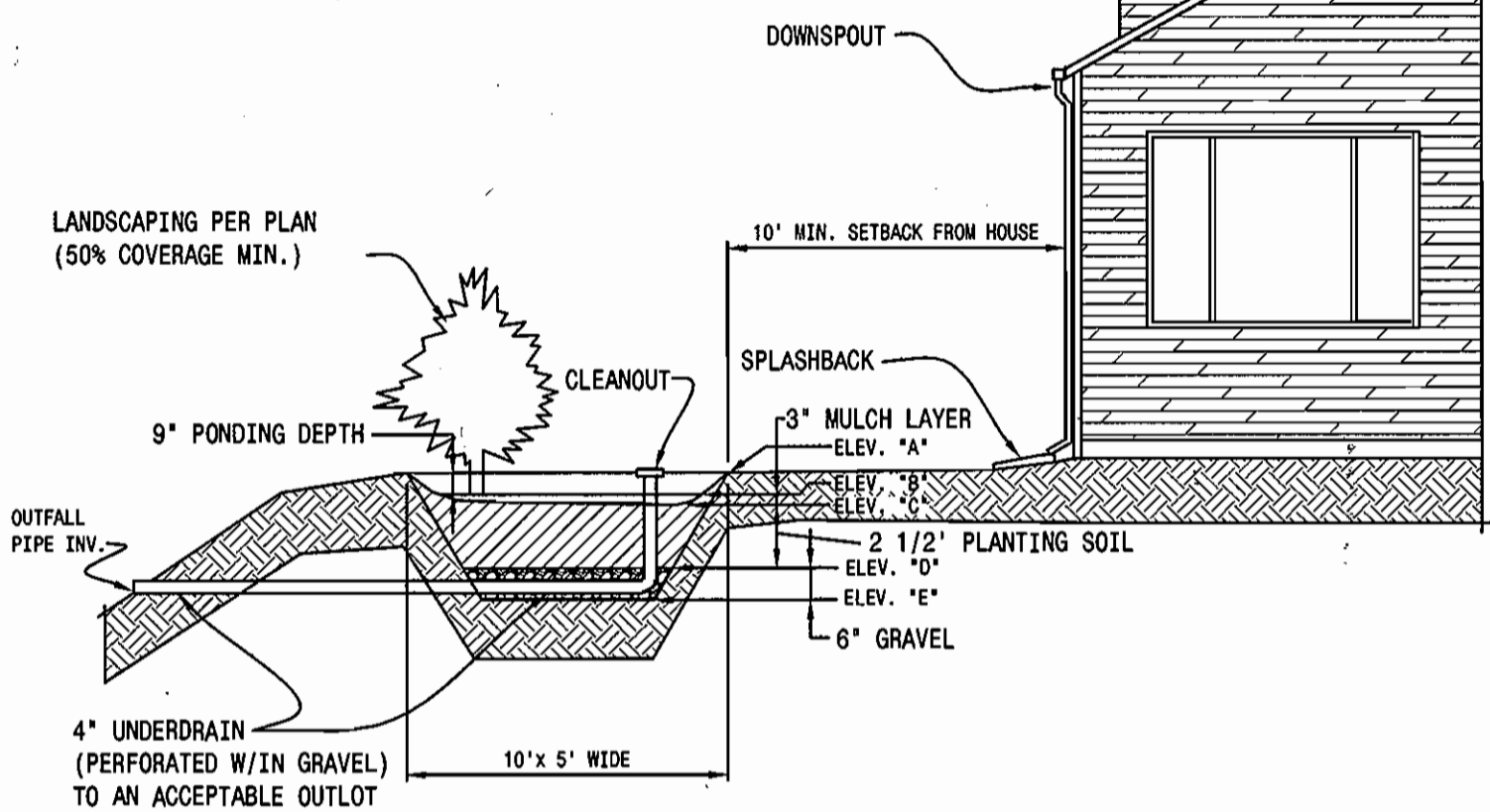
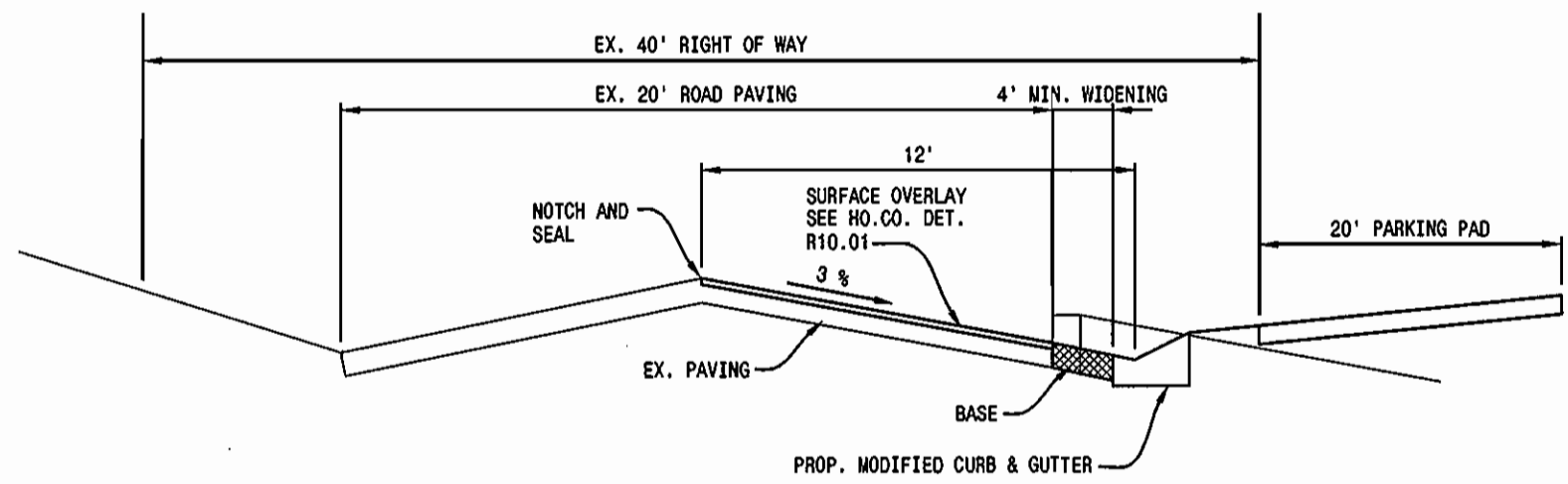


LOT NO.	IMPERVIOUS S.F.	RAIN GARDEN AREA, S.F.	ELEVATIONS					OUTFALL PIPE, INV.
			A	B	C	D	E	
LOT 596	935	47	125.80	124.85	124.60	122.10	121.60	121.22
LOT 597	935	47	123.90	123.15	122.90	120.40	119.50	119.51
LOT 598	935	47	123.40	122.65	122.40	119.90	119.40	119.09
LOT 599	935	47	121.85	121.10	120.85	118.35	117.45	117.46
LOT 600	935	47	121.35	120.60	120.35	117.85	117.35	117.03
LOT 601	935	47	120.20	119.45	119.20	116.70	116.50	116.18



