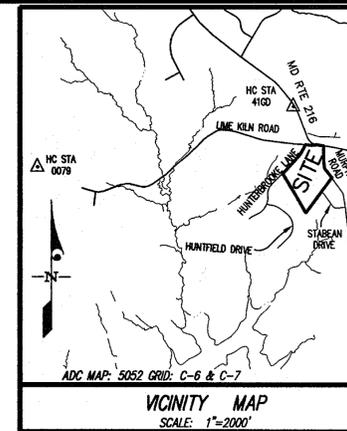
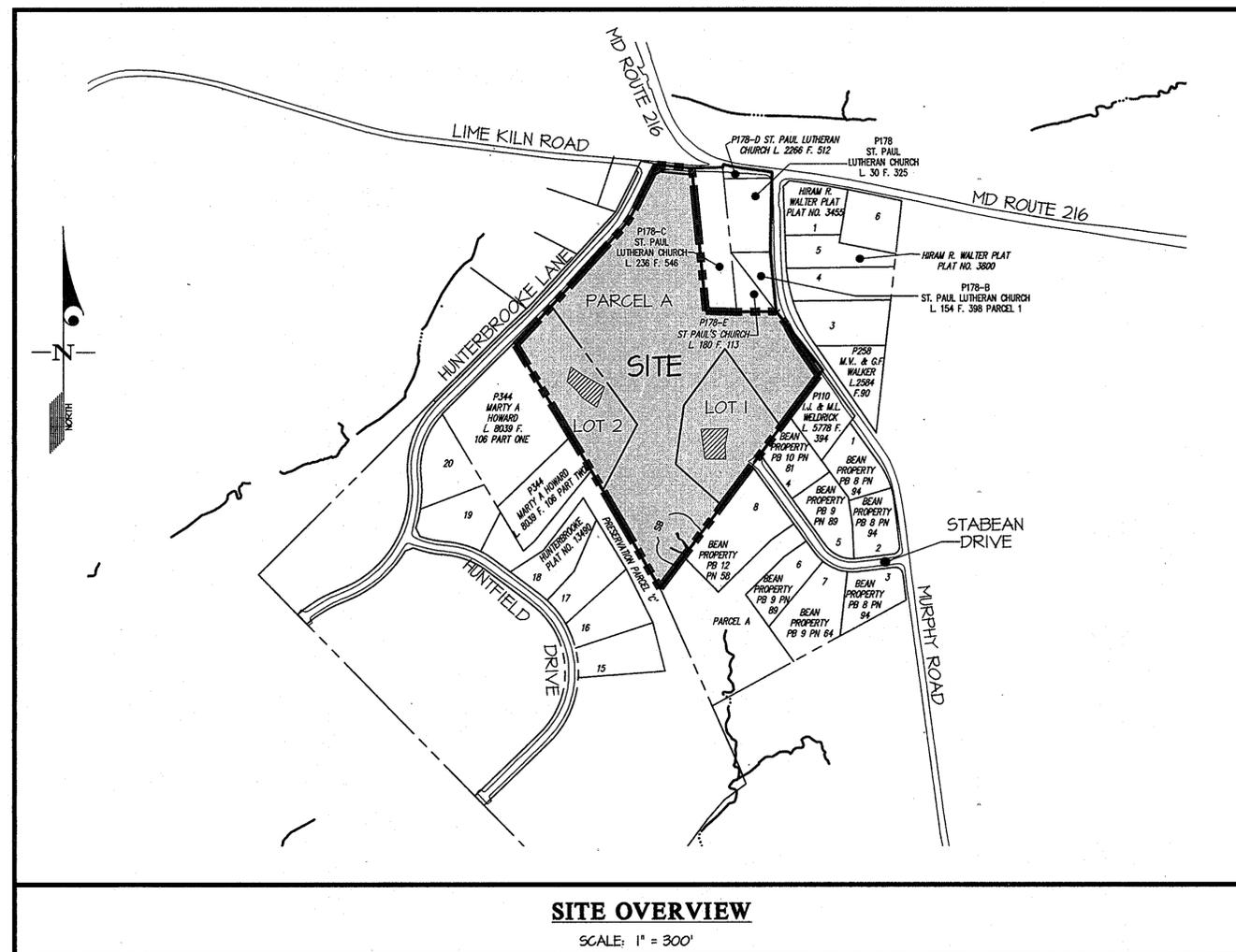


SUPPLEMENTAL PLANS FOR ST. PAUL'S LUTHERAN CHURCH OF FULTON, MARYLAND LOTS 1 & 2 AND NON-BUILDABLE BULK PARCEL "A" LIBER 11360 FOLIO 592



GENERAL NOTES

1. THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. PROPERTY IS ZONED RR-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND PER THE COMP LITE ZONING AMENDMENTS EFFECTIVE JULY 29, 2006.
3. SEE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS: BA-10-01CV & MP-11-002, ECP-11-008.
4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-251-TITTI AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
5. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
6. THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY MCKENZIE-SNYDER DATED DECEMBER 2008.
7. COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 41GD - N 541,446.6230 E 1333,741.1870 AND NO. 007M - N 540,070.9780 E 1327,102.7210.
8. THIS PROPERTY WILL BE SERVED BY PRIVATE WATER AND IS PROVIDED BY INDIVIDUAL WELLS. PRIVATE SEWER IS PROVIDED PRIVATE INDIVIDUAL SEPTIC SYSTEM. THIS PROPERTY IS NOT WITHIN THE METROPOLITAN DISTRICT.
9. STORMWATER MANAGEMENT FOR LOTS 1 AND 2 WILL BE PROVIDED ON EACH LOT AND SHOWN ON A FUTURE PLOT PLAN FOR EACH LOT.
10. THERE IS NO FLOODPLAIN ON THIS SITE.
11. THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY EXPLORATION RESEARCH, INC., DATED FEBRUARY, 2010, AND WAS APPROVED AS PART OF THIS PLAN.
12. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
13. EXISTING UTILITIES WERE TAKEN FROM AVAILABLE HOWARD COUNTY RECORDS.
14. NO GRADING, REMOVAL OF VEGETATION COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENTS.
15. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
16. THE SCENIC ROADS MAP DOES NOT INDICATE ANY SCENIC ROADS WITHIN OR ADJACENT TO THE PROJECT LIMITS.
17. BOUNDARY INFORMATION IS FROM BOUNDARY SURVEYS BY GUTSCHICK, LITTLE, AND WEBER, P.A., DATED AUGUST, 2008.
18. THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL HAS BEEN SATISFIED WITH ON-SITE FOREST CONSERVATION. A TOTAL OF 5.95 ACRES OF ON-SITE FOREST CONSERVATION EASEMENT FOR 5.04 AC. OF CREDITED FOREST RETENTION AND 0.86 ACRES OF REFORESTATION HAVE BEEN PROVIDED. A FOREST CONSERVATION SURETY IN THE AMOUNT OF \$63,025.00 HAS BEEN POSTED WITH THE DEVELOPER'S AGREEMENT ASSOCIATED WITH THIS PLAN. SEE FOREST CONSERVATION PLAN (SHEETS 6 & 7) FOR ADDITIONAL INFORMATION.
19. A FOREST STAND DELINEATION PLAN WAS SUBMITTED AND APPROVED FOR THIS SITE UNDER THIS PLAN.
20. LANDSCAPE SURETY IN THE AMOUNT OF \$5,100.00 WILL BE POSTED AS A PART OF THE *Builder's Grading Permit*.
21. THE CEMETERY INVENTORY MAPS DO NOT SHOW ANY CEMETERIES WITHIN THE PROJECT LIMITS. HOWEVER, A CEMETERY DOES EXIST ON THE ADJACENT PARCELS 17B, 17B-B & 17B-E. THE L.O.D. FOR THIS SITE STAYS A MINIMUM OF 10' FROM THE EXTENT OF THE EXISTING GRAVES. AS PART OF BA-10-01CV, A PORTION OF PARCEL A WILL BE USED TO EXPAND THE EXISTING CEMETERY.
20. MP-11-002, WAIVER REQUEST FROM SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SECTIONS:
 - A) 16.1202, APPLICABILITY, EXCEPTIONS AND DECLARATION OF INTENT, AND;
 - B) 16.1206(a)(4)(i)(b), LOT DESIGN - WHICH PROHIBITS FOREST CONSERVATION EASEMENTS ON LOTS LESS THAN 10 ACRES IN SIZE.
 WAS APPROVED ON AUGUST 2, 2010, SUBJECT TO THE FOLLOWING CONDITIONS:
 - 1) THE LIMIT OF DISTURBANCE FOR THIS PROJECT IS RESTRICTED TO THE AREA SHOWN ON THE WAIVER PETITION PLAN.
 - 2) FURTHER IMPROVEMENTS ON PARCEL 17B MUST SATISFY THE FOREST CONSERVATION REQUIREMENTS APPLICABLE AT THAT TIME.



SHEET INDEX

1. COVER SHEET
2. GRADING AND SEDIMENT CONTROL PLAN
3. GRADING AND SEDIMENT CONTROL PLAN
4. LANDSCAPE PLAN
5. LANDSCAPE PLAN
6. FOREST CONSERVATION PLAN
7. FOREST CONSERVATION PLAN

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Vest Seal
Chief, Division of Land Development
Date: 10/14/10

Chillem
Chief, Development Engineering Division
Date: 10/5/10

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWNE OFFICE PARK
BURTONTOWNE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-999-2524 FAX: 301-421-4186

L:\CADD\DRAWINGS\08034\08034-CS.dwg DES: dds DRN: dds CHK:

DATE	REVISION	BY	APPR.

PREPARED FOR:
ST. PAUL'S LUTHERAN CHURCH
11795 ROUTE 216
FULTON, MARYLAND 20759
ATTN: JERRY FRANKENFELD
301-725-0241

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS
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. 12979
EXPIRATION DATE: 9-9-10



COVER SHEET

ST. PAUL'S LUTHERAN CHURCH OF FULTON, MARYLAND
LIBER 11360 FOLIO 592

CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	RR-DEO	08034
DATE	TAX MAP - GRID	SHEET
SEPT., 2010	46 - 2	1 OF 7

HOWARD COUNTY, MARYLAND

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 SLOPE 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 SUPPLY 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.

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 RESPECTIVE 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:
 A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY A 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 SANDS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/2" IN DIAMETER.
 B. TOPSOIL MUST BE FREE OF PLANT PARTS SUCH AS BERBERIS GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GRAVEL LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1000 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:
 A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 A. ON SOIL TESTING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER & LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 1. 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 6.0 OR HIGHER.
 2. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 15 PERCENT BY WEIGHT.
 3. TOPSOIL HAVING SOLUBLE SALT GREATER THAN 500 PARTS PER MILL SHALL NOT BE USED.
 4. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN) TO PERMIT DISSIPATION OF PHOTO-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.
 B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).

V. TOPSOIL APPLICATION
 A. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSION GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 B. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4"-8" HIGHER IN ELEVATION.
 C. 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 DITCHES. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING 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.
 A. 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 DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 1. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 2. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 15 PERCENT PHOSPHORUS, 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.
 3. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SQUARE FEET.
 B. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT A RATE OF 4 LB/1000 SQUARE FEET, AND 1/5 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1975.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Chief, Development Engineering Division

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (400) 31-1995

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 1974 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 AND PERIMETER SLOPES AND ALL SLOPES GREATER THAN 5:1, 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 1974 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDINGS AND MULCHING (SEC. 6). 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 PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

TOTAL AREA OF SITE : 20.0 ± ACRES
 AREA DISTURBED : 2.4 ± ACRES
 AREA TO BE ROOFED OR PAVED : 0.1 ± ACRES
 AREA TO BE VEGETATIVELY STABILIZED : 25 ± ACRES
 TOTAL CUT : 3500 ± CU. YDS.
 TOTAL FILL : 6000 ± CU. YDS.

OFF-SITE MAGBEBORROW AREA LOCATION

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPN SEDIMENT CONTROL INSPECTOR.

9. 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.

10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN 1 WORKING DAY, WHICHEVER IS SHORTER.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS 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 (2 LBS/1000 SQUARE FEET) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQ FT) BEFORE SEEDING. HARRON OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA-FORM FERTILIZER (4 LBS/1000 SQ FT).
 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (2 LBS/1000 SQ FT) AND 1000 LBS PER ACRE OF 10-10-10 FERTILIZER (25 LBS/1000 SQ FT) BEFORE SEEDING. HARRON 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 (.05 LBS/1000 SQ FT) OF KEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 29, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (10 TO 40 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GALL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 3 FT OR HIGHER, USE 348 GALLONS PER ACRE (8 GALL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED 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.
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQ FT).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 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 KEEPING LOVEGRASS (0.7 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 29, 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.

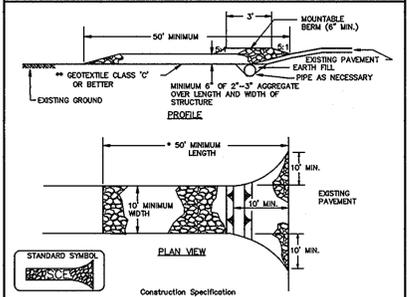
MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (10 TO 40 LBS/1000 SQ FT) OF UNROTTED, NEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GAL PER ACRE (5 GALL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 3 FT OR HIGHER, USE 348 GAL PER ACRE (8 GALL/1000 SQ FT) FOR ANCHORING.

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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: [Signature] Date: 9-10-10

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



1. Length - minimum of 50' (30' for single residence lots).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

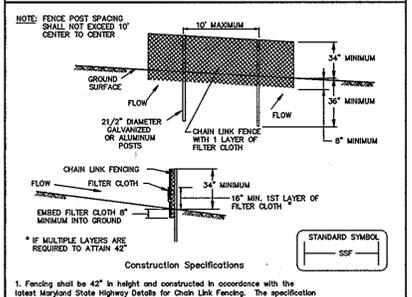
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. *The plan approval authority may not require single family residences to use geotextile.

4. Stone - crushed aggregate (2" to 3") or 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 entrance shall be protected with a movable berm with 5:1 slope and a minimum of 2' of stone over the pipe. Pipes have 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.

DETAIL 33 - SUPER SILT FENCE



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, braces 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 all buildup 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/ft (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/ft (min.)	Test: MSMT 509
Flow Rate	0.3 sq/ft /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

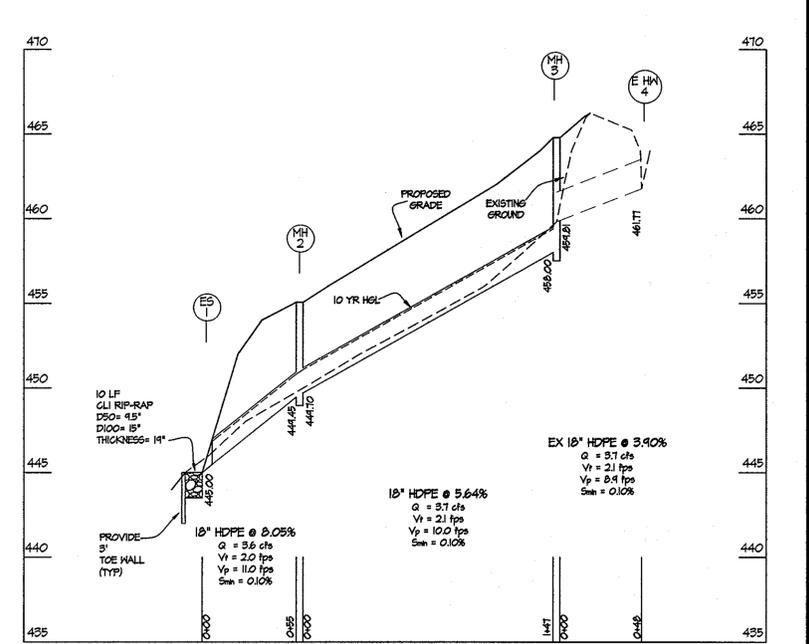
* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42"

S.D. Pipe Summary Table
 PRIVATELY OWNED AND MAINTAINED

Size (in.)	Type	Quantity (L.F.)	Remarks
10"	HDPE	202	ADS N12 or equiv.

S.D. STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STANDARD DETAIL	NOTES	OWNERSHIP & MAINTENANCE
			UPPER	LOWER	UPPER	LOWER			
MH-3	MANHOLE	4'-0"	464.77	---	454.21	450.00	HO. CO. 6. 5.11		PRIVATE
MH-2	MANHOLE	4'-0"	455.06	---	444.70	444.45	HO. CO. 6. 5.11		PRIVATE
ES-1	END SECTION	10"	446.50	---	445.00	---			PRIVATE



ENGINEER'S CERTIFICATE

"I HEREBY 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: [Signature] Date: 9-9-10

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

Signature: [Signature] Date: 10/12/10

GLWGUTSCHICK LITTLE & WEBER, PA.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONVILLE OFFICE PARK - 20868
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 ST. PAUL'S LUTHERAN CHURCH
 11795 ROUTE 216
 FULTON, MARYLAND 20759
 ATTN: JERRY FRANKENFIELD
 301-725-0241

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975
 EXPIRATION DATE: MAY 25, 2012

GRADING AND SEDIMENT CONTROL PLAN

ST. PAUL'S LUTHERAN CHURCH OF FULTON, MARYLAND
 LIBER 11360 FOLIO 592

CLARKSVILLE ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. V. FILE NO.
AS SHOWN	RR-DEO	08034
DATE	TAX MAP - GRID	SHEET
SEPT., 2010	46 - 2	3 OF 7

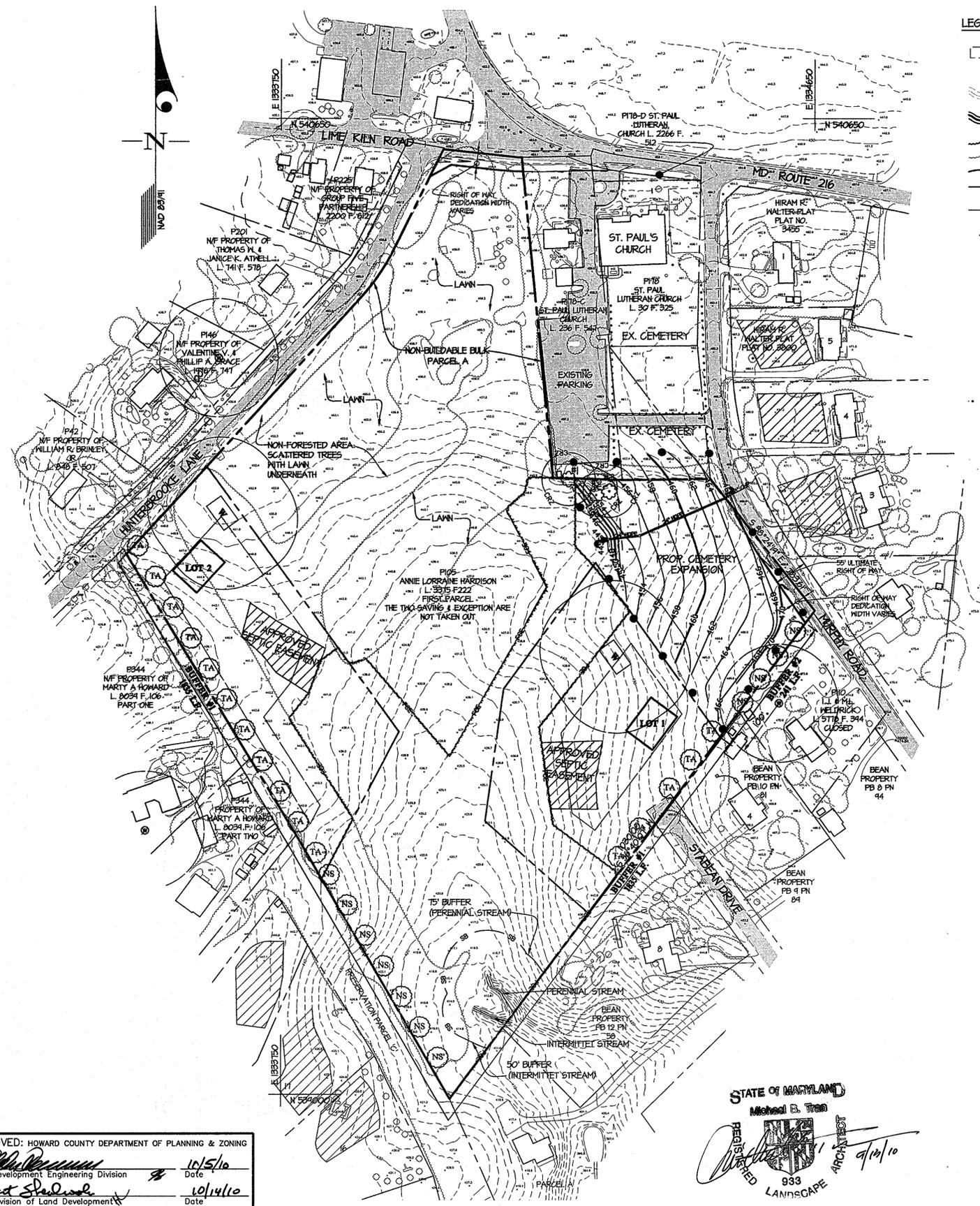
LEGEND

- EXISTING BUILDINGS
- PROPOSED BUILDINGS
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED TREE LINES
- EXISTING TREE LINES
- STREAM
- STREAM BUFFER
- FOREST CONSERVATION EASEMENT
- FIELD SURVEYED SPECIMEN TREE AND CRZ
- PROPOSED WELL
- EXISTING WELL AND 100' WELL CIRCLE
- SEPTIC AREA
- TYPE PROPOSED SHADE TREE
- LIMITS OF DISTURBANCE

SIGNIFICANT/SPECIMEN TREE LIST

No.	Common Name	Species Name	Diameter (in.)	Condition
1	Silver Maple	<i>Acer saccharinum</i>	30	Good - TO BE SAVED
2	Tulip Poplar	<i>Liriodendron tulipifera</i>	24	Good - TO BE REMOVED
3	Tulip Poplar	<i>Liriodendron tulipifera</i>	24.5	Good - TO BE REMOVED

NOTE: HOUSE LOCATION ON LOT 1 AND 2 IS CONCEPTUAL. ACTUAL LAYOUT WILL BE REFLECTED ON FUTURE PLOT PLANS.



STATE OF MARYLAND
 Michael B. Tran
 REGISTERED ARCHITECT
 933 LANDSCAPE ARCHITECT
 9/10/10

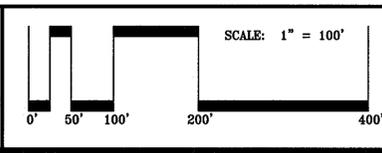
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY

GLWGutschick Little & Weber, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSHILLE OFFICE PARK
 BURTONSHILLE, MARYLAND 20886
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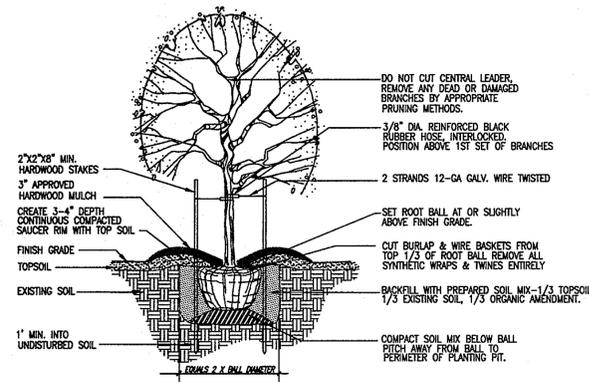
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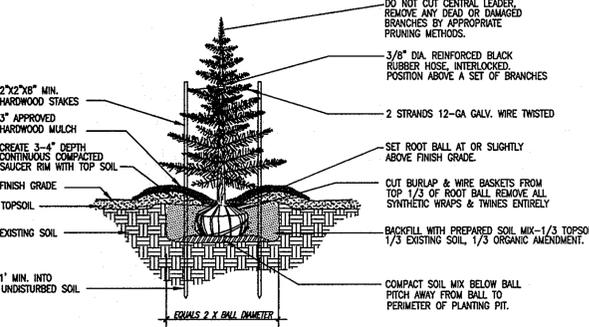


LANDSCAPE PLAN
ST PAUL'S LUTHERAN CHURCH OF FULTON, MARYLAND
 L. 11360 F. 592
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	RR-DEO	08-034
DATE	TAX MAP - GRID	SHEET
SEPT., 2010	46 - 2	4 OF 7



DECIDUOUS TREE PLANTING DETAIL FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER



EVERGREEN TREE PLANTING DETAIL

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall finish and install and/or dig, ball, burlap and transport all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "A.A.A. Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as A.A.N. Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-developed root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heated-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

- a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.
- b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').
- c. Minimum size for planting shade trees shall be 3-3/4" caliper, 14'-16" in height.
- d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3"-3 1/4" caliper, 10'-12" in height.
- e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.
- f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3 1/4"	14'-16'	6'-8'	32" diameter
3 1/2" - 4"	14'-16'	8'-10'	36" diameter
4" - 4 1/2"	16'-18'	8'-10'	40" diameter
4 1/2" - 5"	18'-20'	10'-12'	44" diameter
5" - 5 1/2"	18'-20'	10'-12'	48" diameter
5 1/2" - 6"	18'-20'	12'-14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "A.A.N. Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B&B) in accordance with the "A.A.N. Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

- a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.
- b. All pits shall be generally circular in outline, vertical sides, depth shall not be less than 6" deeper than the root ball diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

- c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.
 - d. Diameter and depth of tree pits shall generally be as follows:
- | PLANT SIZE | PIT ROOT BALL | PIT DIAMETER | DEPTH |
|------------------|---------------|--------------|-------|
| 3" - 3 1/2" cal. | 32" | 64" | 28" |
| 3 1/2" - 4" cal. | 36" | 72" | 32" |
| 4" - 4 1/2" cal. | 40" | 80" | 36" |
| 4 1/2" - 5" cal. | 44" | 88" | 40" |
| 5" - 5 1/2" cal. | 48" | 96" | 44" |
| 5 1/2" - 6" cal. | 52" | 104" | 48" |

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottom of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

- a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.
- b. Wire and Cable: Wire shall be #10 galv. galvanized or galvanized annealed steel wire. For trees over 3" caliper, provide 5/16" braided bakelite eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized 1/2" handles of wire and hose on trees up to 3" in caliper.
- c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D., "Plastic Lock" type or "Trail's Trees Brazer" may be used in place of wire and hose on trees up to 3" in caliper.
- d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

- a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.
- b. All branches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the next lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.
- c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season shall be extended through the end of the next following "Spring" planting season.

Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4' long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Vesta, or Escort.

SYM.	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE/COMMENTS
		SHADE TREES	
**	---	ACER RUBRUM 'RED SUNSET' / RED SUNSET MAPLE	2 1/2" CAL. MIN.
**	---	CLADRASTIS LUTEA / AMERICAN YELLOW WOOD	2 1/2" CAL. MIN.
*	---	FAGUS GRANDIFOLIA / AMERICAN BEECH	2 1/2" CAL. MIN.
NS	---	NYSSA SYLVATICA / BLACK GUM	2 1/2" CAL. MIN.
*	---	QUERCUS PHELLOS / WILLOW OAK	2 1/2" CAL. MIN.
TA	16	TILIA AMERICANA / AMERICAN LINDEN	2 1/2" CAL. MIN.

NOTE:
 * DENOTES ACCEPTABLE TREE SUBSTITUTION FOR NYSSA SYLVATICA.
 ** DENOTES ACCEPTABLE TREE SUBSTITUTION FOR TILIA AMERICANA.

SCHEDULE A	BUFFER '1'		BUFFER '2'	
	A	B	C	D
PERIMETER LANDSCAPE CATEGORY	SINGLE FAMILY DETACHED HOUSE FROM ADJ. PROP.			
BUFFER TYPE	A			
SIDE/REAR BUILDING LENGTH	1835 LF		241 LF	
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES, EXISTING FOREST 416 LINEAR FEET		NO	
CREDIT FOR WALL, FENCE OR BERR (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NONE		NONE	
PLANTINGS REQUIRED	160 ± 23	160 ± 4		
SHADE TREES	0	0		
EVERGREEN TREES	0	0		
SHRUBS	0	0		
PLANTINGS PROVIDED	23	4	0	0
SHADE TREES	0	0	0	0
EVERGREEN TREES	0	0	0	0
OTHER TREES	0	0	0	0
SHRUBS	0	0	0	0
SUBSTITUTIONS				
OTHER (21 SUB.)				
SHRUBS (101 SUB.)				

LANDSCAPING NOTES

1. This plan has been prepared in accordance with Section 16.124 of the Howard County Code of the Howard County Landscape Manual.
2. Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on sheet 1 shall apply.
3. Field verify underground utility locations and existing conditions before starting planting work. Contact engineer / landscape architect if any relocations are required.
4. Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
5. All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
6. No substitution shall be made without written consent of the owner or his representative.
7. All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the project specifications.
8. The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
9. All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
10. Do not plant within the public water, sewer, or utility easements.
11. Financial surety for the required landscaping shall be posted in the amount of \$0,000.00 with the builder's grading permit.
12. Planting provided:
 Shade Trees (proposed): 21
 Ornamental Trees (proposed): 0
 Evergreen Trees (proposed): 0
 Shrubs (proposed): 0
 Private Street Trees: 0

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 10/5/10
 Chief, Development Engineering Division Date

[Signature] 10/14/10
 Chief, Division of Land Development Date

STATE OF MARYLAND
 Michael E. Tran
 933 LANDSCAPE ARCHITECT
 7/12/10

GLWGUTSCHICK LITTLE & WEBER, P.A.
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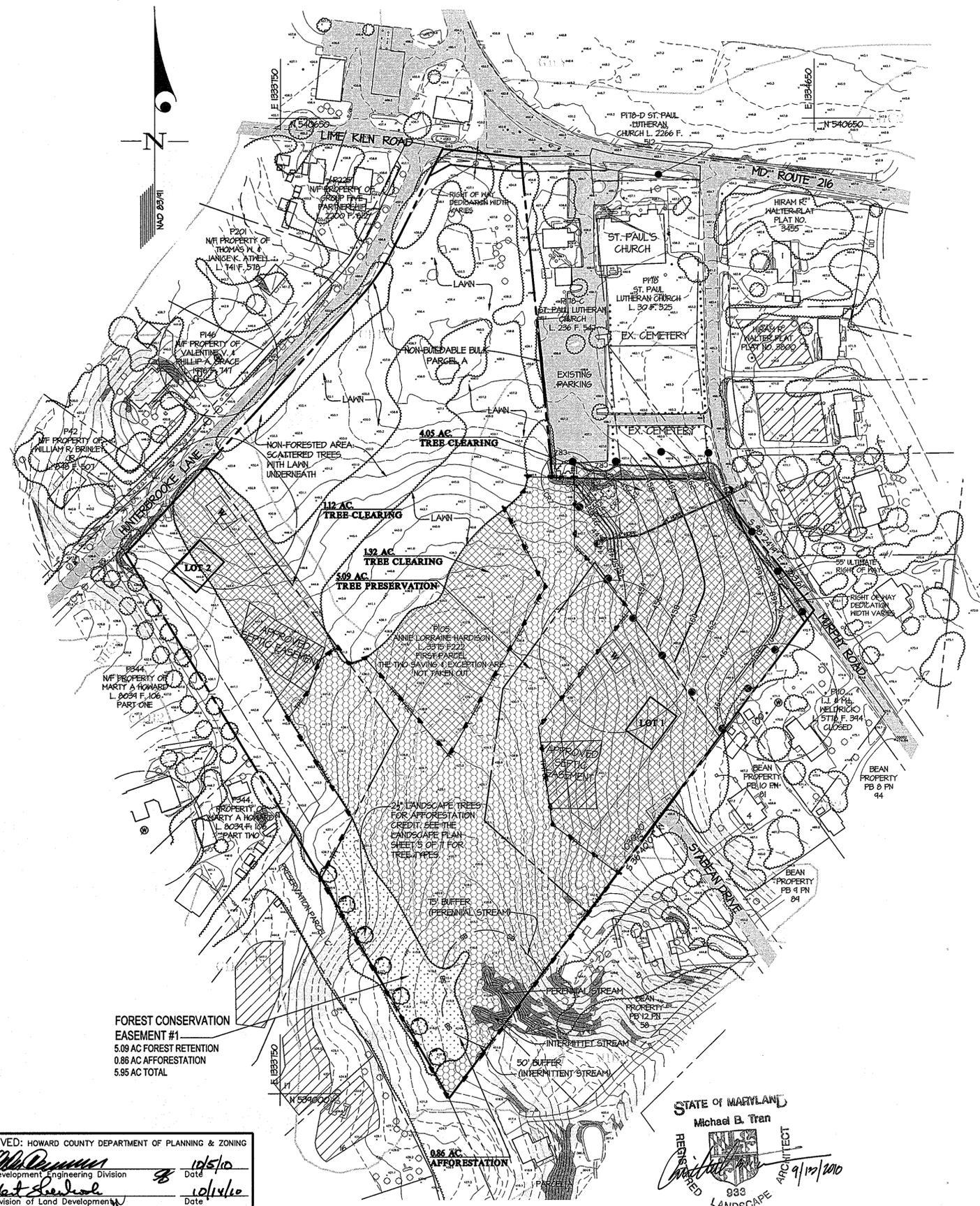
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LANDSCAPE DETAILS

SCALE: NO SCALE ZONING: RR-DEO G. L. W. FILE NO.: 08-034

DATE: SEPT., 2010 TAX MAP - GRID: 46 - 2 SHEET: 5 OF 7

ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND



LEGEND

- EXISTING BUILDINGS
- PROPOSED BUILDINGS
- PLANTING AREA (0.86 AC)
- FOREST CLEARING (6.52 AC)
- FOREST RETENTION (5.06 AC)
- EXISTING CONTOURS
- PROPOSED CONTOURS
- TREE LINES
- EXISTING TREE LINES
- STREAM
- STREAM BUFFER
- SOIL DELINEATION
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE
- FINAL FOREST CONSERVATION SIGN
- FIELD SURVEYED SPECIMEN TREE AND CRZ
- PROPOSED WELL
- EXISTING WELL AND 100' WELL CIRCLE
- SEPTIC AREA
- TYPE PROPOSED SHADE TREE
- LIMITS OF DISTURBANCE
- SLOPES 15% TO 25%
- SLOPES 25% AND STEEPER

SOIL TYPES

- 04B2 - CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
- 04C2 - CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
- 04C3 - CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
- 61B2 - GLENVILLE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
- 61A - GLENVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES
- 61B2 - GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
- M1B2 - MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
- M1C2 - MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
- M1C3 - MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED
- M1D9 - MANOR LOAM, 8 TO 25 PERCENT SLOPES, SEVERELY ERODED

SITE ANALYSIS

SUBJECT PROPERTY PARCEL 105 _____ 14.91 AC
 CEMETERY GRADING DISTURBANCE
 ON ADJACENT PARCEL 118 (MP-11-002) _____ 0.17 AC
 TOTAL NET TRACT AREA = 20.16 AC

SIGNIFICANT/SPECIMEN TREE LIST

No.	Common Name	Species Name	DBH (in.)	Condition
1	Silver Maple	<i>Acer saccharum</i>	30	Good-to BE SAVED
2	Tulip Poplar	<i>Liriodendron tulipifera</i>	24	Good-to BE REMOVED
3	Tulip Poplar	<i>Liriodendron tulipifera</i>	21.5	Good-to BE REMOVED

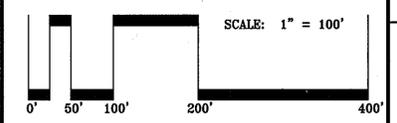
FOREST CONSERVATION EASEMENT #1
 5.09 AC FOREST RETENTION
 0.86 AC AFFORESTATION
 5.95 AC TOTAL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division *[Signature]* 10/5/10
 Chief, Division of Land Development *[Signature]* 10/14/10

STATE OF MARYLAND
 Michael B. Tran
 933 LANDSCAPE ARCHITECT
 9/17/2010

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FOREST CONSERVATION PLAN
ST PAUL'S LUTHERAN CHURCH OF FULTON, MARYLAND
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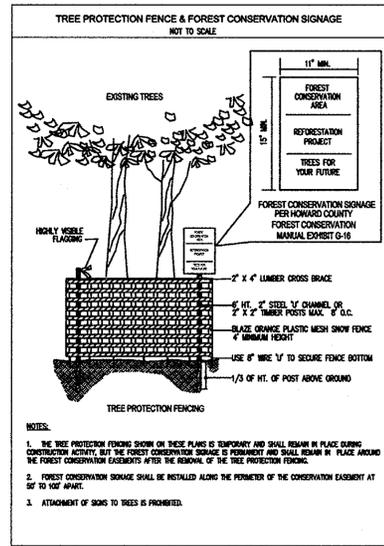
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ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

FOREST CONSERVATION WORKSHEET		
1 Site Data		
Gross Site Area		19.99
Additional 7,500 S.F. area on adjacent Parcel 178 (WP-11-002)		0.17
Net Tract Area		20.16
Land Use Category (RR-DEO)		Residential- Rural
2 Input Data		
A. Net Tract Area		20.16
B. Reforestation Threshold (see threshold calculations for mixed use)		4.33
C. Afforestation Threshold (see threshold calculations for mixed use)		3.32
D. Existing Forest on Net Tract Area		11.58
E. Forest Clearing on Net Tract Area		6.49
F. Forest Retention on Net Tract Area		5.09
3 Reforestation Calculations		
A. Net tract forest clearing above reforestation threshold		6.49
B. Net tract forest retention above reforestation threshold (2F-2B, available credit)		0.76
C. Reforestation planting required for clearing above threshold (0.25x3A)		1.62
D. Excess credit remaining (3B-3C)		-0.86
E. Total reforestation planting required (3C - 3B)		0.86
4 Break Even Point (BEP) Calculations		
A. Maximum clearing allowed with no reforestation planting (2D-2B)/1.25		5.80
B. Minimum net tract retention at BEP 0.20(2D-2B)+2B or 2D-4A		5.78
5 Forest Conservation Required		
A. Forest Retention Area (2F)		5.09
B. Forest Planting Area (3E)		0.86
C. Total minimum FCE required for retention and reforestation		5.95



TREE PLANTING AND MAINTENANCE CALENDAR	
TASKS	MONTHS
	JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
TRANSPLANT OF 2" DBH OR GREATER	-----
PLANTING SEEDLINGS, WEEDS	-----
MINOR MAINTENANCE	* * *
FERTILIZER + (F NEEDED)	-----
WATER ++	-----
PRUNING	-----

KEY

- * ACTIVITIES DURING THESE MONTHS ARE DEPENDENT UPON GROUND CONDITIONS
- GREATLY RECOMMENDED
- RECOMMENDED WITH ADDITIONAL CARE
- RECOMMENDED
- + DEPENDENT UPON SITE CONDITIONS
- ++ DEPENDENT UPON SITE CONDITIONS, WEEKLY WATERING IS GREATLY RECOMMENDED FROM MAY THROUGH OCTOBER UNLESS WEEKLY RAINFALL EQUALS 1"

NOTE: THE PLANTING AND CARE OF TREES IS MOST SUCCESSFUL WHEN COORDINATED WITH THE LOCAL CLIMATE CONDITIONS. THIS CALENDAR SUMMARIZES SOME OF THE RECOMMENDED TIME FRAMES FOR BASIC REFORESTATION AND STRESS REDUCTION ACTIVITIES.

SOURCE: ADAPTED FROM THE MARYLAND STATE FOREST CONSERVATION MANUAL.

CONSTRUCTION PERIOD PROTECTION PROGRAM

- THE LIMIT OF FOREST RETENTION SHALL BE STAKED AND FLAGGED.
- A PRE-CONSTRUCTION MEETING AT THE SITE SHOULD BE HELD TO CONFIRM THE LIMITS OF CLEARING SPECIFIED. THE MEETING SHOULD INCLUDE THE OWNER OR THE OWNER'S REPRESENTATIVE, THE ON-SITE FOREMAN IN CHARGE OF LAND DISTURBANCE, THE ENVIRONMENTAL CONSULTANT AND THE APPROPRIATE HOWARD COUNTY INSPECTORS.
- FOREST PROTECTION DEVICES AND SIGNS (SEE DETAILS) SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING. THE PROTECTION DEVICES AND SIGNS SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD. NONE OF THE DEVICES SHALL BE ANCHORED OR ATTACHED IN ANY WAY TO THE TREES TO BE SAVED.
- EQUIPMENT, VEHICLES AND BUILDING MATERIALS SHALL NOT BE WITHIN THE PROTECTED AREA. ACTIVITIES STRICTLY TO IMPLEMENT ANY REFORESTATION PLANTING AND MAINTENANCE (I.E. WATERING, FERTILIZING, THINNING, PRUNING, REMOVAL OF DEAD AND DISEASED TREES WHERE NECESSARY, ETC.) OF THE CONSERVATION AREA ARE PERMITTED. CLEARING FOR THE PURPOSE OF SODDING OR PLANTING GRASS IS NOT PERMITTED WITHIN THE FOREST CONSERVATION AREAS ONCE THEY'RE ESTABLISHED.
- AT THE END OF THE CONSTRUCTION PERIOD, THE DESIGNATED QUALIFIED PROFESSIONAL SHALL CONVEY TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL FOREST RETENTION AREAS HAVE BEEN PRESERVED, ALL REFORESTATION AND/OR AFFORESTATION PLANTINGS (IF APPLICABLE) HAVE BEEN INSTALLED AS REQUIRED BY THE FOREST CONSERVATION PLAN, AND THAT ALL PROTECTION MEASURES REQUIRED FOR THE POST-CONSTRUCTION PERIOD HAVE BEEN INSTALLED. UPON REVIEW OF THE FINAL CERTIFICATION DOCUMENT FOR COMPLETENESS AND ACCURACY, THE PROGRAM COORDINATOR WILL NOTIFY THE OWNER OF RELEASE FROM THE CONSTRUCTION PERIOD OBLIGATIONS. THE 2-YEAR (MIN) POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD THEN COMMENCES.

GENERAL NOTES

- THIS REFORESTATION PLAN IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBTITLE 12 "FOREST CONSERVATION" OF THE HOWARD COUNTY CODE.
- IMPLEMENTATION OF THIS PLAN MUST BE PERFORMED BY A CONTRACTOR THAT IS KNOWLEDGEABLE AND EXPERIENCED IN AFFORESTATION/REFORESTATION TECHNIQUES AND PRACTICES.
- THE OWNER IS RESPONSIBLE FOR A 2-YEAR (MIN) POST-CONSTRUCTION MAINTENANCE PERIOD WHICH INVOLVES ACTIVITIES NECESSARY TO ENSURE SURVIVAL AND GROWTH OF THE CONSERVATION AREA. TWO INSPECTIONS PER YEAR BY A QUALIFIED PROFESSIONAL AT BEGINNING AND END OF THE GROWING SEASON, ARE RECOMMENDED IN ORDER TO TAKE REMEDIAL STEPS AS NECESSARY. IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING (IF APPLICABLE) WILL NOT MEET SURVIVAL RATE STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS.
- AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, CERTIFICATION BY A QUALIFIED CONSULTANT WILL BE REQUIRED BEFORE TO THE OWNER CAN BE RELEASED FROM HIS/HER FOREST CONSERVATION OBLIGATION TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.
- THE DEVELOPER/BUILDER SHALL (IN WRITING) NOTIFY ALL HOME OWNERS IN THIS DEVELOPMENT OF THE EXISTENCE OF FOREST CONSERVATION AREAS AND THAT DISTURBANCE TO THE FOREST CONSERVATION AREAS OR THE REMOVAL OF FOREST CONSERVATION SIGNAGE IS PROHIBITED.
- REFORESTATION/AFFORESTATION TREE PLANTINGS SHOULD BE INSTALLED IN A CURVILINEAR PATTERN TO FACILITATE MAINTENANCE BUT AVOID A GRID APPEARANCE. EACH SPECIES OF TREE SHALL BE DISTRIBUTED EVENLY WITHIN EACH FOREST CONSERVATION EASEMENT AREA.

Forest Conservation Threshold Calculations for Mixed Use

	Proposed Net Tract Area		Reforestation Threshold percentage & Corresponding Acreage	Afforestation Threshold percentage & Corresponding Acreage
	Sq. feet	Acres		
RR - Residential Use (medium density)	261,388	6.00	25 % = 1.50	20 % = 1.20
RR - Institutional Use (church)*	616,810	14.16	20 % = 2.83	15 % = 2.12
Total	878,198	20.16	4.33	3.32

* THE INSTITUTIONAL USE INCLUDES THE 7,500 S.F. ON ADJACENT PARCEL 178.

Forest Conservation Surety Calculations

Type of Forest Conservation	Quantity		Unit price per square foot	Surety Amount
	Acres	Square Feet		
Required Forest Retention	5.090	221,720	\$0.20	\$44,345.00
Required Reforestation/Afforestation	0.865	37680	\$0.50	\$18,840.00

Total Forest Conservation Surety required: **\$63,185.00**

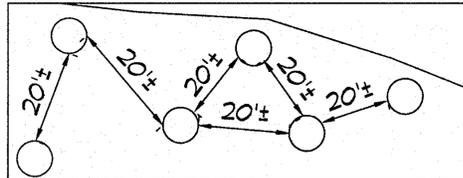
NOTE: SURETY SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN

Information for Forest Conservation Calculations

Project Name:	Saint Paul's Lutheran Church of Fulton, Maryland		
1. Gross Site Area	878,198 s.f.		20.1607 ac.
2. Area within 100-yr floodplain, if any	0 s.f.		0.0000 ac.
3. Area of existing easement for major utility transmission lines (if any, see note below)	0 s.f.		0.0000 ac.
4. Area of external public road (frontage) dedication (if any see note below)	0 s.f.		0.0000 ac.
5. Existing Forest on Net Tract Area	499,198 s.f.		11.4600 ac.
6. Forest Clearing on Net Tract Area	280,613 s.f.		6.4420 ac.

- Notes:
- #4 - Existing easement or R/W for major utilities that are not directly serving the site (such as overhead transmission lines or gas pipelines) can be deducted from the gross tract area. (DPZ Guidelines, Item #13, June 1994).
 - #5 - R/W dedications required for external arterial or collector roads adjacent to the site can be deducted if no forest clearing is to occur in the area to be dedicated (DPZ Guidelines, Item #13, June 1994).

*NOTE: INCLUDES AREA ON PARCEL 178 (WP-11-002)



STATE OF MARYLAND
 Michael E. T...
 933 LANDSCAPE...
 7/12/10

FOREST CONSERVATION EASEMENT AREA TABULATION		
FOREST CONSERVATION EASEMENT (FCE) AREA	1	TOTAL
PARCEL WHERE FCE IS LOCATED	N/A	
CREDITED FOREST RETENTION AREA ON NET TRACT (IN AC.)	5.09	5.09
NON-CREDITED FOREST RETENTION AREA ON NET TRACT (IN AC.)	0.00	0.00
FOREST PLANTING AREA (IN AC.)	0.86	0.86
NATURAL REGENERATION AREA (IN AC.)	N/A	N/A
MINIMUM TOTAL AREA IN CONSERVATION EASEMENT (IN AC.)	5.95	5.95

FOREST CONSERVATION PLANTING QUANTITY SCHEDULE		
FOREST CONSERVATION LOCATION	1	
FOREST PLANTING AREA (IN AC.)	0.86	
TOTAL ACREAGE OF AFFORESTATION PROVIDED (IN AC.)	0.86	
BASE QUANTITY OF 2" CAL. TREES REQUIRED (AT 100 TREES/AC)	86	
CREDIT FOR 2-1/2" LANDSCAPE TREES IN FCE	7	
REQUIRED QUANTITY OF 2" CAL. TREES TO BE PLANTED*	79	
* FOR PLANTING WITH 1" CAL. TREES, THE REQUIRED QUANTITY SHALL BE DOUBLED.		
NOTE: THE QUANTITY SHOWN ABOVE IS FOR PLANTING WITH 2" CAL. TREES AT 20' X 20' SPACING.		

FOREST CONSERVATION PLANT LIST		
PLANT NAME (BOTANICAL/COMMON)	#1	
CARYA OVATA / SHAGBARK HICKORY (2" CALIPER)	13	
ACER RUBRUM / RED MAPLE (2" CALIPER)	13	
BETULA NIGRA / RIVER BIRCH (2" CALIPER)	13	
NYSSA SYLVATICA / BLACK GUM (2" CALIPER)	14	
PLATANUS OCCIDENTALIS / SYCAMORE (2" CALIPER)	13	
CHONANTHUS VIRGINICUS / FRINGE-TREE (2" CALIPER)	13	
TOTAL	79	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 ST. PAUL'S LUTHERAN CHURCH
 11795 ROUTE 216
 FULTON, MD 20759
 JERRY FRANKENFIELD
 301-725-0241

FOREST CONSERVATION PLAN		
SCALE	ZONING	G. L. W. FILE No.
NO SCALE	RR-DEO	08-034
DATE	TAX MAP - GRID	SHEET
SEPT., 2010	46 - 2	7 OF 7

ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND