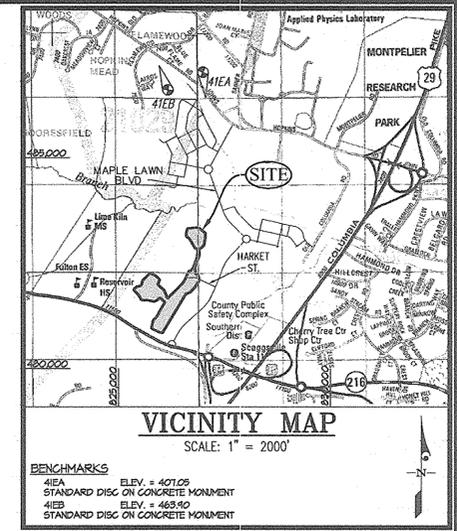


GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- PROJECT BACKGROUND:
 LOCATION: MD ROUTE 216 (SCAGGSVILLE ROAD)
 TAX MAP: 41-216 22 / 46:3
 ZONING: MXD-3
 ELECTION DISTRICT: 5
 GROSS AREA OF TRACT: 605.3 ACRES
 AREA OF SUBMISSION: 25.1 ACRES
- SEE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS: S 01-17, S-06-16, ZB-145M, ZB-1039M, PB-353, PB-378, F-02-12, F-03-07, F-05-10, F-05-12, F-05-18, F-06-140, F-07-57, SDF-03-06, SDF-04-46, SDF-05-36, SDF-06-61, AND WF-05-12.
- THE TOPOGRAPHY SHOWN WAS TAKEN FROM AERIAL TOPOGRAPHY PREPARED DURING MARCH 1997 BY SDI
- HORIZONTAL AND VERTICAL CONTROL BASED ON HOWARD COUNTY CONTROL STATIONS 41EA & 41EB.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS /DIVISION OF CONSTRUCTION INSPECTION AT (410) 313 - 1820 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE PLANS:
 MISS UTILITY 1-800-251-7777
 VERIZON 1-800-446-5266
 HOWARD COUNTY BUREAU OF UTILITIES 410-313-4400
 AT&T CABLE LOCATION DIVISION 301-313-3553
 BALTIMORE GAS & ELECTRIC CO. 410-850-4620 & 410-787-9068
- SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH " 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOILS EROSION AND SEDIMENT CONTROL".
- ZONING: SITE IS BEING DEVELOPED UNDER MXD-3 REGULATIONS, PER ZB-145M WHICH WAS APPROVED ON 2/8/01, AND ZB-1039M WHICH WAS APPROVED ON 06/14/06. UNDERLYING ZONING IS RR.
- THE CEMETERY ONCE ON THE KESSEL PROPERTY (P. 116) WAS MOVED UNDER PERMIT APPROVED BY WF-05-12 ON 8/20/04. PRESENTLY, THERE ARE NO CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THE SUBJECT PROPERTY.
- SOILS DATA WAS TAKEN FROM THE SOIL SURVEY OF HOWARD COUNTY, MARYLAND ISSUED JULY 1988.
- BOUNDARY INFORMATION SHOWN IS BASED UPON A FIELD SURVEY PREPARED BY GUTSCHICK, LITTLE, AND WEBER, P.A. ON OR ABOUT JUNE, 2001.
- WETLAND DELINEATION BY EXPLORATION RESEARCH, INC. APPROVED BY THE CORPS OF ENGINEERS LD 63787-3 ON 03/16/06. NOTICE OF INTENT TO ISSUE A PERMIT IS COVERED BY MDE TRACKING #01-NT-0344/200165421.
- THE 100-YEAR FLOOD PLAIN LIMITS WERE DETERMINED BY THE FLOODPLAIN STUDY PREPARED BY GUTSCHICK, LITTLE AND WEBER, P.A. AS PART OF THE COMPREHENSIVE SKETCH PLAN AND P 05-02.
- EXISTING UTILITIES WERE TAKEN FROM AVAILABLE HOWARD COUNTY RECORDS.
- PERENNIAL STREAM BUFFERS ARE DETERMINED BY LAND USE ADJOINING THE OPEN SPACE (I.E. EMPLOYMENT = 50' BUFFER, RESIDENTIAL = 75' BUFFER). ALL USES ADJOINING AN INTERMITTENT STREAM = 50' BUFFER.
- THE RESIDENTIAL LOTS, PARCELS AND EMPLOYMENT USE STRUCTURES DEVELOPED OR PROPOSED ON THE ORIGINAL 507 ACRE TRACT FOR MAPLE LAWN FARMS ARE GRANDFATHERED TO THE FOURTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AS DEVELOPED UNDER S-01-17, PB CASE 353 AND ZB CASE NO. 995M. HOWEVER, THE PROPOSED RESIDENTIAL AND EMPLOYMENT USES THAT ARE TO BE DEVELOPED UNDER THE AMENDED GSP, S-06-16 AND ZB CASE NO. 1039M FOR THE FORMER KESSEL AND OLIVER PROPERTIES ARE SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING REGULATIONS PER COUNCIL BILL NO. 75-2003.
- PHASING FOR THIS PROJECT WILL BE IN ACCORDANCE WITH THE DECISION & ORDER FOR ZONING CASES ZB145M AND ZB1039M.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, AND 100 YEAR FLOODPLAIN AREAS.
- THE HOWARD COUNTY PLANNING BOARD APPROVED THE AMENDED COMPREHENSIVE SKETCH PLAN, S-06-16, PB-378 FOR MAPLE LAWN FARMS ON 01/08/07 AND SIGNED THE DECISION AND ORDER ON JANUARY 23, 2007.
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS PHASE OF THE PROJECT WITH AN AFFORESTATION OBLIGATION OF 3.76 ACRES WILL BE FULFILLED BY UTILIZING EXCESS FOREST CONSERVATION FROM PRIOR PHASES OF THIS PROJECT, AS SHOWN ON F-06-161, WHICH LEAVES 3.28 ACRES OF EXCESS AFFORESTATION BEING DONE IN ADVANCE AS FOREST CONSERVATION CREDIT FOR FUTURE PHASES OF THIS PROJECT.

SITE PLAN FOR MASS GRADING MAPLE LAWN FARMS PARCELS 116 AND 124

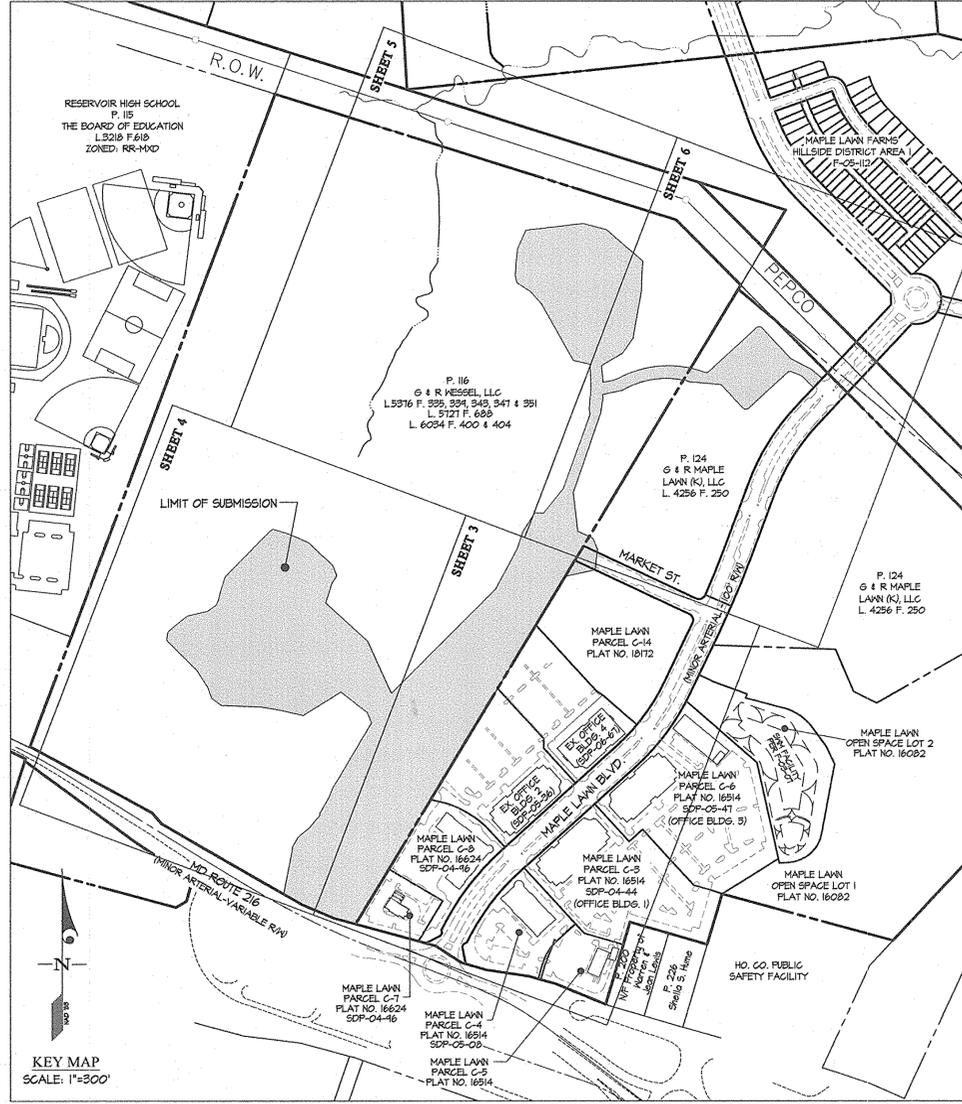


SITE ANALYSIS

TOTAL PROJECT AREA:	605.3 ACRES
TOTAL AREA OF PLAN SUBMISSION:	25.1 ACRES
LIMIT OF DISTURBED AREA:	25.1 ACRES
ZONING:	MXD-3
EXISTING LAND USE:	FARMLAND
PROPOSED LAND USE:	FUTURE COMMERCIAL AND RESIDENTIAL LOTS
PROPOSED IMPROVEMENTS:	MASS GRADING

LEGEND

	EARTH DIKE
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	WETLAND BUFFER
	STREAM BUFFER
	FLOODPLAIN
	EX. CONTOUR
	PROP. CONTOUR
	EROSION CONTROL MATTING
	GABION MATTRESS
	CURB INLET PROTECTION



- SHEET INDEX**
- COVER SHEET
 - SITE DEVELOPMENT PLAN - OVERALL PLAN (1"=50')
 - GRADING AND SEDIMENT CONTROL PLAN (1"=50')
 - DRAINAGE AREA MAP
 - STORMWATER MANAGEMENT FACILITY DETAILS
 - SEDIMENT TRAP #4 DETAILS & BACKFILLING / FOREST CONSERVATION SUMMARY
 - SEDIMENT CONTROL DETAILS AND NOTES
 - SEDIMENT CONTROL DETAILS AND NOTES
 - FINAL GRADING AND BACKFILL PLAN
 - SEDIMENT CONTROL NOTES

THE TEMPORARY LIMIT OF DISTURBANCE SHOWN ON THESE PLANS IS PART OF THE AREAS IDENTIFIED BY S 06-16 AS FUTURE ANNUAL PHASE B (ALLOCATION YEAR 2011) AND PHASE 9 (ALLOCATION YEAR 2012).

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Martin M. Leget 3/15/07
Director Date

Kurt Shalinski 3/19/07
Chief, Division of Land Development Date

Michael... 3/13/07
Chief, Development Engineering Division Date



PREPARED FOR:
G&R MAPLE LAWN FARMS, INC.
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: CHARLIE O'DONOVAN
410-484-8400

COVER SHEET
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
Parcel 116 and Parcel 124
L.6533 F.309 / L.4256 F.250

WATER CODE:		SEWER CODE:		ADDRESS CHART	
N/A	N/A	PARCEL NUMBER	STREET ADDRESS	116	11460 SCAGGSVILLE RD. (MD. ROUTE 216)
SUBDIVISION NAME:		SECTION/AREA	PARCEL		
MAPLE LAWN FARMS		41 & 46 (41) 21 & 22 (46) 3	P. 116 & 124		
PLAT/L.F.	ZONE	TAX MAP BLOCK	ELEC. DIST.	CENSUS TRACT	
P. 116 6533/309 P. 124 4256/250	MXD-3	(41) 21 & 22 (46) 3	5	6051.02	
SCALE		ZONING	G. L. W. FILE No.		
AS SHOWN		MXD-3	03067		
DATE		TAX MAP - GRID	SHEET		
FEB., 2007		41:21,22 & 46:3	1 OF 13		

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DES. DEV	DRN. AVL	CHK. DEV	DATE	REVISION	BY	APP'R.

Reviewed for Howard SCD and meets Technical Requirements

Jim Munn 3/8/07
 USA - Natural Resources Administration Service Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

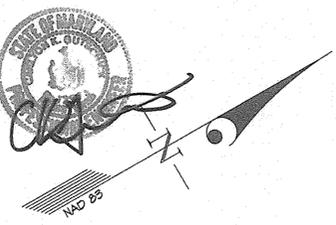
John Whitner 3/8/07
 Howard SCD Date

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

Carl Gutschick 2/16/07
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
 I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Charlie O'Donovan 2-16-07
 Signature of Developer (print name below signature) Date

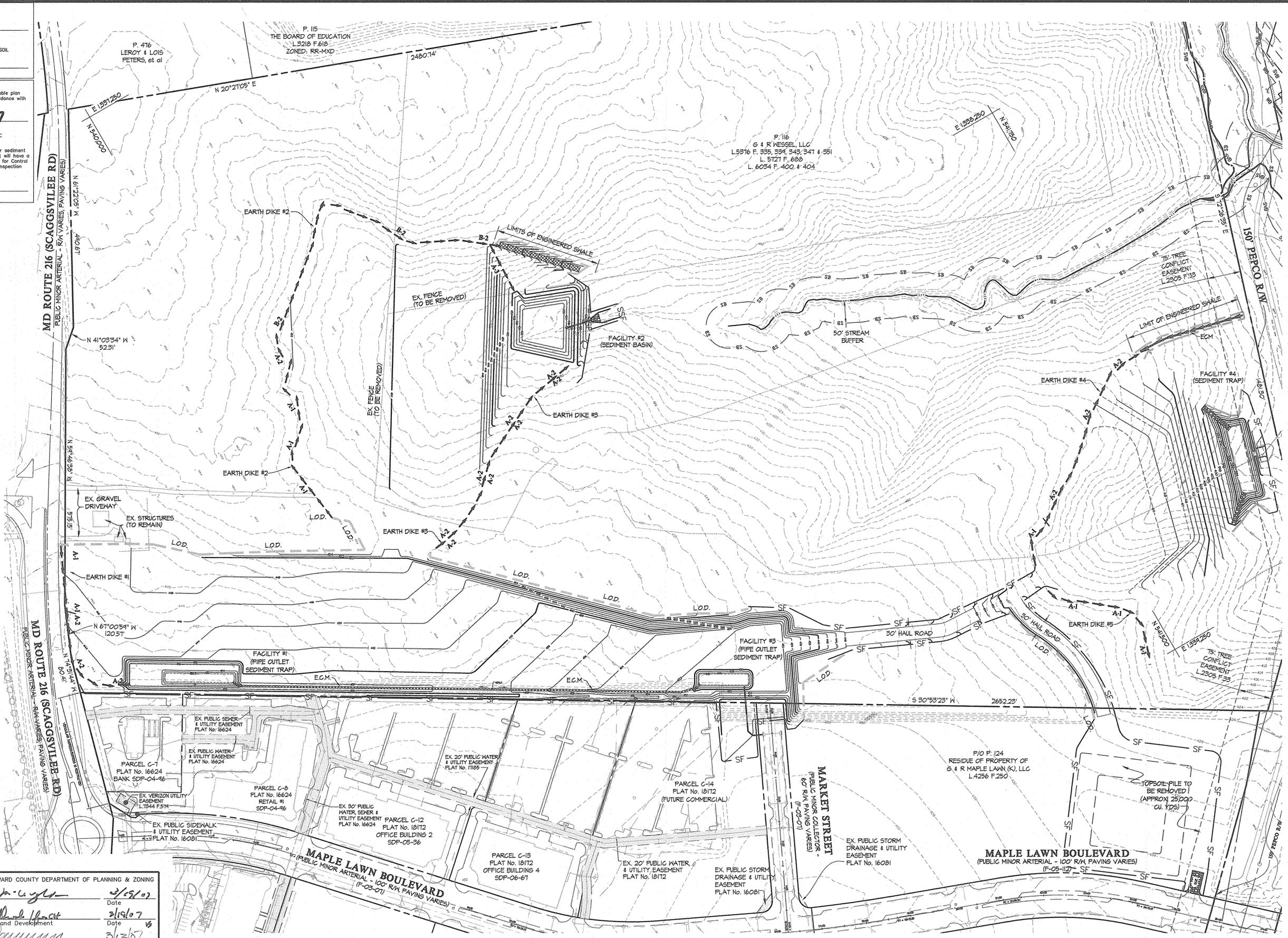


CONTRACTOR NOTES:

- WHERE THE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
- CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UPHILL BY 2' IN ELEVATION.
- FOR SEQUENCE OF CONSTRUCTION, SEE SHEET II.

LEGEND

- EARTH DIKE
- SILT FENCE
- SUPER SILT FENCE
- L.O.D.
- LIMIT OF DISTURBANCE
- WETLAND BUFFER
- STREAM BUFFER
- FLOODPLAIN
- EX. CONTOUR
- PROP. CONTOUR
- EROSION CONTROL MATTING



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Mark McClellan 2/15/07
 Director Date

Kurt Shedd 3/19/07
 Chief, Division of Land Development Date

Michael... 3/13/07
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
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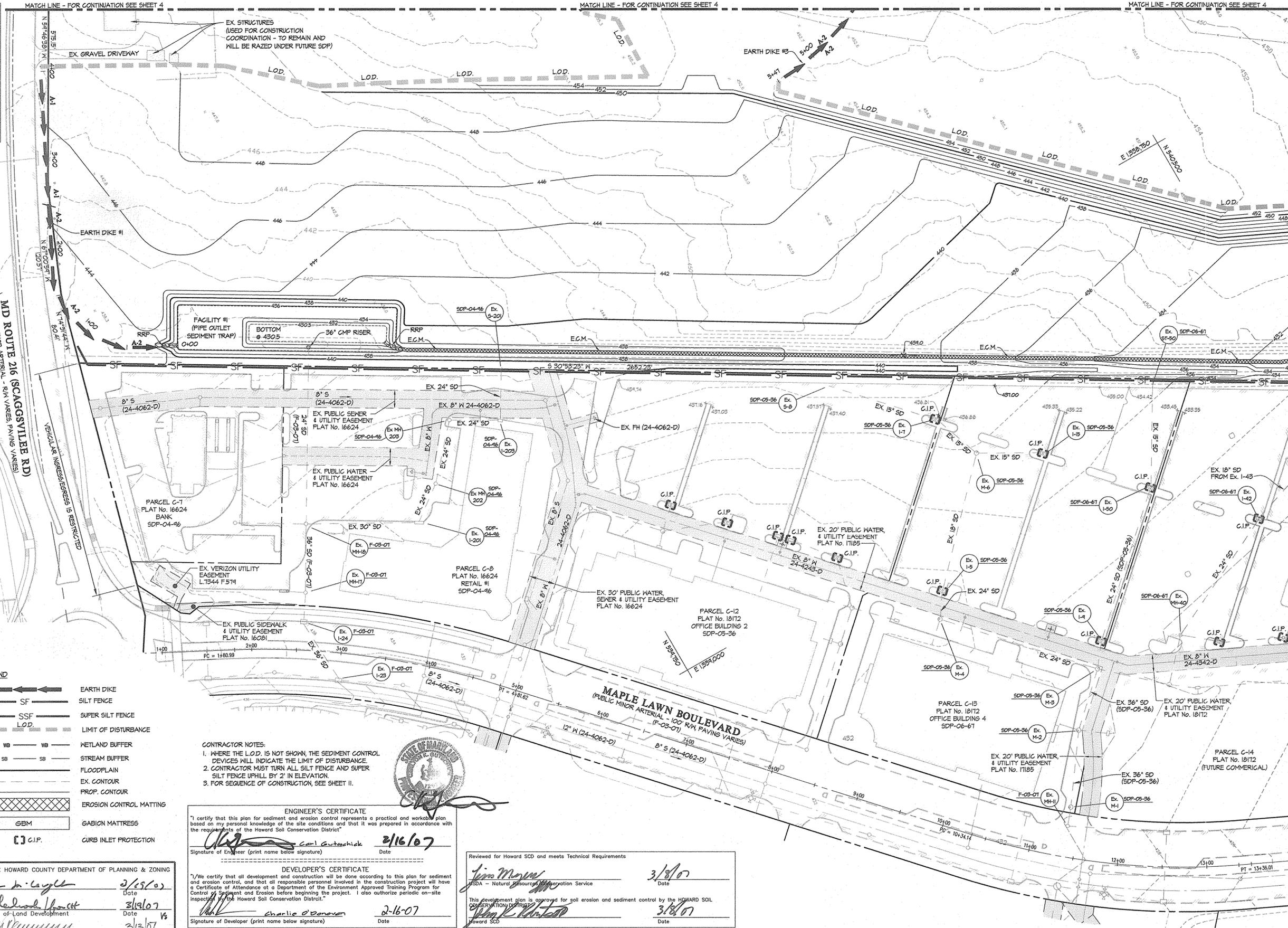
PREPARED FOR:
 G&R MAPLE LAWN FARMS, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: CHARLIE O'DONOVAN
 410-484-8400

SITE DEVELOPMENT PLAN - OVERALL PLAN
 SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

SCALE	ZONING	G. L. W. FILE No.
1"=100'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	2 OF 13

SEDIMENT TRAP INFORMATION	
PRE-DEVELOPMENT DRAINAGE AREA	1.21 ACRES
POST-DEVELOPMENT DRAINAGE AREA	1.81 ACRES
TOTAL STORAGE REQUIRED (NET & DRY VOLUME) *	28,332 C.F.
RISER DIMENSIONS	36" CMP
BARREL SIZE	24" RISE
RISER CREST ELEVATION	435.65
OUTLET ELEVATION (LIMIT OF NET VOLUME)	434.00
CLEANOUT ELEVATION	432.25
BOTTOM ELEVATION	430.50
BOTTOM DIMENSIONS	15' X 20'
PRE-DEVELOPMENT 1 YEAR DISCHARGE	N/A *
POST-DEVELOPMENT 1 YEAR DISCHARGE (UNMANAGED)	N/A *
POST-DEVELOPMENT 1 YEAR DISCHARGE (MANAGED)	N/A *
NET VOLUME REQUIRED	14,166 C.F.
NET VOLUME PROVIDED	14,166 C.F. @ 434.00
DRY VOLUME REQUIRED	14,166 C.F.
DRY VOLUME PROVIDED	14,542 C.F. @ 435.65

* 1 YEAR TEMPORARY STORM-WATER MANAGEMENT IS PROVIDED IN FACILITY CONSTRUCTED UNDER F 03-07



LEGEND

	EARTH DIKE
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	WETLAND BUFFER
	STREAM BUFFER
	FLOODPLAIN
	EX. CONTOUR
	PROP. CONTOUR
	EROSION CONTROL MATTING
	GABION MATTRESS
	CURB INLET PROTECTION

- CONTRACTOR NOTES:**
- WHERE THE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
 - CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UP HILL BY 2' IN ELEVATION.
 - FOR SEQUENCE OF CONSTRUCTION, SEE SHEET II.

ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature of Engineer (print name below signature) *Carl Guttschick* Date **2/16/07**

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
 Signature of Developer (print name below signature) *Charlie O'Donovan* Date **2-16-07**

Reviewed for Howard SCD and meets Technical Requirements
 Signature of Reviewer (print name below signature) *Jim Moore* Date **3/8/07**
 Signature of Reviewer (print name below signature) *John R. Water* Date **3/8/07**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director *Debra M. Layle* Date **2/29/07**
 Chief, Division of Land Development *Kathleen Hackett* Date **3/19/07**
 Chief, Development Engineering Division *Chris Williams* Date **3/12/07**

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

PREPARED FOR:
 G&R MAPLE LAWN FARMS, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: CHARLIE O'DONOVAN
 410-484-8400

GRADING AND SEDIMENT CONTROL PLAN
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	3 OF 13

L:\CAD\DRAWINGS\03067\MASS GRADING\SDP\03067SDP03-6.dwg DES. DEV DRN. AML CHK. DEV DATE REVISION BY APPR.

Jim Myers 3/8/07
 Date
 Signature of Engineer (print name below signature)
 Date 3/8/07
 Signature of Developer (print name below signature) 2-16-07
 Date

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

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.



SEDIMENT BASIN INFORMATION	FACILITY #2 (SEDIMENT BASIN)
PRE-DEVELOPMENT DRAINAGE AREA	75 ACRES
POST-DEVELOPMENT DRAINAGE AREA	75 ACRES
TOTAL STORAGE REQUIRED (MET. VOLUME @ 1 YR. TSHM)	3125 C.F.
TOTAL STORAGE PROVIDED	56,040 C.F.
RISER DIMENSIONS	48" CMP
BARREL SIZE	27" CMP
RISER CREST ELEVATION	421.15
OUTLET ELEVATION (LIMIT OF MET VOLUME)	424.00
CLEANOUT ELEVATION	423.00
BOTTOM ELEVATION	422.00
BOTTOM DIMENSIONS	10' x 25'
PRE-DEVELOPMENT 1 YEAR DISCHARGE	0.31 CFS
POST-DEVELOPMENT 1 YEAR DISCHARGE (UNMANAGED)	20.91 CFS
POST-DEVELOPMENT 1 YEAR DISCHARGE (MANAGED)	0.40 CFS @ 421.01
MET VOLUME REQUIRED	13500 C.F.
MET VOLUME PROVIDED	18,995 C.F. @ 424.00
DRY VOLUME REQUIRED	37,695 C.F.
DRY VOLUME PROVIDED	31,685 C.F. @ 421.01

