

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	COVER SHEET
2	MATRIX
3	SITE DEVELOPMENT PLAN
4	SEDIMENT CONTROL NOTES AND DETAILS

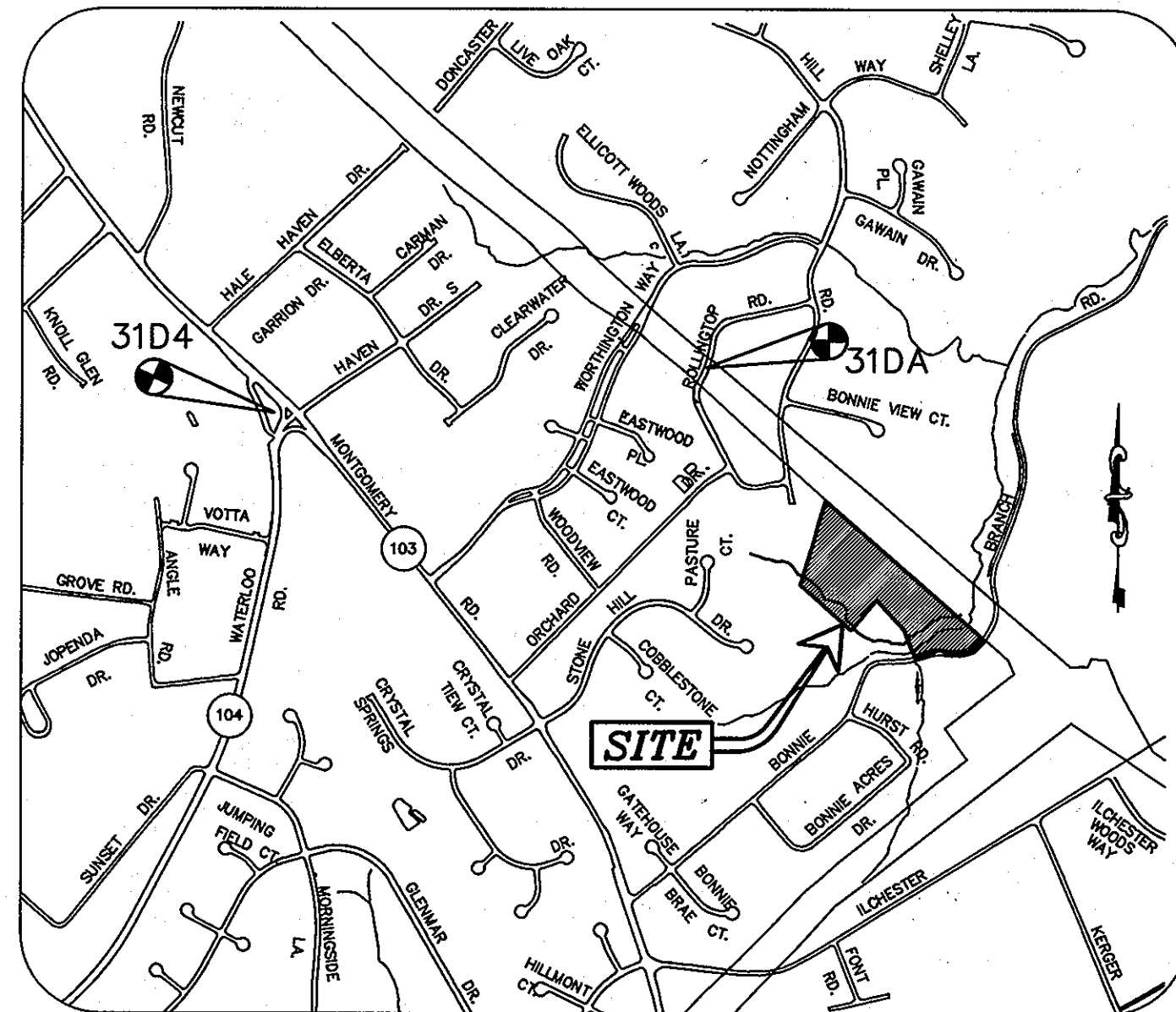
SITE DEVELOPMENT PLAN BONNIE BRANCH WOODS LOTS 2 THRU 15 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PERMIT INFORMATION BLOCK

SUBDIVISION NAME:			SECTION/AREA:	PARCEL:	
PETERSON PROPERTY			N/A	LOTS 2-15	
PLAT NO.	BLOCK(S)	ZONING	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
21271-73	9 AND 15	R-20	31	2ND	24027-6027

ADDRESS CHART

LOT #	ADDRESS
1	5111 GOOD MEMORY LANE
2	5117 GOOD MEMORY LANE
3	5121 GOOD MEMORY LANE
4	5125 GOOD MEMORY LANE
5	5129 GOOD MEMORY LANE
6	5133 GOOD MEMORY LANE
7	5137 GOOD MEMORY LANE
8	5145 GOOD MEMORY LANE
9	5149 GOOD MEMORY LANE
10	5154 GOOD MEMORY LANE
11	5150 GOOD MEMORY LANE
12	5146 GOOD MEMORY LANE
13	5142 GOOD MEMORY LANE
14	5138 GOOD MEMORY LANE
15	5134 GOOD MEMORY LANE



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 4936 (D4)

