

Tree #	Common Name	Scientific Name	DBH (inches)	CRZ (sq ft)	% CRZ Impacted	Condition	Save/Remove
659	maple, silver	Acer saccharum	34	8167	100%	Good	Remove
660	pin oak	Quercus palustris	30	6359	100%	Good	Remove
663	black cherry	Prunus serotina	36	8156	100%	Poor	Remove
703	maple, silver	Acer saccharum	47	15607	100%	Poor	Remove
Total DBH Removed			147				
Total Caliper to Replace			36.75				
Total 3" Caliper Trees			12				

Sequence of Events for Properties Required to Comply With Forest Conservation Plans, Exemptions From Submitting Forest Conservation Plans, and Tree Save Plans

The property owner is responsible for ensuring all tree protection measures are performed in accordance with the approved final forest conservation plan or tree save plan, and as modified in the field by a Planning Department Forest Conservation Inspector. The measures must meet or exceed the most recent standards published by the American National Standards Institute (ANSI A300).

Pre-Construction

- An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged and before any land disturbance.
 - The property owner must arrange for the meeting and following people should must participate at the pre-construction meeting: the property owner or their representative, construction superintendent, International Society of Arboriculture (ISA) certified arborist/Maryland Licensed Tree Expert (representing owner) that will implement the tree protection measures, The Planning Department Forest Conservation Inspector, and Montgomery County Department of Permitting Services (DPS) Sediment Control Inspector. The purpose of this meeting is to verify the limits of disturbance and discuss specific tree protection and tree care measures shown on the approved plan. No land disturbance shall begin before tree protection and stress-reduction measures have been implemented and approved by the Planning Department's Forest Conservation Inspector.
 - Typical tree protection devices include:
 - Chain link fence (four feet high)
 - Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging
 - 14 gauge, 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging
 - Typical stress reduction measures may include, but are not limited to:
 - Root pruning with a root cutter or vibratory plow designed for that purpose. Trenchers are not allowed, unless approved by the Forest Conservation Inspector
 - Crown Reduction or pruning
 - Watering
 - Fertilizing
 - Vertical mulching
 - Root aeration systems
- Measures not specified on the Forest Conservation Plan may be required as determined by the Forest Conservation Inspector in coordination with the property owner's arborist.

- A Maryland Licensed Tree expert must perform, or directly supervise, the implementation of all stress reduction measures. Documentation of the process (including photographs) may be required by the Forest Conservation Inspector, and will be determined at the pre-construction meeting.
- Temporary tree protection devices must be installed per the approved Forest Conservation Plan, Exemption Plan, or Tree Save Plan and prior to any land disturbance. The Forest Conservation Inspector, in coordination with the DPS Sediment Control Inspector, may make field adjustments to increase the survivability of trees and forest shown as saved on the approved plan.
- Tree protection fencing must be installed and maintained by the property owner for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. All construction activity within protected tree and forest areas is prohibited. This includes the following activities:
 - Parking or driving of equipment, machinery or vehicles of any type.
 - Storage of any construction materials, equipment, stockpiling, fill, debris, etc.
 - Dumping of any chemicals (i.e., paint thinner), mortar or concrete remainder, trash, garbage, or debris of any kind.
 - Felling of trees into a protected area.
 - Trenching or grading for utilities, irrigation, drainage, etc.

- Forest and tree protection signs must be installed as required by the Forest Conservation Inspector. The signs must be waterproof and wording provided in both English and Spanish.

During Construction

- Periodic inspections will be made by the Forest Conservation Inspector. Corrections and repairs to tree protection devices must be completed within the timeframe given by the Inspector.
- The property owner must immediately notify the Forest Conservation Inspector of any damage to trees, forests, understorey, ground cover, and any other undisturbed areas shown on the approved plan. Remedial actions, and the relative timeliness to restore these areas, will be determined by the Forest Conservation Inspector.

Post-Construction

- After construction is completed, but before tree protection devices have been removed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include:
 - Removal, and possible replacement, of dead, dying, or hazardous trees
 - Pruning of dead or declining limbs
 - Soil aeration
 - Fertilization
 - Watering
 - Wound repair
 - Clean up of retention areas, including trash removal
- After the final inspection and completion of all corrective measures the Forest Conservation Inspector will request all temporary tree and forest protection devices be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both DPS and the Forest Conservation Inspector and cannot be removed without permission of the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.
- Long-term protection measures, including permanent signage, must be installed per the approved plan. Installation will occur at the appropriate time during the construction project. Refer to the approved plan drawing for the long-term protection measures to be installed.

GENERAL CONDITIONS

- SCOPE
 - The landscape contractor shall provide all materials, labor and equipment to complete all landscape work as shown on the plans, plant list and specifications.
 - Total number of plants shall be as shown on the landscape plan. If this total differs from the plant schedule, the landscape contractor is to notify the landscape architect before the bid date.
- STANDARDS
 - All plant material will conform to the current issue of the American Standard for Nursery Stock published by the American Nursery and Landscape Association (ANLA) conform in general to representative species.
 - The plant material must be selected from nurseries that have been inspected by state or federal agencies. Any certificates required must be provided to owner or representative upon delivery of materials.
- SUBSTITUTIONS
 - If a plant is found not to be suitable or available, the contractor is to notify the landscape architect before bidding.
 - The owner or landscape architect is then required to select a reasonable alternate or to inform all landscape contractors of the availability of the original plant.
 - If a substitute is selected, it must be of the same size, value and quality as the original plant.
 - Substitutions to be made with written approval of M.C.P.R.C.
- UTILITIES
 - The landscape contractor shall notify utility companies prior to construction and call "Miss Utility" at 1(800)257-7777 to locate main utility lines.
 - If there is a conflict with utilities and the planting, the landscape contractor shall notify the landscape architect or owner immediately. Any cost of relocating caused by the contractor's failure to notify shall be borne by the contractor.
- DRAINAGE
 - Plants shall not be planted in situations that show obvious poor drainage. Such situations shall be brought to the attention of the landscape architect or owner and, if deemed necessary, plants shall be relocated or the contract shall be adjusted to provide drainage construction at a negotiated cost.
- WORKMANSHIP
 - During planting, all areas shall be kept clean and neat, and all reasonable precautions shall be taken to avoid damage to existing plants, turf and structures.
 - Upon completion, all debris and waste material resulting from planting operations shall be removed from the project and the area cleaned up.
 - Any damaged areas shall be restored to their original condition at the cost of the contractor.

PLANT MATERIAL

- Bare root
 - Bare rooted shrubs shall be dug with adequate fibrous roots.
 - Roots shall be protected during handling and transit and planted to guard against drying out and damage. If not planted soon after arrival, material must be banded and maintained.
- Balled and Burlapped (BAB)
 - Balled and Burlapped plants shall be dug with firm natural balls of earth.
 - Ball sizes shall be in accordance with ANLA specifications.
 - Container grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold soil in container together.
 - All plant material shall be nursery grown unless otherwise specified. Pruning shall be done before planting or during the planting operation.
 - All plant material to be transported in covered container. Locally available material may be covered with a burlap or similar cover to keep from drying out, provided the transporting vehicle maintains a maximum of 65 mph.
 - Anti-desiccants shall be applied on all materials dug while in foliage.
 - Container stock may replace BAB as long as all other criteria are met.
 - Same plant material for location near each other shall be similar in appearance. Hedge material will be similar enough in size and shape, etc., to create a uniform hedge.

