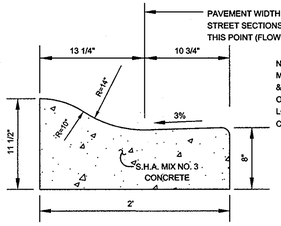
PAVING SECTIONS

SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	≥7	3 TO <5	5 TO <7	≥7
		PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
	LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: RESIDENTIAL	HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0
P-3	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
	LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: NON-RESIDENTIAL MINOR COLLECTORS: RESIDENTIAL	HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	3.0	3.0	3.0	4.5	3.0	2.0
		GRADED AGGREGATE BASE (GAB)	10.0	6.0	3.0	6.0	6.0	6.0

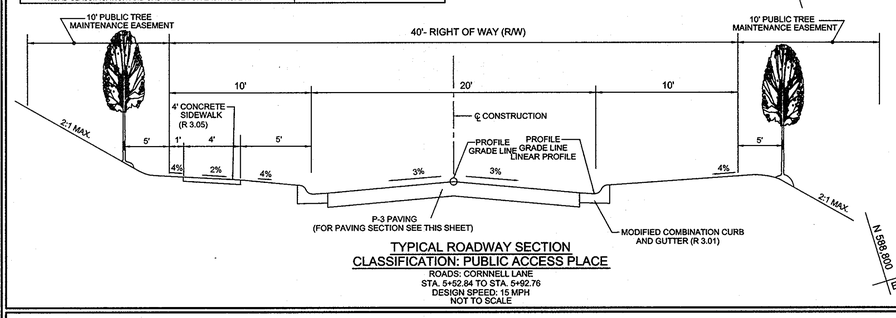
NOTES :
1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
2. HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN TO 4.0" MAX), 12.5 MM SURFACE (1.5" MIN TO 3.0" MAX), AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX)
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX COMPACTED THICKNESS LAYERS.
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL / INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CRB VALUE FOR EACH ROADWAY.

HMA SUPERPAVE FINAL SURFACE
HMA SUPERPAVE INTERMEDIATE SURFACE
HMA SUPERPAVE BASE
GRADED AGGREGATE BASE (GAB)

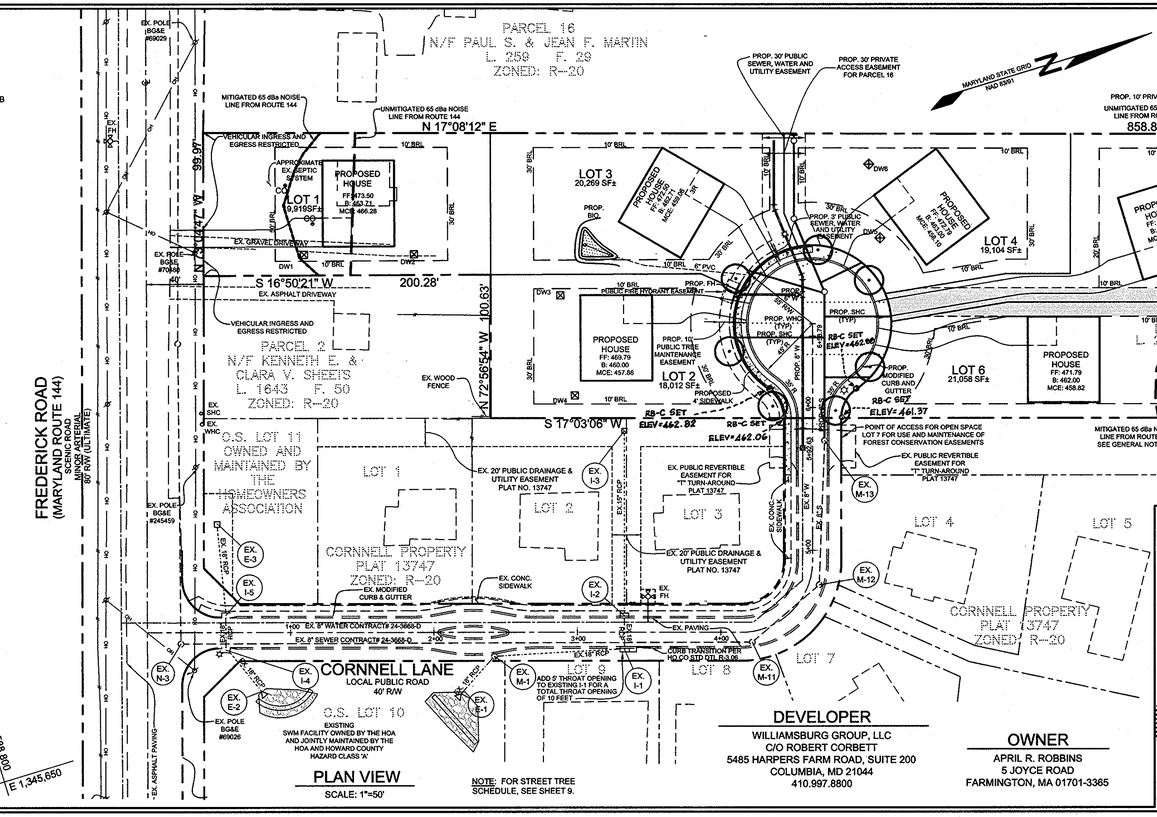


NOTE:
MODIFIED COMBINATION CURB & GUTTER TO BE USED ONLY ON CUL-DE-SAC STREETS, LOCAL ROADS OR MINOR COLLECTOR ROADS.

MODIFIED CURB & GUTTER
HOWARD COUNTY STANDARD R3.01
NOT TO SCALE



TYPICAL ROADWAY SECTION
CLASSIFICATION: PUBLIC ACCESS PLACE
ROADS: CORNNELL LANE
STA. 5+52.84 TO STA. 5+92.76
DESIGN SPEED: 15 MPH
NOT TO SCALE



DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FARMINGTON, MA 01701-3365

ROAD PLAN AND PROFILE
CORNNELL LANE
STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

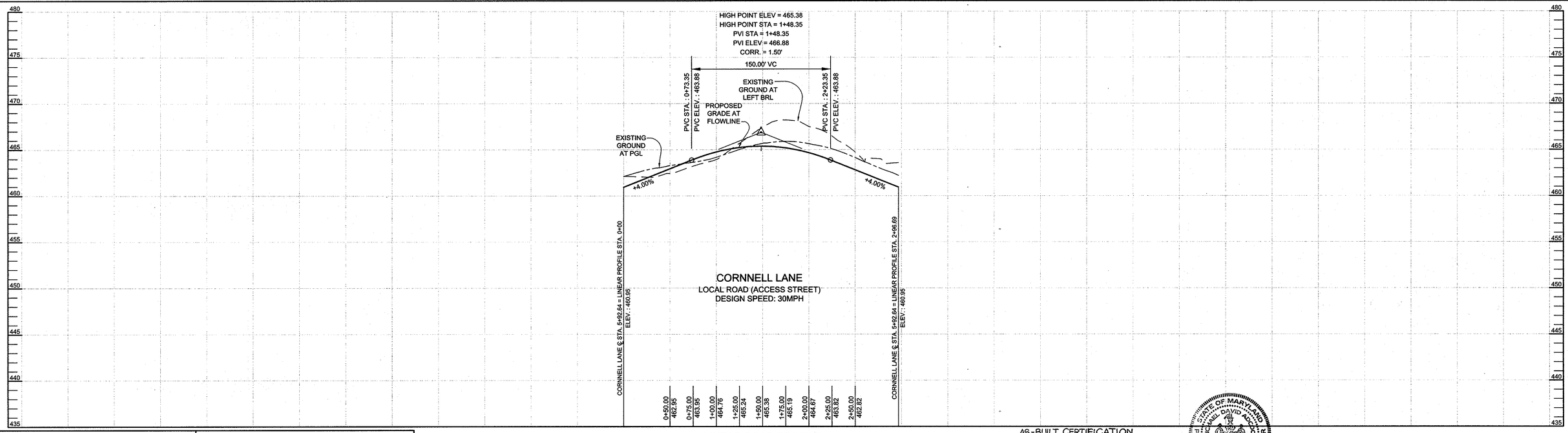
TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

STATE OF MARYLAND PAUL M. SILL No. 32025 PROFESSIONAL ENGINEER

DESIGN BY:	PS
DRAWN BY:	MRM / SJT
CHECKED BY:	PS
SCALE:	AS SHOWN
DATE:	MARCH 3, 2010
PROJECT #:	07-093
SHEET #:	2 OF 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011



LINEAR ROAD PROFILE
SCALE- HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN IN RED ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADCOCK PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21251 EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND MICHAEL DAVID ADCOCK No. 21251 PROFESSIONAL LAND SURVEYOR

