### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF
- 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.
- 3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- PROJECT BACKEROUND LOCATION:

TAX MAP #41, GRIDS 16 \$ 22 ZONING:

ELECTION DISTRICT: 7.36 ACRES SITE AREA: PLAT #'519447 AND 19448

- REC. REF. 5. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
- PROPOSED USES: RETAIL, PRIVATE SCHOOL, RESTAURANT, AND BANK. 7. ALL PLAN DIMENSIONS ARE TO FACE OF BUILDING, CURB, AND/OR WALL UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALLY BETWEEN
- 8. EXISTING TOPOGRAPHY IS SHOWN PER FIELD RUN SURVEY INFORMATION BY GUTSCHICK, LITTLE WEBER, P.A. & BY DESIGN GRADES FROM DESIGN PLANS FOR CONSTRUCTION. COORDINATES AND BEARINGS ARE BASED UPON THE '83 MD STATE COORDINATE
- SYSTEM (NAD '93) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS IO. PROPERTY IS ZONED MXD-3 PER THE 02-02-04 COMPREHENSIVE ZONING PLAN. PER
- ZB-995M WAS APPROVED 2/8/01 GRANTING APPROVAL TO PDP. PER ZB-1039M WAS SEE DEPARTMENT OF PLANNING & ZONING FILE NUMBERS: S-01-17, ZB-995M, PB-353, 5 06-16, ZB-1039M, PB-378, WP-01-111(\*), WP-03-120(\*\*), P-03-01, P-04-01, SP 05-03,
- F-03-40, F-04-88, F-04-42, F-05-134, F-07-06, SDP-03-140, SDP-03-171, \$ SDP-06-153. 13. ALL EXISTING WATER AND SENER IS PER CONTRACT Nos. 44-4264-D, 24-4173-D, AND
- 14. ALL EXISTING PUBLIC STORM DRAIN IS PER F-05-139
- 15. STORMWATER MANAGEMENT IS BEING PROVIDED BY AN ON-SITE FACILITY AND STORMCEPTOR ON THIS SITE PLAN, THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED. THE POND WILL BE A TYPE P-2 POND WITH AN 'A' HAZARD CLASS. THE DRYWELL/STORMCEPTOR ON PARCEL A-10 SATISFIES THE RECHARGE REQUIREMENTS FOR PARCELSA-IO AND A-15 THROUGH A-18.
- RECORDING REFERENCE: PLAT NUMBERS 1944 AND 19448
- IT. EXISTING UTILITIES ARE BASED ON APPROVED DESIGN PLANS FOR CONSTRUCTION AND FIELD LOCATION BY GUTSCHICK, LITTLE & WEBER, P.A.
- 8. THERE ARE NO KNOWN CEMETERIES, GRAVE SITES OR HISTORIC STRUCTURES LOCATED ON THE SUBJECT PROPERTY 19. THERE ARE NO SCENIC ROADS WITHIN OR ADJACENT TO THE SUBJECT PROPERTY.
- 20. THERE ARE NO FLOOD PLAIN AREAS, 25% STEEP SLOPES, STREAMS, WETLANDS OR BUTTERS LOCATED WITHIN PARCELS A-10 AND A-15 THROUGH A-18.
- 21. THIS PROPERTY WAS BROUGHT INTO THE METROPOLITAN DISTRICT ON AUGUST 8, 2001 22. BUILDING SETBACKS AND BUILDING RESTRICTIONS ARE IN ACCORDANCE WITH THE
- PROPOSED ON THE ORIGINAL 50T ACRE TRACT FOR MAPLE LAWN FARMS ARE srandfathered to the fourth edition of the subdivision and land development REGULATIONS AS DEVELOPED UNDER 5-01-17, PB CASE 353 AND ZB CASE NO. 995M. HOWEVER, THE PROPOSED RESIDENTIAL AND EMPLOYMENT USES THAT ARE TO BE DEVELOPED UNDER THIS AMENDED CSP. S-06-16 AND ZB CASE NO. 1039M FOR TH FORMER WESSEL AND OLIVER PROPERTIES ARE SUBJECT TO THE AMENDED FIETH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT RESULATIONS PER COUNCIL BILL

NO. 45-2003 AND THE ZONING REGULATIONS PER COUNCIL BILL NO. 75-2003.

- OPEN SPACE LOTS CONTAIN ACTIVE RECREATIONAL FACILITIES AS ALLOWED BY THE APPROVED COMPREHENSIVE DEVELOPMENT CRITERIA.
- , PHASING FOR THIS PROJECT IS IN ACCORDANCE WITH THE DECISION AND ORDER FOR ZB-995M, THE DECISION AND ORDER FOR PB CASE NO. 353 (5-01-17), ZB-1039M AND THE DECISION AND ORDER FOR PB CASE NO. 378 (5-06-16).
- 26. THE TRAFFIC STUDY WAS APPROVED AS PART OF SKETCH PLAN 5-01-17 AND 5-06-16. 27. WATER AND SEVER HOUSE CONNECTION LIMITS SHOWN ON THESE PLANS IS FROM THE EDGE OF EASEMENT TO WITHIN 5' OF THE BUILDING, REFER TO ARCHITECTURALS FO REMAINDER ON CONSTRUCTION.

EX. CONTOUR

EX. STORM DRAIN

PROP. STORM DRAIN

EX. SANITARY SEWER

PROPOSED WATERLINE

PROPOSED CURB & GUTTER

PROPOSED REVERSE CURB & GUTTER

CONCRETE SIDEWALK, DUMPSTER PAD

EX. CURB & GUTTER

OR UTILITY PAD

EX. EASEMENTS

Ex. 8". W

APPROVED

3/22/07

PLANNING BO of HOWARD COUNTY LEGEND

- 28. FOREST CONSERVATION REQUIREMENTS FOR THIS PORTION OF THE PROJECT WERE PREVIOUSLY ADDRESSED UNDER F-04-92 BY APPLYING EXISTING EXCESS CREDIT FOR THE 0.43 ACRE AFFORESTATION OBLIGATION AND A 0.21 ACRE RETENTION OBLIGATION. AND UNDER F-05-139 WITH A 0.42 ACRE AFFORESTAION OBLIGATION FULFILLED BY
- ALL EASEMENTS (PUBLIC AND PRIVATE) SHOWN ON THESE PLANS ARE PER RECORDED
- PLAT NUMBERS 16767, 17939, \$ 19448/F-08-39), UNLESS OTHERWISE NOTED. 30. BECAUSE THIS PLAN SUBMISSION IS NON-RESIDENTIAL USE, A NOISE STUDY IS NOT
- 31. BUILDINGS WILL HAVE AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEMS WITH INSIDE

- 33. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARDS AND DOMNWARDS AWAY FROM ALL ADJOINING RESIDENTIAL USE AREAS AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. SEE SHEET 5 FOR ADDITIONAL LIGHT FIXTURE DETAILS.
- 34. THE SHARED ACCESS AND PARKING REQUIREMENT FOR PARCELS A-10 \$ A-15 THRU A-18 COVERED BY SECTION IO.II. ACCESS AND PARKING EASEMENT IN "AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITION AND RESTRICTIONS FOR MAPLE LAWN COMMERCIAL ASSOCIATION, INC." AND RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY. MARYLAND IN LIBER 1789 AT FOLIO 353
- The reatourant on Parcel A-10 in the only building that have A lower level. The area in being uned for oforage equipment. If this area, or any lower level proposed in any building in used for office of retail, Then the FA.R. and porking tabulation will have to be revised.
- 36 BUSINESS VEHICLES FOR THE RETAIL BUILDING AND THE PRIVATE SCHOOL WILL BE DRIVEN BY EMPLOYEES AND WILL NOT TAKE AWAY FROM THE AVAILABLE SPACES ON THE SITE. IF SPACES ARE USED TO PARK VEHICLES IN ADDITION TO EMPLOYEE AND PATRON PARKING, THE PARKING TABULATIONS WILL HAVE TO BE REVISED.
- 37. ON NOVEMBER 8, 2006, A WAIVER FROM THE DESIGN MANUAL VOLUME III (TABLE 5.02) WAS GRANTED TO ALLOW THE NUMBER OF VEHICLES IN THE BANK DRIVE-THRU STACKING LANE ON PARCEL A-15 TO BE REDUCED FROM 20 TO 18 AS SHOWN ON THIS SITE PLAN.
- 32. Financial oursety for the required landwaping is powted with the developer's agreement & grading permit application in the amount of \$24,300.00 (combined total). For the break-down of the ourety, one sheet 22.

VEHICULAR INGRESS AND EGRESS TO MARYLAND ROUTE 216 AND ALONG PROPOSED MAPLE LAWN BOULEVARD EXTENSION THROUGH THE SUBDIVISION IS RESTRICTED, EXCEPT AT THE VARIOUS POINTS OF ACCESS TO BE APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING UNDER THE CONDITIONS OF MP-OI-111(\*), WHICH WAS SRANTED ON MAY 2, 2001, ALLOWING THE FOLLOWING: A. ADDITIONAL POINTS ALONG MAPLE LAWN BOULEVARD OTHER THAN THOSE PERMITTED BY SECTION 16.119(FXI), SUBJECT TO FURTHER ANALYSIS AND APPROVALS AT LATER PLAN

B. RESIDENTIAL LOTS FRONT ON NEIGHBORHOOD PARKS INSTEAD OF BEING LIMITED TO PRONTAGE ON PUBLIC RIGHTS OF WAY AS IN SECTION 16.120(C)(2), SUBJECT TO ADEQUATE PRIVATE ALLEY ACCESS.

TOP OF PAVING SPOT SHOT

NUMBER OF PARKING SPACES

PROP. LIGHT FIXTURE & POLE

EX. LIGHT FIXTURE & POLE

EX. TREES (PER F-05-139)

5/14/01

5/14/07

HANDICAPPED PARKING

**BUILDING ENTRANCE** 

HANDICAP RAMP

HANDICAP SIGN

APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS,

County Health Officer 67 7004

HOWARD COUNTY HEALTH DEPARTMENT

Brush for Poter Bellemen MD 5/10/2007
County Health Officer 1-12 10019

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

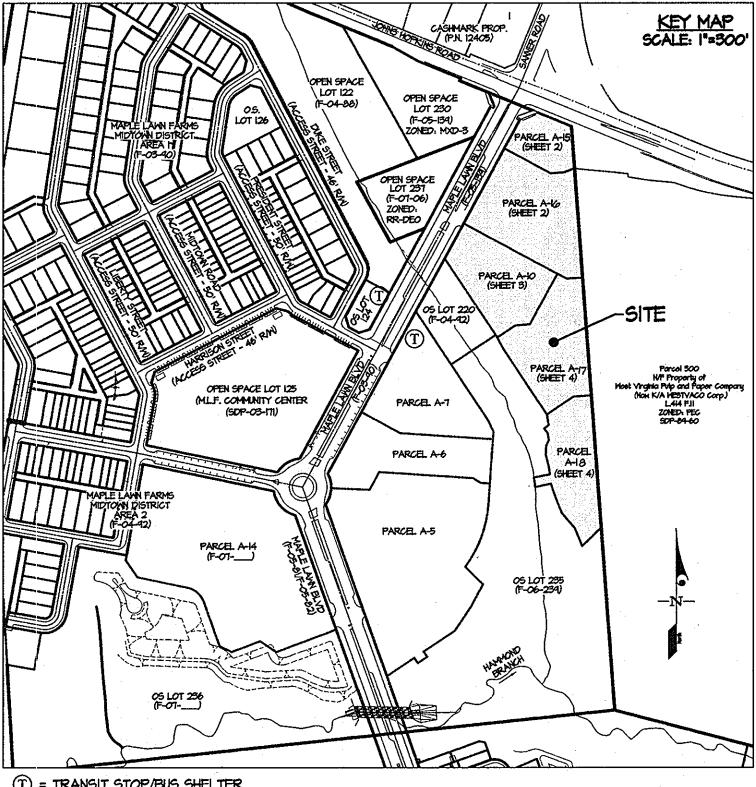
ON JULY 29, 2003, MP-03-120 WAS GRANTED FOR THE ●INSTALLATION OF A TEMPORARY STREAM CROSSING

# FOR THE PURPOSE OF EARTH MOVING OPERATIONS

ALLOWS AN ADDITIONAL TWO YEAR PERIOD TO APPLY FOR BUILDING PERMITS FOR ALL CONSTRUCTION AUTHORIZED BY THE APPROVED SOP TO BE EXTENDED TWO YEARS FROM THE DATE OF JUNE 10, 2009 OR UNTIL JUNE 10, 2011.

# SITE DEVELOPMENT PLAN MAPLE LAWN FARMS

PARCELS A-15 A-10, A-16, A-17, and A-18



(T) = TRANSIT STOP/BUS SHELTER

# **EMPLOYMENT (PER S-06-16)**

- Maximum building height shall be limited to 120' unless approved to be greater on a Site Development Plan by the Howard County Planning Board. Additionally, the following shall apply:
- Commercial buildings at the corner of Johns Hopkins Road and Maple Lawn Boulevard shall not exceed three stories. • Commercial buildings east of Maple Lawn Boulevard at the Focal Point shall not exceed four stories. . Commercial buildings in the Business District within 300 feet of MD Route 216 shall not exceed one story.
- Commercial buildings in the Business District located between 300 feet and 500 feet from MD Route 216 shall not
- Commercial buildings in the Business District beyond 500 feet from MD Route 216 shall not exceed eight stories above the highest adjoining grade. . Commercial buildings in the Westside District within 300 feet of MD Route 216 shall not exceed two stories.
- . Commercial buildings in the Westside District beyond 300 feet from MD Route 216 shall not exceed four stories above the highest adjoining grade.

# <u>Permitted Uses</u> The following uses are permitted in Employment land use areas:

Employment uses permitted only within M-1 Zoning District shall not be permitted. All uses permitted as a matter of right in the POR, B-1 and M-1 Districts, as per Petitioner's PDP Exhibit 78, without regard to any limitations or restrictions on retail or personal service uses otherwise permitted in such districts; fast food, convenience stores, country clubs and golf courses, movie theaters, legitimate theaters and dinner theaters, public utility uses (excluding stand-alone communication towers), group care facilities, housing for the elderly and/or handicapped persons, nursing homes and sheltered housing. Parcel A-2 may contain Live-Work Units as defined in the Other Residential (OR) section. Accessory Structures and

The following additional uses not referred to or included in the above uses, which are allowed by Special Exception in the POR, B-1 and M-1 districts, will be permitted as a matter of right in the Employment Land Use Areas, and are specifically approved by the Planning Board on this Amended Comprehensive Sketch Plan, provided, however, that quarries, temporary wrecked vehicle storage and yard waste shall not be allowed:

• Public school buildings—temporary conversion to other uses • Theaters, legitimate and dinner

Accessory Uses are also permitted.

· Public utility uses, limited to the following: utility substations, above ground pipelines, pumping stations, telephone stations, and telephone exchanges, but no stand-alone commercial communications towers.

- No more than 15% of the total Employment land use area may be devoted to warehouse and light manufacturing uses. • Cemeteries, mausoleums & crematoriums are not permitted
- A maximum of one gasoline service station is permitted. The gasoline service station may include a car wash, car repai facilities, and/or convenience store food. • No single Retail Center shall contain more than 150,000 square feet of gross floor area designated for use by retail and
- personal service businesses. Designated Retail Centers may include retail stores, personal service establishments, and similar uses, as well as fast food restaurants and a gasoline service station; however for all Retail Centers the total square foot area which may be used for retail and personal service business shall not exceed 181,590 (300 square feet per gross acre). No individual retail establishment within the MXD-3 District shall have a gross floor area greater than 65,000 square feet. Retail and personal services and other allowed uses, such as restaurants and a gasoline service station may also be located within other designated Employment Areas outside of a Retail Center.

Section 128.F shall apply to Employment land use areas.

# No coverage requirement is imposed in Employment land use areas.

Floor Area Ratio (FAR)

Overall limit is 0.35 calculated on the total acreage for all Employment land use areas.

# Setbacks (Also see "Project Boundary Setbacks")

- The minimum setback for employment/commercial structures shall be as follows:
- 50' from the boundary line along Johns Hopkins Road or Route 216
- 10' from the right-of-way of Maple Lawn Boulevard . No setback is required from the right-of-way of any internal public or private roads other than for Maple Lawn
- Boulevard as noted above. • 10' from any other property line

- 2. SITE DEVELOPMENT PLAN PARCELS A-II & A-I2
- 3. SITE DEVELOPMENT PLAN PARCEL A-IO
- 4. SITE DEVELOPMENT PLAN PARCEL A-9
- 5. SITE DETAILS 6. SITE / HANDICAP ACCESSIBILTY DETAILS
- 7. SEDIMENT CONTROL PLAN PHASES I AND 2
- 8. SEDIMENT CONTROL PLAN PHASE 3
- 4. SEDIMENT CONTROL DETAILS
- IO. SEDIMENT CONTROL DETAILS AND NOTES II. SOIL BORINGS
- 12. POND CONVERSION PLAN
- 13. STORM DRAIN DRAINAGE AREA MAP (OVERALL PLAN I" = 40')
- 14. STORM DRAIN PROFILES
- 15. STORM DRAIN PROFILES 16. STORM DRAIN AND UTILITY PROFILES
- 17. STORMWATER MANAGEMENT / OFFSITE DRAINAGE AREA MAF (OVERALL PLAN I" = 40')

95

- 18. STORMWATER MANAGEMENT PROFILES, NOTES AND DETAILS
- 19. STORMWATER MANAGEMENT PROFILES, NOTES AND DETAILS 20. STORMWATER MANAGEMENT PROFILES, NOTES AND DETAILS
- 21. LANDSCAPE PLAN
- 22. LANDSCAPE DETAILS AND NOTES
- 23. RETAINING WALL CONSTRUCTION DETAILS 24. RETAINING WALL #I ELEVATION
- 25. RETAINING WALL #2 ELEVATION
- 26. RETAINING WALL #3 ELEVATION

# SITE ANALYSIS DATA AND

| ^ \ M /  |                           |                           |                          |                         |                           |                          |
|--|---------------------------|---------------------------|--------------------------|-------------------------|---------------------------|--------------------------|
| PARKING TABULATION CHART                                 | PARCEL A-17               | PARCEL A-10               | PARCEL A-16              | PARCEL A-15             | PARCEL A-18               | TOTAL                    |
| I. GROSS AREA OF PARCEL:                                 | 77,472 Sq. Ft. (1.78 ac.) | 65,917 Sq. Ft. (1.51 ac.) | 85,897 Sq. Ft. (1.97ac.) | 34,8005q. Ft. (0.80ac.) | 56,573 Sq. Ft. (1.30 ac.) | 320,659 Sq. Ft. (7.36 ac |
| 2. LIMIT OF DISTURBED AREA:<br>(AREA OF PLAN SUBMISSION) | 73,5505q. Ft. (1.69 ac.)  | 62,432 Sq. Ft. (1.43 ac.) | 85,725Sq. Ft. (1.97ac.)  | 34,768 Sq. Ft. (0.80ac) | 51,103 Sq. Ft. (1.17 ac.) | 307,578 Sq. Ft. (7.06 ac |
| 3. ZONÍNO:   | MXD-3                     | MXD-3                     | MXD-3                    | MXD-3                   | MXD-3                     | MXD-3                    |
| 4. PROPOSED USE:   | PRIVATE SCHOOL            | RESTAURANT                | RETAIL                   | BANK                    | SWM FACILITY              |                          |
| 5. BUILDING COVERAGE:<br>(% OF GROSS ACREAGE)            | 16,000 Sq. Ft. (20.7%)    | 7;55259,Ft. (95%)         | 16,575 Sq. Ft. (19:3%)   | 4,0005q. Ft. (11.5%)    |                           | 44,133; Sq. Ft. (13.4%)  |
| 6. TOTAL GROSS FLOOR AREA ()                             | 19,000 S.F.               | 7,558 S.F.                | 16,57 <b>5</b> S.F.      | 4,000 S.F.              |                           | 47,12023 S.F.            |
| 7. NET LEASABLE ②  | N/A                       | N/A                       | 14,918 S.F.              | N/A                     |                           | A NA                     |
| & FLOOR AREA RATIO (FAR).                                | 0.25                      | 0.11                      | 0.19                     | 0.12                    |                           | (0.15)                   |

RECORDED AS EMP. (12.59 AC.)

*75* (5)

140

5

IB. VAN ACCESS. SPACES REQUIRED 14. VAN ACCESS. SPACES PROVIDED

9. NUMBER OF SPACES REQUIRED

NUMBER OF SPACES PROVIDED

HANDICAP SPACES REQUIRED

HANDICAP SPACES PROVIDED

- PRIVATE SCHOOL (PARCEL A-17) HAS 2 LEVELS (3,000 SF ON 2ND LEVEL) AND THE RESTAURANT HAS A LOWER LEVEL WITH AN AREA OF 3,9550 S.F. (2) AS DEFINED BY BOMA (BUILDING OWNERS AND MANAGERS ASSOCIATION) GUIDELINES (NET LEASABLE = 90% TOTAL GROSS FLOOR AREA)
- (3) SPACES REQUIRED CALCULATED & I SPACE PER 6 STUDENTS. THIS RATE IS PER THE HOWARD COUNTY REGULATIONS FOR PRIVATE ELEMENTARY / MIDDLE SCHOOLS. THE 69 SPACES PROVIDED WILL ALLOW FOR 414 STUDENTS.
- ) THE 13T SPACES IS BASED UPON T SPACES FOR EMPLOYEES (35 EMPLOYEES @ I SPACE PER 5 EMPLOYEES) AND
- 130 FOR SEATING (390 SEATS @ I SPACE PER 3 SEATS)
- (5) SPACES REQUIRED CALCULATED @ 5 SPACES PER 1000 S.F.
- (6) SPACES REQUIRED CALCULATED @ 5 SPACES PER 1000 S.F.

### 15' to public right—of—way of Maple Lawn Boulevard (except for parallel parking adjacent to roadway) • 10' to any other property or boundary line (except for parallel parking adjacent to roadway, or where a parcel line lies within a use-in-common parking area serving multiple parcels.)

**Exceptions to Setback Requirements** Structures may be located anywhere within setback areas in accordance with a Site Development Plan approved by the

# Except for the following, Section 128.A.1 applies:

• 20' to project boundary line along Johns Hopkins or Route 216

A. Bay windows, eaves, French Balconies, porticos, cornices, awnings, signs, and similar architectural elements may encroach fully into any setback. B. Arcades may encroach into any setback to within 1' of the property line. Where such arcades are proposed, the front façade may align, vertically, with the front of the arcade, thereby reducing the required front setback accordingly. An

### arcade is an arched building, or portion of a building, or gallery often covered with a roof structure or building supported by a series of arches and/or columns on piers.

**EMPLOYMENT (CONT.)** 

- a. A minimum of five parking spaces shall be provided for each 1,000 square feet of net leasable area devoted to commercial retail sales uses. b. A minimum of 3.3 parking spaces shall be provided for each 1,000 square feet of net leasable area that is devoted
- to office or research and development uses. c. No parking requirement is imposed upon any restaurant, coffee shop or similar facility constructed within buildings which primarily serves tenants and employees of such buildings, or neighboring buildings accessible by pedestrians.

  d. One parking space shall be provided for each bedroom contained within any hotel, inn or similar facility and one
- parking space shall be provided for each five employees of such facility. e. One parking space shall be provided for each three seats within any restaurant, coffee shop or similar facility constructed within a hotel, inn or similar facility or as a freestanding structure and one parking space shall be
- provided for each five employees of any such facility. One parking space shall be provided for each two beds in any hospital or clinic; one parking space shall be provided for each employee on a major shift; and eight parking spaces shall be provided for each doctor treating outpatients
- on a major shift Industrial Uses: 0.5 spaces per 1,000 square feet of net leasable area Warehouse

'Flex' Space (Industrial/Office) 2.5 spaces per 1,000 square feet of net leasable area 2.0 spaces per 1,000 square feet of net leasable area. Other Industrial

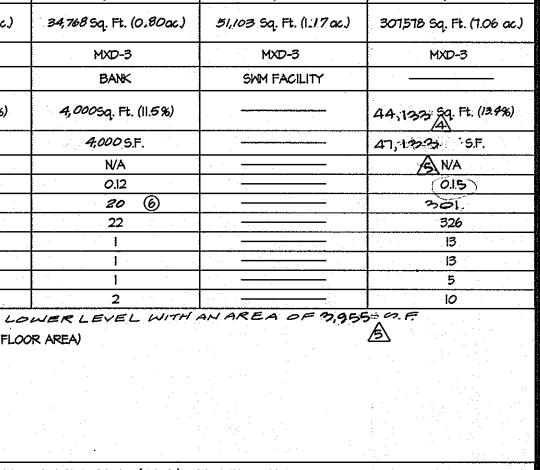
### Recreational Uses: Health Club

10.0 spaces per 1,000 square feet of net leasable area Swimming Pool, Community 1.0 space per seven persons permitted in the pool at one time by the Dept. of

"Net leaseable area" is defined as 90% of the gross floor area (after deducting any floors devoted to storage and common uses), unless a more precise value is determined by reducing the gross floor area by areas devoted to parking, vehicular circulation, office building storage areas, equipment and mechanical rooms/areas, locker and shower facilities, entrance fovers/atria, and similar areas.

Required minimum parking for all such commercial and employment uses shall be met off-street. Additional parking may be accommodated on-street, in parallel parking within public road rights-of-way, parallel spaces located on paved areas adjacent to publicly maintained roadways or oriented diagonally or at right angles to such roadways, in and/or out of the

Reductions in parking requirements are permitted pursuant to the Howard County Zoning Regulations Sections 133.D.8 (Parking Studies), 133.E.1 (Shared Parking) and 133.E.2 (Trip Reduction Plans).



STANDARD DISC ON CONCRETE MONUMENT

VICINITY MAP

SCALE: 1" = 4000

BENCHMARKS

FLOOR AREA RATIO (F.A.R.) TRACKING CHART |FLOOR AREA | F.A.R SDP 04-44 (OFFICE BUILDING I (PAR. C-3)) 4.40 AC. (191513 S.F.) 93,945 S.F. 0.49 SDP 04-96 (RETAIL BUILDING | (PAR C-8) / BANK (PAR. C-7)) 24,088 S.F. 0.17 3.17 AC. (137,933 S.F.) SDP 05-08 (RETAIL BLDG 2 (PAR. C-IO) / GAS STATION (PAR. C-II))| 3.20 AC. (139578 S.F.) 22218 S.F. 0.16 SDP 05-36 (OFFICE BUILDING 2 (PAR. C-12)) 3.21AC. (139,880 S.F.) | 93,945 S.F. | 0.67 5.58 AC. (243,230 S.F.) | 133,016 S.F. | 0.55 SDP 05-47 (OFFICE BUILDING 3 (PAR. C-6)) 100288 S.F. | 0.80 SDP 06-67 (OFFICE BUILDING 4 (PAR. C-13)) 2.89 AC. (125,767 S.F.) 121,620 S.F. 0.33 SDP 06-148 (PARCELS A-5 THROUGH A-7) 854 AC. (371,950 S.F.) 7.36 AC. (320,659 S.F.) 47.1035.F. 0.15 THIS PLAN (PARCELS A-10 & A-15 Thru A-18) 4 REMAINING PARCELS DESIGNATED AS EMPLOYMENT 4.09 AC. (178,346 S.F.) 42.44 AC. (1,848,876 S.F.) 6234,732.5.F. 0.34

\* TOTAL AREA (42.44 AC.) = TOTAL RECORDED EMPLOYMENT (55.03 AC.) - PUBLIC R/W

|   | RETAIL TRA  | CKING CHART    |
|---|-------------|----------------|
|   | FILE NUMBER | AREA OF RETAIL |
|   | SDP 04-96   | 10,941 S.F.    |
|   | SDP 05-08   | 9,312 5.F.     |
|   | SDP 05-36   | 0              |
| - | SDP 05-47   | 0              |
|   | SDP 06-67   | <b>0</b>       |
|   | SDP-06-148  | 0              |
|   | THIS SIDP   | 14,918 S.F.    |
|   | TOTAL       | 35,17/ S.F.    |

A TOTAL OF 152,370 S.F. OF RETAIL IS ALLOWED IN ACCORDANCE WITH S-OI-17, OR A TOTAL OF 181590 S.F. OF RETAIL UNDER S-06-16.

|                  | ADDRES                   | S CHART             |
|------------------|--------------------------|---------------------|
| •                | BUILDING No. (PROP. USE) | STREET ADDRESS      |
|                  | I (PRIVATE SCHOOL)       | 7425 MAPLE LAWN BL  |
|                  | 2 (RESTAURANT)           | 7421 MAPLE LAWN BL  |
| r cont           | 3 (RETAIL BUILDINGS)     | 7415 MAPLE LAWN BLY |
| R CODE:<br>15000 | 4 (BANK)                 | 7405 MAPLE LAWN BL  |

WATER CODE: SEWER SLVD. SUBDIVISION NAME: **SECTION/AREA** PARCELS MAPLE LAWN FARMS MIDTOWN DISTRICT/AREA 3 A-10. & A-15 THRU A-1 TAX MAP BLOCK ELEC. DIST. CENSUS TRACT PLAT No. 10447-10448 MXD-3 16 \$ 22 6051.02 SCALE G. L. W. FILE No. ZONING

COVER SHEET PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS MAPLE LAWN FARMS MIDTOWN DISTRICT - AREAS 1, 2, AND 3

05016 AS SHOWN MXD-3DATE TAX MAP — GRID SHEET APRIL, 2007 1 OF 26 HOWARD COUNTY, MARYLAND

# GLWGUTSCHICK LITTLE & WEBER, P.A.

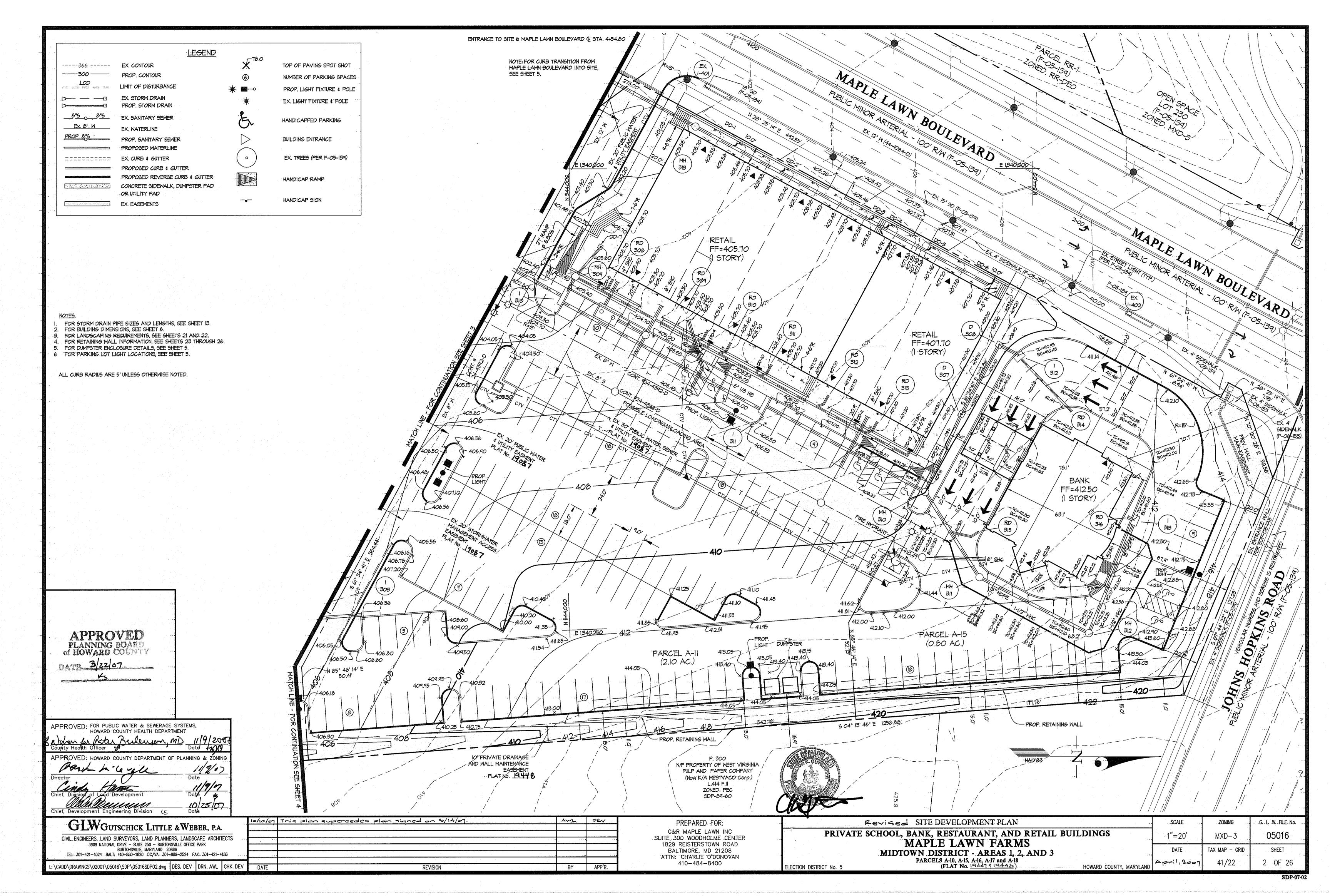
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS. LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

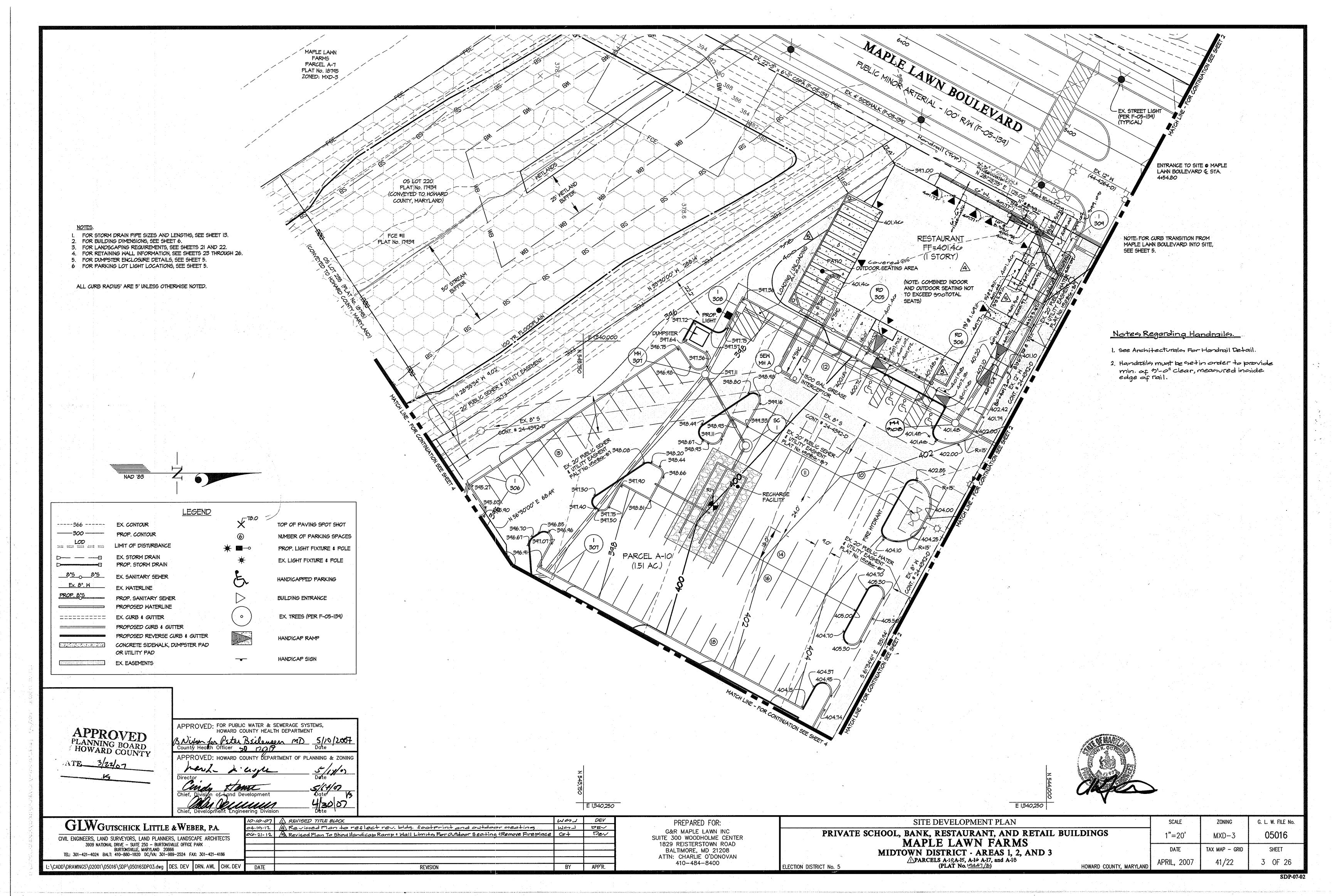
07-14-09 WP-09-204 NOTE ADDED L:\CADD\DRAWNGS\02001\05016\SDP\05016CS01.dwg | DES. DEV | DRN. AWL | CHK. DEV |

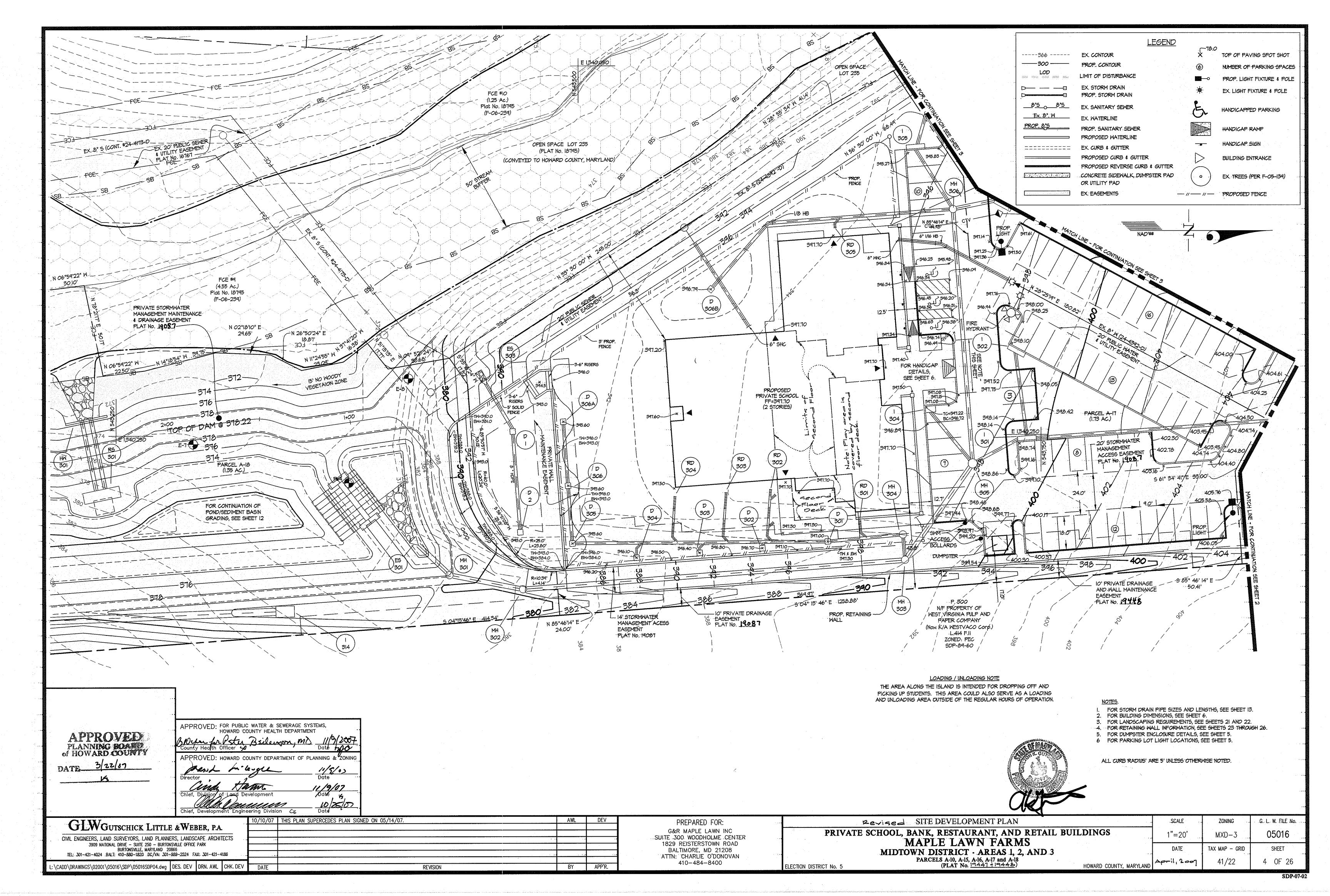
10-10-07 1 REVISE TITLE BLOCK, GENERAL NOTES, FLOOR AREA RATIO CHART AND SITE ANALYSIS DATA West DEV 5-19-00 Revined landocape ourety note KJ MBT 24.15.12 ARex General notent charter to reflect rex reatourant footprint outdoor meating Mand DEY 06/21/12 A REVISE CHARTS TO REFLECT REVISIONS TO RESTAURANT DURING BUILDING PERMIT REVIEW G+ クヒン BY APP'R.

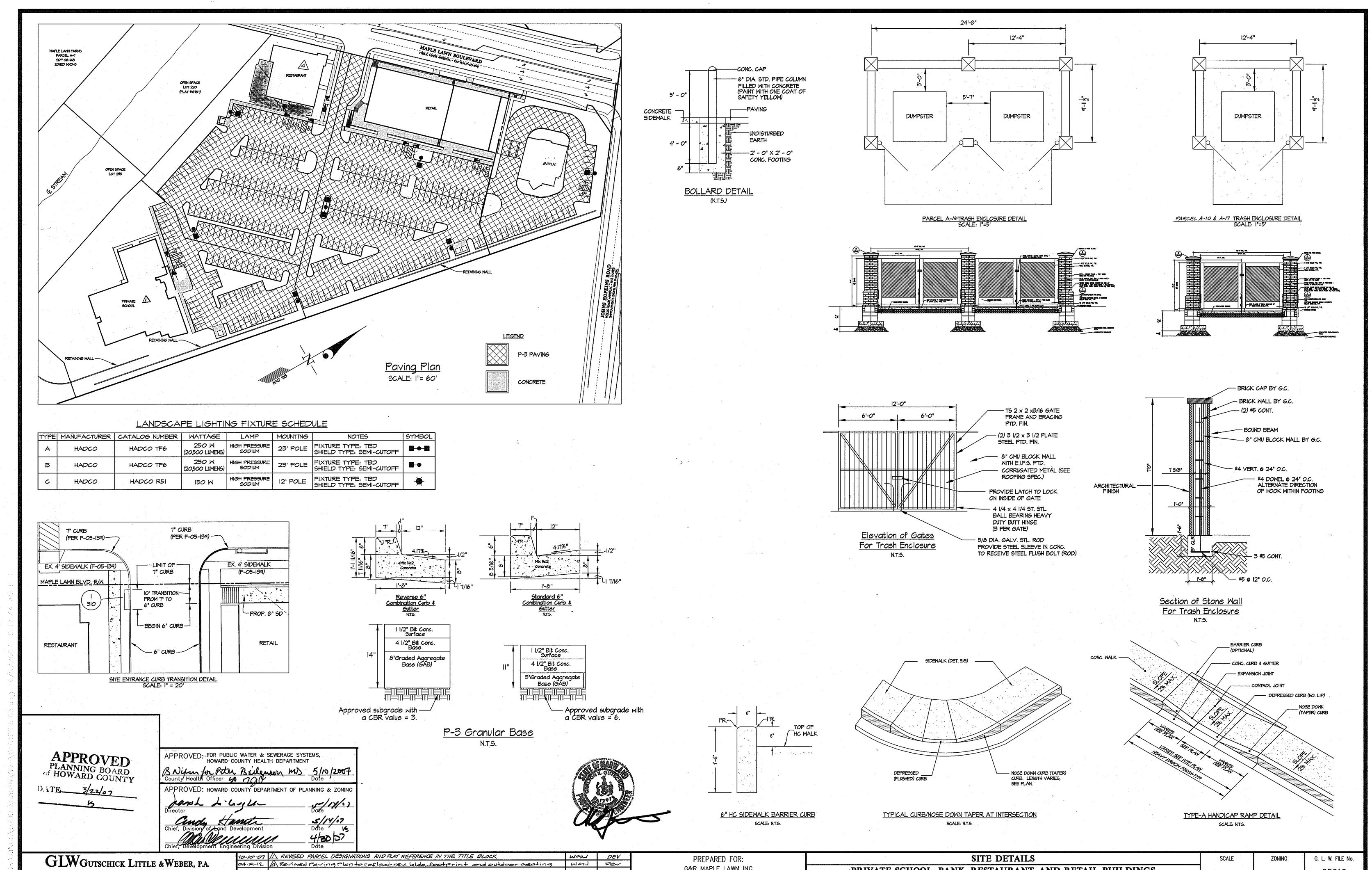
PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

PARCELS A-10, A-15, A-16, A-17, and A-18 (PLAT No. 19447/8) ELECTION DISTRICT No. 5









G&R MAPLE LAWN INC PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS AS SHOWN CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS SUITE 300 WOODHOLME CENTER MAPLE LAWN FARMS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 1829 REISTERSTOWN ROAD MIDTOWN DISTRICT - AREAS 1, 2, AND 3

APARCELS A-10-A-15, A-16, A-17, and A-18
(PLAT No. 10447/9) BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400 :\CADD\DRAWNGS\02001\05016\SDP\05016SDP05.dwg | DES. DEV | DRN. AWL | CHK. DEV HOWARD COUNTY, MARYLAND REVISION ELECTION DISTRICT No. 5 BY APP'R.

SDP-07-0

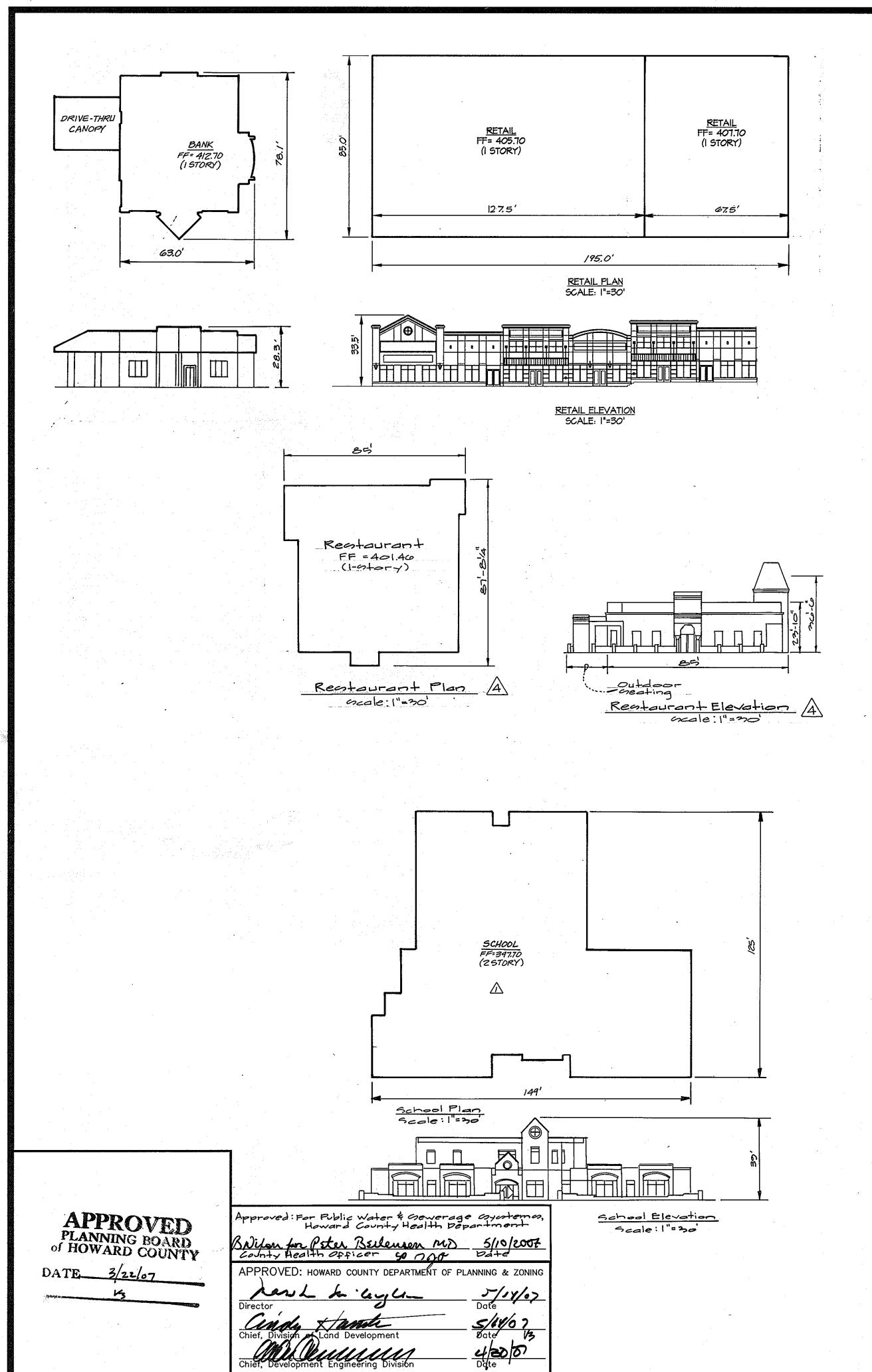
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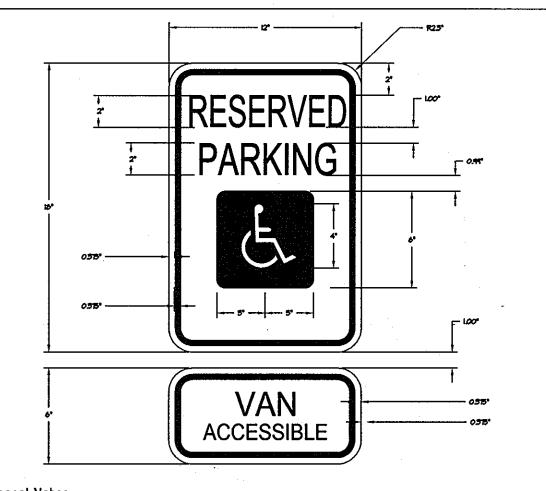
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5 OF 26

