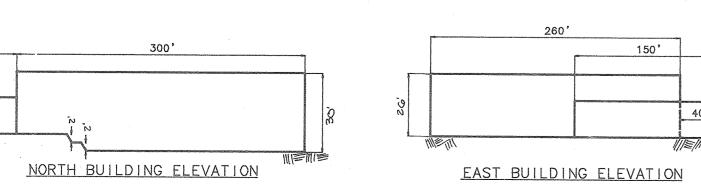


GENERAL NOTES

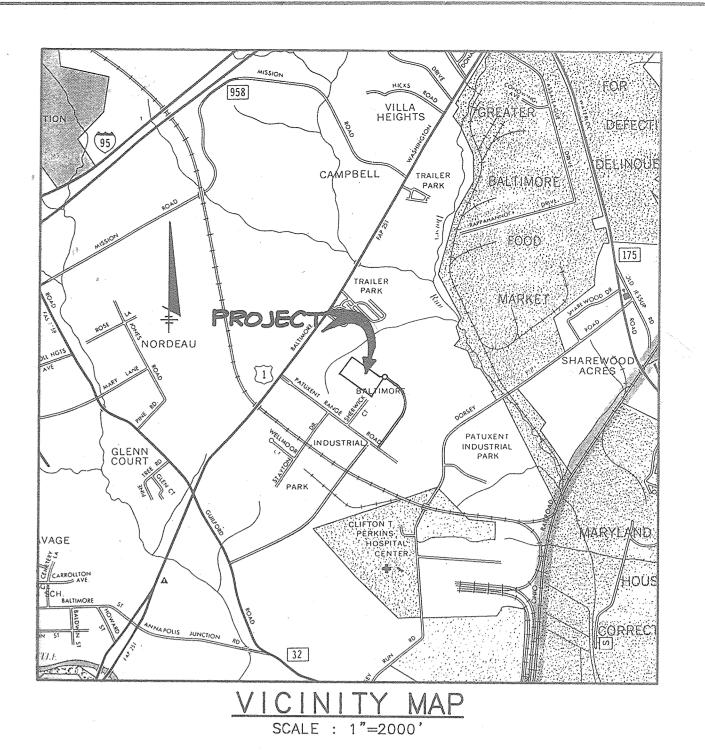
- 1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
- 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- 3. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
- 5. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
- C & P TELEPHONE COMPANY HOWARD COUNTY BUREAU OF UTILITIES 992-2366 AT&T CABLE LOCATION DIVERSION 393-3553 BALTIMORE GAS & ELECTRIC COMPANY 685-0123 STATE HIGHWAY ADMINISTRATION 531-5533 HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)
- 6. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS
- 7. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 8. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- 9. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- 10. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO
- 11. TOPO TAKEN FROM FIELD RUN SURVEY DATED FEB. 1988 BY THE RIEMER GROUP, INC.
- 12. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. 13. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL G2.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
- 14. THE DEVELOPER IS RESPONSIBLE FOR THE AQUISITION OF ALL EASEMENTS, RIGHTS AND / OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM WATER ONTO OR ACCROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE AQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
- 15. THE OWNER SHALL PROVIDE A SEPARATE AND INDEPENDENT SEWER CONNECTION FOR EACH TENANT OR OCCUPANT OF ANY BUILDING, SHOWN ON THIS SITE DEVELOPMENT PLAN, WHO WILL DISCHARGE NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM IF THIS WASTE IS REGULATED UNDER SECTION 18.122A OF THE HOWARD COUNTY CODE. EACH SEPARATE AND INDEPENDENT SEWER CONNECTION SHALL INCLUDE A STANDARD MANHOLE AND OTHER WASTE PRETREATMENT DEVICES AS REQUIRED AND APPROVED BY HOWARD COUNTY. WASTE LINES ON THE INTERIOR OF THE BUILDING SHALL BE DESIGNED, CONSTRUCTED OR MODIFIED SUCH THAT NON-DOMESTIC WASTE WILL BE DISCHARGED TO THE SEPARATE AND INDEPENDENT SEWER CONNECTION. NO TENENT OR OCCUPANT OF ANY BUILDING SHOWN ON THIS SITE DEVELOPMENT PLAN SHALL DISCHARGE REGULATED NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM PRIOR TO INSTALLATION OF THE SEPARATE AND INDEPENDENT SEWER CONNECTION AND RELATED INTERIOR WASTE LINES. THE ABOVE REQUIREMENTS SHALL APPLY TO ALL INITIAL AND FUTURE OCCUPANTS OR TENANTS.
- 16. FOREST CONSERVATION REQUIREMENTS ARE TOTALED ON PAGE 10 OF 10 OF THIS PLAN SET. WITH AN AREA LESS THAN 10,000 SF REQUIRED, WE ARE PROPOSING A FEE-IN-LIEU OF \$6,534.00 FOR 8,712 SP. FT. TO MEET THE FOREST PLANTING OBLIGATION AND WILL BE
- POSTED WITH THE GRADING PLAN. 17. SIMPLIFIED ECP APPROVED ON FEBRUARY 28TH, 2019.



SITE DEVELOPMENT PLAN

B.W.L.P. PARCHI, B-

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



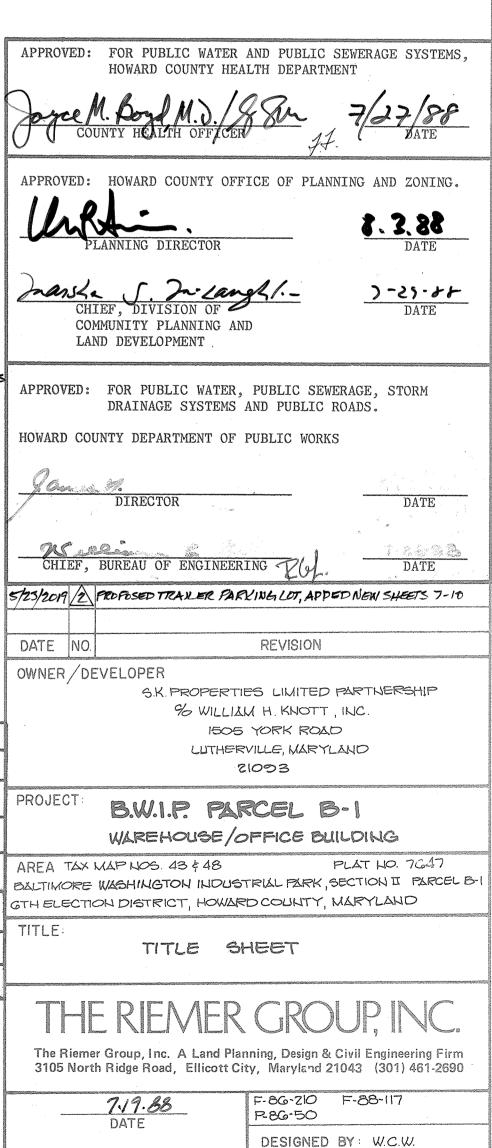
SITE TABULATION Total Area of Property: 8.890 Acres (387,248 S.F.) Area of Submission: 8.890 Acres (387,248 S.F.) Present Zoning: Office - Warehouse Proposed Use: FLOOR SPACE OF ONE STORY BUILDING (6) 90,000 SF 82,000 SF TOTAL 78.000SF 70,000 S.F. WAREHOUSE 12,000 S.F. OFFICE Building Coverage Proposed: 23.2% (82,000 S.F.)90,000 SF 20% (77,450 S.F.) 49.2% (190,400 S.F.) 49.2% 90,702 SFA Open Space Proposed: JOESPH J. HOCK, INC. L. 487 / F. 556 Parking Required: 72 Employees @ 7/10 = 50 Office · ZONED R-MH CO Employees @ 1/2 = 30 Warehouse B.W. I.P. - SEC. 11 PARCEL B-2 PLAT NO.7G47 80 SPACES SONED M-8 85 SPACES Proposed Parking: 480250 N (Including 4 Handicap Spaces) 480250 N Area of Parking! 0.69 Ac. (29,913 S.F.) Landscaped Islands Required 5% (0.03 Ac.-1,496 S.F.) Landscaped Islands Proposed 6.8% (0.05 Ac. - 2.040 S.F.) 29 SPACES (15'x 50') TRAILER DROP LOT AREA PROPOSED: 2 PAVED TRACTOR TRAILER AREAS AND DRIVE AISLE EXISTING DRIVE AISLE AND TRUCK DOCK AREA PROPOSED TEAILER DROP LOT AREA TOTAL TRACTOR TRAILER AREAS 20% OF SITE TOTAL 0.87 AC (37, U805F) 0.89 AC (58, 9535F) 1.76 AC (76, 6335F) B.W.I.P. - BLOCK E PARCEL L P.B. 5487 20NED M-2 ADDRESS CHART LOT NUMBER STREET ADDRESS PARCEL B-1 8ZGI PRESTON COURT SUBDIVISION NAME LOT/PARCEL # SALTIMORE WASHINGTON INDUSTRIAL PARK B.W. I.P. - SEC. II AX/ZONE MAP | ELEC. DIST. | CENSUS TI BLOCK # ZONE B.W.I.P. - BLOCK E LOT A PLAT NO. GO23 20 M-Z PARCEL C P.B. 18 / F. 88 7CA7 43 € 48 6064 ZONED M-2 SEWER CODE 30 Z 000 WATER CODE ZONED M-8 B.W.I.P. - BLOCK E PARCEL O 479500 P.B. 22 / F. 23 20HED M-2 7-1-88 MD PROFESSIONAL CERTIFICATION: SCALE : 1"=100 I HEREBY CERTIFY THAT THESE DOCUMENTS WELL PREPARED

OR APPROVED BY MF, AND THAT I AM A DULY LICENSED PROFESSIONAL ENKINGER UNDER THE LAWS OF THE STATE OF

MARYLAND, LICENSE NO. 19916, EXPIRATION DATE:

ONLY FOR REDLINE REVISION #2.

01/14/2021.



5DP-88-164

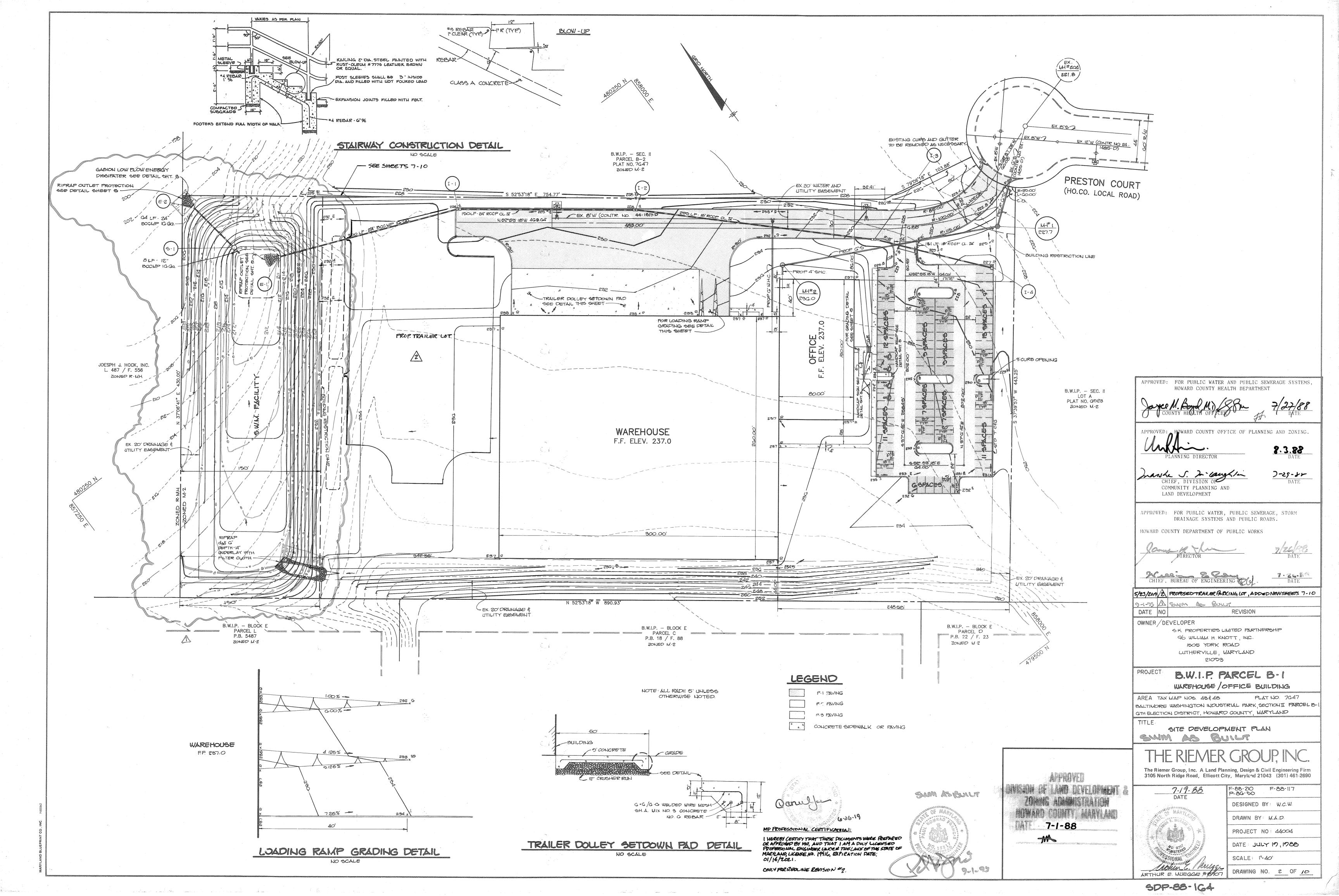
SCALE: 45 SHOWN DRAWING NO. 1 OF 10

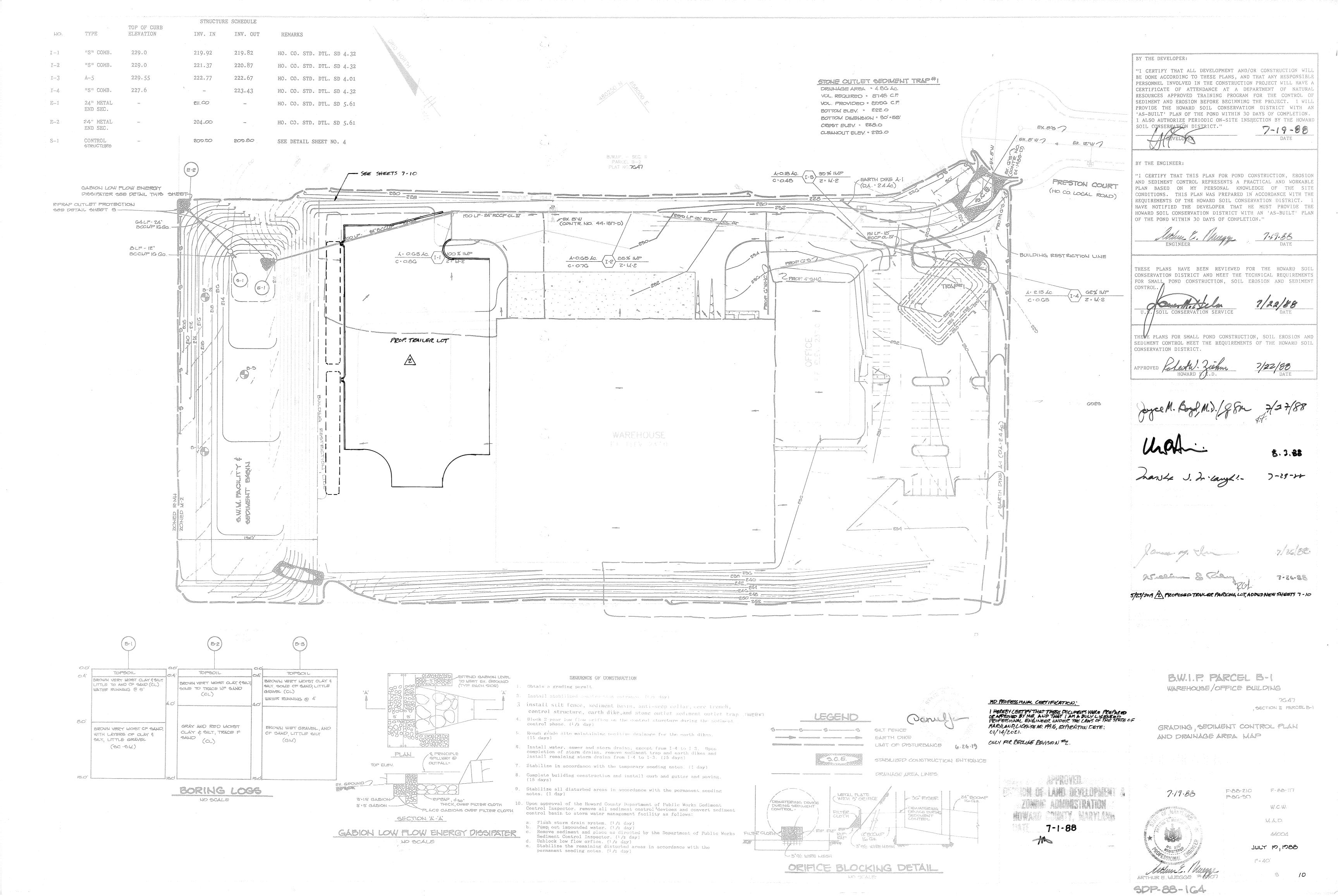
DRAWN BY: M.A.D.

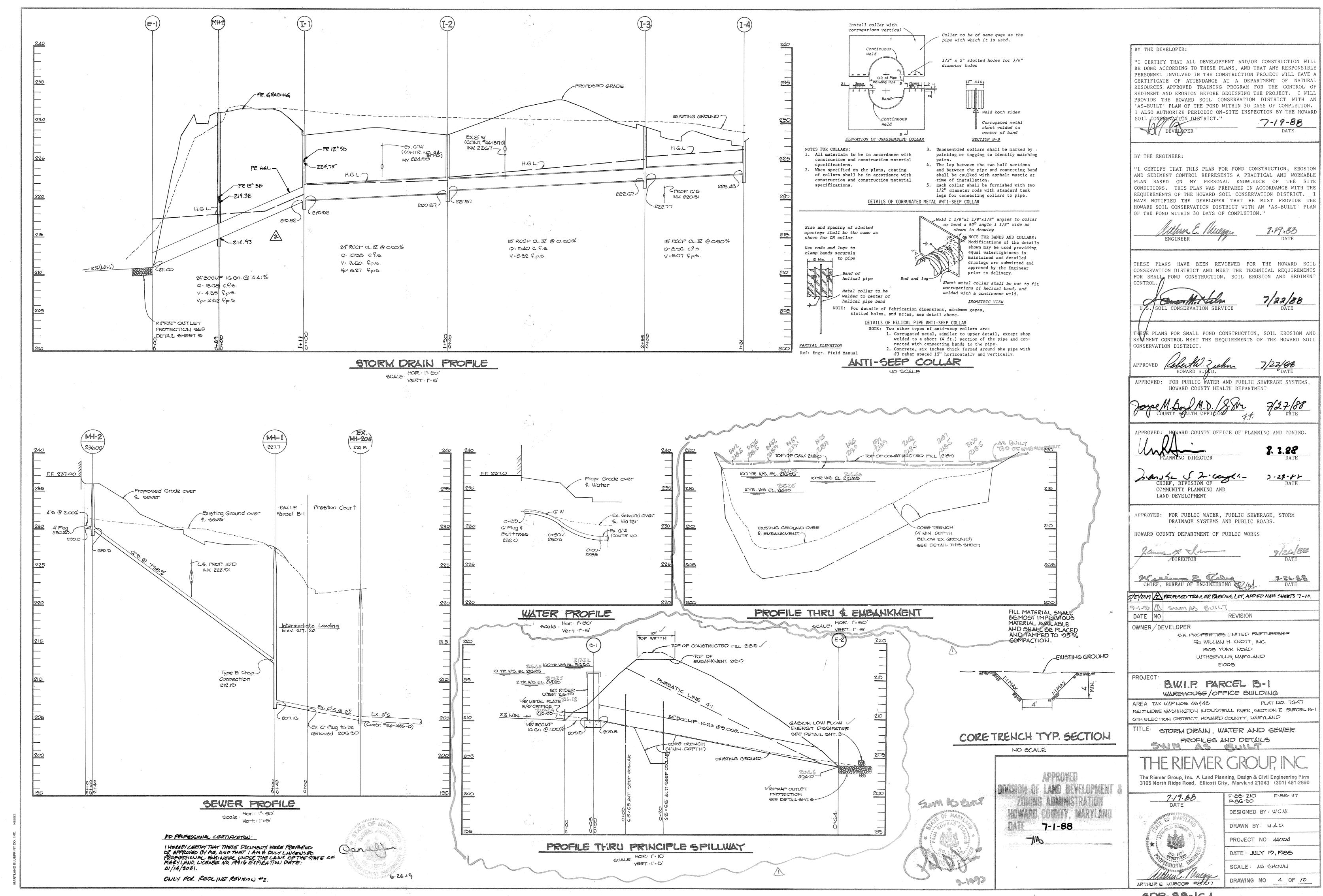
PROJECT NO: 44004

DATE: JULY 19, 1985

ARTHUR E. MUEGGE #870







5DP-88-164

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface

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

Material:

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipatd settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

CORRUGATED METAL PIPE Material:

(Steel Pipe)-This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands shall be used at all joints. Antisecp collars shall be connected to the pipe in such a manner as to be completely watertight.