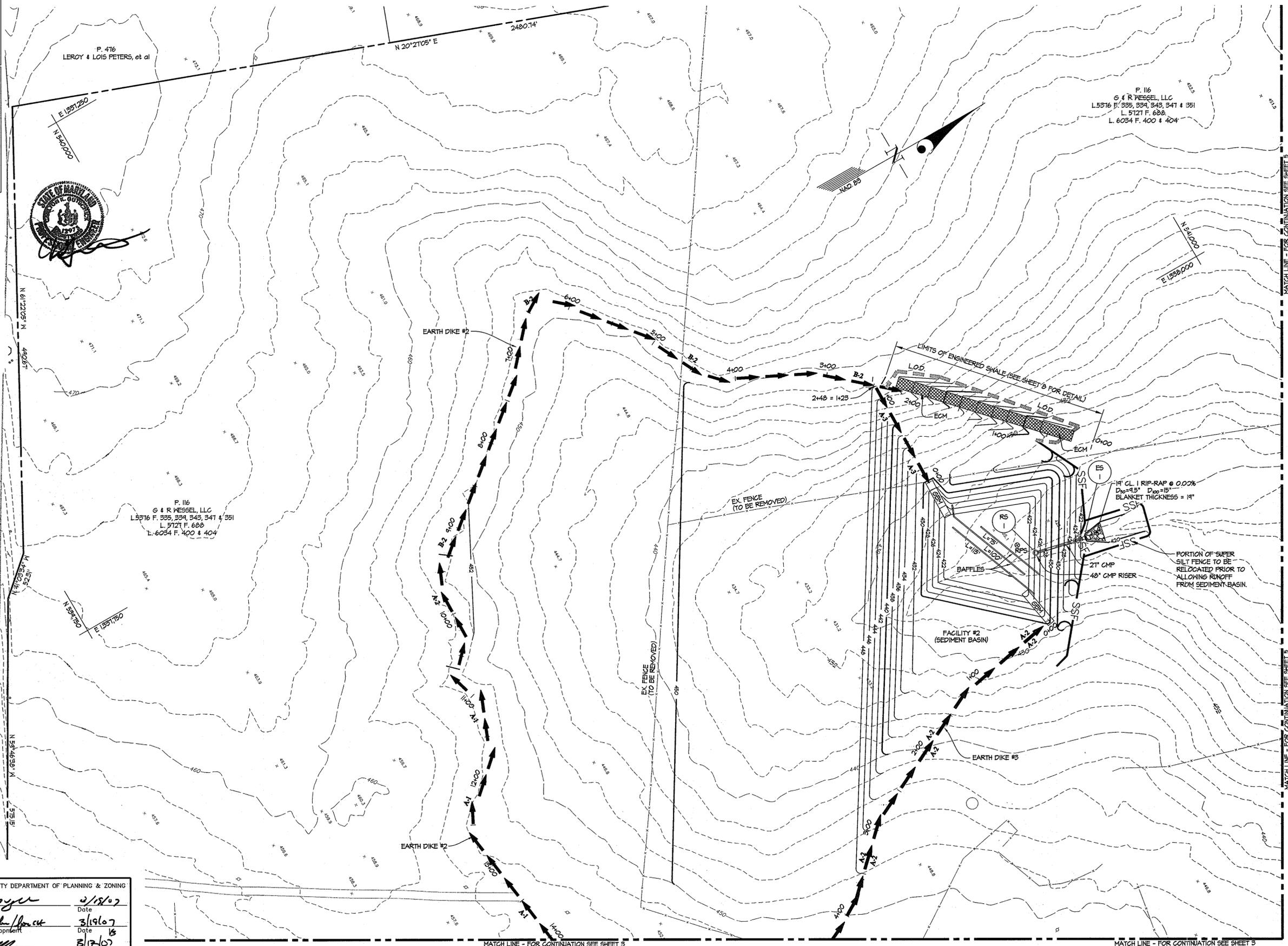
- CONTRACTOR NOTES:**
- WHERE THE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
 - CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UP HILL BY 2' IN ELEVATION.
 - FOR SEQUENCE OF CONSTRUCTION, SEE SHEET II.

LEGEND

	EARTH DIKE
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	WETLAND BUFFER
	STREAM BUFFER
	FLOODPLAIN
	EX. CONTOUR
	PROP. CONTOUR
	EROSION CONTROL MATTING
	GABION MATTRESS
	CURB INLET PROTECTION

MD ROUTE 216 (SCAGGSVILLE RD)
 PUBLIC MINOR ARTERIAL - R/W VARIES, PAVING VARIES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Mark A. Lopez 2/15/07
 Director Date
Kevin S. Johnson 3/19/07
 Chief, Division of Land Development Date
Charlie O'Donovan 3/17/07
 Chief, Development Engineering Division Date



GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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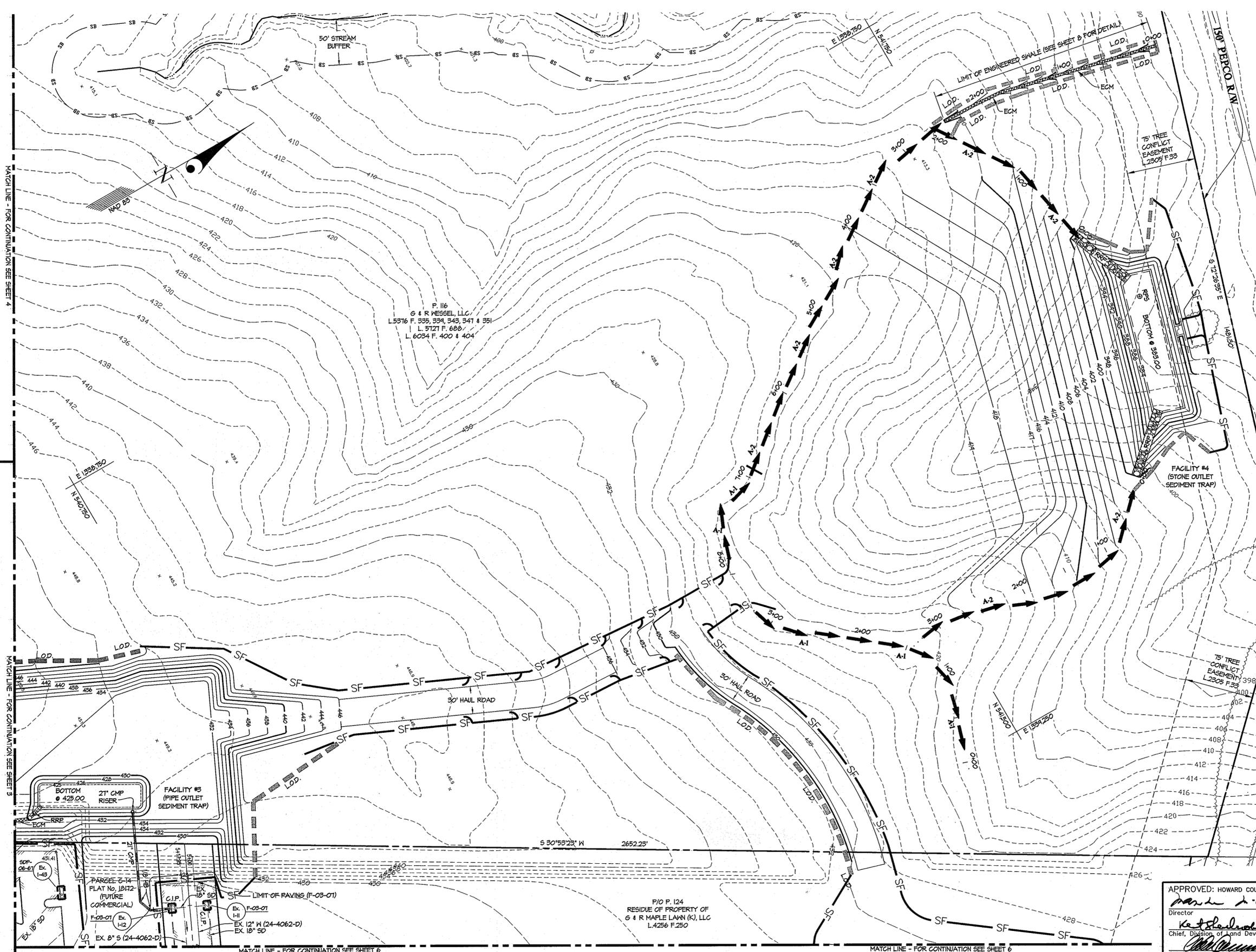
DATE	REVISION	BY	APPR.

PREPARED FOR:
 G&R MAPLE LAWN FARMS, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: CHARLIE O'DONOVAN
 410-484-8400

GRADING AND SEDIMENT CONTROL PLAN
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	4 OF 13

MATCH LINE - FOR CONTINUATION SEE SHEET 5



SEDIMENT TRAP INFORMATION	FACILITY #3 (PIPE OUTLET SEDIMENT TRAP)	FACILITY #4 (STONE OUTLET SEDIMENT TRAP)
PRE-DEVELOPMENT DRAINAGE AREA	4.74 ACRES	5.4 ACRES
POST-DEVELOPMENT DRAINAGE AREA	4.74 ACRES	5.4 ACRES
TOTAL STORAGE REQUIRED (NET & DRY VOLUME) *	1724 C.F.	3342 C.F.
TOTAL STORAGE PROVIDED	1749 C.F.	4484 C.F.
RISER DIMENSIONS	21" CMP	N/A
BARREL SIZE	21" CMP	N/A
RISER CREST ELEVATION	424.40	N/A
WEIR CREST ELEVATION (LIMIT OF DRY VOLUME)	N/A	304.00
OUTLET ELEVATION (LIMIT OF NET VOLUME)	421.95	306.00
CLEANOUT ELEVATION	426.71	305.00
BOTTOM ELEVATION	425.00	304.00
BOTTOM DIMENSIONS	10' x 25'	85' x 32'
PRE-DEVELOPMENT 1 YEAR DISCHARGE	N/A *	N/A **
POST-DEVELOPMENT 1 YEAR DISCHARGE (UNMANAGED)	N/A *	N/A **
POST-DEVELOPMENT 1 YEAR DISCHARGE (MANAGED)	N/A *	N/A **
NET VOLUME REQUIRED	8622 CF	1020 CF
NET VOLUME PROVIDED	8744 CF @ 421.95	10,093 CF @ 306.00
DRY VOLUME PROVIDED	8622 CF	26,872 CF
DRY VOLUME REQUIRED	8711 CF @ 421.40	26,601 CF @ 304.00

* 1 YEAR TEMPORARY STORM-WATER MANAGEMENT IS PROVIDED IN FACILITY CONSTRUCTED UNDER F-03-01
 ** ENTIRE 1 YEAR POST DEVELOPMENT RUNOFF VOLUME HAS BEEN PROVIDED AT FACILITY #4

- CONTRACTOR NOTES:
- WHERE THE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
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 - FOR SEQUENCE OF CONSTRUCTION, SEE SHEET II.

LEGEND

	EARTH DIKE
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	WETLAND BUFFER
	STREAM BUFFER
	FLOODPLAIN
	EX. CONTOUR
	PROP. CONTOUR
	EROSION CONTROL MATTING
	GABION MATTRESS
	C.I.P.

Reviewed for Howard SCD and meets Technical Requirements

Jim Myra 3/1/07
 USF - Natural Resources Division Service Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

John K. Lambert 3/1/07
 Howard SCD Date

ENGINEER'S CERTIFICATE

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

Carol Gutwinski 2/16/07
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Charlie O'Donovan 2-16-07
 Signature of Developer (print name below signature) Date



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Mark A. Taylor 3/1/07
 Director Date

Kathleen Hart 3/1/07
 Chief, Division of Land Development Date

John J. ... 3/13/07
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
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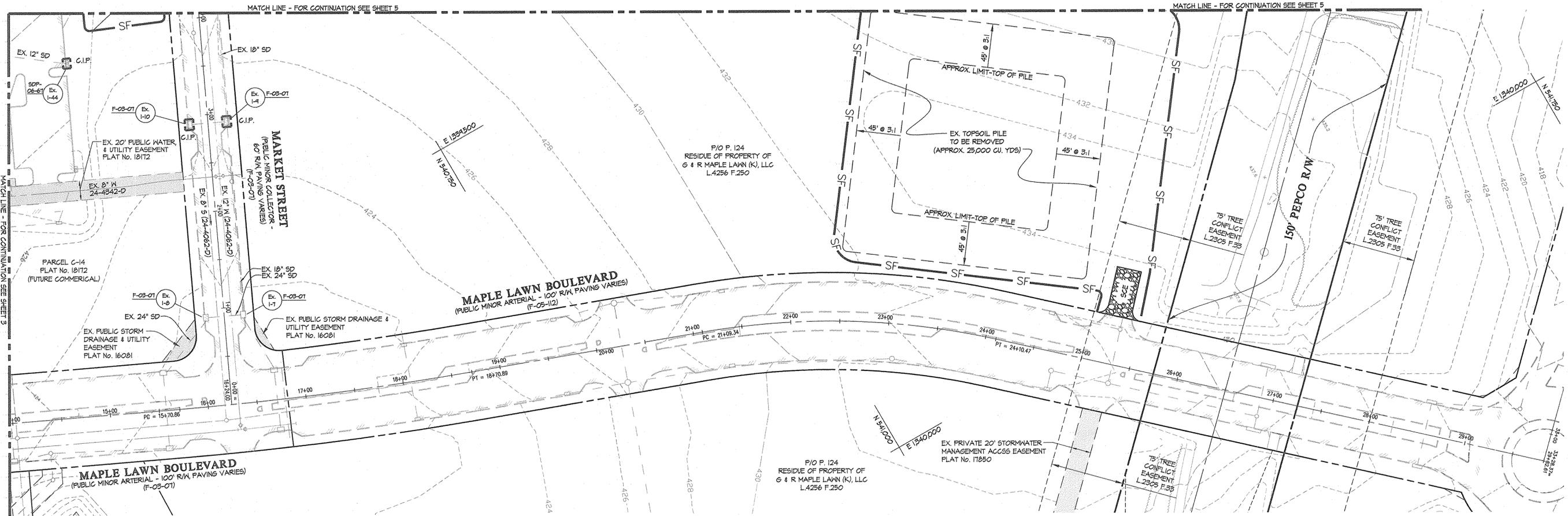
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 ATTN: CHARLIE O'DONOVAN
 410-484-8400

