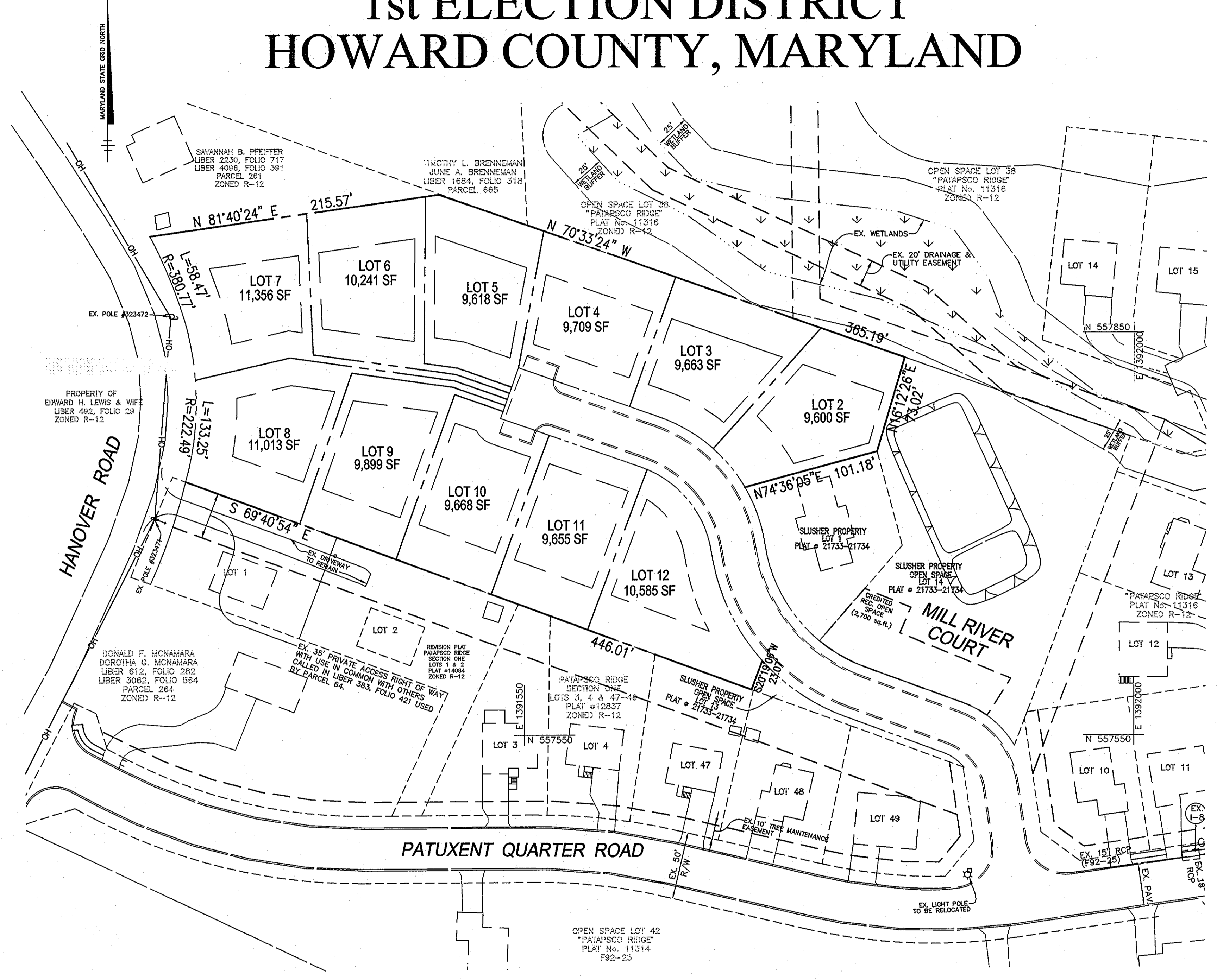


GENERAL NOTES

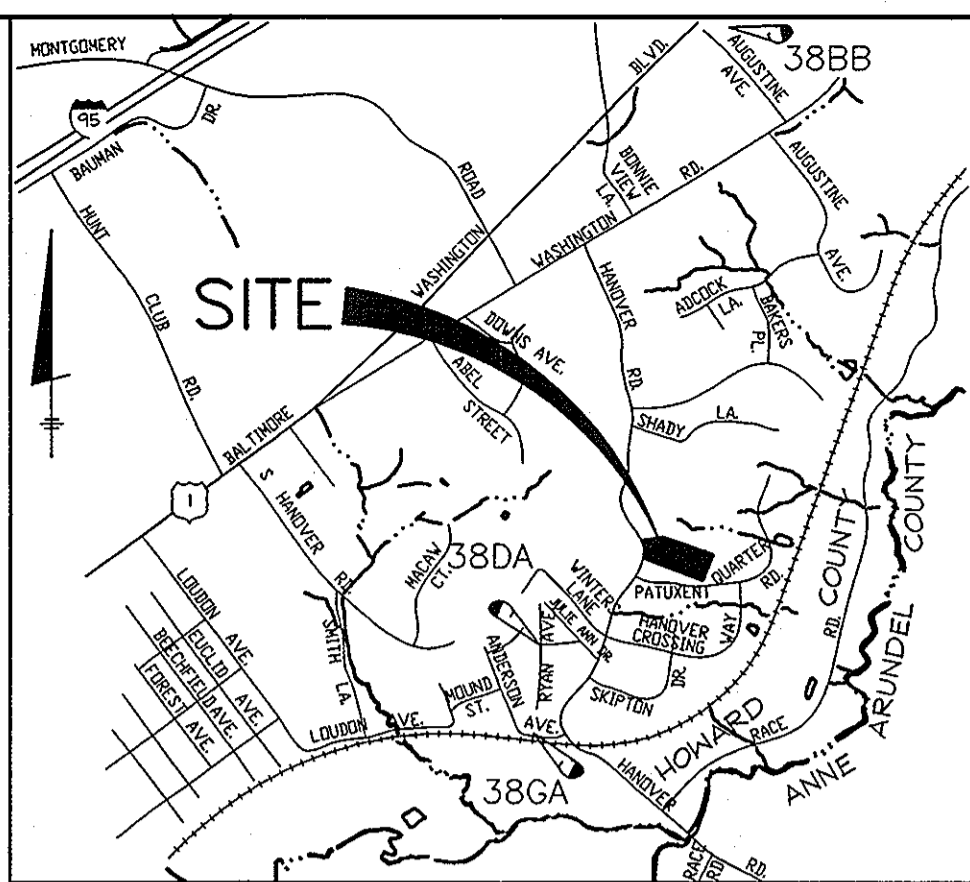
- THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS OTHERWISE SPECIFIED.
- THE SUBJECT PROPERTY IS ZONED R-12 PER THE 2-2-2004 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7-28-2006.
- COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 38GA AND 38DA.
- TRACT BOUNDARY IS BASED ON DEED RESEARCH AND FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS & CARTER, INC. DATED DECEMBER 2002.
- THE EXISTING TOPOGRAPHY SHOWN IS BASED ON A FIELD RUN SURVEY BY FISHER COLLINS & CARTER, INC. DATED OCTOBER 2006 AND FINAL ROAD CONSTRUCTION PLAN F-08-180. EXISTING UTILITIES ARE BASED ON AVAILABLE RECORDS AND ROAD CONSTRUCTION PLAN F-08-180.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A TRAFFIC IMPACT STUDY WAS PREPARED BY MARS GROUP DATED NOVEMBER 2002 AND WAS APPROVED UNDER F-08-180.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER IS PUBLIC. THE CONTRACT NUMBER IS 14-4443-D.
- SEWER IS PUBLIC. THE CONTRACT NUMBER IS 14-4443-D.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE. METERS SETTINGS ARE OUTSIDE METERS.
- PUBLIC WATER AND SEWAGE ALLOCATIONS WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THERE IS NO WETLANDS, STREAMS, THEIR BUFFERS, 100-YEAR FLOODPLAIN OR STEEP SLOPES LOCATED ON THESE LOTS OR THE LOD OF THIS SITE PLAN.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON THESE LOTS.
- THERE ARE NO HISTORIC SITES/FEATURES LOCATED ON THESE LOTS.
- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE HOWARD COUNTY AND MDC SPECIFICATIONS. GROUNDWATER RECHARGE (REV) WILL BE PROVIDED VIA AN UNDERGROUND STONE RESERVOIR STORAGE AREA LOCATED BENEATH THE PROPOSED BIO-RETENTION FACILITY #1. WATER QUALITY AND QUANTITY MANAGEMENT WILL BE PROVIDED VIA A BIO-RETENTION FACILITY LOCATED ON OPEN SPACE LOT 14. MAINTENANCE OF THIS FACILITY WILL BE MAINTAINED BY MILL RIVER HOMEOWNERS ASSOCIATION, INC. PRIVATE STORMWATER MANAGEMENT FACILITIES ON LOTS 3 THRU 12 WILL BE MAINTAINED BY THE INDIVIDUAL LOT OWNER. WQV TO BE PROVIDED BY ON-LOT MICRO-BIORETENTION FACILITIES AND RAIN BARRELS.
- LANDSCAPING FOR THIS SITE HAS BEEN PREVIOUSLY APPROVED UNDER F-08-180.
- FOREST CONSERVATION FOR THIS SITE WAS PREVIOUSLY APPROVED UNDER F-08-180. THE FOREST CONSERVATION OBLIGATION ARE PROVIDED BY AN OFFSITE FOREST BANK, QUARTZ HILL, LLC.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT OF WAY LINE AND NOT THE FLAG OR PIPESTEM LOT DRIVEWAY.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.)
 - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGING AND MINIMUM 45' TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF ANY WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY FOR THE FLAG LOT DRIVEWAY IN THE CUL-DE-SAC SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE WHERE NEEDED. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- DRIVEWAY APRONS TO BE UTILIZED: ROADWAY: R-6.03 & R-6.05
USE-IN-COMMON DRIVEWAY: R-6.06.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 18.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- SEWER HOUSE CONNECTION ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE OF PUBLIC EASEMENT.
- THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE MARYLAND AVIATION ADMINISTRATION LETTER DATED APRIL 24, 2012.

SITE DEVELOPMENT PLAN SLUSHER PROPERTY LOTS 2 - 12 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND



BENCH MARKS NAD'83	
HO. CO. #390A	ELEV. 80.853
N 55897.3242	E 1390132.1176
HO. CO. #380A	ELEV. 126.145
N 556796.3031	E 1390221.4773

ADDRESS CHART	
LOT	STREET ADDRESS
2	6214 MILL RIVER COURT
3	6218 MILL RIVER COURT
4	6222 MILL RIVER COURT
5	6226 MILL RIVER COURT
6	6230 MILL RIVER COURT
7	6234 MILL RIVER COURT
8	6231 MILL RIVER COURT
9	6227 MILL RIVER COURT
10	6223 MILL RIVER COURT
11	6219 MILL RIVER COURT
12	6215 MILL RIVER COURT



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATE= 4937, E9

LEGEND

EXISTING CONTOURS	--- 190 ---	STABILIZED CONSTRUCTION ENTRANCE	
PROPOSED CONTOURS	--- 190 --- --- 199 ---	SUPER SILT FENCE	--- SSF --- SSF ---
EXISTING WOODS LINE		SILT FENCE	--- SF --- SF ---
EXISTING STRUCTURE		EARTH DIKE	--->>> ---<<<---
PROPOSED STRUCTURE		LIMIT OF DISTURBANCE	--- L.D. ---
EX. PUBLIC 10' TREE MAINTENANCE EASEMENT(PLAT#21733)		INLET PROTECTION	
EX. PUBLIC SEWER, WATER & UTILITY EASEMENT(PLAT#21733)		EROSION CONTROL PROTECTION	
EX. PUBLIC DRAINAGE & UTILITY EASEMENT(PLAT#21733)		RAINWATER HARVESTING RAIN BARREL	
EX. PRIVATE 30' INGRESS AND EGRESS EASEMENT(PLAT#21733)		MICRO BIO-RETENTION FACILITY	
EX. PRIVATE STORM DRAIN EASEMENT(PLAT#21733)		PERIMETER LANDSCAPING PER F-08-180	
EX. PUBLIC TEE TURN-AROUND EASEMENT(PLAT#21733)		STREET TREES PER F-08-180	
SLOPES 25% OR GREATER		SOIL BOUNDARY	--- BcC2 --- --- ScE ---
MODERATE SLOPES			
EROSION CONTROL MATTING			

SITE ANALYSIS DATA CHART

A.) TOTAL PROJECT AREA	4.11 AC.
B.) AREA OF THIS PLAN SUBMISSION	2.57 AC.
C.) APPROXIMATE LIMIT OF DISTURBANCE	2.39 AC.
D.) PRESENT ZONING:	R-12
E.) PROPOSED USE OF SITE:	RESIDENTIAL SINGLE FAMILY DETACHED UNITS
F.) FLOOR SPACE PER LOT	N/A
G.) TOTAL NUMBER OF UNITS ALLOWED AS SHOWN ON FINAL PLAT(S)	11
H.) TOTAL NUMBER OF UNITS PROPOSED	11
I.) MAXIMUM NUMBER OF EMPLOYEES PER USE	N/A
J.) NUMBER OF PARKING SPACES REQUIRED BY HO. CO. ZONING REGULATIONS	N/A
K.) NUMBER OF PARKING SPACES PROVIDED	N/A
L.) OPEN SPACE ON-SITE PERCENTAGE OF GROSS AREA	0.85AC/(F-08-180) N/A
M.) AREA OF RECREATIONAL OPEN SPACE REQUIRED	2,400 SF
AREA OF RECREATIONAL OPEN SPACE PROVIDED	5,208 SF(F-08-180)
N.) BUILDING COVERAGE OF SITE PERCENTAGE OF GROSS AREA	N/A
O.) APPLICABLE DPZ FILE REFERENCES:	S-03-12, P-07-007, F-08-180, GP-08-098
P.) PROPOSED WATER AND SEWER SYSTEMS:	<input checked="" type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE

PLAN
SCALE: 1" = 50'

STORMWATER MANAGEMENT PRACTICES F-08-180				
LOT No.	ADDRESS	NICKS BIO-RETENTION (NUMBER)	ENHANCED FILTER (NUMBER)	RAIN WATER HARVESTING (NUMBER)
1	6210 Mill River Court	N/A	N/A	N/A
2	6214 Mill River Court	N/A	N/A	N/A
3	6218 Mill River Court	FACILITY #5	N/A	N/A
4	6222 Mill River Court	FACILITY #4	N/A	N/A
5	6226 Mill River Court	FACILITY #5	N/A	N/A
6	6230 Mill River Court	FACILITY #6	N/A	N/A
7	6234 Mill River Court	FACILITY #7	N/A	N/A
8	6231 Mill River Court	FACILITY #9 & #10	N/A	1-RAIN BARREL
9	6227 Mill River Court	FACILITY #11 & #12	N/A	2-RAIN BARRELS
10	6223 Mill River Court	FACILITY #13	N/A	2-RAIN BARRELS
11	6219 Mill River Court	FACILITY #14	N/A	2-RAIN BARRELS
12	6215 Mill River Court	FACILITY #12 & #18	N/A	2-RAIN BARRELS
13	Open Space Lot	N/A	N/A	N/A
14	Open Space Lot	N/A	FACILITY #1	N/A

SHEET INDEX	
NO.	DESCRIPTION
1	COVER SHEET
2	LAYOUT PLAN
3	GRADING, SEDIMENT AND EROSION CONTROL PLAN
4	SEDIMENT CONTROL AND SITE NOTES AND DETAILS
5	HCS/D/MAA SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

PERMIT INFORMATION CHART					
SUBDIVISION NAME:		SECTION/AREA:		LOT/PARCEL #	
SLUSHER PROPERTY				LOTS 2-12	
PLAT No.	GRID No.	ZONE	TAX MAP	ELECTION DISTRICT	CENSUS TRACT
21733-21734	15	R-12	38	1st	601201

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Ket... 6/12/12
CHIEF, DIVISION OF LAND DEVELOPMENT

... 6/7/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION

... 6/12/12
DIRECTOR

NO.	DATE	REVISION

BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.

8460 BALTIMORE NATIONAL PIKE SUITE 418 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-0105 (F) 410-465-0664
60 THOMAS JOHNSON DRIVE FREDERICK, MARYLAND 21702
(P) 301-371-3505 (F) 301-371-3506
WWW.BEI-CIVILENGINEERING.COM

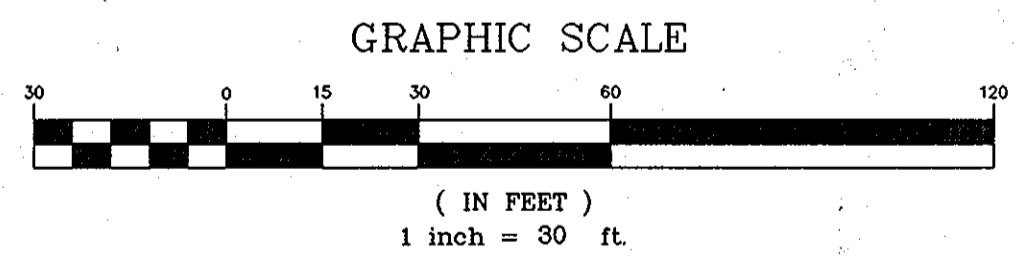
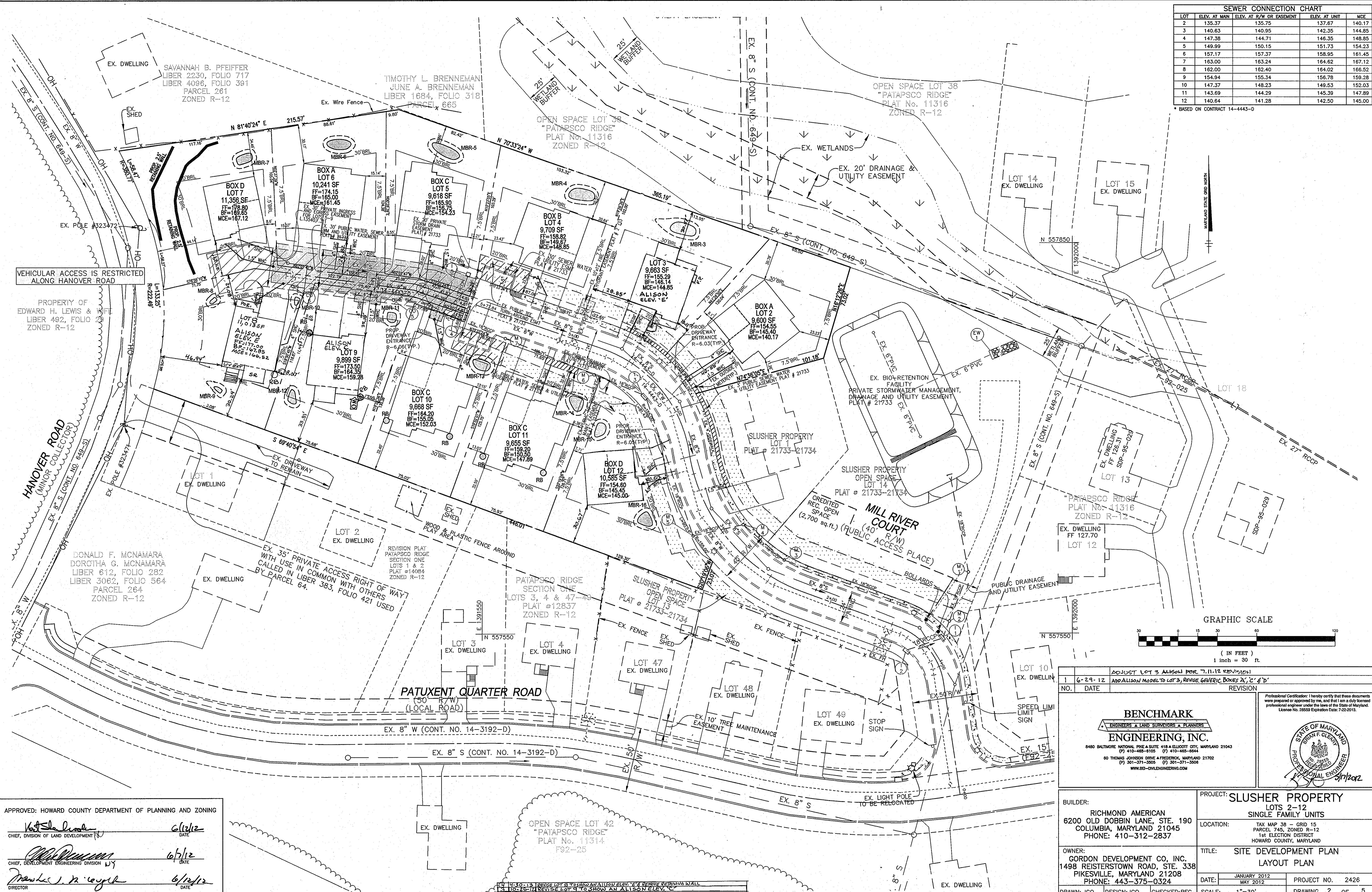
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 28559 Expiration Date: 7-22-2013.

