

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS DESIRED. SEEDING PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened. SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules: 1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lb./100 sq.ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lb./100 sq.ft.) before seeding. Harvest or else, into upper three inches of soil at the time of seeding, apply 400 lbs. per acre 30-0-0 urea-form fertilizer (2 lb./100 sq.ft.) before seeding. Harvest or else, into upper three inches of soil. 2) Acceptable-Apply 2 tons per acre dolomitic limestone (92 lb./100 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (14 lb./100 sq.ft.) before seeding. Harvest or else, into upper three inches of soil. SEEDING: For periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1.4 lb./100 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. urea (0.5 lb./100 sq.ft.) of urea fertilizer. During the period of March 1 thru February 28, plant with Opt. (1) 2 tons per-acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use urea Option (3) Seed with 80 lbs./acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw. MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lb./100 sq.ft.) of unrotted straw mulch immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (2 gal/100 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 348 gallons per acre (3 1/2 gal/100 sq.ft.) for anchoring. MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation. PURPOSE: To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, unstable beds to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies: 1. 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 vegetable growth. b. The original soil to be vegetated contains material toxic to plant growth. c. The soil is so acidic that treatment with limestone is not feasible. 2. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans. Construction and Material Specifications: 1. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given site type can be found in the representative soil profile sections in the Soil Survey published by USDA-NRCS in cooperation with Maryland Agricultural Experiment Station. 2. Topsoil Specifications - Soil to be used as topsoil must meet the following: a. 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 a 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 clods, stones, slag, coarse fragments, gravel, sticks, roots, twigs, or other materials larger than 1 and 1/2" in diameter. b. Topsoil must be free of plants or plant parts such as Bermuda grass, quailgrass, Johnsrass, nutgrass, poison ivy, thistle, or others as specified. c. Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be applied 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. d. For sites having disturbed areas under 5 acres: 1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (17-1855). 2. All vegetative and structural practices are to be installed according to the provisions of this plan and one to be in accordance with the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, ditches, perimeter slopes and all slopes greater than 3:1; b) 14 days as to all other disturbed or graded areas on the project site. 3. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, soil, temporary seeding and mulching (Sec 02). Temporary stabilization with mulch alone can only be done when recommended seeding rates do not allow for proper germination and establishment of grasses. 4. All sediment control structures are to remain in place and one to be maintained in operating condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector. 5. SITE ANALYSIS: a. Total Area of Site: 0.33 Acres b. Area Disturbed: 0.22 Acres c. Area to be seeded or planted: 0.22 Acres d. Area to be vegetatively stabilized: 0.22 Acres e. Total Fill: 0.00 cu yd f. Office Water/Borrow Area Location: N/A 6. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance. 7. Additional sediment control must be provided, if deemed necessary by the Howard County DPM Sediment Control Inspector. 8. 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 agencies may not be authorized until this initial approval by the inspection agency is made. 9. Tranches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter. 10. The total amount of all fence = 400 LF. 11. The total amount of super fill fence = 0 LF. 12. The total amount of earth embankment = 0 cu yd.

CONSTRUCTION SEQUENCE

Table with 2 columns: NO. OF DAYS and CONSTRUCTION SEQUENCE. 1. Obtain grading permit: 7 days. 2. Install perimeter erosion control devices and stabilize: 14 days. 3. Excavate for foundations, rough grade and temporarily stabilize: 14 days. 4. Final grade and stabilize in accordance with Site and Space: 14 days. 5. Final grade and stabilize in accordance with Site and Space: 14 days. 6. Final grade and stabilize in accordance with Site and Space: 14 days. 7. Upon approval of the sediment control inspector, remove sediment and erosion control devices and stabilize: 7 days.

TEMPORARY SEEDING NOTES

SEEDING PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened. SOIL AMENDMENTS: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lb./100 sq.ft.). SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 40 lbs. per acre of Kentucky 31 Tall Fescue. For the period May 1 thru August 14, seed with 3 lbs. per acre of urea fertilizer (0.7 lb./100 sq.ft.). For the period November 1 thru February 28, plant with Opt. (1) 2 tons per-acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use urea Option (3) Seed with 80 lbs./acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw. MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lb./100 sq.ft.) of unrotted straw mulch immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (2 gal/100 sq.ft.) of emulsified asphalt on flat areas. On slopes 6 feet or higher, use 348 gallons per acre (3 1/2 gal/100 sq.ft.) for anchoring. MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and reseedings.

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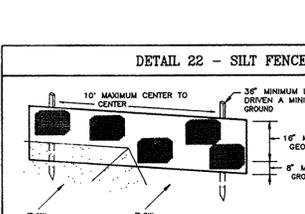
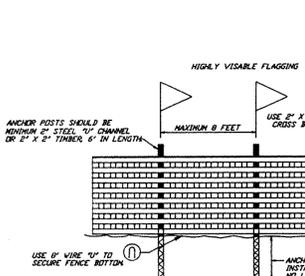
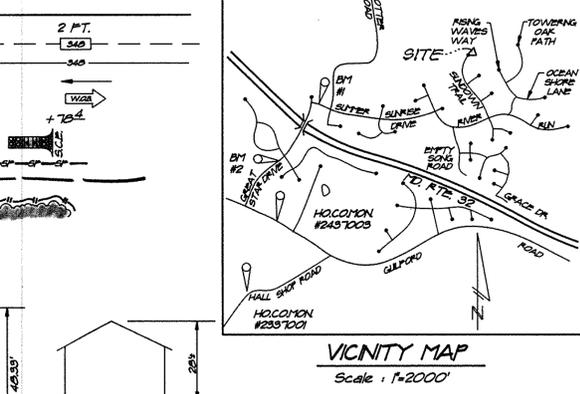
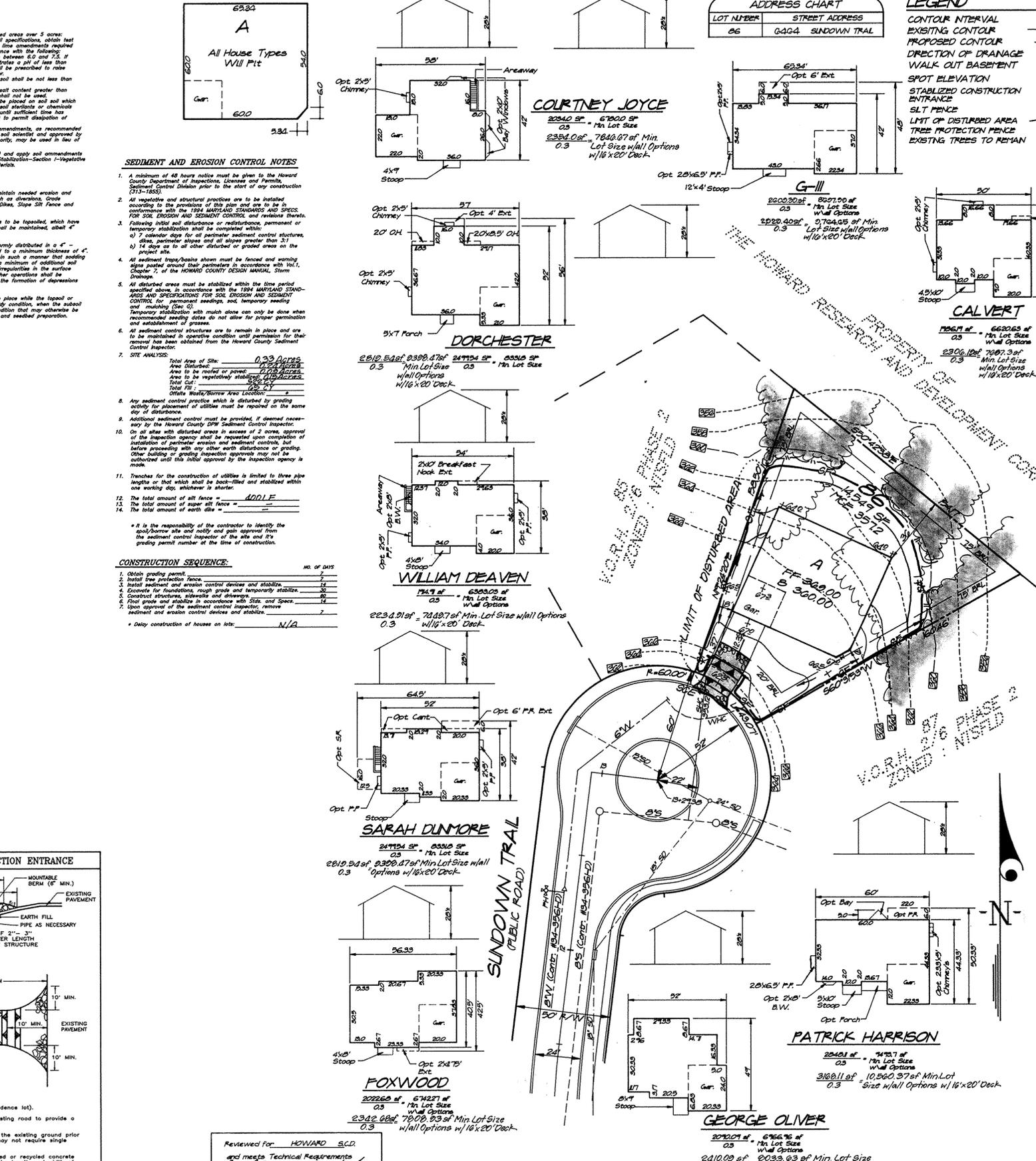


Table with 2 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and MARYLAND DEPARTMENT OF ENVIRONMENTAL WATER MANAGEMENT ADMINISTRATION. Includes construction specifications for silt fences and a table of soil test results.

Table with 2 columns: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and MARYLAND DEPARTMENT OF ENVIRONMENTAL WATER MANAGEMENT ADMINISTRATION. Includes construction specifications for stabilized construction entrances and a table of soil test results.

APPROVED: DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division: 9/24/97. Chief, Division of Land Development: 10/30/97. Director: 10/1/97.

APPROVED: U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE. Chief, National Resources Conservation Service: 9/25/97.



GENERAL NOTES: 1. Subject property is zoned N.T.S.P.L.D. per 10-1B-93 Comprehensive Zoning Plan. 2. The total area included in this submission is: 0.33 Acres. 3. The total number of lots included in this submission is: 1. 4. Improvement to property: Single Family Detached. 5. The maximum lot coverage permitted is: 30%. 6. Department of Planning and Zoning reference file numbers are: S-9-03, P-95-17, P-96-98, P-96-98, SP-96-12, P-94-01. 7. Utilities shown as existing are taken from approved Water and Sewer plans Contract # 34-3561-D, approved Road Construction plans P-96-138. 8. Any damage to county owned rights-of-way shall be corrected at the developer's expense. 9. All roadways are public and existing. 10. The existing topography was taken from Road Construction Plans P-96-138 prepared by Riemer, Muegge & Associates, Inc. on August 7, 1996. 11. 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 No. 2337001 and 2437003. 12. The contractor shall notify the Department of Public Works/Division of Construction Inspection at (410) 338-1930 at least twenty-four (24) hours prior to the start of work. 13. The contractor shall notify 'Miss Utility' at 1-800-257-TTTT at least 48 hours prior to any excavation work. 14. For driveway entrance details, refer to Ho. Co. Design Manual Volume IV details R-6.05. 15. Stormwater Management is provided per: P-96-138, Stormwater Management Quality Control is provided by the Maryland Route 32 Stream Crossings. Water Quality is provided by publicly owned Bioretention Areas. 16. In accordance with PDP-Phase 209 Part VI, bay windows or chimneys not more than 10 feet in width may project not more than 4 feet into any setbacks; porches and decks may project not more than 3 feet into the front or rear setbacks. 17. SHC elevations shown are located at the property line.

BENCHMARKS: 28111 Railroad Spike in Pole #226620 Trotter Road Elevation 378.27 147667102 202202601 28112 Railroad Spike in Poplar Elevation 430.72 147959190 202071100

OWNER / DEVELOPER: THE HOWARD RESEARCH AND DEVELOPMENT CORP. 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

Table with 3 columns: SUBMISSION NAME, SECTION/AREA, LOTS/PARCELS. Includes details for Columbia Village of River Hill, Section 2 Area 6 Phase 2.

SPECIAL NOTES: This plan is for house siting and lot grading only. Improvements shown within the rights-of-way on this S.D.P. are not to be used for construction. For construction see approved Road Construction Plans P-96-138 and/or approved Water and Sewer Plans Contract #34-3561-D.

DEVELOPER'S/BUILDER'S CERTIFICATE: I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approval Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. ENGINEER'S CERTIFICATE: I hereby 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. CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS. 7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

Table with 2 columns: DESIGNED, DRAWN, CHECKED, DATE. Includes project details for Columbia Village of River Hill, Section 2 Area 6 Phase 2.