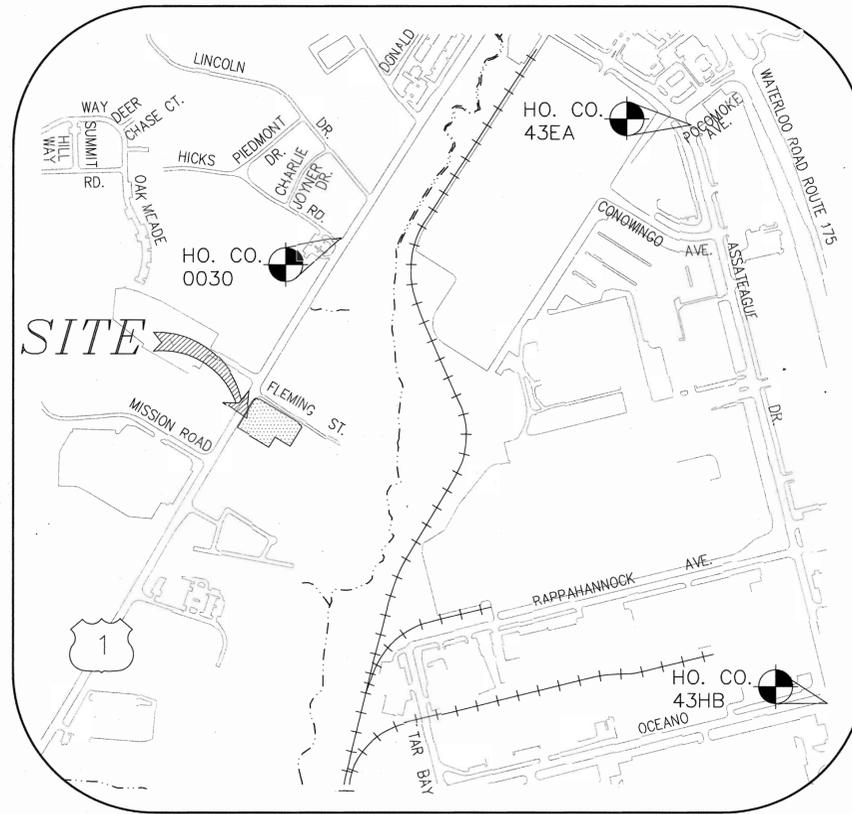


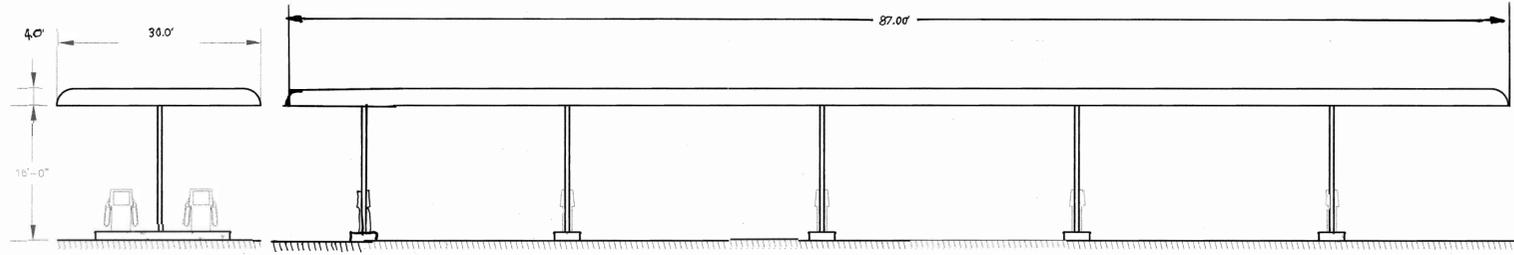
SITE DEVELOPMENT PLAN FUELMAN STATION SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SHEET INDEX	
1	COVER SHEET
2	GRADING AND SEDIMENT CONTROL
3	SEDIMENT CONTROL NOTES & DETAILS
4	STORMWATER MANAGEMENT DETAILS
5	STORMWATER MANAGEMENT DETAILS
6	SWM SPECIFICATIONS & BORINGS
7	STORMDRAIN PROFILES
8	SHA TRAFFIC CONTROL PLAN
9	DRAINAGE AREA AND SOILS MAP
10	FOREST CONSERVATION & LANDSCAPE PLAN

OWNER
JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030



VICINITY MAP
SCALE: 1"=500'

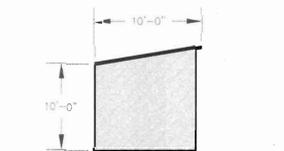


CANOPY SIDE ELEVATION

CANOPY FRONT ELEVATION

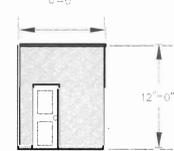
N.T.S.

N.T.S.



SHED SIDE ELEVATION

SCALE: 1"=10'



SHED FRONT ELEVATION

SCALE: 1"=10'

GENERAL NOTES

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

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	(410) 725-9976
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 INSPECTION DIVISION	(410) 313-1880
4. PROJECT BACKGROUND:
LOCATION: SIXTH ELECTION DISTRICT, TAX MAP 43, PARCEL 541
ZONING: M-2
TOTAL TRACT AREA: 1.40 ACRES ±
PROPOSED USE: GASOLINE SERVICE STATION
REQUIRED PARKING: GASOLINE SERVICE STATIONS WITHOUT SERVICE BAYS
PROPOSED PARKING: 3 SPACES
DPZ REFERENCE #: SDP-02-66, F-03-05
5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHIC SURVEY PERFORMED BY WINGS AERIAL MAPPING CO. INC. ON OR ABOUT NOVEMBER 1999. BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT MAY 1999 BY MILDENBERG, BOENDER & ASSOCIATES, INC.
6. HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

STA. No. 0030	N 545,924.889	ELEV. 217.50
	E 1,371,561.686	
STA. No. 43EA	N 546,594.000	ELEV. 242.88
	E 1,373,621.745	
STA. No. 43HB	N 543,166.776	ELEV. 252.31
	E 1,374,425.020	
7. WATER IS PUBLIC. WATER TO BE SERVICED BY CONTRACT# 76-W.
8. TRAFFIC IMPACT ANALYSIS PREPARED BY MARS TRAFFIC GROUP ON OR ABOUT DECEMBER 2001.
9. FOREST STAND DELINEATION PREPARED BY WILDMAN ENVIRONMENTAL SERVICES ON OR ABOUT DECEMBER 2001.
10. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
11. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
12. NO STEEP SLOPES EXIST ON-SITE.
13. NO WETLANDS EXIST ON-SITE PER WETLAND DELINEATION PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC. ON MAY 11, 2000.
14. NO FLOODPLAIN EXISTS ON-SITE.
15. NO CEMETERY OR HISTORIC STRUCTURES EXIST ON-SITE.
16. PROPERTY IS NOT ADJACENT TO ANY SCENIC ROADS.
17. STORMWATER MANAGEMENT DESIGN WAS DONE IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II. WATER QUALITY CONTROL WILL BE PROVIDED BY MEANS OF A PRIVATELY MAINTAINED BIOTENTION FACILITY AND STORMCEPTOR STC 900 OR EQUAL OIL-GRIT SEPARATOR. QUANTITY CONTROL FOR THE CPV WILL BE PROVIDED BY MEANS OF A PRIVATELY MAINTAINED EXTENDED DETENTION POND. NO QUANTITY CONTROL IS REQUIRED FOR THE 10-YR AND 100-YR STORMS.
18. FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.200 OF HOWARD COUNTY FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OR CONSERVATION EASEMENT ARE ALLOWED.
19. THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION OF 0.18 ACRES OF FOREST AND PAYMENT OF A FEE-IN-LIEU OF REFORESTATION FOR 0.35 ACRES (15,246.0 SQ. FT.) IN THE AMOUNT OF \$7,623.00. FINANCIAL SURETY FOR THE ON-SITE RETENTION (0.18 ACRES OR 7,840.80 SQ.FT.) IN THE AMOUNT OF \$1,568.16 HAS BEEN POSTED AS PART OF THE DEVELOPERS AGREEMENT.
20. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
21. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT FOR THE REQUIRED LANDSCAPE PLANTINGS (4 STREET TREES, 13 SHADE TREES & 13 EVERGREENS) IN THE AMOUNT OF \$7,050.00.
22. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE STREAM, STREAM BUFFER, FOREST CONSERVATION EASEMENT AREAS.
23. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF HOWARD COUNTY ZONING REGULATIONS SECTION 134.
24. ON JANUARY 8, 2002, THE HOWARD COUNTY BOARD OF APPEALS, ORDERED UNDER BA-00-35E: THAT THE AMENDED PETITION OF FUELMAN, INC., 1/8 FUELMAN, PETITIONER, FOR A SPECIAL EXCEPTION FOR A FLEET GASOLINE STATION IN AN M-2 (MANUFACTURING; HEAVY) ZONING DISTRICT, BE GRANTED SUBJECT TO THE FOLLOWING CONDITIONS:
 - 1) THE SPECIAL EXCEPTION SHALL APPLY ONLY TO THE PROPOSED SELF-SERVICE FLEET FUELING STATION AS DESCRIBED IN THE PETITION AND AS DEPICTED ON THE AMENDED PLAN FOR "FUELMAN STATION" SUBMITTED ON JANUARY 6, 2001, AND NOT TO ANY OTHER ACTIVITIES, USES, STRUCTURES, OR ADDITIONS TO THE PROPERTIES.
 - 2) THE OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 134 OF THE ZONING REGULATIONS AND ANY CANOPY LIGHTING SHALL BE DESIGNED TO BE SHIELDED AND DIRECTED TO MINIMIZE GLARE AND SPILLOVER OF LIGHT BEYOND THE CANOPY AREA.
 - 3) PROVIDE AN INSIDE PRIVATE WATER METER PER HO. CO. REQUIREMENTS IN COORDINATION WITH THE HOWARD COUNTY BUREAU OF UTILITIES.

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
PARCEL B P/O PARCEL 541	8161 WASHINGTON BLVD., JESSUP, MD 20794

PERMIT INFORMATION CHART				
PROJECT NAME FUELMAN STATION	SECTION/AREA N/A	LOT/PARCEL # PARCEL B / P/O PARCEL 541		
PLAT # 15569	BLOCK # 14	ZONE M-2	TAX MAP 43	ELEC. DIST. CENSUS TRACT SIXTH 6069.01
WATER CODE B-02	SEWER CODE N/A			
PROPOSED IMPROVEMENTS: FUEL STATION CONSTRUCTION AND ASSOCIATED IMPROVEMENTS				

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

Signature: *Mark Levy* DATE: 8/13/02
MARK LEVY, JESSUP ROCK, LLC
PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *Mark A. Perry* DATE: 8/19/02
MARK A. PERRY
PRINTED NAME OF ENGINEER

Signature: *Jim Magnus* DATE: 9/13/02
USDA - NATURAL RESOURCE CONSERVATION SERVICE

Signature: *John R. Rhoton* DATE: 9/13/02
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature: *Chris Deamann* DATE: 8/16/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Signature: *Andy Farnsworth* DATE: 9/20/02
CHIEF, DIVISION OF LAND DEVELOPMENT
Signature: *Joseph Smith* DATE: 9/24/02
DIRECTOR