MXD-3

TAX MAP - GRID





### General Notes:

PROVIDES STACKING FOR

17 VEHICLES

WOJ DEV

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dicap porking

REVISION

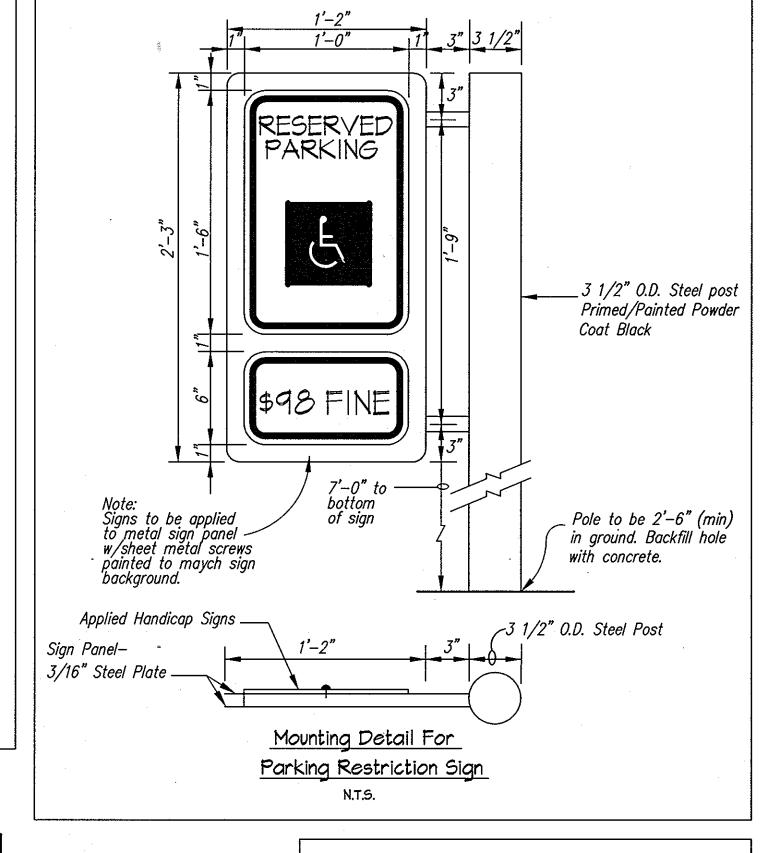
FOR STACKING COUNT ONLY

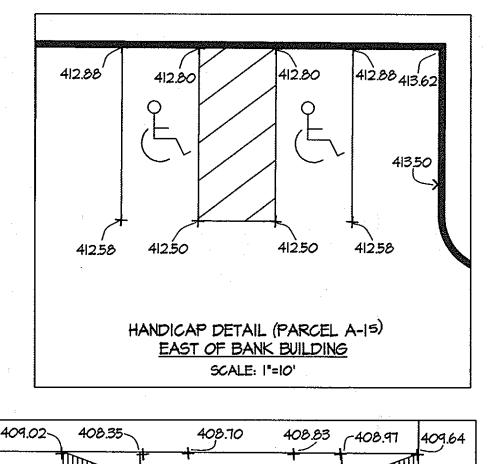
- I. Signs shall meet design standards of the Federal Highway Administration and conform to the State of Maryland Standard Highway sign booklet detail R7-8.
- 2. One sign is required per space placed as shown on site plan.
- 3. Spaces indicated on site plan as "VAN" accessable shall be signed accordingly. 4. Signs shall be pole mounted with hot dipped galvanized county approved perforated channel posts w/top of sign 9'-1" above finished grade or as indicated on site
- 5. Sign shall be attached to flanged side of post. Post shall extend into ground 2'-6" min. 6. Colors: Legend and Border - green Symbol - white on blue background background - white

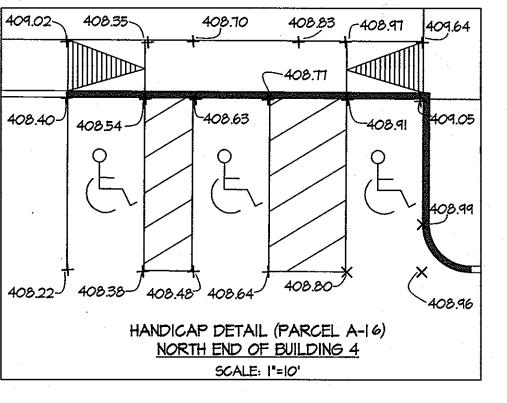
HANDICAP PARKING SIGN DETAIL

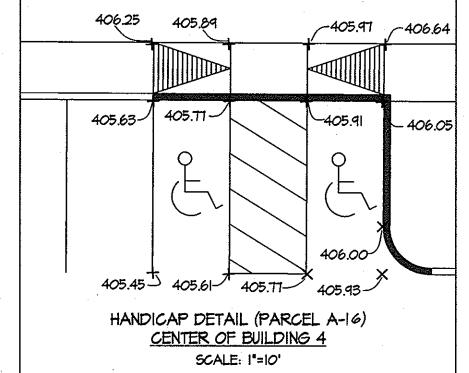
BANK STACKING DETAIL

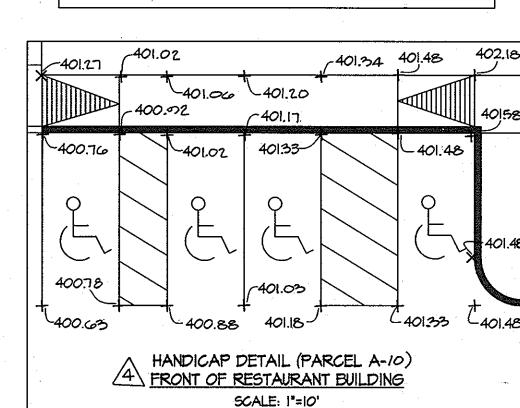
SCALE: 1"=30'









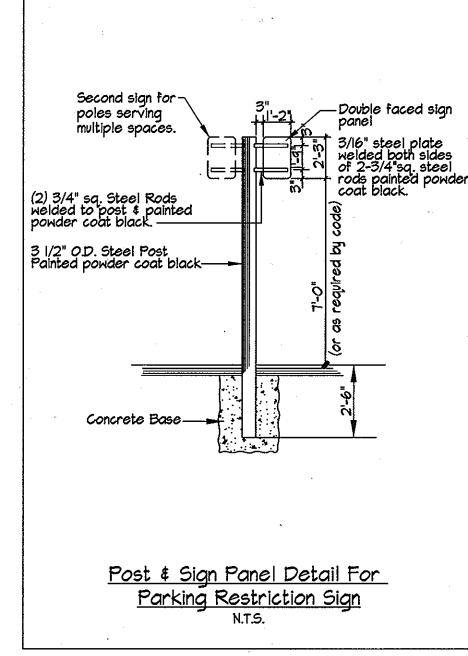


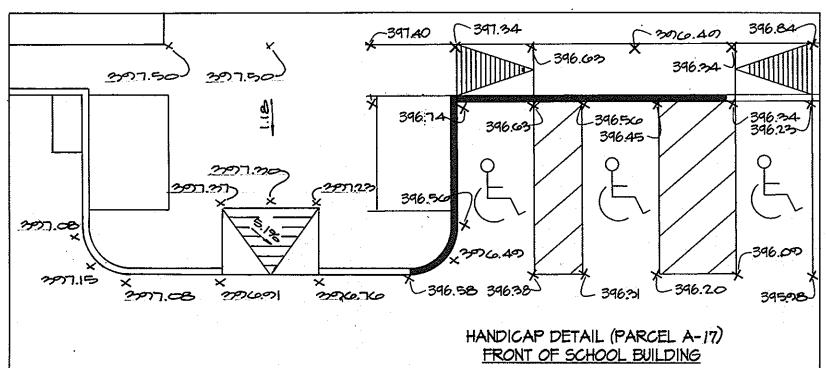
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ZONING

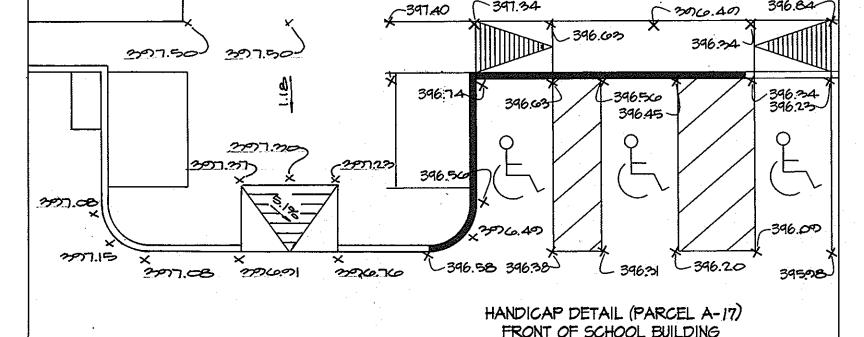
MXD-3

TAX MAP - GRID









|   | 10-10-07 | AREvined Title Block, Parcel Calloutofochool information         |
|---|----------|--|
| GLWGUTSCHICK LITTLE &WEBER, P.A.  | 04.15.12 | A Revined building footprintkeley. Agroding for hondicap porking |
| CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS                    |          |  |
|   |          |  |
| 3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 |          |  |
| TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186              |          |  |

L:\CADD\DRAWNGS\02001\05016\SDP\05016SDP06.dwg DES. DEV DRN. AWL CHK. DEV DATE

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

SITE / HANDICAP ACCESSIBILTY DETAILS PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS
MAPLE LAWN FARMS AS SHOWN MIDTOWN DISTRICT - AREAS 1, 2, AND 3

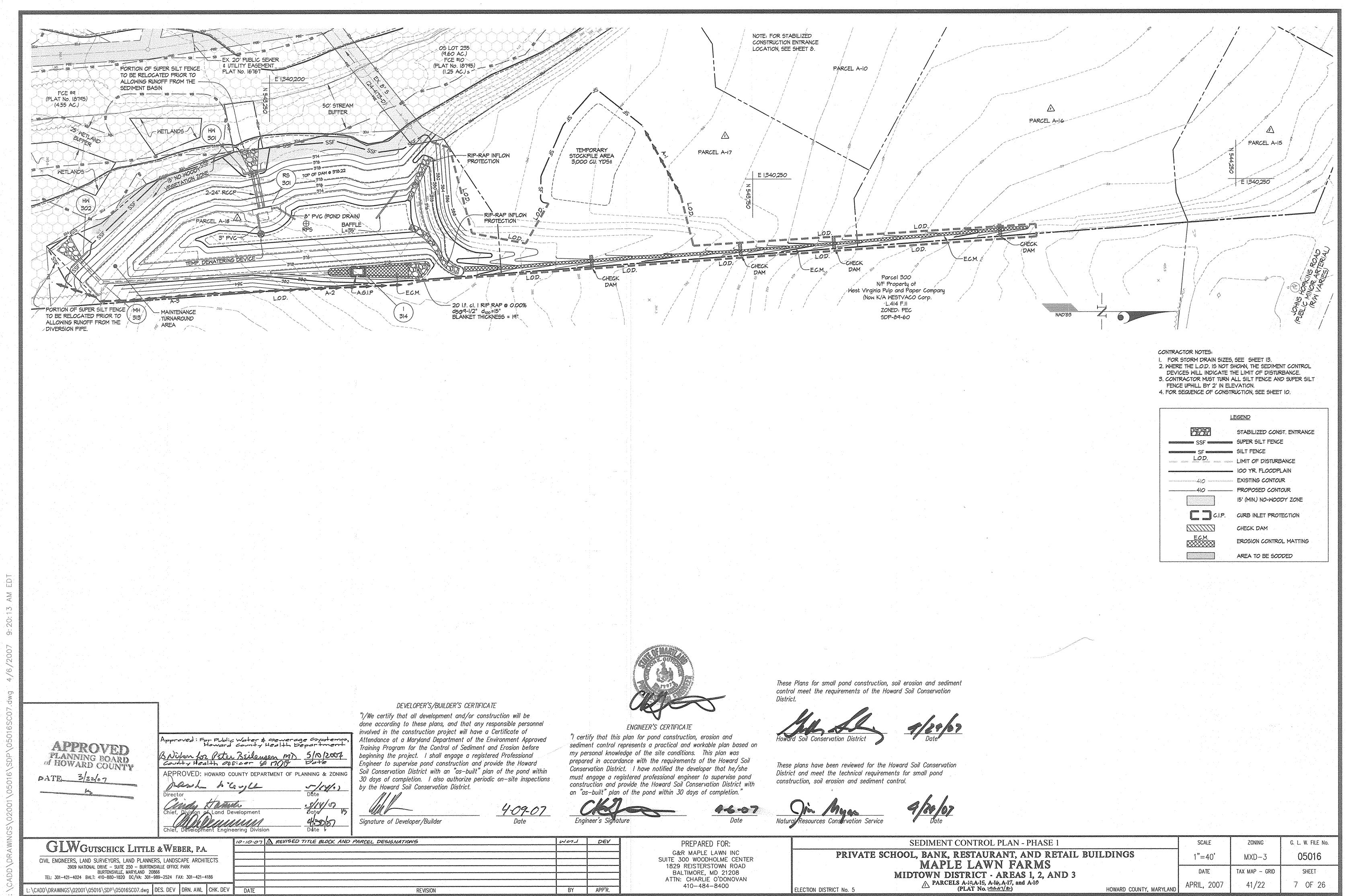
PARCELS A-10, A-15, A-16, A-17, and A-18
(PLAT No. 19447/8) APRIL, 2007 ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

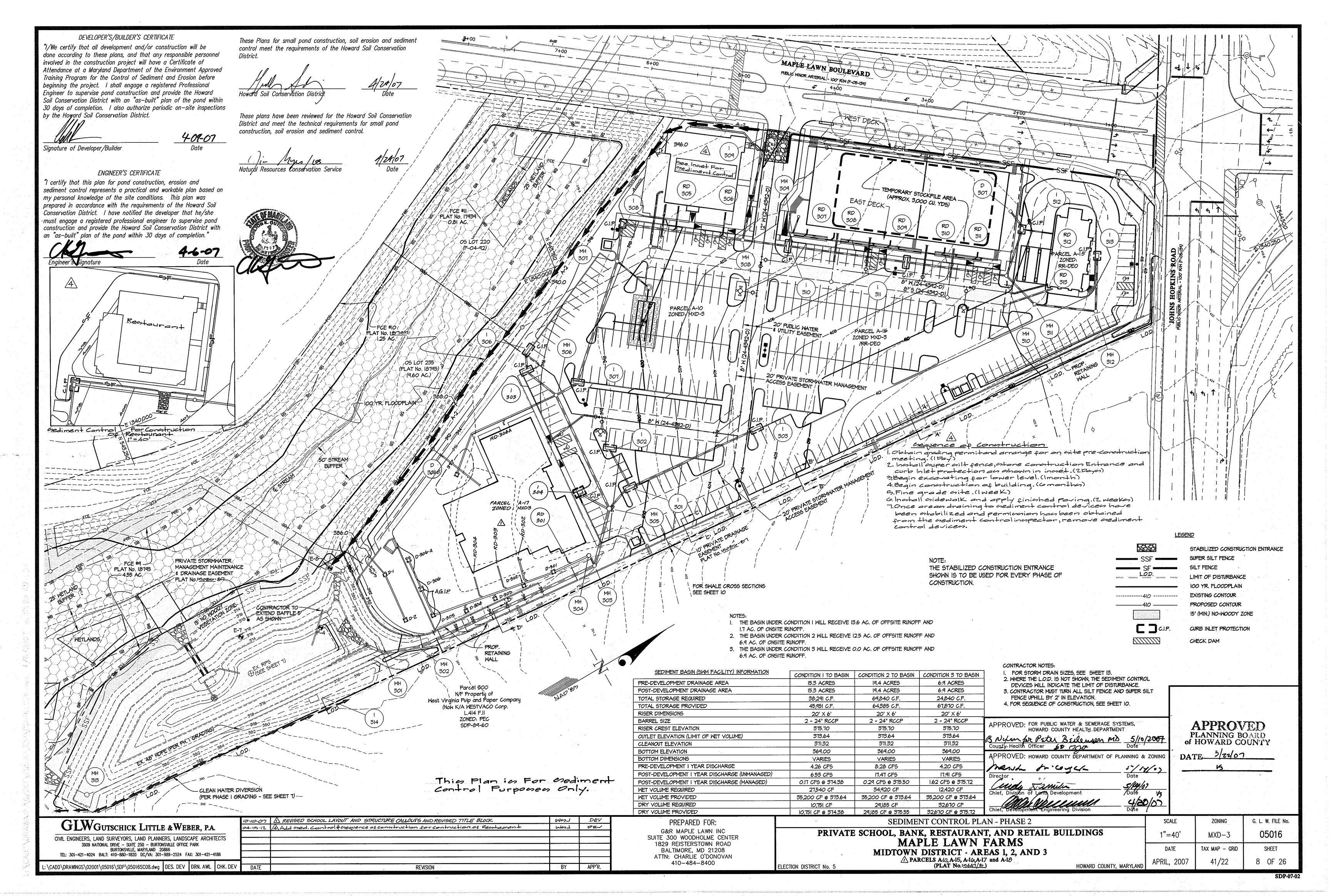
G. L. W. FILE No.

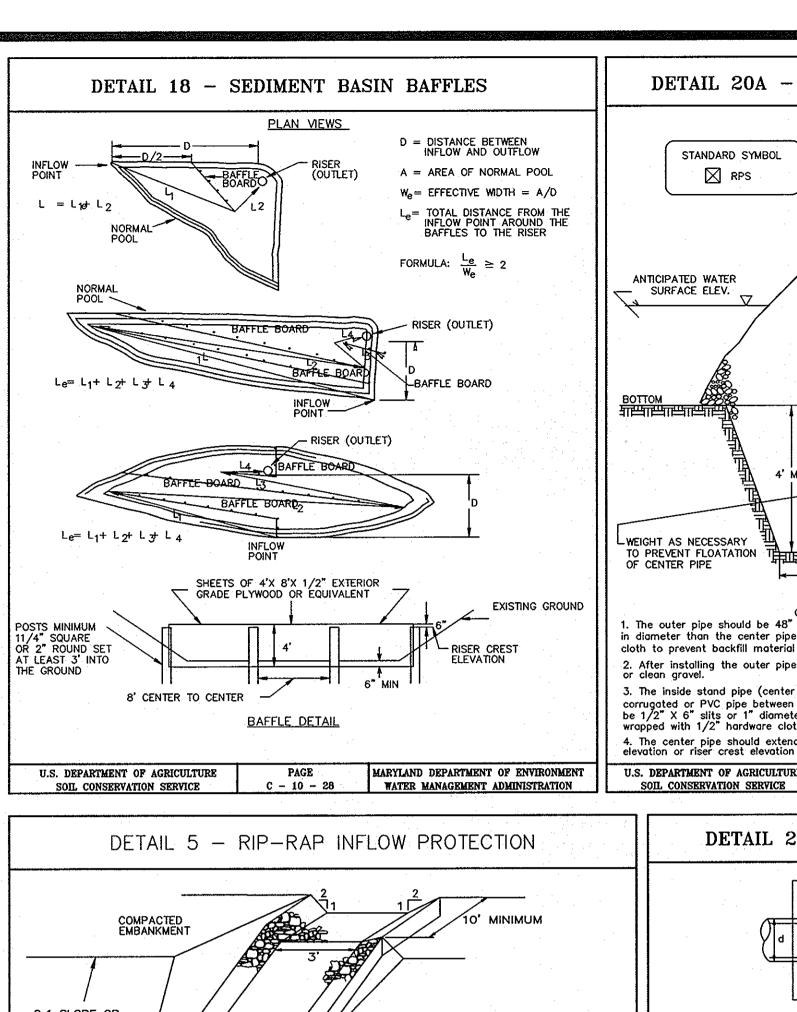
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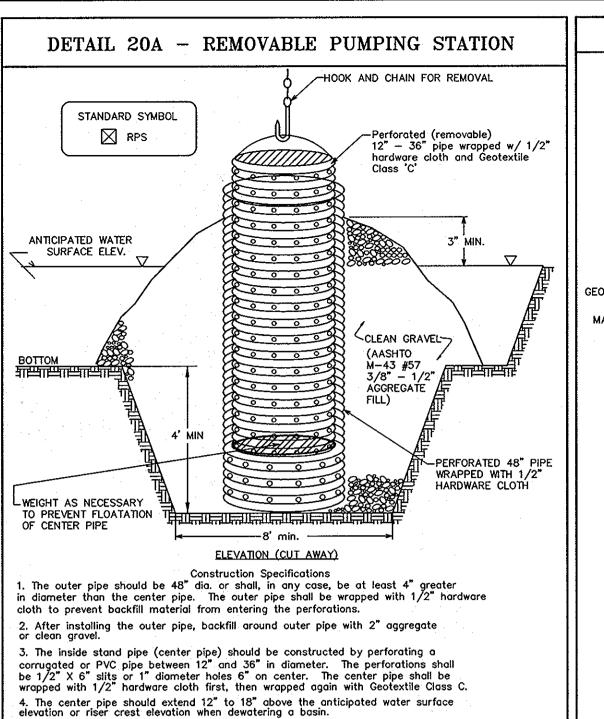
SHEET

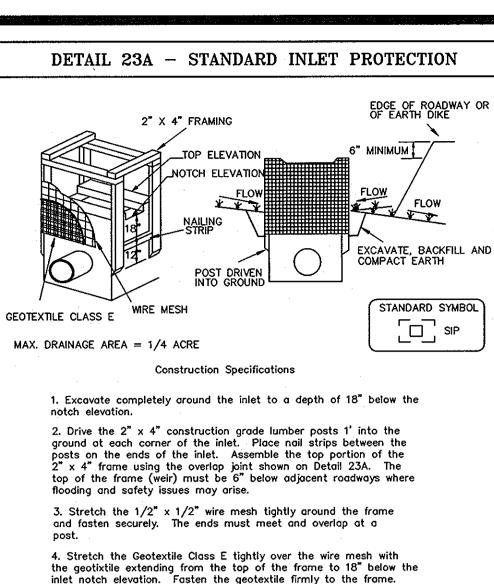
6 OF 26











The ends of the geotextile must meet at a post, be overlapped and

5. Backfill around the inlet in compacted 6" layers until the

ton elevation on the sides

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

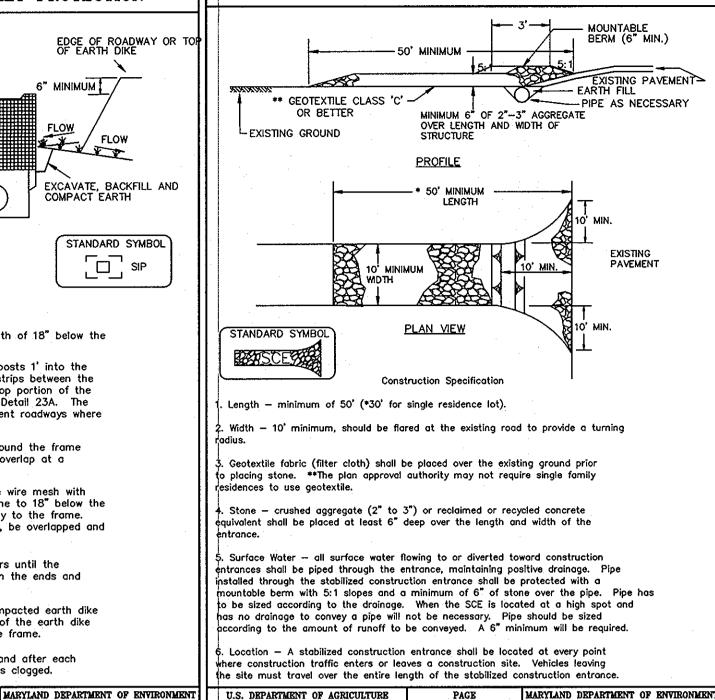
layer of earth is level with the notch elevation on the ends and

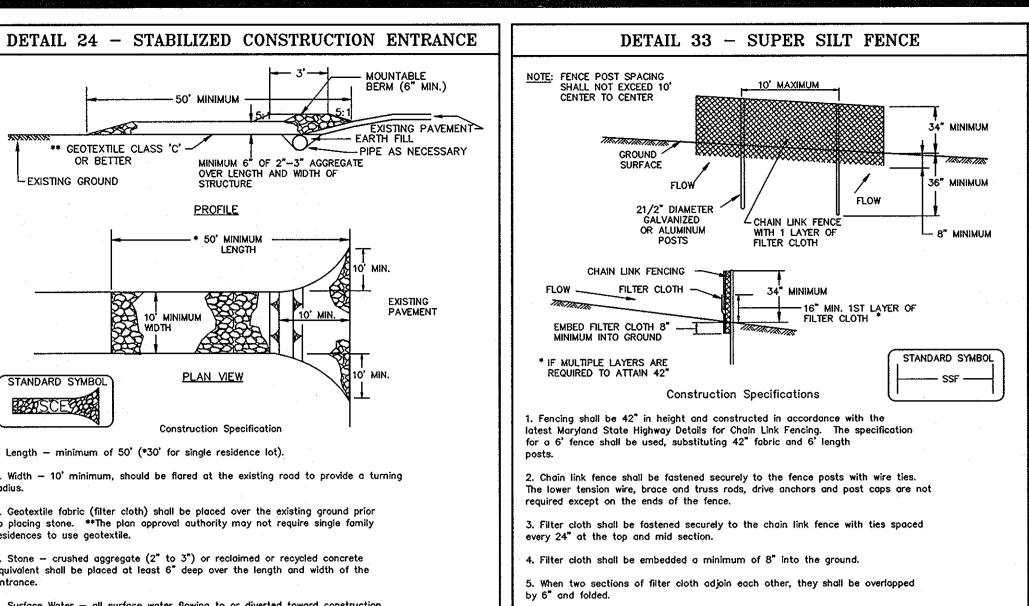
6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike

PAGE

7. The structure must be inspected periodically and after each

rain and the geotextile replaced when it becomes clogged.





Flow Rate

CROSS SECTION a-DIKE HEIGHT SUFFICIENT TO DRAIN b-dike width c-FLOW WDTH d-FLOW DEPTH 12\* CUT OR FILL SLOPE PLAN VIEW FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX. 1. Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4" - 7" stone or recycled concrete equivalent pressed into Construction Specifications 1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1% 2. Runoff diverted from a disturbed area shall be conveyed to a sediment 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper 5. The dike shall be excavated or shaped to line, grade and cross section as 6. Maintenance shall be performed as needed and silt buildups removed when "bulges" required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow. develop in the silt fence, or when silt reaches 50% of fence height 7. Filter cloth shall be fastened securely to each fence post with wire ties or 6. Fill shall be compacted by earth moving equipment. staples at top and mid section and shall meet the following requirements for 7. All earth removed and not needed for construction shall be placed so that Test: MSMT 509 Tensile Strength 50 lbs/in (min.) it will not interfere with the functioning of the dike. 20 lbs/in (min.) Test: MSMT 509 Tensile Modulus 0.3 gal/ft /mirrute (max.) Test: MSMT 322 8. Inspection and maintenance must be provided periodically and after Filtering Efficiency each rain event. MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE

DETAIL 1 - EARTH DIKE

2:1 SLOPE OR FLATTER

REQUIRED FLOW WIDTH AT DESIGN FLOW DEPTH

DIKE A DIKE B

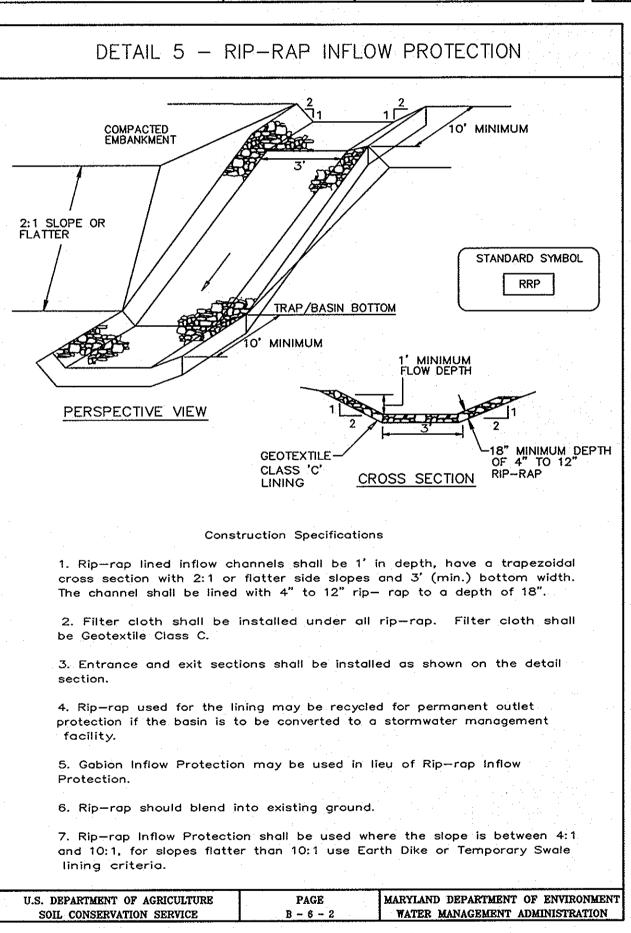
STANDARD SYMBOL

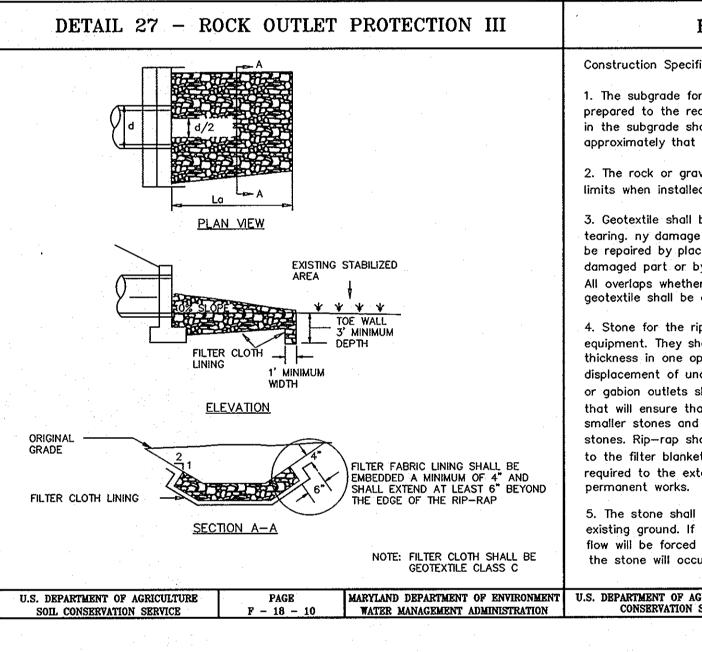
A-2 B-3

----/------

18"

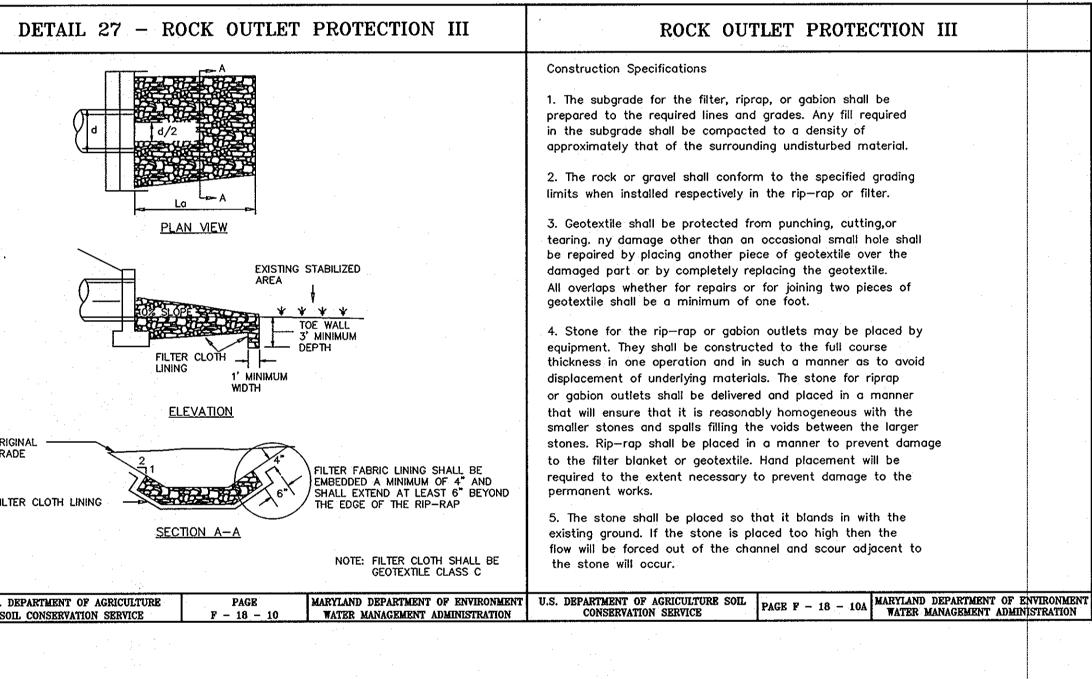
2:1 SLOPE OR FLATTER

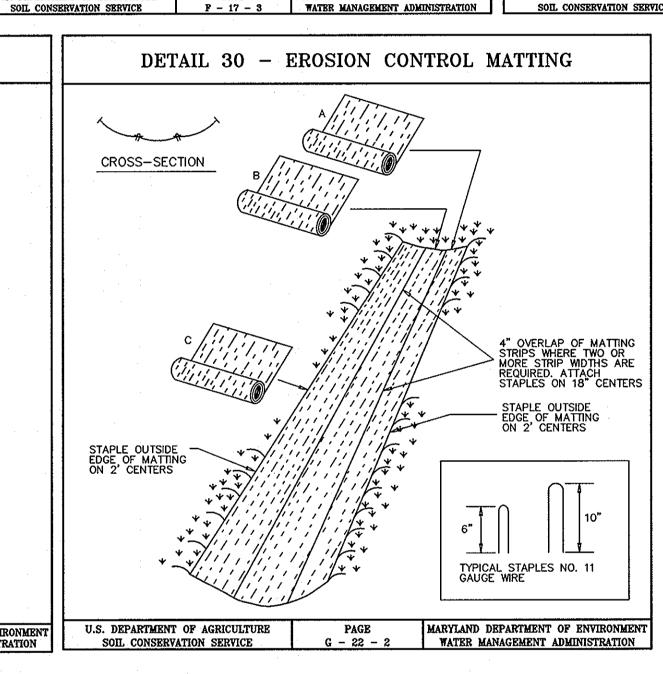


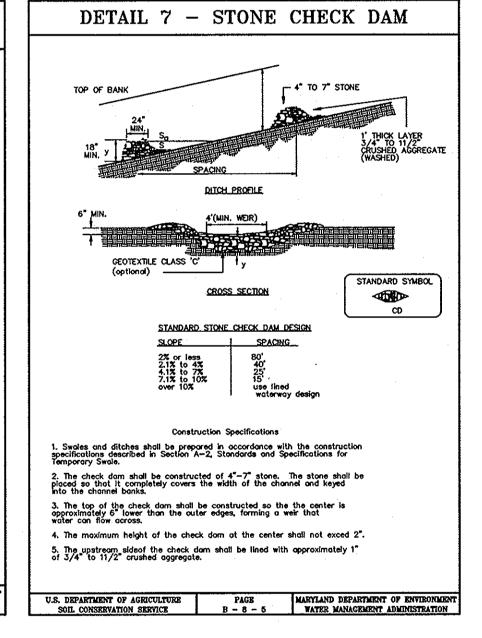


MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION







APPROVED PLANNING BOARD of HOWARD COUNTY 3/22/07

Approved: For Public Water & Generage Gyatem, Howard County Health Department Bruchen for Peter Bsilensen MD 5/10/2007
County Health Officer 40 ngg Date APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

DEVELOPER'S/BUILDER'S CERTIFICATE

Signature of Developer/Builder

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation

0-10-07 A REVISED PARCEL DESIGNATIONS AND PLAT REFERENCE IN TITLE BLOCK WEN J DEV GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 :\CADD\DRAWINGS\02001\05016\SDP\05016SC09.dwg | DES. DEV | DRN. AWL | CHK. DEV BY APP'R. REVISION

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

Date

| - | SEDIMENT CONTROL DETAILS   |         | SCALE       | ZONING         | G. L. W. FILE No. |
|---|--|---------|-------------|----------------|-------------------|
|   | PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS   |         | AS SHOWN    | MXD-3          | 05016             |
|   | MAPLE LAWN FARMS  MIDTOWN DISTRICT - AREAS 1, 2, AND 3   |         | DATE        | TAX MAP — GRID | SHEET             |
|   | PARCELS A-10, A-15, A-16, A-17, and A-18  ELECTION DISTRICT No. 5 (PLAT No. 19447/8) HOWARD COUNTY, MA | ARYLAND | APRIL, 2007 | 41/22          | 9 OF 26           |

SEDIMENT CONTROL NOTES A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410)

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

- 3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- . All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- . All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

Site Analysis: Total Area of Site 7.4 Acres 7.1 Acres Area Disturbed 4.0 Acres Area to be roofed or paved Area to be vegetatively stabilized 3.1 Acres 16,000 CV. YDS Total Cut Total Fill 16,000 Cu. YDS Off-site waste/borrow area location: ON-SITE

- 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 7. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- 10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter

NOTE: TOTAL CUT AND FILL QUANTITIES ARE FOR PLAN PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EARTHWORK AT TIME OF CONTRACT

### 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 soll by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000

Seeding: For periods March I thru April 30 and from August 15 thru October 5, seed with 2-1/2 bushel per acre of annual rue (3.2 lbs./1000 sq.ft.). For the period May I thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/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/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gai/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sa ft) for anchorina.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK

BURTONSVILLE, MARYLAND 20866

TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\CADD\DRAWINGS\02001\05016\SDP\05016SC10.dwg | DES. DEV | DRN. AWL | CHK. DEV

oproved: For Public Water &

Bryanfer Peter Beilenson 5/10/200

APPROVED

PLANNING BOARD

of HOWARD COUNTY

county Health Officer 40 milbate

County Health Department

### PERMANENT SEEDING NOTES

Apply to graded or cleared area 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 (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the

- Preferred Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600lbs per acre 10-10-10 fertilizer (14 lbs/1000sa ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 unreaform fertilizer (9 lbs/1000 sq ft).
- 2. Acceptable Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sa ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sa ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March I thru April 30, and August I thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May I thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

DUST CONTROL

Controlling dust blowing and movement on construction sites and roads.

To prevent blowing and movement of dust from exposes 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 movements

where on and off-site damage is likely without treatment.

### **SPECIFICATIONS**

TEMPORARY METHODS Mulches - See standards for vegetative stabilization with mulches onlu. Mulch should be crimped or tacked to prevent blowing.

Vegetative Cover - See standards for temporary vegetative cover. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaces about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to

- Barriers Solid board fences, silt fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil
- Calcium Chloride Apply at rates that will keep surface moist. May

PERMANENT METHODS Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.

2. Topsoiling - Covering with less erosive soil materials. See standards

3. Stone - Cover surface with crushed stone or coarse gravel.

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

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

- This practice is limited to areas having 2:1 or flatter slopes a. The texture of the exposed subsoil/parent material is
  - not adequate to produce vegetative growth. b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplied 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.
- 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

### CONSTRUCTION AND MATERIAL SPECIFICATIONS

Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Aaricultural Experimental Station.

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils mau be used if recommended by a agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter. ii. Topsoil must be free of plant parts such as
- bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified. iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate if 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. 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.
- 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
  - 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 greater than 500 parts per mill shall not be used.
  - d. No sod or seed shall be placed on soil which has been with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of photo-toxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

- ii. Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section 1 -Vegetative Stabilization Methods and Materials.
- Y. Topsoil Application
- i. When topsoilling, maintain needed erosion and sediment control practices such as diversion, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" -8" higher in elevation.
- iii. Topsoil shall be uniformly distributed in a 4'-8' layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoilling or other operations shall be corrected in order to prevent the formation of depressions or water
- Topsoil shall not be placed while the topsoil or subsoil is 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.

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

DEV

BY APP'R.

4-9-07 Signature of Developer/Builder Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

O-10-07 A REVISED PARCEL DESIGNATIONS AND PLAT REFERENCE IN TITLE BLOCK

Wes

PREPARED FOR:

G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

These Plans for small pond construction, soil erosion and sediment

control meet the requirements of the Howard Soil Conservation

SEDIMENT CONTROL DETAILS AND NOTES PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS MAPLE LAWN FARMS

MAPLE LAWN WESTVACO

-2.7:1 SIDE SLOPE

MAPLE LAWN WESTVACO

-- EX. GROUND

-I:I SIDE SLOPE

-PROP. GRADE

∠E SWALE

€ SWALE

B=3.0'

PROP. GRADE AT

THE TOP OF WALL

d=1.10'-\

B=3.0'

SECTION D-D SCALE: I"=5'

-PROP. GRADE

EX. GROUND --

HEIGHT OF

WALL VARIES-

I:I SIDE SLOPE-

EROSION

CONTROL MATTING

1:1 SIDE SLOPE -

SCALE ZONING G. L. W. FILE No. 05016 AS SHOWN MXD-3TAX MAP - GRID SHEET 10 OF 26

Sequence of Construction

- 1. Obtain a grading permit and arrange for an on-site pre-construction meeting. (I day)
- 2. Install the stone construction entrance and super silt fence as shown on these plans. (I day)

Phase | Operations

- 3. Install silt fence and super silt fence as shown under Phase I. (I week) 4. Construct earth dikes along Westvaco property line per the Phase I aradina shown on sheet 7.
- 5. Install the storm drain run 1-314 to HM-302. (2 weeks)
- 6. Install A.G.I.P. at 1-314. (1 day)
- 7. Begin construction of the basin. (2 months)
- 8. Regrade the area above 1-314 to insure that both the onsite and offsite runoff is directed to the sediment basin. (I week)
- 9. Install rip rap protection in the norteast and northwest corners of the basin and in the sump area around 1-314. (3 days)

Phase 2 Operations 12. Install the earth dike along the stream as shown on sheet 8 as well as the super silt fence that runs along the Maple Lawn Boulevard

right-of-way. (1 week) 13. With permission from the sediment control inspector, the contactor can begin installing the storm drains, water house connections, and sewer house connections per these plans. Install the public water and sewer

per Cont. # 24-4392-D. (3 weeks) 14. Fine grade site, construct retaining walls, and begin the building construction. Construction of the retaining walls must be supervised

by the on-site quotechnical engineer. (2 weeks) 15. Install curb and autter, sidewalks and pave all areas to be paved. Stabilize all other areas with permanent seeding, mulch, and landscaping. Installation of the final pavement course must be inspected by the

on-site geo-technical engineer. (3 weeks) 16. Flush and pump clean the storm drain system. (I day) 17. With permission from the sediment control inspector, and when all areas draining to the sediment basin have been stabilized, remove the sediment control devices. (I week)

18. With permission from the sediment control inspector, convert the sediment basin to the stormwater management facility using the final grades shown on sheet 12. The forbay and gabion mattresses may be installed at this time. (I month)

Note: The owner must prepare an as-built of the stormwater management facility and submit it to the Howard Soil Conservation District for review and approval.

# DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

REVISION

VI. Alternative for Permanent Seeding - Instead of applying the

full amounts of time and commercial fertilizer, composted

for sites having disturbed areas over 5 acres shall be

tested to prescribe amendments and for sites having

disturbed areas under 5 acres shall conform to the

a. Composted sludge shall be supplied by, or originate

the time of acquisition of the compost) bu the

b. Composted sludge shall contain at least I percent

c. Composted sludge shall be applied at a rate of I

fertilizer applied at a rate of 4lb/1,000 square feet,

iv. Composted sludge shall be amended with a potassium

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

References: Guideline Specifications, Soil Preparation and

Polytechnic Institutes. Revised 1973.

HEIGHT OF

PROP.

GRADE --

EX.

GROUND

WALL VARIES-

Sodding. MD-VA Pub. #1, Cooperative Extension

MAPLE LAWN | WESTVACO

-2:1 SIDE SLOPE

-PROP. GRADE

EROSION

CONTROL MATTING

MAPLE LAWN | WESTVACO

--PROP. GRADE

--d=0.22'

B=4.0'

--2:1 SIDE

SLOPE

PROP. GRADE AT

THE TOP OF WALL

I:I SIDE SLOP

EROSION

CONTROL MATTING

-HEIGHT OF

WALL VARIES

EX. GROUND -

-d=0.30'

B=3.0'

SECTION C-C SCALE: I"=5"

Service, University of Maryland and Virginia

from, a person or persons that are permitted (at

Maryland Department of the Environment under COMAR

following requirements:

26.04.06.

prior to use.

ton/1,000 square feet.

and 1/3 the normal lime application rate.

i. Composted Sludge Material for use as a soil conditioner

sludge and amendments may be applied as specified below:

Natural Résources Cons**é**rvation Service

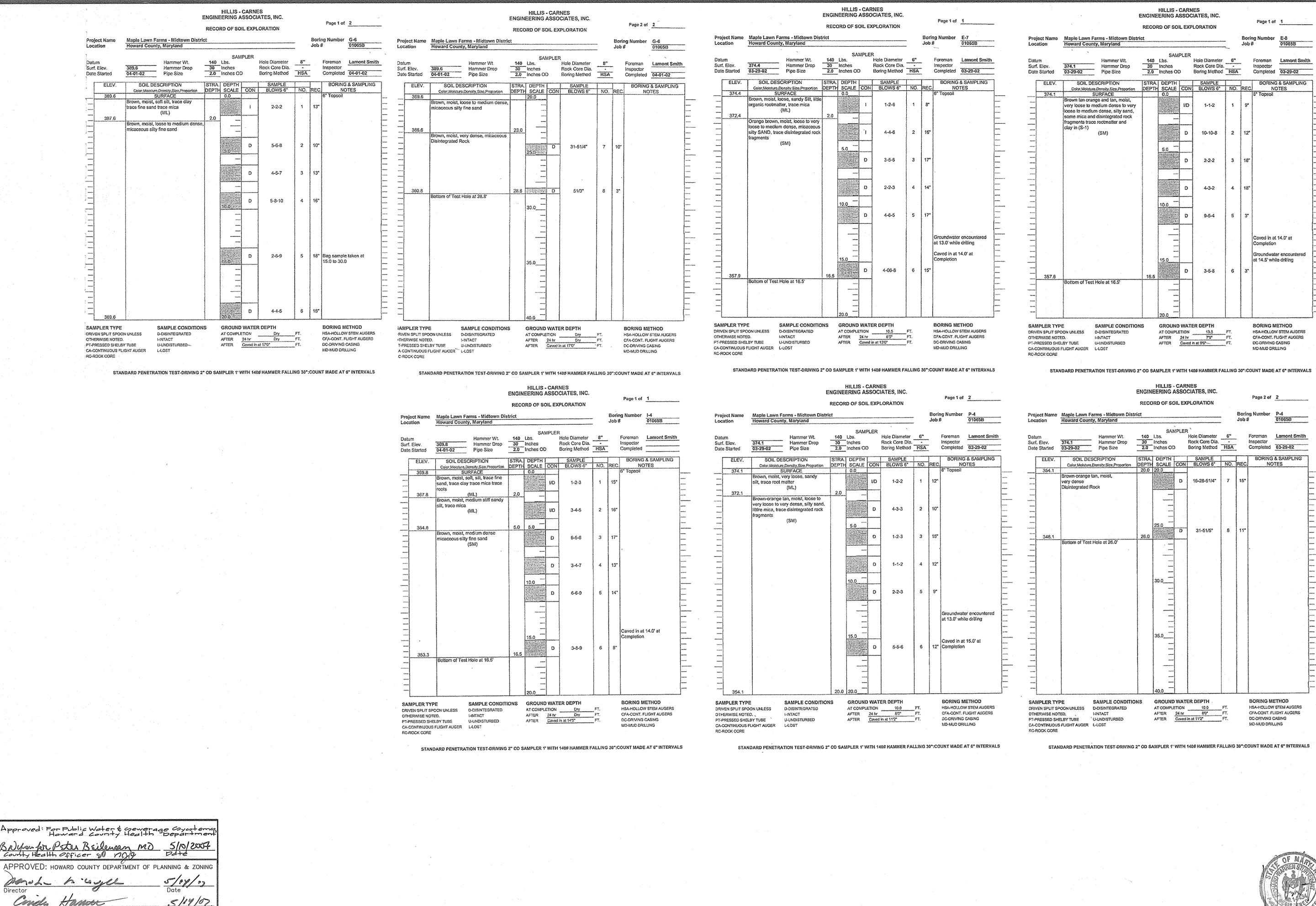
These plans have been reviewed for the Howard Soil Conservation

District and meet the technical requirements for small pond

construction, soil erosion and sediment control.

MIDTOWN DISTRICT - AREAS 1, 2, AND 3 A PARCELS A-10, A-15, A-16, A-17, and A-16 (PLAT No. 10447/8) ELECTION DISTRICT No. 5