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

Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150. 2. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable

3. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used. 4. Course Aggregate - The coarse aggregate shall be clean, hard

strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1) inches. Renforcing Steel - The reinforcing steel shall be be deformed bars of intermediate grade billet steel or rail steel conforming

to ASTM Specification A-615.

The concrete shall be mixed in the following proportions, measured by weight. The water-cement ration shall be 5-1 to 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-3. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

Mixing:

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the material, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the additions of water to perserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications

The forms shall have sufficient strength and rigidity to hold the gaisting ground concrete and to with stand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete. Reinforcing Steel:

All reinforcing material shall be free of dirt, rust, scale, oil,

paint or other coatings. The steel shall be accurately placed

and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete. Consolidatings Concrete shall be consolidated with internal type mechanical vibra-

tors. Vibration shall be suplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items. Finishing:

Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar. Protection and Curing:

Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also by used.

Placing Temperature: Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed. eedbed Preparation: Loosen upper three inches of soil by raking,

discing or other acceptable means before seeding, if not previously toosened. Apply 600 lbs. per acre 10-10-10 fertilizer (14 Where soil is highly acidic, apply dolomitic

Seeding: For periods March 1 thru April 30 and from Agust 15 thru November 15, seed with 140 lbs. per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq.ft.) for

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

Apply to graded or cleared areas not subject to immediate further

disturbance where a permanent long-lived vegetative cover is needed. Seedbed Preparation: Loosen upper three inches of soil by raking,

discing or other acceptable means before seeding, if not previously loosened oil Amendments: Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre. Harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3". Lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding, apply 400 lbs. of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1 lb/1000 sq.ft.) of a mixture of certified 'Merion' Kentucky bluegrass; common Ketucky bluegrass @ 40 lbs. per acre (1 lb./1000 sq.ft.) and Red Fescue. Pennlawn or Jamestown @ 20 lbs. per acre (0.5 lb./1000 sq.ft.) for the period May 1 thru July 31, seed with 40-40-20 mix as specified above and 2 lbs. per acre (0.05 1bs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: (Option 1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring. (Option 2) Use sod. (Option 3) Seed with 40-40-20 mix specified above and mulch with 2 tons/acre well-anchored straw.

Backfill material shall be of the type and quality conforming to Mulching: Apply 12 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq.ft.)

> Inspect all seeded areas and make needed repairs, replacements and reseedings

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any

- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 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, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). 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.

පි.පිට acres

880 acres

4.52 acres
4.37 acres

21750 Cu. yds.

Total Area of Site Area Disturbed Area to be roofed or paved Area to be vegetatively stabilized Total Cut total Fill

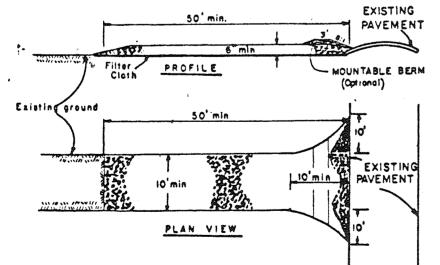
Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on she same day of

Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector. 10. Site grading will begin only after all perimeter sediment control

measures have been installed and are in a functioning condition. Sediment will be removed from traps when its depth reaches the clean

STANDARD SYMBOL

out elevation shown on the plans.



CONSTRUCTION SPECIFICATIONS

4. Width - Ten (10) foot minimum, but not less than the full width at

 Stone Size - Use 2° stone, or reclaimed or recycled concrete equivalent. 2. Length - As required, but not less than 50 feet (except on a single resi-Thickness - Not less than six (6) inches.

points where ingress or egress occurs.

Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot. 6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with \$:1 slopes will be permitted. Maintenance - The entrance shall be maintained in a condition which will

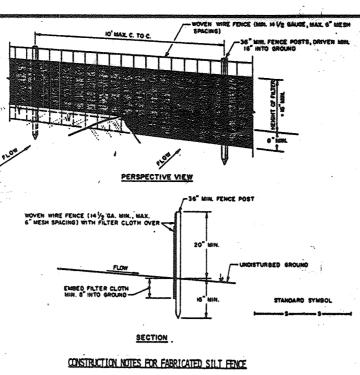
prevent tracking or flowing of sediment onto public rights-of-way. This may

require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area

stabilized with stone and which drains into an approved sediment trapping

STABILIZED CONSTRUCTION

ENTRANCE



NOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES FILTER CLOTH TO BE FASTENED SECURELY TO MOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

POSTS: STEEL EITHER T OR U FENCE: HOVEN WIRE, 144 GA.
6 Max, MESH OPENING

 ∇ CONSTRUCTION SPECIFICATIONS

L DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT. L DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET. P WIDTH MAY BE MIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE CURLET.
EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A HINIMAN OF EROSION. PLOFF
SHALL BE CONVEYED TO A SEDIMENT TRAFFING DEVICE SUCH AS A SEDIMENT TRAF OR SEDIMENT
BASIN WERE EITHER THE DIKE CHANGEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE HOTE.

ADEQUATELY STABILIZED.

6. STABILIZED STABILIZED AS THE DIRE OF THE DIRE ARE NOT THE DIRE ARE NOT THE DIRE ARE NOT THE DIRE ARE NOT THE STANDARD SPECIFICATIONS FOR SEED AND STRAW MALCH OR STRAW MALCH IF NOT IN SEEDING SEASON, (B) PLOW CHANGEL AS PER THE CHART BELOW.

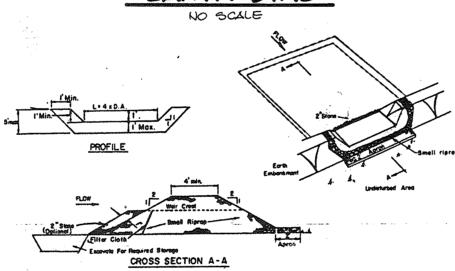
			CITIE COMMET STRUTTERSTATE	
YAT.	OÉ ENI	OWNEL	DINE A	DIKE R
1		.5-3.0%	SEED AND STRAN PLALCH	SEED AND STRAM PLACE
2		3.1-5.0%	SEED AND STRAM MALCH	SEED USING JUTE, OR EXCELSION, SOD, 2º STORE
3		5.1-8.0%	SEED WITH JUTE, OR SOD;	LINED RIP-RAP 4-8"
Ą		8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN
A.	STONE TO BE 2	INCH STONE,	OR RECYCLED CONCRETE EQUIVALENT,	IN A LAYER AT LEAST 3

INCIES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
RIP-RAP TO BE 4-8 INCIES IN A LAYER AT LEAST 8 INCIES THICKNESS AND PRESSED II THE SOIL.

C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

The fill material for the embankment shell be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. 3. All cut and fill slopes shall be 2:1 or flatter.

4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap on embedded filter cloth in the

5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to a the design depth of the trap. 6. The structure shall be inspected after each rain and repairs made as needed.

 Construction operations shall be carried out in such a manner than erosion and water pollution is minimized. 8. The structure shall be removed and the area stabilized when the drainage area has been

STONE OUTLET SEDIMENT TRAF

BITUMINOUS CONCRETE SURFACE BITUMINOUS CONCRETE BASE * 5" CRUSHER RUN BASE COURSE 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE (ALTERNATE)

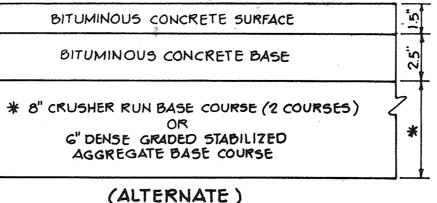
BITUMINOUS CONCRETE SURFACE

BITUMINOUS CONCRETE BASE

HOWARD COUNTY DESIGN MANUAL VOLUME IV -STANDARD SPECIFICATIONS AND DETAILS FOR

P-I PAVING DETAIL

CONSTRUCTION (DRAWING R-2:01)



BITUMINOUS CONCRETE SURFACE BITUMINOUS CONCRETE BASE

P-2 PAVING DETAIL

WILESS OTHERWISE NOTED

A ... A

M.S.H.A. MIX NO.2

CONCRETE

SIDEWALK DETAIL

No Scale

M.S.H.A. MIX NO. 2:

CONCRETE.

2'-2"

HOWARD COUNTY DESIGN MANUAL VOLUME IX

CONSTRUCTION (DRAWING R-3.01)

AS THE PAVEMENT

STANDARD SPECIFICATIONS AND DETAILS FOR

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE

SECTIONS SHALL BE SLOPED AT THE SAME RATE

ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED

STANDARD 7" COMBINATION

CURB AND GUTTER

DEPRESSED CURE

AT DRIVEWAY

ENTRANCES

M.S.H.A MIX NO. 2

CONCRETE

REVERSE 7" COMBINATION

CURB AND GUTTER

COLORS

LEGEND AND BORDER - GREEN

NOTE:
DISTANCE FROM GROUND TO

WHITE SYMBOLS ON BLUE BACKGROUND BACKGROUND - WHITE

HANDICAP SIGN DETAIL

NO SCALE

4....

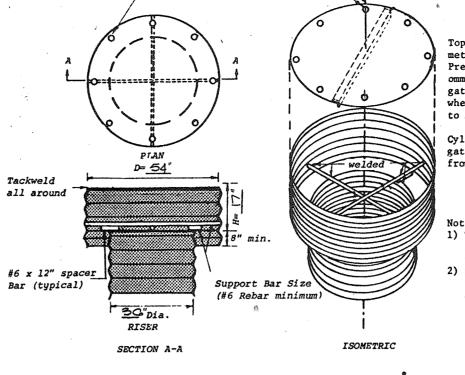
DEPRESSED CURB

<u>6%*</u>

AT DRIVEWAY

ENTRANCES

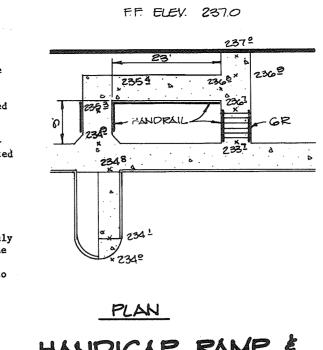
HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R. 2.01



Top is 12 gage corrugated metal or 1/8" steel plate. Pressure relief holes may be ommitted.if ends of corrugations are left fully open when corrugated top is welded to cylinder Cylinder is 14 gage corrugated metal pipe or fabricated from 1/8" steel plate.

1) The cylinder must be firmly fastened to the top of the Support bars are welded to the top of the riser or attached by straps bolted to top of riser.

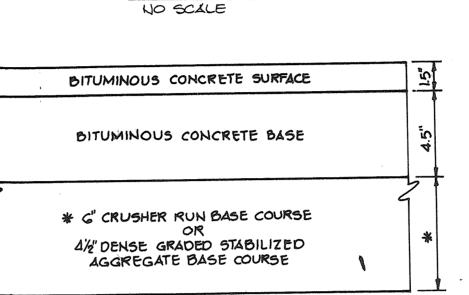
CONCENTRIC TRASH RACK & ANTI-VORTEX DEVICE



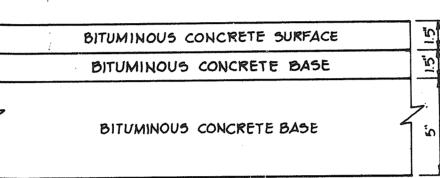
PROPOSED OFFICE

HANDICAP RAMP &

ENTRANCE GRADING DETAIL

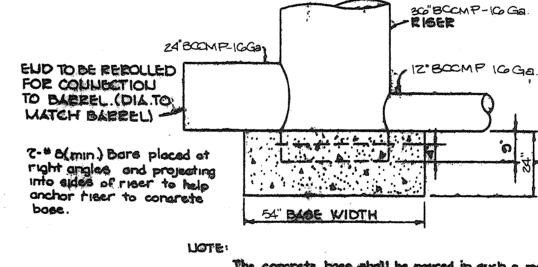


(ALTERNATE)



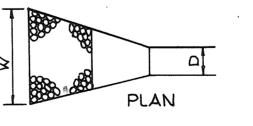
HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R- 2.01)

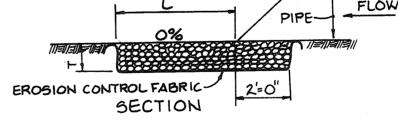
P-3 PAYING DETAIL



The concrete base shall be poured in such a manner to insure that the concrete fills the bottom of the riser to the invert of the outlet pipe to-prevent the night from bredding away

RISER BASE DETAIL

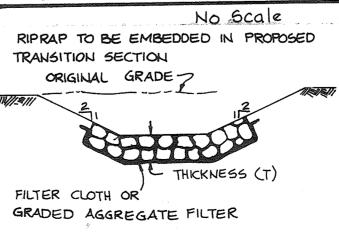




- Base Thickness

STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	ن "	(3)	\٦'	۱۵"
E-Z	ڻ	13	۱۳'	. 14"

OUTLET PROTECTION DETAIL



SECTION A-A

7-1-88

BY THE DEVELOPER: 'I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WII BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBL

PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWAR SOIL CONSERVATION DISTRICT."

BY THE ENGINEER:

APPROVED

CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSIO AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLI PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITI REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THI HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLA OF THE POND WITHIN 30 DAYS OF COMPLETION."

7-17-88

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SO CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENT FOR SMALL POND CONSTRUCTION. SOIL EROSION AND SEDIMENT CONTROL

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOI CONSERVATION DISTRICT.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

HOWARD COUNTY HEALTH DEPARTMENT

HOWARD COUNTY OFFICE OF PLANNING AND ZONING. 8.288

harshe S. In laught -

7-25-2r COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

7-26-88 DATE

DATE NO. OWNER / DEVELOPER

S.K. PROPERTIES LIMITED PARTHERSHIP 96 WILLIAM H. KNOTT, INC. 1505 YORK ROAD LUTHERVILLE, MARYLAND

REVISION

B.W.I.P. PARCEL B-1 WAREHOUSE OFFICE BUILDING

AREA TAX MAP NOS. 43 & 48 PLAT NO. 7647 BALTIMORE WASHINGTON INDUSTRIAL PARK, SECTION II PARCEL B-1 GTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

DETAIL SHEET

THE RIEMER GROUP, INC.

The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm 3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690



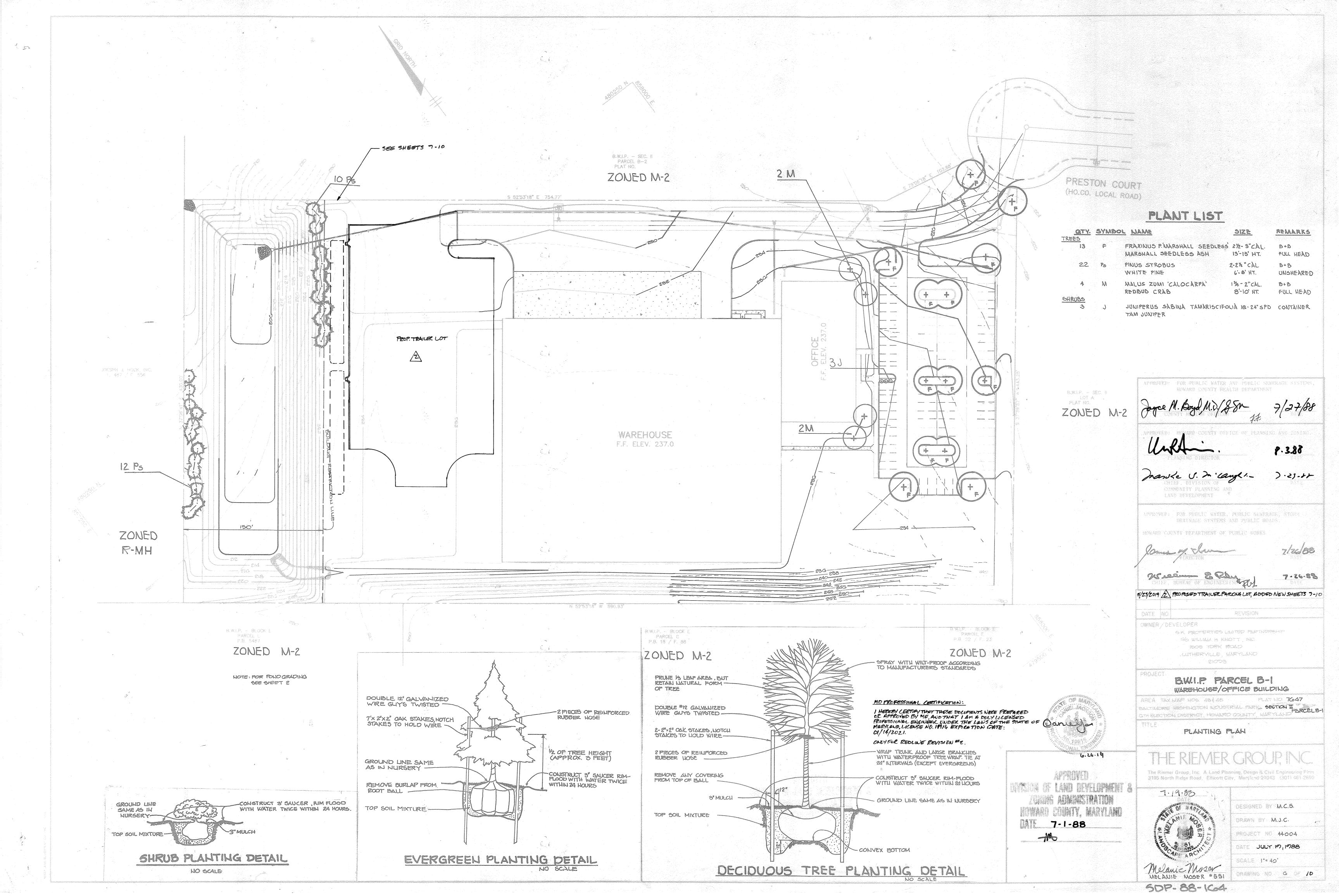
DESIGNED BY: W.C.W. DRAWN BY: M.A.D. PROJECT NO: 44004

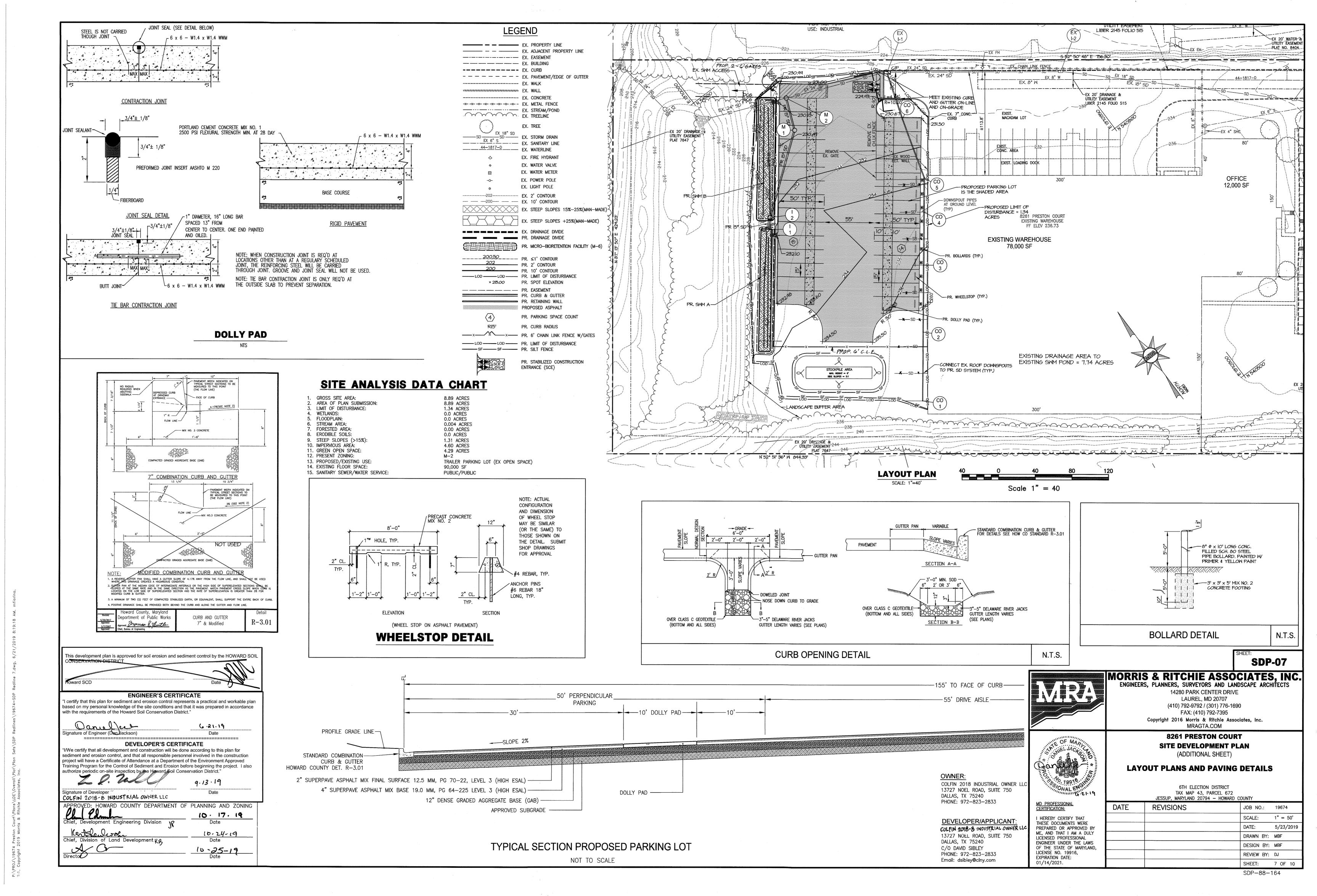
P-86-50

DATE: JULY 19, 1988 SCALE: 45 SHOWN

5DP-88-164

DRAWING NO. 5 OF /O





THE ALLOWABLE MATERIALS TO BE USED IN MICRO-BIORETENTION AREAS ARE DETAILED IN TABLE B.4.1. (SEE THIS SHEET)

FILTER MEDIA OR PLANTING SOIL

THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION AND BIOSWALE PRACTICES THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

- SOIL CONTENT LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURAL CLASSIFICATION) • ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35%-40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).
- CLAY CONTENT MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%. • pH RANGE - SHOULD BE BETWEEN 5.5-7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED INTO THE SOIL TO INCREASE OR DECREASE ph.

