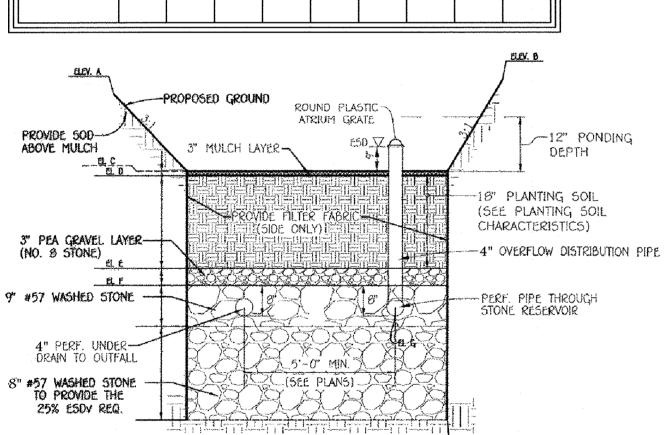
### SHEET INDEX SHEET NO. DESCRIPTION TITLE SHEEET SITE PLAN ESC NOTES AND DETAILS MICRO-BIORETENTION PLANT MATERIAL MICRO-BIO MAXIMUM NAME SIZE (HT.) QUANTITY SPACING (FT.) Itea virginica 'Henry's Garnet 15 24" ~ 30" 3.0 FT. Virginia Sweetspire Ilex crenata ' Helleri" 24"~30" 2.5 FT. Japanese Holly MICRO-BIORETENTION PLANTING DETAIL HOT TO SCALE PLANT MATERIAL MUST COVER AT \* SEE PLANT MATERIAL CHARTS FOR LEAST 50% OF THE SURFACE AREA QUANTITIES AND SPACING SOILS LEGEND CLASS | K FACTOR Urban Land-Fallsington Complex, 0 to 2 percent slope Urban Land-Sassafras-Beltsville Complex, 0 to 2 percent slope D Soil Map Number: 19 (Savage, NE) STORMWATER MANAGEMENT SUMMARY AREA ID. REQUIRED PROVIDED REMARKS CU.FT. CU.FT. SITE 837 452 MICRO-BIORETENTION (M~6) & GRASS SWALE (M~8) 837 452 TOTAL GROSS AREA = 1.28 ACRES (LOTS 1 & 2) LOD = 0.69 ACRESRCN = 77TARGET Pe = 1.2" MICRO-BIORETENTION / BIORETENTION 1404.00|404.00|402.00|401.75|400.25|400.00|399.50| 399.0 |397.95 -proposed ground ROUND PLASTIC PROVIDE 500-



MICRO BIO-RETENTION SECTION

WITH 4" OVERFLOW DISTRIBUTION PIPE

Table B.4. Materials Specifications for Micro — Bioretention, Rain Gardens & Landscape Infiltration see Appendix: Table A.4 plantings are site-specific loamy sand 60-65% compost 35-40% sandy loam 30% coarse sand 30% [2' to 4' deep] compost 40% SDA soil types loamy sand or sandy loam; clay content <5% Min. 10% by dry weight (ASTM D2974) aged 6 months, minimum Pea gravel diaphrag ea gravel ASTM-D-448 (1/8" t 3/8") namental stone: washed cobbles Stone: 2" to 5" PE Type 1 nonwoven Seotextile Gravel (underdrains and Aggregate (3/8" Slattted or perforated pipe: 3/8" pert. @ 6" on center, 4 holes per row schedule 40PVS or minimum of 3" of gravel over pipes; not necessary underneath pipes. F 758, Type PS 28 or AASHTO M-278 Perforated pipe shal be wrapped with 1/4 inch galvanizd hardware clot Inderdrain piping -site testing of poured-in-place concrete required; 28 day strenght an lump test; all concrete design (cast-in-place or pre-cast) not using eviously approved state or local standards requires design drawings aled and approved by a professional structural engineer licensed in the MSHA Mix NO. 3: f = 3500 psi at 28 days tate of Maryland - design to include eeting ACI Code 350.R/89; vertical normal weight, air-entrained: reinforcing to meet ASTM-615-60 ading [CH-10 or H-20]; and analysis of potential cracking Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not cceptable. No "rock dust" can be used for sand

#### PERMIT INFORMATION CHART **ADDRESS CHART ADDRESS** WATER CODE G-01 SECTION/ PARCEL/LOT: **SUBMISSION NAME:** 1 5518 MONTGOMERY ROAD AREA: SEWER CODE **IDREES RESIDENCE** PARCEL 199/LOT N/A 1255028 2 5522 MONTGOMERY ROAD TAX MAP | ELECTION DISTRICT **CENSUS TRACT** PLAT NO. ZONING | BLOCK 601105 0020 R~20

# SITE DEVELOPMENT PLAN IDREES RESIDENCE LOT 1

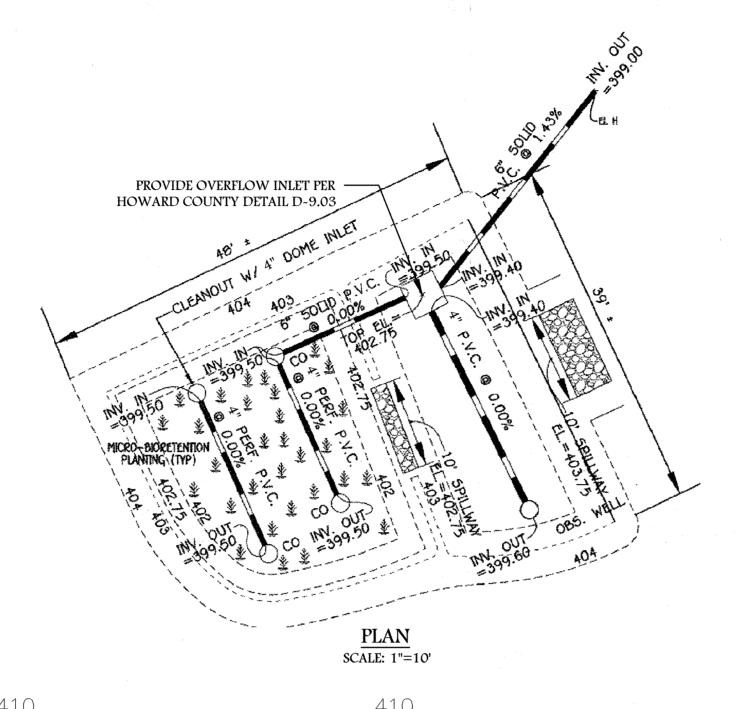
TAX MAP NO. 31

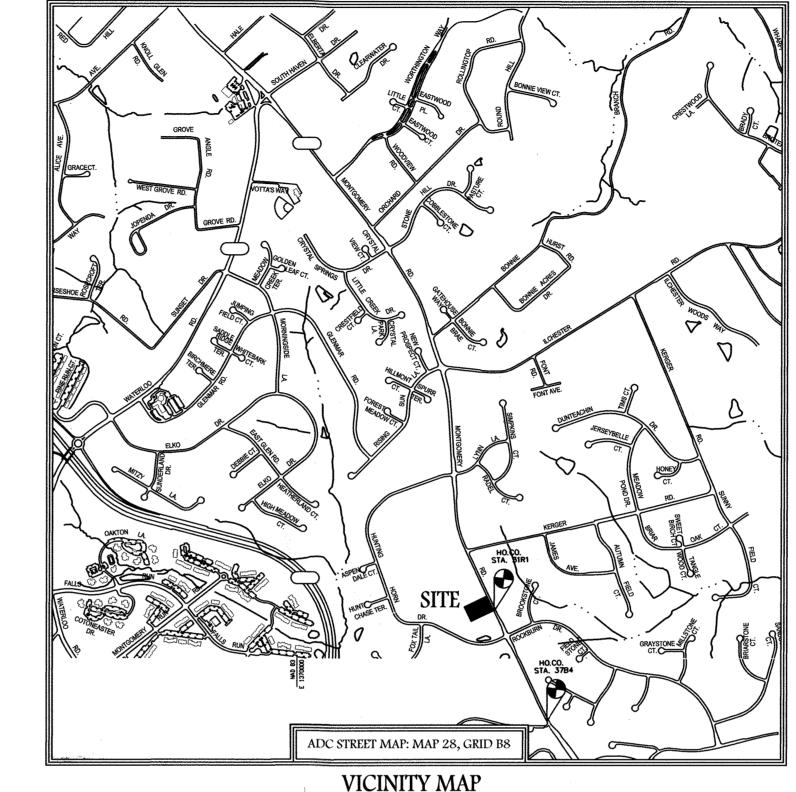
GRID NO. 20

PARCEL NO. 199

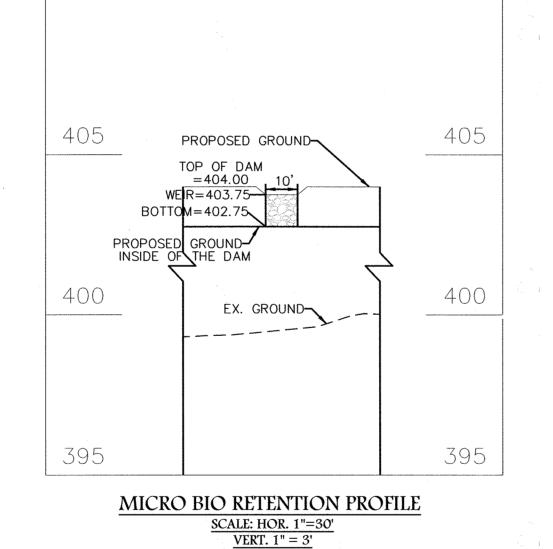
FIRST ELECTION DISTRICT

HOWARD COUNTY, MARYLAND





SCALE: 1" = 1200'



2" X 10" X 10"

WOODEN BOARDS

pressure treated

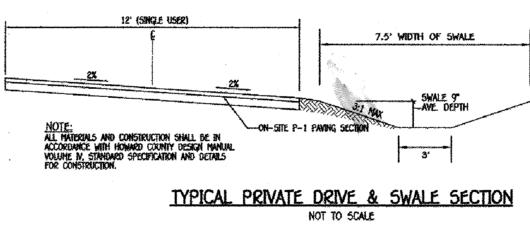
STAKING DETAIL

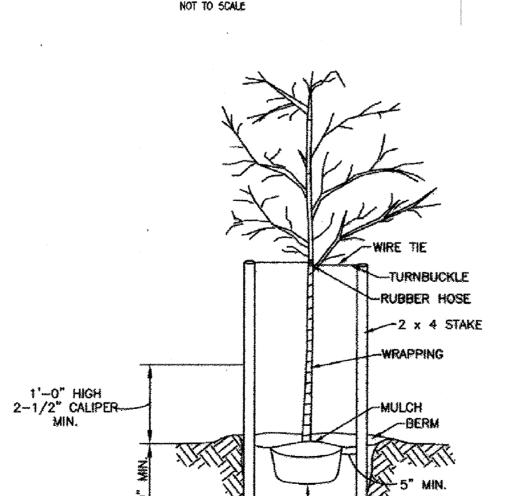
GRADING FOR PLANTING

(TYPICAL) GRASS SWALE & TIMBER CHECK DAM DETAIL

NOT TO SCALE

7.5





TREE PLANTING

SCALE: 1" = 30'

OWNER/DEVELOPER

IDREES MOHAMMAD

114 URICK LANE

MONROEVILLE, PA 15146

PHONE: 412-638-4819

### OPERATION & MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6) A. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL. MULCH LAYER AND SOIL LAYER EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND TORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2 THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS AND REPLACE ALL DEFICIENT STAKES AND WIRES. C. THE OWNER SHALL INSPECT THE MULCH EACH SPRING, THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE MOVED BEFORE D. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

SITE ANALYSIS DATA CHART

PRESENT ZONING DESIGNATION = R-20

B. LIMIT OF DISTURBED AREA = 29,890 SQ.FT. OR 0.69 AC  $\pm$ 

(PER 10/06/2013 COMPREHENSIVE ZONING PLAN)

E. PREVIOUS HOWARD COUNTY FILES: ECP-16-068 AND F-17-033

H. TOTAL AREA OF WETLANDS (INCLUDING BUFFER) = 0.00 AC  $\pm$ 

TOTAL AREA OF STREAM (INCLUDING BUFFER) = 0.00 AC  $\pm$ 

TOTAL AREA OF EXISTING FOREST = 0.00 AC  $\pm$ TOTAL AREA OF FOREST TO BE RETAINED = 0.00 AC ± TOTAL AREA OF LOTS / BUILDABLE PARCELS = 0.559 AC  $\pm$ 

M. TOTAL GREEN OPEN AREA =  $0.46 \text{ AC} \pm$ 

N. TOTAL IMPERVIOUS AREA =  $0.10 \text{ AC} \pm$ O. TOTAL AREA OF ERODIBLE SOILS = 0.00 AC  $\pm$ 

TOTAL AREA OF FLOODPLAIN LOCATED ON-SITE =  $0.00 \text{ AC} \pm$ 

MODERATE STEEP SLOPES: 15%-24.9% = 0.00 AC  $\pm$ 

STEEP SLOPES: 25% OR GREATER = 0.00 AC  $\pm$ 

A. TOTAL AREA FOR SDP = 0.559 AC  $\pm$ 

PROPOSED USE: RESIDENTIAL

G. TOTAL AREA OF STEEP SLOPES:

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 6.19.19 EVELOPMENT ENGINEERING DIVISION NY 7-01-19

### General Notes:

SUBJECT PROPERTY ZONED R-20 PER 10/06/13 COMPREHENSIVE ZONING PLAN COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 31R1 AND NO. 37B4.

3. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY

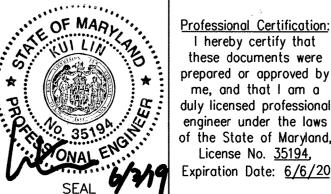
- STA. 31R1 N 565,303,.479 E 1,372,517,790 STA. 37B4 N 563,920.557 E 1,971,109.173 ELEV.= 401.36
- FISHER, COLLINS AND CARTER, INC. DATED JANUARY, 2016 4. B.R.L.. DENOTES BUILDING RESTRICTION LINE
- 5. DENOTES IRON PIN SET CAPPED "F.C.C. 106".
- DENOTES IRON PIPE OR IRON BAR FOUND.
- DENOTES ANGULAR CHANGE IN BEARING OF BOUNDARY OR RIGHTS-OF-WAY
- DENOTES CONCRETE MONUMENT SET WITH ALUMINUM PLATE "F.C.C. 106".
- DENOTES CONCRETE MONUMENT OR STONE FOUND. 10. ALL AREAS ARE MORE OR LESS (±)
- 11. DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID MEASUREMENT. 12. FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE IS TO BE PROVIDED AT THE JUNCTION OF THE FLAG OR PIPESTEM AND THE ROAD RIGHT-OF-WAY AND NOT ONTO THE FLAG OR PIPESTEM
- 13. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO
- ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING (MINIMUM) REQUIREMENTS:
- SURFACE SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
- GEOMETRY -MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
- STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING):
- DRAINAGE ELEMENTS CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH
- STRUCTURE CLEARANCE MINIMUM 12 FEET
- G) MAINTENANCE SUFFICIENT TO ENSURE ALL WEATHER USE
- 14. PROPERTY SUBJECT TO PRIOR DEPARTMENT OF PLANNING AND ZONING FILE NO'S: ECP-16-068 AND F-17-033
- 15. NO CEMETERIES EXIST ON THE SUBJECT PROPERTY BASED ON VISUAL OBSERVATION OR LISTED IN AVAILABLE HOWARD COUNTY CEMETERY INVENTORY MAP
- 16. SITE IS NOT ADJACENT TO A SCENIC ROAD.
- 17. A LETTER OF FINDINGS DATED JULY 14. 2016 PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DETERMINED THAT
- 18. PLAT IS EXEMPT FROM PROVIDING FOREST CONSERVATION OBLIGATION IN ACCORDANCE WITH SECTION 16 1202(B)(1)(VIII) BECAUSE THIS LOT IS PART OF MINOR SUBDIVISION THAT CREATES ONE (1) NEW LOT AND HAS NO FURTHER SUBDIVISION
- 19. OPEN SPACE REQUIREMENTS ARE PROVIDED BY A FEE-IN-LIEU PAYMENT OF \$1,500.00 UNDER F-17-033
- 20. A PRE-SUBMISSION COMMUNITY MEETING WAS CONDUCTED ON JUNE 17, 2016 FOR THE PURPOSE OF THE DEVELOPER TO PROVIDE INFORMATION TO THE COMMUNITY REGARDING THE PROPOSED RESIDENTIAL DEVELOPMENT AND TO ALLOW THE COMMUNITY TO ASK QUESTIONS AND TO MAKE COMMENTS, PER SECTION 16.128(D) OF THE SUBDIVISION
- 21. A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT SINCE THIS IS A MINOR SUBDIVISION.
- REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATED THE 65DBA NOISE EXPOSURE. THE UNMITIGATED 65DBA NOISE CONTOUR LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS. BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS
- ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. 24. THE PRIVATE USE-IN-COMMON DRIVEWAY ACCESS EASEMENT AND MAINTENANCE AGREEMENT FOR SHARED DRIVEWAY ON LOTS 1 AND 2 IS RECORDED UNDER F-17-033.
- 25. NO HISTORIC STRUCTURES EXIST WITHIN THE LIMITS OF THIS PLAT SUBMISSION
- 26. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY FISHER. COLLINS & CARTER, INC. IN APRIL, 2016 AND SUPPLEMENTED WITH HOWARD COUNTY GIS TOPOGRAPHY AT 5' CONTOUR INTERVAL
- INTERPOLATED FOR 2' CONTOUR INTERVAL 27. THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 - RESIDENTIAL INFILL DEVELOPMENT OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPER OF THIS PROJECT SHALL CREATE BERMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSE. THE MINIMUM SETBACK REQUIREMENTS HAVE BEEN MET AND THE SHOWN SETBACK IS IN COMPLIANCE WITH THE
- RESIDENTIAL INFILL DEVELOPMENT REQUIREMENTS. IN ADDITION A SHARED USE-IN-COMMON DRIVEWAY WILL BE PROVIDED AS A CONNECTION TO THE PUBLIC ROAD. 28. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD
- COUNTY PLUS MSHA STANDARDS AND SPECIFICATION IF APPLICABLE 29. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION
- INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK. 30. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK
- 31. 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.
- 32. EXISTING UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS, IN COMBINATION WITH EXISTING WATER AND SEWER
- 33. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- 34. SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.
- 35. FOR DRIVEWAY ENTRANCE DETAILS REFERS TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL
- 36. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES, OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD
- 37. LANDSCAPING FOR LOTS 1 AND 2 IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$4,650.00 BASED ON 8 SHADE TREES @\$300/SHADE TREE AND 15 EVERGREEN TREES @\$150/EVERGREEN TREE WILL BE COMPLETED WITH THE SDP AND BONDED WITH THE BUILDING/GRADING PERMIT.
- 38. STORMWATER MANAGEMENT IS IN ACCORDANCE WITH THE M.D.E. STORM WATER DESIGN MANUAL VOLUME I&II, REVISED 2009. NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH CHAPTER 5 ARE BEING UTILIZED

M.I.H.U NOTE: PLEASE NOTE THAT LOT 1 IS SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE PERMIT APPLICANT

## TITLE SHEET **IDREES RESIDENCE** LOTS 1 AND 2

SINGLE FAMILY DETACHED DWELLING 5518 MONTGOMERY ROAD, ELLICOTT CITY, MD-21042 PLAT NO.24546, (L. 18303, F. 345) ECP-16-068 AND F-17-033

PARCEL 199, TAX MAP 31 GRID 20, ZONING R-20 FIRST ELECTION DISTRICT- HOWARD COUNTY, MARYLAND



<u> Professional Certification</u> I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. <u>35194</u>,

KUI LIN, P.E. 8221 Ruxton Crossing Ct DATE: 05/30/2019 Towson, MD 21204 PHONE (410) 948-7948

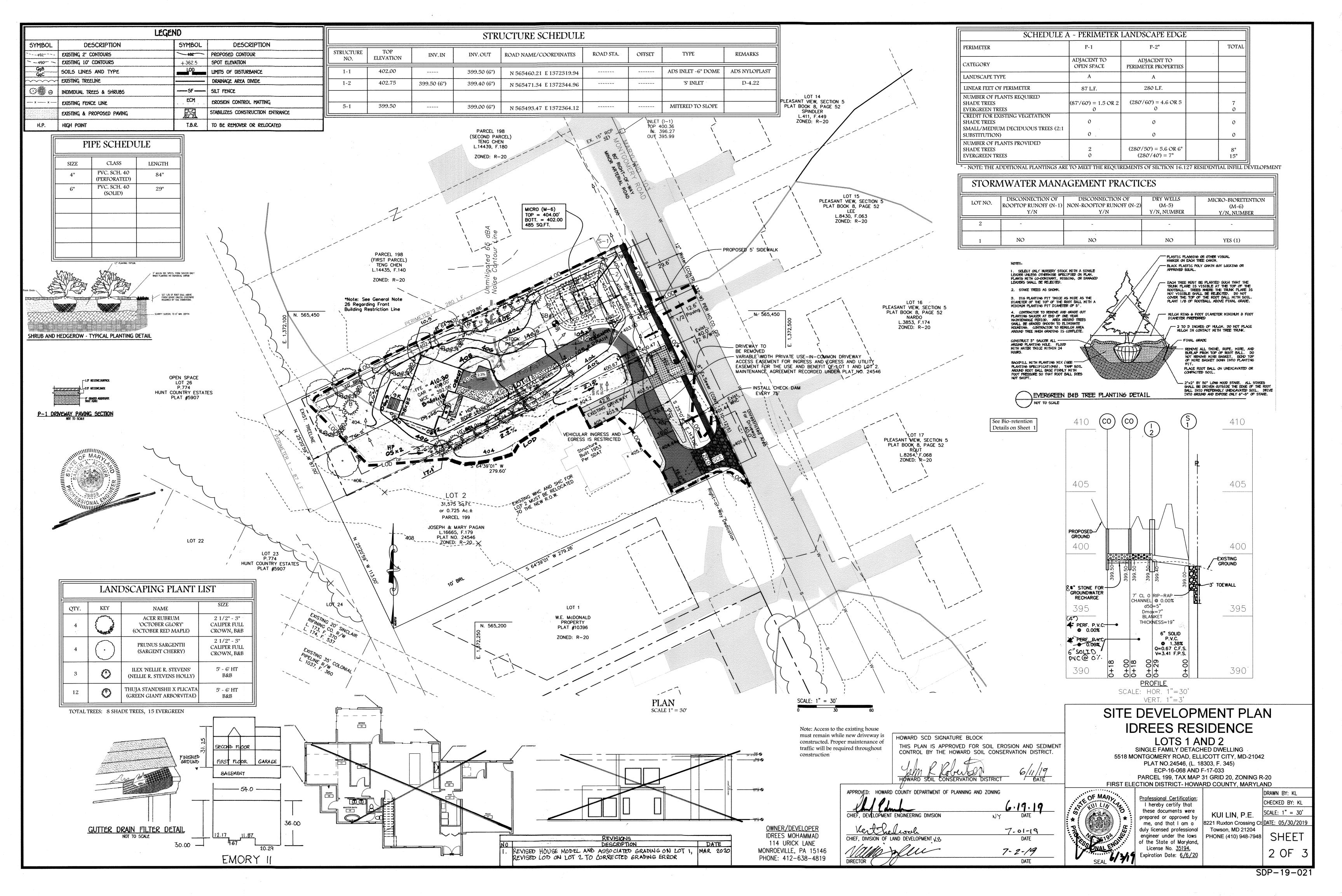
SHEET OF 3

DRAWN BY: KL

CHECKED BY: KL

SCALE: 1" = 30'

SDP-19-021



#### HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48

hour notice to CID must be given at the following stages: a. Prior to the start of earth disturbance,

b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other

earth disturbance or grading,

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

d. Prior to the removal or modification of sediment control practices. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency

is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.

4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft, must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).

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 CID.

6. Site Analysis:

Total Area of Site: 0.559 +/~ Acres

Area Disturbed: 0.69 +/~ Acres Area to be roofed or paved: 0.10 +/~ Acres

Area to be vegetatively stabilized: 0.46 +/~ Acres

Total Cut: 400 Cu. Yds. Total Fill: 100 Cu. Yds.

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

8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

Inspection date

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

Name and title of inspector

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

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

• Evidence of sediment discharges • Identification of plan deficiencies

• Identification of sediment controls that require maintenance

• Identification of missing or improperly installed sediment controls • Compliance status regarding the sequence of construction and stabilization requirements

Photographs

 Monitoring/sampling • Maintenance and/or corrective action performed

• Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES,

9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.

10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD-approved field

11. Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

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

14. All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.

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

• Use I and IP March 1 - June 15 • Use III and IIIP October 1 - April 30

• Use IV March 1 - May 31

16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

## SEQUENCE OF CONSTRUCTION

- 1. Obtain grading permit.
- 2. Notify Howard County DPW, Construction Inspection Division (CID) (313-1855) at least 24 hours before starting any work.
- 3. Install stabilized construction entrance, perimeter super silt fence, and diversion fence
- 4. With Inspector's approvals, remove necessary trees, structures and rough grade
- 5. Install temporary seeding
- 6. Construct house and driveway. install sewer house connection and water house connection. Construct SWM Facility per drawings & specifications
- 7. Fine grade site. Install permanent seeding
- 8. All final grades and stabilization should be completed before any removal of controls. When all contributing areas to sediment control devices have been stabilized and with the permission of sediment control inspector, the sediment control devices may be removed.

### **B-4-5 STANDARDS AND SPECIFICATIONS**

PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

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

Conditions Where Practice Applies

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

### Seed Mixtures

- General Use
  - a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
  - b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- 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 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

testing agency.

- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
- b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent

Seeding Summary. The summary is to be placed on the 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 Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
- iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade, Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
- iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 11/2 to 3 pounds per 1000 square feet.

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

c. Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 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 seedbed. Remove stones and debris over 11/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will

(Hardiness Zones: 7a, 7b)

pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot

## **Permanent Seeding Summary**

		<b>Zone</b> (from Figu re (from Table B	]	Fertilizer Rate (10-20-20)		Lime Rate		
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P2O5	K <sub>2</sub> 0	And the
	Barley	40	March 1	1/4- 1/2 in	45 pounds	90 lb/ac	90 lb/ac	2 tons/ac
			to May 15 Aug 1 to	1⁄4- ½ in	per acre (1.0 lb/	(2 lb/	(2 lb/	(90 lb/ 1000 sf)
			Oct 15	¼- ½ in	1000 sf)	1000 sf)	1000 sf)	1000 81)

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

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to
- the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable
- c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- 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 subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
- b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to

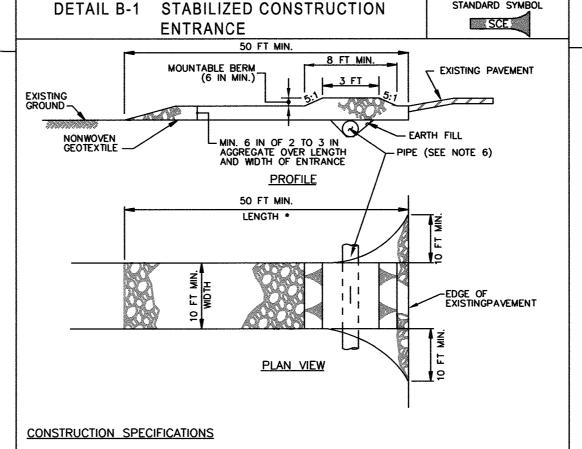
prevent voids which would cause air drying of the roots.

- c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
- d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

otherwise specified.

- a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
- b. After the first week, sod watering is required as necessary to maintain adequate moisture c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed estimates only. Contractor
- Note: Cut and Fill Volume for by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless responsible for Cut and Fill Volume.

OWNER/DEVELOPER IDREES MOHAMMAD 114 URICK LANE MONROEVILLE, PA 15146 PHONE: 412-638-4819



- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (\*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

HOWARD SCD SIGNATURE BLOCK

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

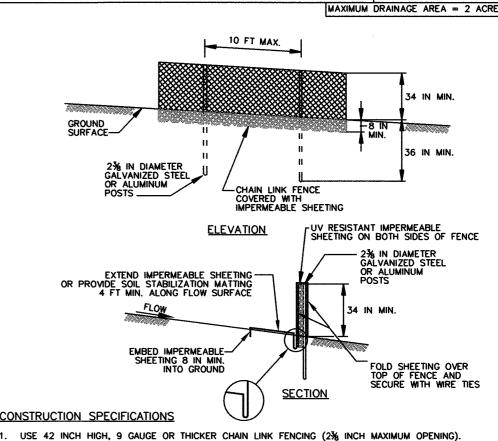
6.19.19

7-01-19

DATE

7-02-19

CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.



DETAIL C-9 DIVERSION FENCE

STANDARD SYMBOL

---- DF ------

USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2% INCH MAXIMUM OPENING). USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.

FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.

SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES

EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.

KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION.
REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

**B-4-4 STANDARDS AND SPECIFICATIONS** 

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

GALVANIZED CHAIN LINK FENCE WITH WOVEN SLIT FILM GEOTEXTILE

**ELEVATION** 

INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42

FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE

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

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

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.

TEMPORARY STABILIZATION

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

To use fast growing vegetation that provides cover on disturbed soils.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

DETAIL E-3 SUPER SILT FENCE

CHAIN LINK FENCING

WOVEN SLIT FILM GEOTEXTILE-

2% IN DIAMETER GALVANIZED STEEL OR ALUMINUM POSTS

CONSTRUCTION SPECIFICATIONS

----SSF-----

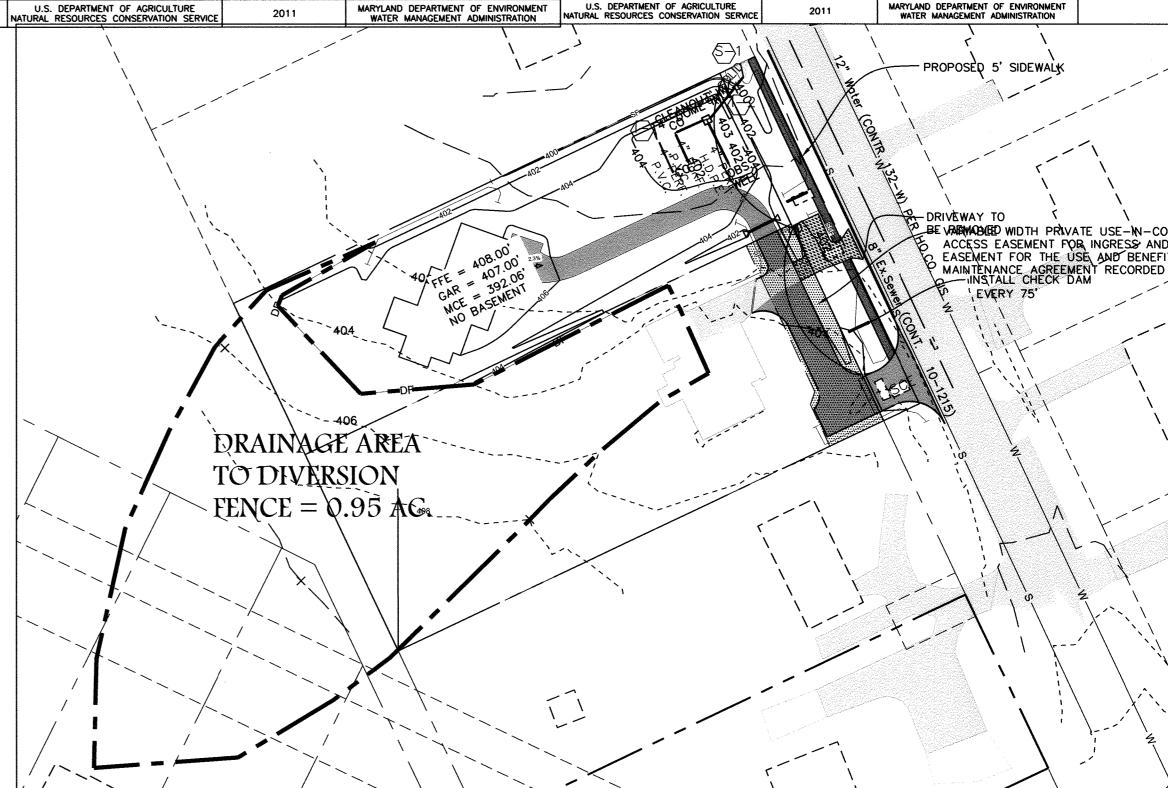
Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

- 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. Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.I.b and maintain until the next seeding season.

## **Temporary Seeding Summary**

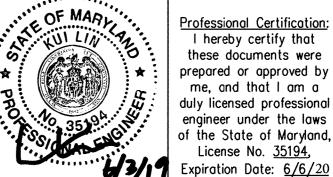
	Hardiness Z Seed Mixtu	Fertilizer Rate	Lime Rate				
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Editie Nate	
- Table	Barley	40	March 1	1	4	2 tons/ac (90 lb/1000 sf)	
			to May 15 Aug 1 to		436 lb/ac		
ſ			Oct 15	,	(10 lb/1000 sf)		
ľ							



## **ESC NOTES AND DETAILS IDREES RESIDENCE** LOTS 1 AND 2

SINGLE FAMILY DETACHED DWELLING 5518 MONTGOMERY ROAD, ELLICOTT CITY, MD-21042 PLAT NO.24546, (L. 18303, F. 345) ECP-16-068 AND F-17-033 PARCEL 199, TAX MAP 31 GRID 20, ZONING R-20

FIRST ELECTION DISTRICT- HOWARD COUNTY. MARYLAND



**Professional Certification:** I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws PHONE (410) 948-7948 of the State of Maryland, License No. <u>35194</u>,

KUI LIN, P.E. 8221 Ruxton Crossing Ct DATE: 05/30/2019 Towson, MD 21204

SHEET 3 OF 3

SDP-19-021

DRAWN BY: KL

CHECKED BY: KL

SCALE: 1" = 30'