

SAME-DAY STABILIZATION NOTE:

7/18/2023

7/18/2023

7/26/2023

DATE

APPROVED: FOR PRIVATE SEWERAGE SYSTEMS 7/26/2023

DEPARTMENT OF PLANNING AND ZONING

Michael J. Davis

CHAD Edmondson

Julia Saver ACTING

Lynda Eisenberg

Howard County Health Department

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND THE DOCUMENT

ANY AREAS SHOWN ON THESE PLANS OUTSIDE OF PERIMETER SEDIMENT CONTROLS SHALL BE SAME-DAY STABLIZED.

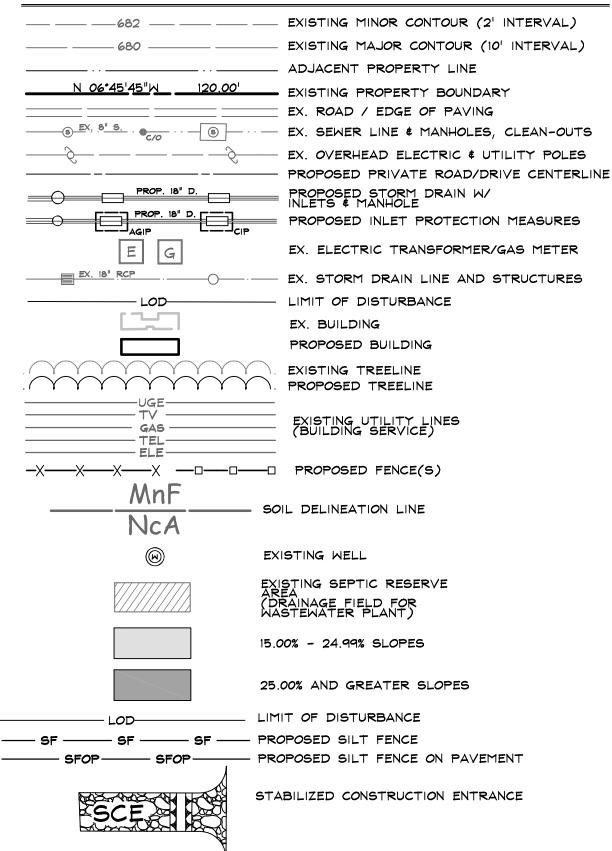
OWNER / DEVELOPER CERTIFICATION:

OWNER 46EROES OF EERO SIGNATURE

MATTHEW A. TAYLOR, DEVELOPMENT MANAGER

SCALE

DRAWING LEGEND



DATA SOURCES:



Surveyors 192 East Main Street

Westminster, MD 21157 410.386.0560 410.386.0564 (Fax) DDC @ DDCinc.us

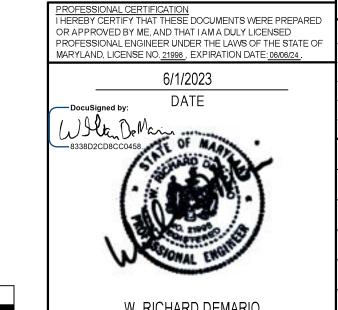
OWNER: LISBON PLAZA, LLC C/O ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-100

DEVELOPER: ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-0100

SITE ADDRESS: 700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

LISBON CENTER, PARCELS 'G' & 'H'
SITE DEVELOPMENT PLAN

CEDIMENT & EDOCION



GRAPHIC SCALE

REBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED APPROVED BY ME, AND THAT I AM A DULY LICENSED FESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF YLAND, LICENSE NO. 21998. EXPIRATION DATE: 160/16/24.	
6/1/2023	L
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W. RICHARD DEMARIO PROFESSIONAL ENGINEER 21998

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VERE PREPARED LICENSED DE THE STATE OF		REVISIONS				

DRN. REV. DATE DESCRIPTION OF CHANGES CO. FILE #: SDP-23-009 DES. BY: RAM/LJC TAX ACC. #: 04-341902 DRN. BY: LJC/RAM TAX MAP: 2 CHK. BY: WRD BLOCK / GRID: 24 DATE: 6/1/2023 PARCEL #: 82 DDC JOB#: 21029.1 SHEET NUMBER: ZONE / USE: B-2/RC-DEO

EVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

DocuSigned by:

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR

DESIGN CERTIFICATION I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. WHanDeMann

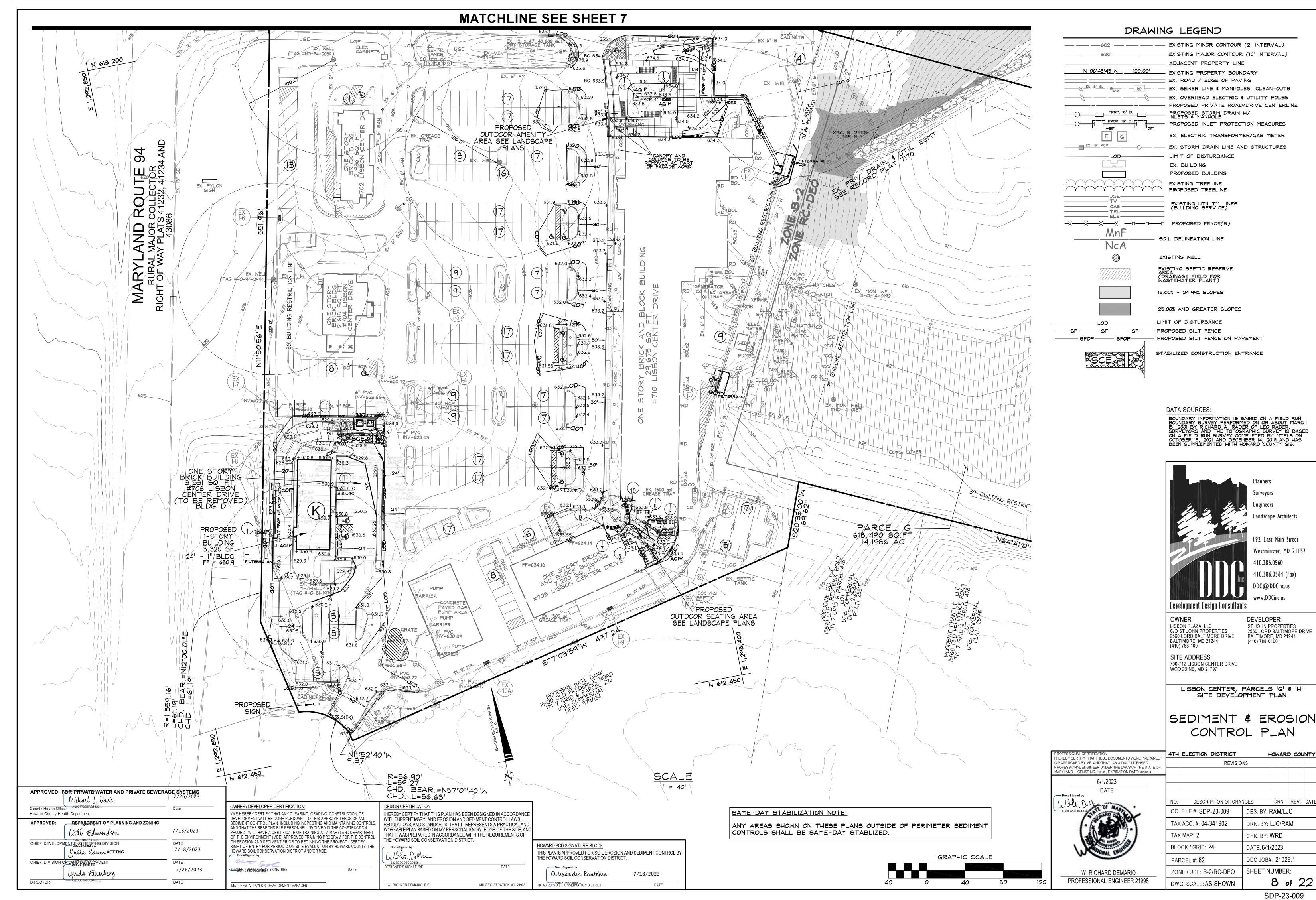
W. RICHARD DEMARIO, P.E.

HOWARD SCD SIGNATURE BLOCK

MD REGISTRATION NO. 21998

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 7/18/2023 Olexander Bratchie HOWARD SOIL CONSERVATION DISTRICT

7 of 22 DWG. SCALE: AS SHOWN



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

Definition - The process of preparing the soils to sustain adequate vegetative stabilization Purpose - 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
 a. 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 agricultural or construction equipment. 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. b. Apply fertilizer and lime as prescribed on the plans. c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or
- 2 Permanent Stabilization a. 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.
 - . Soluble salts less than 500 parts per million (ppm). . 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 noderate 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.

 b. Application of amendments or topsoil is required if on-site soils do not meet the c. 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.

 d. 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 site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and riable. Seedbed loosening may be unnecessary on newly disturbed areas.
- Topsoiling
 1. 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 2. 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: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

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

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

 d. The soil is so acidic that treatment with limestone is not feasible.
- Areas having slopes steeper than 2:1 requires special consideration and design.

 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 loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a scientist and approved by the appropriate approval authority. Topsoil must not be mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.

 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. c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in
- Topsoil Application a. Erosion and sediment control practices must be maintained when applying topsoil b. 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 pockets.
 c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy ondition, when the subsoil is excessively wet or in a condition that may otherwise
- be detrimental to proper grading and seedbed preparation.

 C. Soil Amendments (Fertilizer and Lime Specifications) oil 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 analyses.

 2. 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 athlority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer. 3. Lime materials must be ground limestone (hydrated or burnt lime 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. 4. 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. 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground

nestone at the rate of 4 to 5 tons/acre (200-400 pounds per 1,000 square feet) prid

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING Definition - The application of seed and mulch to establish vegetative cover

APPROVED: FOR PRIVATE SEWERAGE SYSTEMS

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Michael J. Davis

(Hd) Edmondson

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Lynda Eisenbera

Howard County Health Department

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LASSES THE DOCUMENT DOCUMENT

APPROVED:

DIRECTOR

Purpose - To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies - To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

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A. Seeding
1. Specifications
2 All seed

to the <u>placement of topsoil.</u>

a. 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. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate. and seeding rate.

b. 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 c. 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 and make the inoculant less effective. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14

days min.) to permit dissipation of phyto-toxic materials. a Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. ii. 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.

 b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with i. 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. ii. 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).
 i. If 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 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 hydrated lime when hydroseeding. iii. Mix seed and fertilizer on site and seed immediately and without iv. When hydroseeding do not incorporate seed into the soil

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OWNER/DEVELOPER CERTIFICATION:

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OWNE749E8EPEEBPEER'S SIGNATURE

MATTHEW A. TAYLOR, DEVELOPMENT MANAGER

HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR

EVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND

AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION

ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT, I CERTIFY

EDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS

ROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT

OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL

RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE

Mulch Materials (in order of preference) a. 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

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. 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 WCFM, including dye, must contain no germination or growth inhibiting 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, fertilizer 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. v. WCFM must conform to the following physical requirements: fiber length of 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

0 percent minimum. 2. Application a. Apply mulch to all seeded areas immediately after seeding.
b. 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.

c. 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.

3. Anchoring
a. 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 erosion hazard:

i. 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, this practice should follow the ii. 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 iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the 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. iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

wide and 300 to 3,000 feet long.

Definition - To stabilize disturbed soils with vegetation for up to 6 months. Purpose - 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.

I. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.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.

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. 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 until the next seeding season.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION Definition - To stabilize disturbed soils with permanent vegetation.

Purpose - To use long-lived perennial grasses and legumes to establish permanent ground cover Conditions Where Practice Applies - Exposed soils where ground cover is needed for 6 months or

Criteria

A. Seed Mixtures . General Use

a. Select one or more of the species or mixtures listed in Table B.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 rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed 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 c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ 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.

2. Turfgrass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site 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

. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 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 bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture 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.

iii. 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 shade. 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. be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

Notes: Select turfgrass varieties from those listed in the most current Univ. of Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Choose certified material. Certified material is the best guarantee of cultivar

c. Idea! Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) 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 (Hardiness Zones: 7a, 7b)

DESIGN CERTIFICATION

WHEn DeMarin

DESIGNER'S SIGNATURE

W. RICHARD DEMARIO, P.E

d. 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 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

iod: To provide a pick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications

a Class of turfarass sod must be Marvland State Certified. Sod labels must be

a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector. made available to the job foreman and inspector.

b. Sod must be machine cut at a uniform soil thickness of % inch, plus or minus ¼ 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 acceptable.

c. 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.

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

e. 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 scientist prior to its installation.

THEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE

REGULATIONS. AND STANDARDS. THAT IT REPRESENTS A PRACTICAL AND

WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE. AND

MD REGISTRATION NO. 21998

THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF

THE HOWARD SOIL CONSERVATION DISTRICT.

WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS,

2. Sod Installation

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel 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. c. 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 underlying soil surface. d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours. 3. Sod Maintenance

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

PERMANENT SEEDING NOTES

Scope: Planting permanent, long lived vegetative cover on graded and/or cleared areas and areas that have been in temporary vegetation for more than 6 months.

incorporating the lime and fertilizer into this loosened layer of soil. See section B-4-2.

height of at least 3 inches unless otherwise specified.

Standards: The following notes shall conform to Section B-4 of the "2011 MARYLAND" STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service and the Maryland Association of Soil Conservation Districts. The seed bed shall be prepared by loosening the soil to a depth of 3 to 5 inches and

For sites over 5 ac. soil tests will be performed. Soil tests will be conducted by the University of Maryland or a recognized commercial laboratory. Minimum soil conditions shall meet the requirements of section B-4-2-A-2-a, otherwise soil amendments or topsoil will need to be applied. Topsoiling may occur when soil conditions meet the minimum requirements as stated in section B-4-2-B. Soil amendments must meet the requirements as set forth in section B-4-2-C and must be applied as indicated by the soils tests.

For sites of 5 ac. or less of disturbance, the following fertilizer and lime rates shall apply. Fertilizer shall consist of a mixture of 10-20-20 and be applied at the following rates: N = 45 lb. per acre (1 lb. per 1000 sq.ft.) P205 = 90 lb. per acre (2 lb. per 1000 sq.ft.) K20 = 90 lb. per acre (2 lb. per 1000 sq.ft.)

Seed type, turfgrass or sod application shall meet the requirements in section B-4-5. Seed tags shall be made available to the inspector to verify the type and application rate of seed used. Mulch type and its application will meet the requirements in section B-4-3 a, b and c, and will be applied along with seed or immediately after seeding

Seeding mixtures shall be selected from or will be equal to those on Table B-3.

Lime shall be applied at a rate of 2 tons per acre (90 lb. per 1000 sq.ft.)

Permanent Seeding Summary

HARDINESS ZONE (from Figure B.3): FERTILIZER RATE Seed Mixture (from Table B.1): (10-20-20)								LIME RATE	7
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P20s	K20		
1	Annual Ryegrass	40	2/15-4/30 8/15-11/30	1/4 - 1/2 in.	45 pounds				
2	Foxtail Millet	30	5/1-8/14	1/4 - 1/2 in.	per acre (1.0 1b/1000	(2 1b/1000 s.f.)	(2 1b/1000 s.f.)	2 TONS/AC (90 LB/1000 SF)	
					s.f.)	· 	·		

Scope: Planting short term (no more than 6 Months) vegetation to temporarily stabilize any areas where soil disturbance has occurred, until the area can be permanently stabilized with vegetative or non-vegetative practices.

Standards: The following notes shall conform to Section B-4 of the©2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" published jointly by the Maryland Department of Environment - Water Management Administration, the National Resource Conservation Service and the Maryland Association of Soil Conservation Districts

The seed bed shall be prepared by loosenina the soil to a depth of 3 to 5 inches and incorporating the lime and fertilizer into this loosened layer of soil. See section B-4-2

For temporary stabilization, fertilizer shall consist of a mixture of 10-20-20 and be applied at a rate of 436 lb. per acre (10 lb. per 1000 sq. ft.) and will meet the requirements in section B-4-2. Lime shall be applied at a rate of 2 tons per acre (90 lb. per sq. ft.) and shall meet the requirements in section B-4-2 and B-4-4

Seed type and application shall meet the requirements in section B-4-3 Seed tags shall be made available to the inspector to verify the type and rate of seed used. Mulch type and its application will meet the requirements in section B-4-3 a, b and c and will be applied along with the seed or immediately after seeding

Seeding mixtures shall be selected from or will be equal to those on Table B.1 (page B.20).

Temporary Seeding Summary

	H	ARDINESS ZONE Seed Mixture	FERTILIZER RATE	LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-20-20)	
1	Tall Fescue 85%	125	3/1 to 5/15 8/15 to 11/15	1 n	42.1.2.1.2	
	Perennial Ryegrass 10%	15	3/1 to 5/15 8/15 to 11/15	1 2	436 LB/AC (10 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF
	Kentucky Biuegrass 5%	10	3/1 to 5/15 8/15 to 11/15	1 "		

Sequence of Construction

HOWARD SCD SIGNATURE BLOCK

HOWARD SOIL CONSERVATION DISTRICT

THE HOWARD SOIL CONSERVATION DISTRICT.

Olexander Bratchie

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY

7/18/2023

- 1. Obtain a Grading Permit. (1 day) 2. Notify "Miss Utility" at least 48 hours before beginning any work at 1-800-257-7777. Notify Howard County Department of Inspections, Licenses and Permits, Sediment Control Division at 410-313-1855 at least 24 hours
- before starting any work. (2 days)
- Install SCE at locations shown on plan. (1 day)
 Install Silt Fence on Pavement (SFoP), CIP, and AGIP in accordance to the Sediment Errosion Control plan on sheet 7 and 8. (3 days) Demolish existing paving, curb \$ gutter and other features as shown on the demolition plan. (1 week)
- Complete debris removal (1 week)
- Transition inlet protection to new inlets as the work progresses. (1 week)
- Install Filterras 1, 2, 3. It is important that during the pour for the gutter pan there needs to be a 4" clear opening for the throat. (See Sheet 14 for details) (1 week) Dust control will be provided for all disturbed areas. Refer to "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", pg H.22, for acceptable methods and specifications for dust control
- (ongoing) (18 to 24 weeks). With all disturbed areas stabilized, and with permission from the sediment control inspector, remove sediment
- control devices. (1 week) Notify Howard County Office of Inspections and Permits for a final inspection of the completed site. (2 days)

SEDIMENT CONTROL NOTES

- 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID.) 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN
- AT THE FOLLOWING STAGES: a. PRIOR TO THE START OF EARTH DISTURBANCE.
- b. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
- c. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,
- d. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES
- OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- 4. 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 TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6)
- 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 CID.
- SITE ANALYSIS: TOTAL AREA OF SITE 26.02 ACRES AREA DISTURBED 1.83 ACRES AREA TO BE ROOFED OR PAVED: 1.61 ACRES AREA TO BE VEGETATIVELY STABILIZED: 0.22 ACRES TOTAL CUT: 100 CU.YDS. TOTAL FILL: 100 CU.YDS. OFFSITE WASTE/BORROW AREA LOCATION: N/A * THE NUMBERS SHOWN ARE FOR REVIEWING AGENCIES ONLY CONTRACTOR TO
- VERIFY QUANTITIES ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE

- 8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY: AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
- INSPECTION DATE · INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT) NAME AND TITLE OF INSPECTOR
- . WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE)
- AND/OR CURRENT ACTIVITIES • EVIDENCE OF SEDIMENT DISCHARGES
- IDENTIFICATION OF PLAN DEFICIENCIES . IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE . IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT
- CONTROLS . COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
- PHOTOGRAPHS MONITORING/SAMPLING
- MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED · OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR
- STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND
- STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER. 10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
- DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT 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 THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY
- 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
- 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
- 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION. 15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING
- RESTRICTED TIME PERIODS (INCLUSIVE): USE I AND IP MARCH 1 - JUNE 15 • USE III AND IIIP OCTOBER 1 - APRIL 30

MAY BE DISTURBED AT A GIVEN TIME.

 USE IV MARCH 1 - MAY 31 16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE

DATA SOURCES:

BOUNDARY INFORMATION IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH 15, 2001 BY RICHARD A. RADER OF LEO RADER, SURVEYORS AND THE TOPOGRAPHIC SURVEY IS BASED ON A FIELD RUN SURVEY COMPLETED BY MTPLS ON OCTOBER 13, 2021 AND DECEMBER 14, 2019 AND HAS BEEN SUPPLEMENTED WITH HOWARD COUNTY GIS.



Engineers Landscape Architects 192 East Main Street Westminster, MD 21157 410.386.0560 410.386.0564 (Fax)

DDC @ DDCinc.us

Planners

Surveyors

Development Desian Consultants OWNER: LISBON PLAZA, LLC C/O ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244

DEVELOPER: ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-0100

SITE ADDRESS: 700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

LISBON CENTER, PARCELS 'G' & 'H' SITE DEVELOPMENT PLAN

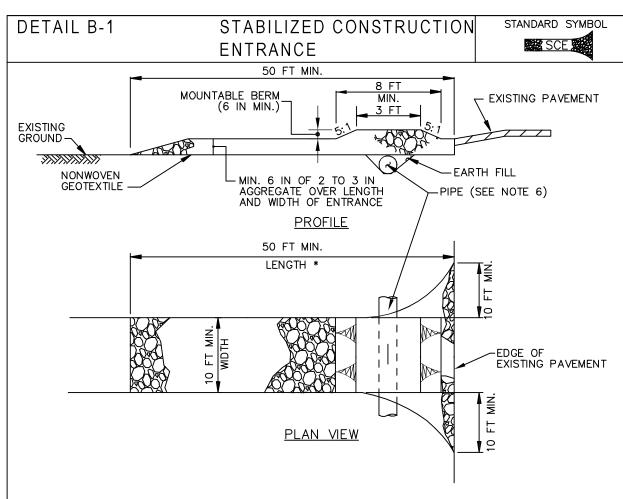


<u>'OFESSIONAL CERTIFICATION</u> EREBY CERTIFY THAT THESE DOCUMENTS WERE PREPAREC OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE O IARYLAND, LICENSE NO. 21998, EXPIRATION DATE: 06/06/2 6/1/2023 DATE WHEn DOM W. RICHARD DEMARIO

PROFESSIONAL ENGINEER 21998

4TH ELECTION DISTRICT HOWARD COUNTY REVISIONS DRN. REV. DATE DESCRIPTION OF CHANGES CO. FILE #: SDP-23-009 DES. BY: RAM/LJC TAX ACC. #: **04-341902** DRN. BY: LJC/RAM TAX MAP: 2 CHK. BY: WRD BLOCK / GRID: 24 DATE: 6/1/2023 DDC JOB#: 21029.1 PARCEL #: 82 ZONE / USE: B-2/RC-DEO SHEET NUMBER: 9 of 22 DWG. SCALE: **AS SHOW**N

SDP-23-009



CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO 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.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL DETAIL E-1 SILT ⊢----SF------FENCE 6 FT MAX 66 IN MIN. FENCE POST LENGTH CENTER TO DRIVEN MIN. 16 IN INTO GROUND -16 IN MIN. HEIGHT OF WOVEN SLIT FILM GEOTEXTILE XXXXXXXXX ^L8 IN MIN. DEPTH INTO GROUND **ELEVATION** 36 IN MIN. FENCE 💉 POST LENGTH — WOVEN SLIT FENCE POST 18 IN MIN. - ABOVE GROUND GEOTEXTILE UNDISTURBED KKKKK. A MIN. OF 16 IN INTO EMBED GEOTEXTILE THE GROUND MIN OF 8 IN VERTICALLY INTO THE GROUND, BACKEIL AND COMPACT THE SOIL O BOTH SIDES OF GEOTEXTILE **CROSS SECTION** STEP 2 STEP 1 STAPLE-—STAPLE TWIST POSTS TOGETHER ___STAPLE CONFIGURATION STAPLE-JOINING TWO ADJACENT SIL FENCE SECTIONS (TOP VIEW) 1 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

STANDARD SYMBOL DETAIL E-1 SILT FENCE ⊢----SF------CONSTRUCTION SPECIFICATIONS USE WOOD POSTS $1rac{1}{4}$ X $1rac{1}{4}$ \pm $rac{1}{6}$ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT

LESS THAN 1 POUND PER LINEAR FOOT. . USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.

USE WOVEN SLIT 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

INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT

PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE

- THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS
- 3. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS,

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MARYLAND DEPARTMENT OF ENVIRONMENT

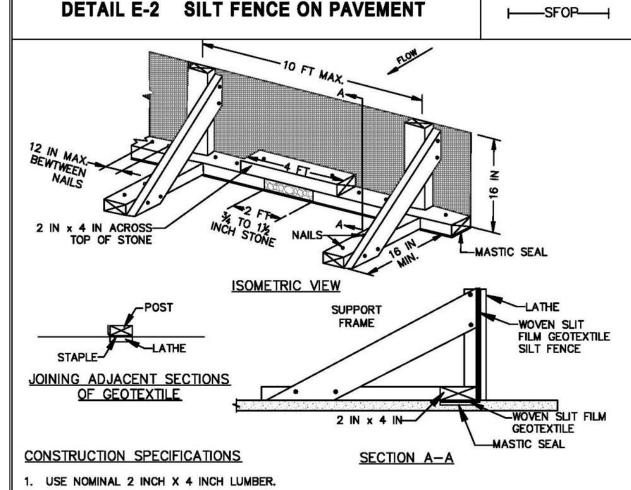
WATER MANAGEMENT ADMINISTRATION

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE



STANDARD SYMBOL

GEOTEXTILE

GALVANIZED,

HARDWARE

- 2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 3. 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.
- 4. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- 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 UPRIGHT 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 PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN
- WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
- SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
- 10. 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 MARYLAND DEPARTMENT OF ENVIRONMENT

NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-3 CURB INLET PROTECTION

∠ 2 IN × 4 IN WEIR

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

. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).

∠EDGE OF GUTTER PAN

ISOMETRIC

USE NOMINAL 2 INCH x 4 INCH LUMBER

OTHER APPROVED ANCHORING METHOD.

CONSTRUCTION SPECIFICATIONS

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREA

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

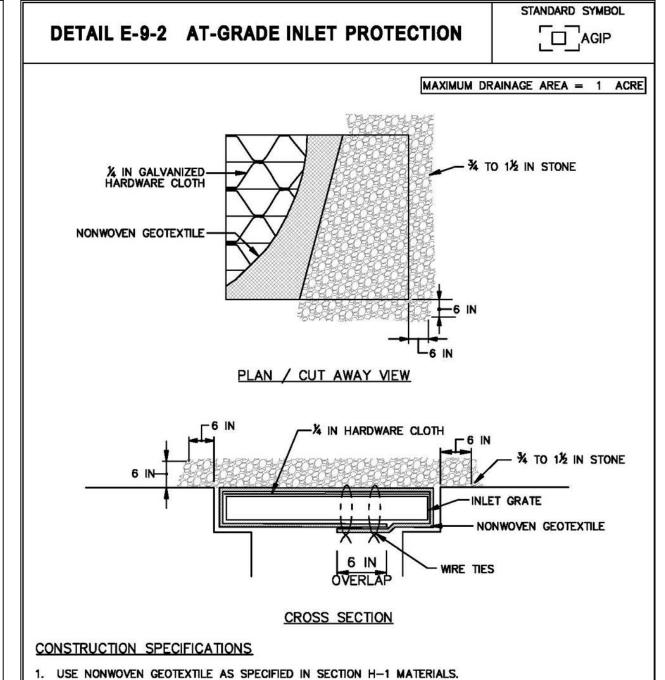
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- 3. Runoff from the stockpile area must drain to a suitable sediment control practice.
- 4. Access the stockpile area from the upgrade side.
- 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.



MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

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

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

PLACE CLEAN 34 TO 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT 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 SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE

W. RICHARD DEMARIO, P.E.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL DETAIL E-9-6 COMBINATION COIP INLET PROTECTION MAXIMUM DRAINAGE AREA = 1/4 ACRE 2 FT MIN. LENGTH-OF 2 IN x 4 IN 2 IN x 4_ SANDBAG OR IN WEIR OTHER APPROVED ANCHORING METHOD 1/4 IN HARDWARE CLOTH ---6 IN OVERLAP WIRE TIES-NONWOVEN GEOTEXTILE-**SECTION** -6 FT MAX. SPACING OF 2 IN x 4 IN SPACERS 2 IN x 4 IN ANCHORS 2 FT MIN. LENGTH ¾ TO 1½ IN STONE · ~2 IN x 4 IN SPACER ¼ IN GALVANIZED— GRATE WRAPPEH, WITH GEOTEXTILE ISOMETRIC 1 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

STANDARD SYMBOL DETAIL E-9-6 COMBINATION COIP INLET PROTECTION CONSTRUCTION SPECIFICATIONS

. USE NOMINAL 2 INCH x 4 INCH LUMBER.

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

- 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. . LIFT GRATE, AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS, THEN
- SET GRATE BACK IN PLACE. 4. ATTACH A CONTINUOUS PIECE OF ½ 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

. NAIL THE 2X4 WEIR TO THE TOP OF A 9 INCH LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE

- WEIR, EXTENDING 2 FEET BEYOND THROAT ON EACH SIDE.
- . PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH IT TO THE WEIR.
- WEIR AND THE INLET FACE (MAXIMUM 4 FEET APART) PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2X4 ANCHORS (MINIMUM 2 FOOT LENGTHS OF 2x4 INCH TO THE TOP OF THE WEIR AT SPACER LOCATIONS). EXTEND 2X4 ANCHORS

ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING

- . INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND BOTH ENDS OF THE THROAT OPENING.
- . FORM THE ¼ INCH HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE OVER THE HARDWARE CLOTH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
- 10. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET
- . STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT 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 SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

BOUNDARY INFORMATION IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH 15, 2001 BY RICHARD A. RADER OF LEO RADER, SURVEYORS AND THE TOPOGRAPHIC SURVEY IS BASED ON A FIELD RUN SURVEY COMPLETED BY MTPLS ON OCTOBER 13, 2021 AND DECEMBER 14, 2019 AND HAS BEEN SUPPLEMENTED WITH HOWARD COUNTY GIS. Development Desian Consultants OWNER: LISBON PLAZA, LLC BALTIMORE, MD 21244 SITE ADDRESS:

DEVELOPER: ST JOHN PROPERTIES C/O ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-0100

Surveyors

192 East Main Street

410.386.0564 (Fax)

410.386.0560

Westminster, MD 21157

STANDARD SYMBOL

MAXIMUM DRAINAGE AREA = 1/4 ACRE

SECTION A-A

2 IN x 4 IN WEIR-

¾ TO 1½ STONE -

NONWOVEN -

2 IN x 4 IN SPACER

ATTACH A CONTINUOUS PIECE OF 1/4 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 SIDE.

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

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 ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.

AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET

INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS

DATA SOURCES:

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED

CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE

SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING.

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

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

-----CIP

-2 FT MIN. LENGTH OF 2 IN × 4 IN

V . . V . . V .

SANDBAG OR OTHER APPROVED ANCHORING METHOD

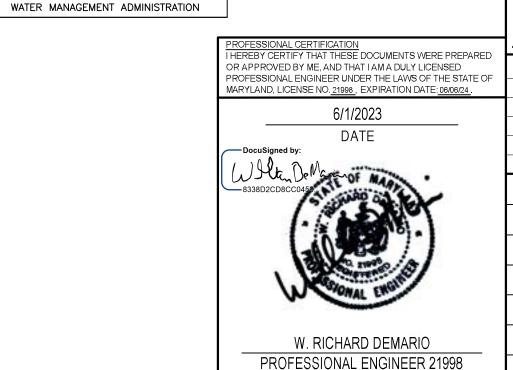
-2 IN x 4 IN SPACE

- GALVANIZED

HARDWARE CLOTH

700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

LISBON CENTER, PARCELS 'G' & 'H' SITE DEVELOPMENT PLAN



2 OF 2

MARYLAND DEPARTMENT OF ENVIRONMENT

4TH ELECTION DISTRICT REVISIONS DESCRIPTION OF CHANGES DRN. REV. DATI CO. FILE #: SDP-23-009 DES. BY: RAM/LJC DRN. BY: LJC/RAM TAX ACC. #: **04-341902** TAX MAP: 2 CHK. BY: WRD BLOCK / GRID: 24 DATE: 6/1/2023 DDC JOB#: 21029.1 PARCEL #: 82 ZONE / USE: B-2/RC-DEO SHEET NUMBER:

DWG. SCALE: AS SHOWN

APPROVED: FOR PRIVATE SEWERAGE SYSTEMS Michael J. Davis Howard County Health Department DEPARTMENT OF PLANNING AND ZONING APPROVED: 7/18/2023 (Hd) Edmondson CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 7/18/2023 Oulia Saver ACTING CHIEF, DIVISION OF LANDOWNER DOCUMENT 7/26/2023 Lynda Eisenbera

OWNER/DEVELOPER CERTIFICATION: I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR EVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND EDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS ND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION ROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT F THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROI N EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE. OWNER46 DEDYES CENER'S SIGNATURE

MATTHEW A. TAYLOR, DEVELOPMENT MANAGER

DESIGN CERTIFICATION WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS. REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. WHEn De Marin

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WORKABLE PLÂN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE. AND ESIGNER'S SIGNATURE

MD REGISTRATION NO. 21998

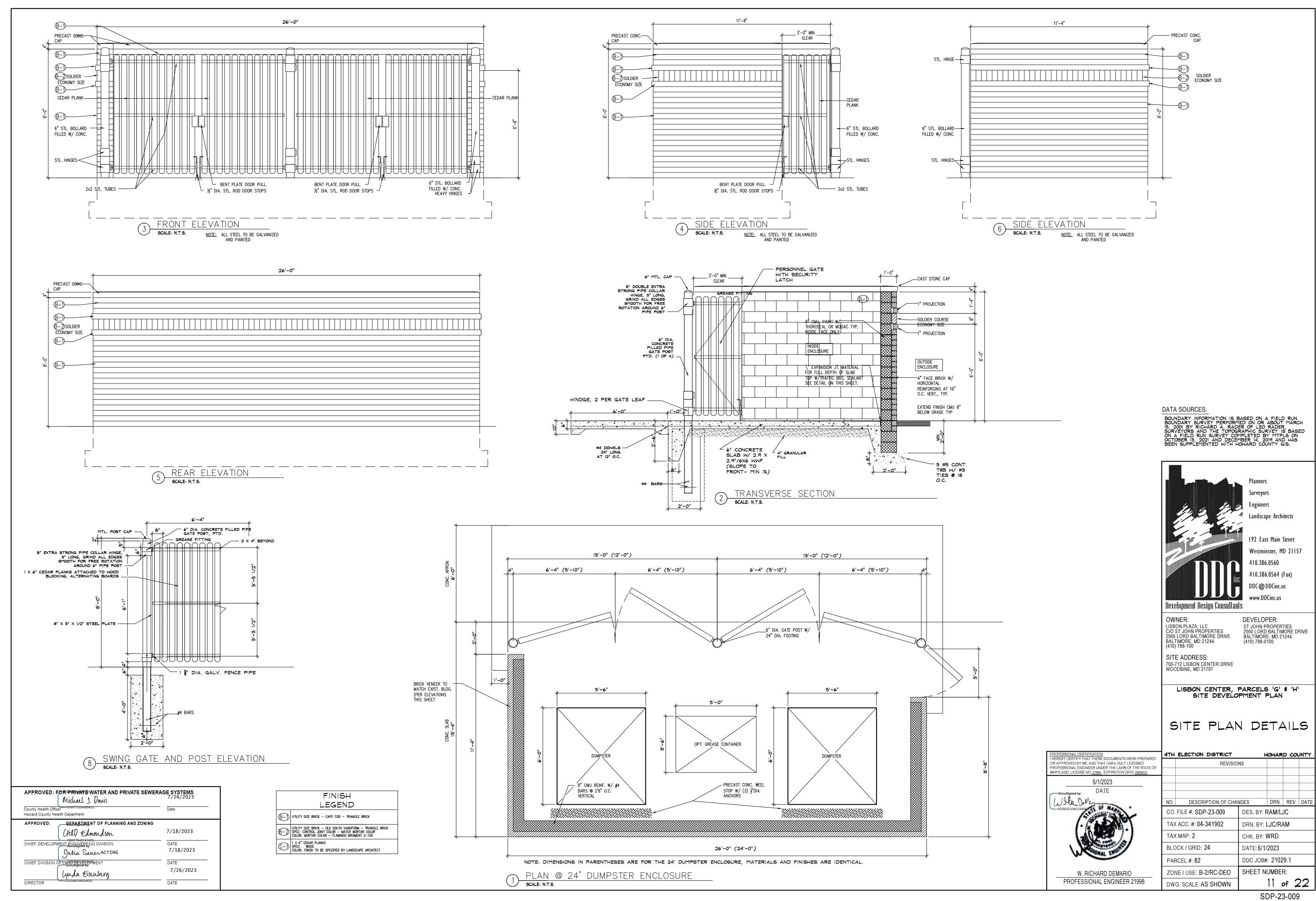
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 7/18/2023 Olexander Bratchie HOWARD SOIL CONSERVATION DISTRICT

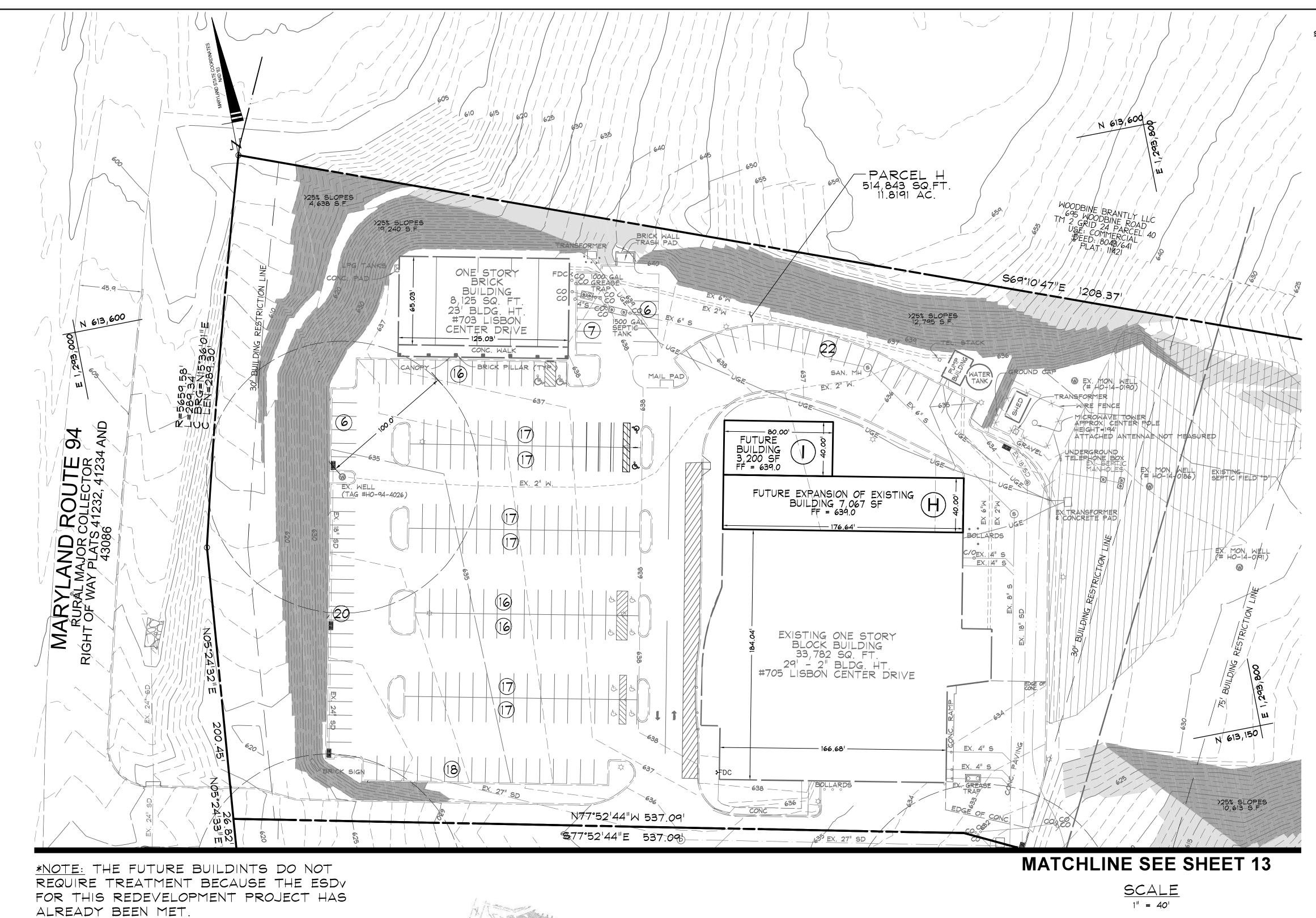
HOWARD SCD SIGNATURE BLOCK

U.S. DEPARTMENT OF AGRICULTURE

ATURAL RESOURCES CONSERVATION SERVICE

10 of 22 SDP-23-009





*EXCERPT FROM SDP-02-096

AREA ACRES+ C FACTOR % IMPERVIOUS

0.93

0.84

0.75

0.92

50%

90%

86%

95%

98%

97%

68%

94%

97%

92%

DRAINAGE AREA MAP

SCALE: 1" = 200'

0.65 0.88 0.88

0.86 0.91

0.94

0.93

0.74

0.91

0.90

* AREA 'O' ASSUMES ULTIMATE CONDITIONS FOR

0.93

FOR THE EXISTING SWM

0.31

0.06

0.18

0.10

0.29

0.55

153

0.62

0.90

0.68

1.00

POSSIBLE FUTURE RETAIL LOCATION

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

DERARIMENT OF PLANNING AND ZONING

7/18/2023

7/18/2023

7/26/2023

DATE

DATE

Michael J. Davis

CHAD Edmondson

Julia Saver ACTING

Lynda Eisenbera

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LARBERT PROPERTY CHIEF, DIVISION OF LARBERT PROPERTY PROPERTY OF LARBERT PROPERTY PROPERTY

Howard County Health Department

Existing Stormwater Pond % impervious Proposed % IA Design IA Proposed IA 46,522 sf 46,522 st 60,000 sf 59,800 st 1.42 22,320 sf 22,320 0.61 9,182 sf 9,182 s 0.31 62,487 sf 62,187 s 1,307 sf 1,813 st 0.06 6,978 sf 6,978 st 0.18 3,920 sf 3,920 0.10 10,864 s 10,864 sf 0.29 0.55 95 22,760 sf 22,760 65,314 sf 59,316 1.53 26,197 s 26,197 s 0.62 41,765 s 41,765 1.41 36,852 sf 36,852 0.90 28,732 sf 28,732 s 0.68 40,075 sf 40,075 1.00 485,276 sf 479,283 st

11.14 ac

11.00 ac

*THE PROPOSED IMPROVEMENTS ARE ULTIMATLY LESS IMPERVIOUS AREA THAN WHAT THE EXISTING SWM POND WAS DESIGNED TO HANDLE

GRAPHIC SCALE

- St. John Properties Stormwater Management As-Built Procedures
- Arrange for a preconstruction meeting with owner, contractor, geotechnical inspector, and the engineer of record who will prepare the as-built drawings. At this time the drawings may be reviewed as well as any specific requirements of the jurisdiction where the site is located.
- 2. Contractor shall submit and receive shop drawing approval for all components of the SWM devices from the
- 3. The owner shall coordinate with the contractor, engineer, the geotechnical inspector, and the surveyor prior to construction of the facilities. The owner is responsible for obtaining materials tickets and providing them to the geotechnical inspector.
 - 4. The owner shall notify the engineer at key points during construction so the engineer has the opportunity to observe placement of pipes, underdrains, liners, filter materials or other items that may be covered during construction. The occurrence of any visits of the engineer does not replace any of the requirements below.
- Keep daily inspection reports consistent with local requirements (see attached Baltimore County sample). It is their responsibility to make sure there are knowledgeable of the requirements of the local jurisdiction. - Take photographs of key points during construction to include: excavation of cutoff trench, placement of concrete cradle, concrete strength cylinder tests, compaction, pipe and anti-seep collars or filter diaphragm, placement of any liners, underdrains or any other element that will not be visible at a later stage in construction. The inspector must be the eyes of the design professional who will certify the as-built plans and confirm that the facilities are being installed in accordance with the approved design
- The inspector shall be furnished material delivery tickets and ensure that delivered material is in
- At the end of construction or if construction is to be paused for a period of 6 months or longer, provide a report that includes the daily reports, photographs, material tickets and and a certification that the
- 6. The owner shall coordinate directly with the surveyor. The surveyor shall be present to record any measurements or dimensions that will not be visible as work proceeds. This includes the bottom of any excavated facilities that are to be filled with stone or other filter material. It is advisable that inverts of any outfall pipes or underdrains be verified before proceeding even if the inverts may be checked in the

DATA SOURCES:

BOUNDARY INFORMATION IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED ON OR ABOUT MARCH 15, 2001 BY RICHARD A. RADER OF LEO RADER, SURVEYORS AND THE TOPOGRAPHIC SURVEY IS BASED ON A FIELD RUN SURVEY COMPLETED BY MTPLS ON OCTOBER 13, 2021 AND DECEMBER 14, 2019 AND HAS BEEN SUPPLEMENTED WITH HOWARD COUNTY GIS.



Surveyors 192 East Main Street

Westminster, MD 21157 410.386.0560 410.386.0564 (Fax) DDC @ DDCinc.us

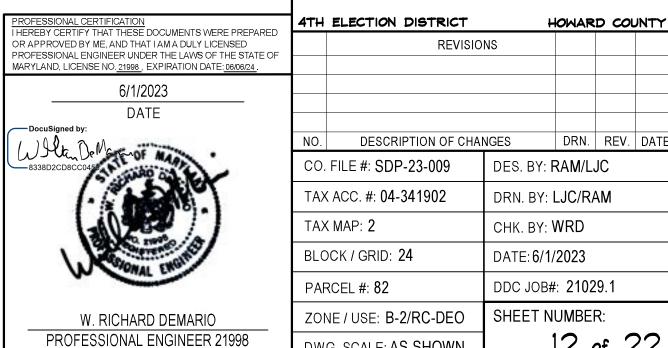
OWNER: LISBON PLAZA, LLC C/O ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-100

DEVELOPER: ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244

SITE ADDRESS: 700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

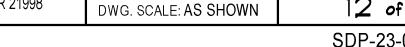
LISBON CENTER, PARCELS 'G' & 'H'
SITE DEVELOPMENT PLAN

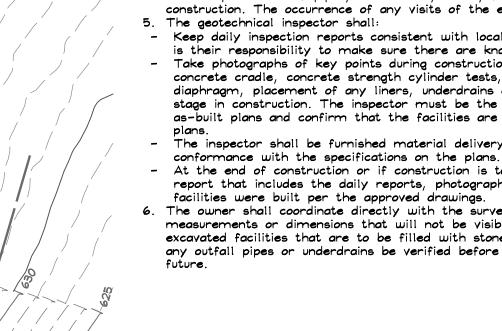
STORMWATER MANAGEMENT PLAN

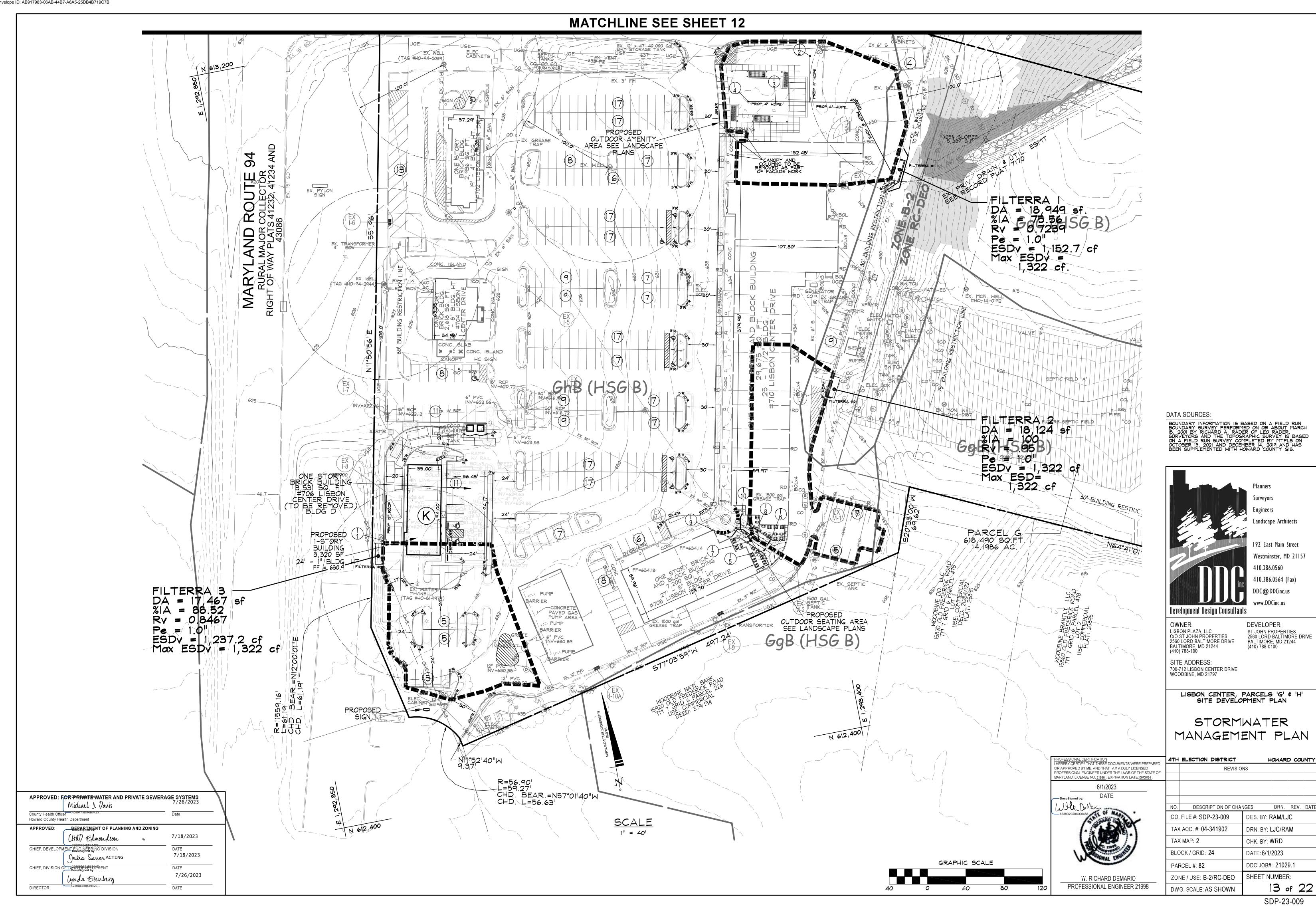


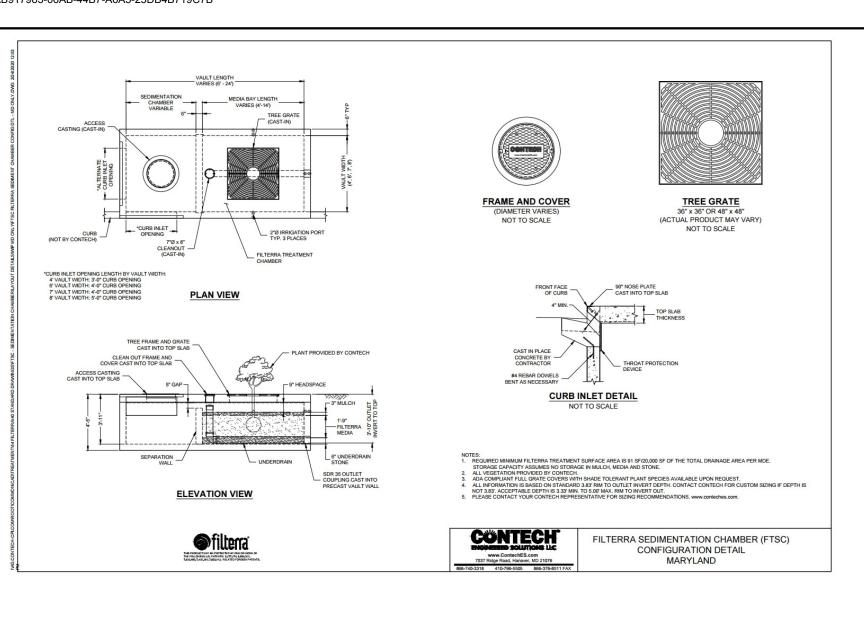
12 of 22 SDP-23-009

DRN. REV. DATE









STRUCTURE SCHEDULE

FILTERRA #3 (8' x 20')

FIELD CONNECTION

I-2 NYLOPLAST INLET 2812AGOIX *

I-3 NYLOPLAST INLET 2812AG02X *

I-4 NYLOPLAST INLET 2812AG01X *

FILTERRA #2 (8' x 18')

FILTERRA #1 (8' x24')

I-5 NYLOPLAST INLET 2712AGOIX *

I-6 NYLOPLAST INLET 2712AG01X *

I-7 NYLOPLAST INLET 2712AGOIX *

I-8 NYLOPLAST INLET 2712AGOIX *
I-9 NYLOPLAST INLET 2712AGOIX *

I-10 NYLOPLAST INLET 2712AG01X *

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

Michael J. Davis

CHAD Edmondson

Julia Saver ACTING

Lynda Eisenberg

Howard County Health Department

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LARSPORDE VIEW HENT

CONNECTION FROM FILTERRA #3

FIELD CONNECTION FROM 1-3

FIELD CONNECTION TO EX 1-1

FIELD CONNECTION TO EX 1-2

TOP = 628 13

I-1 SINGLE WR INLET D-4.32

EX 1-8 EXISTING WR INLET

SIZE

INV. IN

625.6

623.9

631.0

628.1

627.6

--

--

--

4" --

(FY)TOP = 628.13

* OR EQUIVALENT

INV. OUT TOP ELEV.

632.6

633.5

633.5

632.6

628.1

633.5

633.5

633.5

633.5

633.5

630.1 633.5

624.6

623.6

630.1

631.0

631.0

628.1

--

623.6

--630.1

630.1

630.1

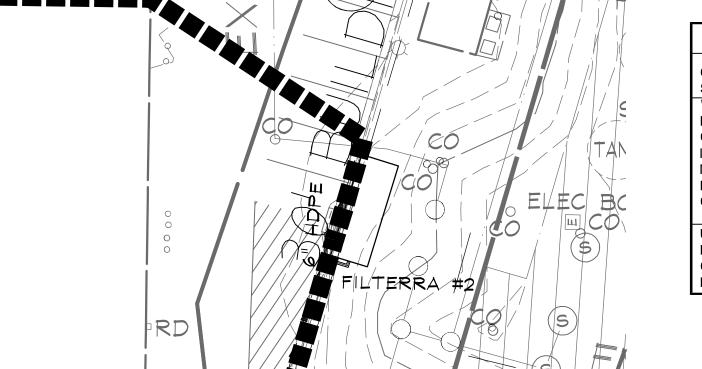
630.1

OWNED & MAINTAINED BY	ST. JOHN PROPI	ERTIES		
STRUCTURE CLASSIFICATION	NON MD-378	DAM		
WATERSHED	WATERSHED	#2130907 LIB	ERTY RESERV	
RECEIVING STREAM CLASSIFICATION	Use III-P			
CONTRIBUTORY AREA	0.454 ACRES			
IMPERVIOUS AREA	0.401 ACRES			
MAX. EMBANKMENT HEIGHT	N/A			
EMBANKMENT WIDTH	N/A			
CENTROID COORDINATES:	N 612,673.7	E 1,292,94	40.4	
UNIFORM STORMWATER SIZING CRITERIA:	REQUIRED	PROVIDED		
ESD Volume (ESD)	N/A	1,237.2 cf		
Overbank Flood Protection Volume(Qp)				
Extreme Flood Volume(Qf) Not Required: No Immediate Flood Hazard				

Installation Guidelines for Filterra®

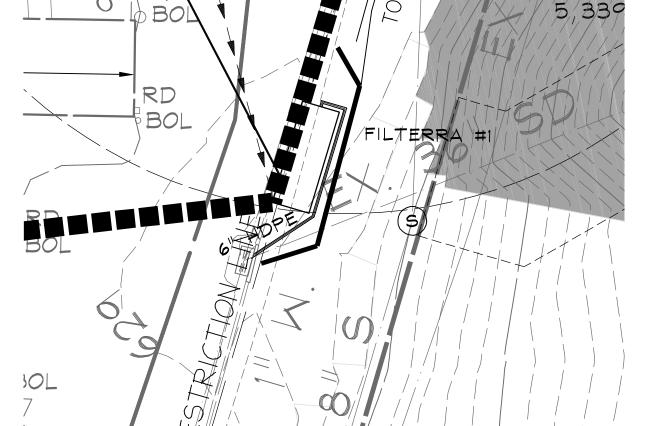
<u>Installation</u>

- 1. Installation Procedure for Sump Condition.
- a. Filterra Standard Offline System: The Standard Offline system cannot be used as a standalone inlet. It will need effective bypass during higher intensity rainfall events. To test a proposed location, imagine the Filterra throat is completely blocked (so it would act like a typical curb and gutter). If this results in any ponding or pooling drainage, the placement is inappropriate.
- b. Filterra Internal Bypass Curb (FTIBC): FTIBC systems incorporating the Terraflume tray can be utilized as a stand-alone inlet and are typically installed in a sump condition.
- 2. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved drawings. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.
- 3. The unit shall be placed on the compacted sub-grade with a minimum 6-inch gravel base matching the final grade of the curb line in the area of the unit. The unit is to be placed such that the unit and top slab match the grade of the curb in the area of the unit. Compact undisturbed sub-grade materials to 95% of maximum density at +1% to 2% of the optimum moisture. Unsuitable material below sub-grade shall be replaced to site engineer's approval. Contact Contech for guidance where slope exceeds 5%.
- 4. Once the unit is set, the internal wooden forms and protective silt fabric cover must be left intact. The top lid should be sealed onto the box before backfilling, using a non-shrink grout, butyl rubber or similar waterproof seal. The boards on the top of the lid and boards sealed in the unit's throat must NOT be removed. The Supplier will remove these sections at the time of activation.
- 5. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations. The correct outlet will be marked on the Filterra box. Do NOT use plugged couplings marked "USE OTHER CONNECTION".
- 6. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6" lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of the Filterra unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures" unless specified otherwise in contract documents.
- 7 It is the responsibility of the Contractor to provide curb and autter and transition to the Filterra unit for proper stormwater flow



STORMWATER FACILITY DATA TABLE - FILTERRA #2 OWNED & MAINTAINED BY ST. JOHN PROPERTIES STRUCTURE CLASSIFICATION NON MD-378 DAM WATERSHED WATERSHED #2130907 LIBERTY RESERVOIR RECEIVING STREAM CLASSIFICATION Use III-P CONTRIBUTORY AREA 0.416 ACRES 0.416 ACRES IMPERVIOUS AREA MAX. EMBANKMENT HEIGHT EMBANKMENT WIDTH E 1,293,440.7 **CENTROID COORDINATES:** N 612,757.1 UNIFORM STORMWATER SIZING CRITERIA: REQUIRED | PROVIDED ESD Volume (ESD) 1,322.0 cf Overbank Flood Protection Volume(Qp) Not Required: No Immediate Flood Hazard Extreme Flood Volume(Qf)

it is the responsibility of the Contractor to provide curb and gutter and transition to the ritterra unit for proper stormwater flow
into the system through the throat opening. A standard drawing of the throat and gutter detail is available on page 12. Howeve
the plans and contract documents superseded all standard drawings. Flume variations are detailed in Section B of this manual.
Effective bypass for the Filterra system is essential for correct operation (i.e. bypass to an overflow at lower elevation).



STORMWATER FACILITY DATA TABLE - FILTERRA #1 OWNED & MAINTAINED BY ST. JOHN PROPERTIES STRUCTURE CLASSIFICATION NON MD-378 DAM WATERSHED WATERSHED #2130907 LIBERTY RESERVOIR RECEIVING STREAM CLASSIFICATION Use III-P **CONTRIBUTORY AREA** 0.576 ACRES 0.435 ACRES IMPERVIOUS AREA MAX. EMBANKMENT HEIGHT N/A EMBANKMENT WIDTH N/A N 612,963.3 E 1,293,547.7 CENTROID COORDINATES: UNIFORM STORMWATER SIZING CRITERIA: REQUIRED | PROVIDED ESD Volume (ESD) 1,152.7 cf Overbank Flood Protection Volume(Qp) Extreme Flood Volume(Qf) Not Required: No Immediate Flood Hazard

DATA SOURCES:

www.ContechES.com/filterra | 6 BOUNDARY INFORMA

Surveyors

192 East Main Street

410.386.0560

410.386.0564 (Fax)

DDC @ DDCinc.us

DEVELOPER:

ST JOHN PROPERTIES

BALTIMORE, MD 21244

2560 LORD BALTIMORE DRIVE

Westminster, MD 21157



OWNER: LISBON PLAZA, LLC C/O ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-100

SITE ADDRESS: 700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

> LISBON CENTER, PARCELS 'G' & 'H' SITE DEVELOPMENT PLAN STORMWATER MANAGEMENT

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE OR APPROVED BY ME, AND THAT I AM A DULY LICEN PROFESSIONAL ENGINEER UNDER THE LAWS OF TH MARYLAND, LICENSE NO. 21998, EXPIRATION DATE; C	SED IE STATE OF
6/1/2023	
DATE DocuSigned by:	
WILL De Main 8338D2CD8CC0458.	59
W. RICHARD DEMARIO	

	ן	PROF Notes, &	DE	5, TA	ILS	>
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED	4TH	ELECTION DISTRICT	+	HOWAR	D COL	<u>ال</u>
OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21998, EXPIRATION DATE: 06/106/24.		REVISIO	NS			
6/1/2023						L
DATE DocuSigned by:						L
(1) Sta No Maria	NO.	DESCRIPTION OF CHAI	NGES	DRN.	REV.	[
8338D2CD8CC0458	CO.	. FILE #: SDP-23-009	DES. BY: I	RA M /L	JC	
	TA>	K ACC. #: 04-341902	DRN. BY:	LJC/R	-M	
140263	TA	K MAP: 2	CHK. BY: '	WRD		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	BLC	DCK / GRID: 24	DATE: 6/1/	/2023		
OF COMAL COM	PAF	RCEL #: 82	DDC JOB#	±: 2102	9.1	
W. RICHARD DEMARIO	ZOI	NE / USE: B-2/RC-DEO	SHEET N	UMBEI	₹:	
PROFESSIONAL ENGINEER 21998	DW	G. SCALE: AS SHOWN	•	14	of 2	2
	•					$\overline{}$

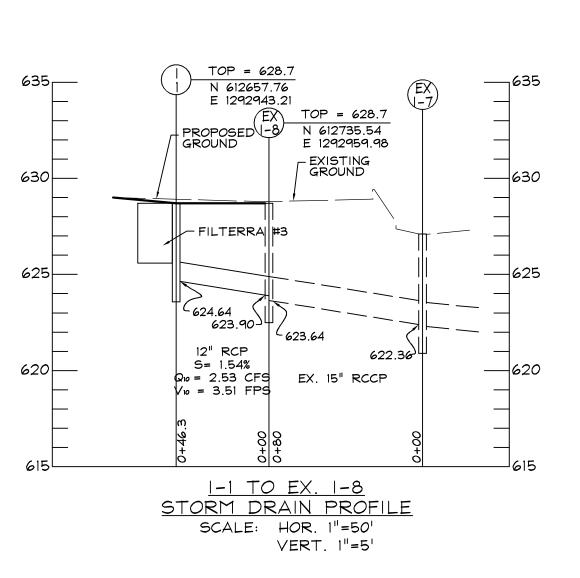
6	N 612	= 628.13 735.54 2959.98	EX TOP = 628.13 -3 N 612735.54 E 1292959.98 -	640	
6	35—		PROPOSED GROUND -	635	RA
6	30	633.1	3 FIELD CONNECTIONS _	630	BOL
6	45° BEN T CONI	NECTION		625	30L 7
6	20	5" HDPE 210= cfs 210= fps		620	₹D
6	615 — — —	0+48.10	- - - 614.75	615 	
6	STOR	0 TO EX. 1-3 M DRAIN PRO :ALE: HOR. 1"=50	- - FILE	610	
	50	VERT. 1"=5	OPERATION AN	ND MAINTENANCE SCHEDULE FOR FILTER	ŘRA (M
			A. EACH COR MAINTAINE CONTRACT COST OF OF EACH CONTRACT REQUEST	RECTLY INSTALLED FILTERRA UNIT IS TO BY THE SUPPLIER, OR A SUPPLIER, FOR FOR A MINIMUM PERIOD OF I YEAR THIS SERVICE IS TO BE INCLUDED IN THE FILTERRA UNIT. EXTENDED MAINTENANTS ARE AVAILABLE AT EXTRA COST UP	APPRO THE HE PR ICE ON

7/18/2023

7/26/2023

DATE 7/18/2023

PE A.	ERATION AND MAINTENANCE SCHEDULE FOR FILTERRA (M-6) EACH CORRECTLY INSTALLED FILTERRA UNIT IS TO BE MAINTAINED BY THE SUPPLIER, OR A SUPPLIER APPROVED CONTRACTOR FOR A MINIMUM PERIOD OF I YEAR. THE COST OF THIS SERVICE IS TO BE INCLUDED IN THE PRICE OF EACH FILTERRA UNIT. EXTENDED MAINTENANCE CONTRACTS ARE AVAILABLE AT EXTRA COST UPON
3.	REQUEST. ANNUAL INCLUDED MAINTENANCE CONSISTS OF A MAXIMUM OF (2) SCHEDULED VISITS. THE VISITS ARE SCHEDULED SEASONALLY; THE SPRING VISIT AIMS TO CLEAN UP AFTER WINTER LOADS THAT MAY INCLUDE SALTS AND SANDS. THE FALL VISIT HELPS THE SYSTEM BY REMOVING
Ξ.	EXCESSIVE LEAF LITTER. EACH INCLUDED MAINTENANCE VISIT CONSISTS OF THE FOLLOWING TASKS. 1. FILTERRA UNIT INSPECTION 2. FOREIGN DEBRIS, SILT, MULCH & TRASH REMOVAL 3. FILTER MEDIA EVALUATION AND RECHARGE AS
D.	NECESSARY 4. PLANT HEALTH EVALUATION AND PRUNING OR REPLACEMENT AS NECESSARY 5. REPLACEMENT OF MULCH 6. DISPOSAL OF ALL MAINTENANCE REFUSE ITEMS 7. MAINTENANCE RECORDS UPDATED AND STORED (REPORTS AVAILABLE UPON REQUEST) THE BEGINNING AND ENDING DATE OF SUPPLIERS OBLIGATION TO MAINTAIN THE INSTALLED SYSTEM SHALL BE DETERMINED BY THE SUPPLIER AT THE TIME SYSTEM IS ACTIVATED. OWNERS MUST PROMPTLY NOTIFY THE SUPPLIER OF ANY DAMAGE TO THE PLANT(S), WHICH CONSTITUTE(S) AN INTEGRAL PART OF THE BIORETENTION TECHNOLOGY.



640	EX TOP = 632.56 1-2 N 612657.76 E 1292943.21	EX TOP = 628.13 N 612735.54 E 1292959.98	—640
635 — —	EXISTING GROUND		635 635
630	FILTERRA #2		——630 ——
625 —	CONECTION 627.88	FIELD CONFICTION	——625 ———
620		CONECTION \ 623.39 \	620
615			615 ——615
610	612.66 EX. 30" RCCP S= 0.50%	611.56	610 PF
605		606.01 EX. 36" RCCP S= 5.40%	605
600	EX E-1 TO EX. I	-2	600

STORM DRAIN PROFILE

SCALE: HOR. 1"=50"

VERT. 1"=5'

Michael J. Davis

CHAD Edmondson

Julia Saver ACTING

lynda Eisenberg

_DEPARTMENT OF PLANNING AND ZONING

7/18/2023

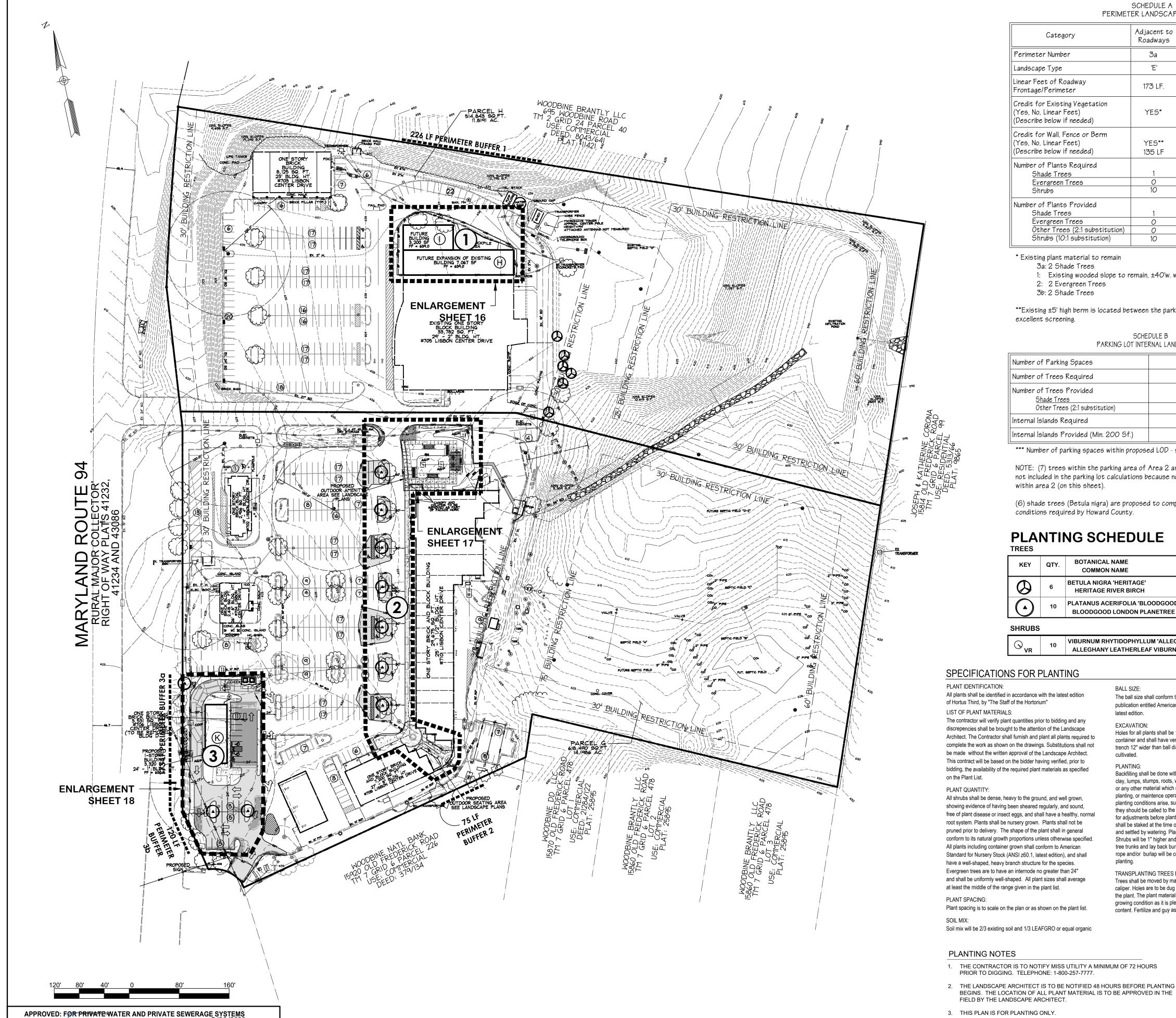
7/18/2023

7/26/2023

Howard County Health Department

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND THE BOY PER TO THE THE CHIEF THE



DEVELOPER'S/BUILDER'S CERTIFICATE

WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

—DocuSigned by:

222

NAME

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

MLF LANDSCAPE DESIGN CRITERIA. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS,

SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL AND THE

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties		
Perimeter Number	За	1	2	3b
Landscape Type	'E'	'A'	'A'	'A'
Linear Feet of Roadway Frontage/Perimeter	173 LF.	226 LF.	75 LF.	120 LF.
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	YES*	YES*	YES*	YES*
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	YES** 135 LF	NO	NO	NO
Number of Plants Required Shade Trees	1	0	0	0
Evergreen Trees	0	0	0	0
Shrubs	10	0	0	0
Number of Plants Provided Shade Trees Evergreen Trees	1 0	-	-	-
Other Trees (2:1 substitution)	0	-	-	-
Shrubs (10:1 substitution)	10	-	-	-

- * Existing plant material to remain
 - 3a: 2 Shade Trees 1: Existing wooded slope to remain, ±40'w. wooded buffer
 - 2: 2 Evergreen Trees
- 3b: 2 Shade Trees

**Existing ±5' high berm is located between the parking lot and Woodbine Road, providing excellent screening.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	26***
Number of Trees Required	2
Number of Trees Provided Shade Trees Other Trees (2:1 substitution)	2
Internal Islands Required	2
Internal Islands Provided (Min. 200 Sf.)	2

*** Number of parking spaces within proposed LOD - see quantities in Area 3 on this sheet

NOTE: (7) trees within the parking area of Area 2 are to be removed and replaced. They are not included in the parking lot calculations because no new parking spaces are being added within area 2 (on this sheet).

(6) shade trees (Betula nigra) are proposed to comply with Alternative Compliance conditions required by Howard County.

VIBURNUM RHYTIDOPHYLLUM 'ALLEGHANY'

ALLEGHANY LEATHERLEAF VIBURNUM

PLANTING SCHEDULE

KEY	QTY.	BOTANICAL NAME COMMON NAME	SIZE	COND.	REMARKS
\bigcirc	6	BETULA NIGRA 'HERITAGE' HERITAGE RIVER BIRCH	2" - 2 1/2" CAL. 10-12' HT.	В&В	CLUMP FORM 3-4 STEM
lack	10	PLATANUS ACERIFOLIA 'BLOODGOOD' BLOODGOOD LONDON PLANETREE	2" - 2 1/2" CAL.	В&В	FULL SPECIMEN HEADED TO 6' HT

SPECIFICATIONS FOR PLANTING

PLANT IDENTIFICATION: All plants shall be identified in accordance with the latest edition of Hortus Third, by "The Staff of the Hortorium"

LIST OF PLANT MATERIALS: The contractor will verify plant quantities prior to bidding and any

discrepencies shall be brought to the attention of the Landscape Architect. The Contractor shall furnish and plant all plants required to complete the work as shown on the drawings. Substitutions shall not be made without the written approval of the Landscape Architect. This contract will be based on the bidder having verified, prior to bidding, the availability of the required plant materials as specified on the Plant List.

PLANT QUANTITY:

All shrubs shall be dense, heavy to the ground, and well grown, showing evidence of having been sheared regularly, and sound, free of plant disease or insect eggs, and shall have a healthy, normal root system. Plants shall be nursery grown. Plants shall not be pruned prior to delivery. The shape of the plant shall in general conform to its natural growth proportions unless otherwise specified. All plants including container grown shall conform to American Standard for Nursery Stock (ANSI z60.1, latest edition), and shall have a well-shaped, heavy branch structure for the species. Evergreen trees are to have an internode no greater than 24" and shall be uniformly well-shaped. All plant sizes shall average at least the middle of the range given in the plant list.

PLANT SPACING: Plant spacing is to scale on the plan or as shown on the plant list.

FIELD BY THE LANDSCAPE ARCHITECT.

Soil mix will be 2/3 existing soil and 1/3 LEAFGRO or equal organic

PRIOR TO DIGGING. TELEPHONE: 1-800-257-7777.

BEGINS. THE LOCATION OF ALL PLANT MATERIAL IS TO BE APPROVED IN THE

4. NO TREE OR SHRUB PLANTING PITS ARE TO BE LEFT OPEN OR UNATTENDED.

EDGED AND THE GRASS IS TO BE KILLED OR REMOVED PRIOR TO MULCHING.

5. SHRUBS ARE TO BE GROUPED INTO MULCHED BEDS. BEDS ARE TO BE

BALL SIZE: The ball size shall conform to the American Association of Nurserymen's publication entitled American Standard For Nursery Stock, ANSI z60.1, latest edition.

30-36" HT. B&B

EXCAVATION: Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Hedges shall be planted in a trench 12" wider than ball diameter. Beds for mass planting shall be

Backfilling shall be done with soil mix, reasonably free of stones, subsoil, clay, lumps, stumps, roots, weeds, bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth or hinder grading, planting, or maintence operations. Should any unforeseen or unsuitable planting conditions arise, such as faulty soil drainage or chemical residues, they should be called to the attention of the Landsape Architect and Owner for adjustments before planting. The plant shall be set plumb and straight and shall be staked at the time of planting. Backfill shall be well worked about the roots and settled by watering. Plants will be planted higher than surrounding grade. Shrubs will be 1" higher and trees will be 3" higher. Remove rope from around tree trunks and lay back burlap from top of all B&B material. Nylon or vinyl rope and/or burlap will be completely removed from all plant material prior to

TRANSPLANTING TREES BY TREE MACHINES: Trees shall be moved by machines that provide a minimum of 9" per 1" of tree caliper. Holes are to be dug by the same size machine as the one transporting the plant. The plant material shall be transplanted in approximately the same growing condition as it is pleasently growing, in terms of soil type and moisture content. Fertilize and guy as described in these plans and specifications.

PERMIT INFORMATION CHART

BLOCK# ZONING TAX MAP NO.

24 B-2/RC-DEO 002

N/A

SEWER CODE

N/A

4TH

ROUTE 94 BUSINESS CENTER

WATER CODE

CULTIVATION:

All trenches and shrub beds shall be rototilled to a depth of 8" and shall be 18" beyond the average outside edge of plantings. A 2" layer of organic material (i.e. LEAFGRO) will be incorporated into plant beds by tilling again. Beds are to be edged and mulched to a depth of 3" with shredded bark. The area around isolated plants shall be mulched to at least 6" greater diameter than that of the planting hole. Plant beds adjacent to buildings shall be mulched to the building wall.

MAINTENANCE:

The Contractor shall be responsible during the contract and up to the time of acceptance for keeping the planting and work incidental thereto in good condition, by replanting, plant replacement, watering, weeding, cultivating, pruning and spraying, restaking and cleaning up and by performing all other necessary operations of care for promotion of good plant growth so that all work is in satisfactory condition at time of acceptance, at no additional cost to the Owner.

The Contractor shall apply granular fertilizer to the soil mix with 10-6-4 analysis,

50% organic, at the following rates: Trees @ 2-3 lbs. per caliper inch; Shrub Beds @ 3-5 lbs per 100 sq.ft.; and Groundcover Beds @ 2-3 lbs. per 100 sq.ft.

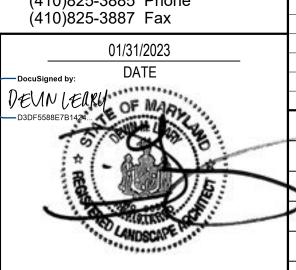
All areas of groundcover shall be rototilled to a depth of 6". Apply 2" of organic material and rototill until thoroughly mixed. Apply fertilizer as

PARCEL G & H

CENSUS TRACT

GUARANTEE AND REPLACEMENT: All material shall be unconditionally guaranteed for one (1) year. The Contractor is responsible for watering but not for losses or damage caused by mechanical injury or vandilism.

HUMAN & ROHDE, INC. Landscape Architects 512 Virginia Ave. Towson, Maryland 21286 (410)825-3885 Phone



DEVIN M. LEARY LANDSCAPE ARCHITECT #3693

STANDARD LANDSCAPE NOTES

1. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTYLANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

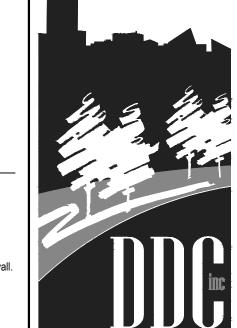
2. THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

LANDSCAPE SURETY

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. 16 SHADE TREES AND 10 SHRUBS HAVE BEEN PROVIDED TO MEET THE LANDSCAPE MANUAL.

A LANDSCAPE SURETY IN THE AMOUNT OF \$5,100.00 TO BE POSTED WITH THE GRADING PERMIT.

DATA SOURCES:



192 East Main Street Westminster, MD 21157 410.386.0560 410.386.0564 (Fax)

DEVELOPER: LISBON PLAZA, LLC C/O ST JOHN PROPERTIES ST JOHN PROPERTIES 560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 BALTIMORE, MD 21244 (410) 788-0100

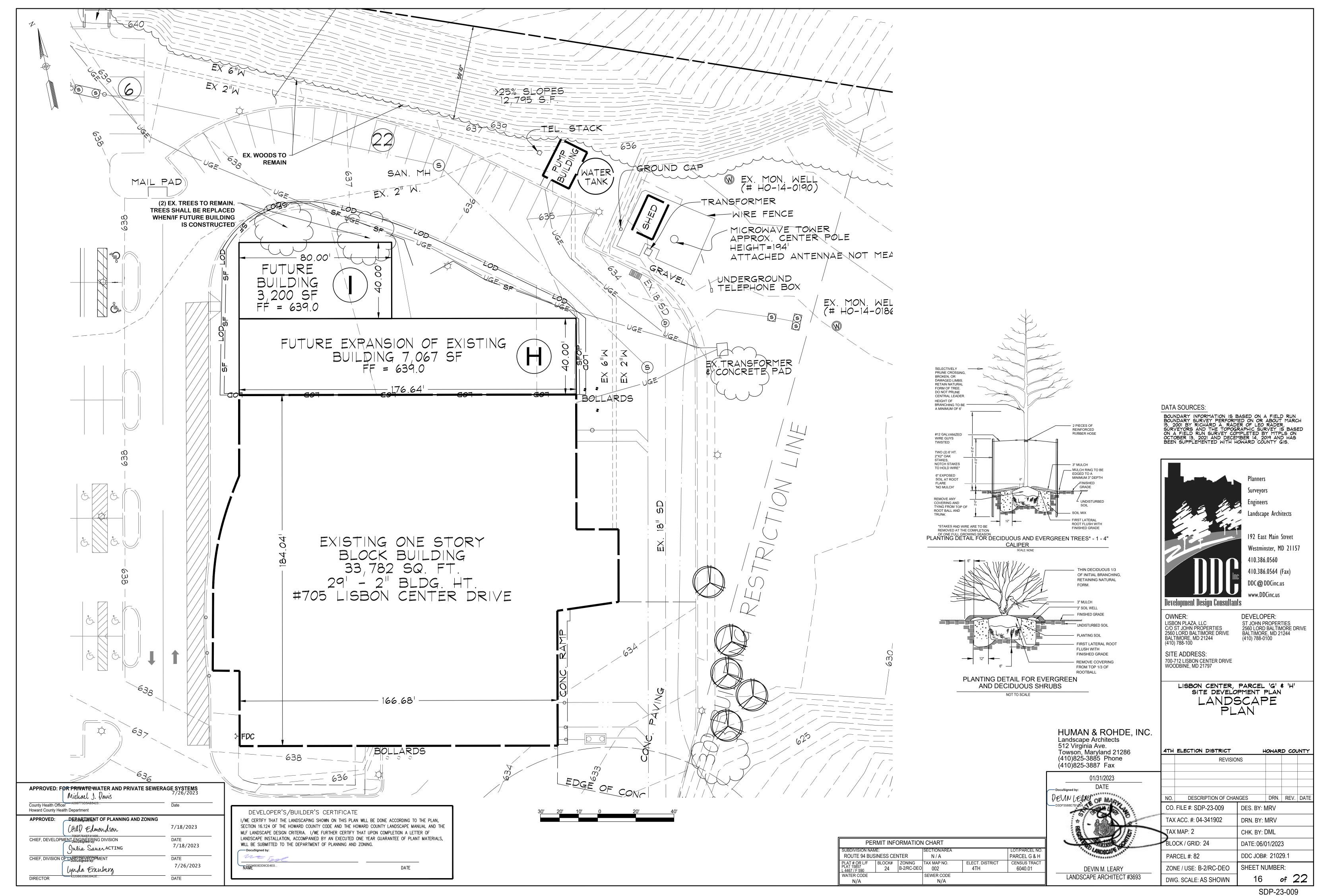
SITE ADDRESS: 700-712 LISBON CENTER DRIVE WOODBINE, MD 21797

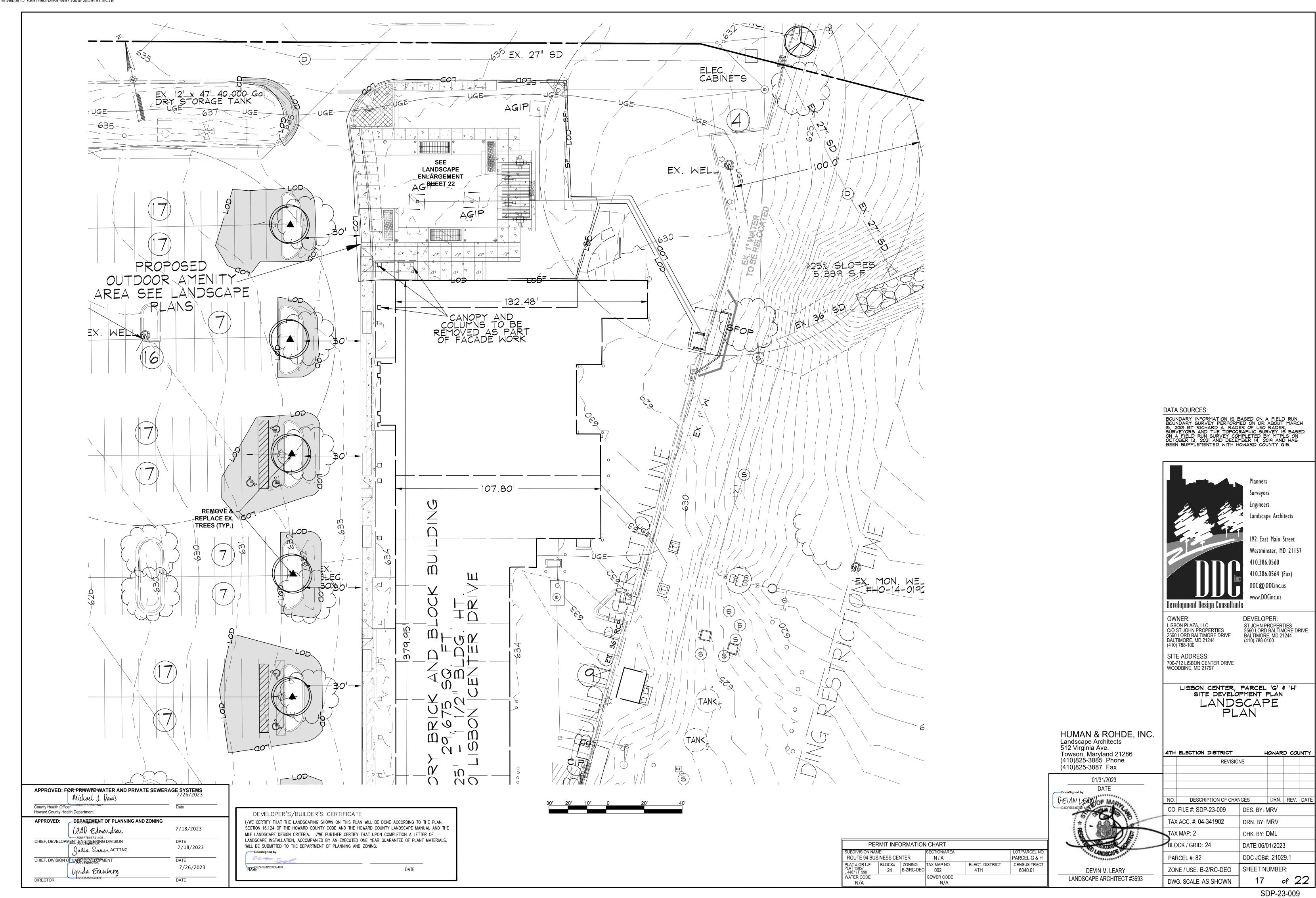
DWG. SCALE: AS SHOWN

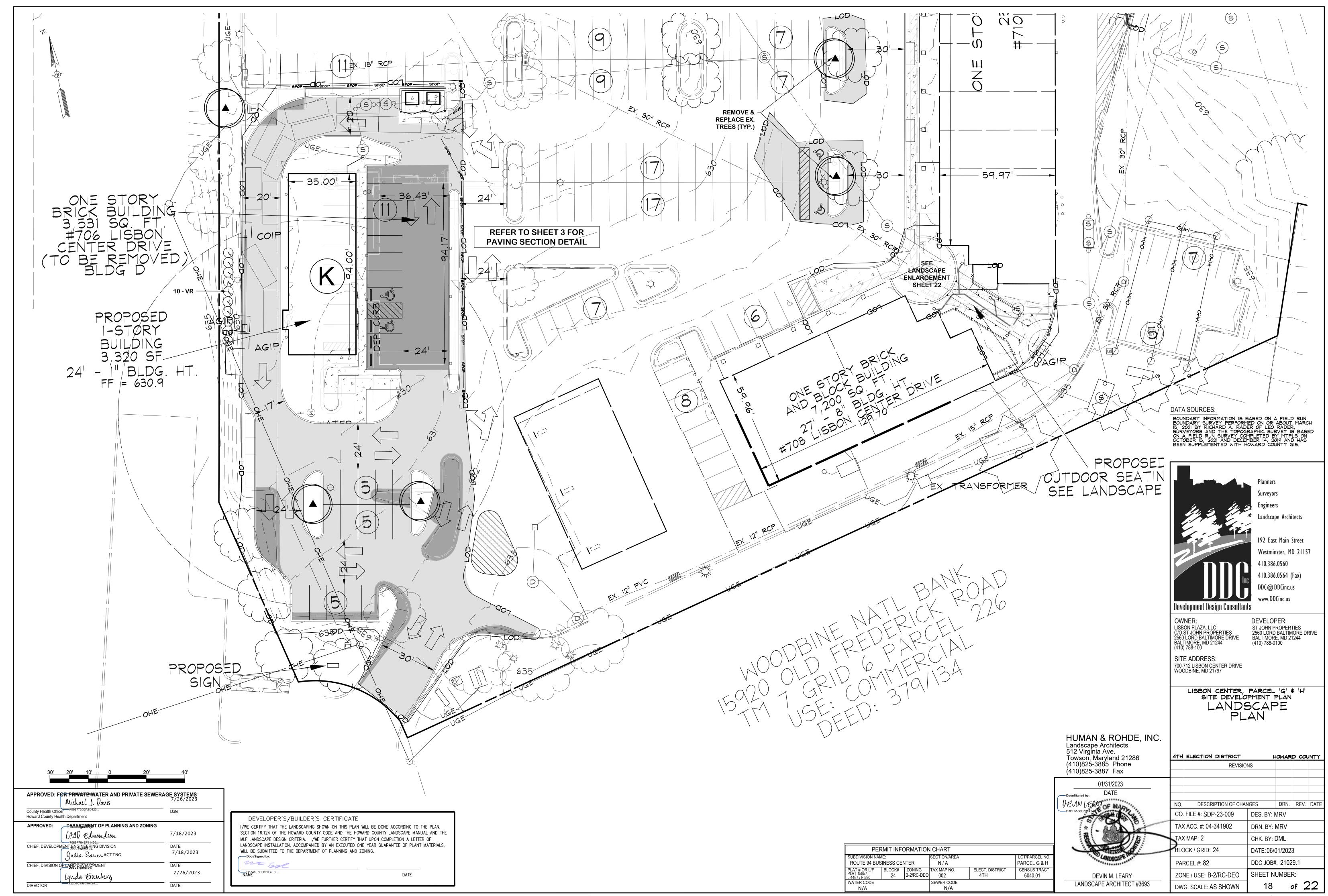
LISBON CENTER, PARCEL 'G' & 'H' SITE DEVELOPMENT PLAN

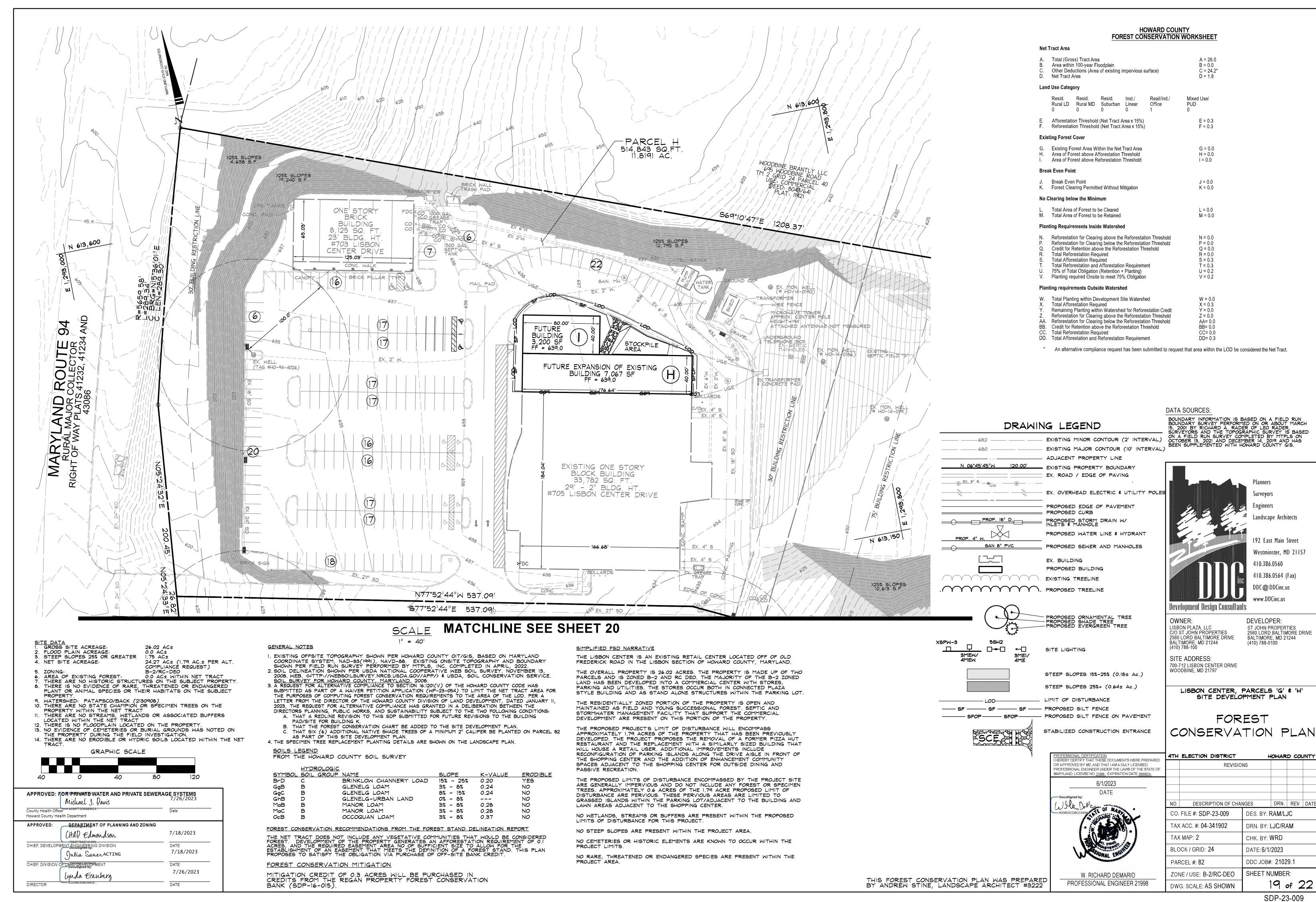
4TH ELECTION DISTRICT HOWARD COUNTY REVISIONS DRN. REV. DATE DESCRIPTION OF CHANGES CO. FILE #: SDP-23-009 DES. BY: MRV TAX ACC. #: 04-341902 DRN. BY: MRV TAX MAP: 2 CHK. BY: DML LOCK / GRID: 24 DATE: 06/01/2023 DDC JOB#: 21029.1 PARCEL #: 82 ZONE / USE: B-2/RC-DEO SHEET NUMBER:

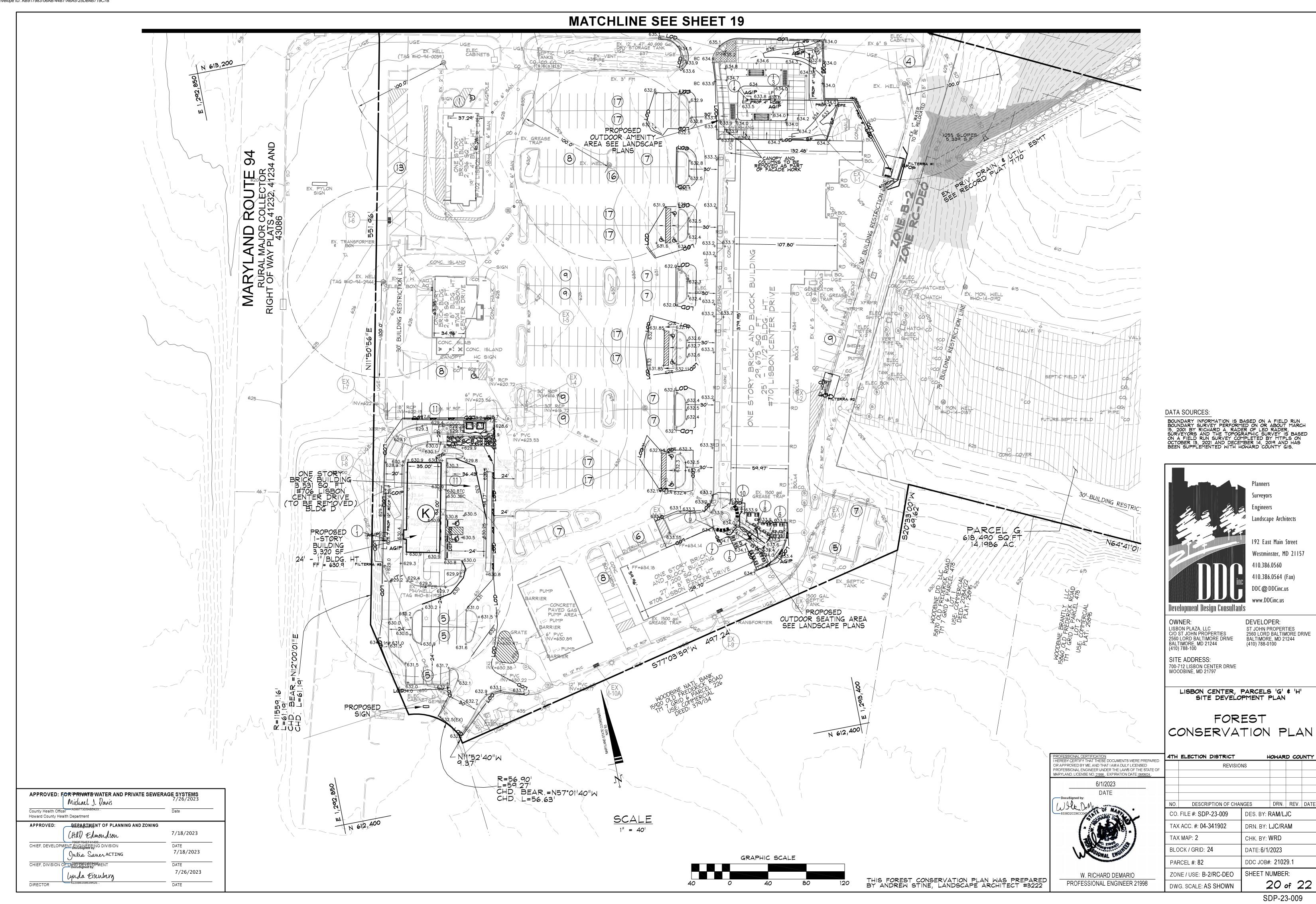
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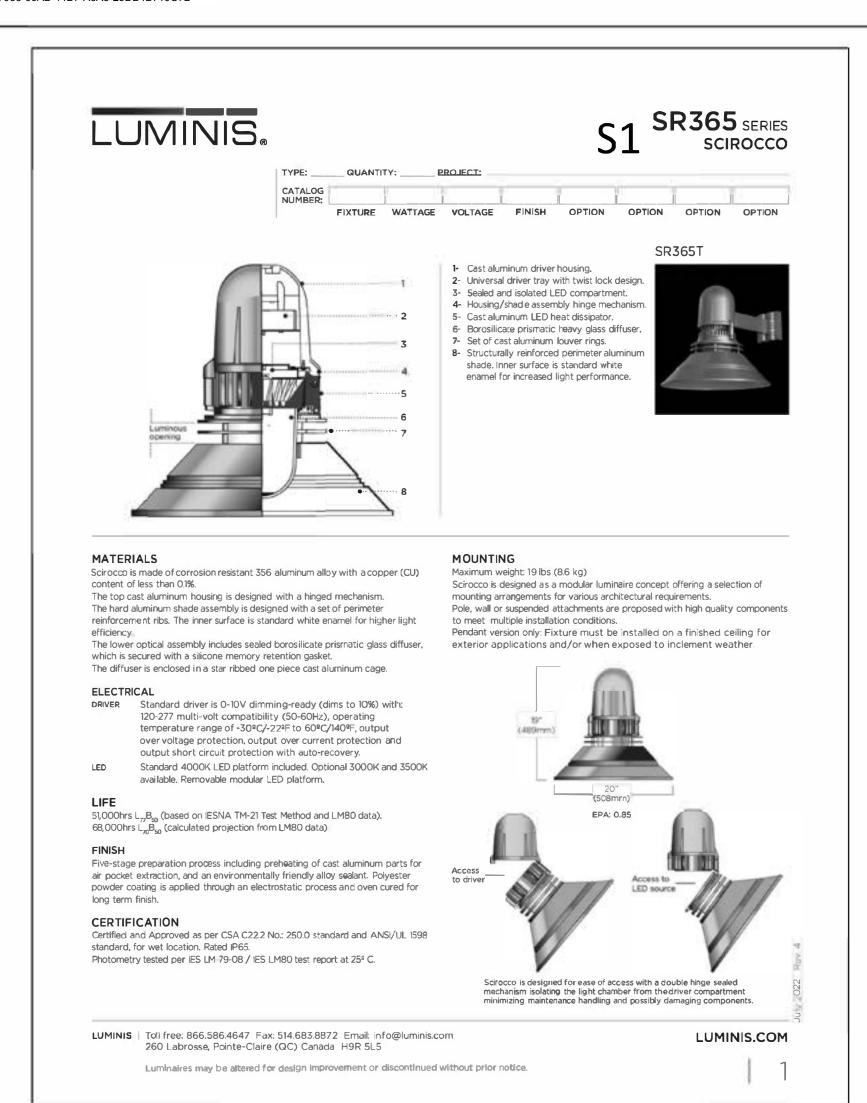


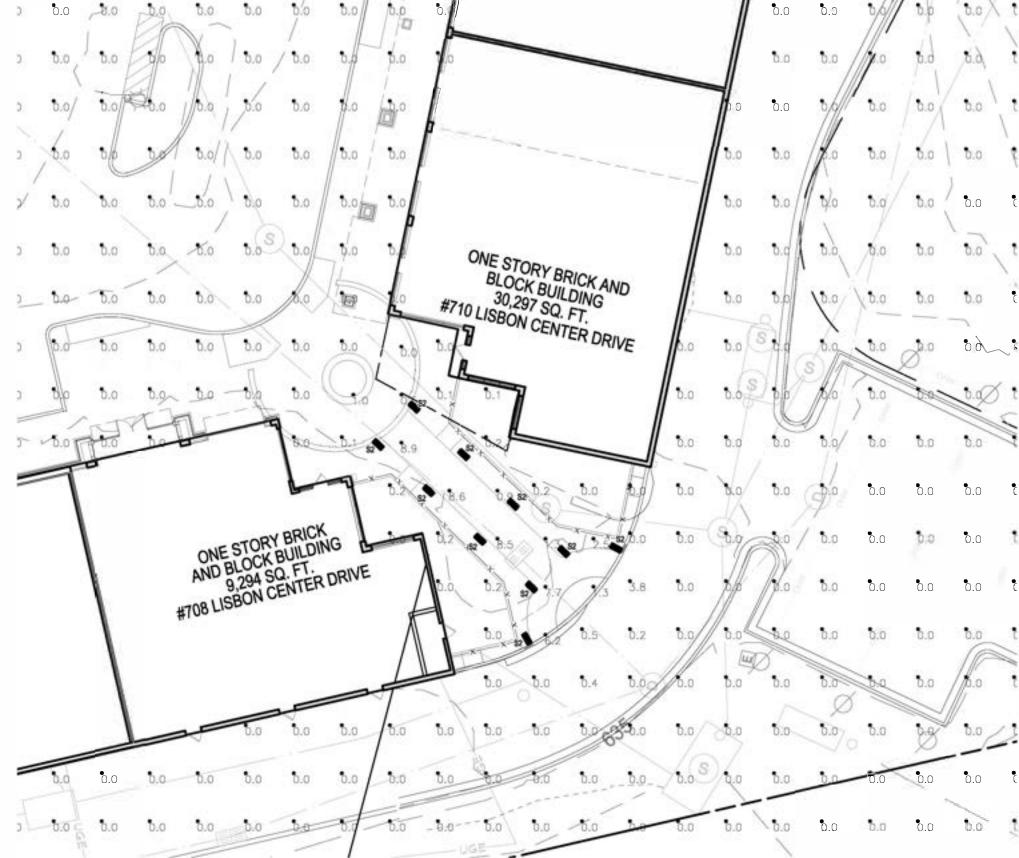


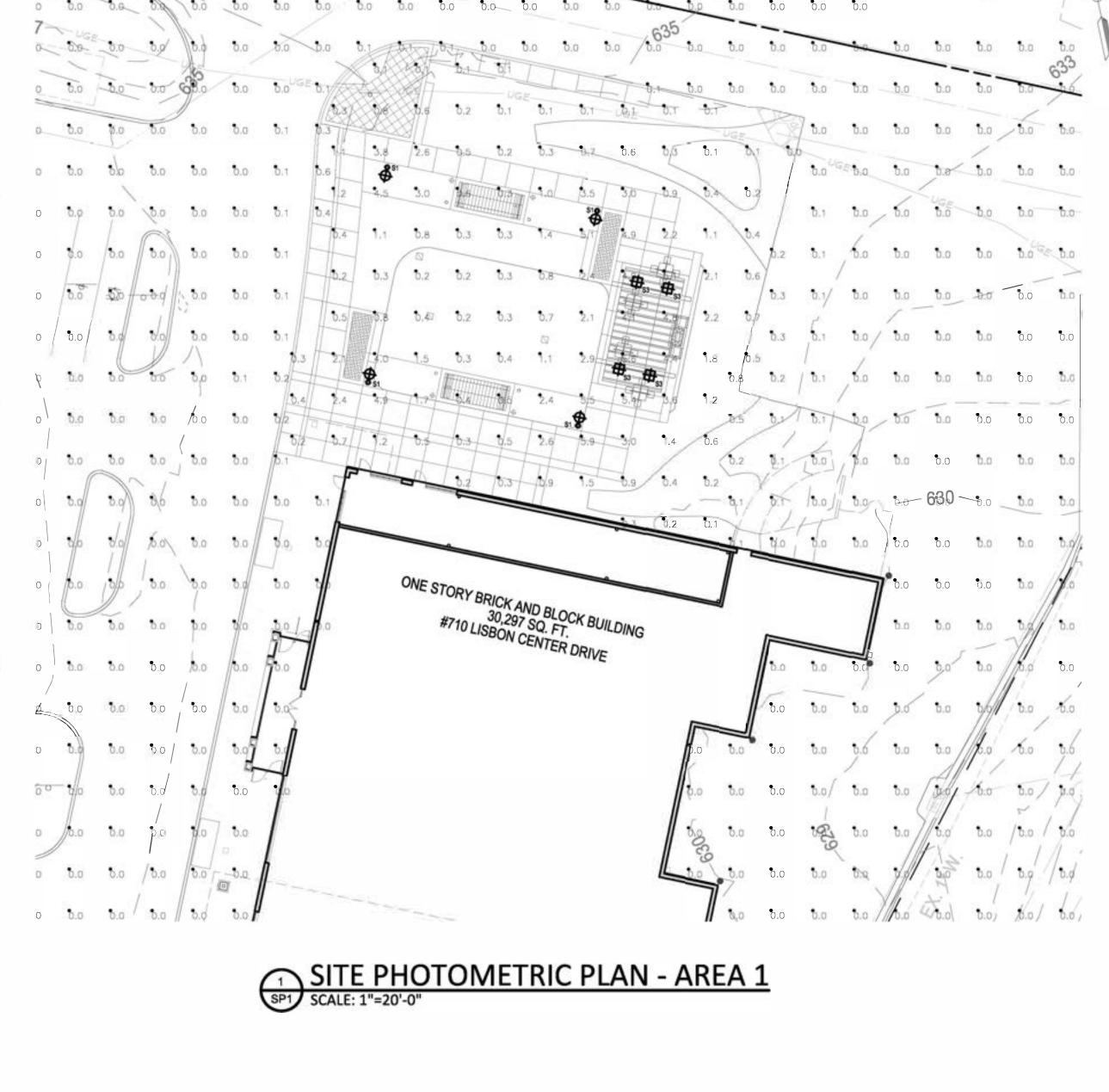


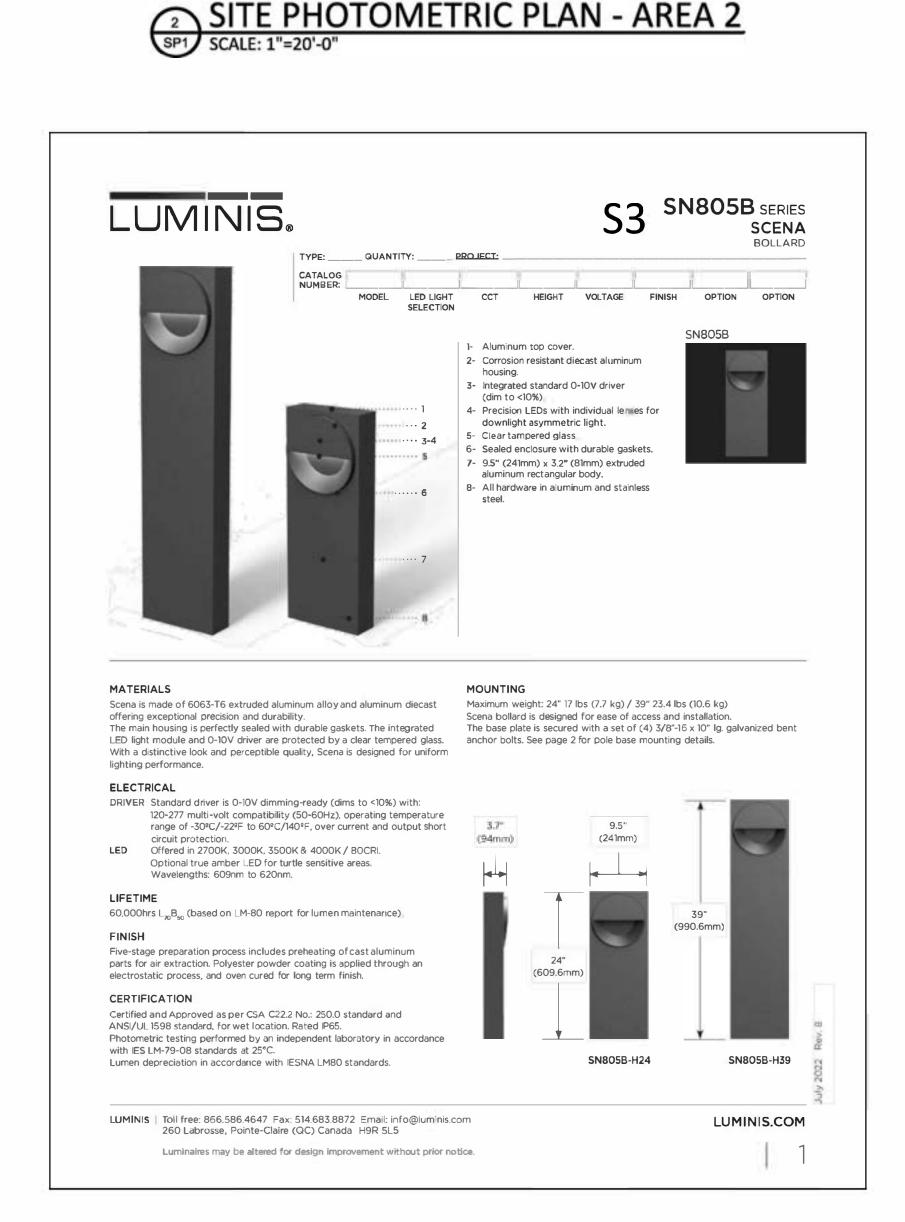


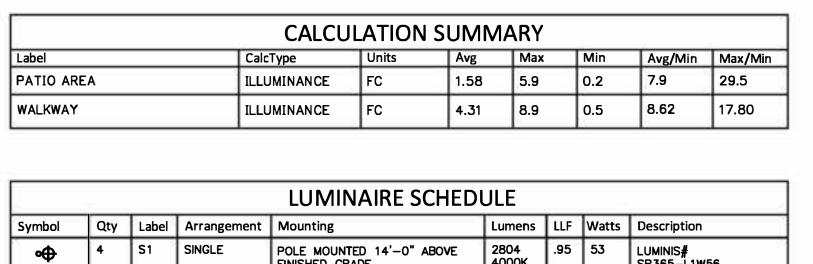












LUMINIS# SR365-L1W56 4000K FINISHED GRADE. LUMINIS# SN805B-L1L5 | S2 SINGLE 39" BOLLARD. GROUND MOUNTED 553 4000K SURFACE MOUNTED ON CANOPY 1840 LUMINIS# SN820C-L1L18 S3 ±12'-0" ABOVE FINISHED GRADE. 4000K

ALL NEW AND EXISTING POLE MOUNTED FIXTURES ARE FULL CUT OFF AND EMIT NO LIGHT ABOVE 90 DEGREES. (ALL LIGHT OUTPUT IS DIRECTED DOWN).
 ALL FIXTURES ARE MOUNTED 90 DEGREES TO POLE OR WALL.

1"=20'-0"

1"=40'-0"

0' 5' 10' 15' 20'

0' 20' 40'

700 LISBON CENTER DRIVE WOODBINE, MD 21797 LISBON CENTER **PHOTOMETRIC PLAN** 4TH ELECTION DISTRICT HOWARD COUNTY REVISIONS NO. DESCRIPTION OF CHANGES DRN. REV. DATE DES. BY: MSW DRN. BY: **JCW** CHK. BY: MSW

LISBON PLAZA, LLC C/O S T JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE

BALTIMORE, MD 21244

SITE ADDRESS:

DEVELOPER:

ST JOHN PROPERTIES 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 788-0100

KEY PLAN 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.: 23347 Expiration date: 06/06/2024 WATTS DESIGN COMPANY, INC. Electrical Consultants 1911 Falls Road Parkton, MD 21120 NORTH

DATE: 10/04/202 DWG. SCALE: AS SHOWN SHEET: 21 of 22