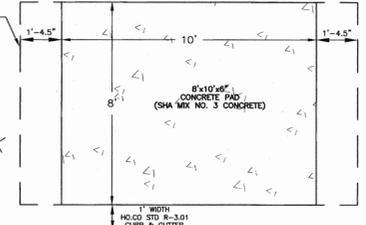
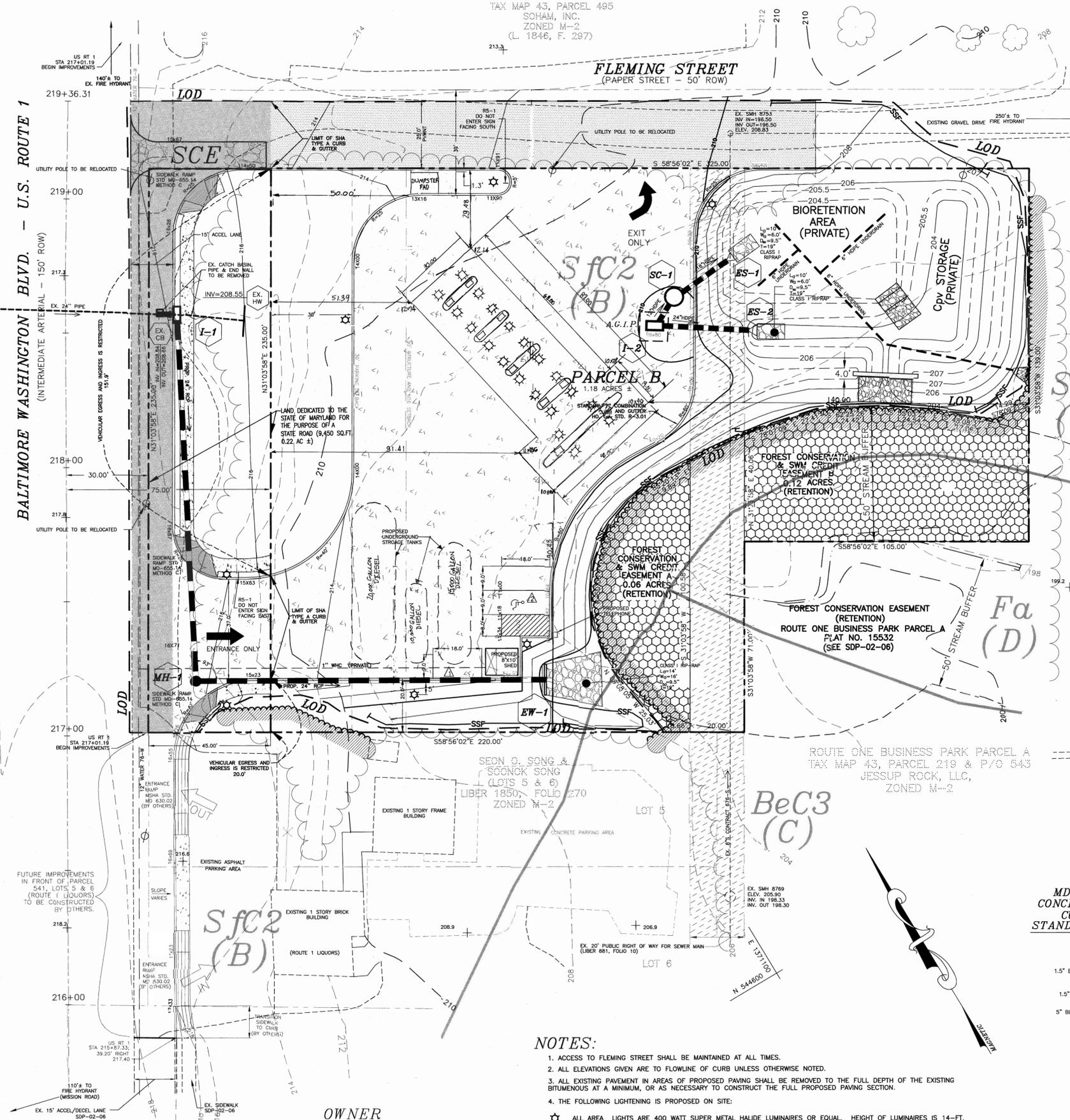
PROJECT #	00-049
DATE	AUG 2002
DESCRIPTION	Engineering
MAP	MAP
SCALE	AS SHOWN
DATE	10/4/04

CHANGES TO CANOPY AND SIDE ELEVATIONS	DATE
	10/4/04

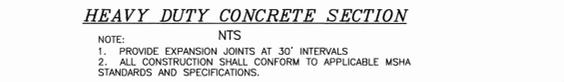
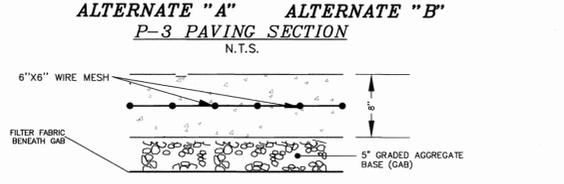
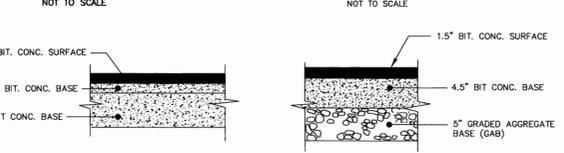
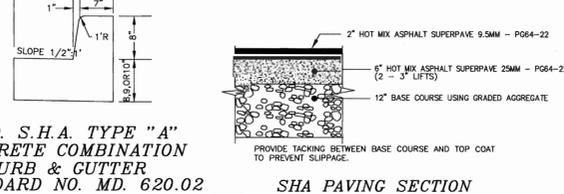
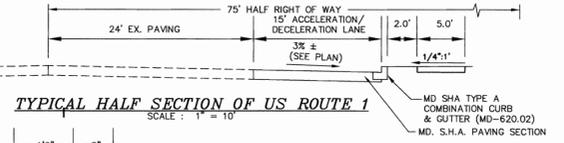
FUELMAN STATION
TAX MAP 43 - GRID 14 - PARCEL B P/O PARCEL 541
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COVER SHEET

**MILDENBERG,
BOENDER & ASSOC., INC.**
Engineers Planners Surveyors
5072 Dorsy Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0286 Fax (301) 821-5321 Wash. (410) 997-0286 Fax

TAX MAP 43, PARCEL 485
 SCHAM, INC.
 ZONED M-2
 (L. 1846, F. 297)



- LEGEND**
- AREA OF PROPOSED SHA PAVING SECTION (SEE DETAIL BELOW)
 - AREA OF PROPOSED P-3 PAVING SECTION (H&C. STD. R-3.01)
 - HEAVY DUTY CONCRETE PAVING SECTION (SEE DETAIL BELOW)
 - FOREST CONSERVATION EASEMENT (RETENTION)
 - GABION MATTRESS (SWM FACILITY)
 - ROCK OUTLET PROTECTION
 - PROPOSED TREELINE
 - SUPER SILT FENCE
 - LIMIT OF DISTURBANCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - AT-GRADE INLET PROTECTION
 - EXISTING SPOT ELEVATION
 - PROPOSED SPOT ELEVATION



- NOTES:**
- ACCESS TO FLEMING STREET SHALL BE MAINTAINED AT ALL TIMES.
 - ALL ELEVATIONS GIVEN ARE TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED.
 - ALL EXISTING PAVEMENT IN AREAS OF PROPOSED PAVING SHALL BE REMOVED TO THE FULL DEPTH OF THE EXISTING BITUMENOUS AT A MINIMUM, OR AS NECESSARY TO CONSTRUCT THE FULL PROPOSED PAVING SECTION.
 - THE FOLLOWING LIGHTENING IS PROPOSED ON SITE:
 - ALL AREA LIGHTS ARE 400 WATT SUPER METAL HALIDE LUMINAIRES OR EQUAL. HEIGHT OF LUMINAIRES IS 14-FT. AREA LIGHTS ARE FULL CUTOFF SUCH THAT NO DIRECT LIGHT IS EMITTED ABOVE THE PLANE HORIZONTAL TO THE GROUND THROUGH THE LOWEST PART OF THE LIGHT, AS REQUIRED IN SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. HORIZONTAL LOCATION OF AREA LIGHTS IS AS SHOWN ON THE PLAN ABOVE.
 - ALL CANOPY LIGHTS ARE SCOTTSDALE METAL HALIDE REDUCED 400 WATT LUMINAIRES OR EQUAL. HEIGHT OF LUMINAIRES IS 16-FT. APPROXIMATE HORIZONTAL LOCATION OF CANOPY LIGHTS IS AS SHOWN ON THE PLAN ABOVE.

OWNER
 JESSUP ROCK, LLC.
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MD 21136
 (410) 526-4030

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

Signature of Developer: *[Signature]* Date: 8/19/02
 Mark Levy, Jessup Rock, LLC
 PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Engineer: *[Signature]* Date: 9/19/02
 MAET A. PEKRY
 PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY NATURAL RESOURCE CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *[Signature]* Date: 9/13/02
 JIM MYERS
 USF - NATURAL RESOURCE CONSERVATION SERVICE

Signature: *[Signature]* Date: 9/13/02
 JOHN R. BLANTON
 HOWARD COUNTY NATURAL RESOURCE CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Signature: *[Signature]* Date: 2/10/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: *[Signature]* Date: 7/20/02
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *[Signature]* Date: 2/21/02
 DIRECTOR

PROJECT: AUG 2002
 DRAWING NO: 00-049
 SHEET: MAP
 SCALE: 1" = 20'

REVIEWED THE SIZE AND LOCATION OF THE CANOPY LIGHTS AND LIGHT FIXTURES

DATE: 8/19/02

PROJECT: FUELMAN STATION
 TAX MAP 43, GRID 14 - PARCEL B P/O PARCEL 541
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

GRADING & SEDIMENT CONTROL

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

2 OF 10
 SDP-02-66

TAX MAP 43, PARCEL 495
SCHAM, INC.
ZONED M-2
(L. 1846, F. 297)

FLEMING STREET
(PAPER STREET - 50' ROW)

NOTE: THIS DRAWING IS TO BE USED FOR FOREST CONSERVATION AND LANDSCAPE PLAN PURPOSES ONLY.

- NOTE:
- THE FOREST CONSERVATION REQUIREMENTS PER SECTION 16.1202 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETENTION OF 0.18 ACRES OF FOREST AND PAYMENT OF A FEE-IN-LIEU OF REFORESTATION FOR 0.35 ACRES (15,246.0 SQ. FT.) IN THE AMOUNT OF \$7,823.00. FINANCIAL SURETY FOR THE ON-SITE RETENTION (0.18 ACRES OR 7,840.8 SQ. FT.) IN THE AMOUNT OF \$1,568.16 HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
 - THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE, FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
 - THE PROPOSED FOREST CONSERVATION EASEMENT A IS CONTIGUOUS WITH THE PROPOSED FOREST CONSERVATION EASEMENTS ON ROUTE ONE BUSINESS PARK, SDP-02-06.
 - 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 (4 STREET TREES, 13 SHADE TREES, 13 EVERGREENS) HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,050.00.
 - STORMWATER MANAGEMENT LANDSCAPING IS NOT REQUIRED AROUND THE BIORETENTION FACILITY. LANDSCAPING HAS ONLY BEEN SHOWN AROUND THE CPV STORAGE POND.

GENERAL NOTES

- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL-ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
 - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT BEING PROTECTED BY THE FOREST PROTECTION DEVICES.
 - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCING BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
 - ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
 - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
 - THE GENERAL CONTRACTOR SHALL PROTECT CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS, REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
 - THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. SUCH DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE TAKE PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPREMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTIVE DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS FEES/TIMES.