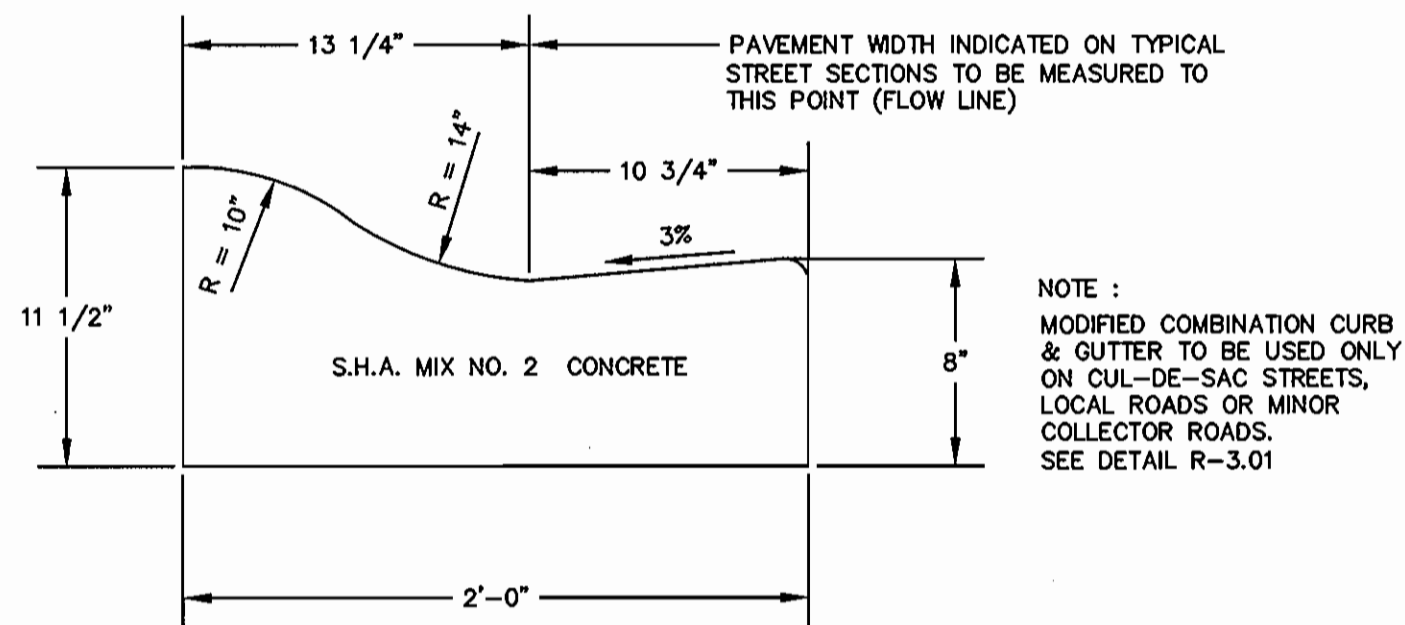
RAIN GARDEN - PROFILE

NOT TO SCALE



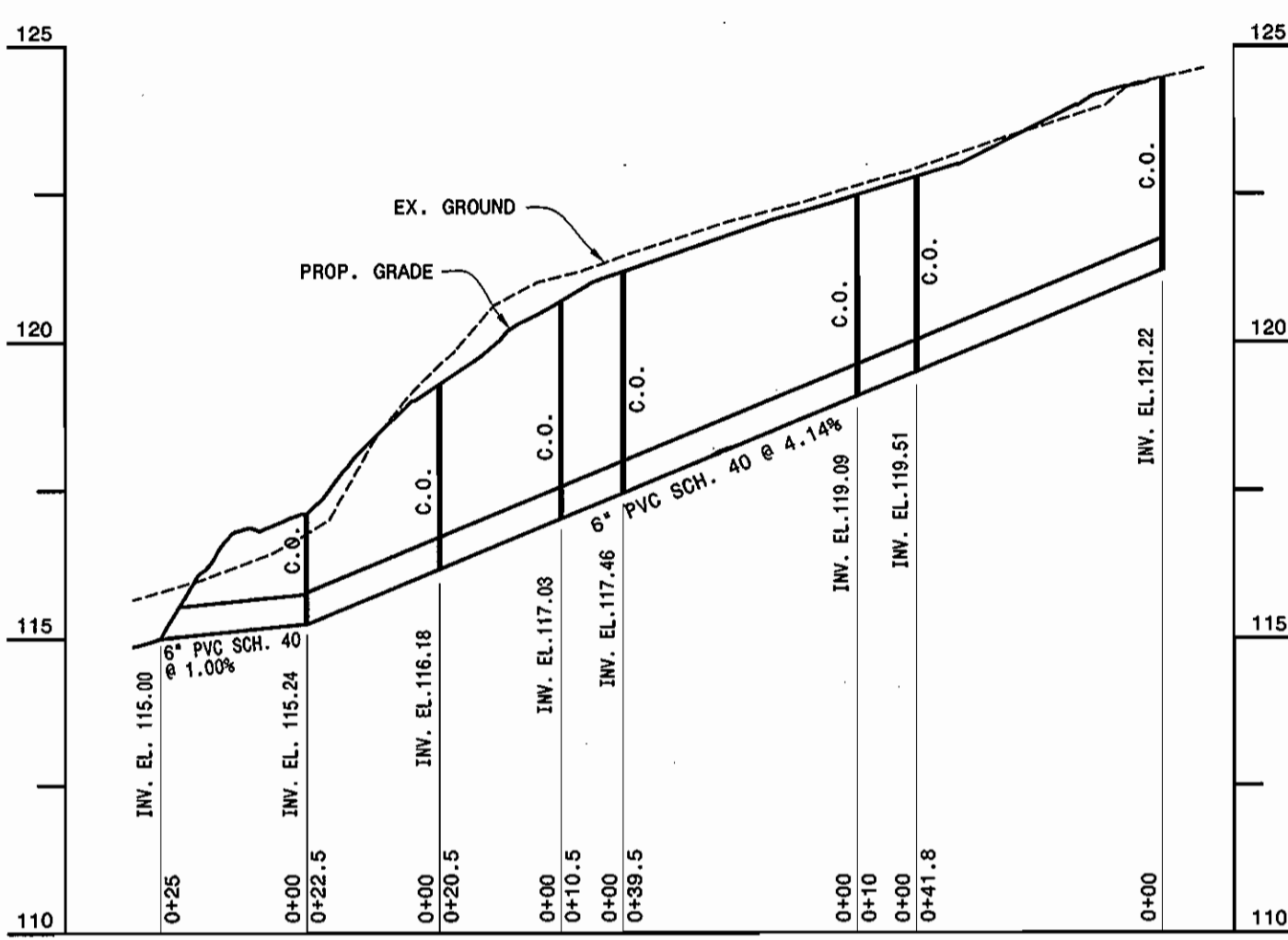
TYPICAL SECTION

NOT TO SCALE



MODIFIED COMBINATION CURB AND GUTTER DETAIL

NOT TO SCALE



6\"/>

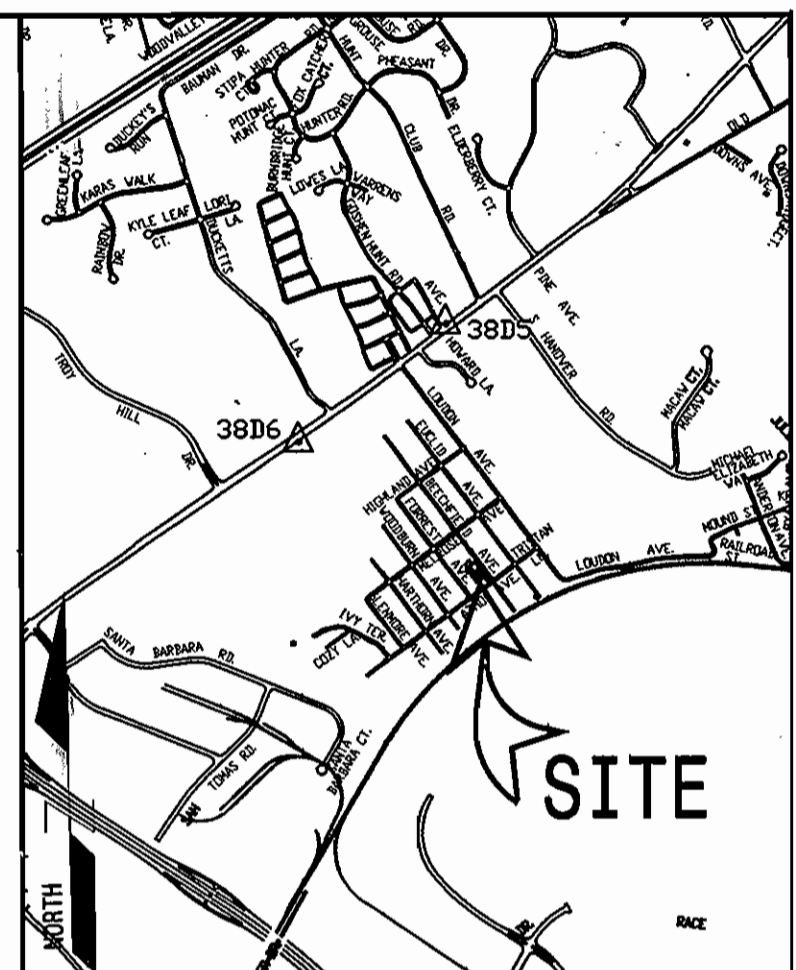
SCALE: 1\"/>

STORMWATER MANAGEMENT DATA		
REQUIREMENT	REQUIRED VOLUME	VOLUME PROVIDED