GRADING AND SEDIMENT CONTROL PLAN
 SITE DEVELOPMENT PLAN FOR MASS GRADING
 MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	5 OF 13



LEGEND

	EARTH DIKE
	SILT FENCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	WETLAND BUFFER
	STREAM BUFFER
	FLOODPLAIN
	EX. CONTOUR
	PROP. CONTOUR
	EROSION CONTROL MATTING
	GABION MATTRESS
	CURB INLET PROTECTION

CONTRACTOR NOTES:
 1. WHERE THE L.O.D. IS NOT SHOWN, THE SEDIMENT CONTROL DEVICES WILL INDICATE THE LIMIT OF DISTURBANCE.
 2. CONTRACTOR MUST TURN ALL SILT FENCE AND SUPER SILT FENCE UPHILL BY 2' IN ELEVATION.
 3. FOR SEQUENCE OF CONSTRUCTION, SEE SHEET II.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Barbara H. Cayle 3/19/07
 Director Date

Kathleen H. Houch 3/19/07
 Chief, Division of Land Development Date

Charlie O'Donovan 2/16/07
 Chief, Development Engineering Division Date

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

Carl Autschick 2/16/07
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
 I certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Charlie O'Donovan 2-16-07
 Signature of Developer (print name below signature) Date



Reviewed for Howard SCD and meets Technical Requirements

Jim M... 3/8/07
 USA - Natural Resources Conservation Service Date

John P. ... 3/8/07
 This Development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
 Signature of District Director Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 G&R MAPLE LAWN FARMS, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: CHARLIE O'DONOVAN
 410-484-8400

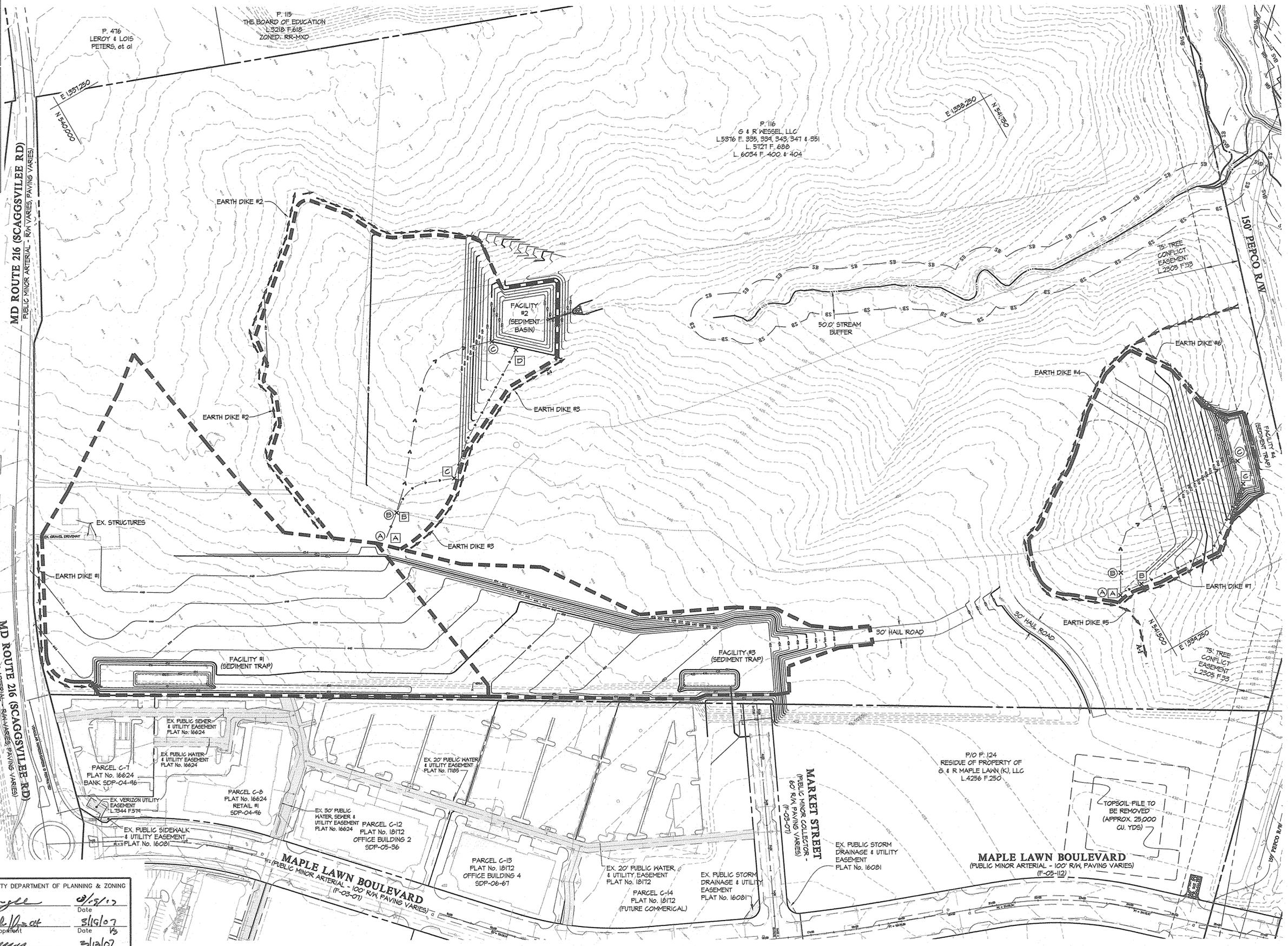
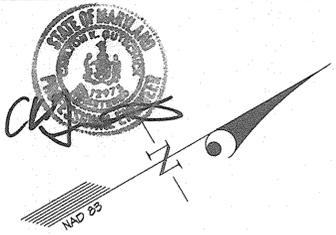
GRADING AND SEDIMENT CONTROL PLAN
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	6 OF 13

LEVEL OF EX'S CERT
 Date: 3/8/07
 Signature: [Signature]
 USA - Natural Resources Conservation Service
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature]
 Date: 3/8/07
 Howard SCD

ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature: [Signature] Carl Gutentrich
 Date: 2/16/07

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
 Signature: [Signature] Charlie O'Donovan
 Date: 2-16-07



- LEGEND**
- ← EARTH DIKE
 - WB WB WETLAND BUFFER
 - SB SB STREAM BUFFER
 - FLOODPLAIN
 - EX. CONTOUR
 - PROP. CONTOUR
 - DRAINAGE DIVIDE
 - TIME OF CONCENTRATION PATH (PRE-DEVELOPMENT)
 - TIME OF CONCENTRATION PATH (POST-DEVELOPMENT)
 - STUDY POINT (PRE-DEVELOPMENT)
 - STUDY POINT (POST-DEVELOPMENT)

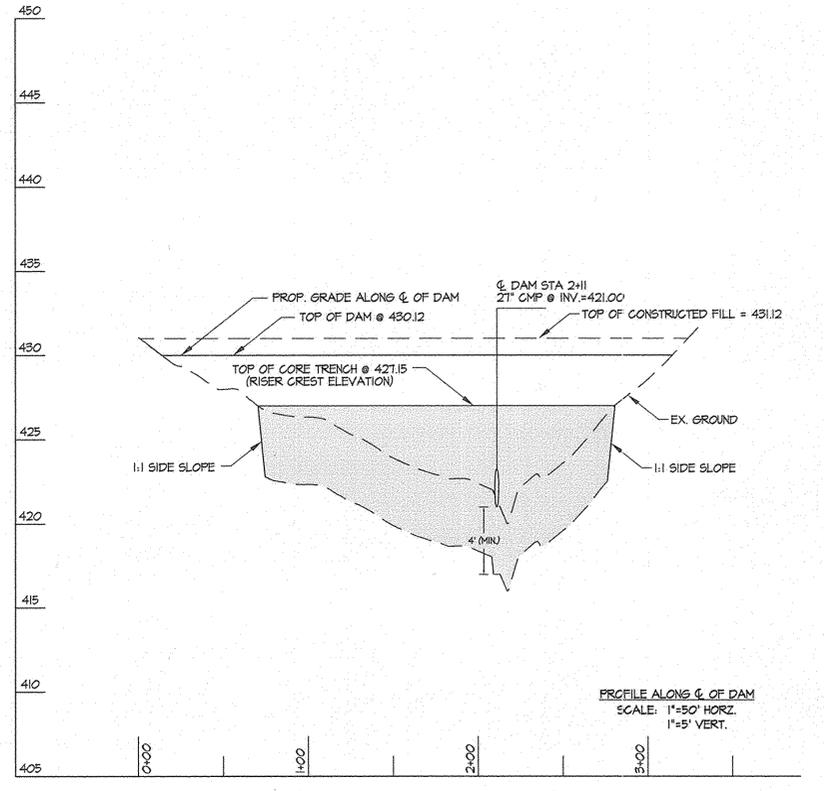
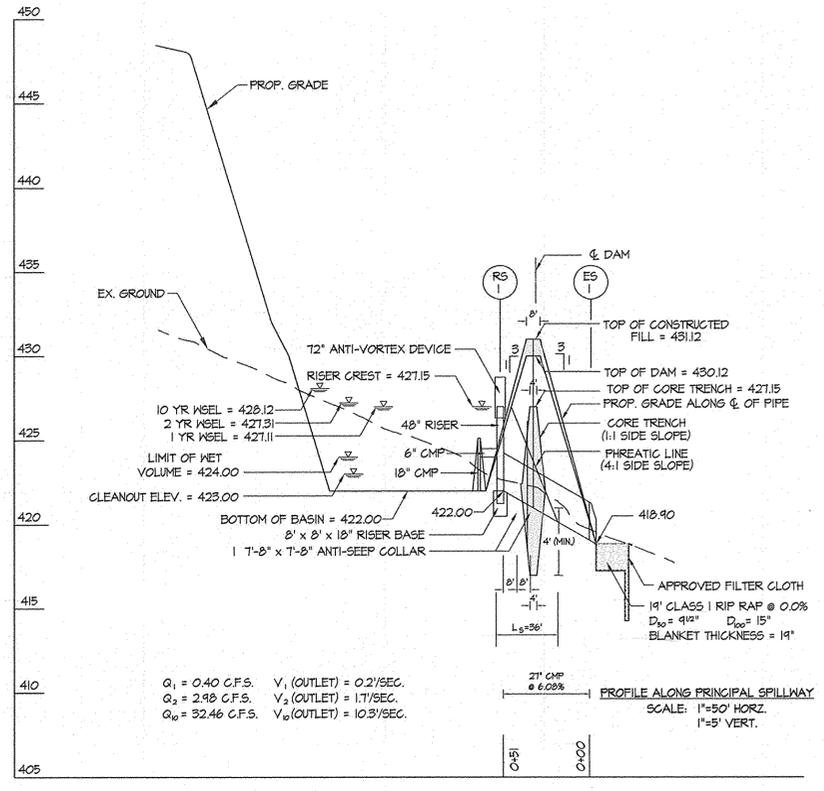
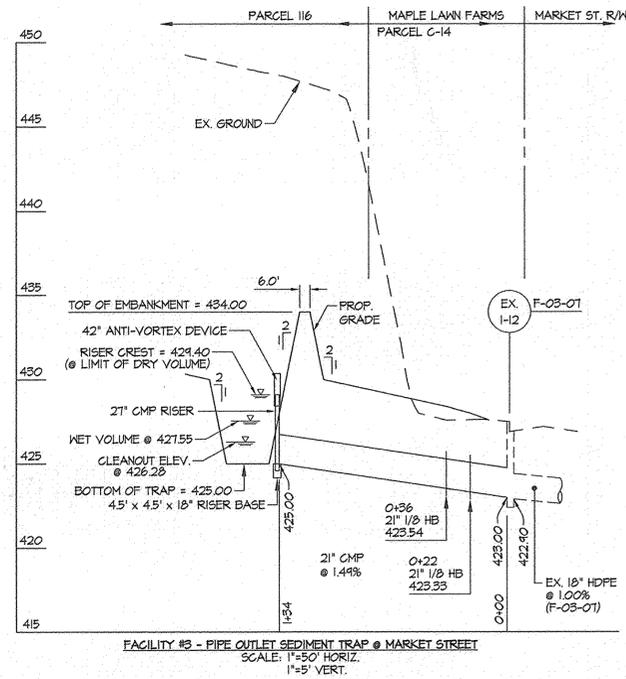
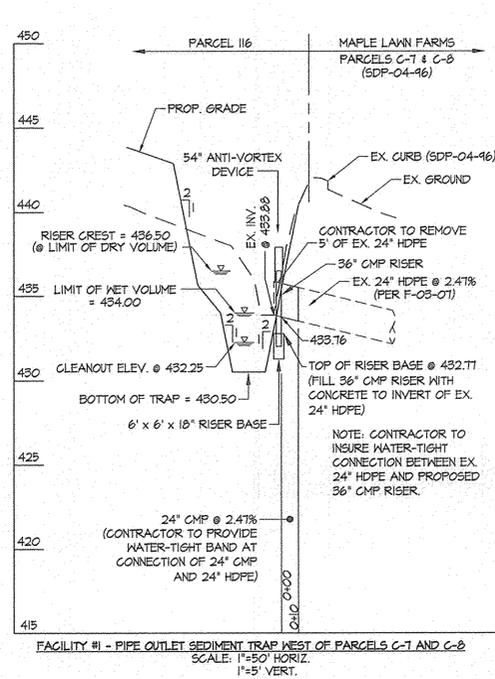
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 2/5/07
 Chief, Division of Land Development: [Signature] Date: 3/19/07
 Chief, Development Engineering Division: [Signature] Date: 3/12/07

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3609 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-989-2524 FAX: 301-421-4186
 L:\CAD\DRAWINGS\03067\MASS GRADING\SDP\03067DAM07.dwg DES. DEV DRN. AVL. CHK. DEV DATE REVISION BY APPR.

