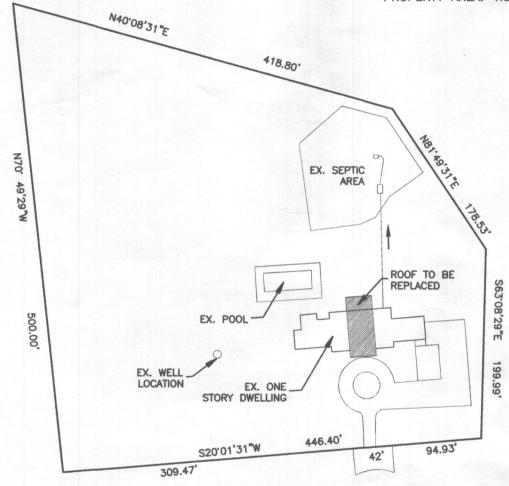
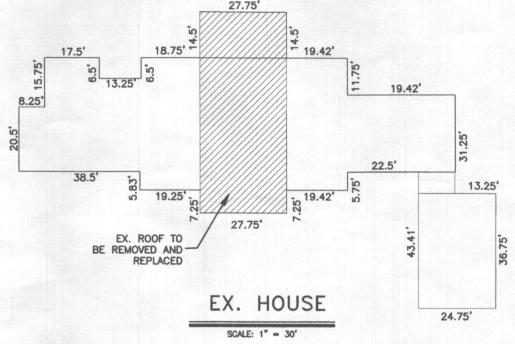
ADDRESS: 5000 WILD OLIVE CT ELLICOTT CITY, MD 20759 MAP: 0028 DEED REFERENCE: /18342/00474 PROPERTY AREA: 4.303 AC



WILD OLIVE CT



THIS PERMIT APPLICATION IS FOR INTERIOR RENOVATION EXISTING HOUSE. EXISTING SEPTIC SYSTEM IS DESIGNED FOR 5 BEDROOM HOUSE AND NEW REVISED RENOVATION FLOOR PLAN FOR EXISTING HOUSE WILL BE 4 BEDROOM HOUSE. THERE IS NO CHANGE IN EXISTING CONDITION OUTSIDE OF THE HOUSE AND ALL EXISTING SEPTIC SYSTEM AND TANK REMAIN UNTOUCHED IN THE GROUND.



5000 WILD OLIVE DT ELLICOTT CITY, MD 21042 RENOVATION

SITE PLAN

ARENCO, LLC

ARCHITECTURAL ENGINEERING CONSULTANTS 12430 HILL CREST FULTON, MD 20759

WORK REQUEST # 20-233 1" = 100'

SHEET 1 OF 1 DRAWING NO. 20-233-01

FORMD 06-23-97

C1

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moment



### SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

#### A Soil Preparation

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches 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 must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

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

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

à. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

### i. Soil pH between 6.0 and 7.0.

ii. Soluble salts less than 500 parts per million (ppm) iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.

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

b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

# d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

3. Topsoiling is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible. 4. Areas having slopes steeper than 2:1 require special consideration and design.

a. Topsoil must be à loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of confrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, alag, coarse tragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

a. Erosion and sediment control practices must be maintained when applying topsoil.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

### C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer of sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be

delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer. 3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass

4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or

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

# 8-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

## ne application of seed and mulch to establish vegetative cover.

o protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

other suitable means.

a. All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture

nust be appead when the ground triaws.

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species, inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cook as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less.

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or

site-specific seeding surmories.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with

weighted roller to provide good seed to soil contact.

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

 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.
 Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. c. Hydroseeding: Apply seed uniformly with hydroseeder (sturry includes seed and fertilizer).

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per

acre total of soluble nitrogen; P O (phosphorus), 200 pounds per acre; K O (potassium), 200 pounds per acre. ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

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

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

FISHER, COLLINS & CARTER, INC.

IL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL F

TVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

ELLICOTT CITY, MARYLAND 2104

 Mulch Materials (in order of preference)
 Straw consisting of thoroughly threshed wheat, rye, out, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired. b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into uniform fibrous physical

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 Cultitars 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.

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

i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread sturry.

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

iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulate fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fartilizer and other additives to form a homogeneous sturry. The mulch material must form a blotter-fills ground cover, on application, properties and must cover and lead areas ment in contract with the sail without inhibition the

absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the grass seedlings.

iv. WCFM material must not contain elements or compounds at concentration levels that will by phyto-toxic.

v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.5 percent maximum and water holding capacity of 90 percent minimum.

a. Apply mulch to all seeded areas immediately after seeding.
 b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform losse depth of

1 to 2 inches. Apply much to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.

c. Wood cellulose fiber used as mulch must be applied to a net dry weight of 1500 pounds per acre. Mix the wood

Anchoring
a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large dream, but is limited to flatter slopes where equipment

can operate sefety. If used an sloping land, this practice should follow the contour.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the menufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and an creats of banks. Use of asphalt binders is

Expand soils where ground cover is needed for a period of 6 months or less. For longer duration of time.

. Select one or more of the species or seed mixtures listed in Table 8.1 for the appropriate Plant Hardinese

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

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil

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.1.b and maintain until the next seeding season.

Seeding Depths

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

c. for sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency. d. For areas receiving low maintenance, apply urea form tertilizer (46-0-0) at 3 1/2 pounds per

1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will

Lime Rate

Fertilizer Rate

(10-20-20)

1000 sf)

Temporary Seeding Summary

Dates

8/15 - 10/15

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.

Conditions Where Practice Applies

TEMPORARY SEEDING NOTES (B-4-4)

Hardiness Zone (from Figure 8.3): 6b

(lb/ac)

72

PERMANENT SEEDING NOTES (8-4-5)

receive a medium to high level of maintenance.

Seed Mixture (from Table 8.1):

1. General Use

2. Turfgrass Mixtures

callulose fiber with water to attain a mixture with a maximum of 50 pounds of wood callulose fiber per 100 gallons of

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 Rysgrass 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 Tal 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: 1 1/2 to 3 pounds per 1000 square feet.

Select turigrass varieties from those listed in the most current University of Maryland Publication, Agronomy Herno #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 (Hirdiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

d. Ill areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rale the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future moving of grasses will pose no difficulty. e. It soil moisture is deficient, supply new seedings with adequate water for plant growth ( 1/2 to 1 inch ever 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seeings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites. Permanent Seeding Summary

Hardiness Zone (from Figure 8.3): 6b Seed Mixture (from Table 8.3): 8			Fertilizer Rate (10-20-20)			Lime Rate		
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N 35	P205	K20	
8	TALL FESCUE	100	Mar. 1-May 15 Aug. 15-Oct. 15	1/4-1/2 in.	45 lbs. per acre	90 lb/ac (2 lb/	90 lb/ac (2 lb/	(90 lb/
		72. 50.	The second secon	Part of the second seco	(1.0 lb/ 1000 sf)	1000 sf)	1000 af)	1000 sf)
							The second secon	

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

a. Class of turigrass 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 to % inch, plus or minus % inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven 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 section.

d. Sod must not be harvested or transplanted when moisture content (excessively dry of 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 installation.

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.

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 soil immediately following rolling and tamping until the underside of the new soil surface below the soil are thoroughly wet. Complete the operations of laying, tamping, and irrigating for any

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 soil during the heat of the day to prevent

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

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS A mound or pile of soil protected by appropriately designed trasion and sediment control measures.

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns

1. The specialise location and all related sediment control practices must be clearly indicated on the eresion and sediment control plan.

2. The footprint of the specialise must be also to accommodate the anticipated volume of material and based on a side alone ratio no speeper than 2:1. Benching must be provided in accordance with Section 8—3 Land Grading.

). Stumoff from the stockpile area must drain to a sultable sediment control practice. 5. Clear water runoff into the specially are must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

6. Where runoff concentrates along the toe of the specially erosion/sediment control practice must be used to intercept the discharge.

7. Specialise must be stabilized in accordance with the 3/7 day stabilisation requirement as well as Standard 8-4-1 incremental Stabilisation and Standard 8-4-4 Temporary Stabilisation.

B. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated maturial must be covered with impermeable sheeting

The stockpile area must continuously most the requirements for Adequite Vegetative Establishment in accordance with Section 8-4 Vegetative.

Stabilishtion. Side alopes must be maintained at no steeper than a 2:1 also. The stockpile area must be kept free of erosion. If the vertical height stockable exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 0 feet for 4:1 slopes, banching must be provided in accordance with Section

# HOWED SOIL CONSERVATION DISTRICT (HSCD) STANDARD SECURENT CONTROL NOTES

A pre-construction mostling must occur with the Housed County Department of Hillic Morks, Construction Inspection Division (CD), 410-315-1855 after the future LOD and projected drake are related clearly in the field. A relations of 46 hour notice to CID must be given at the following

a. Prior to the start of such delpotance,

b. Upon completion of the impletions of pertroper around and sediment control, but before proceeding with any other earth disjurtance or grading.

c. Prior to the start of insular phase of construction or opening of insular phase parts.

d. Prior to the removal or conditation of sediment control principles.

Other building or getaling inspection step on the dephastand smill this initial approval by the impaction departs of principles and foundation of principles and the provision of this pain.

2. All violating leads and adjustances or re-department of this pain and the point and the point and the 2011 HARTLAND STANDARDS AND SPECIFICATIONS FOR SOIL EXCHAND AND SECRETARY CONTROL, and revisions thereto.

3. Following leights and adjustances or re-department or purposety applications in required origins from an to the surface of all partments controls. All department are to be impositely adjust an to the surface of all partments or purposety applications of the project of the annual controls and applies of the surface of the partment of the partment and the surface of the partment of the partment and the partment of the p

Arest to be routed or paved:

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injurely, with leaver and a curied uptill by Z in absorption. Sprates channels must not be disjurbed during the following respricted time purious (inch Use I and IP March 1 - June 19 Use II and IIP October 1 - April 30

. Use M Harch 1 - Hay 31.
16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SC. ENGINEER AND SESSION CONTROL, and associated permits shall be on-site and available when the site

### 8.4.C SPECIFICATIONS FOR MICRO-BIORETENTION RAIN GARDENS, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS THE ALLOWABLE NATIONALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1

THE SOIL SHALL BE A UNIFORM HIS, PREE OF STONES, STUMPS, IRDOTS ON OTHER SINGAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE HICRO-BIORETENTION PRACTICE. THAT HAY BE HARDYFUL TO PLANT GROWTH, OR PROVE A HINDIRANCE TO THE PLANTING OR HAINTENANCE OPERATIONS.

