

**PLAN VIEW**  
SCALE: 1" = 50'

- NOTES:**
- HORIZONTAL CURVE NO. 1 FULFILLS THE REQUIREMENT OF HOWARD COUNTY DESIGN MANUAL VOL. III FOR SPEED CONTROL IN THIS PORTION OF THE SUBDIVISION.
  - PUBLIC STORM DRAIN EASEMENT ENDS AT THE BACK OF INLET # 1-1.
  - NO BUILDING CONSTRUCTION MAY OCCUR WITHIN THE EXISTING 20' PUBLIC SEWER AND UTILITY EASEMENT IN LOT 11.

FLOODPLAIN CROSS SECTION DATA		
SECTION NO.	W.S. ELEVATION (FT)	Q (CFS)
80	317.19	259.00
70	314.79	259.00
60	310.91	259.00
50	308.15	259.00
40	301.33	259.00
30	---	CULVERT
20	303.77	259.00
10	302.35	259.00

**LEGEND**

- CONTOUR INTERVAL: 2 FEET
- EXISTING CONTOUR: [Symbol]
- PROPOSED SEWER MAIN: [Symbol]
- PROPOSED WATER MAIN: [Symbol]
- PROPOSED STORM DRAIN: [Symbol]
- EXISTING TREE LINE: [Symbol]
- AREA OF 25% OR GREATER SLOPES (THERE ARE NO CONTIGUOUS STEEP SLOPES 20.000 S.F. OR GREATER): [Symbol]
- AREA OF 15% TO 24.99% SLOPES: [Symbol]
- FOREST CONSERVATION EASEMENT (AREA TO BE RETAINED): [Symbol]
- FOREST CONSERVATION EASEMENT (AREA TO BE PLANTED): [Symbol]

CENTERLINE CURVE DATA								
CURVE NO.	RADIUS	ARC LENGTH	TANGENT	CHORD	CHORD BEARING	DELTA	PC STA.	PT. STA.
1	50.00'	52.36'	28.87'	50.00'	S 00° 18' 00" W	60°00'00"	2+17.78	2+70.14

STREET LIGHT SCHEDULE		
SYMBOL	DESCRIPTION	LOCATION
[Symbol]	100 WATT HPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS P.C.F.	12' RT. C.L. STA. 2+51 TOWER ROAD 2' RT. L.P. STA. 1+44 TOWER ROAD

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF  
HOWARD COUNTY  
*Paul R. Katz* 11/17/00  
PLANNING DIRECTOR DATE

NO. DATE		REVISION	
<b>BENCHMARK</b> ENGINEERS & LAND SURVEYORS & PLANNERS <b>ENGINEERING, INC.</b> 8480 BALTIMORE NATIONAL PIKE & SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-8105 FAX: 410-465-8644			
OWNER:		PROJECT:	
JOHN W. TERBORGH 3705 ERWIN ROAD DURHAM, NC, 27705 (919) 490-9081		<b>THE HILLSIDE AT ROCKY GORGE</b> LOCATION: TAX MAP 46, GRID 18, PARCEL 151 6 TH. ELECTION DISTRICT HOWARD COUNTY, MARYLAND REFERENCE FILE:	
DEVELOPER/CONTRACT PURCHASER:		TITLE:	
CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 (410) 792-2565		<b>PRELIMINARY EQUIVALENT SKETCH PLAN</b> DATE: APRIL, 2000 PROJECT NO. 1349	
DES: YSL	DRN: YSL	CHK: DAM	SCALE: AS SHOWN DRAWING 2 OF 5



**PRELIMINARY SWMF DATA**

STORM	WSEL	STORAGE (AC-FT.)
2 YR.	327.40	0.30
10 YR.	328.70	0.52
100 YR.	330.00	0.78
<b>WATER QUALITY STORAGE</b>		0.22

**LEGEND**

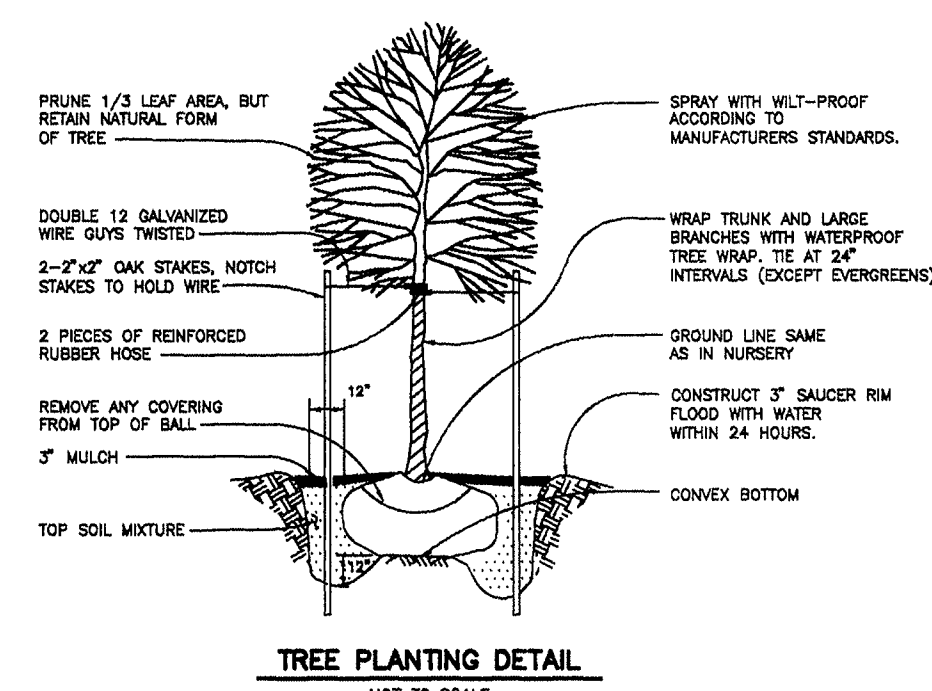
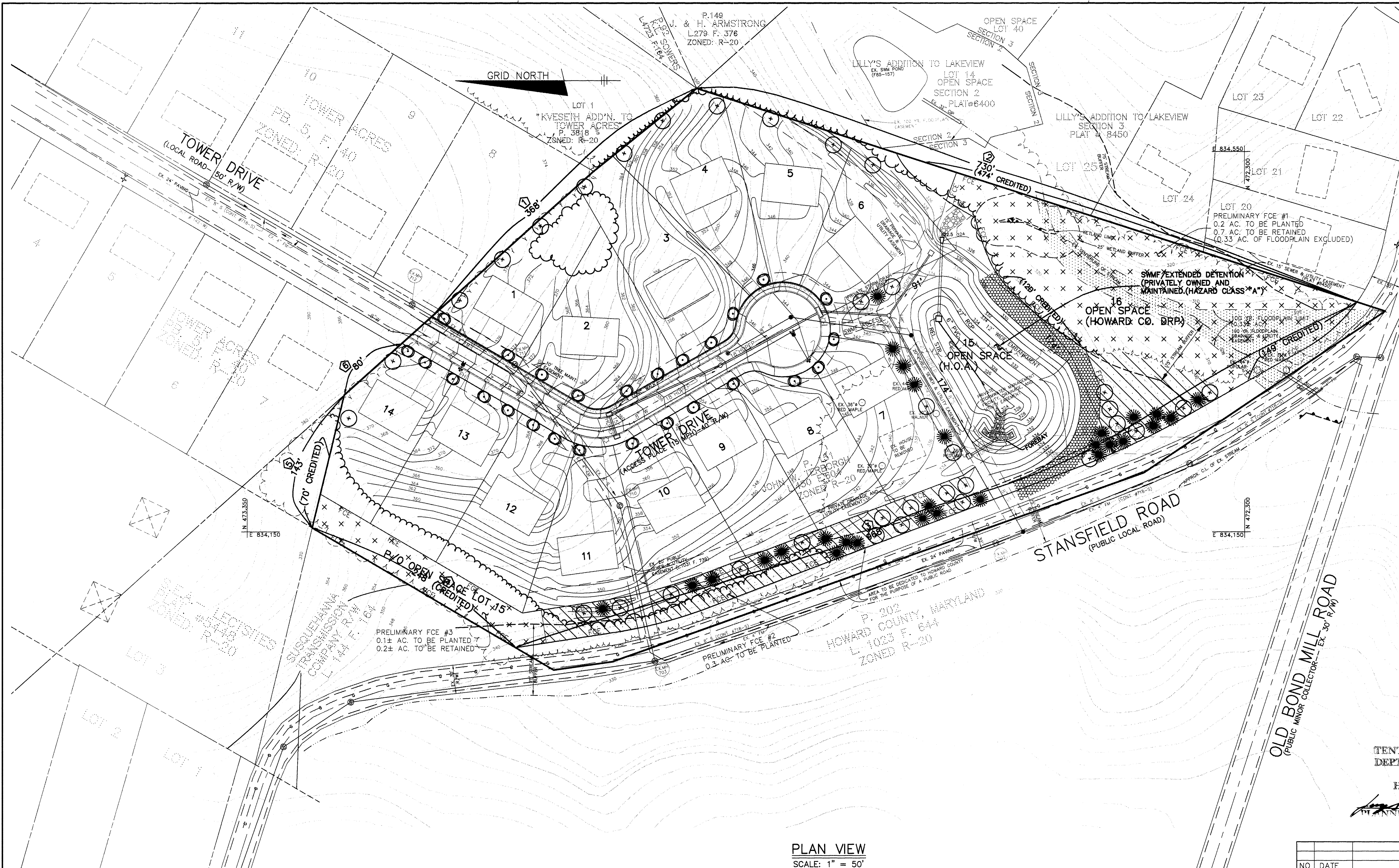
CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	200 100
PROPOSED CONTOUR	100 50
PROPOSED SEWER MAIN	12" S.W.
PROPOSED WATER MAIN	12" S.W.
PROPOSED STORM DRAIN	12" S.W.
STABILIZED CONSTRUCTION ENTRANCE	A-3
PROPOSED EARTH DIKE	A-3
TEMP. SWALE	A-3
SILT FENCE	A-3
LIMIT OF DISTURBED AREA	-----
EXISTING TREE LINE	~~~~~
PROPOSED TREE LINE	~~~~~
AREA OF 25% OR GREATER SLOPES (THERE ARE NO CONTIGUOUS STEEP SLOPES 20,000 S.F. OR GREATER)	//////
AREA OF 15% TO 24.99% SLOPES	XXXXXX
FOREST CONSERVATION EASEMENT (AREA TO BE RETAINED)	+++++
FOREST CONSERVATION EASEMENT (AREA TO BE PLANTED)	XXXXXX
15' NO-WOODY VEGETATION ZONE	XXXXXX