... 5/17/2012
REGISTERED PROFESSIONAL ENGINEER

BUILDER:	RICHMOND AMERICAN 6200 OLD DOBBIN LANE, STE. 190 COLUMBIA, MARYLAND 21045 PHONE: 410-312-2837	PROJECT:	SLUSHER PROPERTY LOTS 2-12 SINGLE FAMILY UNITS
OWNER:	GORDON DEVELOPMENT CO, INC. 1498 REISTERSTOWN ROAD, STE. 338 PIKESVILLE, MARYLAND 21208 PHONE: 443-375-0324	LOCATION:	TAX MAP 38 - GRID 15 PARCEL 745, ZONED R-12 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	SITE DEVELOPMENT PLAN COVER SHEET	DATE:	JANUARY 2012 MAY 2012
DRAWN:	JCO	DESIGN:	JCO
CHECKED:	BFC	PROJECT NO.:	2426
SCALE:	AS SHOWN	DRAWING	1 OF 5

SEWER CONNECTION CHART				
LOT	ELEV. AT MAN.	ELEV. AT R/W OR EASEMENT	ELEV. AT UNIT	MCE
2	135.37	135.75	137.67	140.17
3	140.63	140.95	142.35	144.85
4	147.38	144.71	146.35	148.85
5	149.99	150.15	151.73	154.23
6	157.17	157.37	158.95	161.45
7	163.00	163.24	164.62	167.12
8	162.00	162.40	164.02	166.52
9	154.94	155.34	156.78	159.28
10	147.37	148.23	149.53	152.03
11	143.69	144.29	145.39	147.89
12	140.64	141.28	142.50	145.00

* BASED ON CONTRACT 14-4443-D



NO.	DATE	REVISION
1	6-29-12	ADJUST LOT 3 ALISON PER 7.11.12 REVISION! ADD ALISON MODEL TO LOT 3, REVISE GENERIC BOXES A, C, & D

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE SUITE 418 A ELIJAH CITY, MARYLAND 21043
 (P) 410-483-8100 (F) 410-483-8044
 60 THOMAS JOHNSON DRIVE A FREDERICK, MARYLAND 21702
 (P) 301-371-3505 (F) 301-371-3506
 WWW.BE-CVLENGINEERING.COM

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. 28559 Expiration Date: 7-22-2013.

BUILDER: RICHMOND AMERICAN 6200 OLD DOBBIN LANE, STE. 190 COLUMBIA, MARYLAND 21045 PHONE: 410-312-2837	PROJECT: SLUSHER PROPERTY LOTS 2-12 SINGLE FAMILY UNITS
OWNER: GORDON DEVELOPMENT CO, INC. 1498 REISTERSTOWN ROAD, STE. 338 PIKESVILLE, MARYLAND 21208 PHONE: 443-375-0324	LOCATION: TAX MAP 38 - GRID 15 PARCEL 745, ZONED R-12 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: SITE DEVELOPMENT PLAN LAYOUT PLAN	DATE: JANUARY 2012 MAY 2012
DRAWN: JCO DESIGN: JCO CHECKED: BFC	PROJECT NO. 2426 SCALE: 1"=30' DRAWING 2 OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard County Department of Planning and Zoning
 CHIEF, DIVISION OF LAND DEVELOPMENT 6/12/12
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 6/7/12
 DIRECTOR 6/12/12

10-10-12 REVISE LOT 3 TO SHOW AN ALISON ELEV. & REMOVE RETAINING WALL
 2-10-12 REVISE LOT 3 TO SHOW AN ALISON ELEV. &
 2-9-12 REVISE LOT 3 GRADES & SHOW ALISON ELEV. 'E'

SOILS LEGEND		
SYMBOL	NAME/DESCRIPTION	GROUP
Crd	CROOM AND EVERSBORO SOILS, 10% TO 15% SLOPES	C
Rsc	RUSSETT FINE SANDY LOAM, 5% TO 10% SLOPES	C
Rsd	RUSSETT FINE SANDY LOAM, 10% TO 15% SLOPES	C
Srd	SASSAFRAS AND COOM SOILS, 10% TO 15% SLOPES	B
Ucd	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX, 5% TO 15% SLOPES	D

BASED ON USDA NRCS WEB SOIL NATIONAL COOPERATIVE SOIL SURVEY.



VEHICULAR ACCESS IS RESTRICTED ALONG HANOYER ROAD

PROPERTY OF EDWARD H. LEWIS & WIFE LIBER 492, FOLIO 303 ZONED R-12

DONALD P. MCNAMARA DOROTHY G. MCNAMARA LIBER 3062, FOLIO 564 PARCEL 264 ZONED R-12

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.

ENGINEER: *[Signature]* DATE: 5/17/12

DEVELOPER'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 ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *[Signature]* DATE: 5/10/12

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

HOWARD: *[Signature]* DATE: 5/31/12

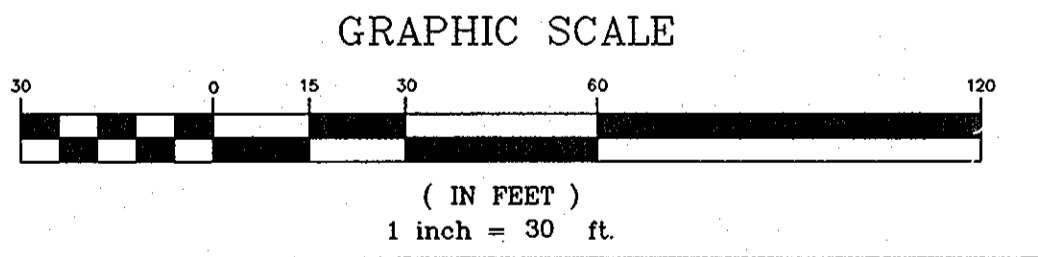
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 6/12/12

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 6/7/12

DIRECTOR: *[Signature]* DATE: 6/14/12

- NOTES:
1. ANY SEDIMENT THAT ENTERS THE EXISTING BIO-RETENTION FACILITY IS TO BE REMOVED AND THE FACILITY PLACED BACK INTO FUNCTIONING FORM.
 2. STOCKPILING IS NOT PERMITTED ON SITE.
 3. THE CONTRACTOR IS RESPONSIBLE FOR PUMPING ALL STANDING WATER FROM EXCAVATED AREAS THAT REMAIN FOR 24 HOURS AFTER A 1 OR 2 YEAR STORM EVENT OR 48 HOURS AFTER A 10 YEAR STORM EVENT.



NO. DATE		ADJUST LOT 3 ALISON PER 7.11.12 REVISION	REVISION
1 6-29-12		ADD ALISON MODEL TO LOT 3, REVISE GENERIC BOXES 'A', 'C' & 'D'	

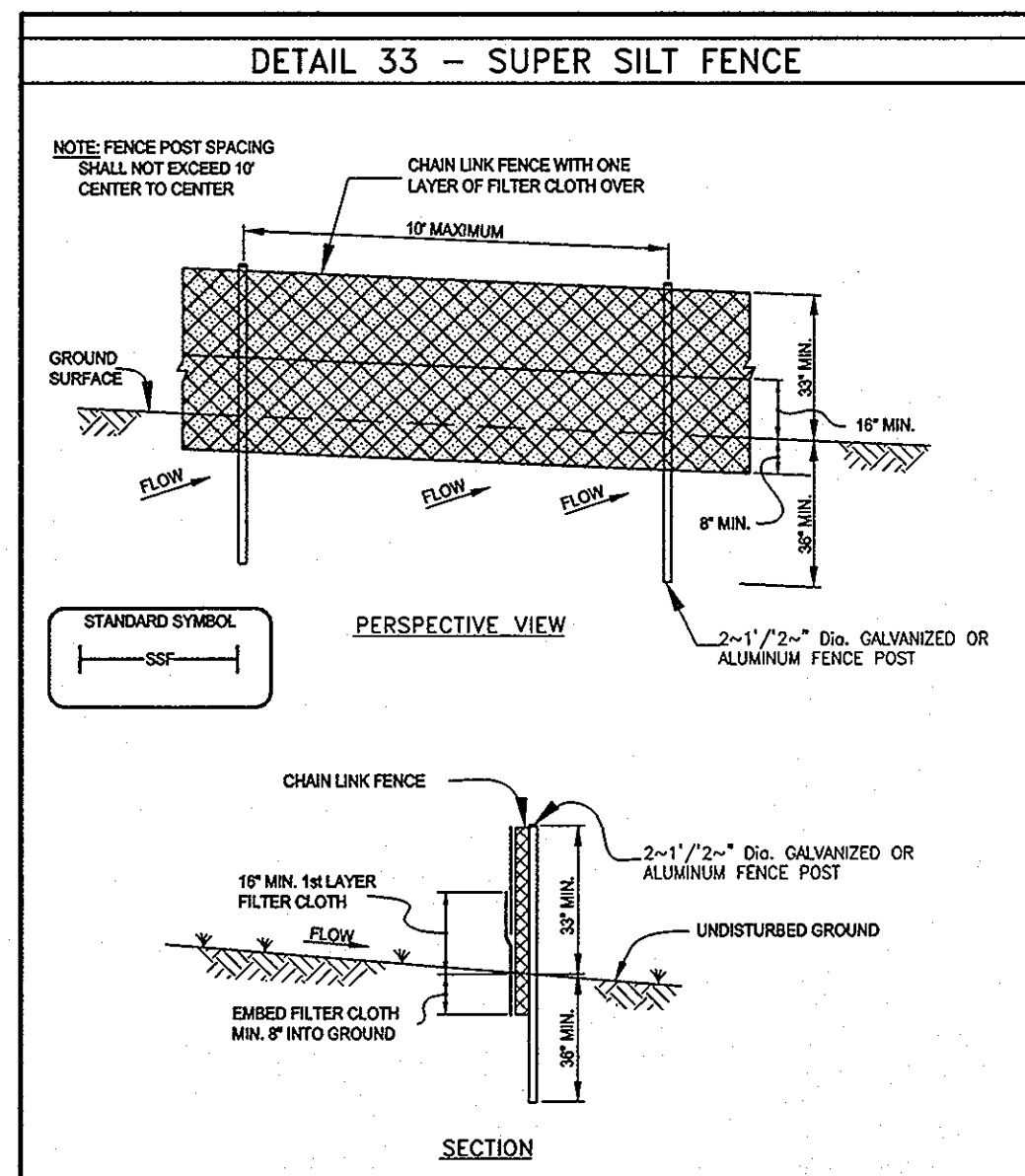
BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8400 BALTIMORE NATIONAL PIKE & SUITE 418 A ELLOTT CITY, MARYLAND 21043
 (P) 410-465-1108 (F) 410-465-6944
 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
 (P) 301-371-3506 (F) 301-371-3508
 WWW.BE-ENGINEERING.COM

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. 28589 Expiration Date: 7-22-2013.