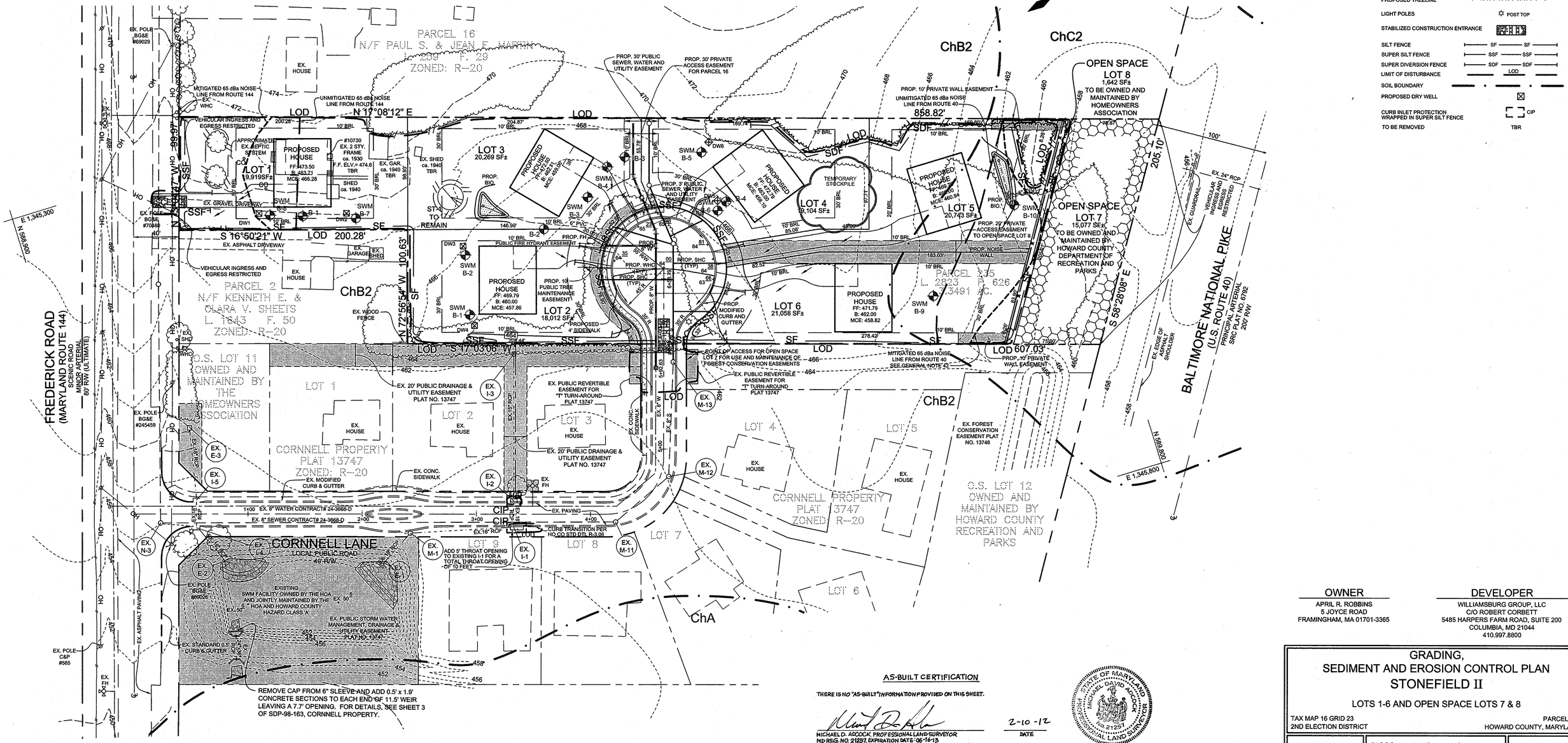
AS-BUILT

F-10-030

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
ChA	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES	B
ChB2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- EXISTING TREES
- EXISTING SPECIMEN TREE
- TREE PROTECTION FENCE
- FOREST CONSERVATION AREA
- PROPOSED TREELINE
- LIGHT POLES
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SUPER SILT FENCE
- SUPER DIVERSION FENCE
- LIMIT OF DISTURBANCE
- SOIL BOUNDARY
- PROPOSED DRY WELL
- CURB INLET PROTECTION WRAPPED IN SUPER SILT FENCE
- TO BE REMOVED



OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · NO. 21257 · PROFESSIONAL LAND SURVEYOR

GRADING, SEDIMENT AND EROSION CONTROL PLAN
STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/6/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

HOWARD SCD — DATE 3/30/10

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 OF ENGINEER
PAUL M. SILL, PE, LEED AP — DATE 3.15.10

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 A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT 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.

SIGNATURE OF DEVELOPER — DATE 3-11-10

AS-BUILT

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY:	PS
DRAWN BY:	PS, JJ, SJT
CHECKED BY:	PS
SCALE:	1"=40'
DATE:	MARCH 3, 2010
PROJECT #:	07-093
SHEET #:	3 of 12

STATE OF MARYLAND · PAUL M. SILL · NO. 32025 · PROFESSIONAL ENGINEER

PROFESSIONAL CERTIFICATION. 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. 32025, EXPIRATION DATE: JUNE 20, 2011

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOILS

DEFINITION

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

PURPOSE

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE 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 SPECIFICATIONS. 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 A 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, STONE, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAT 1 AND 1/2" IN DIAMETER.

ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, 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.

III. 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 TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED 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 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.

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 A 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, ALBEIT 4"-8" HIGHER IN ELEVATION.

iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-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.

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).
2. ALL VEGETATION 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; 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, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. 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 SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS :

TOTAL AREA:	3.349 ACRES
AREA DISTURBED:	2.94 ACRES
AREA TO BE ROOFED OR PAVED:	0.82 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	2.12 ACRES
TOTAL CUT:	* 4700 CY
TOTAL FILL:	* 4700 CY
OFFSITE WASTE/BORROW AREA LOCATION:	**

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 CONTROLS 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 SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

* EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION.
** TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER 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/100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMATIC LIMESTONE (92 LBS/1000 SQ.FT.) AND APPLY 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE 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 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 SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING 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 PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 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 (0.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 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 SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREAS (F-6)

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 INSECTION 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. IMULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 OR 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.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS AT (410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
3. INSTALL STABILIZED CONSTRUCTON ENTRANCE, SILT FENCE, SUPER SILT FENCE, TREE PROTECTIVE FENCING, AND SUPER DIVERSION FENCE AS SHOWN OF THE GRADING, SEDIMENT AND EROSION CONTROL PLAN. (1 WEEK)
4. CONSTRUCT NOISE WALL. (1 WEEK)
5. REMOVE EXISTING CURB & GUTTER NORTH OF INLET I-1, CONSTRUCT EXTENSION OF INLET I-1, AND CURB AND GUTTER TRANSITION. (1 DAY)
6. INSTALL INLET PROTECTION WRAPPED IN SUPER SILT FENCE ON EXISTING INLETS I-1 AND I-2. (1 DAY)
7. ADD ADDITIONAL CONCRETE TO WEIR WALL OF EXISTING POND ON CORNNELL PROPERTY AND REMOVE CAP FROM 6" PVC GOING THRU THE WEIR WALL PER REDLINE REVISION TO CORNNELL PROPERTY, F-98-163, SHEET 3. (2 DAYS)
8. REMOVE EXISTING T-TURNAROUND AT THE END OF CORNELL LANE PER PLAN. (1 WEEK)
9. ROUGH GRADE SITE AND BEGIN ROAD CONSTRUCTION. (1 MONTH)
10. INSTALL WATER & SEWER MAINS AND ASSOCIATED HOUSE CONNECTIONS. (3 WEEKS)
11. INSTALL MODIFIED CURB & GUTTER, SIDEWALK, PAVE ROADWAY, AND FINE GRADE SITE. (2 WEEKS)
12. STABILIZE ALL DISTURBED AREAS. (2 WEEKS)
13. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA. (1 WEEK)

NOTE: -FOLLOWING INITIAL SOIL DISTURBANCE OR ANY REDISTURBANCES, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES AND ALL SLOPES GREATER THAN 3:1.
B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
-DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATION

1. LENGTH - MINIMUM OF 50' (* 30' FOR A SINGLE RESIDENCE LOT).
2. WIDTH - 10' 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. ** THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. 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.
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 ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" 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.
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 OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE

CONSTRUCTION SPECIFICATIONS

1. FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS 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 8" INTO THE GROUND.

5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.

6. 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

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.)	TEST: MSMT 509
TENSILE MODULUS	20 LBS/IN (MIN.)	TEST: MSMT 509
FLOW RATE	0.3 GAL/FT /MIN. (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN.)	TEST: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE

Construction Specifications

1. Fence posts shall be a minimum of 36" long, driven 16" 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 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 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 Eggeciency	75% (min.)	Test: MSMT 322

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 bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL - SUPER DIVERSION FENCE

FENCING:

FENCING SHALL BE 42" HIGH CHAIN LINK FENCE CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS 690.01 AND 690.02. THE SPECIFICATIONS FOR A 6'- 0" FENCE SHALL BE USED, SUBSTITUTE 42" FABRIC & 70" POSTS. POSTS SHALL BE PLACED WITHOUT CONCRETE EMBEDMENT.

1. CHAIN LINK FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTAINENCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)

MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Attach a continuous piece of wire mesh (30" minimum width by throat 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard length plus drawing.
2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 " stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 5B	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND MICHAEL DAVID ADCOCK No. 21257 PROFESSIONAL LAND SURVEYOR

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — 4/21/10 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 4/19/10 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — 4-7-10 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

HOWARD SCD — 3/30/10 DATE

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 OF ENGINEER — 3.15.10 DATE
PAUL M. SILL, PE, LEED AP

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 A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT 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.

SIGNATURE OF DEVELOPER — 3-11-10 DATE

AS-BUILT

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND PAUL M. SILL No. 32025 PROFESSIONAL ENGINEER

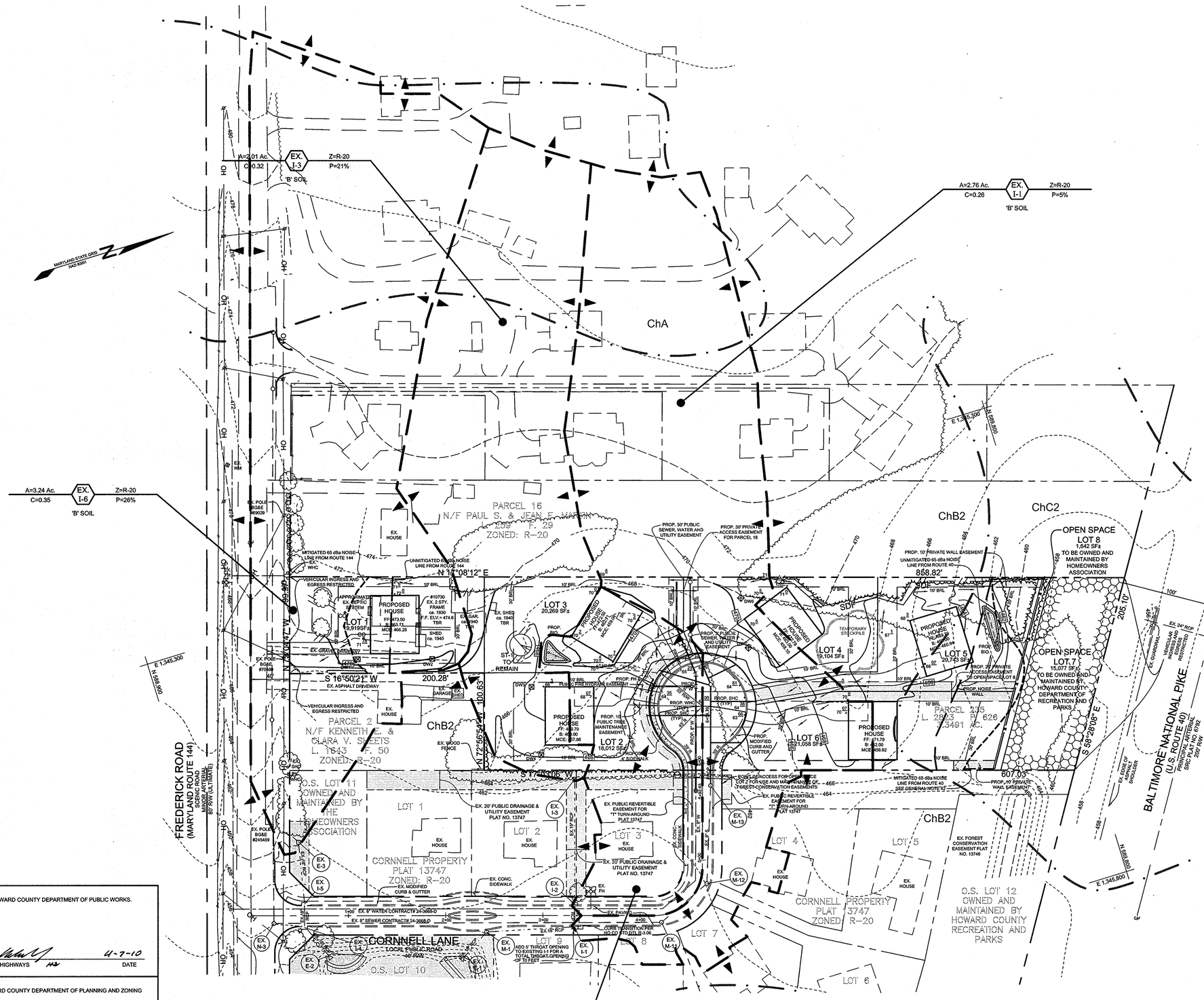
Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY:	PS
DRAWN BY:	PS, JJ, SJT
CHECKED BY:	PS
SCALE:	AS SHOWN
DATE:	MARCH 3, 2010
PROJECT #:	07-093
SHEET #:	4 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
ChA	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES	B
ChB2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B



AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

OWNER	DEVELOPER
APRIL R. ROBBINS 5 JOYCE ROAD FRAMINGHAM, MA 01701-3365	WILLIAMSBURG GROUP, LLC C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997.8800

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/24/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

STORM DRAIN DRAINAGE AREA MAP

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND · PAUL J. SILL · No. 32025 · PROFESSIONAL ENGINEER

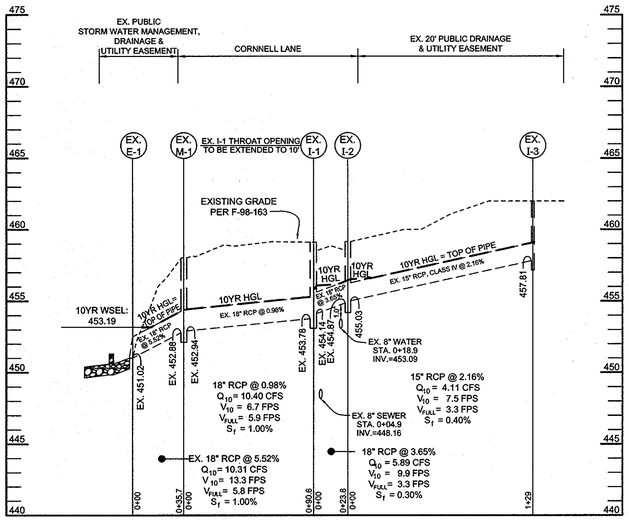
Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY:	PS
DRAWN BY:	PS, JJ, SJT
CHECKED BY:	PS
SCALE:	1"=50'
DATE:	MARCH 3, 2010
PROJECT #:	07-093
SHEET #:	5 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

AS-BUILT

F-10-030



STORM DRAIN PROFILE - EX E-1 TO EX. I-3

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'

STRUCTURE SCHEDULE

NO.	TYPE & OWNERSHIP	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
EX 1-1	EX. TYPE 'A-5' INLET WITH 5' THROAT EXTENSION TO TOTAL 10' OPENING PUBLIC	N 589,241.43 E 1,345,686.77	EX. 459.12	EX. 454.14	EX. 453.78	THROAT EXTENSION PER SHA STD DTL. MD-374.31

NOTES :
1. LOCATION AND TOP ELEVATION FOR EX. I-1 BASED ON EXISTING A-5 INLET AT CENTER FACE OF INLET, TOP OF CURB.
2. TOP SLOPE OF STRUCTURE TO CONFORM TO SLOPE OF PAVING.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/2/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/9/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

AS-BUILT

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

STORM DRAIN PROFILE AND CHARTS

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND · PAUL M. SILL · No. 32025 · PROFESSIONAL ENGINEER

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: PS
DRAWN BY: PS, JJ, SJT
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MARCH 3, 2010
PROJECT #: 07-093
SHEET #: 6 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

F-10-030

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-1
Location: Howard County, Maryland — Job #: 08245A

SAMPLER
Datum: ___ Hammer Wt. ___ lbs. Hole Diameter ___ Foreman ___
Surf. Elev.: 464.0 Ft. Hammer Drop ___ in. Rock Core Diameter ___ Inspector: R. Yonkers
Date Started: 5-30-08 Pipe Size ___ in. Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist, micaceous sandy silt, trace clay (ML)	6" Topsoil Rootmat to 12"
2.5	Brown/Tan, moist, micaceous silty sand (SM)	No groundwater encountered
		Infiltration pipe set at 5 ft
8.0	Bottom of Hole at 8. 0'	

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE; PT - PRESSED SHELBY TUBE; CA - CONTINUOUS FLIGHT AUGER; RC - ROCK CORE
SAMPLE CONDITIONS: D - DISINTEGRATED; I - INTACT; U - UNDISTURBED; L - LOST
GROUND WATER: AT COMPLETION Dry ft.; AFTER 24 HRS. ___ ft.; AFTER 2 HRS. Dry ft. CAVE IN DEPTH: ___ ft.
BORING METHOD: HSA - HOLLOW STEM AUGERS; CFA - CONTINUOUS FLIGHT AUGERS; DC - DRIVING CASING; MD - MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-2
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 400.4 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist, micaceous silty sand (SM)	4" Topsoil
		No groundwater encountered
		Infiltration pipe set at 6.6 ft
8.5	Bottom of Hole at 8. 5'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-3
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 464.6 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Light Brown, moist micaceous sandy silt to silty sand, trace gravel size rock fragments (ML, SM)	6" Topsoil & Rootmat
		No groundwater encountered
5	Tan, moist, micaceous silty sand, trace rock fragments (SM)	Infiltration pipe set at 4.0 ft
7.0	Bottom of Hole at 7. 0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-4
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 466.6 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist micaceous sandy silt, trace clay (ML)	4" Topsoil
2.5	Brown/Tan, moist, micaceous silty sand (SM)	No groundwater encountered
		Infiltration pipe set at 4.5 ft
7.5	Bottom of Hole at 7. 5'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-5
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 470.1 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Red Brown, moist, micaceous sandy silt (ML)	6" Topsoil
2.5	Brown, moist, micaceous silty sand (SM)	No groundwater encountered
		Infiltration pipe set at 7.0 ft
10	Bottom of Hole at 10.0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-6
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 467.6 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist, micaceous sandy silt to silty sand (SM-ML)	4" Topsoil
		No groundwater encountered
		Infiltration pipe set at 5.0 ft
7.5	Tan, moist, micaceous silty sand (SM)	
8.0	Bottom of Hole at 8. 0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-7
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 470.1 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist, micaceous silty sand (SM)	6" Topsoil
		No groundwater encountered
		Infiltration pipe set at 7.5 ft
10	Bottom of Hole at 10.0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-8
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: 469.8 Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Brown, moist, micaceous silty sand (SM)	6" Topsoil 12" Rootmat
		No groundwater encountered
		Infiltration pipe set at 5.5 ft
8.5	Bottom of Hole at 8. 5'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-9
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: ___ Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Orange Brown, moist, micaceous sandy silt, trace clay (ML)	6" Topsoil
2.5	Brown, moist, micaceous silty sand (SM)	No groundwater encountered
		Infiltration pipe set at 7.0 ft
10	Bottom of Hole at 10.0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Robbins Property — Boring No.: B-10
Location: Howard County, Maryland — Job #: 08245A
Surf. Elev.: ___ Ft. Date Started: 5-30-08 Inspector: R. Yonkers Boring Method: Backhoe Date Completed: 5-30-08

Elevation/Depth	Description	Boring and Sampling Notes
0	Orange Brown, moist, micaceous sandy silt, trace clay (ML)	6" Topsoil
4	Brown, moist, micaceous silty sand (SM)	No groundwater encountered
		Infiltration pipe set at 7.0 ft
10	Bottom of Hole at 10.0'	

GROUND WATER: AT COMPLETION Dry ft.; AFTER 2 HRS. ___ ft.

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — 4/21/10 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION — 4/19/10 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
CHIEF, BUREAU OF HIGHWAYS — 4-2-10 DATE

AS-BUILT CERTIFICATION
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13 — 2-10-12 DATE

STATE OF MARYLAND — MICHAEL DAVID ADCOCK — No. 21257 — PROFESSIONAL LAND SURVEYOR

AS-BUILT

BORING LOGS
STONEFIELD II
LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

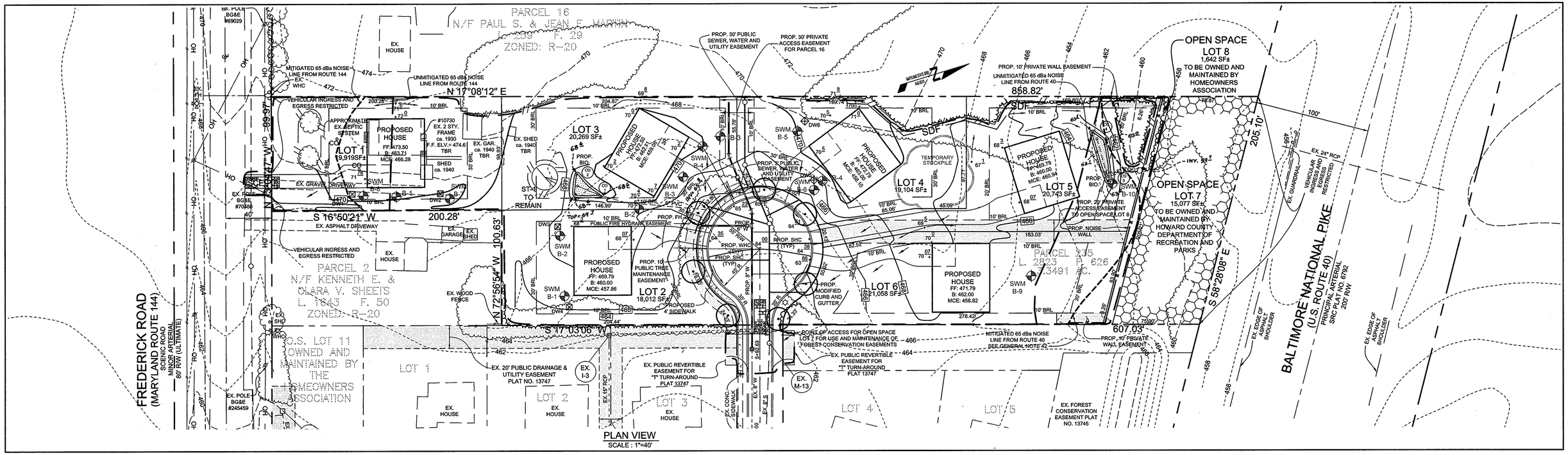
STATE OF MARYLAND — PAUL M. SILL — No. 32025 — PROFESSIONAL ENGINEER

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

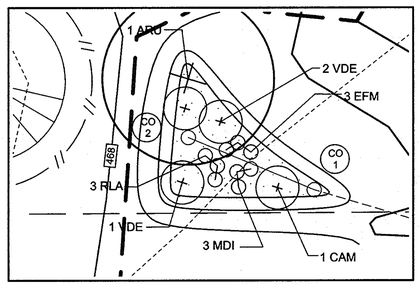
DESIGN BY: PS
DRAWN BY: PS, JJ, SJT
CHECKED BY: PS
SCALE: NOT TO SCALE
DATE: MARCH 3, 2010
PROJECT #: 07-093
SHEET #: 7 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

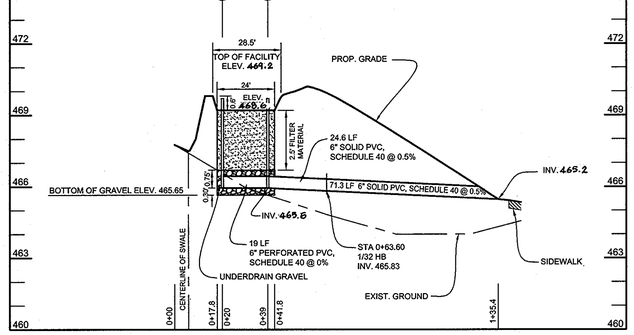
F-10-030



PLAN VIEW
SCALE : 1"=40'

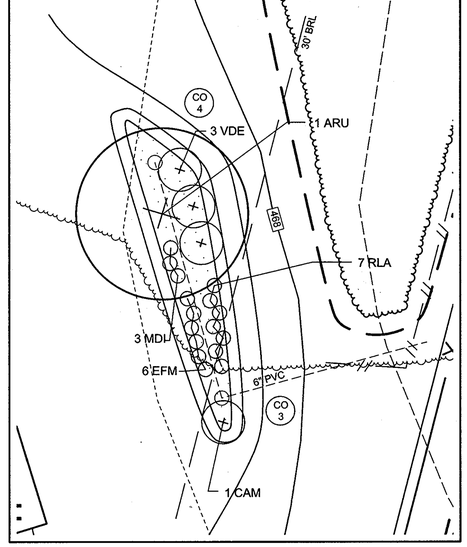


PLAN VIEW - LOT 3 BIO
SCALE : 1"=10'

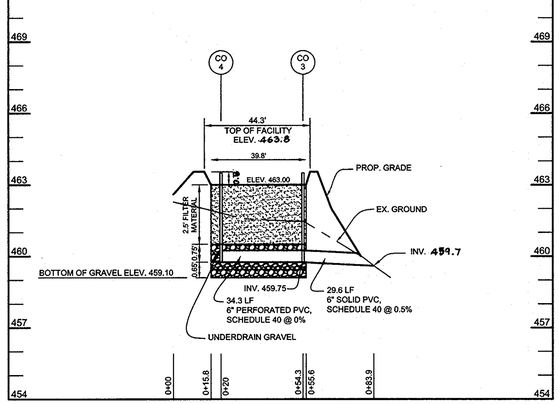


BIORETENTION PROFILE - LOT 3
HORIZONTAL SCALE : 1" = 30'
VERTICAL SCALE : 1" = 3'

FIELD WORK : 08-26-11

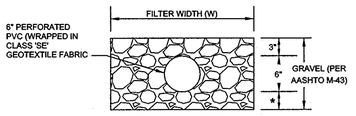


PLAN VIEW - LOT 5 BIO
SCALE : 1"=10'



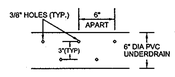
BIORETENTION PROFILE - LOT 5
HORIZONTAL SCALE : 1" = 30'
VERTICAL SCALE : 1" = 3'

FIELD WORK 06-10-11



UNDERDRAIN DETAIL
SCALE : 1"=1'

* VARIES SEE PROFILE



PERFORATED PVC UNDERDRAIN DETAIL
SCALE : 1"=1'

MATERIALS SPECIFICATIONS FOR BIORETENTION FACILITIES

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE-SPECIFIC, SEE PLANT LIST THIS SHEET
PLANTING SOIL [2.5' TO 4' DEEP]	SAND 35% - 60% SILT 0% - 25% GROUND COMPOST 40%-50%	N/A	
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN, IF REQUIRED	PEA GRAVEL: ASTM-D-448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: NO. 6 STONE: 2"TO 5"	
GEOTEXTILE	CLASS "SE" - APPARENT OPENING SIZE (ASTM-D-4751), GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M-43	0.375" TO 0.75"	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES

BIORETENTION #3 PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QUANTITY LOT 3 - BIO	QUANTITY LOT 5 - BIO
TREES							
ARU	ACER RUBRUM	RED MAPLE	AS SHOWN	1"-1 1/2" CAL.	BB	1	1
SHRUBS							
CAM	CORNUS AMOMUM	SILKY DOGWOOD	AS SHOWN	18"-24" HT.	CONT.	1	1
VDE	VIBURNUM DENTATUM	ARROWWOOD	AS SHOWN	18"-24" HT.	CONT.	3	3
HERBACEOUS SPECIES							
EFM	EUPATORIUM FISTULOSUM	JOE-PYE WEED	AS SHOWN	1 QT./12" HT.	CONT. (3' O.C.)	3	5
MDI	MONARDA DIDYMA	BEEBALM	AS SHOWN	1 QT.	CONT.	3	3
RLA	RUDEBECKIA LACINIATA	TALL CONEFLOWER	AS SHOWN	1 QT.	CONT.	3	7

LOT 3 - BIORETENTION AREA = 206 S.F. OR 0.005 AC.
REQUIRED: 800 TREES AND SHRUBS PER ACRE = 4 TREES AND SHRUBS
PROVIDED: 1 SHADE TREES, 4 SHRUBS AND 9 HERBACEOUS SPECIES

LOT 5 - BIORETENTION AREA = 253 S.F. OR 0.006 AC.
REQUIRED: 800 TREES AND SHRUBS PER ACRE = 5 TREES AND SHRUBS
PROVIDED: 1 SHADE TREES, 4 SHRUBS AND15 HERBACEOUS SPECIES

DRYWELL SIZING CHART

NO.	LENGTH (ft)	WIDTH (ft)	DEPTH (ft)	STORAGE REQUIRED	STORAGE PROVIDED
DW1	4	3	3	32 cf	36 cf
DW2	4	3	3	32 cf	36 cf
DW3	3	2	3	16 cf	18 cf
DW4	4	3	3	32 cf	36 cf
DW5	3	3	3	24 cf	27 cf
DW6	2	2	2	8 cf	8 cf

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/9/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

AS-BUILT CERTIFICATION

I HEREBY CERTIFY , BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN IN RED ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. No. 21257, EXPIRATION DATE: 06-15-13

2-10-12
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

AS-BUILT

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

STORMWATER MANAGEMENT - BIORETENTION PLAN, PROFILES, AND CHARTS STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND · PAUL M. SILL · No. 32025 · PROFESSIONAL ENGINEER

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: PS
DRAWN BY: PS, JJ, SJT
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MARCH 3, 2010
PROJECT #: 07-093
SHEET #: 8 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

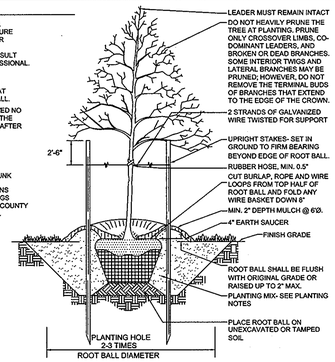
F-10-030

LANDSCAPE NOTES

1. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
2. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. 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.
3. LANDSCAPING IS PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED 25 SHADE TREES IN THE AMOUNT OF $7,500.00 WILL BE PAID AS PART OF THE DPW DEVELOPER'S AGREEMENT.

NOTES

1. CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL.
2. EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.
3. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
4. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
5. KEEP MULCH 1" FROM TRUNK
6. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
7. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



TYPICAL TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		
PERIMETER/FRONTAGE DESIGNATION LANDSCAPE TYPE	1 NA (1.)	3 B	2 A	4 A	5 A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	100	205	859	363	505
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) REMAINING PERIMETER LENGTH	NO	YES (2.) 205LF 0LF	YES (3.) 205LF 654LF	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) REMAINING PERIMETER LENGTH	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	- - -	1:50 = 0 1:40 = 0 -	1:60 = 11 - -	1:60 = 6 - -	1:60 = 8 - -
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	- - - -	- - - -	11 (3.) - - -	6 - - -	8 - - -

1. HOUSE FRONTS ON ROAD.
2. CREDIT TAKEN FOR 205LF OF EXISTING WOODS, REDUCING THE PERIMETER TO 0LF.
3. CREDIT TAKEN FOR 205LF OF EXISTING WOODS, REDUCING THE PERIMETER TO 654LF.

