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SITE DEVELOPMENT PLAN

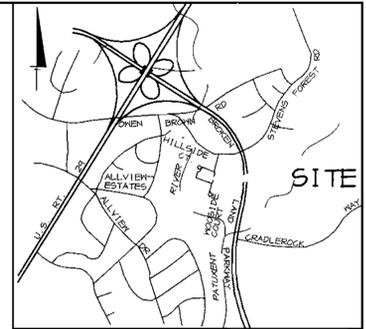
RESTAURANT ASSOCIATION OF MARYLAND

VILLAGE OF OWEN BROWN

PARCEL F-4

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 200'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSMA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-251-7177 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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 OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOCIATES DATED JUNE 1999.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 36EA AND 56HA WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 24-1482-D.
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUMENT. CONTRACT NO. 24-1482-D.
- THE STORMWATER MANAGEMENT FACILITIES PROPOSED FOR THIS SITE ARE PRIVATE AND CONSIST OF ONE BAYS AVER WATER QUALITY DEVICE AND A DETENTION FACILITY.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- NO 100-YEAR FLOODPLAIN STUDY IS REQUIRED FOR THIS PROJECT.
- NO WETLANDS AFFECT THIS PROJECT.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM & ASSOCIATES DATED AUGUST 1999.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT FOR THIS PROJECT WAS PREPARED BY EES, LTD. DATED AUGUST 1999.
- THE BOUNDARY FOR THIS PROJECT IS PREPARED BY WHITNEY, BAILEY, COX & MAGNANI DATED NOVEMBER 1993.
- SUBJECT PROPERTY ZONED NT-EMP COMM PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S F-87-02, F-94-18, FDP PHASE 144-A-11 (PLAT 3054A1131-1135), SDP-88-15C.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- ALL EXTERIOR LIGHTING WILL COMPLY WITH SECTION 134, ZONING REGULATIONS.
- THIS SDP IS EXEMPT FROM THE FOREST CONSERVATION ORDINANCE IN ACCORDANCE WITH SECTION 16 1202 (b) (1) (4). THE PRELIMINARY DEVELOPMENT PLAN OF COLUMBIA WAS APPROVED PRIOR TO DECEMBER 31, 1992.
- ALL SETBACKS AND OTHER BULK REGULATIONS SHALL CONFORM TO FDP-144-A-11.

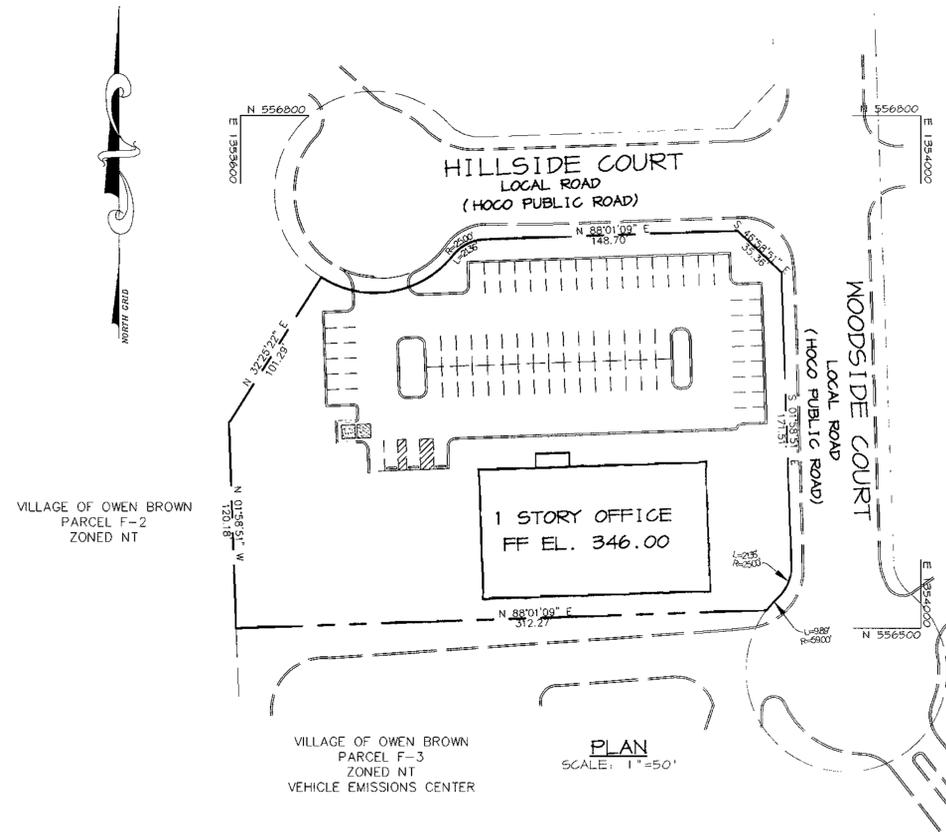
BENCH MARKS

HOWARD COUNTY SURVEY CONTROL
STATION 36HA
N 555116.609 E 1354381.451
ELEV. 292.238 FT

HOWARD COUNTY SURVEY CONTROL
STATION 36EA
N 556986.794 E 1354535.254
ELEV. 355.577 FT

SITE TABULATION

SITE AREA	1.54 ACRES
LIMIT OF DISTURBED AREA	1.54 ACRES
PRESENT ZONING	NT-EMPLOYMENT COMMERCIAL FDP-149-A-II
PROPOSED USE	1 STORY OFFICE BUILDING
FLOOR SPACE	10,164 SF
BUILDING COVERAGE	15% OF SITE
NO. OF PARKING REQUIRED @ 2 SPACES/1000 *	21
NO. OF PARKING SPACES PROVIDED	68 INCL 3 HC = 6.7/1000 SF
* - PER FDP 149-A-II	



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE November 18, 1999
RB

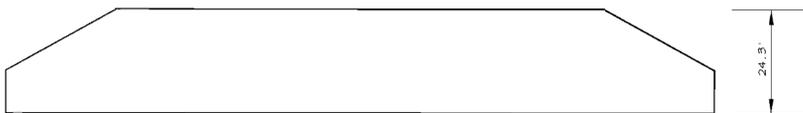
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Donny J. D'Angelo 11/18/99
DIRECTOR DATE
Arthur E. Muegge 11/18/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Cindy Hamilton 11/18/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION
OWNER / DEVELOPER
RESTAURANT ASSOCIATION OF MARYLAND, INC.
c/o HOC, INC.
711 WEST 40th STREET, SUITE 206
BALTIMORE, MARYLAND 21211
410-889-0081
PROJECT **RESTAURANT ASSOCIATION OF MARYLAND
VILLAGE OF OWEN BROWN
SECTION 5, AREA 1, PARCEL F-4**
AREA Parcel F-4
Zoned NT-EMP COMM
Tax Map 36 Block 14 PLAT No. 11024
6th Election District Howard County, Maryland

TITLE SHEET

RIEMER MUEGGE & ASSOCIATES INC
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8900 fax 410.997.9282

DATE
DESIGNED BY : CJR
DRAWN BY : KCB
PROJECT NO : 99143/
SDP1.DWG
DATE : NOVEMBER 10, 1999
SCALE : AS SHOWN
DRAWING NO. 1 OF 8

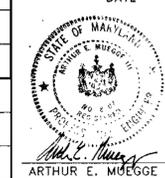


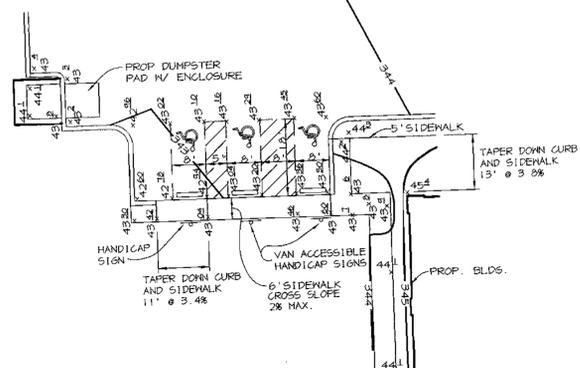
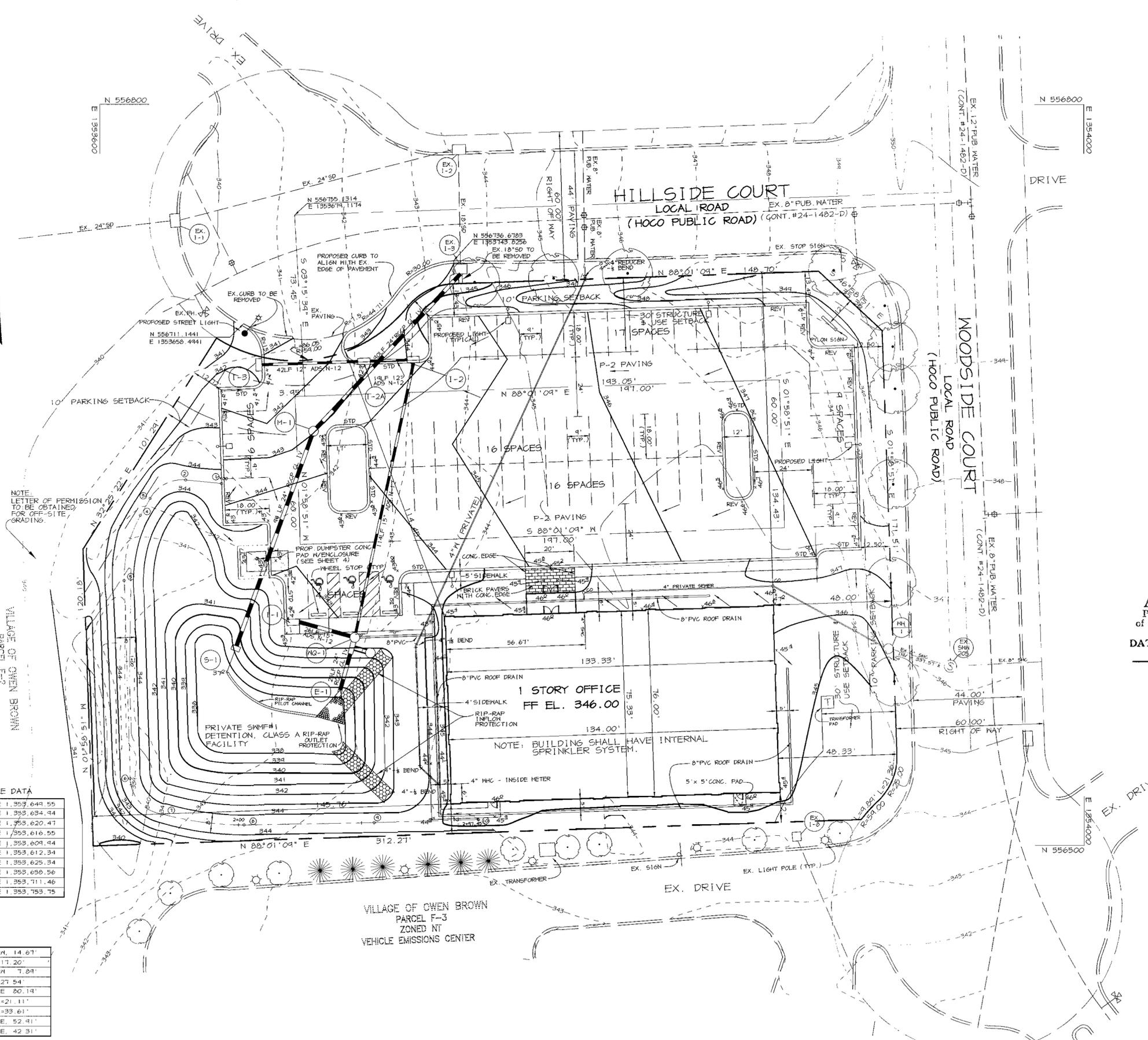
BUILDING ELEVATION

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
F-4	6301 HILLSIDE COURT

SUBDIVISION NAME	VILLAGE OF OWEN BROWN	SECT./AREA	5/1	PARCEL	F-4						
PLAT #	11024	BLOCK #	14	ZONING	NT-EMP COMM	TAX MAP NO.	36	ELECT. DIST.	6th	CENSUS TRACT	6061.02
WATER CODE	E-13	SEWER CODE	5410000								





HG RAMP DETAIL
SCALE: 1" = 20'

LEGEND

- CONCRETE
- P-2 PAVING
- STD-REV STANDARD CURB - REVERSE CURB
- SITE LIGHT (SINGLE) - SEE NOTES 1 & 2
- STREET LIGHT, 250 WATT HPS VAPOR PENDANT FIXTURE (CUT-OFF) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12" ARM

NOTES:

1. SITE LIGHTS TO BE 400 WATT METAL HALIDE VERTICAL LAMPS ON SHADE BOXES WITH 30" SQUARE STRAIGHT STEEL FINISHED IN BRONZE.
2. ALL EXTERIOR LIGHTING WILL COMPLY WITH SECTION 134, ZONING REGULATIONS.
3. ALL CURB RADII ARE 5' UNLESS OTHERWISE LABELED.
4. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE LABELED.
5. * LOCATION OF TRANSITION FROM STANDARD (STD) TO REVERSE (REV) CURB AND GUTTER AND VICE VERSA.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE November 18, 1999