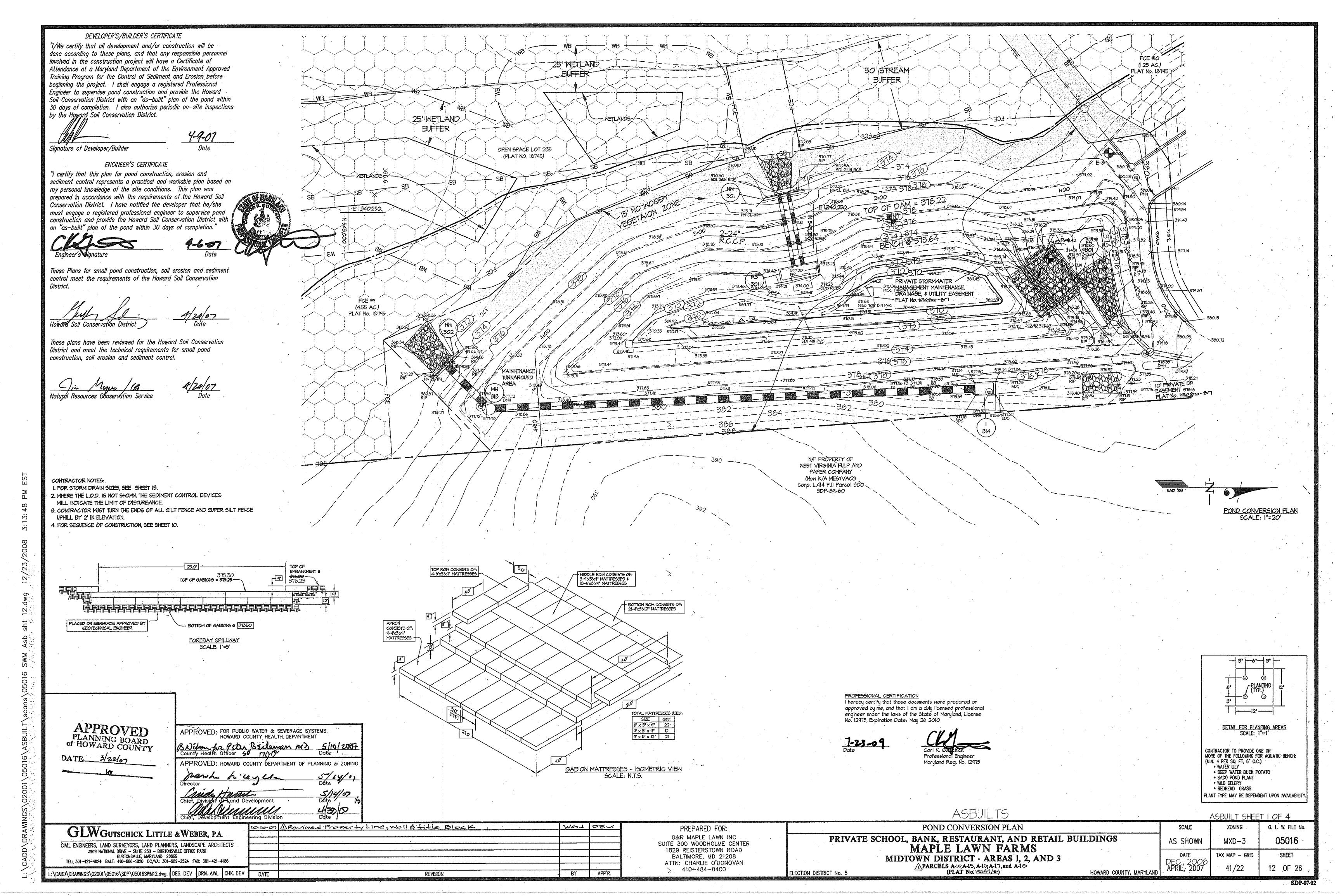
HOWARD COUNTY, MARYLAND

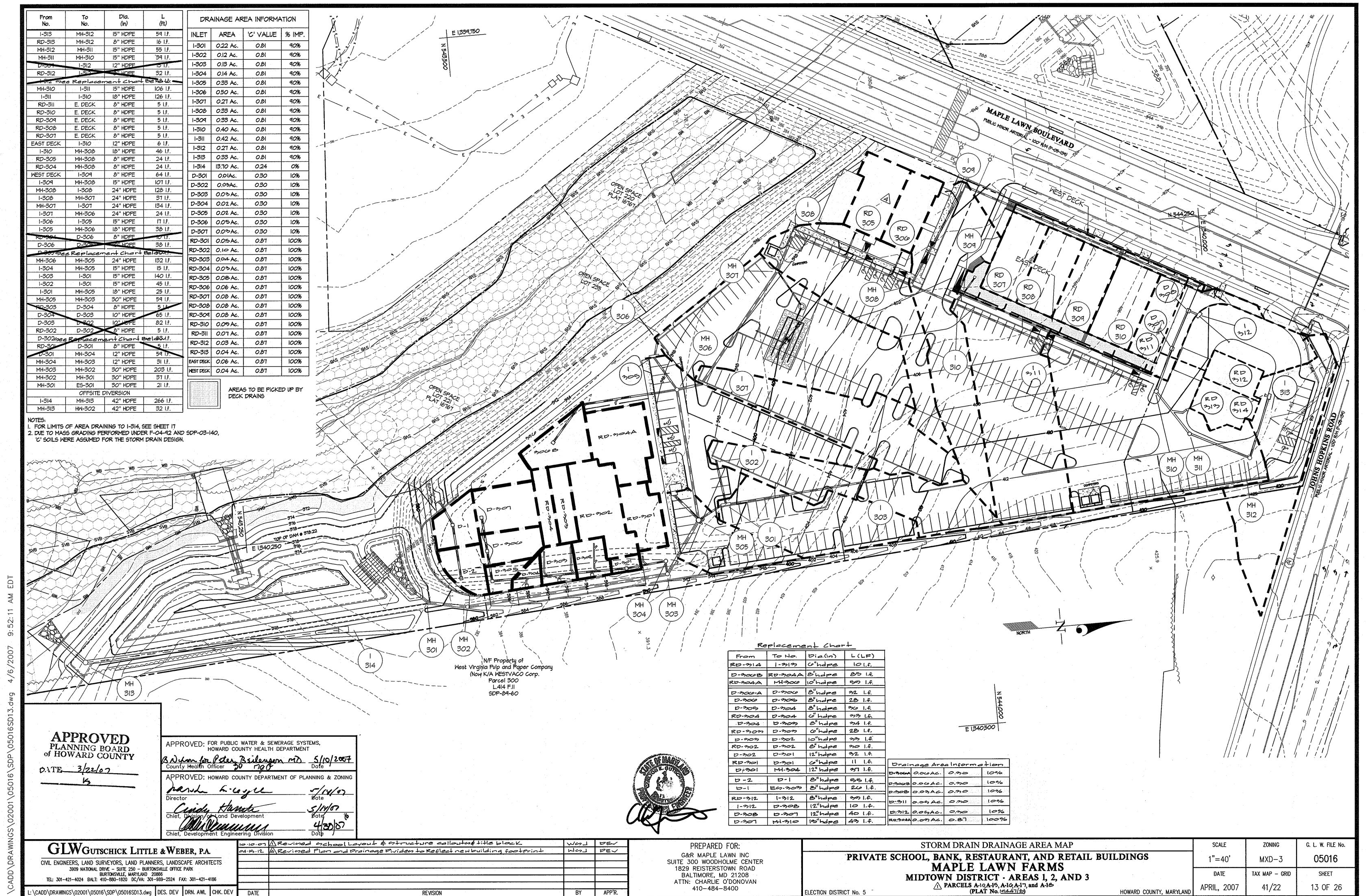


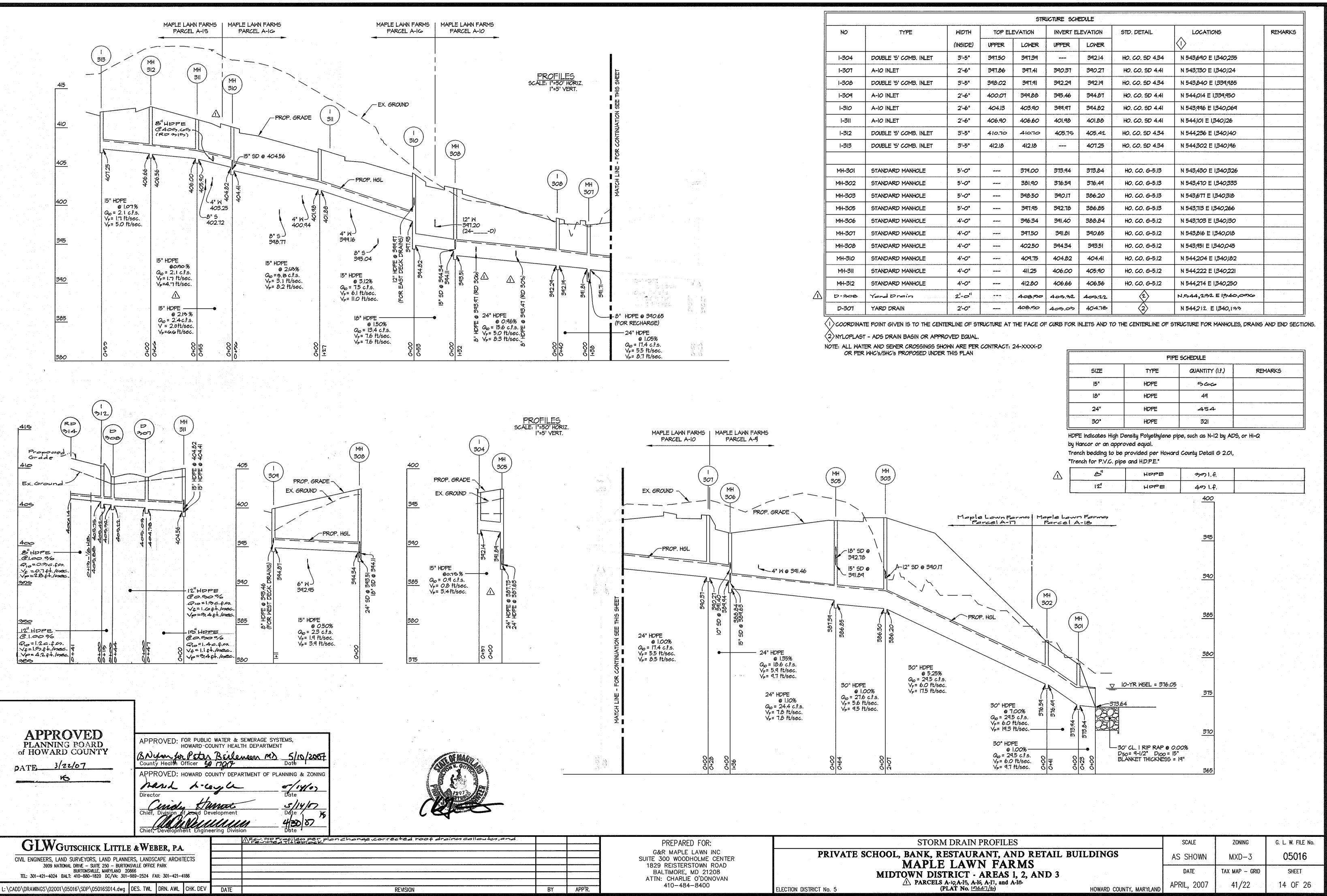
APPROVED
PLANNING BOARD
of HOWARD COUNTY BNyon for Peter Beilensen MD County Health Officer 50 1009 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

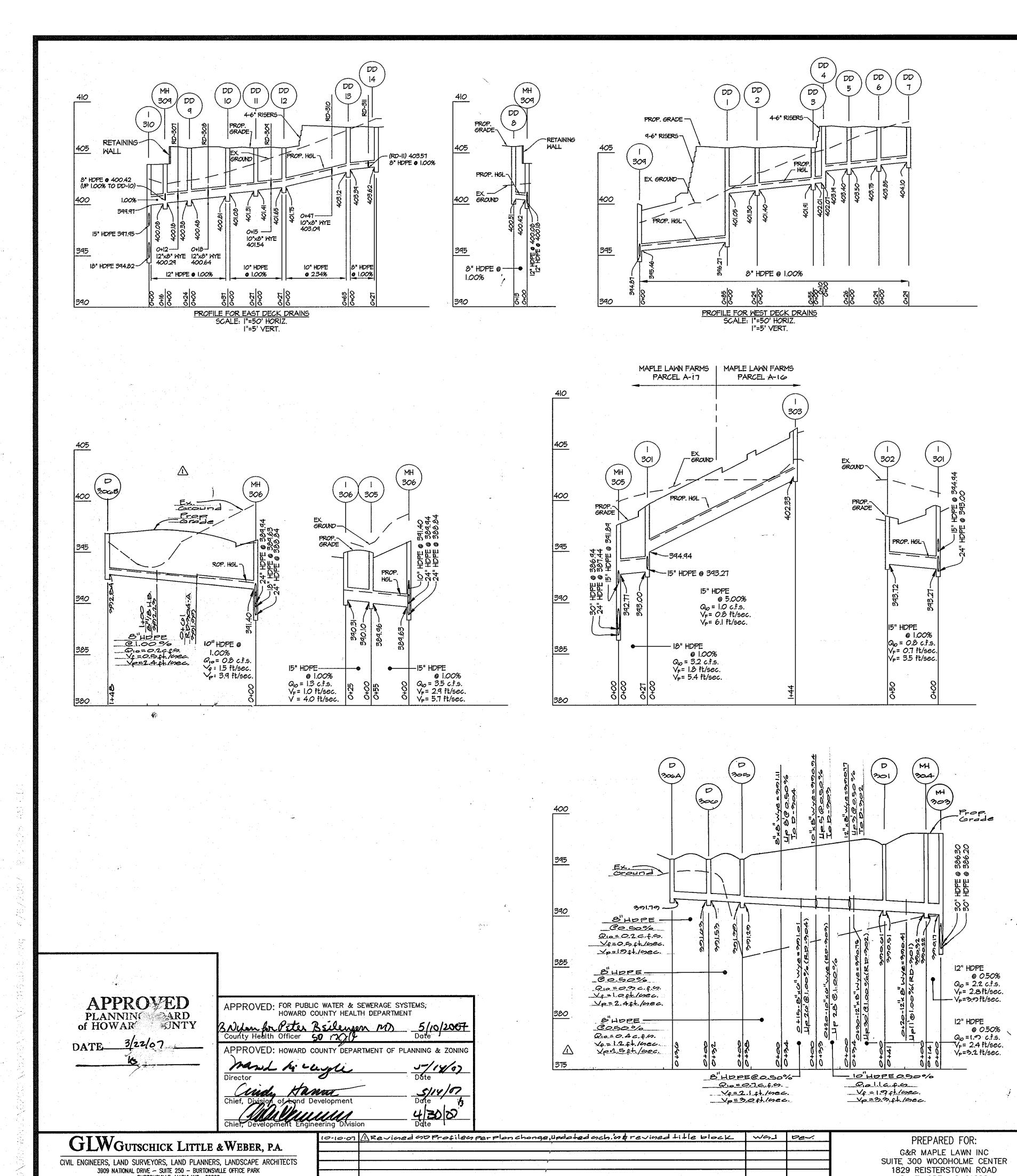


| Offici, bevelopment Lin  | ancoming officially  |      |        |  |   |             |                |                   |
|--|--|------|--------|--|---|-------------|----------------|-------------------|
| GLWGUTSCHICK LITTLE & WEBER, P.A.  | 10-10-07 A REVISED PARCEL DESIGNATIONS AND PLAT REFERENCE IN TITLE BLOCK | Werl | DEV    | PREPARED FOR:  | SOIL BORINGS  | SCALE       | ZONING         | G. L. W. FILE No. |
| CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS   |  |      |        | G&R MAPLE LAWN INC<br>SUITE 300 WOODHOLME CENTER                         | PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS MAPLE LAWN FARMS                                       | AS SHOWN    | MXD-3          | 05016             |
| 3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK<br>BURTONSVILLE, MARYLAND 20866<br>TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 |  |      |        | 1829 REISTERSTOWN ROAD<br>BALTIMORE, MD 21208<br>ATTN: CHARLIE O'DONOVAN | MIDTOWN DISTRICT - AREAS 1, 2, AND 3  | DATE        | TAX MAP — GRID | SHEET             |
| L:\CADD\DRAWINGS\02001\05016\SDP\05016SC11.dwg   | V DATE REVISION  | BY   | APP'R. | 410-484-8400   | PARCELS A-10, A-15, A-16 A-17, and A-18  ELECTION DISTRICT No. 5  (PLAT No. 1044-7/2)  HOWARD COUNTY, MARYLAN | APRIL, 2007 | 41/22          | 11 OF 26          |









REVISION

BURTONSVILLE, MARYLAND 20866

L:\CADD\DRAWNGS\02001\05016\SDP\05016SD15.dwg DES. TWL DRN. AWL CHK. DEV

DATE

TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

|         |                      |                 |                   | STR     | UCTURE SCH   | EDULE    |                 |                        |                                       |
|---------|----------------------|-----------------|-------------------|---------|--------------|----------|-----------------|------------------------|---------------------------------------|
| NO      | TYPE                 | MIDTH           | TOP EL            | EVATION | INVERT E     | LEVATION | STD. DETAIL     | LOCATIONS              | REMARKS                               |
|         |                      | (INSIDE)        | UPPER             | LOWER   | UPPER        | LOWER    |                 |                        |                                       |
| 1-301   | A-IO INLET           | 2'-6"           | 399.73            | 399.24  | 394.94       | 393.00   | HO. CO. SD 4.41 | N 543,743 E 1,340,254  |                                       |
| 1-302   | A-IO INLET           | 2'-6"           | 399.10            | 398.60  |              | 393.72   | HO. CO. SD 4.41 | N 543,738 E 1,340,203  |                                       |
| 1-303   | A-IO INLET           | 2'-6"           | 401.36            | 406.86  |              | 402.33   | HO. CO. SD 4.41 | N 543,893 E 1,340,243  |                                       |
| 1-305   | A-IO INLET           | 2'-6"           | 396.08            | 395.77  | 390.10       | 389.96   | HO. CO. SD 4.41 | N 543,683 E 1,340,096  |                                       |
| 1-306   | A-15 INLET           | 2'-6"           | 395.93            | 395.77  |              | 390.31   | MC-501.01       | N 543695 E 1340074     |                                       |
| 1-309   | A-IO INLET           | 2'-6"           | 400.01            | 399.88  | 395.46       | 394.87   | HO. CO. SD 4.41 | N 544,014 E 1,339,950  |                                       |
| 1-310   | A-IO INLET           | 2'-6"           | 404.13            | 403.90  | 399.97       | 394.82   | HO. CO. SD 4.41 | N 543,996 E 1,340,069  |                                       |
| D-I     | Yard Drain           | 1'-0"           |                   | 392.80  | n860.760     | 386.26   | 3>              | N.543,462 E1,340,248   |                                       |
| MH-303  | STANDARD MANHOLE     | 5'-0"           |                   | 398.50  | 390.17       | 386.20   | HO. CO. G-5.13  | N 5436TT E 1340318     | •                                     |
| MH-304  | STANDARD MANHOLE     | 4'-0"           | <b></b>           | 398.10  | 390.42       | 390.32   | HO. CO. 6-5.12  | N 543,674 E 1,340,283  |                                       |
| MH-305  | STANDARD MANHOLE     | 5'-0"           |                   | 397.95  | 392.78       | 386.85   | HO. CO. G-5.13  | N 543,713 E 1,340,266  | a magain                              |
| MH-308  | STANDARD MANHOLE     | 4'-0"           |                   | 396.34  | 391.40       | 388.84   | HO. CO. 6-5,12  | N 543,703 E 1,340,130  |                                       |
| MH-309  | NYOPLAST DRAIN BASIN | 1'-0"           |                   | 404.00  | 400.42       | 400.08   | 2               | N 544,003 E 1,340,058  |                                       |
| D-300B  | Yord Drain           | 1'-0"           |                   | 390.70  |              | 302.84   | (3)             | N.543,572 E 1,340,171  |                                       |
| D-301   | YARD DRAIN           | 1'-0"           |                   | 397.∞   | 390.61       | 390.51   | (3)             | N 54%, 6%5 E1, 740,708 |                                       |
| D-302   | YARD DRAIN           | 1'-0"           |                   | 396.70  |              | 390.79   | (3)             | N542,500 E 1,240,211   |                                       |
| D-303   | YARD DRAIN           | 1'-0"           |                   | 396.40  | ي جن ج       | 390.97   | (3)             | N543,505 E1,340,314    | •                                     |
| D-304   | YARD DRAIN           | 1'-0"           | مديا هيد دوي<br>د | 396.10  | j.           | 391.15   | 3               | N543,531 E1,340,316    |                                       |
| D-305   | YARD DRAIN           | 1'-0"           |                   | 395.60  | 391.30       | 391.29   | (3)             | N549,497 E1,340,300    |                                       |
| D-306   | YARD DRAIN           | -O <sub>B</sub> |                   | 395.60  | 391.63       | 391.53   | (3)             | N543,494 E1,340,277    | :                                     |
| D-3000A | Yard Drain           | 1'-0"           |                   | 395.00  | <del>-</del> | 301.70   | (3)             | N543, 492 E 1,340,243  |                                       |
| DD-I    | DECK DRAIN           | 8"              |                   | 405.46  | 401.05       | 396.27   | 3               | N 544,092 E 1,339,986  |                                       |
| DD-2    | DECK DRAIN           | 8"              |                   | 405.46  | 401.40       | 401.30   | 3               | N 544,118 E 1,340,000  | , , , , , , , , , , , , , , , , , , , |
| DD-3    | DECK DRAIN           | 8"              |                   | 405.50  | 402.01       | 401.91   | (3)             | N 544,166 E 1,340,026  |                                       |
| DD-4    | DECK DRAIN           | 8"              |                   | 401.50  | 403.19       | 402.01   | (3)             | N 544,174 E 1,340,031  |                                       |
| DD-5    | DECK DRAIN           | 8"              |                   | 401.46  | 403.50       | 403.40   | 3               | N 544,197 E 1,340,043  |                                       |
| DD-6    | DECK DRAIN           | 8"              | er ar en          | 407.46  | 403.85       | 403.75   | 3               | N 544,222 E 1,340,057  |                                       |
| DD-7*   | DECK DRAIN           | 8"              |                   | 401.46  |              | 404.10   | 3               | N 544,248 E 1340,071   | 1.5                                   |
| DD-8    | DECK DRAIN           | 8"              |                   | 405.60  |              | 400.51   | 3               | N 544,017 E 1,340,042  |                                       |
| DD-9    | DECK DRAIN           | 8"              |                   | 405.40  | 400.48       | 400.38   | 2               | N 544,025 E 1340,067   |                                       |
| DD-10   | DECK DRAIN           | 8"              | pt set en         | 405.40  | 401.08       | 400.81   | 2               | N 544,058 E 1,340,085  |                                       |
| וו-סס   | DECK DRAIN           | 8"              |                   | 405.40  | 401.41       | 401.31   | 2>              | N 544,082 E 1,340,098  |                                       |
| DD-12   | DECK DRAIN           | 8"              |                   | 405.40  | 401.75       | 401.65   | 2>              | N 544,106 E 1,340,111  |                                       |
| DD-13   | DECK DRAIN           | 8"              |                   | 401.40  | 403.39       | 403.12   | 2>              | N 544,161 E 1,340,141  |                                       |
| DD-14   | DECK DRAIN           | 8"              |                   | 407.40  |              | 403.62   | 2               | N 544,185 E 1,340,154  |                                       |
| D-2     | Yard prain           | 1-0"            |                   | 2912.80 |              | 38087    | 3               | N547,465 E1,340,300    |                                       |
|         | 1                    | <u> </u>        | <u> </u>          | 1       | <u> </u>     |          | <u>1</u>        |                        | <u> </u>                              |

COORDINATE POINT GIVEN IS TO THE CENTERLINE OF STRUCTURE AT THE FACE OF CURB FOR INLETS AND TO THE CENTERLINE OF STRUCTURE FOR MANHOLES AND END SECTIONS.

2 ALL DECK DRAINS TO BE ACO TRENCH DRAIN OR APPROVED EQUAL UNLESS OTHERWISE NOTED.

3 NYLOPLAST - ADS DRAIN BASIN OR APPROVED EQUAL.

NOTE: ALL WATER AND SEWER CROSSINGS SHOWN ARE PER CONTRACT: 24-4392 D OR PER WHC'S/SHC'S PROPOSED UNDER THIS PLAN.

| 400      | D (E=2) 3003   |
|----------|--|
| <u> </u> | Prop   |
|          | Prop. Grade Prop. Wall   |
| 300      | Ground   |
| 38687    | 062.18ip-Rape0.00%   |
| 380 (C)  | HDPE   |
| 375      | 22 st. /sec.<br>0 0 0 V <sub>10</sub> =2.2 st. /sec.<br>1 0 0 0 0 V <sub>10</sub> =2.2 st. /sec. |

|      | PIPE | SCHEDULE        |                |
|------|------|-----------------|----------------|
| SIZE | TYPE | QUANTITY (I.F.) | REMARKS        |
| 8"   | hdpe | 530             | m <sub>3</sub> |
| 10"  | hdpe | 294'            |                |
| !2." | hdpe | انان            |                |
| J=," | hdpe | 274'            |                |
| "عا  | hdpe | 27'             |                |

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or Hi-Q

by Hancor or an approved equal.

Trench bedding to be provided be

Trench bedding to be provided per Howard County Detail G 2.01,

"Trench for P.V.C. pipe and H.D.P.E."

| ASINO:     |
|------------|
| 10 GROWS   |
|            |
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|            |
| 1212       |
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| · <b>V</b> |

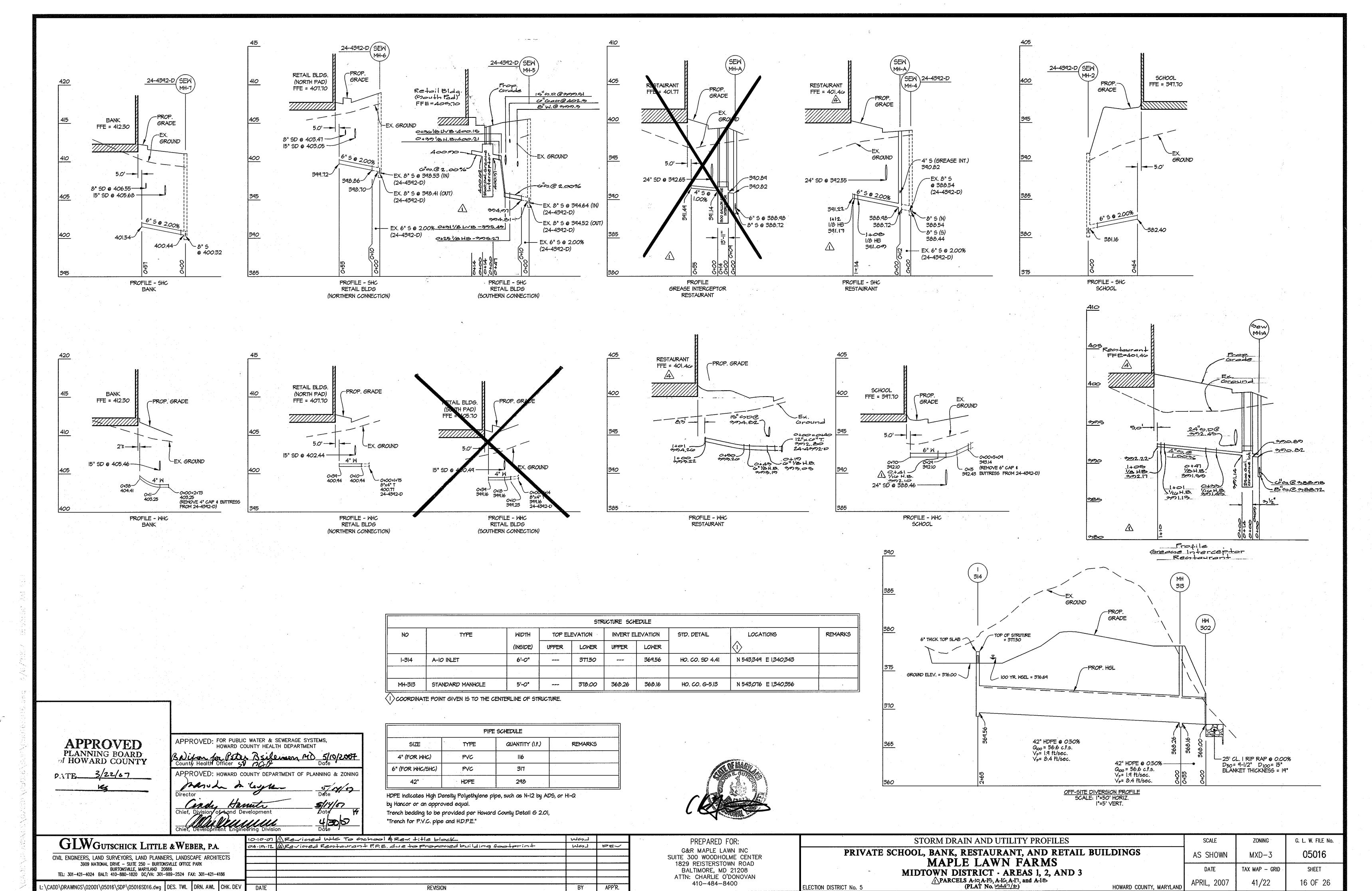
BALTIMORE, MD 21208

ATTN: CHARLIE O'DONOVAN 410-484-8400

APP'R.

BY

|                    | STORM DRAIN PROFILES   |                         | SCALE       | ZONING         | G. L. W. FILE No. |
|--------------------|--|-------------------------|-------------|----------------|-------------------|
| PRIVATE S          | CHOOL, BANK, RESTAURANT, AND RETAIL I MAPLE LAWN FARMS                         | BUILDINGS               | AS SHOWN    | MXD-3          | 05016             |
|                    | MIDTOWN DISTRICT - AREAS 1, 2, AND 3   |                         | DATE        | TAX MAP — GRID | SHEET             |
| TON DISTRICT No. 5 | <u>↑</u> PARCELS A-10, A-15, A-16, A-17, and A-18 (PLAT No. 1 <u>04-47/8</u> ) | HOWARD COUNTY, MARYLAND | APRIL, 2007 | 41/22          | 15 OF 26          |



STORMWATER MANAGEMENT SUMMARY

DRAINAGE AREA = 6.9 AC. OR 0.0108 SQ. MILES

PRE-DEVELOMENT
CURVE NUMBER = 69 TIME OF CONCENTRATION = 0.21 HOURS

POST-DEVELOMENT
CURVE NUMBER = 90 TIME OF CONCENTRATION = 0.12 HOURS

WATER QUALITY VOLUME REQUIRED: RECHARGE VOLUME REQUIRED:

15,554 C.F. 2,731 C.F.

PROVIDED: 18,430 C.F. PROVIDED: 2.970 C.F. PROVIDED: 36,974 C.F.

CHANNEL PROTECTION VOLUME REQUIRED: 26,415 C.F. YEAR DISCHARGE = 0.30 C.F.S. 100 YEAR DISCHARGE = 49.81 C.F.S.

I. THE FACILTY WILL BE PRIVATELY OWNED AND MAINTAINED. THE COMMERCIAL OWNER'S

ASSOCIATION WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE FACILITY. 2. THE FACILITY WILL BE A P-2 WET POND WITH EXTENDED DETENTION.

3. THE FACILITY HAS AN 'A' POND CLASSIFICATION.

PRE-DEVELOPMENT

| ₩.                                    | <del>- 1 42 2 2 1 2</del> |  |          |  |  |  |  |  |
|---------------------------------------|---------------------------|--|----------|--|--|--|--|--|
| · · · · · · · · · · · · · · · · · · · | SEGMENT                   | DESCRIPTION  | TIME     |  |  |  |  |  |
|                                       | ♠ - ♠                     | 60' OVERLAND FLOW @ 12.0% (GRASS, n= 0.24)               | 0.08 HR. |  |  |  |  |  |
|                                       | 18-6                      | 400' SHALLOW CONC. FLOW (UNPAVED) @ 4.0% (v = 3.2'/SEC.) | 0.03 HR. |  |  |  |  |  |
| 28<br>2                               | Ø-Ø                       | 580' SHALLOW CONC. FLOW (UNPAVED) @ 1.0% (v = 1.6'/SEC.) | 0.10 HR. |  |  |  |  |  |
|                                       | TOTAL = 0.21 HF           |  |          |  |  |  |  |  |

POST DEVELOPMENT

| I OU! DLY: |  |                  |
|------------|--|------------------|
| SEGMENT    | DESCRIPTION                                    | TIME             |
| A - B      | 55' OVERLAND FLOW @ 16.0% (n= 0.24)            | 0.06 HR.         |
| B-0        | 110' SHALLOW CONC. FLOW @ 2.5% (V = 3.2'/SEC.) | 0.01 HR.         |
| Ø-0        | 1150' PIPE FLOW @ 7.0'/SEC.                    | 0.05 HR.         |
|            |  | TOTAL = 0.12 HR. |

| POND SUMMARY                       |              |                |                       |  |  |  |  |
|------------------------------------|--------------|----------------|-----------------------|--|--|--|--|
|                                    | BEFORE       | UNMANAGED      | MANAGED               |  |  |  |  |
| FINAL SWM @ POND                   |              |                |                       |  |  |  |  |
| IYR                                | 3.03 C.F.S.  | 15.56 C.F.S.   | 0.30 C.F.S. @ 375.60  |  |  |  |  |
| 2 YR                               | 5.72 C.F.S.  | 20.52 C.F.S.   | 3.01 C.F.S. @375.73   |  |  |  |  |
| OYR                                | 16.44 C.F.S. | 36.21 C.F.S.   | 32.20 C.F.S. @ 376.04 |  |  |  |  |
| 100 YR                             |              | 53.35 C.F.S.   | 49.81 C.F.S. @ 376.15 |  |  |  |  |
|                                    | TEMPOR       | ARY SWM @ POND | (CONDITION I)         |  |  |  |  |
| IYR                                | 4.26 C.F.S.  | 6.53 C.F.S.    | O.17 C.F.S. @ 374.38  |  |  |  |  |
| 2 YR                               | 9.76 C.F.S.  | 12.80 C.F.S.   | 0.24 C.F.S. @375.00   |  |  |  |  |
| 10 YR                              | 32.61 C.F.S. | 37.52 C.F.S.   | 17.69 C.F.S. @ 375.90 |  |  |  |  |
|                                    | TEMPOR       | ARY SWM @ POND | (CONDITION 2)         |  |  |  |  |
| IYR                                | 8.28 C.F.S.  | 17.47 C.F.S.   | 0.29 C.F.S. @ 375.55  |  |  |  |  |
| 2 YR                               | 16.23 C.F.S. | 27.37 C.F.S.   | 4.28 C.F.S. @375.75   |  |  |  |  |
| 10 YR                              | 47.56 C.F.S. | 64.68 C.F.S.   | 54.50 C.F.S. @ 376.34 |  |  |  |  |
| TEMPORARY SWM @ POND (CONDITION 3) |              |                |                       |  |  |  |  |
| IYR                                | 4.20 C.F.S.  | 17.91 C.F.S.   | 1.62 C.F.S. @ 375.72  |  |  |  |  |
| 2 YR                               | 7.23 C.F.S.  | 22.61 C.F.S.   | 12.55 C.F.S. @375.84  |  |  |  |  |
| 10 YR                              | 18.81 C.F.S. | 37.33 C.F.S.   | 35.31 C.F.S. @ 376.08 |  |  |  |  |
| 10 YR                              | 18.81 C.F.S. | 37.33 C.F.S.   | 35.31 C.F.S. @ 376.08 |  |  |  |  |

- 1. THE BASIN UNDER CONDITION I WILL RECEIVE 13.6 AC. OF OFFSITE RUNOFF AND 1.7 AC. OF ONSITE RUNOFF.
- 2. THE BASIN UNDER CONDITION 2 WILL RECEIVE 12.5 AC. OF OFFSITE RUNOFF AND 6.9 AC. OF ONSITE RUNOFF.
- 3. THE BASIN UNDER CONDITION 3 WILL RECEIVE O.O AC. OF OFFSITE RUNOFF AND 6.9 AC. OF ONSITE RUNOFF.

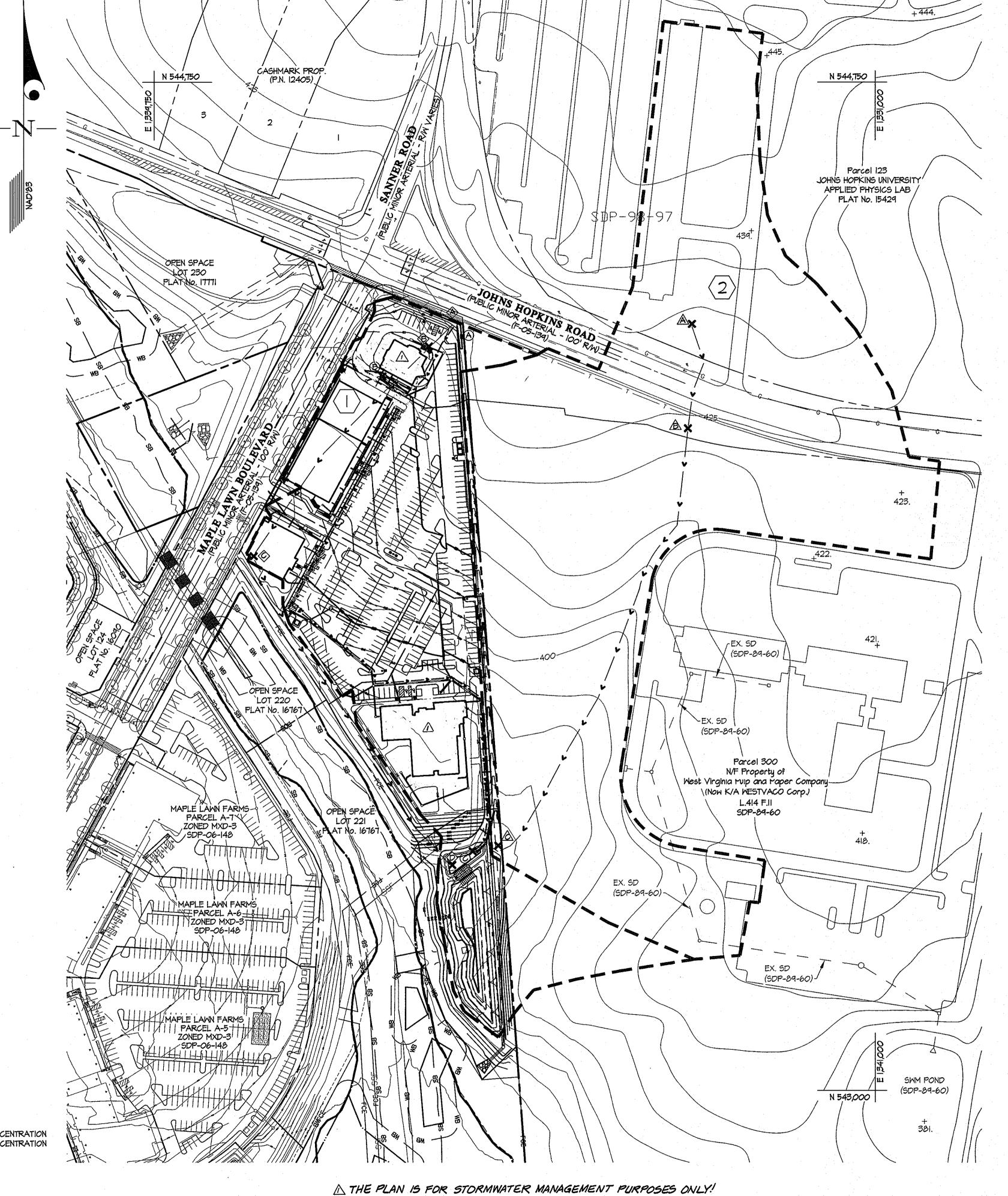
(2) OFFSITE STORMWATER DIVERSION PIPE SUMMARY DRAINAGE AREA = 13.7 AC. OR 0.0214 SQ. MILES

PRE-DEVELOMENT CURVE NUMBER = 62 TIME OF CONCENTRATION = 0.14 HOURS

100 YEAR DISCHARGE = 56.62 C.F.S.

PRE-DEVELOPMENT

|                     | DESCRIPTION  | TIME     |
|---------------------|--|----------|
| <u>A</u> - <u>A</u> | 5 MIN. THROUGH STORM DRAIN SYSTEM                        | 0.08 HR. |
| <u> </u>            | 820' SHALLOW CONC. FLOW (UNPAVED) @ 5.2% (v = 3.7'/SEC.) | 0.06 HR. |



**APPROVED** PLANNING BOARD of HOWARD COUNTY

APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT BNyon for Peter Beilensen MD 5/0/2007
County Health Officer so 1700 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING



POST-DEVELOPMENT TIME OF CONCENTRATION

DRAINAGE DIVIDE

GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

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|   | 10-10-07 | A REVISED TITLE BLOCK, ADDED PURPOSE NOTE AND REVISED SCHOOL AND BANK FOOTPRINTS | WSJ | DEV      |
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|   |          | REVISION   |     | <u> </u> |

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

STORMWATER MANAGEMENT / OFFSITE DRAINAGE AREA MAP SCALE ZONING PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS 1"=100' MXD-3MAPLE LAWN FARMS MIDTOWN DISTRICT - AREAS 1, 2, AND 3

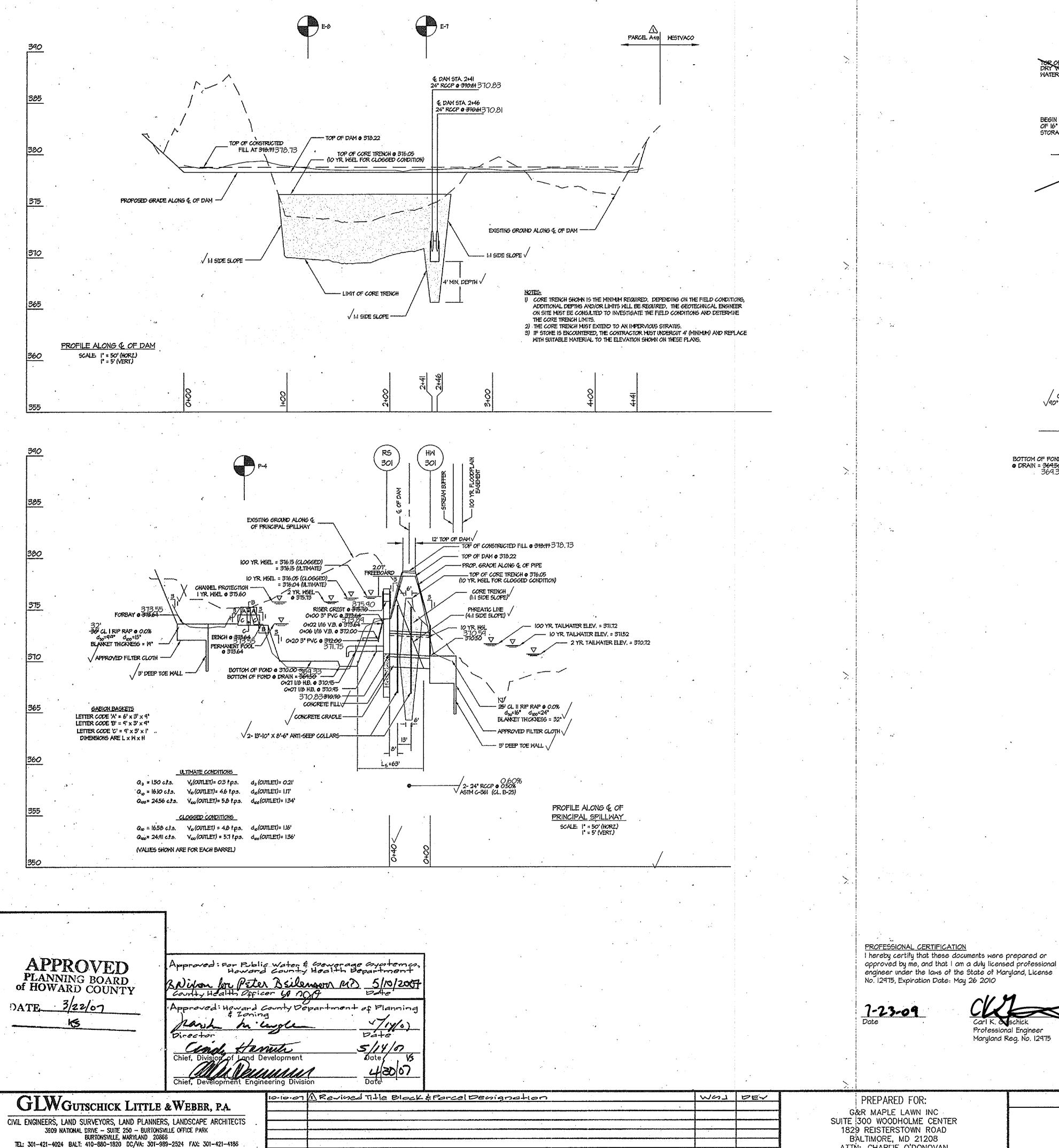
PARCELS A-10, A-15, A-16, A-17, and A-16
(PLAT No. 1944-7/2) DATE TAX MAP - GRID **APRIL**, 2007 HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5

G. L. W. FILE No.

05016

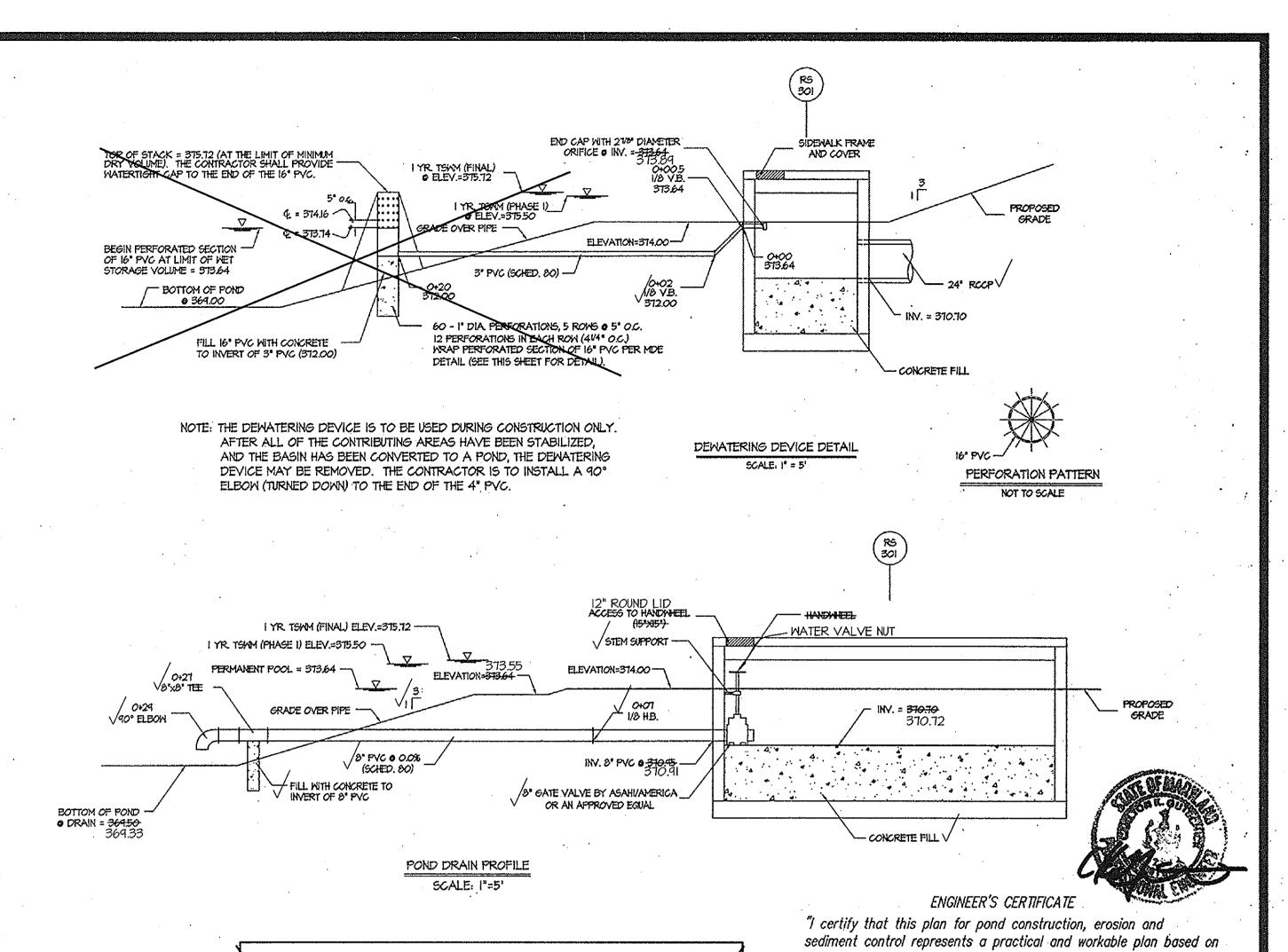
SHEET

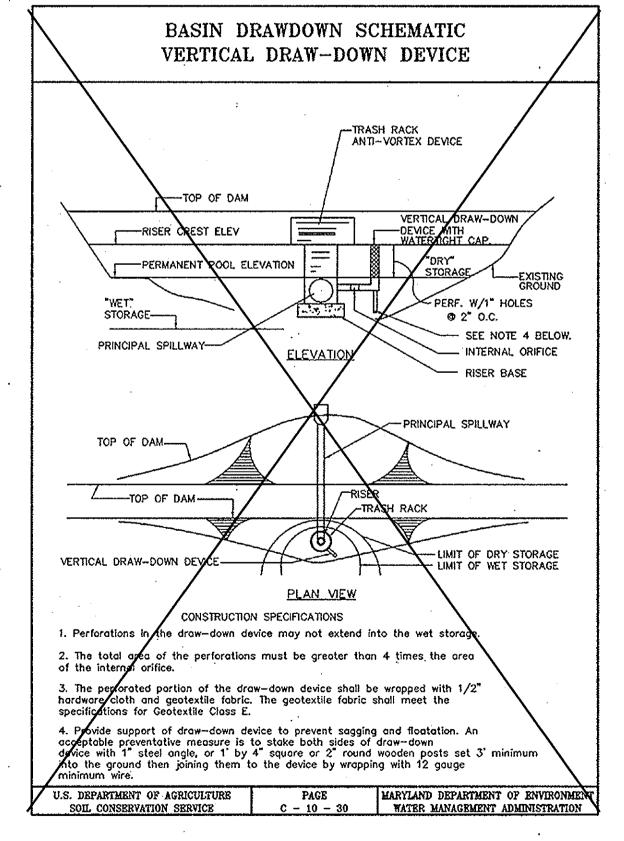
17 OF 26



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DATE





my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

# DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer/Builder

4-9-07 Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Natural Resources Conservation Service

4/29/07

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

9/24/07 ASBUILT SHEET 2 OF 4

G. L. W. FILE No.

STORMWATER MANGEMENT PROFILES, NOTES AND DETAILS

SCALE PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS
MAPLE LAWN FARMS AS SHOWN MIDTOWN DISTRICT - AREAS 1, 2, AND 3

PARCELS A-10, A-15, A-10, and A-18

(PLAT No. 10447(2)

05016 MXD-3 TAX MAP - GRID SHEET 18 OF 26 41/22

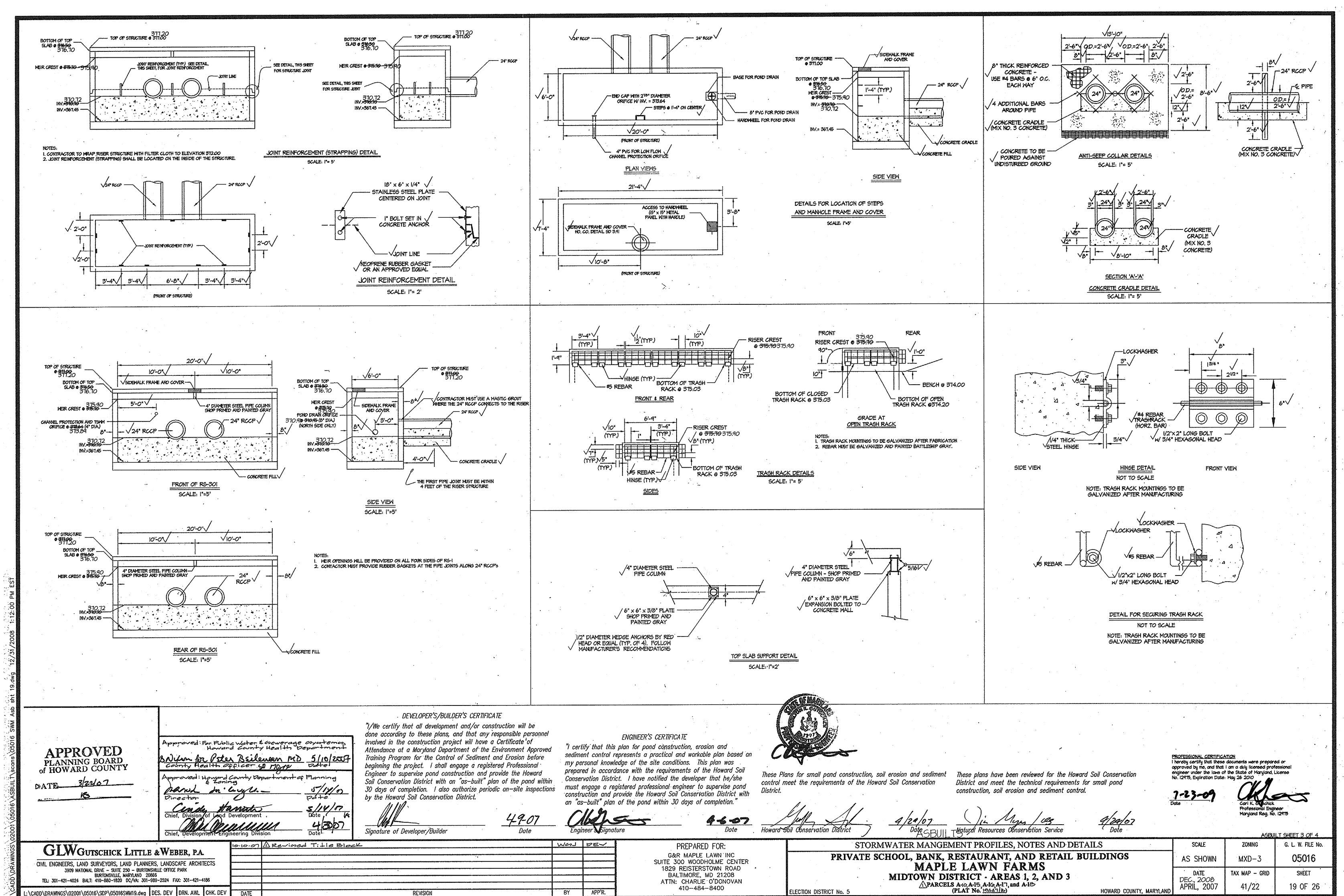
PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARCIE O'DONOVAN

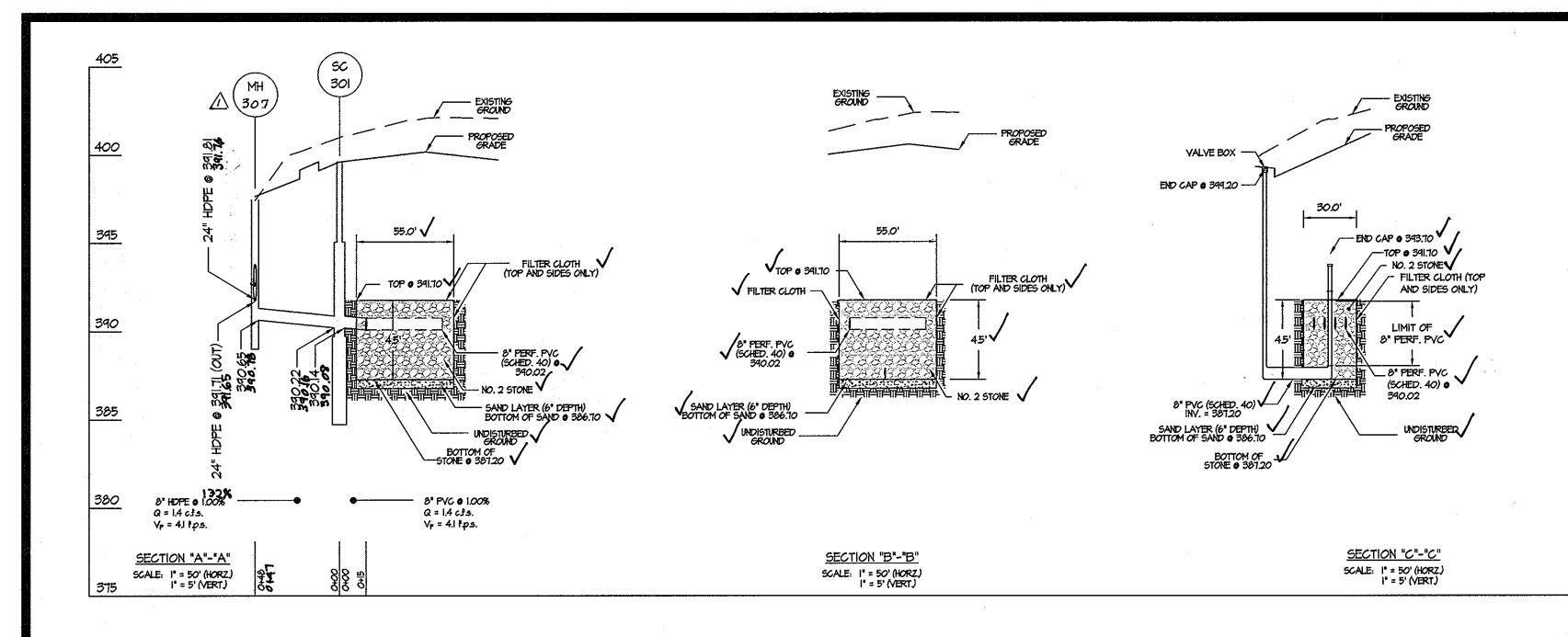
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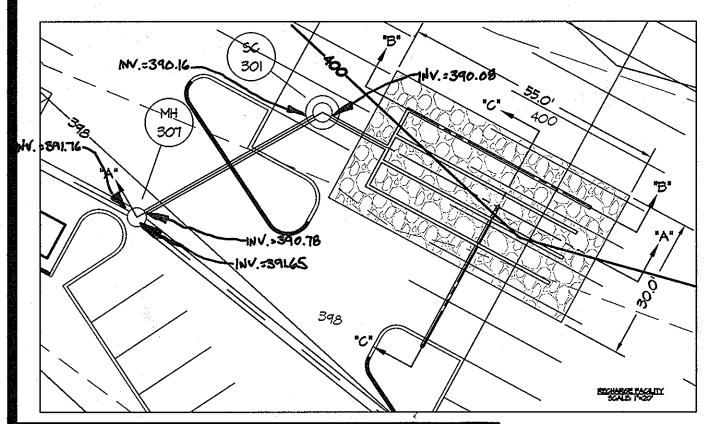
Maryland Reg. No. 12975

ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND



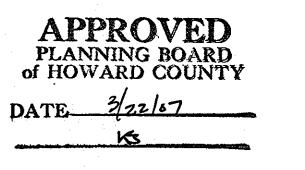




pproved: For Public Water & Gewerage Cayotemor. Havard County Health bepartment Bruton for Peter Belower MD 5/10/2007 There plans have been reviewed for Howard coil Convervation biotrict and meet the technical requirements for small pond construction, soil

eronion and mediment control.

Theore plano for omall pond construction, wil eropion and mediment control meet the requirementor of the Hoyard coil Connervation Diatrict.





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Signature of Developer/Builder

OPERATION AND MAINTENANCE SCHEDULE

FOR PRIVATELY OWNED AND MAINTAINED RETENTION POND

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPOES SHALL BE RPAIRED UPON THE

DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING ROUTINE MAINTENACE OPERATIONS. 2. SEDIMENT SHALL BE REMOVED FROM THE POND AND FOREBAY NO LATER THAN WHEN THE CAPACITY OF THE POND IS HALF

HOWARD SOIL CONSERVATION DISTRICT

OPERATION, MAINTENANCE, AND INSPECTION NOTE

FULL OR WHEN DEEMED NECESSARY FOR AESTHETIC REASONS. UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.

SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHALL BE MOWED AS NEEDED.

3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AS NEEDED.

INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING

1. THE FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER

2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES PER YEAR, ONCE IN JUNE AND ONCE IN

4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS THE RIP-RAP OR GABION OUTLET SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEATS ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS

CONTAINED WITHIN THE USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR

ASSIGNS SHALLL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE

THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE

ROUTINE MAINTENANCE (BY COMMERCIAL OWNER'S ASSOCIATION)

NON-ROUTINE MAINTENANCE (BY COMMERCIAL OWNER'S ASSOCIATION)

TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED

AND MAINTAINED STORMWATER INFILTRATION TRENCHES

2. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL

BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH

3. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH

4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN

5. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY

6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY

HAVE BEEN VERIFIED. THE MONITORING SCHEDULE CAN BE REDUCED TO

AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A

FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND

MORE FREQUENT SCHEDULE IS REQUIRED.

DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE

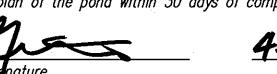
1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A

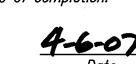
QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.

THE FACILITY DRAINS.

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with plan of the pond within 30 days of completion."

ENGINEER'S CERTIFICATE





OPERATIONS AND MAINTENANCE SCHEDULE FOR

PRIVATELY OWNED AND MAINTAINED STORMCEPTOR WATER QUALITY DEVICE

1. THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE PERIODICALLY

INSPECTIONS SHALL BE DONE BY USING CLEAR PLEXIGLASS TUBE

STORMCEPTOR TECHNICAL MANUAL, THE UNIT MUST BE CLEANED.

CONTACT THE APPROPRIATE REGULATORY AGENCIES.

4. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY

5. THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR

LIQUID MUST BE FOLLOWED BY THE OWNER.

INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE

("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE

SEDIMENT DEPTHS EXCEED THE LEVEL SPECIFIED IN TABLE 6 OF THE

2. THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE CHECKED AND

CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL

3. THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A

VACUUM TRUCK WHICH WILL REMOVE WATER, SEDIMENT, DEBRIS,

FLOATING HYDROCARBONS, AND OTHER MATERIALS IN EACH UNIT.

PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND

OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS

ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL

PARTS OF THE STORMCEPTOR UNIT SHALL BE REPAIRED AS NEEDED.

INSPECTION/MONITORING FORMS AVAILABLE TO THE HOWARD COUNTY

OFFICIALS UPON THEIR REQUEST. PROFESSIONAL CERTIFICATION

7-23-09

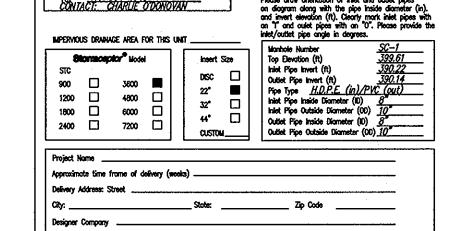
I hereby certify that these documents were prepared or

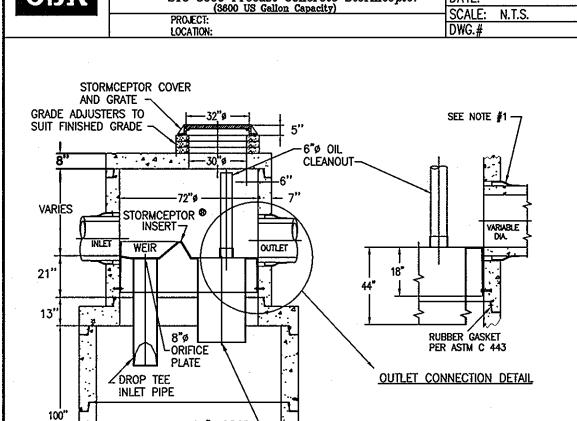
approved by me, and that I am a doty licensed professional

engineer under the land of the State of Maryland, License

No. 12975, Expiration Date: May 26 2010

OWNER SHALL INSPECT THE STORMCEPTOR INSPECTION/MONITORING FORM.





AT THE INLET AND OUTLET WHERE APPLICABLE.

I. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE

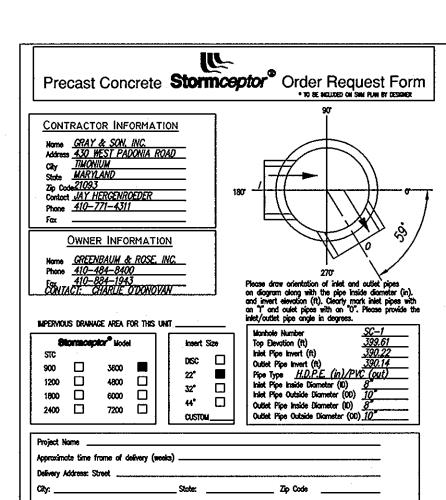
OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.

BY: DATE

**ELECTION DISTRICT No. 5** 

DROP PIPE AND THE OIL CLEANOUT PIPE

DESCRIPTION



NOT INSTALLED AS OF

12/24/08 ALUMINUM TRASH GRATING

(TOP OF TRASH GRATING

@ OUTLET PIPE INVERT)-

8" HDPE • 340.65

390.78

TO RECHARGE

FACILITY

Designer Contact ..... PLEASE FILL OUT COMPLETELY AND FAX TO: CSR Hydro Conduit ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)971-1900 FOR TECHNICAL ASSISTANCE PLEASE CALL MIKE BARG. PHONE (703)971-1900 Hydro Condui CSR STC 3600 Precast Concrete Stormceptor (3600 US Gallon Capacity)

24"ø DROP C OVERLAP 10" SECTION THRU CHAMBER 1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED

### CONSTRUCTION SPECIFICATIONS

AND COVER

-24" RCP @ 391.71 **391.6**5

4'-0"

LOW FLOW

These specifications are appropriate to all ponds facility number 1& 3. All references to ASTM and AASHTO specifications apply to the most recent

### Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared

and grubbed within 20 feet of the toe of the embankment. Areas to be covered by the reservoir will be cleared of all trees, brush. logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut

approximately level with the around surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

### Earth Fill

Material — The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6". frozen or other objectionable materials. Fill material for the center of the embankment conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30 % passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8-inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10-year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the

### Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to other embankment materials.

# Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials -(Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials – (Aluminum Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the

### Plastic Pipe — The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock riprop shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile shall be placed under all riprop and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

# Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

# Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching.

# Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

# OPERATION AND MAINTENANCE

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

ASBUILT

**ENLARGED INLET** 

TEE DROP PIPE

ASBUILT SHEET 4 OF 4 STORMWATER MANAGEMENT PROFILES, NOTES, AND DETAILS SCALE ZONING G. L. W. FILE No. PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS 05016 AS SHOWN MXD-3TAX MAP - GRID DATE SHEET

GLWGUTSCHICK LITTLE & WEBER, P.A.

Approved: Howard County Department of Planning & Zoning

d'coll

Director

CIVIL ENGINEERS. LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

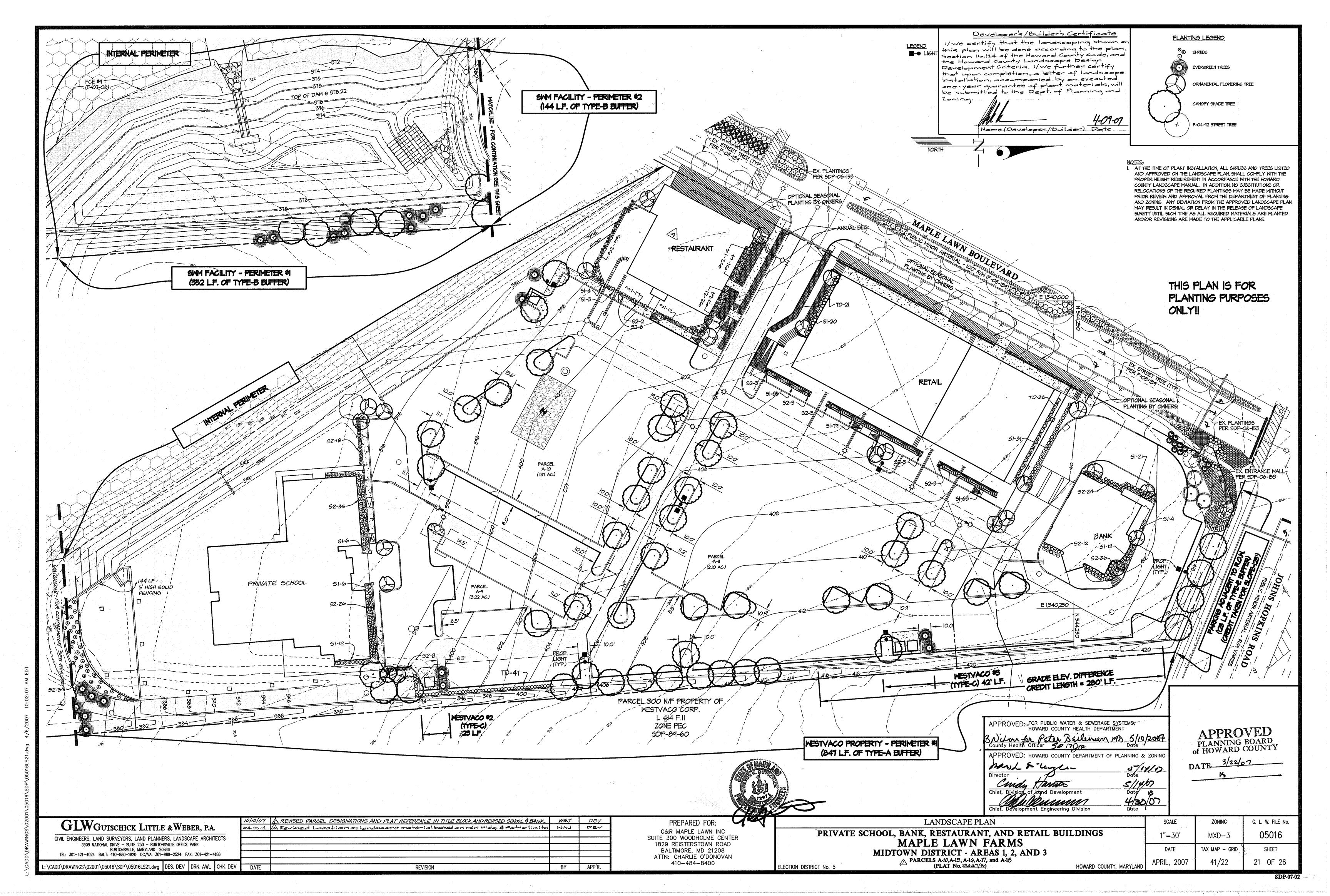
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10-10-07 A REVISED TITLE BLOCK AND CORRECTED SECTION "A"- "A" WSJ DEV \DRAWINGS\04001\04001A\Finals\04001aSWM24.dwg | DES. DEV | DRN. AWL | CHK. DEV BY APP'R. REVISION

Date

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

MAPLE LAWN FARMS MIDTOWN DISTRICT - AREAS 1, 2, AND 3 PARCELS A.10, A.15, A.16, A.17, and A.18 **DEC., 2008** APRIL, 2007 20 OF 26 (PLAT No. 10447/8) HOWARD COUNTY, MARYLAND



### PLANT MATERIALS AND PLANTING METHODS

### A. Plant Materials

The landscape contractor shall furnish and install and/or dia, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

### I. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

### 2. Plant Standards

All plant material 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 (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease. insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been arown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

### 3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the Architectural Review Committee. a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

- b. Minimum branching height for all shade trees shall be six feet (6'), maximum eight feet (8').
- c. Caliper, height, spread and size of ball shall be generally as follows:

| CALIPER                | HEIGHT             | SPREAD          | SIZE OF BALL                 |
|------------------------|--------------------|-----------------|------------------------------|
| 3" - 3.5"<br>3.5"- 4"  | 14'-16'<br>14'-16' | 6'-8'<br>8'-10' | 32" diameter<br>36" diameter |
| 0.5" - 4"<br>4" - 4.5" | 16'-18'            | 8'-10'          | 40" diameter                 |
| 4.5"- 5"               | 16'-17'            | 10'-12'         | 44" diameter                 |
| 5" - 5.5"              | 16'-20'            | 10'-12'         | 48" diameter                 |
| 5.5"- 6"               | 18'-20'            | 12'-14'         | 52" diameter                 |

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

# 4. Plant Identification

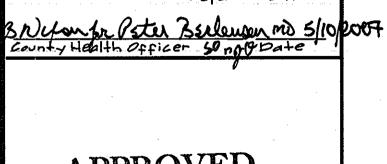
Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County

# 5. Plant Inspection

The Architectural Review Committee may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

# Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:



Approved: For Public Water & Gowerage Coyotemon Howard County Health

**APPROVED** PLANNING BOARD of HOWARD COUNTY

### I. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

# Digging

All plant material shall be dug, balled and burlapped (B&B) in accordance with the "AAN Standards".

### 3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

- a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.
- b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.
- c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.
- Diameter and depth of tree pits shall generally be as follows:

|               |           | PIT      | PIT   |
|---------------|-----------|----------|-------|
| PLANT SIZE    | ROOT BALL | DIAMETER | DEPTH |
| 3" - 3.5"cal. | 32"       | 64"      | 28"   |
| 3.5"- 4" cal. | 36"       | 72"      | 32"   |
| 4" - 4.5"cal. | 40"       | 80"      | 36"   |
| 4.5"- 5" cal. | 44"       | 88"      | 40"   |
| 5" - 5.5"cal. | 48"       | 96"      | 44"   |
| 5.5"- 6" cal. | 52"       | 104"     | 48"   |

A 20 % compaction flaure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

# 4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

- a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.
- b. Wire and Cable: Wire shall be #10 ga. galvanized or bethanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" takeup. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with qalvanized "eye" thimbles of wire and hose on trees up to 3" in
- c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3"
- d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail".

# 5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk

or branches. All cuts over I" in APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING andy 42007

diameter shall be painted with an approved antiseptic tree wound dressing.

- b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.
  - c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

### 6. Plant Inspection and Acceptance

The Architectural Review Committee shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

### 7. Plant Guarantee

All plant material shall be avaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the quarantee period.

- a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting
- b. Guarantee for planting performed after the specified end of the "Spring" plantina season, shall be extended through the end of the next following "Spring" planting season.

### Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washinaton Metropolitan Areas' latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Victa, or

# LANDSCAPE NOTES

I, THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & CHAPTER VI OF THE HOWARD COUNTY LANDSCAPE MANUAL (ALTERNATIVE COMPLIANCE) PLUS THE LANDSCAPE DESIGN CRITERIA OF S-OI-17, PB CASE No. 353, S-O6-16, AND PB CASE No. 378.

2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STARTING

WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING UTILITIES, ON SHEET No.1 SHALL.

3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK. CONTACT CONSTRUCTION MANAGER OR OWNER IF ANY 4. PLANT QUANTITIES SHOWN ON THE PLAN LIST ARE PROVIDED FOR THE CONVENIENCE

OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE 5. ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND

6. NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY

ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THIS PLAN.

CONFORM TO THE A.A.N. SPECIFICATIONS. ALL PLANT MATERIAL SHALL BE INSTALLED IN

1. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAYED, OR MULCHED SHALL BE SODDED OR SEEDED IN ACCORDANCE WITH THE PERMANEN SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL

8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF HE/SHE ENCOUNTERS SOIL DRAINAGE CONDITIONS THAT MAY BE DETRIMENTAL TO THE GROWTH OF THE PLANTS.

4. ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS.

IO. DO NOT PLANT WITHIN THE PUBLIC WATER, SEVER AND UTILITY EASEMENT

"SCHEDULE-A", "SCHEDULE-B" AND "SCHEDULE-D" ARE PROVIDED FOR LANDSCH LCULATION PURPOSES. FINANCIAL SURETY FOR THE REQUIRED PART OF THE DPW DEVELOPER'S AGREEM

FOR LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE SURETY, CONTACT HOWARD

11. Ochedule: A ochedule: B & ochedule: D are provided for landocape ourety calculation purposes. Financial ourety (of \$14.700.00 combined total) for the req'd landocaping in posted withe developer's agreement and grading permit applications as follows:

A. \$18.420.00 withe developer's agreement for the following landocaping:

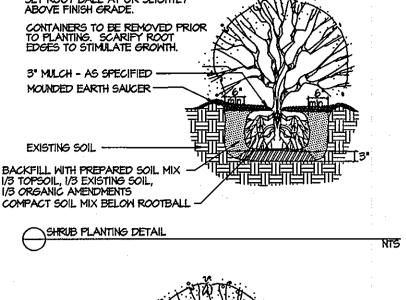
412.700 for A3 whade trees at \$300/tree (och. A roadway & adjacent property perimeters, och. - B & D)

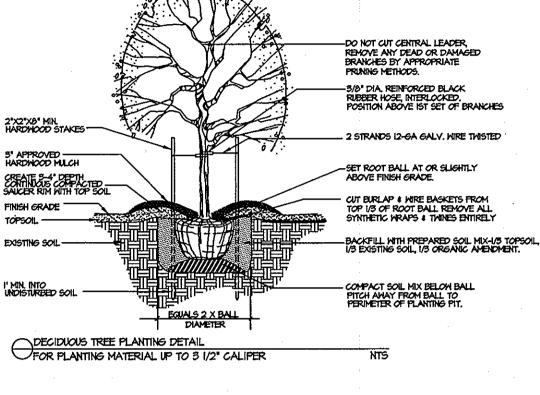
42.400 for 10 evergreen trees at \$150/tree (och. A adj. perimeter & och. - D)

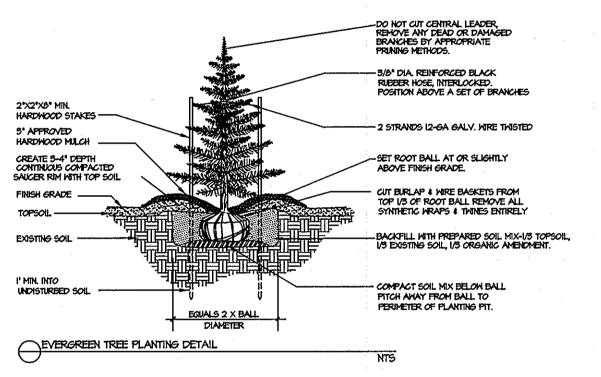
43.120 for 104 ohrubs at \$30/ohrub (och: A ochool)

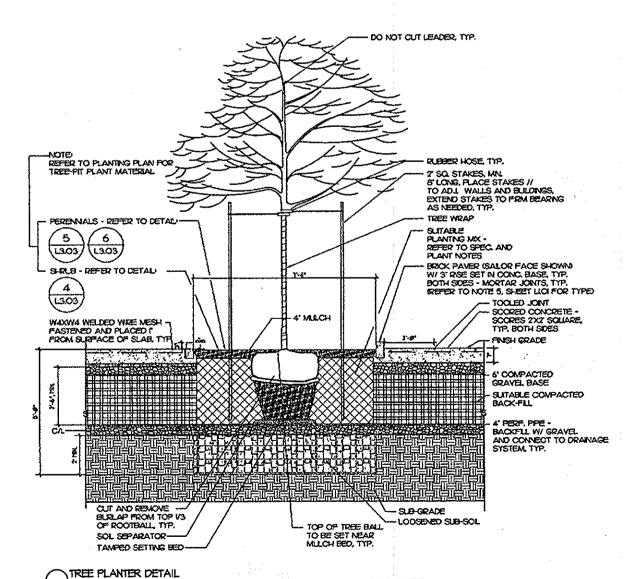
B. \$1,800.00 withe grading permit for restaurant (09 ohrubs at \$30/ohrub, och. - A)

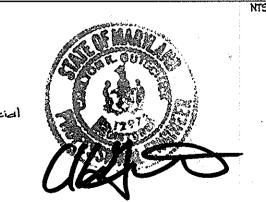
10/10/07 A REVISED PARCEL DESIGNATIONS AND PLAT REFERENCE IN TITLE BLOCK WSJ DEV











(note \*11 cont.) c. \$2,760.00 W/grading permit for retail building (02 ohnber at \$30/ohnub, och.-A) \$ 1,320.00 w/grading permit for bank (44 whrubs at \$70/whrub, ach-A)

SCHEDULE-A: PERIMETER LANDSCAPE EDGE ADJACENT TO ROADWAYS ADJACENT TO PERIMETER STORMWATER (MAPLE LAWN BLVD. AND BUILDING LENGTHS (REAR & SIDES) CATEGORY PROPERTIES MANAGEMENT JOHNS HOPKINS RD.) FACILITY ALONG WESTYACO CORP SIDE & REAR OF BUILDINGS PARKING FRONTAGE SOUTH OF LOCATION FRONTAGE PROPERTY (JOHNS HOPKINS RD.) BUILDING #1 SCHOOL RESTAURANT RETAIL BANK #2 #3 (MAPLE LAWN BLV I SHRUB PER 4 LF OF BUILDING LENGTH 🛝 LANDSCAPE BUFFER TYPE PER SCHEDULE-IONE REQUIRED PER LINEAR FEET OF ROADWAY/ MLF LANDSCAPE 125 L.F. 4/3 LF. 23 L.F. 42 L.F. 250 L.F. 365LF 175 L.F PERIMETER FRONTAGE/BLDG DESIGN CRITERIA (PART-F) CREDIT FOR EX. VEGETATION (YES, NO; LINEAR FEET; NONE NONE NONE NONE NONE NONE NONE NONE DESCRIBE BELOW IF NEEDED) YES, PARKING CREDIT FOR WALL, FENCE OR YES, PARKING LOT IS LOT IS 3' BERM (YES, NO; LINEAR FEET; NONE NONE NONE NONE NONE 3' BELOW ADJACENT DESCRIBE BELOW IF NEEDED) ADJACENT LOT ROAD FOR 125 L.F. FOR 280 LI REMAINDER OF PERIMETER TO 42 L.F 23 L.F. 413 L.F. 250 L.F. 365 L.F. 567 L.F. O L.F. 175 L.F BE BUFFERED NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES NΑ N/A NΑ NΑ NΑ N/A N⁄Α N/A N/A NΑ N/A N/A ORNAMENTALS N/A SHRUBS N/A N/A 104 63 92 N/A NΑ 44 NUMBER OF PLANTS PROVIDED N/A N/A N/A 10 SHADE TREES EVERGREEN TREES N/A NΑ ORNAMENTALS N/A N/A 5 NΑ 135 299 N/A N/A SHRUBS 110 N⁄Α 41 SUBSTITUTIONS MADE

LANDSCAPE SURETY FOR REQUIRED PLANTS PER SCHEDULE-A:

16 SHADE TREES at \$300/TREE = \$ 4,800.00 3 EVERGREEN TREE at \$150/TREE = \$ 450.00 30% SHRUBS at \$30/ SHRUB = \$ 0,000.00

PLANTING PER THE MLF LANDSCAPE DESIGN CRITERIA (PART-F).

PROPOSED NON-RESIDENTIAL USE ADJACENT TO NON-RESIDENTIAL USE

PROPOSED DUMPSTER ADJACENT TO NON-RESIDENTIAL USE.

| SCHEDULE B PARKING LOT INTERNAL LANDSCAPING |  |  |  |  |
|---|--|--|--|--|
| NUMBER OF PARKING SPACES                    | 326 SPACES (EXCLUDING THE PARALLEL PARKING SPACES WITHIN MAPLE LAWN BLVD.) |  |  |  |
| NUMBER OF TREES REQUIRED                    | IT (I SHADE TREE PER 20 PARKING SPACES)                                    |  |  |  |
| NUMBER OF TREES PROVIDED                    |  |  |  |  |
| SHADE TREES                                 | 29   |  |  |  |
| OTHER TREES (2:1 substitution)              | 4 ORNAMENTALS (optional as shade tree substitutions)                       |  |  |  |
| •   | 2 EVERGREENS (optional as shade tree substitutions)                        |  |  |  |

LANDSCAPE SURETY FOR REQUIRED TREES PER SCHEDULE-B: 17 SHADE TREES at \$300/TREE = \$ 5,100.00

| SCHEDULE D S   | TORMWATER MANAGEMENT AREA L | ANDSCAPING  |
|--|-----------------------------|---|
|  | SWM FACILITY - PERIMETER #I | SWM FACILITY - PERIMETER #2   |
| LINEAR FEET OF PERIMETER   | 352 L.F.                    | 144 L.F.  |
| NUMBER OF TREES REQUIRED (TYPE-B BUFFER) SHADE TREES (at 1:50) EVERGREEN TREES (at 1:40) | 7 9                         | 3<br>4  |
| NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHERS (AS SUBSTITUTIONS AT 2:1)    | 6<br> 2                     | 144 LF OF 5'HIGH SOLID FENCING AS O SHOWN ON PLAN (PER HOWARD COUNTY O LANDSCAPE DESIGN MANUAL) |

# LANDSCAPE SURETY FOR REQUIRED TREES PER SCHEDULE-D:

10 SHADE TREES at \$300/TREE 13 EVERGREEN TREES at \$150/TREE = \$ 1,950.00

| PLANT LIST     |             |  |     |  |  |   |  |
|----------------|-------------|--|-----|--|--|---|--|
| SYMB           | OL          | TYPE PROPOSED SIZE NAME (BOTANICAL/COMMON) OF PLANTS FOR SELECTION BY OWNER/BUYER  |     | NAME (BOTANICAL/COMMON) OF PLANTS FOR SELECTION BY OWNER/BUYER   | COMMENTS   |   |  |
| AR<br>QP<br>ZS | 0           | SHADE  3-35" CAL.  ACER RUBRUM 'OCTOBER GLORY'/ OCTOBER GLORY RED MAPLE  3-35" CAL.  3-35" CAL.  3-35" CAL.  ZELKOVA SERRATA 'VILLAGE GREEN' / VILLAGE GREEN ZELKOVA |     | ALL B&B  |  |   |  |
| cc             |             | ORNAMENTAL   | 25  | 25-3" CAL.   | CERCIS CANADENSIS / EASTERN REDBUD   | B&B, TREE FORM<br>(THIS PLANTING IS OPTIONAL) |  |
| P0<br>P5       | EVERGREEN B |  |     | PICEA ORMORIKA / SERBIAN SPRUCE<br>PINUS STROBUS / EASTERN WHITE PINE  | B&B. ALL SHALL HAVE AN<br>INTACT CENTRAL LEADER  |   |  |
| SI             |             |  |     | CHOOSE FROM THE FOLLOWING FOR BUILDING FOUNDATION PLANTING: AZALEA VAR: 'GUMPO PINK', 'GUMPO WHITE', 'KAEMPO' COTONEASTER DAMMERII 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER COTONEASTER HORIZONTALIS 'TOM THUMB' / TOM THUMB COTONEASTER JINIPERUS HORIZONTALIS VAR. / JUNIPER VAR.: 'BAR HARBOR', 'ANDORRA', WILTONI BLUE RUG'* JINIPERUS PROCUMBENS 'NANA' / DWARF JAPANESE GARDEN JUNIPER* | ALL CONTAINERIZED  |   |  |
| 52             | •           | SHRUB  | 329 | ALL 24" - 30"<br>SPREAD  | CHOOSE FROM THE FOLLOWING FOR BUILDING FOUNDATION PLANTING: AZALEA VAR: 'DELAWARE VALLEY WHITE', 'HERSHEY RED', 'HINO CRIMSON' BERBERIS THANDERFII ATROPURPUREA 'CRIMSON PYGMY' / CRIMSON PIGMY BARBERRY* DEUTZIA GRACILIS/ SLENDER DEUTIZIA ILEX CRENATA 'HELLEI' / DWARF JAPANESE HOLLY* ILEX GLABRA 'COMPACTA' / DWARF INKBERRY* MAHONIA AQUIFOLIUM / OREGON GRAPE HOLLY* SPIREA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA | ALL CONTAINERIZED                             |  |
| TD             | 0           |  | 94  | ALL 24" - 30"<br>SPREAD  | TAXUS MEDIA 'DESIFORMIS' / DENSIFORMIS YEM   | CONTAINERIZED                                 |  |

"NOT TO BE USED FOR SCHOOL BUILDING PERIMETER

LANDSCAPE DETAILS AND NOTES SCALE ZONING PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS AS SHOWN MXD-3MAPLE LAWN FARMS TAX MAP - GRID MIDTOWN DISTRICT - AREAS 1, 2, AND 3 ↑ PARCELS A-10, A-15, A-16, A-17, and A-18 (PLAT No. 19447/€) **APRIL**, 2007 HOWARD COUNTY, MARYLAND LECTION DISTRICT No. 5

# GLWGUTSCHICK LITTLE &WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

5/13/09 Rev. land scape Surety Note L:\CADD\DRAWNGS\02001\05016\SDP\05016LS22.dwg | DES. DCI | DRN. AWL | CHK. MBT REVISION BY APP'R.

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN

410-484-8400

G. L. W. FILE No.

05016

SHEET

22 OF 26

# **SPECIFICATIONS**

### KEYSTONE MODULAR CONCRETE BLOCK RETAINING WALL

### PART 1: GENERAL

- 1.01 Description A. Work shall consist of furnishing and construction of a KEYSTONE Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on
- B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
- C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.
- 1.02 Delivery, Storage and Handling
- A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
- B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

### PART 2: PRODUCTS

- 2.01 Modular Concrete Retaining Wall Units
- A. Modular concrete units shall conform to the following architectural requirements: face color - concrete gray - standard manufacturers' color may be specified by the Owner. face finish - sculptured rock face in angular tri-planer
- configuration. Other face finishes will not be allowed without written approval of Owner. bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and
- curved alignments. exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10
- feet under diffused lighting. B. Modular concrete materials shall conform to the
- requirements of ASTM C1372 Standard Specifications for Segmental Retaining Wall Units. C. Modular concrete units shall conform to the following structural and geometric requirements measured in
- accordance with appropriate references: compressive strength = 3000 psi minimum; absorption = 8 % maximum (6% In northern states) for standard weight aggregates; dimensional tolerances = ± 1/8" from nominal unit
- dimensions not including roughsplit face, ±1/16" unit height - top and bottom planes; unit size - 8" (H) x 18" (W) x 18" (D) minimum; unit weight - 100 lbs/unit minimum for standard weight

- aggregates; inter-unit shear strength 1000 plf minimum at 2 psi normal pressure; geogrid/unit peak connection strength - 1000 pif minimum
- at 2 psi normal force. D. Modular concrete units shall conform to the following constructability requirements: vertical setback = 1/8": per course (near vertical) or 1"+ per course per the design; alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
- maximum horizontal gap between erected units shall be -1/2 inch.

### 2.02 Shear Connectors

- A. Shear connectors shall be 1/2 inch diameter thermoset isopthalic polyester resin-protruded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10
- degrees F to + 100 degrees F. B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.
- 2.03 Base Leveling Pad Material
- A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.
- 2.04 Unit Drainage Fill
- A. Unit drainage fill shall consist of #57crushed stone 2.05 Reinforced Backfill
- A. Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the
  - Sieve Size 2 inch 100-75 3/4 inch No. 40 No. 200
- Plasticity Index (PI) <15 and Liquid Limit <40 per ASTM D-4318. B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the
- 2.06 Geogrid Soil Reinforcement

reinforced soil mass.

A. Geosynthetic reinforcement shall consist of manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity

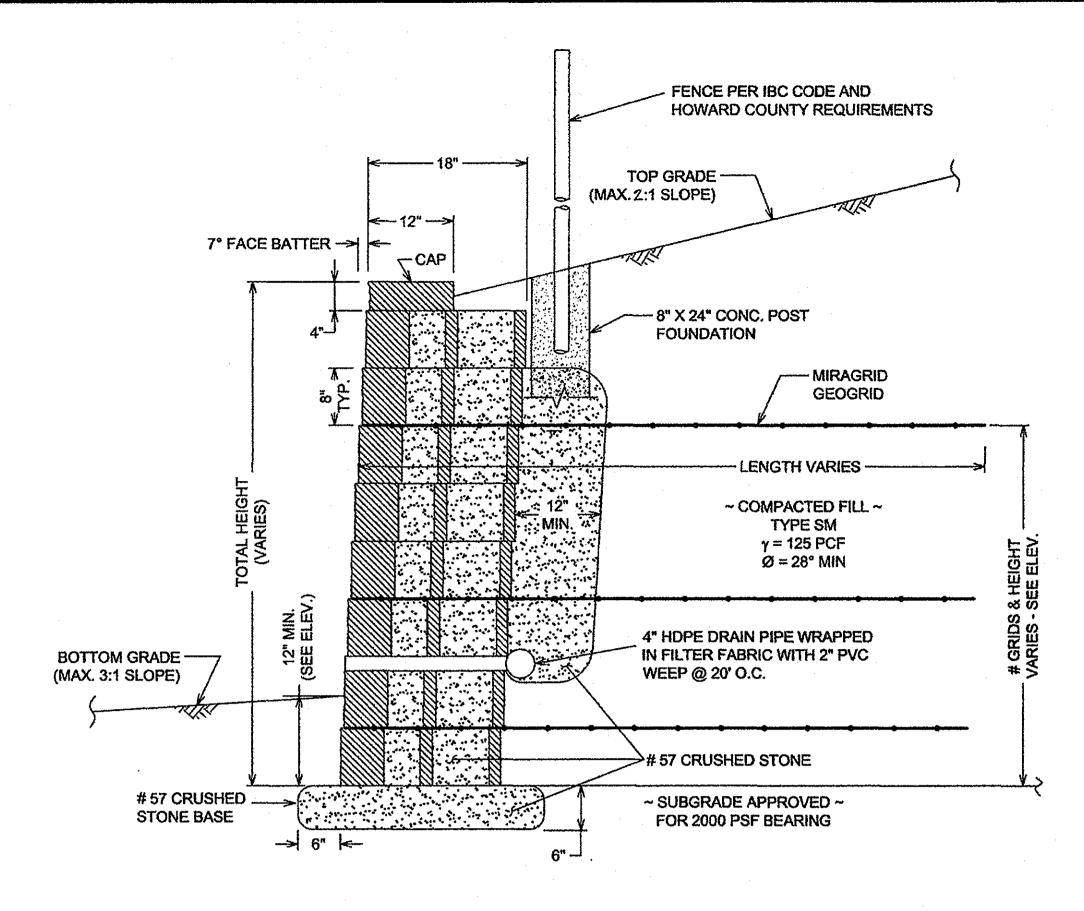
- 2.07 Drainage Pipe
- A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

### PART 3 EXECUTION

- 3.01 Excavation
- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill
- 3.02 Base Leveling Pad
- A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
- B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.
- 3.03 Modular Unit Installation
- A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in
- full contact with the base and properly seated. B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's
- recommendations. C. Install shear/connecting devices per manufacturer's
- recommendations. D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure
- E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.
- 3.04 Structural Geogrid Installation
- A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment. B. Geogrid reinforcement shall be placed at the strengths,
- lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
- C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to

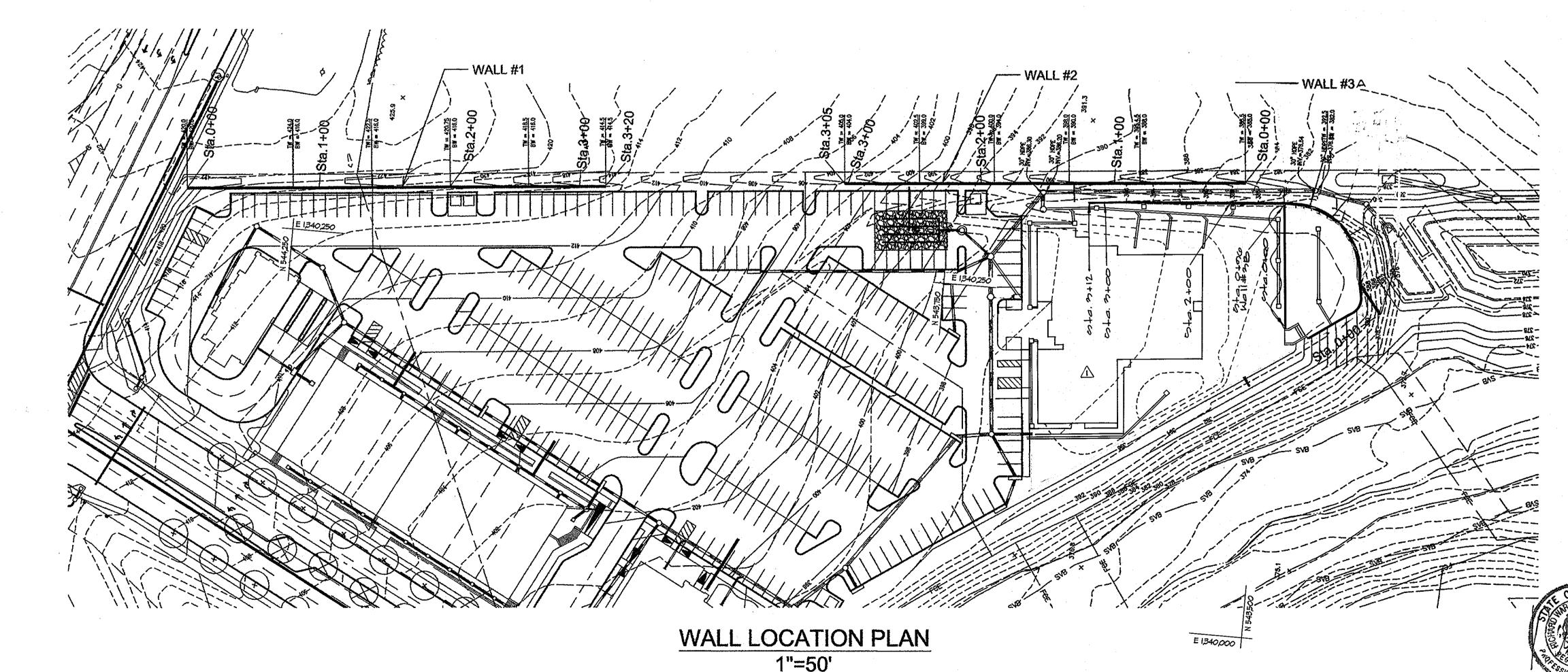
- backfill placement on the geogrid.

  D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted
- 3.05 Reinforced Backfill Placement
- A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of stack in the geogrid and installation
- B. Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required
- density as required. C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each
- layer and shall be + 3% to 3% of optimum. D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete
- . Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
- F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
- G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the well construction site.
- 3.06 Cap Installation A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.
- 3.07 Field Quality Control
- A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction. B. As a minimum, quality assurance testing should include
- foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.



# TYPICAL WALL SECTION

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



LECTION DISTRICT No. 5

APPROVED
PLANNING BOARD
of HOWARD COUNTY DATE 3/22/07

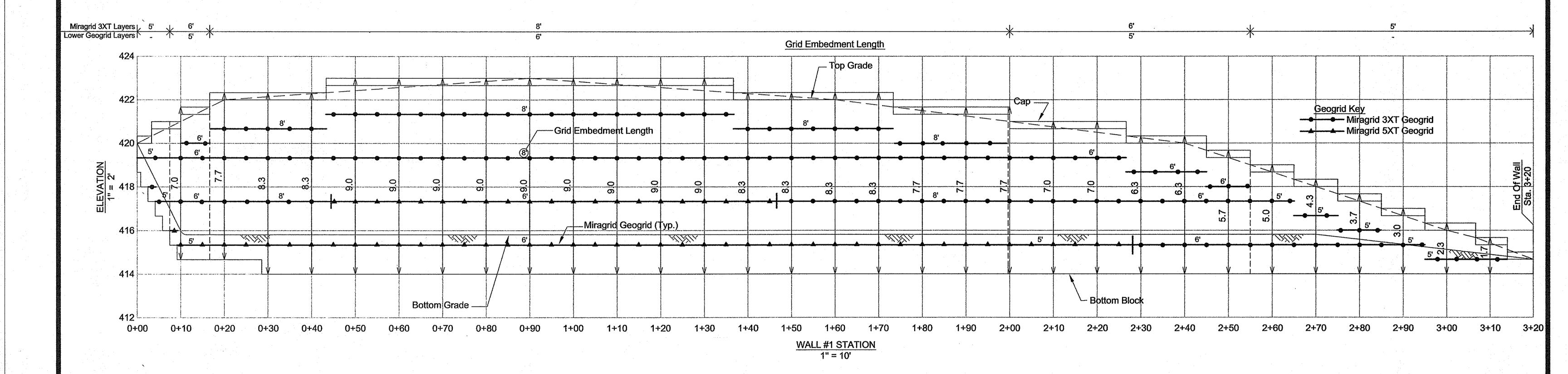
Approved: For Public Water & Gewerage Gyotemon Howard County Health Department BNikmfor Peter Beilensen MD 5/10/20 County Health Officer SO 1700 Date APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

0.10.07 Revined achool layout & Walla & Revined Title Block 1 WOUL DEV DES. CX DRN. CX CHK. RWS DATE REVISION

PREPARED FOR: G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER 1829 REISTERSTOWN ROAD BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN 410-484-8400

RETAINING CONSTRUCTION PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS MAPLE LAWN FARMS MIDTOWN DISTRICT - AREAS 1, 2, AND 3 ↑ PARCELS A-10 A-15, A-160 A-17 and A-16 (PLAT No. 19447/6)

HCEA FILE No. 04164-DETAILS ZONING 05016 AS SHOWN MXD-3DATE TAX MAP - GRID SHEET **APRIL**, 2007 23 OF 26 HOWARD COUNTY, MARYLAND



APPROVED
PLANNING BOARD
of HOWARD COUNTY

DATE 3/22/07

Approved: For Public Water & openerage coyotemon.

Brundard County Health Department

Brundard County Health Department

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County Health Officer 50 pC/f

Director Date

Director Date

Chief, Division of Land Development

Chief, Development Engineering Division

Date

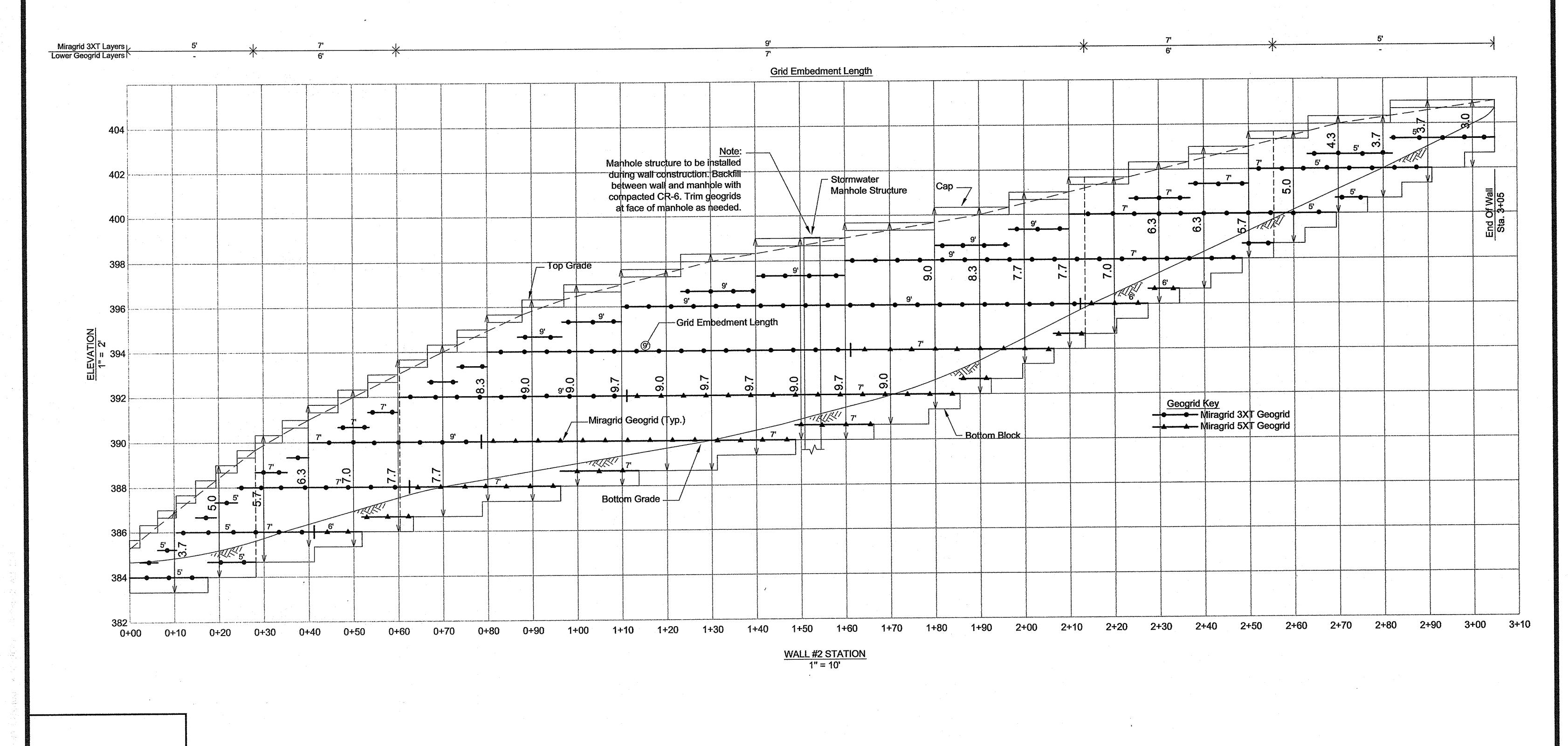
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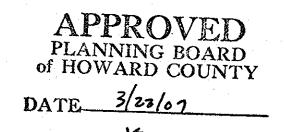
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Date



| Chief, Development Eng   | ineering Division Date         |   |  |                   | HCEA FILE No. 04164—B |
|--|--------------------------------|---|--|-------------------|-----------------------|
| IIIII CADNIC   | 10-10-07 A REVISED TITLE BLOCK | WSJ DEV PREPARED FOR:                         | RETAINING WALL #1 ELEVATION  | SCALE ZONING      | G. L. W. FILE No.     |
| HILLIS-CARNES  |                                | G&R MAPLE LAWN INC SUITE 300 WOODHOLME CENTER | PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS                           | AS SHOWN MXD-3    | 05016                 |
| ENGINEERING ASSOCIATES   |                                | 1829 REISTERSTOWN ROAD                        | MAPLE LAWN FARMS   | DATE TAX MAP — GR |                       |
| 10975 Guilford Road, Suite A Annapolis Junction, Maryland<br>(410) 880-4788 Fax: (410)880-4098 |                                | BALTIMORE, MD 21208 ATTN: CHARLIE O'DONOVAN   | MIDTOWN DISTRICT - AREAS 1, 2, AND 3  A PARCELS A-10, A-15, A-16, A-17, and A-18 |                   | 24 OF 26              |
| DES. CX DRN. CX CHK. RV  | YS DATE REVISION               | BY APP'R. 410-484-8400                        | ELECTION DISTRICT No. 5 (PLAT No. 19447/2) HOWARD COUNTY, MARYLAND               | APRIL, 2007 41/22 | 24 OF 26              |





Approved: For Public Water & Generage Gyostems
Howard County Health Department

BNytonfor Pster Bsilemen MD 5/0/2007

County Mealth Officer SO DOD Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director Date

Chief, Division of Land Development

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|                   | Chief, Development Engineering Division Date |          |                     |          |      | والمستور المستورين | <u> </u>                         |  |
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|                   |  | 10-10-07 | REVISED TITLE BLOCK |          | WSJ  | DEV                | PREPAREI                         |  |
| HILLS-CAR         | NES  |          |                     |          | <br> |                    | G&R MAPLE                        |  |
|                   |  |          |                     |          |      |                    | SUITE 300 WOODF<br>1829 REISTERS |  |
| ENGINEERING ASSOC |  |          |                     |          |      |                    | BALTIMORE,                       |  |
|                   | nction, Maryland<br>c (410)880-4098          |          |                     |          |      |                    | ATTN: CHARLIE<br>410–484         |  |
|                   | DES. CX DRN. CX CHK. RWS                     | DATE     |                     | REVISION | BY   | APP'R.             | 410-484                          |  |

PREPARED FOR:

G&R MAPLE LAWN INC
SUITE 300 WOODHOLME CENTER
1829 REISTERSTOWN ROAD
BALTIMORE, MD 21208
ATTN: CHARLIE O'DONOVAN
410-484-8400

PRIVATE SCHOOL, BANK, RESTAURANT, AND RETAIL BUILDINGS

MAPLE LAWN FARMS

MIDTOWN DISTRICT - AREAS 1, 2, AND 3

PARCELS A-19 A-15, A-16, A-17, and A-18

(PLAT No. 19447) 20 HOWARD COUNTY, MARYLAND

| SCALE | ZONING | G. L. W. FILE No. 04164-B |
| AS SHOWN | MXD-3 | 05016 |
| DATE | TAX MAP - GRID | SHEET |
| APRIL, 2007 | 41/22 | 25 0F 26 |