PREPARED FOR:
 G&R MAPLE LAWN FARMS, INC.
 SUITE 300 WOODHOLME CENTER
 1829 REISTERSTOWN ROAD
 BALTIMORE, MD 21208
 ATTN: CHARLIE O'DONOVAN
 410-484-8400

DRAINAGE AREA MAP
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	7 OF 13



DETAIL 8 - PIPE OUTLET SEDIMENT TRAP - ST I

Construction Specifications

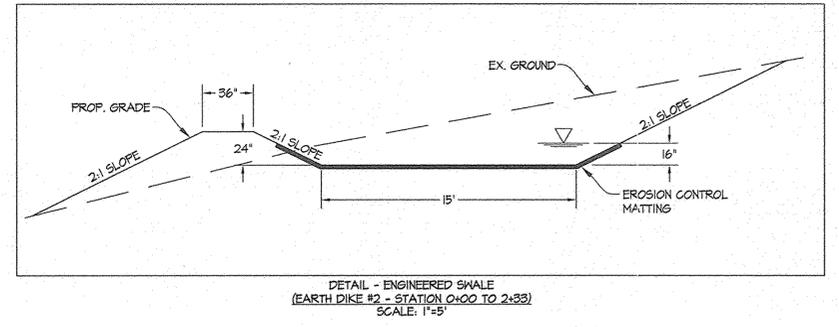
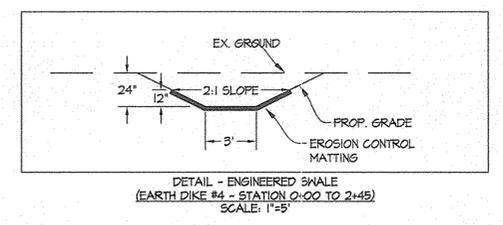
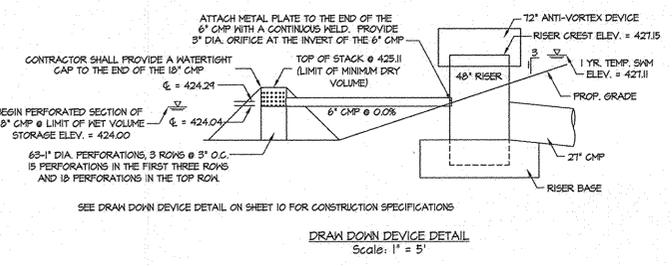
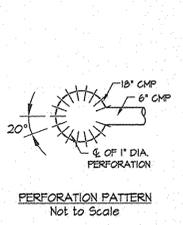
- The area under the embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
- The total trap volume as measured from the bottom to riser crest elevation shall be 3600 cubic feet per acre of drainage area (see Table 9). The top of embankment must be 1' above the riser crest elevation.
- Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap (900cf/acre). The sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected periodically and after each rain and repairs made as necessary.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-7 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PIPE OUTLET SEDIMENT TRAP - ST I

- Construction operations shall be carried out in such a manner that erosion and water pollution are abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be removed and area stabilized when the drainage area has been properly stabilized.
- All cut and fill slopes shall be 2:1 or flatter.
- All pipe connections shall be watertight.
- Above the wet storage elevation, the riser shall be perforated with 1/2\"/>
- The riser shall be wrapped with 1/2\"/>
- Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth.
- Fill material around the pipe spillway shall be hand compacted in 4\"/>
- The riser shall be anchored with either a concrete base or steel plate base to prevent flotation. Concrete bases shall be at least twice the riser diameter and 12\"/>
- Anti seep collars shall be constructed in accordance with plans (ref. table 16 and Details 13 and 14).
- Concentric trash rack and anti-vortex device design details are on Detail 16.
- Refer to Section D for dewatering requirements of sediment traps.
- Outlet - An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel.
- Where discharge occurs at the property line, local ordinances and drainage easement requirements shall be met.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-7A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



ENGINEER'S CERTIFICATE
I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Signature of Engineer (print name below signature) *Carl Osterback* Date *2/16/07*

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have Certificates of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
Signature of Developer (print name below signature) *Charlie O'Donovan* Date *2-16-07*

Reviewed for Howard SCD and meets Technical Requirements.
Jim Myler Date *3/1/07*
USDA - Natural Resources Conservation Service

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John P. D'Antonio Date *3/1/07*
Howard SCD

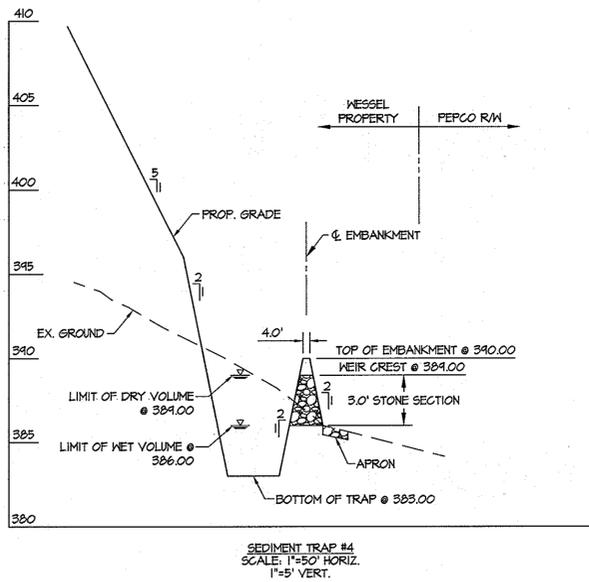
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director *Mark McLaughlin* Date *2/15/07*
Chief, Division of Land Development *Kevin J. Webb* Date *2/15/07*
Chief, Development Engineering Division *Charlie O'Donovan* Date *2/15/07*

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-959-2524 FAX: 301-421-4185

PREPARED FOR:
G&R MAPLE LAWN FARMS, INC.
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
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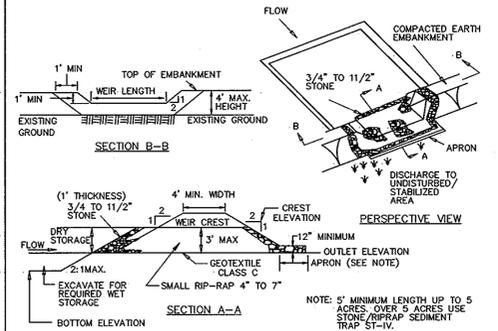
STORMWATER MANAGEMENT FACILITY DETAILS			SCALE	ZONING	G. L. W. FILE No.
SITE DEVELOPMENT PLAN FOR MASS GRADING MAPLE LAWN FARMS Parcel 116 and Parcel 124 L.6533 F.309 / L.4256 F.250			AS SHOWN	MXD-3	03067
ELECTION DISTRICT No. 5			DATE	TAX MAP - GRID	SHEET
			FEB, 2007	41:21,22 & 46:3	8 OF 13
HOWARD COUNTY, MARYLAND					

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SEDIMENT TRAP #4
SCALE: 1"=50' HORIZ.
1"=5' VERT.

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II

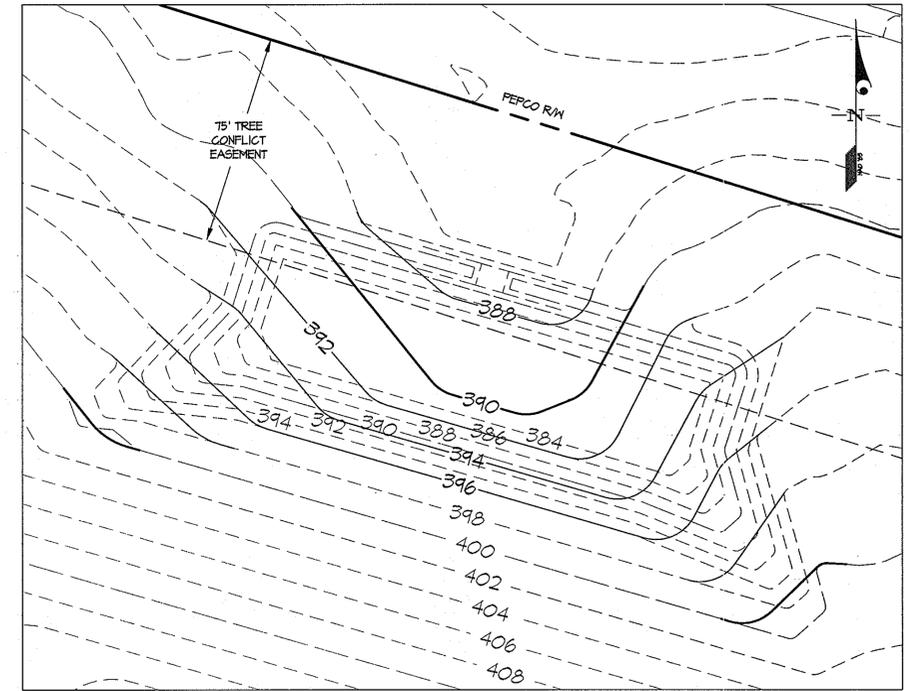


- Construction Specifications
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
 - The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
 - All cut and fill slopes shall be 2:1 or flatter.
 - The stone used in the outlet shall be small rip-rap 4" to 7" in size with a 1" thick layer of 3/4" to 1 1/2" washed aggregate placed on the upstream face of the outlet. Stone facing shall be as necessary to prevent clogging. Geotextile Class C may be substituted for the stone facing by placing it on the inside face of the stone outlet.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

STONE OUTLET SEDIMENT TRAP - ST II

- The structure shall be inspected periodically and after each rain and repairs made as needed.
- Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one line) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
- Refer to section D for specifications concerning trap dewatering.
- Minimum trap depth shall be measured from the weir elevation.
- The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
- Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1" with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
- Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.



BACKFILL DETAIL - SEDIMENT TRAP #4
SCALE: 1"=30' HORIZ.

FOREST CONSERVATION PLANTING NOTES

RETENTION / AFFORESTATION / REFORESTATION SUMMARY TABLE FOR MAPLE LAWN FARM PROJECT											
PHASE NO.	GROSS AC.	FLOODPLAIN AC.	NET TRACT AREA	EXG. FOREST IN AC.	FOREST CLEARED	FOREST RETAINED	EXCESS RETENTION	REF/AFF REQUIRED	CREDITED PLANTING PROVIDED	EXCESS FOREST CON (PLANTING-RETENTION)	COMMENTS
1	51.98	3.40	48.58	9.45	0.51	8.94	0.63	0.00	4.56	5.19	Per F-03-07
2	75.20 ①	2.38	72.82	0.00	0.00	0.00	0.00	10.92	6.67 ②	-4.25	Per F-03-90
2	5.70 ①	0.00	5.70	0.00	0.00	0.00	0.00	0.86	0.00	-0.86	Per SDP-03-140
3	19.09 ②	14.85	4.24	0.21	0.00	0.21	0.00	0.43	10.49	10.06	Per F-04-92
3	-	-	-	-	-	-	-	-	-1.16	-1.16	④ Per F-05-82
4a	15.48	3.00	12.48	1.92	1.65	0.27	0.00	3.21	0.88 ③	-2.33	Per F-05-81
4b	3.12 ⑤	0.35	2.77	0.00	0.00	0.00	0.00	0.42	-0.12 ⑥	-0.54	Per F-05-139
4c	3.00	0.00	3.00	0.00	0.00	0.00	0.00	0.45	0.00	-0.45	Per F-05-112
5a	0.00 ⑦	-	-	-	-	-	-	-	-	-	Per F-06-43
5b	54.61 ⑧	1.21	47.34	3.76	0.51	3.24	0.00	4.36	5.74	1.38	Per F-06-161
SDP-MG	25.06	0.00	25.06	0.00	0.00	0.00	0.00	3.76	0.00	-3.76	Per this Plan
TOTAL	253.24	31.25	221.99	15.34	2.67	12.66	0.63	24.41	21.06	3.28	

- Includes future phase areas of Maple Lawn Farms. When those areas are recorded in future phases, the forest conservation requirements will already have been met.
- 19.09 ACRES = 59.80 ACRES (Phase 3 site total) - 40.71 ACRES (Area of forest con. in Phase 3 already provided by F-03-90 (35.01 Ac.) and SDP-03-140 (5.70 Ac.))
- Reduced from 6.97 Ac. as shown on F-03-90 to 6.67 Ac. because of the 0.16 Ac. reduction of Conservation Easement #4 on F-04-79 and the 0.14 Ac. reduction of Conservation Easement #5 on F-04-88.
- F-05-82 is a revision of Open Space Lots 221 & 222, and a conversion of Parcel 'E' to R/W. Forest Conservation Easement (FCE) #1 will abandon 0.25 ac. and FCE #8 will abandon 0.91 ac.
- 3.12 ACRES = 4.38 ACRES (Phase 4 site total) - 1.26 ACRES (Area of forest con. in Phase 4 already provided by F-03-90 and F-04-92).
- 0.12 ACRES = Area subtracted from forest conservation area #11 to create Public Drainage and Utility Easement
- Phase 5a is a resubdivision of Non-Buildable Parcels F & G. This area was covered under F-05-81.
- Total Area for Phase 5b (54.61 Ac.) = Area platted (33.06 Ac.) + Area being mass graded outside platted area (21.55 Ac.)
- 0.01 acres of provided planting in FCE #16 to be removed under F-06-162, leaving -2.33 ac. excess under F-05-81

FOREST CONSERVATION WORKSHEET

SITE DATA	
A. GROSS SITE AREA	25.06
B. AREA WITHIN 100-YEAR FLOOD PLAIN	0.00
C. NET TRACT AREA	25.06
D. LAND USE CATEGORY	MD-3
E. AFFORESTATION THRESHOLD (15% x NET TRACT AREA)	3.76
F. CONSERVATION THRESHOLD (15% x NET TRACT AREA)	3.76
EXISTING FOREST COVER	
G. EXISTING FOREST ON NET TRACT AREA	0.00
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD (On Net Tract Area)	0.00
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD (On Net Tract Area)	0.00
PROPOSED FOREST CLEARING	
J. FOREST AREAS TO BE CLEARED (On Net Tract Area)	0.00
K. FOREST AREAS TO BE RETAINED (On Net Tract Area)	0.00
PLANTING REQUIREMENTS	
TOTAL REFORESTATION ABOVE THRESHOLD REQUIRED (I x 0.25)	0.00
TOTAL REFORESTATION REQUIRED ((J-I) x 2.00)	0.00
TOTAL AFFORESTATION REQUIRED (E - G)	3.76
TOTAL AFFORESTATION AND REFORESTATION REQUIRED	3.76
PLANTING TO BE PROVIDED	0.00

- NOTES
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS PHASE OF THE PROJECT WITH AN AFFORESTATION OBLIGATION OF 3.76 ACRES WILL BE FULFILLED BY UTILIZING EXCESS FOREST CONSERVATION FROM PRIOR PHASES OF THIS PROJECT, AS SHOWN ON F-06-161, WHICH LEAVES 3.28 ACRES OF EXCESS AFFORESTATION BEING DONE IN ADVANCE AS FOREST CONSERVATION CREDIT FOR FUTURE PHASES OF THIS PROJECT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *Marcia M. Caylor* 3/19/07
 Chief, Division of Land Development: *Kate S. Landwehr* 3/19/07
 Chief, Development Engineering Division: *Charlie O'Donovan* 3/19/07

ENGINEER'S CERTIFICATE
 "I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: *Carl Gutschick* 2/16/07
 Date

DEVELOPER'S CERTIFICATE
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 Signature of Developer: *Charlie O'Donovan* 2-16-07
 Date



Reviewed for Howard SCD and meets Technical Requirements
 Signature: *Jim Mays* 3/14/07
 Date
 Signature: *Jim Mays* 3/14/07
 Date
 Signature: *Jim Mays* 3/14/07
 Date

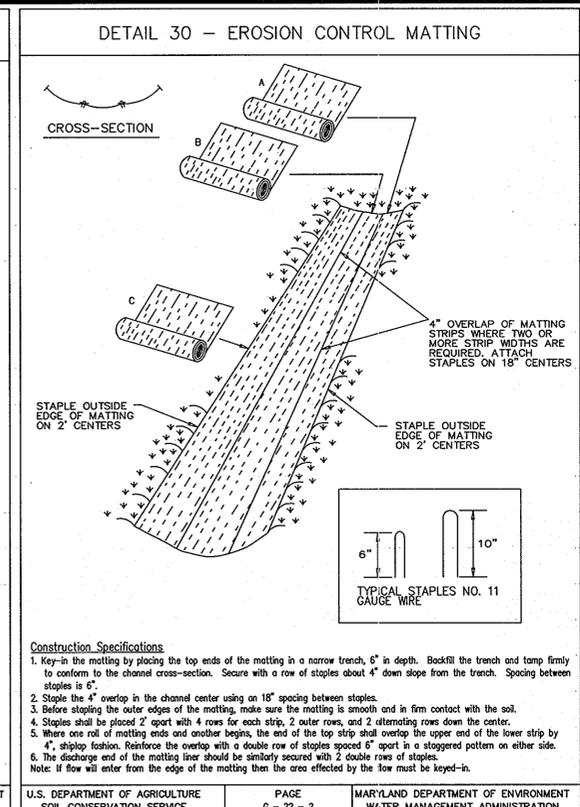
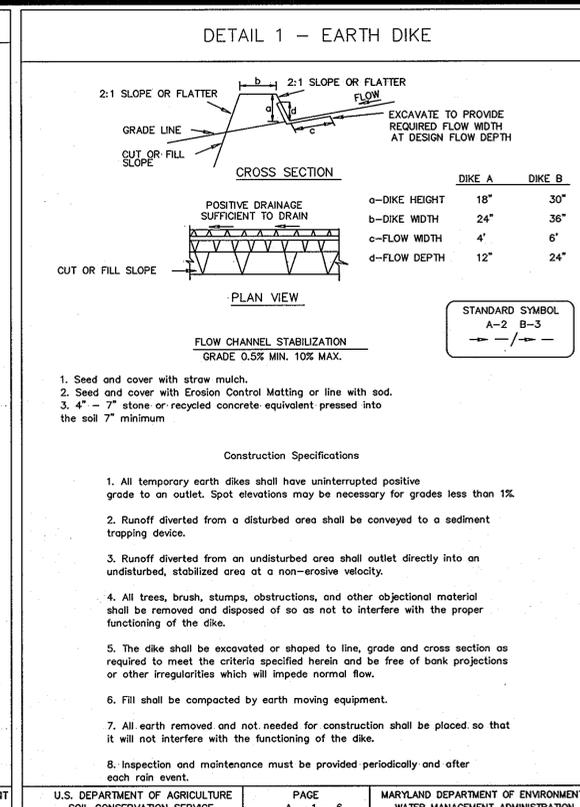
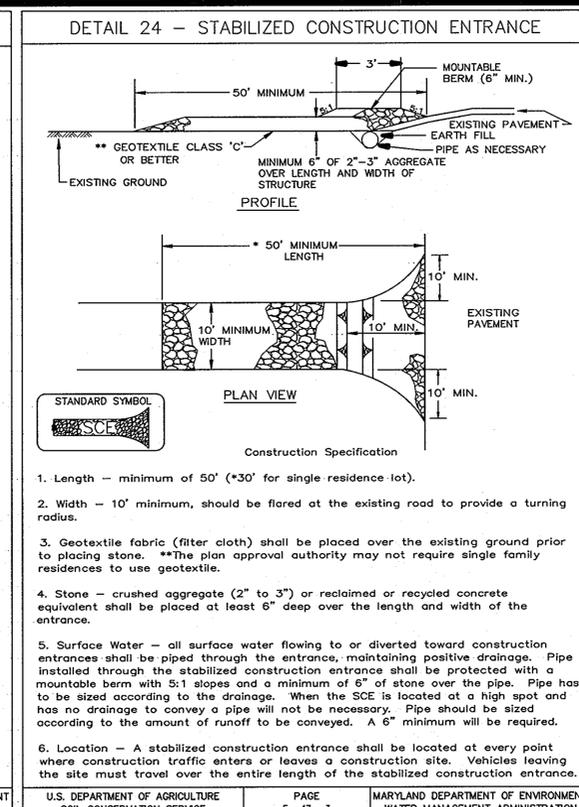
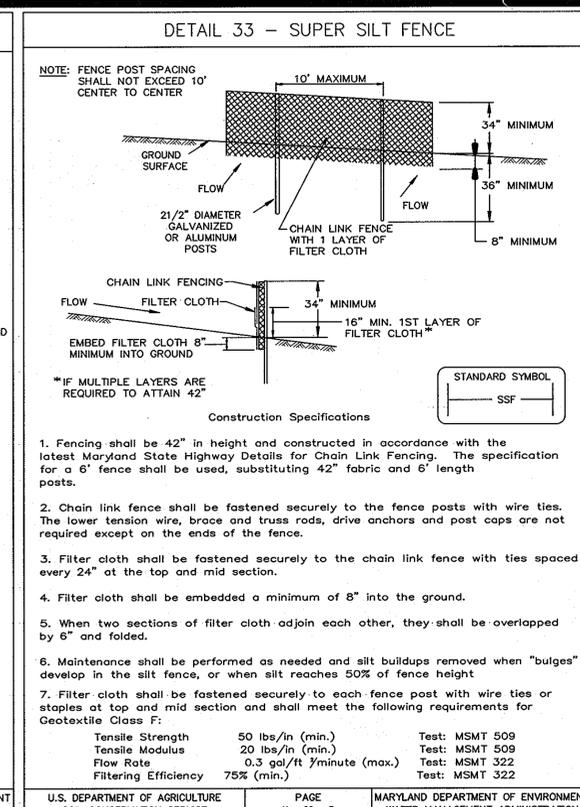
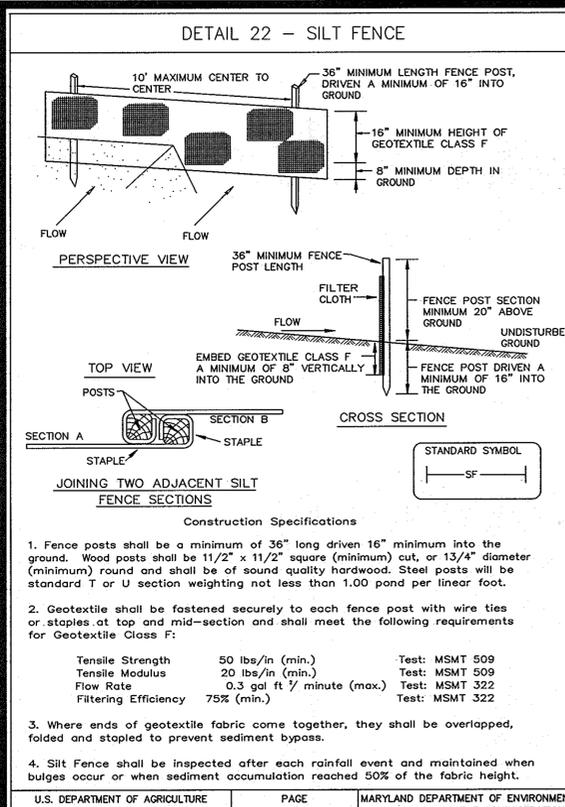
GLWGUTSCHICK LITTLE & WEBBER, P.A.
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PREPARED FOR:
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 SUITE 300 WOODHOLME CENTER
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 ATTN: CHARLIE O'DONOVAN
 410-484-8400

SEDIMENT TRAP #4 DETAILS & BACKFILLING / FOREST CONSERVATION SUMMARY

SITE DEVELOPMENT PLAN FOR MASS GRADING
 MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB., 2007	41:21,22 & 46:3	9 OF 13



Reviewed for Howard SCD and meets Technical Requirements

Jim Meyer 3/8/07
USDA - Natural Resource Conservation Service Date

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John K. Donavan 3/8/07
Howard SCD Date