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Michael J. M. Laugel</i> DIRECTOR	11/19/99 DATE
<i>Mark Deussen</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/17/99 DATE
<i>Cindy Hammit</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/18/99 DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
RESTAURANT ASSOCIATION OF MARYLAND, INC. c/o HDC, INC. 711 WEST 40th STREET, SUITE 206 BALTIMORE, MARYLAND 21211 410-889-0081		
PROJECT RESTAURANT ASSOCIATION OF MARYLAND VILLAGE OF OWEN BROWN SECTION 5, AREA 1, PARCEL F-4		
AREA	Parcel F-4 Zoned NT-EMP COMM Tax Map 36 Block 14 PLAT No. 11024 6th Election District Howard County, Maryland	

SITE DEVELOPMENT PLAN

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
tel 410.997.8900 fax 410.997.9282

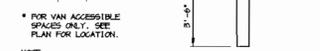
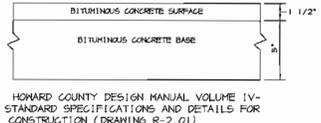
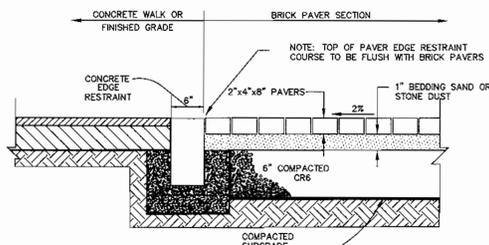
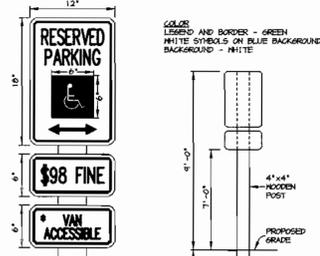
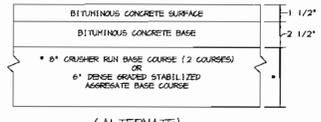
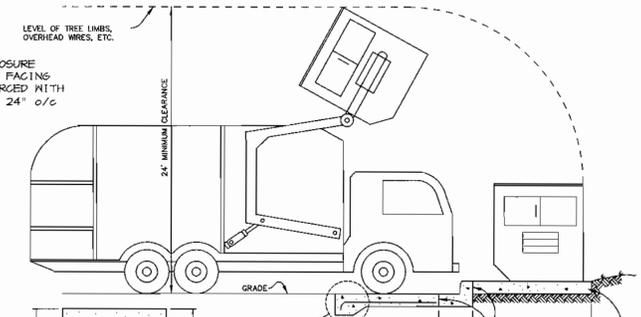
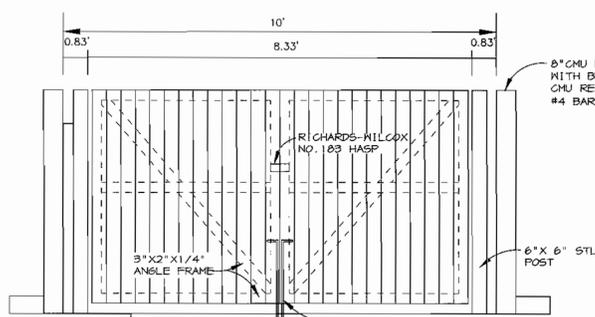
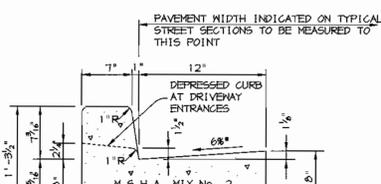
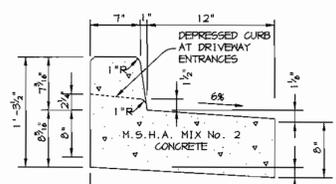
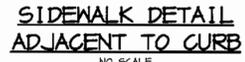
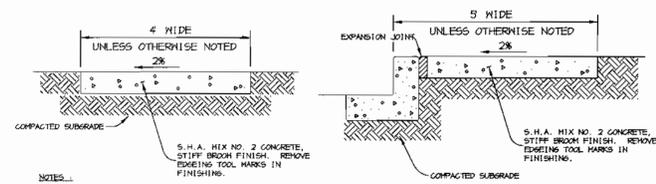
DATE	DESIGNED BY : CJR
	DRAWN BY : KCB
	PROJECT NO : 99143/SDP2.DWG
	DATE : NOVEMBER 10, 1999
	SCALE : 1" = 20'
	DRAWING NO. <u>2</u> OF <u>8</u>

DAM CENTERLINE DATA

1	N 556,646.46	E 1,353,649.55
2	N 556,641.88	E 1,353,634.44
3	N 556,640.42	E 1,353,620.47
4	N 556,633.57	E 1,353,618.55
5	N 556,607.19	E 1,353,609.84
6	N 556,527.04	E 1,353,612.34
7	N 556,512.62	E 1,353,625.34
8	N 556,508.22	E 1,353,638.56
9	N 556,504.17	E 1,353,711.46
10	N 556,510.47	E 1,353,753.75

1-2	N 84°27'10" W, 14.67'
2-3	R=15.00', L=17.20'
3-4	S 29°50'44" W, 7.84'
4-5	R=50.00', L=27.54'
5-6	S 01°02'50" E, 80.14'
6-7	R=15.00', L=21.11'
7-8	R=126.00', L=33.61'
8-9	N 88°57'56" E, 52.91'
9-10	N 88°14'10" E, 42.31'

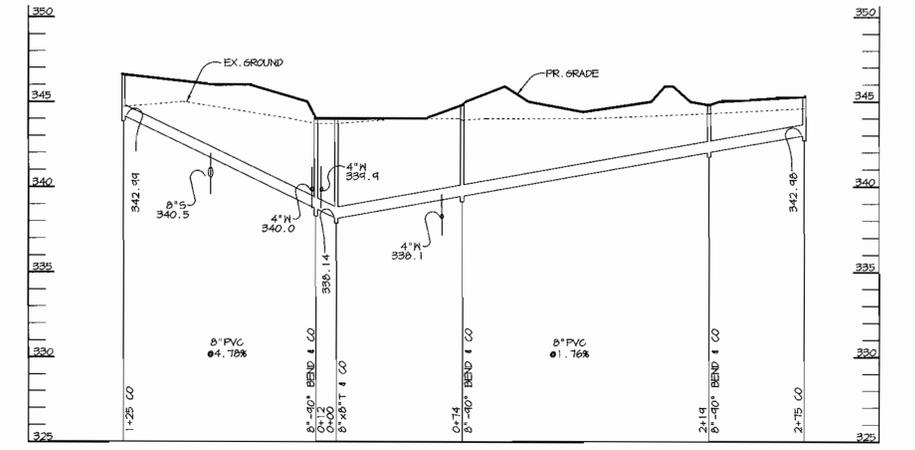
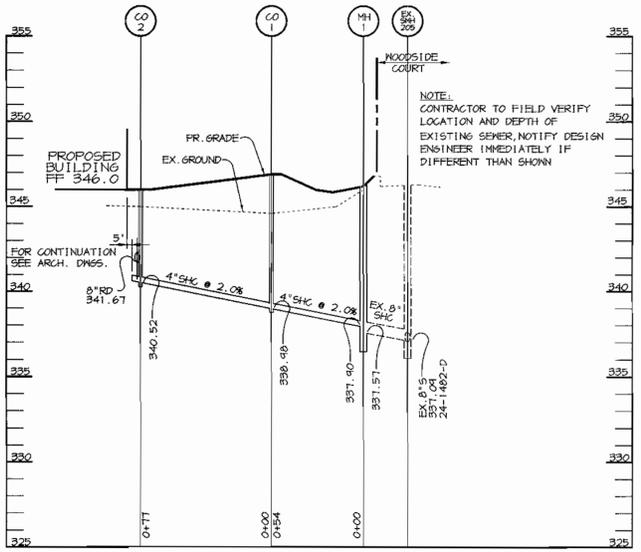
P:\PROJECTS\SDP2.DWG 11/18/99 9:15AM MUEGGE & ASSOCIATES, INC.



STRUCTURE SCHEDULE

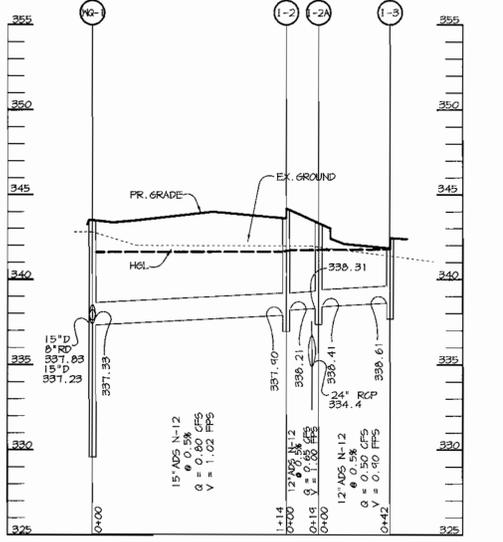
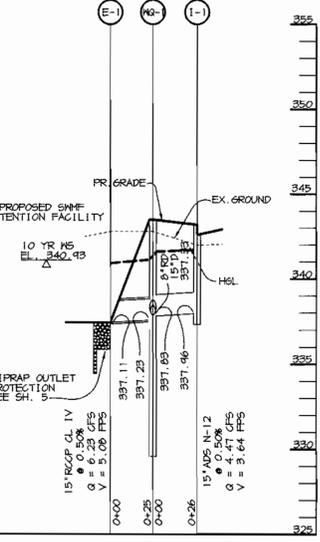
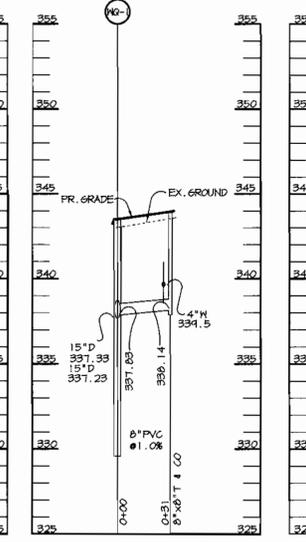
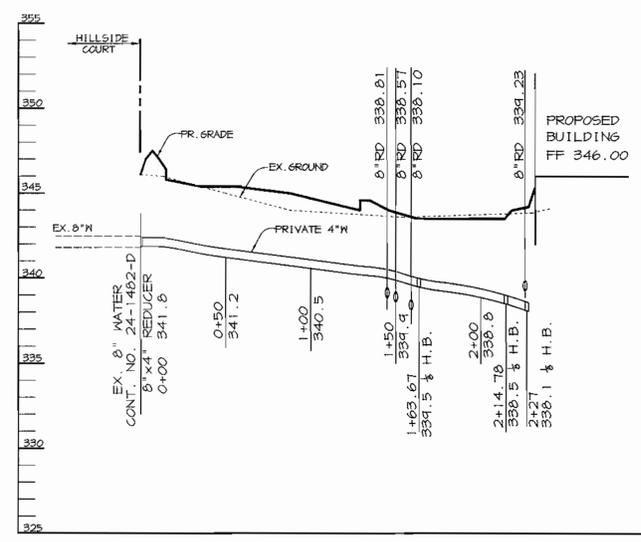
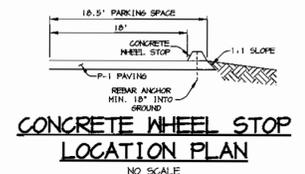
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	DIMENSIONS SEE NOTE 5	REMARKS
I-1	A-5	N 556,591.58 E 1,353,678.46	-	337.96 (15")	343.2	5' L x 2.5' W	HOCO STD. DETAIL SD 4.40
I-2	A-5	N 556,695.33 E 1,353,727.41	338.00 (12")	337.90 (15")	344.4	5' L x 2.5' W	HOCO STD. DETAIL SD 4.40
I-2A	A-5	N 556,694.64 E 1,353,707.42	338.41 (12")	338.31 (12")	343.40	5' L x 2.5' W	HOCO STD. DETAIL SD 4.40
I-3	A-5	N 556,694.44 E 1,353,664.65	-	338.61 (12")	341.70	5' L x 2.5' W	HOCO STD. DETAIL SD 4.40
M-1	4" DIA MANHOLE	N 556,667.66 E 1,353,686.84	336.08 (18")	335.98 (18")	343.0	4' DIAMETER	HOCO STD. STD. G 5.12
S-1	-	N 556,579.56 E 1,353,655.11	-	337.00 (18")	342.50	-	SEE SHEET 5
WG-1	1K	N 556,584 E 1,353,703	337.83 (15") 337.83 (12") 337.83 (8")	337.58	343.4	48" DIA. x 48" DIA.	BAYSAYER SYSTEM SEE SHEET 7
E-1	15" END SECTION	N 556,560 E 1,353,696	-	337.46	-	15" DIAMETER	HOCO STD. STD. SD 5.51
SMH 1	4" MH	N 556,579 E 1,353,920	337.90 (8")	337.57 (8")	346.2	4" DIAMETER	HOCO STD. DETAIL G 5.12

NOTES:
1. LOCATION OF S INLETS, WG FACILITIES AND MANHOLES IS AT CENTER OF TOP COVER.
2. FOR "A" AND "S" COMB INLETS LOCATION IS GIVEN AT CENTER OF THROAT OPENING AT FACE OF CURB.
3. FOR END SECTIONS AND HEADWALLS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.
4. TOP ELEVATION IS TOP OF CURB/GRADE/RI/M.
5. DIMENSIONS ARE GIVEN AS INSIDE DIMENSIONS.



