

SHEET INDEX

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GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 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 AVAILABLE HOWARD COUNTY RECORDS AND FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED NOVEMBER 2010.
- THE COORDINATES SHOWN HEREON ARE IN MARYLAND COORDINATE SYSTEM MAD 83/01 BASED ON THE HOWARD COUNTY GEODETIC CONTROL. HOWARD COUNTY MONUMENT NO. 36FB WAS USED FOR THIS PROJECT. THE ELEVATIONS ARE IN NAVD83 BASED ON THE SAME CONTROL MONUMENT.
- PROPOSED WATER IS PUBLIC. EXISTING WATER CONTRACT NO. 24-0951-D. EXISTING WATER INFORMATION IS FROM HOWARD COUNTY PLANS AND FIELD SURVEY. A PRIVATE S/W WILL BE PROVIDED FROM THE PUBLIC MAIN.
- PROPOSED SEWER IS PUBLIC. EXISTING SEWER CONTRACT NO. 24-0951-D. EXISTING SEWER INFORMATION IS FROM HOWARD COUNTY PLANS AND FIELD SURVEY. A PRIVATE S/W WILL BE PROVIDED FROM THE PUBLIC MAIN.
- STORMWATER MANAGEMENT FOR THE SITE IS PROVIDED BY PERMEABLE PAVING (A-2) AND MICROBIOTREATMENT (M-6). THIS SITE IS CONSIDERED REDEVELOPMENT BY MDC CRITERIA.
- 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.
- A 100-YEAR FLOODPLAIN STUDY FOR THIS PROJECT IS NOT REQUIRED.
- NO WETLANDS ARE FOUND ON THIS PROJECT PER FIELD VISIT BY PHRA IN NOVEMBER 2010.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY PATTON HARRIS RUST & ASSOCIATES DATED NOVEMBER 2010.
- THE SUBJECT PROPERTY IS ZONED NT PER 02-02-04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENTS DATED 7/28/06.
- 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.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 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 LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$2,800.00 FOR 6 SHADE TREES, 0 ORNAMENTAL TREES, 0 EVERGREEN TREES AND 36 SHRUBS.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE IT IS LOCATED IN A PLANNED UNIT DEVELOPMENT OF THE NEW TOWN ZONING DISTRICT WHICH HAS HAD PRELIMINARY DEVELOPMENT PLAN APPROVAL BEFORE 12/31/92.
- THERE IS ONE EXISTING STRUCTURE ON PARCEL R-1 AS SHOWN ON THE PLAN. THIS STRUCTURE IS TO BE REMOVED. THIS STRUCTURE WAS BUILT AROUND 1985.
- BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
- ALL PAVING AND PERMEABLE PAVING IS TO BE CONSTRUCTED AS NOTED ON THE PLAN, OR AS RECOMMENDED BY PROFESSIONAL GEOTECHNICAL ENGINEER.
- SEE SITE DETAILS SHEET FOR CURB AND GUTTER AND SIDEWALK DETAILS.
- THE PROPOSED BUILDING WILL BE SPRINKLERED. ALL WATER METERS SHALL BE LOCATED IN BUILDING.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
- NO OVERHEAD BGE POWER LINES ARE LOCATED IN THE VICINITY OF THE PROPOSED DEVELOPMENT.
- APPLICABLE DPZ FILE REFERENCES: SDP-83-209, F-83-30 (PLAT NO. 5307), FDP-132-A-III.
- NO STEEP SLOPES, STREAMS OR FLOODPLAINS ARE LOCATED ON SITE.
- AN ACCESSIBLE ROUTE SHALL BE PROVIDED BETWEEN HANDICAPPED PARKING OR PUBLIC RIGHT OF WAYS TO THE MAIN BUILDING ENTRANCE IN ACCORDANCE WITH CURRENT ADA AND LOCAL STANDARDS. ALL HANDICAPPED RAMPS SHALL BE CONSTRUCTED ACCORDING TO CURRENT ADA AND LOCAL STANDARDS, EXCEPT AS SUPERSEDED BY CURRENT ADA AND LOCAL STANDARDS THE FOLLOWING SHALL APPLY:
 - MAXIMUM SIDEWALK GROSS SLOPES SHALL BE 2%.
 - A MINIMUM 5' X 5' LANDING AREA WITH A MAXIMUM SLOPE IN ANY DIRECTION OF 2% SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION, TOPS AND BOTTOMS OF RAMPS, AND BUILDING EGRESS POINTS.
 - ALL HANDICAPPED PARKING SHALL BE SLOPED NO GREATER THAN 2% IN ANY DIRECTION, INCLUDING A 5' WIDE AREA BEHIND THE PARKING SPACES.
 - AN ACCESS ROUTE FROM THE PARKING SPACES TO THE MAIN BUILDING ENTRANCE SHALL BE PROVIDED. ALL SLOPES ALONG THE DIRECTION OF TRAVEL SHALL NOT EXCEED 1:20 UNLESS THEY FALL UNDER CONDITION B) ABOVE. SLOPES IN EXCESS OF 1:20 EXCEPT FOR CURB RAMPS, REQUIRE A HANDICAPPED ADA REQUIREMENTS.
- CONTRACTOR TO PROVIDE SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED PAVING AND EXISTING AND PROPOSED CURB AND GUTTER. CONTECT TO EXISTING CURBS IN LINE AND ON GRADE.
- LETTERS OF PERMISSION WILL BE OBTAINED FROM ADJACENT PROPERTY OWNERS FOR OFF-SITE DISTURBANCE PRIOR TO GRADING PERMIT APPROVAL.
- TRASH WILL BE PLACED IN THE PROPOSED DUMPSTER ON-SITE AND DISPOSED OF OFF-SITE BY A TRASH COMPANY. DUMPSTERS WILL BE WHEELED OUT OF THE DUMPSTER ENCLOSURE FOR PICK UP BY A TRASH TRUCK.

SITE DEVELOPMENT PLAN

MANGO GROVE REDEVELOPMENT

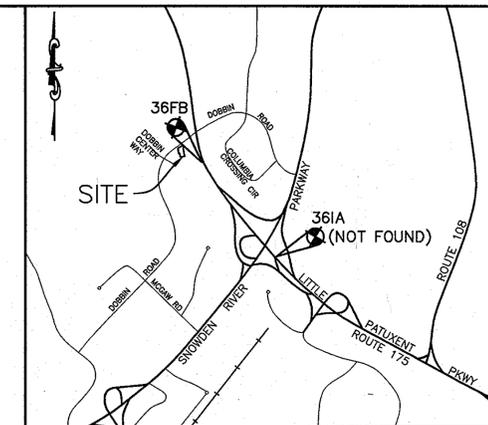
AT DOBBIN CENTER

DOBBIN ROAD COMMERCIAL CENTER

SECTION 1 PARCEL R-1

6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP

SCALE: 1" = 2000'
 COPYRIGHT ADC THE MAP PEOPLE, PERMITTED USE
 NO. 20811197
 HOWARD COUNTY ADC MAP 4935 GRID J9

SITE DATA ANALYSIS

AREA OF SITE:	0.679 ACRES (29,570 SF) (PARCEL R-1)
LIMIT OF DISTURBED AREA:	0.73 ACRES ± (31,875 SF±)
PRESENT ZONING:	NT (NEW TOWN)
EXISTING USES:	SHOPPING CENTER AND PARKING
PROPOSED USES:	RESTAURANT AND COMMERCIAL
FLOOR AREA OF PROPOSED BUILDING:	4,770 SF TOTAL (2,007 SF RESTAURANT 1,800 SF RETAIL 923 SF RETAIL 40 SF UTILITY ROOM)
BUILDING HEIGHT:	MAXIMUM ALLOWABLE HEIGHT: 50'-0" HEIGHT OF PROPOSED BUILDING: 16'
PARKING TABULATION:	TOTAL REQUIRED PARKING PARCEL R-1: 5 SF/1,000 SF OF NET LEASABLE AREA = 5 SF/1,000 SF X 4,770 SF = 23.85 SPACES = 24 SPACES REQUIRED
	TOTAL PROPOSED PARKING PARCEL R-1: 30 SPACES (INCLUDING 2 HC SPACES)
MAXIMUM NUMBER OF EMPLOYEES:	15
APPLICABLE DPZ FILE REFERENCES:	SDP-83-209, F-83-30 (PLAT NO. 5307), FDP-132-A-III

BENCHMARKS

HOWARD COUNTY SURVEY CONTROL: 36FB
 ELEVATION 388.595
 N 557337.578
 E 1364092.595

APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: 6/16/2011

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

William Peter Reilinson 8/5/2011
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

J.P. 8/16/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

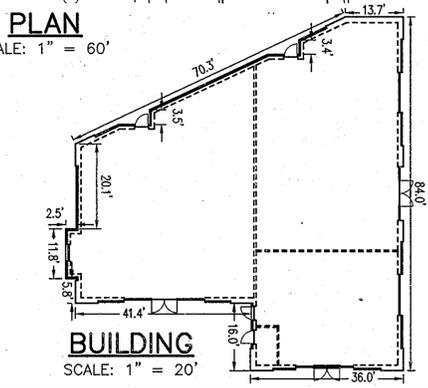
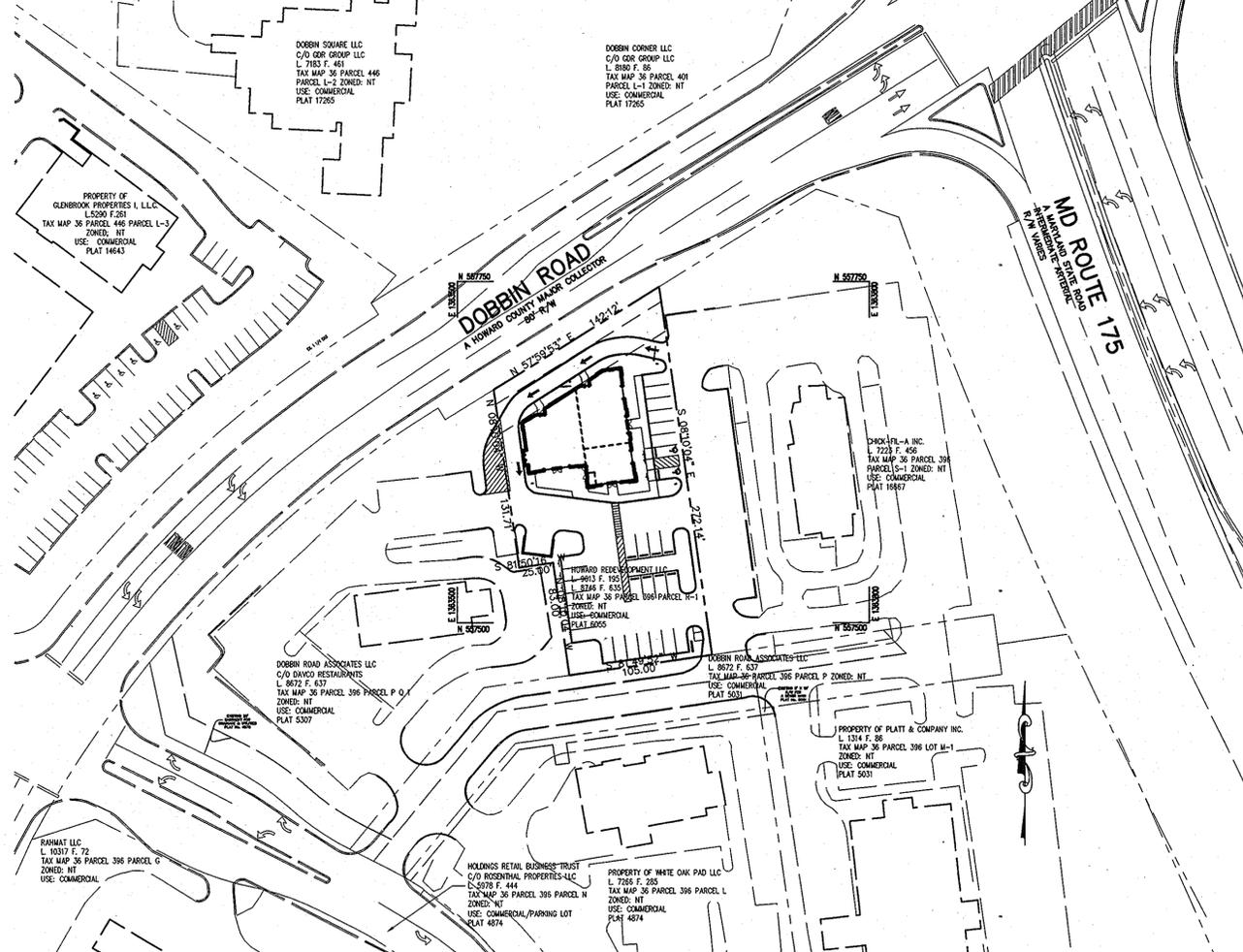
Patton Harris Rust 8/15/11
 CHIEF, DIVISION OF LAND DEVELOPMENT

Thomas J. Scilla 8/15/11
 DIRECTOR

DATE NO.	REVISION
OWNER	HOWARD REDEVELOPMENT LLC C/O ALMS AND ASSOCIATES 9256 BENDIX ROAD #500 COLUMBIA, MD 21045 PHONE: 443.539.9660
DEVELOPER	GLENBROOK PROPERTIES ATTN: ANDREW MURPHY 6508 OLD FARM COURT ROCKVILLE, MD 20852 PHONE: 301.468.8008
PROJECT	DOBBIN CENTER PARCEL R-1 MANGO GROVE REDEVELOPMENT PROPOSED RESTAURANT AND COMMERCIAL
AREA	TAX MAP 36 GRID 18 PARCEL 396 ZONED NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	TITLE SHEET

Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

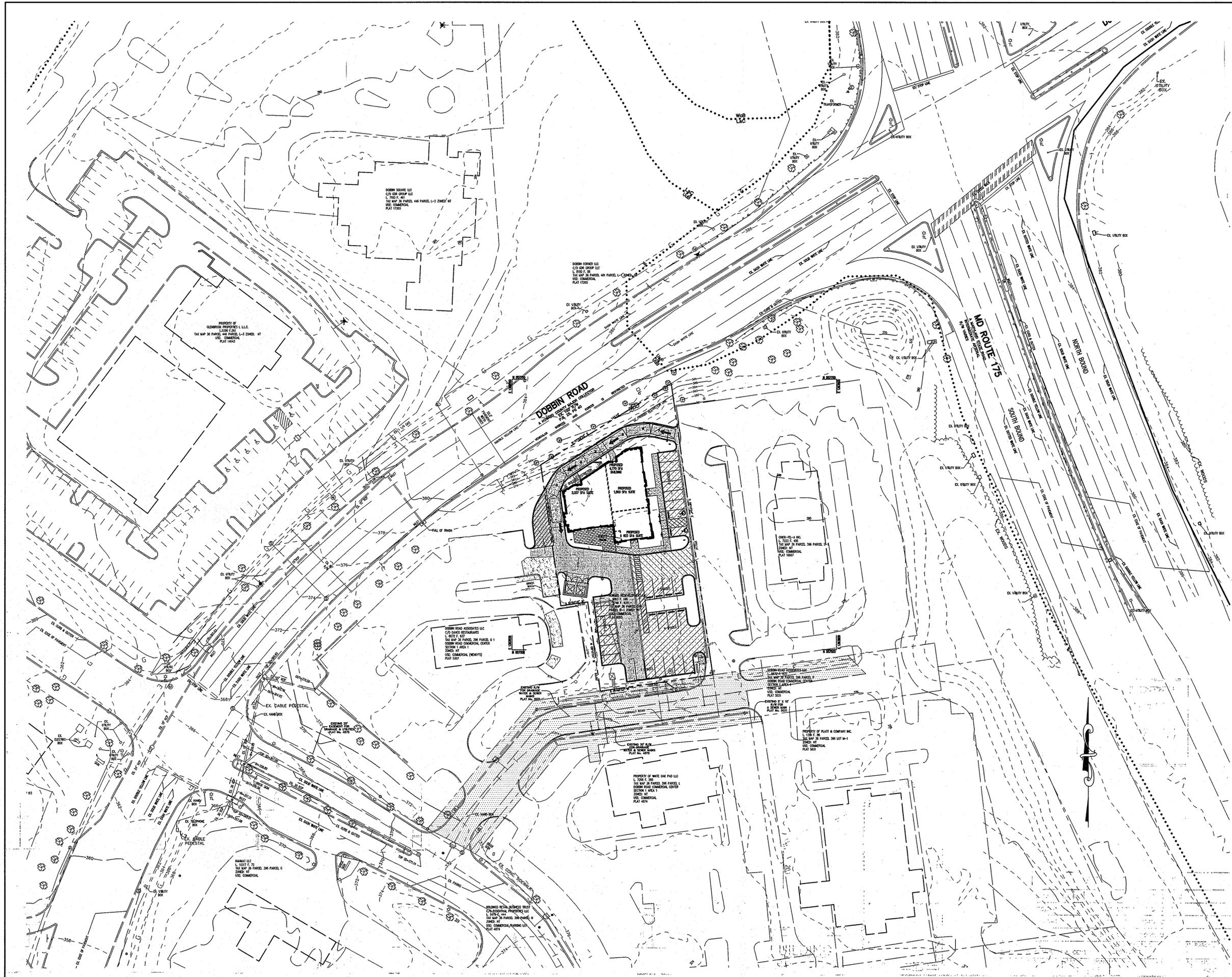
DESIGNED BY: PHRA
 DRAWN BY: ALC
 PROJECT NO: 12104/4-0/PLANS
 C400SDP01
 DATE: JULY 1, 2011
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 15



ADDRESS CHART

LOT/PARCEL #	STREET ADDRESS
396/R-1	6365 DOBBIN ROAD, UNIT A
396/R-1	6365 DOBBIN ROAD, UNIT B
	6365 DOBBIN ROAD, UNIT C

SUBDIVISION NAME	DOBBIN ROAD COMMERCIAL CENTER	SECTION/AREA	SECTION 1	LOT/PARCEL NO.	R-1
PLAT NO. GR L/F	6055	GRID #	18	ZONING	NT
		TAX MAP NO.	36	ELECT. DIST.	6
		CENSUS TRACT	6067.03		



LEGEND

---	PROPERTY LINE
*	EX. LIGHT POLE
⊙	EX. TREE
⊙	EX. GAS VALVE
⊙	EX. WATER VALVE
⊙	EX. SEWER CLEAN OUT
⊙	EX. FIRE HYDRANT
⊙	EX. WATER METER
⊙	EX. SANITARY SEWER MANHOLE
⊙	EX. STORM DRAIN MANHOLE
⊙	EX. ELECTRIC MANHOLE
---	EX. WATER LINE
---	EX. SANITARY SEWER LINE
---	EX. STORM DRAIN
---	EX. GAS LINE
---	EX. BOLLARD
---	EX. SIGN
---	EX. GUARD RAIL
---	EX. SOILS
---	EX. SPOT ELEVATION
---	EX. CONTOURS
---	EX. STRUCTURE
---	EX. CURB AND GUTTER
---	EX. UTILITY EASEMENT
---	EX. TREE LINE

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
SPR

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/15/11 DATE
W. J. ...
 CHIEF, DIVISION OF LAND DEVELOPMENT 8/15/11 DATE
M. ...
 DIRECTOR 8/15/11 DATE

DATE	NO.	REVISION

OWNER
 HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443-539-9660

DEVELOPER
 GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6308 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301-468-8008

PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

AREA
 TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
OVERALL SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

SEAL 7-1-11
 DESIGNED BY : PHRA
 DRAWN BY: ALC
 PROJECT NO : 12104/4-0/PLANS
 C400SDP02
 DATE : JULY 1, 2011
 SCALE : 1"=40'
 DRAWING NO. 2 OF 15

SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS Dwellings w/ Basements	EROSION HAZARD	HYDRIC	SLOPE (%)	K FACTOR	HYDROLOGIC GROUP
UuB	Urban land-Udorthents complex	Not rated	Moderate	No	0-8	-	D

SOURCE: NATURAL RESOURCES CONSERVATION SERVICE SOIL DATA MART & WEB SOIL SURVEY

DEMOLITION KEY:

- | | |
|---|--|
| 1 REMOVE EXISTING BUILDING | 13 REMOVE EXISTING PHONE AND RETURN TO PHONE COMPANY OR DONATE TO CLOSEST HISTORY MUSEUM |
| 2 REMOVE EXISTING CURB AND GUTTER | 14 RELOCATE EXISTING PHONE AND TV PEDESTALS BASED ON FINAL SITE DESIGN |
| 3 REMOVE EXISTING BITUMINOUS PAVEMENT | 15 REMOVE EXISTING GREASE TRAP |
| 4 REMOVE EXISTING TREE | 16 REMOVE EXISTING UNDERGROUND PROPANE TANKS |
| 5 REMOVE EXISTING HEDGEROW | 17 RELOCATE EXISTING GAS REGULATOR AS NEEDED |
| 6 REMOVE EXISTING CONCRETE | 18 REMOVE/ABANDON EXISTING SEWER TO PROPERTY LINE |
| 7 REMOVE EXISTING LIGHT. COORDINATE WITH OWNER FOR SALVAGING OF LIGHTS. | 19 REMOVE/ABANDON EXISTING WATER TO PROPERTY LINE |
| 8 REMOVE EXISTING CONCRETE SIDEWALK OR PAVEMENT SIDEWALK | 20 REMOVE EXISTING 6" PVC. MORTAR EXISTING 6" OPENING IN STRUCTURE. |
| 9 REMOVE EXISTING SIGN | |
| 10 REMOVE EXISTING SHED | |
| 11 REMOVE EXISTING BRICK WALL | |
| 12 REMOVE EXISTING BOLLARDS | |

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
 AT
1-800-257-7777
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 CHIEF, DEVELOPMENT ENGINEERING DIVISION J.F. J. DATE 8/9/11
 CHIEF, DIVISION OF LAND DEVELOPMENT J. J. DATE 8/15/11
 DIRECTOR Mona & Butler DATE 8/15/11

DATE	NO.	REVISION

OWNER: HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

DEVELOPER: GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

PROJECT: DOBBIN CENTER PARCEL R-1
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

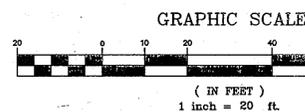
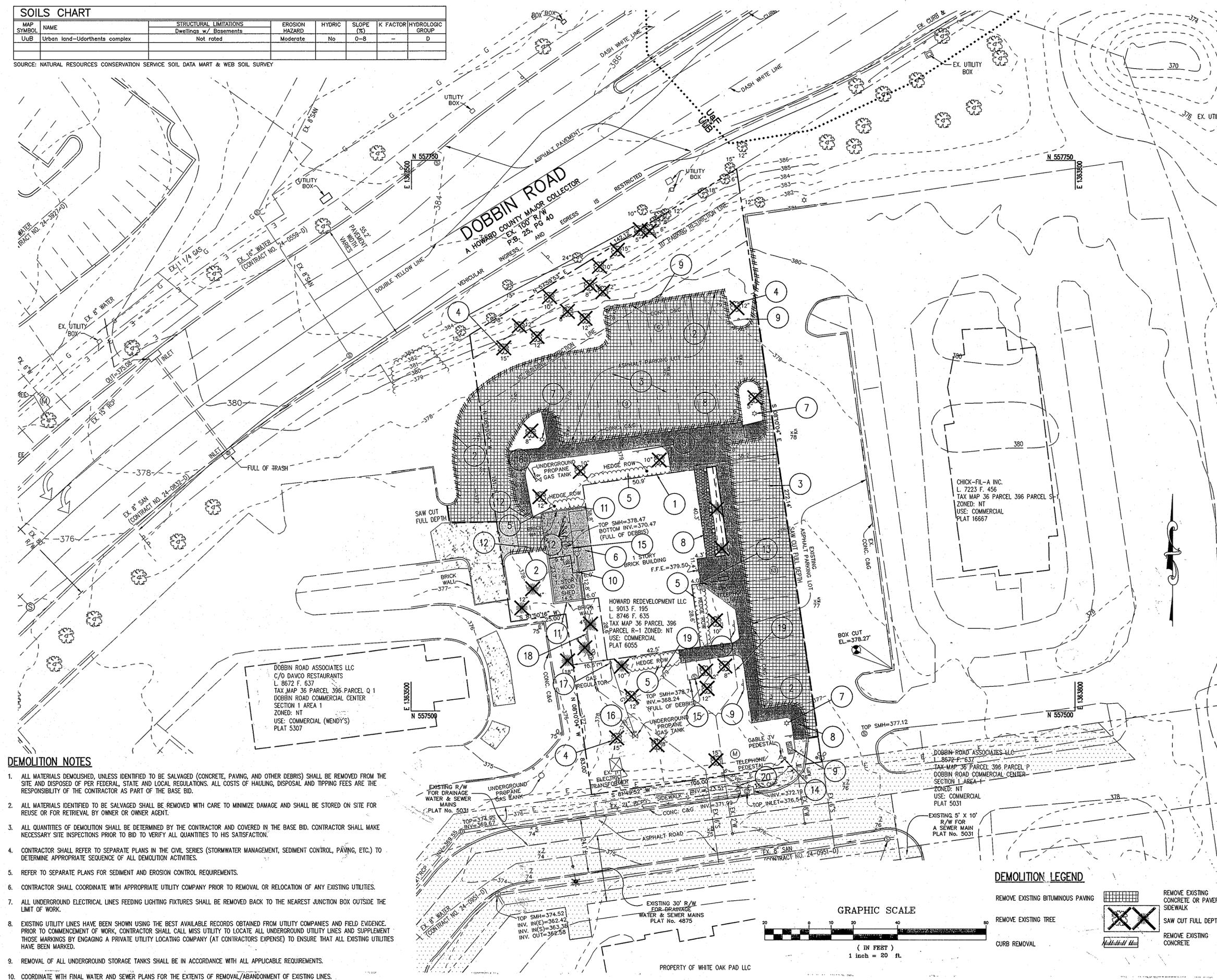
AREA: TAX MAP 36 GRID 18, PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **EXISTING CONDITIONS & DEMOLITION PLAN & SOILS MAP**
 Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centra Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY : PHRA
 DRAWN BY: ALC
 PROJECT NO : 12104/4-0/PLANS
 C4005DP03
 DATE : JULY 1, 2011
 SCALE : 1"=20'
 DRAWING NO. 3 OF 15

DEMOLITION NOTES

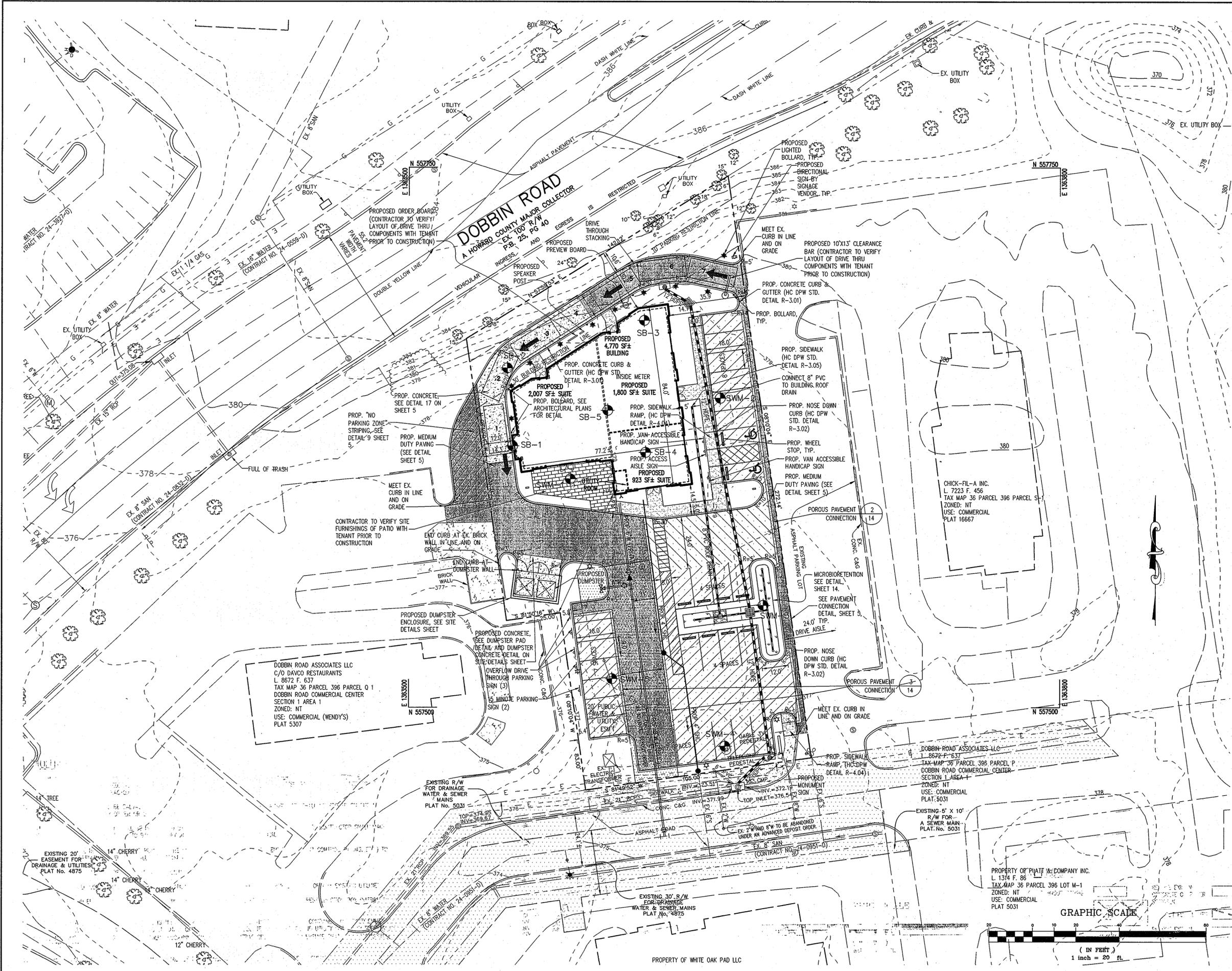
- ALL MATERIALS DEMOLISHED, UNLESS IDENTIFIED TO BE SALVAGED (CONCRETE, PAVING, AND OTHER DEBRIS) SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER FEDERAL, STATE AND LOCAL REGULATIONS. ALL COSTS OF HAULING, DISPOSAL AND TIPPING FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF THE BASE BID.
- ALL MATERIALS IDENTIFIED TO BE SALVAGED SHALL BE REMOVED WITH CARE TO MINIMIZE DAMAGE AND SHALL BE STORED ON SITE FOR REUSE OR FOR RETRIEVAL BY OWNER OR OWNER AGENT.
- ALL QUANTITIES OF DEMOLITION SHALL BE DETERMINED BY THE CONTRACTOR AND COVERED IN THE BASE BID. CONTRACTOR SHALL MAKE NECESSARY SITE INSPECTIONS PRIOR TO BID TO VERIFY ALL QUANTITIES TO HIS SATISFACTION.
- CONTRACTOR SHALL REFER TO SEPARATE PLANS IN THE CIVIL SERIES (STORMWATER MANAGEMENT, SEDIMENT CONTROL, PAVING, ETC.) TO DETERMINE APPROPRIATE SEQUENCE OF ALL DEMOLITION ACTIVITIES.
- REFER TO SEPARATE PLANS FOR SEDIMENT AND EROSION CONTROL REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY EXISTING UTILITIES.
- ALL UNDERGROUND ELECTRICAL LINES FEEDING LIGHTING FIXTURES SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX OUTSIDE THE LIMIT OF WORK.
- EXISTING UTILITY LINES HAVE BEEN SHOWN USING THE BEST AVAILABLE RECORDS OBTAINED FROM UTILITY COMPANIES AND FIELD EVIDENCE. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL CALL MISS UTILITY TO LOCATE ALL UNDERGROUND UTILITY LINES AND SUPPLEMENT THOSE MARKINGS BY ENGAGING A PRIVATE UTILITY LOCATING COMPANY (AT CONTRACTORS EXPENSE) TO ENSURE THAT ALL EXISTING UTILITIES HAVE BEEN MARKED.
- REMOVAL OF ALL UNDERGROUND STORAGE TANKS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS.
- COORDINATE WITH FINAL WATER AND SEWER PLANS FOR THE EXTENTS OF REMOVAL/ABANDONMENT OF EXISTING LINES.