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

NOTE:

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

FOREST CONSERVATION DATA

ITEM	ACRES
I. BASIC SITE DATA	
GROSS SITE AREA	1.40
AREA WITHIN 100 YEAR FLOODPLAIN	0.00
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
NET TRACT AREA	1.40
LAND USE CATEGORY	COMM/IND/OFFICE
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY	
B. REFORESTATION THRESHOLD (15%)	0.21
C. AFFORESTATION MINIMUM (15%)	0.21
D. EXISTING FOREST ON NET TRACT AREA	1.30
E. FOREST AREAS TO BE CLEARED	1.12
F. FOREST AREAS TO BE RETAINED	0.18
IV. REFORESTATION CALCULATIONS	
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	1.09
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.03
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0.00
REFORESTATION FOR CLEARING ABOVE THRESHOLD	0.29
REFORESTATION FOR CLEARING BELOW THRESHOLD	0.06
TOTAL REFORESTATION REQUIRED	0.35
TOTAL REFORESTATION PROVIDED	0.00
TOTAL FEE-IN-LIEU OF REFORESTATION	0.35

FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

SIGNAGE DETAIL
NOT TO SCALE

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	31 LF (PERIMETER A)	71 LF (PERIMETER B)	105 LF (PERIMETER C)	207 LF (TOTAL)
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO	NO	YES, 105 LF	YES, 105 LF
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	N/A	N/A	N/A	N/A
NUMBER OF TREES REQUIRED				
SHADE TREES	1 SHADE TREE	1 SHADE TREE	0 SHADE TREES	2 SHADE TREES
EVERGREEN TREES	2 EVERGREEN TREES	2 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES
NUMBER OF TREES PROVIDED				
SHADE TREES	1 SHADE TREE	1 SHADE TREE	0 SHADE TREES	2 SHADE TREES
EVERGREEN TREES	2 EVERGREEN TREES	2 EVERGREEN TREES	0 EVERGREEN TREES	3 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 TREES (0 SUBSTITUTION TREES)			

SCHEDULE A : PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES			SCREEN #1	TOTAL
	B (PERIMETER 1)	B (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)		
LANDSCAPE TYPE	B (PERIMETER 1)	B (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	D (PERIMETER 7)	
LINEAR FEET OF PERIMETER	235 LF	164.00 LF	105.00 LF	175.00 LF	71.00 LF	26 LF	26 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	YES, 50 LF OF BIORETENTION PLANTINGS	YES, 51 LF OF EX. TREES	YES, 105 LF OF EX. TREES	YES, 71 LF OF EX. TREES	YES, 57 LF OF EX. TREES	NO	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	YES, 37 LF OF ENTRANCE	YES, 47 LF OF ENTRANCE	YES, CREDIT FOR 71 LF OF SWM LANDSCAPING	NO	NO	NO	YES, DUMPSTER FENCING PROVIDED	
NUMBER OF PLANTS REQUIRED								
SHADE TREES	4 SHADE TREES	4 SHADE TREES	1 SHADE TREE	0 SHADE TREES	0 SHADE TREES	2 SHADE TREES	0 SHADE TREES	11 SHADE TREES
EVERGREEN TREES	5 EVERGREEN TREES	5 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	10 EVERGREEN TREES
SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS
NUMBER OF PLANTS PROVIDED								
SHADE TREES	4 SHADE TREES	4 SHADE TREES	1 SHADE TREE	0 SHADE TREES	0 SHADE TREES	2 SHADE TREES	0 SHADE TREES	11 SHADE TREES
EVERGREEN TREES	5 EVERGREEN TREES	5 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	0 EVERGREEN TREES	10 EVERGREEN TREES
OTHER TREES (2:1 SUBSTITUTION)	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES	0 SUBSTITUTION TREES
SHRUBS (10:1 SUBSTITUTION)	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS	0 SHRUBS

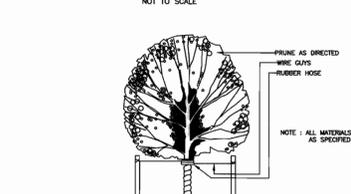
LANDSCAPE REQUIREMENT PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
13		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
13		PINUS STROBUS	WHITE PINE	6" - 8" HT.
TOTAL				
26				26 TREES (13 SHADE TREES, 13 EVERGREEN TREES)

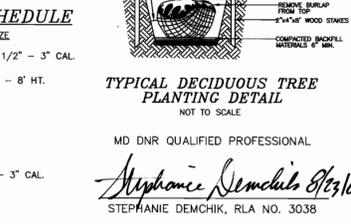
STREET TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
4		PYRUS CALLERYANA 'REDSPRE'	REDSPRE PEAR OR EQUIVALENT	2 1/2" - 3" CAL.
TOTAL				4 STREET TREES

TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



TYPICAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



LEGEND

- AREA OF PROPOSED SHA PAVING SECTION
- AREA OF PROPOSED P-3 PAVING SECTION
- HEAVY DUTY CONCRETE PAVING SECTION
- FOREST CONSERVATION EASEMENT (RETENTION)
- PROPOSED TREELINE
- PERIMETER LANDSCAPE EDGE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- FOREST CONSERVATION SIGNAGE

STREET TREE CALCULATIONS

US ROUTE 1 - 173 / 40 = 4
TOTAL TREES REQUIRED = 4 STREET TREES
TOTAL TREES PROVIDED = 4 STREET TREES

SCREEN CALCULATIONS

SCREEN #1
DUMPSTER - 28 LF - TYPE D BUFFER
0 SHADE TREE AND 3 EVERGREENS REQUIRED
FENCED DUMPSTER ENCLOSURE PROVIDED

DEVELOPER'S OWNER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 9/10/02
DATE: 9/10/02
DATE: 9/24/02

OWNER
JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030

Project	Date	Illustration	Scale	MAP/SID	SID	Approval
00-049	AUG. 2002	engineering				

Project	Date	Illustration	Scale	MAP/SID	SID	Approval
00-049	AUG. 2002	engineering				

FUELMAN STATION
TAX MAP 43 - GRID 14 - PARCEL B P/O PARCEL 541
HOWARD COUNTY, MARYLAND
SIXTH ELECTION DISTRICT
FOREST CONSERVATION & LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Surveyors
Engineers Planners
5072 Dorsey Hall Drive, Suite 202, Elliott City, Maryland 21042
(410) 997-0296 Fax (301) 621-5621 West (410) 997-0298 Fax

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.

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

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (6 LBS./1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR 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. 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) - USE SOD. OPTION (3) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (6 GAL/1000 SQ.FT.) FOR ANCHORING.

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

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT 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 OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.7 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (6 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES 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, (313-1855).
- 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 THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, Dikes, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

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.

7) SITE ANALYSIS:

TOTAL AREA OF SITE:	1.40 ACRES
AREA DISTURBED:	1.34 ACRES
AREA TO BE ROOFED OR PAVED:	0.74 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.60 ACRES
TOTAL CUT:	300 CU. YDS.
TOTAL FILL:	4,800 CU. YDS.
TOTAL WASTE/BORROW AREA LOCATION:	N/A

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

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

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

10) 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.

11) 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/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. 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.

II. 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.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

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

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

- TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF COAST-TRADING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CONCRETES, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
- TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

- ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - pH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A pH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE pH TO 6.5 OR HIGHER.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-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.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION

- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
- TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

VII. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

- COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND 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 PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
- COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

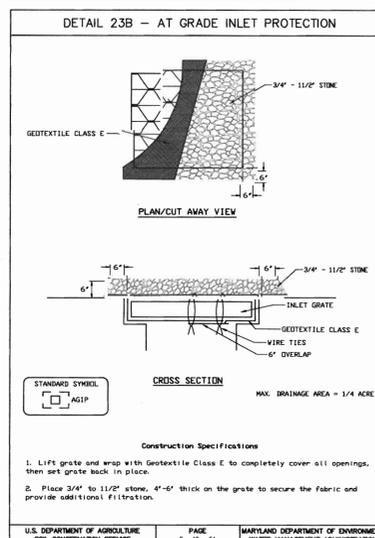
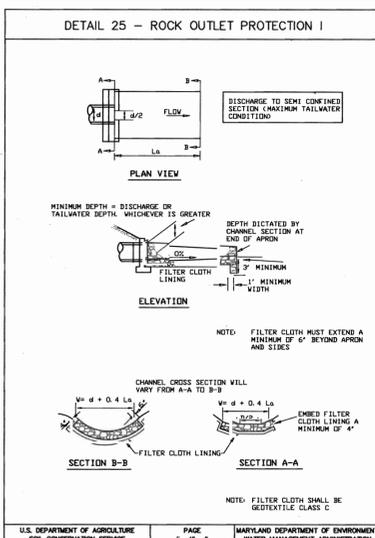
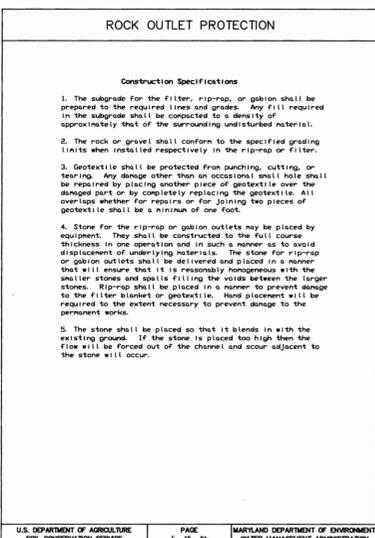
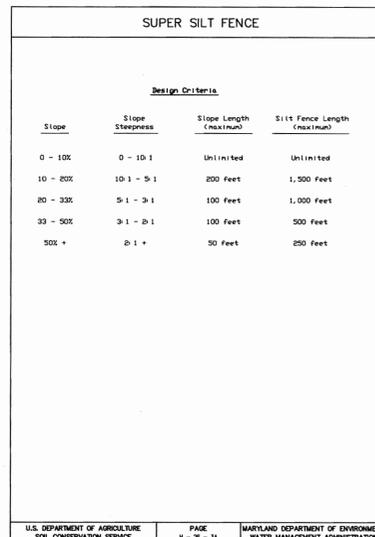
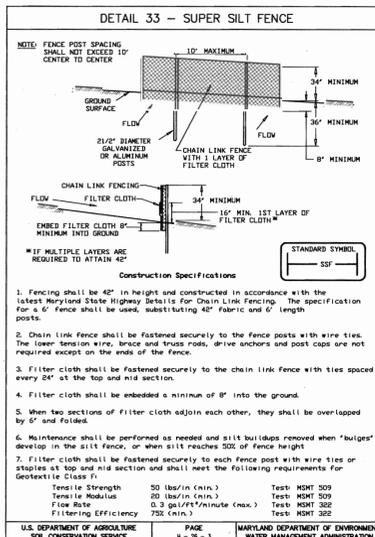
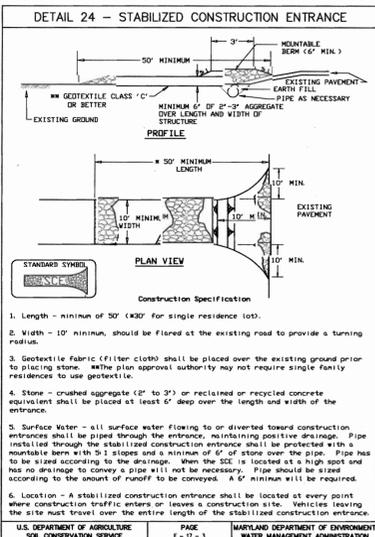
REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

TEMPORARY DUST CONTROL MEASURES

- MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS APCED ABOUT 12" APART, 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 INTERVAL 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.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN. (1 DAY)
- CONSTRUCT SILT FENCE, SUPER SILT FENCES, AND TREE PROTECTIVE FENCES. (2 DAYS)
- COMPLETE CONSTRUCTION AS SHOWN. (60 DAYS)
- CONSTRUCT BIORETENTION/STORM WATER MANAGEMENT FACILITY. (30 DAYS)
- COMPLETE FINE GRADING OF SITE TO GRADES INDICATED. (5 DAYS)
- SEED AND MULCH ALL REMAINING DISTURBED AREAS. (2 DAYS)
- UPON STABILIZATION OF THE SITE AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS.