ENGINEER'S CERTIFICATE

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

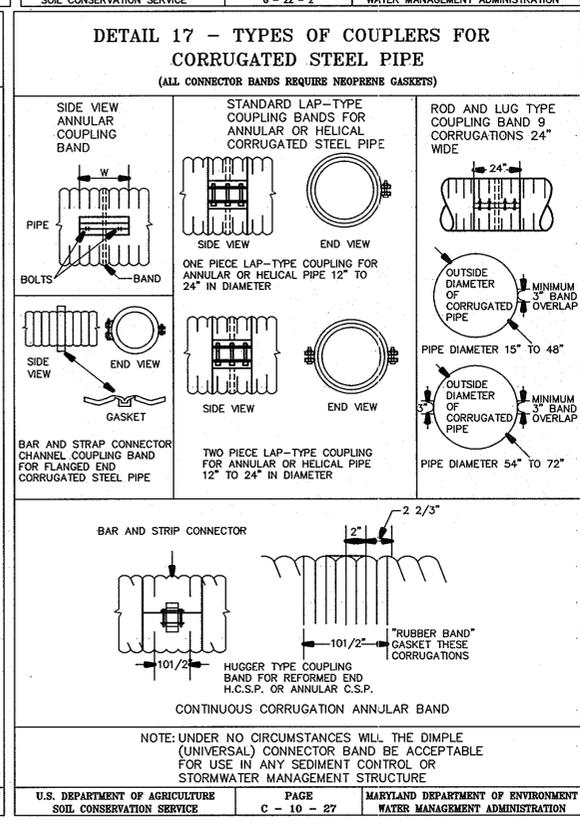
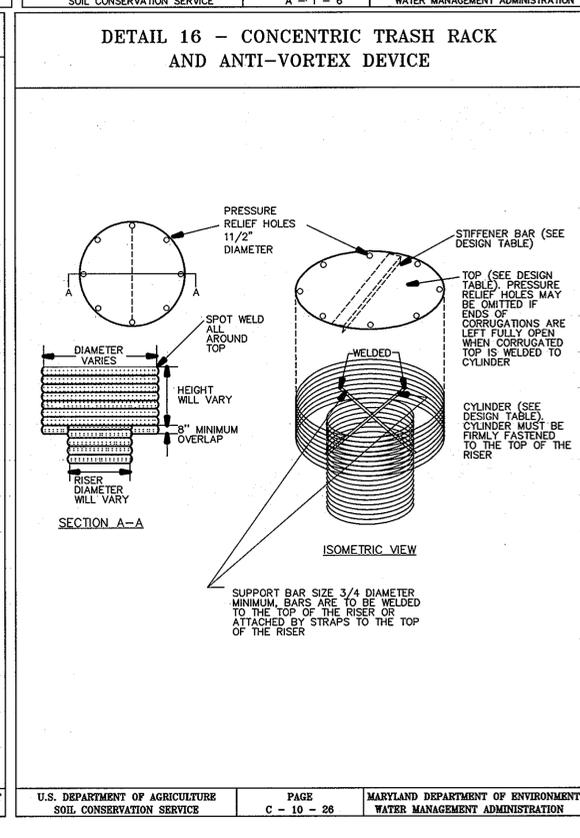
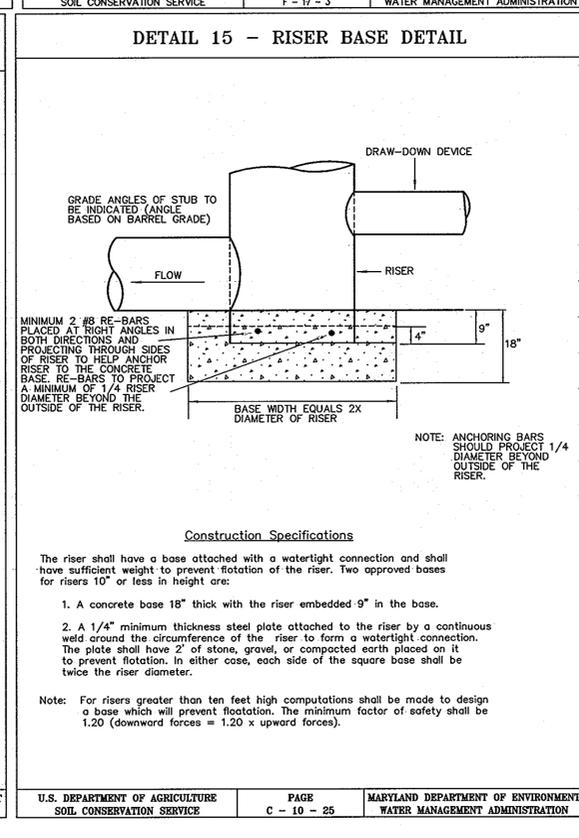
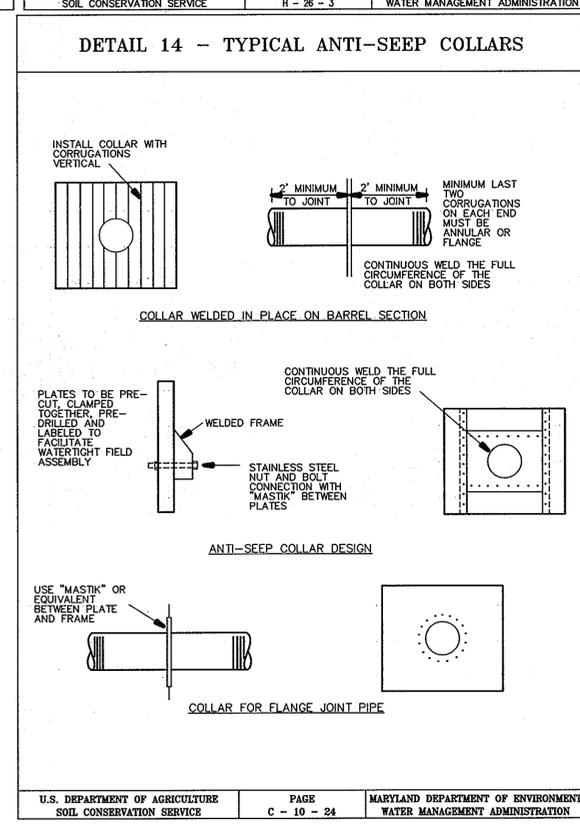
Carl Gutschick 2/16/07
Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection of the Howard Soil Conservation District.

Charlie O'Donovan 2-16-07
Signature of Developer (print name below signature) Date

STATE OF MARYLAND
DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Mark A. Loyell 2/19/07
Director Date

Kevin S. Donavan 3/16/07
Chief, Division of Land Development Date

Charlie O'Donovan 3/13/07
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

L:\CAD\DRAWINGS\03067\MASS GRADING\SDP\03067SC10.dwg DES. DEV. DRN. AWM. CHK. DEV.

DATE	REVISION	BY	APPR.

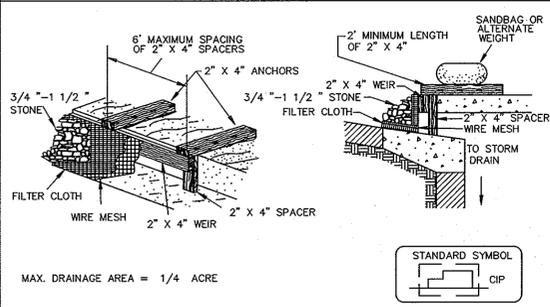
PREPARED FOR:
G&R MAPLE LAWN FARMS, INC.
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: CHARLIE O'DONOVAN
410-484-8400

SEDIMENT CONTROL DETAILS AND NOTES
SITE DEVELOPMENT PLAN FOR MASS GRADING
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SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB, 2007	41:21,22 & 46:3	10 OF 13

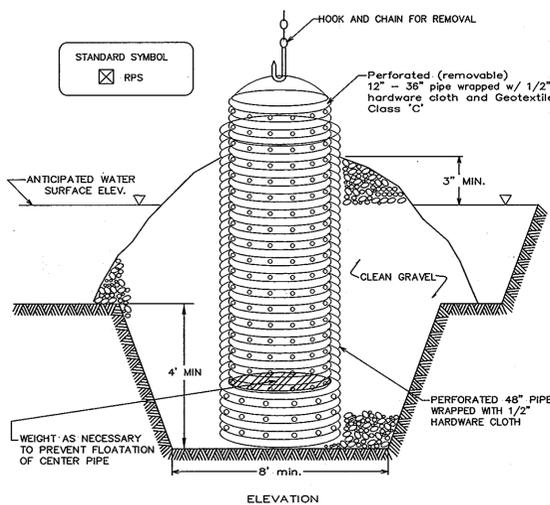
ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

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



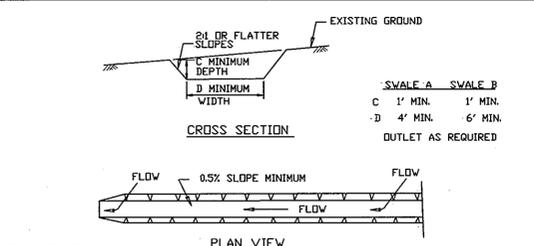
- Construction Specifications**
- Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 - Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the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

DETAIL 20A - REMOVABLE PUMPING STATION



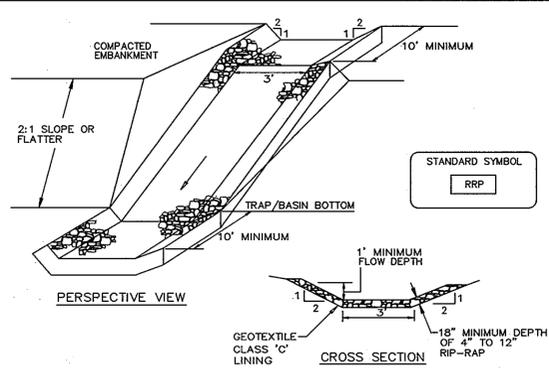
- Construction Specifications**
- The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.
 - After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
 - The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" x 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.
 - The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

DETAIL 2 - TEMPORARY SWALE



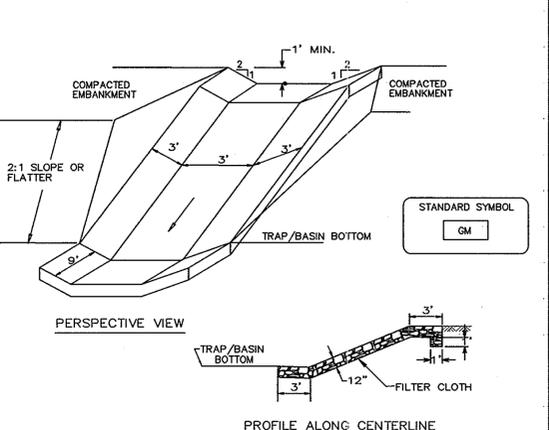
- Construction Specifications**
- All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
 - Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 - Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.
 - All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
 - The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 - Fill, if necessary, shall be compacted by earth moving equipment.
 - All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
 - Inspection and maintenance must be provided periodically and after each rain event.

DETAIL 5 - RIP-RAP INFLOW PROTECTION



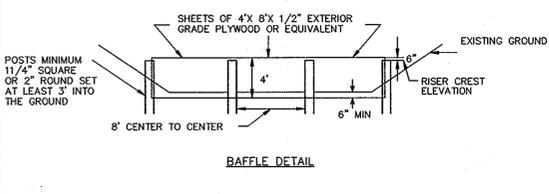
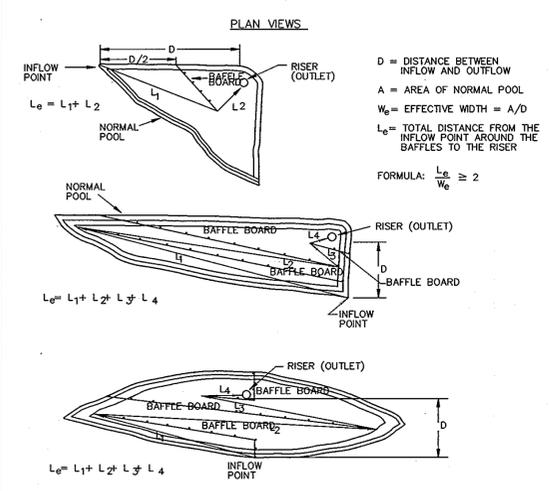
- Construction Specifications**
- Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3" (min.) bottom width. The channel shall be lined with 4" to 12" rip-rap to a depth of 18".
 - Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
 - Entrance and exit sections shall be installed as shown on the detail section.
 - Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
 - Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
 - Rip-rap should blend into existing ground.
 - Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

DETAIL 6 - GABION INFLOW PROTECTION

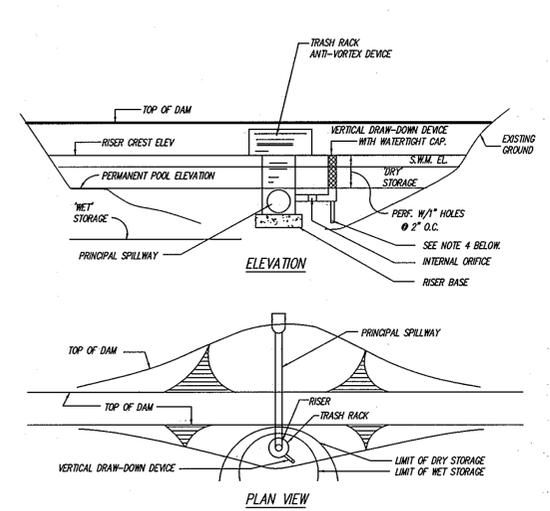


- Construction Specifications**
- Gabion inflow protection shall be constructed of 9" x 3" x 9" gabion baskets forming a trapezoidal cross section 1' deep, with 2:1 side slopes, and a 3" bottom width.
 - Geotextile Class C shall be installed under all gabion baskets.
 - The stone used to fill the gabion baskets shall be 4" - 7".
 - Gabions shall be installed in accordance with manufacturers recommendations.
 - Gabion inflow protection shall be used where concentrated flow is present on slopes steeper than 4:1.

DETAIL 18 - SEDIMENT BASIN BAFFLES



**BASIN DRAWDOWN SCHEMATIC
VERTICAL DRAWDOWN DEVICE**



- CONSTRUCTION SPECIFICATIONS**
- Perforations in the draw-down device may not extend into the wet storage.
 - The total area of the perforations must be greater than 4 times the area of the internal orifice.
 - The perforated portion of the draw-down device shall be wrapped with 1/2" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.
 - Provide support of draw-down device to prevent sagging and flotation. An acceptable preventive measure is to stake both sides of draw-down device with 1" steel angle or 1 1/4" square or 2" round wooden posts set 3" minimum into the ground then pinning them to the device by wrapping with 12 gauge minimum wire.

- Incremental Stabilization - Cut Slopes**
- Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.
 - All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
 - Construction sequence (Refer to Figure 3 below):
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 - Perform phase 1 excavation, dress, and stabilize.
 - Perform phase 2 excavation, dress, and stabilize. Overseed phase 1 areas as necessary.
 - Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.

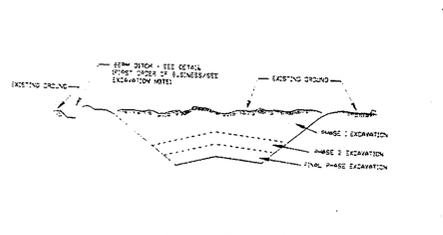


Figure 4 Incremental Stabilization - Cut G-20-6

- Incremental Stabilization - Fill Slopes**
- Embankments shall be constructed in lifts as prescribed on the plans.
 - Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
 - At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
 - Construction sequence: Refer to Figure 4 (below).
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct Slope Sill Fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
 - Place phase 1 embankment, dress and stabilize.
 - Place phase 2 embankment, dress and stabilize.
 - Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

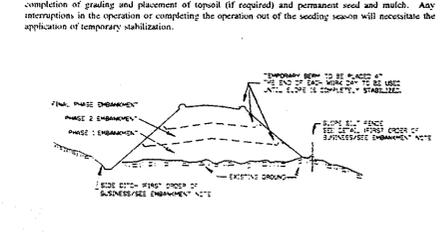


Figure 5 Incremental Stabilization - Fill G-20-7

Reviewed for Howard SCD and meets Technical Requirements
 Jim Meyer 3/8/07
 USA/NR Natural Resources Conservation Service
 Date
 This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Howard SCD 3/8/07
 Date
ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Carl Gutenschick 2/16/07
 Signature of Engineer (print name below signature) Date
DEVELOPER'S CERTIFICATE
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 Charlie O'Donovan 2-16-07
 Signature of Developer (print name below signature) Date



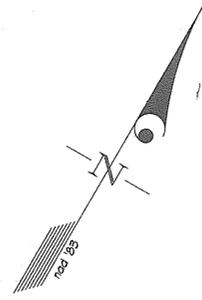
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 3/19/07
 Chief, Division of Land Development: [Signature] 3/19/07
 Chief, Development Engineering Division: [Signature] 3/19/07

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4188

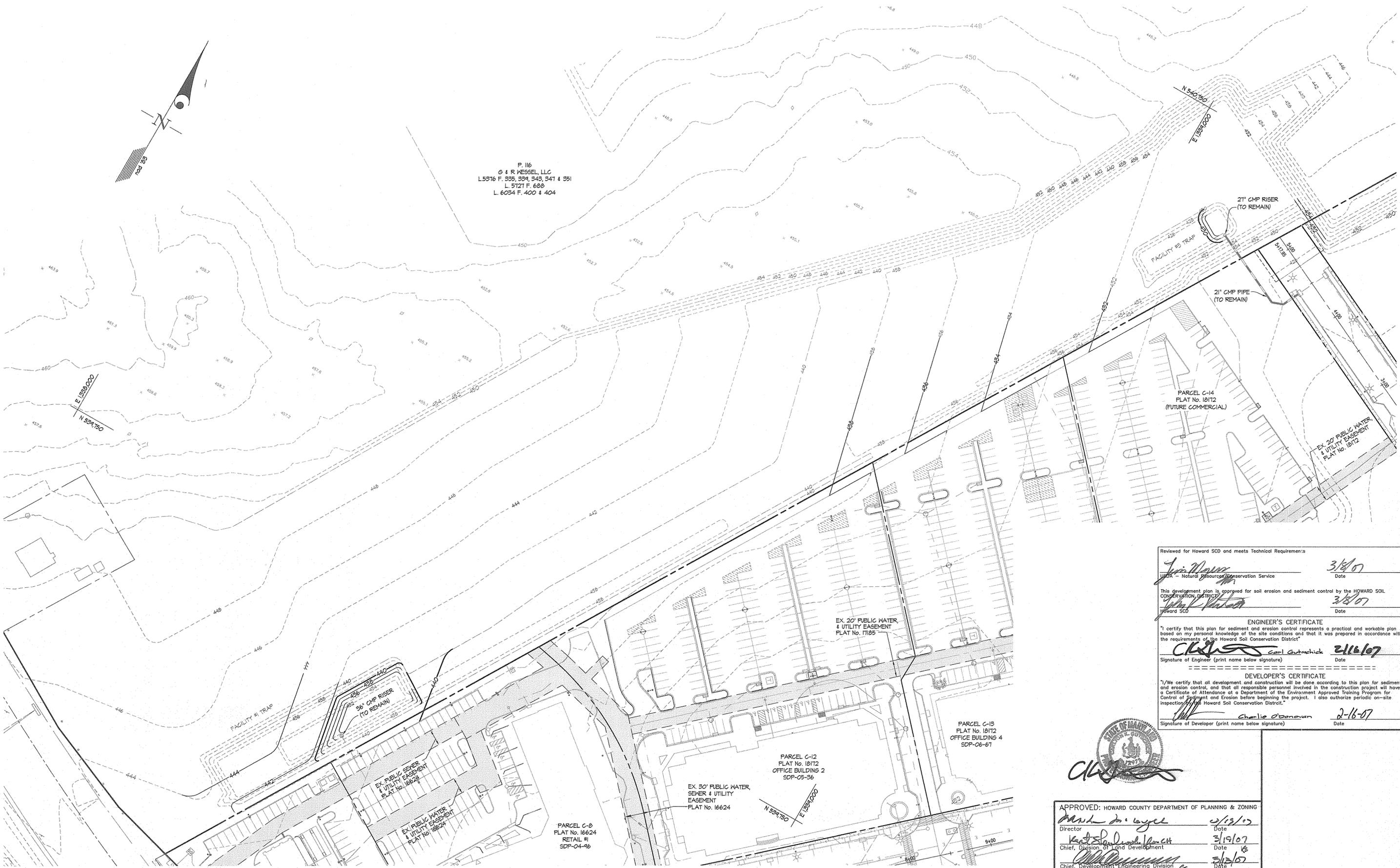
PREPARED FOR:
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 BALTIMORE, MD 21208
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SEDIMENT CONTROL DETAILS AND NOTES
SITE DEVELOPMENT PLAN FOR MASS GRADING
MAPLE LAWN FARMS
Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

SCALE	ZONING	G. L. W. FILE No.
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FEB, 2007	41:21,22 & 46:3	11 OF 13



F. 116
G & R KESSEL, LLC
L. 5376 F. 335, 334, 343, 341 & 351
L. 5121 F. 688
L. 6034 F. 400 & 404



Reviewed for Howard SCD and meets Technical Requirements
[Signature] 3/8/07
 USDA - Natural Resources Conservation Service Date
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[Signature] 3/8/07
 Howard SCD Date

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 Signature of Engineer (print name below signature) Date

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[Signature] Charlie O'Donovan 2-16-07
 Signature of Developer (print name below signature) Date



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 2/13/07
 Director Date
[Signature] 3/19/07
 Chief, Division of Land Development Date
[Signature] 2/12/07
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
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PREPARED FOR:
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FINAL GRADING AND BACKFILL PLAN
 SITE DEVELOPMENT PLAN FOR MASS GRADING
 MAPLE LAWN FARMS
 Parcel 116 and Parcel 124
 L.6533 F.309 / L.4256 F.250

SCALE	ZONING	G. L. W. FILE No.
1"=50'	MXD-3	03067
DATE	TAX MAP - GRID	SHEET
FEB., 2007	41:21,22 & 46:3	12 OF 13

DATE	REVISION	BY	APPR.

ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 131-1880

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. I, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization, with mulch alone, can only be done when recommended seedings dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

Table with 2 columns: Site Analysis, Total Area of Site, Area Disturbed, Area to be roofed or paved, Area to be vegetatively stabilized, Total Cut, Total Fill.

7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

8. Additional sediment control must be provided, if deemed necessary by the Howard County DPM Sediment Control Inspector.

9. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

10. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day whichever is shorter.

PERMANENT SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (42 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq ft) before seeding.
2) Acceptable - Apply 2 tons per acre dolomitic limestone (42 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass.

Mulching: Apply 1-1/2 to 2 tons per acre (10 to 40 lbs/1000 sq ft) of unwritten small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 21g gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

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 (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushel per acre of annual ryegrass (5.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft).

Mulching: Apply 1-1/2 to 2 tons per acre (10 to 40 lbs/1000 sq ft) of unwritten small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 21g gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas.

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

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

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

PURPOSE: To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES: This practice is limited to areas having 2:1 or flatter slopes where:

- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplied of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.

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:

CONSTRUCTION AND MATERIAL SPECIFICATIONS

1. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.

1. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by a agronomist or soil scientist and approved by the appropriate approval authority.

2. Topsoil must be free of plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

3. 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 1000 square feet) prior to the placement of topsoil.

4. For sites having disturbed areas under 5 acres: Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

5. For sites having disturbed areas over 5 acres:

- a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt greater than 500 parts per mill shall not be used.
d. No sod or seed shall be placed on soil which has been with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of photo-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

6. Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION (CONTINUED)

Topsoil Application: When topsoiling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 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 seeding or seedling can proceed with a minimum of additional soil preparation and tillage.

Topsoil shall not be placed while the topsoil or subsoil is frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and 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:

- 1. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
b. 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.
c. Composted sludge shall be applied at a rate of 1 ton/1000 square feet.
d. Composted sludge shall be amended with a potassium fertilizer applied at a rate of 4lb/1000 square feet, and 1/3 the normal lime application rate.

2. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.

3. Stone - Cover surface with crushed stone or coarse gravel.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VA Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1978.

DUST CONTROL

Definition: Controlling dust blowing and movement on construction sites and roads.

Purpose: To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies: This practice is applicable to areas subject to dust blowing and movements where on and off-site damage is likely without treatment.

Specifications: Temporary Methods

- 1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts.
4. Irrigation - This is generally done as an emergency treatment.
5. Barriers - Solid board fences, silt fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing.
6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods: 1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.

2. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.

3. Stone - Cover surface with crushed stone or coarse gravel.

CONSTRUCTION NOTES/SPECIFICATIONS

1. The contractor shall install appropriate sediment and erosion control devices before project. All work to be performed at the direction of the stream restoration specialist and these drawings.

2. The foundation area shall be cleared of trees, stumps, roots, sod, loose rock, or other objectionable material.

3. The cross-section shall be excavated to the neat lines and grades as shown on the plans. Over-excavated areas shall be backfilled with moist soil compacted to the density of the surrounding material.

4. No abrupt deviations from the design grade or horizontal alignment shall be permitted unless authorized by the ERI Stream Restoration Specialist.

5. Filter, bedding, and rock rip-rap shall be placed to line and grade in the manner specified.

6. Construction operations shall be done in such a manner that erosion, air, and water pollution will be minimized and held within legal limits. The completed job shall present a workmanlike appearance. All disturbed areas shall be vegetated or otherwise protected against soil erosion.

7. Filter cloth shall be placed beneath rip-rap where indicated. The filter cloth shall consist of either woven or non-woven monofilament fiber and shall conform to the ASTM D 1177, ASTM D 1682, Having a thickness of 20-60 Mils, and a grab strength of 90-120 LBS.

8. All boulders shall be well graded selected Class III Rip-rap boulders, natural in color and pre-approved by the Stream Restoration Specialist.

9. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

10. The rock or gravel shall conform to the specified grading limits when installed.

11. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.

12. Stone and boulders for the rip-rap may be placed by equipment. It shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the small stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works. Exact placement will be required as directed by the ERI Stream Specialist in the field.

13. The stone shall be placed so that it blends in with the existing grade. If the stone is placed too high, then the flow will be forced out of the channel and scour adjacent to the stone will occur.

CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds facility number 14 3. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation: Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill: Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable material.

Material - The fill material shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by it not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller.

When required by the reviewing agency the minimum required density shall not be less than 95% maximum dry density with a moisture content of 2% of the optimum.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet.

Structure Backfill: Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 315 as modified.

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Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-146 or M-211 with watertight coupling bands or flanges.

Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accomplish the bondwidth.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Director: Mark M. Lyle, Date: 3/15/07. Chief, Division of Land Development: Kurt S. DeLoach, Date: 3/19/07. Chief, Engineering Division: [Signature], Date: 3/19/07.

SEQUENCE OF CONSTRUCTION table with 2 columns: Item, Description. 1. OBTAIN GRADING PERMIT AND ARRANGE FOR AN ON-SITE PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR. (1 DAY) 2. INSTALL THE STONE CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE, EARTH DIKES, SWALES, AND INLET PROTECTION AS SHOWN ON THESE PLANS. (2 WEEKS) 3. CONSTRUCT THE SEDIMENT BASIN (FACILITY #2) AND THE STONE OUTLET SEDIMENT TRAP (FACILITY #4). CONSTRUCT THE PIPE OUTLET SEDIMENT TRAPS (FACILITIES #1 AND #3) AND CONNECT THE PIPE OUTLET SEDIMENT TRAPS TO THE STORM DRAIN SYSTEM. (1 MONTH) 4. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN MASS GRADING. (2 MONTHS) 5. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (2 WEEKS) 6. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BACKFILL THE PIPE OUTLET SEDIMENT TRAPS (FACILITIES #1 AND #3) PER THE GRADING SHOWN ON SHEET 12. THE OUTLET STRUCTURES MUST REMAIN IN ORDER TO CONVEY OFFSITE RUNOFF TO THE EXISTING STORMWATER MANAGEMENT FACILITY IN BUSINESS DISTRICT - AREA 1. (1 MONTH) 7. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE/BACKFILL THE STONE OUTLET SEDIMENT TRAP (FACILITY #4) PER THE GRADING SHOWN ON SHEET 9. THE SEDIMENT BASIN IS TO REMAIN IN PLACE. IT WILL BECOME PART OF A FUTURE REGIONAL FACILITY. (1 MONTH) 8. STABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 WEEK)

PREPARED FOR: G&R MAPLE LAWN FARMS, INC. SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

SEDIMENT CONTROL NOTES SITE DEVELOPMENT PLAN FOR MASS GRADING MAPLE LAWN FARMS Parcel 116 and Parcel 124 L6533 F309 / L4256 F250

ENGINEER'S CERTIFICATE: I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District. Signature of Engineer: Carl Gutwisch, Date: 2/16/07. DEVELOPER'S CERTIFICATE: I/we certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District. Signature of Developer: Charlie O'Donovan, Date: 2-16-07.

Table with 3 columns: SCALE, ZONING, G. L. W. FILE No. AS SHWON, MXD-3, 03067. DATE, TAX MAP - GRID, SHEET. FEB, 2007, 41:21,22 & 46:3, 13 OF 13.