DEMOLITION LEGEND

- REMOVE EXISTING BITUMINOUS PAVING
- REMOVE EXISTING TREE
- CURB REMOVAL
- REMOVE EXISTING CONCRETE OR PAVEMENT SIDEWALK
- SAW CUT FULL DEPTH
- REMOVE EXISTING CONCRETE

SEAL
 PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33854, EXPIRATION DATE: 1-24-13



- LEGEND**
- PROPOSED MEDIUM DUTY PAVING
 - PROPOSED CONCRETE PAVING
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED POROUS PAVER SIDEWALK (SEE DETAIL 4, SHEET 14)
 - PROPOSED LIGHT DUTY POROUS CONCRETE PAVING (SEE DETAIL 1, SHEET 14)
 - PROPOSED MEDIUM DUTY POROUS CONCRETE PAVING (SEE DETAIL 1, SHEET 14)
 - SOIL BORING

NOTE: SEE SHEET 6 FOR ALL WATER, SEWER AND STORM DRAIN INFORMATION. SEE SHEET 8 FOR GRADING.

BEFORE BEGINNING CONSTRUCTION CONTACT
'MISS UTILITY'
 AT
1-800-257-7777
 AT LEAST 48 HOURS
 PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
[Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
Brian for Peter Beilenson 8/5/2011
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Kat Shandor 8/14/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Mona & Butcher 8/15/11
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

DATE NO. REVISION
 OWNER HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

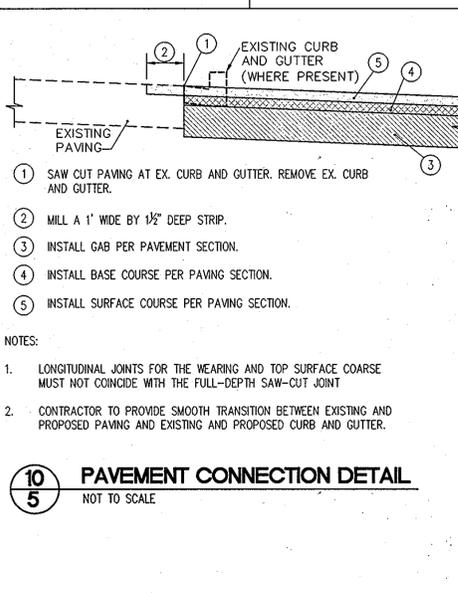
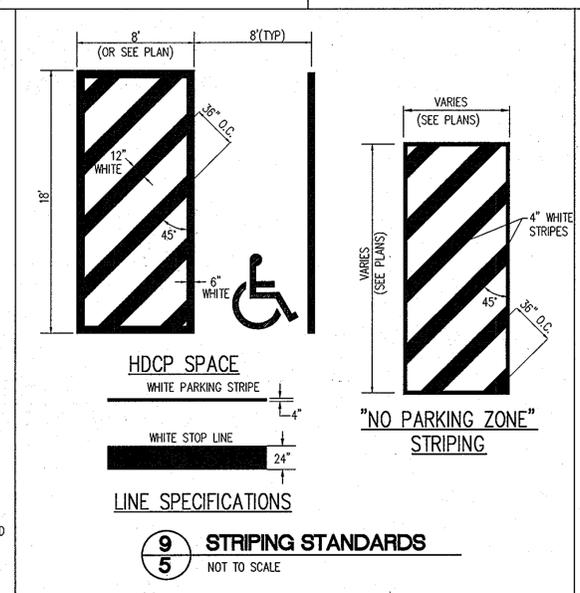
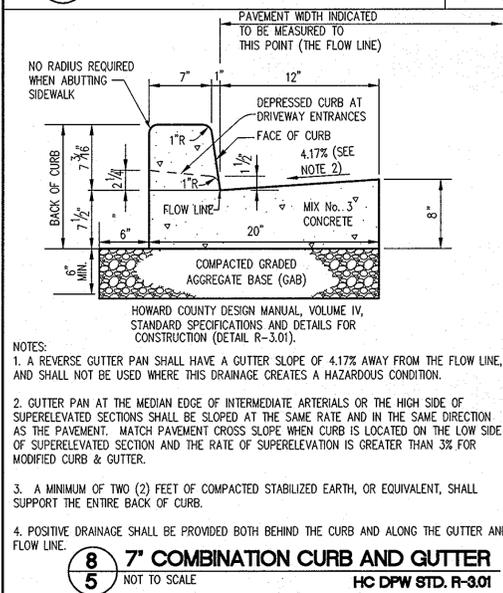
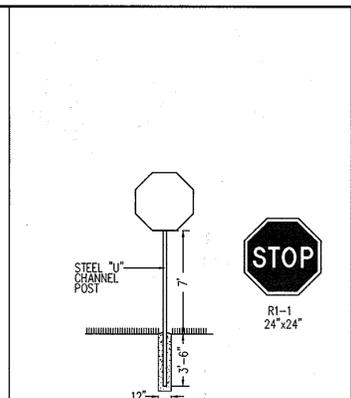
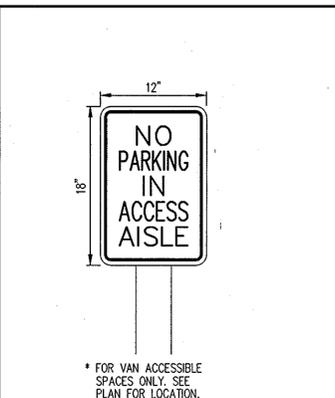
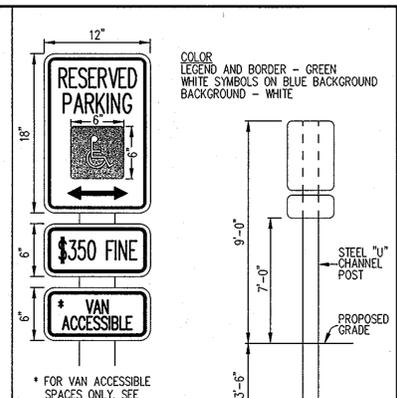
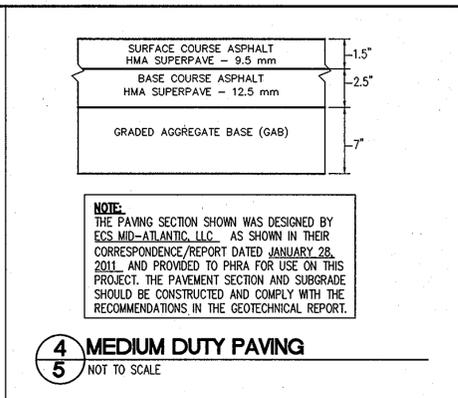
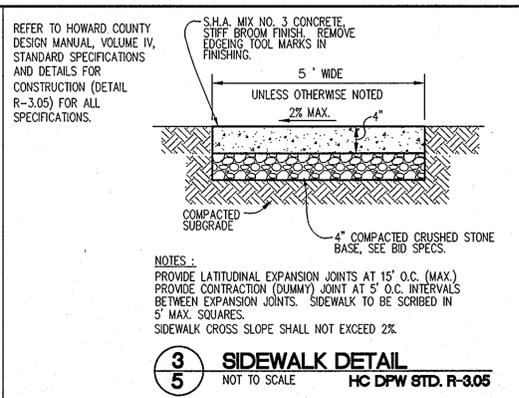
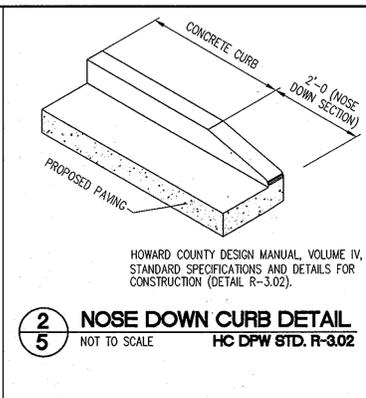
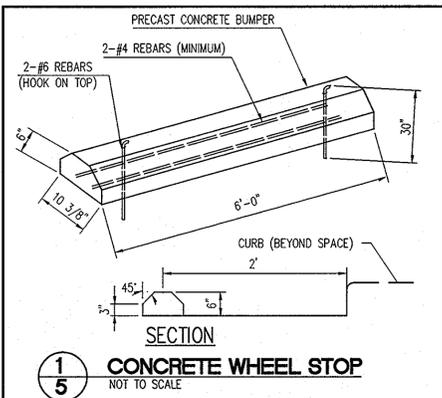
DEVELOPER GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008
 PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

AREA TAX MAP 36 GRID 18 PARCEL 396 ZONED 'NT'
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

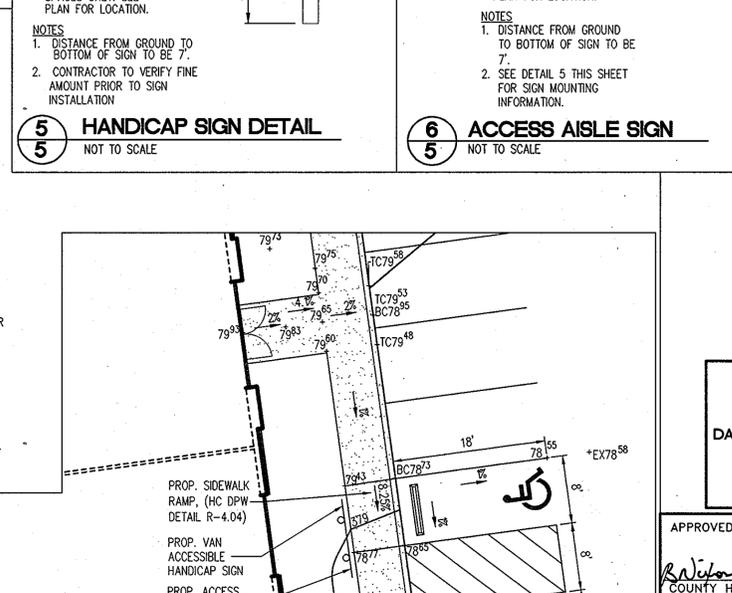
TITLE: **SITE DEVELOPMENT PLAN**
PHRA
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: PHRA
 DRAWN BY: ALC
 PROJECT NO.: 12104/4-0/PLANS
 C400SDP04
 DATE: JULY 1, 2011
 SCALE: 1"=20'
 DRAWING NO. 4 OF 15





NOTES:
 AN ACCESSIBLE ROUTE SHALL BE PROVIDED BETWEEN HANDICAPPED PARKING OR PUBLIC RIGHT OF WAYS TO THE MAIN BUILDING ENTRANCE IN ACCORDANCE WITH CURRENT ADA AND LOCAL STANDARDS. ALL HANDICAPPED RAMP(S) SHALL BE CONSTRUCTED ACCORDING TO CURRENT ADA AND LOCAL STANDARDS. EXCEPT AS SUPERSEDED IN CURRENT ADA AND LOCAL STANDARDS THE FOLLOWING SHALL APPLY:
 A) MAXIMUM SIDEWALK CROSS SLOPES SHALL BE 2%.
 B) A MINIMUM 5'x 5' LANDING AREA WITH A MAXIMUM SLOPE IN ANY DIRECTION OF 2% SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION, TOPS AND BOTTOMS OF RAMPS, AND BUILDING EGRESS POINTS.
 C) ALL HANDICAPPED PARKING SHALL BE SLOPED NO GREATER THAN 2% IN ANY DIRECTION, INCLUDING A 5' WIDE AREA BEHIND THE PARKING SPACES. CONTRACTOR SHALL CHECK ALL SLOPES PRIOR TO PLACING ANY WORK OR WORK MAY BE UNACCEPTABLE.
 D) AN ACCESS ROUTE FROM THE PARKING SPACE(S) TO THE MAIN BUILDING ENTRANCE SHALL BE PROVIDED. ALL SLOPES ALONG THE DIRECTION OF TRAVEL SHALL NOT EXCEED 1:20 UNLESS THEY FALL UNDER CONDITION B) ABOVE. SLOPES IN EXCESS OF 1:20 EXCEPT FOR CURB RAMPS, REQUIRE A HANDRAIL MEETING ADA REQUIREMENTS.



BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
 AT
1-800-257-7777
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
William P. Peter Baileman 8/5/2011
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
John P. ... 8/15/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
... 8/15/11
 CHIEF, DIVISION OF LAND DEVELOPMENT
Thomas J. ... 8/15/11
 DIRECTOR

DATE	NO.	REVISION

OWNER
 HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDLY ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

