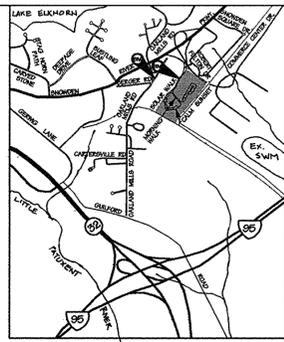


SNOWDEN RIDGE SECTION 2 AREA 2, LOTS 188 THRU 240 A RESUBDIVISION OF PARCEL B-4 SNOWDEN RIDGE SECTION 2 AREA 1 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



LOCATION MAP
SCALE: 1" = 2000'

BENCHMARK

DESCRIPTION
*X CUT TOP OF BOLT
WEST SIDE G&E TRANS.
TOWER # 425442
ELEV. = 374.29'

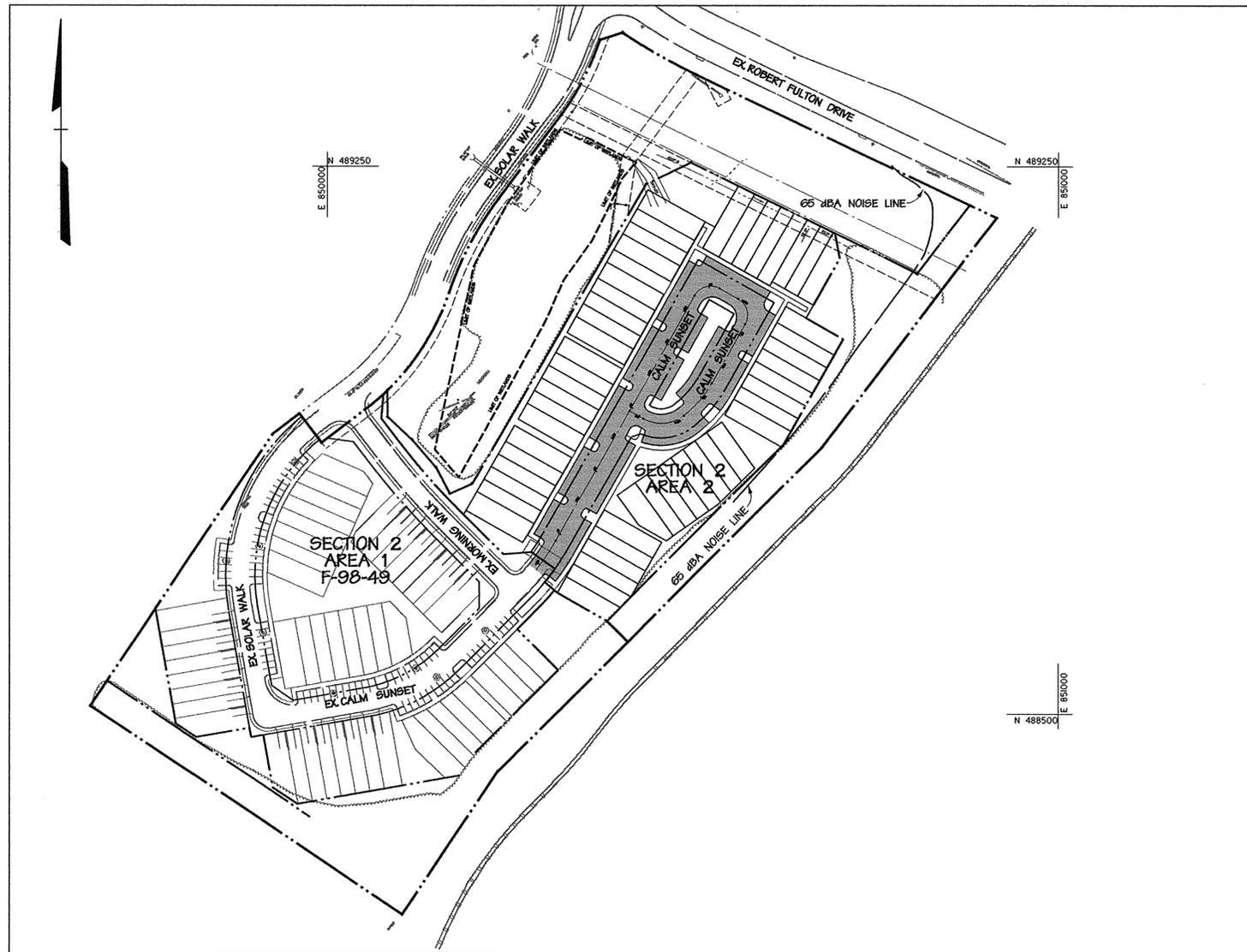
DESCRIPTION
CUT NAIL IN G&E POLE
ELEV = 387.97

*LOCAL BENCHMARKS ABOVE ESTABLISHED FROM HOWARD COUNTY SURVEY CONTROL POINTS *2243002 AND *2243003.

SHEET INDEX	
NO.	PLAN
1 OF 6	COVER SHEET
2 OF 6	ROAD CONSTRUCTION PLAN & PROFILE
3 OF 6	ROAD CONSTRUCTION DETAILS & STORM DRAIN PROFILE
4 OF 6	DRAINAGE AREA MAP
5 OF 6	GRADING AND SEDIMENT CONTROL PLAN
6 OF 6	SEDIMENT CONTROL DETAILS

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT HOWARD COUNTY DESIGN MANUAL VOLUME IV, AND MARYLAND STATE HIGHWAY ADMINISTRATION STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION, WHERE APPLICABLE, EXCEPT WHERE WAIVERS HAVE BEEN APPROVED.
2. EXISTING ZONING IS RA-15 PER 10-85 COMPREHENSIVE ZONING.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 315-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
5. CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UTILITIES WHICH MAY BE IMPACTED BY THE WORK.
6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICES. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
8. ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO-FOOT CONTOUR INTERVALS BY KCI AND FIELD VERIFIED BY DAFT-MCCUNE-WALKER, INC. IN 1997.
10. THIS PROPERTY IS LOCATED WITHIN THE HOWARD COUNTY METROPOLITAN DISTRICT.
11. WATER IS PUBLIC. CONTRACT NO. IS 24-3661-D.
SEWER IS PUBLIC. CONTRACT NO. IS 24-3661-D.
12. ALL OPEN SPACE TO BE GRANTED TO COLUMBIA ASSOCIATION OR H.O.A.
13. HORIZONTAL DATUM: NAD 83/ VERTICAL DATUM: NAVD 29
14. SEE COUNTY FILE NOS.: SF 98-03, F-95-150, WP 95-30, SDP 95-08, SF 95-01, SF 95-09, ZP 948N, F-93-47, WP 92-172, F-92-140, F 92-150, F-93-49
15. THERE ARE NO WETLANDS, FLOODPLAINS OR STREAMS ON THIS SITE PER PLATS 11958 AND 11959.
16. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT AS A MASTER STUDY WAS APPROVED FOR GATEWAY COMMERCE CENTRE.
17. THE BOUNDARY SHOWN HEREON IS BASED ON PREVIOUSLY RECORDED PLATS FOR THIS SUBDIVISION AND A BOUNDARY SURVEY BY CENTURY ENGINEERING, INC. AS AMENDED BY GOUTSCHICK, LITTLE & WEBER, P.A. DATED APRIL 1994.
18. SWM QUALITY AND QUANTITY CONTROLS PROVIDED IN REGIONAL RETENTION FACILITY PER F-97-88.
19. SIDEWALKS AND SIDEWALK RAMPS SHALL BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
20. THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE.
21. ELECTRIC, GAS, CABLE AND TELEPHONE LINES DESIGNED BY OTHERS.
22. THE 65 dBA LINE, SHOWN ON THESE PLANS, IS TAKEN FROM AN EXISTING NOISE STUDY TITLED "THE ROUSE COMPANY GATEWAY DEVELOPMENT HIGHWAY AND RAILWAY TRAFFIC NOISE ASSESSMENT" BY MILLER HENNING ASSOCIATES, INC. AND DATED NOVEMBER 10, 1994.
23. WAIVERS TO THE HOWARD COUNTY DESIGN MANUAL VOLUME III FOR RIGHT-OF-WAY WIDTH REDUCTION TO 40 FT. AND FOR A REDUCTION IN DESIGN SPEED TO 25 MPH FOR CALM SUNSET HAVE BEEN GRANTED BY HOWARD COUNTY.
24. PROVIDE HANDICAP RAMPS WHERE SHOWN IN PLAN. SEE HOWARD COUNTY STD. DETAIL R-4.01 AND R-4.02.
25. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES.
26. UNLESS OTHERWISE NOTED, DIMENSIONS FROM THE CURB ARE MEASURED FROM FACE OF CURB.
27. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE. ANY STREET TREE MUST BE PLANTED A MINIMUM OF 8' FROM AN INLET.
28. SEE SDP 98-60 FOR REQUIRED LANDSCAPING FOR THIS SITE.



PLAN VIEW
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS		
<i>Andrew M. Panek</i>	3-6-98	DATE
CHIEF, BUREAU OF HIGHWAYS		
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING		
<i>Andy Hamstra</i>	3/17/98	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
<i>Peter Zimmerman</i>	3/16/98	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
Date	No.	Revision Description

SNOWDEN RIDGE
SECTION 2, AREA 2
LOTS 188 THRU 240
A RESUBDIVISION OF PARCEL B-4
SNOWDEN RIDGE SECTION 2, AREA 1

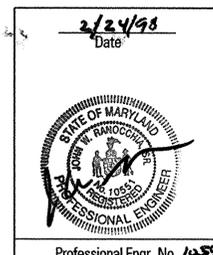
OWNER: HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC.
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

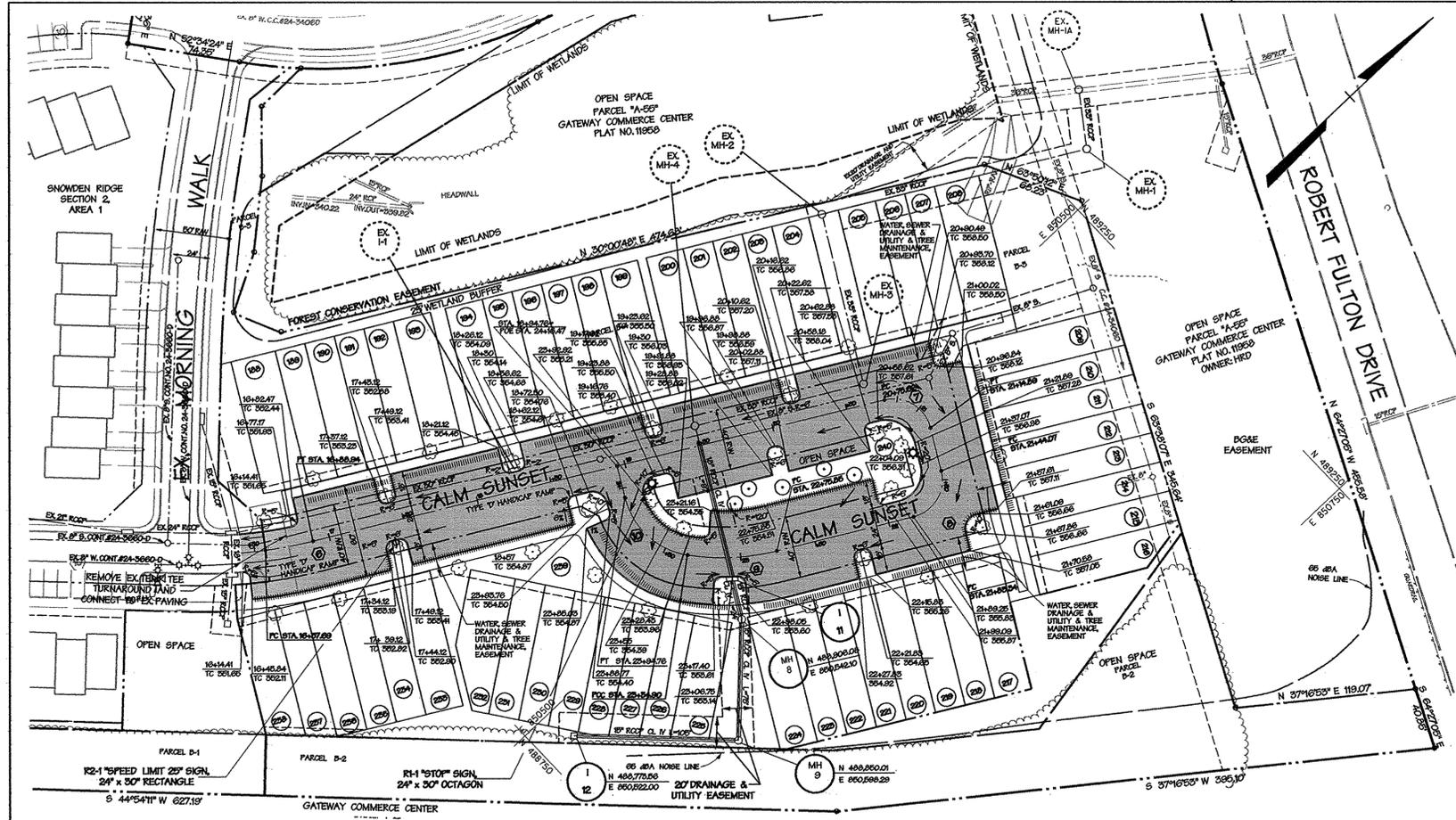
DEVELOPER: WESTBROOK HOMES LLC
210 W. PENNSYLVANIA AVE.
SUITE 300
TOWSON, MD 21204