STATE OF MARYLAND
 BENCHMANG ENGINEERING, INC.
 PROFESSIONAL ENGINEER
[Signature] 5/17/12

BUILDER:	RICHMOND AMERICAN 6200 OLD DOBBIN LANE, STE. 190 COLUMBIA, MARYLAND 21045 PHONE: 410-312-2837	PROJECT:	SLUSHER PROPERTY LOTS 2-12 SINGLE FAMILY UNITS
OWNER:	GORDON DEVELOPMENT CO, INC. 1498 REISTERSTOWN ROAD, STE. 338 PIKESVILLE, MARYLAND 21208 PHONE: 443-375-0324	LOCATION:	TAX MAP 38 - GRID 15 PARCEL 745, ZONED R-12 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE:	SITE DEVELOPMENT PLAN GRADING, SEDIMENT & EROSION CONTROL PLAN	DATE:	JANUARY 2012 MAY 2012
DRAWN:	JCO	DESIGN:	JCO
CHECKED:	BFC	PROJECT NO.:	2426
SCALE:	1"=30'	DRAWING:	3 OF 5

4	4-24-13	REVISE LOT 3 GRADES & SHOW ALISON ELEV. & REMOV. WALL
3	10-25-12	REVISE LOT 3 GRADES & SHOW ALISON ELEV. 'C'
2	9-28-12	REVISE LOT 3 GRADES & SHOW ALISON ELEV. 'E'



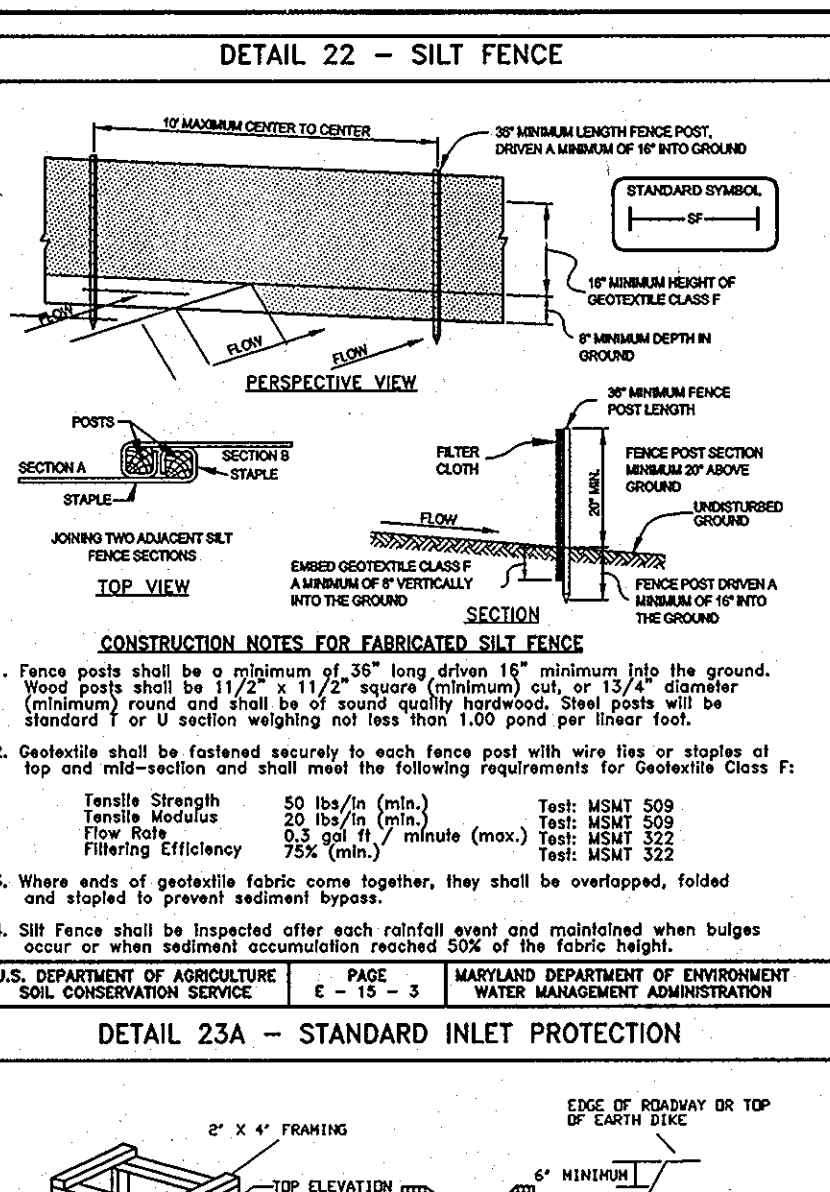
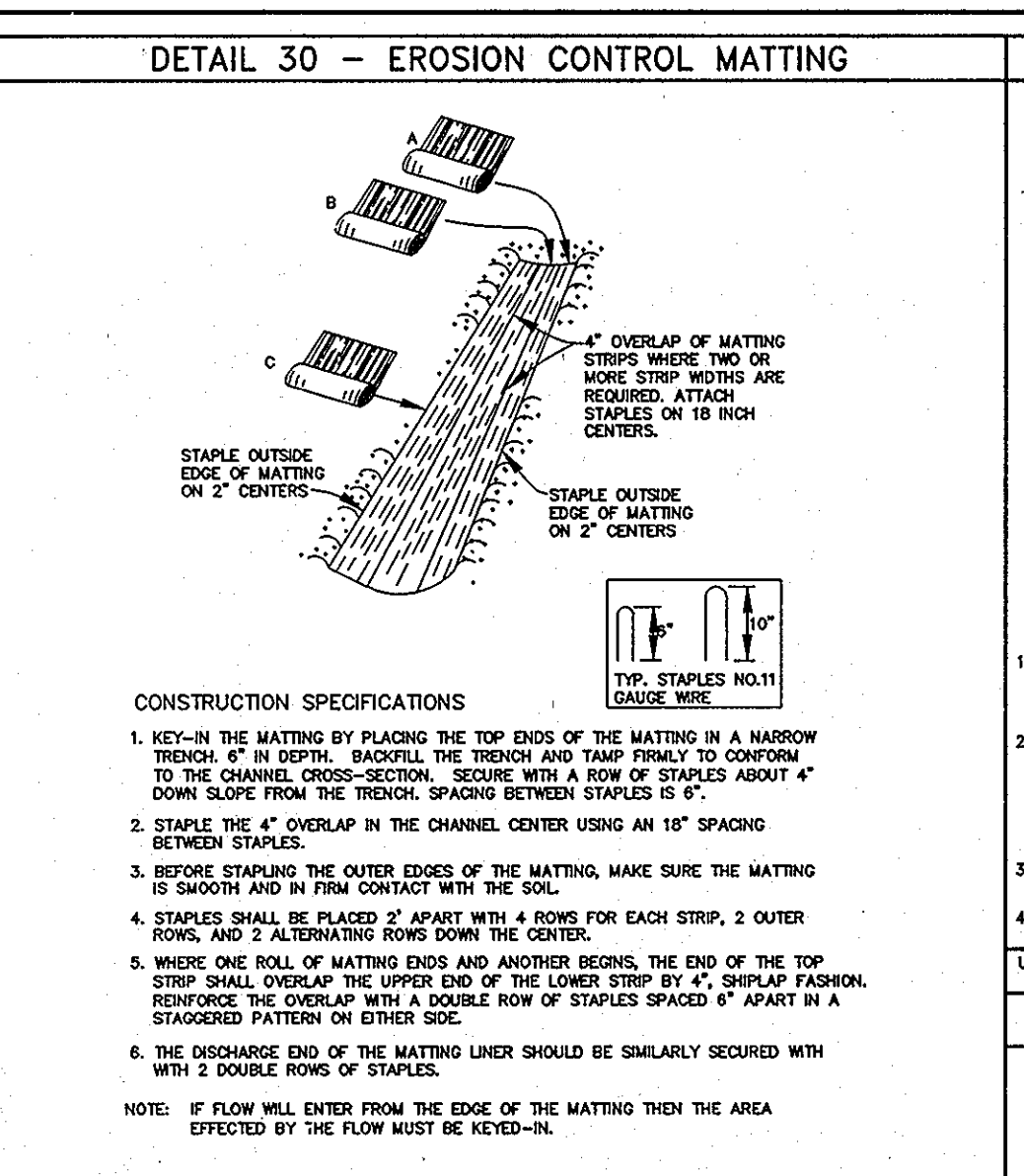
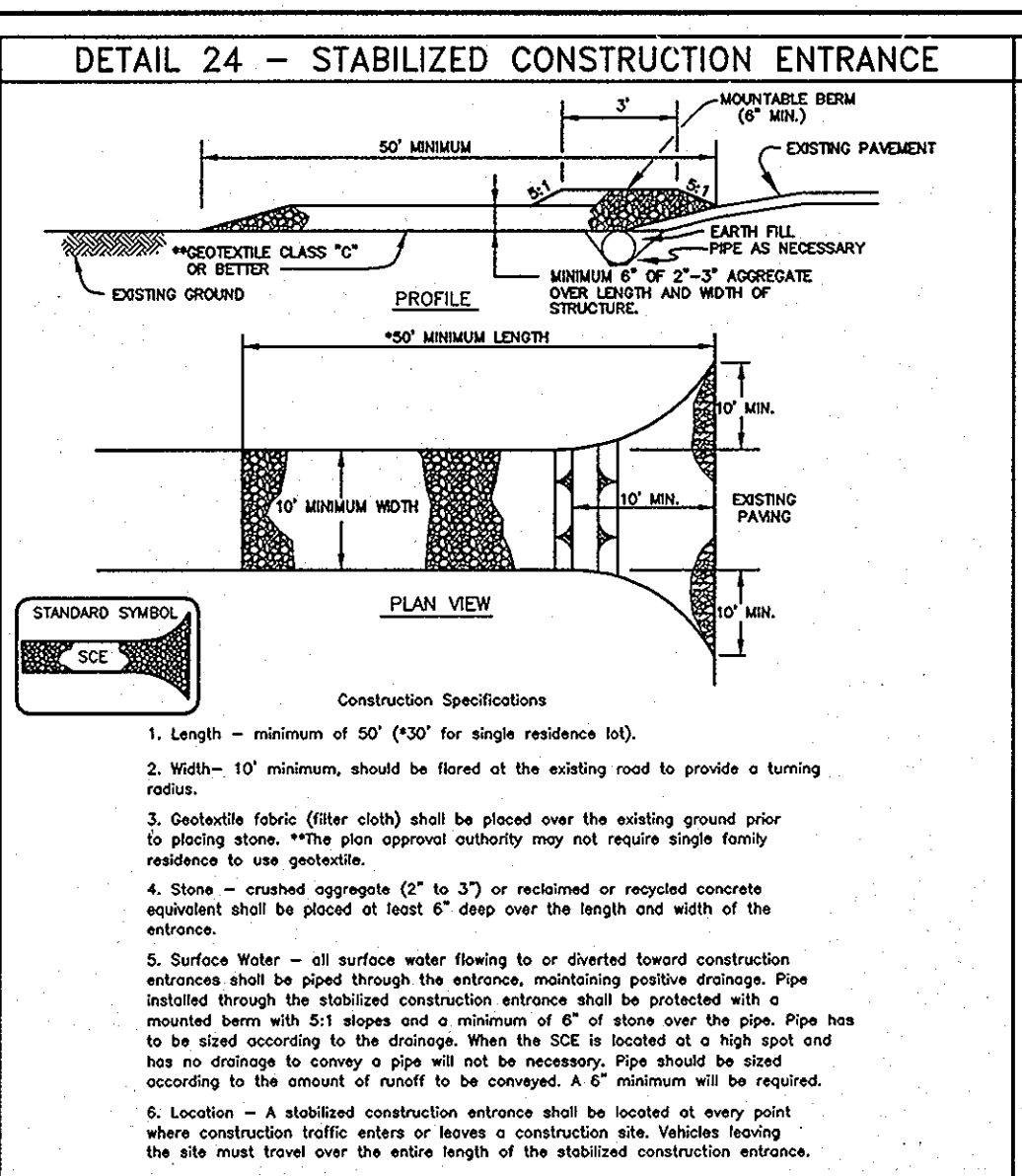
CONSTRUCTION SPECIFICATIONS

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fence. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and frass rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and still bulldozers removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft ² /minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

SUPER SILT FENCE DESIGN CRITERIA

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200 feet	1,500 feet
20 - 33%	5:1 - 3:1	100 feet	1,000 feet
33 - 50%	3:1 - 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE H - 28 - 3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE E - 28 - 3A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE G - 22 - 2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSING AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (513-1850).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 1:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 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.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE (THIS SUBMISSION)	2.57	ACRES
AREA DISTURBED	2.39	ACRES
AREA TO BE ROOFED OR PAVED	0.79	ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.60	ACRES
TOTAL CUT	2400	CY
TOTAL FILL	2700	CY
OFFSITE WASTE/BORROW AREA LOCATION	*	

* IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE SPILL/BORROW SITE AND NOTIFY AND GAIN APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR OF THE SITE AND ITS GRADING PERMIT NUMBER AT THE TIME OF CONSTRUCTION.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE GRADING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED, WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

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 COUNTY SOIL CONSERVATION DISTRICT."

ENGINEER: *[Signature]* DATE: 2/17/2012

DEVELOPER'S CERTIFICATE

"I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

DEVELOPER: *[Signature]* DATE: 9/10/12

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 5/31/12

DATE: 6/12/12

DATE: 6/7/12

DATE: 6/12/12

TOPSOIL SPECIFICATIONS

- Topsoil salvaged from the existing site may be used provided that it meets 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-NRCS 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 texture subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, trash, or other materials larger than 1-1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, bitula, or other as specified on drawings.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- 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 dictating 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 or 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 sterilants or chemicals used for weed control unless 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.
- 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, etc.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, at least 4" - 8" higher in elevation.
 - 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 sediment or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and 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 below:
 - Composted Sludge Material for use as a soil conditioner for sites having distributed 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:
 - 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 26.06.09.
 - 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 1/3 the normal lime application rate.

SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.	DAY 1
2. INSTALL SEDIMENT CONTROLS THAT ARE INCLUDED UNDER THIS SDP.	DAY 2-6
3. EXCAVATE FOR FOUNDATION, ROUGH GRADE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES.	DAY 7-10*
4. CONSTRUCT HOUSE, BACKFILL AND CONSTRUCT DRIVEWAY.	DAY 11-30*
5. STABILIZE CONTRIBUTING AREA AND INSTALL ON-LOT STORMWATER MANAGEMENT FACILITY(S).	DAY 81-87
6. FINAL GRADE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.	DAY 87-91
7. WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE ANY REMAINING DISTURBED AREAS.	DAY 92-95

TEMPORARY SEEDBED PREPARATIONS

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

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

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

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 60 LBS PER ACRE (0.5 LBS/1000 SQ FT) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD, OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

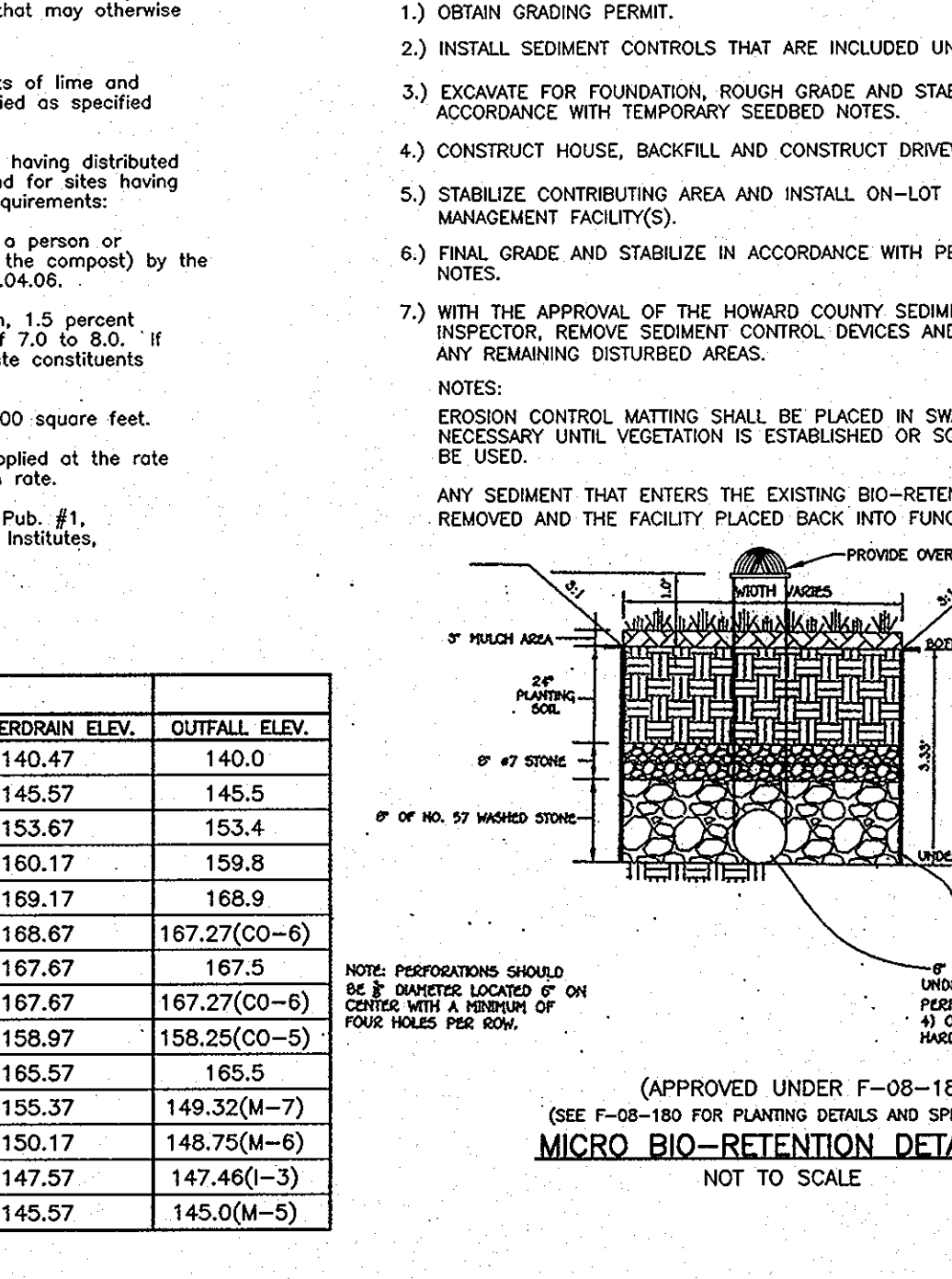
MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

MICRO BIO-RETENTION CHART

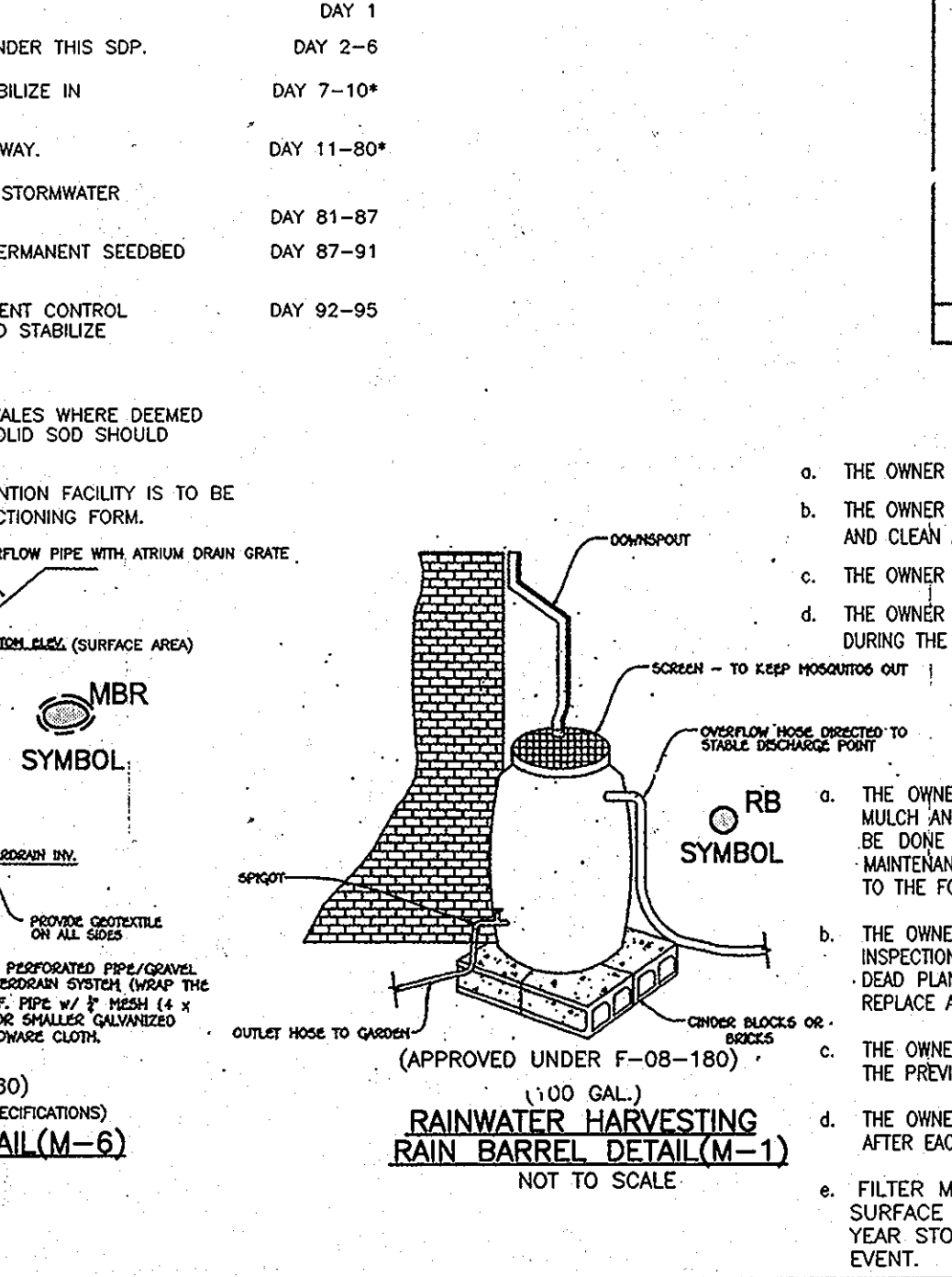
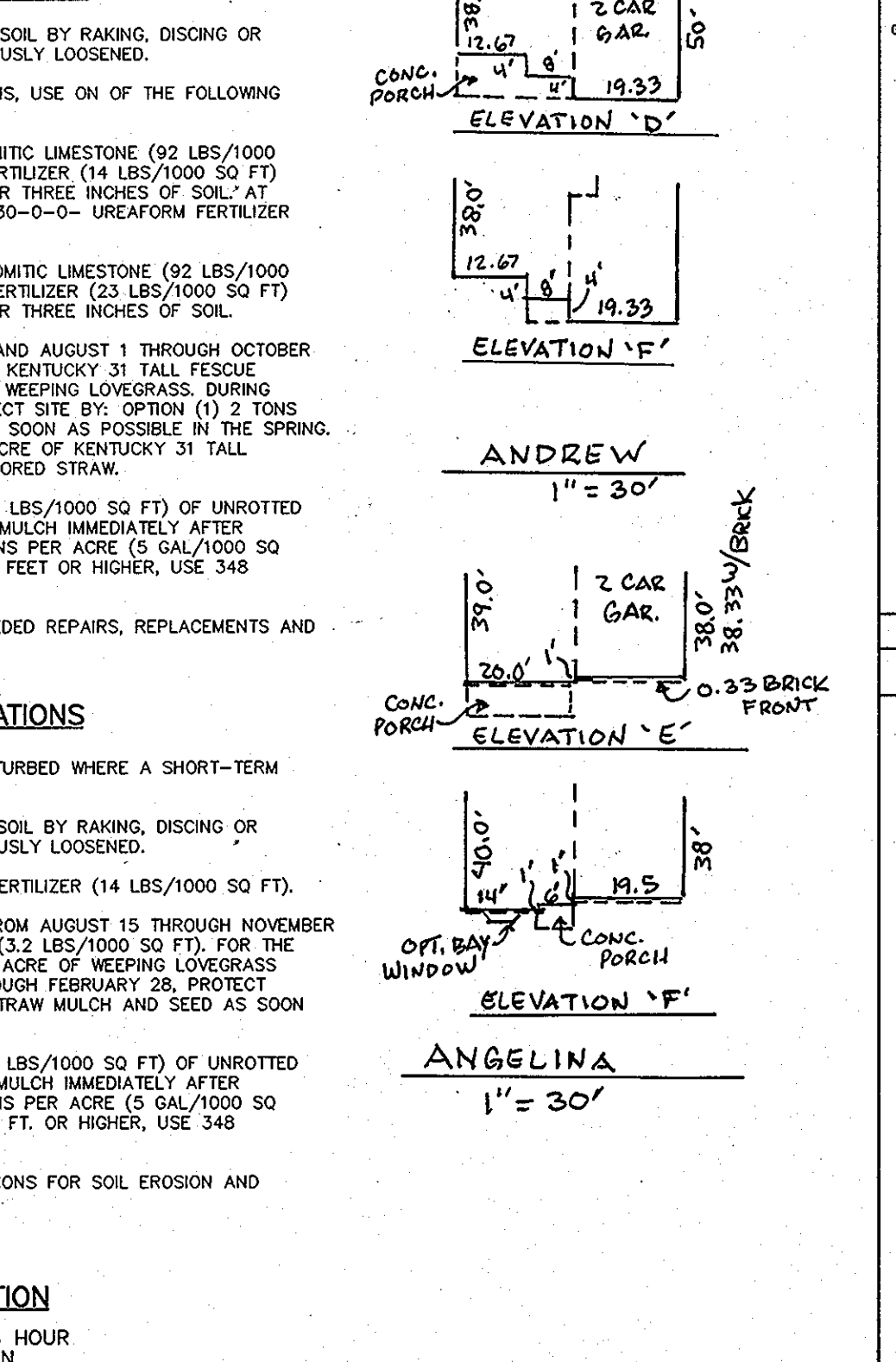
LOT NO.	FACILITY NO.	SURFACE AREA	SURFACE ELEV.	UNDERDRAIN ELEV.	OUTFALL ELEV.
2	MBR-3	149 SF	143.8	140.47	140.0
4	MBR-4	149 SF	148.9	145.57	145.5
5	MBR-5	144 SF	157.0	153.67	153.4
6	MBR-6	114 SF	163.5	160.17	159.8
7	MBR-7	76 SF	172.5	169.17	168.9
8	MBR-8	15 SF	172.0	168.67	167.27(CO-6)
8	MBR-9	16 SF	171.0	167.67	167.5
8	MBR-10	19 SF	171.0	167.67	167.27(CO-6)
9	MBR-11	47 SF	162.3	158.97	158.25(CO-5)
9	MBR-12	48 SF	168.9	165.57	165.5
10	MBR-13	90 SF	158.7	155.37	149.32(M-7)
11	MBR-14	90 SF	153.5	150.17	148.75(M-6)
12	MBR-15	70 SF	150.9	147.57	147.46(-3)
12	MBR-16	86 SF	148.9	145.57	145.0(M-5)

PERMANENT SEEDBED PREPARATIONS

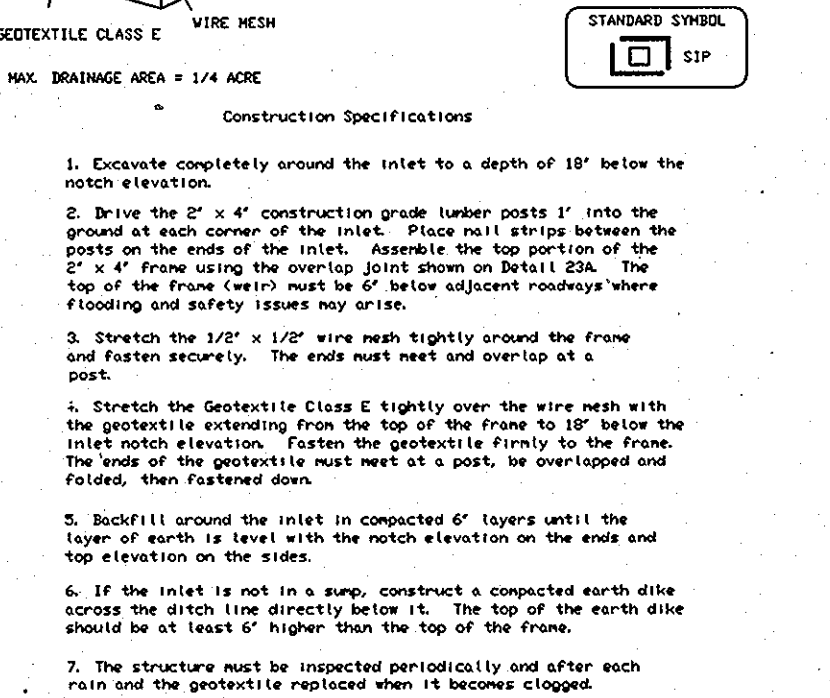
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE END OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
 - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (0.5 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE, AND 2 LBS PER ACRE (0.05 LBS/1000 SQ FT) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OPTION (2) USE SOD, OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.
- MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.



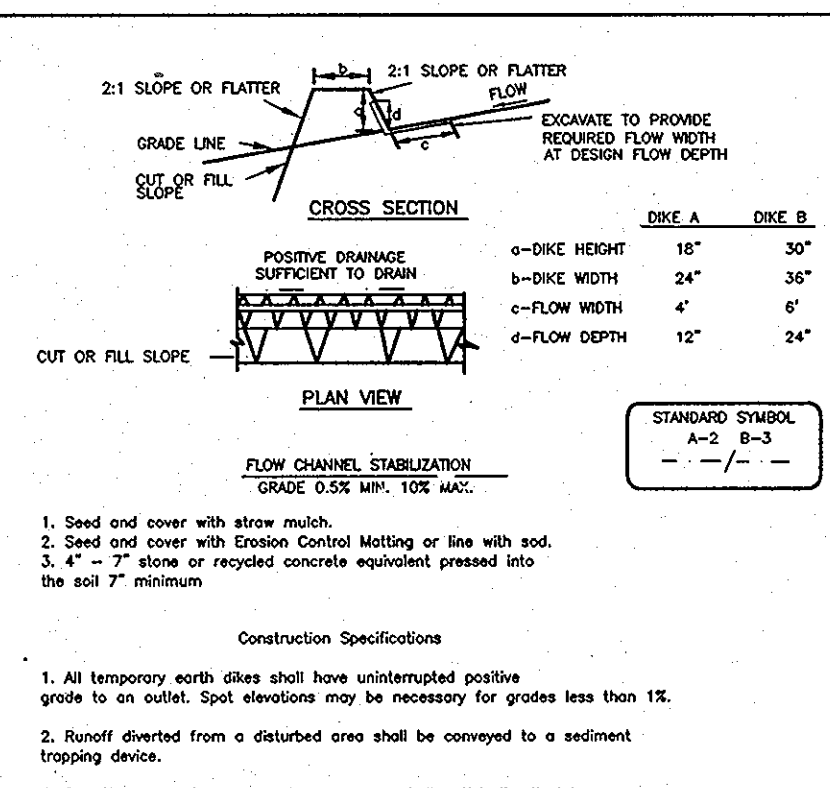
TEMPORARY SEEDBED PREPARATIONS



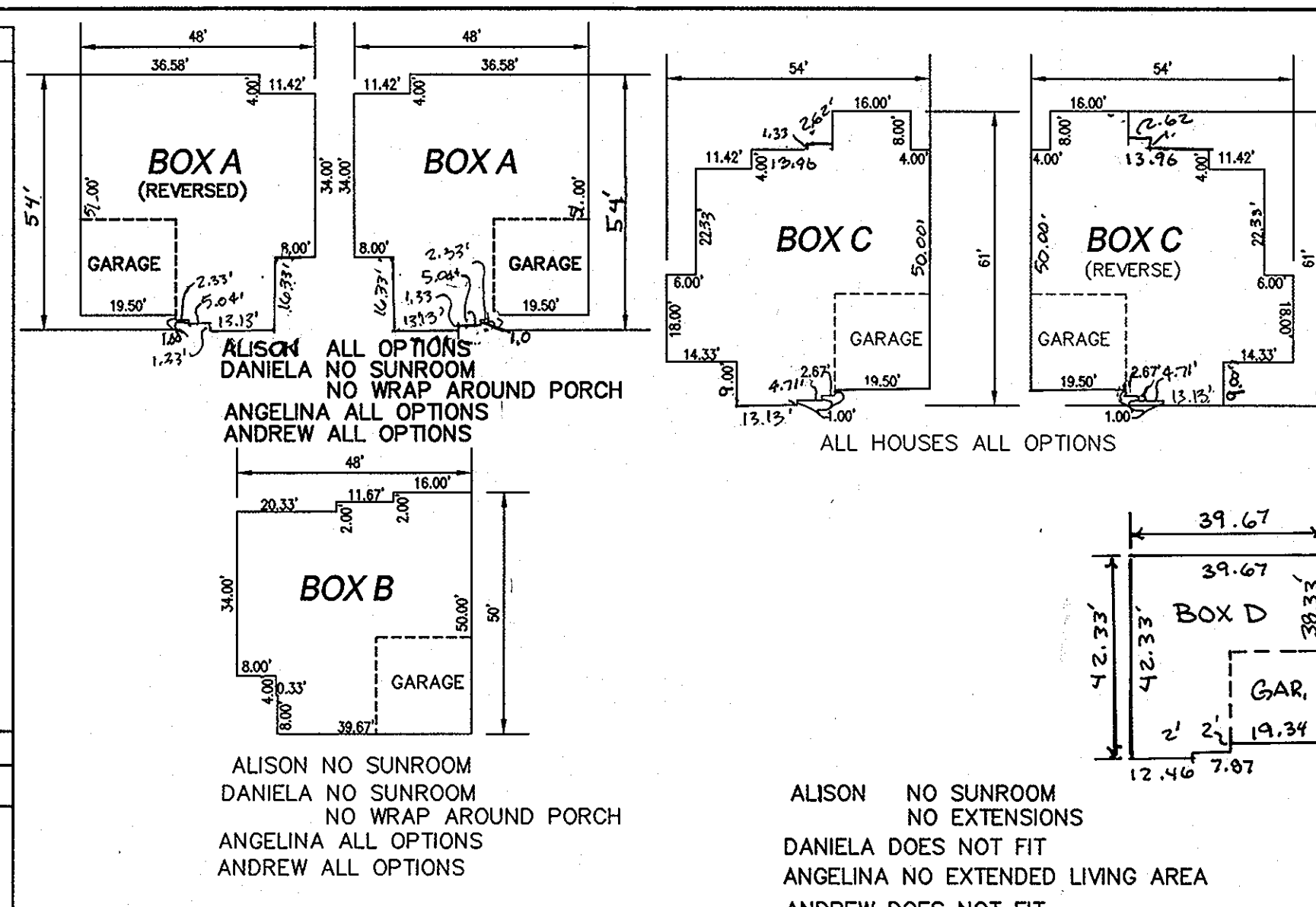
DETAIL 23A - STANDARD INLET PROTECTION



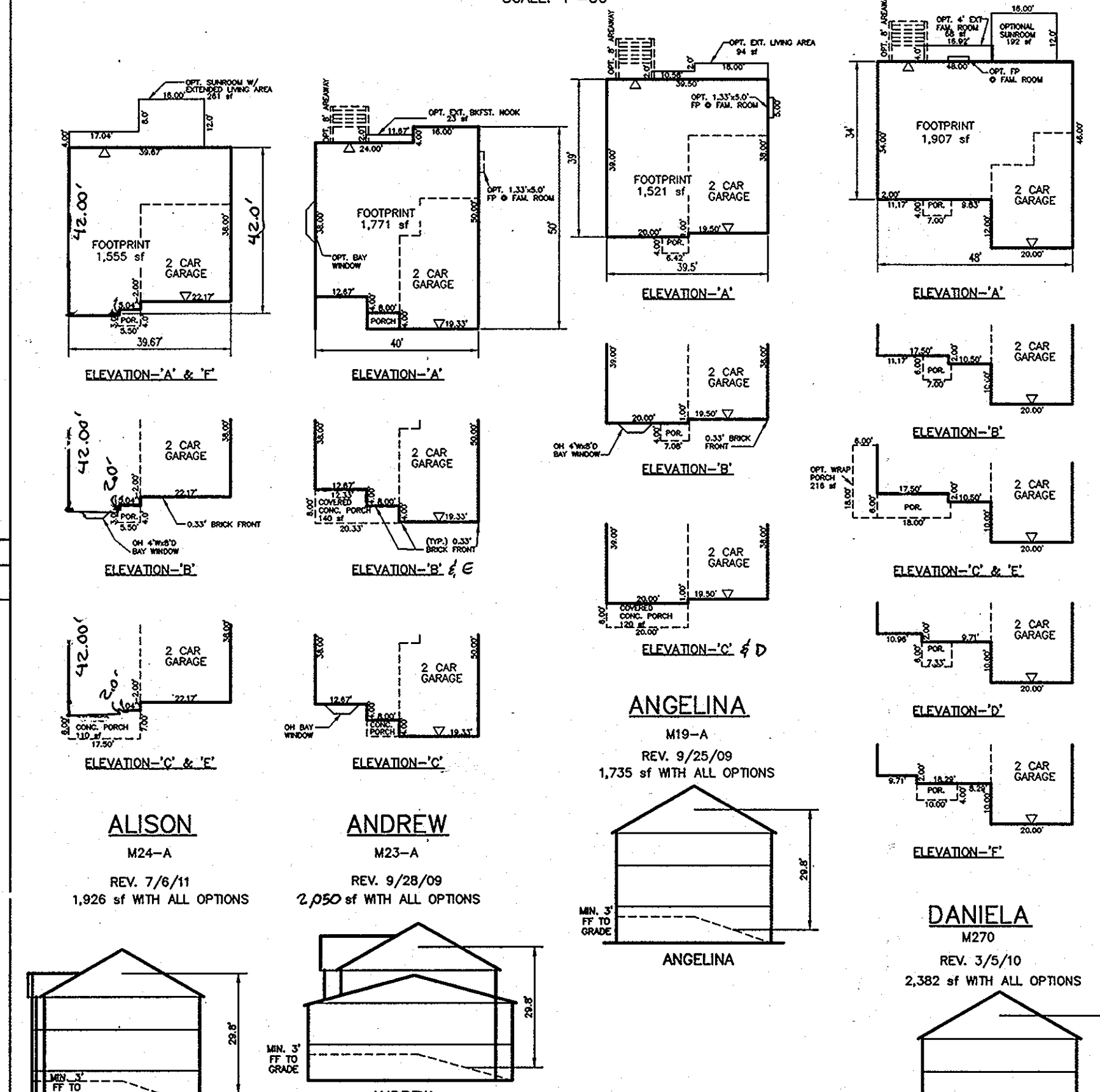
DETAIL 1 - EARTH DIKE



- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED RAINWATER HARVESTING (M-1)**
- THE OWNER SHALL EMPTY BARRELS ON A MONTHLY BASIS ON CLEAR BARREL WITH A HOSE.
 - THE OWNER SHALL VERIFY INTEGRITY OF LEAF SCREENS, GUTTERS, DOWNSPOUTS, SPIGOTS, AND MOSQUITO SCREENS. AND CLEAN AND REMOVE ANY DEBRIS.
 - THE OWNER SHALL REPLACE DAMAGED COMPONENTS AS NEEDED.
 - THE OWNER SHALL DISCONNECT THE BARREL PRIOR TO WINTER, ALLOW THE BARREL TO DRAIN BY BOTTOM SPIGOT DURING THE WINTER SEASON.
 - THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING WEAR OR MISSING MULCH. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
 - THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
 - THE OWNER SHALL INSPECT MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
 - THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH WINTER STORM.
 - FILTER MATERIAL MUST BE REPLACED WHEN THE WATER REMAINS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 24 HOURS FOLLOWING A 1 OR 2 YEAR STORM EVENT OR MORE THAN 48 HOURS FOLLOWING A 10 YEAR STORM EVENT.



HOUSE MODEL DETAIL



REVISIONS

NO.	DATE	REVISION
1	6-29-12	REVISE GENERIC BOXES A,C,D, RENAME DIMENSION ON ALISON HSE BOX ADD ELEVATIONS D,E,F TO ANDREW & ANGELINA HSE MODELS

BENCHMARK ENGINEERING, INC.

ENGINEERS & LAND SURVEYORS & PLANNERS

6480 BALTIMORE NATIONAL PIKE & SUITE 418 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-485-8106 (F) 410-485-8844
 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
 (P) 301-371-2505 (F) 301-371-3508
 WWW.BE-CIVLENGINEERING.COM

PROJECT: SLUSHER PROPERTY

LOTS 2-12 SINGLE FAMILY UNITS

BUILDER: RICHMOND AMERICAN
 6200 OLD DOBBIN LANE, STE. 190
 COLUMBIA, MARYLAND 21045
 PHONE: 410-312-2837

OWNER: GORDON DEVELOPMENT CO, INC.
 1498 REISTERSTOWN ROAD, STE. 338
 PIKESVILLE, MARYLAND 21208
 PHONE: 443-375-0324

TITLE: SITE DEVELOPMENT PLAN SEDIMENT CONTROL AND SITE NOTES AND DETAILS

DATE: JANUARY 2012
 MAY 2012

PROJECT NO.: 2426

SCALE: 1"=30'

DRAWING: 4 OF 9

DRAWN: JCO **DESIGN:** JCO **CHECKED:** BFC

SDP-12-043

**HCS/D/MAA
VEGETATIVE ESTABLISHMENT
DETAILS AND SPECIFICATIONS FOR PROJECTS WITHIN
4 MILES OF THE BWI AIRPORT**

July 1, 2004
References to ITEM #s noted below are found in Maryland Aviation Administration's manual entitled Specifications for Performing Landscaping Activities for the Maryland Aviation Administration dated May 2001

- SOIL TESTS**
- Following initial soil disturbances or re-disturbance, permanent or temporary stabilization shall be completed within seven calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and fourteen days for all other disturbed or graded areas on the project site.
 - Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 6-week incubation period to allow oxidation of sulfates.
 - The minimum soil conditions required for permanent vegetative establishment are:
 - Soil pH shall be between 6.0 and 7.0.
 - Salable salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture.
 - 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 ITEM 901 or amendments made as recommended by a certified agronomist.

**SEEDING
ITEM 903 SEEDING
DESCRIPTION**

903-1.1 GENERAL. This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item have been designed to reduce the attractiveness of airport grounds to wildlife. Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved standards.

MATERIALS

903-2.1 SEED. All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All lawn and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

- corn cockle (*Agrostemma githago*),
- bentgrass (*Agrostis* spp.),
- redtop (*Agrostis gigantea*)
- wild onion (*Allium canadense*),
- wild garlic (*Allium vineale*),
- bindweed (*Celastrus* spp.),
- dodder (*Cuscuta* spp.),
- Bermuda grass (*Cynodon dactylon*),
- orchardgrass (*Dactylis glomerata*),
- tall fescue (*Festuca arundinacea*)
- meadow fescue (*Festuca pratensis*)
- velvetgrass (*Holcus lanatus*),
- annual bluegrass (*Poa annua*),
- rough bluegrass (*Poa trivialis*),
- timothy (*Phleum pratense*), and
- Johnson grass (*Sorghum halpense*).

Restricted noxious-weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited noxious weeds: ballowine (*Cardiospermum halicacabum*), quackgrass (*Elytrigia repens*), sicklepod (*Senna obtusifolia*), sorghum (*Sorghum* spp.), Canada thistle (*Cirsium arvense*), plumeless thistle (*Cirsium* spp.-includes musk thistle and curled thistle), and serrated tussock (*Mastigis trichotoma*).

903-2.1.1 APPROVED SPECIES. The following table contains species that are approved by MAA for use in seed mixtures. Purity requirements and germination requirements are also provided.

1. These species may be included as a labeled component of a mixture when each is present in excess of five percent of the mixture by weight.

APPROVED PLANT SPECIES MAA SEED MIXTURES			
	Purity ^a Not Less than %	Minimum % Germination ^b	Pure Live Seed Factor
Certified Turf-Type Tall Fescue (<i>Festuca arundinacea</i>)	98	90	1.13
Certified Kentucky Bluegrass (<i>Poa pratensis</i>)	90	80	1.39
Hard Fescue (<i>Festuca longifolia</i>)	98	90	1.13
Chewing Red Fescue (<i>Festuca rubra commutata</i>)	98	90	1.13
Annual Ryegrass (<i>Lolium multiflorum</i>)	95	85	1.24
Perennial Ryegrass (<i>Lolium perenne</i>)	90	80	1.39
Fowl Meadow Grass (<i>Poa polystris</i>)	90	80	1.39
Little Bluestem (<i>Andropogon scoparius</i>)	62	94	1.71

^aThe percentage weight of pure seed present shall be free of any agricultural weeds, inert matter, and other seeds distinguishable by their appearance.
^bThe percentage of germination shall be actual sprouts and shall not include hard seeds unless specifically permitted by the MAA Engineer.

Seeding seasons are based on typical years and can be subject to variation, which may be modified by the MAA Engineer based on seasonal trends. If the time required to complete any of the operation necessary under this item, within the specified planting season or any authorized extensions thereof, extends beyond the Contract period, then such time will be charged against the Contract time, and liquidated damages will be enforced with respect to this portion of work.

903-2.2 LIMB. Limes shall consist of ground limestone and contain at least 85 percent total carbonates. Limes shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesium lime shall contain at least 10 percent magnesium oxide. Limes shall be applied by approved methods detailed in Section 903-3.3 of this item. The rate of application will be based on results of soil tests.

903-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately or in mixtures) and meet the requirements of applicable state and federal laws (29 CFR 170.104) as well as standards of the Association of Official Agricultural Chemists (Nitrogen-Phosphorus-Potassium (N-P-K) concentrations shall be determined from analysis of soil samples. (Approved fertilizer rate: 21 pounds of 10-10-10 per 1,000 square feet). Methods of fertilizer application shall conform to standards described in Section 903-3.3 of this item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water-soluble potash). Mixed fertilizers shall not contain any hydrated lime or cyanide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified nutrients per unit of measure without additional cost to MAA.

The fertilizers may be supplied in the following forms:

- A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- A finely ground fertilizer solution in water, suitable for application by power sprayers; or
- A granular or pellet form suitable for application by blower equipment.

The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State-owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Sod Production" (see Appendix B). Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

CONSTRUCTION METHODS AND EQUIPMENT

903-3.1 GENERAL. This section provides approved methods for the application of and includes standards for seedbed preparation, methods of application, and equipment to be used during the process. Lime and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903-2.1.3.

903-3.2 ADVANCE PREPARATION. Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be tilled and graded prior to application of lime and fertilizer, and the surface area shall be cleared of any stones larger than 1 inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and lime. The Contractor will repair such damage, which may include filling gullies, smoothing irregularities, and repairing other incidental damage before beginning the application of fertilizer and ground limestone.

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut out or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory condition by discing or by use of cultipackers, rollers, harrows, or other appropriate means.

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches; the top 3 inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added; and, if it has been sloped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 inch.

After completion of tilling and grading, lime and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903-2.2 and 2.3) and methods (Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

903-3.3 METHODS OF APPLICATION. Lime, fertilizer, and seed mixes shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

- 903-3.3.1 DRY APPLICATION METHOD
- Liming. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
 - Fertilizing. Following advance preparation (and liming if necessary), fertilizer shall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.
 - Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1 inch for newly graded and disturbed areas.

Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lamroller.

903-3.3.2 WET APPLICATION METHOD/HYDROSEEDING

- General. The Contractor may elect to apply seed and fertilizer as per Paragraphs c and d of this section in the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified in Paragraphs 903-2.3.
- Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pressure pump assembly shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump passages and pipelines shall be capable of providing clearance for 5/8-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be supplied so that mixtures may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.

c. Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime should be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been applied, the tank should be emptied and rinsed with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds. All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the Engineer.

d. Spraying. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against misses and overlapped areas. Predetermined quantities of the mixture shall be used in accordance with specifications to cover specified sections of known areas. To check the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pans over the area at intervals and observe the quantity of material deposited thereon.

On surfaces that are to be mulched as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

903-3.4 MAINTENANCE OF SEEDED AREAS. The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gutted or otherwise damaged following seeding shall be repaired by regrading and reseeded as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work performed out of season, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

MULCHING

Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading.

TEMPORARY SEEDING

Lime: 100 pounds of dolomitic limestone per 1,000 square feet.
Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.
Seed: Per ITEM 903
Mulch: Mulch shall be applied as per ITEM 905.

FILL

No fills may be placed on frozen ground. All fill to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All fill in roadways and parking areas is to be classified Type 2 as per Anne Arundel County Code - Article 21, Section 2-309, and compacted to 90% density; compaction to be determined by ASTM D-1557-66T (Modified Proctor). Any fill within the building area is to be compacted to a minimum of 95% density as determined by methods previously mentioned. Fills for pond embankments shall be compacted as per MD-376 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

SODDING

Installation of sod should follow permanent seeding dates. Seedbed preparation for sod shall be as noted above. Lime and fertilizer seedbed preparations and liming and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control netting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod. Install sod as per ITEM 904.

MINING OPERATIONS

Sediment control plans for mining operations must include the following seeding dates and mixtures:
For seeding dates of: February 1 through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and red top at the minimum rate of 0.5 pounds per 1,000 square feet.
NOTE: Use of this information does not preclude meeting all of the requirements of the current Maryland Standards and Specifications for Soil Erosion and Sediment Control.

903-3.1.3 PURITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information:

- name and address of laboratory,
 - date of test,
 - lot number,
 - the results of tests as to name, percentages of purity and of germination,
 - percentage of weed content for the seed furnished,
 - and, in the case of a mixture, the proportions of each kind of seed.
- Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity, germination rate and hard seed, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program seed tag.

903-2.1.3 MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates for permanent cool-season grasses are as follows:

Seed	Rate of Application (lbs of PLS/acre)
85% Certified Turf-Type Tall Fescue	192
10% Certified Kentucky Bluegrass	28
5% Perennial Ryegrass	14
Supplemental Seed	
Annual Ryegrass	25

Seed Mixture No. 2 - Sloped areas not subject to regular mowing (Application rate = 115 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
75% Hard Fescue	85
20% Chewings Fescue	23
5% Kentucky Bluegrass	7
Supplemental Seed	
Redtop	3

Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)

Seed	Rate of Application (lbs of PLS/acre)
60% Fowl Meadow Grass	83
30% Chewings Fescue	34
10% Perennial Ryegrass	14
Supplemental Seed	
Redtop	3

903-2.1.4 SEEDING SEASONS. Application of seed and seed mixtures shall occur within a specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Fahrenheit (7.2 degrees Centigrade). Under these conditions, a layer of mulch should be applied in accordance with Item 905. Mulching to stabilize the site, and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by over seeding of the appropriate seed mixture during the spring seeding season.

SEEDING SEASONS	
Permanent Cool-Season Grasses	March 1 to April 20 and August 1 to October 20, inclusive
Temporary Cover of Annual Ryegrass	March 1 to April 30 and August 1 to November 30, inclusive
Temporary Cover of Warm-Season Grasses (Little Bluestem only)	May 1 to July 31, inclusive. Rate of application should be 13.6 lbs. PLS per acre.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard County Seal
6/12/12
DATE

John Williams
6/12/12
DATE

David C. McLaughlin
6/12/12
DATE

NO.	DATE	REVISION
 ENGINEERS & LAND SURVEYORS & PLANNERS 8480 BALTIMORE NATIONAL PIKE & SUITE 418 A ELICOTT CITY, MARYLAND 21043 (P) 410-405-0100 (F) 410-405-0664 80 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702 (P) 301-371-3505 (F) 301-371-3508 WWW.BE-CVLENGINEERING.COM		
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. 28559 Expiration Date: 7-22-2013.		
BUILDER:	PROJECT: SLUSHER PROPERTY	
RICHMOND AMERICAN	LOTS 2-12	
6200 OLD DOBBIN LANE, STE. 190	SINGLE FAMILY UNITS	
COLUMBIA, MARYLAND 21045	LOCATION:	TAX MAP 38 - GRID 15
PHONE: 410-312-2837		PARCEL 745, ZONED R-12
		1st ELECTION DISTRICT
		HOWARD COUNTY, MARYLAND
OWNER:	TITLE: SITE DEVELOPMENT PLAN	
GORDON DEVELOPMENT CO, INC.	HCS/D/MAA SEDIMENT AND EROSION	
1498 REISTERSTOWN ROAD, STE. 338	CONTROL NOTES AND DETAILS	
PIKESVILLE, MARYLAND 21208	DATE:	JANUARY 2012
PHONE: 443-375-0324		MAY 2012
		PROJECT NO. 2426
DRAWN: JCO	DESIGN: JCO	CHECKED: BFC
	SCALE: AS SHOWN	DRAWING 5 OF 5