LEGEND

EXISTING CONTOUR 382
PROPOSED CONTOUR 382
EXISTING SPOT ELEVATION 382.3
PROPOSED SPOT ELEVATION +82.53
DIRECTION OF FLOW
EXISTING TREELINE
PROPOSED TREELINE
EXISTING TREES
EXISTING SPECIMEN TREE
PROPOSED LANDSCAPE TREES
FOREST CONSERVATION AREA

SPECIMEN TREE TABLE

KEY	SIZE	TYPE	CONDITION	LOCATION	REMARKS
ST-1	48"	WALNUT	GOOD	L-1	

STREET TREE SCHEDULE

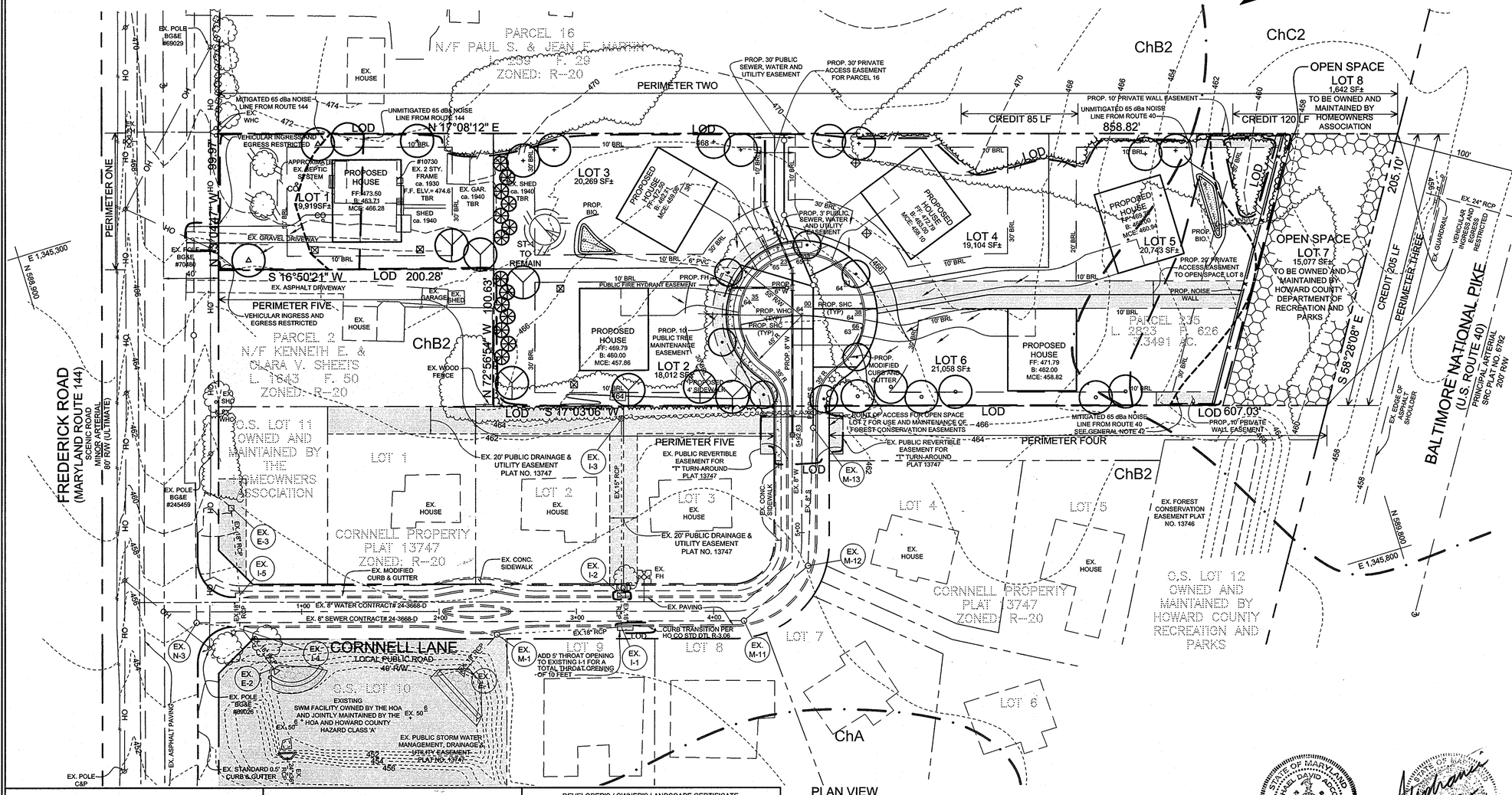
SYMBOL	STREET NAME	LF REQUIRED	TREES REQUIRED	TREES PROVIDED
⊙	CORNNELL LANE	299'	7	7

1. SEE PLANT LIST (THIS SHEET) FOR SPECIES AND SIZE

PLANT LIST

KEY	QUANTITY	BOTANICAL NAME	SIZE	NOTE
⊙	6	QUERCUS PALUSTRIS 'PIN OAK'	2 1/2"-3" CAL.	B & B
Ⓨ	7	QUERCUS COCCINEA 'SCARLET OAK'	2 1/2"-3" CAL.	B & B
⊙	10	TILIA CORDATA 'GREENSPIRE' 'GREENSPIRE LITTLELEAF LINDEN'	2 1/2"-3" CAL.	B & B
⊕	2	CORNUS KOUSA 'KOUSA DOGWOOD'	8'-10' HT.	B & B
⊛	14(1.)	CUPPRESSOCYPARIS LEYLANDI 'LEYLAND CYPRESS'	8' HT.	B & B
STREET TREE	7	ACER RUBRUM 'OCTOBER GLORY' 'OCTOBER GLORY RED MAPLE'	2 1/2"-3" CAL.	B & B

1. SUPPLEMENTAL BUFFERING. NO SURETY REQUIRED.



PLAN VIEW

SCALE: 1"=40'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

DEVELOPER'S / OWNER'S 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.

BSB CORBETT, WILLIAMSBURG GROUP, DEVELOPER — DATE 3-11-10

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

DATE 2-10-12

AS-BUILT

OWNER

APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER

WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

FINAL LANDSCAPE PLAN
STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: PS
DRAWN BY: PS, JJ, SJT
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MARCH 3, 2010
PROJECT #: 07-093
SHEET #: 9 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

F-10-030

FOREST CONSERVATION NOTES

1. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
2. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE ON-SITE RETENTION OF 0.18 ACRES (7,841 SF) OF FOREST, AFFORESTATION/REFORESTATION PLANTING OF 0.17 ACRES (7,405 SF) OF FOREST AND THE REMAINING 0.46 ACRES (20,037.6 SF) OF FOREST PLANTING WILL BE PROVIDED BY THE FRIENDSHIP LAKES FOREST MITIGATION BANK (SDP-02-117). SURETY IN THE AMOUNT OF $5,271.00 FOR REFORESTATION SHALL BE PAID WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN.
3. SEE THE RECORDED PLAT FOR THE BEARING AND DISTANCE DESCRIPTIONS OF THE FOREST CONSERVATION EASEMENTS.

FOREST CONSERVATION EASEMENT PLANT LIST (0.19 AC)

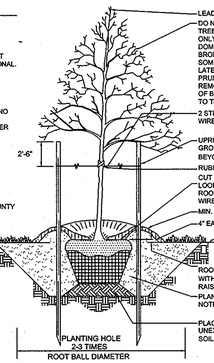
QUANTITY	BOTANICAL NAME	SIZE	SPACING	NOTE
13	*ACER RUBRUM 'RED SUNSET 'RED SUNSETTRED MAPLE*	1" CAL.	15' x 15'	B & B
4	*NYSSA SYLVATICA 'BLACK GUM'*	1" CAL.	15' x 15'	B & B
6	*PRUNUS SEROTINA 'BLACK CHERRY'*	1" CAL.	15' x 15'	B & B
6	*QUERCUS RUBRA 'RED OAK'*	1" CAL.	15' x 15'	B & B
4	*CORNUS FLORIDA 'WHITE FLOWERING DOGWOOD'*	1" CAL.	15' x 15'	B & B
6	*LINDERA BENZOIN 'SPICEBUSH'*	1" CAL.	15' x 15'	B & B
6	*VIBURNUM DENTATUM 'ARROWWOOD VIBURNUM'*	1" CAL.	15' x 15'	B & B
TOTAL: 29 SHADE TREES, 10 SMALL TREES, AND 6 SHRUBS				

SPECIMEN TREE TABLE

KEY	SIZE	TYPE	CONDITION	LOCATION	REMARKS
ST-1	48"	WALNUT	GOOD	L-1	

NOTES

1. CONSULT INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES FOR FURTHER DETAILS OF PLANTING SPECIFICATIONS, OR CONSULT WITH A QUALIFIED PROFESSIONAL.
2. EACH TREE SHALL BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.
3. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
4. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
5. KEEP MULCH 1" FROM TRUNK
6. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
7. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



TYPICAL TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER — NOT TO SCALE

GENERAL CONSTRUCTION NOTES

FOREST PROTECTION

1. ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
2. THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
3. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
4. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
5. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
6. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
7. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
8. THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
9. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

1. AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
   - A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
   - B. INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
   - C. MAKE ALL NECESSARY ADJUSTMENTS; AND
   - D. ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

1. THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS.
2. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
3. THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

REFORESTATION PLANTING NOTES

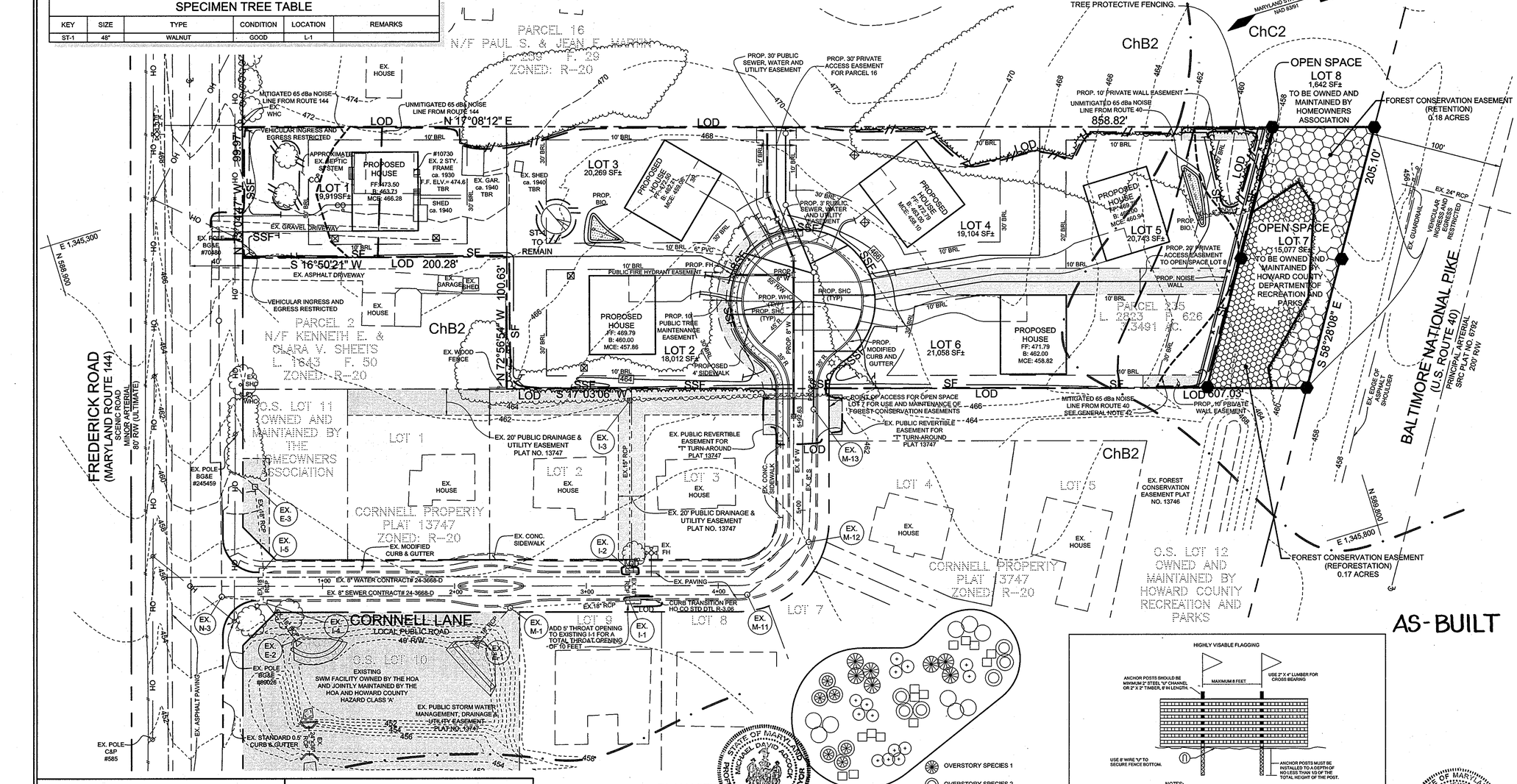
1. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES, UTILITY CONTRACTORS AND "MISS UTILITY" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL BE WORK. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS IN SPACING AND LOCATION OF PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES.
2. PLANTS, RELATED MATERIAL, AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.
3. PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS PLANTS FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUNSCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BOXERS, INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. PLANTS SHALL BE FRESHLY DUG; NO HEELED-IN PLANTS OR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
4. UNLESS OTHERWISE SPECIFIED, PLANT MATERIAL SHALL CONFORM TO "AMERICAN STANDARD FOR NURSERY STOCK" ANSI Z60.1-1990, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INCLUDING ALL ADDENDA.
5. UNLESS OTHERWISE SPECIFIED, GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATIONS SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, LATEST EDITION, INCLUDING ALL ADDENDA.
6. CONTRACTOR WILL BE REQUIRED TO GUARANTEE PLANT MATERIAL FOR A PERIOD OF TWO YEARS AFTER DATE OF ACCEPTANCE AND MAINTAIN A 75% SURVIVABILITY AT THE END OF TWO YEARS.
7. AFTER THE FIRST YEAR OF PLANTING A SOIL TEST SHOULD BE MADE AND A FERTILIZATION PROGRAM DETERMINED. CONTRACTOR'S ATTENTION IS DIRECTED TO THE "LANDSCAPE GUIDELINES" FOR FERTILIZING SPECIFICATIONS. SOIL SHOULD BE AN APPROXIMATE pH OF 6.0.
8. TO LESSEN THE CHANCE OF LOSS THE TREES SHOULD BE CHECKED FROM TIME TO TIME TO INSURE THAT THEY ARE RECEIVING SUFFICIENT WATER. IF NECESSARY, PLANTINGS SHOULD BE REGULARLY WATERED DURING DRY PERIODS UNTIL PLANTINGS ARE WELL ESTABLISHED IN ORDER TO MAINTAIN SURVIVABILITY.
9. THE LOCATION AND ORIENTATION OF ALL PLANT MATERIAL SHALL BE RANDOMLY PLANTED IN DESIGNATED REFORESTATION AREAS BY THE LANDSCAPE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING ANY PLANT MATERIAL INSTALLED WITHOUT APPROVAL.
10. MOWING AND APPLYING HERBICIDES TO THE REFORESTATION AREA IS PROHIBITED AT ANY AND ALL STAGES OF THE PLANTING PROCESS IN ORDER TO ENCOURAGE THE EXISTING SAPLINGS TO GROW.
11. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND PRUNING PLANT MATERIAL IN THE PROPER PLANTING SEASON FOR EACH PLANT TYPE, SEE TREE PLANTING AND MAINTENANCE CALENDAR.
12. PLANTING MIX SHALL BE AS FOLLOWS:

    DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-ROTTED COW MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX.

    TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.
13. THIS PLAN IS INTENDED FOR FOREST CONSERVATION USE ONLY. SEE OTHER PLAN SHEETS FOR MORE INFORMATION ON GRADING, SEDIMENT CONTROL, UTILITIES, LAYOUT, ETC.
14. UPON COMPLETION OF INSTALLATION, PROTECTIVE FENCING AND SIGNAGE SHALL BE INSTALLED AS SHOWN.

LEGEND

- EXISTING CONTOUR — 382
- PROPOSED CONTOUR — 382
- EXISTING SPOT ELEVATION — +382.5
- PROPOSED SPOT ELEVATION — +82.53
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING TREES
- EXISTING SPECIMEN TREE
- FOREST CONSERVATION AFFORESTATION AREA (8,419 SF OR 0.19 AC.±)
- FOREST CONSERVATION RETENTION AREA (7,478 SF OR 0.17 AC.±)
- FOREST CONSERVATION SIGN
- TREE PROTECTION FENCE — //
- SILT FENCE — SF



PLAN VIEW

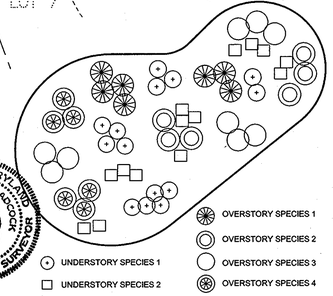
SCALE: 1"=40'

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

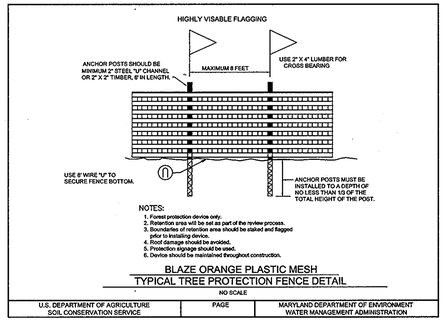
2-10-12
DATE



NOTE: ALL TREE & SHRUB SPECIES TO BE DISTRIBUTED RANDOMLY IN SMALL GROUPINGS. SHRUBS TO BE EVENLY DISTRIBUTED THROUGHOUT PLANTING AREA.

RANDOM PLANTING DISTRIBUTION PLAN

NOT TO SCALE

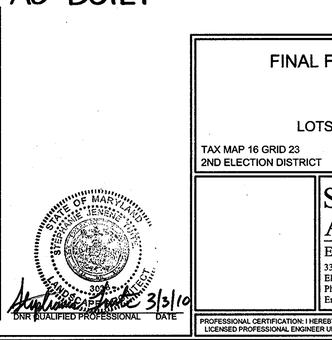


BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL

NO SCALE

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

AS-BUILT



FOREST CONSERVATION SIGN DETAIL
NOT TO SCALE

FOREST CONSERVATION SIGN DETAIL
NOT TO SCALE

OWNER

APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER

WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

ROBBINS PROPERTY
FOREST CONSERVATION WORKSHEET 2.1

Date: 06/2009
Note: Use 0 for all negative numbers that result from the calculations.

Net Tract Area

A. *Total Tract Area (Ac.)*		A= 3.3400
B. *Deductions* (Critical Area, area restricted by local ordinance or program)		B= 0.000
C. *Net Tract Area*	Net Tract Area =Total Tract (A)- Deductions (B)	C= 3.340
Land Use Category:	High Density Residential - 1/2 acre lots	
D. *Afforestation Threshold*	(Net Tract Area (C) x 15%)	D= 0.50
E. *Conservation Threshold*	(Net Tract Area (C) x 20%)	E= 0.67
Existing Forest Cover		
F. *Existing Forest Cover within the Net Tract Area*		F= 0.49
G. *Area of Forest Above Conservation Threshold*		G= 0.00
If the Existing Forest Cover (F) is greater than the Conservation Threshold (E), then G = F - E; Otherwise G = 0.		
Break Even Point		
H. *Breakeven Point* (Amount of forest that must be retained so that no mitigation is required)		H= 0.00
(1) If the area of forest above the Conservation Threshold (G) is greater than zero, then H = (0.2 x the area of forest above Conservation Threshold (G)) + the Conservation Threshold (E)		
I. *Forest Clearing Permitted Without Mitigation*		I= 0.00
I = Existing Forest Cover (F) - Breakeven point (H)		
Proposed Forest Clearing		
J. *Total Area of Forest to be Cleared*		J= 0.31
K. *Total Area of Forest to be Retained*		K= 0.18
K = Existing Forest Cover (F) - forest to be cleared (J)		
Planting Requirements		
If the Total Area of forest to be Cleared (K) is at or above the Breakeven Point (H), on planting is required and no further calculations are necessary (L=0, M=o, N=0, P=0); Otherwise, calculate the planting requirement(s) as follows:		
L. *Reforestation for Clearing Above the Conservation Threshold*		L= 0.00
(1) If the total area of forest to be retained (K) is greater than the Conservation Threshold (E), then L = the Area of Forest to be Cleared (J) x 0.25;		
(2) If the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then L = Area of forest above conservation Threshold (G) x 0.25		
M. *Reforestation for Clearing Below the Conservation Threshold*		M= 0.62
(1) If Existing Forest Cover (F) is greater than Conservation Threshold (E) and the forest to be retained (K) is less than or equal to the Conservation Threshold (E), then M = 2.0 x (the Conservation Threshold (E) - the forest to be retained (K))		
(2) If Existing Forest Cover (F) is less than or equal to the Conservation Threshold (E), then M = 2.0 x Forest to be cleared (J).		
N. *Credit for Retention Above the Conservation Threshold*		N= 0.00
If the area of forest to be retained (K) is greater than the Conservation Threshold (E), then N = K - E		
P. *Total Reforestation Required* P = L + M - N		P= 0.62
Q. *Total Afforestation Required*		Q= 0.01
If Existing forest Cover (F) is less than the Afforestation Threshold (D) then Q = the Afforestation Threshold (D) - the Existing Forest Cover (F)		
R. *Total Planting Requirement* R = P + Q		R= 0.63
S. *Excess Forest Credit*		S= 0.00

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

STATE OF MARYLAND — STEPHEN HENRY STARKE — No. 30326 — PROFESSIONAL ENGINEER

DNR QUALIFIED PROFESSIONAL — DATE 3/3/10

FINAL FOREST CONSERVATION PLAN

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8 -

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

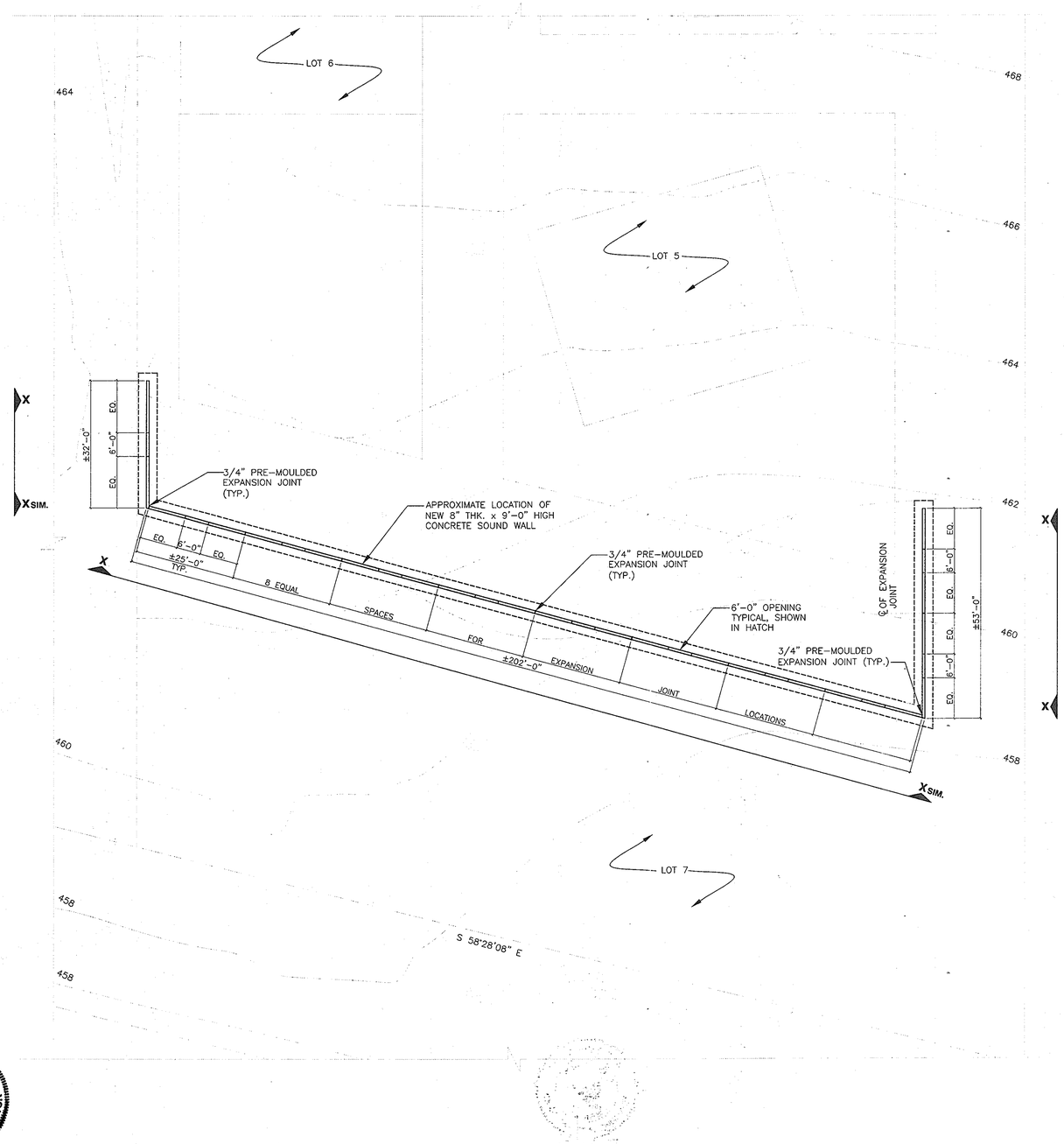
DESIGN BY: PS
DRAWN BY: PS, JJ, SJT
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MARCH 3, 2010
PROJECT #: 07-093
SHEET #: 10 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

F-10-030

NOTES:-

1. REFER ARCH. DWGS. FOR DIMENSIONS.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE IS 3000 psi @ 28 DAYS
3. PROVIDE EXPANSION JOINTS @ 25'-0" O.C. MAXIMUM. AS SHOWN
4. FASTEST MILE WIND SPEED = 75 MPH
5. LOCATION OF OPENING IN WALL SHOWN IS BASED ON INFORMATION PROVIDED BY SILL-ADCOCK & ASSOCIATES, LLC (DESIGNED BY OTHERS)



9'-0" HIGH CONCRETE SOUND WALL LOCATION PLAN
(SCALE:-1/16"=1'-0")

PROFESSIONAL CERTIFICATION:
"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. ~~[illegible]~~ #14702, EXPIRATION DATE: 12/01/11"

OWNER	DEVELOPER
APRIL R. ROBBINS 5 JOYCE ROAD FRAMINGHAM, MA 01701-3365	WILLIAMSBURG GROUP, LLC C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997.8800

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13
2-10-12
DATE

STATE OF MARYLAND MICHAEL DAVID ADCOCK No. 21257 PROFESSIONAL LAND SURVEYOR

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

STATE OF MARYLAND MAHARAJ K. JALLA No. 14702 REGISTERED PROFESSIONAL ENGINEER MAR 08 2010

AS-BUILT

CONSULTING ENGINEERS, CORP.
ENGINEERING CONSULTANTS

11480 SUNSET HILLS ROAD
SUITE # 200-E
RESTON VA 20190-5208

PHONE : (703) 481-2100
FAX : (703) 481-3200

SOUND WALL LOCATION PLAN & DETAILS

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23
2ND ELECTION DISTRICT

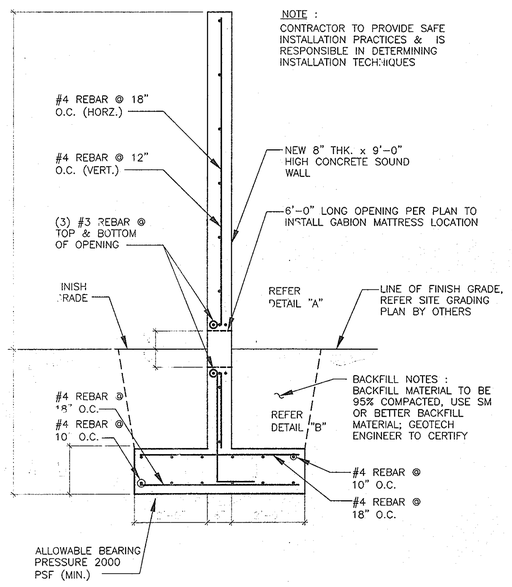
PARCEL 235
HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

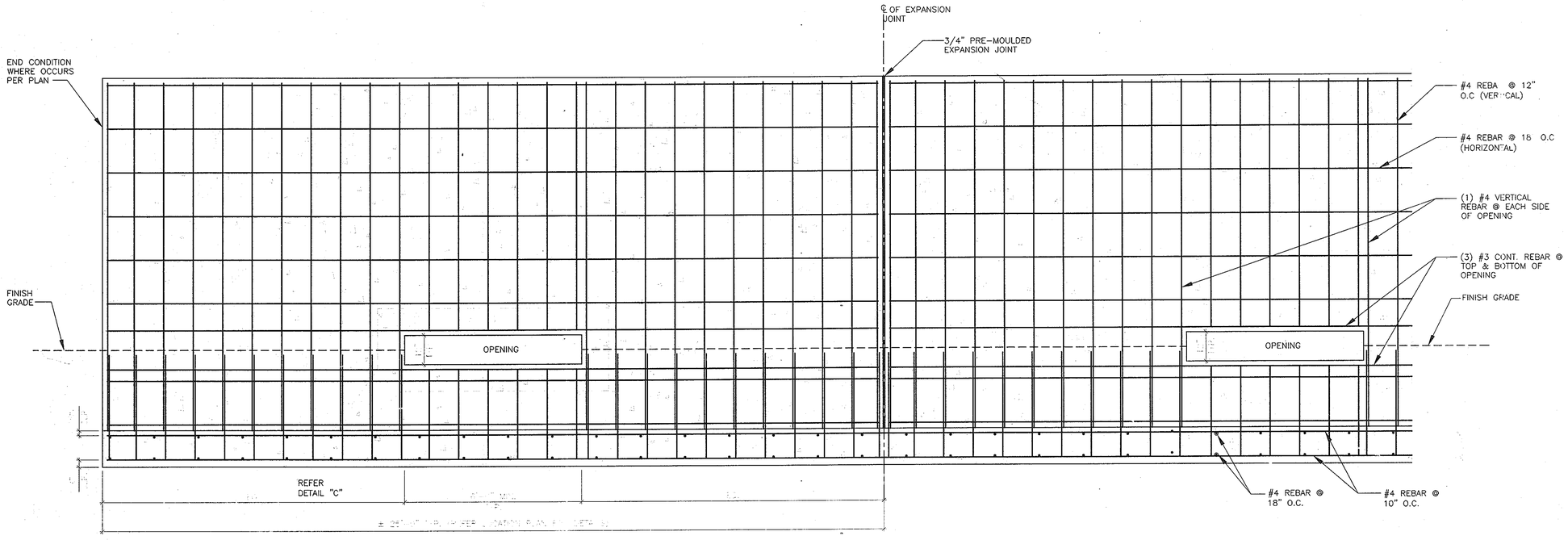
DESIGN BY: SS
DRAWN BY: MP
CHECKED BY: PS
SCALE: AS NOTED
DATE: NOVEMBER, 2009
PROJECT #: 07-093
SHEET #: 11 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

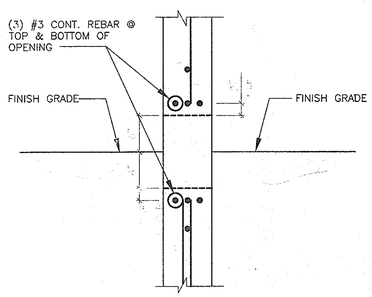
F-10-030



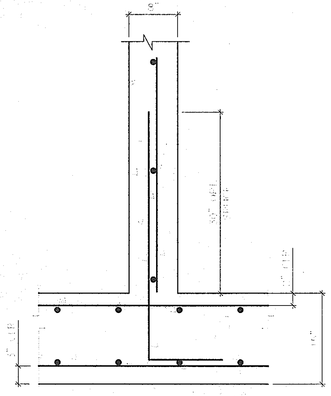
1 SECTION A-A
(9'-0" HIGH CONCRETE SOUND WALL)
SCALE: 1/2"=1'-0"



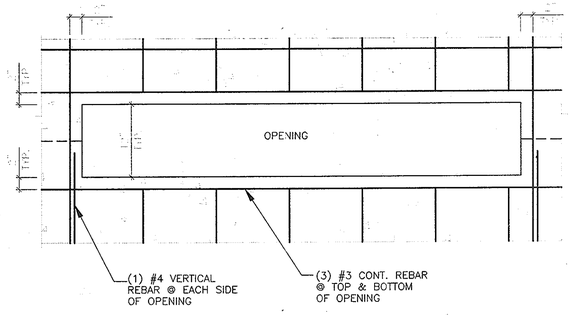
2 TYPICAL WALL ELEVATION X-X
SHOWING REINFORCEMENT
SCALE: 1/2"=1'-0"



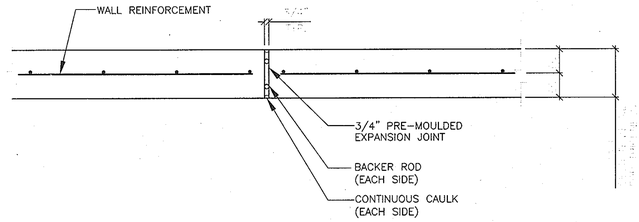
3 DETAIL - "A"
SCALE: 1" = 1'-0"



4 DETAIL - "B"
SCALE: 1" = 1'-0"



5 OPENING REINFORCEMENT DETAIL "C"
SCALE: 1" = 1'-0"



6 TYPICAL EXPANSION JOINT DETAIL
SCALE: 1" = 1'-0"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

AS-BUILT CERTIFICATION

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

2-10-12
DATE

STATE OF MARYLAND · MICHAEL DAVID ADCOCK · No. 21257 · PROFESSIONAL LAND SURVEYOR

AS-BUILT

PROFESSIONAL CERTIFICATION:
"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. 14202, EXPIRATION DATE: 12/01/11."

STATE OF MARYLAND · MARK PHILLIP SHAW · No. 14202 · PROFESSIONAL ENGINEER

MAR 05 2010

OWNER	DEVELOPER
APRIL R. ROBBINS 5 JOYCE ROAD FRAMINGHAM, MA 01701-3365	WILLIAMSBURG GROUP, LLC C/O ROBERT CORBETT 5485 HARPERS FARM ROAD, SUITE 200 COLUMBIA, MD 21044 410.997.8800

SOUND WALL LOCATION PLAN & DETAILS

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

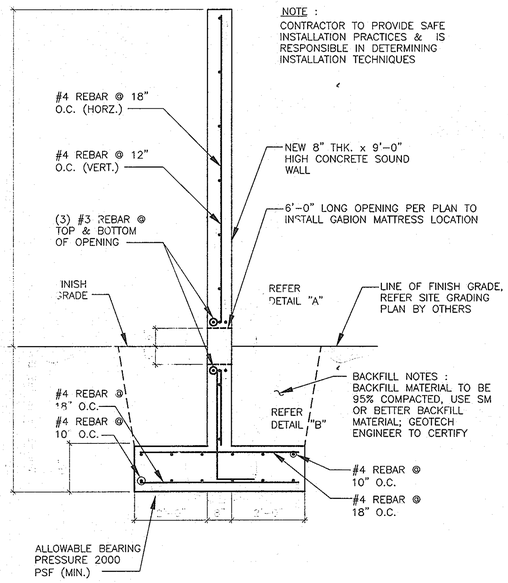
CE CONSULTING ENGINEERS, CORP.
ENGINEERING CONSULTANTS
11480 SUNSET HILLS ROAD
SUITE # 200-E
RESTON VA 20190-5208
PHONE : (703) 481-2100
FAX : (703) 481-3200

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

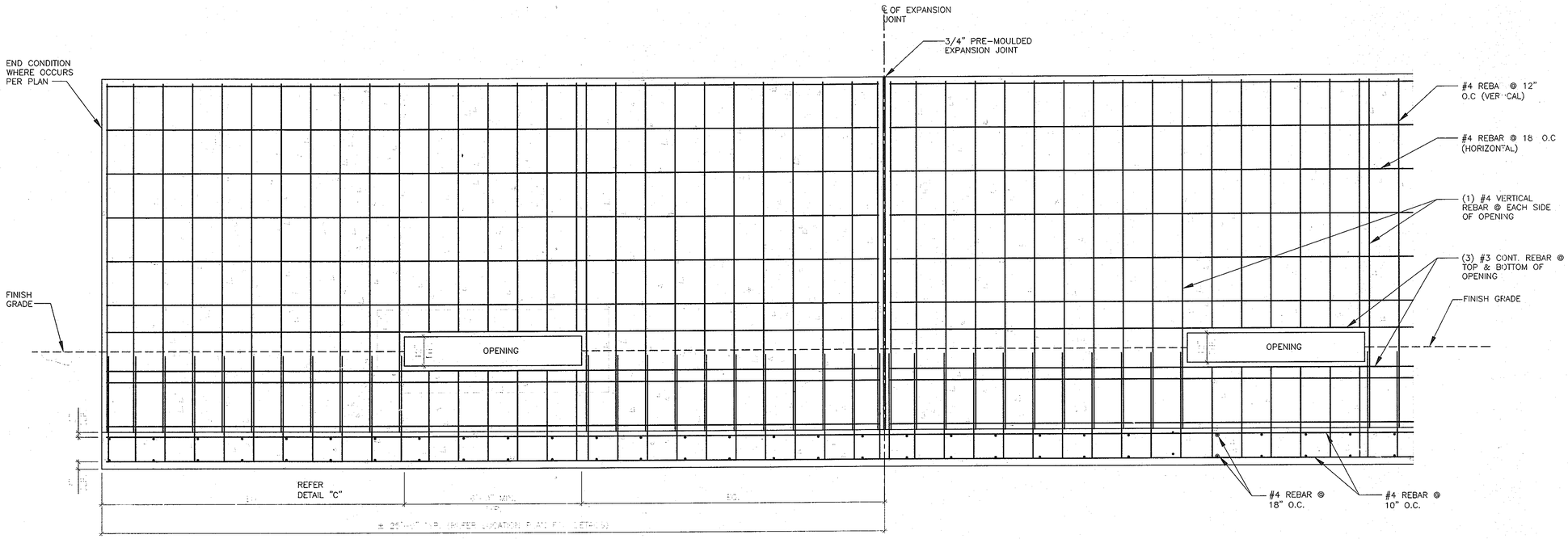
DESIGN BY: SS
DRAWN BY: MP
CHECKED BY PS
SCALE: AS NOTED
DATE: NOVEMBER, 2009
PROJECT #: 07-093
SHEET #: 12 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 2011

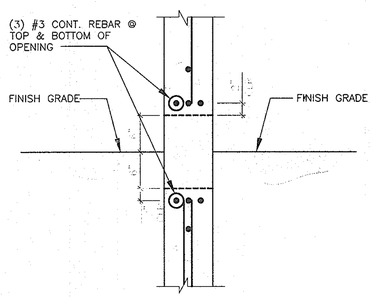
F-10-030



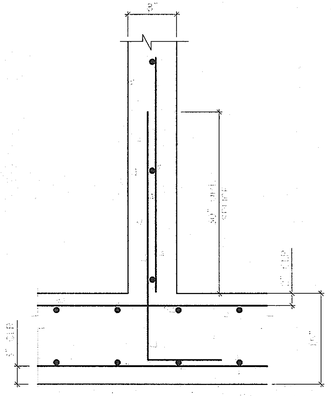
1 SECTION A-A
(9'-0" HIGH CONCRETE SOUND WALL)
SCALE: 1/2"=1'-0"



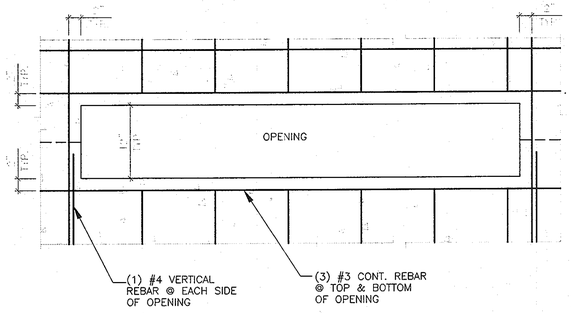
2 TYPICAL WALL ELEVATION X-X
SHOWING REINFORCEMENT
SCALE: 1/2"=1'-0"



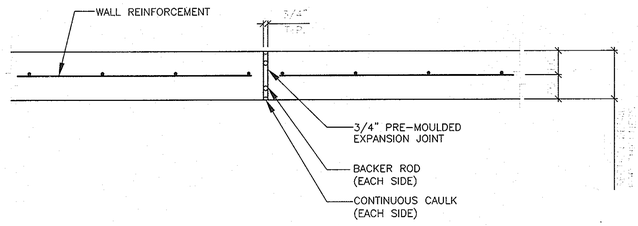
3 DETAIL - "A"
SCALE: 1" = 1'-0"



4 DETAIL - "B"
SCALE: 1" = 1'-0"



5 OPENING REINFORCEMENT DETAIL "C"
SCALE: 1" = 1'-0"



6 TYPICAL EXPANSION JOINT DETAIL
SCALE: 1" = 1'-0"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 4/21/10

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 4/19/10

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF HIGHWAYS — DATE 4-7-10

PROFESSIONAL CERTIFICATION:
"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. 14702, EXPIRATION DATE: 12/01/11"

STATE OF MARYLAND — No. 14702 — PROFESSIONAL ENGINEER
MAR 05 2010

OWNER
APRIL R. ROBBINS
5 JOYCE ROAD
FRAMINGHAM, MA 01701-3365

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410.997.8800

SOUND WALL LOCATION PLAN & DETAILS

STONEFIELD II

LOTS 1-6 AND OPEN SPACE LOTS 7 & 8

TAX MAP 16 GRID 23 — PARCEL 235
2ND ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

CONSULTING ENGINEERS, CORP.
ENGINEERING CONSULTANTS
11480 SUNSET HILLS ROAD
SUITE # 200-E
RESTON VA 20190-5208
PHONE : (703) 481-2100
FAX : (703) 481-3200

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: SS
DRAWN BY: MP
CHECKED BY PS
SCALE: AS NOTED
DATE: NOVEMBER, 2009
PROJECT #: 07-093
SHEET #: 12 of 12

PROFESSIONAL CERTIFICATION: 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. 32025, EXPIRATION DATE: JUNE 20, 20-1

F-10-030