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: November 18, 1999
D.B.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
DIRECTOR: *Mark A. Taylor* 11/18/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John P. ...* 11/17/99
CHIEF, DIVISION OF LAND DEVELOPMENT: *Cathy Hamilton* 11/18/99



DATE	NO.	REVISION

OWNER / DEVELOPER
RESTAURANT ASSOCIATION OF MARYLAND, INC.
c/o HCO, INC.
711 WEST 40TH STREET, SUITE 206
BALTIMORE, MARYLAND 21211
410-889-0081

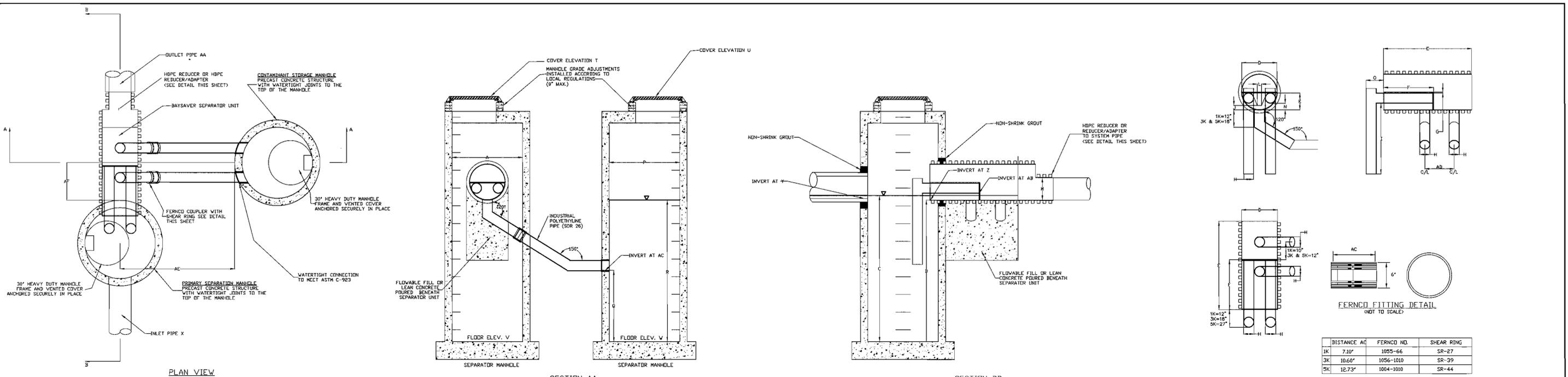
PROJECT: RESTAURANT ASSOCIATION OF MARYLAND VILLAGE OF OMEN BROWN SECTION 5, AREA 1, PARCEL F-4

AREA: Parcel F-4
Zoned NT-EMP COMM
Tax Map 36 Block 14 PLAT No. 11024
6th Election District Howard County, Maryland

TITLE: PROFILES AND DETAIL SHEET

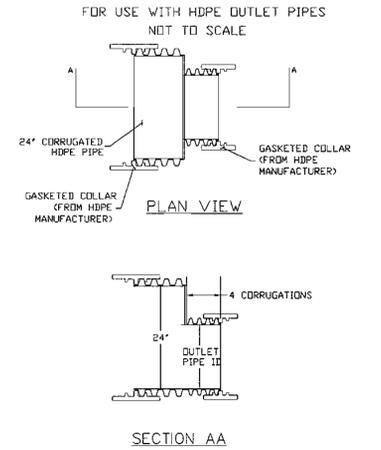
RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, MD 21045
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DESIGNED BY: CJR
DRAWN BY: KCB
PROJECT NO: 99143/SDP4.DWG
DATE: NOVEMBER 10, 1999
SCALE: AS SHOWN
DRAWING NO. 4 OF 8

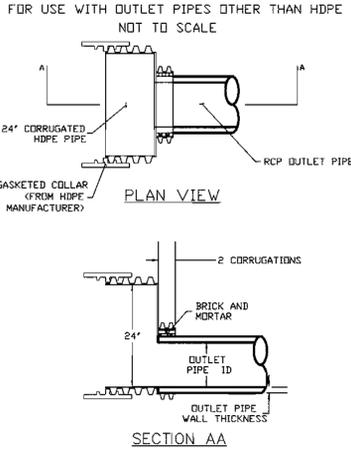


DISTANCE AC	FERNCO NO.	SHEAR RING
1K	1055-66	SR-27
3K	1056-100	SR-39
5K	1004-100	SR-44

HDPE-HDPE REDUCER DETAIL



REDUCER/ADAPTER DETAIL



SEQUENCE OF CONSTRUCTION AND INSPECTOR'S CHECK-OFF LIST FOR DUAL MANHOLE SEPARATORS

Slope (X = Approval Required)	Developer's/Engineer Approval		Inspector		Geotechnical Engineer	
	Initials	Date	Initials	Date	Initials	Date
1. Pre-Construction Meeting.	X		X		X	
2. Install Manholes and associated storm drainage.						
a. Obtain approval of subgrade from Geotechnical Engineer. (Subgrade to have a minimum of 95% compaction)					X	
b. Installation of precast base, lower tank and lower piping.	X		X			
c. Backfill and min. 95% compaction around lower tank and lower piping.					X	
d. Installation of precast middle section(s) with separator unit and remaining piping.	X		X			
e. Installation of precast top slab.	X		X			
f. Installation of adjustment rings and frame and cover.	X		X			
g. Installation of flowable fill or concrete backfill.					X	
3. Backfilling operation and compaction.					X	
4. Site is permanently stabilized. Sediment control measures removed and all sediment and debris removed from dual manhole separators.			X			
5. Final Inspection.			X			

- GENERAL CONSTRUCTION NOTES**
- ALL WORK MUST BE DONE WITH REGARD FOR THE SAFETY OF THE CONSTRUCTION CREW.
 - ALL WORK AND MATERIALS MUST COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS.
 - KNOW THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS.

NOTE:
BAYSAVERS ARE TO BE INSTALLED WITH THE STORM DRAIN SYSTEM AND WILL FUNCTION AS SECONDARY SEDIMENT CONTROL DEVICES. UPON COMPLETION OF SITE STABILIZATION, EACH BAYSAYER SYSTEM SHALL BE FLUSHED CLEAN & THE MANHOLES CLEANED OUT AND REFILLED WITH CLEAN WATER.

NOTE: DIMENSIONAL SHOP DRAWINGS ARE TO BE APPROVED BY THE DESIGN ENGINEER

- BAYSAYER MAINTENANCE**
- BAYSAYER SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EITHER MANHOLE EXCEEDS 2 FEET. MINIMUM INSPECTION IS REQUIRED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF BAYSAYER.
- MAINTENANCE CONSISTS OF THE FOLLOWING:
- CONTAMINANT STORAGE MANHOLE**
 - REMOVE THE ENTIRE VOLUME OF THE CONTAMINATED WATER BY VACUUM TRUCK.
 - CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.
 - PRIMARY SEPARATION MANHOLE**
 - USING A SUBMERSIBLE PUMP, PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY INTO THE EMPTY STORAGE MANHOLE UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE SEDIMENT LAYER.
 - REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM TRUCK.
 - CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.
 - CONTAMINATED MATERIAL REMOVED FROM THE MANHOLES MUST BE DISPOSED OF RESPONSIBLY AND LEGALLY BY THE OPERATOR OF THE VACUUM TRUCK.

- BAYSAYER INSTALLATION INSTRUCTIONS**
- EXCAVATION MUST PROVIDE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO SEPARATOR MANHOLE AND BAYSAYER UNIT. INSTALL PRECAST BRDP STRUCTURES ON SOLID GROUND AS VERIFIED BY A GEOTECHNICAL ENGINEER.
 - VERIFY THE SUBGRADE ELEVATION AGAINST THE MANHOLE DIMENSIONS AND CONNECTING STORM DRAIN INVERTS.
 - MAKING SURE THE BASES ARE LEVEL AND THE STORAGE MANHOLE OPENINGS ARE ALIGNED WITH THE SEPARATOR UNIT, INSTALL PRIMARY AND STORAGE MANHOLES. INSTALL RUBBER GASKETS ON BASE UNITS AND COAT WITH LUBRICATING GREASE. INSTALL ADDITIONAL MANHOLE SECTIONS AS REQUIRED. SEAL LEFT HOLES WITH NON-SHRINK GROUT.
 - BACKFILL BASE SECTIONS OF MANHOLES TO INVERT OF STORAGE MANHOLE CONNECTING PIPES. USING APPROVED BACKFILL MATERIAL, BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL AND COMPACT SHOULD BE MONITORED BY A GEOTECHNICAL ENGINEER.
 - INSTALL BAYSAYER SEPARATOR UNIT AND CONNECTING PIPES. SEAL ALL CONNECTING JOINTS AND INSTALL SEPARATOR UNIT/STORM DRAIN JOINT COLLAR. CUT EXCESS LENGTH OFF CONNECTING PIPES INSIDE STORAGE MANHOLE.
 - BACKFILL SEPARATOR UNIT AND MANHOLES. AREAS NOT ACCESSIBLE TO CONNECTION EQUIPMENT MUST BE BACKFILLED WITH LEAN CONCRETE OR FLOWABLE FILL.
 - INSTALL AND SET MANHOLE COVER GRADE ADJUSTMENT RINGS AS NECESSARY.
 - INSTALL AND SET MANHOLE FRAME AND COVER UNITS.

OPERATION AND MAINTENANCE SCHEDULE FOR BAYSAYER UNITS

- Baysaver structures will require periodic inspection and cleaning to maintain operation and function. Owners will have the Baysaver unit inspected yearly or as required by Howard County, utilizing the Baysaver units Inspection/Monitoring Form. Inspections can be done by using a clear Plexiglas 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.
- Baysaver structures must be checked and cleaned immediately after petroleum spills. Contact appropriate regulatory agencies.
- Maintenance of Baysaver units should be done by a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons, and other materials in the unit. The proper cleaning and disposal of the removed materials and liquid must be followed.
- Inlet and outlet pipes must be checked for any obstructions and if any obstructions are found they must be removed. Structural parts of the Baysaver will be repaired as needed.
- Owner shall retain and make Baysaver units Inspection/Monitoring Forms available to Howard County officials upon their request.

TABLE 3.2 - BAYSAYER DESIGN GUIDE

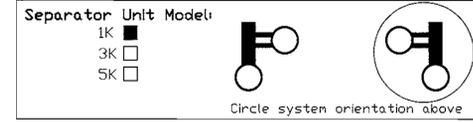
BaySaver Separator Unit	Treatment Capacity (cfs)*1	By-Pass Capacity
1 K	2.4 cfs	8.80 cfs
3 K	7.2 cfs	24.5 cfs
5 K	11.1 cfs	39.6 cfs

Impervious Drainage Area	Capacity
WQ-1	0.87 Acres

BaySaver Separator Unit	BaySaver Manhole Sizes (prim. x stor.)	Maximum Treatment (cfs)*1	Maximum Treatment (gpm)*1	Impervious Area (acres)
1K BaySaver Separator	48x48	2.4	1076	1.2
	48x72	2.4	1076	1.6
	60x60	2.4	1076	1.5
3K BaySaver Separator	60x60	7.2	3231	3.6 WQ-1
	60x72	7.2	3231	4.1
	60x84	7.2	3231	4.6
	72x72	7.2	3231	4.4
5K BaySaver Separator	72x72	11.1	4981	5.5 WQ-2,3
	72x84	11.1	4981	6.5
	72x96	11.1	4981	7.5
	96x96	11.1	4981	8.0

Project: HILLGROFT EXE. CTR. Designer: RIEMER MUEGGE
 Address: HILLSIDE COURT Contact: CHRIS REID
COLUMBIA, MD. Phone: 410-997-8900
21046 Fax: 410-997-9282

Delivery Date: _____
 Owner: _____ Contractor: _____
 Contact: _____ Address: _____
 Address: _____ Contact: _____
 Phone: _____ Fax: _____



Manhole Specifications:

Primary Manhole Diameter: 48 inches
 Storage Manhole Diameter: 48 inches

Floor Elevations:
 Primary Manhole 329.50
 Storage Manhole 329.50

Primary Manhole Inverts:
 Separator Unit 327.50
 Inlet Pipe(s) 327.33-15"
327.03-6"

Please show orientation (including angle), size and material of inlet pipes above.

Cover Elevations:
 Primary Manhole 343.4
 Storage Manhole 342.0

WQ-1/WQ-1A

BAYSAYER SYSTEM DIMENSIONS

DESCRIPTION	1K SYSTEM	3K SYSTEM	5K SYSTEM
SEPARATOR MANHOLE DIMENSIONS			
A PRIMARY MANHOLE DIAMETER	48"	60"	72"
B MANHOLE DEPTH BELOW OUTLET	8' - 0"	8' - 0"	8' - 0"
C MINIMUM FLUID DEPTH	8' - 2"	8' - 1 1/2"	8' - 6"
STANDARD SEPARATOR UNIT DIMENSIONS			
D SEPARATOR UNIT ID	24"	36"	48"
E SEPARATOR UNIT LENGTH	60"	78.2"	75.4"
F BYPASS PLATE LENGTH	34"	45"	45"
G WEIR/BYPASS PLATE THICKNESS	3/4"	3/4"	3/4"
H ELBOW AND CONNECTING PIPE OD	7.125"	10.75"	12.75"
I ELBOW LENGTH	48"	48"	48"
J WEIR HEIGHT ABOVE INVERT	3"	4"	6"
K BYPASS PLATE HEIGHT ABOVE INVERT	12"	18"	24"
L WIDTH OF WEIR AT BASE	3"	4 1/2"	6"
M OUTLET PIPE DIAMETER	M	M	M
N ELBOW INVERT HEIGHT ABOVE UNIT INVERT	4 1/2"	7 1/2"	11"
O ELBOW PIPE OVERHANG	12"	18"	24"
STORAGE MANHOLE DIMENSIONS			
P STORAGE MANHOLE DIAMETER	48"	60"	72"
Q MANHOLE DEPTH BELOW INLET/OUTLET	48"	48"	48"
R FLUID DEPTH	8' - 0"	8' - 0"	8' - 0"
S TOTAL STORAGE VOLUME	200 CF	300 CF	450 CF
SYSTEM DIMENSIONS AND ELEVATIONS			
T SEPARATOR MANHOLE COVER ELEVATION	T	T	T
U STORAGE MANHOLE COVER ELEVATION	U	U	U
V SEPARATOR MANHOLE FLOOR ELEVATION	V	V	V
W STORAGE MANHOLE FLOOR ELEVATION	W	W	W
X INLET PIPE ID AND MATERIAL	X1	X1	X1
Y INLET PIPE INVERT	Y1	Y1	Y1
Z SEPARATOR UNIT INVERT	Z	Z	Z
AA OUTLET PIPE ID AND MATERIAL	AA	AA	AA
AB ELBOW INVERT ELEVATION	AB	AB	AB
AC CONNECTING PIPE INVERT ELEVATION	AC	AC	AC
AD CONNECTION PIPE SPACING	20"	24"	24"
AE STORAGE MANHOLE SIDE OFFSET	72 ± 6"	72 ± 6"	72 ± 6"
AF STORAGE MANHOLE DOWNSTREAM OFFSET	23"	31"	25"

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE November 10, 1999
RB

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: Howard S. Clayton 11/10/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: Arthur E. Muegge 11/17/99
 CHIEF, DIVISION OF LAND DEVELOPMENT: Chris Hamstra 11/15/99

OWNER / DEVELOPER
 RESTAURANT ASSOCIATION OF MARYLAND, INC.
 c/o HDC, INC.
 711 WEST 40TH STREET, SUITE 206
 BALTIMORE, MARYLAND 21211
 410-889-0081

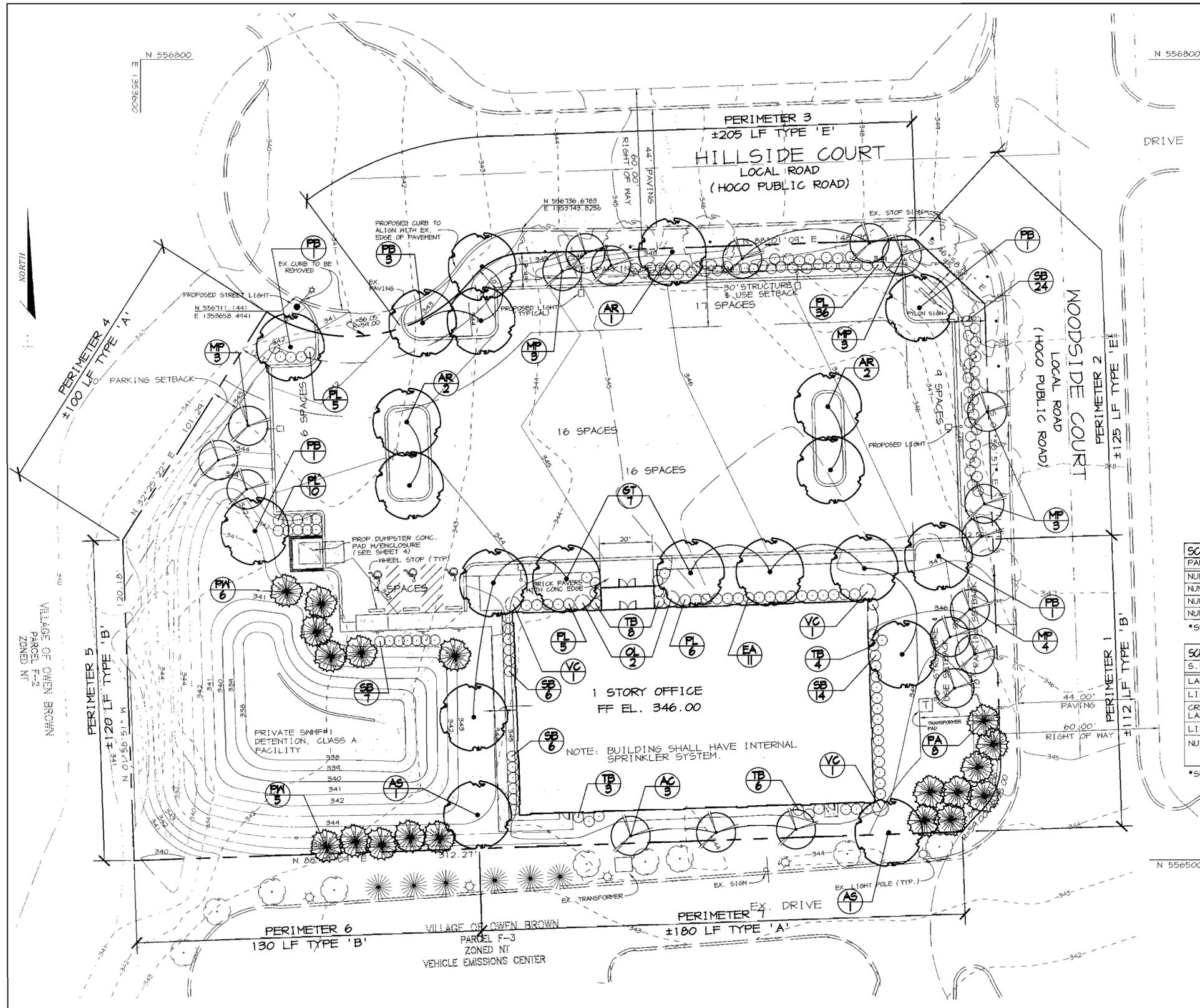
PROJECT **RESTAURANT ASSOCIATION OF MARYLAND VILLAGE OF OWEN BROWN SECTION 5, AREA 1, PARCEL F-4**

AREA Parcel F-4
 Zoned NT-EMP COMM
 Tax Map 36 Block 14 PLAT No. 11024
 8th Election District Howard County, Maryland

WATER QUALITY NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES INC
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, MD 21045
 tel 410.997.8800 fax 410.997.8282

DATE _____
 DESIGNED BY: CJR
 DRAWN BY: KCB
 PROJECT NO: 99143/SDP6.DWG
 DATE: NOVEMBER 10, 1999
 SCALE: AS SHOWN
 DRAWING NO. 7 OF 8



PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
AR	5	Acer rubrum 'October Glory' October Glory Red Maple	2 1/2" - 3" cal.	B#B	Full Crown Central Leader
AS	2	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	2 1/2" - 3" cal.	B#B	Full Crown Central Leader
ST	7	Gleditsia triacanthos var. inermis Skyline Honey Locust	2 1/2" - 3" cal.	B#B	Full Crown Central Leader
FB	7	Plantanus x acerifolia 'Bloodgood' Bloodgood London Plane Tree	2 1/2" - 3" cal.	B#B	Full Crown Central Leader
AC	3	Amelanchier canadensis Shadblow Viburnum	8'-10' Ht.	B#B	Multi-stemmed Specimen
MP	16	Malus x Profusion Profusion Crabapple	1 1/2" - 2" cal.	B#B	Full Crown Specimen
PA	8	Picea abies Norway Spruce	6'-8' Ht.	B#B	Full form
PW	11	Pinus strobus White Pine	6'-8' Ht.	B#B	Full Crown Sheared
EA	11	Euonymus alatus 'compactus' Dwarf Burning Bush	2'-2 1/2' Ht.	B#B	4' o.c.
OL	2	Rhododendron mezzittii var. 'Oiga' Oiga Dwarf Rhododendron	2'-2 1/2' Ht.	B#B	4' o.c.
PL	62	Prunus laurocerasus 'Otto Luykens' Dwarf Cherry Laurel	2 1/2" - 3" Ht.	B#B	4' o.c.
SB	57	Spiraea bumalda 'Magic Carpet' Magic Carpet Spirea	2'-2 1/2' Ht.	B#B	4' o.c.
TB	21	Taxus baccata repandens Spreading English Yew	18"-24" Sp.	B#B	4' o.c.
VC	3	Viburnum burkwoodii var. 'Conoy' Conoy Viburnum	2 1/2" - 3" Ht.	B#B	4' o.c.

SCHEDULE A - PERIMETER LANDSCAPE EDGE (SEE NOTE #2, THIS SHEET)							
PERIMETER	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES			
	1	2	3	4	5	6	7
LANDSCAPE TYPE	B	E	E	A	B	B	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	± 112'	± 125'	± 205'	± 100'	± 120'	± 130'	± 180'
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED							
SHADE TREES	1/50' = 2	1/40' = 3	1/40' = 5	1/60' = 2	1/50' = 2	1/50' = 3	1/60' = 3
EVERGREEN TREES	1/40' = 3	1/40' = 3	1/40' = 3	1/40' = 3	1/40' = 3	1/40' = 3	1/40' = 3
SHRUBS	-	1/4' = 31	1/4' = 51	-	-	-	-

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING*	
PARKING LOT	1
NUMBER OF PARKING SPACES	69
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	4
NUMBER OF ISLANDS REQUIRED	4
NUMBER OF ISLANDS PROVIDED	4

ALTERNATIVE COMPLIANCE REQUIREMENTS*	
HILLCROFT EXECUTIVE CENTER TREE REQUIREMENTS: OFFICE 0-3 ACRES 34 SHADE TREES OR EQUIVALENT PER GROSS ACRE 1.54 ACRES x 32 S.T.E./ACRE = 49 SHADE TREES	
PLANTINGS PROVIDED:	21 SHADE TREES 19 EVERGREENS 19 FLOWERING TREES 156 SHRUBS *
	55 TOTAL S.T.E.

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING*	
S.W.M. NO.	1
LANDSCAPE TYPE	B
LINEAR FEET OF PERIMETER	±500'
CREDIT FOR S.W.M.F. ALONG PERIMETER	±250'
LANDSCAPE EDGES 5 & 6	
LINEAR FEET OF REMAINING PERIMETER	±250'
NUMBER OF TREES REQUIRED:	
SHADE TREES (1 S.T./50 L.F.)	5
EVERGREEN TREES (1 E.T./40 L.F.)	6

*SEE NOTE #2, THIS SHEET

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David J. Dows 1/19/99
DIRECTOR DATE

William J. ... 11/12/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 11/15/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE November 18, 1999

PLANTING LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PROP. SHRUB	
EX. SHADE TREE	
EX. EVERGREEN TREE	

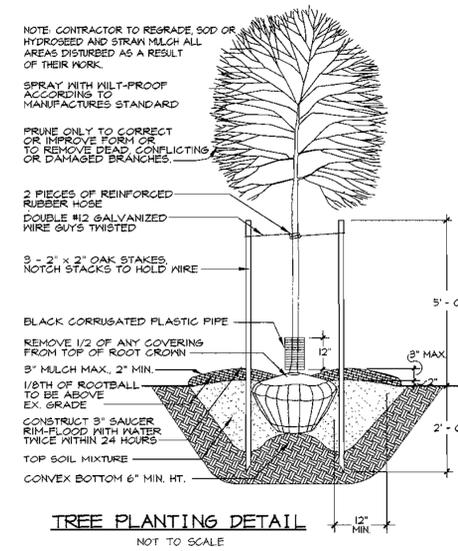
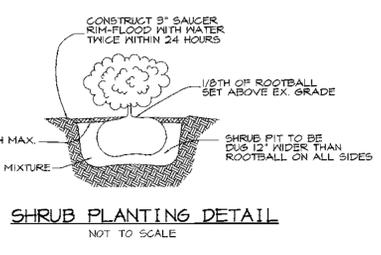
NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.24 OF THE HOWARD COUNTY CODE AND THE ALTERNATE COMPLIANCE WITH HOWARD COUNTY RESEARCH & DEVELOPMENT.
- HOWARD COUNTY PERIMETER AND PARKING LOT REQUIREMENTS ARE SHOWN ON THIS PLAN FOR SURETY CALCULATIONS ONLY, AS STATED IN CHAPTER VI, ALTERNATIVE COMPLIANCE, PAGE 42 OF THE HOWARD COUNTY LANDSCAPE MANUAL. SURETY FOR NEW TOWN PLANTINGS MAY BE BASED ON A COMPUTATION OF THE NUMBER OF TREES REQUIRED TO FULFILL THE LANDSCAPE OBLIGATIONS STIPULATED IN CHAPTER IV OF THIS MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DPV DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$13,410.
- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH ALL APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

DEVELOPER'S/BUILDER'S CERTIFICATE:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.24 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.

Hilary Kuber
NAME
DATE 11-5-99



DATE NO. REVISION

OWNER / DEVELOPER
RESTAURANT ASSOCIATION OF MARYLAND, INC.
c/o HDC, INC.
711 WEST 40th STREET, SUITE 206
BALTIMORE, MARYLAND 21211
410-889-0081

PROJECT RESTAURANT ASSOCIATION OF MARYLAND
VILLAGE OF OWEN BROWN
SECTION 5, AREA 1, PARCEL F-4

AREA Parcel F-4
Zoned NT-EMP COMM
Tax Map 36 Block 14 PLAT No. 11024
6th Election District Howard County, Maryland

TITLE
LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8919 Centre Park Drive, Columbia, MD 21045
tel 410.987.8900 fax 410.987.9282

DATE 11-5-99

DESIGNED BY: D.T.D.
DRAWN BY: A.J.L.
PROJECT NO: 99143/
LSCP/DWG
DATE: NOVEMBER 10, 1999
SCALE: 1" = 20'
DRAWING NO. 8 OF 8

DAVID T. DOWS #830