DEVELOPER
 GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

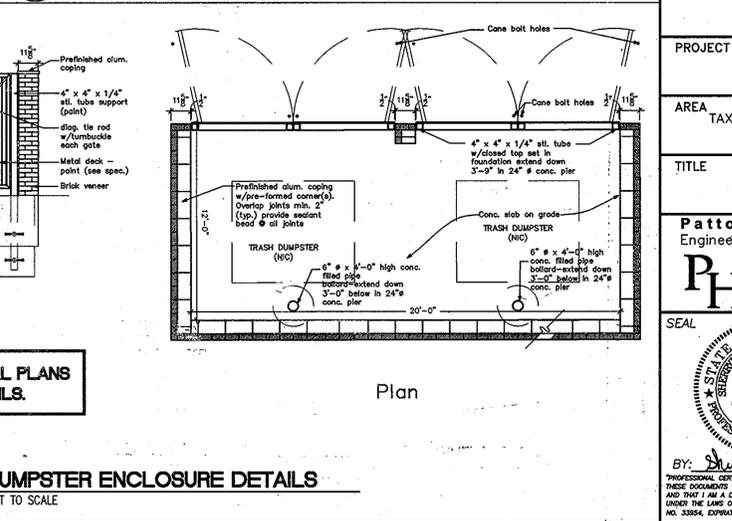
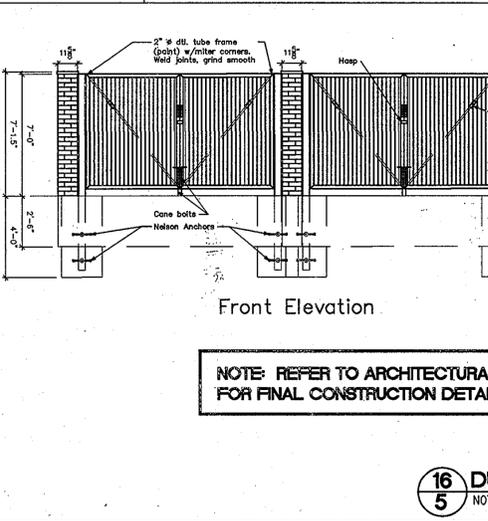
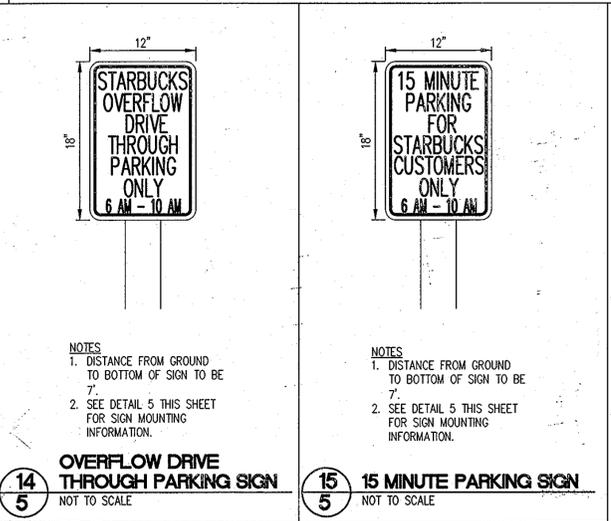
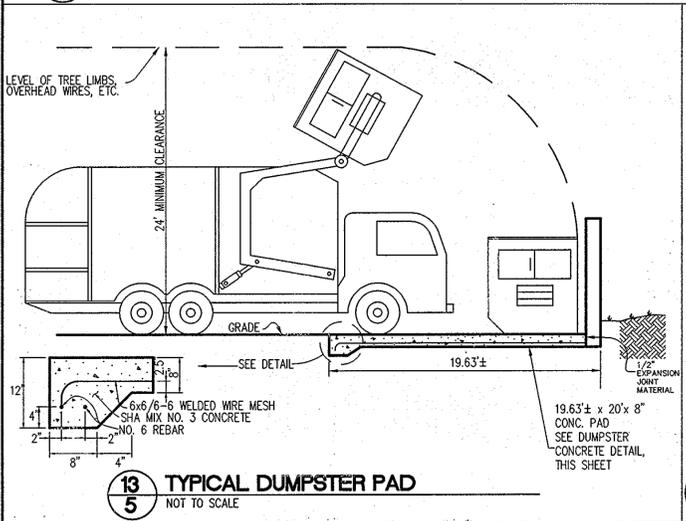
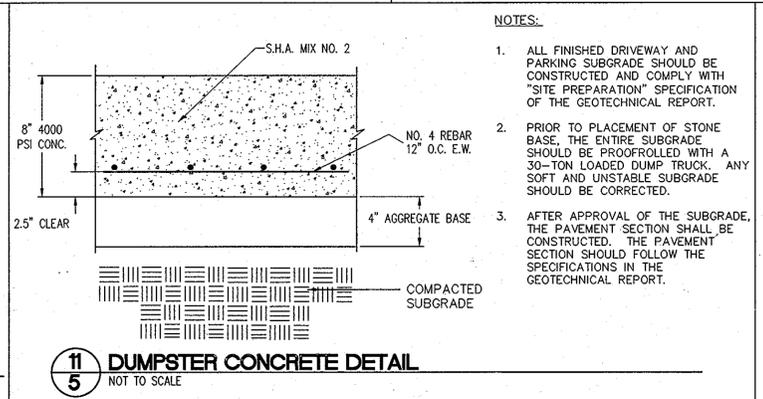
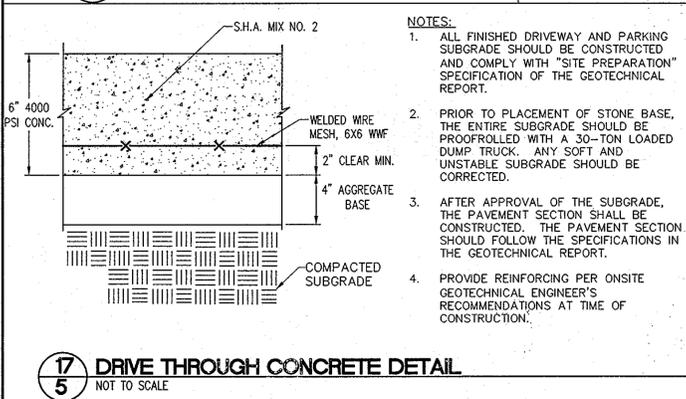
AREA
 TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
SITE DETAILS

Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

SEAL
 PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33554, EXPIRES 1-1-11

DESIGNED BY: PHRA
 DRAWN BY: ALC
 PROJECT NO: 12104/4-0/PLANS
 C400SDP05
 DATE: JULY 1, 2011
 SCALE: AS SHOWN
 DRAWING NO. 5 OF 15



DATE NO. REVISION

OWNER
 HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDLY ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

DEVELOPER
 GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

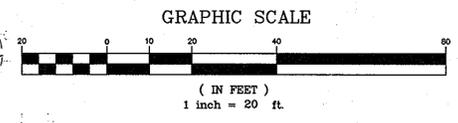
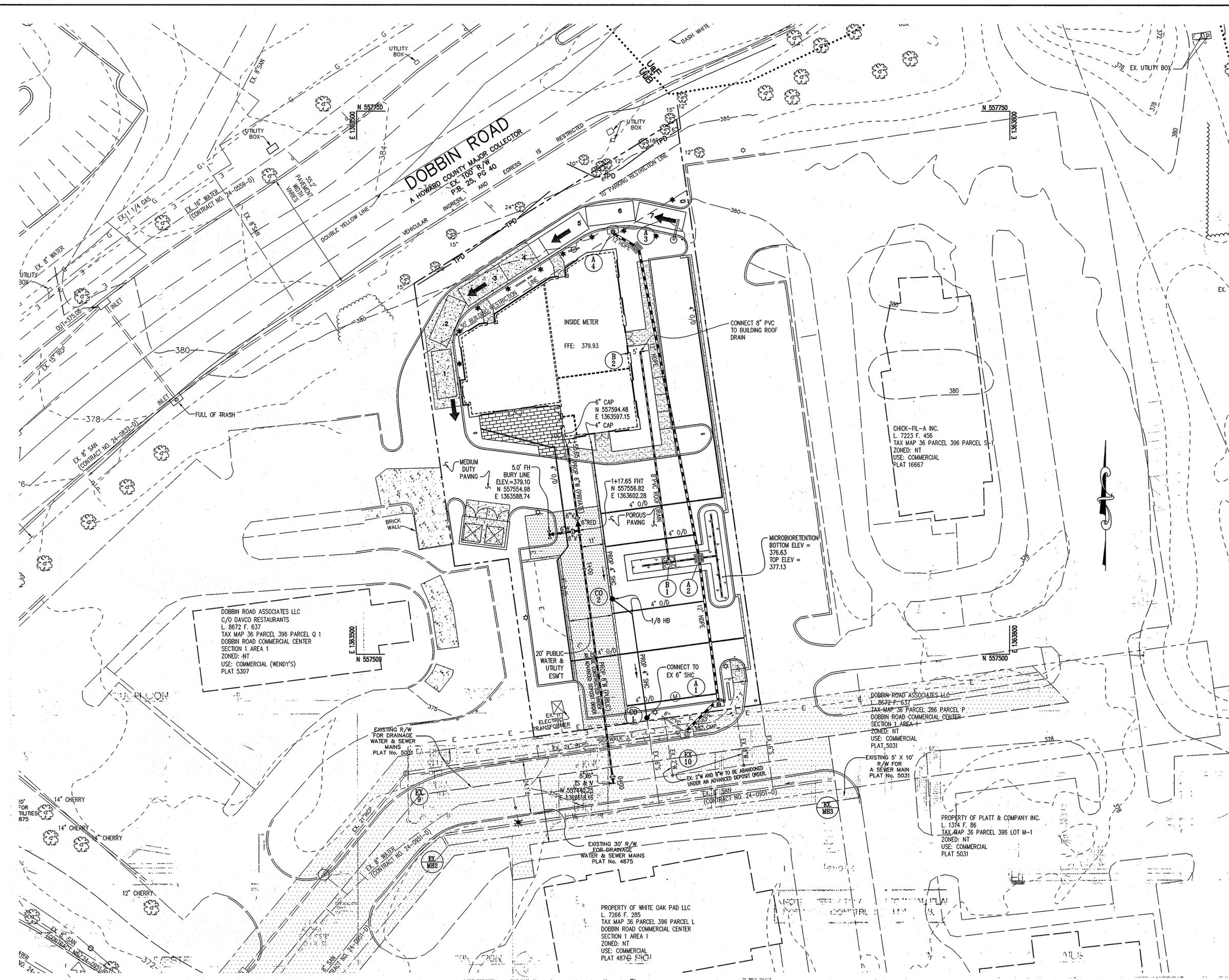
AREA
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 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
SITE DETAILS

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DESIGNED BY: PHRA
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 C400SDP05
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 SCALE: AS SHOWN
 DRAWING NO. 5 OF 15



BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
 AT
1-800-257-7777
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
GAR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
Peter Beilenson 8/5/2011
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION J.R. DATE 8/4/11
 CHIEF, DIVISION OF LAND DEVELOPMENT DRG DATE 8/15/11
 DIRECTOR Thomas J. Butler DATE 8/15/11

DATE	NO.	REVISION

OWNER
 HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

DEVELOPER
 GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

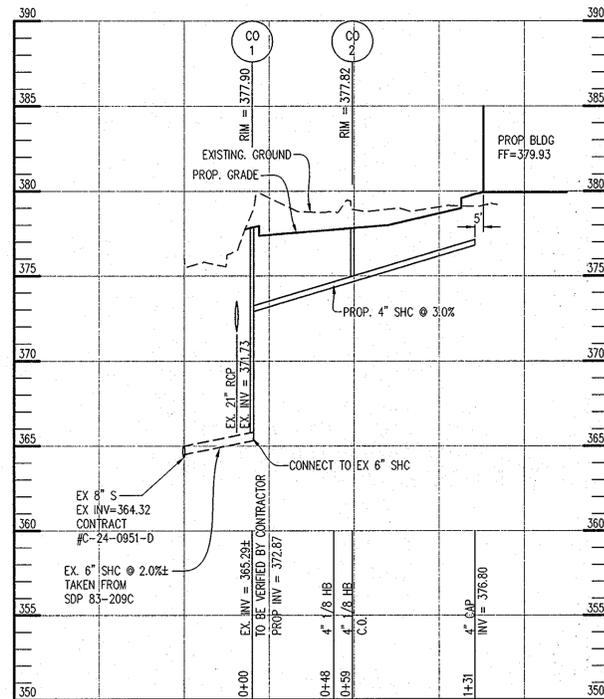
AREA
 TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
WATER, SEWER AND STORM DRAIN PLAN.

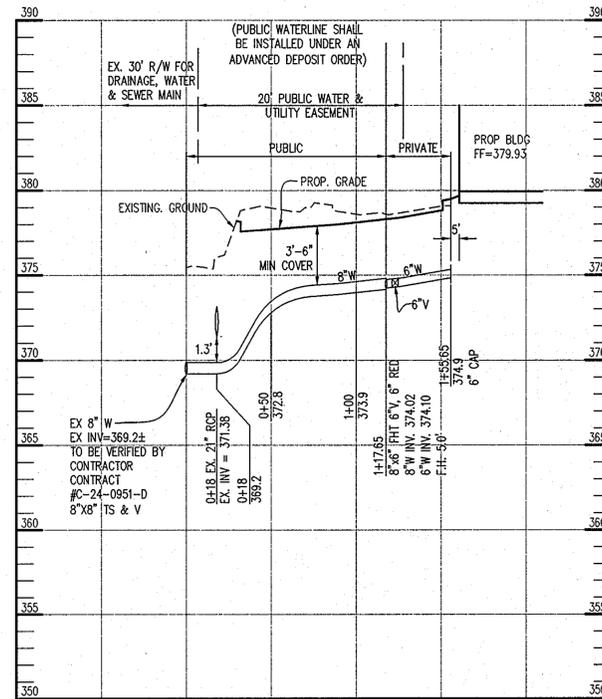
Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8801 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

SEAL

 DESIGNED BY: SCM
 DRAWN BY: ALG
 PROJECT NO: 12104/4-0/PLANS
 C400SDP06
 DATE: JULY-1, 2011
 SCALE: 1"=20'
 DRAWING NO: 6 OF 15



PRIVATE SHC PROFILE
SCALE: HOR: 1"=50' - VERT: 1"=5'



WATERMAIN PROFILE
SCALE: HOR: 1"=50' - VERT: 1"=5'

WATER NOTES

1. ALL WATER MAINS SHALL BE D.I.P CLASS 54 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
7. FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.

SEWER NOTES

1. ALL SEWER SHALL BE PVC CONFORMING TO SDR 35 ASTM D3034 SPECIFICATIONS.
2. ALL SEWER CLEAN-OUTS SHALL CONFORM TO HOWARD COUNTY STANDARD DETAIL S-2.22.

PRIVATE PIPE SCHEDULE		
SIZE	TYPE	LINEAR FOOTAGE
4" SHC	PVC	131
6" W	DIP	38

ALL QUANTITIES TO BE VERIFIED BY CONTRACTOR.

QUANTITIES - PUBLIC				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" DIP CL 54 WATER	118 LF			
8" TS + V	1 EA			
8" x 6" FHT	1 EA			
FIRE HYDRANT	1 EA			
6" VALVE	1 EA			
6" REDUCER	1 EA			

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011
Shaw

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION J.R. DATE 8/9/11

CHIEF, DIVISION OF LAND DEVELOPMENT Shaw DATE 8/15/11

DIRECTOR Shaw & Butler DATE 8/15/11

DATE	NO.	REVISION

OWNER
HOWARD REDEVELOPMENT LLC
C/O ALMS AND ASSOCIATES
9256 BENDIX ROAD #300
COLUMBIA, MD 21045
PHONE: 443.539.9660

DEVELOPER
GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20852
PHONE: 301.488.8008

PROJECT **DOBBIN CENTER PARCEL R-1**
MANGO GROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

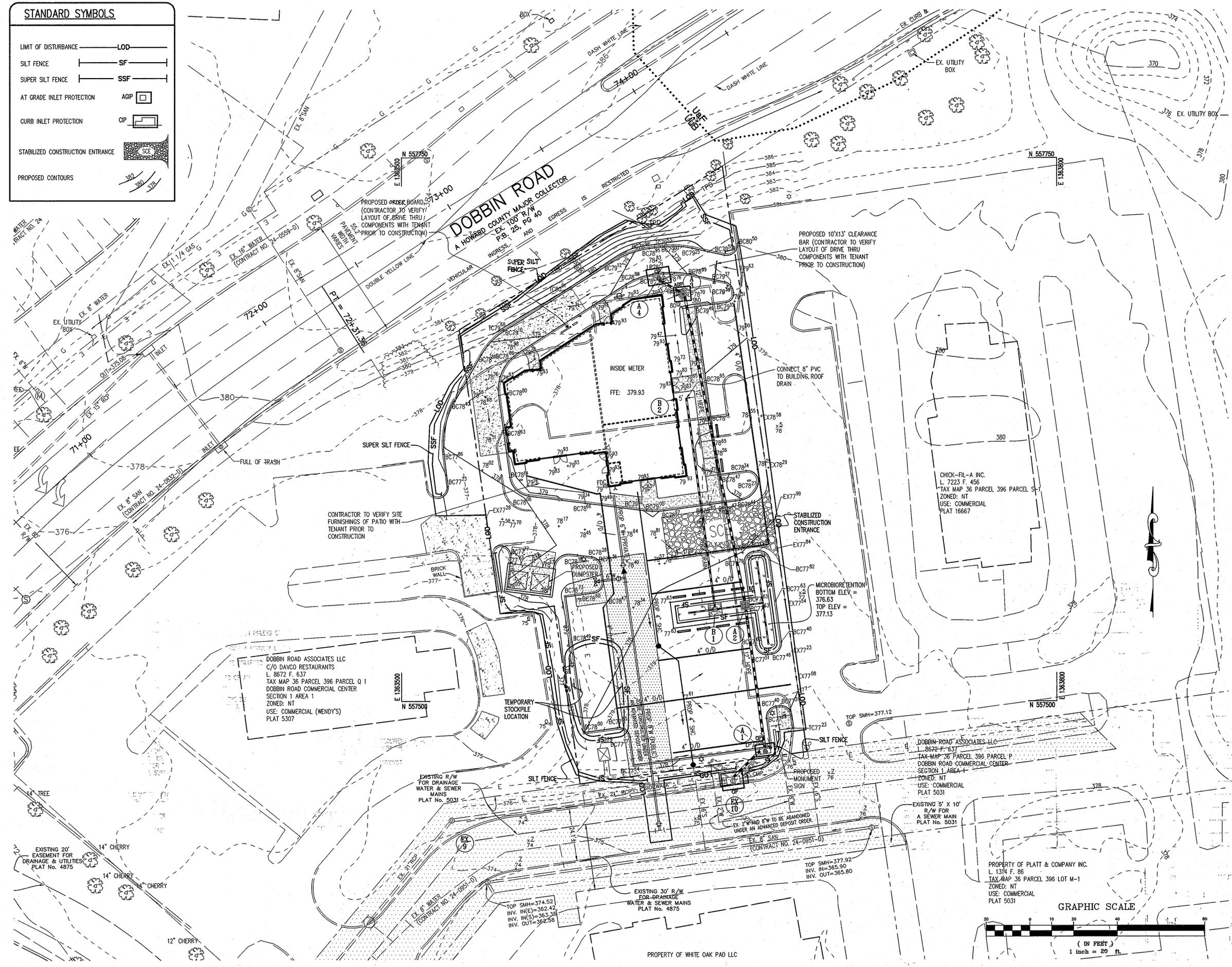
AREA
TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
WATER AND SEWER PROFILES

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL OF MARYLAND
STATE OF MARYLAND
PLANNING BOARD
DESIGNED BY: SCM
DRAWN BY: ALC
PROJECT NO. 12104/4-0/PLANS
C400SDP07
DATE: JULY 1, 2011
SCALE: AS SHOWN
DRAWING NO. 7 OF 15

STANDARD SYMBOLS	
LIMIT OF DISTURBANCE	LOD
SILT FENCE	SF
SUPER SILT FENCE	SSF
AT GRADE INLET PROTECTION	AGIP
CURB INLET PROTECTION	CIP
STABILIZED CONSTRUCTION ENTRANCE	SCE
PROPOSED CONTOURS	380, 378, 376



BEFORE BEGINNING CONSTRUCTION CONTACT
'MISS UTILITY'
 AT
1-800-257-7777
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
[Signature]

ENGINEER'S CERTIFICATE
 "I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature] 7-1-11
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
SHERYL C. MITCHELL

DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature] 7/1/11
 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
Michael Abrams

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 7/7/11
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 8/1/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 8/15/11
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
[Signature] 8/15/11
 DIRECTOR DATE

DATE NO.	REVISION

OWNER
 HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

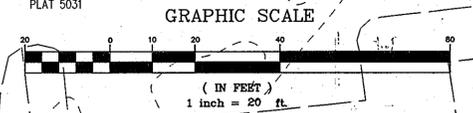
DEVELOPER
 GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6508 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

PROJECT **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

AREA
 TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
GRADING AND SEDIMENT CONTROL PLAN
Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY : PHRA
 DRAWN BY: ALC
 PROJECT NO : 12104/4-0/PLANS
 C400SDP08
 DATE : JULY 1, 2011
 SCALE : 1"=20'
 DRAWING NO. 8 OF 15



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 TEXTURED 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 PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE 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 EXPERIMENTATION 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 CONCRETES, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
-ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEG, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
-iii. WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
-i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - 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 1.5 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 TO 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 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
-i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRASS 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, ALBERT 4" - 6" HIGHER IN ELEVATION.
-iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" 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 PREPARE. ANY IRREGULARITIES OR UNIFORMITY OF SURFACE RESULTING FROM 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 OTHERWISE 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 SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
-a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
-b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
-c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
-d. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 1 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
-i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - 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 1.5 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 TO 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 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
-i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRASS 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, ALBERT 4" - 6" HIGHER IN ELEVATION.
-iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" 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 PREPARE. ANY IRREGULARITIES OR UNIFORMITY OF SURFACE RESULTING FROM 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 OTHERWISE 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 SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
-a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
-b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
-c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
-d. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 1 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

PERMANENT SEEDING NOTES

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

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

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS. PER 1000 SQ.FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS. PER 1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. PER ACRE (1.4 LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.05 LBS. PER 1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY ONE OF THE FOLLOWING OPERATIONS:

- 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.
- USE SOD.
- SEED WITH 60 LBS. PER ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE WELL-ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

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

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT, SCHEDULE AND ATTEND THE PRE-CONSTRUCTION MEETING. (2 DAYS)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE) AND PERIMETER SILT FENCE AND SUPER SILT FENCE. INSTALL INLET PROTECTION ON EXISTING STRUCTURE 10. (3 DAYS)
- OBTAIN APPROVAL FROM INSPECTOR AND BEGIN DEMOLITION AS SHOWN ON SHEET 2. (2 WEEKS)
- BEGIN SITE GRADING. (1 DAY)
- BEGIN INSTALLATION OF STORM DRAIN, WATER AND SEWER. INSTALL INLET PROTECTION ON PROPOSED INLETS. (3 WEEKS)
- BEGIN BUILDING CONSTRUCTION (2 MONTHS).
- UPON COMPLETION OF ALL STORM DRAIN AND UTILITY SYSTEMS, OBTAIN APPROVAL FROM INSPECTOR.
- UPON COMPLETION OF FINE GRADING, INSTALL CURB, GUTTER AND BASE PAVING. INSTALL CONCRETE STRIP BETWEEN ASPHALT AND POROUS CONCRETE. (3 WEEKS)
- INSTALL MICRO-BIRETENTION FILTER MEDIA AND UNDERDRAINS. PHRA ENGINEER IS TO OBSERVE INSTALLATION OF ALL UNDERGROUND ELEMENTS. INSTALL SILT FENCE AROUND MICRO-BIRETENTION FILTER MEDIA. (3 DAYS)
- INSTALL BITUMINOUS PAVEMENT AND POROUS CONCRETE. INSTALL OVERDRAINS AND CONNECT TO STORM DRAIN WITH FIELD CONNECTIONS. DELAY INSTALLATION OF POROUS CONCRETE AT ENTRANCE UNTIL REMAINING PAVING IS INSTALLED. ONCE PAVING IS INSTALLED, SCE MAY BE REMOVED WITH INSPECTOR'S APPROVAL. HEAVY VEHICLES ARE TO AVOID POROUS PAVING AREAS. (1 WEEK)
- UPON COMPLETION OF BUILDING EXTERIOR, PERFORM FINE GRADING AROUND BUILDING AND INSTALL LANDSCAPING. (1 WEEK)
- APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. INSTALL MICRO-BIRETENTION PLANTINGS AND MULCH. (2 DAYS)
- WITH PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 DAY)

TEMPORARY SEEDING NOTES

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

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

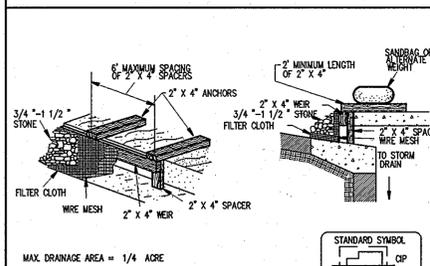
CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL-ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

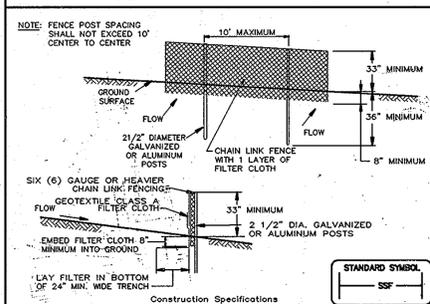
DETAIL 23C - CURB INLET PROTECTION



Construction Specifications

- Attach a continuous piece of wire mesh (30\"/>

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

- Fencing shall be 42\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-30-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

30.0 - DUST CONTROL

DEFINITION
CONTROLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

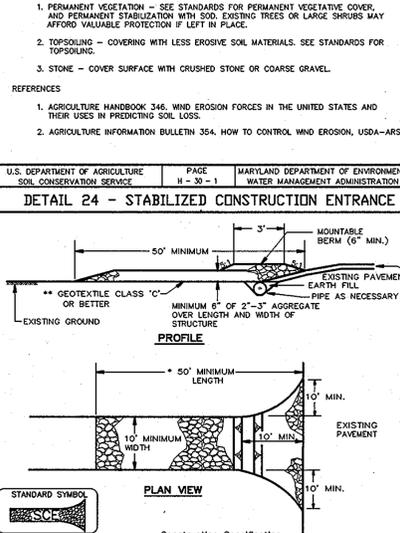
CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (0.07 LBS. PER 1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL-ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL. PER 1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 347 GAL. PER ACRE (8 GAL. PER 1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

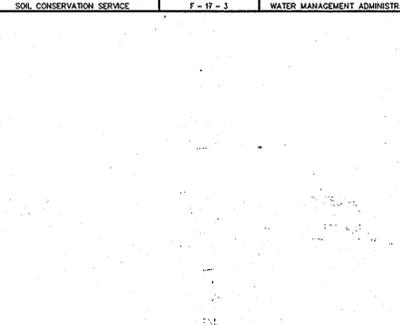
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- Length - minimum of 50' (+30' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. *The stone approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2\"/>

DETAIL 22 - SILT FENCE

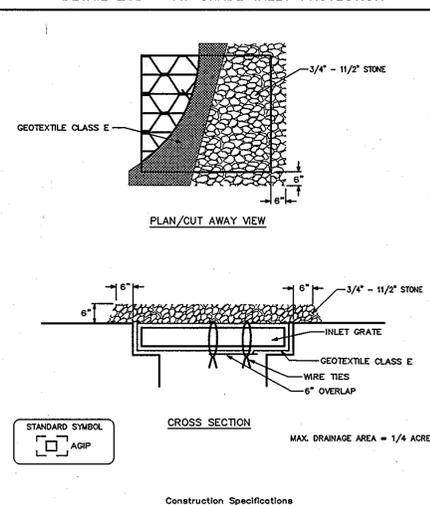


Construction Specifications

- Fence posts shall be a minimum of 36\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-30-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23B - AT GRADE INLET PROTECTION



Construction Specifications

- Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
- Place 3/4\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 11-30-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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

Signature of Engineer (Print Name Below Signature) DATE
SHERYL C. MITCHELL 7-1-11

DEVELOPER'S CERTIFICATE

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

Signature of Developer (Print Name Below Signature) DATE
Michael Abrams 7/1/11

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

Signature of Howard Soil Conservation District Director (Print Name Below Signature) DATE
John R. Robertson 7/7/11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
8/9/11

CHIEF, DIVISION OF LAND DEVELOPMENT DATE
8/15/11

DIRECTOR DATE
8/15/11

DATE NO. REVISION

OWNER
HOWARD REDEVELOPMENT LLC
C/O ALMS AND ASSOCIATES
9256 BENDIX ROAD #500
COLUMBIA, MD 21045
PHONE: 443.539.9660

DEVELOPER
GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20852
PHONE: 301.468.8008

PROJECT DOBBIN CENTER PARCEL R-1
MANGROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

AREA
TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SEDIMENT CONTROL
DETAILS

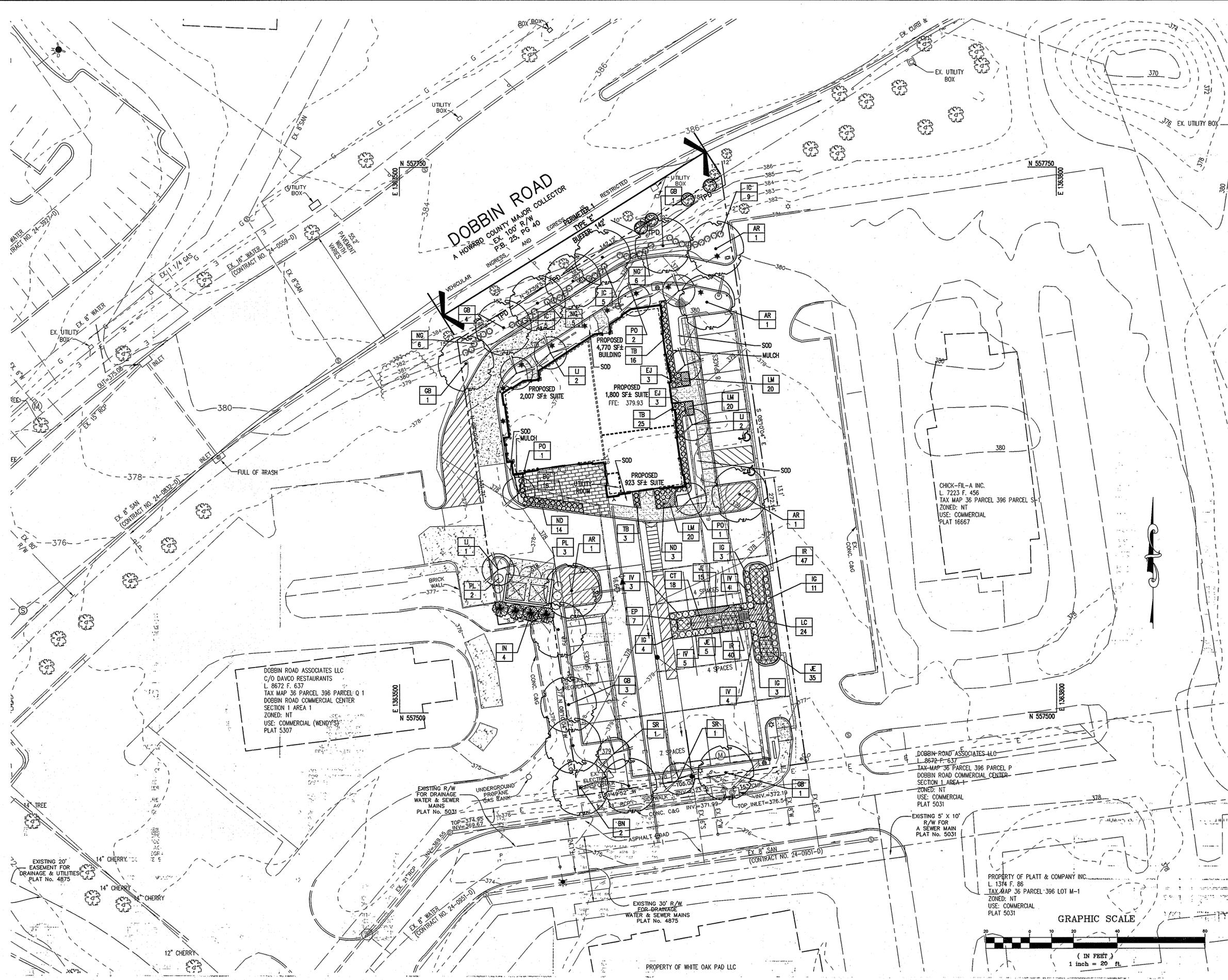
Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO. 12104/4-0/PLANS
C400SDP09
DATE: JULY 1, 2011
SCALE: AS SHOWN
DRAWING NO. 9 OF 15

SEAL
STATE OF MARYLAND
PROFESSIONAL ENGINEER
7-1111

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011



- LEGEND**
- PROPOSED SHADE TREE
 - PROPOSED ORNAMENTAL TREE
 - PROPOSED SHRUBS
 - CREDITED LANDSCAPE ISLAND
 - PROPOSED PERENNIALS
 - EXISTING TREES TO REMAIN
 - EXISTING TREES TO REMAIN ON SITE

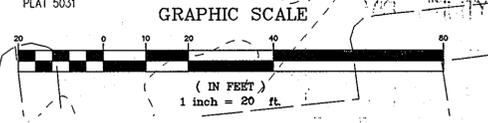
BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
 AT
1-800-257-7777
 AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
[Signature]

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 CHIEF, DEVELOPMENT ENGINEERING DIVISION J.R. DATE 8/9/11
 CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] DATE 8/15/11
 DIRECTOR [Signature] DATE 8/15/11