II. MATERIALS

- ANTI-TRANSPIRANTS
 - Anti-transpirants shall be an emulsifiable concentrate used to retard excess water loss without harming normal transpiration.
- BACK FILL MIXTURES
 - Back fill mixture shall be 1/3 organic material mixed with 2/3 organic material (or peat) and 1/3 topsoil.
 - If any other additives are found to be needed at the time of planting, it shall be added only with the approval of the landscape contractor, landscape architect and owner or owner's representative.
 - Fertilizer is to be added depending on the size of the plant and the manufacturer's recommendation.
- TEES
 - Tees - Use tree fertilizer as required by particular species
 - Shrubs - Use tree fertilizer as required by particular species
 - Ground Cover, Vines & Herbaceous Plants - Use tree fertilizer as required by species.
- TOPSOIL
 - If used, top soil shall be sandy loam and uniform in color and composition.
 - It shall be free of stones, roots, lumps, plants and other debris over 1 1/2".
 - It shall not contain toxic substances harmful to plant growth.
 - Top soil shall have a pH range of 5.0 to 7.0 and the organic matter shall be a minimum content of 0.5%.
- ORGANIC MATTER
 - Organic Matter used in back fill shall be peat or other material approved by the landscape architect or owner's representative.
- PEAT MOSS
 - Type 1 sphagnum peat moss finely divided with a pH of 4.0 to 5.0.
- LEAF MOLD
 - This is a composted leaf material to be used with the approval of landscape architect.
- COMPOST
 - To be organic matter composted and aged by accepted methods to be used only when specified or by approval of landscape architect.
- DOLOMITE LIME
 - This is agricultural grade limestone containing total carbonates of 85% with a minimum of 30% magnesium carbonate.
- FERTILIZER
 - Fertilizer shall be granular, packet or pellet with 35% to 85% of the total nitrogen in a slowly available form. To be applied by manufacturers methods.
 - Fertilizer shall be a complete fertilizer with a minimum analysis as required by soil test and plant material.
- TRACE ELEMENTS
 - These slow release materials containing zinc (Zn), molybdenum (Mo), iron (Fe), copper (Cu), boron (B), and magnesium (Mg). To be applied as per manufacturer's directions as deemed necessary by soil test.

III. BACKFILLING A TREE PIT

- Cut rope or wire on ball of tree and pull burlap back to the edge of the root ball remove all plastic wrags and burlap. Roll burlap 1/3 of the way down the root ball.
- Backfill tree pit with a soil mixture stated in the specifications.
- Mix soil amendments in the mulch either prior to filling pit or as pit is being filled.
- Make sure plants remain straight during backfilling procedure.
- Backfill sides of tree pit halfway with soil mixture and tamp as pit is being filled.
- Finish backfilling sides of tree pit and tamp firmly.
- NEVER COVER TOP OF TREE BALL WITH SOIL. Top of root ball should be 1/4 the root ball height above the tree pit.
- Form a 4" saucer above existing grade and around the outer rim of the tree pit. Multiply top of root ball and saucer within 48 hours to a minimum depth of 2' and not exceed 3".
- Water thoroughly the interior of the tree saucer until it is filled. EVEN IF IT IS RAINING.
- Provide enough water to ensure saturation of the root ball.
- Prune out any dead, conflicting or broken branches.
- In extremely hot weather, reduce foliage surface by pruning or stripping of foliage.
- Remove all tags, labels, strings, etc., from the tree.

IV. TREES BRACED BY STAKES

- Choose the correct size and number of stakes and size of hose and wire according to the Tree Support Detail and plant requirements. Staking shall be completed within 48 hours of planting the tree.
- Space stakes evenly and vertically on the outside of the tree ball, driven firmly into the ground (stakes can be slightly angled away from the tree). NOTE: Never drive a stake through the tree ball, as it will damage the tree's root system. Stakes to be 2/3 above ground, 1/3 below.
- Cut pieces of reinforced hose long enough to loop around the trunk of the tree.
- Place the hose around the trunk at the height required to provide optimum support. Then run the wire through the hose and pull both ends horizontally beyond the stake by 2".
- Cut the wire to sufficient length and then twist the wire at the rubber hose to keep it in place.
- Run both ends of wire together around the stake twice and then twist wire back onto itself to secure it. Cut off excess wire and stake.
- The above procedures are to follow for each stake.
- STAKES
 - Stakes shall be 2"x2" hardwood, reasonably free of knots to be long enough for 1/3rd to be driven into the soil, and 2/3rds above the soil surface.
- WIRE
 - Wire shall be 12 or 14 gauge galvanized steel or acceptable equal, depending on the size of the tree.
- CABLE
 - Cable shall be 1/4" or 3/16" galvanized steel, depending on size of tree.
- CLAMPS
 - Clamps shall be galvanized steel or zinc and large enough to hold wire or wire used.
- HOSE
 - Hose shall be coated rubber, uniform in color and either 3/4" to 1" in diameter, depending on the size of the tree.