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM AN AERIAL SURVEY WITH MAXIMUM 2' CONTOUR INTERVALS PREPARED BY WINGS TOPOGRAPHY INC. DATED JUNE 2008.
 - HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND NAD83 (HORZ) AND NAVD88 (VERT) AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 31DA & 31D4:
STA. No. 31DA N 571,982.688 E 1,372,145.055 ELEV. 481.584
STA. No. 31D4 N 577,700.693 E 1,369,606.348 ELEV. 484.421
 - STORMWATER MANAGEMENT IS PRIVATELY OWNED AND JOINTLY MAINTAINED AND WILL BE PROVIDED VIA SAND-FILTER FACILITY, EXTENDED DETENTION POND, RAINGARDENS AND NATURAL CONSERVATION AREA AS APPROVED UNDER F-10-042
 - EXISTING UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS, IN COMBINATION WITH EXISTING WATER AND SEWER CONTRACT DRAWINGS.
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - SEWER HOUSE CONNECTION INVERT ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE, EASEMENT LINE, OR RIGHT-OF-WAY LINE.
 - FOR DRIVEWAY ENTRANCE DETAILS, REFER TO HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.06.
 - SITE ANALYSIS DATA CHART:**
LOCATION: TAX MAP 31, PARCEL 101, GRID 9 AND 15, LOTS 2-15
ZONING: R-20
ELECTION DISTRICT: 2ND
TOTAL PROJECT AREA: 9.88 AC ±
LIMIT OF DISTURBED AREA: 3.58 AC ±
PROPOSED USE FOR SITE: RESIDENTIAL
TOTAL NUMBER OF UNITS: 14
TYPE OF PROPOSED UNIT: SFD
DPZ FILES: SP-09-002, F-10-042
DEED REFERENCE: L 6911 F. 243, PLAT NO. 21271-73
- OPEN SPACE REQUIREMENTS HAVE BEEN SATISFIED UNDER APPROVED F-10-042.
- | | |
|---|-------------------------------|
| AREA OF OPEN SPACE REQUIRED: | 40% = 3.95 AC± |
| AREA OF OPEN SPACE PROVIDED: | 4.11 AC± |
| AREA OF CREDITED OPEN SPACE PROVIDED: | 4.04 AC± (41.2%) |
| AREA OF NON-CREDITED OPEN SPACE PROVIDED: | 0.07 AC± |
| AREA OF REC. OPEN SPACE REQUIRED: | 200 SQ.FT./LOT = 3,000 SQ.FT. |
| AREA OF REC. OPEN SPACE PROVIDED: | 4,500 SQ.FT. |
- SUBJECT PROPERTY ZONED R-20 RESIDENTIAL PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE COMP LITE ZONING AMENDMENT EFFECTIVE 7/28/04
 - IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW PAVING OR STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2 INCH MINIMUM).
 - GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
 - WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE.
 - FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY RIGHT OF WAY LINE.

ADDITIONAL NOTES

- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED. CONTRACT #14-4954-D.
- WETLANDS DELINEATION AND FOREST STAND DELINEATION WAS PREPARED BY HILLIS-CARNES ENGINEERING IN JUNE 2008 AND UPDATED DECEMBER 2008.
- FLOODPLAIN STUDY WAS PREPARED BY MILDENBERG, BOENDER AND ASSOCIATES INC, DATED AUGUST 2008 AND APPROVED UNDER SP-09-002.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION OF 2.10 ACRES OF FOREST, AFFORESTATION OF 0.44 ACRES AND FEE-IN-LIEU OF 0.40 ACRES. FINANCIAL SURETY FOR THE ON-SITE RETENTION FOR THE AMOUNT OF \$ 18,094.00, AFFORESTATION FOR THE AMOUNT OF \$ 9,884.00, TOTAL OF \$ 27,978.00, AND FEE-IN-LIEU IN THE AMOUNT OF \$ 13,068.00 WILL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT APPROVED UNDER F-10-042. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF CONSERVATION EASEMENT ARE ALLOWED.
- PERIMETER AND STORMWATER MANAGEMENT LANDSCAPING HAS BEEN PROVIDED AS SHOWN ON THE LANDSCAPE PLAN SHEET OF THE ROAD CONSTRUCTION DRAWINGS FOR THIS SITE. FINANCIAL SURETY FOR 44 SHADE TREES, 29 EVERGREENS IN THE AMOUNT OF \$17,550.00 WAS POSTED WITH THE DEVELOPER'S AGREEMENT AT THE FINAL PLAN STAGE, F-10-042. LANDSCAPING REQUIREMENTS WERE MET IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING PLANT MATERIALS, BERRIES, FENCES AND WALLS (AS REQUIRED UNDER F-10-042). ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- FOR SEWER HOUSE CONNECTION INVERT ELEVATIONS, SEE APPROVED WATER & SEWER DRAWINGS, CONTRACT NO. 14-4594-D.
- ADEQUATE FACILITIES ROAD TEST EVALUATION WAS PERFORMED BY THE TRAFFIC GROUP IN NOVEMBER 2008 AND APPROVED UNDER SP-09-002.
- SCENIC ROAD REQUIREMENTS WERE ADDRESSED UNDER SP-09-002 AND F-10-042.
- BGE REQUIREMENTS WERE ADDRESSED UNDER F-10-042.
- Stormwater management is provided in accordance with the 2000 Maryland Stormwater Design manual Volume 1.11. It was determined that this project met the criteria outlined in the MD05 Stormwater Management Regulations Guidelines for Implementation of the 2000 Design Criteria and provided a waiver. This plan received preliminary approval (SP-09-002) on 7/21/2009 and final approval (F-10-042) on (1/24/2010). This plan is also subject to the expiration of this waiver unless all stormwater management is constructed by May 6, 2017.

OWNER
BONNIE BRANCH WOODS INC.
C/O MILDENBERG, BOENDER AND ASSOC., INC.
6800 DEERPATH ROAD, SUITE 150
ELKBRIDGE, MARYLAND 21075
410-987-0236

DEVELOPER
NV HOMES
6031 UNIVERSITY BLVD, SUITE 290
ELLCOTT CITY, MARYLAND 21043
410-750-9050

LEGEND

- PROPOSED DRIVEWAY
- EX. FOREST CONSERVATION EASEMENT
- EX. PRIVATE USE-IN-COMMON DRIVEWAY & UTILITY EASEMENT
- EX. PUBLIC SEWER, WATER, DRAINAGE AND UTILITY EASEMENT
- SLOPES 25% AND GREATER
- SLOPES 15%-24.95%
- EXISTING SEDIMENT CONTROL PROVIDED UNDER F-10-042
- PROPOSED SEDIMENT CONTROL DEVICES
- LIMITS OF DISTURBANCE
- EX. TREES PROVIDED UNDER F-10-042
- RAINGARDEN

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 9/03/12.



DEVELOPERS CERTIFICATE

I 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. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO PERIODIC ON-SITE INSPECTION.

Signature of Developer: *Ryan R. Peterson* DATE: 10/16/10
Printed Name of Developer: Ryan R. Peterson

ENGINEER'S CERTIFICATE

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 NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Engineer: *R. Jacob Hikmat* DATE: 10/11/10
Printed Name of Engineer: R. JACOB HIKMAT, PE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Howard Soil Conservation District: *John R. Robertson* DATE: 11/11/10

APPROVED: DEPARTMENT OF PLANNING AND ZONING

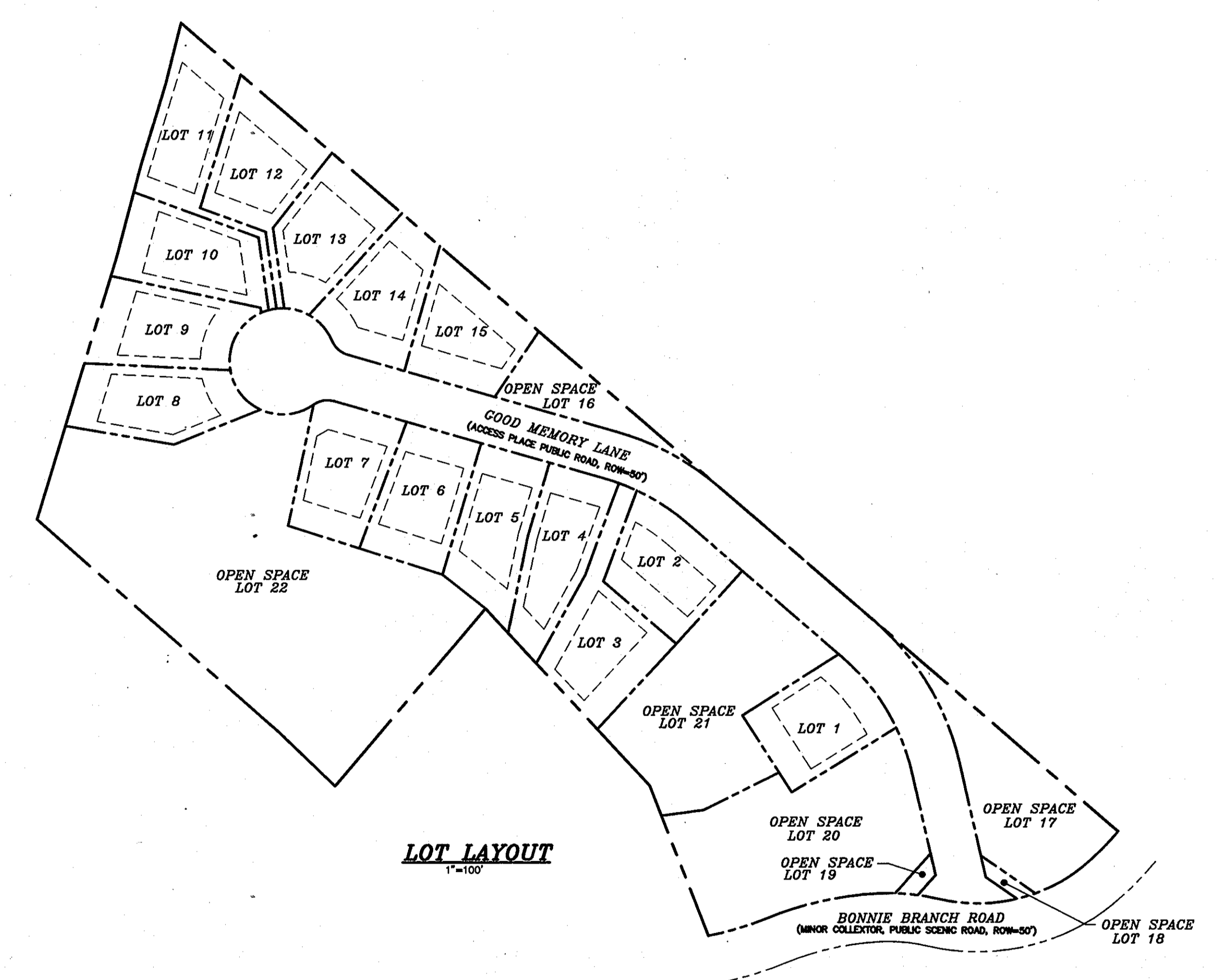
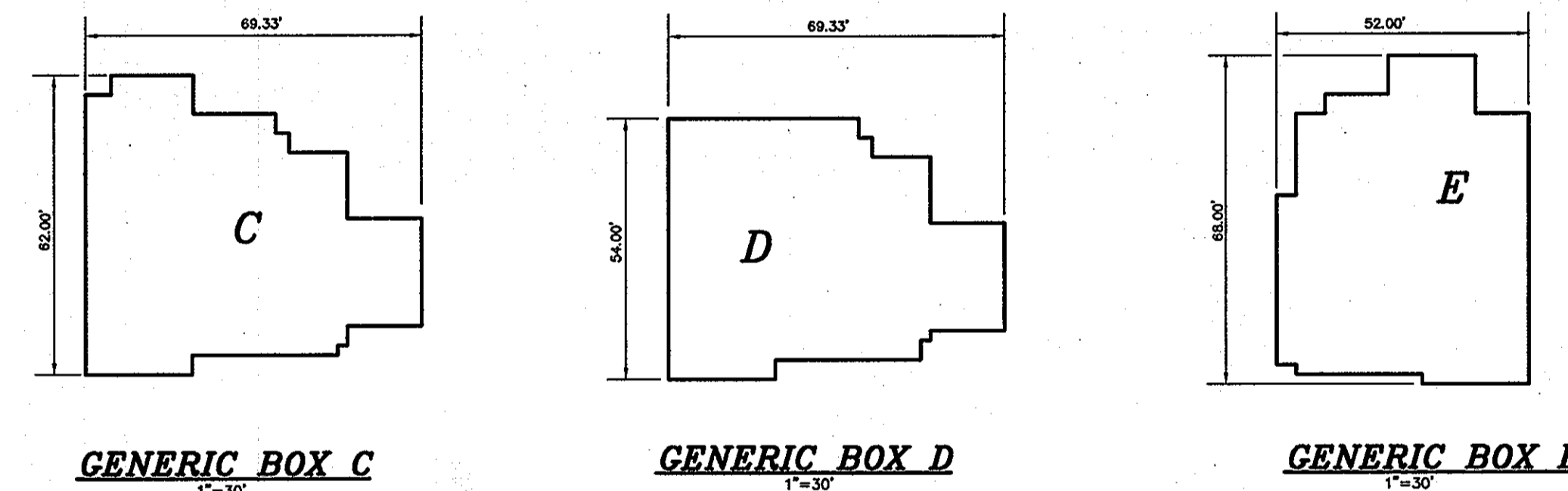
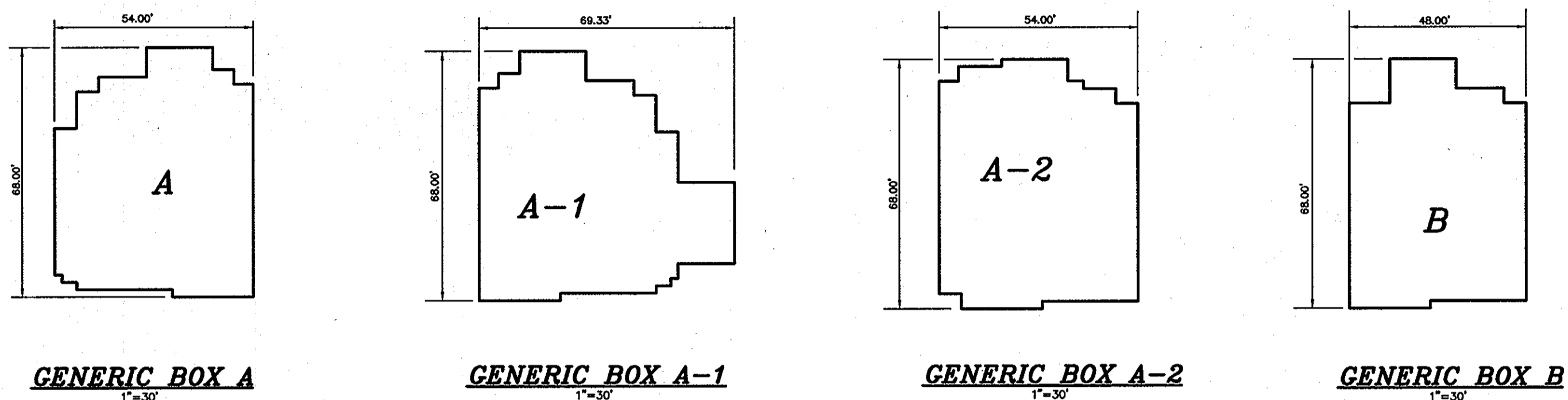
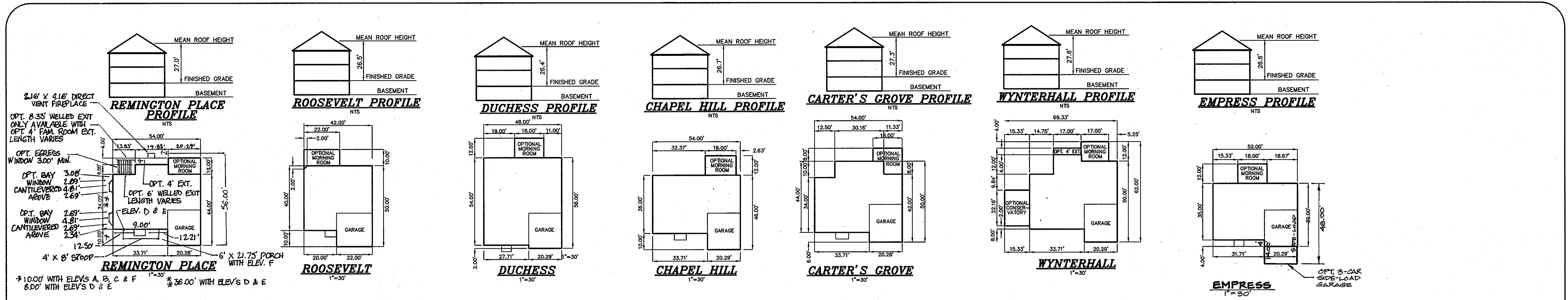
Signature of Chief, Development Engineering Division: *John R. Robertson* DATE: 11/5/10
Signature of Chief, Division of Land Development: *John R. Robertson* DATE: 11/7/10
Signature of Director: *Thomas S. Buttle* DATE: 11/31/10

Project	08-007	date	OCT.2010
Illustration	MMM	engineering	MMM
scale	NTS	approval	MMM
no.		revisions	RH

no.		date	

BONNIE BRANCH WOODS
 LOTS 2 THRU 15
 TAX MAP: 31 PARCEL: 101, GRID 9 AND 15
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT
 COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 DEERPATH ROAD, SUITE 150, ELKBRIDGE, MARYLAND 21075
 (410) 987-0236 Fax



DEVELOPER'S CERTIFICATE
 I 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. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO PERIODIC ON-SITE INSPECTION.

Signature: Ryan K. Johnson
 DATE: 10/12/10

ENGINEER'S CERTIFICATE
 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 NATURAL RESOURCE CONSERVATION SERVICE.

Signature: R. Jacob Hikmat, PE
 DATE: 10/11/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature]
 DATE: 11/18/10

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 9/03/12.



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: [Signature]
 DATE: 11/5/10

Signature: [Signature]
 DATE: 11/7/10

Signature: [Signature]
 DATE: 11/8/10

HOUSE TYPE SELECTION CHART

GENERIC TYPE	CHAPEL HILL	ROOSEVELT	DUCHESS	EMPRESS	REMINGTON PLACE	CARTER'S GROVE	WYNTERHALL
A	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	NO 3-CAR GARAGE	ALL OPTIONS	ALL OPTIONS	NO CONSERVATORY
A-1	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	NO 3-CAR GARAGE	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS
A-2	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	ALL OPTIONS	NO CONSERVATORY
B	DOES NOT FIT	ALL OPTIONS	ALL OPTIONS	DOES NOT FIT	DOES NOT FIT	DOES NOT FIT	DOES NOT FIT
C	ALL OPTIONS	NO MORNING ROOM	DOES NOT FIT	NO 3-CAR GARAGE	ALL OPTIONS	ALL OPTIONS	NO EXTENSION
D	NO MORNING ROOM	NO MORNING ROOM	DOES NOT FIT	NO 3-CAR GARAGE	ALL OPTIONS	NO MORNING ROOM	NO CONSERVATORY, NO EXTENSION
E	DOES NOT FIT	ALL OPTIONS	ALL OPTIONS	NO 3-CAR GARAGE	DOES NOT FIT	DOES NOT FIT	DOES NOT FIT

OWNER
 BONNIE BRANCH WOODS INC.
 C/O MILDENBERG, BOENDER & ASSOC., INC.
 6800 DEERPATH ROAD, SUITE 150
 ELKRIDGE, MARYLAND 21075
 410-997-0295

DEVELOPER
 NY HOMES
 6031 UNIVERSITY BLVD., SUITE 290
 ELLICOTT CITY, MARYLAND 21043
 410-750-9050

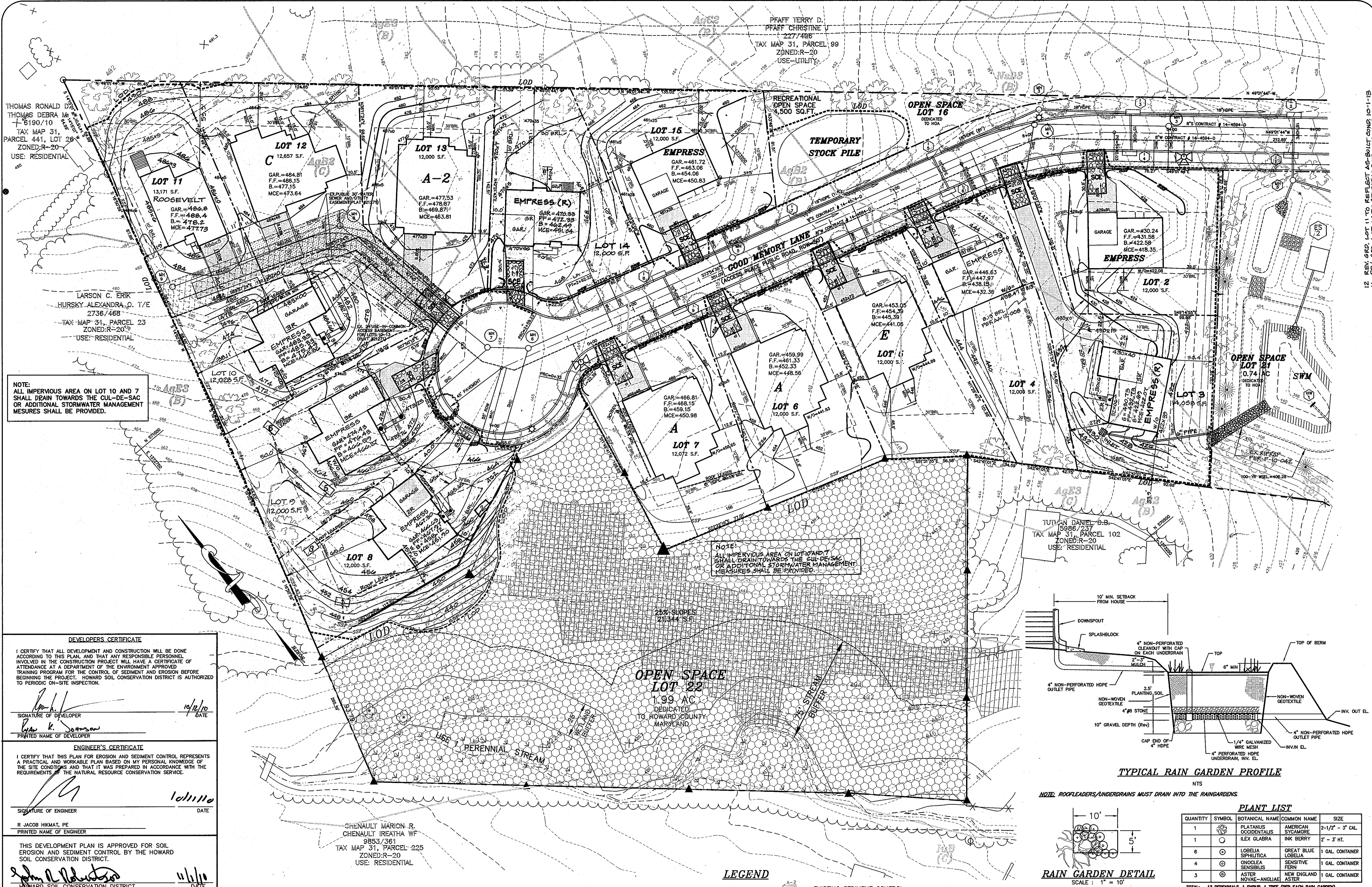
Project	08-007	Date	OCT. 2010
Illustration	MMM	Engineering	MMM
Scale	1"=30'	Approval	MMM
Revision		Approval	MMM

Revisions	description	date
2	REVISED FOOTPRINT REMINGTON PLACE MODEL	3-20-12
1	ADD 3-CAR GAR. TO EMPRESS MODEL	1-15-12

BONNIE BRANCH WOODS
 LOTS 2 THRU 15
 TAX MAP: 31 PARCEL 101, GRID 9 AND 15
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT

MATRIX

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 6800 DEERPATH ROAD, SUITE 150, ELKRIDGE, MARYLAND 21075
 (410) 997-0296 Fax: (410) 997-0298 Fax



THOMAS RONALD D.
THOMAS DEBRA M.
6190/110
TAX MAP 31, PARCEL 441, LOT 28
ZONED: R-20
USE: RESIDENTIAL

LARSON C. ERIK
HURSKY ALEXANDRA C. T/E
2736/488
TAX MAP 31, PARCEL 23
ZONED: R-20
USE: RESIDENTIAL

NOTE:
ALL IMPERVIOUS AREA ON LOT 10 AND 7
SHALL DRAIN TOWARDS THE CUL-DE-SAC
OR ADDITIONAL STORMWATER MANAGEMENT
MESURES SHALL BE PROVIDED.

NOTE:
ALL IMPERVIOUS AREA ON LOT 10 AND 7
SHALL DRAIN TOWARDS THE CUL-DE-SAC
OR ADDITIONAL STORMWATER MANAGEMENT
MESURES SHALL BE PROVIDED.