DEVELOPERS CERTIFICATE

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

Signature: *Mark Levy* Date: *8/26/02*

MARK LEVY, JESSUP ROCK, LLC
PRINTED NAME OF DEVELOPER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature: *Mark A. Perry* Date: *8/19/02*

MARK A. PERRY
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: *Jim Meyer* Date: *9/3/02*

JIM MEYER
NATURAL RESOURCE CONSERVATION SERVICE

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

Signature: *John R. Rautava* Date: *9/3/02*

JOHN R. RAUTAVA
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *John R. Rautava* Date: *9/10/02*

Signature: *Andy Thomas* Date: *9/10/02*

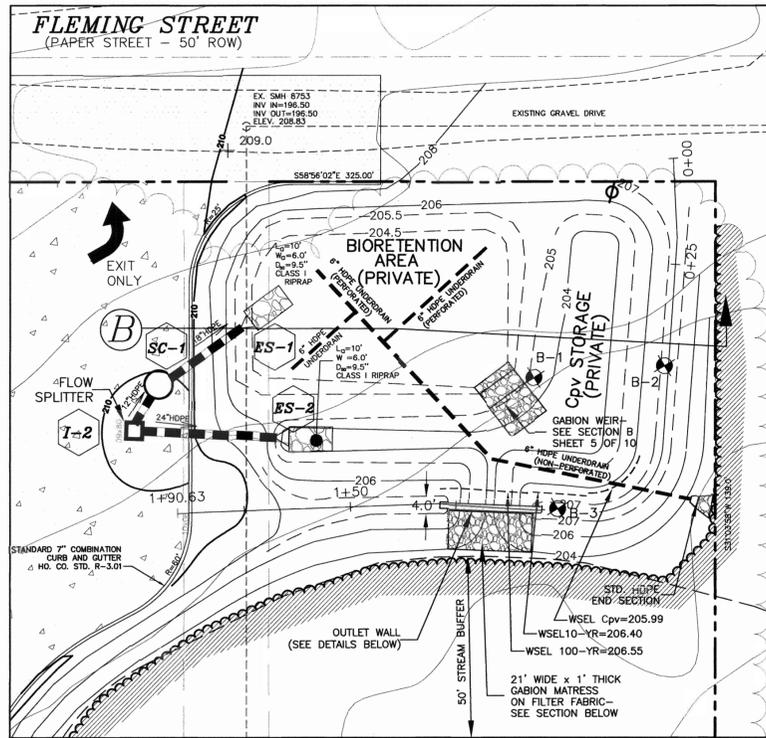
Signature: *John R. Rautava* Date: *9/24/02*

FUELMAN STATION
TAX MAP 43 - G RD 1-4 - PARCEL B P/O PARCEL 5H
HOWARD COUNTY, MARYLAND
SIXTH ELECTRIC IN DISTRICT

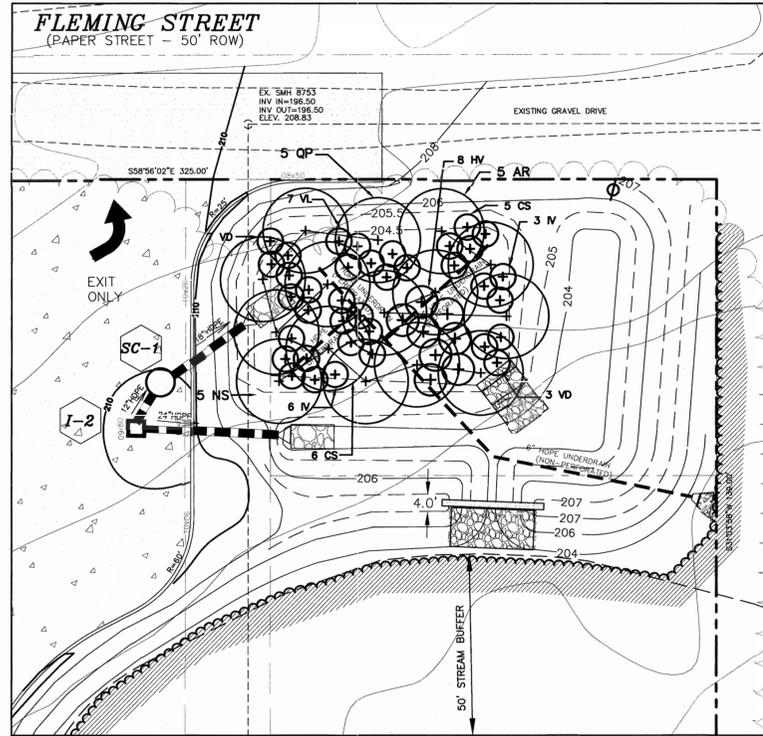
MILLERBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Borsley Hall Drive, State 202, Ellicott City, Maryland 21042
(410) 987-0296 Fax: (301) 621-5321 Wash. (410) 997-0298 Fax.

SEDIMENT CONTROL NOTES & DETAILS

3 OF 10
SDP-02-66



SWM PLAN VIEW
SCALE: 1"=20'

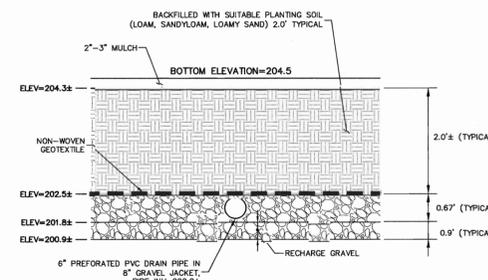


SWM PLAN VIEW - BIORETENTION PLANTINGS
SCALE: 1"=20'

MAINTENANCE SCHEDULE FOR BIORETENTION AREA			
Note: SWM Facility will be privately maintained.			
DESCRIPTION	METHOD	FREQUENCY	TIME OF YEAR
SOIL			
INSPECT AND REPAIR EROSION	VISUAL	MONTHLY	MONTHLY
ORGANIC LAYER			
REMULCH ANY VOID AREAS	BY HAND	WHENEVER NEEDED	WHENEVER NEEDED
REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER (OPTIONAL)	BY HAND	ONCE EVERY TWO TO THREE YEARS	SPRING
ANY ADDITIONAL MULCH ADDED (OPTIONAL)	BY HAND	ONCE A YEAR	SPRING
PLANTS			
REMOVAL AND REPLACEMENT OF ALL DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT	SEE PLANTING SPECIFICATIONS	TWICE A YEAR	3/15 TO 4/30 AND 10/1 TO 11/30
TREAT ALL DISEASED TREES AND SHRUBS	MECHANICAL OR BY HAND	N/A	VARIABLE, DEPENDS ON INSECT OR DISEASE INFESTATION N/A
WATERING OF PLANT MATERIAL SHALL TAKE PLACE AT THE END OF EACH DAY FOR FOURTEEN CONSECUTIVE DAYS AFTER PLANTING HAS BEEN COMPLETED	BY HAND	IMMEDIATELY AFTER COMPLETION OF PROJECT	N/A
REPLACE STAKES AFTER ONE YEAR	BY HAND	ONCE A YEAR	ONLY REMOVE STAKES IN THE SPRING
REPLACE ANY DEFICIENT STAKES OR WIRES.	BY HAND	N/A	WHENEVER NEEDED

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREAS (TO BE PRIVATELY MAINTAINED)

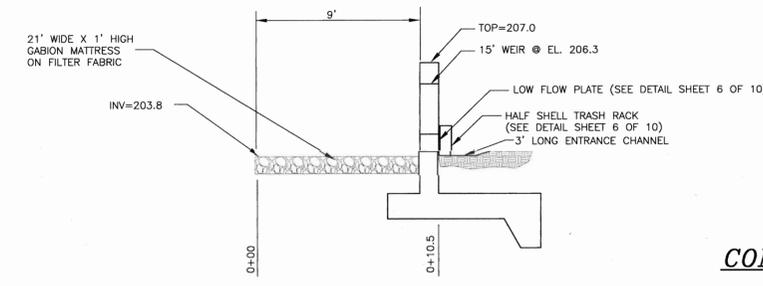
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER, AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



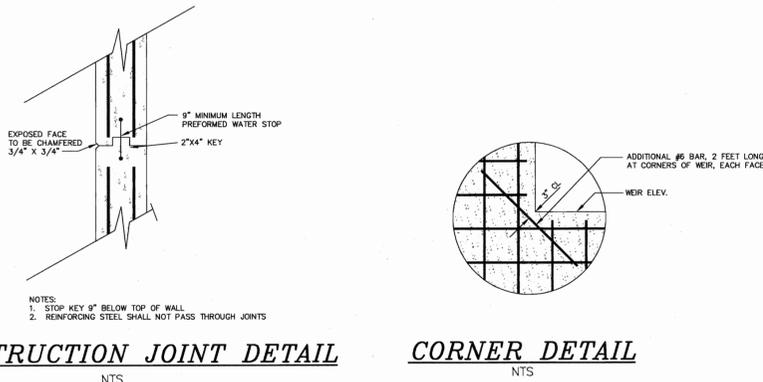
TYPICAL CROSS-SECTION OF BIORETENTION POND
SCALE: NTS

BIORETENTION AREA PLANTING SCHEDULE

SHRUBS				
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
11	CS	CORNUS STOLONIFERA	RED OSIER DOGWOOD	2.5 - 3' HT.
9	IV	ILEX VERTICILLATA	WINTERBERRY	2.5 - 3' HT.
8	HV	HERMAMELIS VIRGINIANA	WITCH HAZEL	2.5 - 3' HT.
10	VD	VIBURNUM DENTATUM	ARROWWOOD	2.5' - 3' HT.
7	VL	VIBURNUM LENTAGO	NANNYBERRY	2.5' - 3' HT.
TOTAL: 45 SHRUBS				
TREES				
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
5	AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2-1/2" - 3" CAL
5	NS	NYSSA SYLVATICA	BLACK GUM	2-1/2" - 3" CAL
4	QP	QUERCUS PALUSTRIS	PIN OAK	2-1/2" - 3" CAL
TOTAL: 15 TREES				



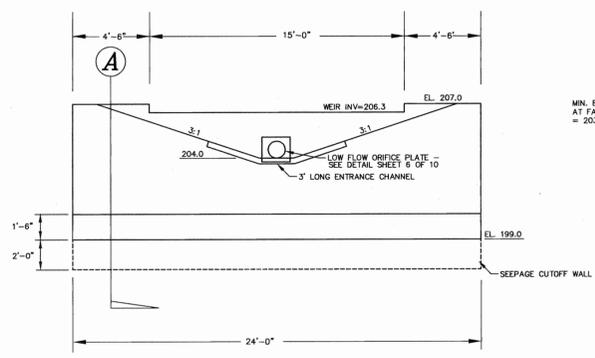
OUTLET WALL PROFILE
NTS



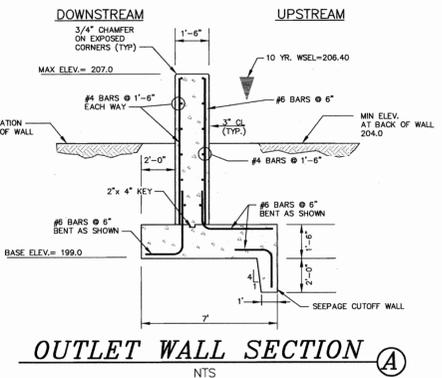
CONSTRUCTION JOINT DETAIL **CORNER DETAIL**
NTS NTS

GENERAL OUTLET WALL NOTES:

- CONCRETE SHALL BE MSHA MIX NO. 3 (F_c = 3,500 PSI)
- REINFORCING SHALL BE F_y = 60,000 PSI, EPOXY COATED
- ALL WORK SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF MSHA
- ALL FILL UNDER FOOTERS OF PROPOSED STRUCTURE SHALL BE COMPACTED TO 99% OF AASHTO T-99, AS CERTIFIED BY AN ON-SITE GEO-TECHNICAL ENGINEER.
- MINIMUM ALLOWABLE BEARING PRESSURE OF 2,500 PSF SHALL BE VERIFIED BY ON SITE GEO-TECHNICAL ENGINEER.
- ALL RE-BAR SPLICES SHALL BE 24 INCH LAP SPLICES OR EQUIVALENT.
- PROVIDE ELASTOMERIC SPLIT FACE ROCK, NO. 159 OR EQUIVALENT FORM LINERS ON ALL EXPOSED FACES OF CONCRETE WALL.



