Concrete Stormceptor® Order Request Form *

Contractor Information

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

I 90° 180° 0° 270° O

Office Use Only
Order # ______
Date ______
Internal Sole ______

Owner Information
Name RTE 94 LTD. PARTNERSHIP c/o MIE PROPERTIES INC.
Phone 410-788-0100
Fax 410-788-0851

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

Stormceptor® Model			
900	☒	3600	☐
1200	☐	4800	☐
1800	☐	6000	☐
2400	☐	7200	☐

Insert Size	
22"	☒
32"	☐
44"	☐
Custom	

Manhole Number	STC900
Top Elevation (ft)	634.02
Inlet Pipe Invert (ft)	630.02
Outlet Pipe Invert (ft)	629.92
Pipe Type:	RCCP
Pipe Inside Diameter (in) [ID]	12"
Pipe Outside Diameter (in) [OD]	

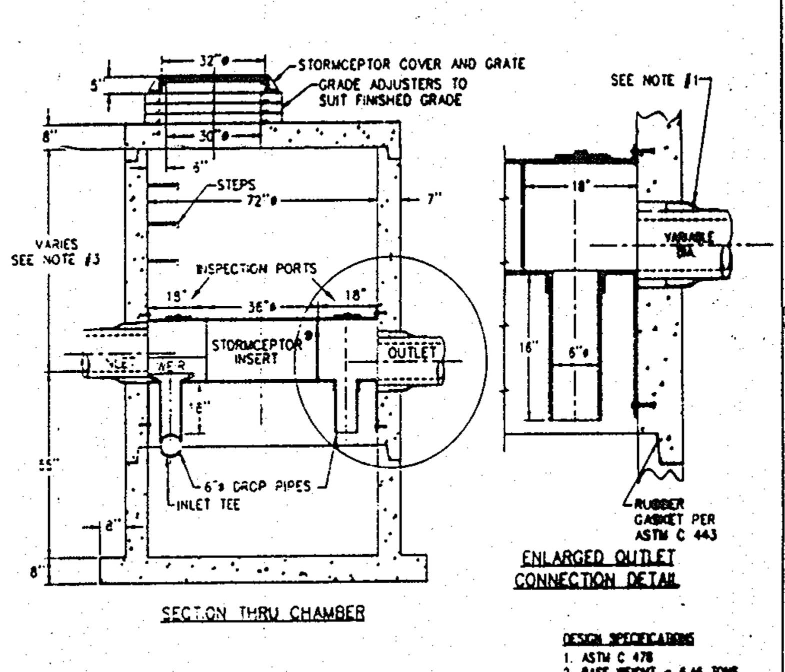
Project Name HIGH'S - LISBON CENTER
Approximate time frame until required delivery (weeks) ______
Delivery Address: Street ______
City ______ State ______ Zip Code ______
Designer Company ______
Designer Contact ______ Phone ______ Fax ______

Please fax this order to Stormceptor at (301) 762-4190
For Technical Assistance Please Call Stormceptor Corporation at
(301) 762-8361 or toll free at 1 (800) 762-4703

ALL LIFTING APPARATUS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR

* TO BE INCLUDED ON SWM PLAN BY DESIGNER 7/1/96

STC 900 Precast Concrete Stormceptor®
(900 US Gallon Capacity)



DESIGN SPECIFICATIONS
1. ASTM C 478
2. BASE WEIGHT = 6.46 TONS

NOTE:
1. CSR RECOMMENDS THE USE OF FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER INLET INSPECTION PORT.
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.

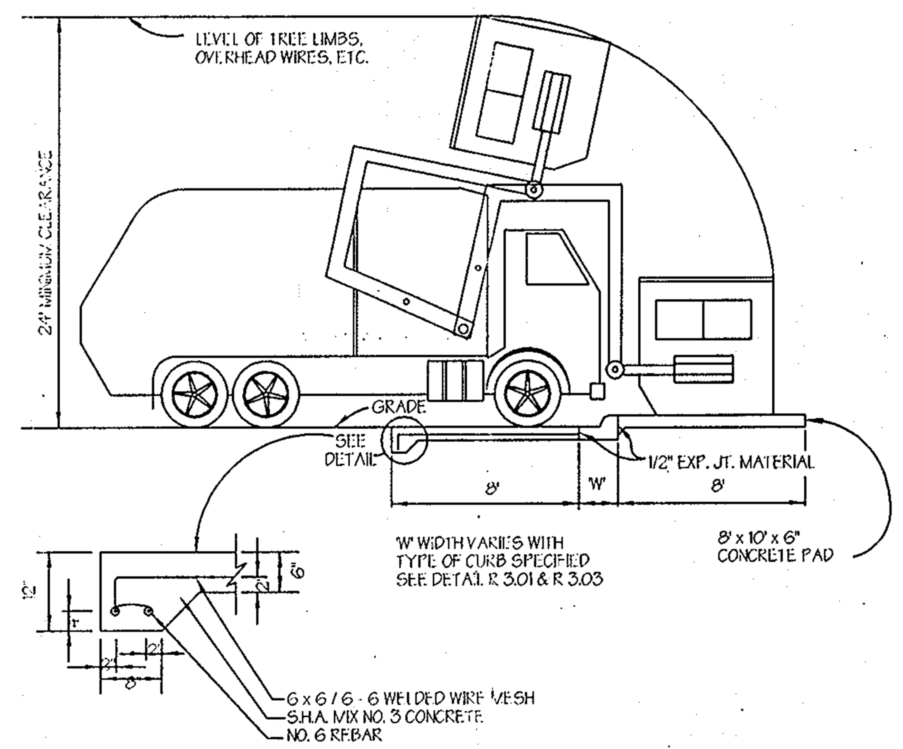
STC-900
REVISED 5/96

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and fuction. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection / Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regualtory agencies.
3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection / Monitoring Forms available to the Howard County officials upon their request.

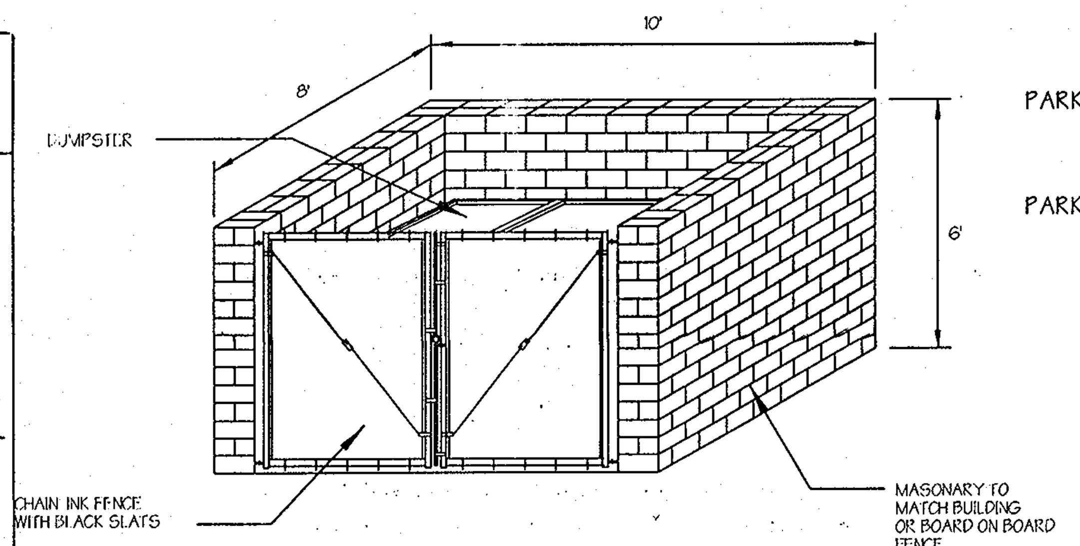
NOTE:

The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.



Solid Waste Service Pad

NOT TO SCALE



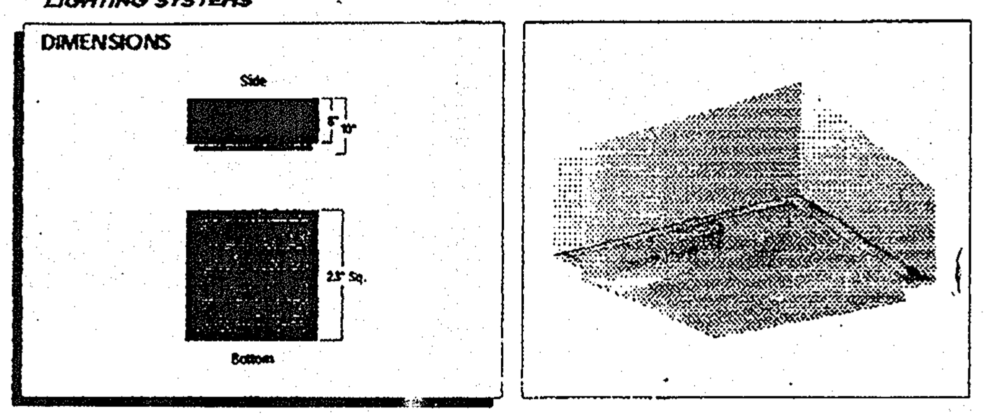
Dumpster Enclosure Detail

NOT TO SCALE

LSI LIGHTING SYSTEMS

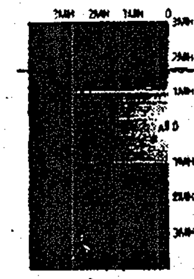
DAKOTA

DIMENSIONS



PHOTOMETRICS

400W Super Metal Halide
Type S – Symmetrical Distribution



MTG. HT.	A	B	C	D	E	F	G	H
12'	55.56	27.78	13.89	5.56	2.78	1.39	.56	.28
14'	40.82	20.41	10.20	4.08	2.04	1.02	.41	.20
16'	31.25	15.63	7.81	3.13	1.56	.78	.31	.16
18'	24.69	12.35	6.17	2.47	1.23	.62	.25	.12
20'	20.00	10.00	5.00	2.00	1.00	.50	.20	.10
22'	16.53	8.26	4.13	1.65	.83	.41	.17	.08
24'	13.89	6.94	3.47	1.39	.69	.35	.14	.07
26'	11.83	5.92	2.96	1.18	.59	.30	.12	.06
28'	10.20	5.10	2.55	1.02	.51	.26	.10	.05
30'	8.89	4.44	2.22	.89	.44	.22	.09	.04

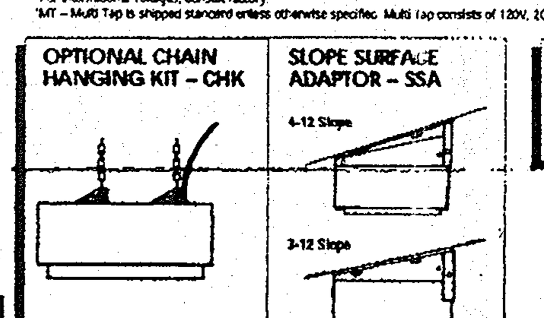
Lumen Rating 40,000
Levels shown are in footcandles

ORDERING INFORMATION Select appropriate choice from each column to formulate order code. Refer to example below.

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage**	Luminaire Finish	Options
DA	S – Symmetrical XL – High Performance Symmetrical	250 400	SMH – Super Metal Halide 250, 400 Watt MH – Metal Halide 250, 400 Watt	DA – Dropped Prismatic Acrylic DP – Dropped Prismatic Polycarbonate 73 – C73 Diffused Flat Tempered Glass*	347V 480V MT – Multi Tap†	BRZ – Bronze BLK – Black WHT – White	LL – Less Lamp CL – Coated Lamp CHK – Multi Tap Chain Hanging Kit NO – No Options

EXAMPLE OF A TYPICAL ORDER: DA S 400 SMH DA MT WHT NO

*The C73 Diffused Flat Tempered Glass is required for indoor use.
**For international voltages, consult factory.
†MT – Multi Tap is shipped standard unless otherwise specified. Multi Tap consists of 120V, 208V, 240V, and 277V.



ACCESSORY* ORDERING INFORMATION

Description	Order Number
SSA – Slope Surface Adaptor	57132

*Accessories are field installed

LSI LIGHTING SYSTEMS A Division of LSI Industries Inc.
10000 Alliance Road • P.O. Box 42728 • Cincinnati, Ohio 45242-0728 • (513) 793-3200 • FAX (513) 984-1335

THE DAKOTA® SERIES

The Dakota Series features energy-efficient and cost-effective canopy luminaires. Lens options and lamp types provide uniform distribution and make Dakota fixtures ideal for service station, convenience store, and automotive dealership applications.

SPECIFICATIONS

HOUSING
Each two-piece Dakota housing is formed from zinc-coated steel. Corners are finished to produce a clean, sharp appearance while increasing housing strength and ensuring weather-tight construction. Each fixture is UL listed and CSA certified for damp locations.

LENS/GASKET
The Dakota is available with any of the following lens types: an injection-molded dropped prismatic acrylic for uniform distribution, dropped prismatic polycarbonate ideal for high-vandalism areas, or a C73 diffused flat tempered glass. A continuous, one-piece EPDM gasket assures maximum sealing of the door frame to the housing.

DOOR FASTENER
The Dakota extruded aluminum door frame features one captive door fastener which allows easy access without loose hardware.

SOCKETS
Porcelain mogul-base sockets feature spring-reinforced contacts for long life.

LIGHT SOURCES
The Dakota is designed to operate with any of the following lamp types: Super Metal Halide or Metal Halide with mogul-base sockets.

REFLECTORS/DISTRIBUTION PATTERNS
All Dakota fixtures are available in a one-piece symmetrical reflector or a high performance symmetrical reflector. All photometric data is certified by an independent testing facility.

FINISHES
Each Dakota fixture is finished with DuraGrip®, LSI Lighting Systems' revolutionary superior baked-on polyester-powder finishing process, to give the fixture an exceptionally attractive appearance. Standard finish colors available for the Dakota are bronze, black, and white. The DuraGrip polyester finish withstands extreme weather changes without cracking or peeling. Finish is guaranteed for five years.

BALLAST
High-power factor type ballast is mounted to the housing reinforcing plate. Ballast is rated for -20° F operation.

MOUNTING
The Dakota fixture can be mounted to a noncombustible surface. Mount with 1/4" minimum space from ceiling, unless mounted to metal or concrete.

UL Listed for damp locations.
CSA Certified

(FOR UNDER CANOPY)

HIGH'S SITE DATA

Site Area (Special Exception Site) .. 24,006 S.F. (0.55 Ac.)
Area of Plan Submission .... 1.03 Ac.±
(Total Building 'C' & Gas Station)
Area of Disturbance .... 0.52 Ac.±
Existing Use .... Vacant
Proposed Use .... Convenience Store w/Gas Pumps
Proposed Floor Area .... 2400 S.F.
% Building Coverage .... .06 / 0.55 = 0.75%
Floor Area Ratio .... .06 / 0.55 = 0.75%
Prop. Impervious Area .... 5344 S.F.

MINIMUM LOT AREA REQUIRED
Base Maximum .... 20,000 S.F
Gross Floor Area .... 2400 S.F.
Convenience Store Parking .... 1592 S.F.
TOTAL .... 23,992 S.F.
SITE AREA PROVIDED .... 24,006 S.F

20% of Net Lot Area Requirement
to be Landscape Area .... 4801.2 S.F.
LANDSCAPE AREA PROVIDED ..... 5343.6 S.F.

PARKING REQUIRED - Section133.D(4)(C) & (e)
Fuel Station 3
Convenience Store Ancillary
to Gas Service Station
2 x (2400 S.F. / 1000) 5
TOTAL 8
PARKING PROVIDED (Store) 6 P.S.
(Gas) 3 P.S.
TOTAL 9 P.S.
PARKING SPACE DIMENSIONS
Typical Space .... 9' x 18' / 9' x 20'
Handicap Space .... 8' x 13'
(All spaces to be permanently striped)

PARCEL 'F' SITE DATA

Gross Site Area .... 7.99 Ac.
Deed Reference .... 1640/0491 Plat 7170
Tax Account Number 04-0000-322649
Councilmanic District 4
Zoning B-2

PARCEL 'F' PARKING TABULATION

PARKING REQUIRED:
SECTION 133.D(4)(C)(e)

Ex. Building 'A'	= 14,593 S.F.	(11,500 S.F. - Food/Retail) - 1 SP./150 S.F.	77
Ex. Building 'B'	= 15,565 S.F.	(General Retail) - 5 SP./1000 S.F.	78
Prop. Building 'C'	= 6900 S.F.	(General Retail) - 5 SP./1000 S.F.	35
	= 2400 S.F.	(High's Store) - 2 SP./1000 S.F.	5
		(Gas)	3
Ex. Building 'D'	= 3531 S.F.	(Restaurant) - 48 Seats; 12 Employees 1 SP./4 Seats; 1 SP./2 Empl.	18
Fut. Building 'E'	= 3025 S.F.	(General Retail) - 5 SP./1000 S.F.	16
Ex. Building 'F'	= 2851 S.F.	(Restaurant) - 50 Seats; 7 Employees 1 SP./3 Seats; 1 Sp./2 Empl.	21
Fut. Building 'G'	= 3200 S.F.	(General Retail) - 5 SP./1000 S.F.	16

TOTAL PARKING REQUIRED FOR ALL BUILDINGS 269 P.S
TOTAL PARKING PROVIDED 376 P.S.
(Includes 15 Handicap Spaces)

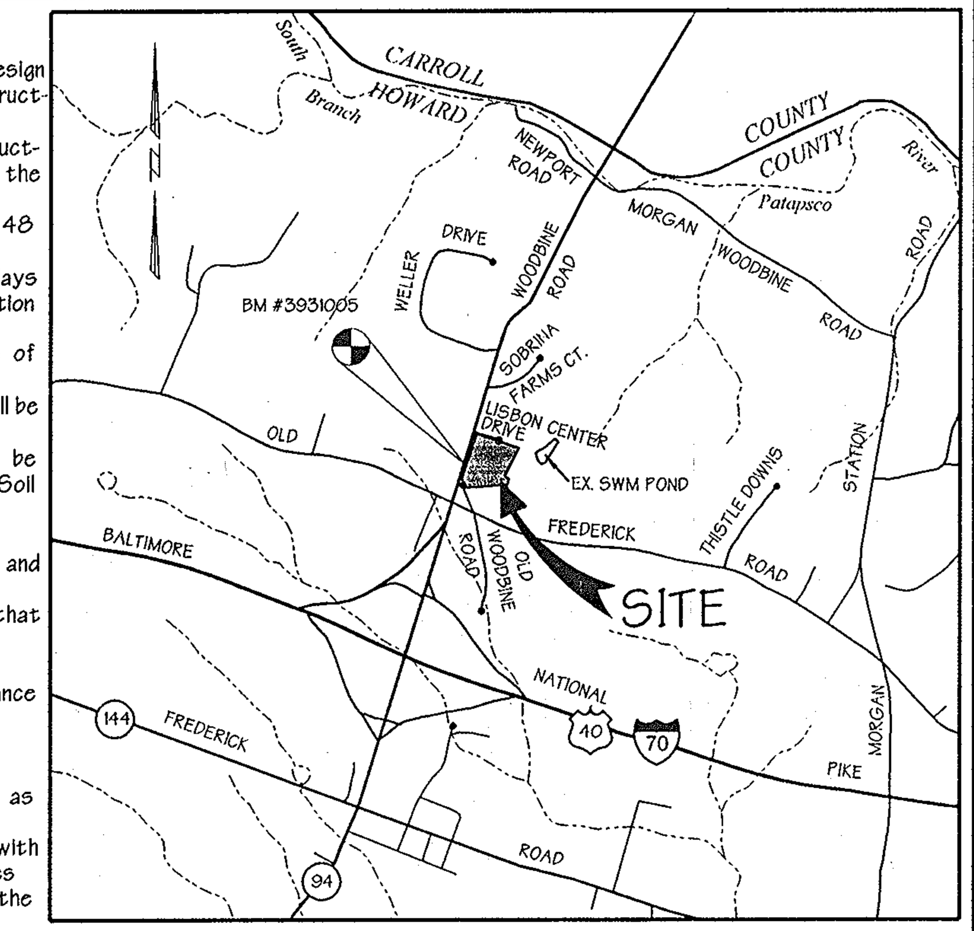
SOILS LEGEND

(From the Howard County Soil Survey, Map 2)

ChB2	Chester silt loam	3-8% slopes	moderately eroded
CuB	Comus silt loam	3-8% slopes	----------
GlB2	Glenelg loam	3-8% slopes	moderately eroded
GlC3	Glenelg loam	8-15% slopes	severely eroded
MlC3	Manor loam	8-15% slopes	severely eroded

GENERAL NOTES

1. All work shall be performed in accordance with the Howard County Design Manual, Volume IV, i.e., Standard Specifications and Details for Construction and/or as shown on these plans.
2. The contractor shall notify the Department of Pubic Works, Construction Inspection Division at (410-313-1880) at least 24 hours prior to the start of work.
3. The contractor shall notify Miss Utility at (800-257-7777) at least 48 hours prior to any excavation.
4. The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation.
5. The contractor shall notify the engineer immediately if location of utilites is other than shown.
6. Any damage to public rights-of-way and /or adjacent properties shall be repaired immediately at the contractor's espense.
7. All areas not being paved or receiving any building coverage shall be stabilized in accordance with the plans approved by the Howard Soil Conservation District.
8. All slopes shall be 2:1 or flatter.
9. The contractor shall maintain at least a 2' level bench behind all curb and gutter receiving fill areas.
10. The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
11. All utilities installed under paving shall receive full trench compaction.
12. All water main tees, bends, caps, etc. shall be buttressed in accordance with the Howard County design requirements.
13. All water lines shall have a minimum 4' cover.
14. All plan dimensions are to face of curb unless otherwise noted.
15. For details of ramps and signs for the handcapped and aged and as shown hereon, see Sheet 2 of 6.
16. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement.
17. The existing septic field has a reserve capacity of 1222 gpd which can be used for the High's Store with pubic restrooms and six additional "low water using" tenants in Proposed Building C.
18. See the Board of Appeals Case (B.A. Case) #96-02E for a special exception to operate a gasoline service station and convenience store in a B-2 Zoning District (reference Sheet 2 for conditions of approval). Any site development shall comply with the conditions set forth in the zoning order. (See D&O on Sheet 2.)
19. Reference F-87-64, Route 94 Business Center, SDP 88-173 and SDP 94-22.



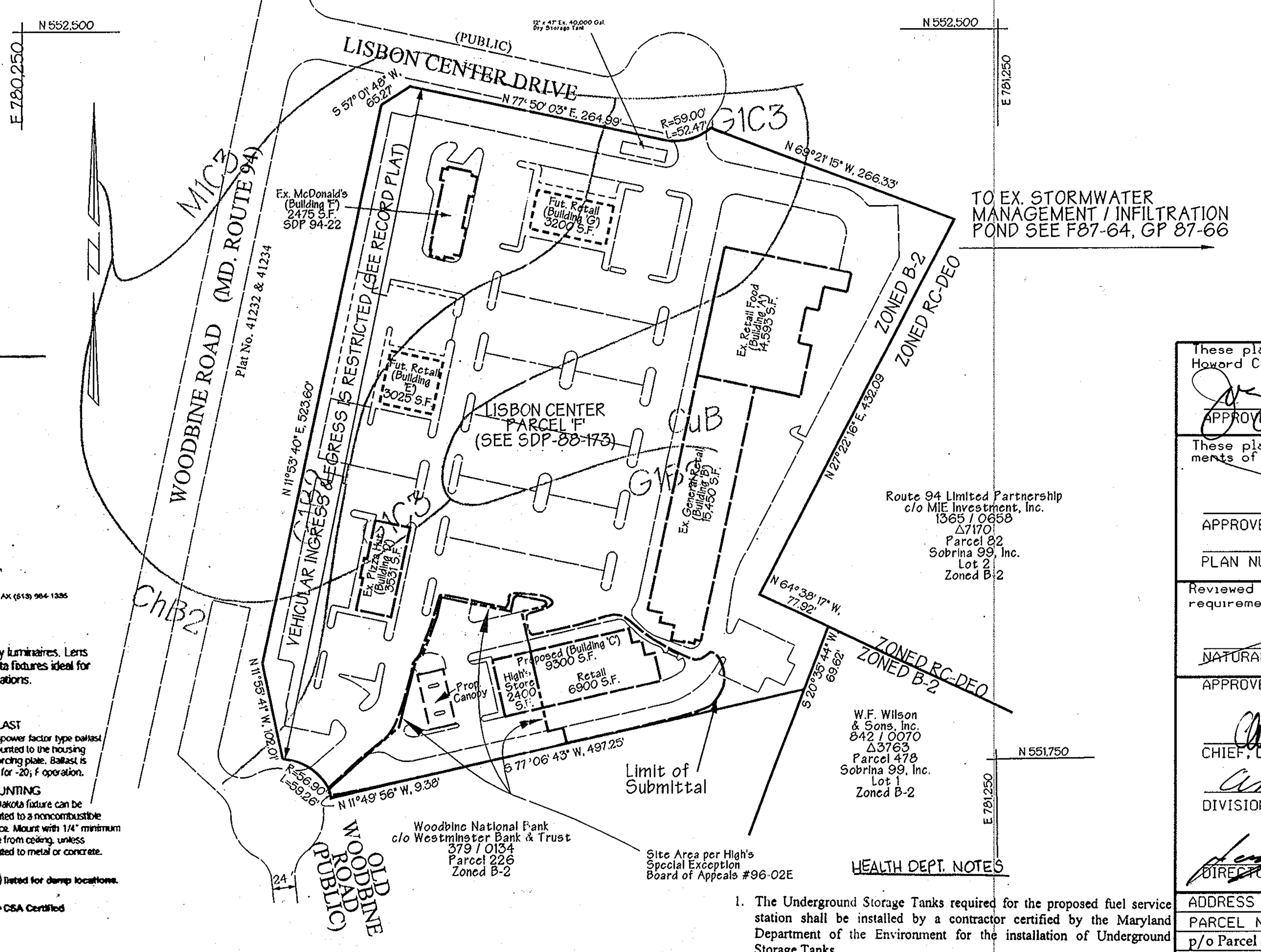
VICINITY MAP

SCALE: 1" = 2000'

HOWARD COUNTY BENCHMARK *ELEV. 634.96*
3/4" Reinforcing rod 0.5' below surface, 285' north of Route 99 along side Woodbine Road

SHEET INDEX

1 Gross Area Site Plan
2 Site Plan
3 Sediment Control Plan
4 Sediment Control Notes & Details
5 Landscape Plan
6 Profiles & Details



TO EX. STORMWATER MANAGEMENT / INFILTRATION POND SEE F87-64, GP 87-66

LOCATION MAP

SCALE: 1" = 100'

HEALTH DEPT. NOTES

1. The Underground Storage Tanks required for the proposed fuel service station shall be installed by a contractor certified by the Maryland Department of the Environment for the installation of Underground Storage Tanks.
2. Prior to installation of the Underground Storage Tanks the owner shall submit plans and/or specifications for the installation of the Underground Storage Tanks to the Howard County Health Department, Bureau of Environmental Health. The Bureau of Environmental Health shall review said plans and/or specifications to confirm that adequate measures have been provided to prevent future contamination, due to tank leakage or fuel spillage, of the existing well which is located at the southwest corner of the building located at 706 Lisbon Center Drive.

These plans for private well and private septic systems.
Howard County Health Department.
[signature] 4-9-98
APPROVED: HOWARD COUNTY HEALTH OFFICER DATE

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
APPROVED: HOWARD SOIL CONSERVATION DISTRICT
PLAN NUMBER DATE

Reviewed for the Howard Conservation District and meets technical requirements.
NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning
[signature] 3/10/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE
[signature] 4/16/98
DIVISION OF LAND DEVELOPMENT DATE
[signature] 4/16/98
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
p/o Parcel 82-F	Building C - 708 Lisbon Center Drive

SUBDIVISION NAME		SECTION NAME			PARCEL #
Route 94 Business Center		N/A			p/o Parcel 82-F
PLAT #	BLOCK #	ZONE	TAX /ZONE MAP	ELECT. DIST.	CENSUS TRACT
7170	24	B-2	2	4	6040
WATER CODE N/A			SEWER CODE N/A		

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
658 KENILWORTH DRIVE, SUITE 100
TOWSON, MARYLAND 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

I/We 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 Howard Soil Conservation District.

Developer Name [signature] Date 10/2/97

OWNER/DEVELOPER
Route 94 Limited Partnership
c/o MIE Properties, Inc.
5720 Executive Drive
Baltimore, Maryland 21228
(410) 788-0100

ENGINEER CERTIFICATION:

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

Engineer [signature] Date 10/2/97
Name NICHOLAS BRADER PE # 18558

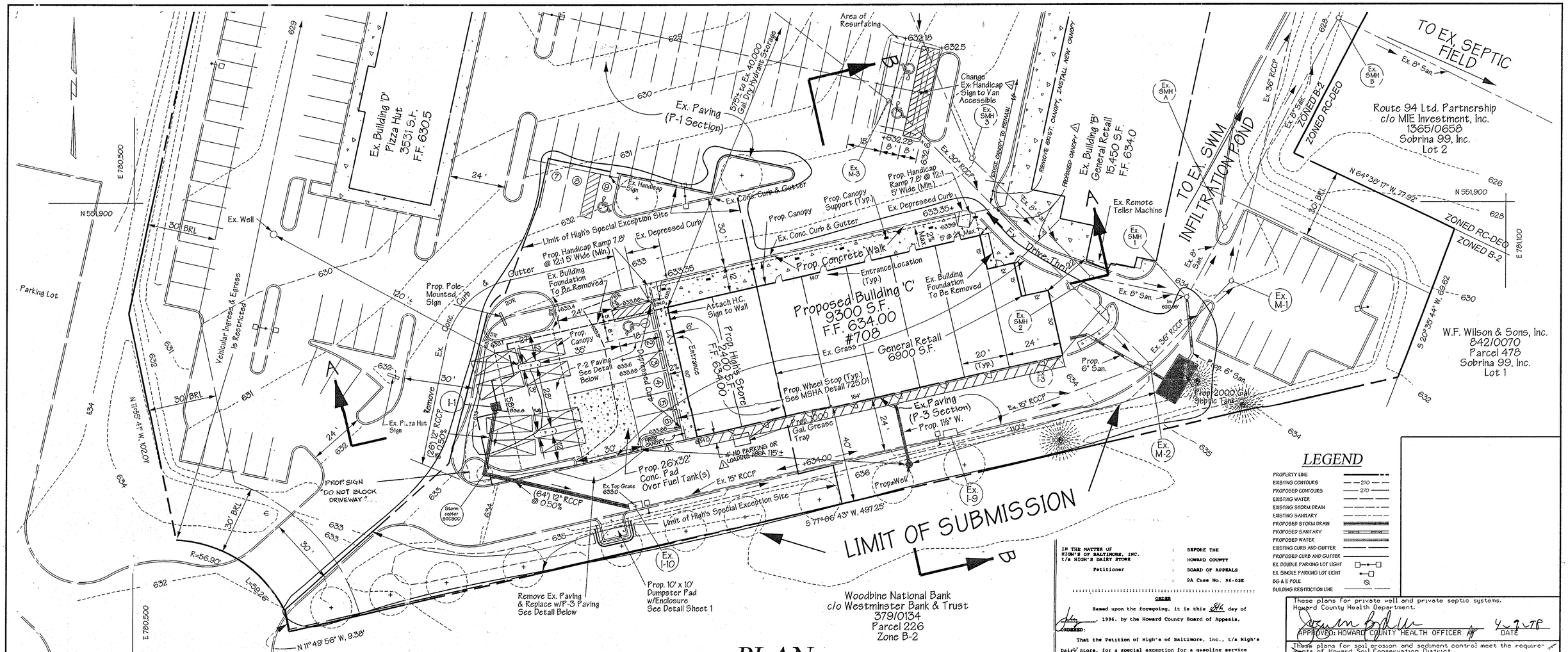
Gross Area Site Plan
ROUTE 94 BUSINESS CENTER
LISBON CENTER
BUILDING 'C'

Election District #4
Parcel 82-F
Scale: As Shown

Howard County, Maryland
August 22, 1997
Sheet 1 of 6

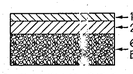
FILENAME: coversheet.s01

SDP-97-161 P.N. 5999



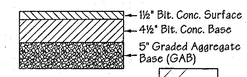
PLAN

SCALE: 1" = 20'



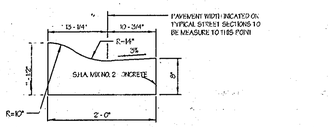
P-2 PAVING DETAIL

NOT TO SCALE



P-3 PAVING DETAIL

NOT TO SCALE

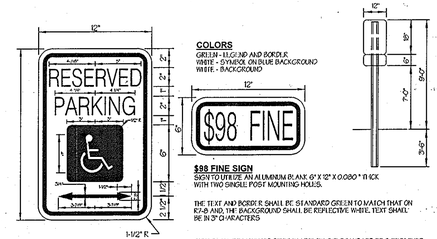


MODIFIED COMBINATION CURB AND GUTTER

NOTE:
MODIFIED COMBINATION CURB AND GUTTER TO BE USED ONLY ON CUL-DE-SAC STREETS, LOCAL ROADS OR MINOR COLLECTOR ROADS.
GUTTER PAN THE MEASUREDLOW 30' IMMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATION SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT MAXIMUM PAVEMENT CROSS SLOPE WHEN OUTER IS LOCATED ON THE LOW SIDE OF THE SUPERELEVATION SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER

Howard County Curb and Gutter Detail

NOT TO SCALE



STANDARD R7-8 RESERVED PARKING SIGN

COLORS
GREEN - LEGEND AND BORDER
WHITE - SYMBOL ON BLUE BACKGROUND
WHITE - BACKGROUND

$98 FINE SIGN
SIGN TO UTILIZE AN ALUMINUM BLANK 6" X 12" X 0.080" THICK WITH TWO SINGLE POST MOUNTING HOLES.

THE TEXT AND BORDER SHALL BE STANDARD GREEN TO MATCH THAT ON R7-8 AND THE BACKGROUND SHALL BE REFLECTIVE WHITE. TEXT SHALL BE IN 2" CHARACTERS

SIGN SHALL BE MOUNTED DIRECTLY BELOW THE STANDARD R7-8 RESERVED PARKING FOR HANDICAPPED SIGN. ITS BOTTOM EDGE SHALL BE NO LESS THAN 7 FEET ABOVE GROUND. IF THE SIGNS ARE FACED AGAINST A BUILDING, STRUCTURE, OR OTHER LOCATION WHERE VEHICLE OPERATION HAS TO BE NOT OBSTRUCTED THE BOTTOM EDGE OF THE SIGN SHALL BE AT LEAST 6 FEET BUT NOT MORE THAN 10 FEET ABOVE GROUND

Handicapped Parking Sign Detail

NOT TO SCALE

LEGEND

PROPERTY LINE	
EXISTING CONTOURS	270
PROPOSED CONTOURS	270
EXISTING WATER	
EXISTING STORM DRAIN	
EXISTING SANITARY	
PROPOSED STORM DRAIN	
PROPOSED SANITARY	
PROPOSED WATER	
EXISTING CURB AND GUTTER	
PROPOSED CURB AND GUTTER	
EX. DOUBLE PARKING LOT LIGHT	
EX. SINGLE PARKING LOT LIGHT	
BG & E POLE	
BUILDING RESTRICTION LINE	

IN THE MATTER OF HIGH'S OF BALTIMORE, INC. t/a HIGH'S DAIRY STORE
Petitioner

BEFORE THE HOWARD COUNTY BOARD OF APPEALS
BA Case No. 96-02E

ORDER

Based upon the foregoing, it is this 18th day of [illegible], 1996, by the Howard County Board of Appeals,

ORDERED:

That the Petition of High's of Baltimore, Inc., t/a High's Dairy Store, for a special exception for a gasoline service station and convenience store on the property known as 708 Lisbon Center Drive, Lisbon, Howard County, Maryland, be, and the same is hereby, GRANTED, subject to the following conditions:

1. The outdoor lighting of the Property shall be limited to the lamps located on the underside of the canopy and shall be shielded and directed to minimize the reflection of such light onto adjacent properties and to not produce glare which would cause a traffic hazard. The lights shall be turned off between the hours of 11:00 p.m. and 5:30 a.m. daily.

2. The hours of operation shall be limited to 5:30 a.m. to 11:00 p.m. seven days a week.

3. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

ATTEST:
Paula Hyrczak, Secretary

HOWARD COUNTY BOARD OF APPEALS
*George L. Layman, Chairperson
Jerry Rushing, Vice Chairperson
Evelyn Tanner
Not Present at Time of Hearing
Donald B. H. Messenger
DID NOT PARTICIPATE
James W. Pfefferkorn

PREPARED BY:
HOWARD COUNTY OFFICE OF LAW
BARBARA W. COOK
COUNTY SOLICITOR
Lori Stello
Senior Assistant County Solicitor

*I HEREBY CERTIFY that I listened to the recording of BA Case No. 96-02E and I reviewed all of the evidence submitted prior to casting my vote.
George L. Layman

These plans for private well and private septic systems. Howard County Health Department.
APPROVED: HOWARD COUNTY HEALTH OFFICER — DATE 4-9-98

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
APPROVED: HOWARD SOIL CONSERVATION DISTRICT
PLAN NUMBER — DATE

Reviewed for the Howard Conservation District and meets technical requirements.
NATURAL RESOURCES CONSERVATION SERVICE — DATE

APPROVED: Howard County Department of Planning and Zoning
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 3/16/98
DIVISION OF LAND DEVELOPMENT — DATE 4/6/98
DIRECTOR — DATE 4/16/98

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
p/o Parcel 82-F	Building C - 708 Lisbon Center Drive

SUBDIVISION NAME	SECTION NAME	PARCEL #
Route 94 Business Center	N/A	p/o Parcel 82-F

PLAT #	BLOCK #	ZONE	TAX ZONE	MAP	ELECT. DIST.	CENSUS TRACT
7170	24	B-2	2		4	6040

WATER CODE N/A — SEWER CODE N/A

NOTE:
Tenants or occupant of any building shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

NOTE: THE ONLY PROPOSED LIGHTING IS UNDERNEATH THE CANOPY - SEE SHEET 1 FOR DETAIL

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
658 KENILWORTH DRIVE, SUITE 100
TOWSON, MARYLAND 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I/We 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 Howard Soil Conservation District.
Developer Name — Date 10/2/97

OWNER/DEVELOPER
Route 94 Limited Partnership
c/o MIE Properties, Inc.
5720 Executive Drive
Baltimore, Maryland 21228
(410) 788-0100

ENGINEER CERTIFICATION:
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Engineer — Date 10/2/97
Name NICHOLAS J. BADER — PE # 13558

REV. 1 5/20/98 REVISE EXTENT OF CANOPY TO MATCH ARCH. PLANS; SHOW 4' NO PARKING OR LOADING AREA.

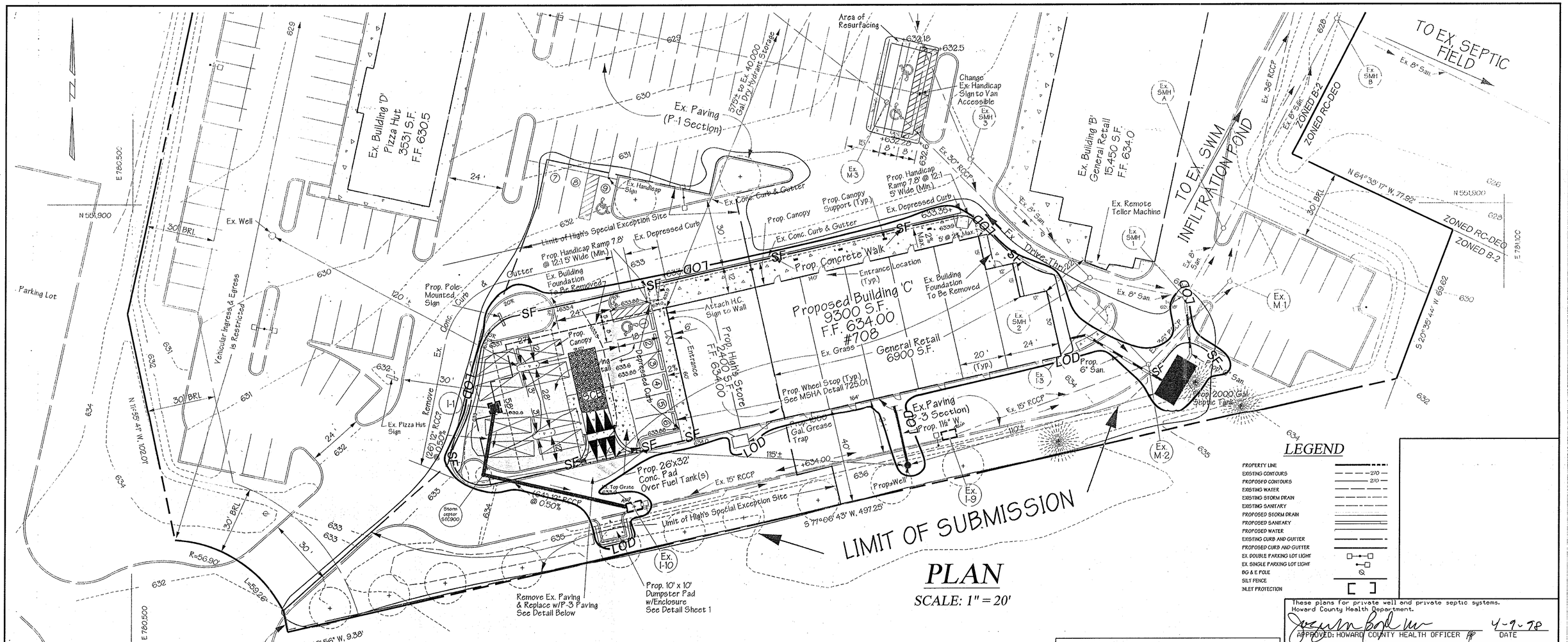
Site Plan
ROUTE 94 BUSINESS CENTER
LISBON CENTER
BUILDING 'C'

Election District #4
Parcel 82-F
Scale: 1"=20'

Howard County, Maryland
August 22, 1997
Sheet 2 of 6

SDP-97-161 P.N. 5999

FILENAME: sitplan.s01

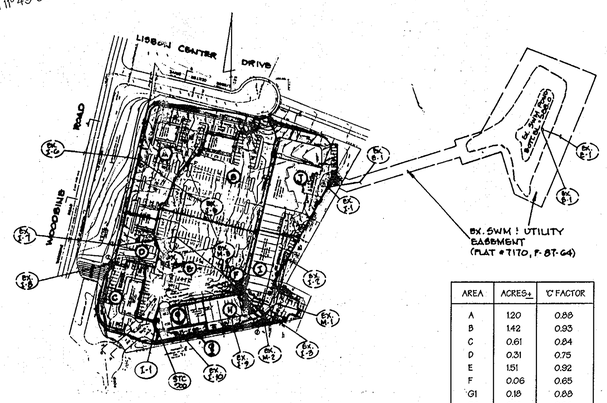


PLAN

SCALE: 1" = 20'

LEGEND

PROPERTY LINE	
EXISTING CONTOURS	270
PROPOSED CONTOURS	270
EXISTING WATER	
EXISTING STORM DRAIN	
EXISTING SANITARY	
PROPOSED STORM DRAIN	
PROPOSED SANITARY	
PROPOSED WATER	
EXISTING CURB AND GUTTER	
PROPOSED CURB AND GUTTER	
EX. DOUBLE PARKING LOT LIGHT	
EX. SINGLE PARKING LOT LIGHT	
BG & E POLE	
SILT FENCE	
INLET PROTECTION	



DRAINAGE AREA MAP

SCALE: 1" = 200'

AREA	ACRES±	'C' FACTOR
A	1.20	0.86
B	1.42	0.93
C	0.61	0.84
D	0.31	0.75
E	1.51	0.92
F	0.06	0.65
G1	0.18	0.88
G2	0.10	0.88
H	0.29	0.86
I	0.55	0.91
J	1.08	0.83

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES 48 HOURS PRIOR TO BEGINNING WORK.
3. INSTALL SILT FENCE. (1 DAY).
4. FINE GRADE, INSTALL UTILITIES. BEGIN BUILDING CONSTRUCTION. (5 WEEKS).
5. INSTALL CURB AND GUTTER. (1 DAY)
6. BEGIN PAVING OPERATIONS (2 DAYS).
7. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR REMOVE REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE WITH PERMANENT SEEDING. (1 DAY).

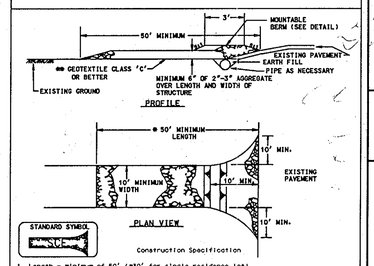
* ALL WORK IN EXISTING PAVED AREAS IS TO BE STABILIZED WITH STONE AT THE END OF EACH WORKING DAY.

* THE CONTRACTOR IS RESPONSIBLE FOR CLEANING THE EXISTING SWM POND FOR ANY SEDIMENT ATTRIBUTED TO THIS PLAN.

HOWARD COUNTY BENCHMARK — ELEV. 634.96

3/4" Reinforcing rod 0.5' below surface, 285' north of Route 99 along side Woodbine Road

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE F - 17 - 8 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

These plans for private well and private septic systems. Howard County Health Department.

APPROVED: HOWARD COUNTY HEALTH OFFICER — DATE 4-9-98

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT — DATE 3/10/98

PLAN NUMBER

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/10/98

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 3/16/98

DIVISION OF LAND DEVELOPMENT JPI — DATE 4/8/98

DIRECTOR — DATE 4/16/98

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
p/o Parcel 82-F	Building C - 708 Lisbon Center Drive

SUBDIVISION NAME	SECTION NAME	PARCEL #
Route 94 Business Center	N/A	p/o Parcel 82-F

PLAT #	BLOCK #	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
7170	24	B-2	2 / ZONE MAP	4	6040

WATER CODE N/A — SEWER CODE N/A

NOTE:

tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

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I/We 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 Howard Soil Conservation District.

Developer Name — Date 10/2/97

OWNER/DEVELOPER

Route 94 Limited Partnership
c/o MIE Properties, Inc.
5720 Executive Drive
Baltimore, Maryland 21228
(410) 788-0100

ENGINEER CERTIFICATION:

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

Engineer — Date 10/2/97

Name Nicholas T. Bender — PE # 18558

Sediment Control Plan

ROUTE 94 BUSINESS CENTER
LISBON CENTER

BUILDING 'C'

Election District #4
Parcel 82-F
Scale: 1"=20'

Howard County, Maryland
August 22, 1997
Sheet 3 of 6

FILENAME: sedcont.s01

SDP-97-161 P.N. 5999

GENERAL NOTES

1. Refer to "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control" for standard details and detailed specifications of each practice specified herein.
2. With the approval of the sediment control inspector, minor field adjustments can and will be made to ensure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Baltimore County Soil Conservation District.
3. At the end of each working day, all sediment control practices will be inspected and left in operational condition.
4. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1), and (b) fourteen days as to all other disturbed or graded areas on the project site which will remain idle over fourteen days.
5. Any change to the grading proposed on this plan requires re-submission to Baltimore County Soil Conservation District for approval.
6. Dust control will be provided for all disturbed areas. Refer to "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control", page 19-201, for acceptable methods and specifications for dust control.
7. Any variations from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the Baltimore County Soil Conservation District prior to the initiation of the change.
8. Excess cut or borrow material shall go to, or come from, respectively, a site with an open grading permit.
9. The following item may be used as applicable: Refer to "Maryland's Guidelines to Waterway Construction" by the Water Resources Administration (WRA), dated January, 1806, for standard details and detailed specifications of each practice specified herein for waterway construction.

Section I - Vegetative Stabilization Methods and Materials

A. Site Preparation

i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
ii. Perform all grading operations at right angles to the slope. This prevents furrows and staging is not usually necessary for temporary seeding.
iii. Schedule required soil tests to determine soil amendment composition and application rates for areas being disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)

i. Soil tests must be performed to determine the exact rates and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples may be taken for engineering purposes may also be used for chemical analysis.

ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall also be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.

iv. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

C. Seedbed Preparation

i. Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should not be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plan.

c. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

ii. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishment:
1. Soil pH shall be between 6.0 and 7.0.
2. Soluble salts shall be less than 500 parts per million (ppm).
3. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if gravels or metallic impurities are to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
4. Soil shall contain 1.5% minimum organic material.
5. Soil shall be free of plants of the Bermuda grass family.
6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standards and Specification for Topsoil.

b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check rows to prevent topsoil from sliding down a slope.

c. Apply soil amendments as per soil tests or as included on the plan.

d. Mix soil amendments into the top 3 - 5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 2" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications

i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed mixes shall have been tested within the 6 months immediately preceding the date of sowing much material in this job.

NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.

ii. Inoculant - The inoculant for treating legume seed in the seed mixture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than one date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. NOTE: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 - 80 degrees F. can weaken bacteria and make inoculant less effective.

E. Methods of Seeding

Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen: maximum of 100 lbs. per acre total soluble nitrogen; P205 (phosphorus): 200 lbs./ac.; K20 (potassium): 200 lbs./ac.

b. Lime - use only ground agricultural limestone, (1½ to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

ii. Dry Seeding: This includes one of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or or Permanent Seeding Summaries on Tables 20 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (in order of preference)

i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

ii. Wood Cellulose Fiber Mulch (WCFM)

a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.

i. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

i. A mulch anchoring tool in a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.

ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on the crests of banks. The remainder of area should appear uniform after blower application. Synthetic binders - such as Acrylic DLR (Hoge-Fasst), DCA-70, Petroset, Terra Tack II, Terra Tack AR, or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.

