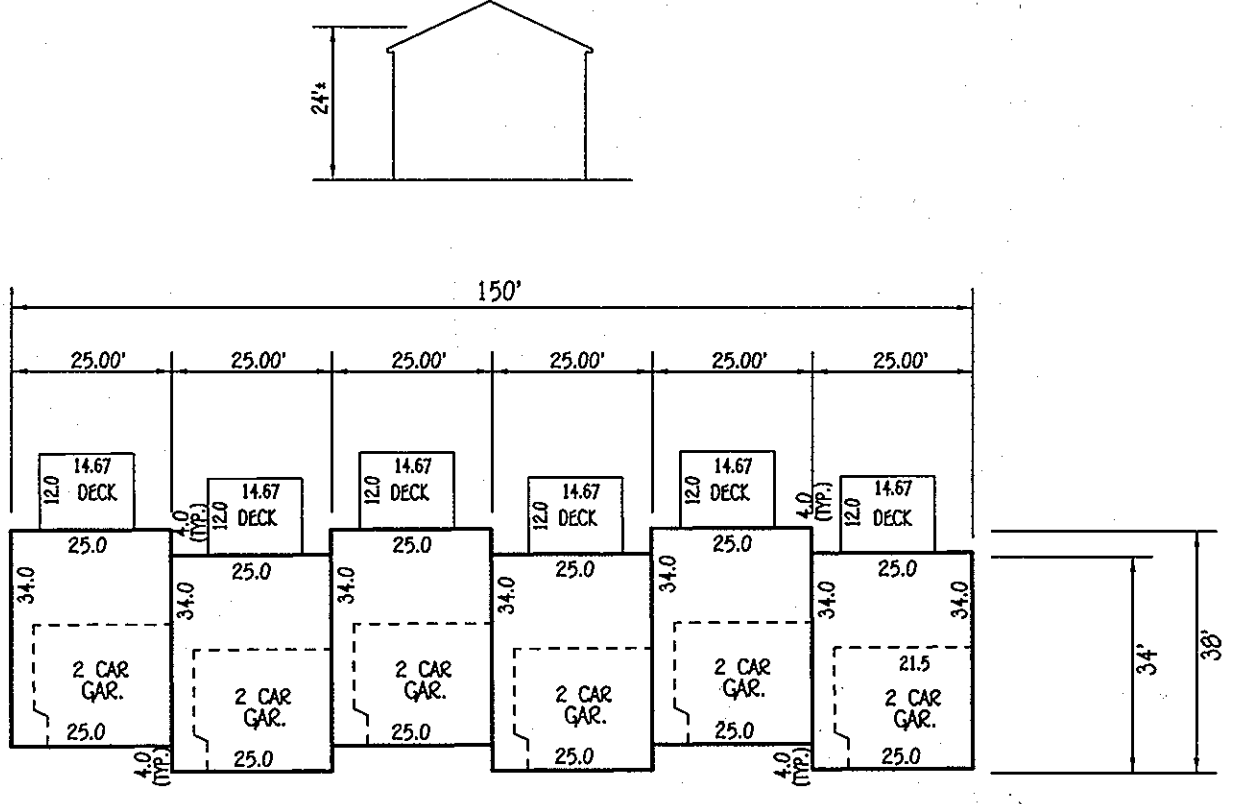
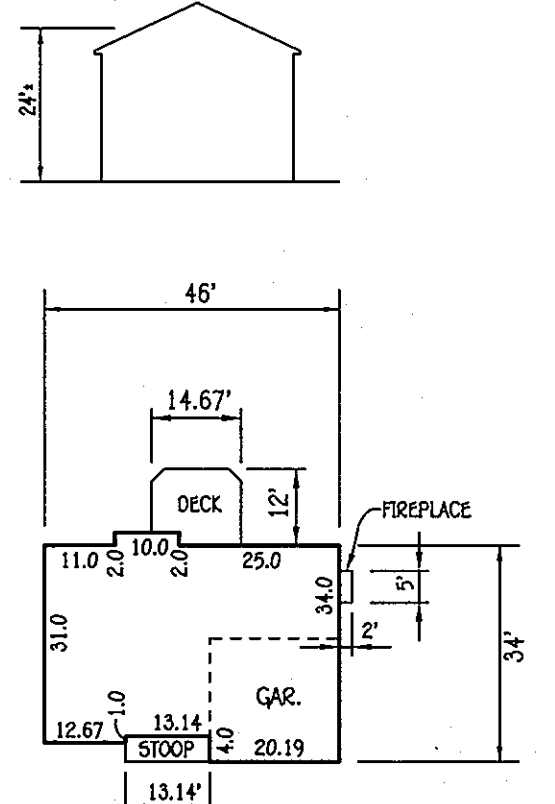


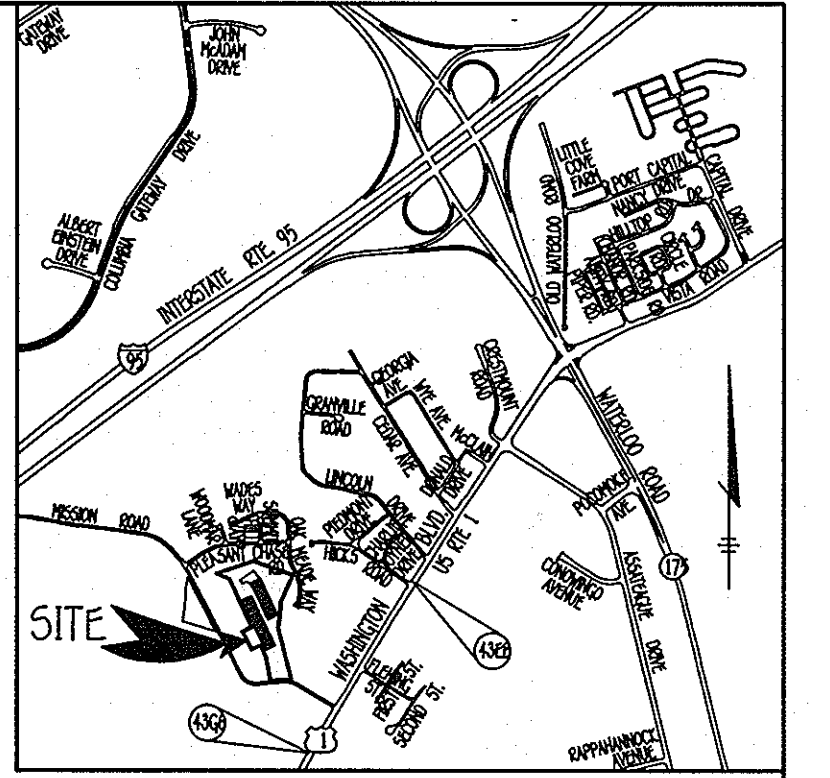
TREE PLANTING DETAIL
NOT TO SCALE



GABRIEL'S COURTYARD
SCALE: 1" = 30'



CYPRESS SPRING
SCALE: 1" = 30'



BENCH MARKS
T.P. 4366 ELEV. 216.263
N. 545,963.6498
E. 1,371,573.8129
LOC. NEAR INTERSECTION OF WASHINGTON BLVD. & HICKS RD.
T.P. 4365 ELEV. 219.355
N. 544,117.5417
E. 1,370,550.8332
LOC. ON THE SOUTH SIDE OF MISSION RD. & WASHINGTON BLVD.