**PLAN VIEW**  
SCALE: 1" = 50'

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND  
ZONING OF  
HOWARD COUNTY

*James J. Kelly* 11/15/00  
PLANNING DIRECTOR DATE

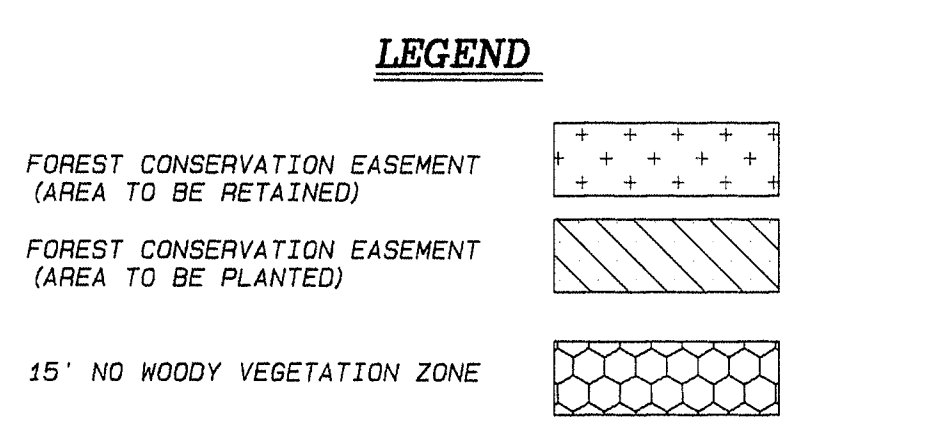
NO.	DATE	REVISION
<p><b>BENCHMARK</b> ENGINEERS &amp; LAND SURVEYORS &amp; PLANNERS <b>ENGINEERING, INC.</b> 8480 BALTIMORE NATIONAL PIKE &amp; SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644</p>		
<p>OWNER: JOHN W. TERBORGH 3705 ERWIN ROAD DURHAM, N.C. 27705 (919) 490-9081</p>		<p>PROJECT: <b>THE HILLSIDE AT ROCKY GORGE</b></p>
<p>DEVELOPER/CONTRACT PURCHASER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 (410) 792-2565</p>		<p>LOCATION: TAX MAP 46, GRID 18, PARCEL 151 6 th. ELECTION DISTRICT HOWARD COUNTY, MARYLAND REFERENCE FILE:</p>
<p>TITLE: <b>PRELIMINARY GRADING, STORM DRAIN, AND SEDIMENT &amp; EROSION CONTROL PLAN</b></p>		<p>DATE: APRIL, 2000 PROJECT NO. 1349</p>
DES: YSL	DRN: YSL	CHK: DAM
SCALE: AS SHOWN		DRAWING 3 OF 5



**NOTES**

1) TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STORM DRAIN

2) TREES MUST BE PLANTED A MINIMUM OF FIVE(5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY



TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF  
HOWARD COUNTY

*[Signature]* *[Signature]*  
PLANNING DIRECTOR DATE

**PLAN VIEW**  
SCALE: 1" = 50'

NOTE: ALL THE SPECIMEN TREES IN LOT 7 AND WITHIN THE PROP. 20' PUBLIC SEWER AND UTILITY EASEMENT ARE TO BE REMOVED

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	NO	NO	YES	NO	NO	NO	NO
PERIMETER NO. / LANDSCAPE TYPE	(1) A	(2) A	(3) B	(4) A	(5) A	(6) A	(7) A	(8) A	(9) A
LINEAR FEET OF FRONTAGE/PERIMETER	358'	730'	998'	248'	143'	80'			
CREDIT FOR EXISTING VEGETATION (NO OR YES W/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES	YES	YES	YES	NO			
CREDIT FOR WALL, FENCE OR BERV. (NO OR YES W/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO			
NUMBER OF PLANTS REQUIRED:									
SHADE TREES	6	4	16	0	1	1			
EVERGREEN TREES	-	-	-	-	-	-			
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-	-			
SHRUBS	-	-	-	-	-	-			
NUMBER OF PLANTS PROVIDED:									
SHADE TREES	6	4	16	0	1	1			
EVERGREEN TREES	-	-	-	-	-	-			
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-	-			
SHRUBS (10:1 SUBSTITUTE)	-	-	-	-	-	-			
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)									

**STREET TREE TABULATION**

STREET TREE REQUIRED (1 TREE / 40') : 1031'(STREET LENGTH) / 40' = 25.77 = 26 TREES

STREET TREE PROVIDED : 26 TREES

**SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING TYPE "B" BUFFER**

SWM FACILITY NO.	1
LINEAR FEET OF PERIMETER	433'
CREDIT FOR EXISTING VEGETATION (NO OR YES W/L.F.)	YES, 120'
CREDIT FOR OTHER LANDSCAPING (NO OR YES W/%)	NO
NUMBER OF TREES REQUIRED:	
SHADE TREES (1:50)	8
EVERGREEN TREES (1:40)	8
NUMBER OF TREES PROVIDED:	
SHADE TREES	8
EVERGREEN TREES	8
OTHER TREES (2:1 SUBSTITUTE)	-

**PERIMETER & SWM LANDSCAPE PLANTING LIST**

SYMBOL	QUANTITY	NAME	REMARKS
(Symbol: Circle with dot)	34	PLATANUS ACERIFOLIA (BLOODGOOD)	2 1/2" MIN. CAL. B & B FULL HEAD
(Symbol: Star)	28	PINUS STROBUS (EASTERN WHITE PINE)	5'-6" HT. UNSHEARED

**STREET TREE PLANTING LIST**

SYMBOL	QUANTITY	NAME	REMARKS
(Symbol: Circle with dot)	28	ACER RUBRA (RED MAPLE)	2 1/2" MIN. CAL. B & B FULL HEAD

**LANDSCAPING NOTES**

- PERIMETER LANDSCAPING SHALL BE PROVIDED BY THE EXISTING VEGETATION TO REMAIN AND BY THE PLANTINGS AS SHOWN ON THESE PLANS.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE STREET TREES, STORMWATER MANAGEMENT POND PLANTING, THE PRESERVATION OF THE PERIMETER VEGETATION AS SHOWN ON THESE PLANS AND FOR THE PERIMETER PLANTING ON PERIMETERS. BONDING FOR PERIMETER PLANTING IS THE OBLIGATION OF THE DEVELOPER AS PART OF THE DEVELOPERS AGREEMENT.
- A MINIMUM OF TWENTY(20) FEET SHALL BE MAINTAINED BETWEEN TREES AND STREET LIGHTS.

NO	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6644

OWNER: JOHN W. TERBORGH  
3705 ERWIN ROAD  
DURHAM, NC, 27705  
(919) 490-9081

DEVELOPER/CONTRACT PURCHASER: CORNERSTONE HOLDINGS, L.L.C  
9691 NORFOLK AVENUE  
LAUREL, MARYLAND 20723  
(410) 792-2565

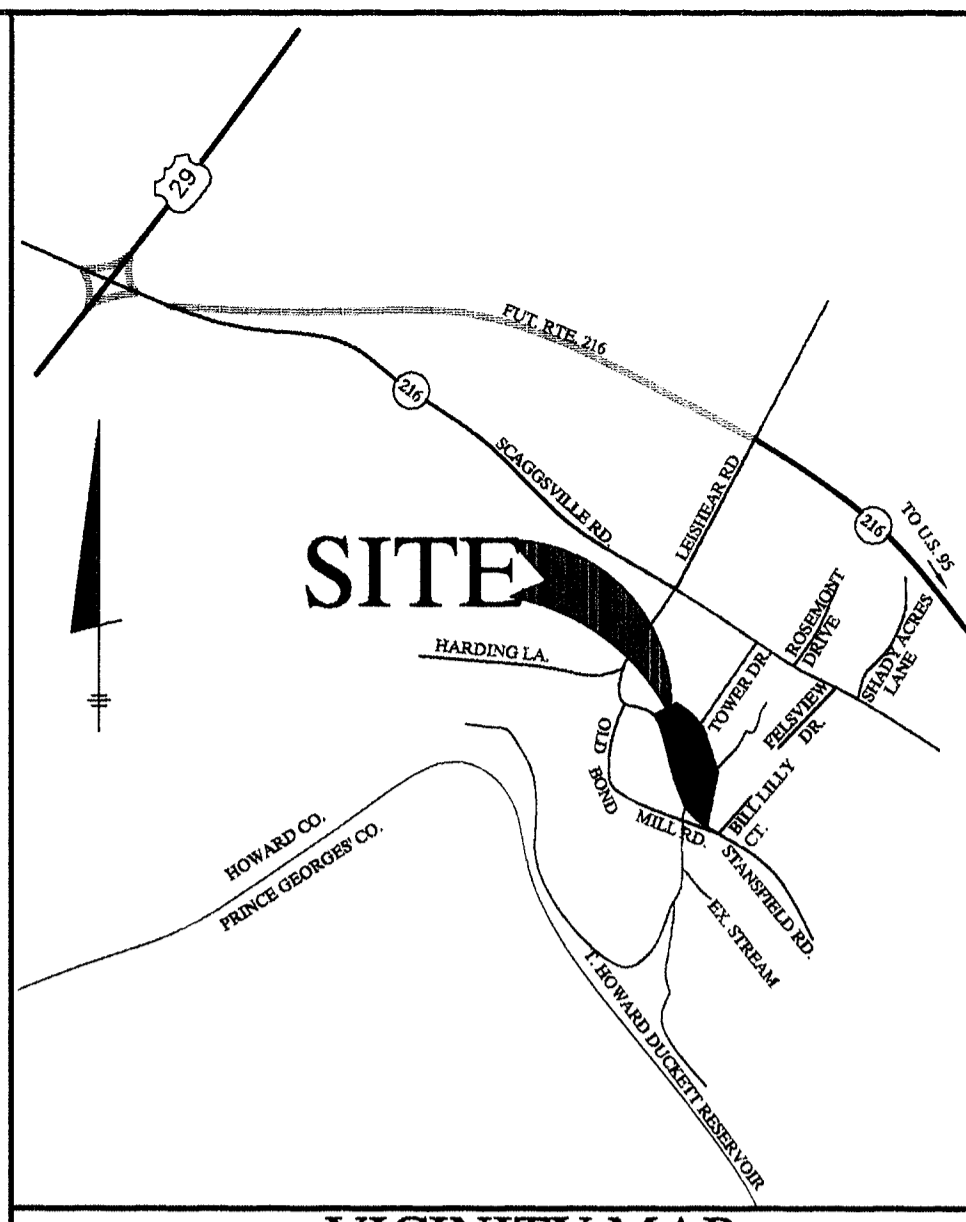
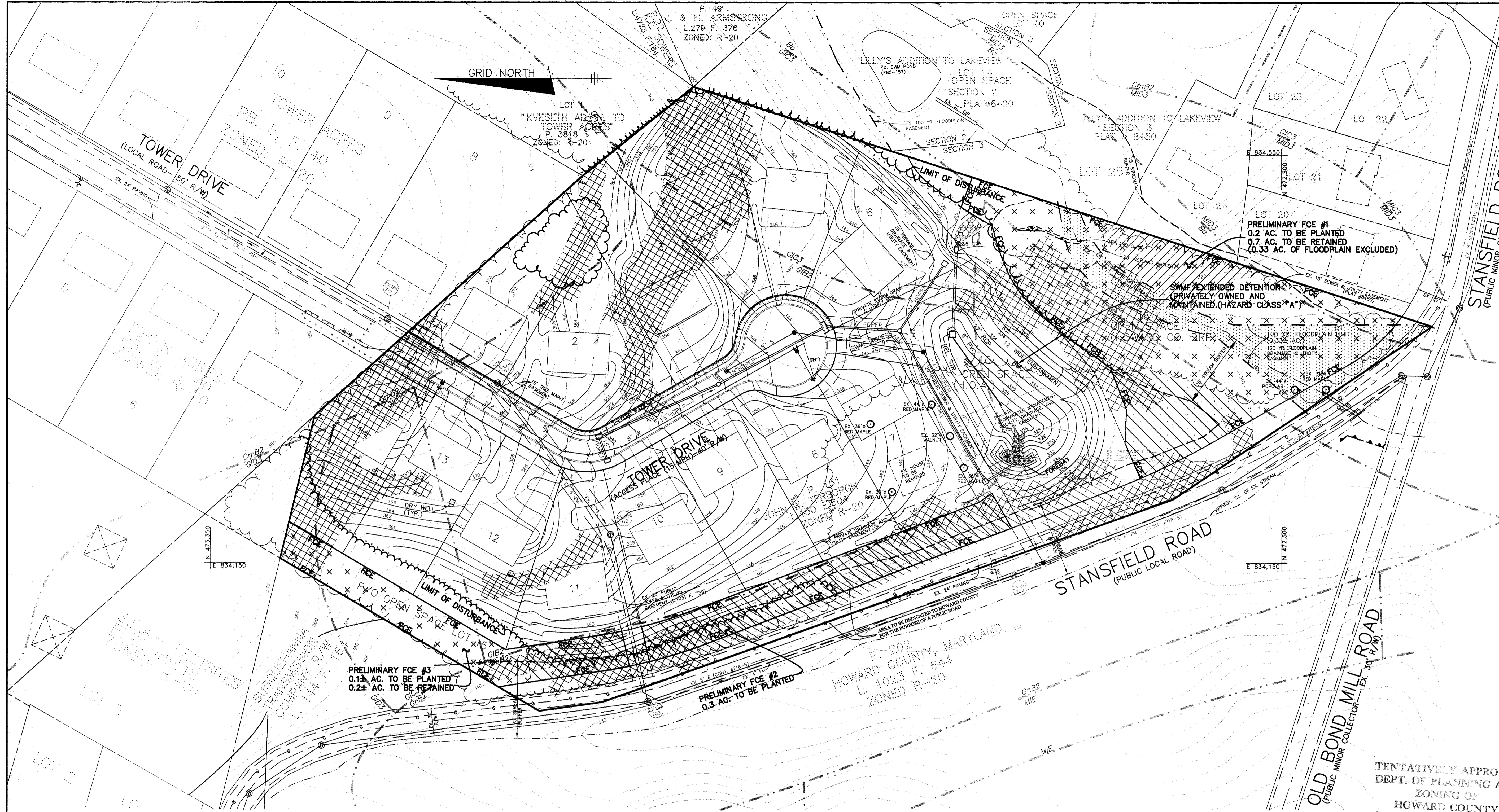
PROJECT: **THE HILLSIDE AT ROCKY GORGE**

LOCATION: TAX MAP 46, GRID 18, PARCEL 151  
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
REFERENCE FILE:

TITLE: **PRELIMINARY LANDSCAPE PLAN**

DATE: APRIL, 2000 PROJECT NO. 1349

DES: YSL DRN: YSL CHK: DAM SCALE: AS SHOWN DRAWING 4 OF 5



VICINITY MAP  
SCALE: 1" = 2000'

FOREST CONSERVATION WORKSHEET

**I. BASIC SITE DATA**

GROSS SITE AREA	8.5± AC.
AREA WITHIN 100 YEAR FLOODPLAIN	0.3± AC.
PRESERVATION PARCEL (IF APPLICABLE)	
NET TRACT AREA	6.2± AC.
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/A/O) B-20	

**II. INFORMATION FOR CALCULATIONS**

A. NET TRACT AREA	8.2± AC.
B. REFORESTATION THRESHOLD (20 X X A)	1.6± AC.
C. AFFORESTATION MINIMUM (15 X X A)	1.2± AC.
D. EXISTING FOREST ON NET TRACT AREA	6.4± AC.
E. FOREST AREAS TO BE CLEARED	5.5± AC.
F. FOREST AREAS TO BE RETAINED	0.9± AC.

**III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION**

1. REFORESTATION

IF EXISTING FOREST AREAS EQUAL OR EXCEED THE AFFORESTATION MINIMUM ( IF D EQUALS OR IS MORE THAN C ), AND CLEARING OF FOREST AREAS IS PROPOSED, REFORESTATION REQUIREMENT MAY APPLY.

GO TO SECTION IV

IF EXISTING FORESTS EXCEED THE AFFORESTATION MINIMUM ( IF D EQUALS OR IS MORE THAN C ), AND NO CLEARING OF EXISTING FOREST RESOURCES IS PROPOSED, NO REFORESTATION IS REQUIRED. NO FURTHER CALCULATIONS ARE NEEDED.

2. AFFORESTATION

IF EXISTING FOREST AREA ARE LESS THAN THE AFFORESTATION MINIMUM ( IF D IS LESS THAN C ), AFFORESTATION REQUIREMENTS APPLY.

GO TO SECTION V

**IV. REFORESTATION CALCULATIONS**

A. NET TRACT AREA	8.2± AC.
B. REFORESTATION THRESHOLD (20 X X A)	1.6± AC.
C. EXISTING FOREST ON NET TRACT AREA	6.4± AC.
D. FOREST AREAS TO BE CLEARED	5.5± AC.
E. FOREST AREAS TO BE RETAINED	0.9± AC.
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (C - B, IF F IS LESS THAN B, ALTERNATE 1)	4.9± AC.
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (C - B, IF F IS LESS THAN B, ALTERNATE 2)	0.7± AC.
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (B - F, IF APPLICABLE)	0 AC.
I. FOREST AREAS RETAINED BELOW REFORESTATION THRESHOLD (F - B, RETENTION CREDIT, IF APPLICABLE)	0 AC.

SELECTION THE ALTERNATIVE THAT APPLIES:

1. CLEARING ABOVE THE THRESHOLD ONLY

IF FOREST AREAS TO BE RETAINED EQUAL OR ARE GREATER THAN THE REFORESTATION THRESHOLD ( IF F EQUALS OR IS GREATER THAN B ), THE FOLLOWING CALCULATIONS APPLY:

REFORESTATION FOR CLEARING ABOVE THRESHOLD	0
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD (I + RETENTION CREDIT)	0
TOTAL REFORESTATION REQUIRED	0
G x 1/4 - I	0

2. CLEARING BELOW THRESHOLD

IF FOREST AREAS TO BE RETAINED ARE LESS THAN THE REFORESTATION THRESHOLD ( IF F IS LESS THAN B ), THE FOLLOWING CALCULATION APPLY:

REFORESTATION FOR CLEARING ABOVE THRESHOLD	1.2± AC.
REFORESTATION FOR CLEARING BELOW THRESHOLD (H + I)	1.4± AC.
TOTAL REFORESTATION REQUIRED (G x 1/4) + (H x 2)	2.6± AC.

SINCE CLEARING OCCURS BELOW THE THRESHOLD, NO FOREST RETENTION CREDIT IS POSSIBLE.

PLAN VIEW  
SCALE: 1" = 50'

NOTE: ALL THE SPECIMEN TREES IN LOT 7 AND WITHIN THE PROP. 20' PUBLIC SEWER AND UTILITY EASEMENT ARE TO BE REMOVED

PFCP NOTES:

- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE CONVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
- FORESTED AREAS OCCURRING OUTSIDE THE FCE SHALL NOT BE CONSIDERED PART OF THE FCE AND SHALL NOT BE SUBJECT TO PROTECTIVE LAND COVENANTS.
- LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
- NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
- TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
- PERMANENT SIGNAGE SHALL BE PLACED 50 - 100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSTRUCTION EASEMENTS.
- THE OUTSTANDING REFORESTATION OBLIGATION OF 2.0 ACRES FOR THIS PROJECT SHALL BE MET THROUGH OFF-SITE PLANTING OR THE PAYMENT OF THE COUNTY'S FEE-IN-LIEU.

**FOREST DATA**

GROSS AREA :	8.5 AC.
NET TRACT AREA (NTA)	6.2 AC.
EXISTING NTA FOREST	6.4 AC.
AFFORESTATION THRESHOLD:	1.2 AC.
REFORESTATION THRESHOLD:	1.6 AC.
NTA FOREST TO BE RETAINED IN FCE:	0.9 AC.
NTA FOREST TO BE CLEARED :	5.5 AC.
REFORESTATION REQUIRED:	2.6 AC.
ONSITE REFORESTATION AVAILABLE:	0.6 AC.
OUTSTANDING REFORESTATION OBLIGATION:	2.0 AC.

LEGEND

CONTOUR INTERVAL	2 FEET
EXISTING CONTOUR	100
PROPOSED CONTOUR	100
PROPOSED SEWER MAIN	18" RCP
PROPOSED WATER MAIN	12" W
PROPOSED STORM DRAIN	18" RCP
LIMIT OF DISTURBED AREA	-----
EXISTING TREE LINE	-----
PROPOSED TREE LINE	-----
AREA OF 25% OR GREATER SLOPES (THERE ARE NO CONTIGUOUS STEEP SLOPES 20,000 S.F. OR GREATER)	-----
AREA OF 15% TO 24.99% SLOPES	-----

PFCP LEGEND

EXISTING CONTOURS	-----
PROPOSED CONTOURS	-----
FOREST TO BE RETAINED	+++++
PRELIMINARY FORESTATION AREA	-----
PRELIMINARY LIMITS OF FOREST CONSERVATION EASEMENT	-----
EXISTING SPECIMEN TREE	○

SOILS CLASSIFICATION

SYMBOL	DESCRIPTION	HYDROLOGIC GROUP
Ba	BATTLE SILT LOAM	D
G1C3	CHILLUM GRAVELLY LOAM, 5-10% SLOPES, SEVERELY ERODED	B
GnB2	CHILLUM GRAVELLY LOAM, 1-5% SLOPES, MODERATELY ERODED	B
G1B2	GLENELG LOAM, 3-8% SLOPES, MODERATELY ERODED	B
G1C3	GLENELG LOAM, 8-15% SLOPES, SEVERELY ERODED	B
G1D3	GLENELG LOAM, 15-25% SLOPES, SEVERELY ERODED	B
GnB2	GLENVILLE SILT LOAM, 3-8% SLOPES, MODERATELY ERODED (HYDIC)	C
M1C3	MANOR LOAM, 8-15% SLOPES, MODERATELY ERODED	B
M1E	MANOR LOAM, 25 TO 45% SLOPES	B

TENTATIVELY APPROVED  
DEPT. OF PLANNING AND ZONING OF  
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PLANNING DIRECTOR DATE

NO	DATE	REVISION
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**BENCHMARK ENGINEERING, INC.**  
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OWNER:	JOHN W. TERBORGH 3705 ERWIN ROAD DURHAM, NC, 27705 (919) 490-9081	PROJECT:	<b>THE HILLSIDE AT ROCKY GORGE</b>
DEVELOPER/CONTRACT PURCHASER:	CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 (410) 792-2565	LOCATION:	8th TAX MAP 46, GRID 18, PARCEL 151 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND REFERENCE FILE:
DATE:	APRIL, 2000	TITLE:	<b>PRELIMINARY FOREST CONSERVATION PLAN</b>
DES:		PROJECT NO. 1349	
DRN:		SCALE: AS SHOWN	DRAWING 5 OF 5
CHK:			

Eco-Science Professionals, Inc.  
CONSULTING ECOLOGISTS  
P.O. BOX 5006 GLEN ARM, MD 21057 (410)592-6752

MD DNR Qualified Professional  
USACOE Wetland Delinicator  
Certification #WDCP3MD010044B2

John P. Canoles