OUTLET WALL ELEVATION
NTS



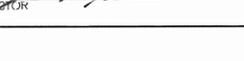
OUTLET WALL SECTION A
NTS

STORM	WSEL	Q _{peak} (cfs)
1 (Cpv)	205.99	0.07 (E.D.)
10	206.40	4.07
100	206.55	9.75

NO	CATAGORY	VOLUME REQ'D			NOTES
		DA#1	DA#2	DA#3	
1	WQv	0.08 acft	0 (CREDIT)	n/a	DA#1 WQV TREATMENT PROVIDED W/ BIORETENTION
2	Rev	0.021acft	APPROX. 0	n/a	Rev=(0.021acft) STORAGE PROVIDED IN POND RESERVOIR BELOW BIORETENTION POND
3	Cpv	0.12 acft	0.0089 ac-ft	n/a	DA#1 & DA#2 Cpv PROVIDED IN SWM POND (V _s =0.13ac-ft)
4	Qp	n/a	n/a	n/a	NOT REQ'D
5	Qf	n/a	n/a	n/a	NOT REQ'D

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

OWNER
JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 9/10/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 9/20/02
 CHIEF, DIVISION OF LAND DEVELOPMENT
 9/24/02
 DIRECTOR



PROJECT: 00-049
 DATE: AUG 2002
 DRAWING: MAP
 AS SHOWN R/H

FUELMAN STATION
 TAX MAP 43 - GRID 14 - PARCEL B, P/O PARCEL 541
 HOWARD COUNTY, MARYLAND
 SIXTH ELECTION DISTRICT
 STORMWATER MANAGEMENT PLAN & DETAILS

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

STORMCEPTOR OPERATION AND MAINTENANCE SCHEDULE

1. STORMCEPTOR WATER QUALITY STRUCTURES WILL REQUIRE PERIODIC INSPECTION AND CLEANING TO MAINTAIN OPERATION AND FUNCTION. OWNERS WILL HAVE THE STORMCEPTOR UNIT INSPECTED YEARLY OR AS REQUIRED BY HOWARD COUNTY. UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS CAN BE DONE BY USING A CLEAR PLEXIGLASS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN SEDIMENT DEPTHS EXCEED THE SPECIFIED LEVEL (TABLE 6 OF TECHNICAL MANUAL) THEN CLEANING OF THE UNIT IS REQUIRED.
2. STORMCEPTOR WATER QUALITY STRUCTURES MUST BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS, CONTACT APPROPRIATE REGULATORY AGENCIES.
3. MAINTENANCE OF STORMCEPTOR UNITS SHOULD BE DONE BY A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN UNIT. THE PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED.
4. INLET AND OUTLET PIPES MUST BE CHECKED FOR ANY OBSTRUCTIONS AND IF ANY OBSTRUCTIONS ARE FOUND THEY MUST BE REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR WILL BE REPAIRED AS NEEDED.
5. OWNER SHALL RETAIN AND MAKE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

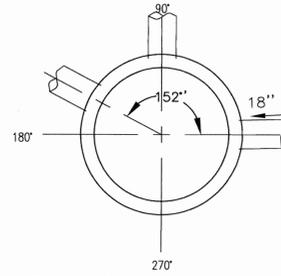
Precast Concrete Stormceptor® Order Request Form

CONTRACTOR INFORMATION

Name _____
 Address _____
 City _____
 State _____
 Zip Code _____
 Contact _____
 Phone _____
 Fax _____

OWNER INFORMATION

Name _____
 Phone _____
 Fax _____



Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in.) and invert elevation (ft). Clearly mark inlet pipes with an "I" and outlet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

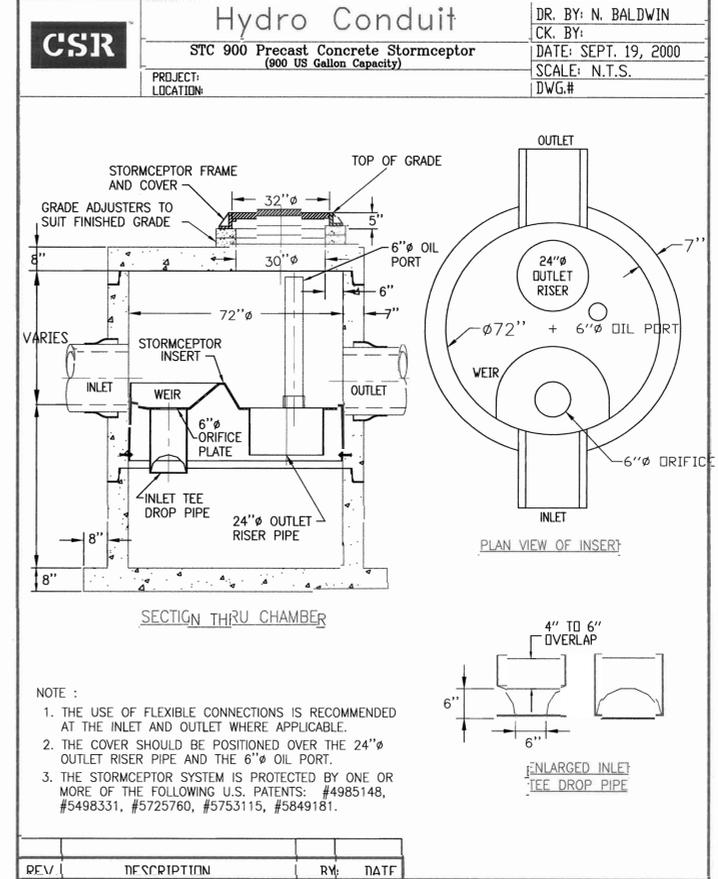
IMPERVIOUS DRAINAGE AREA FOR THIS UNIT

Stormceptor® Model	Insert Size	Manhole Number	STC-900
STC 900	DISC	Top Elevation (ft)	209.80
1200	22"	Inlet Pipe Invert (ft)	204.71
1800	32"	Outlet Pipe Invert (ft)	204.63
2400	44"	Pipe Type	HDPE
	CUSTOM	Inlet Pipe Inside Diameter (ID)	12"
		Inlet Pipe Outside Diameter (OD)	18"
		Outlet Pipe Inside Diameter (ID)	18"
		Outlet Pipe Outside Diameter (OD)	24"

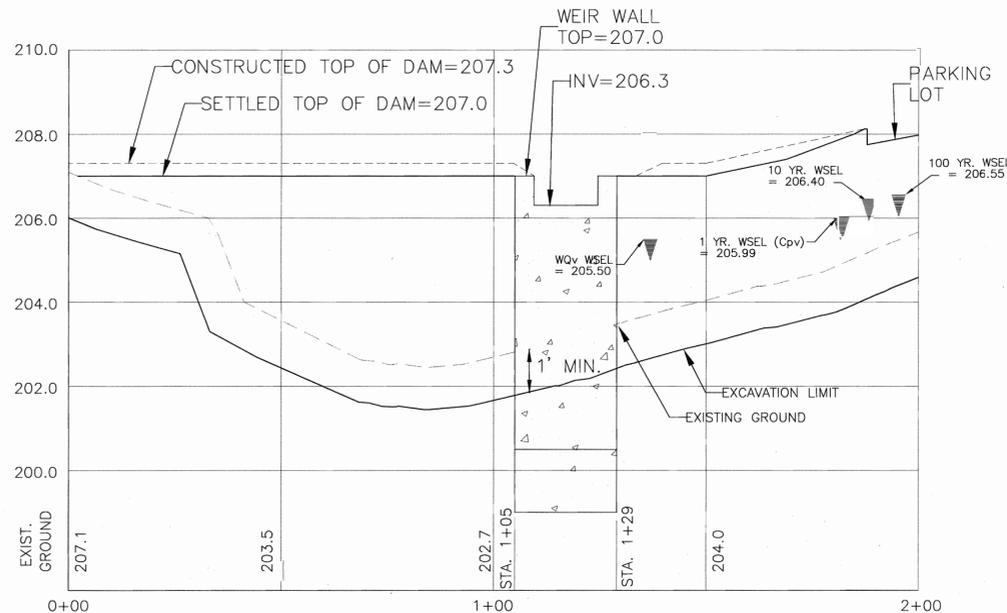
Project Name FUELMAN STATION
 Approximate time frame of delivery (weeks) _____
 Delivery Address: Street _____
 City: _____ State: _____ Zip Code: _____
 Designer Company MILDENBERG, BOENDER & ASSOC., INC.
 Designer Contact MARK PERRY Phone 410-997-0296 Fax 410-997-0298

PLEASE FILL OUT COMPLETELY AND FAX TO: **CSR**

ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)971-1900
 FOR TECHNICAL ASSISTANCE PLEASE CALL MIKE BARG, PHONE (703)971-1900



- NOTE:
1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
 2. THE COVER SHOULD BE POSITIONED OVER THE 24" OUTLET RISER PIPE AND THE 6" OIL PORT.
 3. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.



CENTERLINE DAM PROFILE

HORZ SCALE: 1"=20'
 VERT SCALE: 1"=2'

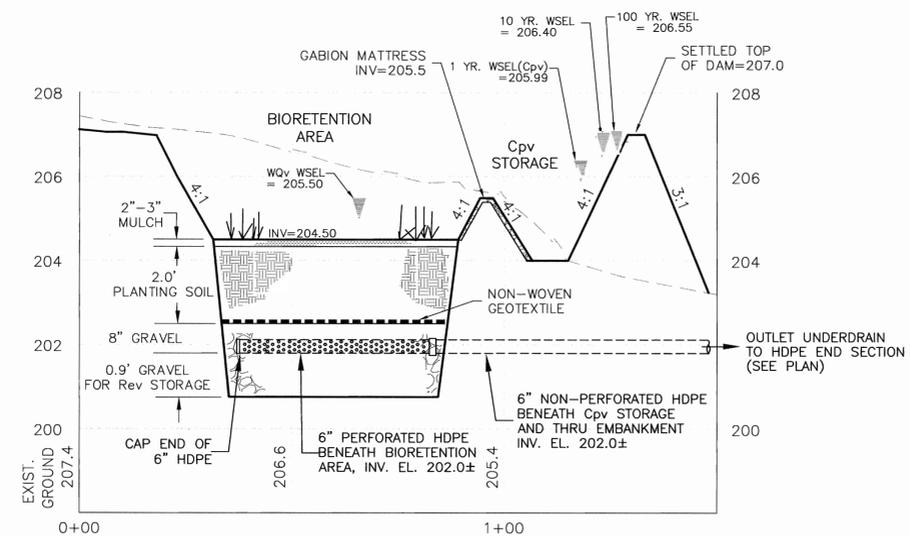
APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signatures]
 DATE: 9/10/02
 DATE: 9/26/02
 DATE: 9/24/02



OWNER

JESSUP ROCK, LLC.
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MD 21136
 (410) 526-4030



(B) SWM FACILITY SECTION

HORZ SCALE: 1"=20'
 VERT SCALE: 1"=2'

Date	00-049	AS SHOWN R/H
Project	00-049	MAP
Revision	MAP	MAP
Approval	MAP	MAP

Date		AS SHOWN R/H
Project		MAP
Revision		MAP
Approval		MAP

FUELMAN STATION
 TAX MAP 43 - GRID 14 - PARCEL B P/O PARCEL 541
 HOWARD COUNTY, MARYLAND
 SIXTH ELECTION DISTRICT
STORMWATER MANAGEMENT DETAILS

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

PLANT MATERIAL GUIDELINES

BALLED AND BURLAPPED TREES AND SHRUBS SHOULD BE PLANTED BETWEEN MARCH 15 AND JUNE 30 OR BETWEEN SEPTEMBER 15 AND NOVEMBER 15. GROUNDCOVERS FOLLOW TREE AND SHRUB PLANTING DATES. GRASSES AND LEGUMES SHOULD BE PLANTED IN THE SPRING.