DEVELOPERS CERTIFICATE

I 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. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO PERIODIC ON-SITE INSPECTION.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 10/2/10
PRINTED NAME OF DEVELOPER: *[Name]*

ENGINEER'S CERTIFICATE

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 NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF ENGINEER: *[Signature]* DATE: 10/11/10
R. JACOB HIGMATT, PE
PRINTED NAME OF ENGINEER

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE: *[Signature]* DATE: 11/1/10
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

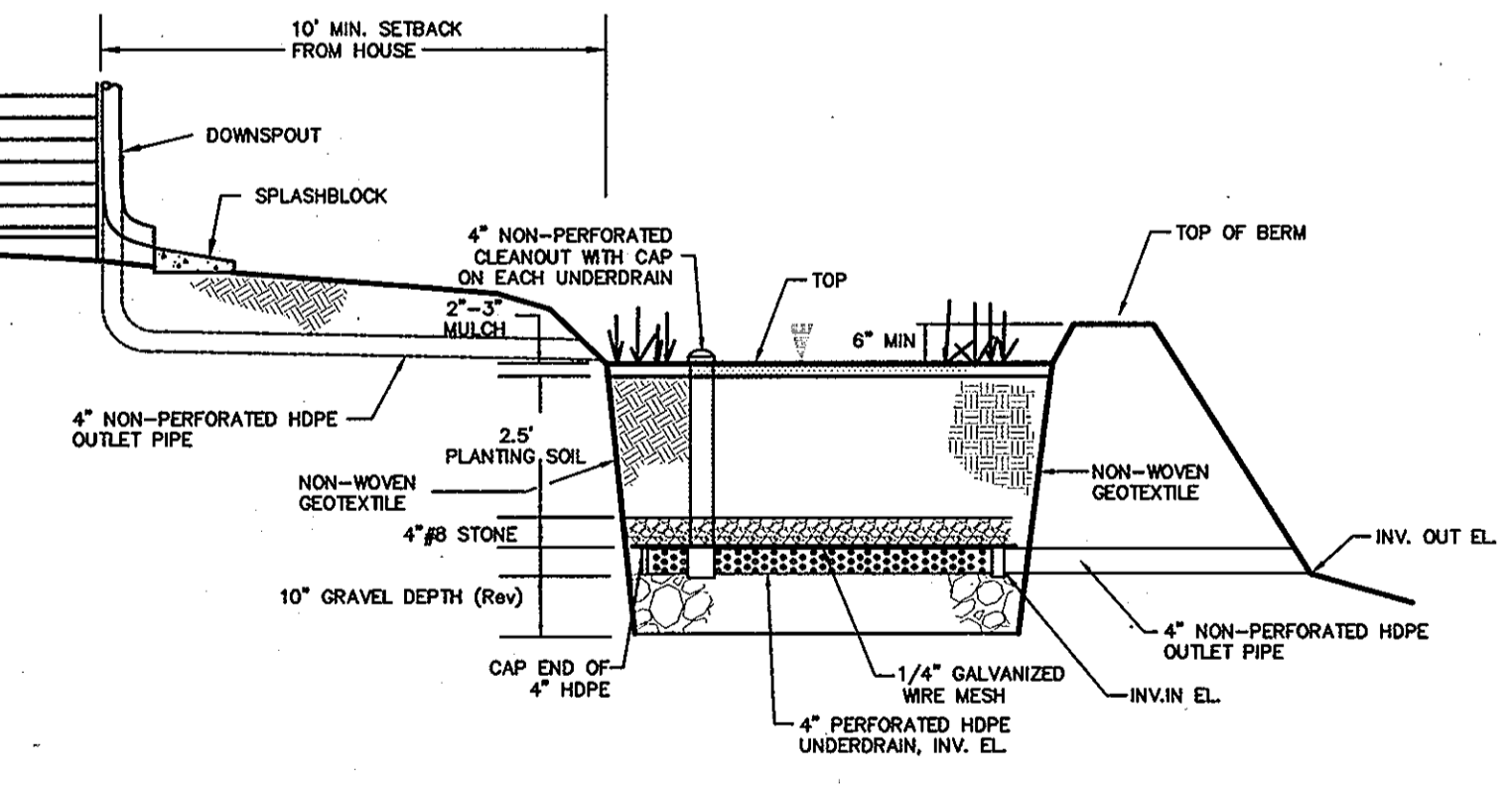
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 11/5/10
CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 11/7/10
DIRECTOR: *[Signature]* DATE: 11/8/10



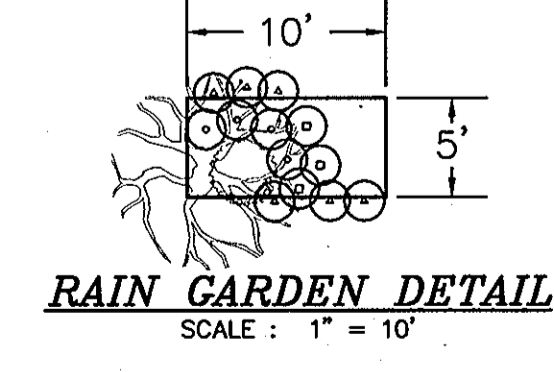
CHENAULT MARION R.
CHENAULT REATHA WF
9853/361
TAX MAP 31, PARCEL 225
ZONED: R-20
USE: RESIDENTIAL

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 9/3/12.

- LEGEND**
- PROPOSED DRIVEWAY
 - EX. FOREST CONSERVATION EASEMENT
 - EX. PRIVATE USE-IN-COMMON DRIVEWAY & UTILITY EASEMENT
 - EX. PUBLIC SEWER, WATER, DRAINAGE AND UTILITY EASEMENT
 - SLOPES 25% AND GREATER
 - SLOPES 15%-24.95%
 - EXISTING SEDIMENT CONTROL PROVIDED UNDER F-10-042
 - PROPOSED SEDIMENT CONTROL DEVICES
 - LIMITS OF DISTURBANCE
 - EX. TREES PROVIDED UNDER F-10-042
 - RAINGARDEN



TYPICAL RAIN GARDEN PROFILE
NTS
NOTE: ROOFLEADERS/UNDERDRAINS MUST DRAIN INTO THE RAINGARDENS.



RAINGARDENS SCHEDULE

NO	TOP EL.	TOP OF BERM	INV. IN	INV. OUT
1	451.2	451.4	447.1	442.0
2	450.4	451.4	451.4	442.0
3	451.1	451.4	451.4	442.0
4	N/A	N/A	N/A	N/A
5	449.0	452.0	449.0	449.0
6	446.00	446.50	442.50	442.00

PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1	○	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-1/2" - 3" CAL.
1	○	ILEX GLABRA	INK BERRY	2' - 3' HT.
6	○	LOBELIA SPHULITICA	LOBELIA	1 GAL. CONTAINER
4	○	ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
3	○	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)

OWNER
BONNIE BRANCH WOODS INC.
C/O MILDENBERG, BOENDER AND ASSOC., INC.
6800 DEERPATH ROAD, SUITE 150
ELK RIDGE, MARYLAND 21075
410-997-0298

DEVELOPER
NY HOMES
6031 UNIVERSITY BLVD., SUITE 290
ELLCOTT CITY, MARYLAND 21043
410-750-9050

12. REV. 08/10 LOT 11 TO REFLECT AS-BUILT COND. 10-11-10
11. REV. 08/10 LOT 14 TO REFLECT AS-BUILT COND. 10-11-10
10. REV. 08/10 LOT 3 TO REFLECT AS-BUILT COND. 10-11-10
9. REV. HOBS. & GRD. LOTS 2 & 14
8. REV. HOBS. & GRD. LOTS 2 & 14
7. REV. HOBS. & GRD. LOTS 2 & 14
6. 3-1-10
5. 5-7-10
4. 5-10-10
3. 9-29-10
2. 1-1-10
1. 1-1-10

no.	description	date
1	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
2	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
3	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
4	REV. HOBS. & GRD. LOTS 2 & 14	5-10-10
5	REV. HOBS. & GRD. LOTS 2 & 14	5-7-10
6	REV. HOBS. & GRD. LOTS 2 & 14	3-1-10
7	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
8	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
9	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
10	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
11	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10
12	REV. HOBS. & GRD. LOTS 2 & 14	1-1-10

BONNIE BRANCH WOODS
LOTS 2 THRU 16
TAX MAP: 31 PARCEL 101, GRID 9 AND 15
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SITE DEVELOPMENT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
6800 DEERPATH ROAD, SUITE 150, ELK RIDGE, MARYLAND 21075
(410) 997-0298 Fax: (410) 997-0298

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-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: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 600 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 UNIFORM 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 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 1-4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. PER ACRE 1-4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD NOVEMBER 15 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 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 GRASS 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.FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU 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 (0.7 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 15 THRU NOVEMBER 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 GRASS 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.FT.) FOR ANCHORING. REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF MAY CONSTRUCTION. (313-1855).
- 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 MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- 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, PERMETER 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, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 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 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:	
TOTAL AREA OF SITE:	9.88 ACRES
AREA TO BE ROOFED OR PAVED:	4.07 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	2.83 ACRES
TOTAL CUT:	2,500 CU. YDS.
TOTAL FILL:	2,500 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	N/A

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITIES MEASUREMENTS.

DEVELOPERS CERTIFICATE

I 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. HOWARD SOIL CONSERVATION DISTRICT IS AUTHORIZED TO PERIODIC ON-SITE INSPECTION.

[Signature] 10/2/10
SIGNATURE OF DEVELOPER DATE
[Signature]
PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE
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 NATURAL RESOURCE CONSERVATION SERVICE.

[Signature] 10/11/10
SIGNATURE OF ENGINEER DATE
R. JACOB HIKMAT, PE
PRINTED NAME OF ENGINEER

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 11/11/10
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] 11/5/10
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 11/7/10
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
[Signature] 11/8/10
DIRECTOR DATE



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 9/03/12.

- 8) 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 CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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.
- 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATION. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - i. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-SON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - iii. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - a. pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERSCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.
 - b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL, UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 - ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

- ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- V. TOPSOIL APPLICATION
 - i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
 - iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - iv. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

- VI. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
 - i. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOROUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 - ii. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, ND-VIA-PUB, #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTION, REVISED 1973.

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY VOLUME IV DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
- 2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF BUSINESS.
- 3. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED ON THE UPGRADE SIDE OF THE MAIN TRENCH.
- 4. EXCAVATION AND BACKFILL SHALL BE LIMITED TO THAT WHICH CAN BE STABILIZED WITHIN ONE WORKING DAY.
- 5. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION AND SEEDING NOTES SHOWN ON THIS SHEET.
- 6. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
- 7. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

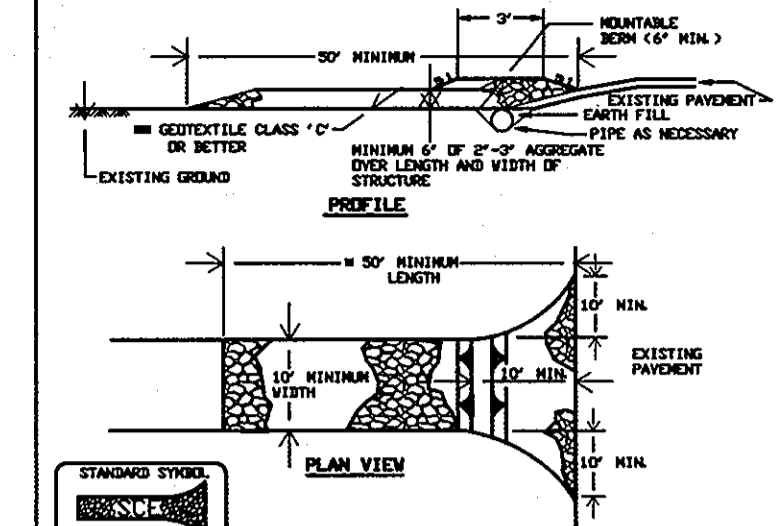
SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT (1 DAY)
- 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN (1 DAY)
- 3. CONSTRUCT SILT FENCES AND SUPER SILT FENCES (2 DAYS)
- 4. CONSTRUCT SITE TO GRADES INDICATED WITH PERMISSION FROM INSPECTOR BEFORE PROCEEDING (10 DAYS).
- 5. CONSTRUCT HOUSES (90 - 180 DAYS)
- 6. COMPLETE FINE GRADING OF SITE TO GRADES INDICATED (2 DAYS).
- 7. SEED AND MULCH ALL REMAINING DISTURBED AREAS (1 DAY).
- 8. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, AND WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS (ONE DAY).

OPERATION AND MAINTENANCE SCHEDULE FOR RAINGARDENS AREAS (TO BE PRIVATELY MAINTAINED)

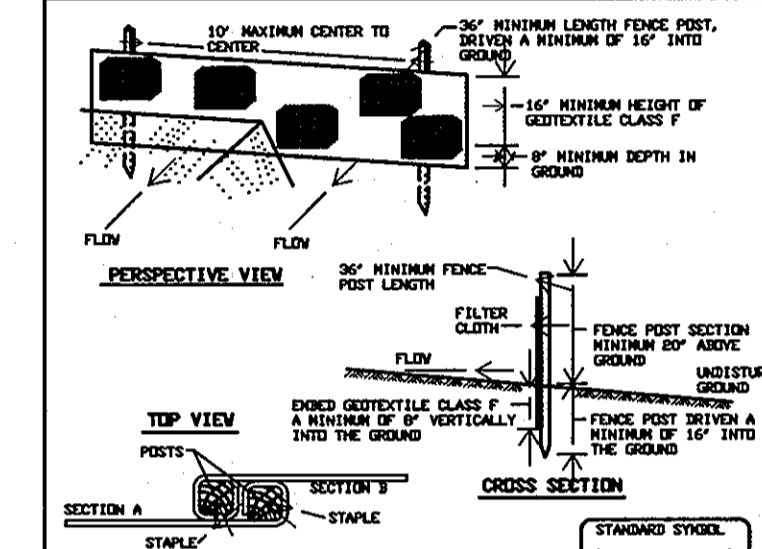
- 1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- 2. 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.
- 3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- 4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications
- 1. Length - minimum of 30' (400' for single residence lots).
 - 2. Width - 18" minimum, should be flared at the existing road to provide a turning radius.
 - 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. Infiltration should be maintained. Stone shall be placed in 6" lifts to a depth of 18" above the geotextile.
 - 4. Stone - crushed aggregate (2" to 3") or recycled or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - 5. 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 of 6" or more over the pipe. Pipe has multiple joints with 5' slope and a minimum of 12" of stone cover. Pipe has multiple joints with 5' slope and a minimum of 12" of stone cover. Pipe has multiple joints with 5' slope and a minimum of 12" of stone cover. Pipe has multiple joints with 5' slope and a minimum of 12" of stone cover.
 - 6. 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 through the stabilized construction entrance.

DETAIL 22 - SILT FENCE



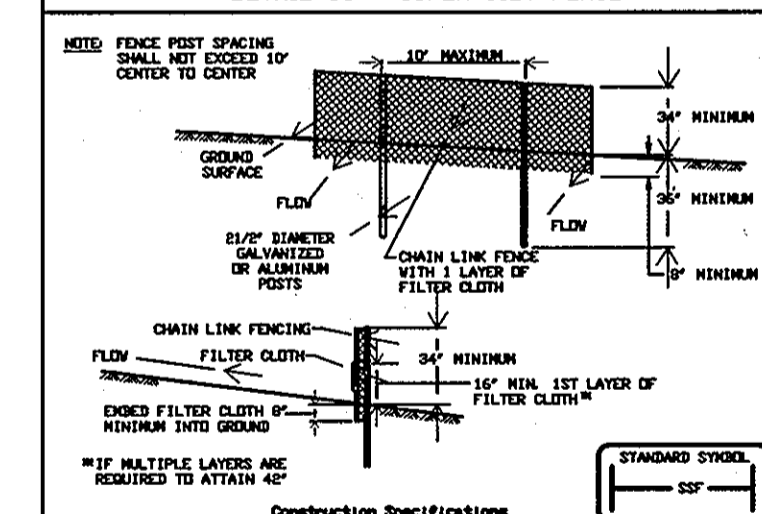
- Construction Specifications
- 1. Fence posts shall be a minimum of 30' long driven 18" minimum into the ground. Wood posts shall be 1 1/2" x 12" square (diameter) cut, or 2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard 1" or 1 1/2" section weighing not less than 1.00 pound per linear foot.
 - 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and intersection and shall meet the following requirements for Geotextile Class F:
- | | | |
|----------------------|-----------------------|----------------|
| Tensile Strength | 50 lbs/in (min.) | Tests: HMT 509 |
| Tensile Modulus | 50 lbs/in (min.) | Tests: HMT 509 |
| Flow Rate | 0.5 gal/minute (max.) | Tests: HMT 502 |
| Filtering Efficiency | 75% (min.) | Tests: HMT 502 |
- 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 - 4. Silt fence shall be inspected after each rainfall event and maintained when height color or when sediment accumulation reached 50% of the fabric height.

SILT FENCE

Silt Fence Design Criteria			
Slope	Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Minimum)
Flatter than 5:1	unlimited	unlimited	unlimited
5:1 to 10:1	125 Feet	1,000 Feet	1,000 Feet
10:1 to 15:1	100 Feet	750 Feet	750 Feet
5:1 to 3:1	60 Feet	500 Feet	500 Feet
3:1 to 2:1	40 Feet	250 Feet	250 Feet
2:1 and steeper	20 Feet	125 Feet	125 Feet

Note: In areas of less than 2:1 slope and sandy soils USDA general classification system, silt fence slope length and silt fence length shall be unlimited. In these areas a silt fence may be the only perimeter control required.

DETAIL 33 - SUPER SILT FENCE



- Construction Specifications
- 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Safety for Chain Link Fencing. The specification for a 6" fence shall be used, substituting 42" fabric and 6" length posts.
 - 2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
 - 3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - 4. Filter cloth shall be embedded a minimum of 6" into the ground.
 - 5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and fastened.
 - 6. Maintenance shall be performed as needed and silt basins removed when "outlet" develops in the silt fence, or when silt reaches 50% of fence height.
 - 7. Filter cloth 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.) | Tests: HMT 509 |
| Tensile Modulus | 50 lbs/in (min.) | Tests: HMT 509 |
| Flow Rate | 0.5 gal/minute (max.) | Tests: HMT 502 |
| Filtering Efficiency | 75% (min.) | Tests: HMT 502 |

SUPER SILT FENCE

Design Criteria			
Slope	Slope Steepness	Slope Length (Maximum)	Silt Fence Length (Minimum)
0 - 10%	0 - 10:1	unlimited	unlimited
10 - 20%	10:1 - 5:1	250 Feet	1,500 Feet
20 - 30%	5:1 - 3:1	100 Feet	1,000 Feet
30 - 50%	3:1 - 2:1	100 Feet	500 Feet
50% +	2:1 +	50 Feet	250 Feet

date: OCT. 2010
project: 08-007
illustration: MAM
scale: MAM
approval: AS SHOWN
revisions: [table with description and date]

BONNIE BRANCH WOODS
TAX MAP: 31 PARCEL 101 GRID: 9 AND 15, PLAT NO'S ---
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SEDIMENT CONTROL NOTES AND DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
(410) 997-0298 Fax: (410) 997-0298 Fax

OWNER: BONNIE BRANCH WOODS INC. / C/O MILDENBERG, BOENDER AND ASSOC. INC.
DEVELOPER: NV HOMES

4 OF 4