Section II - Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

Section III - Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

A. General specifications

i. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approval. Sod labels shall be made available to the job foreman and inspector.

ii. Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.

iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

B. Sod Installation

i. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause drying of the roots.

iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between root roots and the underlying soil surface.

iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. Sod Maintenance

i. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moists soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.

ii. After the first week, sod watering is required as necessary to maintain adequate moisture content.

iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

Section IV - Turfgrass Establishment

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive sod shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and rolled to prepare a proper seedbed. Stones and debris over 1½" inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

NOTE: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. Turfgrass Mixtures

i. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 15 to 2.0 pounds/1000 square feet. A minimum of three Bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive moderate to intensive management. Certified Perennial Ryegrass cultivars Seeding Rate: 1 to 2 pounds mixture/1000 square feet. Recommended Certified Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: certified Tall Fescue Cultivars 95 - 100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate 5 to 8 lb/1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass Cultivars 30 - 40% and certified Fine Fescue and 60 - 70%. Seeding rate: 1 1/2 - 2 lbs/1000 square feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

NOTE: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland".

B. Ideal times of seeding

Western MD: March 15-June 1, August 1-October 1 (Hardiness Zones - 5b, 6a)

Central MD: March 1-May 10, August 15-October 15 (Hardiness Zones - 6b)

Southern MD, Eastern Shore: March 1-May 15, August 15-October 15 (Hardiness Zones - 7a, 7b)

C. Irrigation

If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. Repairs and Maintenance

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season.

i. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.

ii. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, seedbed preparation and seeding recommendations.

iii. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.

iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 174.

21.0 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:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

ii. For the purposed 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 specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

ii. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other material larger than 1½" in diameter.

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

iii. 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.

ii. 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.

iii. For sites having disturbed areas over 5 acres:

i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic content of topsoil shall be not less than 15 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

d. 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

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

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributes in a 4" - 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 irregularies in the surface resulting form topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. 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 otherwised be detrimental to proper grading and seedbed preparation.

VI. 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:

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

a. Composted sludge shall be supplied by, or originated from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normall 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.

Table 25 - Permanent Seeding for Low Maintenance Areas

MIX	SEED MIX (USE CERTIFIED MATERIAL IF AVAILABLE)	PLANTING RATE LBS/AC.	PLANTING RATE LBS/1000 SQ.FT.	SITE CONDITIONS	USDA HARDINESS ZONES	RECOMMENDED PLANTING DATES 3/1-5/15	5/16-6/1	6/2-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15	NOTES
1	TALL FESCUE (72%) CANADA BLUEGRASS (10%) KENTUCKY BLUGRASS (10%) REDTOP (5%)	150	3.4	MOIST TO DRY	5b					X			A
					6a		X			X			
					6b	X					X		
					7a	X					X		
					7b	X					X		
2	KENTUCK BLUEGRASS (50%) CREEPING RED FESCUE OR ANNAD FESCUE (40%) REDTOP (10%)	150	3.4	MOIST TO MODERATELY DRY TO DRY	5b		X			X			B
					6a		X			X			
					6b	X					X		
3	TALL FESCUE (89%) PERENNIAL RYEGRASS (10%) KENTUCKY BLUEGRASS (5%)	125 15 10	2.9 .34 .23	MOIST TO DRY	5b	X				X			G
					6A	X				X			
					6B	X					X		
					7A	X					X		
					7B	X					X		
4	RED FESCUE OR CHEWINGS FESCUE (80%) PERENNIAL RYEGRASS (20%)	60 15	.92 .34	MOIST TO DRY	5b		X			X			D
					6a		X			X			
					6b	X					X		
5	TALL FESCUE (25%) OR PERENNIAL RYEGRASS (50%) PLUS CROWNVETCH OR FLATPEA	10 20 20 20	.25 .46 .46 .46	MOIST TO DRY	5b		X			X			E
					6a		X			X			
					6b	X					X		
					7a	X					X		
					7b	X					X		
6	WEEPING LOVEGRASS (81%) SERICIA LESPEDEZA (19%)	4 .20	.09 .46	DRY TO VERY DRY	6a	X		X					F
					7a	X		X					
					7b	X		X					
7	TALL FESCUE (83%) WEEPING LOVEGRASS (2%) PLUS SERICIA LESPEDEZA (15%)	110 3 20	2.5 .07 .46	DRY TO VERY DRY	5b			X	X				G
					6a			X	X	X			
					6b	X		X			X		
					7a	X		X				X	
					7b	X		X				X	
8	REED CANARYGRASS (75%) REDTOP (5%) PLUS BIRDSFOOT TREEFOIL (19%)	40 3 10	.92 .07 .23	WET TO MODERATELY DRY	5b			X		X			H
					6a			X		X			
					6b	X					X		
					7a	X					X		
9	TALL FESCUE (96%) PLUS TRAILS (1%) BIRDSFOOT TREFOIL (3%)	125 10 3	2.9 .23 .07	WET TO MODERATELY DRY	5b		X			X			I
					6a		X			X			
					6b	X					X		
10	TALL FESCUE (80%) HARD FESCUE (20%)	150 30	3.4 .69	WET TO DRY	5b		X			X			J
					6a		X			X			
					6b	X					X		
					7a	X					X		
					7b	X					X		
11	HARD FESCUE (100%)	75	1.7	MOIST TO DRY	5b		X			X			K
					6a		X			X			
					6b	X					X		
					7a	X					X		

NOTES:
A. USED BY SHA ON SLOPED AREAS, ADD ALFALFA FOR SLOPES > THAN 3:1.
B. USED IN WETTER AREAS BY SHA. SHADE TOLERANT.
C. POPULAR MIX - PRODUCES PERMANENT GROUNDCOVER QUICKLY. BLUEGRASS THICKENS SLAND.
D. RECIP USE, DO NOT PLANT ROUGH SLOPES NOT ON POORLY DRAINED CLAYS.
E. USE ON LOW MAINTENANCE, STEEP SLOPES. USE TALL FESCUE IN DRAUGHTY CONDITIONS. CROWNVETCH BEST FOR 5b, 6a, 6b
F. SUITABLE FOR SEEDING INMID-SUMMER.
G. WEEPING LOVEGRASS MAY BE SEEDED WITH TALL FESCUE IN MID-SUMMER. SERICIA LESPEDEZA IS BEST SUITED FOR ZONES 7a AND 7b.
H. USE ON POOR, ACIDIC SOILS. ZONE 6a IS WARMEST ZONE FOR BIRDSFOOT TREEFOIL BEST FOR ZONES 5b, 6a. ABOVE 2,000 FEET, USE 15 LBS/AC OF TALL FESCUE.
I. USE ON WET SITES. ZONE 6a IS WARMEST ZONE FOR BIRDSFOOT TREFOIL.
J. USE ON DRY, INFERTILE SITES. REQUIRES LITTLE MAINTENANCE. SHADE TOLERANCE AND PRODUCE A DENSE TURF.
K. LOW FERTILITY CROPS. REQUIRES INFREQUENT MOWING. GOOD COMPANION FOR WILDFLOWERS.

PERMANENT SEEDING RATES

FERTILIZER RATE (10-10-10)		LIME RATE
N	P205	K20	
90 LB/AC (2 LB/1000 S.F.)	175 LB/AC (4 LB/1000 S.F.)	175 LB/AC (4 LB/1000 S.F.)	2 TONS/AC (100 LB/1000 S.F.)

NOTE:
FOR SOILS HAVING DISTURBED AREAS OVER 5 ACRES THE RATES SHOWN ABOVE FOR PERMANENT SEEDING SHALL BE DELETED AND THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY SHALL BE USED.

24.0 MATERIALS SPECIFICATIONS

Table 27 Geotextile Fabrics

CLASS	APPARENT OPENING SIZE MM. MAX.	GRAB TENSILE STRENGTH LB. MIN.	BURST STRENGTH PSI. MIN.
A	0.30 **	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

* US Std. Sieve CW-02215 ** 0.50 MM. MAX. FOR SUPER SILT FENCE

The properties shall be determined in accordance with the following procedures:

- Apparent opening size — MSMT 323
- Grab tensile strength — ASTM D 1682; 4 x 8" specimen, 1x2" clamps, 12" /min. strain rate in both principal directions of geotextile fabric.
- Burst strength — ASTM D 3786

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolephins, polyesters, or polymides. The geotextile fabric shall resist deterioration from ultraviolet exposure.

In addition, Classes A through E shall have a 0.01 cm/sec. minimum permeability when tested in accordance with MSMT 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

Silt Fence
Class F geotextile fabrics for silt fence have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modulus when tested in accordance with MSMT 509. The material shall also have a 0.3 gal/ft²/min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MSMT 322.

Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees F.

Table 26 - Temporary Seeding Rates, Depths, and Dates

SPECIES	MINIMUM SEEDING RATES: PER ACRE	LBS/1000 SQ.FT.	PLANTING DEPTH	HARDINESS ZONES AND SEEDING DATES 5a and 7b: 4/20	5/1	8/15	9/15	6b: 4/20	5/1	8/15	9/15	6a and 7a: 4/20	5/1	8/15	9/15
CHOOSE ONE: BARLEY OR RYE	2.5 BU. (112 lbs.) or 3 BU. (144 lbs.)	2.50 or 3.22	1-3 1-3 1-2	X	-	8/1	10/15	X	-	8/1	10/15	X	-	8/1	10/1
				X	X	X	X	X	X	X	X	X	X	X	X
BARLEY OR RYE PLUS ANNUAL RYEGRASS	1.5 BU.	3.45	1	X	10/15	X	X	X	X	X	X	X	X	X	X
				X	X	X	X	X	X	X	X	X	X	X	X
WEEPING LOVEGRASS	4 lbs.	.09	1/4 - 1/2	X	-	-	-	X	-	-	-	X	-	-	-
ANNUAL RYEGRASS	50 lbs.	1.15	1/4 - 1/2	X	-	8/1	X	-	8/1	X	-	8/1	X	-	8/15
MILLET	50 lbs.	1.15	1/2	X	-	-	-	X	-	-	-	X	-	-	-

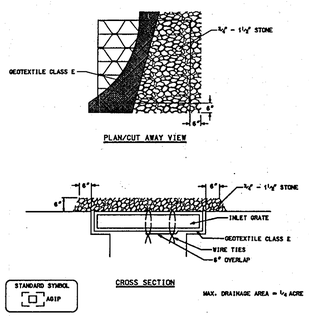
TEMPORARY SEEDING RATES

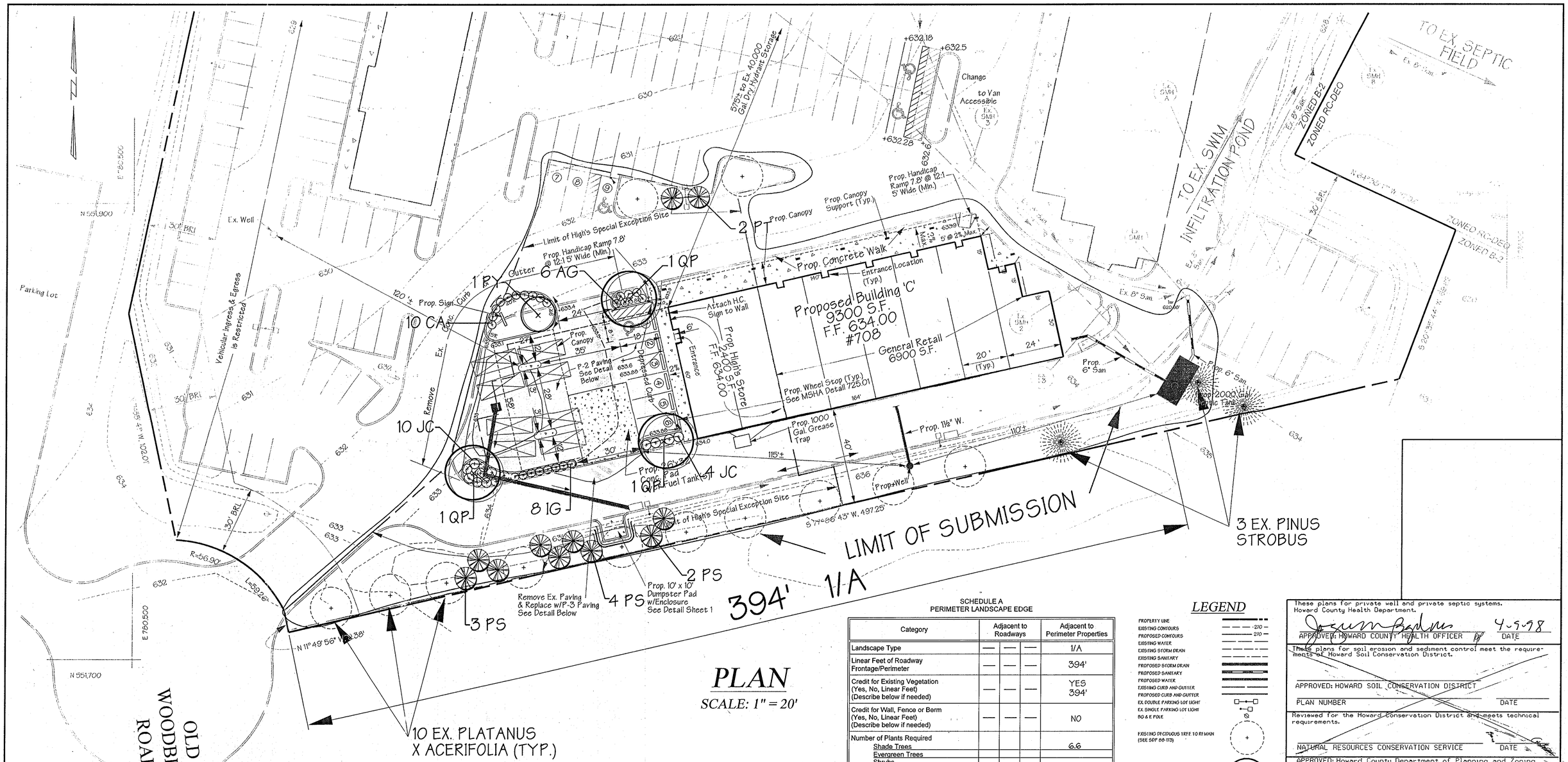
FERTILIZER RATE (10-10-10)	LIME RATE
600 LBS/AC (13.8 LBS/1000 S.F.)	2 TONS/AC (100LB/1000 S.F.)

Sediment Control Notes

1. 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).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN GOOD ORDER. WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, 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 FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE "HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE".
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING AND MULCHING (SEC G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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: 7.99 ACRES
   AREA DISTURBED: 0.152 ACRES
   AREA TO BE ROOFED OR PAVED: 0.39 ACRES - 16,859 S.F.
   AREA TO BE VEGETATIVELY STABILIZED: 0.04 ACRES - 1,767 S.F.
   TOTAL CUT: 100 C.Y.
   OFFSITE WASTE/BORROW AREA LOCATION: EXCESS CUT SHALL BE TAKEN TO A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN
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 CONTROLS 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 THEIR PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

DETAIL 23B - AT GRADE INLET PROTECTION


¾" - 1½" STONE
GEOTEXTILE C



PLAN

SCALE: 1" = 20'

FOR APPROVED OVERALL LANDSCAPE PLAN, SEE SDP 88-173

SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways			Adjacent to Perimeter Properties
Landscape Type	—	—	—	1/A
Linear Feet of Roadway Frontage/Perimeter	—	—	—	394'
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	—	—	—	YES 394'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	—	—	—	NO
Number of Plants Required				
Shade Trees				6.6
Evergreen Trees				
Shrubs				
Number of Plants Provided				
Shade Trees				10 EX.
Evergreen Trees				12 (3 EX.)
Other Trees (2:1 substitution)				
Shrubs (10:1 substitution)				
(Describe plant substitution credits below if needed)				

Comments: _____

LEGEND

PROPERTY LINE
EXISTING CONTOURS
PROPOSED CONTOURS
EXISTING WATER
EXISTING STORM DRAIN
EXISTING SANITARY
PROPOSED STORM DRAIN
PROPOSED SANITARY
PROPOSED WATER
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
EX. DOUBLE PARKING LOT LIGHT
EX. SINGLE PARKING LOT LIGHT
BG & E POLE
EXISTING DECIDUOUS TREE TO REMAIN (SEE SDP 88-173)
PROPOSED DECIDUOUS TREE
PROPOSED ORNAMENTAL TREE
PROPOSED EVERGREEN TREE
PROPOSED SHRUBS

These plans for private well and private septic systems. Howard County Health Department.

APPROVED: HOWARD COUNTY HEALTH OFFICER — DATE 4-9-98

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER — DATE

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE — DATE

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 3/16/98

DIVISION OF LAND DEVELOPMENT — DATE 4/16/98

DIRECTOR — DATE 4/16/98

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
p/o Parcel 82-F	Building C - 708 Lisbon Center Drive

SUBDIVISION NAME	SECTION NAME	PARCEL #
Route 94 Business Center	N/A	p/o Parcel 82-F

PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
7170	24	B-2	2	4	6040

WATER CODE N/A — SEWER CODE N/A

NOTE:

tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
658 KENILWORTH DRIVE, SUITE 100
TOWSON, MARYLAND 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

I/We 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 Howard Soil Conservation District.

Developer Name _____ Date 6/19/97

OWNER/DEVELOPER
Route 94 Limited Partnership
c/o MIE Properties, Inc.
5720 Executive Drive
Baltimore, Maryland 21228
(410) 788-0100

ENGINEER CERTIFICATION:

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

Engineer _____ Date 6/19/97

Name _____ PE # _____

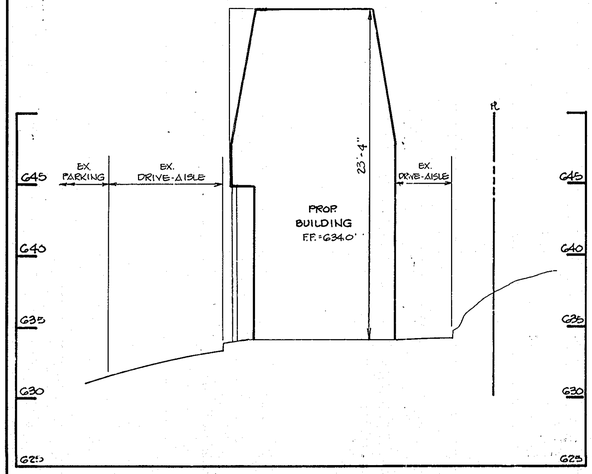
Landscape Plan
ROUTE 94 BUSINESS CENTER
LISBON CENTER
BUILDING 'C'

Election District #4
Parcel 82-F
Scale: 1"=20'

Howard County, Maryland
August 22, 1997
Sheet 5 of 6

FILENAME:landscape.s01

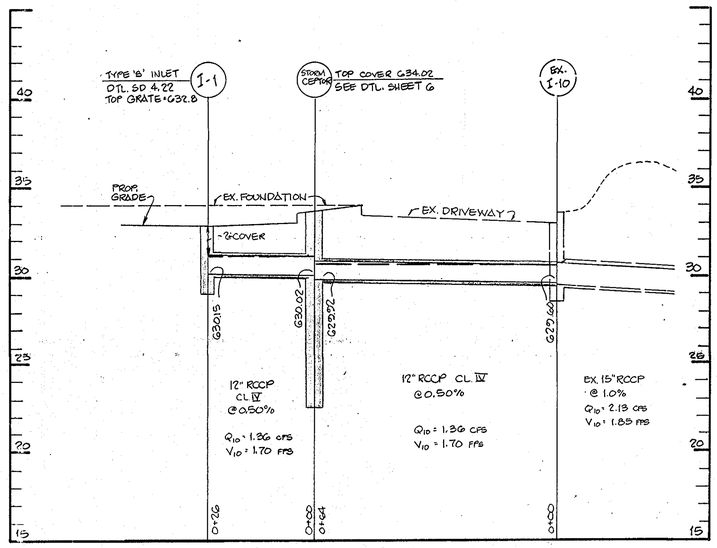
SDP-97-161 P.N. 5999



SECTION B-B

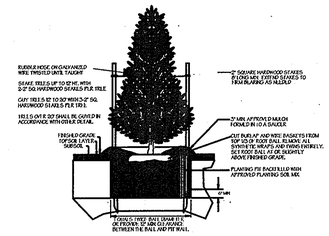
SCALE : HORZ: 1"= 30'
VERT: 1"= 5'

STRUCTURE SCHEDULE				
Nº	TYPE	SIZE	INV.OUT	TOP EL.
STORM CENTER	SEE SHT. 1 OF 6	STC 5400	G25.02	G34.02
I-1	SD 4.22 'S' INLET	12"	G30.15	G32.8



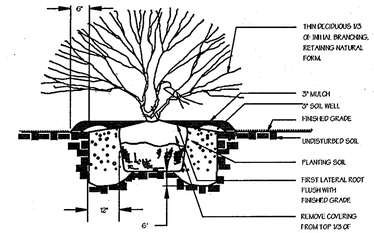
STORM DRAIN PROFILE

SCALE: HORZ: 1"= 20'
VERT: 1"= 4'



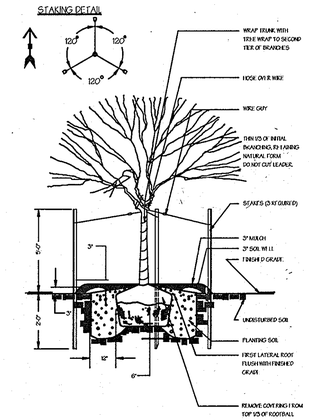
Evergreen Planting Detail

NOT TO SCALE



Shrub Planting Detail

NOT TO SCALE

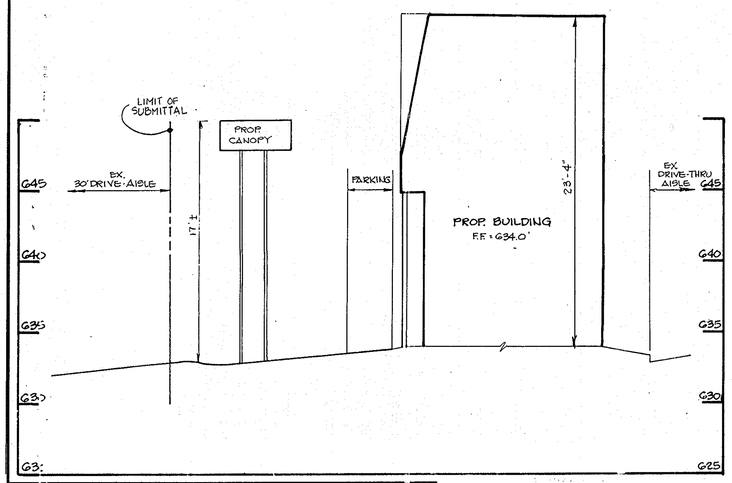


Tree Planting Detail

NOT TO SCALE

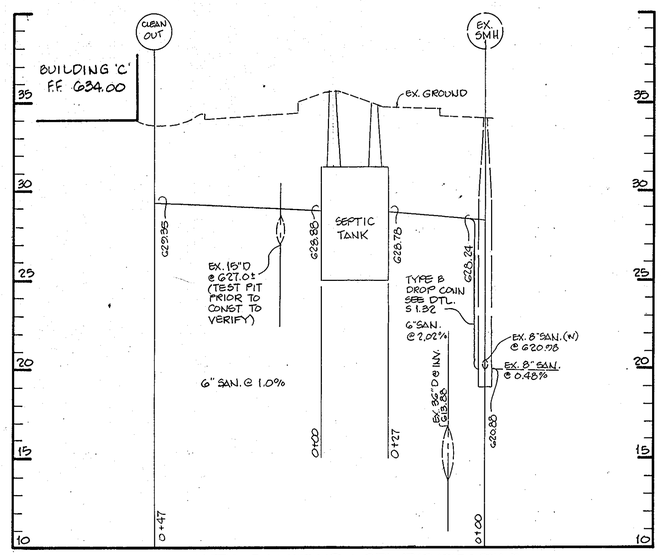
Planting Schedule

KEY	QUANTITY	BOTANICAL NAME/COMMON NAME	SIZE & CONDITION / SPACING	REMARKS
		TREES		
QP	3	Quercus phellos/Willow Oak	2 1/2 - 3" Cal./ B&B / 25' o/c As Shown	Full Crown
PY	1	Prunus x yeodensis/Yoshino Cherry	2 - 2 1/2" Cal./ B&B / 15' o/c As Shown	Matched
PT	2	Pinus thunbergiana/Japanese Black Pine	5 - 6' Ht./ B&B / 10' o/c As Shown	Full to Base
PS	9	Pinus Strobus/White Pine	6- 8' Ht./ B&B / 10' o/c As Shown	Full to Base
		SHRUBS		
JC	14	Juniperus chin. 'Pfitzeriana Compacta'/Compact Pfitzer Juniper	24-30" Spr. / Cont. / 4' - O/C	
CA	10	Cotoneaster apiculata/Cranberry Cotoneaster	24-30" Spr. / Cont. / 3.5' - O/C	
IG	8	Ilex Glabra/Inkberry	24-30" Ht. / B & B / 3' - O/C	
AG	6	Abelia x grandiflora 'Edward Goucher'/Edward Goucher Abelia	18-24" Spr. / Cont. / 3.5' - O/C	



SECTION A-A

SCALE: HORZ: 1"=30'
VERT: 1"=5'



PRIVATE SANITARY SEWER PROFILE

SCALE: HORZ: 1"= 20'
VERT: 1"= 4'

NOTE:

tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

PLANTING NOTES

PLANT LOCATIONS SHALL BE FIELD ADJUSTED TO AVOID UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO START OF WORK. ALL TREES AND SHRUBS SHALL BE MULCHED TO A MINIMUM OF 18" BEYOND THE EDGE OF THE ROOT BALL. SHRUBS MASSES SHALL BE PLANTED IN CONTINUOUS MULCH BEDS. ALL WIRE, PLASTIC AND TWINE TIES SHALL BE REMOVED FROM TOP OF THE ROOT BALL.

PLANT STANDARDS

ALL NURSERY STOCK SHALL BE TOP QUALITY AND IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION. INFERIOR NURSERY STOCK WILL BE SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT. BARE-ROOT SHALL NOT BE ALLOWED FOR ANY TREE DEFINED AS MAJOR DECIDUOUS, MINOR DECIDUOUS OR EVERGREEN

CHANGES MAY IMPACT REQUIRED CERTIFICATION

PLANT TYPES (DECIDUOUS TREES, EVERGREEN, ETC.), QUANTITIES, SPACING, LOCATION, AND SPECIES SHOWN ON THE APPROVED LANDSCAPE PLAN ARE BASED ON REQUIREMENTS STATED IN THE LATEST HOWARD COUNTY LANDSCAPE MANUAL. ANY CHANGE IN THESE ITEMS MAY AFFECT THE REQUIRED APPROVAL AND CERTIFICATION OF THE INSTALLED PLANTING. OWNER IS REQUIRED TO ARRANGE AND PAY FOR CERTIFICATION BY LANDSCAPE ARCHITECT.

LANDSCAPE SPECIFICATIONS

LANDSCAPE SPECIFICATION SHALL CONFORM TO LCA LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREA, INCLUDING PLANTING PROCEDURES AND SOIL PREPARATION FOR SHRUBS AND PERENNIAL BEDS. A ONE-YEAR WARRANTY PERIOD SHALL BE REQUIRED. MAINTENANCE REQUIRED TO HONOR THE ONE YEAR WARRANTY SHALL BE PERFORMED AS PART OF THIS CONTRACT.

SPECIAL PROVISIONS TO LCA STANDARD SPECIFICATIONS

CONTRACTOR IS ENCOURAGED TO PERFORM SOIL TESTING. TEST RESULTS SHALL BE SUBMITTED 30 DAYS BEFORE PLANTING. FAILURE TO PERFORM TESTING WILL NOT VOID GUARANTEE PROVISIONS.

CONTRACTOR SHALL REVIEW AND TEST SUBSOIL DRAINAGE CHARACTERISTICS 30 DAYS PRIOR TO PLANTING AND NOTIFY THE OWNER OF UNACCEPTABLE CONDITIONS.

NO EXCEPTIONS TO THE GUARANTEE PROVISIONS ARE ALLOWED UNLESS AGREED TO IN WRITING PRIOR TO PLANTING.

1) "THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL."

2) "FINANCIAL SURETY FOR THE 15 TREES AND 38 SHRUBS (EQUIVALENT TO 3 TREES) REQUIRED HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF $1800.00."

These plans for private well and private septic systems.
Howard County Health Department.

APPROVED: HOWARD COUNTY HEALTH OFFICER — DATE 4-7-98

These plans for S.W.M. construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER — DATE

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE — DATE

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 3/16/98

DIVISION OF LAND DEVELOPMENT — DATE 4/16/98

DIRECTOR — DATE 4/16/98

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
p/o Parcel 82-F	

SUBDIVISION NAME	SECTION NAME	PARCEL #
N/A	N/A	p/o Parcel 82-F

PLAT #	BLOCK #	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
N/A		B-2	2	4	6040

WATER CODE N/A — SEWER CODE N/A

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
653 KENILWORTH DRIVE, SUITE 100
TOWSON, MARYLAND 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

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

Developer Name EDWARD ST. JOHN — Date 6/19/97

OWNER/DEVELOPER
Route 94 Limited Partnership
c/o MIE Properties, Inc.
5720 Executive Drive
Baltimore, Maryland 21228
(410) 788-0100

ENGINEER CERTIFICATION:

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

Engineer — Date 6/19/97
Name NICHOLAS J. BANDOR JR. — PE # 18588

Profiles & Details
ROUTE 94 BUSINESS CENTER
LISBON CENTER
BUILDING 'C'

Election District #4
Parcel 82-F
Scale: 1"=20'

Howard County, Maryland
August 22, 1997
Sheet 6 of 6

SDP-97-161

FILENAME: landnotes.s01