GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOMARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING/CONTSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48-HOURS PRIOR

SITE AREA:

PROJECT BACKGROUND

TO ANY EXCAVATION WORK.

TAX MAP 37 LOCATION: NT-EC, IND

ELECTION DISTRICT: 6TH ELECTION DISTRICT

SECTION/AREA: 30.2± AC. FOR PARCEL A-2, C-5 & C-6 PER PLAT No. 22711/12 (F-14-059)

APPROVED DEPT. OF PLANNING & ZONING REFERENCE FILE Nos.:

FDP-184-A-IV, F-84-02, F-95-115, GP-85-19, SDP-85-089, SDP-95-069, SDP-06-115, F-08-163, GP-09-06. WP-10-152, F-11-035 AND F-14-059

- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTC). ALL STREET AND REGULATORY SIGNS
- SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM SDP-95-069, AVAILABLE PUBLIC RECORDS AND FROM SURVEY BY GUTSCHICK, LITTLE & WEBER, P.A. DONE IN JANUARY, 2006.
- COORDINATES ARE BASED ON HOWARD COUNTY GEODETIC CONTROL STA. Nos. 2840 AND 1386
- STORMWATER MANAGEMENT (FOR QUANTITY AND QUALITY) IS PROVIDED BY AN EXISTING ON-SITE (ON PARCEL A-2) FACILITY BUILT UNDER GP-85-19 AND SDP-85-089 AND UPGRADED UNDER GP-09-06. A DRYWELL AND STORMCEPTOR IS PROVIDED UNDER THIS SDP. BOTH THE POND AND THE DRYWELL SYSTEM ARE PRIVATELY OWNED & MAINTAINED.
- . EXCEPT FOR THE STORM DRAIN SYSTEMS THAT IS WITHIN THE PUBLIC STORM DRAIN & UTILITY EASEMENT, ALL
- THE EXISTING UTILITIES SHOWN HEREIN WERE DERIVED FROM AVAILABLE PUBLIC RECORDS, THE CONTRACTOR MUST HAND DIG TEST PITS AT
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS: MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A MINIMUM OF (5x5) FIVE BY FIVE FOOT LEVEL LANDING (2% MAX.) AT THE TOP AND BOTTOM OF ALL RAMPS AND BUILDING INGRESS/EGRESS, POINTS.
- . ALL DRIVEWAYS AND PARKING LOTS ARE PRIVATELY OWNED AND MAINTAINED
- 15. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 16. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
- 17. CURB GUTTER PAN SHALL BE PITCHED TO CONFORM TO THE ADJACENT DRAINAGE PATTERN OF THE ADJOINING PAVING FOR VEHICULAR USE
- 18. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. SPOT ELEVATIONS ALONG CURB LINE ARE FOR THE FLOW LINE AT PTs. PCs & CORNERS, UNLESS NOTED OTHERWISE.
- 19. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE
- 20. ALL OUTSIDE LIGHTING SHALL COMPLY WITH ZONING REGULATION SECTION 134 WHICH REQUIRES LIGHTS TO BE INSTALLED TO
- THIS SITE DEVELOPMENT PLAN IS EXEMPT FROM THE FOREST CONSERVATION ORDINANCE IN ACCORDANCE WITH SUBDIVISION SECTION 16.1202(B)(1)(v), BECAUSE THIS PARCEL IS A PART OF A PLANNED UNIT DEVELOPMENT WHICH HAD PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND WAS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992.
- 2. LANDSCAPING HAS BEEN PROVIDED FOR PHASE I AND PHASE 2 TO SATISFY SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AS FOLLOWS:
- PHASE I THE FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (SEE SHEETS 13 & 14) IN THE AMOUNT OF \$1,520.00 (FOR 54 SHRUBS & 33 SHADE TREES) WAS POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT. PHASE 2 - AN ADDITIONAL FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (SEE SHEET 23) IN THE AMOUNT \$2,100.00 (FOR 7 SHADE
- 23. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN. THERE ARE NO FLOODPLAINS, STREAM BUFFERS OR REGULATED WETLANDS WITHIN 22' OF THE PROPOSED L.O.D.
- 24. PARCELS SHOWN HEREON (PARCEL A-2 AND C-5) ARE SUBJECT TO RESTRICTIVE COVENANTS RECORDED IN THE HOWARD COUNTY LAND RECORDS IN LIBER 1083 FOLIO 392.
- 25. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)-3' LONG, A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- 26. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE
- 27. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED 04/02/08, AND APPROVED ON 05/01/08.
- 28. PHASE I COUNCIL RESOLUTION NO. 108-2006 IS A RESOLUTION TO CLOSE A PORTION OF RIVERMOOD DRIVE (TO STATION 62+22±). PASSED 10/3/2006 PHASE 2 - COUNCIL RESOLUTION NO. 156-2012 IS A RESOLUTION TO CLOSE A PORTION OF RIVERWOOD DRIVE (TO STATION 66+28±). PASSED 12/3/2012.
- 29. SPECIFICATIONS FOR LEED (LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN) FOR 7205 RIVERWOOD DRIVE BUILIDING: PROVIDE SITEMORK MATERIALS MANUFACTURED AND OF PRIMARY RAW MATERIALS EXTRACTED/RECOVERED WITHIN A 500-MILE
- RADIUS OF THE PROJECT SITE - PROVIDE RG-6 RECYCLED CONCRETE FOR SUB-BASE AND FILL IN LOCATIONS APPROVED BY THE GEOTECHNICAL ENGINEER, EXCEPT
 - BENEATH THE BUILDING SLAB. PROVIDE A MINIMUM OF 95% RECYCLED-CONTENT STEEL REINFORCING MATERIALS.
 - SUBMIT LOCATION OF PRODUCT MANUFACTURED AND EXTRACTION/RECOVERY OF PRIMARY RAW MATERIALS
 - SUBMIT RECYCLED-CONTENT DATA DESIGNATING PERCENTAGES OF POST-INDUSTRIAL AND CONSUMER RECYCLED MATERIALS. RECYCLE OR SALVAGE WASTE CONCRETE, PAVING AND STEEL MATERIALS IN ACCORDANCE WITH DIVISION I (CONSTRUCTION WASTE

MANAGEMENT) REQUIREMENTS OF THE PROJECT SPEC

PLANNING BOARD OF HOWARD COUNTY

JANUARY 16, 2014.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

6-02-14 Chief, Development Engineering Division 🧸 🍇

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\06003\SDP\06003_01 CS.dwg | DES. mbt | DRN. KLP

ON JUNE 17, 2010 THE PLANNING DIRECTOR APPROVED REQUEST TO WAIVE SUBDIVISION SECTION(s) 16.156(O)(I)(I), AND GRANTED A ONE (I) YEAR DEADLINE DATE EXTENSION FROM JUNE 17, 2010 UNTIL JUNE 17, 2011 TO APPLY FOR A BUILDING PERMIT TO INITIATE CONSTRUCTION ON THE SITE PER APPROVED SDP-08-092,

16.156(O)(I)(II) AND GRANTED A TWO (2) YEAR DEADLINE DATE EXTENSION FROM JUNE 17, 2010 UNTIL JUNE 17, 2012 TO APPLY FOR THE BUILDING PERMITS FOR ALL OF THE CONSTRUCTION AUTHORIZED BY THE APPROVED SITE DEVELOPMENT PLAN.

APPROVAL OF THIS WAIVER PETITION IS SUBJECT TO COMPLIANCE WITH THE FOLLOWING CONDITIONS OF APPROVAL:

THE PETITIONER SHALL APPLY FOR BUILDING PERMITS TO INITIATE CONSTRUCTION ON THE SITE PER SDP-08-092 BY THE EXTENDED DEADLINE DATE OF JUNE 17, 2011, OR THE APPROVAL OF SDP-08-092 THE PETITIONER SHALL APPLY FOR THE BUILDING PERMITS FOR ALL

REVISE PARKING TABULATION

CONSTRUCTION AUTHORIZED BY THE APPROVED SITE DEVELOPMENT PLAN, SDP-08-092, BY THE EXTENDED DEADLINE DATE OF JUNE 17, 2012, OR THE APPROVAL OF SDP-08-092 SHALL EXPIRE.

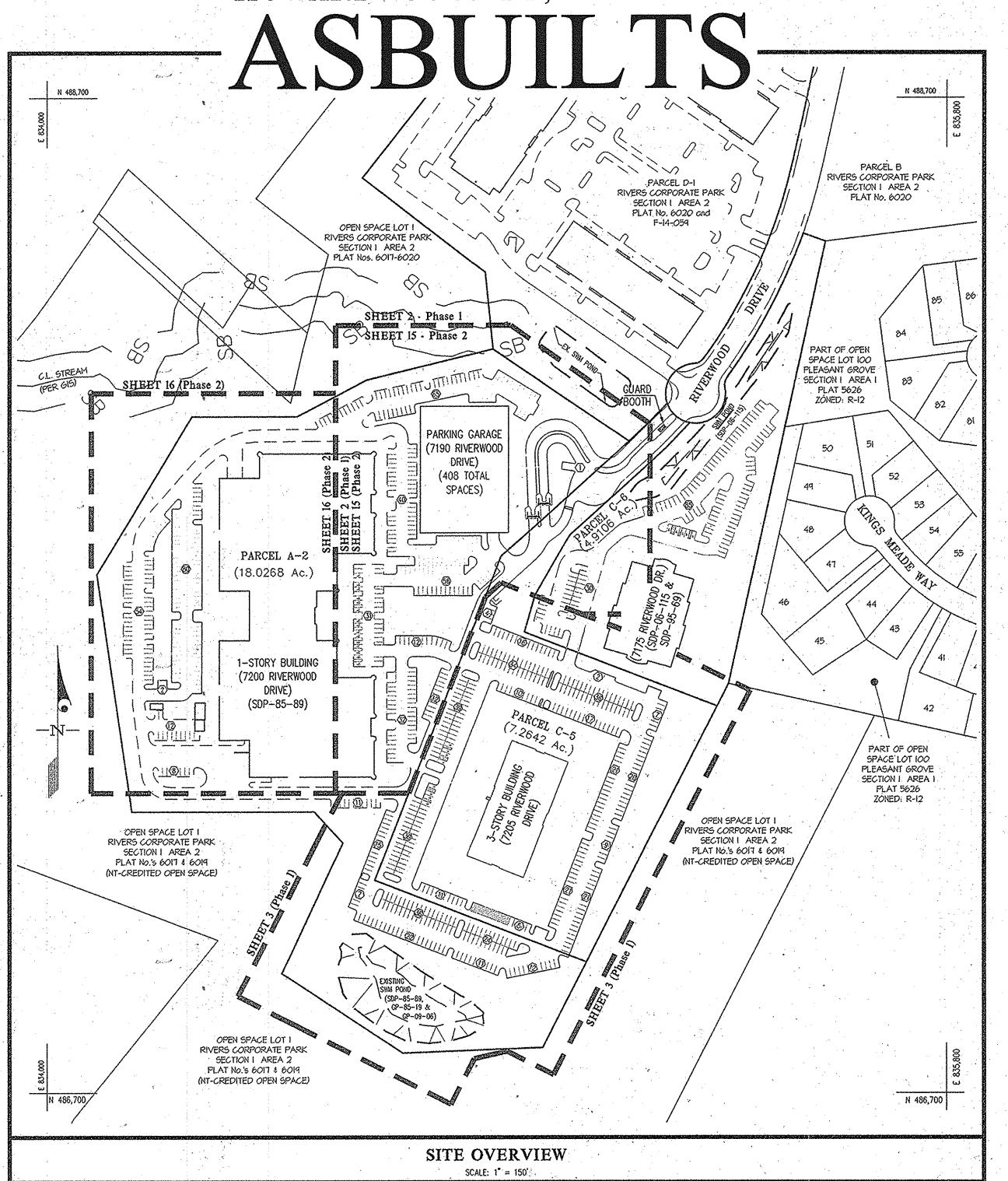
SHOW NEW REAR PARKING, PARKING GARAGE and NEW VCP ENTRANCE W/NEW CUL-DE-SAC; UPDATE PARKING TABULATION KLP

REVISION

REV. BLDG. TO SINGLE BLDG. & REVISE PARKING & PARKING TABULATION CHART ACCORDINGLY: ADDED WP-10-152

RIVERS CORPORATE PARK SITE DEVELOPMENT PLAN PARCELS 'A-2', 'C-5' and 'C-6'

SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



PREPARED FOR:

COPT Riverwood, LLC

COLUMBIA, MD 21048

Attn.: DAVID NORFOLK

Phone: 443-285-5400

O COPT DEVELOPMENT SERVICES, LLC.

6711 COLUMBIA GATEWAY DRIVE, SUITE 300

SUILFORD ELECTION DISTRICT No. 6

YNER/DEVELOPER

KLP

BY

APP'R.

CONTROL DESCRIPTIONS 835443.43 V 489553.51 836824.07 ELV. 364.41

SHEET INDEX

- SITE DEVELOPMENT PLAN (PHASE I) SITE DEVELOPMENT PLAN (PHASE I)
- PAYING DELINEATION PLAN and SITE DETAILS
- DEMOLITION PLAN and SITE DETAILS SEDIMENT CONTROL PLAN
- SEDIMENT CONTROL DETAILS and BORING LOGS RECHARGE DETAILS
- EXISTING CONDITION DRAINAGE AREA MAP
- STORM DRAIN DAM and SWM DAM and S&E DAM STORM DRAIN PROFILES & UTILITY PROFILES
- STORM DRAIN PROFILES LANDSCAPE PLAN
- LANDSCAPE NOTES AND DETAILS
- SITE DEVELOPMENT PLAN (PHASE 2)
- SITE DEVELOPMENT PLAN (PHASE 2) CRUB & PAVING DELINEATION and SITE DETAILS (PHASE 2)
- DEMOLITION PLAN and SITE DETAILS (PHASE 2) SEDIMENT CONTROL PLAN (PHASE 2)
- 20 SEDIMENT CONTROL NOTES and DETAILS (PHASE 2)
- MICRO-BIORETENTION PLAN and DETAILS (PHASE 2)
- MICRO-BIORETENTION PLAN AND DETAILS (PHASE 2)
- 23 LANDSCAPE PLAN (PHASE 2)

SITE ANALYSIS DATA CHART

- GENERAL SITE DATA
- A. PRESENT ZONING: NT-EC, IND PER FDP 184-A-IV
- B. PROPOSED USE OF SITE OR STRUCTURES: GENERAL OFFICE USE
- 2. AREA TABULATION
 - 18.0268 ACRES (Parcel A-2)

7.2642 ACRES (Parcel C-5) 4.9106 ACRES (Parcel C-6) 30.2016 ACRES (Total)

5.2± ACRES (PHASE TWO LIMIT OF DISTURBANCE, REDEVELOPED AREA).

C. LIMIT OF DISTURBED AREA BY THIS SDP: 9.3± ACRES (PHASE ONE) 5,2± ACRES (PHASE TWO)

7200 RIVERWOOD DRIVE BUILDING (160,400 SF) & PARKING GARAGE (45,016 S.F.) = 205,416 S.F. (PARCEL A-2)

9.3± ACRES (PHASE ONE LIMIT OF DISTURBANCE, REDEVELOPED AREA)

- 7205 RIVERWOOD DRIVE BUILDING (3-story @ 29,765 s.f. each floor) & GUARDHOUSE (130 S.F.) = 89,425 S.F. (PARCEL C-5) 3. 7175 RIVERWOOD DRIVE BUILDING (PARCEL C-6) (SEE SDP-06-115)
- E. BUILDING COVERAGE OF SITE: 11.87% (PER SDP-95-69)
- 7200 RIVERWOOD DRIVE BUILDING & PARKING GARAGE (4.72 / 18.0268 x 100) = 26.21 % OF PARCEL A-2 = 9.5± % OF PARCEL C-5
- 7205 RIVERWOOD DRIVE BUILDING & GUARDHOUSE (0.69/ 7.2642 x 100) TITS RIVERWOOD DRIVE BUILDING (PARCEL C-6) (SEE SDP-06-115)
- F. TOTAL PAVED SURFACES (BITUMINOUS PAVEMENTS, SIDEWALKS, PARKING GARAGE, ETC.) WITHIN REDEVELOPED AREA: 5.2± AC. OR 56%± OF THE REDEVELOPED AREA (PHASE I) 3.47± AC, OR 67%± OF THE REDEVELOPED AREA (PHASE 2)
- 3. OPEN SPACE DATA
- A. OPEN SPACE REQUIRED ON SITE: N/A
- B. OPEN SPACE PROPOSED: N/A

PARKING TABULATION

I. TOTAL NUMBER OF PARKING SPACES REQUIRED

(at 3.3 spaces/1000 s.f. of general office uses per Sec. 133.D.3.a. of the zoning regulations):

7200 RIVERMOOD DRIVE BUILDING (PARCEL A-2) (160.400 x 3.3) = 7205 RIVERWOOD DRIVE BUILDING (PARCEL C-5) (89.295 x 3.3) = 7175 RIVERWOOD DRIVE BUILDING (PARCEL C-6) (26320/1000 x 3.3) = 87 SPACES

2. NUMBER OF PARKING SPACES PROVIDED:

	(Parcel A-2) BUILDING	(Parcel C-5) BUILDING	(Parcel C-6) BUILDING	TOTAL	
9'x18' - 90° PARKING SPACES	528	302	110	940	7
REGULAR HANDICAP SPACES	9	4	3	16	7
VAN ACCESSIBLE HANDICAP SPACES	6	4	2	12	٦
8'x22' - PARALLEL PARKING SPACES	0	2	. 0	2	7
GARAGE PARKING SPACES	404 408*	0	0	-408	4
TOTAL PARKING PROVIDED	941 45H	312	115	1378	712

* INCLUDES 3 VAN ACCESSIBLE HANDICAP SPACES AND 6 REGULAR HANDICAP SPACES

PROFESSIONAL CERTIFICATION I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12975, Expiration Date: May 26 2016.

STREET ADDRESS BUILDING (PARCEL A-2) 1200 RIVERWOOD DRIVE 1190 RIVERWOOD DRIVE 1205 RIVERWOOD DRIVE BUILDING (PARCEL C-5) 7186 RIVERWOOD DRIVE BUILDING (PARCEL C-6) 7175 RIVERWOOD DRIVE

ASBIJI T SHEET TOE

RIVERS CORPORATE

VICINITY MAP

I" = 2000'

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12975.

