

SITE DEVELOPMENT PLAN HOWARD BUSINESS PARK PARCEL B-4 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX

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PERMIT INFORMATION CHART

SUBDIVISION NAME HOWARD BUSINESS PARK		SECTION/AREA N/A	LOT/PARCEL # PARCEL 701 (B-4)
PLAT # 17839-40	BLOCK # 12	ZONE M-2	TAX MAP 43
WATER CODE B-01		SEWER CODE 2250000	
PROPOSED IMPROVEMENTS: WAREHOUSE CONSTRUCTION & GRADING			

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
WAREHOUSE #1	7071 DORSEY RUN ROAD, ELKCRIDGE, MD 21075
WAREHOUSE #2	7081 DORSEY RUN ROAD, ELKCRIDGE, MD 21075
WAREHOUSE #3	7085 DORSEY RUN ROAD, ELKCRIDGE, MD 21075
WAREHOUSE #4	7091 DORSEY RUN ROAD, ELKCRIDGE, MD 21075
WAREHOUSE #5	7095 DORSEY RUN ROAD, ELKCRIDGE, MD 21075

OWNER/DEVELOPER

ATTN: MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

DEVELOPER'S CERTIFICATE

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

Mark Levy
SIGNATURE OF DEVELOPER
DATE: 4/7/05
PRINTED NAME OF DEVELOPER: Mark Levy

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS AN ORIGINAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THESE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts
SIGNATURE OF ENGINEER
DATE: 4/7/05
PRINTED NAME OF ENGINEER: John R. Roberts

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

John R. Roberts
DATE: 4/7/05
FOR N/A - NATURAL RESOURCE PROTECTION SERVICE

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

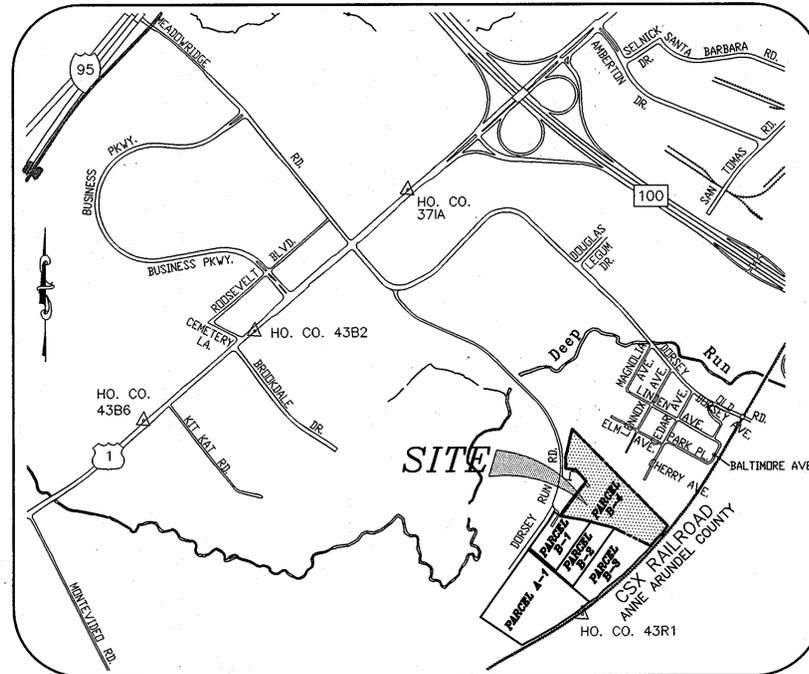
John R. Roberts
DATE: 4/9/05
FOR HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

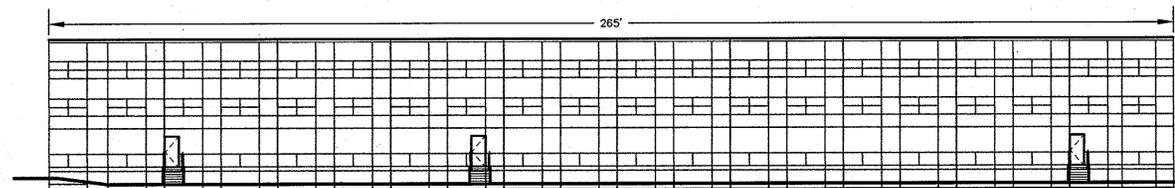
John R. Roberts
DATE: 4/29/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION

John R. Roberts
DATE: 12/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT

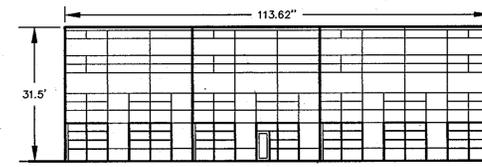
John R. Roberts
DATE: 4/2/05
DIRECTOR



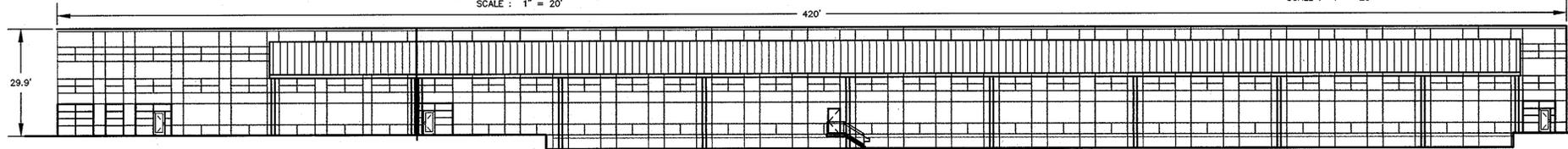
VICINITY MAP
SCALE: 1" = 1000'



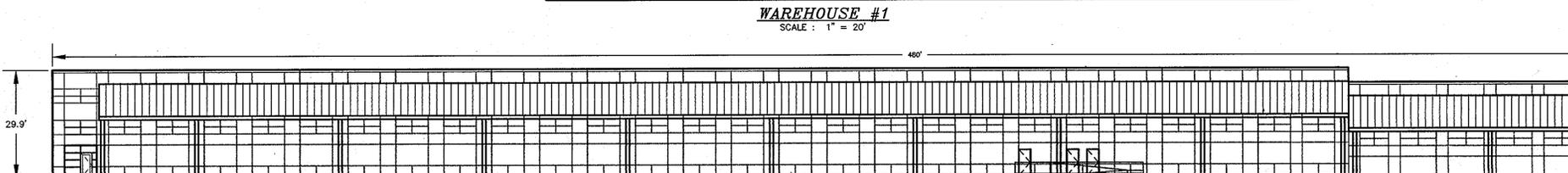
WAREHOUSE #3 (FACING WAREHOUSE #2)
SCALE: 1" = 20'



WAREHOUSE #4 & #5 (FACING WAREHOUSE #2)
SCALE: 1" = 20'



WAREHOUSE #1
SCALE: 1" = 20'



WAREHOUSE #2
SCALE: 1" = 20'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSMA STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:

MISC UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	(410) 725-8976
HOWARD COUNTY BUREAU OF UTILITIES	(410) 313-4900
AT&T CABLE LOCATION DIVISION	(410) 393-3533
BALTIMORE GAS & ELECTRIC	(410) 685-0123
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
HOWARD COUNTY DEPT. OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION	(410) 313-1880
- THE SUBJECT PROPERTY IS ZONED M-2 PER THE FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN.
- PROJECT BACKGROUND:
 - LOCATION: FIRST ELECTION DISTRICT - TAX MAP 43 - PARCEL 701 (B-4)
 - DEED REFERENCE: LIBER 4894, FOLIO 101
 - TOTAL PROJECT AREA: 16.32 ACRES ±
 - LIMIT OF DISTURBED AREA: 16.32 ACRES ±
 - ZONING: M-2
 - PROPOSED USE: WAREHOUSE & OFFICE
 - FLOOR AREA OF BUILDINGS: 163,819 SQ.FT. (152,580 SQ.FT. FIRST FLOOR, 11,239 FT² OF MEZZANINE)
 - NUMBER OF PARKING SPACES REQUIRED:
 - INDUSTRIAL/OFFICE: 26,767 SQ. FT. X 2.5 SPACES / 1000 SQ. FT. = 92 SPACES
 - WAREHOUSE/INDUSTRIAL: 131,880 SQ. FT. X 0.5 SPACES / 1000 SQ. FT. = 66 SPACES
 - TOTAL SPACES REQUIRED = 140 SPACES
 - NUMBER OF PARKING SPACES PROVIDED: 172 SPACES, INCLUDING 9 HANDICAP SPACES.
 - DEED REFERENCE # 1: SDP-95-60; WP-02-23; F-00-27; WP-00-26; F-00-29; SDP-04-48; BA-99-37; F-01-033; F-C-06-96
- TOPOGRAPHY ON-SITE BASED ON A FIELD RUN SURVEY CONDUCTED IN SEPTEMBER 2003 AND SUPPLEMENTED BY AERIAL MAPPING TOPOGRAPHIC SURVEY BY WINGS AERIAL MAPPING CO, INC. IN FEBRUARY 1999. BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT SEPTEMBER 1999 BY MILDENBERG, BOENDER & ASSOCIATES, INC.
- HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

STA. No. 4386	N 550,601.597	ELEV. 210.54
STA. No. 4382	E 1,376,866.071	ELEV. 209.59
STA. No. 371A	N 553,315.147	ELEV. 195.75
STA. No. 43R1	E 1,378,882.153	ELEV. 134.53
	N 548,305.502	ELEV. 134.53
	E 1,382,025.818	
- WATER AND SEWER ARE PUBLIC, PRIVATE SEWER EXTENSION OF CONTRACT # 14-3775-D AND PUBLIC WATER EXTENSION OF CONTRACT # 14-3421-D. 14-4203-D
- STORMWATER MANAGEMENT QUALITY AND QUANTITY CONTROL WAS PROVIDED FOR THE ULTIMATE CONDITIONS FOR PARCELS B-1 THRU B-4 VIA A RETENTION POND UNDER SDP-00-48.
- APFO ROAD TEST SATISFIED UNDER F-00-29, HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4.
- WETLAND AND STREAM DELINEATION APPROVED UNDER F-00-29, HOWARD BUSINESS PARK, PARCELS A-1 & B-1 THRU B-4 AND RECEIVED BY FIELD INVESTIGATION BY MILDMAN ENVIRONMENTAL SERVICES, INC. IN JULY 2003. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PLAN HAS BEEN SATISFIED BY 4.33 AC. OF EXISTING ONSITE RETENTION (FCE A/3.17 AC / FCE D/1.16 AC), THE PAYMENT OF A FCE ABANDONMENT FEE OF \$152,460.00 (\$1.00 PER SQ.FT.) TO THE HO.CO. FOREST CONSERVATION FUND FOR THE ABANDONMENT OF 3.5 AC. OF ONSITE RETENTION (FCE B/2.53 AC & FCE F/0.97 AC), AND A FEE-IN-LIEU PAYMENT OF \$67,500.00 (\$0.50 PER SQ.FT.) TO THE HO.CO. FOREST CONSERVATION FUND FOR THE 0.31 AC. OF REFORESTATION REQUIRED FOR THE OFFSITE CLEARING OF FOREST ON THE ADJACENT LENNOX PARK PROPERTIES.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$43,800.00 FOR 64 SHADE TREES AND 164 EVERGREEN TREES.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- SITE HAS BEEN MASS GRADED UNDER SDP-00-48. ONLY SLOPES OUTSIDE THE LIMIT OF DISTURBANCE OF SDP-00-48 AND IN EXCESS OF 25% EXIST AND ARE IDENTIFIED WHERE THEY EXCEED 20,000 SQ. FT.
- ON MARCH 14, 2000, MDE ISSUED THEIR INTENT TO ISSUE THE PERMIT FOR THE WETLAND & STREAM CROSSING UNDER AUTHORIZATION NO. 99-NI-0309/04805. STORM DRAIN AND PUBLIC SEWER CONSTRUCTION ASSOCIATED WITH THIS PERMIT HAVE BEEN COMPLETED.
- ALL FOREST RESOURCE PRE-CONSTRUCTION PROTECTION PROVIDED UNDER F-00-29 SHALL REMAIN IN PLACE DURING ALL CONSTRUCTION ACTIVITIES.
- FLOODPLAIN DELINEATION PREPARED BY MILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT MARCH 2000 AND APPROVED UNDER SDP-00-48, HOWARD BUSINESS PARK, PARCELS B1 THRU B-4.
- ON NOVEMBER 26, 2003, THE HOWARD COUNTY BOARD OF APPEALS UNDER BA-99-37V GRANTED VARIANCES TO REDUCE THE 150 FOOT STRUCTURE AND USE SETBACK TO 30 FEET FOR A PROPOSED WAREHOUSE BUILDING, TO 30 FEET AND 75 FEET FOR FIRE LANES, AND TO APPROXIMATELY 78 FEET FOR A RETAINING WALL. THIS APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE VARIANCES SHALL APPLY ONLY TO THE PROPOSED VARIANCES AS SHOWN ON THE PETITIONER'S EXHIBIT NO. 5 (THE "PLAN") SUBMITTED TO THE BOARD OF APPEALS ON JUNE 17, 2003, AND NOT TO ANY OTHER ACTIVITIES, USES, OR STRUCTURES ON THE PROPERTY.
 - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.
 - A KNOX BOX (FIRE DEPARTMENT ACCESS BOX) HAS BEEN SHOWN ON EACH WAREHOUSE AND WILL BE REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE TO THE BUILDINGS AT A RANGE OF 4' TO 5' IN HEIGHT AND NO MORE THAN 3' Laterally FROM THE DOOR. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM) PER NFPA-1 10.1.2.1.
 - NO LANDSCAPING MAY BE PLACED WITHIN 7.5 FEET OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION MUST BE MAINTAINED.
 - ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 13.4.