Inspection

All field inspections must be requested by the applicant. Inspections must be conducted as follows:

- After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
- After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begins.
- After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation plan.

Additional Requirements for Plans with Planting Requirements

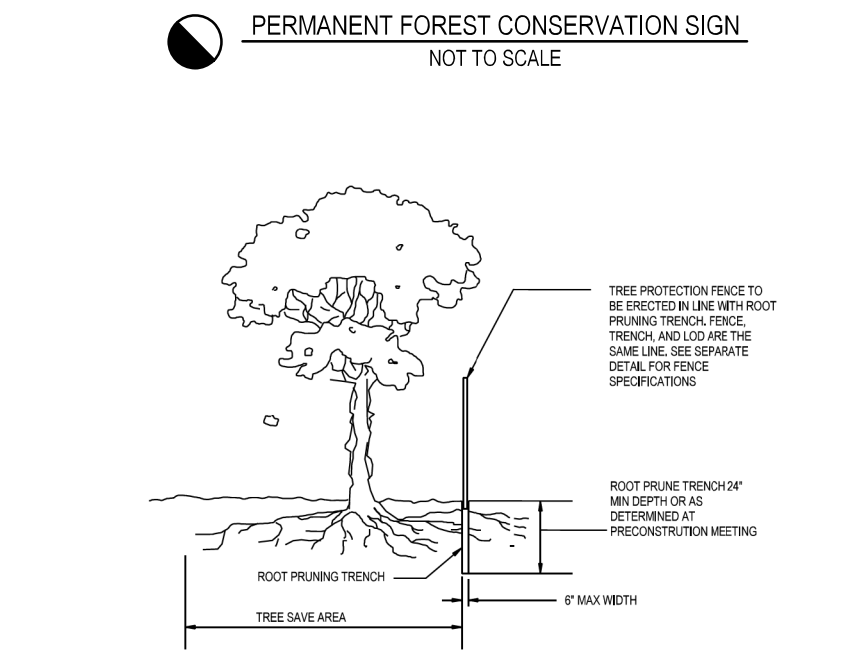
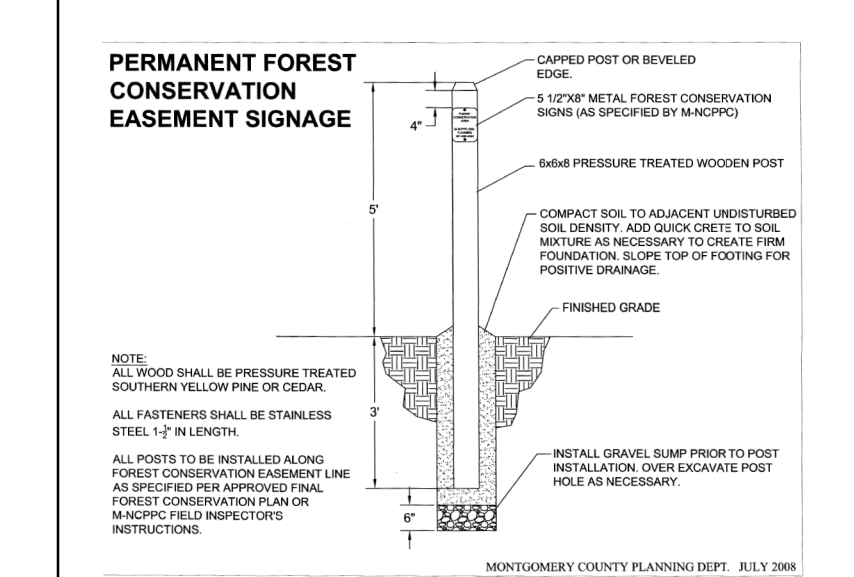
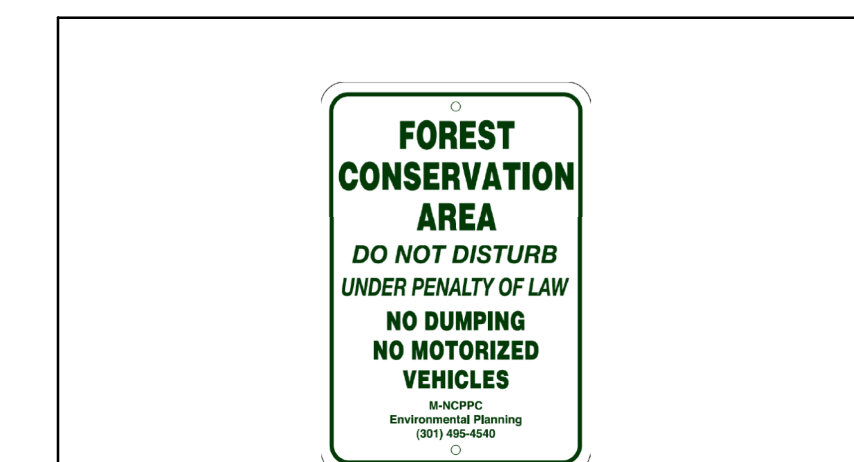
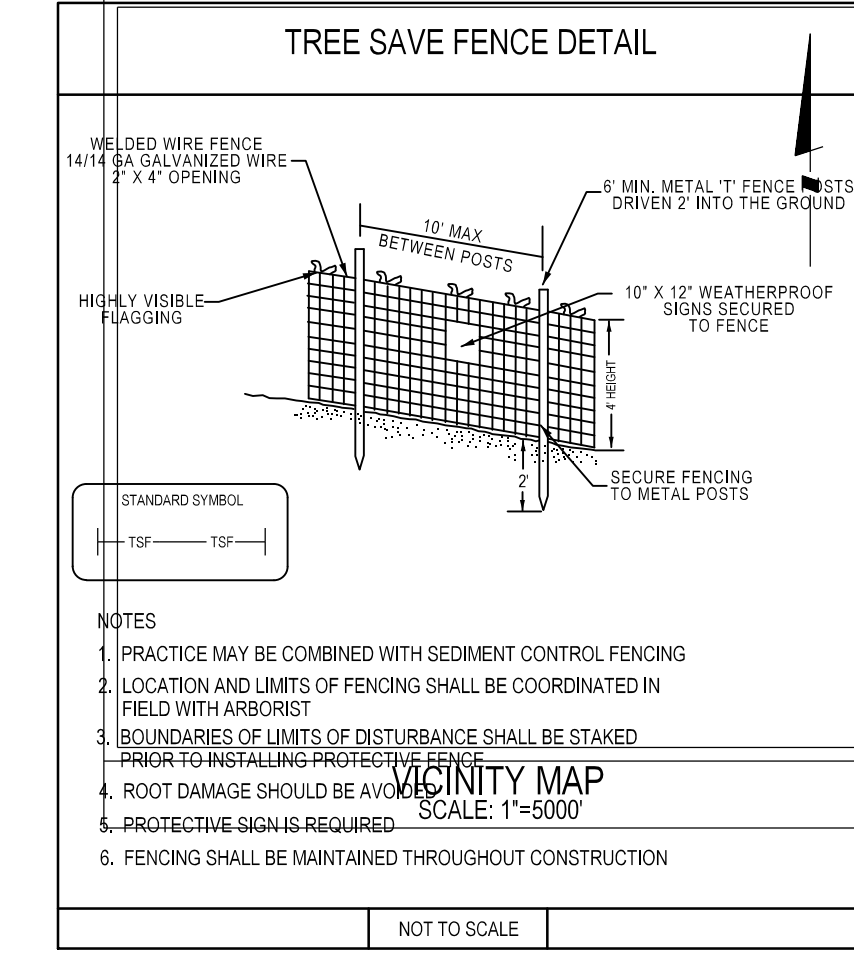
- Before the start of any required reforestation and afforestation planting
- After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start of the maintenance period.
- At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, the release of the performance bond.

STUDY AREA RESOURCE DATA TABLE

Resource Type	Acres
EXISTING FOREST	94.90 ACRES
NON-TIDAL WETLANDS	5.38 ACRES
FOREST WITHIN THE NON-TIDAL WETLANDS	1.50 ACRES
EXISTING FLOODPLAIN	4.06 ACRES
FOREST WITHIN THE FLOODPLAIN	2.44 ACRES
EXISTING STREAM BUFFER	15.72 ACRES
FOREST WITHIN THE STREAM BUFFER	9.42 ACRES
AVERAGE WIDTH OF ENVIRONMENTAL BUFFER	125 LF
LINEAR LENGTH OF STREAMS	526 LF

Map Unit Symbol	Map Unit Name	Hydric Rating	Hydrologic Soil Group	Highly Erodible
19B	Bucks silt loam, 3 to 8 percent slopes	0	B	No
20A	Brentsville sandy loam, 0 to 3 percent slopes	0	C	No
20B	Brentsville sandy loam, 3 to 8 percent slopes	0	C	No
20C	Brentsville sandy loam, 8 to 15 percent slopes	0	C	No
21B	Penn silt loam, 3 to 8 percent slopes	0	B	No
21C	Penn silt loam, 8 to 15 percent slopes	0	B	No
21D	Penn silt loam, 15 to 25 percent slopes	5	B	Yes
22B	Readington silt loam, 3 to 8 percent slopes	N/A	C	No
23A	Croton silt loam, occasionally ponded, 0 to 3 percent slopes	85	D	No
47A	Lindside silt loam, 0 to 3 percent slopes, occasionally flooded	10	C	No
51A	Bowmansville-Melvin silt loams, 0 to 2 percent slopes, occasionally flooded	100	C/D	No
109D	Hyattstown channely silt loam, 15 to 25 percent slopes, very rocky	5	D	No
300	Rock outcrop-blockout complex	0	N/A	No
400	Urban land	0	D	No
G8	Goresville and Bucks soils, 3 to 8 percent slopes	0	C	No
W	Census water	0	N/A	No

Source: <http://www.bos.usdrc.nrc.usda.gov> (August 2023)



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 Environmental Sciences

NO. REVISIONS BY DATE

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT MISS UTILITY AT 1-800-277-48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THE PLAN OR THESE 120 INCHES, WHOEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

OWNER / DEVELOPER / APPLICANT

Terra Energy, LLC
 13409 Strawbale Lane
 Darnestown, MD 20878
 540 223 3954
 Jeffrey Ferrel

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

EXPIRATION DATE: 6/30/2024

09/26/2024



NOTES AND DETAILS

PRELIMINARY FOREST CONSERVATION PLAN

DICKERSON POWER PLANT

F20240620

POOLSVILLE EPRD ELECTION DISTRICT, MONTGOMERY COUNTY, MARYLAND

PLANNING DEPARTMENT USE ONLY (E-PLANS)

275 EX CONTOUR MINOR

270 EX CONTOUR MAJOR

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Preliminary Forest Conservation Plan No. F20240620 including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: Terra Energy, LLC
 Contact Person or Owner: Jeffrey Ferrel
 Contact Person: Jeffrey Ferrel
 Address: 13409 Strawbale Lane, Darnestown, MD
 Phone: (540) 223-3954

TAX MAP: BV341, BV342, BV351, BV352

ZONING CATEGORY: AR, H-2.5, H-70

NSIC 200 SHEET: Z29N22Z, Z29NE21, Z29NW2Z, Z29NW21

SITE DATUM: HORIZONTAL: NAD 83/91, VERTICAL: NGVD89

DATE: 6/21/2024
 DESIGNED: NC
 CHECKED: NC
 CAP. STGT. V: 8/8
 VERSION: V8/NCS

SHEET: F.16 OF F.16

PROJECT NO. 4025-00-00