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| DRAWN BY: SP   | CHECKED BY: WGH |
| JOB No. 22-006   |                 |
| BOOK   |                 |
| SCALE 1" = 20'   |                 |
|  |                 |
| GRAPHIC SCALE  |                 |
| DATE APRIL 25, 2022  |                 |
| REVISIONS  |                 |
| CERTIFICATE OF AUTHORIZATION<br>No. 24GA27959700   |                 |
| NOTES<br>VERTICAL DATUM NAVD88', PER GPS OBSERVATIONS.   |                 |
|  |                 |
| <b>Murphy &amp; Hollows Associates LLC</b><br><small>CIVIL ENGINEERING AND SURVEYING<br/>         192 CENTRAL AVENUE, STIRLING, NJ 07980<br/>         908.580.1255 murphyhollows@gmail.com</small> |                 |
| GRADING PLAN<br>FOR<br>LOT 18<br>BLOCK 2103<br>2 WOODMERE DRIVE<br>CITY OF<br>SUMMIT<br>UNION COUNTY<br>NEW JERSEY   |                 |
| <b>AIDAN T. MURPHY</b><br><small>N.J. LIC. PROFESSIONAL ENGINEER #21319<br/>         1973-2016</small>   |                 |
|  |                 |
| <b>WILLIAM G. HOLLOWES</b><br><small>N.J. LIC. PROFESSIONAL ENGINEER<br/>         &amp; LAND SURVEYOR #27473<br/>         N.J. PROFESSIONAL PLANNER #2530</small>                                  |                 |
| FILE LF22-006  | SHEET 1 OF 2    |

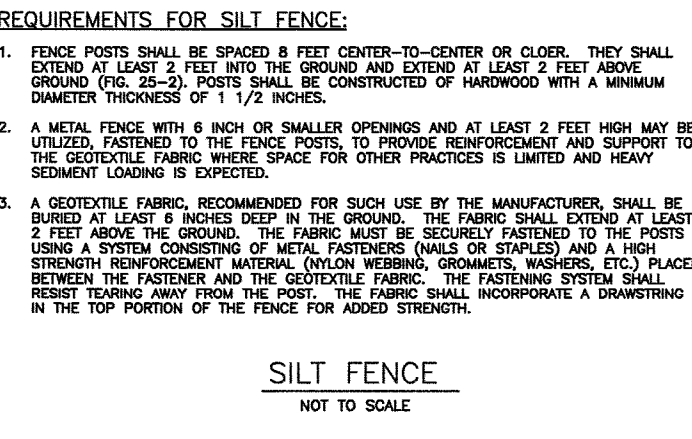
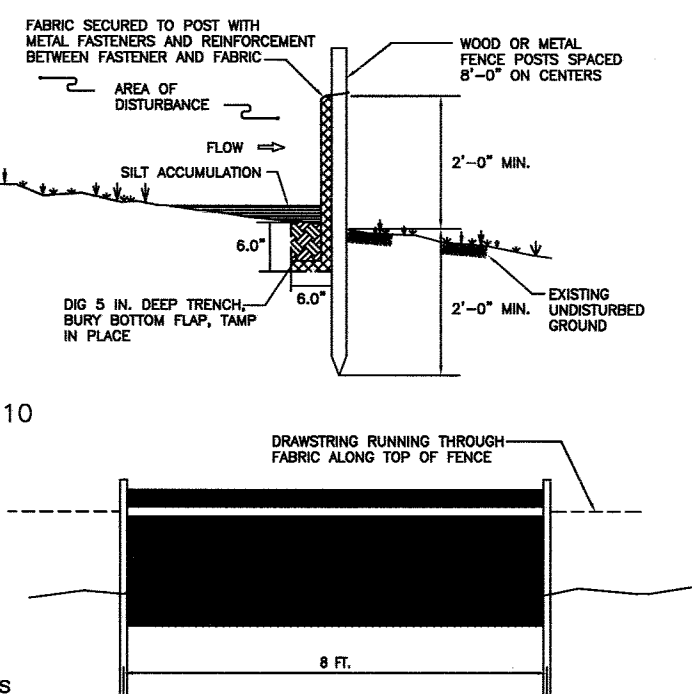
**COVERAGE CALCULATIONS**

| EXISTING                   |                         | PROPOSED                   |                         |
|----------------------------|-------------------------|----------------------------|-------------------------|
| HOUSE                      | 2839 SF                 | HOUSE                      | 2839 SF                 |
| 2ND FLOOR BALCONY          | 167 SF                  | 2ND FLOOR BALCONY          | 167 SF                  |
| FRONT PATIO                | 331 SF                  | FRONT PATIO                | 331 SF                  |
| FRONT WALK & STEPS         | 230 SF                  | FRONT WALK & STEPS         | 229 SF                  |
| KITCHEN PATIO              | 170 SF                  | KITCHEN PATIO              | 0 SF                    |
| KITCHEN PATIO WALK & STEPS | 121 SF                  | KITCHEN PATIO WALK & STEPS | 0 SF                    |
| REAR PATIO                 | 272 SF                  | REAR PATIO                 | 224 SF                  |
| REAR STEPS                 | 14 SF                   | REAR STEPS                 | 27 SF                   |
| DRIVEWAY                   | 2098 SF                 | KITCHEN ADDITION           | 263 SF                  |
| <b>TOTAL</b>               | <b>6242 SF (25.01%)</b> | COVERED ENTRY              | 36 SF                   |
|                            |                         | DRIVEWAY                   | 1560 SF                 |
|                            |                         | <b>TOTAL</b>               | <b>5676 SF (22.74%)</b> |

DUE TO THE DECREASE IN IMPERVIOUS COVERAGE,  
NO STORMWATER MANAGEMENT IS PROPOSED

**SOIL EROSION AND SEDIMENT CONTROL**

- All soil erosion and sediment control practices will be installed in accordance with the New Jersey Standards for Soil Erosion and Sediment Control and will be installed in proper sequence and maintained until permanent protection is established.
- Any disturbed area that will be left exposed for more than thirty (30) days and not subject to construction traffic shall immediately receive a temporary seeding. If the season prohibits temporary seeding, the disturbed area will be mulched with salt hay or equivalent and be anchored in accordance with the NJ Standards (i.e. peg and twine, mulch netting, or liquid mulch binder).
- Immediately following initial disturbance or rough grading, all critical areas subject to erosion will receive a temporary seeding in combination with straw mulch or a suitable equivalent at a rate of 2 tons per acre, according to the NJ Standards.
- Stabilization Specifications – Temporary Seeding and Mulching:
  - Lime – 90 lbs/1,000 sf of ground limestone; Fertilizer – 14 lbs/1,000 sf; 10–20–10 or equivalent worked into soil a minimum of 4".
  - Seed – Annual Ryegrass 40 lbs/acre or other approved seeds; plant between March 1 and May 15 or between August 15 and October 1.
  - Mulch – salt hay or small grain straw at a rate of 70 to 90 lbs/1,000 sf to be applied according to the NJ Standards. Mulch shall be secured by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
- A sub-base course will be applied immediately following rough grading and installation of improvements in order to stabilize driveways. In areas where no utilities are present, sub-base will be installed within 15 days of preliminary grading.
- The site shall at all times be graded and maintained such that all stormwater run-off is diverted to soil erosion and sediment control facilities.
- Any steep slopes receiving pipeline installation will be backfilled and stabilized daily, as the installation proceeds (i.e. slopes greater 3:1).
- All sedimentation structures will be inspected and maintained on a regular basis.
- Maximum side slopes of all exposed surfaces shall not exceed 2:1 unless otherwise approved by the district.
- Any individual access roads or drives must be stabilized with 2–1/2" crushed stone prior to commencement of construction in that area.
- Paved roadways must be kept clean at all times.
- All catch basin inlets must be protected with a crushed stone or haybale filter (see detail).
- Permanent vegetation to be seeded or sodded on all exposed areas within ten (10) days after final grading. Mulch to be used as necessary for protection until seeding is established.
- Permanent Stabilization Specifications: Seeding
  - Perennial Ryegrass . . . . . 1/2 lb/1,000 sf
  - Kentucky Bluegrass . . . . . 1 lb/1,000 sf
  - Red Fescue . . . . . 1/2 lb/1,000 sf
  - Spreading Fescue . . . . . 1/2 lb/1,000 sf
  - Lime . . . . . 90 lb/1,000 sf
  - Fertilizer . . . . . 14 lb/1,000 sf
- Permanent Stabilization Specifications: Mulching
  - Mulch materials to be unrotted salt hay, hay or small grain straw at the rate of 1.5 to 2 tons per acre or 70 to 90 pounds per 1,000 sq. ft..
  - Spread uniformly by hand or mechanically so that approximately 75% to 95% of soil surface will be covered.
  - Mulch anchoring to be done immediately after placement by one of the following methods: Peg and twine; Mulch netting; Liquid mulch – binders.
- Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed in accordance with the Standard for Topsoiling.
- All unstabilized areas to be sprinkled with water until wet at the beginning of each day to control dust.
- Any soil having a pH of 4 or less or containing iron sulfides shall be covered with a minimum of 12" of soil having a pH of 5 or more prior to seedbed preparation.
- At the time of site preparation for permanent vegetative stabilization, any soil not suitable to support adequate vegetative ground cover will be removed or treated in such a way to permanently adjust the soil conditions and render it suitable for vegetative ground cover. (If removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be provided).
- The Soil Conservation District may request additional measures to minimize on or off-site erosion problems during construction. The District shall be notified in writing 72 hours prior to the commencement of any land disturbance.
- Any changes to the certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control Plans to the District for recertification. The revised plans must meet all current and State Soil Erosion and Sediment Control Standards



**REQUIREMENTS FOR SILT FENCE:**

- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 3 FEET INTO THE GROUND AND BE SET AT LEAST 2 FEET ABOVE GROUND (VIA 2x4'S). POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 1/2 INCHES.
- A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED. FASTENERS TO THE FENCE POSTS TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SLOTTED LOADS IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GEOTEXTILES, WADERS, ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENER SYSTEM SHALL REST TOWARD AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

**DUST CONTROL**

WHEN REQUIRED ONE OR MORE OF THE FOLLOWING METHODS SHALL BE USED FOR DUST CONTROL:

MULCHES – SEE NOTES FOR TEMPORARY STABILIZATION

VEGETATIVE COVER – SEE NOTES FOR TEMPORARY AND PERMANENT STABILIZATION

SPRAY-ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS

|                                  | WATER DILUTION | TYPE OF NOZZLE   | APPLY GAL/ACRE |
|----------------------------------|----------------|--|----------------|
| ANIONIC ASPHALT EMULSION         | 7:1            | COARSE SPRAY   | 1,200          |
| LATEX EMULSION                   | 12.5:1         | FINE SPRAY   | 235            |
| RESIN IN WATER                   | 4:1            | FINE SPRAY   | 300            |
| POLYACRYLAMIDE (PAM) – SPRAY ON  |                | APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS.  |                |
| POLYACRYLAMIDE (PAM) – DRY SPRAY |                | MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD |                |
| ACIDULATED SOY BEAN SOAP STICK   | NONE           | COARSE SPRAY   | 1200           |

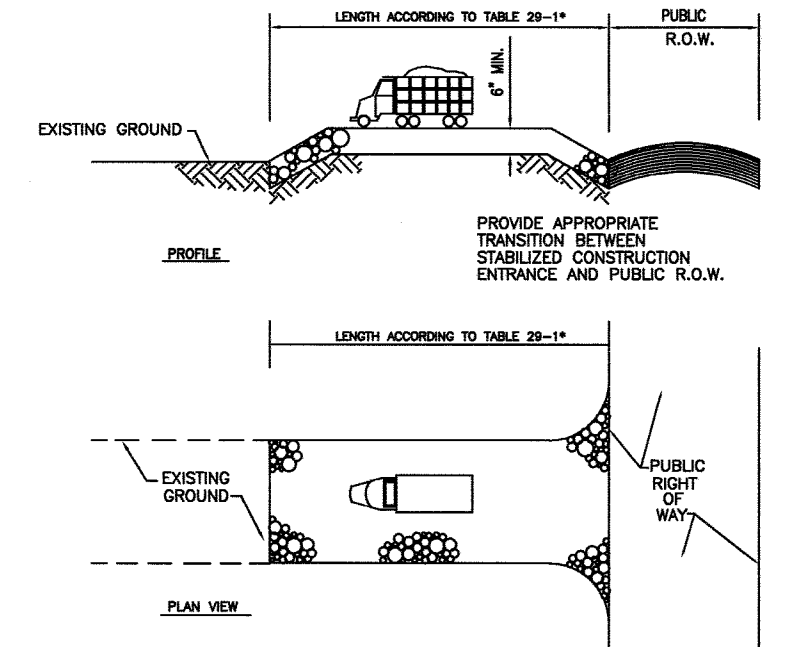
TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACE ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE DESIRED EFFECT.

SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

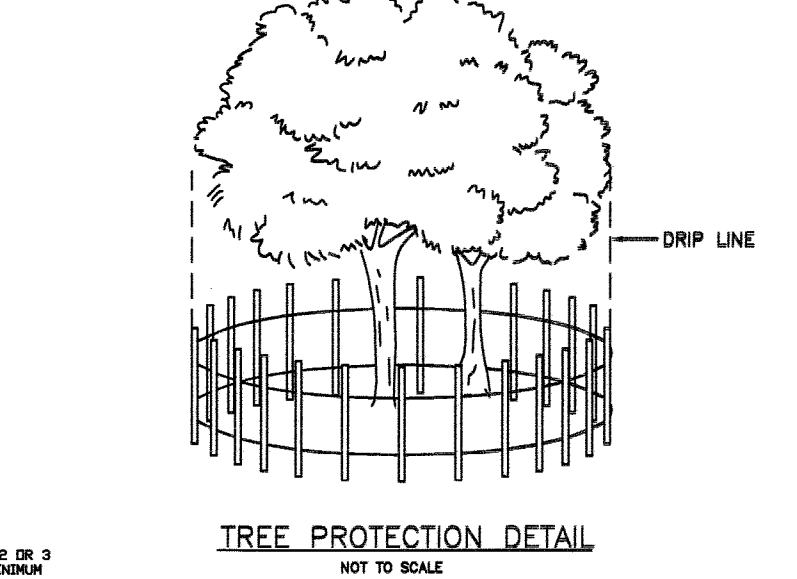
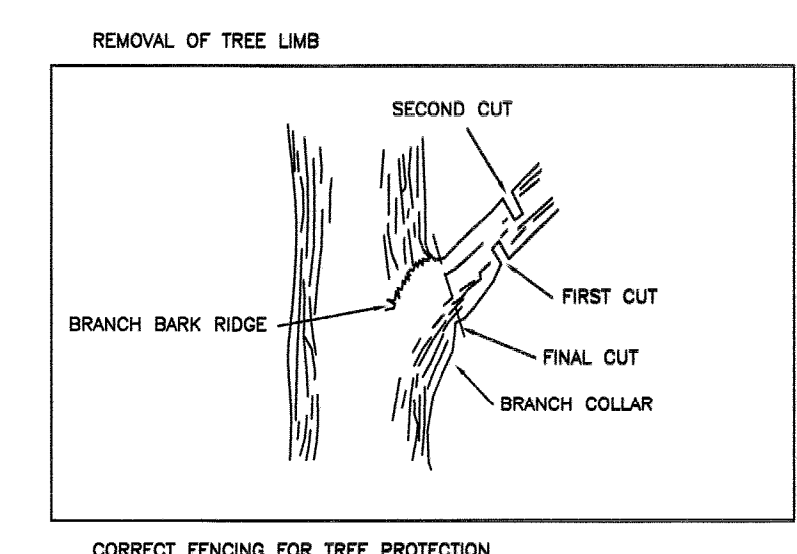
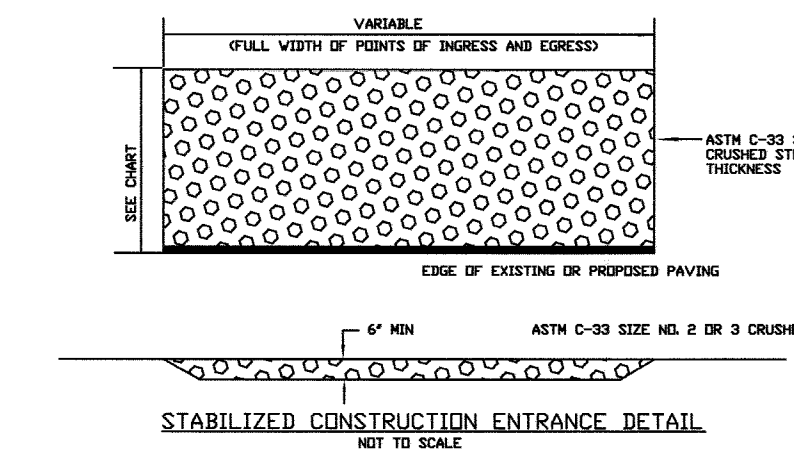
STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.



**STABILIZED CONSTRUCTION ACCESS**

NOT TO SCALE

| PERCENT SLOPE OF ROADWAY | LENGTHS OF CONSTRUCTION EXITS ON SLOPING ROADBEDS |                    |
|--------------------------|---|--------------------|
|                          | COARSE GRAINED SOILS                              | FINE GRAINED SOILS |
| 0–2%                     | 50 FT.  | 100 FT.            |
| 2–5%                     | 100 FT.   | 200 FT.            |
| >5%                      | ENTIRE SURFACE STABILIZED WITH FAIR BASE COURSE   |                    |



**SEQUENCE OF CONSTRUCTION**

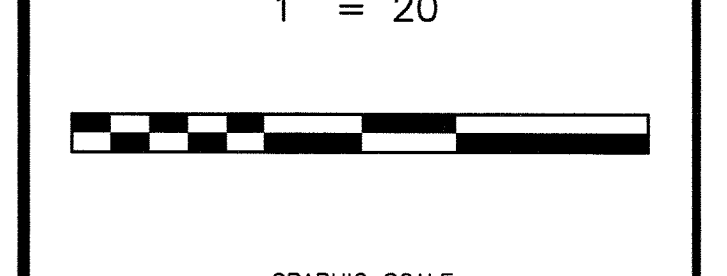
|  |          |
|--|----------|
| CLEAR SITE   | 1 DAY    |
| INSTALL SILT FENCE   | 1 DAY    |
| BEGIN BUILDING CONSTRUCTION  | 6 MONTHS |
| CONSTRUCT SITE IMPROVEMENTS  | 5 DAYS   |
| FINISH SITE GRADING, PERFORM SOIL MITIGATION TESTS AND INSTALL LANDSCAPING | 2 DAYS   |
| FINISH BUILDING CONSTRUCTION   | -        |
| STABILIZE ANY REMAINING DISTURBED AREAS                                    | 2 DAYS   |

DRAWN BY: SP CHECKED BY: WGH

JOB No. 22-006

BOOK

SCALE 1" = 20'



DATE APRIL 25, 2022

REVISIONS

CERTIFICATE OF AUTHORIZATION  
No. 24GA27959700

NOTES

**Murphy & Hollows Associates LLC**  
CIVIL ENGINEERING AND SURVEYING  
192 CENTRAL AVENUE, STIRLING, NJ 07980  
908.580.1255 murphyhollows@gmail.com

GRADING PLAN  
FOR  
LOT 18  
BLOCK 2103  
2 WOODMERE DRIVE  
CITY OF  
SUMMIT  
UNION COUNTY  
NEW JERSEY

AIDAN T. MURPHY  
N.J. LIC. PROFESSIONAL ENGINEER #21319  
1973-2016

*William G. Hollows*  
**WILLIAM G. HOLLOWES**  
N.J. LIC. PROFESSIONAL ENGINEER  
& LAND SURVEYOR #27473  
N.J. PROFESSIONAL PLANNER #2530

| FILE     | SHEET |
|----------|-------|
| LF22-006 | 2     |
|          | OF    |
|          | 2     |

SUMMIT AVENUE 66' R.O.W.

T.M. LOT 21

T.M. LOT 17  
BLOCK 2103  
N/F ROSE, HOWARD  
(Bk. 6018 Pg. 539)

T.M. LOT 20  
BLOCK 2103  
N/F TALIAN, JOHN & KAYE, TRACY  
(Bk. 5425 Pg. 30)

T.M. LOT 18  
BLOCK 2103  
24,957± S.F.  
0.573 AC.

T.M. LOT 19  
BLOCK 2103  
N/F RAPPIEYE, ANN  
(Bk. 6207 Pg. 406)

WOODMERE 50' R.O.W. DRIVE

S46°24'00"E 149.35'

168.00'

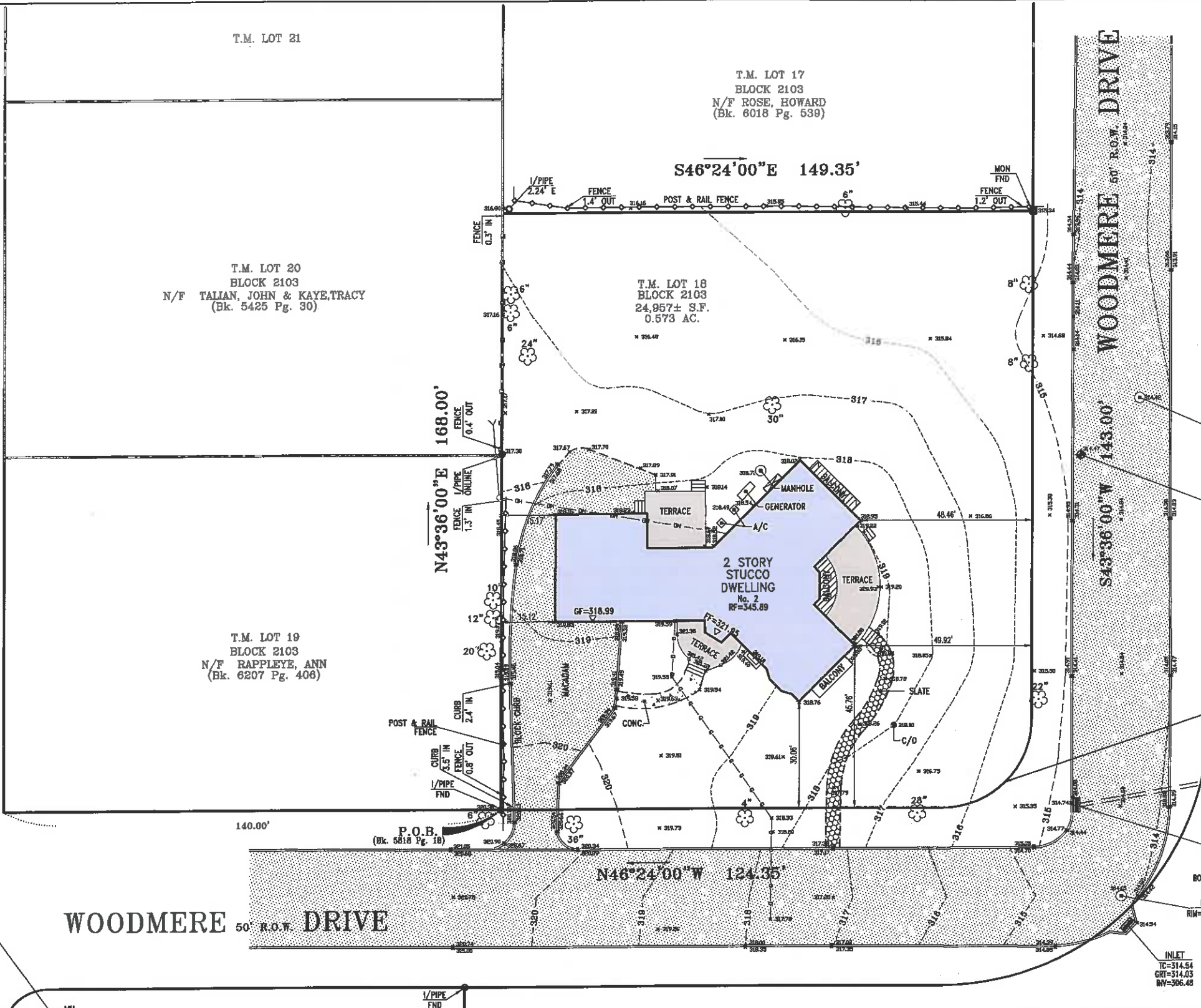
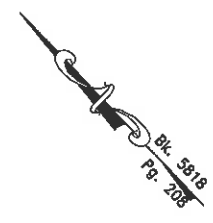
N43°36'00"E

N46°24'00"W 124.35'

WOODMERE 50' R.O.W. DRIVE

S43°36'00"W 143.00'

R=25.00'  
A=39.27'  
B=S88°36'00"W  
C=35.36'



CERTIFIED TO:  
- MURPHY & HOLLOWAY ASSOCIATES, LLC

- NOTES:
1. THIS SURVEY IS PREPARED SPECIFICALLY FOR THE INDIVIDUAL(S) IN THE TITLE AND/OR CERTIFICATION. THE UNDERSIGNED WILL NOT BE RESPONSIBLE FOR ANY ASSIGNMENT OF THIS SURVEY TO ANY PERSON NOT SO NAMED.
  2. SUBJECT TO SUCH STATE OF FACT THAT AN ACCURATE TITLE SEARCH MAY DISCLOSE.
  3. SUBJECT TO EASEMENTS AND RIGHTS-OF-WAY OF RECORD.
  4. UNDERGROUND UTILITIES ARE NOT DEPICTED, THE LACK OF UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OF SAME. REFERENCE TO THE APPROPRIATE UTILITY AUTHORITY SHOULD BE MADE TO VERIFY THE PRESENCE OR EXISTENCE OF SAME.
  5. DEED REFERENCE: BOOK 5818 PAGE 208, FILED IN THE UNION COUNTY CLERK'S OFFICE.
  6. A WRITTEN WAIVER AND DIRECTION NOT TO SET CORNER MARKERS HAS BEEN OBTAINED FROM THE ULTIMATE USER PURSUANT TO P.L. 2003, C. 14 (N.J.A.C. 45:8-38.3) AND (N.J.A.C. 13:40-5.1(D)).
  7. VERTICAL DATUM NAVD88, PER GPS OBSERVATIONS.

**JAMES P. DEADY SURVEYOR, LLC**  
PROFESSIONAL LAND SURVEYING SERVICES  
295 ROUTE 22 EAST, ONE SALEM SQUARE  
SUITE 202 WEST  
WHITEHOUSE STATION, NJ 08889  
(908) 534-0145 (908) 534-0147 FAX

| REVISIONS | DATE |
|-----------|------|
|           |      |
|           |      |
|           |      |

Scale: 1"=20'  
Date: 2-17-22  
Dwn. By: J.A.  
Chk'd By: J.C.R.  
FILE# 2018-362-2  
BK 432 PG 6

**TOPOGRAPHIC SURVEY**  
OF  
**TAX LOT 18-BLOCK 2103**  
LOCATED IN THE  
**TOWNSHIP OF SUMMIT**  
**UNION COUNTY, NEW JERSEY**

BY: *John C. Ritt*  
John C. Ritt N.J.P.L.S. Lic. No. 24GS04324100  
Certificate No. 24GA2B199000