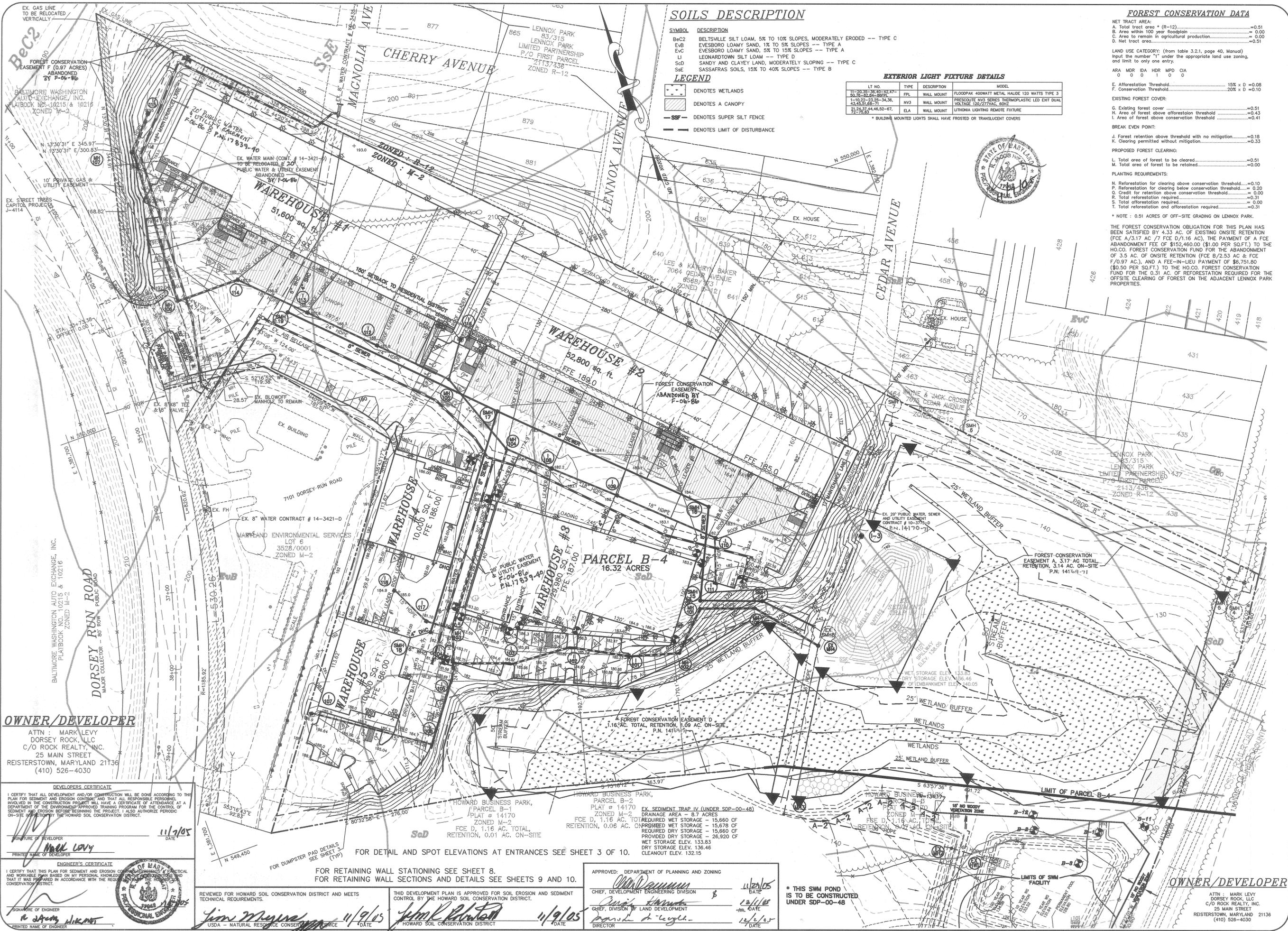


date	NOV 2005	approval	RH
project	98001	approval	RH
illustration	SID/HSP	scale	AS SHOWN

date	11/23/04	description	revisions
1	3475562-2	MEZZANINE SPACE, BLDG. 2	
2	ADJUST PARKING TOTALS FOR THE ADDITION OF A MEZZANINE TO BUILDING #4		
3	ADJUST PARKING TOTALS		

HOWARD BUSINESS PARK
PARCEL B-4
TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, State 202, Ellicott City, Maryland, 21042
(410) 997-0286 Fax: (301) 621-5521 Wash.



SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeC2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
EVB	EVESBORO LOAMY SAND, 1% TO 5% SLOPES -- TYPE A
EV	LEONARDTOWN SILT LOAM -- TYPE A
LI	LEONARDTOWN SILT LOAM -- TYPE D
ScD	SANDY AND CLAYEY LAND, MODERATELY SLOPING -- TYPE C
SaE	SASSAFRAS SOILS, 15% TO 40% SLOPES -- TYPE B

LEGEND

- DENOTES WETLANDS
- DENOTES A CANOPY
- DENOTES SUPER SILT FENCE
- DENOTES LIMIT OF DISTURBANCE

EXTERIOR LIGHT FIXTURE DETAILS

LT. NO.	TYPE	DESCRIPTION	MODEL
11-20-35-36-39-42-47	FPL	WALL MOUNT	FLOODPAK 400WATT METAL HALIDE 120 WATTS TYPE 3
30-32-33-34-38	FPL	WALL MOUNT	PRESCOTE NYA SERIES THERMOPLASTIC LED EXIT DUAL VOLTAGE 120/277VAC, 80HZ
43-45-66-72-34-36	NYA	WALL MOUNT	PRESCOTE NYA SERIES THERMOPLASTIC LED EXIT DUAL VOLTAGE 120/277VAC, 80HZ
73-74-81	EVA	WALL MOUNT	LITHONIA LIGHTING REMOTE FIXTURE

* BUILDING MOUNTED LIGHTS SHALL HAVE FROSTED OR TRANSLUCENT COVERS

FOREST CONSERVATION DATA

NET TRACT AREA:
 A. Total tract area * (R-12).....=0.51
 B. Area within 100 year floodplain.....=0.00
 C. Area to remain in agricultural production.....=0.00
 D. Net tract area.....=0.51

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)
 Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA MOR IDA HDR MPD CIA
 0 0 0 1 0 0

E. Afforestation Threshold.....=15% x 0 = 0.08
 F. Conservation Threshold.....=20% x 0 = 0.10

EXISTING FOREST COVER:
 G. Existing forest cover.....=0.51
 H. Area of forest above afforestation threshold.....=0.43
 I. Area of forest above conservation threshold.....=0.41

BREAK EVEN POINT:
 J. Forest retention above threshold with no mitigation.....=0.18
 K. Clearing permitted without mitigation.....=0.33

PROPOSED FOREST CLEARING:
 L. Total area of forest to be cleared.....=0.51
 M. Total area of forest to be retained.....=0.00

PLANTING REQUIREMENTS:
 N. Reforestation for clearing above conservation threshold.....=0.10
 O. Reforestation for clearing below conservation threshold.....=0.20
 P. Credit for retention above conservation threshold.....=0.00
 Q. Credit for retention above conservation threshold.....=0.00
 R. Total reforestation required.....=0.31
 S. Total afforestation required.....=0.00
 T. Total reforestation and afforestation required.....=0.31

* NOTE : 0.51 ACRES OF OFF-SITE GRADING ON LENNOX PARK.

THE FOREST CONSERVATION OBLIGATION FOR THIS PLAN HAS BEEN SATISFIED BY 4.33 AC. OF EXISTING ON-SITE RETENTION (FCE 4.317 AC. / FCE 0.116 AC.), THE PAYMENT OF A FCE ABANDONMENT FEE OF \$152,460.00 (\$100 PER SQ.FT.) TO THE HO.CO. FOREST CONSERVATION FUND FOR THE ABANDONMENT OF 3.5 AC. OF ON-SITE RETENTION (FCE 2.53 AC. & FCE F.0.97 AC.), AND A FEE-IN-LIEU PAYMENT OF \$6,751.00 (\$0.50 PER SQ.FT.) TO THE HO.CO. FOREST CONSERVATION FUND FOR THE 0.31 AC. OF REFORESTATION REQUIRED FOR THE OFF-SITE CLEARING OF FOREST ON THE ADJACENT LENNOX PARK PROPERTIES.

OWNER/DEVELOPER
 ATTN: MARK LEVY
 DORSEY ROCK, LLC
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030

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

11/7/05
 DATE

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL COMPLIES WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS 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.

11/9/05
 DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 11/9/05
 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 11/9/05
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 11/21/05
 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
 12/1/05
 DATE

DIRECTOR
 12/1/05
 DATE

* THIS SWM POND IS TO BE CONSTRUCTED UNDER SDP-00-48

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0236 Fax. (301) 621-5521 Wash. (410) 997-0238 Fax.

HOWARD BUSINESS PARK, PARCEL B-4
 7091 DORSEY RUN ROAD
 TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT

SITE DEVELOPMENT, GRADING, AND EROSION & SEDIMENT CONTROL PLAN

2 OF 10
 SDP-05-73

**HOWARD SOIL CONSERVATION DISTRICT
PERMANENT SEEDING NOTES**

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

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (2.0 TONS PER ACRE) OF KENTUCKY 31 TALL FESCUE. FOR PERIODS MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE AND 1 LBS. PER ACRE OF BLUEGRASS (2.0 TONS PER ACRE) OF KENTUCKY 31 TALL FESCUE. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - SEED WITH 1/2 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2/8 GALONS PER ACRE (8 GAL/1000 SQ.FT.) OF GRANULATED ASPHALT OR FLAT AREAS. OR SLOPES 8 FEET OR HIGHER, USE 3/8 GALONS PER ACRE (3 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 2-1/2 TONS PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.). FOR PERIODS MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF PERennial GRASS (3.0 LBS./1000 SQ.FT.). FOR PERIODS NOVEMBER 15 THRU NOVEMBER 30, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED NEED FREE SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2/8 GAL PER ACRE (8 GAL/1000 SQ.FT.) OF GRANULATED ASPHALT OR FLAT AREAS. OR SLOPES 8 FEET OR HIGHER, USE 3/8 GAL PER ACRE (3 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RULES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (213-1803).
- 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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THEREOF.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS FOR ALL PERMANENT SEDIMENT CONTROL STRUCTURES, DRAINAGE, PERMANENT SLOPES AND ALL SLOPES GREATER THAN 3:1, 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 DEEDS MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING (SEC-3), SOO (SEC. 54), TEMPORARY SEEDING (SEC. 55) AND MULCHING (SEC. 56). MULCHING SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:

TOTAL AREA OF SITE:	16.32 ACRES
AREA TO BE ROOFED OR GRADED:	11.83 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	4.49 ACRES
TOTAL DIST.:	16.32 ACRES
TOTAL FILL:	1/2 ACRES

TOTAL WASTE/BORROW AREA LOCATION:

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

- 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 PERMANENT EROSION AND SEDIMENT CONTROL, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BIDDING 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.

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 UNDESIRABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

DEVELOPERS CERTIFICATE

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

Signature: *Mark Levy* DATE: 11/7/05

Signature: *Jim Meyer* DATE: 11/9/05

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS FEASIBLE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSERVATION DISTRICT.

Signature: *Jim Meyer* DATE: 11/9/05

Signature: *Mark Levy* DATE: 11/9/05

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *Jim Meyer* DATE: 11/9/05

Signature: *Mark Levy* DATE: 11/9/05

Signature: *Jim Meyer* DATE: 11/9/05

Signature: *Mark Levy* DATE: 11/9/05

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *Jim Meyer* DATE: 11/9/05

Signature: *Mark Levy* DATE: 11/9/05

Signature: *Jim Meyer* DATE: 11/9/05

Signature: *Mark Levy* DATE: 11/9/05

CONSTRUCTION AND MATERIAL SPECIFICATIONS

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SSS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

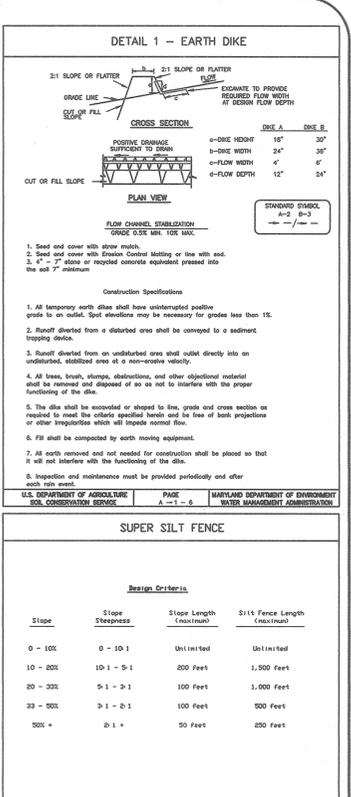
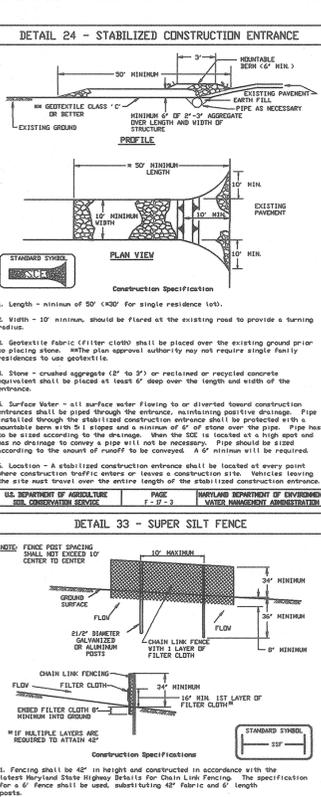
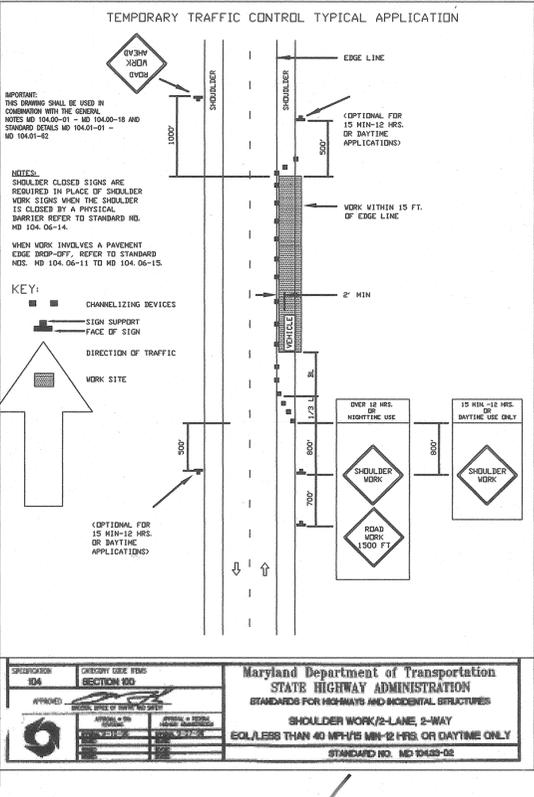
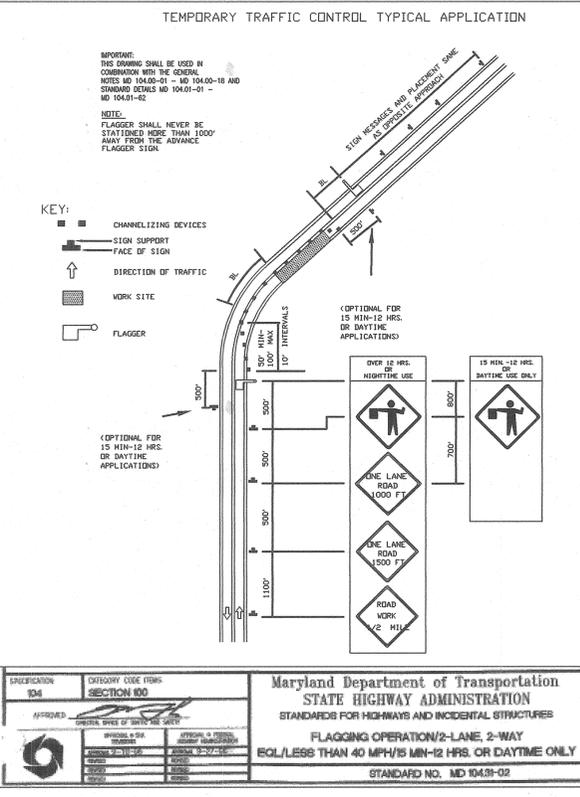
- TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OR OTHER SOILS WHICH ARE NOT RECOMMENDED BY THE NOTES ON SOIL SCIENCE AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONSTRUCTIVE TEXTURES SUCH AS GRAVEL, SAND, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERNIADA GRASS, QUACKGRASS, JOHNSON-SOON GRASS, WATSONIA, POKON IVY, THISTLE, OR OTHERS AS SPECIFIED.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DISTURBED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROVISIONS.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0. VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 - FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS INDICATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PERMITTED TO RAISE THE pH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - NO SOO OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0. VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND 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.

2.0. VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

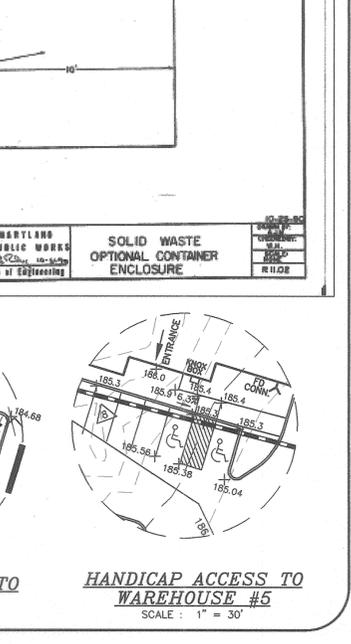
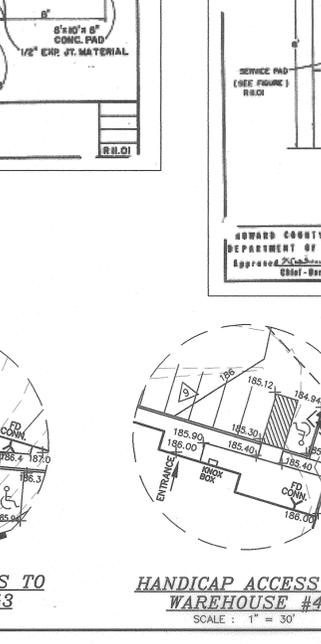
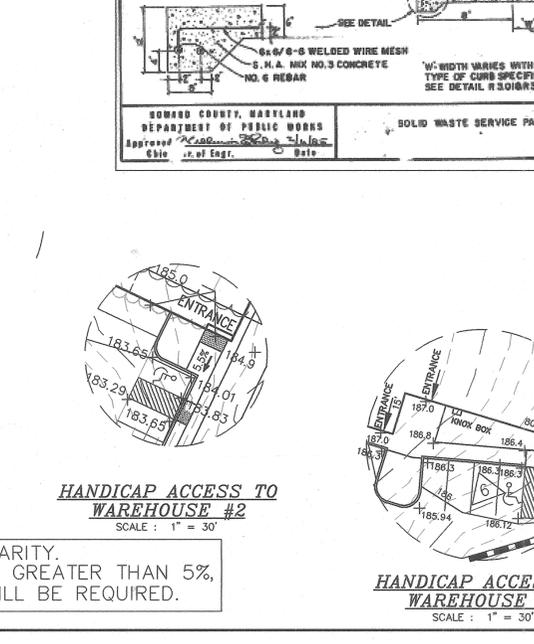
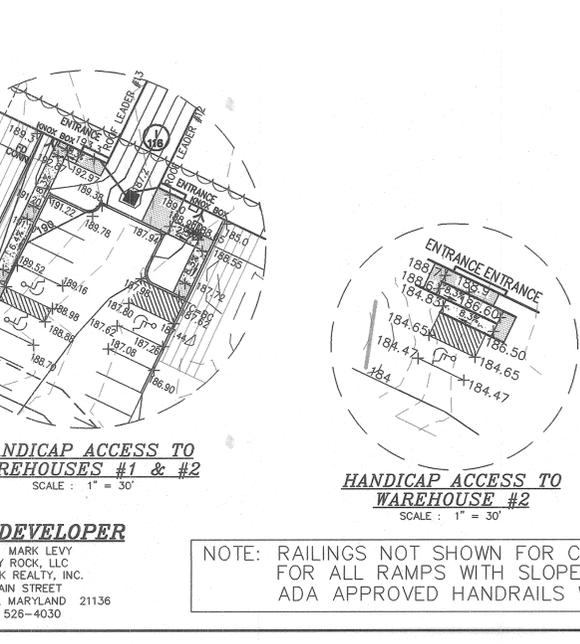
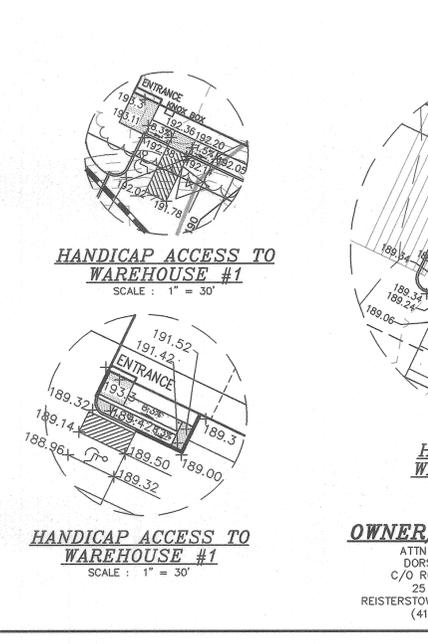
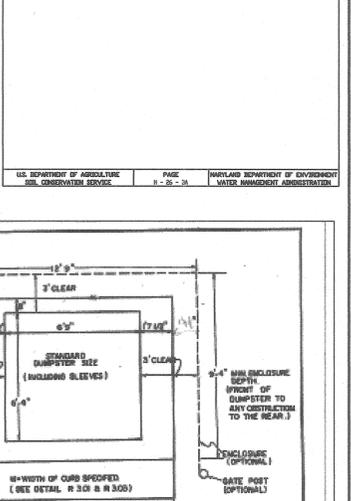
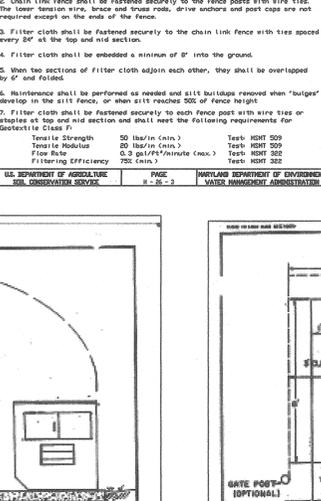
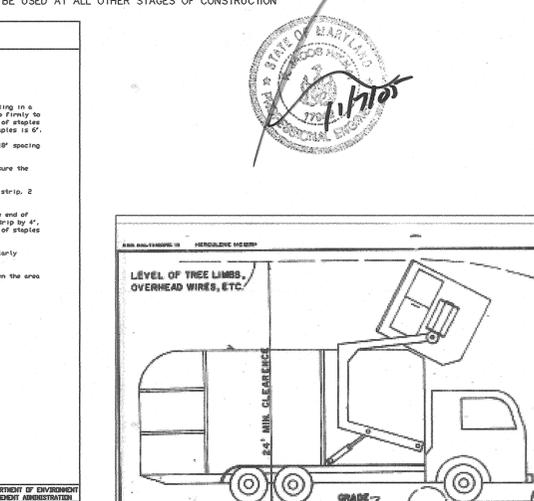
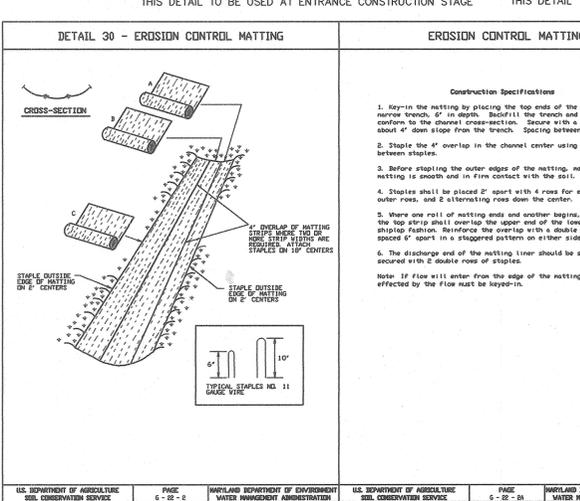
TOPSOIL APPLICATION

- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIMENSIONS, GRADE STABILIZATION STRUCTURES, EARTH DICES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BARRIERS.
- GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 6" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 10" LAYER AND LOOSELY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOODING 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, WHICH THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETERMINED TO PROHIBIT GRADING AND SEEDING PREPARATION.
- ALTERNATIVE FOR PERMANENT SEEDING - METHOD 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 DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESERVE AMENDMENTS FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE LICENSED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.24.05.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST A 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 6.0 TO 8.0.
 - 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 A 1 LB./1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.
 - GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SEEDING, MD-NR-PUB. 01, COOPERATIVE EXTENSION, UNIVERSITY OF MARYLAND AND VESPA, INC. TECHNICAL INSTITUTES, REVISED 1975.



TEMPORARY DUST CONTROL MEASURES

- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRUMPED OR TACKED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- TILLAGE - TO ROUGHEN SURFACE AND BRING GLOSS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGON PLOWING ON WINDWARD SIDE OF SITE. CHAIN-TYPE PLOWING APPLIED ABOUT 1/4" TO 1/2" DEEP. SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
- BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
- CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.



OWNER/DEVELOPER

ATTN: MARK LEVY
DORSEY ROCK, LLC
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

NOTE: RAILINGS NOT SHOWN FOR CLARITY. FOR ALL RAMPS WITH SLOPES GREATER THAN 5%, ADA APPROVED HANDRAILS WILL BE REQUIRED.

HOWARD BUSINESS PARK
PARCEL B-4
TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
HOWARD COUNTY, MARYLAND
FIRST ELECTION DISTRICT
SEDIMENT CONTROL NOTES & DETAILS

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0596 Fax: (301) 621-5521 Wash. (301) 997-0298 Fax.

project date: NOV 2005
illustration: 98001
scale: SJD/RSP
approval: SJD/RSP
description: NTS
date: 11/7/05
no.:

3 of 10
SDP-05-73

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

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

TEMPORARY SEEDING NOTES

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

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION TO THE START OF ANY CONSTRUCTION.

7. SITE ANALYSIS: TOTAL AREA OF SITE: 18.32 ACRES. AREA TO BE GRADED OR PAVED: 11.63 ACRES.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PORT TO ESTABLISHMENT OF PERMANENT VEGETATION.