THE PLANTING SOIL SHALL BE FREE OF BESINUAL GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER HOXIDUS WEEDS AS SPECIFIED UNDER COMMENT 15,00,01,05. THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE POLLOWING CRITERIA. SOIL COMPONENT—LOWIN SAND OR SANDY LOW! (USDA SOIL TEXTURAL CLASSIFICATION), ORGANIC CONTENT—HINDIRM 10%. BY DRY WEIGHT (ASTN D 2974). IN GENERAL, THIS CAN BE HET WITH A MIXTURE OF LOWIN SAND (60%—65%) AND COMPOST (35% TO 40%) OR SANDY LOW! (30%), COMESE SAND (30%), AND COMPOST (40%). CLAY CONTENT—HIEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 3%. PH RANCE—SALFIRE) HAY BE MIXED INTO THE SOIL TO BICIESISE OR DECREASE PH, WHICH SHOULD BE BETWEEN 5.5 — 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS. THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TEST OR ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQULIRED PROM THE STRE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURED ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAMATED. COMPACTION . FILTERING MEDIA OR PLANTING SOIL

TO SHEAD TO REMOVE ORIGINAL SOIL IF PRACTICES ARE EXCANATED USING A LONDER. THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK COUPMENT ON LIGHT EQUIPMENT WITH TURE TYPE TREES USE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL, WHEN POSSIBLE, USE EXCANATION HOES TO REMOVE ORIGINAL SOIL IF PRACTICES ARE EXCANATED USING A LONDER. THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK OR MARSH TRACK OR MARSH TRACK OR MARSH TRACKS. AND SHOT ACCEPTABLE LUXS, OR HIGH-PRESSURE TREES WILL CAUSE EXCESSIVE COMPACTION RESALTING IN REDUCED INFILTRATION RATEAS AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE COMPACTION CAN BE ALLEMATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIVARY TILLING OPERATION SUCH AS A CHISEL PLOW, REPPEZ, OR SUBSCILER. THESE TILLING, OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE, SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGRIESE ROTOTILLES TYPICALLY DO NOT TILL DEEP FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER, PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. THE OPTIONAL SAND LAYER, PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE. THE OPTIONAL WHEN BACKFILLING THE TOPSOIL TO CREATE A GRADATION ZONE, BACKFILL, THE REMAINDER OF THE TOPSOIL TO PINAL GRADE.

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PRIBATER OF THE BASEN TO SUPPLY SOILS AND SAND.

PLANT MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS. 3. COMPACTION

PLANT MATERIAL
POR HICRO-BIORETENTION PRACTICES CAN IE FOUND IN APPENDIX A

PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC HATERIAL SOURCE, IS LESS LIKELY TO PLOY, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS, MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3" SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH.

PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PRESENTER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTIBLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

SOUSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8 TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIMPETER OF THE PLANT ROOT BALL AT LEAST SIX INCHES LIKEGER THAN THE CHAPTERS OF THE PLANTING BALL SET AND HARITAN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHEY WATER GROUND BED COMES AFTER PISTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY.

STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL GROSSES AND LEGIME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE MICH. GROSS AND LEGIME PLAGES SHALL BE PLANTED POLLOWING THE NON-GROSS GROUND COMES PLANTING SPECIFICATIONS.

DRILLED BITO THE SOIL TO A DEPTH OF AT LEAST ONE BICH. GROSS AND LEAST PEACE SHEET BE POSITED FOR THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING, THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING PERTILIZERS DEFEATS, OR AT A MINIMUM, IMPRODES THIS GOAL, ONLY ADD FERTILIZER IF WOOD CHIPS OR ARE USED TO AMEND THE SOIL, ROTOTAL URBA PERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

### 8.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDENS. LANDSCAPE INFILTRATION & INFILTRATION BERMS (Cont.) 6. UNDESCRAINS HOULD MEET THE POLLOWING CRITERIA:

PIPE - SHOULD BE  $\psi$  to  $\psi$  dammeter, slotted or perforated regid plastic pipe (asther 756, type PS 28, or another—H-278) by a gravel layer. The preperced material is slotted,  $\psi$  regid pipe (e.g., pvc or hope). PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A HIMMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALMANIZED HARDWARE CLOTH. GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREPERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN. THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE

A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE PEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER. A # LAYER OF PEA GRAVEL (1/# TO 3/# STONE) SHALL BE LOCATED BETWEEN THE FILTER HEDRA AND UNDERDRAIN TO PREVENT HIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 2#. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A PRINCIPLE OF 0.5K. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FRET OF SURFACE AREA).

MISCELLANEOUS THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN.

## SEQUENCE OF CONSTRUCTION

OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (2 WEEKS) NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT

1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/ INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SUPER-SILT FENCE. (1 DAY)

REMOVE NECESSARY TREES AND ROUGH GRADE LOT. INSTALL EROSION CONTROL MATTING. (5 DAYS) INSTALL TEMPORARY SEEDING. (1 DAY) CONSTRUCT BUILDING, PORCH, AND DRIVEWAY. INSTALL WATER CONNECTION AND

SEPTIC SYSTEM AND CONNECTION TO SERVICE THE PROPOSED HOUSE.

INSTALL DRYWELLS, ROOF LEADERS, AND FINE GRADE SITE. ALL FINAL GRADES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE

NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

# U.S. DEPUTMENT OF AGRICULTURE 2011 WITH MANUAL PROVIDENT AGRICULTURE 2011 WITH MANUAL PROVIDENT AGRICULTURE 2011 DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION NOTE: SEE SHEAR STRESS CALCULATIONS BELOW. USE TEMPORARY SCIL STABLESATION MATTERS MADE OF DEGRAPABLE (LASTS & MONTHS MEMBLAY) HATMAL OR MINIMADE PRESS (MOSTLY ORGANIC), MAT MAST HAVE USEFORM THOSESSES AND DISTRIBUTION OF PRESS THROMOROUT AND SE SMOLDER RESISTANT, CHEMICALS USED IN THE MAT MALT SE NON-LACHING THE TOTAL TOTAL TO RESISTANT OF SEED GERMATION AND MON-MALBOUSTO THE SELL PRESSET, METTERS MAST SE EXTRIBUTE PLASTIC WITH A MARMAM MESH OPERAND OF 202 MODES AND SUPPOSENTLY ROMORD OR SERVE ON 2 MON CONTENS ALONG LONGTHAMAL AND OF THE MATERIAL TO PREVENT SEPARATION OF THE MET FROM THE PARENT SECURIE MATTHE USING STEEL STAPLES, WOOD STANCES, OR MODERNADABLE EQUIVALENT. STAPLES MAST BE "L" OR "T SHAPED STEEL WEE HANDS A MINIMUM GALDE OF NO. 11 AND NO. 8 RESPECTIVELY. "L" SHAPED STAPLES MAST AVERAGE 1 TO 15 NOCHES WEE AND SE A MINIMUM OF SHAPED STAPLES MAST HAVE A MINIMUM S NOT MAD LEE, A MINIMUM OF SECURIARY LEE, AND A MINIMUM 4 MICH NEAD, WOOD STANCES MAST BE ROUSH-SAME MARDINGOOD. 12 TO 24 MICHES IN LENGTH, 1%5 NICH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM. PERFORM FRIAL BRADING, TOPBOL APPLICATION, SEEDIND PREPARATION, AND PERMANENT SEEDING ACCOMPANICE WITH SPECIFICATIONS. PLACE MATTERS WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS LIBLIES END OF WORKDAY STABLIZATION IS SPECIFIED ON THE APPROVED ENCIRCLE SEEDINGS OF THE APPROVED ENCIRCLE. UNRIGH. MATTING IN DIRECTION OF WATER FLOW, CIDITERING THE PIRST ROLL ON THE CHANNEL CONTRIBUTE. SINK FROM CONTRIBUTE OF CHANNEL GUTWIND WHEN PLACING ROLLS. LAY MAY SMOOTH AND FRIELY OF THE SECRED SHAPPACE, ANDD STREETCHING THE MATTING. HEY-IN LIPSTREAM END OF EACH MAT ROLL BY BIGGING A 6 INCH (MINIGAM) TRENCH AT THE LIPSTREAM END OF THE MATTRIC, PLACING THE ROLL END IN THE WESTICK, STAPLING THE MAT IN PLACE, REPLACED THE EXCLARGE AND ENDING THE ROLL END IN THE WESTICK, STAPLING THE DISCARDE AND THE PART END. OVERLAP OR ABIT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS, OVERLAP ROLL EDGES BY 8 INCHES (MINISTUR), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE MEXT DOMESTICAL STAPLE/STAME NAT SI A STAGGERED PATTERN ON 4 FOOT (MANIMAN) CENTERS THROUGHOUT AND 2 FOOT (MANIMAN) CENTERS ALCHIC SEAMS, JOHTS, AND ROLL SHOP. ESTABLISH AND MADITAIN VEGETATION SO THAT REQUIREMENTS FOR ABEQUATE VEGETATIVE ESTABLISHMENT ARE CONTRIDUCIBLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

DETAIL E-1

WOVEN SLIT FILM

SILT FENCE

JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP WEW)

LISE WOOD POSTS  $H_0 \times H_0 \pm J_0$  INCH (MINISTER) SQUARE CUT OF SOUND QUALITY HARDHOOD, AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POLICE PER LINEAR FOOT.

PROVIDE MANAFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE REQUIREMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENT IN SECTION H-1 MATERIALS.

EMBED GEOTEXTILE A MINIMAN OF 8 INCHES VERTICALLY INTO THE GROUND, BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCOMMANCE WITH THIS DETAIL.

EXTENS BOTH BIDS OF THE SILT FENCE A MINIMAN OF PIVE HORIZONTAL FEET UPSLOPE AT 45 DEUTRES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.

REMOVE ACCUMALATED SEDMENT AND DESIRES WHEN BILLIES DEVELOP IN SLT FENCE OR WIEN
SEDMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTECHILE & TORN. & UNDERMONEN COCURS.
REMOTELL FENCE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL ENGBION AND SEDMENT CONTROL

DANGE ME TO ME OFF GROUND

\* SHEAR STRESS COMPUTATIONS: SHEAR STRESS =  $Y \times D \times S$  Y = 62.4 LB./FT.

D = Depth of Flow

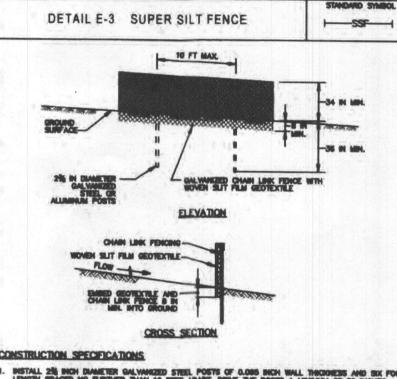
5 = 5lope (energy gradient, ft./ft.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE 2011 MARYLAND DEPARTMENT OF DIMEDRACE 2011

NORTH SWALE: Shear Stress = 62.4 x 0.12' x 0.025 = 0.19 LB./FT. SOUTH SWALE Shear Stress = 62.4 x 0,09' x 0.18 = 1.01 LB./FT.

4+4 MOUNTABLE DESM AND MENT OF BURNEY -PIPE (SEE MOTE 6) PROFILE 50 FT MIN. PLAN VIEW PREPARE SUBGRADE AND PLACE NOWHOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIAL



MSTALL 25 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.085 INCH WALL TROCKIESS AND SIX FO LENGTH SPACED NO PURTHER THAN 10 FEET APART, DRIVE THE POSTS A MINIMUM OF 38 INCHES INTO THE GROUND.

FASTER 9 GAINE OR MEAVER GALVANIZED CHAIN LINK FENCE (2% INCH MAINMAN OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WINE TIES OR HAG RINGS. PASTERN WOVEN SLIT FILM GEOVERNILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIR LINK FEMICE WITH THE SPACED EVERY 24 NOVES AT THE TOP AND MID SECTION, EMBED GEOTEXTILE AND CHAIR LINK PRICE A MIRBAM OF S NOVES INTO THE GROUND.

WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHE FOLDED, AND STAPLED TO PREVENT SEDMENT BY PAGE.

PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

REMOVE ACCUMULATED SEDMENT AND DEBNS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDMENT READLES 2015 OF FENCE HEIGHT, REPLACE GEOTEXTILE IF TORN, IF UNDERSIMING COCURS, REINSTALL CHAIN LISK FENCING MED GEOTEXTILE. MATYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPORTMENT OF ADMICULTURE 2011 MARYLAND DEPORTMENT OF EMPROVADOR ADMINISTRATION MARYLAND DEPORTMENT OF EMPROVADOR

BUILDER/DEVELOPER ZIBERTY INC. 1766 PROFFIT ROAD VIENNA, VIRGINIA 22182 PHONE: 703-466-8423

OWNER NARINDER P. CHADHA & KIRTI KHANNA 5000 WILD OLIVE COURT ELLICOTT CITY, MARYLAND 21042 PHONE: C/O CHRISTOPHER BARTH: 703-486-8423

# GRADING PLAN DETAILS & NOTES 5000 WILD OLIVE COURT

ZONED: RC-DEO TAX MAP NO.: 28 GRID NO.: 11 PARCEL NO.: 50 & 49 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1"=30" DATE: JULY 24, 2019

SHEET 2 OF 2

GP-20-03

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 OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/21

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.



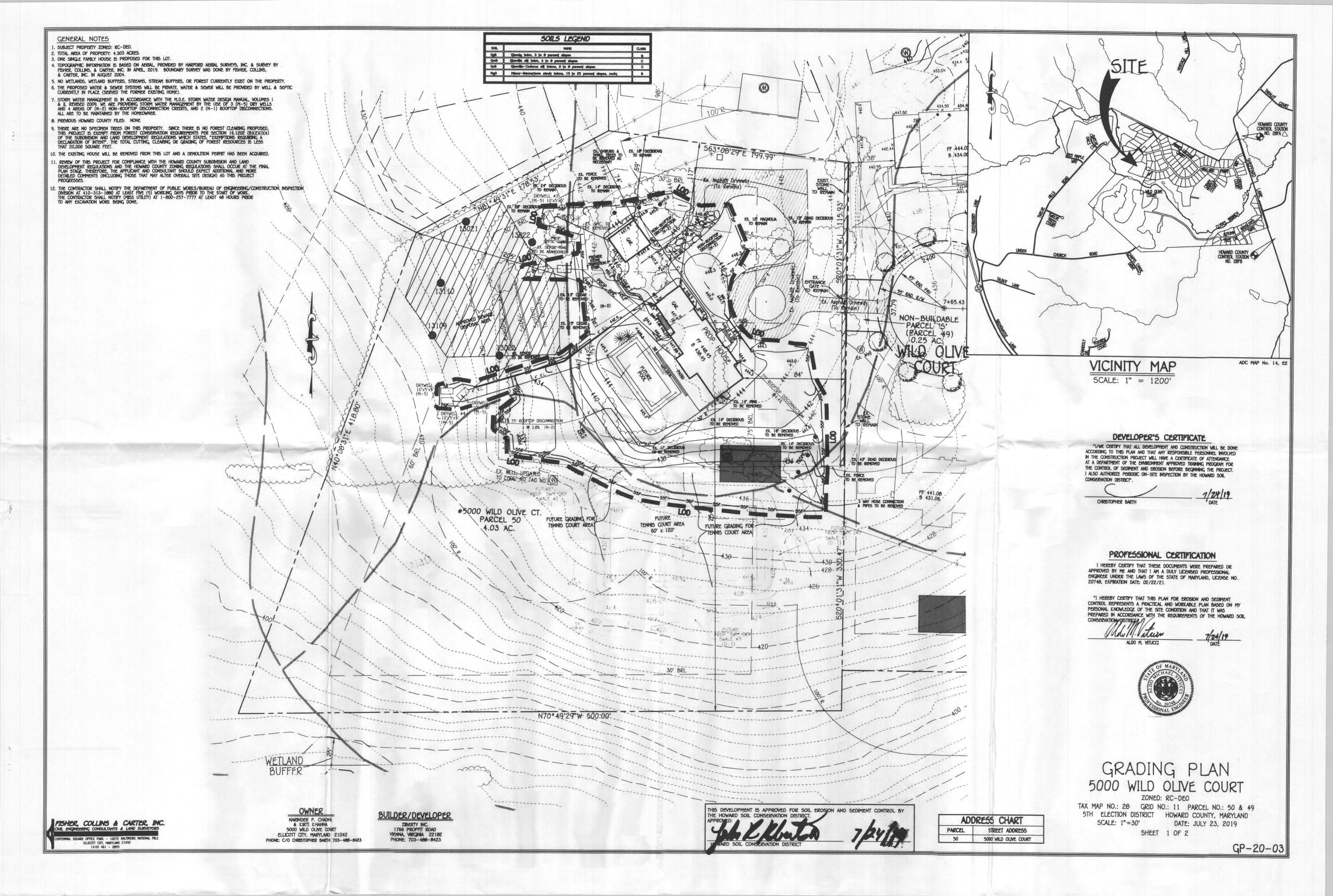
7/24/19 SIGNATURE OF DEVELOPER

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DON'T ACCORDING TO THIS PLAN 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT".

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

REMOVED. (3 DAYS)



- WINDOWS IN ALL BEDROOMS ARE DOUBLE HUNG. WHEN THE LOWER SASH IS RAISED FROM INSIDE THESE WINDOWS THEY PROVIDE EMERGENCY AND RESCUE OPENINGS THAT ARE AT LEAST 24 INCHES IN HEIGHT AND 20 INCHES WIDE.
- 2. SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR LOCATIONS
- 3. ALL NEW EXTERIOR LOAD BEARING WALLS ARE 2X6" STUDS @ 16" O/C WITH %" SHEATHING BOARDS ON EXTERIOR AND 1/2" GB ON
- 4. ALL INTERIOR NON LOAD BEARING WALLS ARE 2"X4" STUDS @ 16" O/C WALLS WITH 12" GB ON EACH FACE EXCEPT NOTED
- 5. NEW SECOND FLOOR AND ROOF AS SHOWN ON STRUCTURAL PLAN.
- SEE STRUCTURAL DRAWINGS FOR FLOOR FARMING INCLUDING LOAD BEARING WALLS LOCATIONS.
- ALL NEW DOORS AND WINDOWS ARE AS SHOWN ON PLANS AND FRAMING CONTRACTOR SHALL PROVIDE OPENING INTO WALLS WITH HEADERS AND JAMS PER CODE AND DETAILS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS PRIOR
- ALL DIMENSIONS, LOCATIONS AND ELEVATIONS OF STRUCTURES SHOWN ON THE CONTRACT DRAWINGS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 10. ALL WORK SHALL BE DONE ACCORDANCE WITH HOWARD COUNTY BUILDING CODE.
- 11. THE CONTRACTOR SHALL HOLD HARMLESS THE ARCHITECT/ENGINEER FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPANSES INCLUDING ATTORNEY'S FEE ARISING FROM THE PERFORMANCE OF THE WORK DONE BY THE CONTRACTOR.
- 12. ALL WORK AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE LOCAL AND STATE BUILDING CODES AND THE SPECIFICATIONS OF THE NATIONAL BOARD OF UNDERWRITERS. THE DRAWINGS SHOWING THE GENERAL GREEMENTS AND EXTENT OF WORK AS THE WORK PROGRESSES THE CONTRACTOR AT NO EXTRA COST SHALL MAKE MODIFICATIONS TO MAKE PART ALIGN.
- 13. CHANGES TO THE PLAN BY THE CONTRACTOR SHALL BE THE CONTRACTOR SHALL BE THE PERSONS MAKING SUCH CHANGES.

  CONTRACTOR SHALL CHECK AND VERIFY ALL PLAN DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.
- 14. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS SHALL GOVERN.
- 15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE PROPER INSTALLATION OF ALL METAL FASTENERS PER MANUFACTURER'S
- 16. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT ON ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 17. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ARCHITECT OF DISCREPANCIES AND
- 18. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETE IN ACCORDANCE WITH THE
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISIONS/AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT

2018 IECC CODE COMPLIANCE

R301 1 CLIMATE ZONE 4A

COMPLIANCE METHOD MANDATORY AND PRESCRIPTIVE PROVISIONS

RADO 1 1 VAPOR RETARDER VALUE ASSEMBLIES IN THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH VAPOR RETARDER REQUIREMENTS OF SECTION R702.7 OF THE INTERNATIONAL RESIDENTIAL CODE, 2015 EDITION.

R402.1.2 ATTIC INSULATION: RAISED HEEL TRUSSES

R402.1.2 WOOD FRAME WALL: R-20 OR R13 + R5 CONTINUOUS INSULATION.

R402.1.2 BASEMENT WALL INSULATION: R-13/R-10 FOIL FACED CONTINUOUS, U NINTERRUPTED BATTS FULL HEIGHT

R402.1.2 CRAWL SPACE WALL INSULATION:
R-13/R-10 FOIL FACED CONTINUOUS BATTS
FULL HEIGHT EXTENDING FROM FLOOR ABOVE TO FINISH GRADE LEVEL AND THEN VERTICALLY OR HORIZONTALLY AN ADDITIONAL 2' -D".

R402.1.2 FLOOR INSULATION OVER UNCONDITIONED SPACE: R-19 BATT INSULATION

R402.1.2 WINDOW U-VALUE/SHGC .35 (U-VALUE) .40 (SHGC)

R402.2.10 SLAB ON GRADE FLOORS LESS THAN 12" BELOW GRADE: R-10 RIGID FOAM BOARD UNDER SLAB EXTENDING EITHER 2' -0" HORIZONTALLY OR 2'-0" VERTICALLY

R402 2 4 ATTIC ACCESS: ATTIC ACCESS SCUTTLE WILL BE WEATHERSTRIPPED AND INSULATED R-49

BUILDING THERMAL ENVELOPE (AIR LEAKAGE): EXTERIOR WALLS AND PENETRATIONS WILL BE SEALED PER THIS SECTION OF THE 2015 IECC WITH CAULK, GASKETS, WEATHERSTRIPPING OR AN AIR BARRIER OF SUITABLE MATERIAL. SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL R402.4 ALLOW SEALING FOR DIFFERENTIAL EXPANSION AND CONTRACTION.

R402.4.1.2 BUILDING THERMAL ENVELOPE TIGHTNESS TEST:
BUILDING ENVELOPE SHALL BE TESTED AND
VERIFIED AS HAVING AN AIR LEAKAGE RATE OF
NOT EXCEEDING 3 AIR CHANGES PER HOUR.
TESTING SHALL BE CONDUCTED IN ACCORDANCE
WITH ASTM E 779 OR ASTM E 1827 WITH (BLOWER DOOR) AT A PRESSURE OF 0.2 INCHES (BLUWER DOOR) AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING INSPECTOR.

R402.4.2 FIREPLACES: NEW WOOD BURNING FIREPLACES WILL HAVE TIGHT-FITTING FLUE DAMPERS OR DOORS, AND OUTDOOR COMBUSTION AIR. FIREPLACE DOORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 127 (FACTORY BUILT FIREPLACE) AND UL 907 (MASONRY FIREPLACE).

R402.4.4 ROOMS CONTAINING FUEL—BURNING APPLIANCES WHERE OPEN COMBUSTION AIR DUCTS PROVIDE COMBUSTION AIR DUCTS PROVIDE BURNING APPLIANCES, THE APPLIANCES AND COMBUSTION AIR SHALL BE LOCATED OUTSIDE THE BUILDING THERMAL EN

EXCEPTIONS: 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO THE OUTSIDE.

2. FIREPLACES AND STOVES COMPLYING WITH SECTION R402.4.2 AND SECTION R1006 OF THE R402.4.5 RECESSED LIGHTING
RECESSED LUMINARIES INSTALLED IN THE BUILDING THERMAL
ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE.

THERMOSTAT ALL DWELLING UNITS WILL HAVE AT LEAST (1) PROGRAMMABLE THERMOSTAT FOR EACH SEPARATE HEATING AND COOLING SYSTEM PER 2015 IECC SECTION 403.1.1.

R403.1.2 WHERE A HEAT PUMP SYSTEM HAVING SUPPLEMENTARY ELECTRIC
RESISTANCE HEAT IS USED THE THERMOSTAT SHALL PREVENT
THE SUPPLEMENTARY HEAT FROM COMING ON WHEN HEAT PUMP CAN MEET HEATING LOAD.

R403.3.1 MECHANICAL DUCT INSULATION
SUPPLY AND RETURN DUCTS IN ATTIC R-8 MINIMUM, R-6 WHEN
LESS THAN 3 INCHES.
SUPPLY AND RETURN DUCTS OUTSIDE OF CONDITIONED SPACES
R-8 MINIMUM.
ALL OTHER DUCTS EXCEPT THOSE LOCATED COMPLETELY INSIDE
THE BUILDING THERMAL ENVELOPE R-6 MINIMUM. DUCTS
LOCATED UNDER GONCRETE SLABS MUST BE R-6 MINIMUM.

R403.3.2 DUCT SEALING
ALL DUCTS, AIR HANDLERS, FILTER BOXES WILL BE SEALED.
JOINTS AND SEAMS WILL COMPLY WITH SECTION M1601.4.1 OF
THE IRC.

A DUCT TIGHTNESS TEST ("DUCT BLASTER" DUCT TOTAL LEAKAGE A DUCT TIGHTNESS TEAT ("DUCT BLASTER" DUCT TOTAL LEAKA TEST) WILL BE PERFORMED ON ALL HOMES AND SHALL BE VERIFIED BY EITHER A POST CONSTRUCTION TEST OR A ROUGH-IN TEST. DUCT TIGHTNESS TEST IS NOT REQUIRED IF THE AIR HANDLER AND ALL DUCTS ARE LOCATED WITHIN THE CONDITIONED SPACE.

R403.6 MECHANICAL VENTILATION
OUTDOOR (MAKE—UP AND EXHAUSTS) AIR DUCTS TO BE
PROVIDED WITH AUTOMATIC OR GRAVITY
WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.6.1 WHOLE-HOUSE MEGHANICAL VENTILATION SYSTEM FAN EFFICIENCY TO COMPLY WITH TABLE R403.6.1.

EQUIPMENT SIZING SHALL COMPLY WITH R403.7.

A MINIMUM OF 75% OF ALL LAMPS (LIGHTS) MUST BE HIGH-EFFICACY LAMPS.

THIS CONTRACTOR ALSO RESPONSIBLE FOR GENERATING CERTIFICATE OF COMPLIANCE AND AFFIXING TO ELECTRICAL PANEL OR WITHIN 6 FEET OF THE ELECTRICAL PANEL AND BE READILY VISIBLE.

#### R-VALUE AND U-FACTOR

ELEMENT	MAIN HOUSE	SUNROOM
U-FACTOR		
DOORS/WINDOWS	0.35	0.50
R-VALUE		
CEILLINGS	49	30
WALLS (WOOD FRAMED)	19	19
WALLS (CONCRETE)	13	19
FLOORS	19	_
BASEMENT WALLS	13	13
SLAB ON GRADE	10	-

\* INSULATION MUST EXTEND FROM THE SLAB EDGE TO A



210g 5000 WILD OLIVE C

RENCO

1

10 Kg RENOVATIO MILD OLL TT CITY, I

DISCLAIMER I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OF APPROVIDE BY ME, AND THAT I ADULT LICENSED PROFESSIONAL BAGGINER UNDER THE LAWS OF THE STATE OF MARTIANO, LICENSE, DEPARATION DATE.

PROJECT NUMBER 2020-233

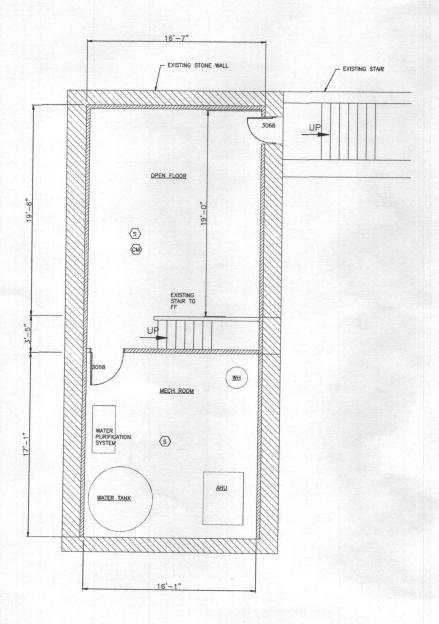
DRAWN BY RP

APPROVED BY PP

07-12-20 ORIGINAL SHEET SIZE

36)(24 SHOULD MEASURE 1 SCALE

AS SHOWN



PROPOSED BASEMENT PLAN

SOLE 1/4" - 1"-9"

NOTES

- 1. FOR GENERAL NOTES SEE DRAWING A-1.
- 2. FINISH EXISTING BASEMENT WITH NEW 2X4 STUD WALLS AND DRY WALLS AND CEILINGS.

WALLSYMBOLS

TYPE	DESCRIPTION		
	EXISTING STONE WALL		
	EXISTING WALLS		
	PROPOSED STUD WALL		
	NEW CONCRETE WALL		
<b>*****</b>	DEMOLITION WALLS		

HARDWIRED AND INTERCONNECTED SMOKE ALARM

HARDWIRED AND INTERCONNECTE
CARBON MONOXIDE
ALARM -UL 2034

(s)

WINDOWS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
CXW155	3'-0"	5'-5"	2-2X10	-
CX135	2'-8"	3'-5"	2-2X10	
CXW15	3'-0"	3'-5"	2-2X10	
P4060	4'-0"	6'-0"	2-2X10	FIXED

NEW DOORS SCHEDULE:

MARK	WIDTH	HEIGHT	HEADER	NOTES
3088	3'-0"	6'-8"	2-2X10	FRONT ENTRANCE DOUBLE DOORS
2868	2'-6"	6'-8"	2-2X10	_
2668P	2'-6"	6'-8"	2-2X10	POCKET DOOR
8088	6'-0"	6'-8"	2-2X10	DOUBLE DOOR



SOOO WILD OLIVE CT

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ARENCO LLC 1840 BL CORD 1840 BL CORD FOR THE COLD FOR THE CORD FOR THE COLD FOR THE COLD FOR THE CORD FOR THE COLD FOR THE CORD FOR THE COLD FOR THE

ELLICOTT CITY, MD 21042
PROPOSED BASEMENT PI AN

DISCLAMER

BROTHSSONAL CERTIFICATION

I HORSEY CURRIPY THAT THESE
COCCUMENTS WERE PREPARED OR
A DULY LICOMED PROFESSIONAL

DISCRETE PROFESSIONAL

A DULY LICOMED PROFESSIONAL

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PROJECT NUMBER
2020-233
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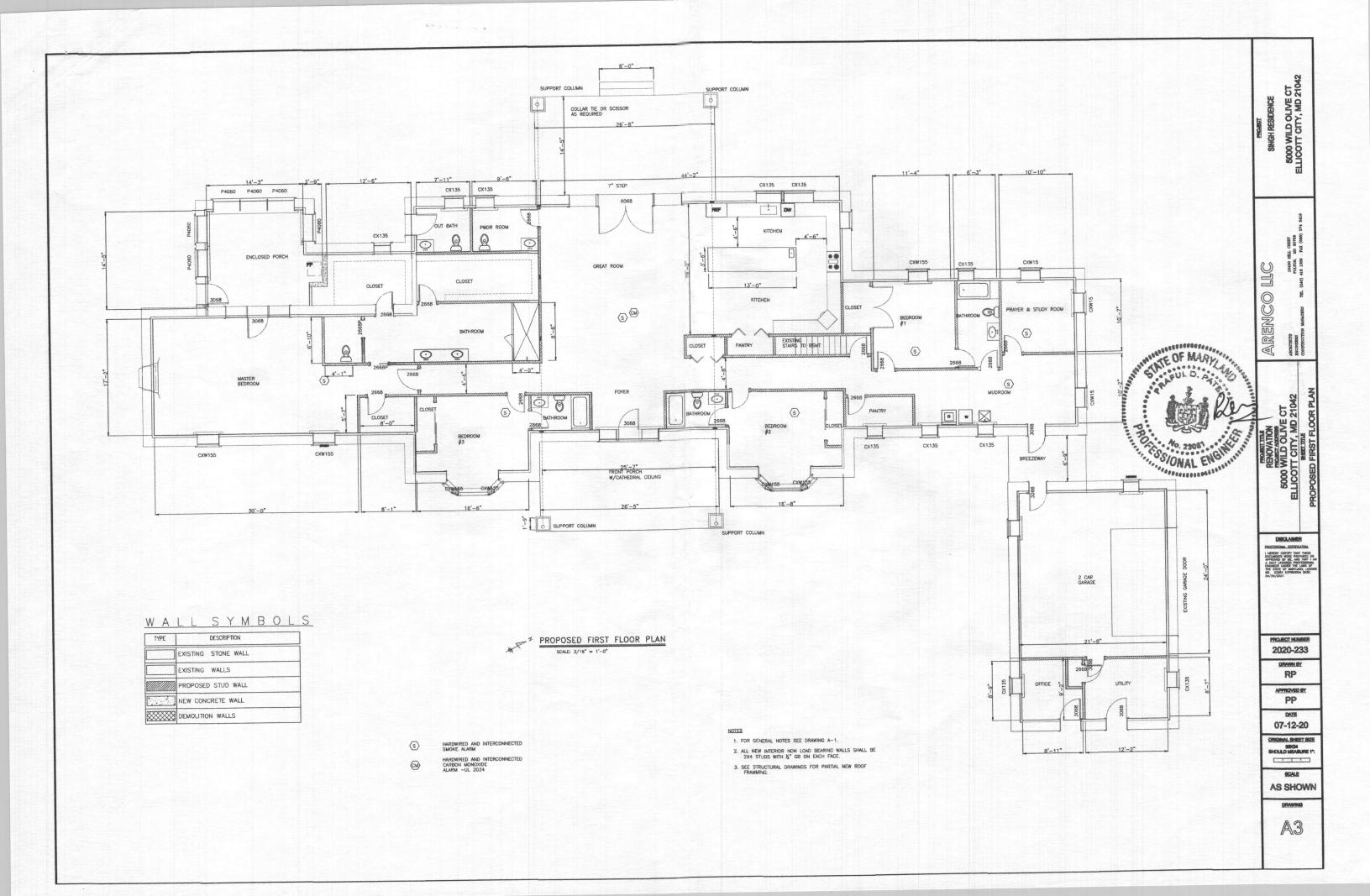
APPROVED BY PP

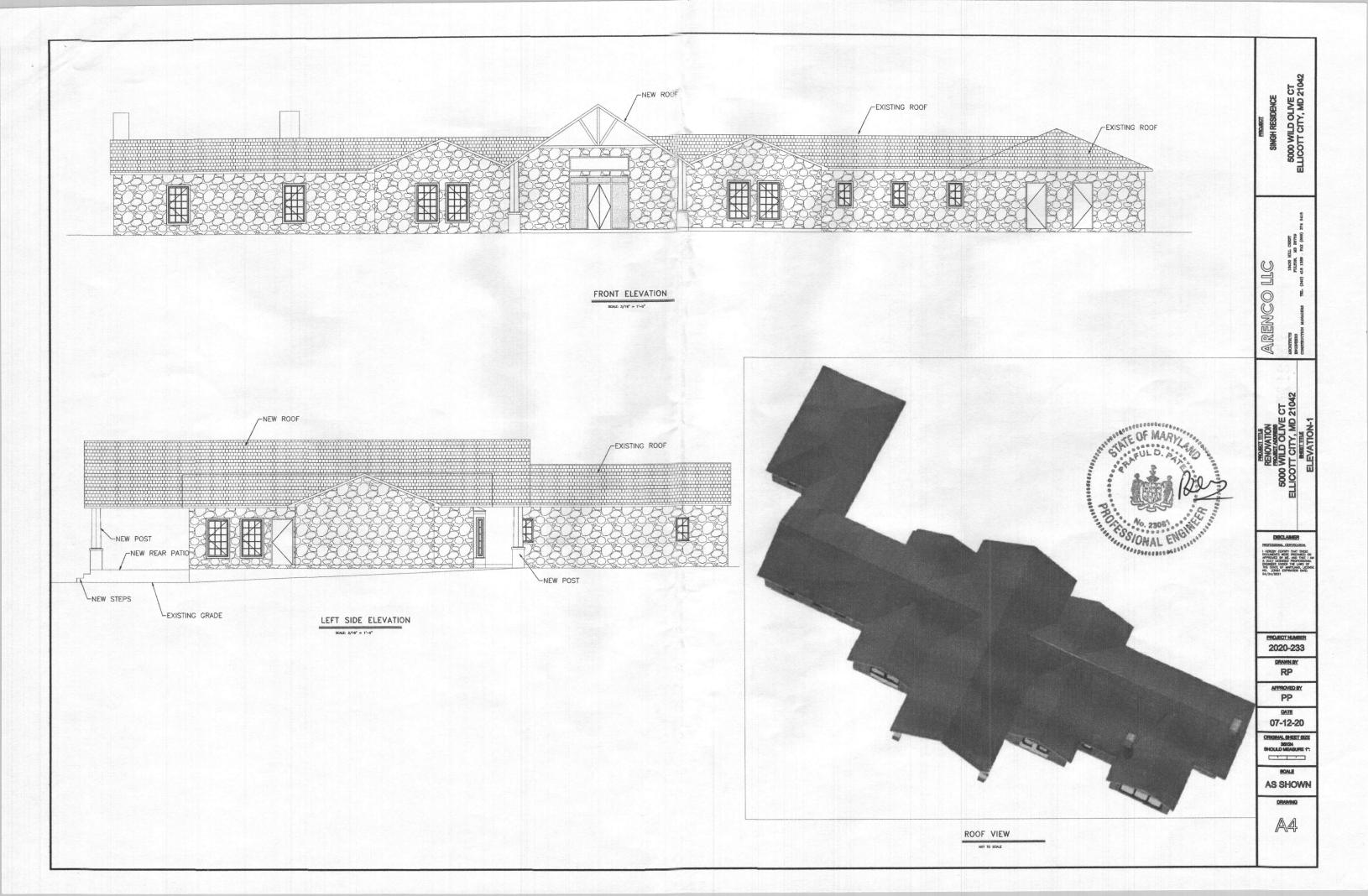
DATE 07-12-20

ORIGINAL SHEET SIZE 36024 SHOULD MEASURE 1\*:

AS SHOWN

A3





200# ROOF SHINGLES ON 15# ROOFING FELT ON 7/6" OSB SHEATHING WITH H-CLIPS ROOF TRUSSES @ 24" O/C- DESIGNED AND MANUFACTURED BY OTHERS -EXISTING ROOF -EXISTING ROOF - W18X40 STEEL BEAM - 1/2" GYPSUM BOARD - INTERIOR 2X4 STUDS @ 16" O/C - 2X4 SILL PLATE WITH 1/2" DIA ANCHOR @ 24" O/C W/ 4" MIN EMBEDMENT IN TO CONCRETE -EXISTING CONC. SLAB FIRST FLOOR

BUILDING SECTION A-A

STATE OF MARK ONAL ENGINE

5000 WILD OLIVE CT ELLICOTT CITY, MD 21042

ARENCO LLC

PROJECT NUMBER 2020-233 RP APPROVED BY PP DATE

07-12-20

ORIGINAL SHEET SIZE 

8CALE AS SHOWN

> DRAWING A5

#### CONCRETE:

- REINFORCED CONCRETE SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE, (ACI 301) "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- NEW CONCRETE FOR FOOTING AND FILLED IN CMU SHALL BE MINIMUM OF 3000 PSI AT 28 DAYS.
- ALL REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A185.
- NEW FOOTING AND SLAB SHALL BE POURED ON 4" GRAVEL OR CR6 AS SHOWN ON SECTION.
- NEW ROOF SHALL BE CONSTRUCTED ACCORDING WITH STRUCTURAL FRAMING PLAN AND ARCHITECTURAL DETAILS.
- THE OWNER SHALL RETAIN THE SERVICES OF A SOIL CONSULTANT APPROVED BY THE ARCHITECT TO CHECK AND VERIFY THE REQUIRED SOIL BEARING PRESSURE OF EACH FOOTING.
- ALL CONTINUOUS REINFORCING SHALL BE SPLICED WITH "B" SPLICE STAGGERED, UNLESS NOTED OTHERWISE. FOOTING AND OTHER CONRETE POURED AGAINST EARTH -3"
- FORMED CONRETE EXPOSED TO EARTH -2" FOR BEARS LARGER THAN #5, 1/2" FOR #5 AND SMALLER BARS.
- WHERE DISCREPANCIES EXIST BETWEEN THE STANDARD COMMENTS, NOTES FROM THE DESIGN PROFESSIONAL OR THE CODE, THE MOST RESTRICTIVE SHALL APPLY. ALL CONSTRUCTION SHALL COMPLY WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC).
- 10. FOUNDATION WALLS ENCLOSING BASEMENTS OR OTHER HABITABLE SPACE SHALL BE DAMPPROOFED PER IRC WHERE A HIGH WATER TABLE OR OTHER SEVERE WATER CONDITION EXISTS, THE WALLS SHALL BE WATERPROOFED.
- PROVIDE A MINIMUM 4-INCH PERFORATED DRAIN AROUND USABLE SPACE BELOW GRADE OR OTHER EQUIVALENT MATERIALS PER IRC THE PIPE SHALL BE COVERED WITH NOT LESS THAN 6 INCHES OF WASHED GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT TO THE EXTERIOR BELOW THE FLOOR LEVEL OR TERMINATE IN A MINIMUM 20-GALLON SUMP PIT.
- 12. INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
- 13. AT WALKOUTS THE FOUNDATION WALL SHALL BE INSULATED WITH A MINIMUM R-13 INSULATION FOR A MINIMUM OF 3 FEET BELOW THE
- 14. ANCHOR BOLTS MINIMUM 1/2-INCH ANCHOR BOLTS WITH 7" EMBEDMENT AT MAXIMUM 6 FEET O.C. AND WITHIN 6 INCHES OF THE END OF EACH SILL PLATE.
- 15. WHERE FLOOR JOISTS ARE PARALLEL TO THE FOUNDATION WALL, THE WALL SHALL BE SUPPORTED LATERALLY AT THE TOP BY SOLID BLOCKING FOR A MINIMUM OF TWO JOIST SPACES, SPACED NOT MORE THAN 2'-10" FEET O.C.

#### WOOD NOTES:

1. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN COMFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. ALL WOOD FRAME CONSTRUCTION SHALL CONFORM TO THE STANDARDS OR THE IBC AS A MINIMUM REQUIREMENT. FURNISH TO THE FOLLOWING MINIMUM STANDARDS: HEM-FIR NO. 2

JOISTS: (2X8 AND SMALLER) MINIMUM BASE VALUE, FB=850 PSI

DOUGLAS FIR NO. 1 BEAMS AND STRINGERS:

MINIMUM BASE VALUE, FB=1350 PSI (2X10 AND LARGER)

DOUGLAS FIR NO. 2 POSTS AND TIMBERS:

MINIMUM BASE VALUE, FB=1200 PSI (4X4 AND LARGER)

DOUGLAS FIR OR HEM-FIR STUDS, PLATES & STANDARD GRADE

MISC. FRAMING:

DOUGLAS FIR-LARCH CONSTRUCTION TOP AND BOTTOM PLATES AT BEARING WALLS GRADE

2X6 STUDS AND PLATES:

HEM-FIR NO.3/ STUD GRADE

- 2. ENGINERRED LUMBER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- 3. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOFING ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. WITH THE LENGTH OF THE MEMBER.

4. DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE GEORGIA-PACIFIC, ALTERNATE . DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE GEORGIA-PACIFIC. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND ORHER HARDWARE MAY BE SUBSITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICBO APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

- GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI/AITC A190.1 AND ASTM D3737. EACH MEMBER SHALL BEAR AND AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN ATTIC CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FOR COMINATION 24F-V4, FB=2400 PSI, FV=190 PSI. CAMBER ALL GLULAM BEAMS TO A 2,000 FOOR RADIUS UNLESS NOTED OTHERWISE ON THE PLANS.
- ALL WOOD IN DIRECT CONTACT WITH CONRETE OR MASONRY SHALL BE PRESSURE—TREATED WITH AN APPROVED PRESERVATICE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE APPROVED WOOD OF NATURAL WOOD EXPOSED TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, DECKING, OR VERTICAL MEMBERS SUCH AS POSTS, POLES AND COLUMNS.
- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE SHALL BE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.
- FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
- 9. FLOOR SHEATHUNG SHALL BE 3/4" (NOM) WITH SPAN RATING 40/20
- 10. WALL SHEATHING SHALL BE 1/2" (NOM) WITH SPAN RATING 2%
- 11. PLYWOOD OOF AND FLOOR SHEATHING TO BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS AT 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12" O.C. TO INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE, PROVIDE APPROVED PLYWOOD EDGE CLIPS AT 16" O.C. AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE—AND—GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING, TOENAIL BLOCKING TO SUPPORTS WITH 160 @ 12" O.C. UNLESS NOTED OTHERWISE, AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.
- 12. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING JOINTS, TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS.
- 13. ALL COLUMNS AND POSTS SUPPORTING BEAMS NOT SPECIFIED FOR SIZE ON PLAN SHALL CONSIST OF 2 STUDS SPIKE LAMINATED TOGATHER WITH 16D NAILS AT 9" O/C.

#### WOOD FRAMING:

- 1. FRAMING LUMBER FOR BEAMS AND JOISTS SHALL HAVE FB= 1100 PSI, E=1,300.00, AND FOR STUDS AND POSTS, FC= 500 PSI, E = 1,200.000 PSI
- 2. PROVIDE 2-2 X 6 @ EACH SIDE OF OPENINGS UNLESS NOTED OTHERWISE.
- 3.ALL WOOD LINTEL SHALL BE 2-2 X 8 UNLESS OTHERWISE NOTED.
- 4. PROVIDED CROSS-BRIDGING FOR JOISTS AT 8'-0" INTERVALS.
- 5.WOOD JOISTS AND BEAMS SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE ARCHITECT.
- 6. PROVIDE APPROVED HURRICANE CONNECTIONS BETWEEN FRAMING MEMBERS.
- 7.LUMBER IN CONTAGT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED AGAINST DECAY.
- 8. PROVIDED DOUBLE JOISTS BELOW NON-BEARING PARTITIONS PARALLEL TO JOISTS.
- 9. FRAMING LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT.
- 10. BRUSH PRESERVATIVE SOLUTION ON ALL EDGES THAT ARE CUT IN MEMBERS THAT ARE IN CONTACT WITH CONCRETE OR MASONRY.
- 11. PROVIDE MANUFACTURERS' STANDARD JOIST OR STANDARD BEAM HANGERS AT WALL WOOD TO WOOD CONNECTIONS THAT REQUIRE JOISTS OR BEAMS FRAMING INTO THE SIDE OR FACE OF THE SUPPORTING MEMBER. THE CAPACITY OF THE HANGER SHALL BE FOR THE MAXIMUM SHEAR CAPACITY OF THE JOISTS OR BEAM.

- 1.ALL PLYWOOD SHEATHING SHALL BE CD-GRADE, UNLESS OTHERWISE SHOWN, WITH EXTERIOR GLUE MANUFACTURED INACCORDANCE WITH PRODUCT STANDARD PS183, LATEST ADDITION, ROOF AND WALL
- 2.PLYWOOD SHEATHING SHALL BE LAID WITH END JOINT STAGGERED.
- 3. BLOCK ALL WALL SHEATHING WITH 2X4 FLAT BLOCKING AT ALL EDGES.
- 4.LAYOUT PLYWOOD TO ELIMINATED ANY WIDTH LESS THAN 1'-0"

#### DESIGN LOADS:

FLOOR LIVE LOAD = 40 PSF FLOOR DEAD LOAD = 10 PSF STAIR LIVE LOAD = 100 PSF DECKS LIVE LAOD = 40 PSF DECKS LIVE LOOD = 40 PSF ROOF LIVE LOAD = 40 PSF ROOF DEAD LOAD = 10 PSF GROUND SNOW LOAD = 30 PSF WIND SPEED - 120 MPH MAX HANDRAIL - 200 LB CONCENTRATED LATERAL LOAD

SOIL BEARING CAPACITY = 1500 PSF



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2020-233

RP APPROVED BY

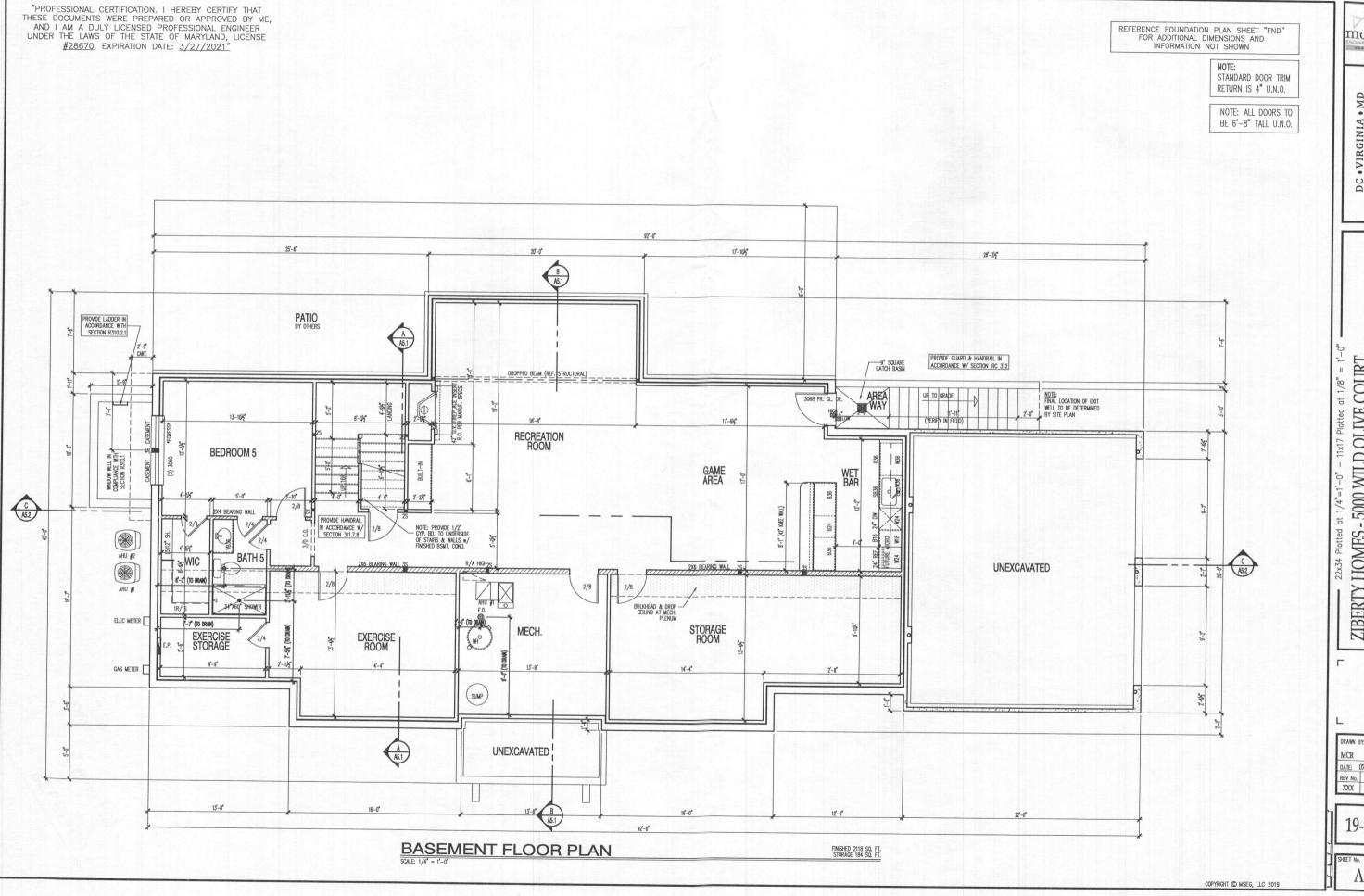
PP 07-12-20

ORIGINAL SHEET SIZE 

> **BOALE** AS SHOWN



19-100



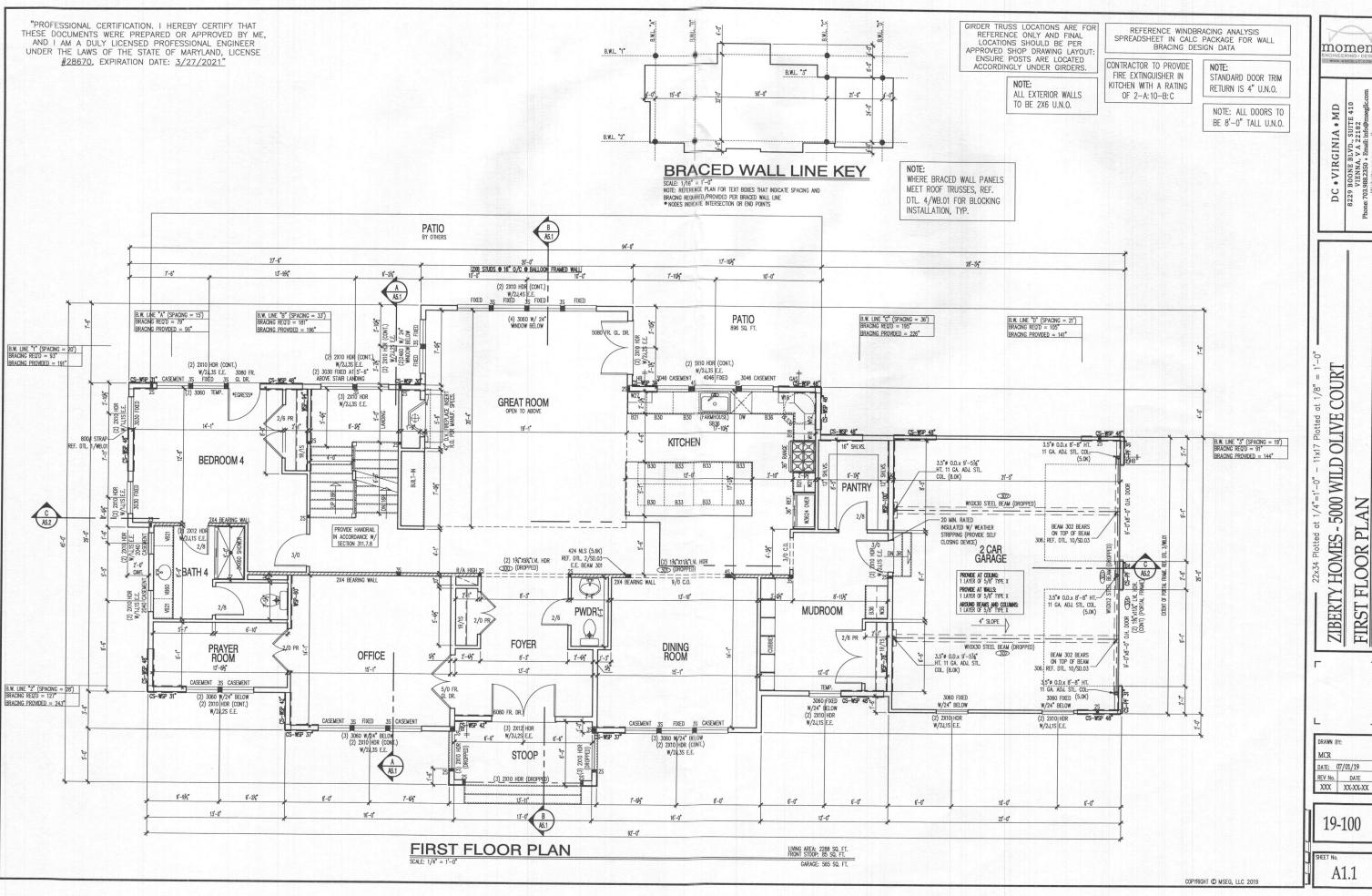
DC • VIRGINIA • MD
8229 BOONE BLVD., SUITE 410
VIENNA, V A 22182
Phone: 703982330 · Bread: Info@msseglc.co

COURT 5000 WILD OLIVE FINISHED BASEMENT PLAN ZIBERTY HOMES

DRAWN BY: DATE: 07/01/19 REV No. DATE XXX XX-XX-XX

19-100

A0.1



DC • VIRGINIA • MD
8229 BOONE BLVD., SUITE 410
VIENNA, V A 22.182
one: 703.988250 - Email: info@msegilca

COURT OLIVE 5000 WILD ( HOMES.

AN

FIRST FLOOR PL

DATE: 07/01/19

19-100

A1.1

REVISED

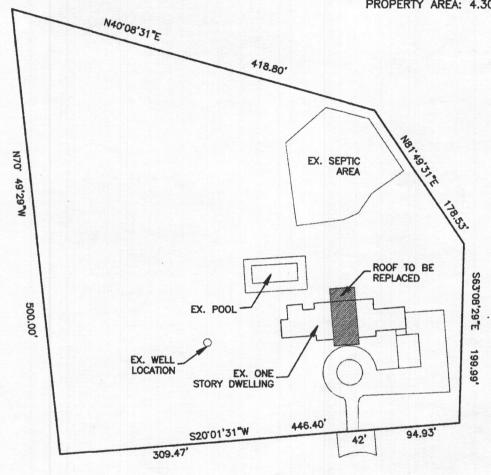
Date: 8/au/ao

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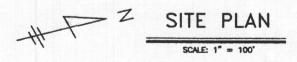
ADDRESS: 5000 WILD OLIVE CT ELLICOTT CITY, MD 20759

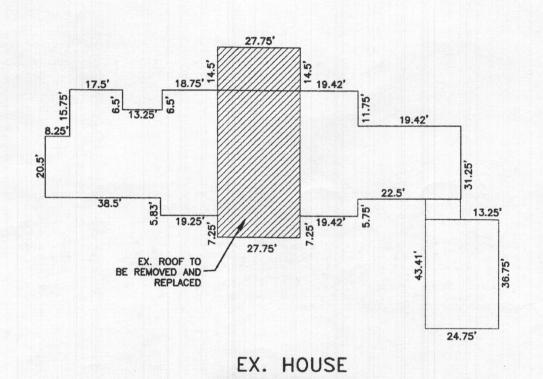
MAP: 0028

DEED REFERENCE: /18342/00474 PROPERTY AREA: 4.303 AC



WILD OLIVE CT





SCALE: 1" = 30"

SCALE



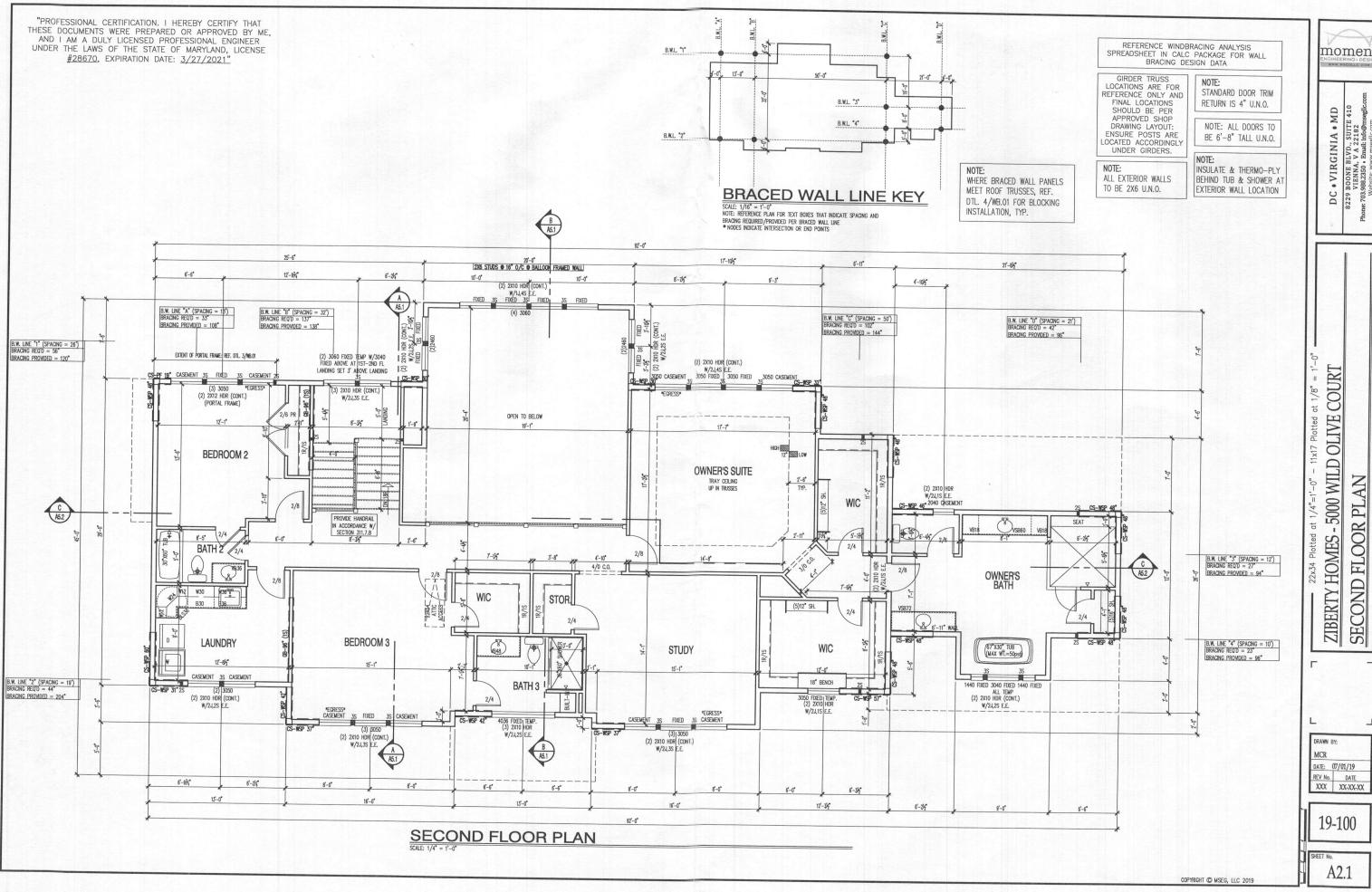
5000 WILD OLIVE DT ELLICOTT CITY, MD 21042 RENOVATION

C1

SITE PLAN

ARENCO, LLC
ARCHITECTURAL ENGINEERING CONSULTANTS
12430 HILL CREST
FULTON, MD 20759

WORK REQUEST # SHEET 1" = 100" 20-233 1 OF 1 20-233-01



COURT OLIVE 5000 WILD ( ZIBERTY HOMES -

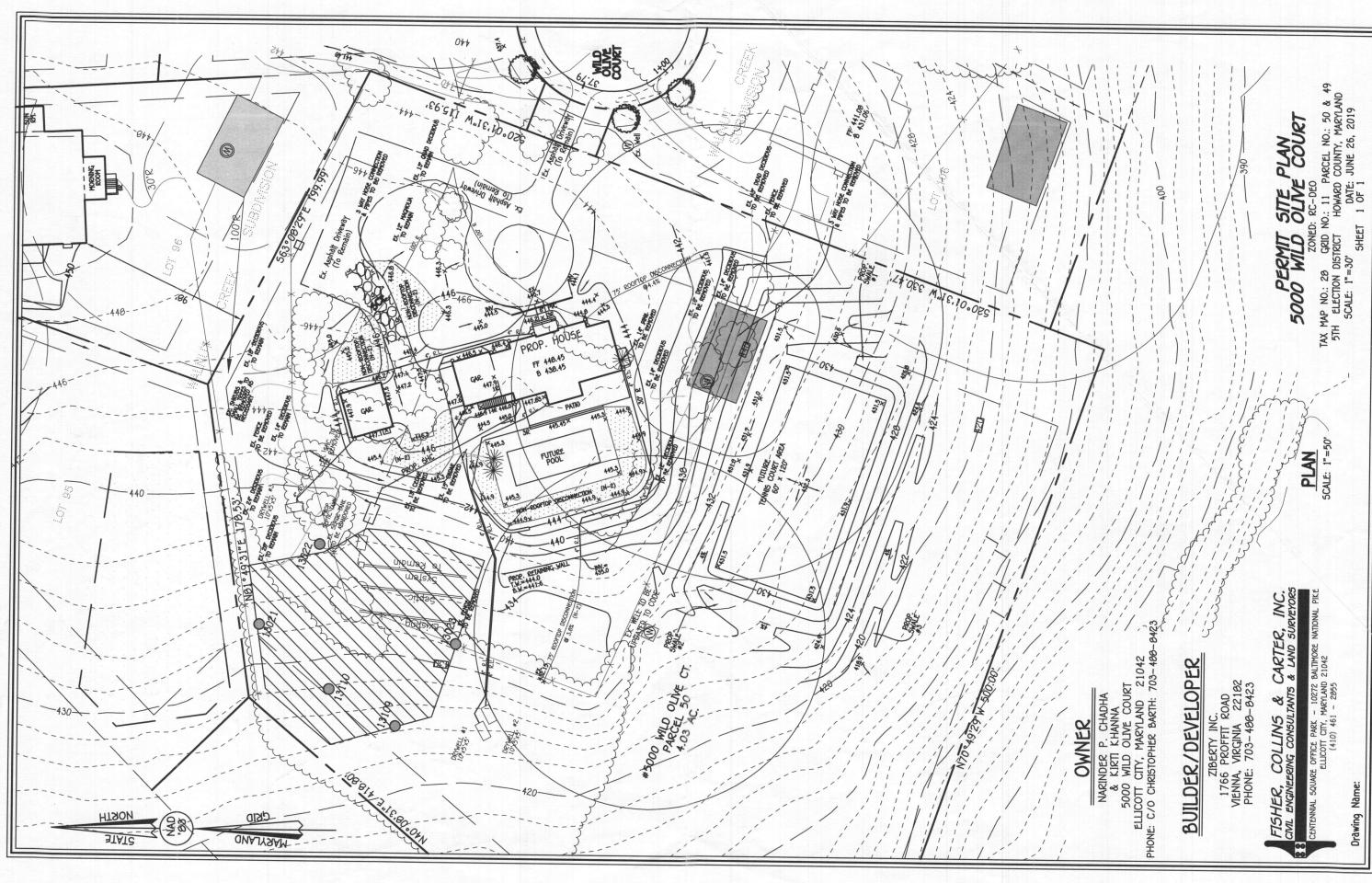
**PLAN** 

FLOOR ]

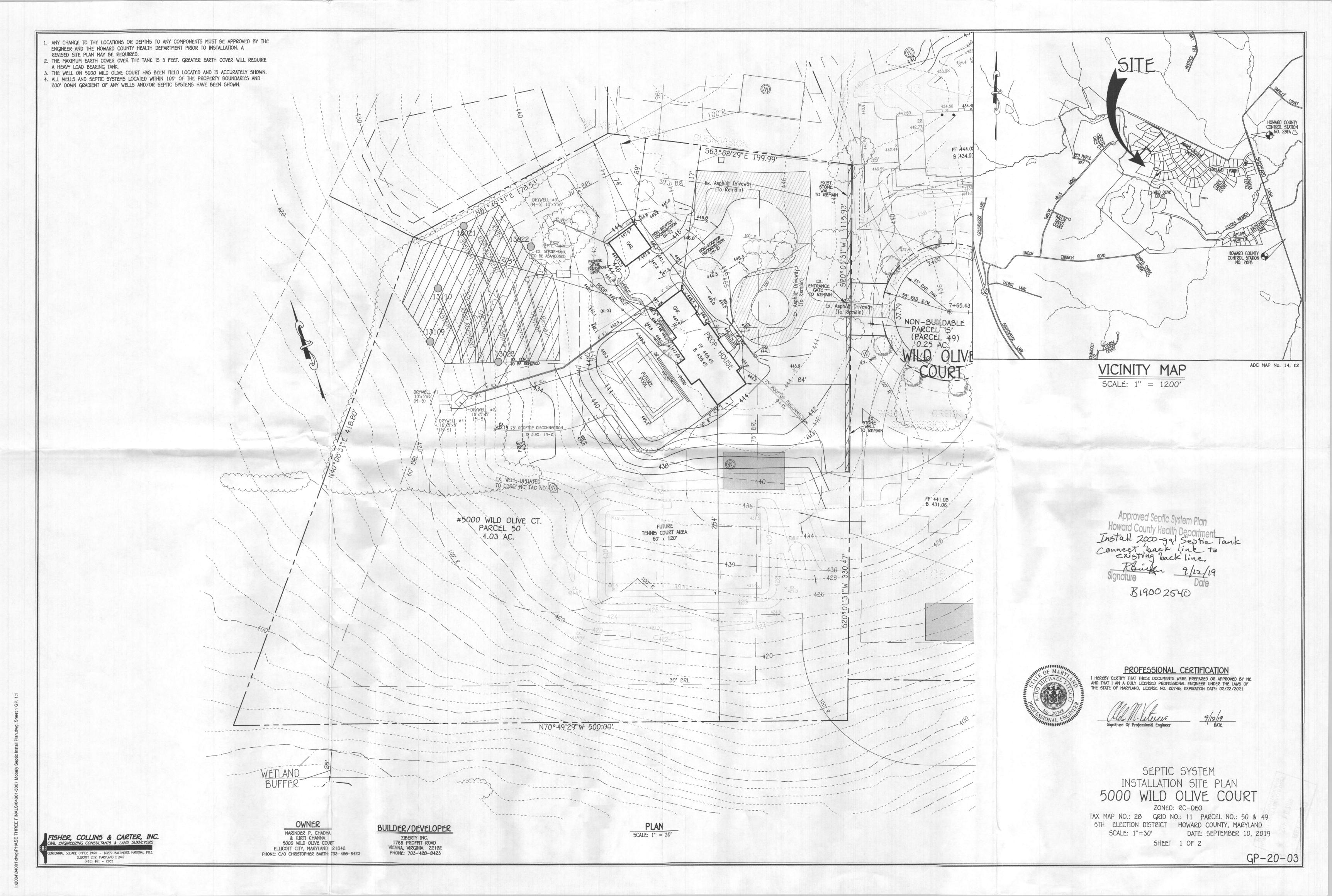
SECOND

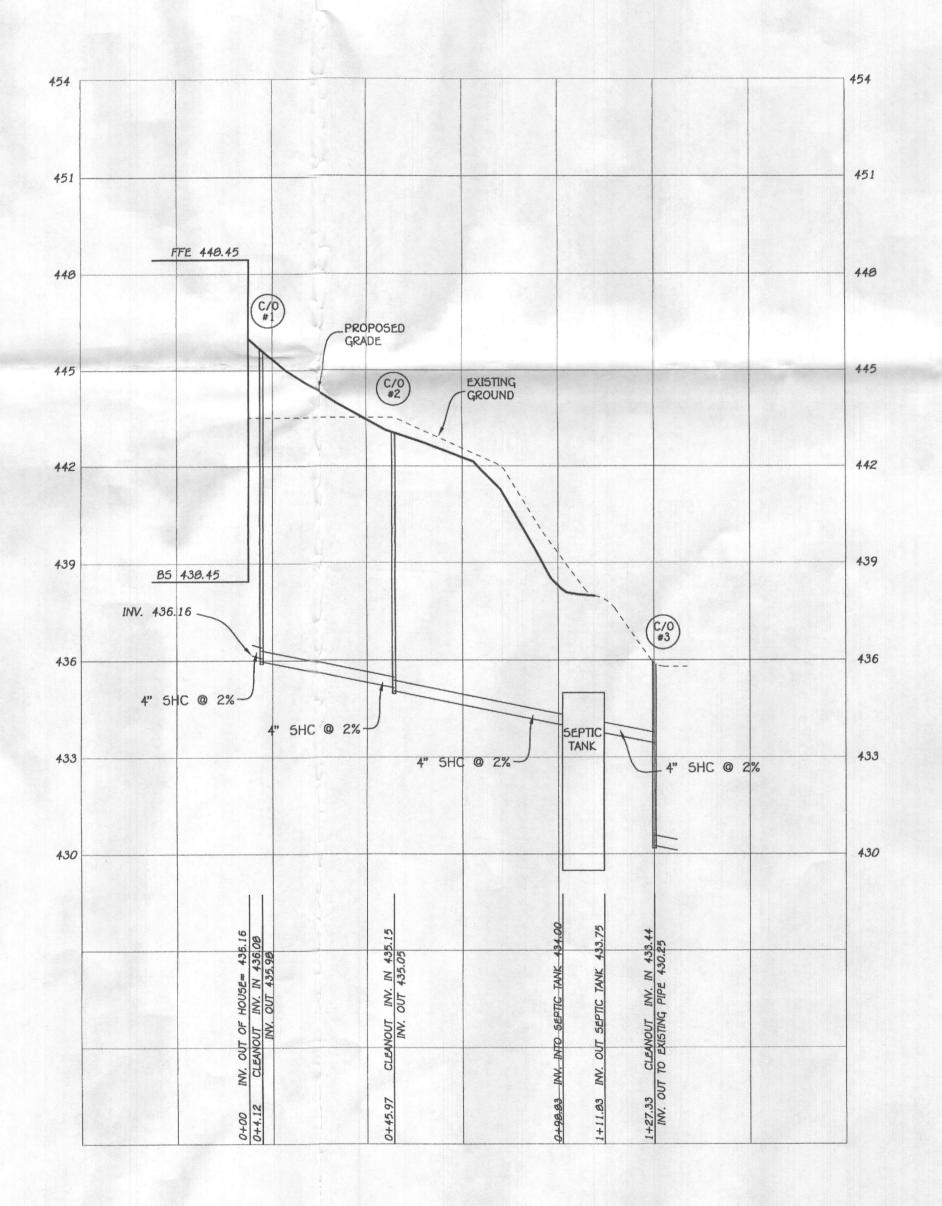
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By cefarence.



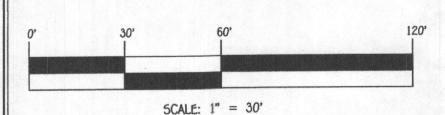


SEPTIC PROFILE

5CALE: 1"=30"

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. 20740, EXPIRATION DATE: 02/22/2021.

PROFESSIONAL CERTIFICATION



FISHER, COLLINS & CARTER, INC. NNIAL SQUARE OFFICE PARK — 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 — 2855

OWNER NARINDER P. CHADHA & KIRTI KHANNA 5000 WILD OLIVE COURT ELLICOTT CITY, MARYLAND 21042 PHONE: C/O CHRISTOPHER BARTH: 703-400-0423

BUILDER/DEVELOPER ZIBERTY INC. 1766 PROFFIT ROAD VIENNA, VIRGINIA 22182 PHONE: 703-488-8423

FFE 448.45 BSE 438.45 INV. OUT OF HOUSE = 436.16 PROP. GROUND AT CLEANOUT #1 = 445.8 INV. INTO CLEANOUT #1 = 436.08 INV. OUT OF CLEANOUT #1 = 435.98 PROP. GROUND AT CLEANOUT #2 = 442.90 INV. INTO CLEANOUT #2 = 435.15 INV. OUT OF CLEANOUT #2 = 435.05 EX. GROUND AT SEPTIC TANK = 438.00 PROP. GRADE ABOVE SEPTIC TANK = 438.00 TOP OF SEPTIC TANK = 435.00 INV. INTO SEPTIC TANK = 434.00 INV. OUT OF SEPTIC TANK = 433.75 PROP. GROUND AT CLEANOUT #3 = 435.8 INV. INTO CLEANOUT #3 = 433.44 INV. OUT OF CLEANOUT #3 TO EXISTING PIPE = 430.25 CLEANOUT #3 TOP = EXISTING GROUND ELEV.

Howard County Health Department
Install 2000-gal Septic Tank
Connect back line to
existing back line.

INITIAL SYSTEM INSTALLED SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD APPLICATION RATE = 0.7 EFFECTIVE SIDEWALL BEGINS AT 5.5 FEET TRENCH DEPTH = 10.5 FEET TRENCH WIDTH (W) = 2 FEET EFFECTIVE DEPTH (D) = 5 FEET 5F OF DRAINFIELD = 750 GPD / 0.7 = 1071.42 5F COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(2+2)/(2+1+(2x5))=0.31TRENCH LENGTH = 535.71 SF x 0.31 = 166.07 FEET (USE 3 TRENCHES AT 55.36 L.F.) TRENCH SPACING = 2D+V = ((2\*3) + 2) = 12' USE 12'

15T REPLACEMENT SYSTEM <u>SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR</u>
<u>5 BEDROOMS (PERMIT FOR 4 BEDROOMS)</u>
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD APPLICATION RATE = 0.8 EFFECTIVE SIDEWALL BEGNS AT 3 FEET TRENCH DEPTH = 8 FEET TRENCH WIDTH (W) = 2 FEET EFFECTIVE DEPTH (D) = 5 FEET SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+20)=(2+2)/(2+1+(5x2))=0.31TRENCH LENGTH = 468.75 SF x 0.31 = 145.31 FEET (USE 3 TRENCHES AT 48.44 L.F.) TRENCH SPACING = 2D+V = ((2\*5) + 2) = 12' USE 12'

2ND REPLACEMENT SYSTEM SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS) LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD APPLICATION RATE = 0.8 EFFECTIVE SIDEWALL BEGINS AT 4 FEET TRENCH DEPTH = 8 FEET TRENCH WIDTH (W) = 2 FEET EFFECTIVE DEPTH (D) = 4 FEET SF OF DRAINFIELD = 750 GPD / 0.0 = 937.5 SF COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(2+2)/(3+1+(2x2))=0.36TRENCH LENGTH = 468.75 SF x 0.36 = 168.75 FEET (USE 3 TRENCHES AT 56.25 L.F.) TRENCH SPACING = 2D+W = ((4\*2) + 2) = 10' USE 10'

> SEPTIC SYSTEM INSTALLATION SITE PLAN 5000 WILD OLIVE COURT ZONED: RC-DEO

TAX MAP NO.: 28 GRID NO.: 11 PARCEL NO.: 50 & 49 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND DATE: SEPTEMBER 10, 2019 5CALE: 1"=30' SHEET 2 OF 2