FOR ALL PLANT INSTALLATION, THE CONTRACTOR SHALL PROVIDE A ONE (1) YEAR BOX CARE AND REPLACEMENT WARRANTY. THIS WARRANTY SHALL BEGIN AFTER INSPECTION AND APPROVAL OF THE COMPLETE INSTALLATION OF ALL PLANT MATERIAL AND CONTINUE FOR ONE (1) YEAR. REPLACEMENT OF PLANT MATERIAL SHALL CONFORM TO THE SPECIFICATIONS SET FORTH IN THE MAINTENANCE SCHEDULE.

BIORETENTION CONSTRUCTION SPECIFICATIONS:

PLANTING SOIL:

PROVIDE A MINIMUM OF 2.5 FEET OF PLANTING SOIL WITH A 1.6 FEET GRAVEL LAYER BENEATH. PLANTING SOIL SHALL BE SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE AND SHALL HAVE A COMPOSITION OF AT LEAST 10 TO 25 PERCENT CLAY. LOAMY SOILS MAY BE UTILIZED BUT MUST CONSIST OF 35% SAND. SOIL SHALL BE OF UNIFORM COMPOSITION, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN ONE INCH, BRUSH, OR ANY OTHER MATERIAL OR SUBSTANCE WHICH MAY BE HARMFUL TO PLANT GROWTH. PLANTING SOIL SHALL BE FREE OF PLANTS OR PLANT PARTS OF BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, OR OTHER SUCH NUISANCE MATERIAL. SOILS SHALL HAVE AN INFILTRATION RATE IN EXCESS OF 0.5 IN./HR. AND A SOIL ACIDITY (PH) BETWEEN 5.5 AND 6.5.

THE FOLLOWING IS THE MINIMUM ACCEPTABLE CRITERIA FOR SOILS:

PH RANGE:	5.5 - 6.5
ORGANIC MATTER:	1.5% - 3.0%
MAGNESIUM (MG):	35 LBS./ACRE
PHOSPHORUS (P2O5):	100 LBS./ACRE
POTASSIUM (K2O):	85 LBS./ACRE
SOLUBLE SALTS:	NOT TO EXCEED 500 PPM

SOIL SHOULD BE PLACED WITHIN THE PLANTING AREA IN LIFTS OF 18 INCHES OR LESS AND LIGHTLY COMPACTED. MINIMAL COMPACTION EFFORT CAN BE APPLIED TO THE SOIL BY TAMPING WITH A BUCKET FROM A DOZER OR BACKHOE.

GRAVEL:

GRAVEL SHALL BE FREE OF DELETERIOUS MATERIAL AND ROCKS GREATER THAN 1 INCH IN DIAMETER AND SHALL CONFORM TO MSHA SECTION 901, NO. 8 COARSE AGGREGATE.

ORGANIC LAYER:

ONCE TREES AND SHRUBS HAVE BEEN INSTALLED, A MULCH LAYER SHOULD BE ADDED. MULCH SHOULD BE FREE OF WEED SEEDS, SOIL, ROOTS OR ANY OTHER SUBSTANCE NOT CONSISTING OF EITHER BOLE OR BRANCH WOOD AND BARK. MULCH SHALL BE UNIFORMLY APPLIED APPROXIMATELY 2 TO 3 INCHES IN DEPTH, AND WILL CONSIST OF EITHER A STANDARD LANDSCAPE FINE SHREDDED HARDWOOD MULCH OR SHREDDED HARDWOOD CHIPS. MULCH WHICH CONTAINS LEAF LITTER AND GRASS CLIPPINGS IS NOT ACCEPTABLE. ANY GROUNDCOVERS SPECIFIED AS PLUGS MAY BE INSTALLED ONCE THE MULCH HAS BEEN LAID DOWN. GROUNDCOVERS ESTABLISHED BY SEEDING AND/OR CONSISTING OF GRASSES SHOULD NOT BE COVERED WITH A MULCH LAYER.

PLANT MATERIAL:

ONCE PLANTING HAS BEEN COMPLETED, PLANT MATERIAL SHOULD BE WATERED BY HAND AT THE END OF EACH DAY FOR FOURTEEN CONSECUTIVE DAYS. ANNUAL MAINTENANCE WILL BE REQUIRED FOR ALL PLANT MATERIAL. INSPECTION OF ALL VEGETATION SHALL OCCUR TWICE A YEAR. PLANT MATERIAL MAINTENANCE AND UPKEEP SHALL INCLUDE PREVENTION AND TREATMENT OF DISEASE OR INSECT INFESTATIONS. PRUNING TO MAINTAIN THE HEALTH OF THE PLANTS SHALL BE COMPLETED AS REQUIRED. DEAD PLANT MATERIAL SHALL BE REMOVED AND REPLACED BETWEEN MARCH 15 AND APRIL 30 OR BETWEEN OCTOBER 1 AND NOVEMBER 30.

DEFICIENT STAKES AND WIRES SHOULD BE REPLACED BY HAND. STAKES SHOULD BE REPLACED ONCE A YEAR IN THE SPRING.

REFER TO THE "DESIGN MANUAL FOR THE USE OF BIORETENTION IN STORMWATER MANAGEMENT", AS PUBLISHED BY THE PRINCE GEORGE'S COUNTY, MARYLAND, DEPARTMENT OF ENVIRONMENTAL RESOURCES FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

PLANT SPECIFICATIONS:

- ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT FROM THE SOURCE TO THE JOB SITE UNTIL PLANTED.
- WALLS OF PLANTING PIT SHALL BE DUG SO THAT THEY ARE VERTICAL.
- THE DIAMETER OF THE PLANTING PIT MUST BE A MINIMUM OF SIX INCHES (6") LARGER THAN THE DIAMETER OF THE BALL OF THE TREE.
- PLANTING PIT SHALL BE DEEP ENOUGH TO ALLOW 1/4" OF THE BALL TO BE ABOVE THE FINAL GRADE. LOOSE SOIL AT THE BOTTOM OF THE PIT SHALL BE TAMPED BY HAND.
- FERTILIZER SHALL BE PLACED AT THE BOTTOM OF THE PIT AS INDICATED BELOW.
- PLANT SHALL BE REMOVED FROM THE CONTAINER AND PLACED IN THE PLANTING PIT BY LIFTING AND CARRYING THE PLANT BY ITS BALL.
- SET THE PLANT STRAIGHT AND IN THE CENTER OF THE PIT SO THAT THE TOP OF THE BALL IS APPROXIMATELY 1/4" ABOVE FINAL GRADE.
- BACKFILL PLANTING PIT WITH APPROVED SOIL.
- MAKE SURE PLANT REMAINS STRAIGHT DURING BACKFILLING.
- TREES SHALL BE BRACED BY USING 2" X 2" WHITE OAK STAKES. THE TREE IS TO BE BRACED TO THE STAKES WITH HOSE AND WIRE.

FERTILIZATION:

- TREE AND SHRUB FERTILIZER SHALL BE A 21 GM. TIGHTLY COMPRESSED, LONG LASTING, SLOW RELEASE (2 YEAR) FERTILIZER TABLET WITH A MINIMUM GUARANTEED ANALYSIS OF 20-10-5.

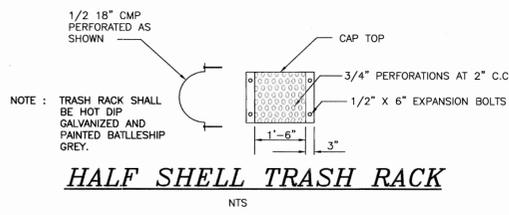
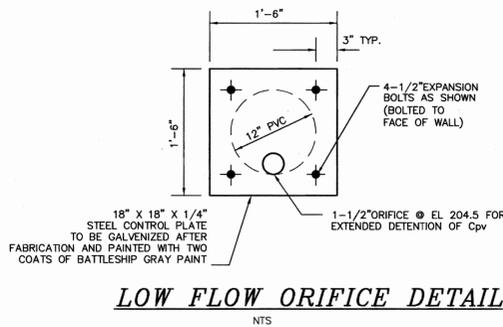
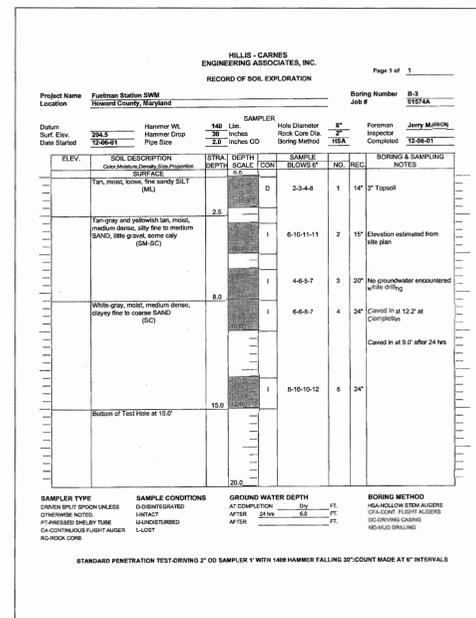
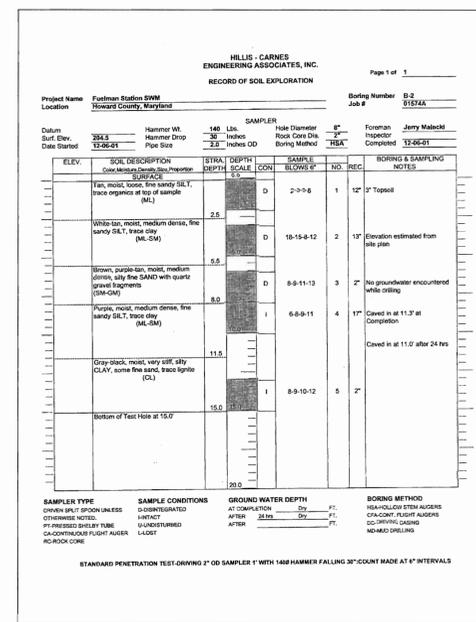
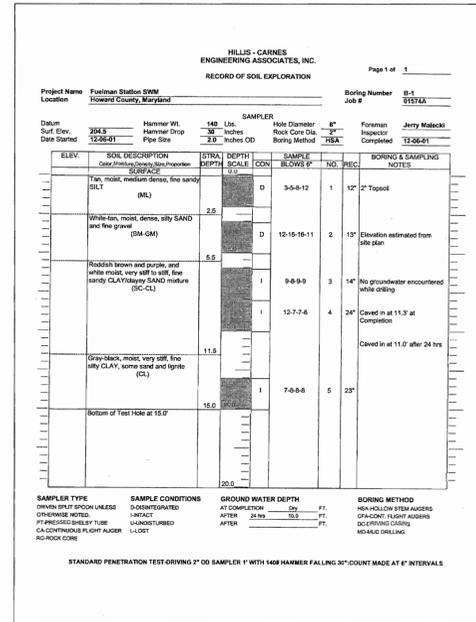
TOTAL NITROGEN (N)	20%
WATER SOLUBLE ORGANIC NITROGEN	7%
WATER IN SOLUBLE ORGANIC NITROGEN	13%
AVAILABLE PHOSPHORIC ACID (P2 O5)	10%
SOLUBLE POTASH (K2 O)	5%

- FOR CONTAINERIZED TREES AND SHRUBS, PLACE THE SPECIFIED FERTILIZER TABLET(S) IN THE BOTTOM OF THE PLANTING PIT ACCORDING TO THE FOLLOWING RATES:

1 GAL. CONTAINER	1 EA. 21 GM TABLET
3 GAL. CONTAINER	2 EA. 21 GM TABLETS
5 GAL. CONTAINER	3 EA. 21 GM TABLETS
7 GAL. CONTAINER	5 EA. 21 GM TABLETS

NON-GRASS GROUND COVER:

- GROUND COVER PLANTING HOLES SHALL BE DUG THROUGH THE MULCH WITH ONE OF THE FOLLOWING: HAND TROWEL, SHOVEL, BULB PLANTER, OR HOE.
- BIODEGRADABLE POTS SHALL BE SPLIT, AND NON-BIODEGRADABLE POTS SHALL BE REMOVED. ROOT SYSTEM OF ALL POTTED PLANTS SHALL BE SPLIT OR CRUMBLED.
- GROUND COVER SHALL BE PLANTED SO THAT THE ROOTS ARE SURROUNDED BY THE SOIL BELOW THE MULCH. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH THE EXISTING GRADE. ROOTS OF BARE ROOT PLANTS SHALL BE COVERED TO THE CROWN.
- THE MULCHED AND PLANTED GROUND COVER BED SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE.
- THE ENTIRE GROUND COVER BED SHALL BE THOROUGHLY WATERED.



OWNER

JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION CE
[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature]
DIRECTOR

[Signature] 9/10/02 DATE
[Signature] 9/20/02 DATE
[Signature] 9/24/02 DATE



DATE: AUG 2002
DRAWN BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

PROJECT: FUELMAN STATION
LOCATION: PARCEL B, P/O PARCEL 541
GRID: 14

FUELMAN STATION
TAX MAP 43 - GRID 14 - PARCEL B, P/O PARCEL 541
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SWM SPECIFICATIONS & BORINGS

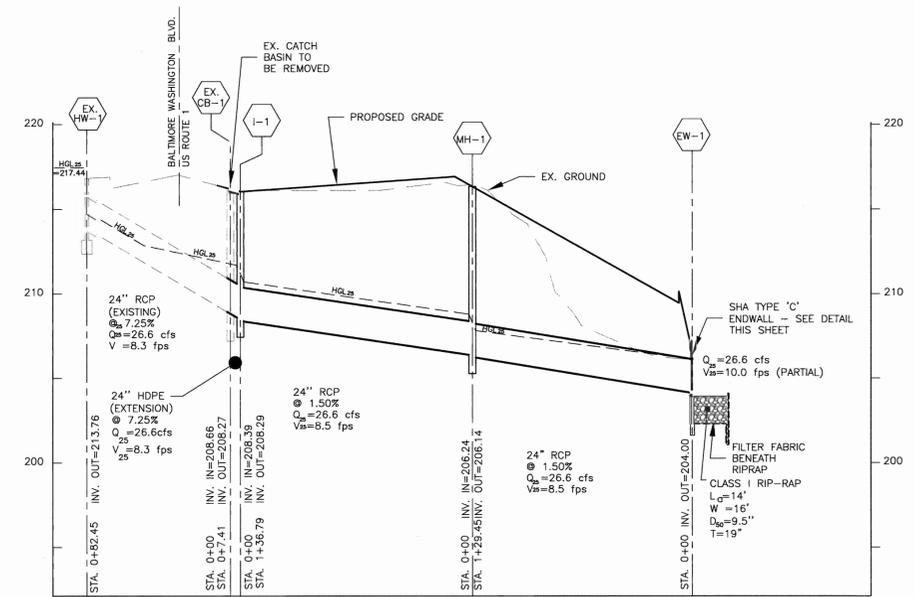
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(410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.

STRUCTURE SCHEDULE

NO.	LOCATION	TOP	INV. IN	INV. OUT	COMMENTS	
EX. HW-1	N 544973.23 E 1370961.19	---	---	213.76	EX. HEAD WALL TO REMAIN	PUBLIC
EX. CB-1	N 544928.38 E 1371031.78	215.90	208.84	208.66	EX. CATCH BASIN TO BE REMOVED	PUBLIC
I-1	N 544924.64 E 1371036.79	216.79	208.39	208.29	COG INLET, 5-FT TROUGH LENGTH (STD MD-374.62)	PUBLIC
I-2	N 544829.81 E 1371185.72	209.80	---	204.77 (12") 205.67 (24")	DOUBLE TYPE 'S' INLET (SD-4.23)	PRIVATE
MH-1	N 544803.95 E 1370972.36	216.30	206.24	206.14	PRECAST MANHOLE (SHA STD. NO. MD-384.01)	PUBLIC
SC-1	N 544835.39 E 1371197.39	209.80	204.71	204.63	STC 900 STORMCEPTOR (SEE DETAIL SHEET 5 OF 10)	PRIVATE
EW-1	N 544737.58 E 1371083.49	---	---	204.00	STANDARD TYPE C ENDWALL (SD-5.21)	PRIVATE
ES-1	N 544836.83 E 1371221.13	---	204.51	204.50	HDPE END SECTION FOR 18" DIA. PIPE (SEE DETAIL THIS SHEET)	PRIVATE
ES-2	N 544808.84 E 1371217.16	---	204.14	204.00	HDPE END SECTION FOR 24" PIPE (SEE DETAIL THIS SHEET)	PRIVATE

PIPE SCHEDULE

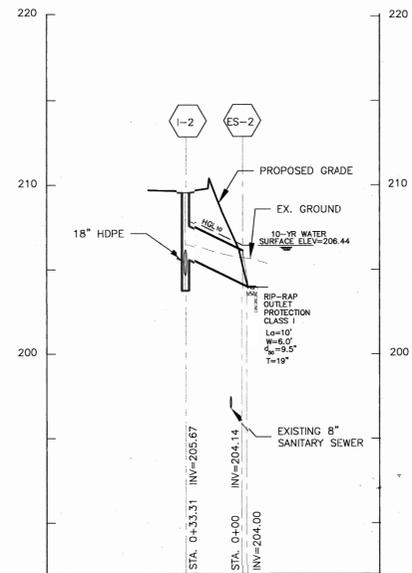
SIZE	LENGTH
12" HDPE (PRIVATE)	13'
18" HDPE (PRIVATE)	25'
24" HDPE (PRIVATE)	34'
24" RCP (PUBLIC)	145'
24" RCP (PRIVATE)	130'



STORM DRAIN PROFILE EX.HW-1 TO EW-1

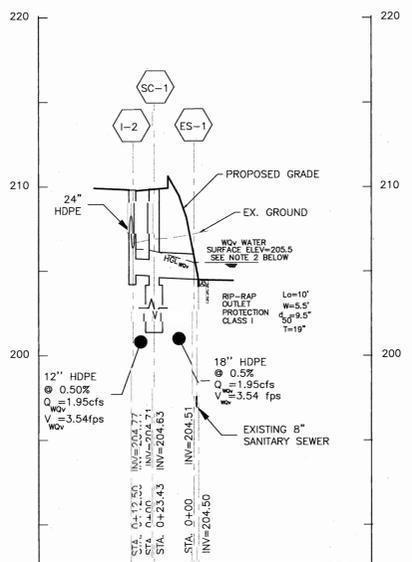
SCALE: HOR: 1"=50'
VER: 1"=5'

NOTE:
1. HGL ON TOP OF PIPE UNLESS SHOWN OTHERWISE



STORM DRAIN PROFILE I-2 TO ES-2

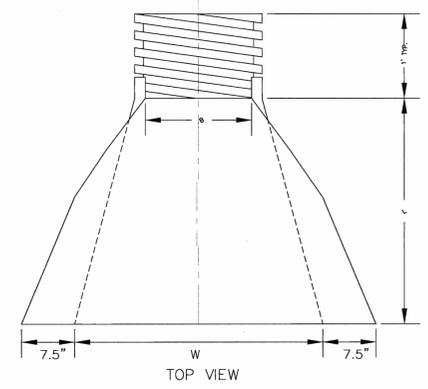
SCALE: HOR: 1"=50'
VER: 1"=5'



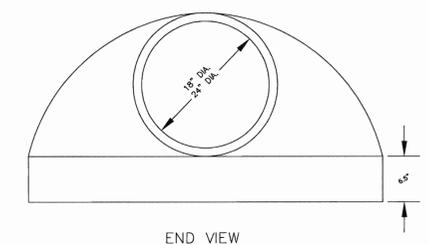
STORM DRAIN PROFILE I-2 TO ES-1

SCALE: HOR: 1"=50'
VER: 1"=5'

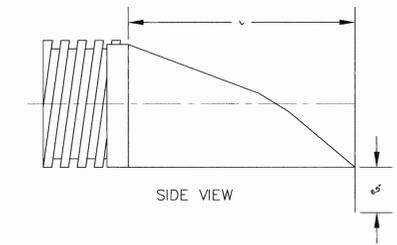
NOTE:
1. HGL ON TOP OF PIPE UNLESS SHOWN OTHERWISE
2. HGL FROM I-2 TO ES-1 IS FOR WOV SINCE 10-YR FLOW IS DIVERTED TO ES-2.



TOP VIEW



END VIEW



SIDE VIEW

PIPE DIAMETER	PART NO.	B MAX	L, ±1/2	W, ±2
18" HDPE	1810 NP	15"	32"	35"
24" HDPE	2410 NP	18"	36"	45"

INSTALLATION INSTRUCTIONS

1. SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
3. PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

HDPE END SECTION

NOT TO SCALE

SECTION A-A

4 * 4 STRAIGHT BARS VERTICAL IN FRONT FACE FOR 12" DIA. TO 18" DIA. PIPE ENDWALLS INCLUSIVE.

2 * 4 STRAIGHT BARS HORIZONTAL 1 EA FACE FOR 36" DIA. TO 60" DIA. PIPE ENDWALLS INCLUSIVE.

4 * 4 STRAIGHT BARS HORIZONTAL @ 1.77% BOTH SIDES OF OPENING FOR 36" TO 60" DIA. PIPE ENDWALLS.

4 * 4 STRAIGHT BARS HORIZONTAL @ 1.0% BOTH SIDES OF OPENING FOR 36" TO 60" DIA. PIPE ENDWALLS.

4 * 4 STRAIGHT BARS VERTICAL @ 1.67 MIN. TO 2'-0" MAX. FRONT FACE FOR 24" DIA. TO 60" DIA. PIPE ENDWALLS INCLUSIVE.

1 * 4 STRAIGHT BAR HORIZONTAL-ALL ENDWALLS.

2 * 4 STRAIGHT BARS HORIZONTAL FOR 36" TO 60" DIA. PIPE ENDWALLS.

4 * 4 BENT BARS @ 1'-0" ALL ENDWALLS.

ELEVATION
"S" DISTANCES FROM INSIDE SURFACE OF PIPE TO VERTICAL BARS IN FRONT AND REAR FACE.
4" FOR 12" DIA. TO 18" DIA. PIPES INCL.
6" FOR 24" DIA. TO 36" DIA. PIPES INCL.
8" FOR 42" DIA. TO 60" DIA. PIPES INCL.

DISPOSITION OF BARS - DETAIL

REINFORCING: DEFORMED STEEL BARS (1/2" DIA.) CHAMFER ALL EXPOSED EDGES 1" x 1" OR AS DIRECTED. CONC. SHALL BE S. H. A. MIX NO. 2.

OPENINGS	DIMENSIONS		VOLUME STEEL			
D IN	A	B	C	L	CONC. C.Y.	REB. LBS.
12	0.79	9"	6"	1'-9"	0.61	38
15	1.23	9"	6"	1'-9"	0.78	55
18	1.78	9"	6"	1'-9"	0.95	62
24	3.91	9"	14"	2'-9"	1.56	91
30	4.91	9"	14"	3'-6"	2.19	136
36	7.07	12"	16"	4'-0"	4.18	222
42	9.62	12"	16"	4'-0"	5.13	265

REV. MAR. 1986

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]*
Chief - Bureau of Engineering

TYPE "C" ENDWALL
CIRCULAR PIPE

DRAWN BY
CHECKED BY
SCALE
DATE



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

OWNER
JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030

PROJECT: 00-049
DATE: AUG 2002
DESIGNER: SAA
SCALE: AS SHOWN

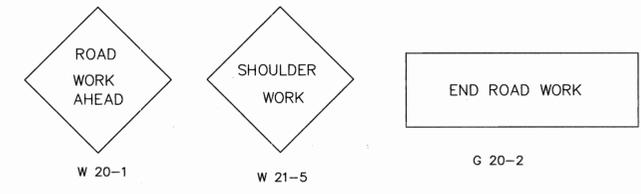
DATE: _____
DESIGNED BY: _____
CHECKED BY: _____
DATE: _____

FUELMAN STATION
TAX MAP 43 - GRID 11 - PARCEL B P/O PARCEL 54 J
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
STORMDRAIN PROFILES

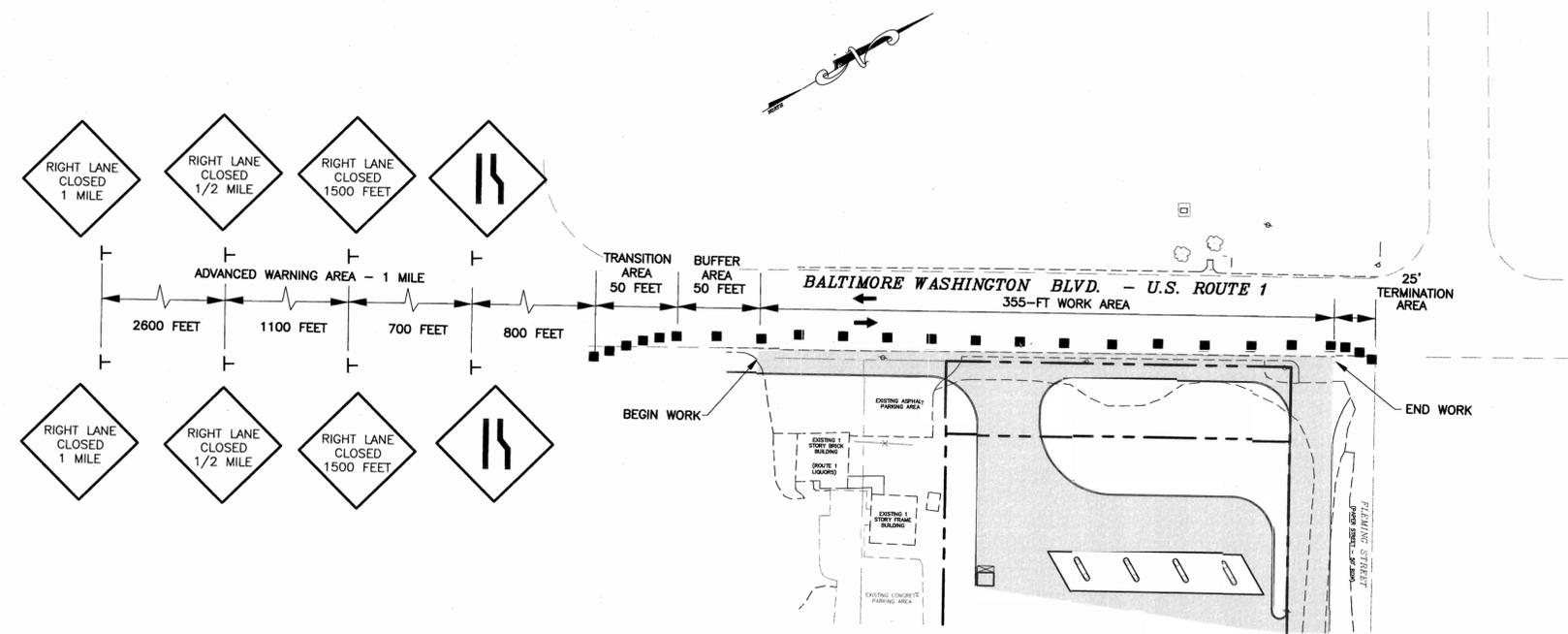
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax.

MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

- THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISIONS IS TO SET FORTH THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITEE.
- PROPERTY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
- THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
- THE CONTRACTOR AND/OR PERMITEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1988 EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982); INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
- THE CONTRACT AND/OR PERMITEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FORTH IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
- NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE AND HAVE BEEN CHECKED FOR APPROVED USAGE.
- GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC, AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
- THE CONTRACTOR AND/OR PERMITEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
- ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
- ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
- THROUGHOUT THE PERIOD(S) OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP. IN LIEU OF THE TCP PREPARED FOR THIS PROJECT, AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP, WHOLLY OR IN PART, OF HIS OWN DESIGN, FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TCP'S MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TCP'S ARE JOINTLY IMPLEMENTED, CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
- THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE ENCLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.
- ALL PAINT MARKINGS TO BE INSTALLED PER THE LATEST VERSION OF "MARYLAND SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" ISSUED BY MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.
- ALL PUPPY TRACKS ARE 3' SKIPS WITH 9' GAPS.



TRAFFIC CONTROL SIGNAGE
N.T.S.

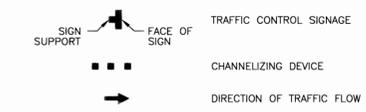


TRAFFIC CONTROL PLAN

SCALE : 1" = 50'

NOTE:
ACCESS TO FLEMING STREET AND THE LIQUOR STORE SOUTH OF THE PROPERTY SHALL BE MAINTAINED AT ALL TIMES

LEGEND



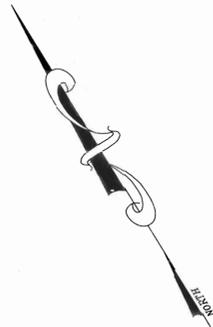
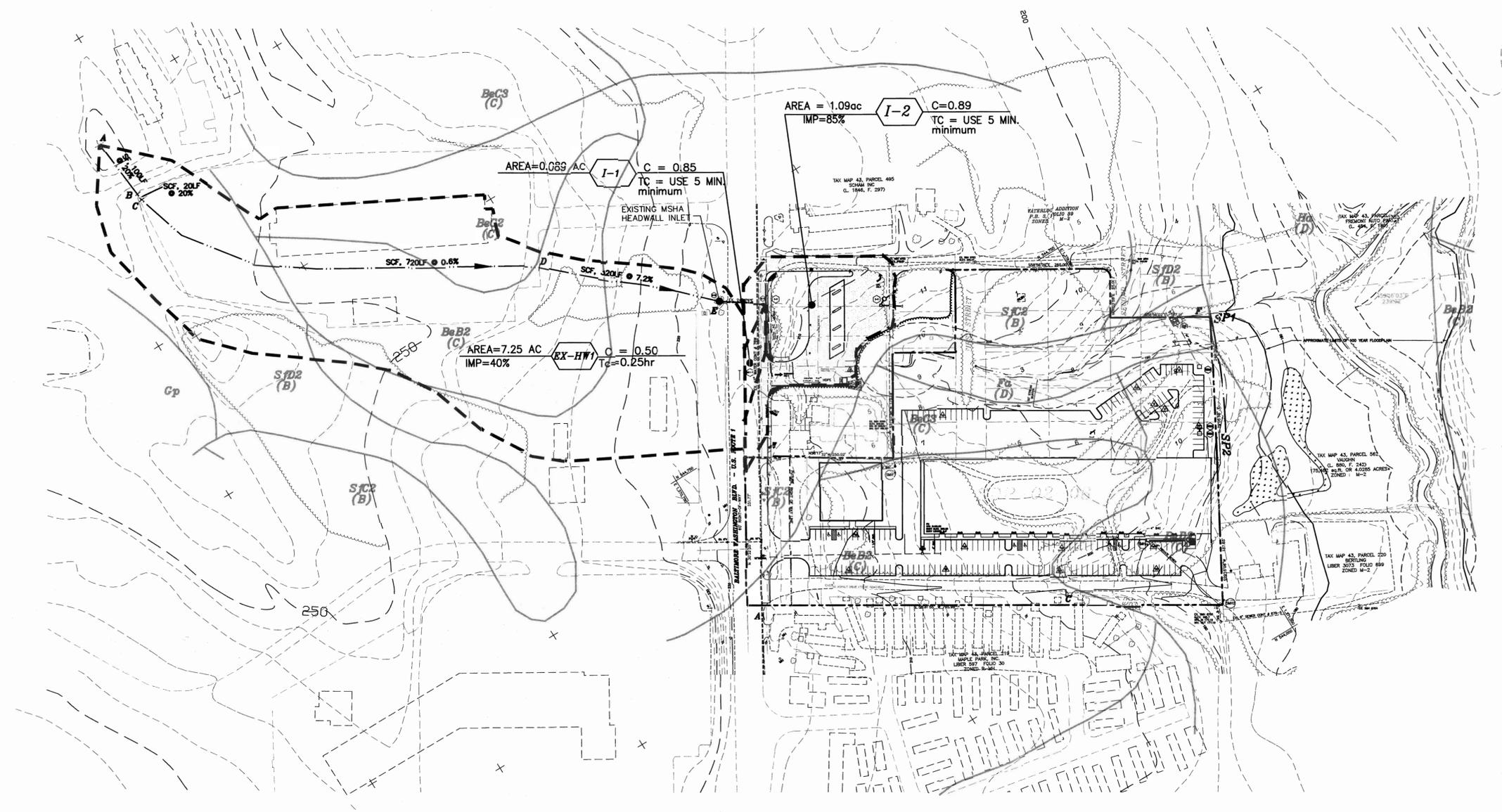
OWNER
JESSUP ROCK, LLC.
C/O ROCK REALTY, INC.
25 MAIN STREET
REISTERSTOWN, MD 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 9/10/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 9/10/02
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 9/24/02
 DIRECTOR

M.M. 8/19/02

NOTE: OFF-SITE TOPOGRAPHY TO THE NORTH, EAST, AND WEST OF THE PROPERTY SUPPLEMENTED BY HOWARD COUNTY 200 SCALE TOPOGRAPHIC MAPS.

THIS SHEET IS FOR DRAINAGE AREA MAP PURPOSES ONLY



LEGEND

--- DRAINAGE AREA DIVIDE

OWNER

JESSUP ROCK, LLC.
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERSTOWN, MD 21136
 (410) 526-4030

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BeB2	BELTSVILLE SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED --- TYPE C
BeC3	BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, SEVERELY ERODED --- TYPE C
BeD2	BELTSVILLE SILT LOAM, 10% TO 15% SLOPES, MODERATELY ERODED --- TYPE C
Fa	FALLSINGTON LOAM --- TYPE D
SIC2	SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED --- TYPE B
SD2	SASSAFRAS GRAVELLY SANDY LOAM, 10% TO 15% SLOPES, MODERATELY ERODED --- TYPE B

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 9/10/02 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 9/10/02 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 9/24/02 DATE



date	AUG 2002
project	00049
revision	MAP
scale	1"=100'
approval	RJH

FUELMAN STATION
 TAX MAP 43 - GRID M - PARCEL B P/O PARCEL 541
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DRAINAGE AREA AND SOILS MAP

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