WATER QUALITY VOLUME, Volv	0.002 Ac. = 47 S.F. OF RAIN GARDEN (1)	10 x 5 = 50' S.F. RAIN GARDEN
RECHARGE VOLUME	0.13 C.F. OR 128 S.F.	7,500 S.F., PROVIDED AS PART OF WATER AT BACKYARD OF EACH LOT
CHANNEL PROTECTION VOLUME	0 = 0.82 C.F. < 2.0 CFS EXEMPT	N.A.

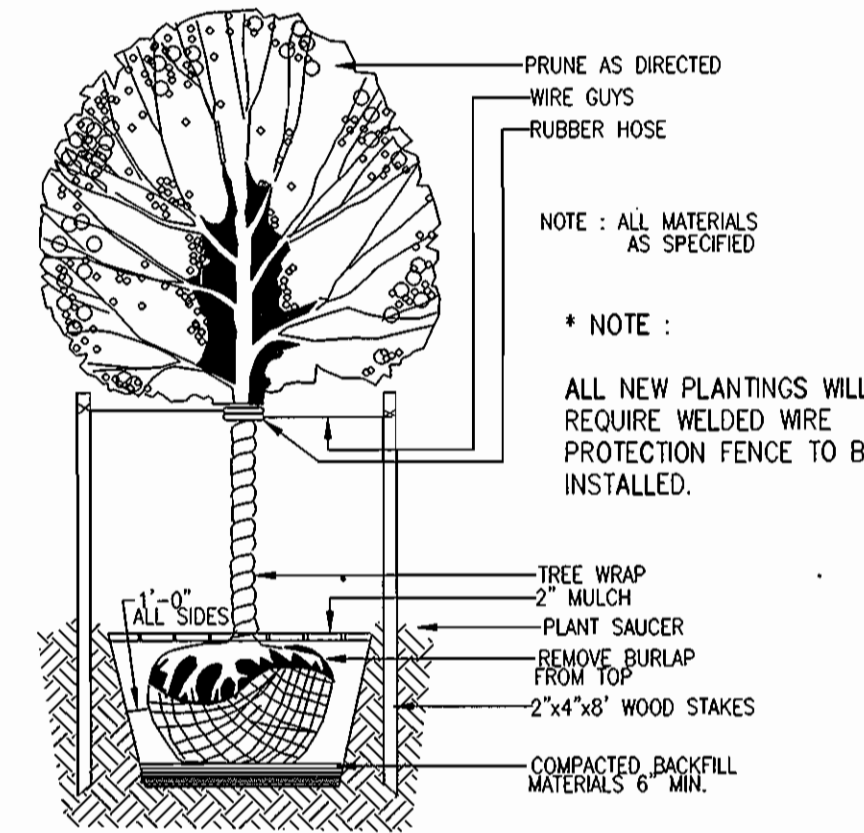
(1) FROM TABLE 4b. RAIN GARDEN DETERMINATION.

OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDEN

- Rain Garden shall be maintained individually by each homeowner.
- Annual maintenance of plant material, mulch layer and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning.
- Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.
- Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 years.
- Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.
- Silt shall be removed when accumulation exceed 1\"/>



VICINITY MAP
SCALE: 1\"/>



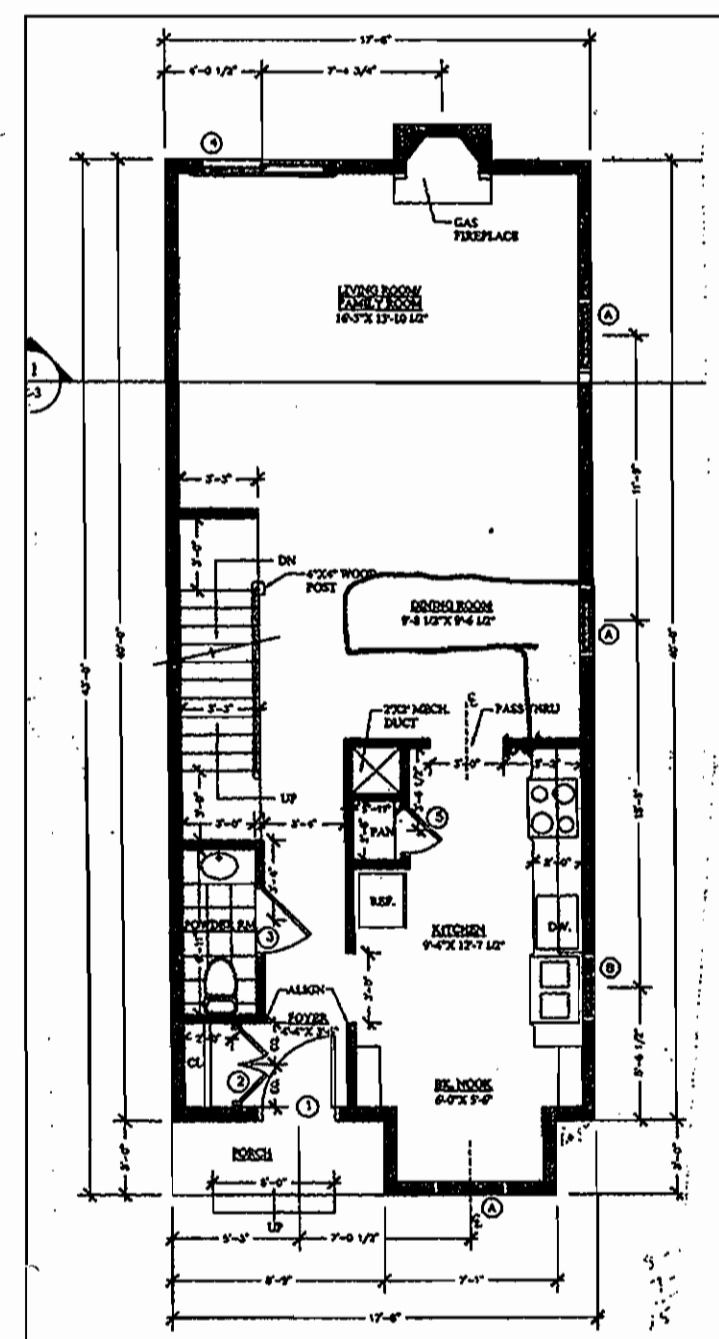
TYPICAL DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER RUBRUM	OCTOBER GLORY RED MAPLE	4	2-1/2\"/>

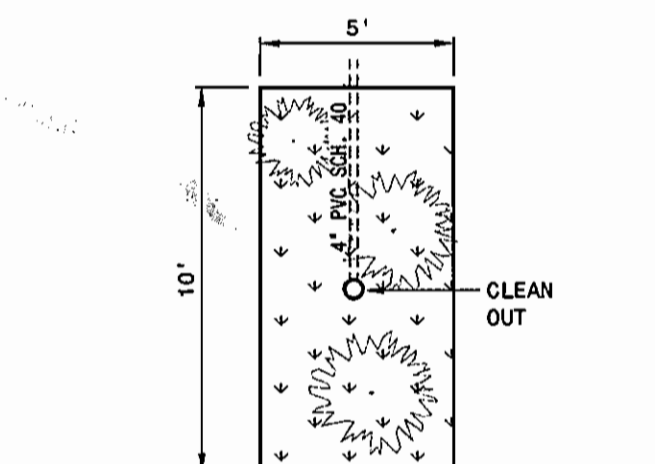
* PROPOSED SITE IS PART OF EXISTING SUBDIVISION "HARWOOD PARK" PROP. STREET TREES ARE PER ROUTE 1 CORRIDOR REQUIREMENTS

- SITE ANALYSIS :**
- TOTAL PROJECT AREA = 21,000 S.F./0.48 Ac.±
 - AREA OF PLAN SUBMISSION = 0.48 Ac.±
 - LIMITS OF DISTURBED AREA = 0.48 Ac.±
 - PRESENT ZONING DESIGNATION = R-12
 - PROPOSED USE FOR THIS SITE AND STRUCTURES = S.F.A.
 - TOTAL NO. OF UNITS ALLOWED AS SHOWN ON FINAL PLAT = 6
 - TOTAL NO. OF UNITS PROPOSED ON SUBMISSION = 6



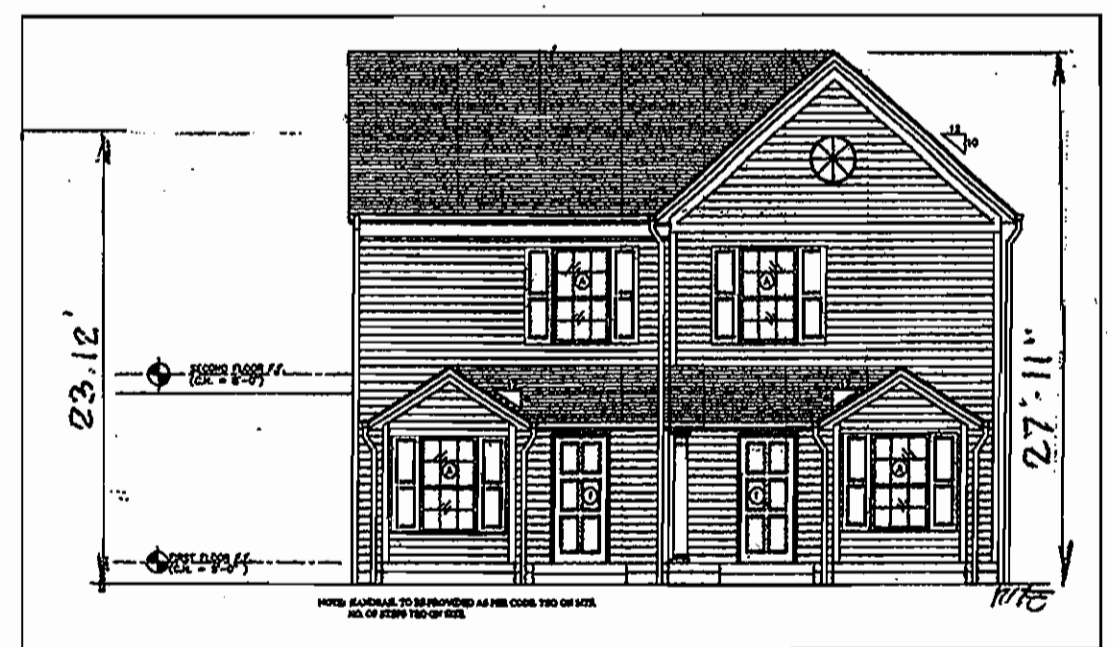
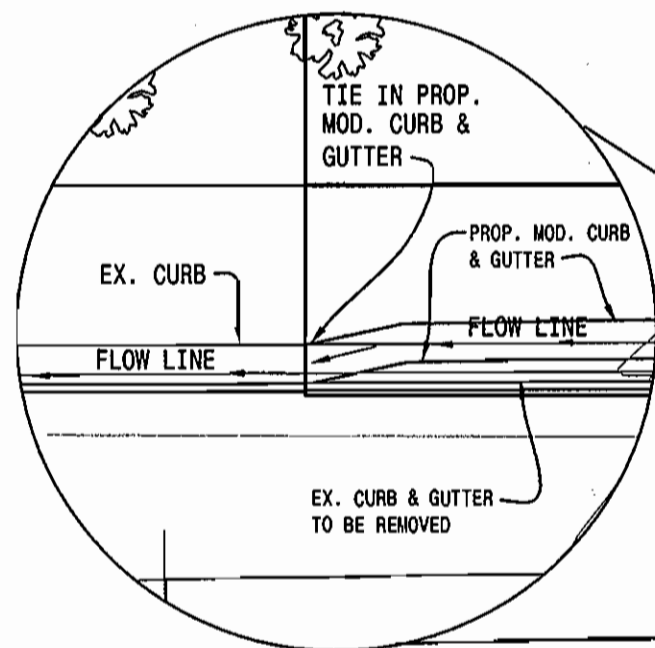
TYPICAL FOOTPRINT

NOT TO SCALE



TYPICAL RAIN GARDEN - PLAN

SCALE: 1\"/>



FRONT ELEVATION

NOT TO SCALE

SHC INVERT @ STRUCTURE		
UNIT #	ELEVATION *	M.C.E.
601	108.76	112.66
600	108.76	112.66
599	112.10	116.00
598	112.10	116.00
597	115.57	119.47
596	115.57	119.47

* AT RIGHT OF WAY LINE

LANDSCAPE CERTIFICATE

"I/We certify that the landscaping shown on this plan will be done according to the plan, Section 18.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion, a letter of Landscape Installation, accompanied by an executed one (1) year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

John C. Mellema
Developer's Name

7.11.06
Date

PREPARED BY : LAND DEVELOPMENT CONSULTANTS
9417 ASHLYN CIRCLE
OWINGS MILLS, MD.
PHONE/FAX: 410-356-0625
Jill Lehman, PE
Chesapeake Engineering, LLC
5050 Roop Road
Mount Airy, MD 21771
(410) 812-4911
(410) 635-6204 (fax)

SURVEYOR: JOHN C. MELLEMA SR., INC.
5409 EAST DRIVE
BALTIMORE, MD 21227
PHONE: 410-247-7488
FAX: 410-247-2507

OWNER/DEVELOPER : HOMEWOOD BUILDERS
4617 EAST LIESURE COURT
ELLCOTT CITY, MD 21043
PHONE: 443-324-4498
FAX: 410-579-8028
CONTACT: JOHN BECK OR MICHAEL BEAN

REVISIONS

NO.	DATE	DESCRIPTION
1	6-6-08	REVISE GRADING 596 & 597, ADD REV. BLOCK
2	(1-13-09)	REVISE GRADING 598-601 TO MATCH AS-BUILT CONDITIONS.

ADDRESS CHART	
LOTS / PARCEL #	STREET ADDRESS
596	6416 BEECHFIELD AVE.
597	6418 BEECHFIELD AVE.
598	6422 BEECHFIELD AVE.
599	6424 BEECHFIELD AVE.
600	6428 BEECHFIELD AVE.
601	6430 BEECHFIELD AVE.
602	6432 BEECHFIELD AVE.

PERMIT CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
HARWOOD PARK		596 - 602		
PLAT # OR L/F/C	GRID #	ZONING	TAX MAP NO.	ELEC. DISTR.
C.M.P. 5300	13 & 19	R-12	36	01
WATER CODE			SEWER CODE	
A0-1			2152209	

SHEET INDEX	
SHEET No.	SHEET
1	SITE DEVELOPMENT PLAN & STREET TREE PLANTINGS
2	SEDIMENT CONTROL PLAN & DETAILS
3	DRAINAGE AREA MAP

SITE DEVELOPMENT PLAN & STREET TREE PLANTINGS
LOTS 596 THRU O.S. LOT 602
PLAT OF HARWOOD PARK
PLAT C.M.P. NO. 5300
HOWARD COUNTY, MARYLAND.
SCALE: 1\"/>

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John C. Mellema
CHIEF, DIVISION OF LAND DEVELOPMENT

John C. Mellema
DATE: 5/3/06

John C. Mellema
DATE: 5/3/06



STANDARD SEDIMENT CONTROL NOTES

PERMANENT SEEDING NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permit, Sediment Control Division prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be conformant with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, 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 must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the Howard County Design Manual, Storm Drainage.
- All disturbed areas must be fenced within the time period specified above in accordance with 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (sec. 51); sod (sec. 54); temporary seeding (sec. 50) and mulching (sec. 52). Temporary stabilization with mulch alone can be done only 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	0.48 Acres
Area Disturbed	0.48 Acres
Area to be roofed or paved	0.19 Acres
Area to be vegetatively stabilized	0.19 Acres
Total Cut	500 Cu. Yds.
Total Fill	200 Cu. Yds.
Offsite waste/borrow area location:	ON-SITE
- 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 control must be provided, if deemed necessary by the Howard County 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 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 should be back-filled and stabilized by the end of each work day, whichever is shorter.

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeded 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:
- Preferred -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding; narrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.).
 - Acceptable -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding; narrow or disk into upper three inches of soil.

Mulching: For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre Kentucky 31 tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by:

- Option 1 -- Two 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 30 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 rooted 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 slope 8 feet or higher, use 248 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance: Inspect all seeding areas and make needed repairs, replacements and reseeds.

TEMPORARY SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, unless previously loosened.