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

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

AREA	SECTION 2, AREA 2		PARCEL 513
	TAX MAP 42		
	6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND		
TITLE	COVER SHEET		
Des By	MMM	Scale	AS SHOWN
Dwn By	CEO	Date	2-20-1998
Proj. No.			95118.C
Chk By	Approved	1 OF 6	





CURVE DATA					
NAME	DELTA	RADIUS	LENGTH	TANGENT	CHORD
6	06°00'14"	300.00'	31.785'	15.907'	N 32°29'35" E 31.770'
7	90°00'00"	25.00'	39.270'	25.00'	N 74°27'28" E 35.355'
8	90°00'00"	25.00'	39.270'	25.00'	S 15°32'32" E 35.355'
9	22°33'24"	150.00'	59.053'	29.914'	S 40°44'09" W 58.673'
10	67°26'43"	50.00'	58.857'	33.374'	S 85°44'07" W 55.517'

STREET LIGHT LEGEND
 * 100 WATT HIGH PRESSURE SODIUM (HPS) VAPOR
 * "TRADITIONAL" POST TOP FIXTURE MOUNTED
 ON A 14 - FOOT BLACK FIBERGLASS POLE.

CURB & GUTTER LEGEND
 ——— STANDARD 7" C&G
 ===== REVERSE 6" C&G
 ===== REVERSE 7" C&G

STREET LIGHTS LOCATION			
DWG. No.	STREET NAME	STATION	OFF-SET
2 OF 6	CALM SUNSET	19+20	16' RT
2 OF 6	CALM SUNSET	21+20	15' RT

STREET TREE TABULATION				
KEY	QNTY.	PLANT NAME	SIZE	REMARKS
(Symbol)	34	ACER RUBRUM OCTOBER GLORY RED MAPLE	2 1/2"	B&B
(Symbol)	5	ZELKOVA SERRATA VILLAGE GREEN ZELKOVA	2 1/2"	B&B

* SEE SHEET 3 OF 6 FOR PLANTING DETAILS

2/27/98
Date

Professional Engr. No. 10551

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Richard M. Duncanson
 CHIEF, BUREAU OF HIGHWAYS
 3-6-98
 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Cindy Hamilton
 CHIEF, DIVISION OF LAND DEVELOPMENT
 3/17/98
 DATE

John Duncanson
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 3/16/98
 DATE

Date	No.	Revision Description

SNOWDEN RIDGE

SECTION 2, AREA 2
 LOTS 188 THRU 240
 A RESUBDIVISION OF PARCEL B-4
 SNOWDEN RIDGE SECTION 2, AREA 1

OWNER: HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

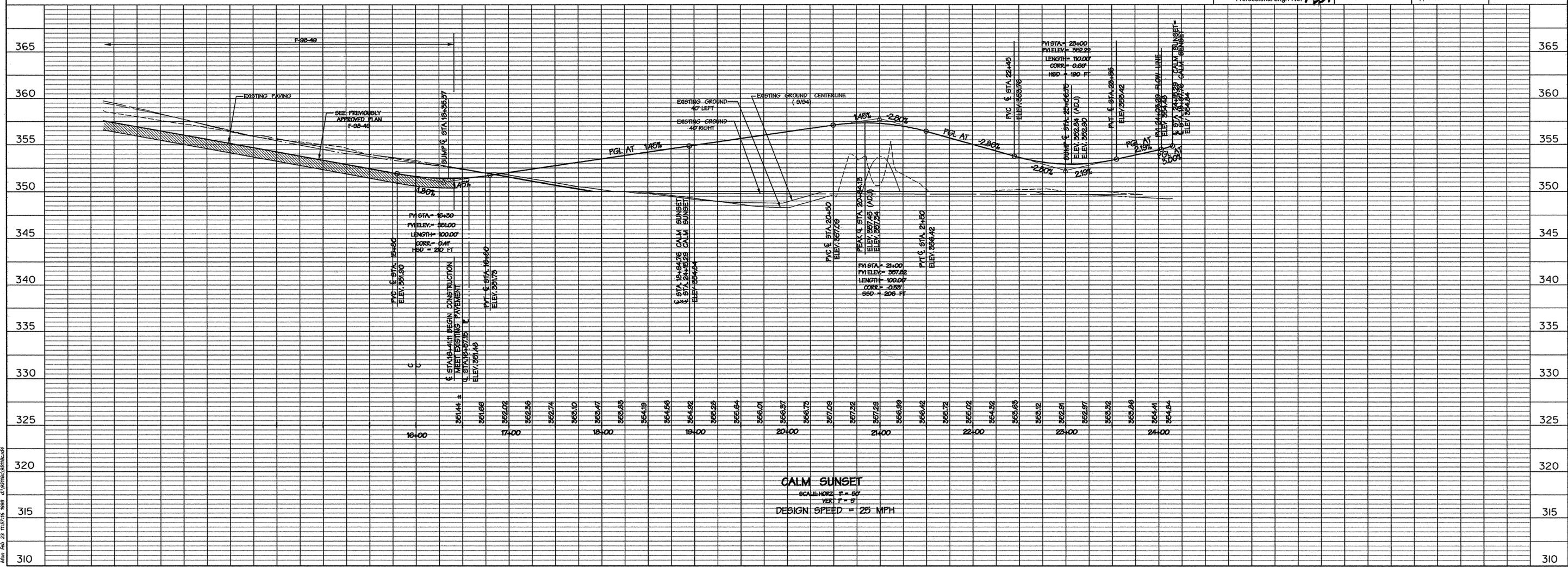
DEVELOPER: WESTBROOK HOMES LLC
 210 W. PENNSYLVANIA AVE.
 SUITE 308
 TOWSON, MD 21204



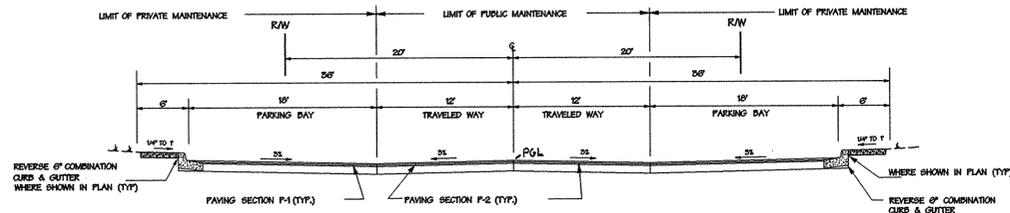
AREA: SECTION 2, AREA 2
 TAX MAP 42 PARCEL 513
 ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE: ROAD CONSTRUCTION PLANS
 CALM SUNSET

Des By	MMM	Scale	1" = 50'	Proj. No.	95118C
Dwn By	MSS	Date	2-20-1998		
Chk By	Approved				2 OF 6

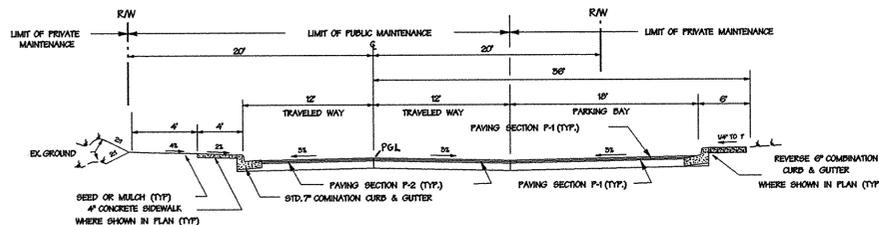


Mon Feb 23 11:57:16 1998 d:\STRTK\95118C.dwg



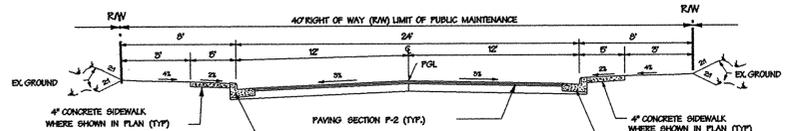
**TYPICAL FULL SECTION
PARKING ADJACENT TO PUBLIC ROADS**
CALM SUNSET: STA 16+80 TO STA 20+60, STA 22+03 TO STA 23+88

NOT TO SCALE
25 MPH DESIGN SPEED
CLASSIFICATION: OUL-DE-6AC (UNDER 600' IN LENGTH)



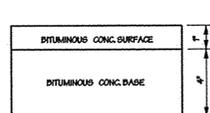
**TYPICAL FULL SECTION
PARKING ADJACENT TO PUBLIC ROADS ON ONE SIDE**
CALM SUNSET: STA 16+40 TO STA 16+80, STA 20+60 TO STA 22+03

NOT TO SCALE
25 MPH DESIGN SPEED
CLASSIFICATION: OUL-DE-6AC (UNDER 600' IN LENGTH)

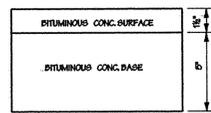


TYPICAL FULL SECTION - 40' R/W
CALM SUNSET: STA 23+88 TO STA 24+02

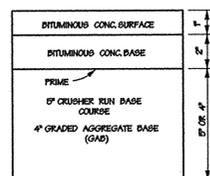
NOT TO SCALE
DESIGN SPEED: 25 MPH



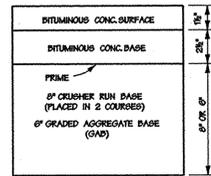
**FULL DEPTH
ALTERNATE**



**FULL DEPTH
ALTERNATE**



**GRANULAR BASE
ALTERNATE**



**GRANULAR BASE
ALTERNATE**

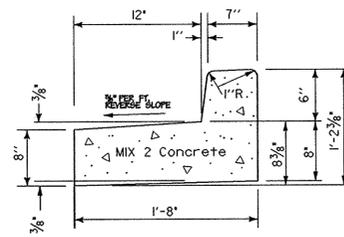
**PAVING SECTION P-1
(FOR PARKING AREAS)**

NO SCALE

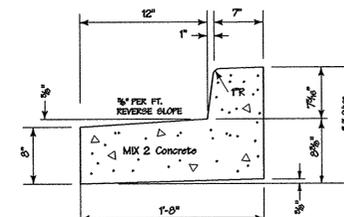
**PAVING SECTION P-2
(FOR PUBLIC ROADS)**

NO SCALE

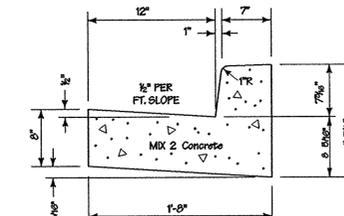
NOTE: PAVING SECTION BASED ON STANDARD HOWARD COUNTY SECTIONS FOR CBR OF 7. FINAL PAVEMENT SECTION SHALL BE CONFIRMED BY FIELD TESTS OF SUBGRADE.



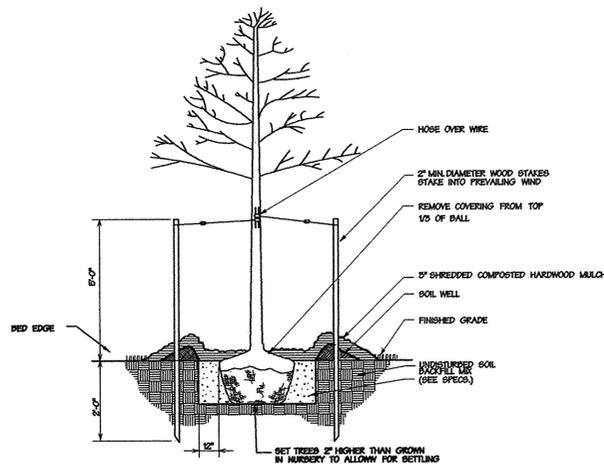
REVERSE 6\"/>



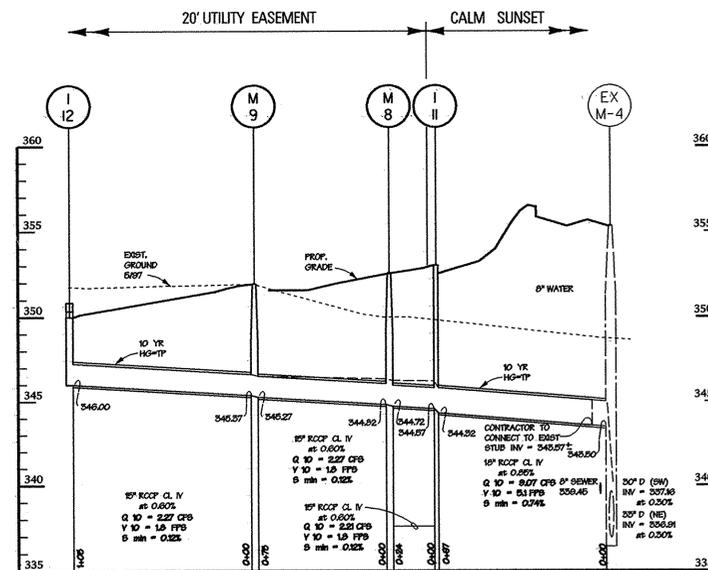
REVERSE 7\"/>



STANDARD 7\"/>



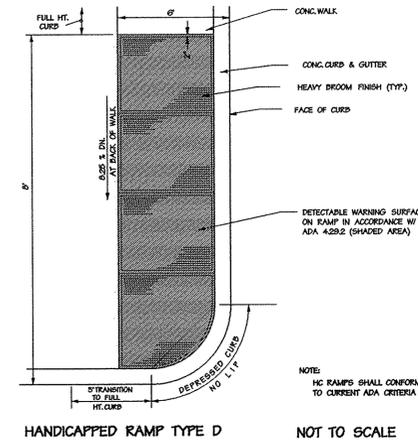
**DECIDUOUS TREE DETAIL
(TO 6\"/>**



SCALE:
1" = 60'H
1" = 6V'

STRUCTURE SCHEDULE								
NO.	TYPE	SIZE	INVERTS		TOP ELEV.		REMARKS	LOCATION
			IN	OUT	UPPER	LOWER		
I-12	D INLET	2.5	----	346.00	351.33	----	SD-4.11	N 488,773.6 E 850,522.0
M-9	PRECAST MANHOLE	4.0	345.37	345.27	352.50	----	G-5J2	N 488,850.0 E 850,598.3
M-8	PRECAST MANHOLE	4.0	344.82	344.72	353.8	----	G-5J2	N 488,906.0 E 850,542.1
I-II	A-10 INLET	2.5	344.57	344.32	353.14	----	SD-4.41	Sta 23+06.75, O.S. 12' L

NOTE: ALL INVERTS TO BE FULLY DEVELOPED



HANDICAPPED RAMP TYPE D

NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Richard McDaniel 3-6-98
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Cindy Hamilton 3/17/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chris Drummond 3/11/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Date	No.	Revision Description

SNOWDEN RIDGE

SECTION 2, AREA 2
LOTS 188 THRU 240
A RESUBDIVISION OF PARCEL B-4
SNOWDEN RIDGE SECTION 2, AREA 1

OWNER: HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3353
Fax 296-4705

DEVELOPER: WESTBROOK HOMES LLC
210 W. PENNSYLVANIA AVE.
SUITE 300
TOWSON, MD 21204

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

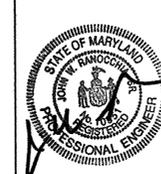
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

AREA SECTION 2, AREA 2
TAX MAP 42 PARCEL 513
6TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

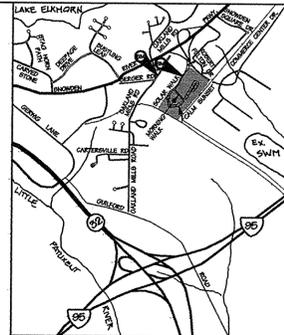
**ROAD CONSTRUCTION DETAILS
AND STORM DRAIN PROFILE**

Des By CW Scale AS SHOWN Proj. No. 95118C
Dm By CW Date 2-20-1998
Chk By Approved 3 OF 6

2/24/98
Date



Professional Engr. No. 14551



LOCATION MAP
SCALE: 1" = 2000'

BENCHMARK

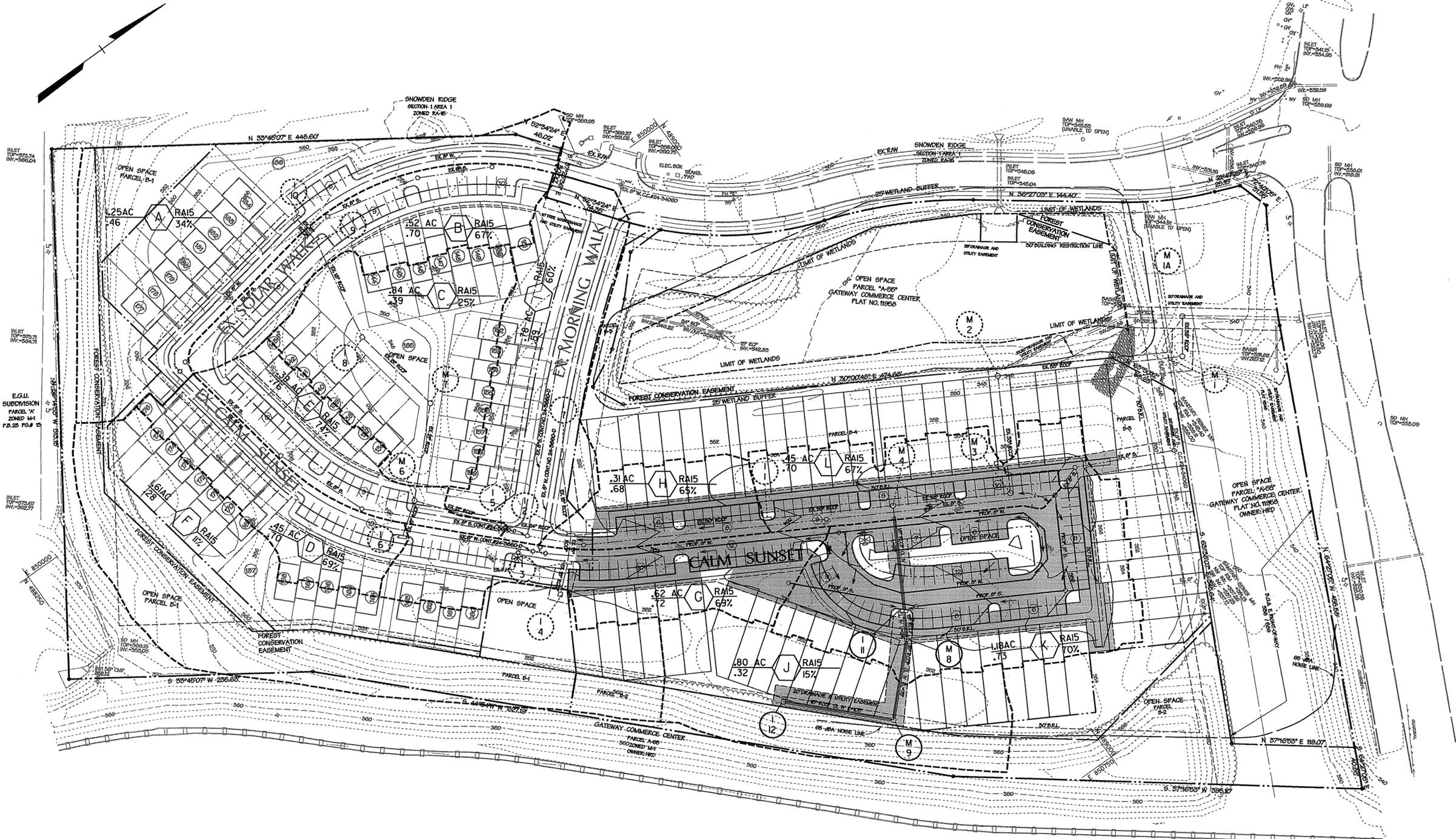
DESCRIPTION

* CUT TOP OF BOLT
WEST SIDE G&E TRANS.
TOWER # 425442
ELEV. = 374.29'

DESCRIPTION

CUT NAIL IN G&E POLE
ELEV = 387.97

* LOCAL BENCHMARKS ABOVE ESTABLISHED FROM HOWARD COUNTY SURVEY CONTROL POINTS #2243002 AND #2243003.



NOTE: SITE HAS BEEN PREVIOUSLY MASG GRADED
SEE APPROVED PLAN F-98-48.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Andrew M. Danek 3-6-98
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Andy Hamilton 3/12/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mike Dorman 3/11/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SNOWDEN RIDGE
SECTION 2, AREA 2
LOTS 188 THRU 240
A RESUBDIVISION OF PARCEL B-4
SNOWDEN RIDGE SECTION 1, AREA 1

OWNER: HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC.
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

DEVELOPER: WESTBROOK HOMES LLC
210 W. PENNSYLVANIA AVE.
SUITE 300
TOWSON, MD 21284

DMW
Dishman-Cause-Walkes, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

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

2/24/98
Date



AREA SECTION 2, AREA 2
TAX MAP 42 PARCEL 531
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE DRAINAGE AREA MAP

Des By	CW	Scale	1" = 50'	Proj. No.	95118C
Dm By	CW	Date	2-20-1998		
Chk By		Approved			4 OF 6

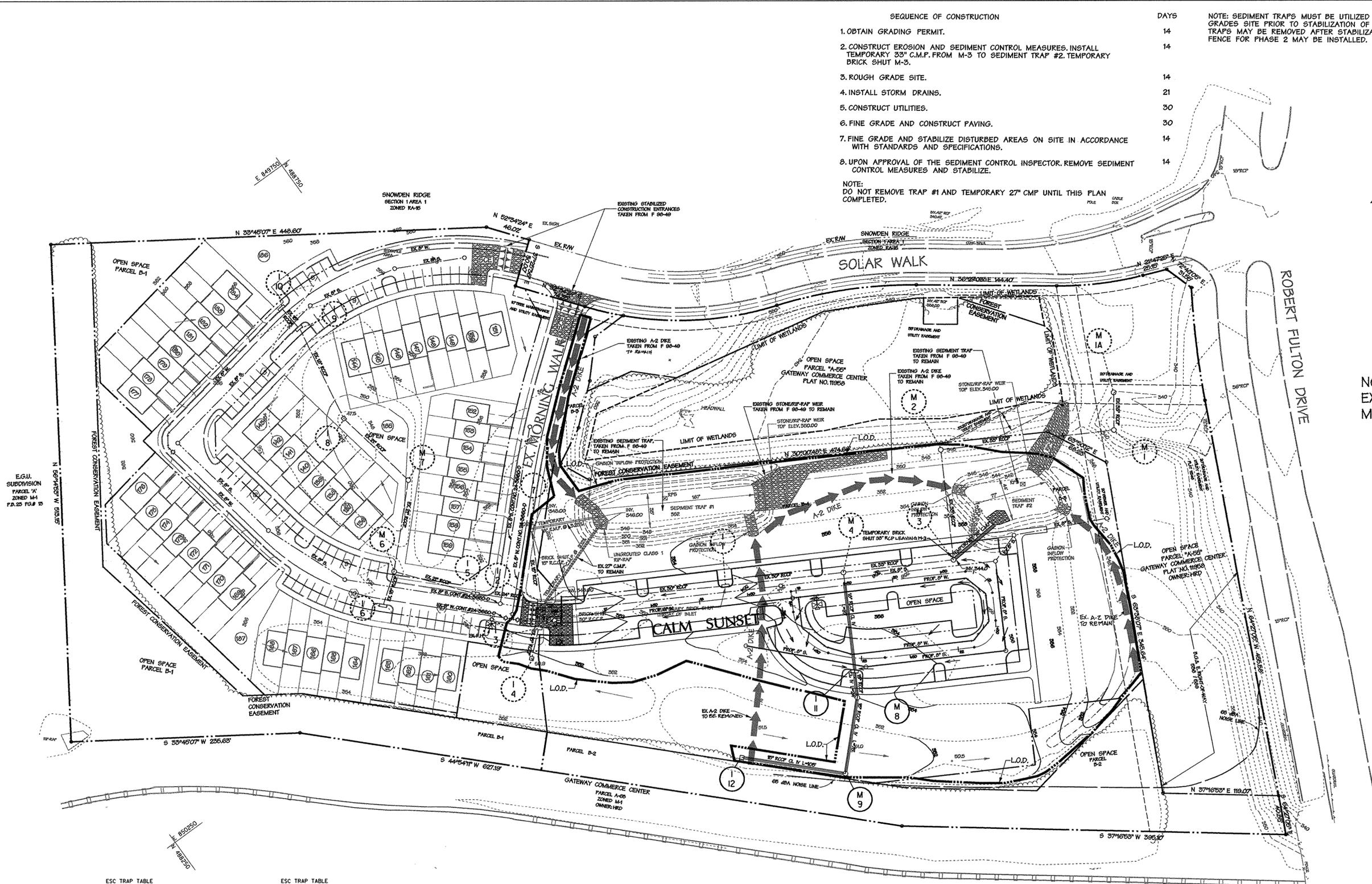
Professional Engr. No. 10551

- SEQUENCE OF CONSTRUCTION
- | | |
|--|----|
| 1. OBTAIN GRADING PERMIT. | 14 |
| 2. CONSTRUCT EROSION AND SEDIMENT CONTROL MEASURES. INSTALL TEMPORARY 33" C.M.F. FROM M-3 TO SEDIMENT TRAP #2. TEMPORARY BRICK SHUT M-3. | 14 |
| 3. ROUGH GRADE SITE. | 14 |
| 4. INSTALL STORM DRAINS. | 21 |
| 5. CONSTRUCT UTILITIES. | 30 |
| 6. FINE GRADE AND CONSTRUCT PAVING. | 30 |
| 7. FINE GRADE AND STABILIZE DISTURBED AREAS ON SITE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS. | 14 |
| 8. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE. | 14 |
- NOTE: DO NOT REMOVE TRAP #1 AND TEMPORARY 27" CMP UNTIL THIS PLAN COMPLETED.

NOTE: SEDIMENT TRAPS MUST BE UTILIZED IF CONTRACTOR ROUGH GRADES SITE PRIOR TO STABILIZATION OF PHASE 1 (F 98-49). SEDIMENT TRAPS MAY BE REMOVED AFTER STABILIZATION OF PHASE 1 AND SILT FENCE FOR PHASE 2 MAY BE INSTALLED.

- LEGEND
- 210 --- EXISTING CONTOUR
 - 20 --- PROPOSED CONTOUR
 - 42" RCCP CL.V. 05 LF --- PROPOSED CURB & GUTTER
 - 42" RCCP CL.V. 05 LF --- PROPOSED STORM DRAIN
 - --- LIMIT OF DISTURBANCE
 - --- EXISTING EARTH DIKE
 - --- EXISTING STABILIZED CONSTRUCTION ENTRANCE
 - --- EXISTING REMOVABLE PUMPING STATION
 - EX. 30" RCCP --- EXISTING STORM DRAIN

NOTE: EXISTING SEDIMENT CONTROL MEASURES TAKEN FROM F 98-49



E.G.U. SUBDIVISION PARCEL 'W' ZONED M-1 F.R. 22 P.O. # 15

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Richard M. Daniels 3-6-98
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Cathy Hamilton 3/17/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Orlando Williams 3/11/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Date	No.	Revision Description

SNOWDEN RIDGE
 SECTION 2, AREA 2
 LOTS 188 THRU 240
 A RESUBDIVISION OF PARCEL B-4
 SNOWDEN RIDGE SECTION 2, AREA 1

OWNER: HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC.
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

DEVELOPER: WESTBROOK HOMES LLC
 210 W. PENNSYLVANIA AVE.
 SUITE 300
 TOWSON, MD 21284

DMW
 Dick McCreary-Walton, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705

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

AREA	SECTION 2, AREA 2	PARCEL 531
	TAX MAP 42	6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
TITLE	EROSION AND SEDIMENT CONTROL PLAN	
Des By	JWM	Scale 1" = 50'
Dim By	JWM	Date 2-20-1998
Proj. No.	95118C	
Chk By	JLS	Approved
		5 OF 6

EXISTING TRAP TABLE

EXISTING TRAP NUMBER	1
TRAP TYPE	S.R.O.S.T.
PROPOSED DRAINAGE AREA AC.	7.39
WET	13,284
DRY	13,284
TOTAL	26,568
STORAGE REQUIRED C.F.	
WET	13,284
DRY	14,253
TOTAL	27,537
STORAGE PROVIDED C.F.	
EXISTING GROUND ELEV.	350.00
TOP EMBANKMENT ELEV.	350.00
WEIR CREST ELEV.	350.00
CLEANOUT ELEV.	347.10
BOTTOM ELEV.	346.00
DEPTH OF CHANNEL (c)	1.0'
OUTLET WIDTH (b)	30.0'
BOTTOM DIMENSION	35' X 167'
TRAP SIDESLOPES	2 : 1
TRAP DEPTH	WET 2.15 DRY 1.85 TOTAL 4.0
WET STORAGE ZONE ELEV.	346.00 - 348.15
DRY STORAGE ZONE ELEV.	348.15 - 350.00

EXISTING TRAP TABLE

EXISTING TRAP NUMBER	2
TRAP TYPE	S.R.O.S.T.
PROPOSED DRAINAGE AREA AC.	3.1
WET	5,580
DRY	5,580
TOTAL	11,160
STORAGE REQUIRED C.F.	
WET	5,580
DRY	6,885
TOTAL	12,465
STORAGE PROVIDED C.F.	
EXISTING GROUND ELEV.	344.00
TOP EMBANKMENT ELEV.	346.00
WEIR CREST ELEV.	345.00
CLEANOUT ELEV.	342.72
BOTTOM ELEV.	342.00
DEPTH OF CHANNEL (c)	1.0'
OUTLET WIDTH (b)	13.0'
BOTTOM DIMENSION	44' X 77'
TRAP SIDESLOPES	2 : 1
TRAP DEPTH	WET 1.43 DRY 1.57 TOTAL 3.0
WET STORAGE ZONE ELEV.	342.00 - 343.43
DRY STORAGE ZONE ELEV.	343.43 - 345.00

DEVELOPER'S CERTIFICATION:
 'I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.'

Brian K. Flick 2/24/98
 SIGNATURE OF DEVELOPER
 PRINT NAME BELOW SIGNATURE
 BRIAN K. FLICK

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

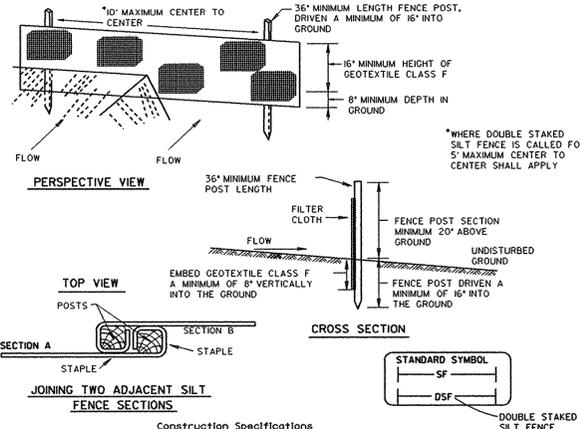
John W. Rancocchia, Jr. 2/24/98
 SIGNATURE OF ENGINEER
 PRINT NAME BELOW SIGNATURE
 JOHN W. RANCOCCIA, JR.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

Carol Sinyas 3/3/98
 U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE

Jeffrey S. Sinyas 3/3/98
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D. DATE

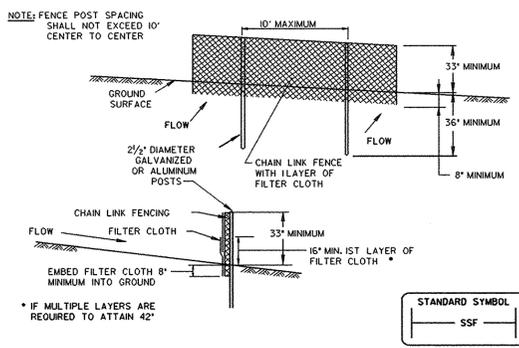




Construction Specifications

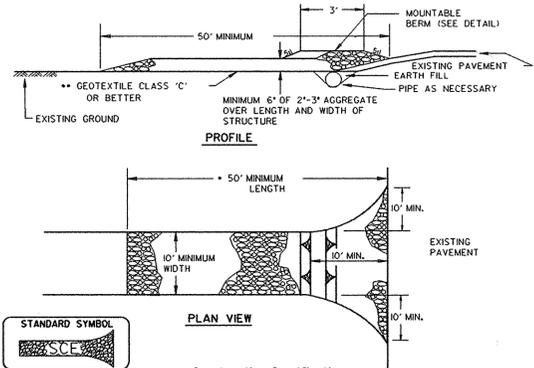
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1/2" x 1/2" square (minimum cut), or 1 1/2" diameter (minimum round) and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs./in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs./in (min.)	Test: MSMT 509
Flow Rate	0.3 gal./ft./minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.



Construction Specifications

- Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway (SHA) details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when 'bulges' develop in the silt fence, or when silt reaches 50% of fence height.



Construction Specifications

- Length - minimum of 50' (+30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric Class C (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with slopes and a minimum of 6" of stone over the pipe. Pipe shall be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe shall be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1. PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK 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 ACRES 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 DISK 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 (0.5 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 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS 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.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED DURING A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING 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 THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 OCTOBER 15, SEED WITH 2-1/2 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 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALL. 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (1992-2437).
- ALL VEGETATIVE 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.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1
 - FOURTEEN 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 PERMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE "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 SEEDINGS, SOD, TEMPORARY SEEDING, AND MULCHING (SECTION G). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY 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:

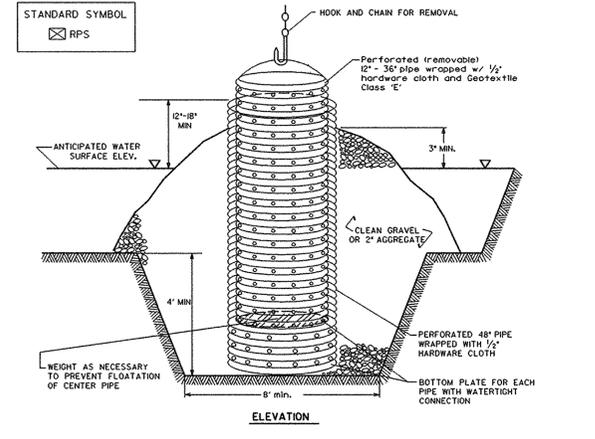
TOTAL AREA OF SITE	5.26 ACRES
AREA DISTURBED	3.82 ACRES
AREA TO BE ROOFED OR PAVED	0.93 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.89 ACRES
TOTAL CUT	1,000 CUBIC YARDS
TOTAL FILL	1,000 CUBIC YARDS
OFF-SITE WASTE/BORROW AREA LOCATION WASTE = N/A	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER 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.

DEVELOPER'S CERTIFICATION:
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT, ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature: *John W. Ranocchia, Sr.* DATE: 2/24/98
 Signature: *Erican K. Fuchs*

ENGINEER'S CERTIFICATION:
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
 Signature: *John W. Ranocchia, Sr.* DATE: 2/24/98

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 Signature: *Clayton...* DATE: 3/3/98
 U.S. NATURAL RESOURCE CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Jeff...* DATE: 3/3/98
 HOWARD S.C.D.

NOT TO SCALE
 Date: 2/24/98
 Professional Engr. No. 10551



REMOVABLE PUMPING STATION
 NOT TO SCALE
 Date: 2/24/98

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
 Signature: *Andrew M. Daneker* DATE: 2-6-98
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Signature: *Cathy Hamilton* DATE: 3/12/98
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *John W. Ranocchia, Sr.* DATE: 2/11/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Date	No.	Revision Description
SNOWDEN RIDGE		
SECTION 2, AREA 2 LOTS 188 THRU 240 A RESUBDIVISION OF PARCEL B-4 SNOWDEN RIDGE SECTION 2, AREA 1		
OWNER:	DEVELOPER:	
HOWARD RESEARCH & DEVELOPMENT CORP./GEAPE II, INC. 210 W. PENNSYLVANIA AVENUE 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044	WESTBROOK HOMES LLC SUITE 900 TOWSON, MD 21204	
DMW Dank-McCune-Walken, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3339 Fax 296-4705		
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals		
AREA	SECTION 2, AREA 2	PARCEL 531
TITLE	EROSION AND SEDIMENT CONTROL PLAN DETAILS	6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND
Des By	JWM	Scale 1" = 50'
Dim By	JWM	Date 2-20-1998
Proj. No.	95118C	6 OF 6
Chk By	Approved	