DATE	NO.	REVISION
OWNER		
HOWARD REDEVELOPMENT LLC C/O ALMS AND ASSOCIATES 9256 BENDIX ROAD #300 COLUMBIA, MD 21045 PHONE: 443.539.9660		
DEVELOPER		
GLENBROOK PROPERTIES ATTN: ANDREW MURPHY 6508 OLD FARM COURT ROCKVILLE, MD 20852 PHONE: 301.468.8008		
PROJECT DOBBIN CENTER PARCEL R-1 MANGO GROVE REDEVELOPMENT PROPOSED RESTAURANT AND COMMERCIAL		
AREA		
TAX MAP 36 GRID 18, PARCEL 396 ZONED NT 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
LANDSCAPE PLAN		
Patton Harris Rust & Associates Engineers, Surveyors, Planners, Landscape Architects, 8818 Centre Park Drive, Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282		

DESIGNED BY : ALC
 DRAWN BY : ALC
 PROJECT NO : 12104/4-0/PLANS
 DATE : JULY 1, 2011
 SCALE : 1" = 20'
 DRAWING NO. 10 OF 15



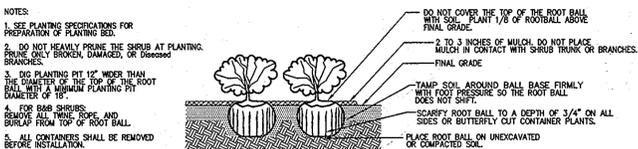
SCHEDULE A - PERIMETER LANDSCAPE EDGE	
ADJACENT TO ROADWAYS	
PERIMETER	1
LANDSCAPE TYPE	E
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	142±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 4 TREES
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO
LINEAR FEET REMAINING	142'
NUMBER OF PLANTS REQUIRED	
SHADE TREES	4
EVERGREEN TREES	0
SHRUBS	36
NUMBER OF PLANTS PROVIDED	
SHADE TREES	11*
EVERGREEN TREES	0
SMALL FLOWERING TREES	0
SHRUBS	36

SCHEDULE 'A' NOTES:
REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE HO. CO. LANDSCAPE MANUAL)

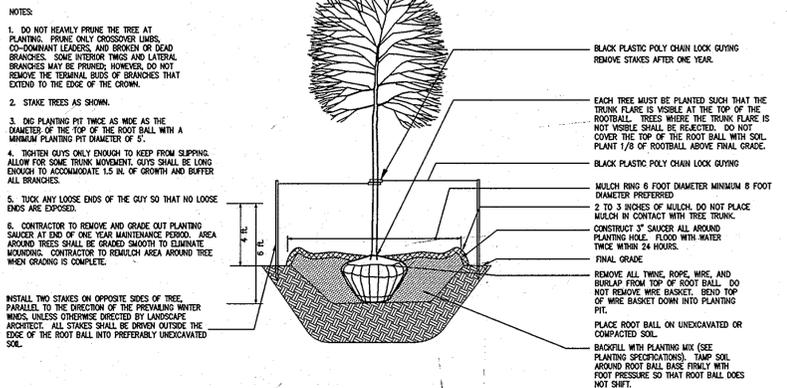
EXPANSION TO EXISTING DEVELOPMENT OF LESS THAN 50% SHALL BE REQUIRED TO PROVIDE LANDSCAPING FOR THE ADDITIONAL DEVELOPMENT ONLY. (PAGE 3 OF THE HO. CO. LANDSCAPE MANUAL)

* INCLUDES 4 EXISTING TREES TO REMAIN AND 7 PROPOSED SHADE TREES.

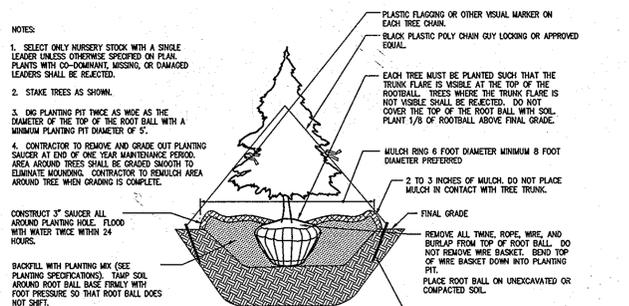
SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING	
PARKING LOT	1
NUMBER OF PARKING SPACES	30
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	2
NUMBER OF TREES PROVIDED	
SHADE TREES	2
OTHER TREES (2:1 SUBSTITUTION)	0
NUMBER OF ISLANDS PROVIDED	2



SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS
NOT TO SCALE



DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR SMALLER)
NOT TO SCALE



EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Landscape Manual of the applicable jurisdiction, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Nursery & Landscape Association (ANLA) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been out back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no heeled-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xopressocarpis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.); top dress after planting with iron sulfate or comparable product according to package directions. Toxas bacotta 'Repandens' (English weeping yew); top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be tested. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

PLANT SCHEDULE					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES					
AR	4	ACER RUBRUM 'RED SUNSET' RED SUNSET RED MAPLE	2.5-3" CAL.	B&B	AS SHOWN
BN	2	BETULA NIGRA 'HERITAGE' HERITAGE RIVER BIRCH	2.5-3" CAL.	B&B	AS SHOWN
GB	10	GINKGO BILOBA 'AUTUMN GOLD' AUTUMN GOLD GINKGO	2.5-3" CAL.	B&B	MALE ONLY
FLOWERING TREES					
LI	5	LAGERSTROEMIA X 'APALACHEE' APALACHEE CRAPFEMWITTE	8-10' HT.	CONT.	AS SHOWN
PO	4	PRUNUS X 'OKAME' OKAME CHERRY	8-10' HT.	CONT.	AS SHOWN
SR	2	SYRINGA RETICULATA 'IVORY SILK' IVORY SILK JAPANESE TREE LILAC	8-10' HT.	CONT.	AS SHOWN
EVERGREEN TREES					
IN	4	ILEX X 'NELLIE R. STEVENS' NELLIE STEVENS HOLLY	5-6' HT.	CONT.	AS SHOWN
SHRUBS					
BG	16	BUXUS X 'GREEN VELVET' GREEN VELVET BOXWOOD	18-24" HT.	CONT.	AS SHOWN
EJ	6	EUONYMUS JAPONICUS 'SILVER PRINCESS' SILVER PRINCESS EUONYMUS	12-15" HT.	CONT.	AS SHOWN
IC	19	ILEX CORNUTA 'BURFORDII NANA' BURFORD HOLLY	2-2.5' HT.	CONT.	AS SHOWN
ND	17	NANDINA DOMESTICA 'HARBOUR DWARF' HARBOUR DWARF NANDINA	15-18" HT.	CONT.	AS SHOWN
NG	17	NANDINA DOMESTICA 'GULF STREAM' GULF STREAM NANDINA	2-2.5' HT.	CONT.	AS SHOWN
PL	5	PRUNUS LAUROCARASUS 'SCHIPKAENSIS' SCHIPKAENSIS CHERRYLAUREL	3.5-4' HT.	CONT.	AS SHOWN
TB	44	TAXUS BACCATA 'REPANDENS' REPANDENS ENGLISH YEW	15-18" HT.	CONT.	AS SHOWN
GROUNDCOVER					
LM	60	LIRIOPE MUSCARI 'BIG BLUE' BIG BLUE LILYTURF	1 GAL.	CONT.	12" ON CENTER

BIORETENTION PLANT SCHEDULE					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
IG	21	ILEX GLABRA INKBERRY	2-2.5' HT.	CONT.	AS SHOWN
IV	16	ILEX VERTICILLATA 'RED SPRITE' AND 'JIM DANDY' RED SPRITE AND JIM DANDY WINTERBERRY	3 GAL.	CONT.	SEE NOTE 1
CT	18	CAREX TYPHINA CAT-TAIL SEDGE	1 QUART	CONT.	18" ON CENTER
EP	7	EUPATORIUM PURPUREUM JOE PYE WEED	1 GAL.	CONT.	2' ON CENTER
JE	55	JUNCUS EFFUSUS SOFT RUSH	1 QUART	CONT.	18" ON CENTER
LC	24	LOBELIA CARDINALIS CARDINAL FLOWER	1 GAL.	CONT.	2' ON CENTER
IR	87	IRIS VERTICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 QUART	CONT.	18" ON CENTER

NOTE:

- PLANT 1 JIM DANDY WINTERBERRY FOR EVERY 5 RED SPRITE WINTERBERRY

GENERAL GROWTH PROPERTY LANDSCAPING REQUIREMENTS

AREA:	29,570 SF (0.68 ACRES)
TREES REQUIRED:	30 SHADE TREES PER ACRE = 0.68 ACRES X 30 = 20.4 = 21 SHADE TREES REQUIRED
TREES PROPOSED:	16 SHADE TREES = 16 SHADE TREES 11 FLOWERING TREES = 5.5 SHADE TREES 4 EVERGREEN TREES = 2 SHADE TREES 4 EXISTING SHADE TREES TO REMAIN = 4 SHADE TREES 27.5 SHADE TREES TOTAL

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011
[Signature]

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$2,880,000.
6 SHADE TREES @ \$300 = 1,800
0 ORNAMENTAL TREES @ \$150 = 0
0 EVERGREEN TREES @ \$150 = 0
36 SHRUBS @ \$30 = 1,080
- BONDED LANDSCAPING INCLUDES REQUIRED LANDSCAPING PER THE LANDSCAPE MANUAL AND ADDITIONAL LANDSCAPING PER THE APPROVED CONDITIONAL USE PLAN.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.

DEVELOPER'S/BUILDER'S CERTIFICATE:

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

[Signature]
SIGNATURE Michael Abrams DATE 7/11/11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/15/11 DATE
[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT 8/15/11 DATE
[Signature]
DIRECTOR 8/15/11 DATE

DATE NO. REVISION
OWNER HOWARD REDEVELOPMENT LLC
C/O ALMS AND ASSOCIATES
9256 BENDIX ROAD #300
COLUMBIA, MD 21045
PHONE: 443.539.9660
DEVELOPER GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20857
PHONE: 301.468.8008
PROJECT DOBBIN CENTER PARCEL R-1
MANGO GROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

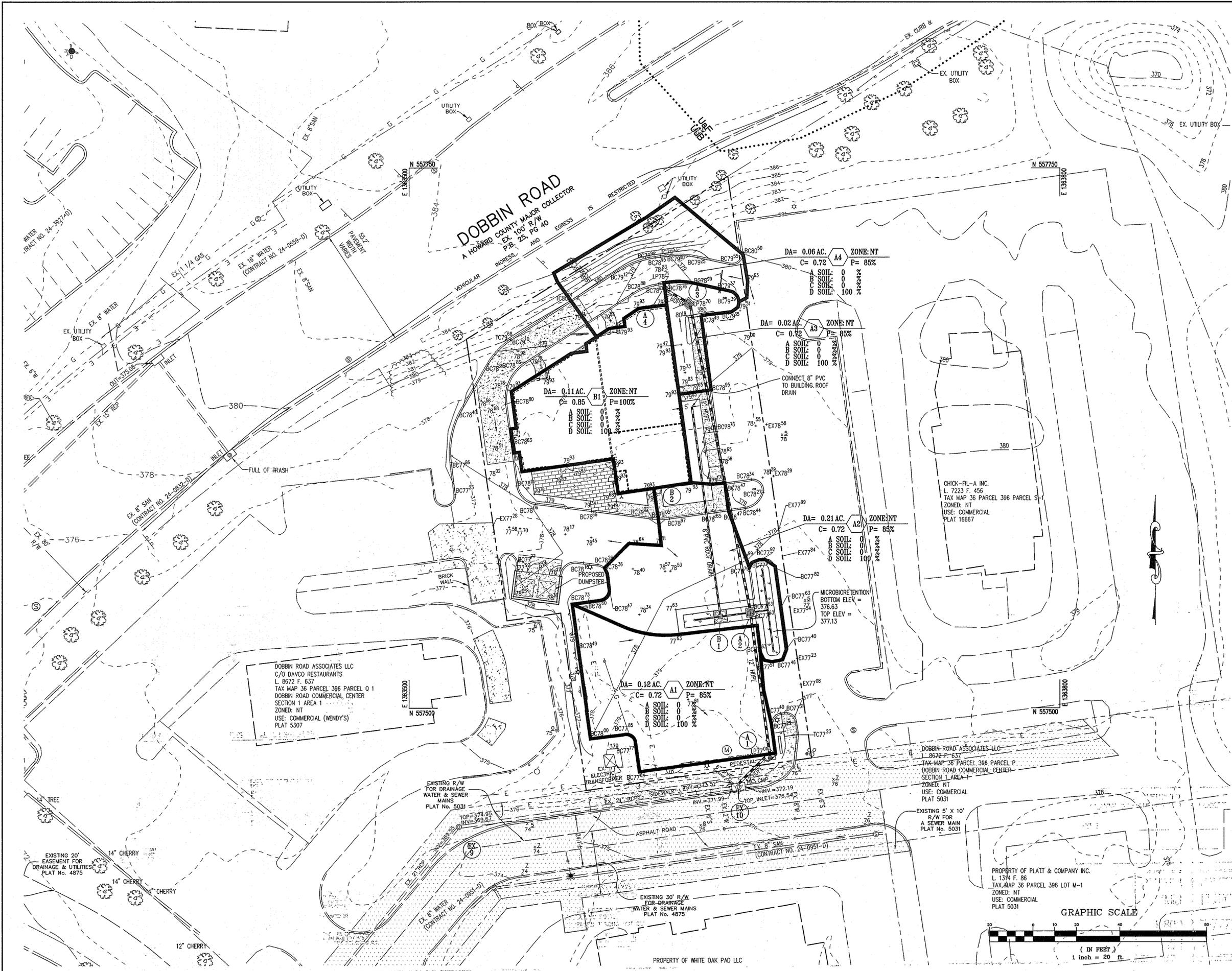
AREA TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LANDSCAPE DETAILS

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO. 12104/4-0/PLANS
C400SDP11
DATE: JULY 1, 2011
SCALE: AS SHOWN
DRAWING NO. 11 OF 15

SDP-11-030



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED DRAINAGE DIVIDE

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
 AT
1-800-257-7777
 AT LEAST 48 HOURS
 PRIOR TO EXCAVATION

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 6/16/2011
[Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
Richard Peter Beileman 8/15/2011
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 8/15/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 8/15/11
 CHIEF, DIVISION OF LAND DEVELOPMENT
Thomas E. Butler 8/15/11
 DIRECTOR

DATE	NO.	REVISION

OWNER: HOWARD REDEVELOPMENT LLC
 C/O ALMS AND ASSOCIATES
 9256 BENDIX ROAD #300
 COLUMBIA, MD 21045
 PHONE: 443.539.9660

DEVELOPER: GLENBROOK PROPERTIES
 ATTN: ANDREW MURPHY
 6506 OLD FARM COURT
 ROCKVILLE, MD 20852
 PHONE: 301.468.8008

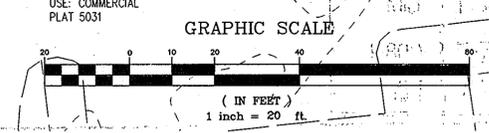
PROJECT: **DOBBIN CENTER PARCEL R-1**
 MANGO GROVE REDEVELOPMENT
 PROPOSED RESTAURANT AND COMMERCIAL

AREA: TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN DRAINAGE AREA MAP**
Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive, Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: SCM
 DRAWN BY: ALC
 PROJECT NO: 12104/4-0/PLANS
 C400SDP12
 DATE: JULY 1, 2011
 SCALE: 1"=20'
 DRAWING NO. 12 OF 15

PROPERTY OF PLATT & COMPANY INC.
 L. 1314 F. 86
 TAX MAP 36 PARCEL 396 LOT M-1
 ZONED: NT
 USE: COMMERCIAL
 PLAT 5031



HDPE SPECIFICATIONS

CORRUGATED HIGH-DENSITY POLYETHYLENE STORM DRAIN (HDPE) PIPE FOR ON-SITE DRAINAGE SHALL MEET THE REQUIREMENTS OF AASHTO M294. AASHTO WALL TYPE MAY BE TYPE "S" OR TYPE "D". PIPE AND FITTINGS SHALL BE MANUFACTURED FROM VIRGIN PE COMPOUNDS AND SHALL CONFORM TO THE APPLICABLE CURRENT EDITION OF THE AASHTO MATERIAL SPECIFICATIONS FOR CELL CLASSIFICATIONS AS DEFINED AND DESCRIBED IN ASTM D3350.

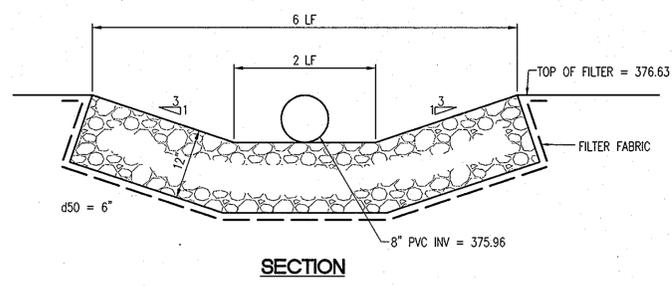
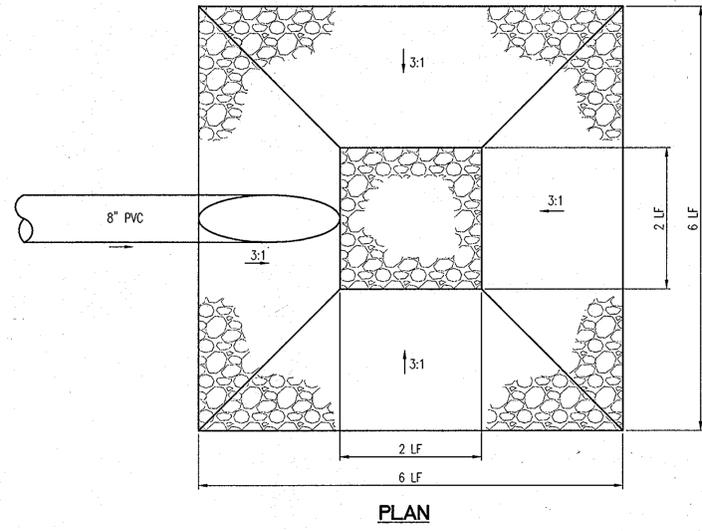
PIPES SHALL BE CONNECTED THROUGH A BELL AND SPIGOT CONNECTION. A RUBBER GASKET MEETING THE REQUIREMENTS OF ASTM F477 SHALL BE SUPPLIED ON THE SPIGOT END. THE PIPE SHALL BE WATERTIGHT TO 10.8 PSI PER A LABORATORY TEST IN ACCORDANCE WITH ASTM D3212. THE PIPE MANUFACTURER SHALL PROVIDE CERTIFICATIONS ON JOINT INTEGRITY.

PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A RUBBER BOOT-TYPE CONNECTION PRECAST INTO THE MANHOLE AND SHALL BE WATERTIGHT.

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 AND MANUFACTURER'S RECOMMENDATIONS.

ALL PIPES SHALL BE BEDDED ON 4" TO 6" OF (CLASS 1) FILL (UNDER THE PIPE) AND UP TO 1/2 THE PIPE DIAMETER COMPACTED AT OPTIMUM MOISTURE CONTENT (PLUS OR MINUS 2 PERCENTAGE POINTS), AND TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED IN THE LABORATORY BY ASTM TEST METHODS D-1557-78. ALL ADDITIONAL BACKFILL SHALL MEET HOWARD COUNTY SPECIFICATIONS.

CORRUGATED HDPE STORM DRAIN SHALL BE N-12 PRO-LINK WT. AS MANUFACTURED BY ADS, INC., COLUMBUS, OH, OR APPROVED EQUAL.

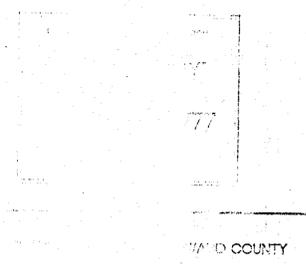


RIP RAP DETAIL STR B1
NOT TO SCALE

ROCK OUTLET PROTECTION II

Construction Specifications

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
- Stones for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-18-9A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011
[Signature]

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/1/11 DATE
[Signature] DIVISION 8/15/11 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT *[Signature]* DATE
DIRECTOR *[Signature]* DATE

STRUCTURE SCHEDULE						
NUMBER	TYPE	LOCATION		TOP ELEVATION		REMARKS
		NORTHING	EASTING	UPPER	LOWER	
A1	TYPE A-5 INLET	557478.7393	1363666.2658	377.59	377.59	L = 5'-0"
A2	TYPE 'S' INLET	557543.1601	1363651.3928	377.13	377.13	2'-7" x 2'-7"
A3	TYPE 'S' INLET	557687.4012	1363629.0616	378.70	378.70	2'-7" x 2'-7"
A4	TYPE A-5 INLET	557696.7460	1363617.5368	379.29	379.29	L = 5'-0"

- NOTES**
- ALL STRUCTURES ARE HOWARD COUNTY STANDARDS UNLESS NOTED OTHERWISE. CONTRACTOR MAY USE PRECAST STRUCTURE WHERE AVAILABLE TO MEET THE STANDARD STRUCTURE SPECIFIED.
 - STATIONS ARE GIVEN TO CENTER OF STRUCTURE AT FACE OF CURB FOR CURB INLETS AND TO CENTER OF STRUCTURE FOR ALL OTHER STRUCTURES.
 - ELEVATIONS ARE GIVEN TO TOP OF CURB FOR CURB INLETS, TOP OF GRATE FOR GRATE INLETS AND TOP OF LID FOR MANHOLES.
 - PIPE LENGTHS ARE GIVEN TO THE CENTER OF THE STRUCTURE. CONTRACTOR SHALL ADJUST LENGTH TO OBTAIN ACTUAL PIPE LENGTHS.

PIPE SCHEDULE		
SIZE	TYPE	LINEAR FOOTAGE
8"	PVC SCHEDULE 40	97
12"	HDPE ASTM F477	246

ALL QUANTITIES TO BE VERIFIED BY CONTRACTOR.
MICRO-BIORETENTION UNDERDRAIN NOT INCLUDED.

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

OWNER: HOWARD REDEVELOPMENT LLC
9256 BENDIX ROAD #300
COLUMBIA, MD 21045
PHONE: 443.539.9660

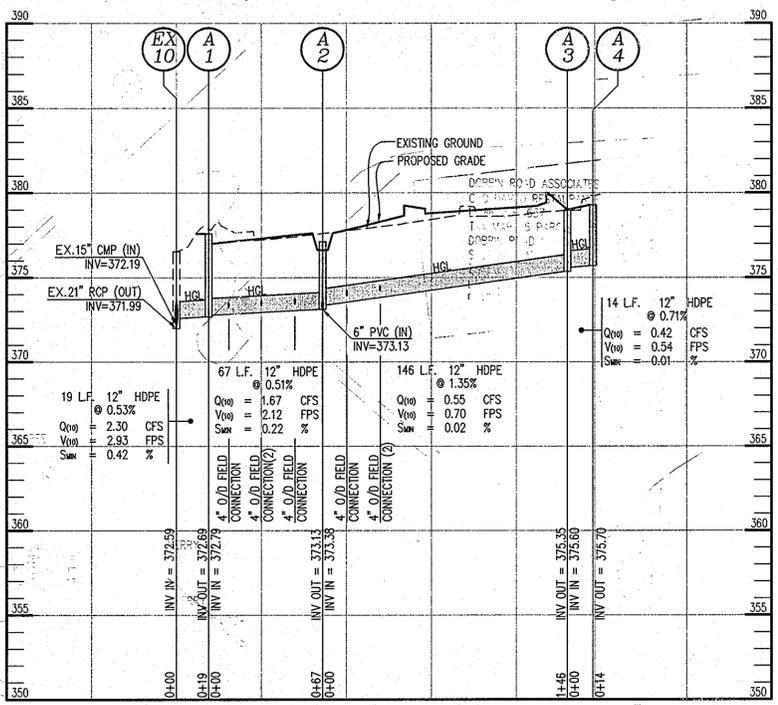
DEVELOPER: GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20852
PHONE: 301.468.8008

PROJECT: DOBBIN CENTER PARCEL R-1
HANGING GROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

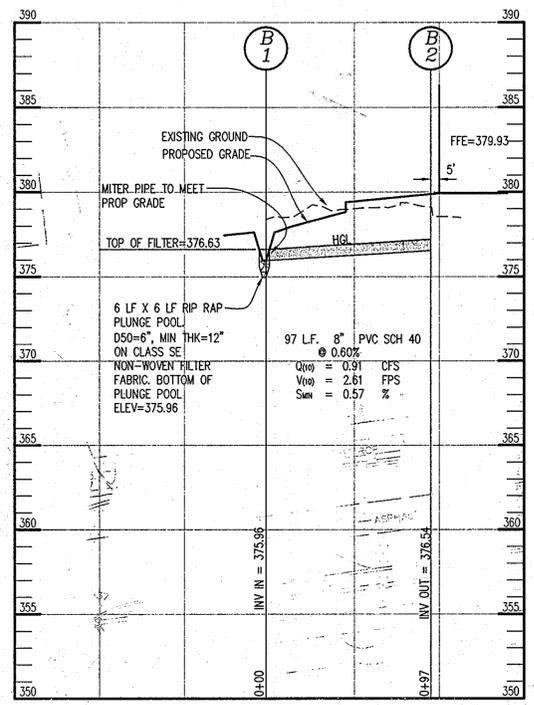
AREA: TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN PROFILES & DETAILS**
Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

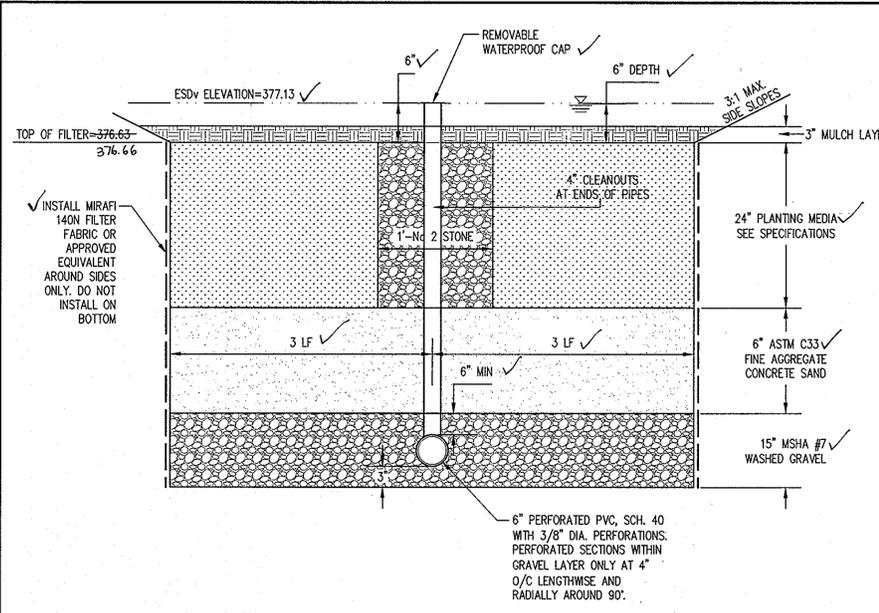
DESIGNED BY: SCM
DRAWN BY: ALC
PROJECT NO: 12104/4-0/PLANS
C400SDP13
DATE: JULY 1, 2011
SCALE: AS SHOWN
DRAWING NO. 13 OF 15



STORM DRAIN PROFILES
SCALE: HOR: 1"=50'
VERT: 1"=5'



STORM DRAIN PROFILES
SCALE: HOR: 1"=50'
VERT: 1"=5'



MICRO-BIORETENTION TYPICAL SECTION
NOT TO SCALE

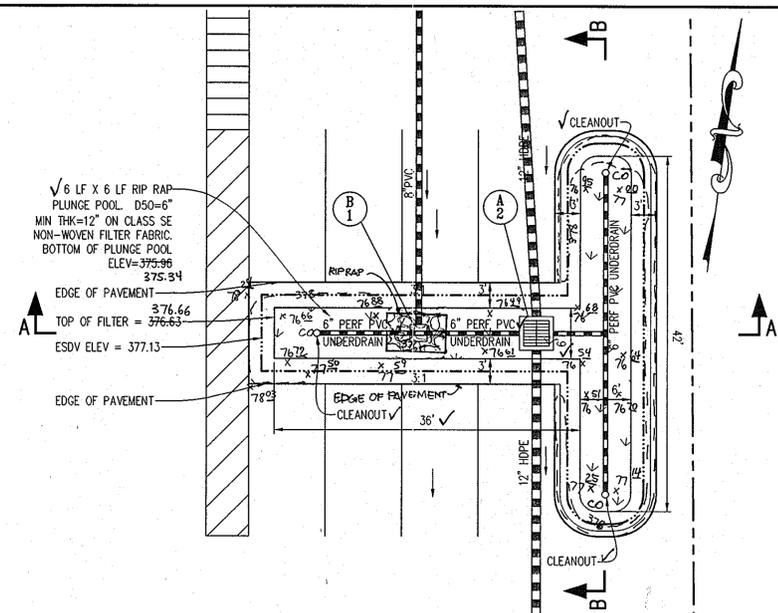
BIOFILTRATION SPECIFICATIONS

1. THE UNDERDRAIN PIPE MUST BE 6-INCH DIAMETER SCHEDULE 40 OR STRONGER PERFORATED PVC PIPE AT 0.00% SLOPE. THREE INCHES OF GRAVEL MUST BE PLACED UNDER THE PIPE, WITH A MINIMUM OF 6 INCHES OF GRAVEL OVER THE PIPE. PERFORATIONS MUST BE 3/8 INCH IN DIAMETER AND MUST BE LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BEGIN AT LEAST 5 FT. INSIDE THE FILTER MEDIA. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE.
2. 4" INCH CLEAN-OUTS SHOULD BE USED. CLEANOUTS FOR EACH PIPE SHOULD EXTEND 6 INCHES ABOVE THE TOP OF THE PLANTING MEDIA AND HAVE A REMOVABLE CAP.
3. THE GRAVEL LAYER SURROUNDING THE UNDERDRAIN PIPES MUST MEET MSHA SIZE #7 (TABLE 901A), AND MUST PROVIDE A MINIMUM OF 6 INCHES COVER OVER THE PIPE, AND MINIMUM 3 INCHES UNDER THE PIPE. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED ANYWHERE WITHIN THE FILTER MEDIA (STONE OR SAND).
4. A MINIMUM 6-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE SOIL FILTER/PLANTING MEDIA. THE SAND MUST BE ASTM C33 FINE AGGREGATE CONCRETE SAND. MANUFACTURED SAND OR STONE DUST IS NOT ACCEPTABLE.
5. THE PLANTING MEDIA SHALL CONSIST OF 1/3 PERLITE, 1/3 COMPOST AND 1/3 TOPSOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL. THE SOIL SHALL MEET THE FOLLOWING MINIMUM CRITERIA: CONTAIN NO MORE THAN 10% CLAY, 30-55% SILT AND 35-60% SAND. THE SOIL SHALL BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES. THE FIRST LAYER OF THE PLANTING MEDIA SHALL BE LIGHTLY TILLED TO MIX IT INTO THE SAND LAYER, SO NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING MATERIAL SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.
6. THE SURFACE MULCH LAYER WILL CONSIST OF STANDARD FINE SHREDDED AGED HARDWOOD MULCH. THE MULCH SHOULD BE UNIFORMLY TO A DEPTH OF 2 TO 3 INCHES. YEARLY REPLISHING MAY BE NECESSARY. PINE BARK IS NOT ACCEPTABLE.

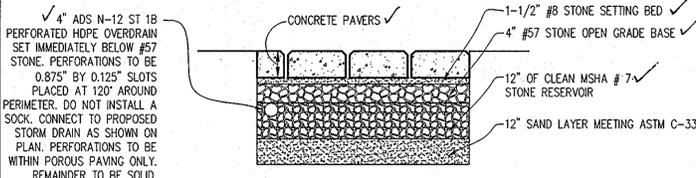
OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3) MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), ENHANCED FILTERS (M-9)

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

TURF SHOULD BE MOWN REGULARLY AND CLIPPINGS REMOVED FROM THE APPLICATION AREA.



MICRO-BIORETENTION PLAN VIEW
SCALE: 1" = 10'



4 POROUS PAVER PAVING SECTION
NOT TO SCALE

NOTES:

1. CONCRETE PAVERS TO BE UNI ECO-STONE OR ECO-PRIORA, OR APPROVED EQUAL.
2. JOINTS TO BE FILLED WITH SAND OR AGGREGATE, PER MANUFACTURER'S RECOMMENDATION.
3. ALL ADJUSTMENT TO EXISTING GRADE SHALL BE ACCOMPLISHED USING SUB-BASE MATERIAL.
4. SOILS SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHT WEIGHT WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTON. EXCAVATED MATERIALS SHALL BE PLACED IN A CONTAINED AREA. LOADED DUMP TRUCKS DELIVERING THE INITIAL SAND MATERIAL SHALL ENTER EACH STEPPED AREA FROM BOTH ENDS AND SHALL LIMIT TRAVEL TO THE MINIMUM WIDTH POSSIBLE TO LIMIT SOIL COMPACTON TO THE MINIMUM AREA POSSIBLE.
5. SUB-BASE SHALL BE CLEAR AND FREE OF FINES. THE SUB-BASE SHALL BE PLACED IN LIFTS AND LIGHTLY ROLLED.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SHERRY C. MITCHELL #33954
PRINTED NAME ID. NO.

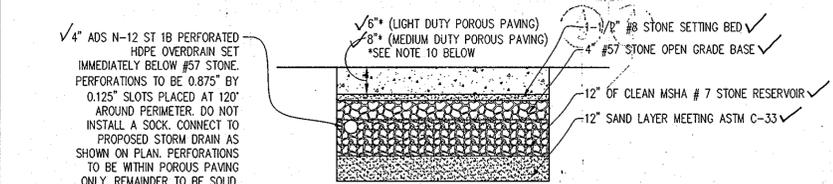
Sherry C. Mitchell 4-16-12
SIGNATURE DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33954, EXPIRATION DATE: 1-24-2013.

2 POROUS PAVEMENT CONNECTION DETAIL EXISTING PAVING
NOT TO SCALE

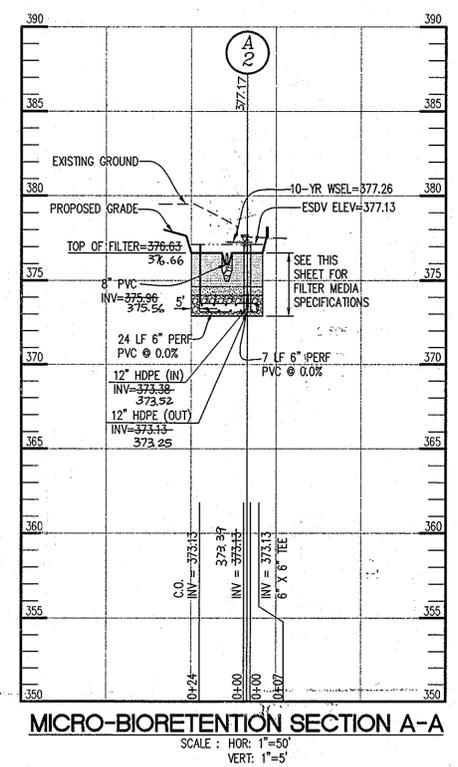
3 POROUS PAVEMENT CONNECTION DETAIL PROPOSED PAVING
NOT TO SCALE

- 1 SAW-CUT THROUGH FULL DEPTH PAVING REMOVE ASPHALT AND SUB BASE
- 2 INSTALL 12" WIDE BY 8" DEEP FLUSH CONCRETE CURB - MSHA MIX NO 3
- 3 INSTALL SUB BASE GRAVEL AND ASPHALT PAVEMENT PER DETAIL 4 SHEET 5
- 4 1 1/2" SURFACE COURSE
- 5 POROUS PAVEMENT PER DETAIL 1 THIS SHEET
- 6 POROUS PAVING BASE PER DETAIL 1 THIS SHEET

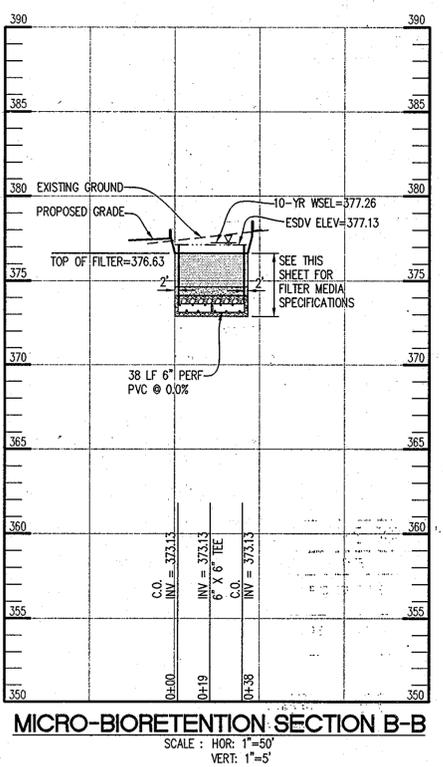


1 POROUS CONCRETE PAVING SECTION
NOT TO SCALE

- NOTES:**
1. ALL POROUS PAVEMENT SHALL BE INSTALLED BY A NATIONAL READY MIX CONCRETE ASSOCIATION (NRMA) CERTIFIED INSTALLER.
 2. RETARDERS OR HYDRATION-STABILIZING ADMIXTURES MAY BE USED IN POROUS CONCRETE. THE USE OF CHEMICAL ADMIXTURES MUST FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. AIR ENTRAINMENT MAY ALSO BE USED. ASTM C 494 GOVERNS CHEMICAL ADMIXTURES AND ASTM C 260 GOVERNS AIR ENTRAINING ADMIXTURES.
 3. POROUS CONCRETE MUST NOT BE FLOATED OR TROWELED. A STEEL ROLLER SHOULD BE USED FOR COMPACTON AND FINISHING. CONTROL JOINTS SHOULD BE CUT A MINIMUM OF EVERY TWENTY FEET USING A SPECIAL ROLLER JOINT TOOL.
 4. SIGNS, EIGHTEEN INCHES BY TWENTY FOUR INCHES WITH LETTERING AT LEAST TWO INCHES HIGH SHALL BE PLACED AT THE ENTRANCE TO PARKING AREAS AND IN OTHER LOCATIONS AS DETERMINED OR DIRECTED BY THE COUNTY INSPECTOR. THE SIGNS SHALL READ, "THIS PARKING LOT IS MADE OF POROUS PAVEMENT TO REDUCE STORM WATER RUNOFF. DO NOT USE ABRASIVES ON THE SURFACE OR RESURFACE OR SEAL."
 5. POROUS PAVEMENT SHALL HAVE A PERMEABILITY RATE OF 8 INCHES PER HOUR OR GREATER. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PLACEMENT OF ANY POROUS CONCRETE.
 6. THE BOTTOM OF THE SUB-BASE SHALL BE LEVEL WITH ADJUSTMENTS ACCOMPLISHED BY STEPPING SUBGRADE LEVELS AT 1-FOOT CONTOUR INTERVALS PER THE GEOTECHNICAL REPORT AND ENGINEER'S DIRECTIVE.
 7. ALL ADJUSTMENT TO EXISTING GRADE SHALL BE ACCOMPLISHED USING SUB-BASE MATERIAL.
 8. SOILS SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHT WEIGHT WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTON. EXCAVATED MATERIALS SHALL BE PLACED IN A CONTAINED AREA. LOADED DUMP TRUCKS DELIVERING THE INITIAL SAND MATERIAL SHALL ENTER EACH STEPPED AREA FROM BOTH ENDS AND SHALL LIMIT TRAVEL TO THE MINIMUM WIDTH POSSIBLE TO LIMIT SOIL COMPACTON TO THE MINIMUM AREA POSSIBLE.
 9. SUB-BASE SHALL BE CLEAR AND FREE OF FINES. THE SUB-BASE SHALL BE PLACED IN LIFTS AND LIGHTLY ROLLED.
 10. THICKNESS OF POROUS PAVEMENT TO BE VERIFIED BY GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.



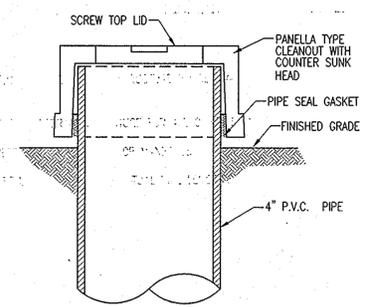
MICRO-BIORETENTION SECTION A-A
SCALE: HOR: 1"=50' VERT: 1"=5'



MICRO-BIORETENTION SECTION B-B
SCALE: HOR: 1"=50' VERT: 1"=5'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)

1. PAVEMENT SURFACES SHOULD BE SWEEPED AND VACUUMED (IF POROUS CONCRETE) TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.
2. DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE SUBBASE SHOULD BE CLEANED OUT AT REGULAR INTERVALS.
3. DEICERS SHOULD BE USED IN MODERATION. DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT. SNOW PLOWING SHOULD BE DONE CAREFULLY WITH BLADES SET ONE-INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.



CLEAN-OUT/OBSERVATION WELL CAP
(NOT TO SCALE)

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011
AM

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

8/15/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION J.P. DATE

3/15/11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

8/15/11
DIRECTOR DATE

4.16.12.1 ADD AS-BUILT INFO

DATE	NO.	REVISION

OWNER
HOWARD REDEVELOPMENT LLC
C/O ALMS AND ASSOCIATES
9256 BENDIX ROAD #300
COLUMBIA, MD 21045
PHONE: 443.539.9660

DEVELOPER
GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20852
PHONE: 301.468.8008

PROJECT DOBBIN CENTER PARCEL R-1
MANGO GROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

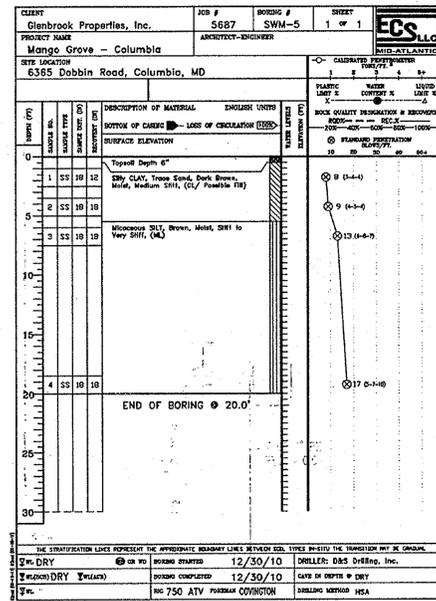
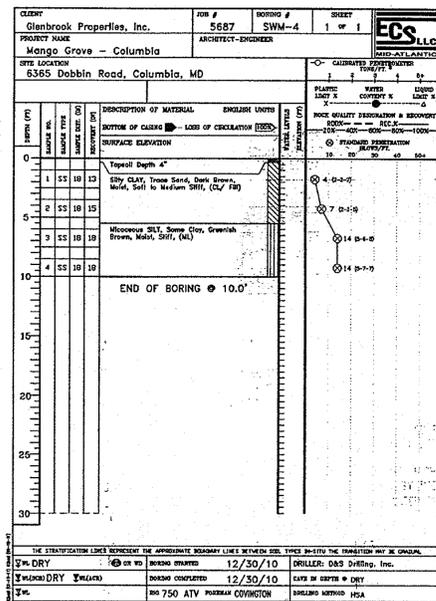
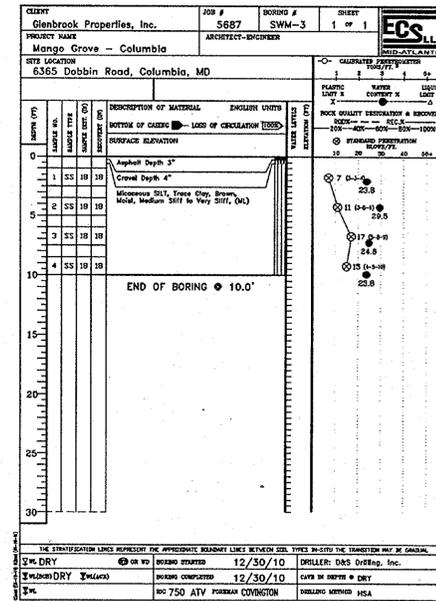
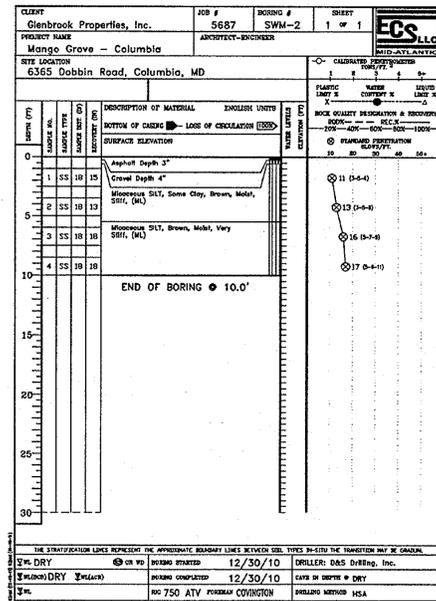
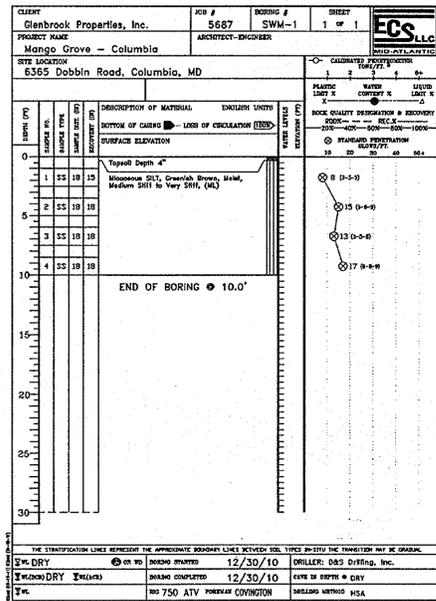
AREA
TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE STORMWATER MANAGEMENT DETAILS

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL
STATE OF MARYLAND
PROFESSIONAL ENGINEER
7-1-11

DESIGNED BY: SCM
DRAWN BY: ALC
PROJECT NO: 12104/4-0/PLANS
C400SDP14
DATE: JULY 1, 2011
SCALE: AS SHOWN
DRAWING NO. 14 OF 15



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DATE 8/14/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE 8/15/11
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE 8/15/11
DIRECTOR

DATE	NO.	REVISION

OWNER
HOWARD REDEVELOPMENT LLC
C/O ALMS AND ASSOCIATES
9256 BENDIX ROAD #300
COLUMBIA, MD 21045
PHONE: 443.539.9660

DEVELOPER
GLENBROOK PROPERTIES
ATTN: ANDREW MURPHY
6508 OLD FARM COURT
ROCKVILLE, MD 20855
PHONE: 301.468.8008

PROJECT DOBBIN CENTER PARCEL R-1
MANGO GROVE REDEVELOPMENT
PROPOSED RESTAURANT AND COMMERCIAL

AREA TAX MAP 36 GRID 18 PARCEL 396 ZONED NT
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SOIL BORING LOGS

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive, Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: PHRA
DRAWN BY: ALC
PROJECT NO. 12104/4-0/PLANS
C400SDP15
DATE : JULY 1, 2011
SCALE : NO SCALE
DRAWING NO. 15 OF 15

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6/16/2011
[Signature]

BEFORE BEGINNING CONSTRUCTION CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