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR ph, and additional tests of organic matter, and soluble salts. A textural analysis is required from THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

REPLACEMENT OF FILTER MEDIA IS REQUIRED IF WATER PONDS FOR MORE THAN 24 HOURS.

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF THE BASE OF MICRO-BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE MICRO-BIORETENTION AND BIOSWALE FACILITIES BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM

WHEN BACKFILLING THE MICRO-BIORETENTION AND BIOSWALE FACILITIES, PLACE SOIL IN LIFTS OF 12" to 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE MICRO-BIORETENTION OR BIOSWALE BASINS. HEAVY EQUIPMENT CAN BE USED AROUND

THE PERIMETER OF THE BASIN TO SUPPLY SOILS. GRADE MICRO-BIORETENTION AND BIOSWALE MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION AREAS CAN BE FOUND ON THE LANDSCAPE PLANS FOUND HEREIN.

5. PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING AREAS TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE MICRO-BIORETENTION AREAS DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8th OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE MICRO-BIORETENTION STRUCTURES IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

UNDERDRAINS

UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

BED WHEN BED THICKNESS EXCEEDS 24".

- PIPE SHOULD BE 4"-6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTMF 758, TYPE PS 28, OR AASHTO-M-78) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE). • PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED
- HARDWARE CLOTH. GRAVEL — THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN
- A RIGID. NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER. A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER.

THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL THE SITE AND ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

TABLE B.4.1 MATERIAL SPECIFICATIONS FOR MICRO-BIORETENTION AND BIOSWALE FACILITIES

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE APPENDIX A, TABLE A.4	N/A	PLANTINGS ARE SITE—SPECIFIC
PLANTING SOIL [2' TO 4' DEEP]	LOAMY SAND (60-65%) & COMPOST (35-40%) OR SANDY LOAM (30%), COARSE SAND (30%) & COMPOST (40%)	N/A	USDA SOILS TYPES LOAMY SAND OR SANDY LOAM; CLAY CONTENT < 5%
ORGANIC CONTENT	MIN. 10% BY DRY WEIGHT (ASTM D 2974)		
MULCH	SHREDDED HARDWOOD	N/A	AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS
GRAVEL DIAPHRAGM	ASTM-D-448 PEA GRAVEL	NO. 8 OR NO. 9 (1/8" TO 3/8")	
BRIDGING LAYER	ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
INFLOW PROTECTION	ORNAMENTAL STONE: WASHED COBBLES	STONE: 3" TO 5"	DELAWARE VALLEY RIVER JACKS
GEOTEXTILE		N/A	PE TYPE 1 NONWOVEN
GRAVEL (UNDERDRAINS)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
UNDERDRAIN PIPING, OBSERVATION WELLS, AND CLEAN OUTS	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	SLOTTED OR PERFORATED PIPE; 3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL ABOVE AND BENEATH PIPES.
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3; F'c = 3500 PSI @ 28 DAYS, NORMAL WEIGHT, AIR ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON SITE TESTING OF POURED—IN—PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST—IN—PLACE OR PRE—CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND. — DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL; LOADING [H—10 OR H—20]; ALLOWABLE HORIZONTAL LOADING (BASE AND SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING.
JUTE MATTING (OR EQUIVALENT)	6-9 MONTHS BEFORE BIODEGRADATION	4' WIDE ROLLS	MANUFACTURER: GRANITE ENVIRONMENTAL

INSPECTION REQUIREMENTS FOR MICRO-BIORETENTION FACILITIES

REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:

- DURING EXCAVATION TO SUBGRADE AND PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS.
- DURING PLACEMENT OF FILTER MEDIA. DURING CONSTRUCTION OF APPURTENANT CONVEYANCE.
- 4. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

MAINTENANCE CRITERIA FOR MICRO-BIORETENTION FACILITIES

- THE PROPOSED SWM FACILITIES ARE PRIVATELY OWNED AND MAINTAINED BY THE OWNER, PRIVATELY OWNED PRACTICES SHALL HAVE A
- MAINTENANCE PLAN AND SHALL BE PROTECTED BY EASEMENT, DEED RESTRICTION, ORDINANCE, OR OTHER LEGAL MEASURES PREVENTING ITS NEGLECT, ADVERSE ALTERATION, AND REMOVAL.

THE FOLLOWING ITEMS SHOULD BE ADDRESSED TO ENSURE PROPER MAINTENANCE AND LONG-TERM PERFORMANCE OF MICRO-BIORETENTION PRACTICES:

- 2. THE TOP FEW INCHES OF FILTER MEDIA SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN TWENTY-FOUR (24) HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE FILTER BED WHEN ACCUMULATION EXCEEDS ONE (1) INCH.
- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (E.G., PARKING LOTS, ROADS, ETC.), MULCH SHOULD BE REPLACED ANNUALLY IN THE SPRING. OTHERWISE, THE TOP TWO (2) TO THREE (3) INCHES SHOULD BE REPLACED AS NECESSARY. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- 4. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING

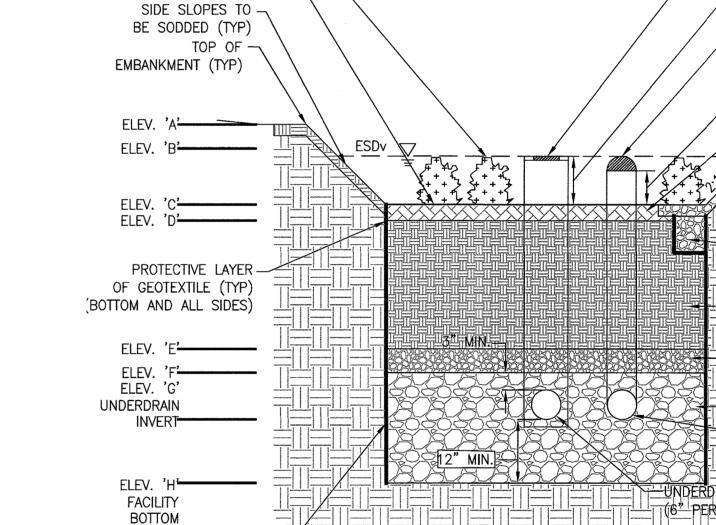
PLANNING AND ZONING
10. 17. 19
Date
10-24-19
Date
16-25-19
Date

CONSTRUCT
MANHOLE OVER EXISTING 24" SD HO. CO. DETAIL PR. 6" UNDERDRAIN— -PR. 6" UNDERDRAIN INV. 214.93± 15" CL IV RCP 15" CL IV RCF 15" CL IV RCP @ 2.02% **6** 7.43% Q10 = 8.53 CFS Q10 = 4.26 CFS $Q_{10} = 6.66 \text{ CFS}$ V10 = 7.0 FPS V10 = 3.5 FPS $V_{10} = 5.4 FPS$ Sr = 0.51% 5f = 2.02%Sf = 1.23%11-MH2 PROFILE SCALE: H: 1"=40' V: 1"=4"

STORM DRAIN STRUCTURE SCHEDULE							
STR NO.	NORTHING	EASTING	TYPE	REMARKS	INV IN	INV OUT	TOP ELEV
CO 1	540,689.97	1,370,003.53	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23			233.55	236.42
CO 2	540,749.43	1,370,049.24	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23		232.05	231.95	236.10
CO 3	540,807.29	1,370,093.71	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23		230.51	230.18	236.13
CO 4	540,853.05	1,370,128.88	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23		228.86	228.76	234.98
CO 5	540,882.71	1,370,151.67	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23		228.00	227.90	233.69
CO 6	540,948.01	1,370,171.32	STANDARD CLEANOUT, HOWARD CO DET STD S-2.23, ???		226.10	226.00	231.11
CO 7	540,840.81	1,369,900.27	STANDARD CLEANOUT			225.83	228.18
CO 8	540,892.45	1,369,939.44	STANDARD CLEANOUT		225.83	225.83	228.35
CO 9	541,002.51	1,370,029.59	STANDARD CLEANOUT		224.33	224.83	225.85
CO 10	541,046.88	1,370,061.90	STANDARD CLEANOUT			224.33	0.00
l 1	540,941.67	1,369,980.52	TYPE 'D' INLET PRECAST, HOWARD CO STD DET D-4.10		225.83	225.83	231.00
12	540,949.82	1,369,991.23	TYPE 'D' INLET PRECAST, HOWARD CO STD DET D-4.10		224.83 224.83	224.71	230.00
M 1	541,009.79	1,370,070.06	PRECAST MANHOLE-STANDARD 4'-0", HOWARD CO STD DET G-5.12		222.87	222.77	230.46
M 2	541,043.18	1,370,083.91	PRECAST MANHOLE-STANDARD 4'-0", HOWARD CO STD DET G-5.14		222.04		230.44

MICRO-BIORETENTION CHART

FACILITY NUMBER	TOP OF EMBANKMENT ELEV 'A'	ESDv PONDING ELEV 'B'	FACILITY SURFACE ELEV 'C'	PLANTING MEDIA TOP ELEV 'D'	PLANTING MEDIA BOTTOM ELEV 'E'	BRIDGING LAYER BOTTOM ELEV 'F'	UNDER DRAIN INVERT ELEV 'G'	STONE	FILTER BED AREA PROVIDED (TOP SF)
SWM #A	231.50	231.00	230.00	229.75	226.75	226.42	225.83	224.83	1670.20
SWM #B	230.50	230.00	229.00	228.75	225.75	225.42	224.83	223.83	1934.80



EX. GRADE -

 $Q_{10} = 5.63 CFS$

 $V_{10} = 7.2 FPS$

 $S_f = 2.90\%$

 $Q_{10} = 5.63$ CFS

 $V_{10} = 7.2 FPS$

 $S_f = 2.90\%$

SEE LANDSCAPE PLANS -

PROTECTIVE LAYER-

OF GEOTEXTILE

(SIDES ONLY)

JUTE MATTING -

@ 2.04%

Q10 = 5.61 CFS

V10 = 7.1 FPS

5f = 2.87%

@ 2.29%

 $V_{10} = 6.4 \text{ FPS}$

13 - EX 11 PROFILE

SCALE: H: 1"=40'

V: 1"=4'

 $Q_{10} = 5.02 CFS$

 $S_f = 2.30\%$

@ 1.98%

Q10 = 3.75 CFS

 $V_{10} = 10.7 FPS$

 $S_f = 11.14\%$

_OVERFLOW TYPE-S INLET

(SEE STORM DRAIN PLAN)

— 12" MAX PONDING DEPTH

9" ABOVE SURFACE

∠— 9" PONDING DEPTH

12" FROM BOTTOM OF FACILITY

— OVERFLOW DISTRIBUTION PIPE

─ 3" MULCH LAYER

WITH 6" DOME GRATE CAP

@ 2.00%

 $Q_{10} = 2.39 CFS$

 $V_{10} = 6.8 \text{ FPS}$

 $S_f = 4.54\%$

CURB OPENING & CONCRETE FLUMES

- ADD INFLOW PROTECTION AT ALL FLUMES 3"-5" DELAWARE RIVER JACKS ON

(SEE PLAN VIEW FOR LOCATION)

(SEE PLAN VIEW FOR LOCATION)

OR FLOW-THRU INLETS

GRAVEL DIAPHRAGM

12" W x 12" D

- PLANTING SOIL (2' TO 4')

- 4" BRIDGING LAYER

12" GRAVEL RESERVOIR

-DISTRIBUTION PIPE (6" PERFORATED PVC)

PR. GRADE-

KOR-N-SEAL-- PR. SD INTO

EX. INLET

MICRO-BIORETENTION DETAIL MDE CLASSIFICATION M-6

N.T.S.

and the summer of the summer o SWM B SWM A

SCALE: 1"=20' SCALE: 1"=20' 178 CAK <u>16 IGL</u> **PLANTING PLAN SWM A PLANTING PLAN SWM B**

TOTAL 173

		SCALE: 1"=20'				
Pres	ton Court- Master Stormwater Plant S	Schedule-SWM A				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	QTY
SHR	UBS					
IGL	Ilex glabra 'Shamrock'	Inkberry	3 Gal.	CONT.	4' O.C.	33
					TOTAL	33
PER	ENNIALS & GRASSES	-7				
CAK	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	3 Gal.	CONT.	24" O.C.	173

	SCA	ALE: 1"=20'	-				DALL
res	ton Court- Master Stormwater Plant	Schedule-SWM B					PHO
(EY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	QTY	
HR	UBS						DE
IGL	Ilex glabra 'Shamrock'	Inkberry	3 Gal.	CONT.	4' O.C.	40	COLF
					TOTAL	40	137
ER	ENNIALS & GRASSES						DALI
CAK	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	3 Gal.	CONT.	24" O.C.	173	C/0

COLFIN 2018 INDUSTRIAL OWNER I 13727 NOEL ROAD, SUITE 750 LAS, TX 75240 ONE: 972-823-2833 MD PROFESSIONAL CERTIFICATION:

01/14/2021.

VELOPER/APPLICANT: in 2018-8 industrial owner L 727 NOEL ROAD, SUITE 750 LAS, TX 75240 DAVID SIBLEY PHONE: 972-823-2833 TOTAL | 173 Email: dsibley@clny.com

SDP-08 MORRIS & RITCHIE ASSOCIATES, INC.

MRAGTA.COM

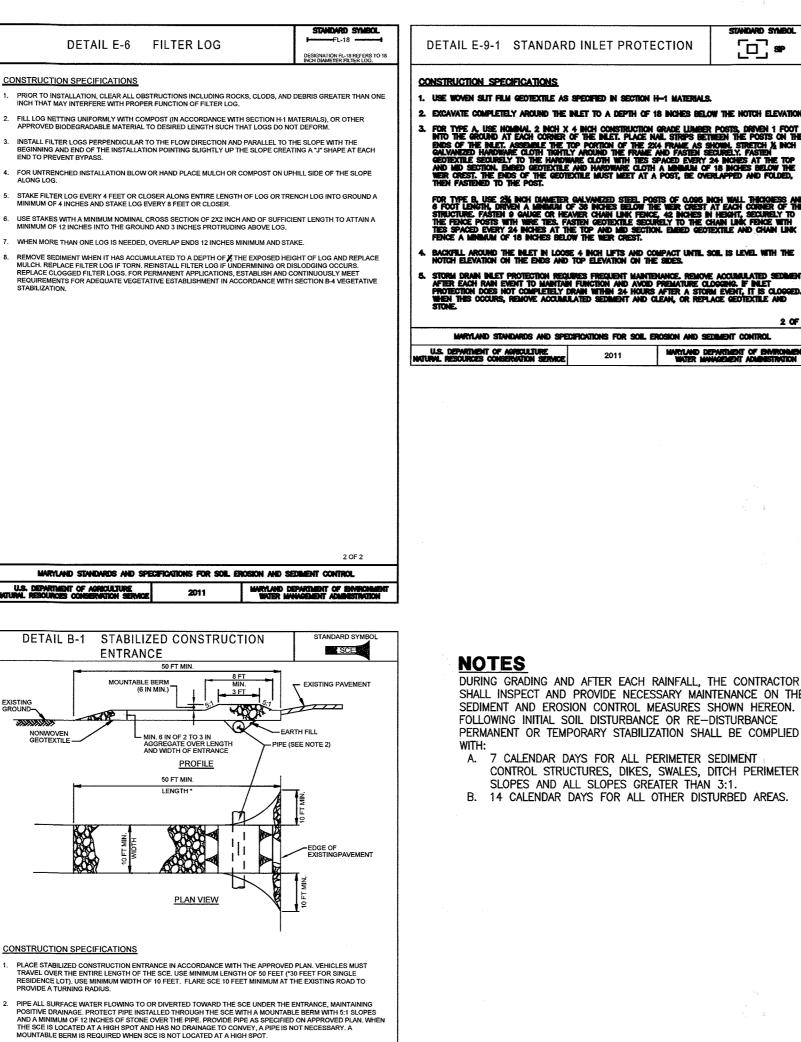
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE LAUREL, MD 20707 (410) 792-9792 / (301) 776-1690 FAX: (410) 792-7395 Copyright 2016 Morris & Ritchie Associates, Inc.

8261 PRESTON COURT SITE DEVELOPMENT PLAN (ADDITIONAL SHEET) **STORM WATER MANAGEMENT & STORM DRAIN PROFILES**

> 6TH ELECTION DISTRICT TAX MAP 43, PARCEL 672 JESSUP, MARYLAND 20794 - HOWARD COUNTY

REVISIONS DATE JOB NO.: 19674 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE DATE: 5/23/2019 PREPARED OR APPROVED BY ME, AND THAT I AM A DULY DRAWN BY: MBF LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS DESIGN BY: MBF OF THE STATE OF MARYLAND, LICENSE NO. 19916, REVIEW BY: DJ EXPIRATION DATE: SHEET: 8 OF 10

SDP-88-164



MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

ENGINEER'S CERTIFICATE

DEVELOPER'S CERTIFICATE

Training Program for the Control of Sediment and Erosion before beginning the project. I also

authorize periodic on-site inspection by the Hayard Soil Conservation District.'

COLFIN 2018-8 INDUSTRIAL OWNER LLC

6.21.19

Date

Date

2011

10-24-19

10-25-19

- WOVEN SLIT FILM TYPE A ISOMETRIC VIEW SECTION FOR TYPE A AND B MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL [__] **se** DETAIL E-9-1 STANDARD INLET PROTECTION 1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. 2. EXCAVATE COMPLETELY ARGUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION. 3. FOR TYPE A, USE NOMBAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE BIDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 224 FRAME AS SHOWN, STRETCH X; INCH GALVANEZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SEQURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TES SPACED EVERY 24 INCHES AT THE TOP AND MOD SECTION. BARBED GEOTEXTE. AND HARDWARE CLOTH A MEMBAL OF 18 INCHES BELOW THE WER CREST. THE BIDS OF THE GEOTEXTEL MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

-2 N x 4 N FRAIN

SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLIED

A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.

14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.

condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas. 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

2. Tonsoil 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.

content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation

B-4 STANDARDS AND SPECIFICATIONS

FOR

VEGETATIVE STABILIZATION

Definition

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental

stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization;

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is

stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of

runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will

increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to

receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present

Sediment control practices must remain in place during grading, seedhed preparation, seeding, mulching

Adequate Vegetative Establishment

Adequate vegetative stabilization requires 95 percent groundcover.

4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

for lime, fertilizer, seedbed preparation, and seeding.

The process of preparing the soils to sustain adequate vegetative stabilization

b. Apply fertilizer and lime as prescribed on the plans.

i. Soil pH between 6.0 and 7.0.

would be acceptable.

conditions required for permanent vegetative establishment are

iv. Soil contains 1.5 percent minimum organic matter by weight.

then scarified or otherwise loosened to a depth of 3 to 5 inches.

v. Soil contains sufficient pore space to permit adequate root penetration.

ii. Soluble salts less than 500 parts per million (ppm).

To provide a suitable soil medium for vegetative growth.

Where vegetative stabilization is to be established

2. Permanent Stabilization

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the

2. If an area has less than 40 percent groundcover, restabilize following the original recommendations

3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates

B-4-2 STANDARDS AND SPECIFICATIONS

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable

agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounte

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

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil

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

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

c. Graded areas must be maintained in a true and even grade as specified on the approved plan,

Apply soil amendments as specified on the approved plan or as indicated by the results of a soil

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

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake

Using vegetation as cover to protect exposed soil from crosion

To promote the establishment of vegetation on exposed soil.

reducing sediment loads and runoff to downstream areas

and permanent stabilization.

and vegetative establishment.

planting season.

3. 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.

4. Areas having slopes steeper than 2:1 require special consideration and design.

Johnson grass, mit sedge, poison ivy, thistle, or others as specified

5. 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 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 11/2 inches in diamete b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass,

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 lieu of natural topsoil.

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 condition, when the

subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparatio

C. Soil Amendments (Fertilizer and Lime Specifications)

1. 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 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 authority. 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 product 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

5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover

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

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 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.

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 thaws

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 packag 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 ca weaken bacteria and make the inoculant less effective

d. 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

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. 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 c. 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; P2O3 (phosphorous) 200 pounds per acre; K2O (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 hydrated lime when hydroseeding

iii. Mix seed and fertilizer on site and seed immediately and without interruption

iv. When hydroseeding do not incorporate seed into the soil.

1. 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 no musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.

i. 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.

ii. WCFM, including dye, must contain no germination or growth inhibiting factors 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 assitation and wil

blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulci 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 so without inhibiting the growth of the grass seedlings. iv. 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 o

sh content of 1.6 percent maximum and water holding capacity of 90 percent minimum. 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 scre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pound

of wood cellulose fiber per 100 gallons of water.

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

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 contour 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 water

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 strict . Lightweight plastic netting may be stapled over the mulch according to manufacture

recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000

B-4-4 STANDARDS AND SPECIFICATIONS

TEMPORARY STABILIZATION

To stabilize disturbed soils with vegetation for up to 6 month

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

1. 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.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section 8-4-3.A. I.b and maintain until the next seeding season

Temporary Seeding Summary Hardiness Zone (from Figure B.3): 6B Fertilizer Rate (10-20-20) Seed Mixture (from Table B.I): 6

Llme Rate Species Rate (lb/ac) Bates Depths FOX. MILL. 30 5/16-7/31 05" (10 lb/1000 sf) (90 lb/1000 sf) B-4-5 STANDARDS AND SPECIFICATIONS

PERMANENT STABILIZATION

To use long-lived perennial grasses and legumes to establish pennanent ground cover on disturbed soils

Conditions Where Practice Applie

Exposed soils where ground cover is needed for 6 months or more

To stabilize disturbed soils with nermanent vegetation

A. Seed Mixtures

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plan Hardiness Zone (from Figure B.3) and based on the site condition or numose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seedin Summary. The Summary is to be placed on the plan b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or

USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Plant

dunes or for special purposes such as wildlife or gesthetic treatment may be found in

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per shown in the Permanent Seeding Summary

2. Turfgrass Mixtures

 Areas where turfgrass may be desired include lawns, parks, playerounds, and commercial sites 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 Sceding Summary. The summary is to be placed on the plan. i. 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 Kontucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each

ii. Kentucky Bluegrass/Perennial Rys: 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 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 no

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass haves. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Pescue and 60 to 70 percent. Seeding Rate: 1% to 3 pounds per 1000 square fee

Select turgrass varieties from those listed in the most current University of Marvland 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

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5h, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March I to May 15, August 15 to October 15

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 scedhod. 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 (% to I inch every 3 to 4 days depending on soil texture) until they are firmly established. This i especially true when seedings are made late in the planting season, in abnormally dry or hot

Permanent Seeding Summary

		one (from Figur e (from Table H				Fertilizer Ra (10-20-20)	te	Lime Rat
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P2O5	K₂0	Diffue reas
I	T. FESC.	60	3/1-5/15	14-1/2 in	348 pounds	90 lb/ac	90 lb/ac	2 tons/ac
2	K. BLUE.	40	3/1-5/15	14-15 in	per acre	(2 lb/	(216/	(90 lb/
				14-15 in	1000 sf)	1000 sf)	1000 sf)	1000 sf)

B. Sad: To provide quick cover on distarbed areas (2:1 grade or flatter).

1. General Specifications a. Class of turfgrass sod must be Maryland State Certified. Sed labels must be made available to the job foreman and inspects

b. Sod must be machine cut at a uniform soil thickness of % inch, plus or minus % inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and 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

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

a. During periods of excessively high temperature or in areas having dry subsoit, 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

. 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 d 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 strigating for any piece of sod within eight hours.

OWNER:

DALLAS, TX 75240

DALLAS, TX 75240

C/O DAVID SIBLEY

PHONE: 972-823-2833

Email: dsibley@clny.com

PHONE: 972-823-2833

DEVELOPER/APPLICANT

COLFIN 2018-8 INDUSTRIAL OWNER

13727 NOEL ROAD, SUITE 750 LUC

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently

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

c. Do not mow until the sod is firmly rooted. No more than % of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

SDP-09



MORRIS & RITCHIE ASSOCIATES, INC ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

A pre-construction meeting must occur with the Howard County Department of Public Works.

a Prior to the start of earth disturbance.

coordination and to avoid conflicts with this plan.

areas shall receive soil stabilization matting (Sec. B-4-6)

Site Analysis

Total Area of Site:

Area to be roofed or paved:

repaired on the same day of disturbance

Name and title of inspector

Evidence of sediment discharges

Identification of plan deficiencies

precipitation)

Photographs

Monitoring/sampling

Area to be vegetatively stabilized:

Offsite waste/borrow area location

Area Disturbed:

Total Cut:

until permission for their removal has been obtained from the CID.

proceeding with any other earth disturbance or grading,

SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

d. Prior to the removal or modification of sediment control practice

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:

b. Upon completion of the installation of perimeter erosion and sediment controls, but before

or to the start of another phase of construction or opening of another grading unit,

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

to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR

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.

All disturbed areas must be stabilized within the time period specified above in accordance with the

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

Acres

1807.23 Cu. Yds.

TO BE DETERMINED

of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly crodible

Any sediment control practice which is disturbed by grading activity for placement of utilities must be

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:

Weather information (current conditions as well as time and amount of last recorded

Brief description of project's status (e.g., percent complete) and/or current activities

· Compliance status regarding the sequence of construction and stabilization requirements

. Other inspection items as required by the General Permit for Stormwater Associated with

by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the

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,

9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be

Any major changes or revisions to the plan or sequence of construction must be reviewed and approved

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a

14. All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum

15. Stream channels must not be disturbed during the following restricted time periods (inclusive):

16. A conv 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

8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all

Inspection type (routine, pre-storm event, during rain event)

Identification of sediment controls that require maintenance

Maintenance and/or corrective action performed

no more than 30 acres cumulatively may be disturbed at a given time.

Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

intervals, with lower ends curled uphill by 2' in elevation.

THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO GRADING.

CONDUCT A PRE-CONSTRUCTION MEETING. WORK MAY NOT COMMENCE

WITH THE SEDIMENT & EROSION CONTROL INSPECTOR TO REVIEW THE

4. NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS, LICENSES AND PERMITS

(410-313-2455) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.

STORMWATER MANAGEMENT FACILITIES AND PLACE FILTER LOG AT INLET

9. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE APPROVAL OF

THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL

INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER

UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE

EXISTING TOPOGRAPHY MUST BE FIELD VERIFIED FOR THE SEDIMENT CONTROL

INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON PLAN IN ACCORDANCE 5 DAYS

INSTALL PAVEMENT, CURB, AND GUTTER. STABILIZE ALL AREAS OUTSIDE OF 2 MONTH

STABILIZE THE SITE AND ALL DISTURBED AREA AND INSTALL THE STORMWATER 1 WEEK

6. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR TO 2 WEEKS

Use I and IP March I - June 15

SEQUENCE OF CONSTRUCTION

INSPECTOR PRIOR TO COMMENCING WORK.

PROCEED. STAKEOUT AND ROUGH GRADE SITE.

ENTRANCES TO STORMWATER MANAGEMENT FACILITIES.

LAND DISTURBING ACTIVITIES.

OBTAIN GRADING PERMIT

MANAGEMENT DEVICES.

WITH DETAILS.

Use III and IIIP October 1 - April 30

Construction Activities (NPDES, MDE).

· Identification of missing or improperly installed sediment controls

5. All sediment control structures are to remain in place, and are to be maintained in operative condition

2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are

LAUREL, MD 20707 (410) 792-9792 / (301) 776-1690 FAX: (410) 792-7395

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COLFIN 2018 INDUSTRIAL OWNER LI 13727 NOEL ROAD, SUITE 750 MD PROFESSIONAL

CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND THAT I AM A DULY LICENSED PROFESSIONAL

EXPIRATION DATE:

01/14/2021.

ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19916,

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS 6TH ELECTION DISTRICT

TAX MAP 43. PARCEL 672 JESSUP, MARYLAND 20794 - HOWARD COUNTY

8261 PRESTON COURT

SITE DEVELOPMENT PLAN

(ADDITIONAL SHEET)

DATE JOB NO.: 19674 REVISIONS SCALE: 5/23/201 DATE: DRAWN BY: MBF DESIGN BY: MBF REVIEW BY: DJ SHEET: 9 OF 10

SDP-88-164

LOT B-1/PARCEL 672

43/20/672

06504531

8.89 AC

1.34 ACRES

SITE ADDRESS:

8261 PRESTON COURT JESSUP, MD 20794

TAX MAP/GRID/PARCEL: TAX ACCOUNT NUMBER:

5. LOT/PARCEL NUMBER:

6. TOTAL LOT AREA:

10. LIMITS OF DISTURBANCE:

100 YEAR FLOODPLAIN: 8. STEEP SLOPES (25%): 0 AC 9. NET TRACT AREA:

11. AREA USED FOR FOREST CONSERVATION CALCULATIONS (LOD): 1.34 ACRES*

12. ZONING: M-2 (MANUFACTURING: HEAVY) DISTRICT

13. EXISTING USE: INDUSTRIAL/UNDEVELOPED OPEN SPACE (MOWED LAWN)

14. PROPOSED USE:

TRAILER PARKING LOT (29 TRAILER SPACES)

15. WATER SERVICE/SANITARY SEWER SERVICE (THIS SITE FALLS WITHIN THE HOWARD COUNTY PLANNED SERVICE AREA BOUNDARY)

*THE PREVIOUS PLAN (SDP-88-164) FOR THIS SITE PREDATES THE FOREST CONSERVATION REQUIREMENTS. PER STATE HOUSE BILL 706 ALL EXISTING IMPERVIOUS AREAS ARE EXEMPT. WE ARE USING THE LIMITS OF DISTURBANCE FOR THIS

GENERAL NOTES

1. THERE IS NO 100 YEAR FLOODPLAIN ON SITE.

- 2. THE SITE IS NOT LOCATED WITHIN THE CHESAPEAKE BAY CRITICAL AREA.
- 3. THERE ARE NO STEEP SLOPES ON SITE THAT MEET THE HOWARD COUNTY STEEP SLOPE DEFINITION WITHIN THE LIMITS OF
- 4. THERE IS ONE STREAM BUFFER ON THE NORTH CORNER OF THE SITE BUT NOT WITHIN THE PROPOSED LOD.
- 5. THE BOUNDARY SHOWN HEREON IS BASED ON SHA PLAT NO. 7647.
- 6. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY GIS AND IS SUPPLEMENTED WITH FIELD RUN SURVEYS PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC. SEPTEMBER 2018.
- 7. EXISTING UTILITIES, ROADS, DRIVEWAYS, AND STRUCTURES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION.
- ACCORDING TO MERLIN ONLINE, MARYLAND'S ENVIRONMENTAL RESOURCE AND LAND INFORMATION NETWORK, NO AREAS OF THE SITE OR ADJACENT PARCELS ARE LISTED ON THE MARYLAND INVENTORY OF HISTORIC PROPERTIES OR NATIONAL REGISTER OF HISTORIC PLACES, OR CONTAIN MARYLAND HISTORIC TRUST EASEMENTS.
- THE SUBJECT PROPERTY IS LOCATED IN THE PATUXENT RIVER AREA WATERSHED, BASIN NUMBER 02-13-11. THE SUBJECT PROPERTY DRAINS TO LITTLE PATUXENT RIVER. THE CODE OF MARYLAND REGULATIONS (COMAR) STREAM USE CLASSIFICATION INDEX LISTS TRIBUTARIES TO PATUXENT RIVER AS USE I-P (WATER CONTACT RECREATION, PROTECTION OF AQUATIC LIFE, AND PUBLIC WATER SUPPLY).

FOREST CONSERVATION OBLIGATION:

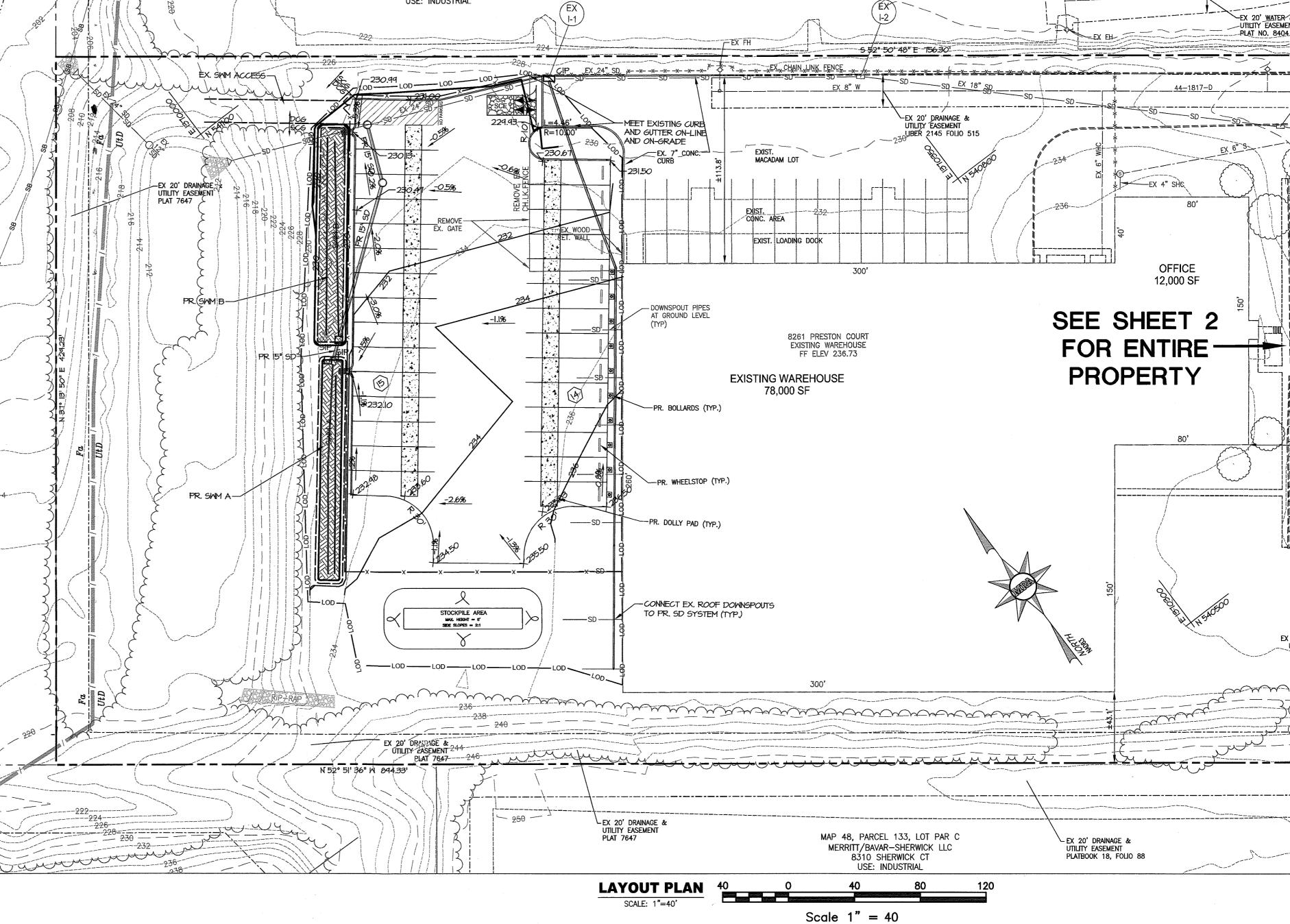
THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST

THE PREVIOUS PLAN FOR THIS SITE (SDP-88-164) PREDATES THE FOREST CONSERVATION REQUIREMENTS. PER STATE HOUSE BILL 706, ALL EXISTING IMPERVIOUS AREAS ARE EXEMPT FROM FOREST CONSERVATION REQUIREMENTS. THE AREA WE ARE PROPOSING TO BE DEVELOPED AND CONVERTED TO NEW IMPERVIOUS AREA HAS BEEN CLEARED UNDER THE PREVIOUSLY APPROVED SDP PLAN AND IS CURRENTLY MOWED LAWN.

THE CALCULATED FOREST PLANTING OBLIGATION FOR THE NEW IMPERVIOUS AREA IS LESS THAN 10,000 SQUARE FEET, AT 0.20 ACRES OR 8,712 SQUARE FEET. IN ACCORDANCE WITH THE HOWARD COUNTY FOREST CONSERVATION MANUAL, WE ARE PROPOSING COMPLIANCE WITH A FEE-IN-LIEU (AT \$0.75 PER SQUARE FOOT WITHIN THE PLANNED SERVICE AREA BOUNDARY) OF \$6,534.00 INTO THE FOREST CONSERVATION FUND. THE FEE-IN-LIEU IS DUE TO BOTH THE SMALL AREA OF FOREST CONSERVATION REQUIRED AND THAT THERE ARE NO ENVIRONMENTALLY SENSITIVE AREAS CURRENTLY ON THE SITE THAT ARE IDEAL FOR AFFORESTATION SUCH AS FLOODPLAIN, WETLANDS, AND ASSOCIATED BUFFERS, AND THE STEEP SLOPES ON SITE

10-24-19

LEGEND — — — EX. PROPERTY LINE ----- EX. ADJACENT PROPERTY LINE ----- EX. EASEMENT —————— EX. BUILDING ======= EX. CURB - - - - - EX. PAVEMENT/EDGE OF GUTTER -- EX. WALK ------ EX. STREAM/POND EX. TREELINE SD EX. STORM DRAIN
EX. SANITARY LINE _____44-1817-D ____ EX. WATERLINE EX. FIRE HYDRANT EX. WATER VALVE EX. WATER METER EX. POWER POLE EX. LIGHT POLE ---202----- EX. 2' CONTOUR — — 200— — EX. 10' CONTOUR — PR. 10' CONTOUR — LOD — LOD — PR. LIMIT OF DISTURBANCE PR. SPOT ELEVATION PR. CURB & GUTTER PR. RETAINING WALL PROPOSED ASPHALT PR. MICRO-BIORETENTION FACILITY (M-6) EX. SOILS DELINEATION EX. SOILS CLASSIFICATION LABEL



FOREST CONSERVATION WORKSHEET **VERSION 1.0** (Enter in Yellow Cells)

NET TRACT AREA: A. Total tract area.... B. Area within 100 year floodplain ... 0.00 C. Area to remain in agricultural production.....= D. Net tract area......

> Input the number "1" under the appropriate land use zoning, and limit to only one entry. ARA MDR IDA HDR MPD CIA 0 0 0 0 0 1

E. Afforestation Threshold..... 15% x D = F. Conservation Threshold..... 15% x D =

G. Existing forest cover (excluding floodplain).....=

BREAK EVEN POINT (BEP):

EXISTING FOREST COVER:

H. Area of forest above afforestaion threshold= I. Area of forest above conservation threshold

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

J. Forest retention above threshold with no mitigation (BEP)......=

M. Total area of forest to be retained.... PLANTING REQUIREMENTS:

K. Clearing permitted without mitigation.....

PROPOSED FOREST CLEARING

AREAS ARE EXEMPT.

L. Total area of forest to be cleared...

N. Reforestation for clearing above conservation threshold...= P. Reforestation for clearing below conservation threshold...= Q. Credit for retention above conservation threshold......= R. Total reforestation required..... S. Total afforestation required... T. Total reforestation and afforestation required.....=

NOTE: THE PREVIOUS PLAN (SDP-88-164) FOR THIS SITE PREDATES THE FOREST CONSERVATION REQUIREMENTS. PER STATE HOUSE BILL 706 ALL EXISTING IMPERVIOUS

1.0 1.0

1.0 1.0

SOILS CHART

<u> </u>	ILO OTIATT				
	SOILS LEGEND				
SYMBOL	NAME/DESCRIPTION	so	IL TYPE	HYDRIC SOIL	'K' FACTOR
UtD	URBAN LAND UDORTHENTS, 0-15% SLOPES		D	NO	0.28
Fa .	FALLSINGTON SANDY LOAM, 0-2% SLOPES		D	YES	0.24

1. SOURCE: THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE'S WEB SOIL SURVEY, CONSULTED OCTOBER 4, 2017, AVAILABLE ONLINE AT http://websoilsurvey.nrcs.usda.gov/appp>. K FACTORS SHOWN ARE FOR WHOLE SOIL.

2. HYDRIC SOILS INFORMATION ADAPTED FROM THE NATIONAL HYDRIC SOILS LIST FOR MARYLAND, AT <HTTP://SOILS.USDA.GOV/USE/HYDRIC/LISTS/STATE.HTML.>. CONSULTED ON JUNE 23, 2015.

3. SOILS ARE MAPPED AND LABELED IN ACCORDANCE WITH THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE'S WEB SOIL SURVEY.

DEVELOPER'S / OWNER'S CERTIFICATE

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

LANDSCAPING PROPOSED SIGNATURE

OWNER: COLFIN 2018 INDUSTRIAL OWNER LL

13727 NOEL ROAD, SUITE 750 DALLAS, TX 75240 PHONE: 972-823-2833

DEVELOPER/APPLICANT: COLFIN 2018-8 INDUSTRIAL OWNER LLC 13727 NOEL ROAD, SUITE 750 DALLAS, TX 75240 C/O DAVID SIBLEY

PHONE: 972-823-2833

Email: dsibley@clny.com

SDP-10

MORRIS & RITCHIE ASSOCIATES, INC ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE

LAUREL, MD 20707 (410) 792-9792 / (301) 776-1690 FAX: (410) 792-7395 Copyright 2016 Morris & Ritchie Associates, Inc. MRAGTA.COM

8261 PRESTON COURT SITE DEVELOPMENT PLAN (ADDITIONAL SHEET)



MICHAEL A. MITCHELL LICENSE NO. 3111

EXPIRATION DATE: 11-21-2019

FOREST CONSERVATION PLAN

6TH ELECTION DISTRICT TAX MAP 43, PARCEL 672

JESSUP, MARYLAND 20794 - HOWARD COUNTY **REVISIONS** JOB NO.: 19674 1" = 50'SCALE: DATE: 5/23/2019 DRAWN BY: MBF DESIGN BY: MBF REVIEW BY: DJ

SHEET: 10 OF 10 SDP-88-164

PPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING