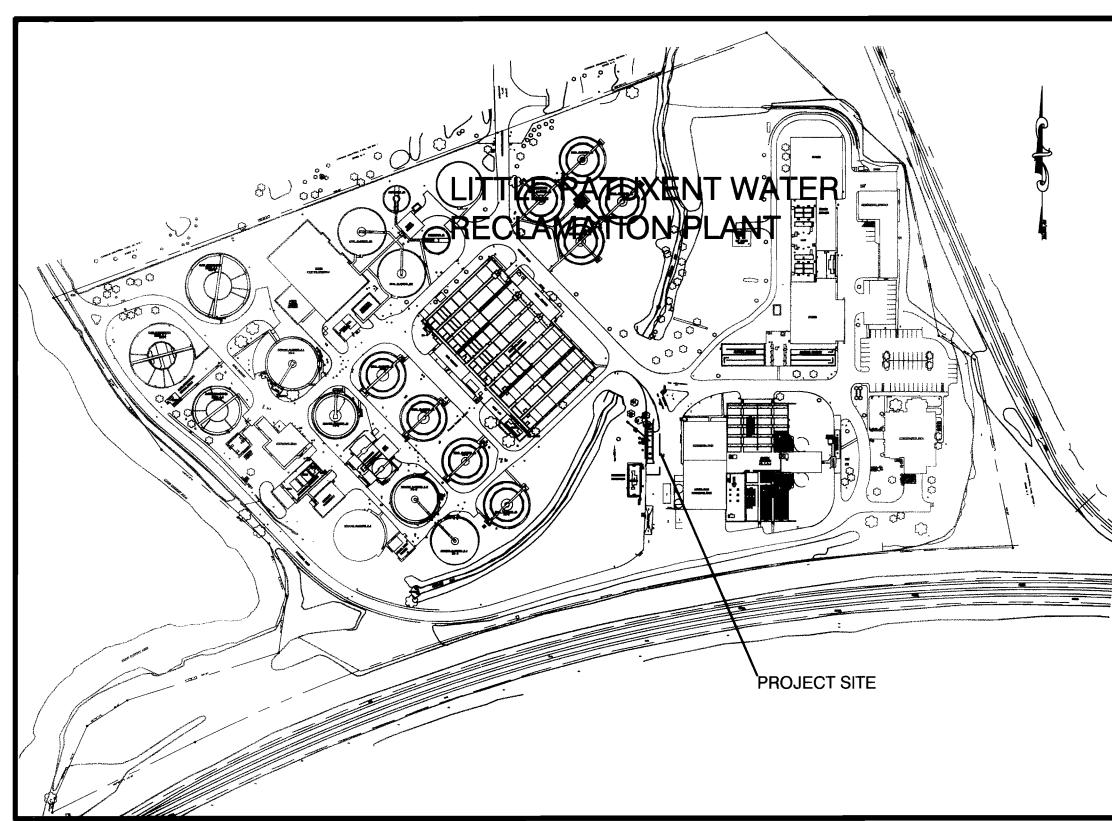
PERMIT INFORMATION CHART

Subdivision Name N.A.					Section Area _{N.A.}			Lot/Parcel No. ₂₀₀		
Plat # or L/F	31/17	Grid #	24	Zoning _{M-2}	Tax Map No. ₄₇	Elect Distr	6	Census Tract 6069.02		
Water Code	C04				Sewer Code	4020000				

ADDRESS CHART

Lot/Parcel #	Street Address
200	8900 Greenwood Place, Savage MD



PLANT LOCATION MAP SCALE: 1"=200'

INDEX OF SHEETS

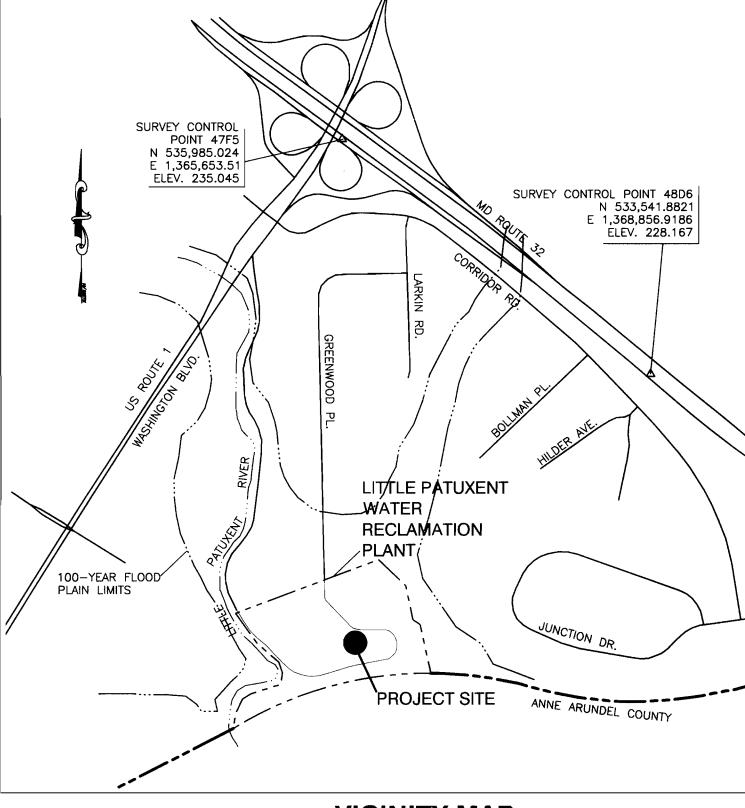
- 1. COVER SHEET
- 2. SITE PLAN
- 3. STRUCTURAL DETAILS
- 4. SEDIMENT CONTROL PLAN AND DETAILS
- 5. SEDIMENT CONTROL NOTES

TRUCK SCALE

FOR THE LITTLE PATUXENT WATER RECLAMATION PLANT

SITE ANALYSIS DATA CHART

Total Project Area:	79,475 sf (18.245 acres) (plant)				
Area of plan submission	6,970 sf (0.16 acres)				
Limit of Disturbed Area	6,970 sf (0.16 acres)				
Present Zoning Designation	M-2				
Proposed use	Truck scale for sludge hauling				
Floor space	NA Scale is underground in vault				
Total Number of Units Allowed	N.A.				
Total Number of Units Proposed	N.A.				
Maximum number of employees	N.A.				
Number of Parking Spaces required	N.A.				
Number of Parking Spaces Provided	N.A.				
Open area on site	N.A.				
Area of recreation	N.A.				
Building Coverage	N.A.				
DPZ file references	SDP-00-094 & SDP-78-55				
Soil Type	Cs Comus silt loam				



VICINITY MAP SCALE: 1"=1000'

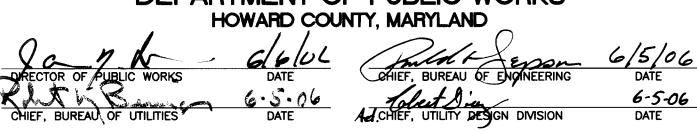
GENERAL NOTES

- 1. The purpose of this site development plan is to construct a truck scale facility for the Little Patuxent Water Reclaimation Plant.
- 2. The subject property is zoned M-2 per the 2-2-04 the Comprehensive Zoning Plan.
- 3. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- 4. The contractor shall notify the Department of Public Work/ Bureau of Engineering / Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the
- 5. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to an excavation work being done.
- 6. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- 7. All plan dimensions are to face of curb unless otherwise noted.
- 8. The existing topography is taken from field run survey with one foot contour intervals prepared by Dewberry dated February 2006.
- 9. The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 47F5 and 48D6 were used for this project.
- 10. Water and sewer is public.
- 11. Stormwater management for this facility is waived.
- 12. The existing utilities are based on plant records and test pits.
- 13. The project lies within the 100-year floodplain per FEMA Map 240044-0043B.
- 14. There are no wetlands within the limits of this project.
- 15. There was no traffic study prepared for this project.
- 16. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. 17. This project is exempt from the requirements of Section 16.1200 of the Howard County Code
- for Forest Conservation because the improvements are contained within the previously approved limit of disturbance (Section 16.1202(b)(iii) of the Subdivision Regulations).
- 18. The Little Patuxent River Water Reclaimation Plant was constucted under the following referenced plans: SDP-00-094 and SDP-78-55.
- 19. Project background information:

Little Patuxent River Water Reclaimation Plant Savage, Maryland **Election District 6** Site Area (of this project): 0.16 acres

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

APPROVED: DEPARTMENT OF PLANNING AND ZONING





BALTIMORE, MD 21244-2662 PHONE: 410.265.9500

FAX: 410.265.8875



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	CHK:	RHB				
W.	DATE:	6/5/06	BY	NO.	REVISIONS	DATE

COVER SHEET

DEPT. OF PUBLIC WORKS **BUREAU OF UTILITIES-**L.P.W.R.P. 8900 Greenwood Place Savage, MD 20763 Tel. (410) 880-5822

ELECTION DISTRICT NO. 6

TRUCK SCALE

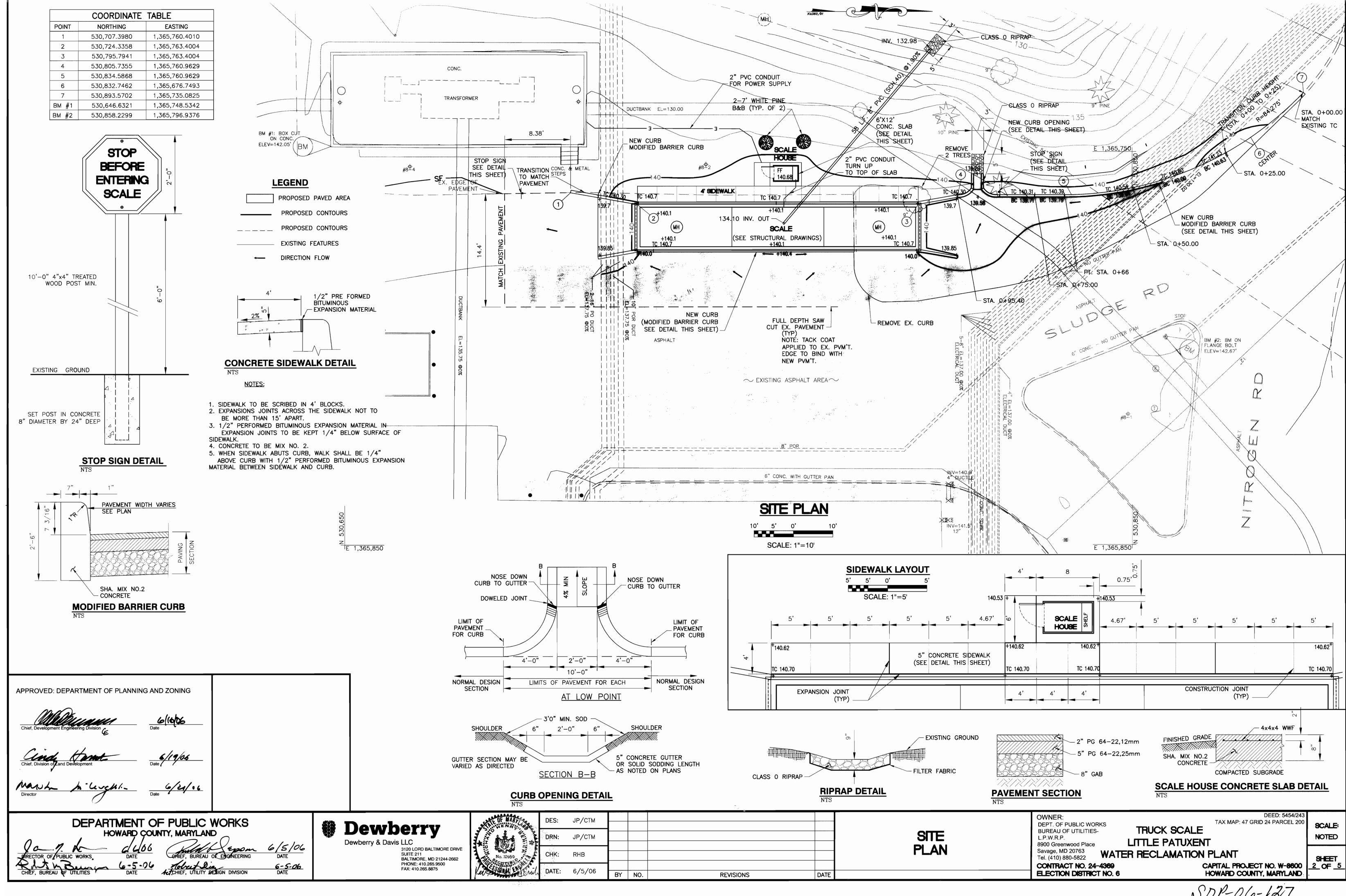
LITTLE PATUXENT WATER RECLAMATION PLANT **CONTRACT NO. 24-4369**

CAPITAL PROJECT NO. W-8600 HOWARD COUNTY, MARYLAND

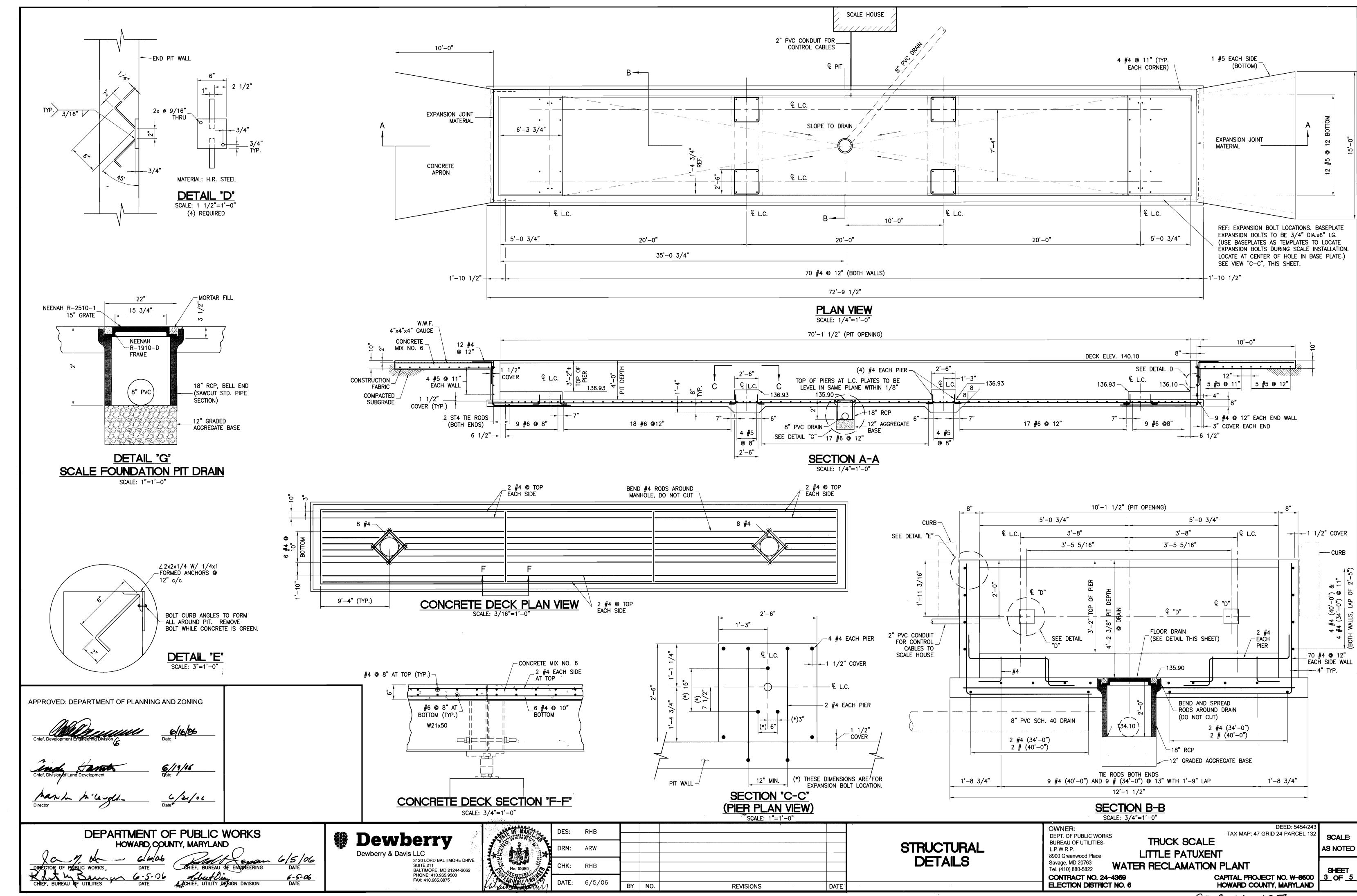
SCALE:

NOTED

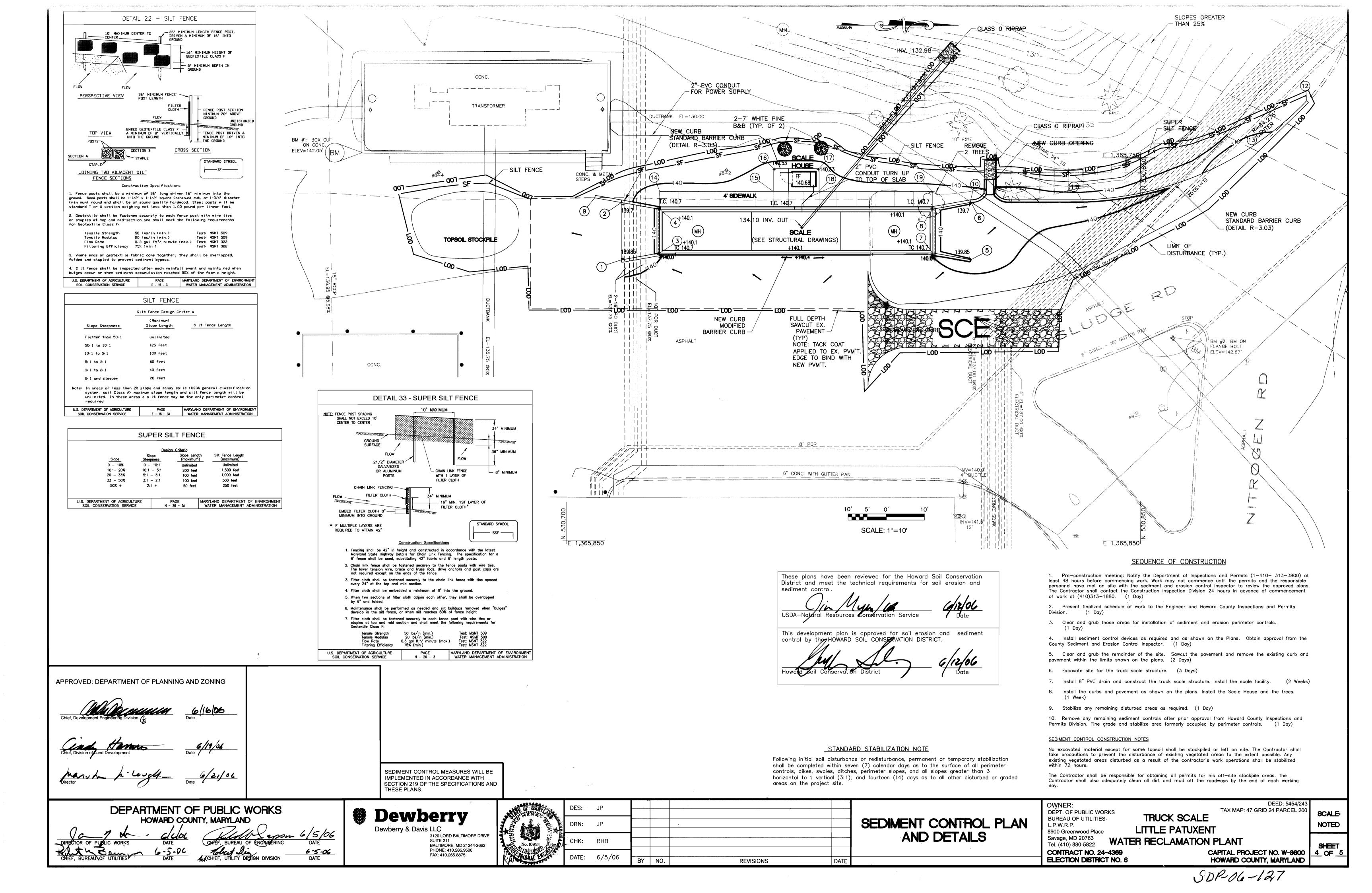
TAX MAP: 47 GRID 24 PARCEL 20



SDP-06-127



ODR-06-127



- i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins. ii. Perform all grading operations at right angles to the slope. Final grading and shaping is
- not usually necessary for temporary seeding. iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
- Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the
- site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer. iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve
- and 98-100% will pass through a #20 mesh sieve. iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means. C. Seedbed Protection
- Temporary Seeding a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it
 - should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope. Apply fertilizer and lime as prescribed on the plans.
- Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable ii. Permanent Seeding
 - a. Minimum soil conditions required for permanent vegetative establishment: 1. Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm). The soil shall contain less than 40% clay but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedeza is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable
 - Soil shall contain 1.5% minimum organic matter by weight Soil must contain sufficient pore space to permit adequate root penetration. 6. If these conditions cannot be met by soils on site, adding topsoil is required
 - in accordance with Section 21 Standard and Specification for Topsoil. b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3"-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil tests or as included on the plans d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1"- 3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas
- i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job. Note: Seed tags shall be made available to the inspector to verify type and rate of seed used ii. Inoculant — The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on 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 75-80° F.
- E. Methods of Seeding Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer),

can weaken bacteria and make the inoculant less effective.

- broadcast or drop seeder, or a cultipacker seeder a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous): 200 lbs/ac; K20 (potassium); 200 lbs/ac. 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
- Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
- Dry Seeding: This includes use of conventional drop or broadcast spreaders. a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
- b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction. iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. a. 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. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction. F. Mulch Specifications (In order of preference)
- in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law. ii. Wood Cellulose Fiber Mulch (WCFM)

i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright

- WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state. WCFM shall be dyed green or contain a green dye in the package that will provide
- an appropriate color to facilitate visual inspection of the uniformly spread slurry. WCFM, including dye, shall contain no germination or growth inhibiting factors. WCFM materials shall 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 shall form a blotter-like ground cover, on application having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth
- of the grass seedlings. e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.
- WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
- of arass is desired

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Mulching Seeded Areas — Mulch shall be applied to all seeded areas immediately after seeding. i. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can

- be performed in accordance with these specifications. When straw mulch is used, it shall be spread over all seeded areas at the rate of tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons water.
- Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into soil surface a minimum of two (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 be used on the contour if possible.

- Wood Cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should be appea uniform after binder application. Synthetic binders— such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000
- Incremental Stabilization Cut Slopes All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- ii. Construction sequence (refer to Figure 4 below): a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
- b. Perform phase 1 excavation, dress and stabilize. c. Perform phase 2 excavation, dress, and stabilize. Overseed phase I areas as necessary. d. Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas
- Note: Once excavation has begun, the opperation should be continuous from grubbing through completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the season will necessitate the application of temporary stabilization.

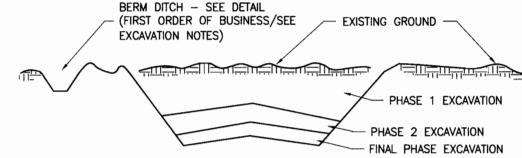
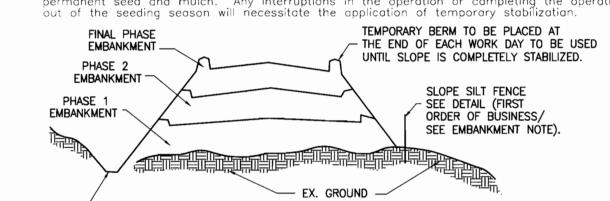


Figure 4 Incremental Stabilization — Cut

- J. Incremental Stabilization of Embankments Fill Slopes Embankments shall be constructed in lifts as prescribed on the plans. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches
 - 15', or when the grading operation cease as prescribed in the plans. iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the
 - slope in a non-erosive manner to a sediment trapping device. iv. Construction sequence: Refer to Figure 5 (below): a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct Slope Silt Fence on low side of fill as shown in Figure 4, unless other methods shown on the plans address this area.
 - Place phase 1 embankment, dress and stabilize. Place phase 2 embankment, dress and stabilize.
- Place final phase embankment, dress and stabilize. Overseed previously seeded Note: Once the placement of fill has begun, the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or campleting the operation



BUSINESS/SÈE EMBANKMENT NOTE). Figure 5 Incremental Stabilization - Embankment Fill Comply with MD 378 Specifications.

- SIDE DITCH (FIRST ORDER OF

Section II - Temporary Seeding Vegetation — annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

- A. Seed Mixtures Temporary Seeding Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) 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 plans and completed, then Table 26 must be put on the plans.
 - For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

TEMPORARY SEEDING SUMMARY

		IXTURE (HARDIN ABLE 26	FERTILIZER RATE	LIME RATE			
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)	LIMIL TOATE	
	ANNUAL RYEGRASS	50 LB/AC	3/1 - 4/30 8/15 - 11/1	1/4"-1/2"	600 LB/AC	2 TONS/AC	
	MILLET	50 LB/AC	5/1 - 8/14	1/2"	(15 LB/ /1000 SF)	(100 LB /1000 SF)	

Section III: Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintainence. A. Seed Mixtures - Permanent Seeding

- i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seed Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or athetic treatment may be found in USDA-SCS technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Section IV Sod and V Turfgrass. ii. For sites having disturbed area over 5 acres, the rates shown on this table shall be deleted
- and the rates recommended by the soil testing agency shall be written in. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

PERMANENT SEEDING SUMMARY

	SEED MI FROM TA	XTURE (HARD ABLE 25	INESS ZONE 6b	FERTILIZER RATE (10-20-20)			LIME		
NO.	SPECIES	APPLICATION RATE(LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20	RATE	
3	TALL FESCUE PERENNIAL RYE KY.BLUEGRASS	125 LB/AC 15 LB/AC 10 LB/AC	3/1 - 5/15 8/15 - 10/15	1/4"-1/2"					
7	TALL FESCUE WEEPING LOVEGRASS SERECIA LESPEDEZA	110 LB/AC 3 LB/AC 20 LB/AC	3/1 - 10/15	1/4"-1/2"	90 LB/AC (15 LB/ 1000 SF)	175 LB/AC (4 LB/ 1000 SF)	175 LB/AC (4 LB/ 1000 SF)	2 TONS/AC (100 LB/ 1000 SF)	

Section IV — Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
- of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable. iii. Standard size sections of sod shall be strong enough to support their own weight and

ii. Sod shall be machine cut atuuniform soil thickness of 3/4", plus or minus 1/4", at the time

- retain their size and shape when suspended vertically with a firm grasp on the upper 10
- iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to
- B. Sod Installation During periods of excessively high temperature or in areas having dry subsoil, the subsoil
- shall be lightly irrigated immediately prior to laying the sod. ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggers 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, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil
- Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.
- Sod Maintenance i. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
- ii. After the first week, sod watering is required as necessary to maintain adequate moisture The first mowing of sod should not be attempted until the sod is firmly rooted. No more
- than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty. Note: Choose certified material. Certified material is the best guarantee to cultivar purity. The certification

program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line. A. Permanent Seeding

- 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/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight. 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 Bluegras Seeding rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the 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—100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate: 5 to 8 lb/1000 sf. One or more Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade i Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture
- includes; certified Kentucky Bluegrass Cultivars 30-40% and certified Fine Fescue and 60-70% Seeding rate: $1 \frac{1}{2} - 3 \frac{1}{5} \frac{1000}{5}$ square feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.
- Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar
- Ideal times of seeding
- Western MD: March 15 June 1, August 1 October 1 (Hardiness Zones 5b, 6a) Central MD: March 1 May 15, August 15 October 15 (Hardiness Zone 6b) Southern MD, Eastern Shoré: March 1 - May 15, August 15 - October 15 (Hardiness Zones - 7a,7b)
- If soil moisture is deficient, supply new seedings with adequate water for plant growth (23/64 " 0 1" 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. Repairs and Maintenance
- inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season. i. Once the vegetation is established, the site shall have 95% ground cover to be considered
- adequately stabilized. If the stand provides less than 40% ground coverage, reestablish following original lime,
- fertilizer, seedbed preparation and seeding recommendations. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing half of the rates originally applied may be necessary.

 Maintenance fertilizer rates for permanent seedings are shown in table 24. For lawns and
- other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care n Maryland" Bulletin No. 171

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

To provide a suitable soil medium for vegetative growth. Soils of concern have moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

- a. The 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
- c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible. II. For the purpose or these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate

REVISIONS

stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans. Construction and Material Specifications Topsoil savaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth

of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station. II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½" in diameter. ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as

iii. Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

III. For sites having disturbed areas under 5 acres: i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I

IV. For sites having disturbed areas over 5 acres: i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to

d. No sod or seed shall be places on soil which has been treated with soil sterilants or chemicals used for

bring the soil into compliance with the following: a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0,

sufficient lime shall be prescribed to raise the pH to 6.5 or higher. b. Organic content of topsoil shall be not less than 1.5 percent by weight

weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials. Note: Fopsoil substitutes or amendments, as recommenced by a qualified agranomist or soil scientistand approved by the appropriate approval authority, may be used in lieu of natura topsoi

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization — Section I

c. Topsoil having soluble salt content greater than 500 parts per million shall not he used.

V. Topsoil Application i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins. ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"

iii. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets. iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding — Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below: i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following

a. Composted sludge shall be supplied by, originate form, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06. b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use. c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate. References: Guideline Specification, Soil Preparation and Sodding. MD-VA Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised

SEDIMENT CONTROL GENERAL NOTES

- 1. A minimum of 48 hours notice must be given to Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction. 410-313-1855.
- 2. All vegetative and structural practices are to be installed according to the provisions of the plan and are to be in conformance with the most current 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 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 disturbed areas must be stabilized within the time period specified above in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for permanent seeding (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
- permination and establishment of grasses. 5. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site is defined as areas involving any improvement Site Analysis Total Area of Site <u>0.16</u> Acres Area Disturbed 0.09 Acres Area to be paved
- 0.05 Acres Area to be Vegetatively Stabilized Total Cut _180__ Cu. Yds. _0___ Cu. Yds.
- Offsite waste/borrow area location To be determined by contractor. 7. Any sediment control practices 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 Howard County Sediment Control Inspector.
- 9. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. 10. Trenches for the construction of utilities is limited to three pipe lengths or that which
- shall be back-filled and stabilized by the end of each work day, whichever is shorter. 11. Spoil from trench excavation shall be place on the uphill side of the excavation.

I/we certify that all development and construction will be done

according to this plan for sediment and erosion erosion control, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Date

SCALE

NOTED

<u>5</u> of <u>5</u>

6-5-06 Signature of Developer KOBART FUNK Print Name

I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

6/5/2006 Signature of Engineer RICHARD H. BERICH. P.E. LICENCE NO. 10959

Print Name These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for soil erosion and

sediment control. 1/2/06 USDA-Natural Resources Conservation Service sediment

This development plan is approved for soil erosion and CONTROL BY THE HOWARD SOIL CONSTRUCT.

OWNER:

L.P.W.R.P.

DEPT. OF PUBLIC WORKS

CONTRACT NO. 24-4369

ELECTION DISTRICT NO. 6

BUREAU OF UTILITIES-

8900 Greenwood Place

Savage, MD 20763

Tel. (410) 880-5822

6/12/06 Howard Soil Conservation District Date DEED: 5454/243

TAX MAP: 47 GRID 24 PARCEL 200 TRUCK SCALE LITTLE PATUXENT

WATER RECLAMATION PLANT CAPITAL PROJECT NO. W-8600 HOWARD COUNTY, MARYLAND

SDR-06-127

6-5-05

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

Dewberry Dewberry & Davis LLC 3120 LORD BALTIMORE DRIVE

SUITE 211

FAX: 410.265.8875

BALTIMORE, MD 21244-2662 PHONE: 410.265.9500



DES: JP/CTM DRN: JP/CTM CHK: RHB DATE: 6/5/06 BY NO.

SEDIMENT CONTROL NOTES

DATE