DEVELOPERS CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

I 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.

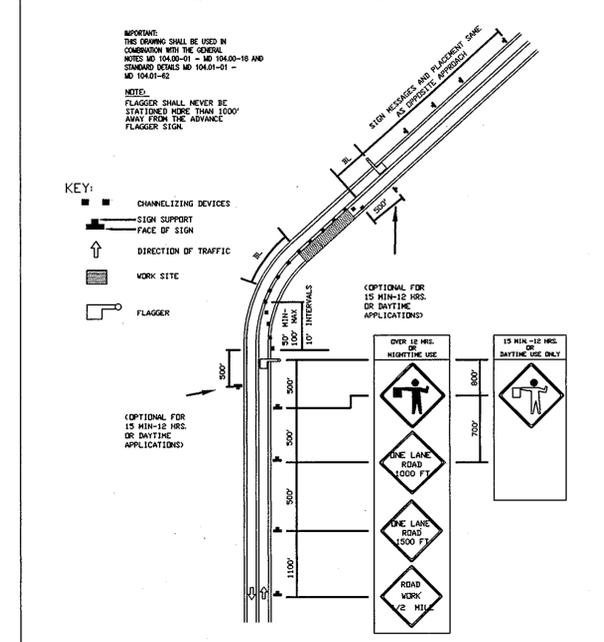
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING. CHIEF, DEVELOPMENT ENGINEERING DIVISION. CHIEF, DIVISION OF LAND DEVELOPMENT.

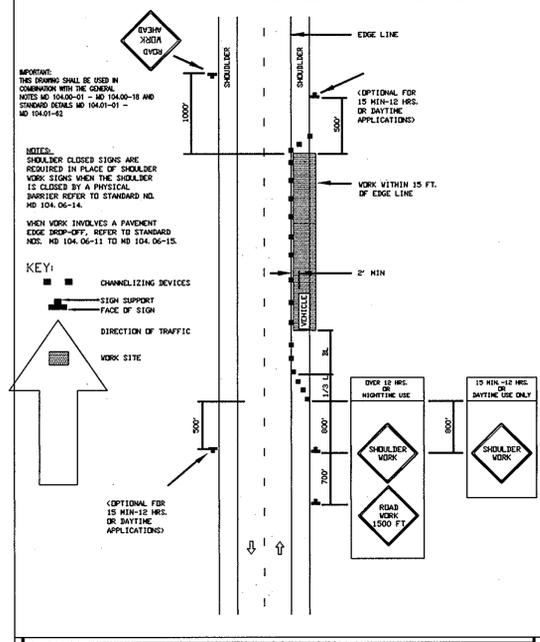
CONSTRUCTION AND MATERIAL SPECIFICATIONS

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SIS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

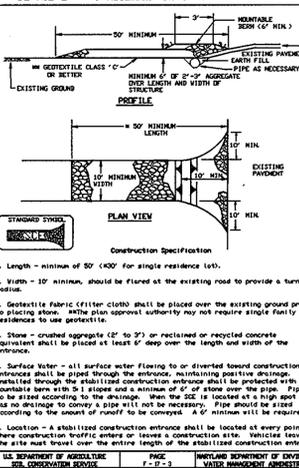
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION



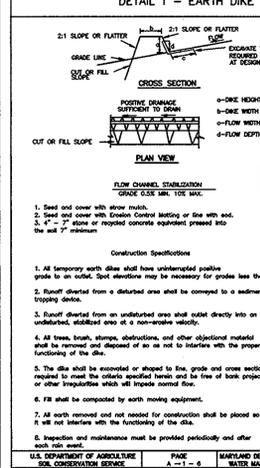
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION



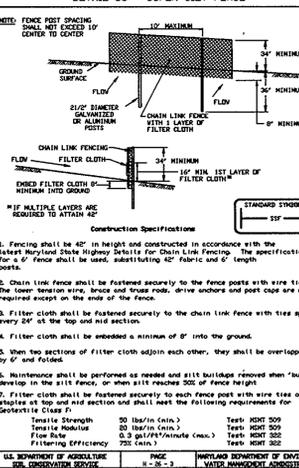
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



DETAIL 1 - EARTH DIKE



DETAIL 33 - SUPER SILT FENCE



SUPER SILT FENCE

Table with columns: Slope, Slope Steepness, Slope Length (Maximum), Site Face Length (Maximum). Rows include 0:100, 10:100, 20:100, 30:100, 50:100.

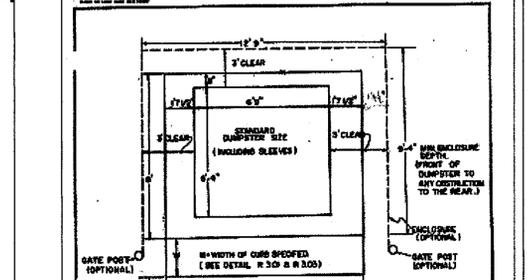
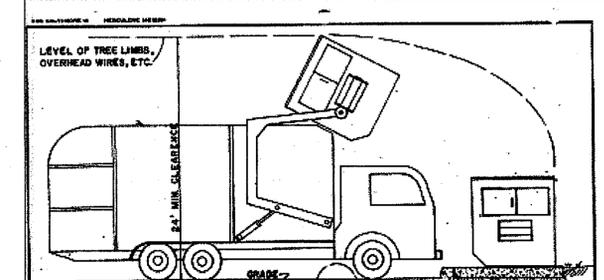
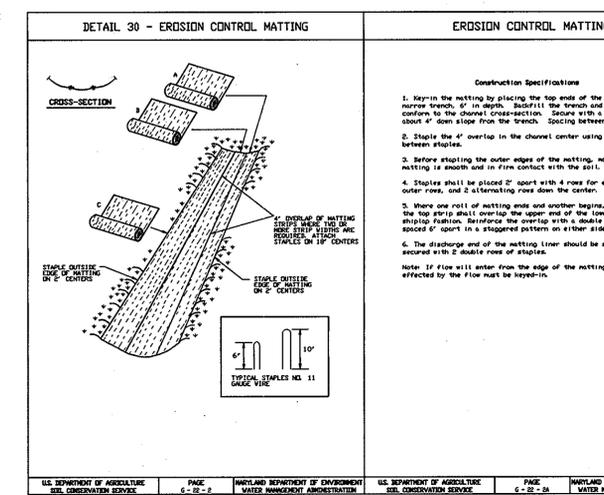
Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES. FLAGGING OPERATION/2-LANE, 2-WAY. EOL/LESS THAN 40 MPH/15 MIN-12 HRS. OR DAYTIME ONLY. STANDARD NO. MD 104.38-02.

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES. SHOULDER WORK/2-LANE, 2-WAY. EOL/LESS THAN 40 MPH/15 MIN-12 HRS. OR DAYTIME ONLY. STANDARD NO. MD 104.39-02.

TEMPORARY DUST CONTROL MEASURES

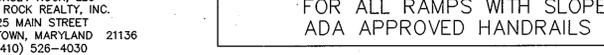
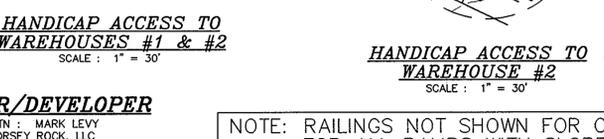
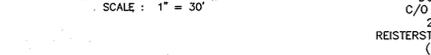
1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRUSHED OR TACKED TO PREVENT BLOWING.

THIS DETAIL TO BE USED AT ENTRANCE CONSTRUCTION STAGE THIS DETAIL TO BE USED AT ALL OTHER STAGES OF CONSTRUCTION



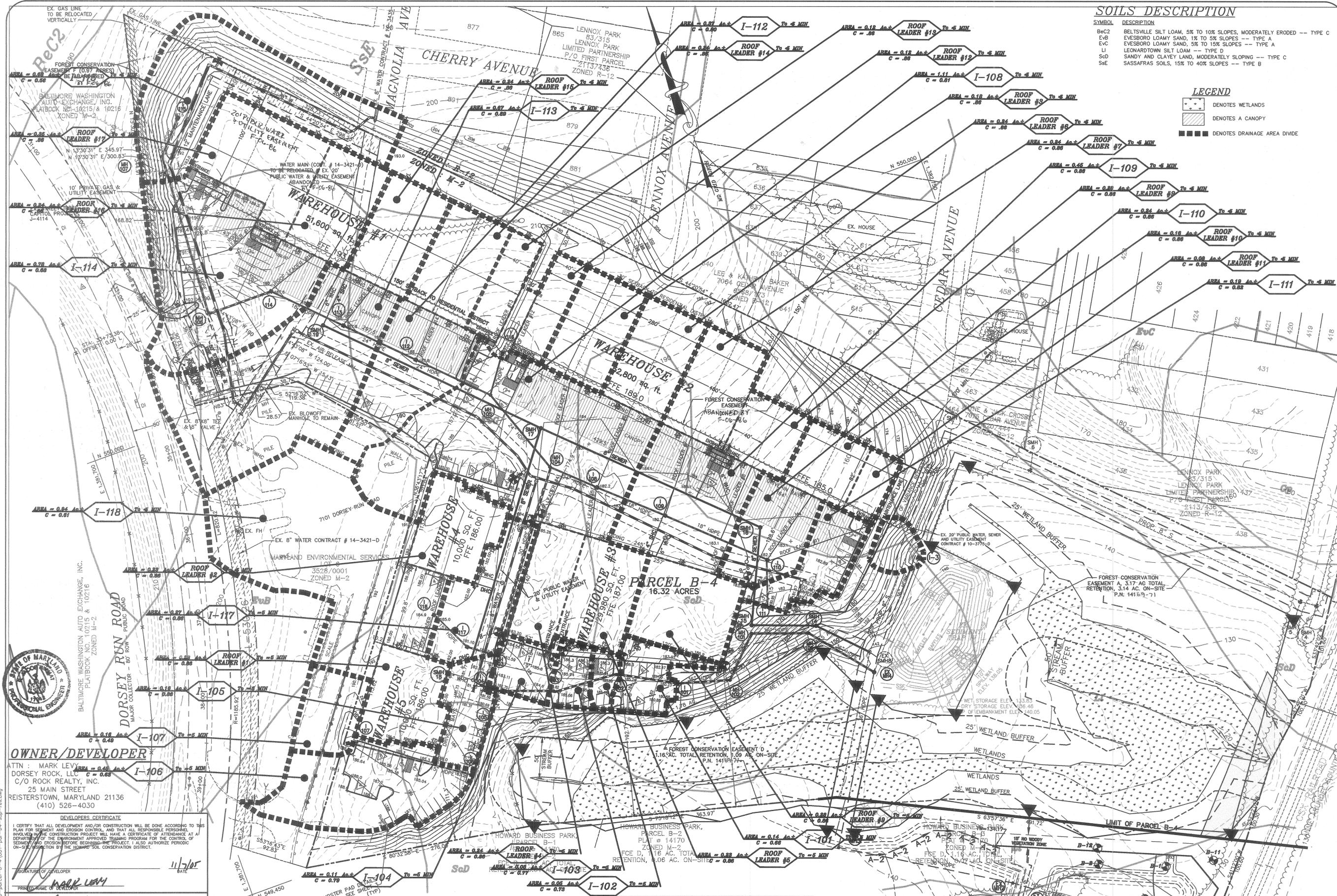
SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT. 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT LOCATION SHOWN. (1 DAY).



NOTE: RAILINGS NOT SHOWN FOR CLARITY. FOR ALL RAMPS WITH SLOPES GREATER THAN 5%, ADA APPROVED HANDRAILS WILL BE REQUIRED.

HOWARD BUSINESS PARK PARCEL B-4. TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12 HOWARD COUNTY, MARYLAND. FIRST ELECTION DISTRICT. REVISED SEDIMENT CONTROL NOTES & DETAILS. MILDENBERG, BOENDER & ASSOC., INC. 5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042 (410) 997-0296 Fax: (410) 997-0298 Fax.



SOILS DESCRIPTION

SYMBOL	DESCRIPTION
Bc2	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED --- TYPE C
Ev8	EVESBORO LOAMY SAND, 1% TO 5% SLOPES --- TYPE A
Evc	EVESBORO LOAMY SAND, 5% TO 15% SLOPES --- TYPE A
U	LEONARDTOWN SILT LOAM --- TYPE D
Sd	SANDY AND CLAYEY LOAM, MODERATELY SLOPING --- TYPE C
Sse	SASSAFRAS SOILS, 15% TO 40% SLOPES --- TYPE B

LEGEND

- DENOTES WETLANDS
- ▨ DENOTES A CANOPY
- DENOTES DRAINAGE AREA DIVIDE

OWNER/DEVELOPER
 ATTN: MARK LEVY
 DORSEY ROCK, L.L.C.
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030

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

DATE: 11/7/05
 SIGNATURE OF DEVELOPER: *Mark Levy*
 PRINTED NAME OF DEVELOPER: MARK LEVY

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS AN ACCURATE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.

DATE: 11/9/05
 SIGNATURE OF ENGINEER: *Jim Mcgarry*
 PRINTED NAME OF ENGINEER: JIM MCGARRY

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 DATE: 11/9/05
 SIGNATURE: *John K. White*
 HOWARD SOIL CONSERVATION DISTRICT

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 11/9/05
 SIGNATURE: *John K. White*
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/29/05
 SIGNATURE: *Carolyn Karmach*
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 12/6/05
 SIGNATURE: *David A. Loughlin*
 DIRECTOR

* THIS SWM POND IS TO BE CONSTRUCTED UNDER SDP-00-48

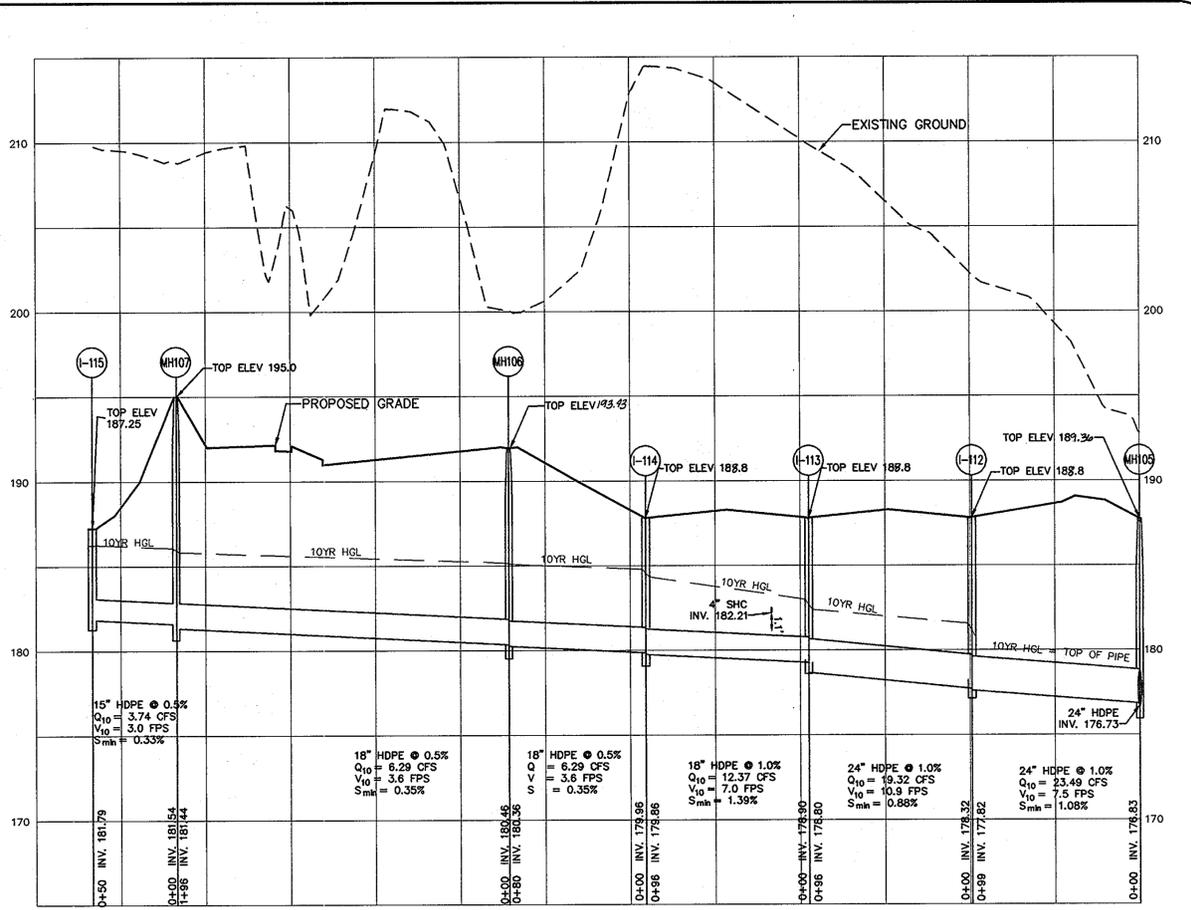
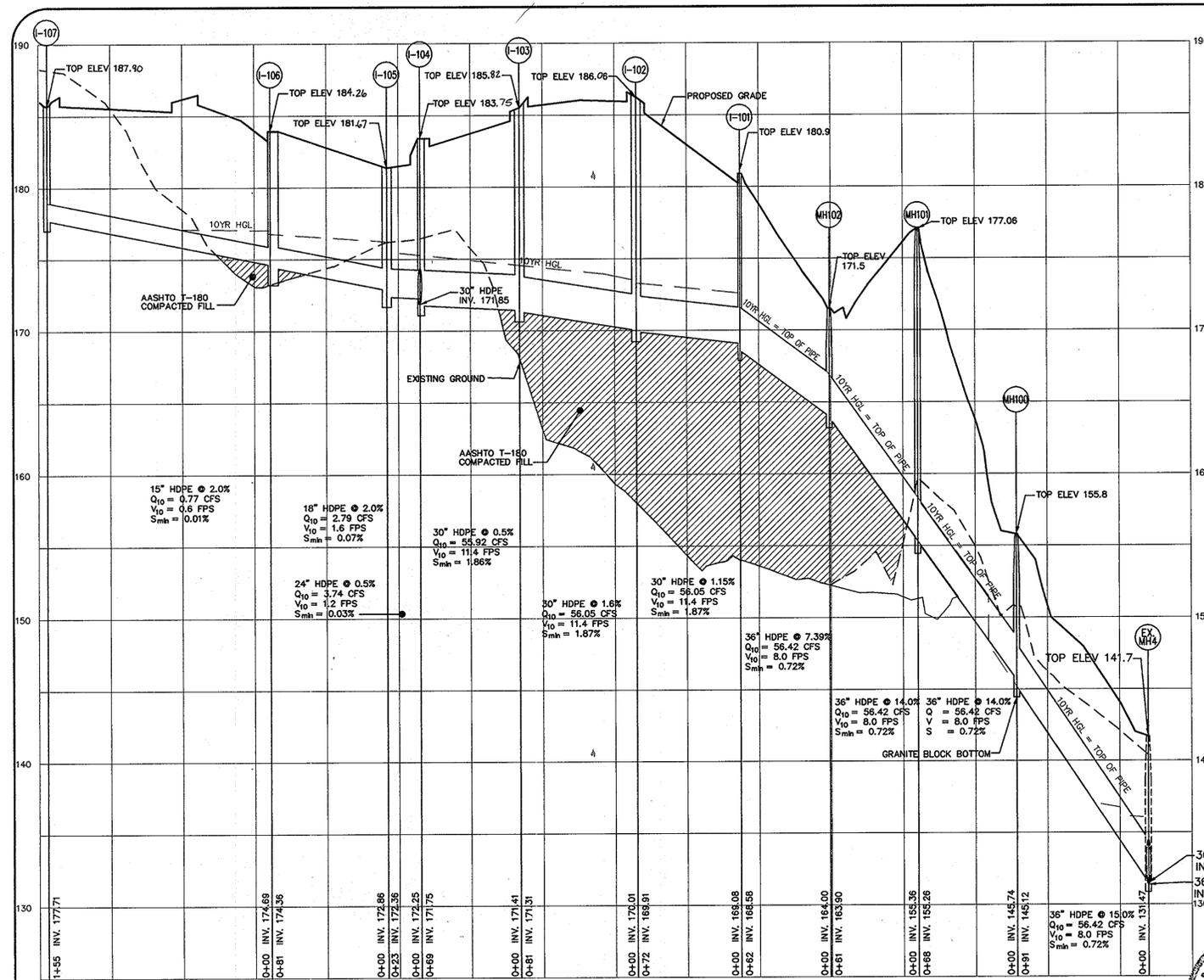
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Illustration	98001	illustration	98001
Scale	SID/HSP	scale	SID/HSP
Approval	1"=50'	approval	1"=50'

description	revisions

HOWARD BUSINESS PARK, PARCEL B-4
 7091 DORSEY RUN ROAD
 TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 INLET DRAINAGE AREA MAP

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hill Drive, Suite 202, Beltsville, Maryland 21042
 (410) 997-0236 Fax: (301) 621-5521 Wash. (410) 997-0238 Fax

4 OF 10
 SDP-05-73



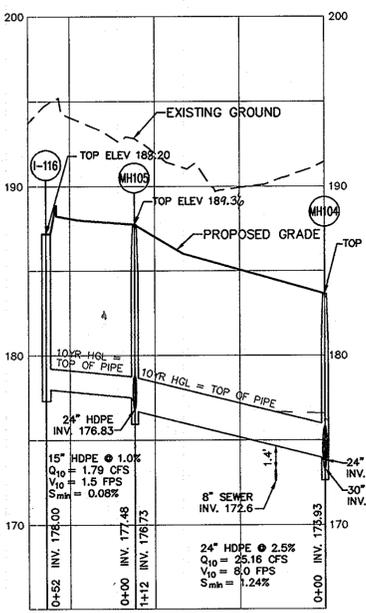
PIPE SCHEDULE

QUANTITY	PIPE SIZE
391'	15" HDPE
724'	18" HDPE
298'	24" HDPE
498'	30" HDPE
263'	36" HDPE
1052'	8" PVC

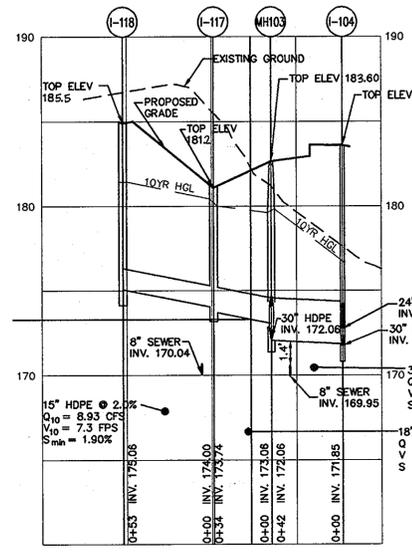
STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I-101	N 548,513.430 E 1,382,262.622	180.90	169.08	168.58	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-102	N 548,445.844 E 1,382,199.935	186.06	170.01	169.91	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-103	N 548,556.205 E 1,382,120.816	185.02	171.41	171.31	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-104	N 548,580.846 E 1,382,057.010	183.75	172.85	172.75	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-105	N 548,559.843 E 1,382,044.880	181.47	172.86	172.76	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-106	N 548,494.559 E 1,381,993.894	184.24	174.69	174.56	INLET TYPE A-10 (HO. CO. STD. S.D. 4.02)
I-107	N 548,580.456 E 1,381,868.676	182.90	177.71	177.61	INLET TYPE YARD (HO. CO. STD. S.D. 4.14)
I-108	N 548,765.065 E 1,382,252.904	182.20	174.65	174.55	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-109	N 548,705.756 E 1,382,317.710	183.20	175.19	175.09	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-110	N 548,614.311 E 1,382,414.724	183.20	176.11	176.01	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-111	N 548,562.326 E 1,382,296.259	181.45	176.39	176.29	INLET TYPE A-5 (HO. CO. STD. S.D. 4.01)
I-112	N 548,882.226 E 1,382,101.065	186.80	178.32	178.22	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-113	N 550,050.206 E 1,382,033.633	183.80	179.38	179.28	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-114	N 550,118.186 E 1,381,966.202	188.80	180.44	180.34	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-115	N 550,348.987 E 1,381,932.141	189.25	181.79	181.69	INLET TYPE YARD (HO. CO. STD. S.D. 4.14)
I-116	N 548,954.185 E 1,382,201.234	182.20	178.00	177.90	INLET TYPE YARD (HO. CO. STD. S.D. 4.14)
I-117	N 548,675.267 E 1,382,068.606	181.20	174.28	174.18	INLET TYPE S (HO. CO. STD. S.D. 4.22)
I-118	N 548,689.162 E 1,382,017.526	185.50	175.36	175.26	INLET TYPE S (HO. CO. STD. S.D. 4.22)
EX. MH 4	N 548,445.100 E 1,382,489.052	141.70	131.47	131.37	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 101	N 548,515.333 E 1,382,431.459	155.80	149.50	149.40	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 102	N 548,495.104 E 1,382,333.851	171.50	164.00	163.90	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 103	N 548,619.937 E 1,382,068.488	185.60	173.06	172.96	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 104	N 548,207.300 E 1,382,208.263	184.42	173.93	173.83	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 105	N 548,212.324 E 1,382,170.558	189.26	172.83	172.73	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 106	N 550,278.938 E 1,381,896.355	192.43	181.42	181.32	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)
MH 107	N 548,679.666 E 1,382,042.900	195.0	181.42	181.32	STANDARD MANHOLE (HO. CO. STD. S.D. 5.01)

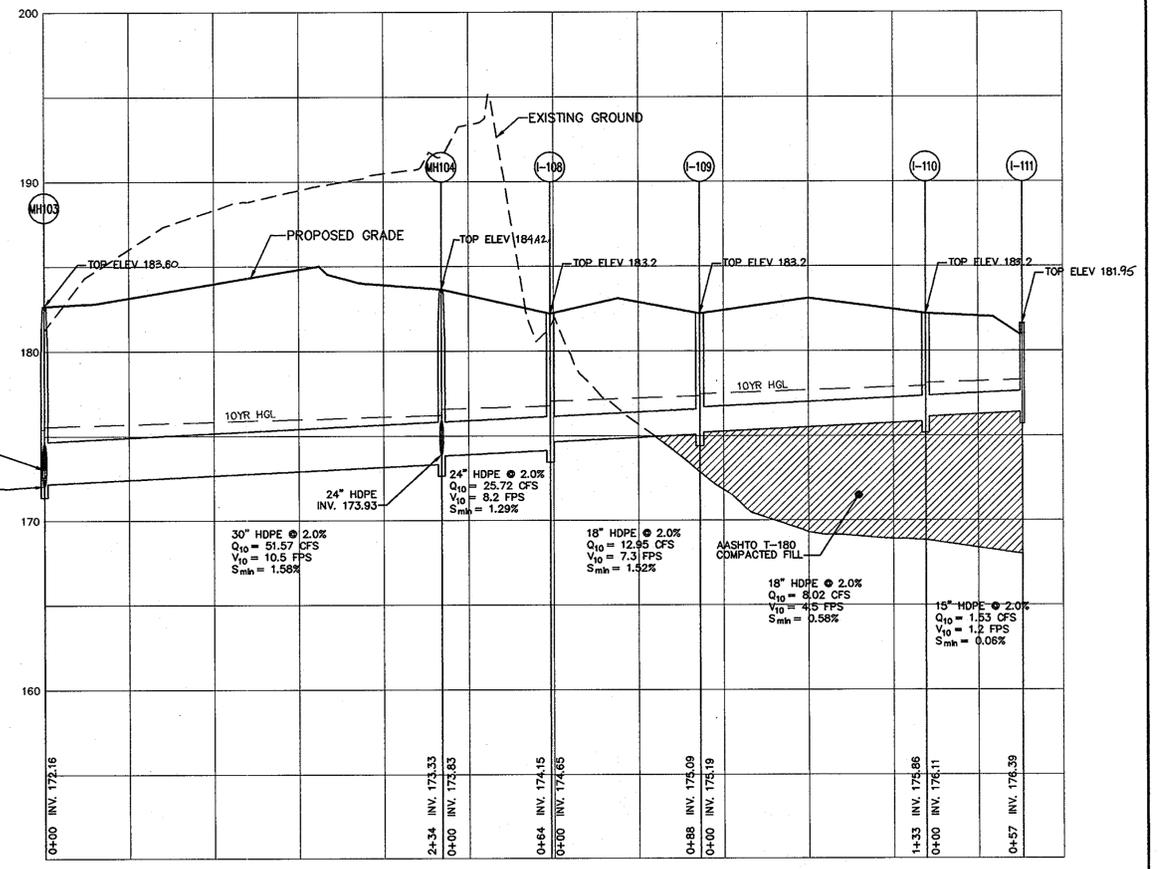
STORM DRAIN PROFILE - I-107 TO EX. MH 4
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - I-116 TO MH 104
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - I-118 TO I-104
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - MH 103 TO I-111
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/29/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 12/16/05
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 12/16/05
 DIRECTOR



project	date	NOV 2005
illustration	engineering	
scale	approval	
AS SHOWN	revisions	

no.	description	date

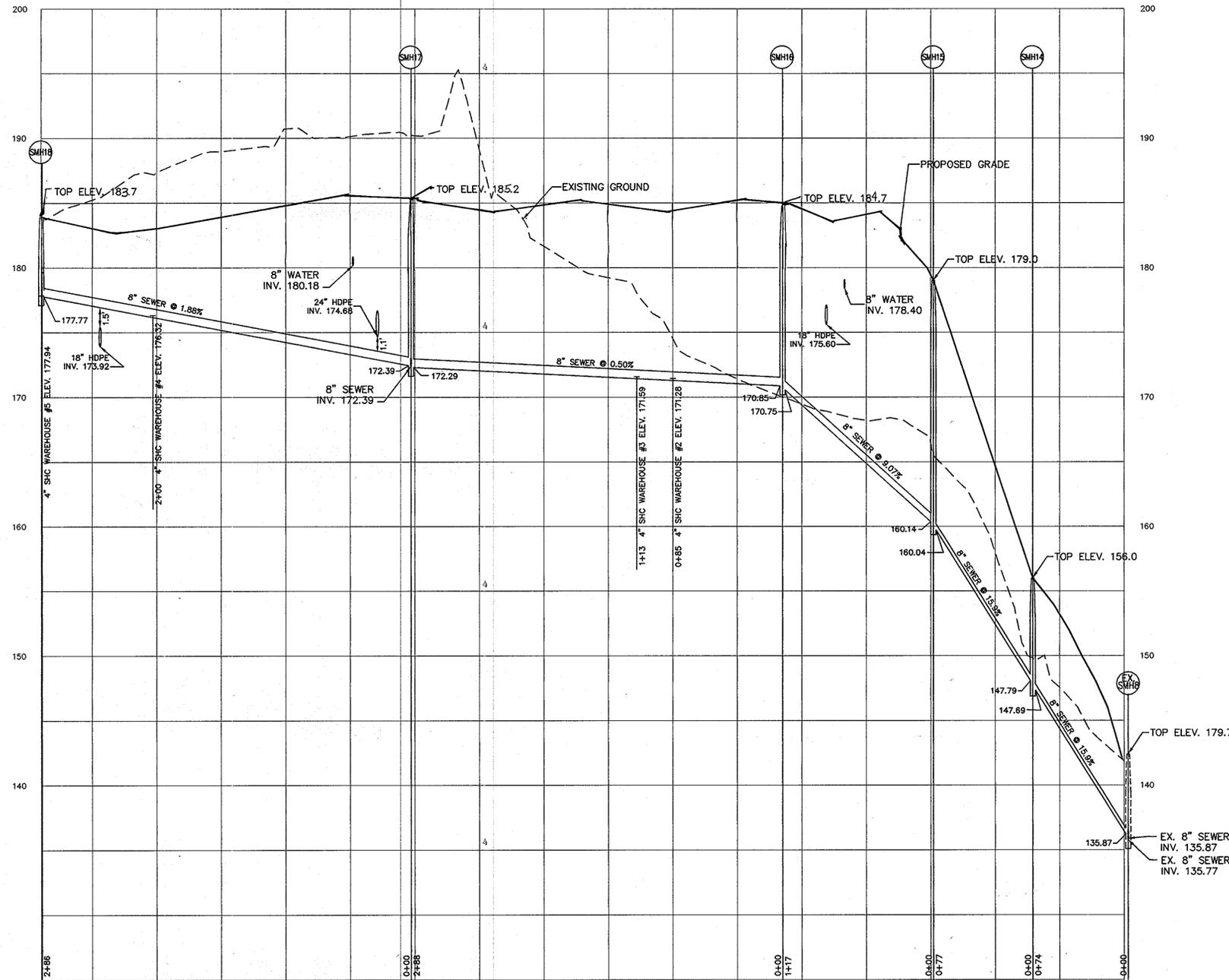
HOWARD BUSINESS PARK
 PARCEL B-4
 TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 STORM DRAIN PROFILES

MILDENBERG & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax. (301) 651-5521 Wash. (410) 997-0298 Fax.

STRUCTURE SCHEDULE

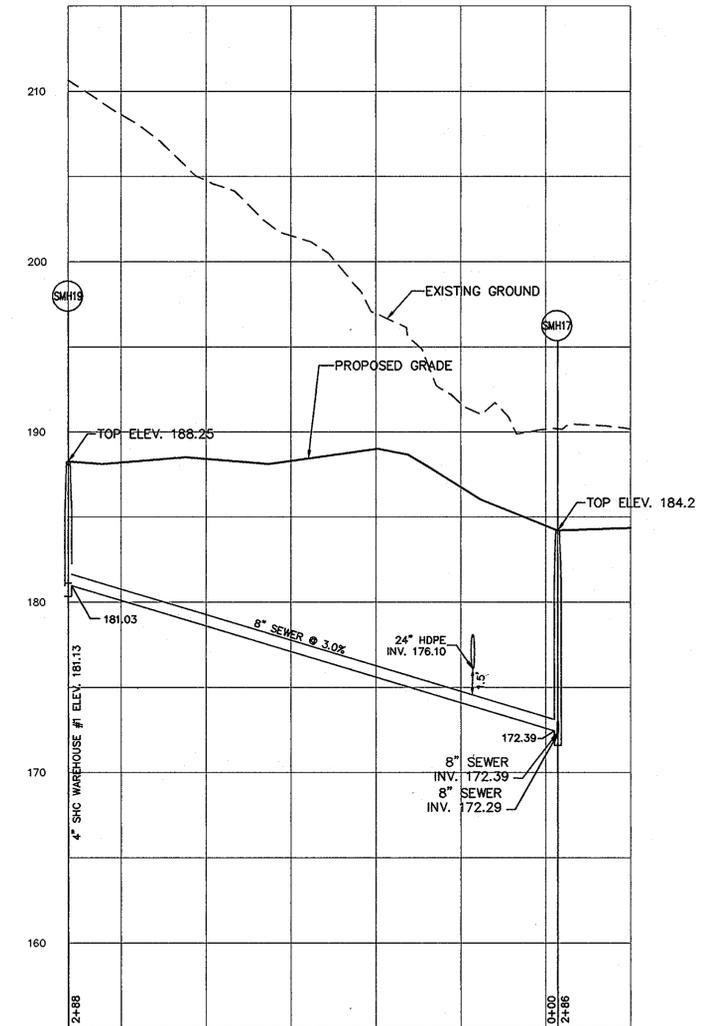
NO.	LOCATION*	
EX. SMH 8	N 549,469.504	E 1,382,492.249
SMH 14	N 549,520.888	E 1,382,442.655
SMH 15	N 549,547.793	E 1,382,370.504
SMH 16	N 549,653.712	E 1,382,419.956
SMH 17	N 549,854.675	E 1,382,213.661
SMH 18	N 549,625.165	E 1,382,042.456
SMH 19	N 550,058.976	E 1,382,010.863

* MANHOLE LOCATIONS BASED ON NAD' 83 COORDINATE SYSTEM AND ARE GIVEN TO CENTERLINE OF MANHOLE.



SEWER PROFILE - SMH 18 TO EX. SMH 8

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



SEWER PROFILE - SMH 18 TO SMH 17

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

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Mark D. Wight 11/29/05
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Chris Hamrick 12/16/05
 CHIEF, DIVISION OF LAND DEVELOPMENT
Mark D. Wight 12/16/05
 DIRECTOR

OWNER/DEVELOPER

ATTN : MARK LEVY
 DORSEY ROCK, LLC
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030



project	date	NOV 2005
88001	illustration	engineering
	scale	SJD/HSP
	revision	approval
	AS SHOWN	RJH

no.	description	date

HOWARD BUSINESS PARK
 PARCEL B-4 - BLOCK 12
 TAX MAP 43 - PARCEL 701 (B-4) - HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 SEWER PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0296 Fax. (301) 821-5521 Wash. (410) 987-0298 Fax.

EX. GAS LINE TO BE RELOCATED VERTICALLY

EX. FOREST CONSERVATION EASEMENT F (0.97 ACRES) TO BE ABANDONED

BALTIMORE WASHINGTON AUTO EXCHANGE, INC. PLATEBOOK NOS. 10215 & 10216 ZONED M-2

EX. STREET TREES CAPITOL PROJECTS J-4114

BALTIMORE WASHINGTON AUTO EXCHANGE, INC. PLATEBOOK NOS. 10215 & 10216 ZONED M-2



NOTE: THIS PLAN IS TO BE USED FOR LANDSCAPE PLAN PURPOSES ONLY.

- NOTES:
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (64 SHADE TREES & 164 EVERGREENS) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 23,800.00.
 - SWM LANDSCAPING IS NOT REQUIRED. SWM WAS PROVIDED UNDER SDP-00-48, HOWARD BUSINESS PARK, PARCELS B-1 THRU B-4.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/01/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 11/3/04
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 11/6/04
 DIRECTOR

OFFSITE LANDSCAPE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
15	[Symbol]	ACER RUBRUM 'RED SUNSET' OR EQUIVALENT	RED SUNSET RED MAPLE OR EQUIVALENT	2 1/2" - 3" CAL.
40	[Symbol]	PICEA ABIES	NORWAY SPRUCE	6' - 8' HT.
TOTAL		55 TREES (15 SHADE TREES, 40 EVERGREEN TREES)		

PERIMETER LANDSCAPE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
64	[Symbol]	ACER RUBRUM 'RED SUNSET' OR EQUIVALENT	RED SUNSET RED MAPLE OR EQUIVALENT	2 1/2" - 3" CAL.
74	[Symbol]	PICEA ABIES OR EQUIVALENT	NORWAY SPRUCE OR EQUIVALENT	6' - 8' HT.
90	[Symbol]	PINUS STROBUS OR EQUIVALENT	EASTERN WHITE PINE OR EQUIVALENT	6' - 8' HT.
TOTAL		228 TREES (64 SHADE TREES, 164 EVERGREEN TREES)		

LEGEND

- [Symbol] DENOTES WETLANDS
- [Symbol] DENOTES A CANOPY
- [Symbol] DENOTES PERIMETER LANDSCAPE EDGE

* THIS SWM POND IS TO BE CONSTRUCTED UNDER SDP-00-48

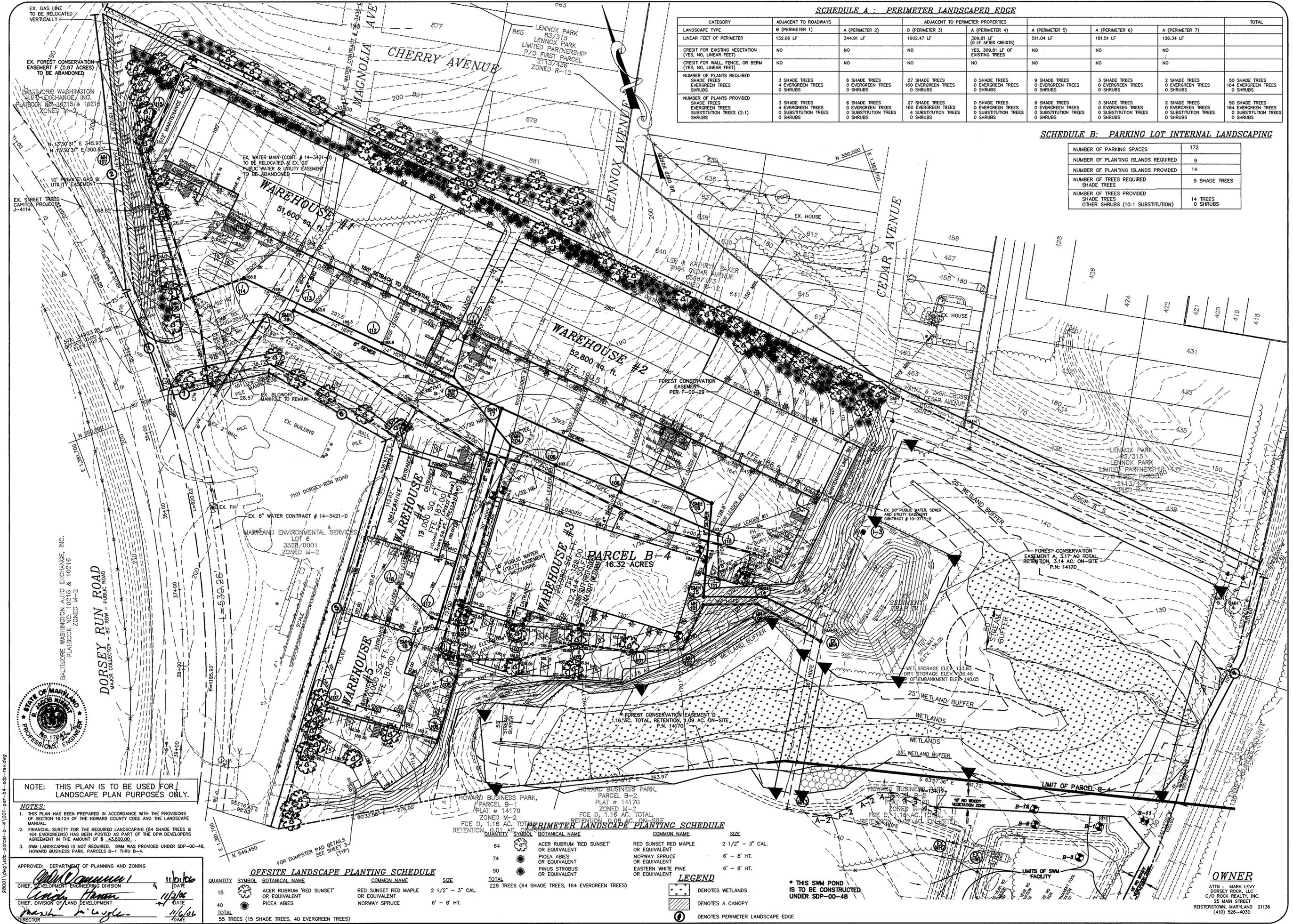
OWNER
 ATTN: MARK LEVY
 DORSEY ROOK, LLC
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030

SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES			TOTAL
	B (PERIMETER 1)	A (PERIMETER 2)	D (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	
LANDSCAPE TYPE	B (PERIMETER 1)	A (PERIMETER 2)	D (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	A (PERIMETER 7)
LINEAR FEET OF PERIMETER	132.06 LF	344.91 LF	1602.47 LF	309.81 LF (0 LF AFTER CREDITS)	511.04 LF	181.51 LF	126.34 LF
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	YES, 309.81 LF OF EXISTING TREES	NO	NO	NO
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	3 SHADE TREES 4 EVERGREEN TREES 0 SHRUBS	6 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	27 SHADE TREES 160 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	9 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED	3 SHADE TREES 4 EVERGREEN TREES 0 SUBSTITUTION TREES (2:1) 0 SHRUBS	6 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	27 SHADE TREES 160 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	9 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES 0 SHRUBS

SCHEDULE B: PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	172
NUMBER OF PLANTING ISLANDS REQUIRED	9
NUMBER OF PLANTING ISLANDS PROVIDED	14
NUMBER OF TREES REQUIRED	9 SHADE TREES
NUMBER OF TREES PROVIDED	14 TREES SHADE TREES: 0 OTHER SHRUBS (10:1 SUBSTITUTION): 0



project	date	description	revision
98001	OCT 2006	engineering	RIH
		illustration	
		SJD/HSP	
		scale	
		1"=50'	

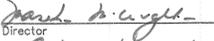
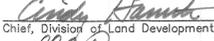
no.	description	date
2	ADD MEZZANINE TO BUILDING #4	9/07
1	RELOCATE ENTRANCE ON DORSEY RUN, REVERSE GRADING REVERSE BUILDING ENTRANCES, REVERSE LANDSCAPING	10/06

HOWARD BUSINESS PARK, PARCEL B-4
 7091 DORSEY RUN ROAD - BLOCK 12
 TAX MAP 43 - PARCEL 701 (B-4) - HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 REVISED LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Belkoott City, Maryland 21042
 (410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0298 Fax



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

 2/1/05
 Director Date
 12/1/05
 Chief, Division of Land Development Date
 11/2/05
 Chief, Development Engineering Division Date

HILLIS-CARNES
 ENGINEERING ASSOCIATES, INC.
 12011 Guilford Road, Suite 106 Annapolis Junction, Maryland 20701
 Bato, (410) 880-4788 D.C. (301) 470-4239 Fax (410) 880-4089

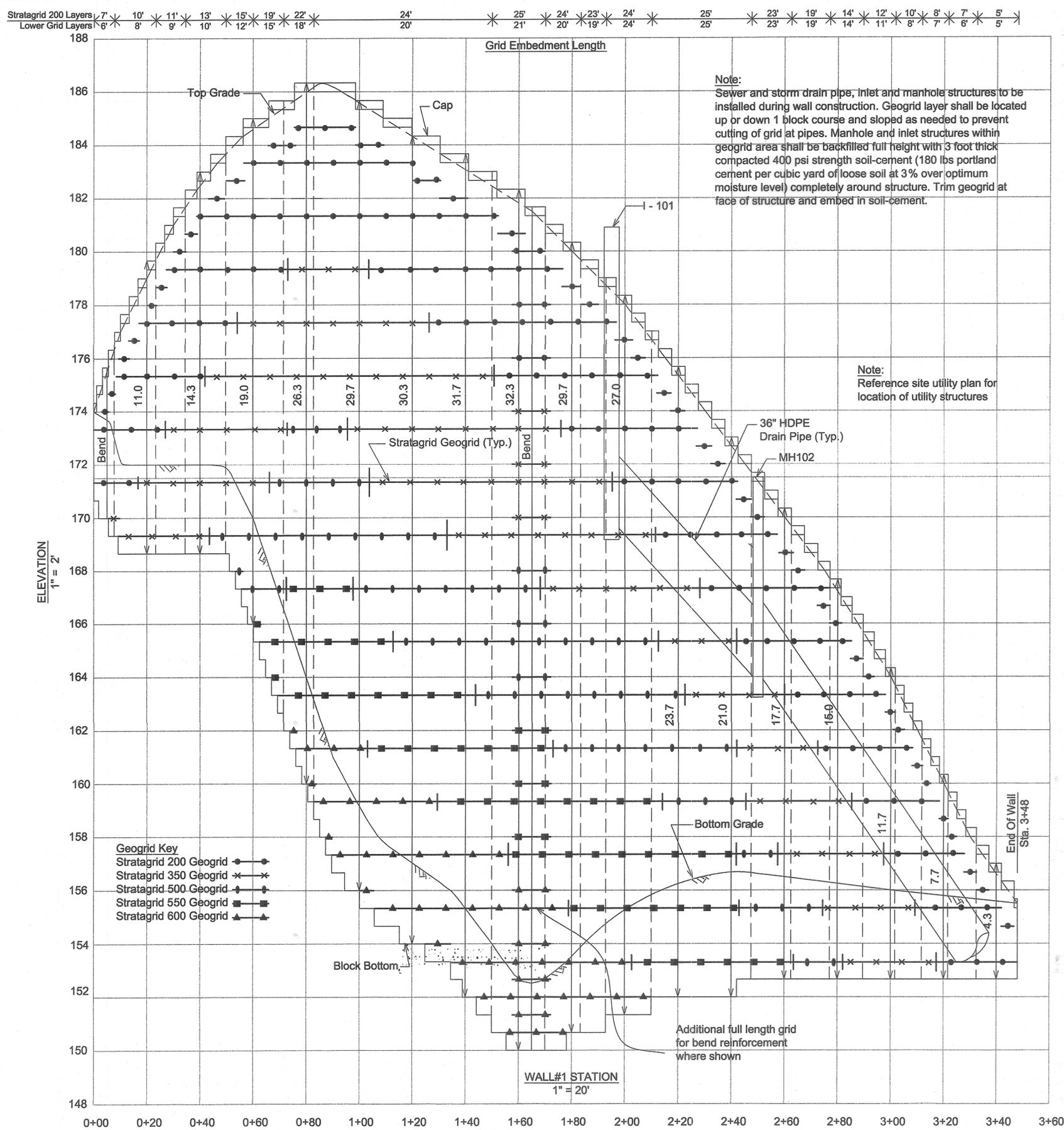
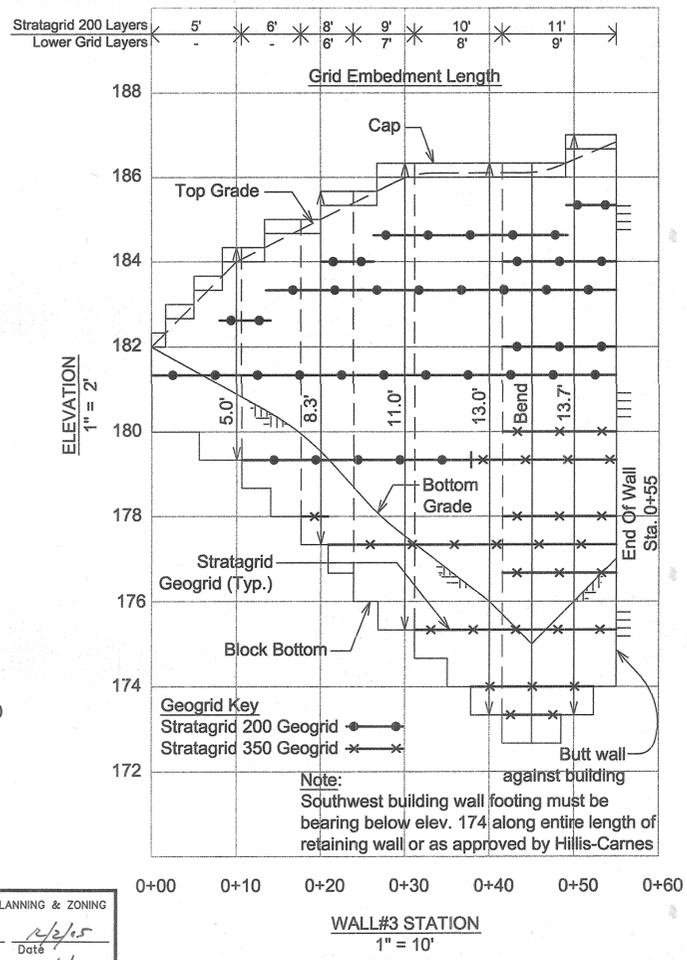
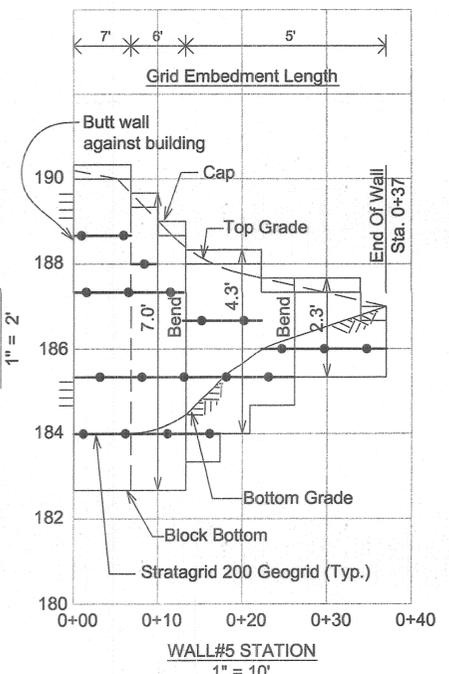
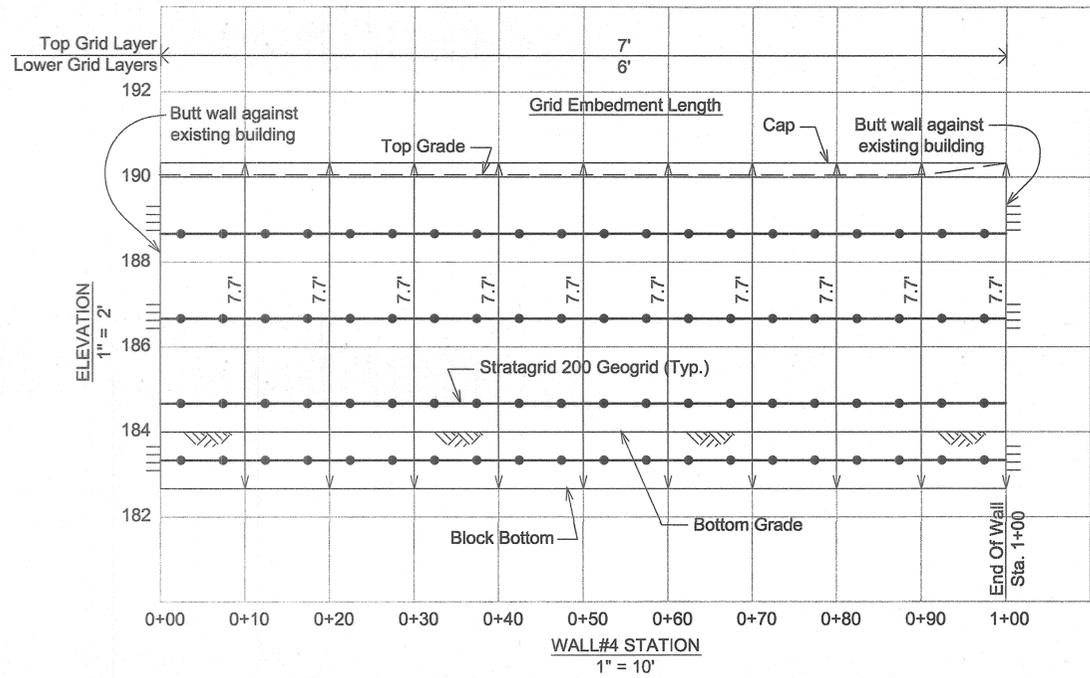
DES. RWS	DRN. AM	CHK. RMH	DATE	REVISION	BY	APPR.

PREPARED FOR:	RETAINING WALL LOCATION PLAN
ATtn: MARK LEVY DORSEY ROCK, LLC c/o ROCK REALTY, INC. 15 MAIN STREET REISTERSTOWN, MD 21138 410-526-4030	HOWARD BUSINESS PARK, PARCEL B-4 7091 DORSEY RUN ROAD TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12

FIRST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SCALE	ZONING	HCEA FILE No.
1" = 30'	M-2	04089-A
DATE	TAX MAP	SHEET
3/23/05	43	8 OF 10



Note:
Sewer and storm drain pipe, inlet and manhole structures to be installed during wall construction. Geogrid layer shall be located up or down 1 block course and sloped as needed to prevent cutting of grid at pipes. Manhole and inlet structures within geogrid area shall be backfilled full height with 3 foot thick compacted 400 psi strength soil-cement (180 lbs portland cement per cubic yard of loose soil at 3% over optimum moisture level) completely around structure. Trim geogrid at face of structure and embed in soil-cement.

Note:
Reference site utility plan for location of utility structures

Note:
Southwest building wall footing must be bearing below elev. 174 along entire length of retaining wall or as approved by Hillis-Carnes

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *David M. Wright* 12/15
 Chief, Division of Land Development: *Christa Hammett* 12/16
 Chief, Development Engineering Division: *John DeWitt* 11/24/05

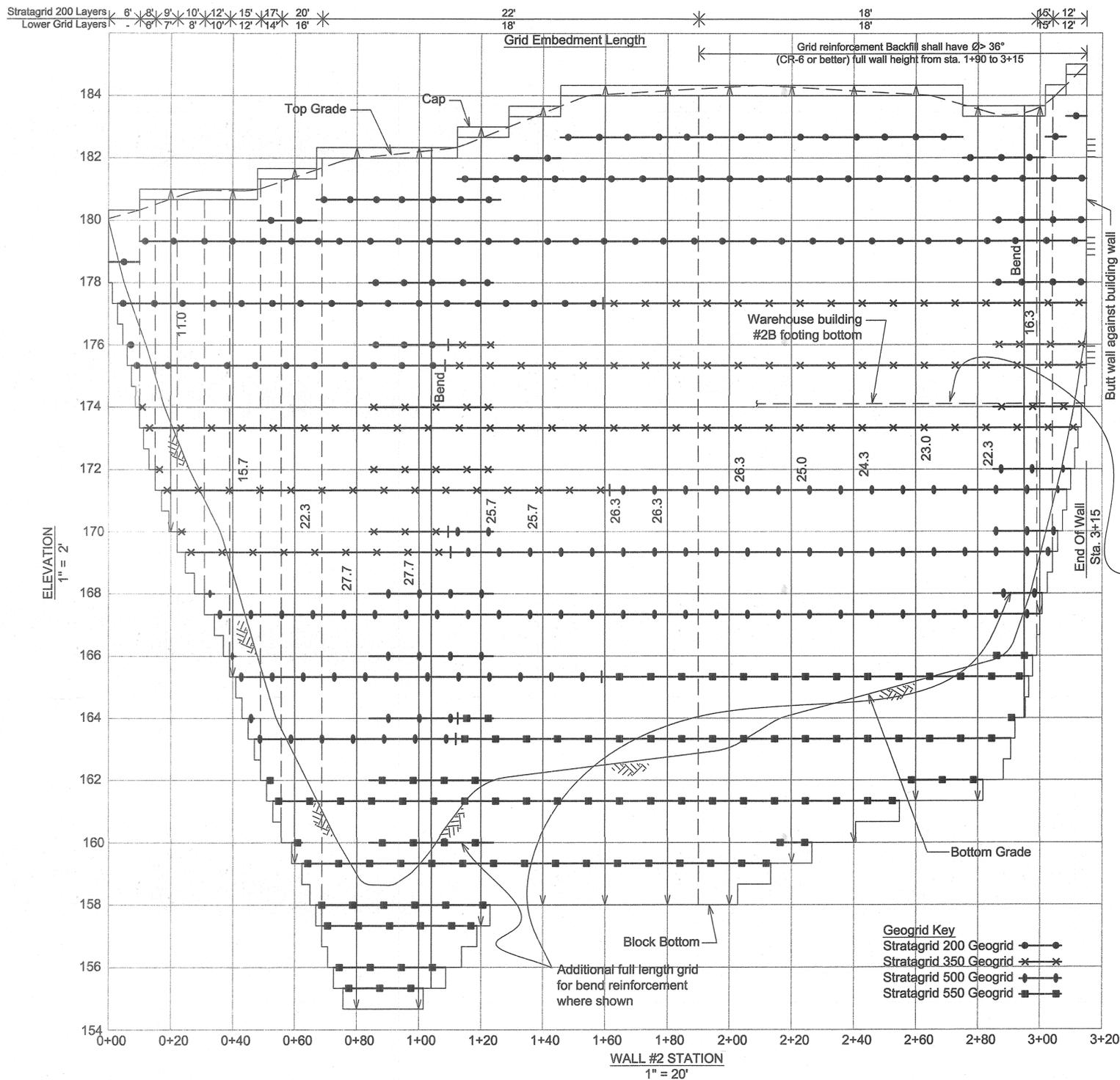
HILLIS-CARNES
 ENGINEERING ASSOCIATES, INC.
 12011 Guilford Road Suite 108 Annapolis Junction, Maryland 20701
 Bldg. (410) 880-4788 D.C. (301) 470-4239 Fax (410) 895-0398

DES.	RWS	DRN.	AM	CHK.	RMH	DATE	REVISION	BY	APP'R.

PREPARED FOR:
 ATTN: MARK LEVY
 DORSEY ROCK, LLC
 c/o ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MD 21136
 410-526-4030

RETAINING WALL ELEVATIONS
 HOWARD BUSINESS PARK, PARCEL B-4
 7091 DORSEY RUN ROAD
 TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	HCEA FILE No.
AS SHOWN	M-2	04089-A
DATE	TAX MAP	SHEET
3/23/05	43	9 OF 10



SPECIFICATIONS
KEYSTONE MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL
1.01 Description
 A. Work shall consist of furnishing and construction of a KEYSTONE Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
 B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
 C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

1.02 Delivery, Storage and Handling
 A. Contractor shall check all materials upon delivery to ensure that the proper type, grade, color, and certification has been received.
 B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS
2.01 Modular Concrete Retaining Wall Units
 A. Modular concrete units shall conform to the following architectural requirements:
 1. Unit color - concrete gray - standard manufacturer's color may be specified by the Owner.
 2. Face finish - sculptured rock face in angular 1/2-plane configuration. Other face finishes will not be allowed without written approval of Owner.
 3. Bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
 4. Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.
 B. Modular concrete materials shall conform to the requirements of ASTM C1222 - Standard Specifications for Segmental Retaining Wall Units.
 C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
 1. Compressive strength = 3000 psi minimum;
 2. Absorption = 8% maximum (6% in northern states) for standard weight aggregates;
 3. Dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough soil face, ± 1/16" unit height - top and bottom planes;
 4. Unit size - 8" (H) x 16" (W) x 16" (D) minimum;
 5. Unit weight - 100 lbs/minimum for standard weight aggregates;

aggregates;
 6. Inter-unit shear strength - 1000 psi minimum at 2 psi normal pressure;
 7. Geogrid/Unit peak connection strength - 1000 psi minimum at 2 psi normal force.
 D. Modular concrete units shall conform to the following constructability requirements:
 1. Vertical setback = 1/8" per course (near vertical) or 1" per course per the design;
 2. Alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
 3. Maximum horizontal gap between erected units shall be 1/2 inch.

2.02 Shear Connectors
 A. Shear connectors shall be 1/2 inch diameter thermoset isophthalic polyester resin-protected fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units.
 B. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F.
 C. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material
 A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill
 A. Unit drainage fill shall consist of #57 crushed stone.
 B. One cubic foot, minimum, of drainage fill shall be used for each square foot of wall face. Drainage fill shall be placed within cores of, between, and behind units to meet this requirement.

2.05 Reinforced Backfill
 A. Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

sieve size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-30
No. 200	0-40

 B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement
 A. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 B. Geogrid reinforcement shall be manufactured from high tenacity polyester yarn.
 C. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 D. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 E. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 F. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 G. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
 H. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
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2.07 Drainage Pipe
 A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3: EXECUTION

3.01 Excavation
 A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad
 A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
 B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation
 A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
 B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
 C. Install shearcoupling devices per manufacturer's recommendations.
 D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.
 E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

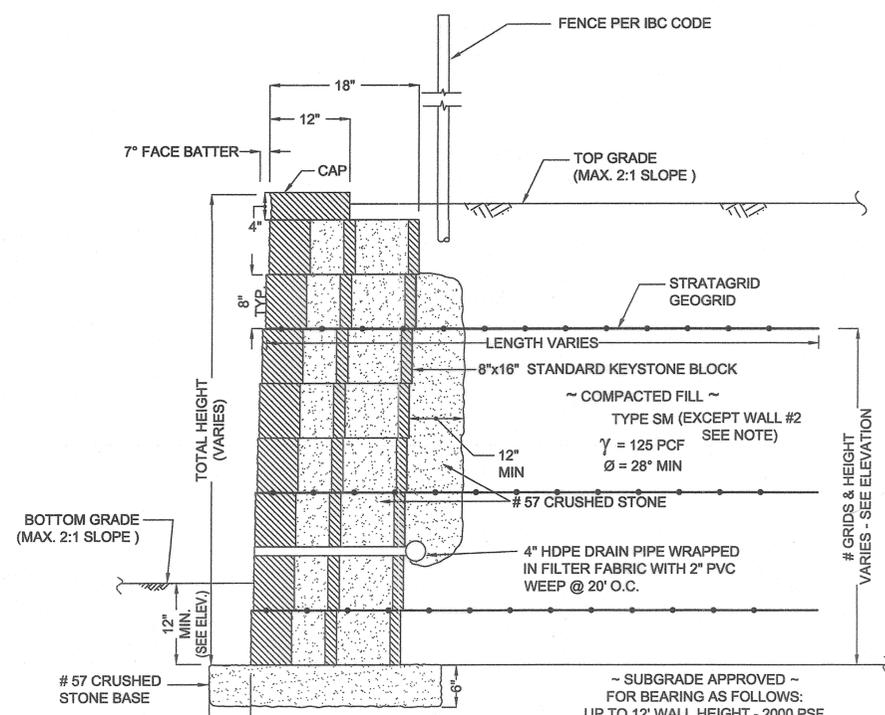
3.04 Structural Geogrid Installation
 A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.
 B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
 C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to

backfill placement on the geogrid.
 D. Geogrid reinforcement shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.
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3.05 Reinforced Backfill Placement
 A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of streak in the geogrid and installation damage.
 B. Reinforced backfill shall be placed and compacted in lifts not to exceed 9 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.
 C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be 3% to 3% of optimum.
 D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.
 E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning shall be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
 F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
 G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

3.06 Cap Installation
 A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control
 A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.
 B. As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.



TYPICAL SECTION
 N.T.S.

- NOTES:**
- 1.) No trees shall be planted within 10 feet of the top of the retaining wall.
 - 2.) Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
 - 3.) The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
 - 4.) The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.
 - 5.) One soil boring is required every one hundred feet along the length of the wall. Copies of the boring reports shall be provided to the Howard County Inspector prior to the start of the construction.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *Mark A. Wright* Date: 12/15/05

Chief, Division of Land Development: *Chris Hamstra* Date: 12/15/05

Chief, Development Engineering Division: *John J. Williams* Date: 11/23/05

HILLIS-CARNES
 ENGINEERING ASSOCIATES, INC.
 12011 Guilford Road Suite 106 Annapolis Junction, Maryland 20701
 Tel: (410) 880-4788 Fax: (410) 880-4228

DES. RWS	DRN. AM	CHK. RMH	DATE	REVISION	BY	APP'R.

PREPARED FOR:

ATTN: MARK LEVY
 DORSEY ROCK, LLC
 c/o ROCK REALTY, INC.
 25 MAIN STREET
 RESTERTON, MD 21136
 410-526-4030

RETAINING WALL ELEVATION & CONSTRUCTION DETAILS

HOWARD BUSINESS PARK, PARCEL B-4
 7091 DORSEY RUN ROAD
 TAX MAP 43 - PARCEL 701 (B-4) - BLOCK 12

SCALE: AS SHOWN
 DATE: 3/23/05

ZONING: M-2
 TAX MAP: 43

HCEA FILE No.: 04089-A
 SHEET: 10 OF 10

FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND