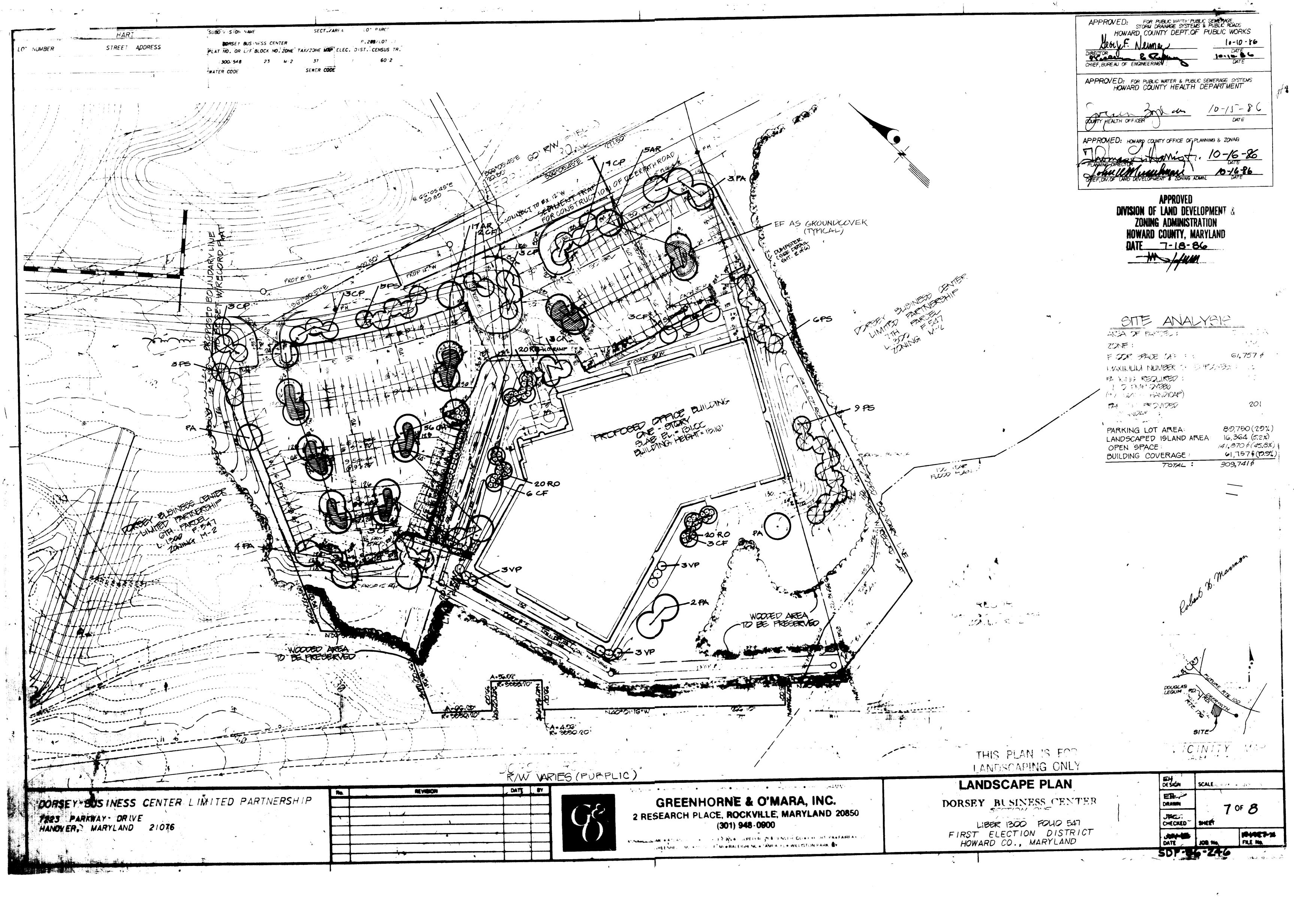
SEDIMENT CONTROL DETAILS

SECTION ONE FARCEL K LIBER 1300 FOLIO 547 FIRST ELECTION DISTRICT HOWARD COUNTY, WARYLAND

SCALE NONE DESIGN BLP DRAWN 6 OF 8 RHM CHECKED R-1307-X FILE No. DATE

DWNER/ DEVELOPER DERSEY BUSINESS CENTER LIMITED PARTNERSHIP 7023 PARKWAY DRIVE HANOVER, MARYLAND 21076

DATE BY REVISION



SPECIFICATIONS

riant identification: All plants shall be properly marked for identification.

The Contractor will verify the plant quantities prior to bidding and any discrepancies shall be brought to the attention of the Landscape Architect. The Contractor shall furnish and plant all plants required to complete the work shown on the drawings, Substitution shall not be made without the written approval of the Landscape Architect. This Contract will be based on the bidder having verified prior to bidding, the availability of the required plant material as specified on the Plant Materials List.

All shrubs shall be dense, heavy to the ground, and well grown, showing evidence of having been sheared regularly, and shall be sound, free of plant desease or insect eggs and shall have a healthy normal root system. Plants shall be freshly dug and not heeled-in stock from cold storage. All plants shall be arresnly duy and not neered-in stock from cold storage. At plants shall not be pruned prior to delivery. The shape of the plant shall in general conform to its natural growth proportions unless otherwise specified. Trees shall conform to the branching, caliber, and height specifications of the American Association of Murserymen, and shall have a well-shaped, heavy branch structure for the species. Evergreen trees are to have an internode no greater than 18" and shall be uniformly well shaped. All plant sized shall average at least the middle of the range given in the plant list.

Plant spacing is to scale on plan. No plants except espaliered material shall

Solid mix will be 2/3 existing soil, 1/3 leafmold or equal organic material,

Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Hedges shall be planted in a trench 12" wider; beds for mass planting shall be entirely rototilled to a depth of 8"

and shall be 18" beyond the average outside edge of plant balls.

Backfilling shall be done with soil mix, reasonably free of stones, subsoil, clay lumps, stumps, roots, weeds, bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth, or hinder grading, planting, or maintenance operations. Should any unforeseen or unsuitable planting conditions arise, such as faulty soil drainage or chemical residues, they should be called to the attention to the Landscape Architect and Owner for they should be called to the attention to the Landstape with the adjustment before planting. The plant shall be set plumb and straight, and shall be staked at the time of planting. Backfill shall be well worked about the roots and settled by watering. Plants will be planted higher than surrounding grade. Shrubs will be i" higher and trees will be 3" higher.

Transplanting Trees By Tree Machines

Trees shall be moved by machines that provide a minimum ball diameter of 9" per 1" of tree caliber. Holes are to be dug by the same size machine as the one transporting the plant. The plant material shall be transplanted in approximately the same growing conditions as it is presently growing, in items of soil type and moisture content. Fertilize and guy as described in these plans and specifications.

All trenches and shrub beds shall be cultivated, edged and mulched to a depth of 3" with fine shredded hardwood bark. The area around isolated plants shall be mulched to at least a 6" greater diameter than that of the hole. Plant beds adjacent to buildings shall be mulched to the building wall.

The Contractor shall be responsible during the contract and up to the time of acceptance, for keeping the planting and work incidental thereto in good conditions, by replanting, plant replacement, watering, weeding, cultivating, there is a condition of the contract of t pruning and spraying, restaking and cleaning up and by performing all other necessary operations of care for promotion of good plant growth so that all work is in satisfactory condition at time of acceptance, at no additional cost

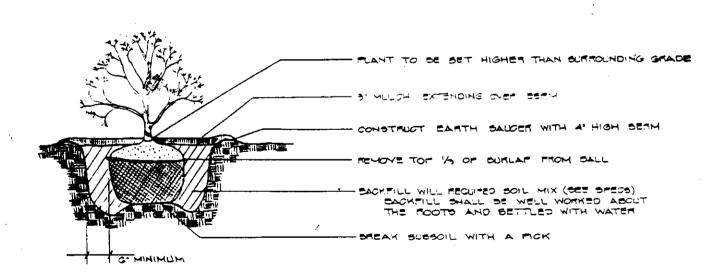
Fertilizer shall be a slow release type contained in polyethelene perforated bags with micropore holes for controlled feeding such as Easy Grow as manufactured by Speciality Fertilizer, Inc., Box 355, Suffern, New York 10901 or approved equal. The bags shall contain I ounce of soluble fertilizer analysis 16-18-16 per units to last for three years and shall be applied during planting as recommended by the manufacturer. If fertilizer packets are not used the Contractor shall apply granular fertilizer to the soil mix with 10-6-4 analysis at the following rates: Tree Pits, 2-3 lbs. per caliper inch; Shrub Beds, 3-5 lbs. per 100 square foot; Ground cover, 2-3 lbs. per 100 square

All areas of ground cover shall be rototilled to a depth of 6". Apply 2": of organic material and rototill until thoroughly mixed. Apply fertilizer as

Guarantee and Replacement

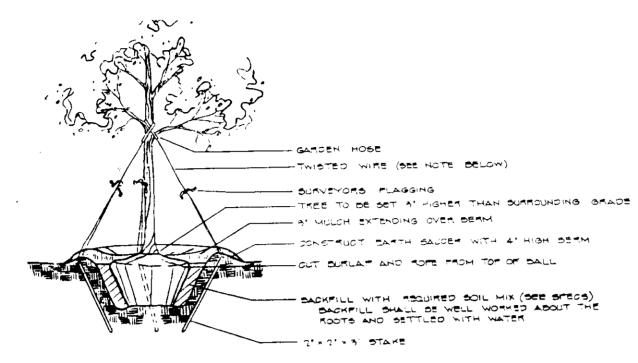
All materials shall be unconditionally guaranteed for one year. The Contractor is not responsible for losses or damages caused by mechanical injury or

wroundcover in parking lot Islands to be planted between June 1 and toptember 15

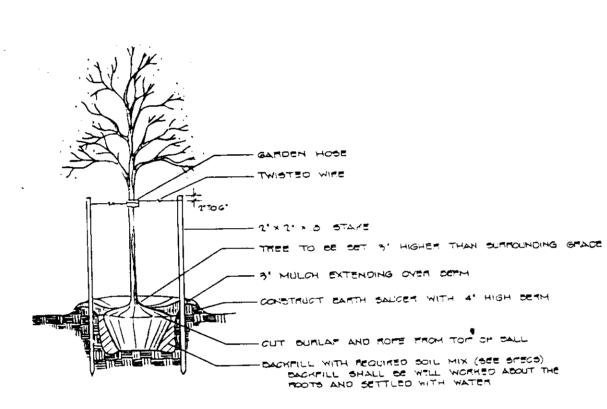


SHRUB PLANTING DETAIL NO SCÁLE

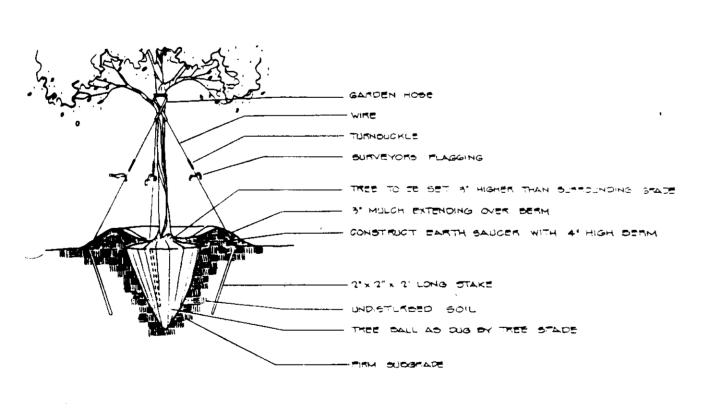
PLANTING DETAILS



PLANTING AND GUYING DETAIL EVERGREEN TREES AND DECIDUOUS TREES - 10' AND LARGER NOTE: TWISTED WIRE FOR: DECIDUOUS TREES 134"-4" CAL...
EVERGREEN TREES UP TO 5"-10"
EVERGREEN TREES 444 NO ABOVE
EVERGREEN TREES 10" AND TALLER.



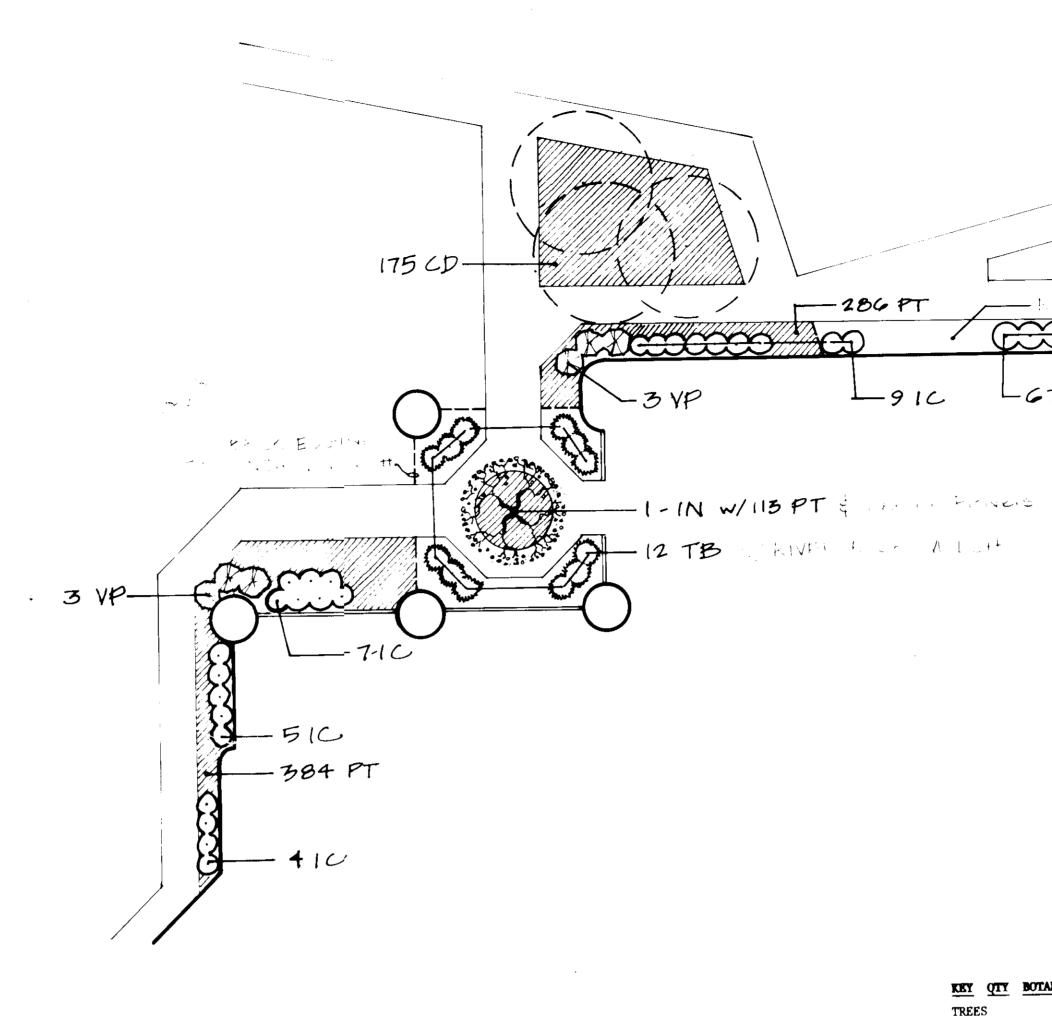
PLANTING AND STAKING DETAIL DECIDUOUS TREES UP TO 10' NO SCALE



PLANTING AND GUYING DETAIL

MACHINE PLANTING

NO SCALE



FOUNDATION PLANTING DETAIL Scale: 1/16" = 1'

810.

PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
TREE				. /	
AR	22	Acer rubrum	Red Maple	$2^{1/2}$ " - 3" Cal.	B & B
CF	14	Cornus florida	White Flowering Dogwood	7 - 8' Ht.	B & B
CF*	3	Cornus florida	White Flowering Dogwood	7 - 8' (Heavy)	във
CK	3	Cornus kousa	Kousa Dogwood	6 - 7' (Heavy)	във
СР	13	Crataegus phaenophyrume	Washington Thorn	8 - 10' Ht.	В & В
IN	1	Ilex x Nellie R. Stevens	Nellie Stevens Holly - Tree Form Specimen	9 - 10' Ht.	в & в
PA	11	Platanus acerifolia	London Plane Tree	$3 - 3^{1/2}$ " Cal.	B & B
PS	23	Pinus strobus	Eastern White Pine	7 - 8' Ht.	B & B
CH	55	Cotoneaster dammeri Cotoneaster horizontalis	Rock Cotoneaster	15 - 18" Spr. 18 - 24" Spr.	Cont 31/2' 0.
			₹7	18 - 24" Spr.	Cont. 5' 0.C.
EF		'Coloratus'	Purpleleaf Wintercreeper Dwarf Chinese Holly	2 ^{1/} 4" P.P.	12" O.C. B & B
IC		3 Ilex cornuta rotunda	Dwarr Chinese horry	15 10 110	
PT	783	Pachysandra terminalis 'Green Carpet'	Green Carpet Japanese Spurge	2 ^{1/4} " P.P.	12" O.C.
RO	60) Rhododendron obtusum	Kurume azalea (Red Flowering)	15 - 18" Ht.	Cont.
SV	7	7 Spirea vanhouttei	Vanhoutte Spirea	2 - 3' Ht.	Cont.
T18	12	Taxus baccata 'Repandens'	Spreading English Yew	18 - 24" Ht.	във
TC	14	4 Taxus cuspidata 'Densiformis'	Dense Japanese Yew	24 - 30" Ht.	B & B
VP	1	5 Viburnum plicatum 'Mariesii'	Marie's Doublefile Viburnum	3 - 4' Ht.	в & в
		PALICOIT			

APPROVED DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION NOWARD COUNTY, MARYLAND DATE 7-18-86

8TC-

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

DORSEY BUSINESS CENTER LIMITED PARTNERSHIP

7223 PARKWAY DRIVE HANOVER, MARYLAND 21076

REVISION	DATE	BY	
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GREENHORNE & O'MARA, INC. 2 RESEARCH PLACE, ROCKVILLE, MARYLAND 20850 (301) 948-0900

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LANDSCAPE PLAN DETAILS **DORSEY BUSINESS CENTER**

SECTION ONE

PARCEL K LIBER 1300 FOLIO 547 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS NOTED DESIGN DRAWN 8 OF 8 J#~ CHECKED SHEET R-1327-X FILE No. 5DP-86-246

FOR PUBLIC WORKS, PUBLIC SEWERAGE, PUBLIC WATER STORM DRAINAGE SYSTEMS & PUBLIC ROADS

HOWARD COUNTY DEPT. OF PUBLIC WORKS