Professional Engineer PROFESSIONAL CERTIFICATION Maryland Reg. No. 12975 SUBDIVISION NAME:

PARCEL(S) SECTION/AREA RIVERS CORPORATE PARK A-2, C-5 € C-6 PLAT Nos. 11730, BLOCK ZONING TAX MAP ELEC. DIST. CENSUS TRAC 12 NT-EC, IND 20428/9 \$ 21387 \$.6062 WATER CODE: EI6 SEWER CODE: 6440000

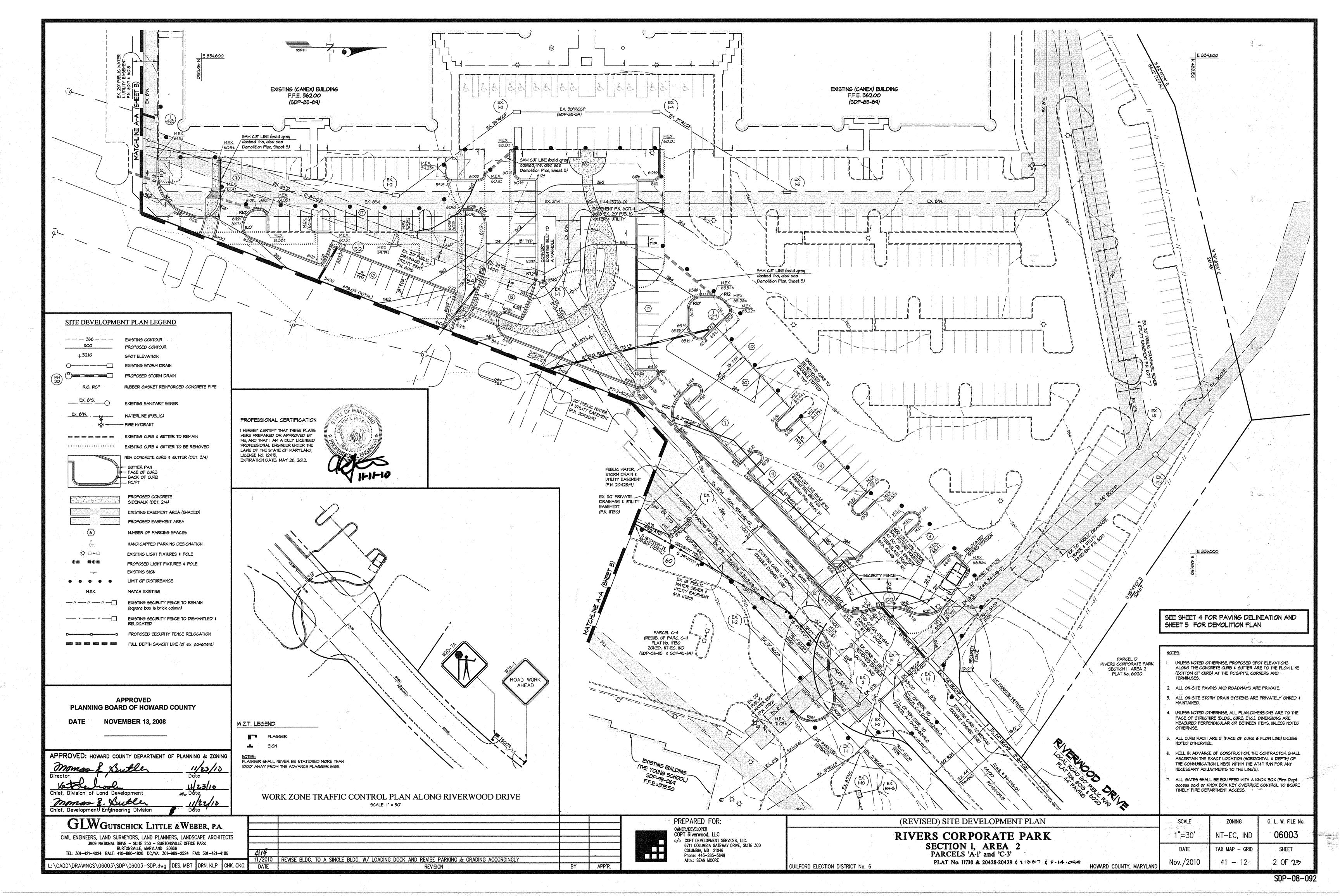
SCALE G. L. W. FILE No. 06003 SHEET DATE TAX MAP - GRID

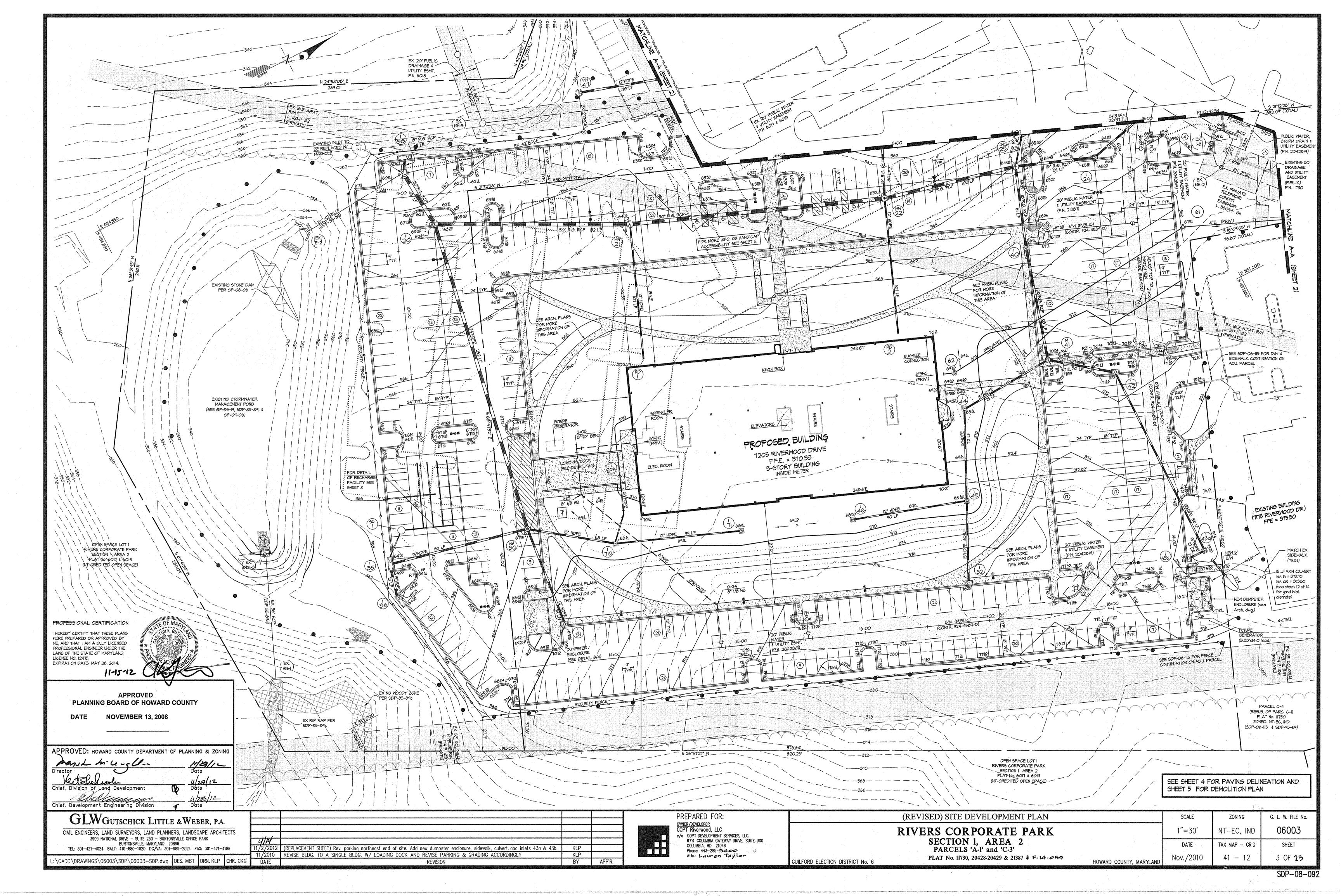
HOWARD COUNTY, MARYLAND

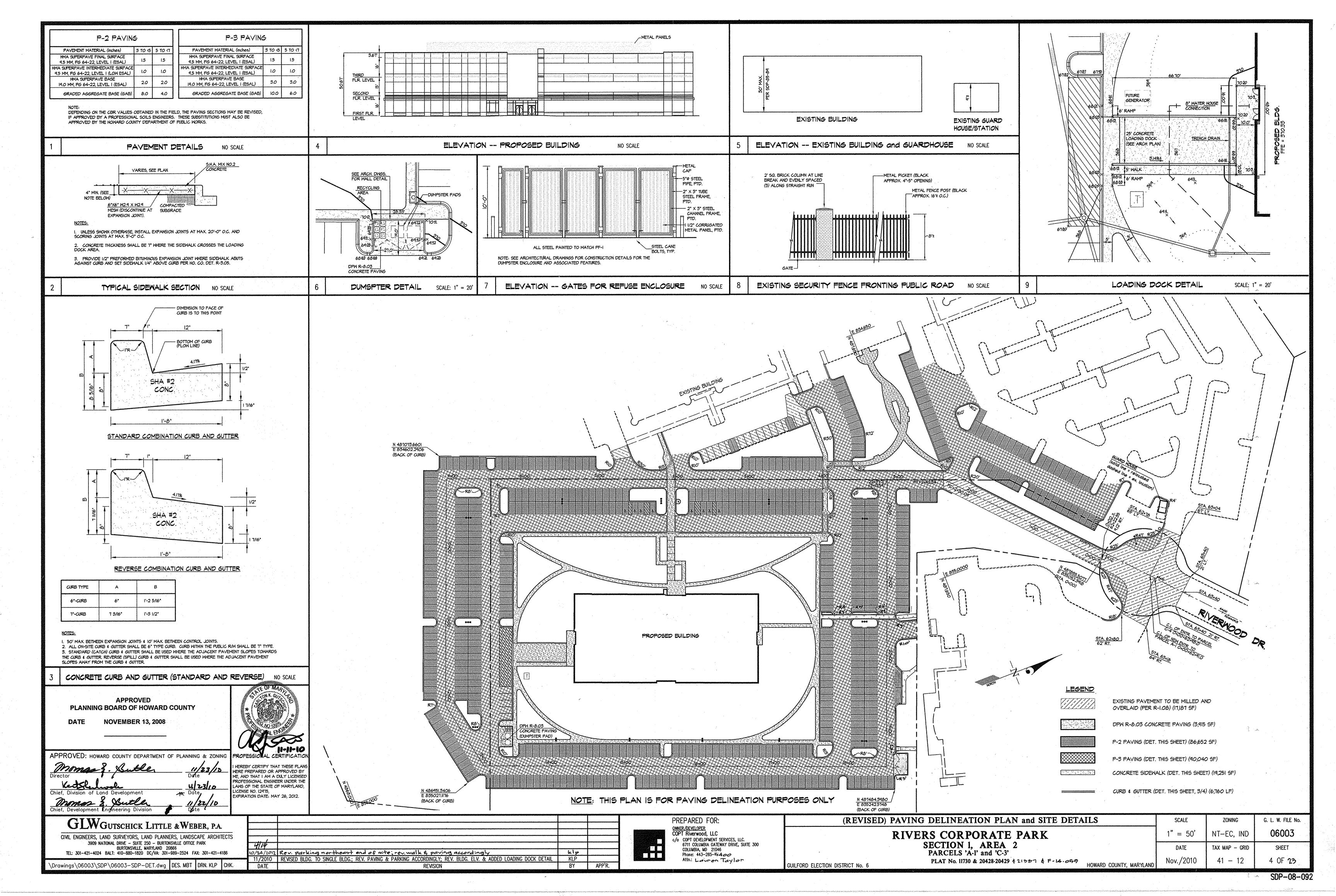
EXPIRATION DATE: MAY 26, 2014.

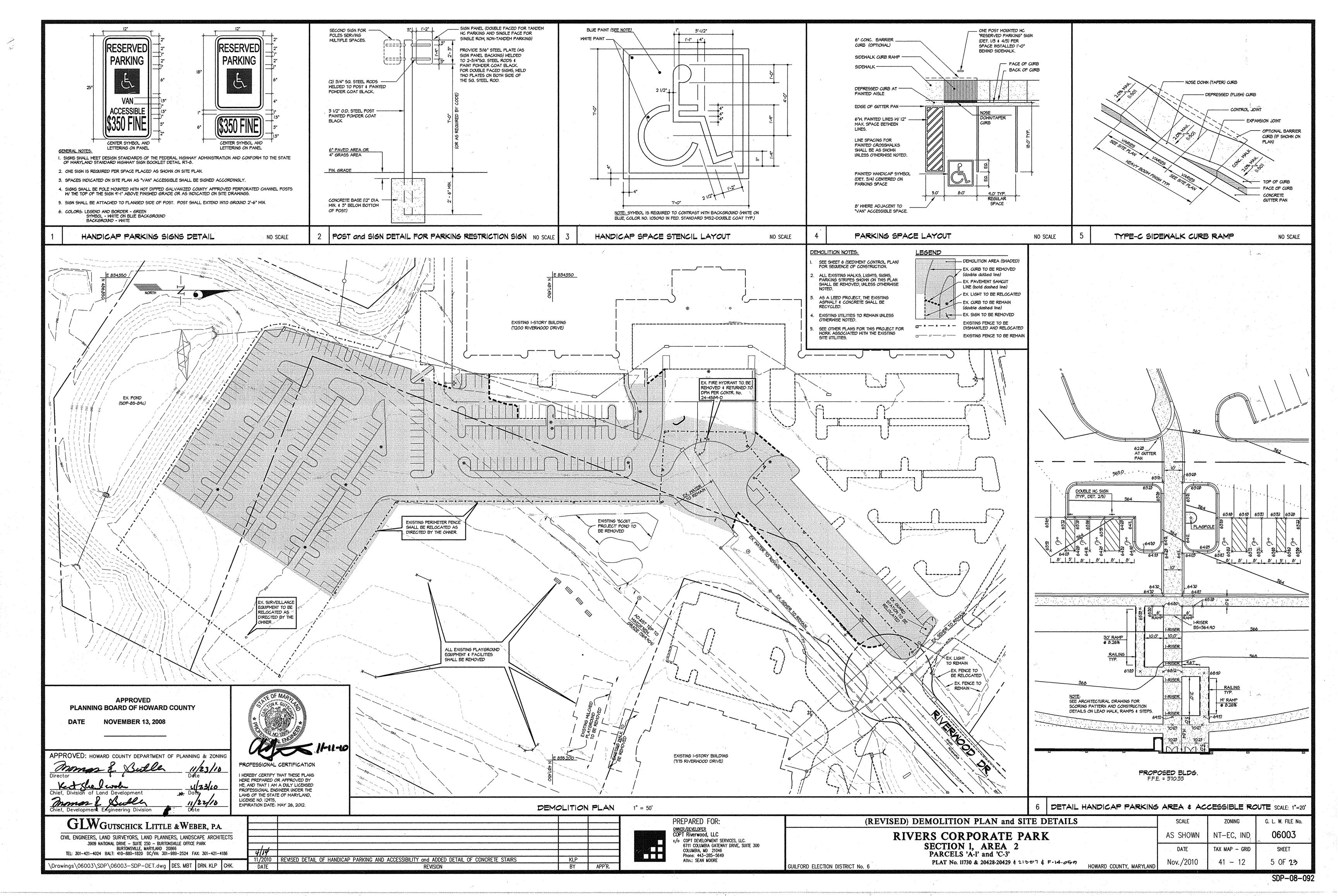
RIVERS CORPORATE PARK SECTION 1, AREA 2 PARCELS 'A-2', 'C-5' and 'C-6' PLAT No. 11730, 20428-20429, 21387 and F-14-059

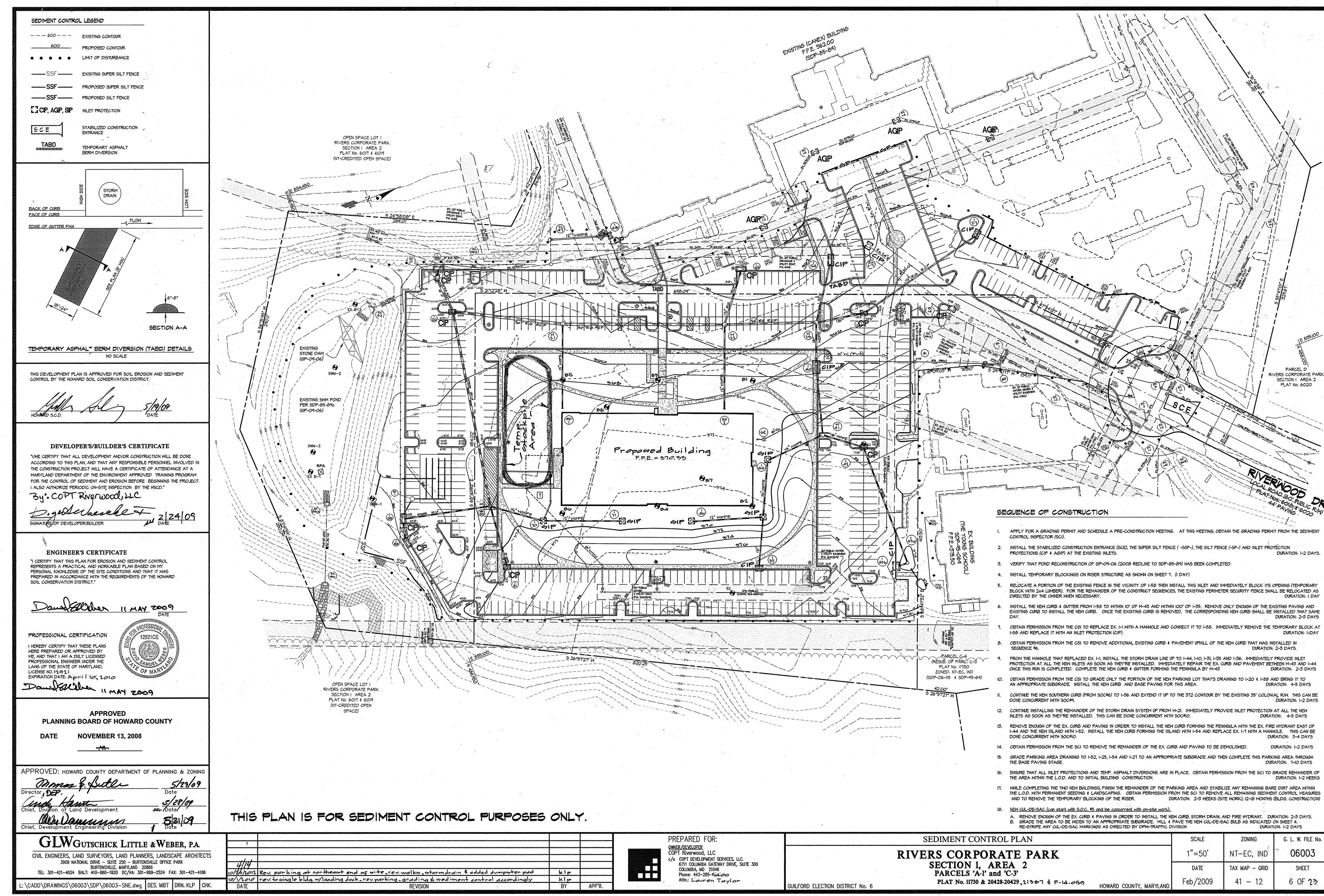
(REVISED) COVER SHEET

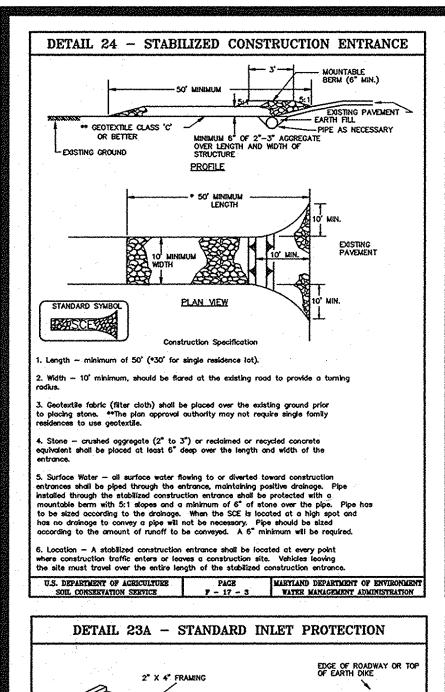


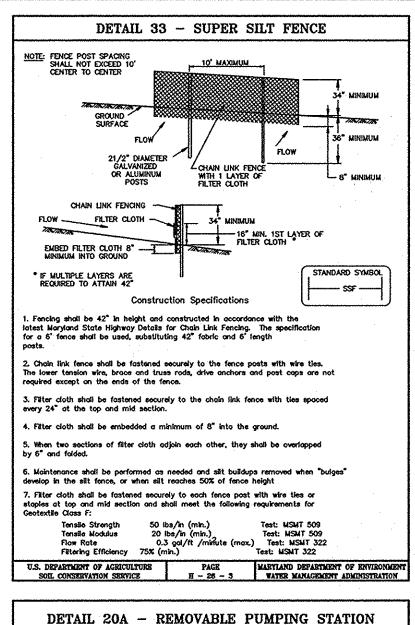


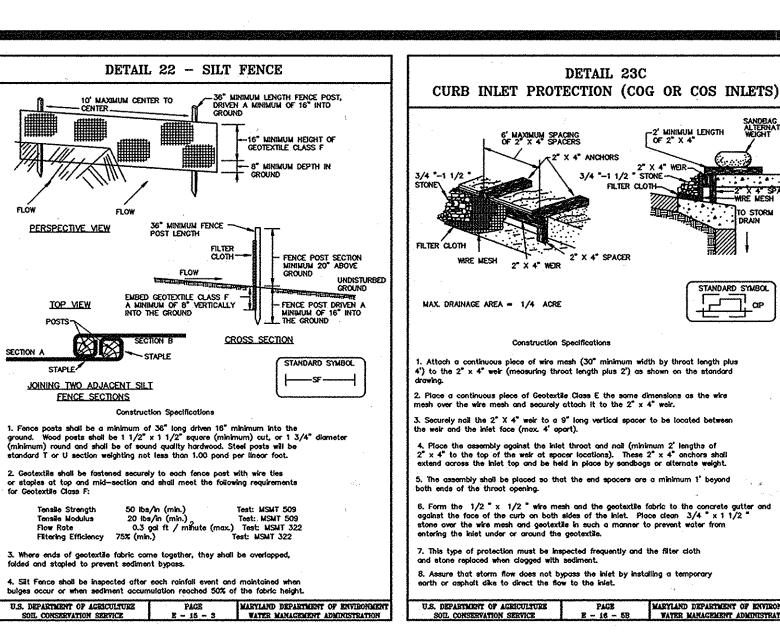


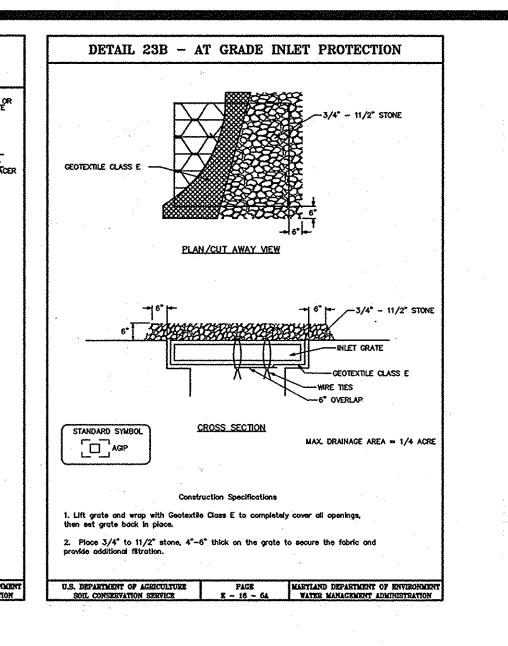


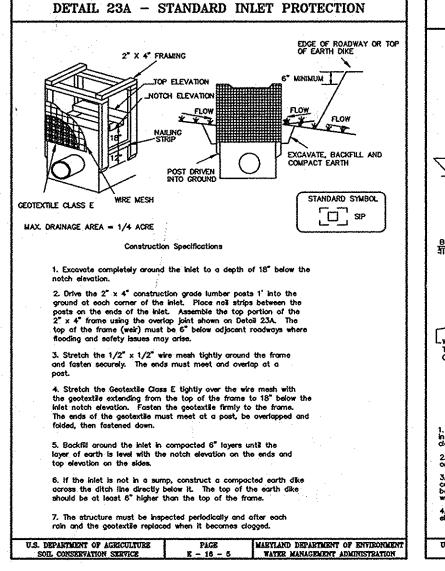












THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE

ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN

THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A

MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM

FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

APPROVED

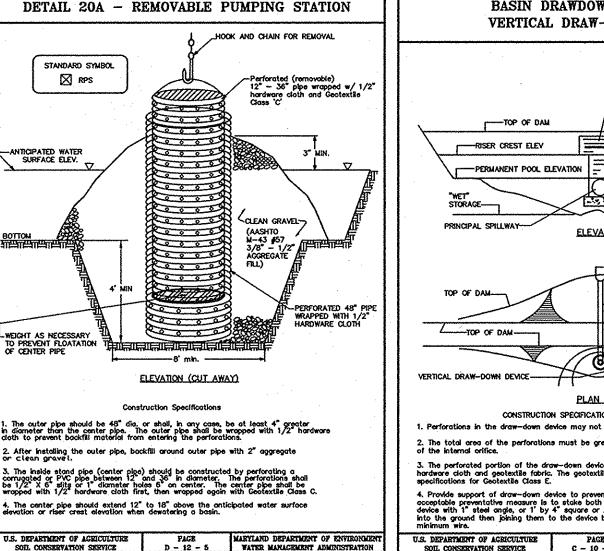
NOVEMBER 13, 2008

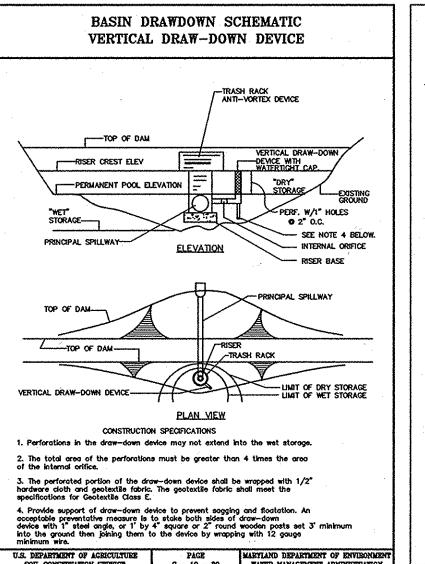
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

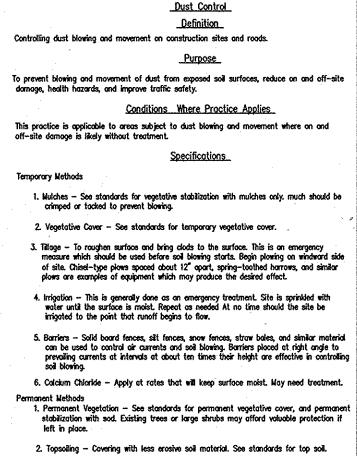
f Land Development

Director, DEP

PLANNING BOARD OF HOWARD COUNTY







INTERIM DRAINAGE AREA: 18.85 AC

WET STORAGE VOL. REQUIRED: 0.78 AC-FT WET STORAGE VOL. PROVIDED: 0.92 AC-FT WET STORAGE ELEV: 350.25 STORAGE REQUIRED: 0.78 AC-FT ORY STORAGE PROVIDED = 0.78 AC-F1 ORY STORAGE WSEL = 351.87BASIN CLEANOUT ELEVATION = 348.44EXISTING Q-1YR = 14.41 cfs INTERIM Q-1YR = 8.67 cfs. SAFE PASS OF 10-YR STORM PROVIDED Q10 = 50.05 cfs 10-YR WSEL = 356.12 ft.BOTTOM ELEVATION: 347.0 TOP OF EMBANKMENT: 359.3 OUTFALL: CONCRETE RISER TO 36" BARREL RISER WEIR CREST ELEVATION: 355.0 RISER WEIR LENGTH: 13' RISER TRASH RACK/ANTIVORTEX: NA

DEWATERING DEVICE = 8" PERFORATED PVC -WITH 12" PVC BARREL AT 0.0% DEWATERING INVERT AT RISER = 350.25 INVERT FIRST PERFORATION = 350.25DEWATERING PERFORATION CONFIGURATION: WITH 1" HOLES @ 2" C-O-C. 12 HOLES PER CIRCUMFERENTIAL ROW. 9 HOLES RUNNING VERTICALLY. 108 HOLES TOTAL.

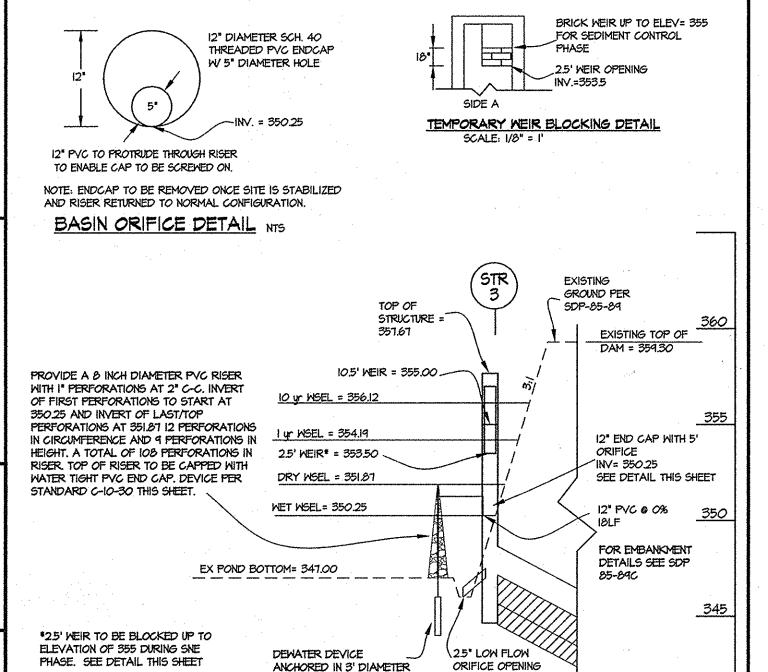
1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in 2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA_ARS.

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

SEDIMENT BASIN DATA TABLE

EMERGENCY SPILLWAY ELEV: NA SIDE SLOPES: 3:1 INTERIOR - 3:1 EXTERIOR

 The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wropped with 1/2" hardwar cloth to prevent backfill material from entering the perforations. 4. The center pipe should extend 12" to 18" above the anticipated water surface

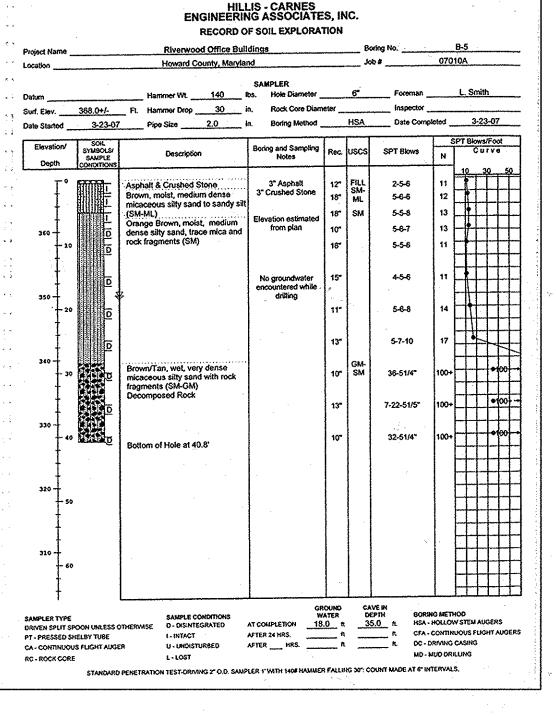


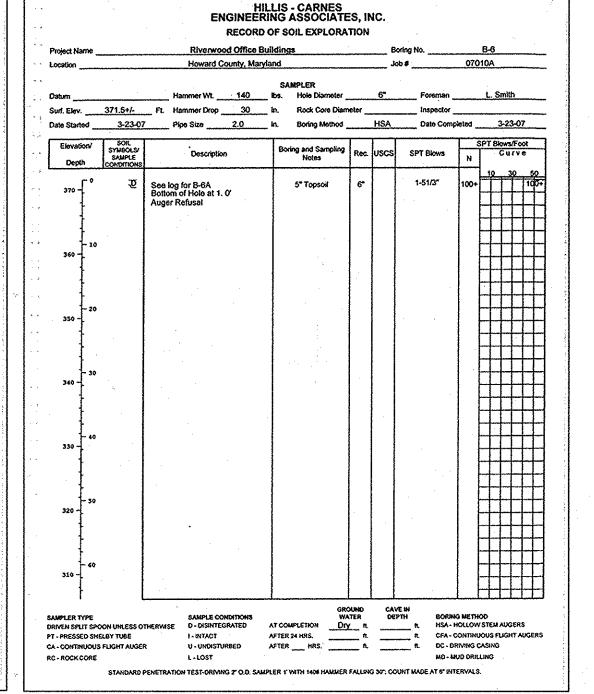
CYLINDER OF CONCRETE

to a minimum depth of 24"

**CONTRACTOR TO ENSURE BLOCKING

IS WATER TIGHT.





GUILFORD ELECTION DISTRICT No. 6

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY.

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF REVISIONS THERETO CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH,

STANDARD AND SPECIFICATIONS FOR TOPSOIL

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT

DEFINITION

MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE

ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

MOISTURE AND PLANT NUTRIENTS.

TO PLANT GROWTH.

EXPERIMENTAL STATION.

LARGER THAN I 1/2" IN DIAMETER.

OTHERS AS SPECIFIED.

THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPE WHERE

A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT

B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT

DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIED OF

. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC

D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT

. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS

DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THA

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 AGRICULTURAL

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

SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF

A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM,

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

B. TOPSOIL MUST BE FREE OF PLANT PARTS SUCH AS BERMUDA GRASS.

C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY

TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE

DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH

TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS

STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).

A. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS

DICTATING FERTILIZER & LIME AMENDMENTS REQUIRED TO BRING THE SOIL

I. 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

3. TOPSOIL HAVING SOLUBLE SALT GREATER THAN 500 PARTS PER MILL

4. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN WITH

SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF

SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A

APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL

TOPSOIL B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS

STABILIZATION METHODS AND MATERIALS (OR SEE SEEDING NOTES).

B. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN

SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE

A. WHEN TOPSOILLING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTRO PRACTICES SUCH AS DIVERSION, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN

IGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL:

TREORMED IN SICH A MANNER THAT SODDING OR SEEDING CAN PROCEET

RREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILLING OR OTHER

PPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION

WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY

). TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS

I. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL

A. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR

PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER

A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF

2. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST I PERCENT

3. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF I

EFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING

MD-VA PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND

B. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER

APPLIED AT A RATE OF 4LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME

NITROGEN, 15 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

COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM

SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO

5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

THE ENVIRONMENT UNDER COMAR 26.04.06.

MEET THE REQUIREMENTS PRIOR TO USE.

AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

TONIOGO SQUARE FEET.

PROFESSIONAL CERTIFICATION

WERE PREPARED OR APPROVED BY

ME, AND THAT I AM A DULY LICENSED

PROFESSIONAL ENGINEER UNDER THE

EXPIRATION PATE: A Pril 10,2010

LAWS OF THE STATE OF MARYLAND,

Daniel Schler

LICENSE NO. 12021

1 MAY 2009

APPLICATION RATE.

AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND

C. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4'-8' LAYER AND

QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE

SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

V. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.

INTO COMPLIANCE WITH THE FOLLOWING:

TOPSOIL APPLICATION

AND SEEDBED PREPARATION.

AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER

QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR

CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE IF 4-8

HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND

2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

T MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS.

OF PERMANENT VEGETATION.

COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (410) 313-1855 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE

SEDIMENT CONTROL NOTES

. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD

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 AND

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. I, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL,

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDINGS 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.

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

TOTAL AREA OF SITE (PARCELS AI & C3) 24.84 ± ACRES AREA DISTURBED 93 ± ACRES AREA TO BE ROOFED OR PAVED 6.0 ± ACRES AREA TO BE VEGETATIVELY STABILIZED 3.3 ± ACRES TOTAL CUT 8000 ± CU. YDS. TOTAL FILL 8000 ± CU, YDS. OFF-SITE WASTE/BORROW AREA LOCATION : NONE

RECOMMENDED BY A AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY . ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY HE APPROPRIATE APPROVAL AUTHORITY, REGARDLESS, TOPSOIL SHALL GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

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

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.

I. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN I WORKING DAY, WHICHEVER IS SHORTER.

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 ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT ONE OF THE FOLLOWING SCHEDULES

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FEET) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA-FORM

FERTILIZER (9 LBS/1000 SQ FT). LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE OF 10-10-10 FERTILIZER (23 LBS/1000 SQ 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 (I) 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 (TO 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 & FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR

FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSENED).

ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).

SEEDING: FOR PERIODS MARCH I THRU APRIL 30 AND FROM AUGUST 5 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY I THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.OT LBS/1000 S 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 (TO TO 90 LBS/1000 SQ FT) OF UNROTTED, WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SC FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING

ENGINEER'S CERTIFICATE

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

Daniel May 2009

G. L. W. FILE No. 06003 NO SCALE NT-EC, IND TAX MAP - GRID SHEET 41 - 12 7 OF 23

GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

5/28/09

5/21/09

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\06003\SDP\06003-SNE-DET.dwg | DES. MBT | DRN. KLP | CHK. CKG APP'R. REVISION BY

INV =347.00

PROFILE THROUGH PRINCIPLE SPILLWAY

TEMPORARY SWM CONDITIONS

TO BE BLOCKED

DURING SNE PHASE**

SCALE: 1"=50" (H)



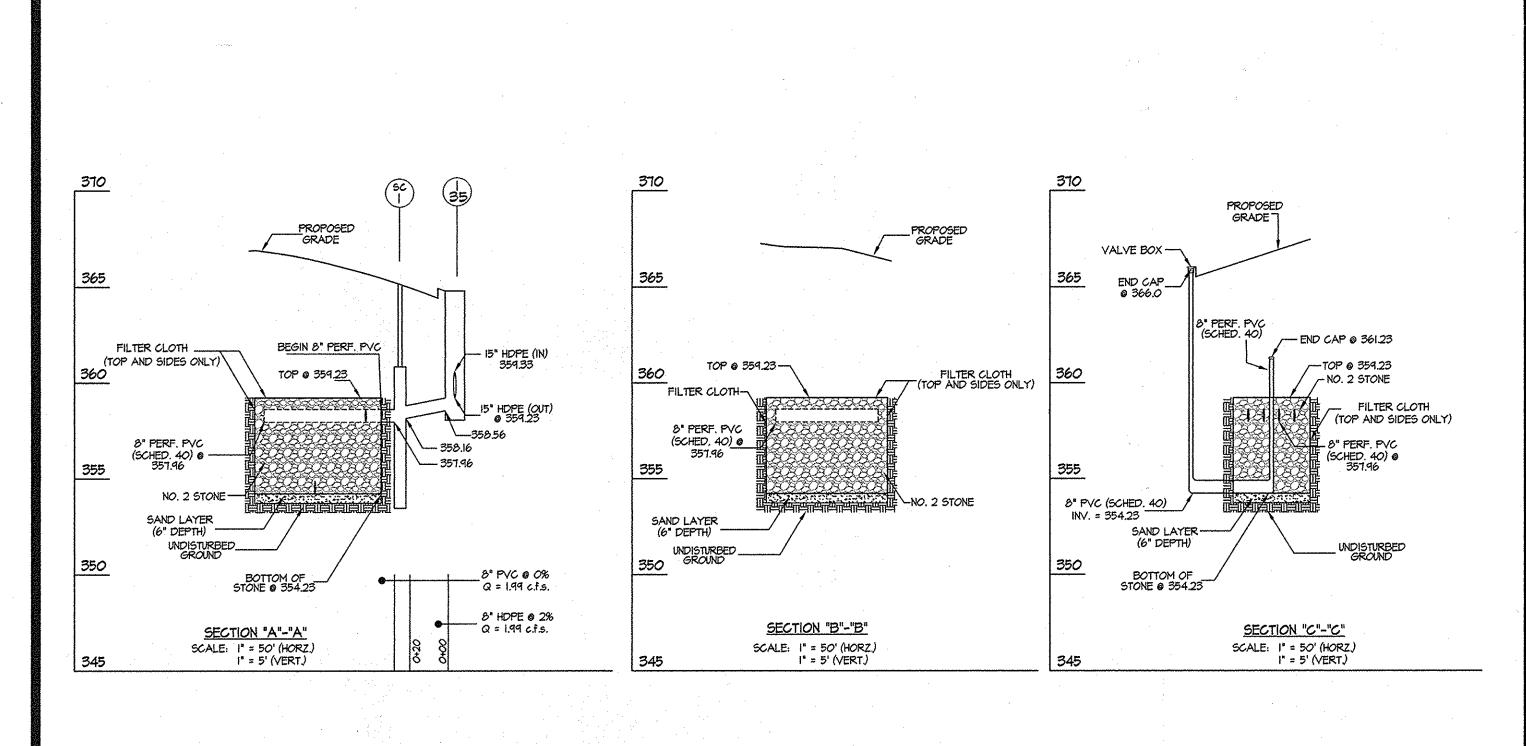
PREPARED FOR: OWNER/DEVELOPER COPT Riverwood, LLC COPT DEVELOPMENT SERVICES, LLC. 6711 COLUMBIA GATEWAY DRIVE, SUITE 300 COLUMBIA, MD 21046 Phone: 443-285-5649 Attn.: SEAN MOORE

RIVERS CORPORATE PARK SECTION 1, AREA 2 PARCELS 'A-1' and 'C-3'

SEDIMENT CONTROL DETAILS and BORING LOGS

PLAT No. 11730 & 20428-20429 , 21397 & F-14-05の HOWARD COUNTY, MARYLAND

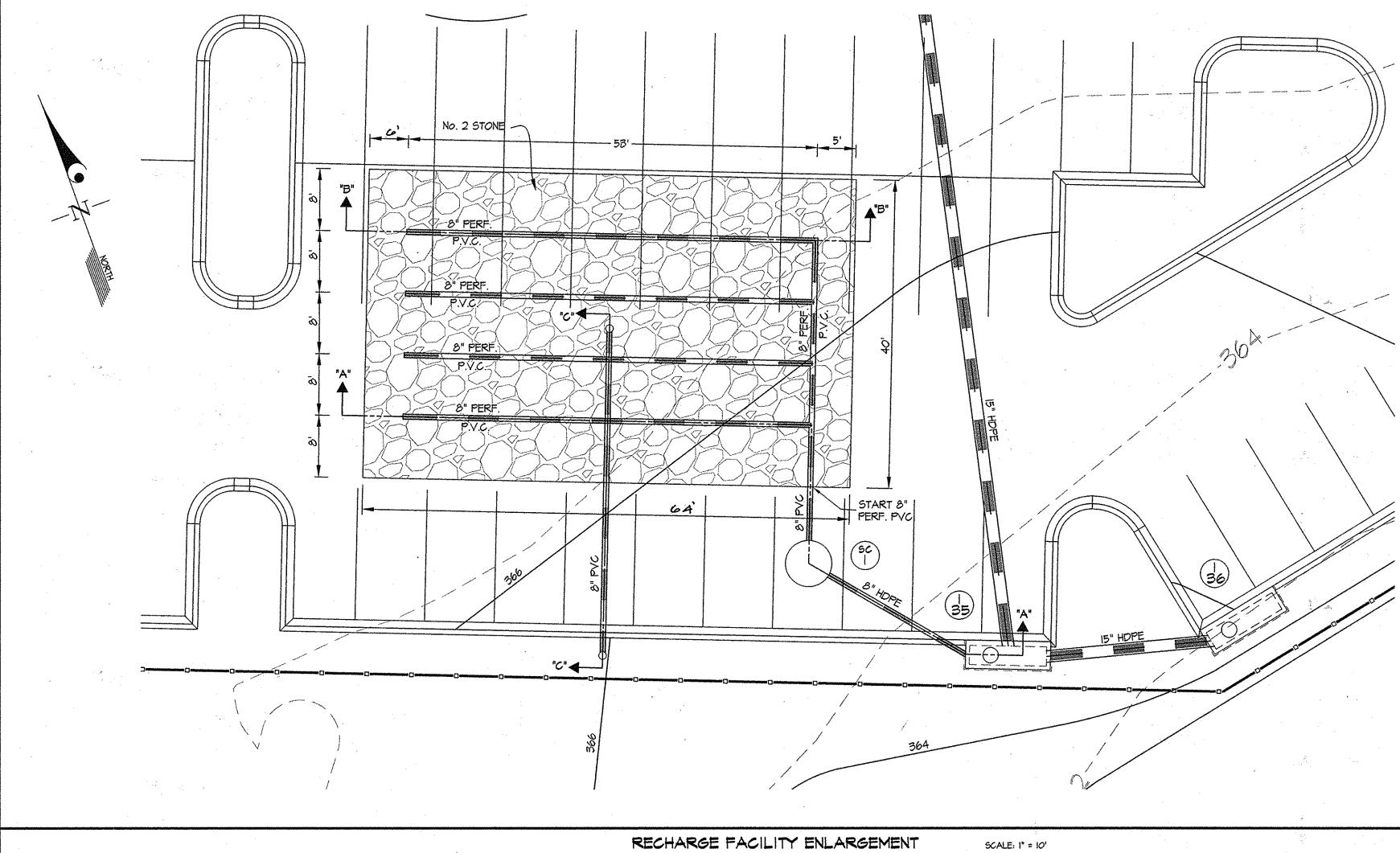
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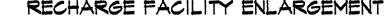


STRUCTURE SCHEDULE								
		WDTH	TOP ELI	EVATION	invert e	LEVATION	STANDARD	
NO.	TYPE	(INSIDE)	UPPER	LOWER	UPPER	LOWER	DETAIL	LOCATIONS & REMARKS
SC-1	STORMCEPTOR	6'-0"	365.16		359.33	358.56	SEE DETAIL THIS SHEET	PRIVATE

PIP	E SCHEDULE	
SIZE & TYPE	QUANTITY (LF)	REMARKS
8" PVC	57	SCH. 40
8" HDPE	20	
8" PERF. PVC	260	SCH. 40

*ALL PIPES TO BE PRIVATE.





DEVELOPER'S/BUILDER'S CERTIFICATE

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

134: COPT RIVETWOOD, LLC

ENGINEER'S CERTIFICATE

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

Danil Elloher

POOS YAM 11

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12021

EXPIRATION DATE: April 10,2010

Daniel Willer 11 MAY 2009

APPROVED PLANNING BOARD OF HOWARD COUNTY

NOVEMBER 13, 2008

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING Division of Land Development

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\06003\SDP\06003-SWM-DET.dwg | DES.

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

GLWGUTSCHICK LITTLE &WEBER, P.A.

4/14 7/24/2013 See As-Built sheet 8 in this file. 10/1/2010 Review length of recharge facility DATE TMB klp

REVISION

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER INFILTRATION TRENCHES THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A

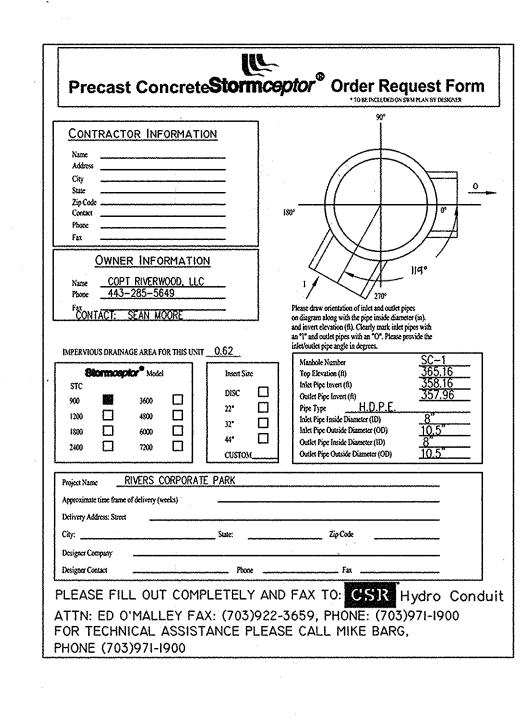
QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE

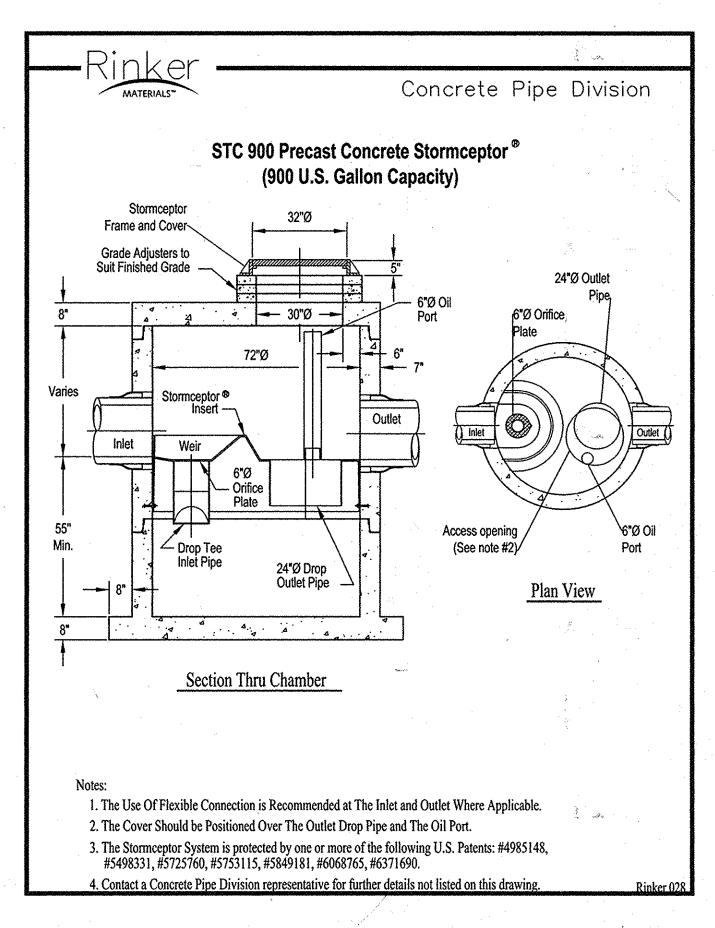
- 3. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- 4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- 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 MORE FREQUENT SCHEDULE IS REQUIRED.

OPERATIONS AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMCEPTOR WATER QUALITY DEVICE

THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE PERIODICALLY INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE OWNER SHALL INSPECT THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS SHALL BE DONE BY USING CLEAR PLEXIGLASS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE SEDIMENT DEPTHS EXCEED THE LEVEL SPECIFIED IN TABLE 6 OF THE STORMCEPTOR TECHNICAL MANUAL, THE UNIT MUST BE CLEANED.

- THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES.
- THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUM TRUCK WHICH WILL REMOVE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS, AND OTHER MATERIALS IN EACH UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR UNIT SHALL BE REPAIRED AS NEEDED.
- THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO THE HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.





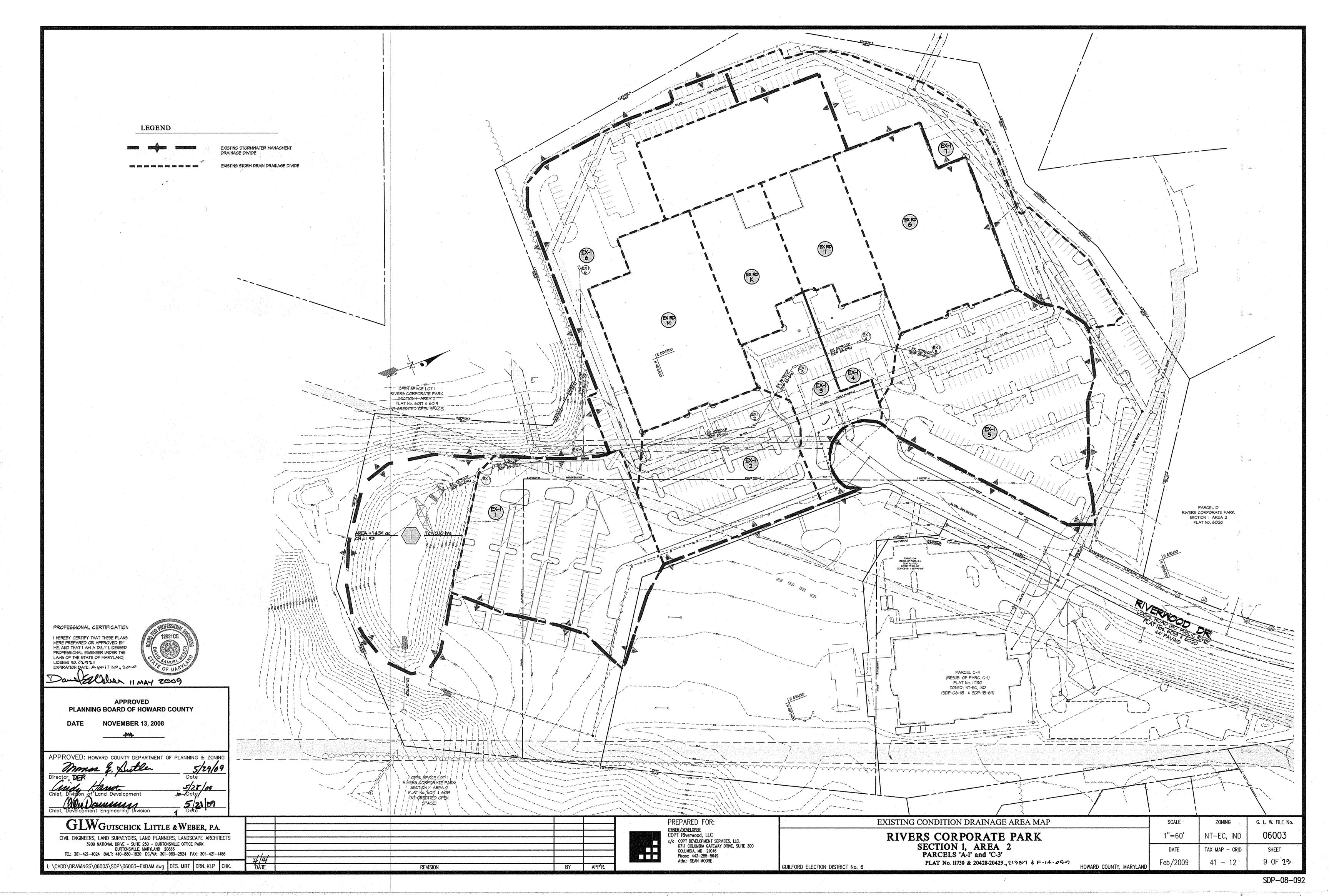
BY APP'R.

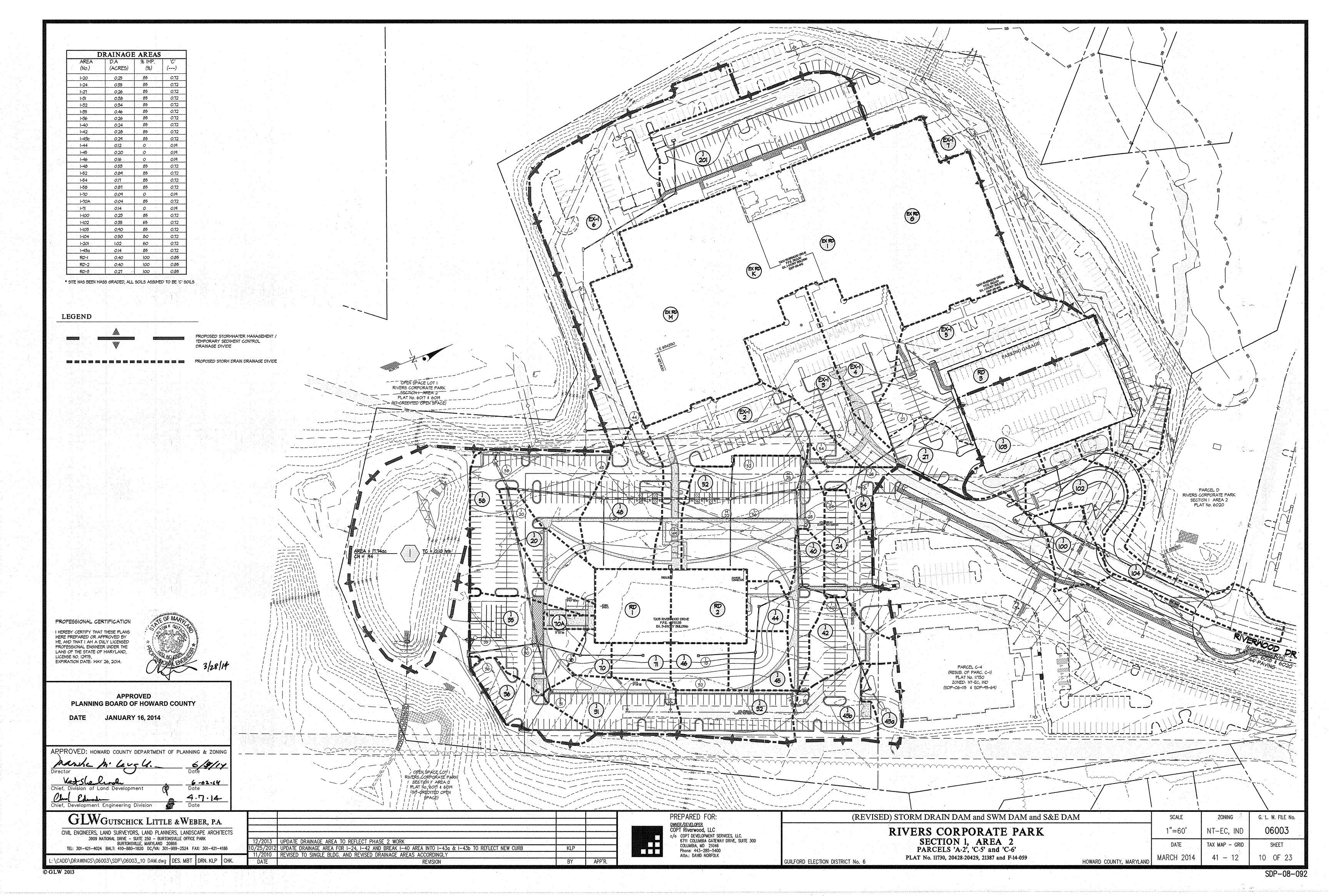
PREPARED FOR: OWNER/DEVELOPER COPT Riverwood, LLC c/o COPT DEVELOPMENT SERVICES, LLC. 6711 COLUMBIA GATEWAY DRIVE, SUITE 300 COLUMBIA, MD 21046 Phone: 443-285-5649

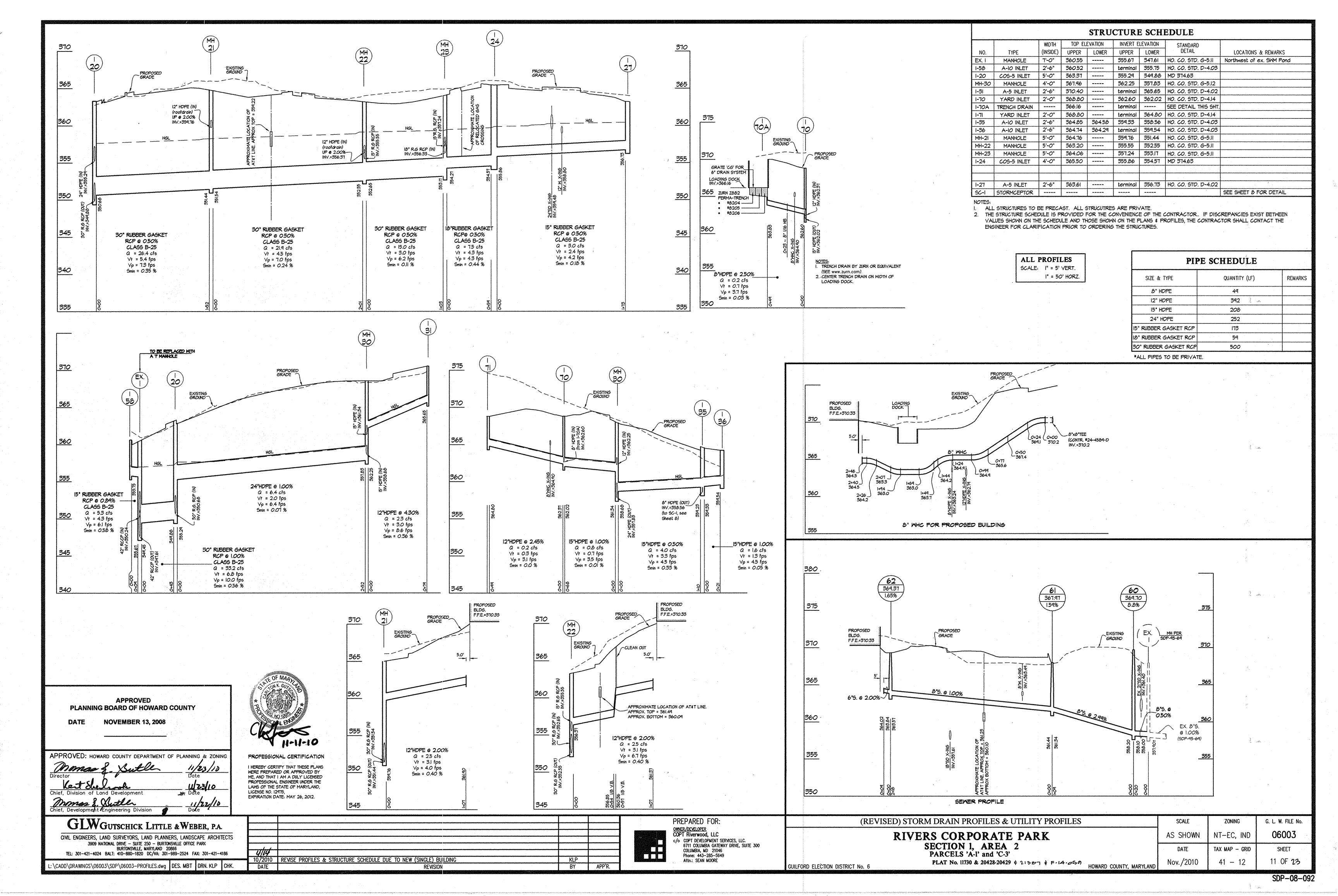
GUILFORD ELECTION DISTRICT No. 6

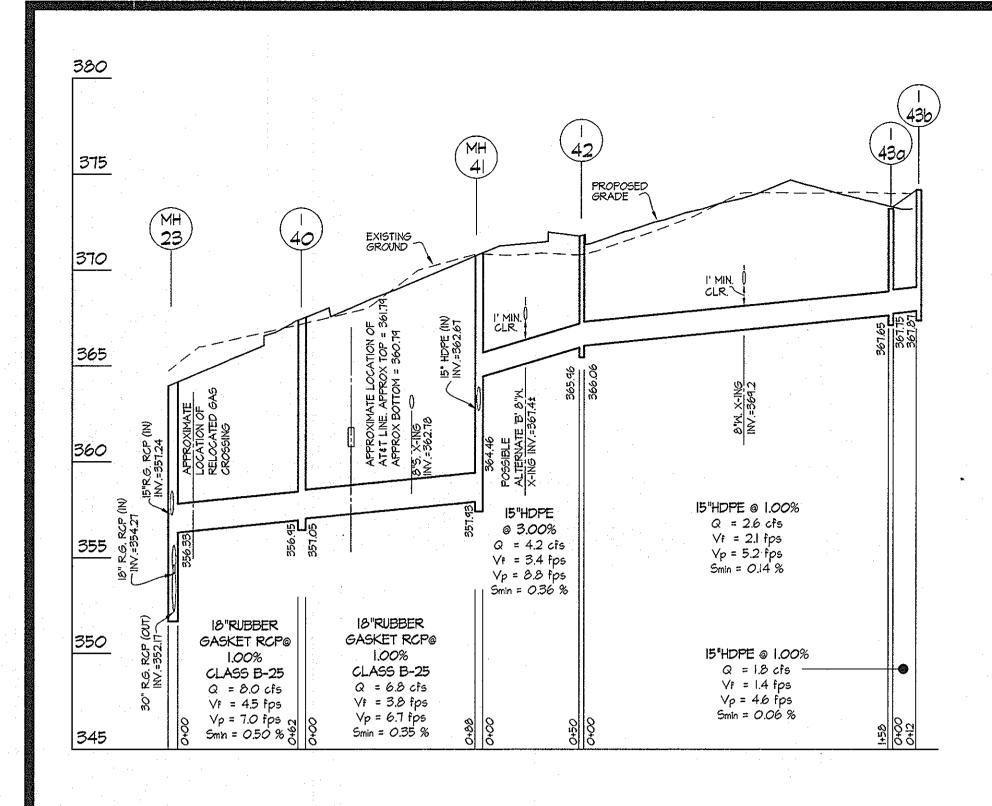
Attn.: SEAN MOORE

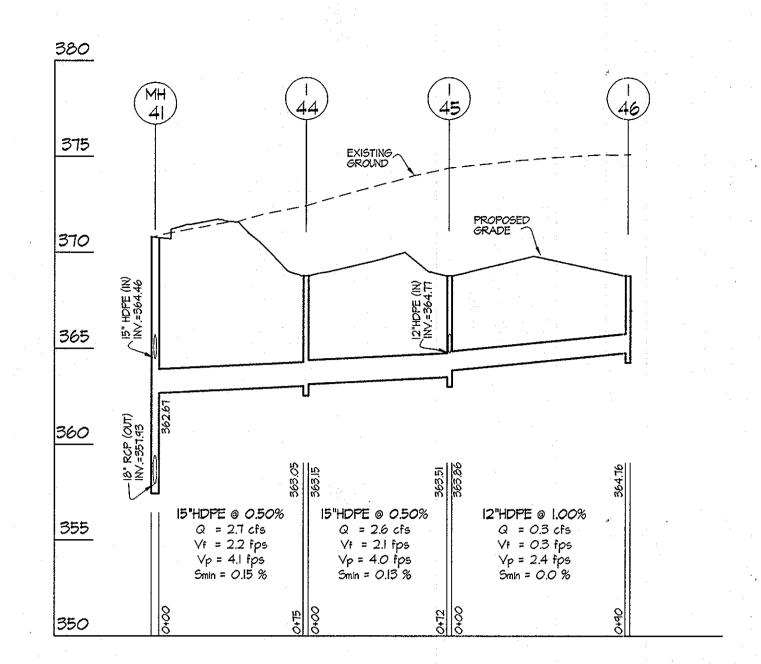
RECHARGE DETAILS SCALE G. L. W. FILE No. 06003 RIVERS CORPORATE PARK NT-EC, IND AS SHOWN SECTION 1, AREA 2 DATE TAX MAP - GRID SHEET PARCELS 'A-1' and 'C-3' 8 OF 23 PLAT No. 11730 & 20428-20429、21カも7 も F-14-05の 41 - 12 HOWARD COUNTY, MARYLAND

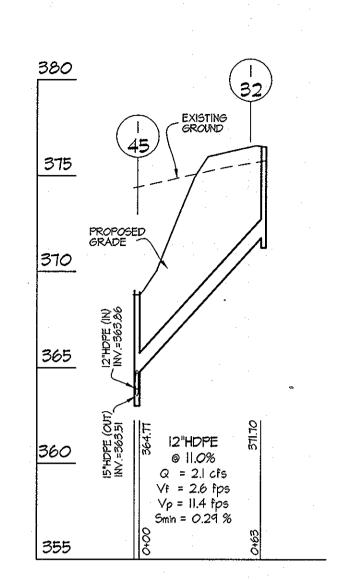


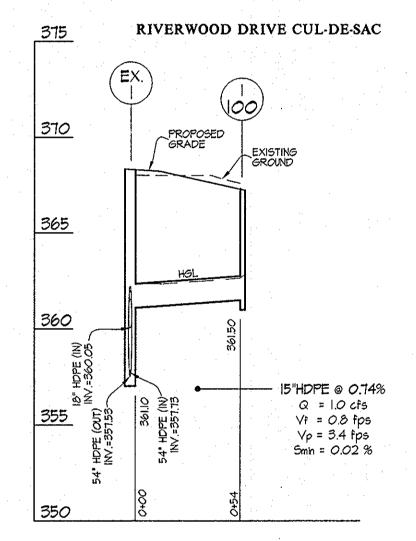


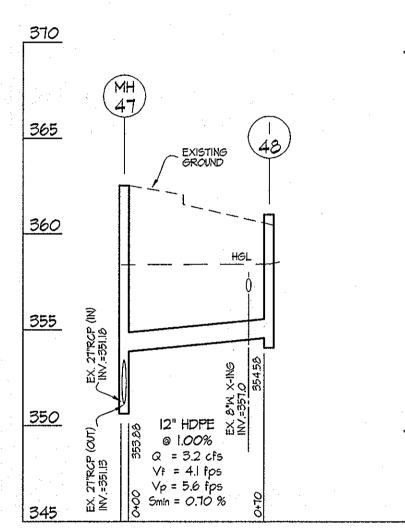


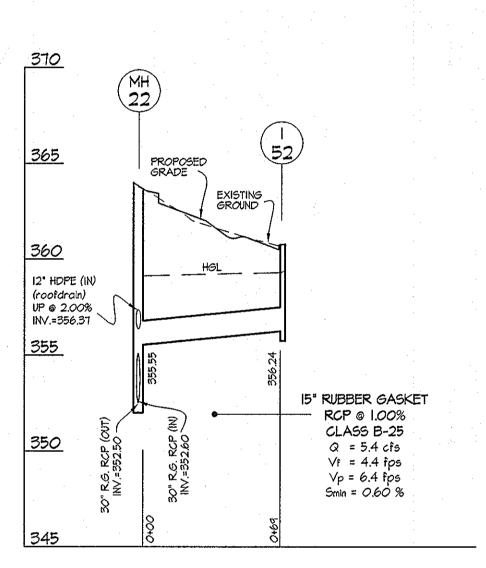


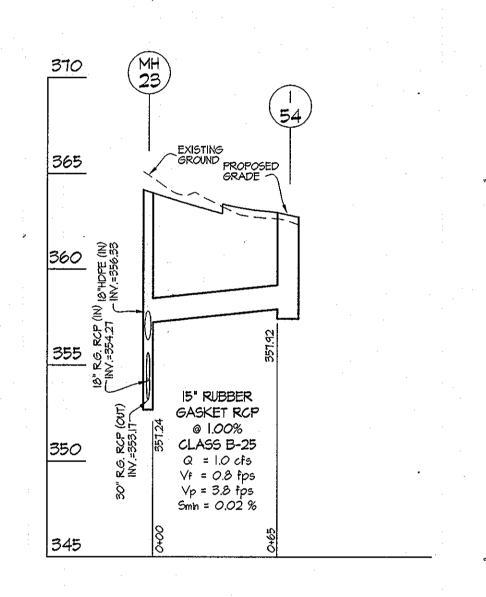












	STRUCTURE SCHEDULE							
		WDTH	TOP EL	EVATION	INVERT E	LEVATION	STANDARD	
NO.	TYPE	(INSIDE)	UPPER	LOWER	UPPER	LOWER	DETAIL	LOCATIONS & REMARKS
MH-47	MANHOLE	5'-0"	362.52		353.88	351.13	HO. CO. STD. G-5.11	
1-48	WR INLET	4'-0"	361.20		terminal	354.58	HO. CO. STD. D-4.02	·
I - 52	A-IO INLET	2'-6"	361.00	361.00	terminal	356.24	HO. CO. STD. D-4.03	
1-54	A-IO INLET	2'-6"	362.53	362.30	terminal	357.92	HO. CO. STD. D-4.03	
1-40	COG-10 INLET	4'-0"	367.27	366.81	357.05	356.95	MD 374.62	
MH-41	MANHOLE	4'-0"	370.79		364.46	357.93	HO. CO. STD. G-5.12	
1-42	A-5 INLET	2'-6"	371.83		366.06	365.96	HO. CO. STD. D-4.02	
1-44	YARD INLET	2'-0"	368.80		363.15	363.05	HO. CO. STD. D-4.14	
1-45	YARD INLET	2'-0"	368.80		364.77	363.51	HO. CO. STD. D-4.14	
1-46	YARD INLET	2'-0"	368.80		terminal	364.76	HO. CO. STD. D-4.14	
1-32	A-5 INLET	2'-6"	376.50		terminal	371.70	HO. CO. STD. D-4.02	
1-100	A-5 INLET	2'-6"	367.32		terminal	361.50	HO. CO. STD. D-4.02	\mathcal{J}_{i}
EX-I			368.04		361.10	357.53		New Rivernood Drive cul-de-sac
1-43a	S-INLET	2'-7"	37320		terminal	367.87	HO. CO. STD. D-4.22	
1-436	A-5	2'-6"	374.19	The Tab The The	367.75	367.65	HO. CO. STD. D-4.01	
1-43c	YARD INLET		See plan	below. This	s inlet is ar	alternate	to the 9X14 culvert dr	aining to inlet 43a

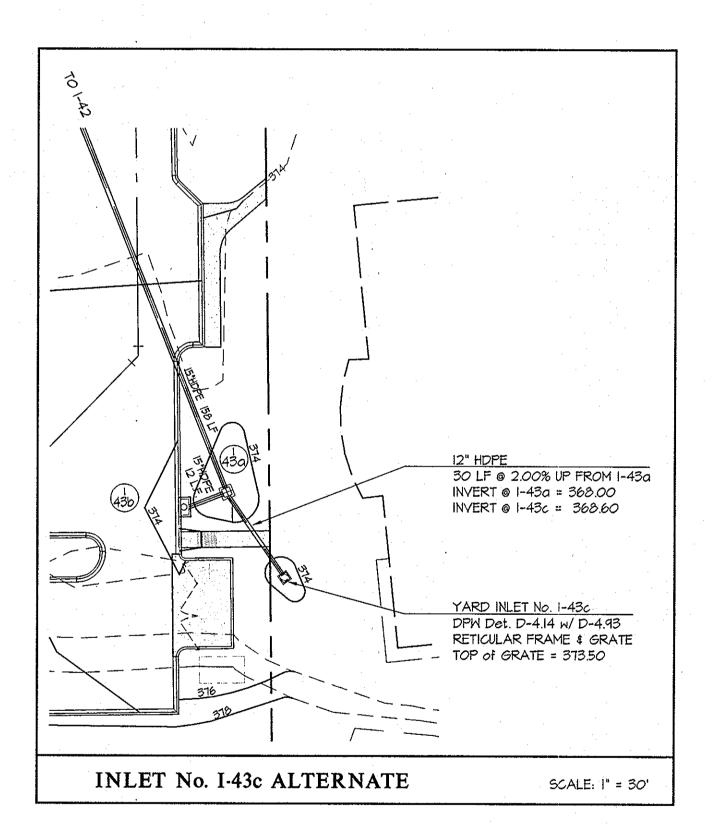
NOTES:

ALL STRUCTURES TO BE PRECAST. ALL STRUCUTRES ARE PRIVATE.
 THE STRUCTURE SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR.. IF DISCREPANCIES EXIST BETWEEN VALUES SHOWN ON THE SCHEDULE AND THOSE SHOWN ON THE PLANS & PROFILES, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION PRIOR TO ORDERING THE STRUCTURES.

ALL PI	ROFILES
SCALE:	I" = 5' VERT.
	I" = 50' HORZ.

PIPI	E SCHEDULE	
SIZE & TYPE	QUANTITY (LF)	REMARKS
15" RUBBER GASKET RCP	147	
12" HDPE	223 (253 w/ 1-43c alternate)	
15" HDPE	421	
18" RUBBER GASKET RCP	150	,
		,

*ALL PIPES TO BE PRIVATE.

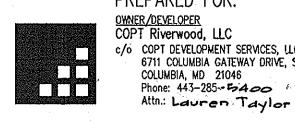


APPROVED PLANNING BOARD OF HOWARD COUNTY **NOVEMBER 13, 2008**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 26, 2014.

CIW		
GLWGUTSCHICK LITTLE & WEBER, P.A.		
AL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS		
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186	10/2012	REPLACE INLET 43 with NEW INLETS 43a, 43b & 43c. UPDATE PROFILE & SCHEDULES ACCORDINGLY.
	10/2010	REVISE PROFILES & STRUCTURE SCHEDULE DUE TO NEW (SINGLE) BUILDING
\DRAWINGS\06003\SDP\06003-PROFILES.dwg DES. MBT DRN. KLP CHK.	DATE	REVISION
3909 NATIONAL DRIVE — SUITE 250 — BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866	10/2010	REVISE PROFILES & STRUCTURE SCHEDULE DUE TO NEW (SINGLE) BUILDING



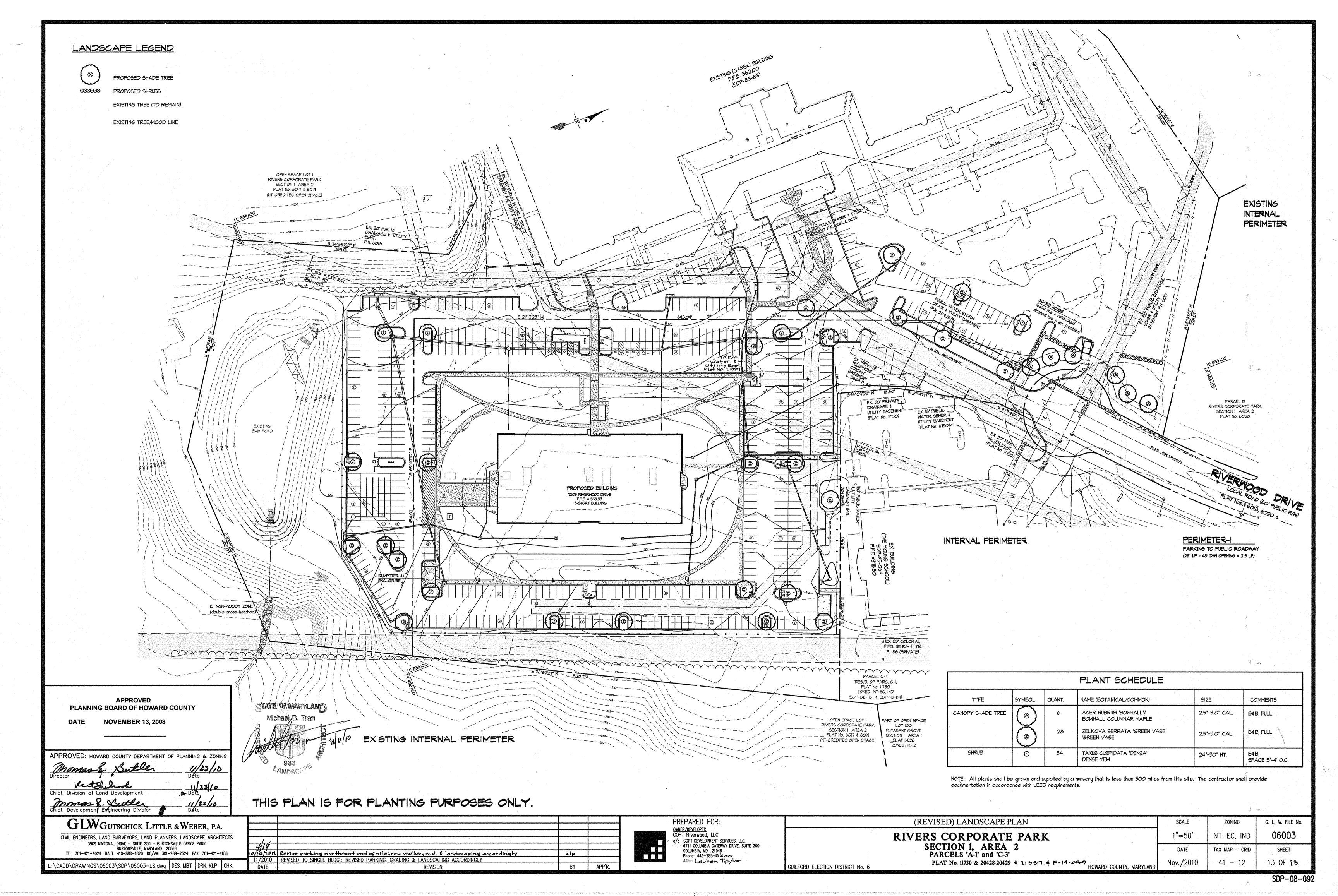
BY APP'R.

	PREPARED FOR:
10.000 p. 15	OWNER/DEVELOPER COPT Riverwood, LLC
	c/o COPT DEVELOPMENT SERVICES, LLC.
	6711 COLUMBIA GATEWAY DRIVE, SUITE 300 COLUMBIA, MD 21046
	Phone: 443-285-5400

GUILFORD ELECTION DISTRICT No. 6

(REVISED) STORM DRAIN PROFILES
RIVERS CORPORATE PARK
SECTION 1, AREA 2 PARCELS 'A-1' and 'C-3'
PARCELS 'A-1' and 'C-3'
PLAT No. 11730, 20428-20429 & 21387

	SCALE	ZONING	G. L. W. FILE No.
	AS SHOWN	NT-EC, IND	06003
	DATE	TAX MAP — GRID	SHEET
HOWARD COUNTY, MARYLAND	Nov./2010	41 – 12	12 OF 14



SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS

A. PLANT MATERIALS

THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP AND TRANSPLANT ALL OF THE PLANT MATERIALS CALLED FOR ON DRAWINGS AND/OR LISTED IN THE PLANT SCHEDULE.

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 (HERE- AFTER 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 GROWN 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.

PLANT MEASUREMENTS

ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE AS APPROVED BY THE DESIGN REVIEW COMMITTEE (DRC).

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").

. CALIPER, HEIGHT, SPREAD AND SIZE OF BALL SHALL BE GENERALLY AS

CALIPER HEIGHT SPREAD SIZE OF BALL

3" - 35"	14'-16"	6'-8'	32" DIAMETER
35"- 4"	14'-16'	8'-10'	36" DIAMETER
4" - 45"	16'-18'	8'-10'	40" DIAMETER
45"- 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

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 AUTHORITIES.

5. PLANT INSPECTION

THE DESIGN REVIEW COMMITTEE MAY, UPON REQUEST BY THE BUILDER OR DEVELOPER, AT LEAST TEN (IO) DAYS PRIOR TO THE INSTALLATION OF ANY PROPOSED PLANT MATERIAL, INSPECT ALL PROPOSED PLANT MATERIAL AT THE SOURCE OF ORIGIN.

B. 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:

SEASONS
THE PLANTING OF DECIDUOUS TREES, SHRUBS AND VINES SHALL BE FROM MARCH IST 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 IST. NO PLANTING SHALL BE DONE WHEN THE GROUND IS FROZEN OR EXCESSIVELY MOIST. NO FROZEN OR WET TOPSOIL SHALL BE USED AT ANY TIME.

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.

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

D. DIAMETER AND DEPTH OF TREE PITS SHALL GENERALLY BE AS FOLLOWS:

PLANT SIZE	ROOT BALL	PIT DIA.	PIT DEPT
3" - 35"CAL.	32"	64"	28.
35"- 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"
55"- 6" CAL.	52*	104"	48*

A 20 % COMPACTION FIGURE 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 TI-O" FOR MAJOR TREES AND 5'-O" MINIMUM

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" TAKE-UP. FOR TREES OVER 5" CALIPER, PROVIDE 3/16", 7 STRAND CABLE CADMIUM PLATED STEEL, WITH GALVANIZED "EYE" THIMBLES OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.

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" IN CALIPER.

ALL TREES UNDER 3" IN CALIPER ARE TO BE PLANTED AND STAKED IN ACCORDANCE WITH THE ATTACHED PLANTING DETAILS.

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 DIAMETER SHALL BE PAINTED WITH AN APPROVED ANTISEPTIC TREE WOUND DRESSING.

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 3" LAYER OF FINE, SHREDDED PINE BARK, PEAT MOSS, OR ANOTHER APPROVED MATERIAL OVER THE ENTIRE AREA OF THE BED OR SAICER.

6. PLANT INSPECTION AND ACCEPTANCE

5. PLANT PRUNING, EDGING AND MULCHING

THE DESIGN 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 GUARANTEED 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 GUARANTEE 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 SEASON.

B. GUARANTEE FOR PLANTING PERFORMED AFTER THE SPECIFIED END OF THE "SPRING" PLANTING SEASON, SHALL BE EXTENDED THROUGH THE END OF THE NEXT FOLLOWING "SPRING" PLANTING SEASON.

ALL SODDING SHALL BE IN ACCORDANCE TO THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" LATEST EDITION, APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.

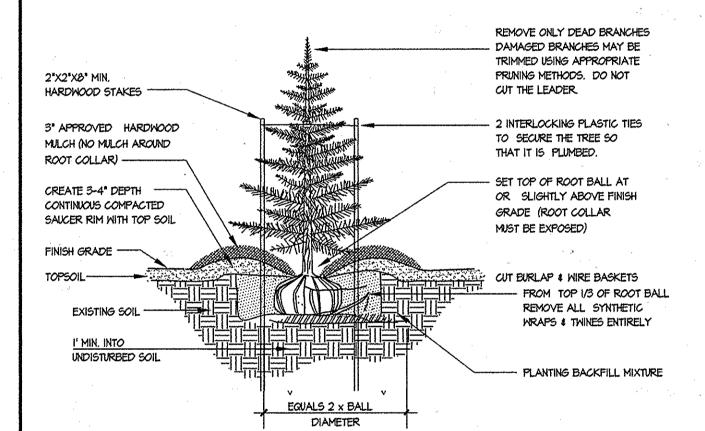
ALL SOD SHALL BE STRONGLY ROOTED SOD, NOT LESS THAN TWO YEARS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES. PROVIDE ONLY SOD CAPABLE OF GROWTH DEVELOPMENT WHEN PLANTED AND IN STRIPS NOT MORE THAN 18" WIDE X 4" LONG. PROVIDE SOD COMPOSED PRINCIPALLY OF IMPROVED STRAIN KENTUCKY BLUEGRASS, SUCH AS, COLUMBIA, VICTA, OR ESCORT.

- DO NOT CUT CENTRAL LEADER, REMOVE ANY DEAD OR DAMAGED BRANCHES BY APPROPRIATE PRUNING METHODS. 2"X2"X8" MIN. 3/8" DIA. REINFORCED BLACK RUBBER HARDWOOD STAKES -HOSE, INTERLOCKED, POSITION ABOVE FIRST SET OF BRANCHES TO SECURE 3" APPROVED HARDWOOD THE TREE SO THAT IT IS PLUMBED. MULCH (NO MULCH AROUND 2 STRANDS 14-GA GALV, WIRE TWISTED ROOT COLLAR) (PLASTIC TIES MAY BE USED INSTEAD OF CREATE 3-4" DEPTH WIRE & RUBBER HOSE) CONTINUOUS COMPACTED - SET TOP OF ROOT BALL AT OR SLIGHTLY SAUCER RIM WITH TOP SOIL ABOVE FINISH GRADE (NO MORE THAN 3"). FINISH GRADE ---CUT BURLAP & WIRE BASKETS FROM TOP 1/3 OF ROOT BALL REMOVE ALL TOPSOIL ----SYNTHETIC WRAPS & TWINES ENTIRELY - PLANTING BACKFILL MIXTURE EXISTING SOIL I' MIN INTO _ COMPACT SOIL MIX BELOW BALL UNDISTURBED SOIL -PITCH AWAY FROM BALL TO PERIMETER OF PLANTING PIT. EQUALS 2 x BALL

NOTE: ALL SUPPORTING DEVICES (STAKES, WIRES, ETC.) SHALL BE REMOVED AFTER 2 GROWING SEASONS.

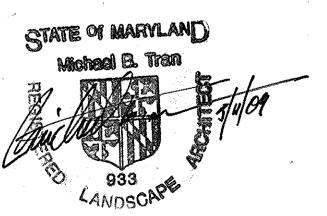
DECIDUOUS TREE PLANTING DETAIL

FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER



NOTE: ALL SUPPORTING DEVICES (STAKES, TIES, ETC.) SHALL BE REMOVED AFTER 2 GROWING SEASONS.

	ь
NOTE: SET ROOT BALL AT OR SLIGHTLY ABOVE FINISH GRADE.	WATER AND
CONTAINERS TO BE REMOVED PRIOR TO PLANTING. SCARIFY ROOT EDGES TO STIMULATE GROWTH.	
3" MULCH - AS SPECIFIED	
MOUNDED EARTH SAUCER	6"MIN.
(FOR ISOLATED PLANTING	MIN.
SITUATION)	
PLANTING BACKFILL MIXTURE	
SCARIFY SOIL BELOW ROOTBALL	
EXISTING SOIL	



SHRUB PLANTING DETAIL

EVERGREEN TREE PLANTING DETAIL

SCHEDULE-A: PERIMETER LANDSCAPE EDGE ALL OTHER PERIMETERS ARE INTERNAL PERIMETER No. PARKING ADJ. USE SITUATION TO ROADWAY LANDSCAPE BUFFER TYPE 213' LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER CREDIT FOR EXISTING VEGETATION NONE CREDIT FOR WALL, FENCE OR BERM NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS

N/A

NA

NUMBER OF PLANTS PROVIDED

SHRUBS (IO: I substitution)

OTHER TREES (@ 2:1 substitution)

SHADE TREES

EVERGREEN TREES

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING				
NUMBER OF PARKING SPACES	530NEW SPACES	· · · · · · · · · · · · · · · · · · ·		
NUMBER OF TREES REQUIRED (at 1 per 20 commerical spaces)	27 (ON A LEAST 27 LANDSCAPED ISLANDS).			
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 substitution)	28			

LANDSCAPE SURETY FOR REQUIRED TREES PER SCHEDULE-A AND SCHEDULE-B:

54 SHRUBS at \$30/SHRUB = \$ 1,620.00 33 SHADE TREES at \$300/TREE = \$ 9,900.00

\$ 11,520.00

LANDSCAPE NOTES

- I. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & THE HOWARD COUNTY LANDSCAPE MANUAL.
- 2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STÅRTING WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING UTILITIES, ON SHEET No.1 SHALL APPLY.
- 3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK, CONTACT CONSTRUCTION MANAGER OR OWNER IF ANY RELOCATIONS ARE REQUIRED.
- 4. PLANT QUANTITIES SHOWN ON THE PLANT 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 PRECEDENCE.
- 5. ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N. SPECIFICATIONS. IN ADDITION, ALL REQUIRED PLANTING FOR THE LANDSCAPE ISLANDS IN THE PARKING LOT SHALL CONFORM TO THE HOWARD COUNTY LANDSCAPE MANUAL. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THIS PLAN. SEE SHEET 4 FOR PLANTING DETAILS.
- 6. NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY DPZ AND THE OWNER OR HIS REPRESENTATIVE.
- 7. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED, OR MULCHED SHALL BE SODDED OR SEEDED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS.
- 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.
- 9. 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, SEWER AND UTILITY EASEMENT.

II. VERIFY THE LOCATION AND DEPTH OF THE COMMUNICATION LINE(S) WITHIN THE AT&T R/W PRIOR TO ANY PLANTING WITHIN THIS R.W. THE CONTRACTOR SHALL CONTACT GLW FOR ANY NECESSARY RELOCATION OF PLANT MATERIALS.

12. "SCHEDULE-A" AND "SCHEDULE-B" IS PROVIDED FOR LANDSCAPE SURETY CALCULATION PURPOSES, FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$11,520 FOR THE FOLLOWING PLANTS:

> 54 SHRUBS at \$30/SHRUB = \$1,620.00 33 SHADE TREES at \$300/TREE = \$9,900.00

TO REQUEST A LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE POSTED LANDSCAPE SURETY, SUBMIT A WRITTEN REQUEST OF LANDSCAPE INSPECTION, ALONG WITH A COPY OF THE ONE YEAR LANDSCAPE PLANT WARRANTY, TO THE DIVISION OF LAND DEVELOPMENT, HO. CO. DEPT. OF PLANNING AND ZONING

PLANNING BOARD OF HOWARD COUNTY **NOVEMBER 13, 2008**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

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

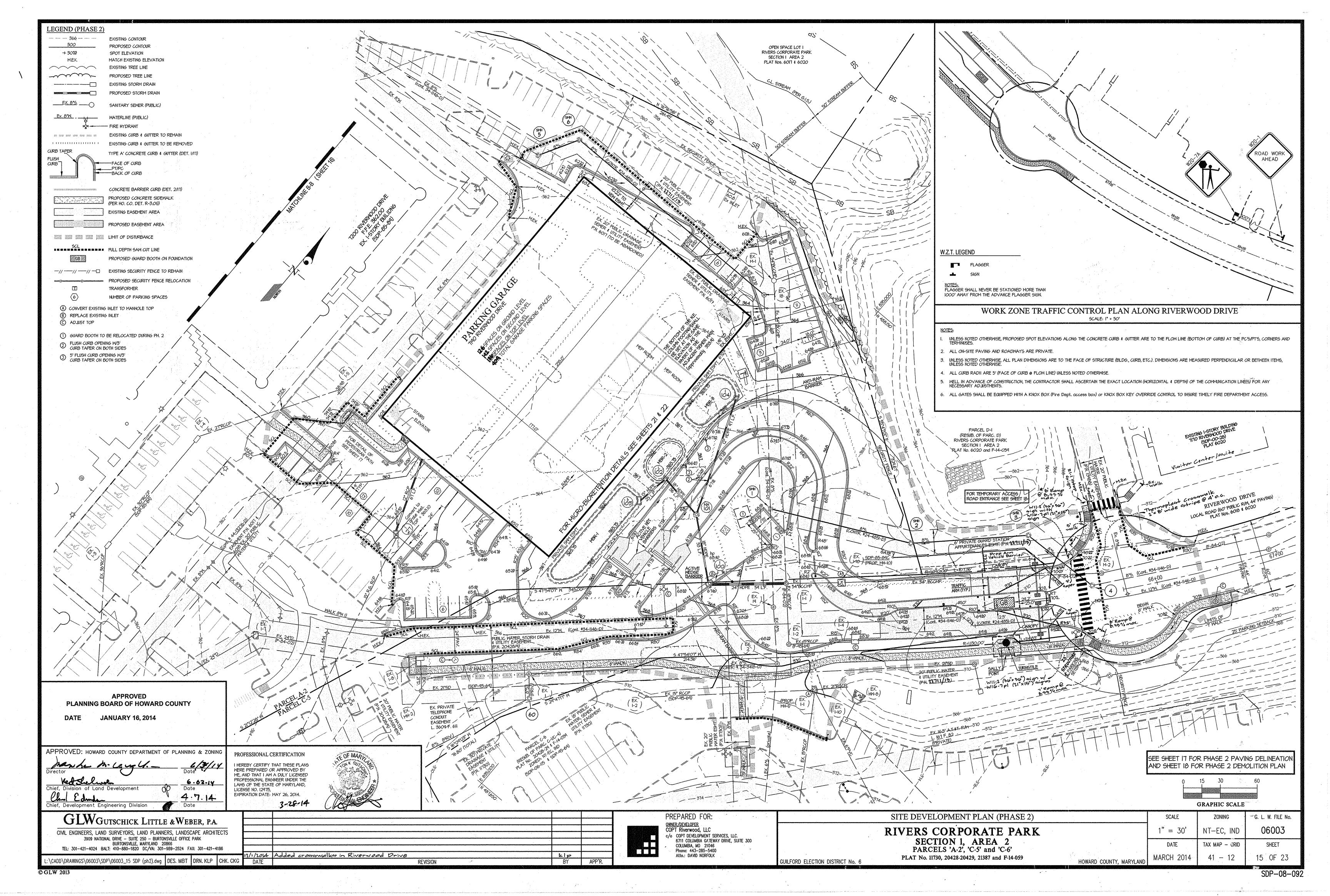
\CADD\DRAWINGS\06003\SDP\06003-LS.dwg | DES. MBT | DRN. KLP | CHK.

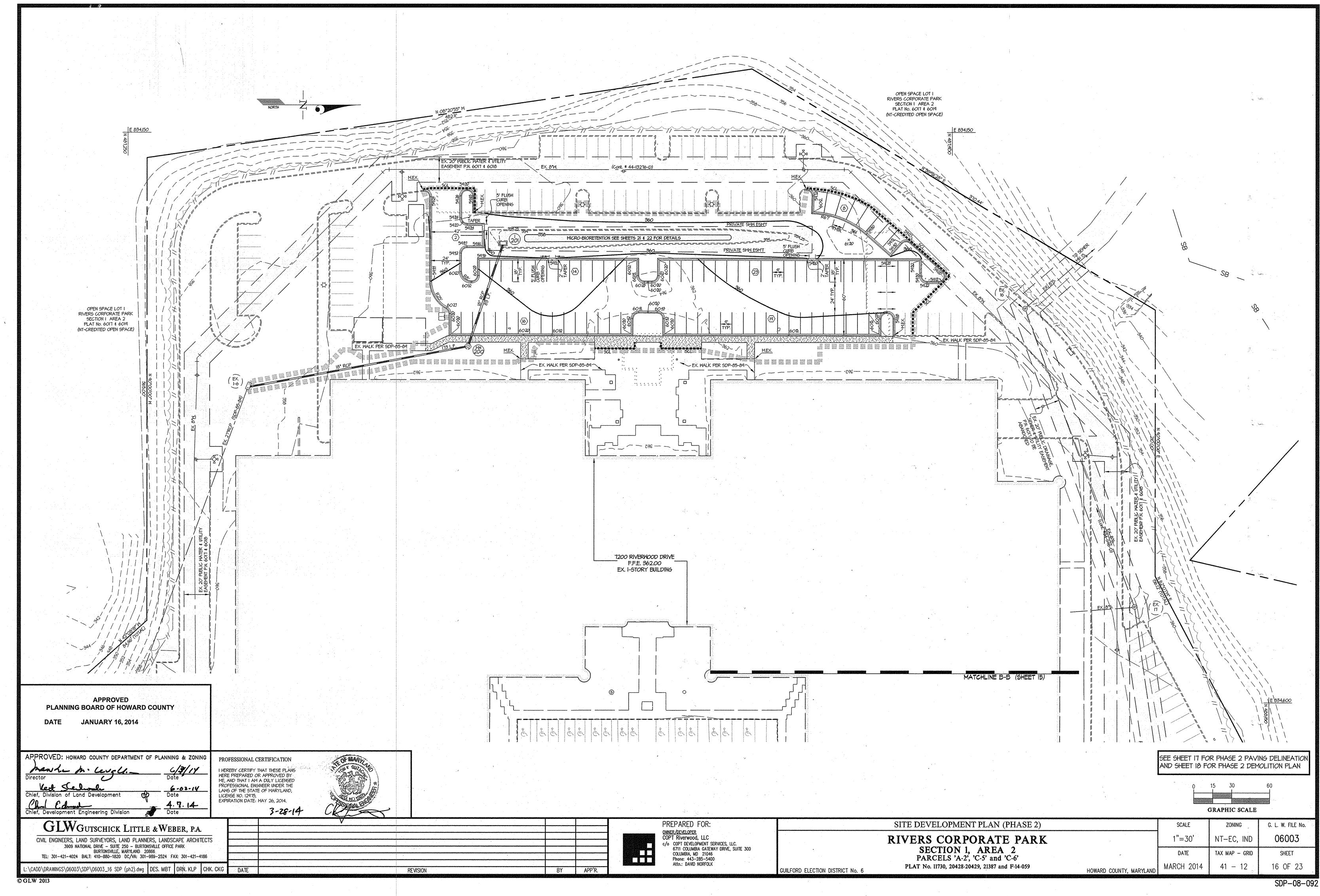
11 111			
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012	updated achedule b parking count	KIP	
2010	Rev. achedule B to reflect aite plan revisions for single bldg.	klp	
ATE	REVISION	BY	APP'R.
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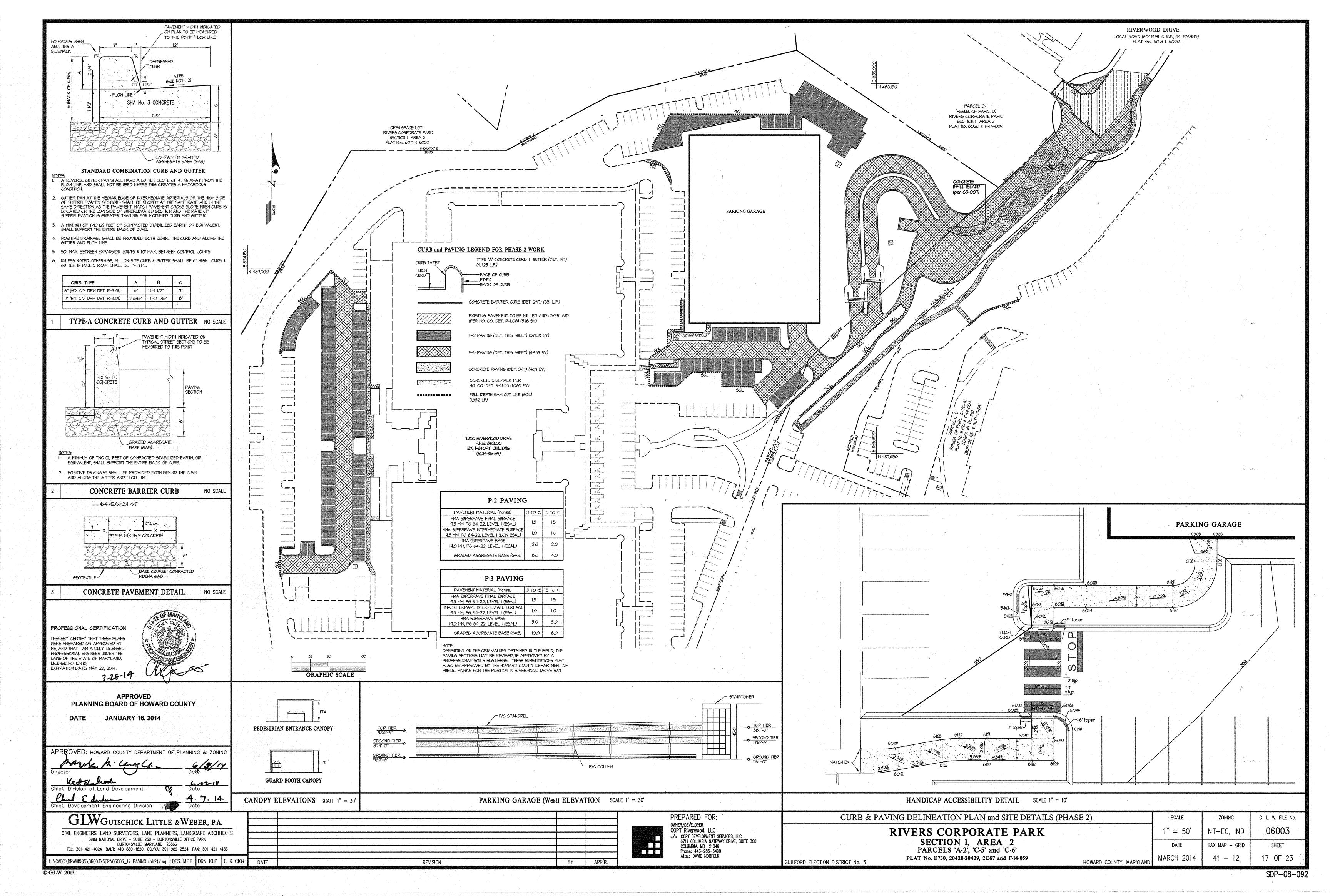
COPT Riverwood, LLC COLUMBIA, MD 21046 Phone: 443-285-5:400

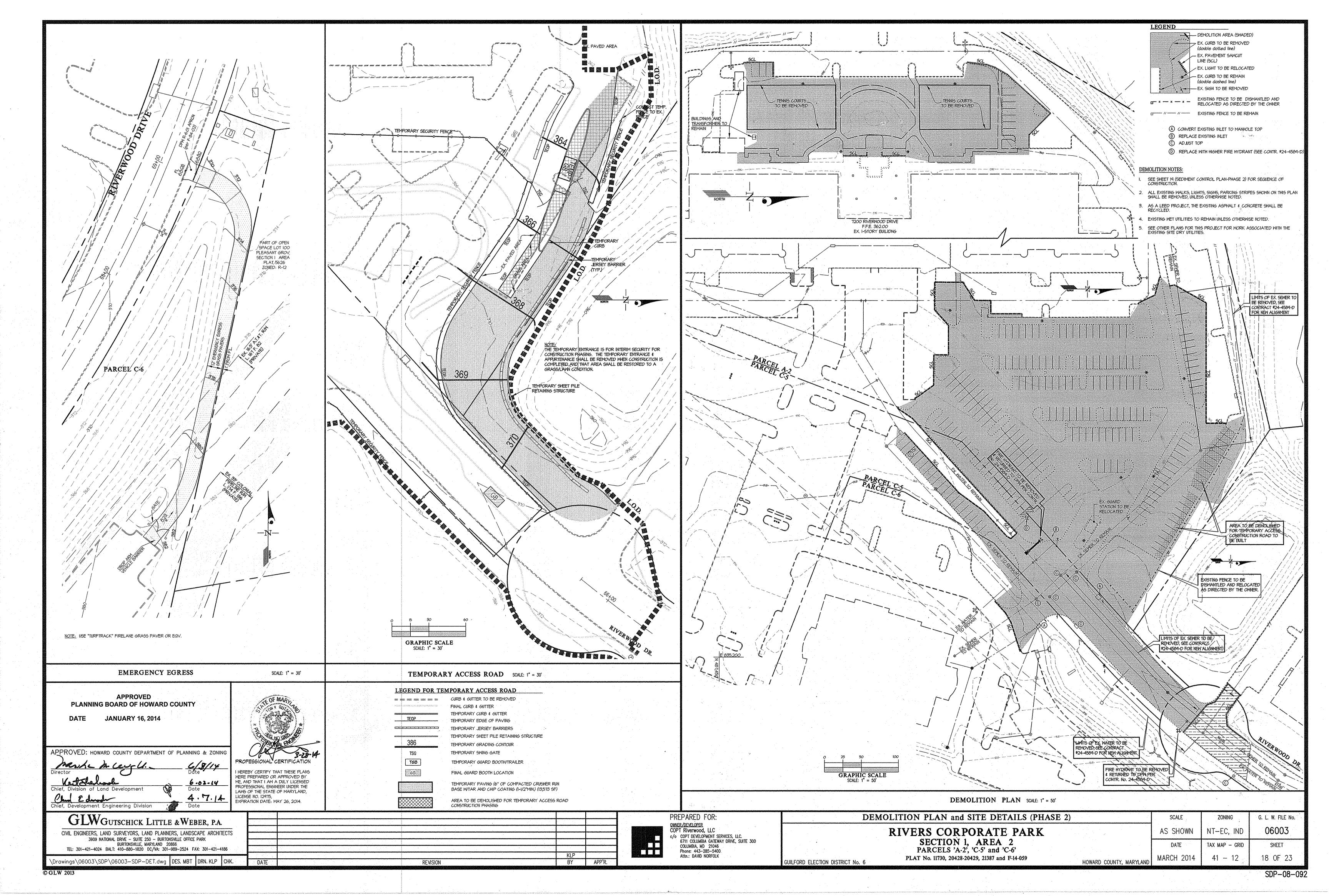
PREPARED FOR: c/o COPT DEVELOPMENT SERVICES, LLC. 6711 COLUMBIA GATEWAY DRIVE, SUITE 300 Attn.: Lauren Taylor

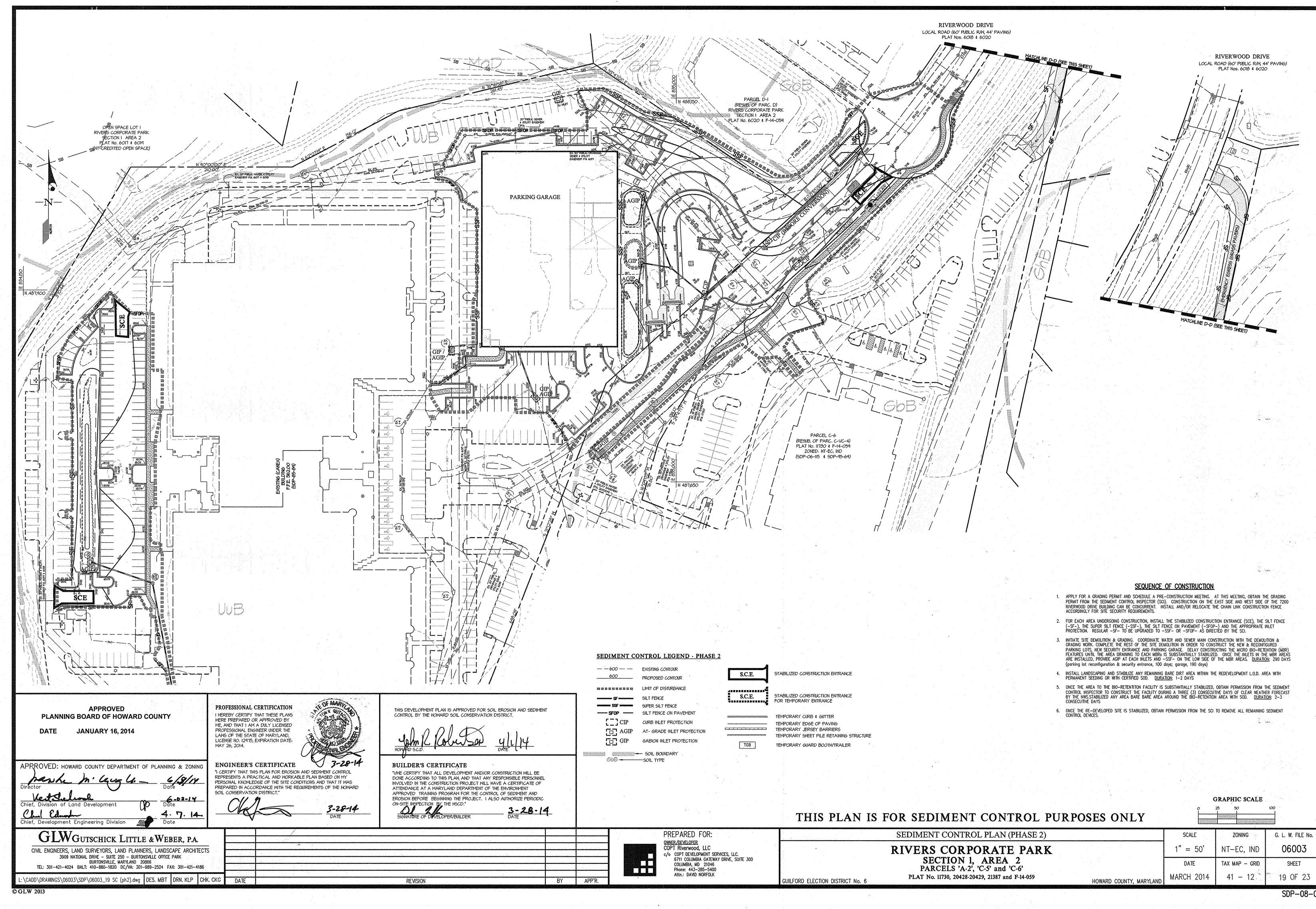
LANDSCAPE NOTE & DETAILS G. L. W. FILE No. RIVERS CORPORATE PARK 1"=50' SECTION 1, AREA 2 DATE TAX MAP - GRID PARCELS 'A-1' and 'C-3' PLAT No. 11730 & 20428-20429, 21767 and F-14-050 Feb/2009 HOWARD COUNTY, MARYLAND GUILFORD ELECTION DISTRICT No. 6











B-4-2 STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

A. SOIL PREPARATION . TEMPORARY STABILIZATION

2. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS (CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION, SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS. . INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

 a soil test is required for any earth disturbance of 5 acres or more. The minimum SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE: I. SOIL PH BETWEEN 6.0 AND 7.0.

IL SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

- IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
- V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE
- GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
- . APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS, RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION, LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE:

WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES

CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER

RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE, LEAVE THE TOP 1 TO 3 INCHES OF SOI

LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS

TOPSOILING

TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS 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.

- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
- TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
- THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

OR OTHER MATERIALS LARGER THAN 1.5 INCHES IN DIAMETER.

- b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. HE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN
- TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA: a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR Y SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOI SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, TOPSOIL MUST NOT E A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT
- b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED
- TOPSOIL SUBSTITUTES OR AMENDMENTS. AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN

BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH,

TOPSOIL APPLICATION

FROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL. D. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES, SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER

TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL

FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY, FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR

HE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER. TIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT TIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL

PASS THROUGH A #20 MESH SIEVE. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS, WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE

PROFESSIONAL CERTIFICATION **APPROVED** I HEREBY CERTIFY THAT THESE PLANS WERE PLANNING BOARD OF HOWARD COUNTY PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL **JANUARY 16, 2014** ENGINEER UNDER THE LAWS OF THE STATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

GLWGUTSCHICK LITTLE &WEBER, P.A.

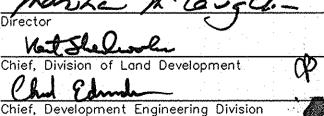
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK

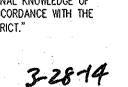
BURTONSVILLE MARYLAND 20866

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

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6-02-14



B-4-3 STANDARDS AND SPECIFICATIONS FOR

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF

CRITERIA

SEEDING and MULCHING

CONSTRUCTION. CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

A. SEEDING

SPECIFICATIONS . ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY, ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT

AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS

REFER TO TABLE B.4 RECARDING THE QUALITY OF SEED. SEED TAGS MUST B

. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES
MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES, INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA

. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH OIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS

and make the inoculant less effective

a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED OF

ITE-SPECIFIC SEEDING SUMMARIES APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY
HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR

DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.

APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE. II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME, DO NOT USE BURNT OR

iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT TERRUPTION iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

MULCH MATERIALS (IN ORDER OF PREFERENCE)

3. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED . WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STAT WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE

THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED,

ERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER

HOLDING CAPACITY OF 90 PERCENT MINIMUM.

APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. . WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

ANCHORING

OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 26, 2014.

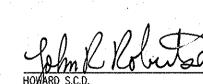
PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO

PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES.
THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER
SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, HIS PRACTICE SHOULD FOLLOW THE CONTOUR. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD

CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. . SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO—TACK), DCA—70, PETROSET, TERRA TAX II, TERRA MANUFACTURER. APPLICATION OF LIQUID

BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.



ENGINEER'S CERTIFICATE

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

INSPECTION_ BY THE HSCD." 2/1

REVISION

3-28-14

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION

. SEED MIXTURES

. TURFGRASS MIXTURES

PLACED ON THE PLAN.

RECOMMENDED BY THE SOIL TESTING AGENCY.

TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE. CRITERIA

O. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE

APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE

CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION

ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.

FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3

COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.

FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES

ATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE

SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE 8.1 FOR THE

APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES. SEEDING DATES. AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED. THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.

B-4-4 STANDARDS AND SPECIFICATIONS

FOR TEMPORARY STABILIZATION

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR

A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION

PRACTICES ARE REQUIRED.

TEMPORARY SEEDING SUMMARY

UNTIL THE NEXT SEEDING SEASON.

WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND

MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN

HARDINESS ZONE: 6b SEED MIXTURE:				FERTILIZER RATE	LIME RATE	
No.	SPECIES	APPLICATION RATE (lb/ac.)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)	CINC RAIC
1	ANNUAL RYEGRASS	40 lb/ac .	Mar. 1 to May 15, Aug. 1 to Oct. 15	0.5 INCHES	436 lb./ac. (10 lb./	2 tons/ac. (90 lb./
2	PEARL MILLET	20 lb/ac	May 16 to July 31	0.5 INCHES	1,000 sf)	1,000 sf)

SEDIMENT CONTROL NOTES A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (410-313-1855)

ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THERETO.

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B. 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDING (Sec. 8-4-5), TEMPORARY SEEDING (Sec. B-4-4) AND MULCHING (Sec. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

the contract of the contract o		
SITE ANALYSIS:		
TOTAL AREA OF SITE	:	30.2± AC.
AREA DISTURBED	:	5.2± AC.
AREA TO BE ROOFED OR PAVED	:	3.47± AC.
AREA TO BE VEGETATIVELY STABILIZED	: .	1.73± AC.
TOTAL CUT	. :	3,400± CY
TOTAL FILL	:	3,400± CY
OFF-SITE WASTE/BORROW	:	NA
AREA LOCATION		

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

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

10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER

WAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS

ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION. . A PROJECT IS TO BE SEQUENCED SO THAT THE GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

OPERINTON

CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES.

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

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

MULCHES: SEE SECTION B-4-2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS, SECTION B-4-3

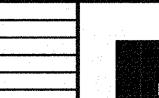
SEEDING AND MULCHING, AND SECTION B-4-4 TEMPORARY STABILIZATION. MULCH MUST BE ANCHORED TO VEGETATIVE COVER: SEE SECTION 8-4-4 TEMPORARY STABILIZATION. TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE, BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT THAT MAY PRODUCE THE DESIRED EFFECT

IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOIST, REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT THAT RUNOFF OCCURS. BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

BUILDER'S CERTIFICATE

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



APP'R.

BY

PREPARED FOR: WNER/DEVELOPER COPT Riverwood, LLC c/o COPT DEVELOPMENT SERVICES, LLC. 6711 COLUMBIA GATEWAY DRIVE, SUITE 300 COLUMBIA, MD 21046 Phone: 443-285-5400 Attn.: DAVID NORFOLK

DETAIL B-1 STABILIZED CONSTRUCTION DETAIL E-3 SUPER SILT FENCE ENTRANCE MOUNTABLE BERN (6 IN MIN.) MIN. -PIPE (SEE NOTE 6 GROUND SURFACE---PROFILE CHAIN LINK FENCING -WOVEN SUIT FILM GEOTEXTILE-L'ON -PLAN VEW EMBED GEOTEXTILE AND ---CHAIN LINK FENCE 8 IN MIN. INTO GROUND CONSTRUCTION SPECIFICATIONS . INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 NCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART, DRIVE THE POSTS A MINIMUM OF 36 INCHES NITO THE GROWNO. . Fasten 9 gauge or heamer galvanized chain link fence (2% inch maximum opening) 42 inches in height securely to the fence posts with wire ties or hug rings.

-----SF-----

___36 IN WIN. FENCE POST LENGTH DRIVEN MIN. 16 IN INTO CROUND

FENCE POST 18 IN MIN. -ABOVE GROUND

-- UNDISTURBE

WOVEN SUT FILM GEOTEXTILE

CONSTRUCTION SPECIFICATIONS PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE ORDINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERN WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFED ON APPROVED PLAN, WHEN THE SEE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGED CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS 5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SUBFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, ON TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAYEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

ELEVATION

CROSS SECTION

DINING TWO ADJACENT SILT

J.S. DEPARTMENT OF AGRICULTURE
AL RESOURCES CONSERVATION SERVICE 2011 WATER MANAGEMENT ADMINISTRATION

FENCE SECTIONS (TOP VIEW

DETAIL E- 9-1 STANDARD INLET PROTECTION

-18 IN MIN. -NOTCH ELEVATION

9 GAUGE CHAIN ---UNK FENCE (TYP.)

ISOMETRIC VIEW

SECTION FOR TYPE A AND B

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL FROSION AND SEDUENT CONTROL

9 FT....

TYPE E

WARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

[D] @

HADDAM DRANACE AREA # 1% AC

--- NAILING STRIP

WOVEN SUT FILM GEOTEXTILE

IYPE_A

AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE J.S. DEPARTMENT OF AGRICULTURE
ALL RESOURCES CONSERVATION SERVICE

2011

WATER MANAGEMENT ADMINISTRATION CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE

DETAIL E-1 SILT FENCE

CENTER TO CENTER

WOVEN SUT FILM----GEOTEXTILE

KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT, IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS EEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULI AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT, CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PEF 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHÁDE RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.

KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED ure area. Mixture includes: certified kentucky bluegrass cultivars 30 to 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 11/2 TO 3 POUNDS PER 1000 SQUARE FEET

SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 58,

CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE

STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY. k. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY RE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE

PERMANENT SEEDING SUMMARY

PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

HARDINESS ZONE: 6b SEED MIXTURE: #9 (Tall Fescue/ Kentucky Bluegrass)				FERTILIZER		
No.	SPECIES	APPLICATION RATE	SEEDING DATES	SEEDING DEPTHS	- RATE (10-20-20)	RATE
9	*Certified Toll Fescue blend (95% by weight): Falcon IV, Penn 1901 & Rebel Exeda and Certified Kentucky Bluegrass blend (5% by weight): Courtyard, Raven & Yankee	6-8 lb/ 1000 s.f.	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/4 – 1/2 IN	1.0 lb/ 1000 s.f. (45 lb/acre)	90 lb/ 1000 s.f.

* Other cultivars listed as "proven" in the most current UMD TT-77 may also be used B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

I. GENERAL SPECIFICATIONS CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED, SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING, MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH, BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE

STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL

2. SOD INSTALLATION

SCIENTIST PRIOR TO ITS INSTALLATION.

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL. LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH, ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH
STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE HE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLE

HE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT

3. SOD MAINTENANCE

IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.

DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

PLAN YEW VISTRUCTION SPECIFICATIONS SECTION A-A USE BASKETS MADE OF 11 GAUGE WIRE OR HEAVER.

WALP 3 FEET X 3 FEET GARON BANGETS (LENGTH VARIABLE) WITH MONIMORN COIDCIRL AS SECONDED IN SECTION H-1 MATERIALS, ORGANIPHOR AT THE TOP AND FASTON THE GENORIFIE AT THE TOP OF THE BASKET WITH WIKE FASTENERS (NOC PRICS) AT A MADMAN OF 1 FOOT INTERVALS ALONG THE SOLD. S. AVOID TEARING OR DAMACING GEOTEXTILE. L. DITROYCH GABON BASKETS TO A DEPTH OF 6 WICHES. A PLACE AND INTERLOCK GASION BASKETS WITH NO GAPS. FILL GASION BASKETS WITH CLEAN 4 TO 7 ENCH STONE OR EQUIVALENT RECYCLED CONCRETE WITHOUT REGING OR MESH. STORM DRAIN REET PROTECTION RECURRES FREQUENT MAINTENANCE, REMOVE ACCUMIRATED SEDMENT AFTER EACH RURE EVENT TO MAINTAIN FUNCTION AND A YOLD PREMAINE CLOSOME. IN RAET PROTECTION DOCS NOT COMPLETELY ORAN WHEN 24 HOUSE AFTER A STORM EVENT, IT IS CLOSED, WICH THIS DOCUME, REMOVE ACCUMIRATED SEDMENT AND CLEME, OR REPLACE CEOTEXTRE AND STOVE.

GUILFORD ELECTION DISTRICT No. 6

U.S. DEPARTMENT OF ACROCALTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT ATMINAL RESOURCES CONSERVATION SERVICE 2011 WATER MANAGEMENT ADMINISTRATION THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

> RIVERS CORPORATE PARK SECTION 1, AREA 2 PARCELS 'A-2', 'C-5' and 'C-6' PLAT No. 11730, 20428-20429, 21387 and F-14-059

SEDIMENT CONTROL NOTES and DETAILS (PHASE 2) SCALE ZONING G. L. W. FILE No. NO SCALE TAX MAP - GRID SHEET DATE 20 OF 23 HOWARD COUNTY, MARYLAND

DETAIL E-2 SILT FENCE ON PAVEMENT

ISOMETRIC VIEW

2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS

SECURE BOARDS TO PAVEMENT WITH 400 5 INCH WINIMUM LENGTH NAILS.

DETAIL E-9-2 AT-GRADE INLET PROTECTION

. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE MSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.

KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRICHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL ATTACH LATHE.

PROVIDE A MASTIC SEAL BETWEEN PAVENENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADER WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.

D. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT, REPLACE GEOTEXTILE IF TORN, MAINTAIN WATER TIGHT SEAL ALONG BOTTOM, REPLACE STONE IF DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMONSTRATION

PLAN / CUT AWAY MEW

. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.

. PLACE CLEAN % TO 1% INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING, IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDMENT AND CLEAN, OR REPLACE GEOTEXTIC

2 IN x 4 IN WOR

FT MAX. SPACERS 4 TO 1% STONE -

2 IN x 4 IN ANCHORS, 2 FT MIN. LENGTH

%, TO 1% IN STONE

INLET CRATE

[___]CIP

OF 2 IN x 4 IN

mannan dranage area = % agre

SECTION A-A

SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH X 4 INCH LUMBER

NONWOVEN GEOTEXTILE ----

CONSTRUCTION SPECIFICATIONS

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

DETAIL E-9-3 CURB INLET PROTECTION

LEDGE OF GUTTER PAN

USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

S. NAIL THE 2x4 WER TO 8 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).

ATTACH A CONTINUOUS PIECE OF % INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SDC.

PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.

PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH), EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORNIG METHOD.

8. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING, COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ½ TO 1½ INCH STONE OF EQUIVALENT RECYCLED CONCRETE.

). At non-sump locations, install a temporary sandbag or asphalt berm to prevent inlet rypass

O. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SECIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION OCCES NOT COMPLETELY DRAIN MITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING

ISOMETRIC

. USE NOMINAL 2 INCH x 4 INCH LUMBER

CONSTRUCTION SPECIFICATIONS

----SFOP------

AGIP

MAXIMUM DRAINAGE AREA - 1 A

- 1/4 TO 11/4 IN STONE

——SSF——

-36 IN MIN.

_____SF____

SP SP

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

ELEVATION

CROSS SECTION

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A INIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DECREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

USE WOOD POSTS 1% \times 1% \pm % (NOH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "I" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER UNEAR FOOT.

USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APAR

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.

USE WOVEN SUIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.

EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.

EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE AUGMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.

REMOVE ACCUMULATED SEDMENT AND DEBRIS WHEN BULGES DEVELOP IN SLT FENCE OR WHEN SEDMENT REACHES 25% OF FENCE HEIGHT, REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT
ATURAL RESOURCES CONSERVATION SERVICE 2011

EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION

. FOR TYPE A, USE NOMINAL 2 NCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INET, PLACE NAIL STRPS BETWEEN THE POSTS ON THE ENDS OF THE INET. ASSEMBLE THE TOP PORTION OF THE EXAF FRAME AS SHOWN, STRETCH X, INCH GALVANIZED HARDWARE CLOTH TICHTLY AROUND THE FRAME AND FASTEN SECURELY, FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TES SPACED EVERY 24 INCHES THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WER CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

2011

MARYLAND DEPARTMENT OF EMPROWMENT
WATER MANAGEMENT ADMINISTRATION

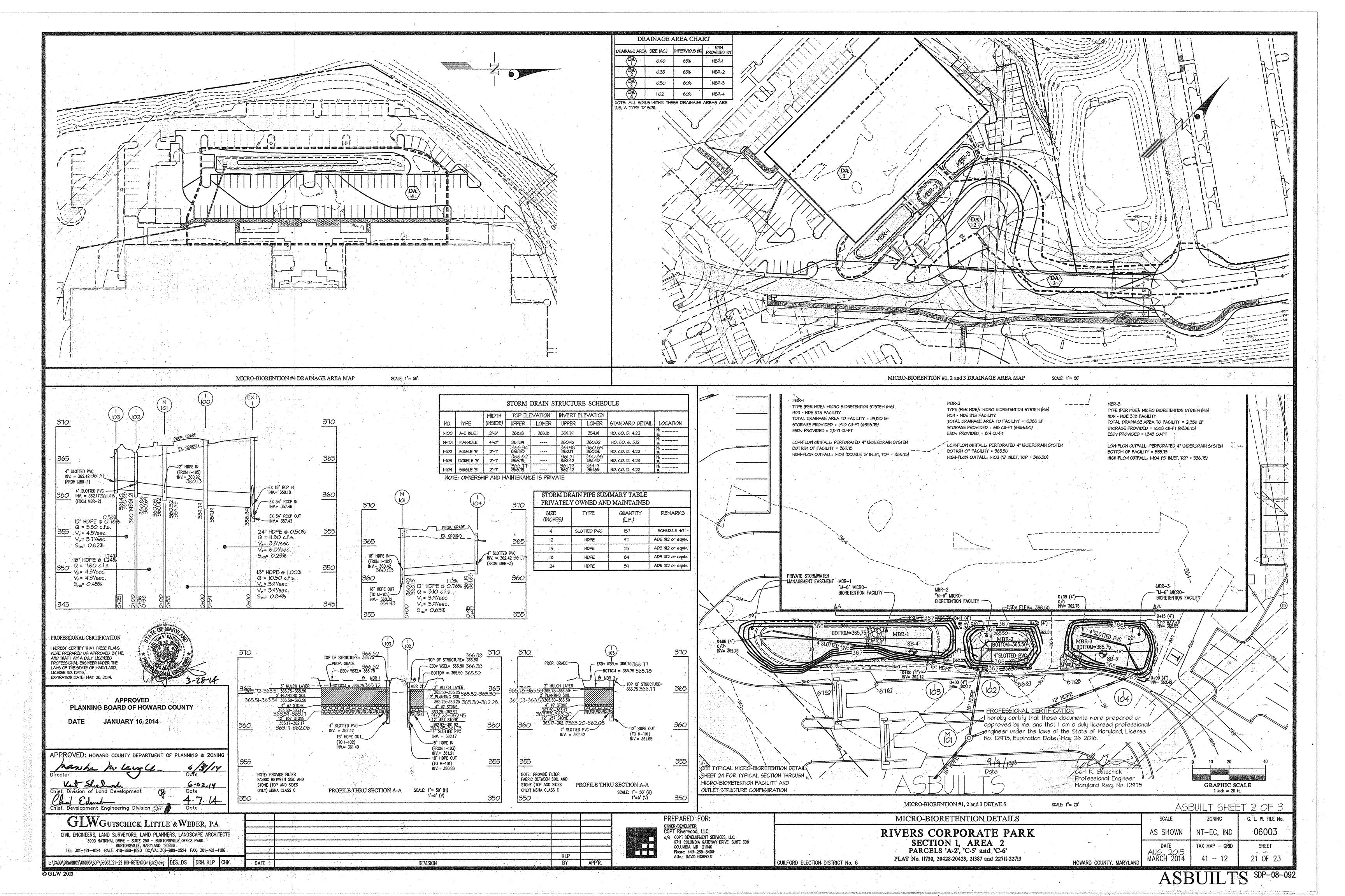
DETAIL E- 9-1 STANDARD INLET PROTECTION

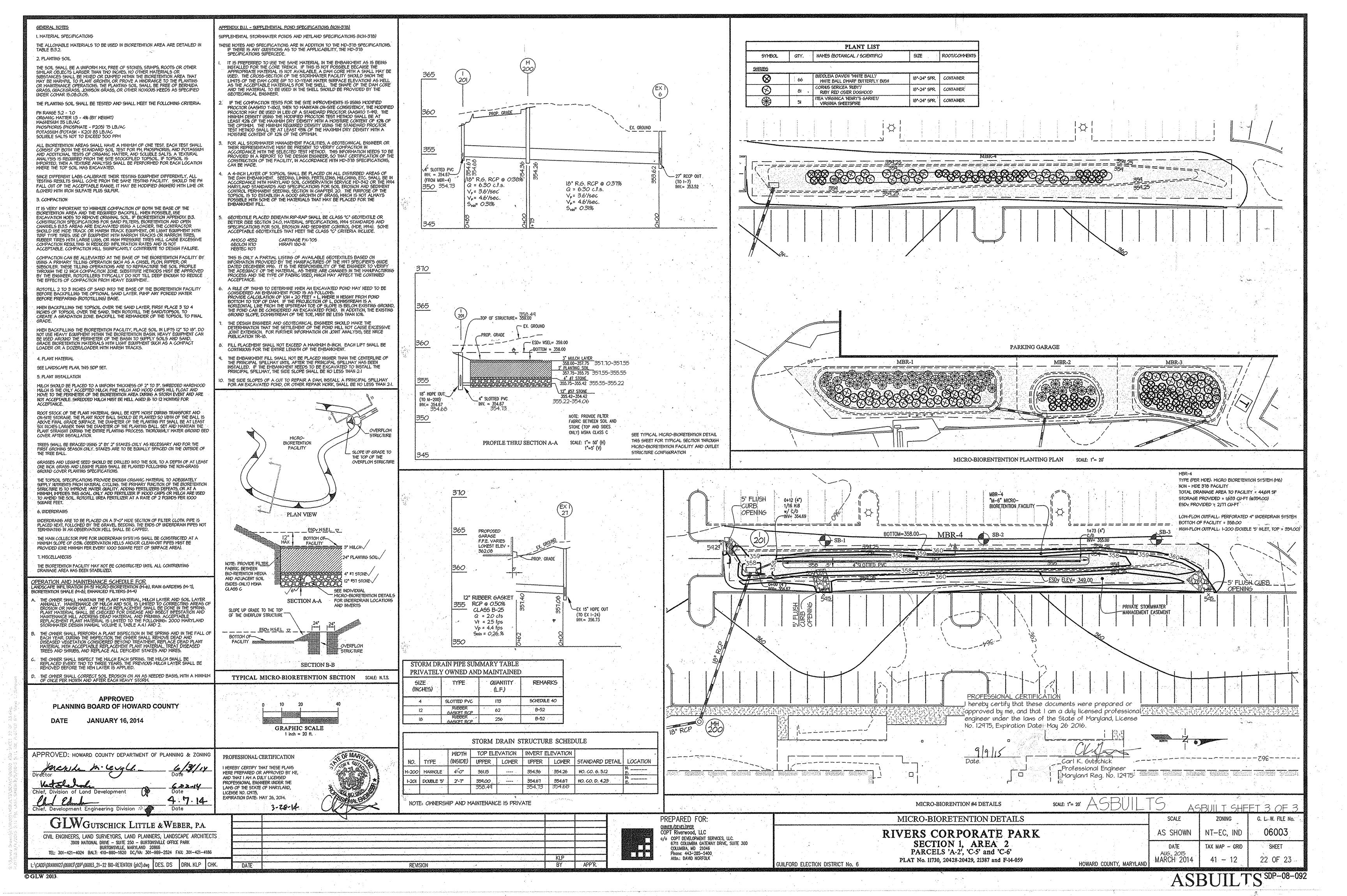
. USE WOVEN SUT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
2011
WAYLAND DEPARTMENT OF EMARCHMENT
WATER MANAGEMENT ADMINISTRATION

DETAIL F-1 SILT FENCE

ONSTRUCTION SPECIFICATIONS





LANDSCAPE NOTES (FOR PHASE 2) SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING PLANT SCHEDULE THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & THE HOWARD COUNTY LANDSCAPE MANUAL. 920 TOTAL SURFACE PARKING SPACES IN PHASE I and NUMBER OF PARKING SPACES TYPE 855 TOTAL SURFACE PARKING SPACES IN PHASE 2 SYMBOL QUANT. NAME (BOTANICAL/COMMON) SIZE COMMENTS THERE ARE 65 LESS SURFACE PARKING SPACES IN PHASE 2, THEREFORE TREES PROVIDED ARE FOR THE NEW PARKING IN PHASE 2 ONLY CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STARTING WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING NUMBER OF TREES REQUIRED 4 (83 NEW SURFACE PARKING SPACES IN REAR OF 1200 RIVERWOOD DR. BUILDING AT I PER 20 COMMERICAL SPACES) CANOPY SHADE TREE UTILITIES, ON SHEET NO. I SHALL APPLY. ZELKOVA SERRATA 'GREEN VASE' B&B, FULL (at 1 per 20 commercal spaces) 2.5"-3.0" CAL. 3 (63 NEW SURFACE PARKING SPACES IN FRONT OF 7200 RIVERWOOD DR. BUILDING AT I PER 20 COMMERICAL SPACES) 'GREEN VASE' NUMBER OF TREES PROVIDED FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK. CONTACT CONSTRUCTION MANAGER OR OTHER TREES (2:1 substitution) OWNER IF ANY RELOCATIONS ARE REQUIRED. LANDSCAPE SURETY FOR REQUIRED TREES PER SCHEDULE-A AND SCHEDULE-B: PLANT QUANTITIES SHOWN ON THE PLANT LIST ARE PROVIDED FOR THE NOTE: ALL PLANTS SHALL BE GROWN AND SUPPLIED BY A NURSERY THAT IS LESS THAN 500 MILES FROM THIS SITE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION IN ACCORDANCE WITH LEED REQUIREMENTS. CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST 7 SHADE TREES at \$300/TREE = \$ 2,100.00 BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE. RIVERWOOD DRIVE LOCAL ROAD (60' PUBLIC R/W, 44' PAVING) ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, PLAT Nos. 6018 \$ 6020 AND CONFORM TO THE A.A.N. SPECIFICATIONS. IN ADDITION, ALL REQUIRED PLANTING FOR THE LANDSCAPE ISLANDS IN THE PARKING LOT SHALL CONFORM TO THE HOWARD COUNTY LANDSCAPE MANUAL. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THIS PLAN. SEE SHEET 14 FOR PLANTING DETAILS. NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY DPZ AND THE OWNER OR HIS REPRESENTATIVE. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE OPEN SPACE LOT I PLANTED, PAVED, OR MULCHED SHALL BE SODDED OR SEEDED IN RIVERS CORPORATE PARK PARCEL D-I SECTION I AREA 2 (RESUB. OF PARC. D) ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF PLAT No. 6017 & 6019 RIVERS CORPORATE PARK 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS. (NT-CREDITED OPEN SPACE) SECTION I AREA 2 PLAT No. 6020 \$ _____ 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. ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS. DO NOT PLANT WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT. VERIFY THE LOCATION AND DEPTH OF THE COMMUNICATION LINE(S) WITHIN THE AT&T R/W PRIOR TO ANY PLANTING WITHIN THIS R/W. THE CONTRACTOR SHALL CONTACT GLW FOR ANY NECESSARY RELOCATION OF PLANT PARKING GARAGE MATERIALS. "SCHEDULE-B" IS PROVIDED FOR LANDSCAPE SURETY CALCULATION PURPOSES. ADDITIONAL* FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$2,100,00 FOR THE FOLLOWING PLANTS: 7 SHADE TREES at \$300/TREE = \$2,100.00 TO REQUEST A LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE POSTED LANDSCAPE SURETY, SUBMIT A WRITTEN REQUEST OF LANDSCAPE INSPECTION, ALONG WITH A COPY OF THE ONE YEAR LANDSCAPE PLANT WARRANTY, TO THE DIVISION OF LAND DEVELOPMENT, HO. CO. DEPT. OF PLANNING AND ZONING. * PREVIOUS LANDSCAPE SURETY POSTED (PHASE-I); \$11,520.00 ADDITIONAL LANDSCAPE SURETY (PHASE-2): TOTAL: LANDSCAPE LEGEND EXISTING TREES TO REMAIN EXISTING TREELINE PROPOSED TREELINE PARCEL C-6 PROPOSED SHADE TREE (RESUB. OF PARC. C-I/C-4) PLAT No. 11730 & ______ ZONED: NT-EC, IND (SDP-06-115 & SDP-95-69) NOTE: SEE SHEET 14 FOR TREE PLANTING DETAILS AND "SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS" 7200 RIVERWOOD DRIVE FFE. 362.00 EX. I-STORY BUILDING GRAPHIC SCALE (SDP-85-89) DEVELOPER'S / BUILDER'S CERTIFICATE I/ME CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL, AND THE APPROVED MAPLE LAWN FARMS LANDSCAPE DESIGN DEVELOPMENT CRITERIA. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING APPROVED PLANNING BOARD OF HOWARD COUNTY **JANUARY 16, 2014** APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING MORN THE ROOM WHEN THE PROPERTY AND THE 603-14 THIS PLAN IS FOR PLANTING PURPOSES ONLY Chief, Development Engineering Division PREPARED FOR: LANDSCAPE PLAN (PHASE 2) GLWGUTSCHICK LITTLE &WEBER, P.A. SCALE G. L. W. FILE No. OWNER/DEVELOPER COPT Riverwood, LLC RIVERS CORPORATE PARK NT-EC, IND 1" = 50'CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS c/o COPT DEVELOPMENT SERVICES, LLC. 6711 COLUMBIA GATEWAY DRIVE, SUITE 300 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK SECTION 1, AREA 2 BURTONSVILLE, MARYLAND 20866 DATE TAX MAP - GRID SHEET COLUMBIA, MD 21046 Phone: 443-285-5400 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186 PARCELS 'A-2', 'C-5' and 'C-6' Attn.: DAVID NORFOLK PLAT No. 11730, 20428-20429, 21387 and F-14-059 MARCH 2014 23 OF 23 L:\CADD\DRAWNGS\06003\SDP\06003_23 LS (ph2).dwg DES. MBT DRN. KLP CHK. CKG GUILFORD ELECTION DISTRICT No. 6 REVISION HOWARD COUNTY, MARYLAND