SCALE: 1" = 2000'
ADC MAP NO. 5054 GRID NO. C-4

GENERAL NOTES

- SUBJECT PROPERTY ZONED R-SC PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENT EFFECTIVE 7-28-06.
- TOTAL AREA OF SITE 10,545 ACRES
- TOTAL AREA OF THE SUBDIVISION 2,968 ACRES
- TOTAL NUMBER OF LOTS SUBMITTED: 39, 2 SINGLE FAMILY & 37 TOWNHOMES
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION 410-315-1880 AT LEAST 5 WORKING DAYS PRIOR TO THE START OF WORK.
- REFERENCE PREVIOUS HOWARD COUNTY FILES: F-09-047, SP-08-004, WP-10-097, WP-11-035 & W & S CONTRACT NO. 24-4500-D.
- THIS PLAN IS BASED ON A FIELD RUN SURVEY PERFORMED ON OR ABOUT FEBRUARY 5, 2007 BY FISHER, COLLINS, & CARTER, INC.
- HORIZONTAL AND VERTICAL CONTROL DATUM IS BASED ON NAD 83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.
- HOWARD COUNTY MONUMENT 4362 N 545,963.6498 E 1,371,573.8129 HOWARD COUNTY MONUMENT 4366 N 544,117.5417 E 1,370,550.8332
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- THIS PLAN IS FOR HOUSE SITING AND GRADING ONLY AND CANNOT BE USED FOR PUBLIC RIGHTS-OF-WAY, IMPROVEMENTS OR CONSTRUCTION.
- CONTRACTOR WILL CHECK SEWER HOUSE CONNECTION ELEVATION AT EASEMENT LINE PRIOR TO CONSTRUCTION.
- STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE CRITERIA CONTAINED IN THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME 1 & CHAPTER 5 "STORMWATER CREDITS FOR INNOVATIVE SITE PLANNING". SOME OF THE MDV, CVP AND REV WILL BE PROVIDED AND MAINTAINED BY UTILIZING NON-STRUCTURAL BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH CHAPTER 5 OF THE DESIGN MANUAL. THE REMAINING REQUIREMENTS WILL BE ADDRESSED WITH ONE INFILTRATION BASIN FACILITY. CVP IS REQUIRED BECAUSE THE 1 YEAR STORM IS GREATER THAN THE 2.0 CFS MANDATED BY THE APPROPRIATED MANUAL. THE OWNERSHIP AND THE MAINTENANCE RESPONSIBILITY OF THE INFILTRATION BASIN SHOWN ON THE OPEN SPACE LOT 41 WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND HOWARD COUNTY, MARYLAND.
- A PERIMETER LANDSCAPE SURETY FOR 50 SHADE TREES AND 50 EVERGREEN TREES IN THE AMOUNT OF \$30,000.00 IS PROVIDED IN A DEVELOPER'S AGREEMENT. A SURETY FOR 59 STREET TREES IN THE AMOUNT OF \$17,000.00 IS PROVIDED WITH THE DEVELOPER'S AGREEMENT UNDER F-09-047.
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS PROJECT WILL BE FULFILLED THROUGH THE RETENTION OF 2.2 ACRES OF NET TRACT AREA FOREST WITHIN THE LIMITS OF A FOREST CONSERVATION EASEMENT AND THE ON-SITE REFORESTATION OF 1.1 ACRES. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THE ENTIRE SUBDIVISION WILL BE FULFILLED BY PROVIDING 2.2 OF 3.3 ACRES A SURETY FOR ON-SITE FOREST RETENTION @ \$2,000/AC FOR 95,452 SF = \$19,170.00 AND ON-SITE REFORESTATION @ \$0.50/SF FOR 47,916 SF = \$23,958.00 IS REQUIRED. TOTAL SURETY REQUIRED = \$43,128.00 UNDER F-09-047.
- FOR DRIVEWAY ENTRANCE DETAIL REFER TO HO. CO. CODES MANUAL VOL. IV DETAIL R.6.06.
- OWNER SHALL BE RESPONSIBLE PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
A) WIDTH - 12' (16' IF SERVING MORE THAN ONE RESIDENCE)
B) SURFACE - 6" OF COMPACTED CRUSHED RUN BASE W/FARE AND CHIP COATING (1-1/2" MIN.)
C) GEOMETRY HORIZONTAL 15% GRADE, MAXIMUM LOS GRADE CHANGE AND 45 FOOT TURNING RADIUS.
D) STRUCTURES - (BRIDGES/CULVERTS) CAPABLE OF SUPPORTING 25 GROSS TONS (NETS-LOADING)
E) DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET
G) MAINTENANCE SUFFICIENT TO INSURE ALL WEATHER USE.
- IN ACCORDANCE WITH SECTION 12B OF THE HO. CO. ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH, MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACKS.
- THERE IS NO 100 YEAR FLOODPLAIN ON THIS PROPERTY.
- SUBJECT PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER SHALL BE UTILIZED IN THIS SUBDIVISION.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING.
- SMALL BE UTILIZED IN THIS SUBDIVISION.
- SEWER HOUSE CONNECTION ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- NO CRYPTOGAMIC OR HISTORIC FEATURES EXIST ON THIS PROPERTY BASED ON A SITE VISIT AND VISUAL EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP.
- NO GRADING, OR REMOVAL OF VEGETATION COVER OR TREES, PAVING, AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REGULATED WETLANDS, STRIPES) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
- TRAFFIC STUDY FOR THIS PROPERTY WAS PREPARED BY H&S GROUP, DATED JUNE, 2007.
- PER SECTION 16.154(1)(3) OF THE HOWARD COUNTY LAND RESOURCES OFFICE, A FEE IN LIEU PAYMENT FOR ROAD IMPROVEMENTS HAS BEEN PAID IN THE AMOUNT OF \$34,500.00.
- MAINTENANCE AGREEMENT FOR THE 24 PRIVATE INGRESS AND EGRESS EASEMENT FOR LOTS 7 AND 8 HAVE BEEN RECORDED IN THE HOWARD COUNTY LAND RESOURCES OFFICE.
- THE EXISTING 25% OR GREATER STEEP SLOPES ON THIS SITE WERE DETERMINED BY THE DEPARTMENT OF PLANNING AND ZONING, PER DEP. PROJECT MANAGEMENT COMMUNICATION DATED JULY 29, 2010 TO BE EXEMPT FROM DENSITY CALCULATIONS DUE TO FACTORS OUTLINED IN JUSTIFICATION ITEMS 1 THRU 3, CONTAINED THEREIN AND ARE AS FOLLOWS: (1) VERY LIMITED SIZE, TOTAL AREA AND THE SPACING, NON-CONTIGUOUS NATURE OF THESE STEEP SLOPES; (2) STEEP SLOPES ARE ISOLATED SMALL POCKETS LOCATED WITHIN A PREVIOUS QUARANTINED AREA AND NOT ADJACENT TO ANY OTHER ENVIRONMENTAL FEATURES; AND (3) THE APPLICANT HAD A VALID SURFACE MINING PERMIT TO EXTRACT MINERALS FROM THIS PROPERTY AND HAD PRIOR APPROVAL TO REMOVE EXISTING STEEP SLOPES.
- DENSITY TABULATION:
A) GROSS TRACT AREA = 10,545 AC.
B) AREA OF FLOODPLAIN = 0.000 AC.
C) AREA OF 25% OR GREATER SLOPE = 0.000 AC.
D) NET TRACT AREA = GROSS AREA-FLOODPLAIN AREA-25% STEEP SLOPE AREA = 10,545 AC.
E) TOTAL NUMBER OF BUILDABLE LOTS ALLOWED = 42 UNITS (NET TRACT AREA X 4 UNITS/ACRE) (10,545 ACRES X 4 UNITS/ACRE = 42.18)
- F) TOTAL NUMBER OF BUILDABLE LOTS PROPOSED WITH THIS SUBDIVISION = 39
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.1204 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF \$11,000.00 FOR THE 37 SHADE TREES.

PLANTING SPECIFICATIONS

Plants, related material, and operations shall meet the detailed description as given on the plans and as described herein. All plant material, unless otherwise specified, shall be nursery grown, uniformly branched, have a vigorous root system, and shall conform to the species, size, root and shape shown on the plant list and the American Association of Nurserymen (AAN) standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, soil injuries, diseases, insect pest eggs, borers and all forms of insect 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. All plants shall be freshly dug; no heeled-in plants from cold storage will be accepted. Unless otherwise specified, all general conditions, planting operations, details and planting specification shall conform to "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Area", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architect, latest edition, including all agenda. Contractor shall be required to quarantine all plant material for a period of one year after date of acceptance in accordance with the appropriate section of the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material. Contractor shall be responsible for notifying utility companies, utility contractors and "Miss Utility" a minimum of 48 hours prior to beginning any work. Contractor may make minor adjustments to spacing and location of plant material to avoid conflicts with utilities. Damage to existing structure and utilities shall be repaired at the expense of the Contractor. Protection of existing vegetation to remain shall be accomplished by the temporary installation of 4 foot high snow fence or blaze orange safety fence at the drip line. Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within the growing season of completion of site construction. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications. Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plant list take precedence. All shrubs shall be planted in continuous trenches or prepared planting beds and mulched with composted hardwood mulch as details and specified except where noted on plans. Positive drainage shall be maintained in planting beds 2 percent slope. Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure, Add 3 lbs. of extended fertilizer per cubic yard of planting mix. Evergreen Plants - Two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (60-60) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines. Weed Control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. Caution: Be sure to carefully check the chemical used to insure the suitability to the specific ground cover to be treated. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded and seeded. This plan is intended for landscape use only. See other plan sheets for more information on grading, sediment control, layout, etc.

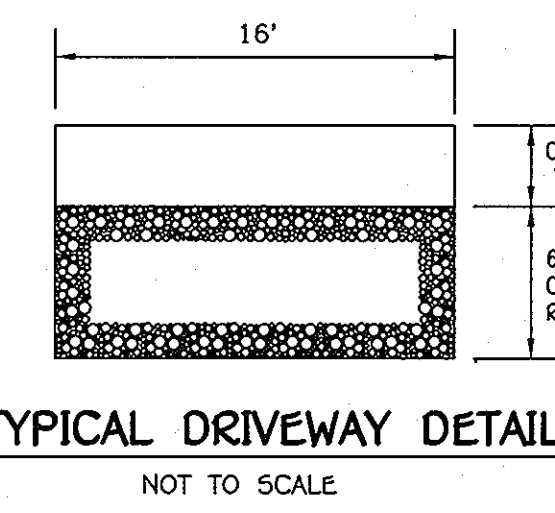
SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS	37
NUMBER OF TREES REQUIRED (1.00 SFA, 1:3 DU APTS.)	37
NUMBER OF TREES PROVIDED (SHADE TREES OTHER TREES (2:1 SUBSTITUTION))	37 0

LANDSCAPING PLANT LIST			
QTY.	KEY	NAME	SIZE
37	⊗	ACER RUBRUM OCTOBER GLORY MAPLE	2-1/2" - 3" CALIPER FULL CROWN B/B

FINANCIAL SURETY FOR THE INTERNAL LANDSCAPING IN THE AMOUNT OF \$11,000.00 (37 X \$300.00) FOR THE REQUIRED 37 TREES WILL BE PAID FOR AT THE TIME OF GRADING PERMIT APPLICATION BY THE BUILDER.

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
1	8011 GABRIEL'S COURT
2	8013 GABRIEL'S COURT
3	8015 GABRIEL'S COURT
4	8017 GABRIEL'S COURT
5	8019 GABRIEL'S COURT
6	8021 GABRIEL'S COURT
7	8023 GABRIEL'S COURT
8	8025 GABRIEL'S COURT
9	8027 GABRIEL'S COURT
10	8029 GABRIEL'S COURT
11	8031 GABRIEL'S COURT
12	8033 GABRIEL'S COURT
13	8035 GABRIEL'S COURT
14	8037 GABRIEL'S COURT
15	8039 GABRIEL'S COURT
16	8041 GABRIEL'S COURT
17	8043 GABRIEL'S COURT
18	8045 GABRIEL'S COURT
19	8047 GABRIEL'S COURT
20	8049 GABRIEL'S COURT
21	8051 GABRIEL'S COURT
22	8053 GABRIEL'S COURT
23	8055 GABRIEL'S COURT
24	8057 GABRIEL'S COURT
25	8059 GABRIEL'S COURT
26	8061 GABRIEL'S COURT
27	8063 GABRIEL'S COURT
28	8065 GABRIEL'S COURT
29	8067 GABRIEL'S COURT
30	8069 GABRIEL'S COURT
31	8071 GABRIEL'S COURT
32	8073 GABRIEL'S COURT
33	8075 GABRIEL'S COURT
34	8077 GABRIEL'S COURT
35	8079 GABRIEL'S COURT
36	8081 GABRIEL'S COURT
37	8083 GABRIEL'S COURT
38	8085 GABRIEL'S COURT
39	8087 GABRIEL'S COURT

MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
7	12,503 SQ.FT.	1,620 SQ.FT.	10,883 SQ.FT.
8	13,144 SQ.FT.	1,620 SQ.FT.	11,524 SQ.FT.



TYPICAL DRIVEWAY DETAIL
NOT TO SCALE

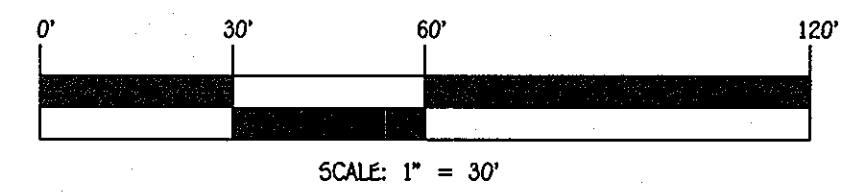
SITE ANALYSIS DATA CHART

- A. TOTAL PROJECT AREA: 10,545 ACRES OR 459,340 SQUARE FEET.
- B. AREA OF SUBDIVISION: 2,968 ACRES OR 129,328 SQUARE FEET.
- C. LIMITS OF DISTURBANCE: 0.941 ACRES OR 40,990 SQUARE FEET.
- D. PRESENT ZONING DESIGNATION: R-SC.
- E. PROPOSED USES FOR SITE: RESIDENTIAL DWELLINGS
- F. APPLICABLE DEP. FILE REFERENCES: F-09-047, SP-08-004, WP-10-097, WP-11-035 AND WAS CONTRACT NO. 24-4500-D.
- G. TOTAL NO. OF UNITS PROPOSED: 39
- H. LOT COVERAGE IS 60% MAXIMUM.
SFA UNIT = 1026.04 SQ. FT., 1710 SQ. FT. MIN. LOT SIZE INCLUDING ALL OPTIONS
SFD UNIT = 1641.62 SQ. FT., 2736 SQ. FT. MIN. LOT SIZE INCLUDING ALL OPTIONS
- I. AREA OF OPEN SPACE = 5.804 ACRES
- J. AREA OF RECREATIONAL OPEN SPACE = 23,064 SQ. FT.

GENERAL NOTES CONT.

- PARKING REQUIREMENTS:
SINGLE FAMILY ATTACHED: NO. OF SPACES REQUIRED = 2 PER UNIT (2 X 37) = 74
NO. OF SPACES PROVIDED = 74
DOUBLE CAR GARAGE UNITS = 37 UNITS X 2 = 74
TWO DRIVEWAY SPACES = 37 X 2 = 74
148 PARKING SPACES PROVIDED
- NO. OF OVERFLOW SPACES REQUIRED:
0.3 PER UNIT (0.3 X 37) = 11
NO. OF OVERFLOW SPACES PROVIDED = 11
- SINGLE FAMILY DETACHED: NO. OF SPACES REQUIRED = 2 PER UNIT (2 X 2) = 4
NO. OF OVERFLOW SPACES REQUIRED = 2 PER UNIT (2 X 2) = 4
NO. OF OVERFLOW SPACES PROVIDED = 4
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM DRIVEWAY.

INDEX CHART	
SHEET	DESCRIPTION
SHEET 1	COVER SHEET, HOUSE TEMPLATE, GENERAL NOTES
SHEET 2	SITE DEVELOPMENT PLAN, LOTS 1 THRU 6 & SOILS MAP
SHEET 3	SITE DEVELOPMENT PLAN, LOTS 7 THRU 39 & SOILS MAP
SHEET 4	SEDIMENT/EROSION CONTROL PLAN LOTS 1 THRU 6
SHEET 5	SEDIMENT/EROSION CONTROL PLAN LOTS 7 THRU 39
SHEET 6	SEDIMENT/EROSION CONTROL NOTES & DETAILS

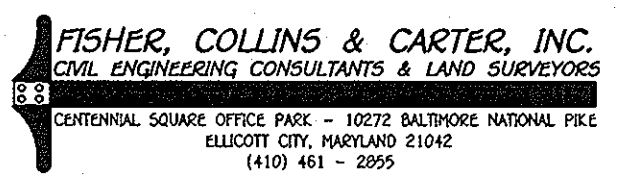


LEGEND	
SYMBOL	DESCRIPTION
-----	EXISTING CONTOUR 2' INTERVAL
-----	PROPOSED CONTOUR 2' INTERVAL
+	SPOT ELEVATION
-SF/TP-SF/TP-	SILT FENCE/TREE PROTECTION
-TF-	TREE PROTECTION FENCE
→	DIRECTION OF DRAINAGE
LOD	LIMIT OF DISTURBANCE
~~~~~	EXISTING TREELINE
~~~~~	PROPOSED TREELINE
⊗	FOREST CONSERVATION EASEMENT
⊗	PERIMETER LANDSCAPING PER F-09-047
⊗	LANDSCAPING PER SOD-11-024

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Michael Pfau 8-18-11
MICHAEL PFAU DATE

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. 9793, EXPIRATION DATE: 2/28/12.
Earl D. Collins 7-26-11
EARL D. COLLINS DATE

ENGINEER'S CERTIFICATE
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Earl D. Collins 7-26-11
Signature of Engineer EARL D. COLLINS DATE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Karl S. Deneke 9/12/11
Chief, Division of Land Development
Thomas J. Kistler 9/12/11
Chief, Development Engineering Division
Thomas J. Kistler 9/12/11
Director - Department of Planning and Zoning

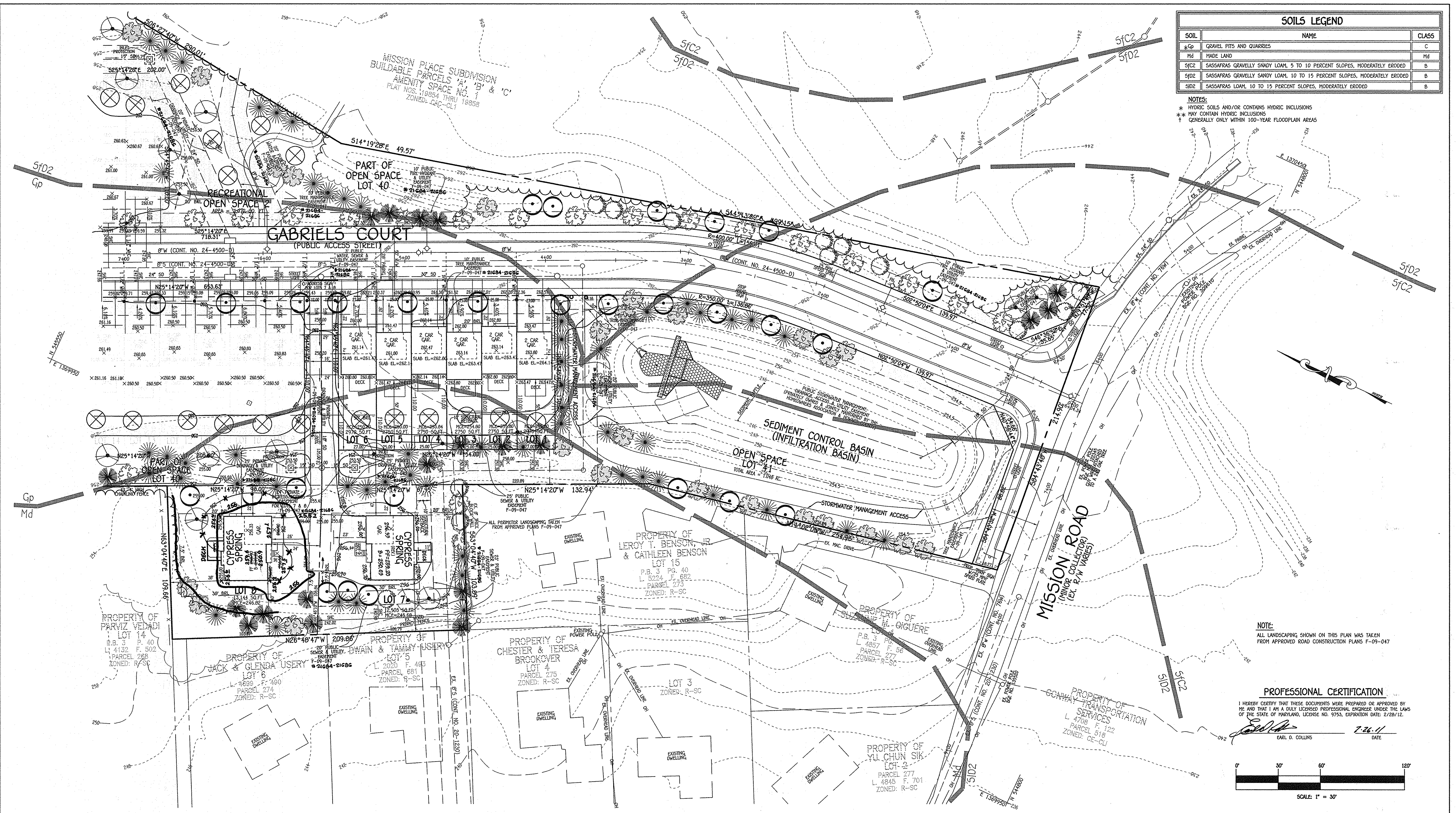
SITE DEVELOPMENT PLAN
SINGLE FAMILY DETACHED & MULTI DWELLING TOWNHOMES
GABRIEL'S COURTYARD
LOTS 1 THRU 39
ZONED: R-SC
TAX MAP NO.: 43 PARCEL NO'S.: 272 & 570 GRID NO.: 14
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 2011
SHEET 1 OF 6 SOD-11-024

OWNER/BUILDER/DEVELOPER
TRINITY HOMES
3675 PARK AVENUE
SUITE 301
ELlicOTT, MARYLAND 21043
410-460-0023

PROJECT	SECTION	LOTS NO.			
GABRIEL'S COURTYARD	N/A	1 THRU 39			
FLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21684-21686	14	R-SC	43	6	602100
WATER CODE	SEWER CODE				
C-02	7390000				

SOILS LEGEND		
SOIL	NAME	CLASS
Gp	GRAVEL PITS AND QUARRIES	C
Md	MADE LAND	Md
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
SfD2	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
SfD2	SASSAFRAS LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B

NOTES:
 * HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
 ** MAY CONTAIN HYDRIC INCLUSIONS
 † GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS



NOTE:
 ALL LANDSCAPING SHOWN ON THIS PLAN WAS TAKEN FROM APPROVED ROAD CONSTRUCTION PLANS F-09-047

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. 9753, EXPIRATION DATE: 2/28/12.

Earl D. Collins 7-26-11
 EARL D. COLLINS DATE
 SCALE: 1" = 30'

NO.	REVISION	DATE
2	REVISED GRADING PER AS-BUILT CONDITIONS	5/22/11
1	REVISED GRADING SPOT ELEVATIONS PER AS-BUILT CONDITIONS, LOT 7	05/16/11



ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Earl D. Collins 7-26-11
 Signature of Engineer EARL D. COLLINS Date

OWNER/BUILDER/DEVELOPER

TRINITY HOMES
 3675 PARK AVENUE
 SUITE 301
 ELLICOTT, MARYLAND 21043
 410-480-0023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kat Stenlund 9/12/11
 Chief, Division of Land Development Date
Thomas S. Kautler J.P. 9/12/11
 Chief, Development Engineering Division Date
 Director - Department of Planning and Zoning Date

PROJECT	SECTION	LOTS NO.
GABRIEL'S COURTYARD	N/A	1 THRU 39
PLAT	BLOCK NO.	ZONE
21684-21686	14	R-SC
TAX/ZONE	ELEC. DIST.	CENSUS TR.
43	6	602100
WATER CODE	SEWER CODE	
C-02	7390000	

SITE DEVELOPMENT PLAN & SOILS MAP

SINGLE FAMILY DETACHED & MULTI DWELLING TOWNHOUSES
GABRIEL'S COURTYARD
 LOTS 1 THRU 39
 ZONED: R-SC
 TAX MAP NO.: 43 PARCEL NO'S.: 272 & 570 GRID NO.: 14
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY, 2011
 SHEET 2 OF 6 SDP-11-024

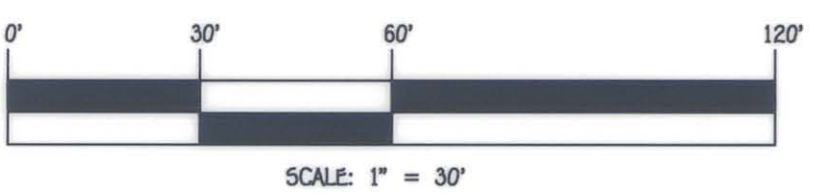
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SOILS LEGEND		
SOIL	NAME	CLASS
Gr	GRAVEL PITS AND QUARRIES	C
Md	MADE LAND	Md
SfC2	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	B
SfD2	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
SfD2	SASSAFRAS LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	B

NOTES:
 * HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
 ** MAY CONTAIN HYDRIC INCLUSIONS
 † GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS



NOTE:
 ALL LANDSCAPING SHOWN ON THIS PLAN WAS TAKEN FROM APPROVED ROAD CONSTRUCTION PLANS F-09-047



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9753, EXPIRATION DATE: 2/28/12.
 Signature: Earl D. Collins
 DATE: 7-26-11

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS
 CENTONAL SQUARE OFFICE PARK - 10722 BALDORRE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21117
 (410) 461-2895

ENGINEER'S CERTIFICATE
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature: Earl D. Collins
 DATE: 7-26-11

OWNER/BUILDER/DEVELOPER
 TENITY HOMES
 3675 PARK AVENUE
 SUITE 301
 ELLICOTT, MARYLAND 21043
 410-480-0923

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development: 9/12/11
 Chief, Development Engineering Division: 9/16/11
 Director - Department of Planning and Zoning: 9/22/11

PROJECT	SECTION	LOTS NO.
GABRIEL'S COURTYARD	N/A	1 THRU 39

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21684-2168C	14	R-SC	43	6	602100

WATER CODE: C-02
 SEWER CODE: 7390000

SITE DEVELOPMENT PLAN & SOILS MAP
 SINGLE FAMILY DETACHED & MULTI DWELLING TOWNHOUSES
GABRIEL'S COURTYARD
 LOTS 1 THRU 39
 ZONED: R-SC
 TAX MAP NO.: 43 PARCEL NO'S.: 272 & 570 GRID NO.: 14
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY, 2011
 SHEET 3 OF 6 **SDP-11-024**



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. 9793, EXPIRATION DATE: 2/28/12.
Earl D. Collins
 EARL D. COLLINS 7-26-11
 DATE

0' 30' 60' 120'
 SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELIJAH CITY, MARYLAND 21142
 (410) 461-7895

NO.	REVISION	DATE



ENGINEER'S CERTIFICATE
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
Earl D. Collins
 Signature of Engineer EARL D. COLLINS 7-26-11 Date

BUILDER/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 any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."
Michael Pfauf
 Signature of Developer MICHAEL PFAU 7/27/11 Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson
 Howard SCD 8/23/11 Date

OWNER/BUILDER/DEVELOPER
 TRINITY HOMES
 3675 PARK AVENUE
 SUITE 301
 ELLICOTT, MARYLAND 21043
 410-480-0023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John D. Sullivan 9/23/11
 Chief, Division of Land Development Date

Thomas & Suttle 9/23/11
 Chief, Development Engineering Division Date

Thomas & Suttle 9/23/11
 Director - Department for Planning and Zoning Date

PROJECT	SECTION	LOTS NO.
GABRIEL'S COURTYARD	N/A	1 THRU 39

PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
21G84-21G8C	14	R-SC	43	6	602100

WATER CODE	SEWER CODE
C-02	7390000

SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED & MULTI DWELLING TOWNHOUSES
GABRIEL'S COURTYARD
 LOTS 1 THRU 39
 ZONED: R-SC

TAX MAP NO.: 43 PARCEL NO.'S: 272 & 570 GRID NO.: 14
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 2011

SHEET 5 OF 6 SDP-11-024

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stabilization, disturbed areas being left idle between construction phases, earth cuts, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpiles and staging areas, etc.

EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent root growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- Site Preparation**
 - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary stabilization.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- Soil Amendment**
 - Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate authority. Fertilizers shall all be delivered to the site fully blended according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90-100% will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3-5" of soil by disk or other suitable means.
- Seeded Preparation**
 - Subsoil preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ripper mounted on construction equipment. Loosening shall be done in a manner that will not roll or drag soil, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - In corporate lime and fertilizer into the top 3-5" of soil by disk or other suitable means.

- Temporary Seeding**
 - Subsoil preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ripper mounted on construction equipment. Loosening shall be done in a manner that will not roll or drag soil, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - In corporate lime and fertilizer into the top 3-5" of soil by disk or other suitable means.
- Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay, but enough fine grained material (1-30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if loess or other siltaceous loesslike soils (<30% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 20.0 Standards and Specifications for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even condition, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil test or as indicated on the plans.
 - Soil amendments into the top 3-5" of topsoil by disk or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application. Where site conditions will not permit normal seeded preparation, loose soil may be applied with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-2" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

- Seed Specifications**
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed lots have been tested within the 6 months immediately preceding the date of sowing such material on this job.
 - Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on packages. Use four times the recommended rate when hydroseeding. Use 1/2 cup per 100 lbs. of seed. Use four times the recommended rate when hydroseeding. Use 1/2 cup per 100 lbs. of seed. Use four times the recommended rate when hydroseeding. Use 1/2 cup per 100 lbs. of seed.
- Methods of Seeding**
 - Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 100 lbs. per acre total of soluble nitrogen; P2O5 (phosphorus), 200 lbs./acre; K2O (potassium), 200 lbs./acre.
 - Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - Dry Seeding - This includes use of conventional drop or broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding summaries or Tables 20.0 or 21.0. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other.
 - Apply mulch to the seeding site in each direction.
 - Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4" of soil cover. Seeded must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other.
 - Apply mulch to the seeding site in each direction.

- Mulch Specifications**
 - Straw shall consist of thoroughly threshed wheat, rice or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Cellulose Fiber Mulch (WCFF)
 - WCFF shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFF shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformity of the mulch.
 - WCFF including dye, shall contain no germination or growth inhibiting factors.
 - WCFF materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and retention properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFF material shall contain no elements or compounds of concentration levels that will be phytotoxic.
 - WCFF must conform to the following physical requirements: fiber length 1/2" to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

- Seeded Preparation**
 - Subsoil preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ripper mounted on construction equipment. Loosening shall be done in a manner that will not roll or drag soil, but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - In corporate lime and fertilizer into the top 3-5" of soil by disk or other suitable means.

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 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay, but enough fine grained material (1-30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if loess or other siltaceous loesslike soils (<30% silt plus clay) would be acceptable.
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 - Where practical, seed should be applied in two directions perpendicular to each other.
 - Apply mulch to the seeding site in each direction.
 - Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4" of soil cover. Seeded must be firm after planting.
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 - WCFF must conform to the following physical requirements: fiber length 1/2" to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

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.

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 Experiment Station.

Topsoil specifications - soil to be used as topsoil must meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of conkers, stones, silica coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.

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 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.

For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

For sites having disturbed areas over 5 acres:

- On soil meeting topsoil specifications, obtain test results detailing fertilizer and lime amendments required to bring the soil into compliance with the following:
 - 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.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil stabilizers or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

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.

Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

Topsoil Application

- 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.

Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 6" higher in elevation.

Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seedling 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.

Topsoil shall 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 seeded preparation.

Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified.

Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe requirements and for sites having disturbed areas under 5 acres shall conform to the following requirements:

- Composted sludge shall be of plant or animal origin, or of origin 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 26.06.06.
- Composted sludge shall contain at least 1 percent nitrogen, 1.5 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.
- Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet and 1/2 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Seeding, MD-WA, Pub. # Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institute. Revised 1973.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for rate and methods not covered.

TEMPORARY SEEDING NOTES

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

Seeded Preparation - Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil Amendments - Apply 500 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

Seeding - For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual ryegrass (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site with 3" of straw mulch. For the period March 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site with 3" of straw mulch. For the period March 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site with 3" of straw mulch.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 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.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation - Loosen upper three inches of soil by raking, 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:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureiform fertilizer (9 lbs. per 1000 sq.ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding - For periods March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:

- 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
- Use sod.
- Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 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.

STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

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.

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 Experiment Station.

Topsoil specifications - soil to be used as topsoil must meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of conkers, stones, silica coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.

Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.

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 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.

For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

For sites having disturbed areas over 5 acres:

- On soil meeting topsoil specifications, obtain test results detailing fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6