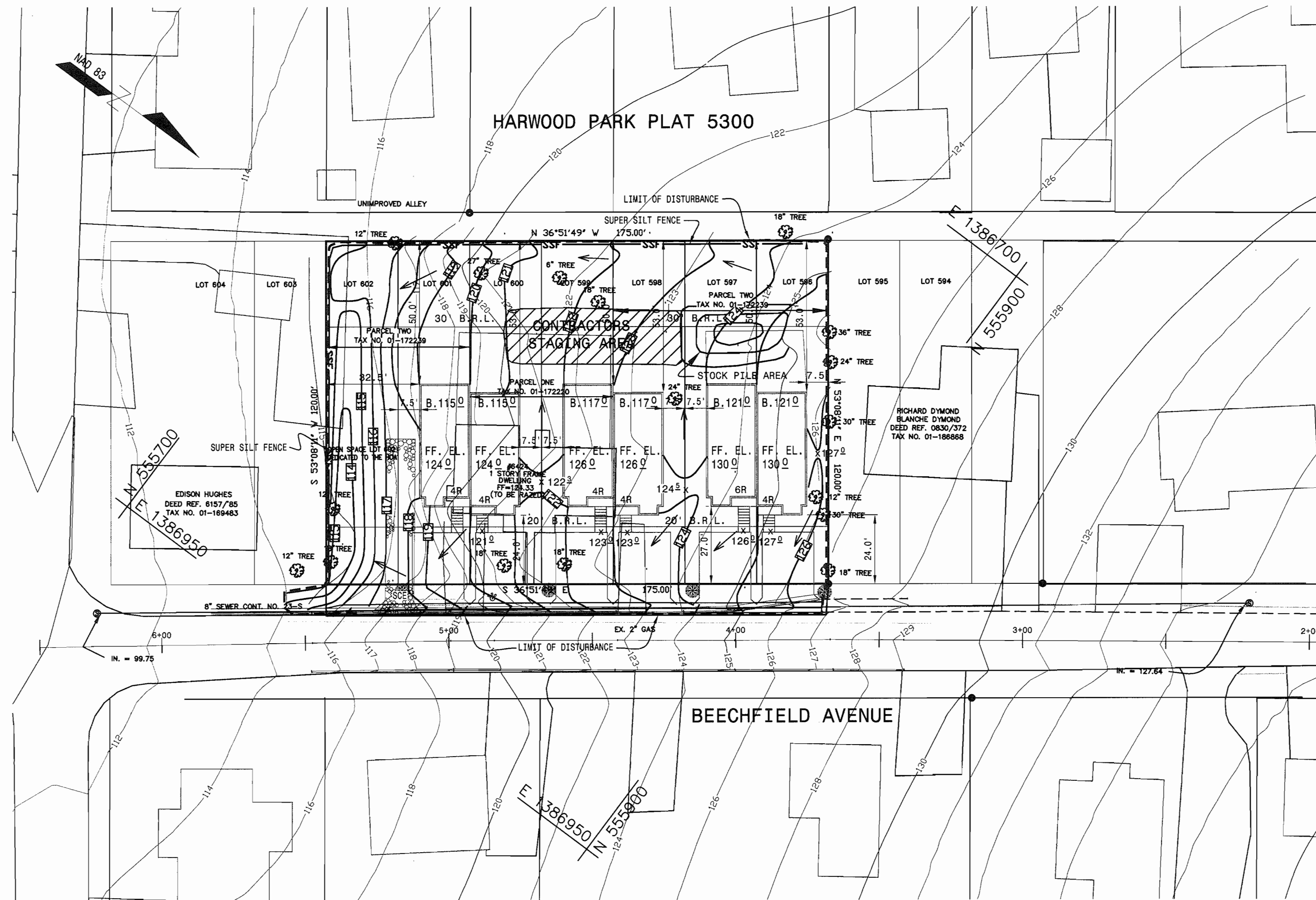
Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

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

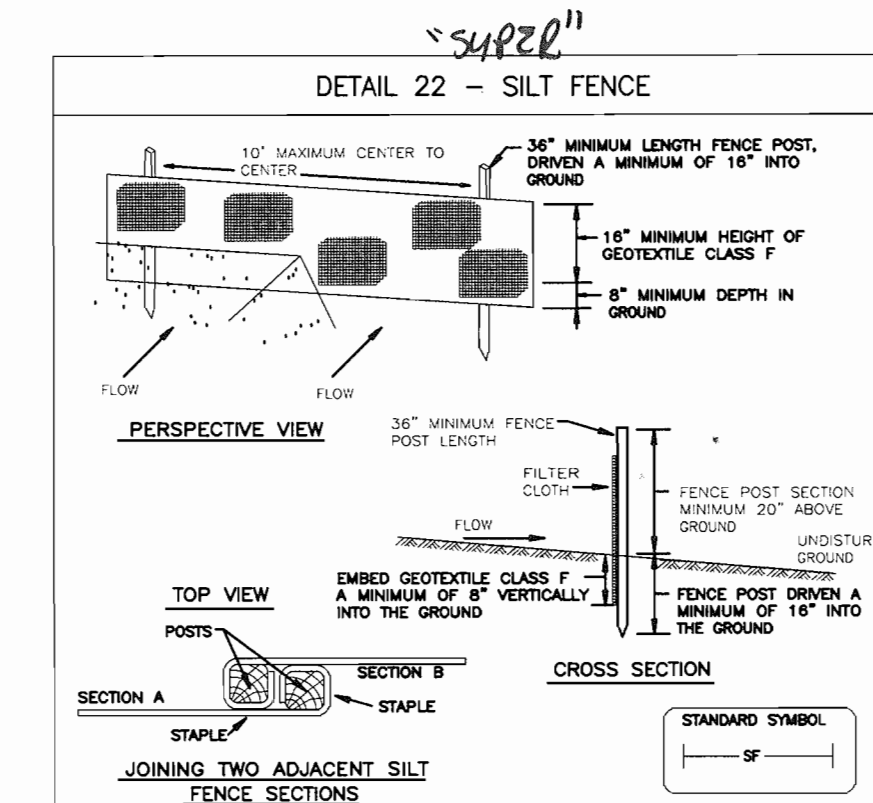
Mulching: Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrooted weed free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 248 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 rate and methods not covered.

SEQUENCE OF CONSTRUCTION

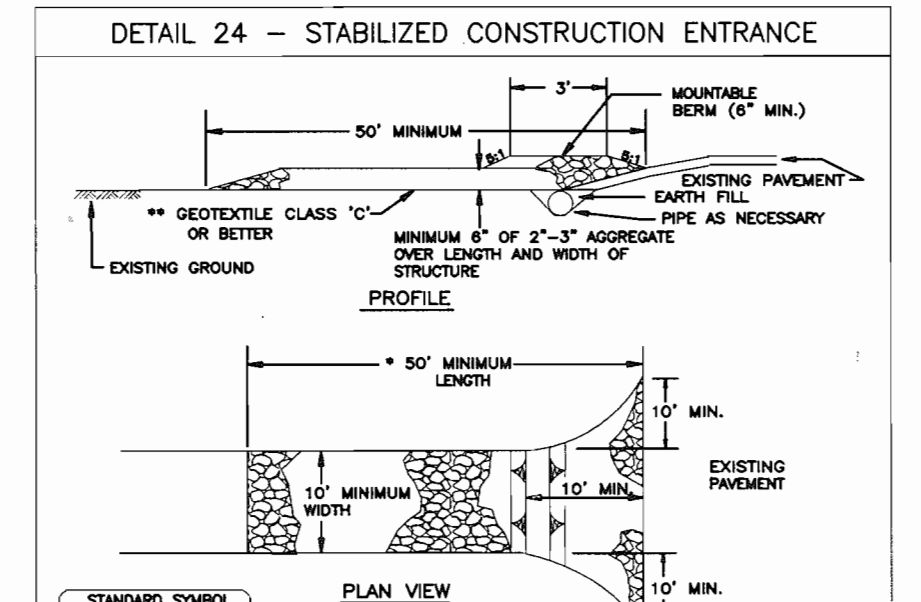
- OBTAIN GRADING PERMIT
- NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 24 HOURS BEFORE STARTING WORK.
- INSTALL STABILIZATION CONSTRUCTION ENTRANCE, SILT FENCE AND SUPER SILT FENCE - 4 DAYS
- CLEAR & GRUB SITE - 2 DAYS
- GRADE SITE TO PROPOSED GRADE - 3 DAYS
- CONSTRUCT THE HOUSES - 60 DAYS
- INSTALL WATER & SEWER HOUSE CONNECTIONS - 2 DAYS
- INSTALL BURB & GUTTER.
- CONSTRUCT DRY WELLS - 4 DAYS
- STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING - 2 DAYS
- WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL SEDIMENT & EROSION CONTROL MEASURES - 5 DAYS



SEDIMENT CONTROL PLAN :
SCALE: 1" = 30'



- Construction Specifications:**
- Fence posts shall be a minimum of 3" long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 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 ² / 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 damage occurs or when sediment accumulation reaches SOE of the fabric 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 (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 6" slope and a minimum of 8" of stone over the pipe. Pipe has to 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 should 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.

Reviewed for Howard SCD and meets Technical Requirements
John M. Meyer 7/20/06
 USA - Natural Resources Conservation Service Date
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John K. Rhoton 7/20/06
 Howard SCD Date

ENGINEER'S CERTIFICATE
 "I certify this plan for sediment and erosion control represent 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 Conservation District."
Jill M. Lehman 7/6/06
 Signature of Engineer (Print name below signature) Date
 DEVELOPER'S CERTIFICATE
 "I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have Certificate of Attendance at a Department of the Environmental Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
Michael W. Beem 7-11-06
 Signature of Developer (print name below signature) Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 8/23/06
 DATE: 8/21/06
 DATE: 8/31/06

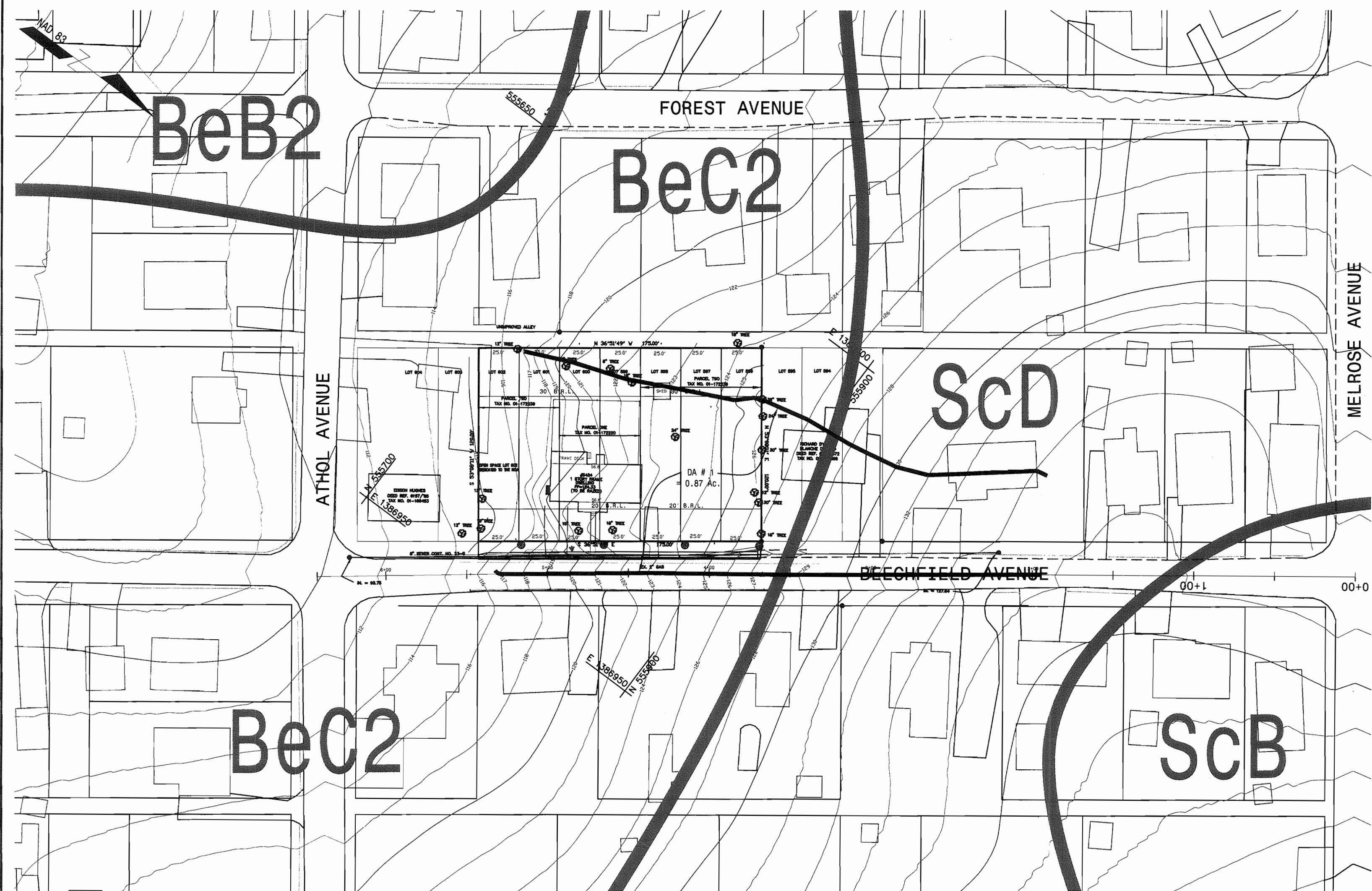
PREPARED BY:
 LAND DEVELOPMENT CONSULTANTS
 9417 ASHLYN CIRCLE
 OWINGS MILLS, MD.
 PHONE/FAX: 410-356-0625
 Jill Lehman, PE
 Chesapeake Engineering, LLC
 5050 Roop Road
 Mount Airy, MD 21771
 (410) 812-4911
 (410) 835-6204 (fax)

SURVEYOR:
 JOHN C. MELLEMA SR., INC.
 5409 EAST DRIVE
 BALTIMORE, MD 21227
 PHONE: 410-247-7488
 FAX: 410-247-2507

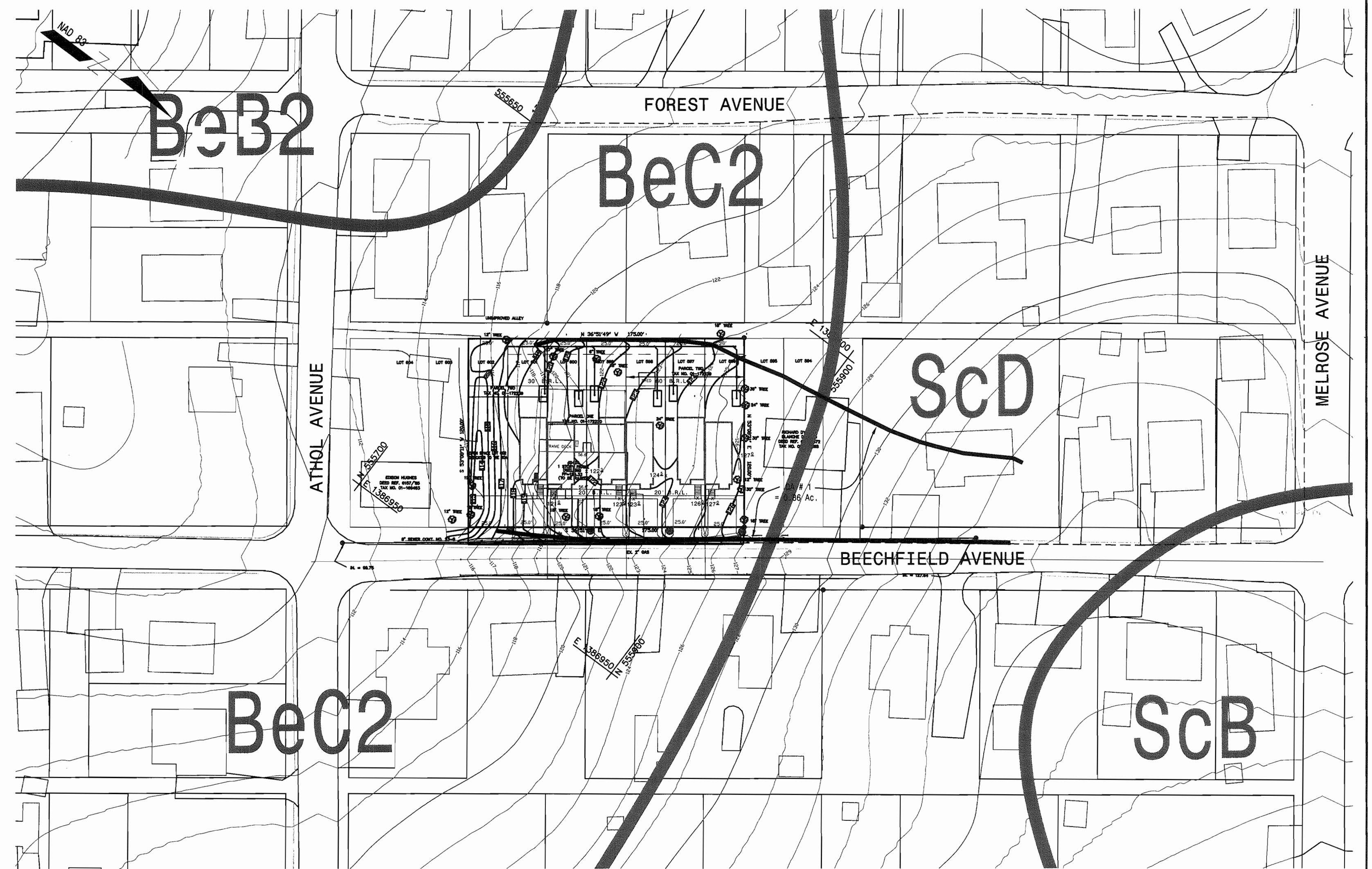
OWNER/DEVELOPER:
 HOMEWOOD BUILDERS
 4617 EAST LIESURE COURT
 ELLICOTT CITY, MD 21043
 PHONE: 443-324-4498
 FAX: 410-579-8028
 CONTACT: JOHN BECK OR MICHAEL BEAN

SEDIMENT CONTROL PLAN & DETAILS
 LOTS 596 THRU O.S. LOT 602
 PLAT OF HARWOOD PARK
 PLAT C.M.P. NO. 5300
 HOWARD COUNTY, MARYLAND
 SCALE: 1"=30' DATE: FEB. 22, 2006





EXISTING CONDITION
DRAINAGE AREA MAP : SCALE : 1" = 50'



PROPOSED CONDITION
DRAINAGE AREA MAP : SCALE : 1" = 50'

SITE ANALYSIS :
 A. TOTAL PROJECT AREA = 21,000 S.F./0.48 Ac.±
 B. AREA OF PLAN SUBMISSION = 0.48 Ac.±
 C. LIMITS OF DISTURBED AREA = 0.48 Ac.±
 D. PRESENT ZONING DESIGNATION = R-12
 E. PROPOSED USE FOR THIS SITE AND STRUCTURES = S.F.A.
 F. TOTAL NO. OF UNITS ALLOWED AS SHOWN ON FINAL PLAT = 6
 G. TOTAL NO. OF UNITS PROPOSED ON SUBMISSION = 6



APPROVED : DEPARTMENT OF PLANNING AND ZONING

<i>[Signature]</i>	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/30/06
<i>[Signature]</i>	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	5/31/06
<i>[Signature]</i>	DATE
DIRECTOR	2/21/06

PREPARED BY :
 LAND DEVELOPMENT CONSULTANTS
 9417 ASHLYN CIRCLE
 OWINGS MILLS, MD.
 PHONE/FAX: 410-356-0625
 Jill Lehman, PE
 Chesapeake Engineering, LLC
 5050 Roop Road
 Mount Airy, MD 21771
 (410) 812-4911
 (410) 635-6204 (fax)

SURVEYOR:
 JOHN C. MELLEMA SR., INC.
 5409 EAST DRIVE
 BALTIMORE, MD 21227
 PHONE: 410-247-7488
 FAX: 410-247-2507

OWNER/DEVELOPER :
 HOMEWOOD BUILDERS
 4617 EAST LIESURE COURT
 ELLICOTT CITY, MD 21043
 PHONE: 443-324-4498
 FAX: 410-579-8028
 CONTACT: JOHN BECK OR MICHAEL BEAN

DRAINAGE AREA MAP
 LOTS 596 THRU O.S. LOT 602
 PLAT OF HARWOOD PARK
 PLAT C.M.P. NO. 5300
 HOWARD COUNTY, MARYLAND
 SCALE: 1"= 50' DATE: FEB. 22, 2006