



TOWN COUNCIL REGULAR WORK SESSION
MONDAY, MARCH 3, 2025 @ 7:00PM
Town Hall Conference Room

View meeting online LIVE at <https://www.frontroyalva.com/673/Town-Hall-Live>

1. Roll Call

2. ACTION ITEM

- A. Request for a VHDA Revitalization Area Designation Resolution Received from Jen Surber of Surber Development and Consulting LLC on Behalf of Harwood Place Va, LLC for an Area of Town to Include the Property for the Proposed 90-unit Apartment Community off E Criser Road

3. NEW BUSINESS

- A. Request for Revisions to Subdivision Development Plan for Happy Creek Knolls, Section 4, Lots 4, 5, 6, 29 & 30 by Maronda Homes, Inc. —*Lauren Kopishke*
- B. Request for Final Subdivision Plat Approval for Major Subdivision by Ali Billoo from One 3.52 Acre Parcel into (8) Residential Lots, One Stormwater Management Lot & a Residue Lot at 336 W. Strasburg Road — *Lauren Kopishke*
- C. Request for Reimbursement of Special Use Permit (SUP) Application Fee from Warren Coalition — *Lauren Kopishke*
- D. Request for Sidewalk Waiver for 1011 and 1013 Virginia Avenue by Aaron Hike — *Lauren Kopishke*

4. CLOSED MEETING

5. ADJOURN



REGULAR WORK SESSION ACTION AGENDA STATEMENT

Meeting Date: February 3, 2025

Item# 02A

Action Item: Request for a VHDA Revitalization Area Designation Resolution Received from Jen Surber of Surber Development and Consulting LLC on Behalf of Harwood Place Va, LLC for an Area of Town to Include the Property for the Proposed 90-unit Apartment Community off E Criser Road

Summary: On December 9, 2025 Council approved a Special Use Permit (SUP) for Applicant Surber Development and Consulting LLC for multi-family apartments containing (90) units in two separate three-story apartment houses with a maximum height of forty-five feet (45') on a vacant parcel off E. Criser Road (Tax Map 20A18-5-5A1). The applicant now asks Town Council to pass a Resolution, upon making the required factual determinations, designating an area of Town, to include the subject property, as a VHDA Revitalization Area pursuant to Virginia code §36-55.30:2. The applicant represents that VHDA financing is essential before proceeding with the apartment project. If passed, the applicant believes that the resolution would allow the applicant to qualify for VHDA financing. This Revitalization Area designation makes the project financially feasible for the applicant.

The application deadline for VHDA financing is March 13th. The applicant requests a resolution prior to that deadline.

Budget/Funding: None

Meetings: None

Proposed Motion: I move that Council approve, pursuant to Virginia Code §36-55.30:2, a Revitalization Area Designation Resolution for Harwood Place Va, LLC for an area of Town to include the property for the Proposed 90-unit Apartment Community off E. Criser Road, as presented.

Moved _____ *Seconded* _____

Wood _____ *Veitenthal* _____ *Sealock* _____ *Rappaport* _____ *Ingram* _____ *DeDomenico-Payne* _____

VHDA Tracking Number: 2025-C-42
Development Name: Harwood Place
Development Jurisdiction: Town of Front Royal, VA
Name of Owner/ Applicant: Harwood Place, VA, LLC

**A RESOLUTION BY THE FRONT ROYAL TOWN COUNCIL DESIGNATING A
REVITALIZATION AREA FOR THE PURPOSES OF ENCOURAGING MIXED INCOME
HOUSING DEVELOPMENT**

WHEREAS, pursuant to Section 36-55.30:2.A of the Code of Virginia of 1950, as amended, the Front Royal Town Council (“Council”) wishes to designate, as a Revitalization Area, an area of Town described as _____

_____ to include the area known as Warren County Tax Map Number 20A185 5A1 on which a multi-family apartment development known as Harwood Place proposes to locate (“Area”); and

WHEREAS, based on the evidence, Council has determined that the industrial, commercial, or other economic development of such Area will benefit the Town but such Area lacks the housing needed to induce manufacturing, industrial, commercial, governmental, educational, entertainment, community development, healthcare or nonprofit enterprises or undertakings to locate or remain in such Area; and

WHEREAS, based on the evidence, Council has determined that private enterprise and investment are not reasonably expected, without assistance to produce the construction or rehabilitation of decent, safe and sanitary housing and supporting facilities that will meet the needs of low and moderate income persons and families in such Area and will induce other persons and families to live within such Area and thereby create a desirable economic mix of residents in such Area.

NOW, THEREFORE, BE IT RESOLVED, that the Town Council of the Town of Front Royal does designate the above-described area as a Revitalization Area, pursuant to pursuant to Section 36-55.30:2.A of the Code of Virginia, to encourage economic development and the construction of decent, safe and sanity housing that will meet the needs of low and moderate income persons and families in said Revitalization Area in the Town of Front Royal, Virginia.

APPROVED:

Lori A. Cockrell, Mayor

ATTEST:

Tina L. Presley, Clerk of Council

This Resolution was approved at the Regular Work Session of the Town of Front Royal, Virginia Town Council conducted on _____, 2024 upon the following recorded vote:

R. Wayne Sealock __ Yes __ No
Joshua L. Ingram __ Yes __ No
Amber F. Veienthal __ Yes __ No

H. Bruce Rappaport __ Yes __ No
Melissa DeDomenico-Payne __ Yes __ No
Glenn A. Wood __ Yes __ No

Approved as to Form and Legality:

George M. Sonnett, Jr., Town Attorney

Dated: _____

§ 36-55.30:2. Housing revitalization areas; economically mixed projects

A. For the sole purpose of empowering the HDA to provide financing in accordance with this chapter, the governing body of any city or county may by resolution designate an area within such city or county as a revitalization area if such governing body shall in such resolution make the following determinations with respect to such area: (i) either (a) the area is blighted, deteriorated, deteriorating or, if not rehabilitated, likely to deteriorate by reason that the buildings, improvements or other facilities in such area are subject to one or more of the following conditions: dilapidation; obsolescence; overcrowding; inadequate ventilation, light or sanitation; excessive land coverage; deleterious land use; or faulty or inadequate design, quality or condition; or (b) the industrial, commercial or other economic development of such area will benefit the city or county but such area lacks the housing needed to induce manufacturing, industrial, commercial, governmental, educational, entertainment, community development, healthcare or nonprofit enterprises or undertakings to locate or remain in such area; and (ii) private enterprise and investment are not reasonably expected, without assistance, to produce the construction or rehabilitation of decent, safe and sanitary housing and supporting facilities that will meet the needs of low and moderate income persons and families in such area and will induce other persons and families to live within such area and thereby create a desirable economic mix of residents in such area. Any redevelopment area, conservation area, or rehabilitation area created or designated by the city or county pursuant to Chapter 1 (§ 36-1 et seq.) of this title, any census tract in which 70 percent or more of the families have incomes which are 80 percent or less of the statewide median income as determined by the federal government pursuant to Section 143 of the United States Internal Revenue Code or any successor code provision on the basis of the most recent decennial census for which data are available, and any census tract which is designated by the United States Department of Housing and Urban Development and, for the most recent year for which census data are available on household income in such tract, either in which 50 percent or more of the households have an income which is less than 60 percent of the area median gross income for such year or which has a poverty rate of at least 25 percent shall be deemed to be designated as a revitalization area without adoption of the above described resolution of the city or county. In any revitalization area, the HDA may provide financing for one or more economically mixed projects and, in conjunction therewith, any nonhousing buildings that are incidental to such project or projects or are determined by the governing body of the city or county to be necessary or appropriate for the revitalization of such area or for the industrial, commercial or other economic development thereof.

B. The HDA may finance an economically mixed project that is not within a revitalization area if the governing body of the city or county in which such project is or will be located shall by resolution determine (i) either (a) that the ability to provide residential housing and supporting facilities that serve persons or families of lower or moderate income will be enhanced if a portion of the units therein are occupied or held available for occupancy by persons and families who are not of low and moderate income or (b) that the surrounding area of such project is, or is expected in the future to be, inhabited predominantly by lower income persons and families and will benefit from an economic mix of residents in such project and (ii) private enterprise and

investment are not reasonably expected, without assistance, to produce the construction or rehabilitation of decent, safe and sanitary housing and supporting facilities that will meet the needs of low and moderate income persons and families in such area and will induce other persons and families to live within such area and thereby create a desirable economic mix of residents in such area.

C. In any economically mixed project financed under this section, the percentage of units occupied or held available for occupancy by persons and families who are not of low and moderate income, as determined as of the date of their initial occupancy of such units, shall not exceed 80 percent.

1979, c. 374; 1996, cc. [77](#), [498](#); 2004, c. [187](#); 2006, c. [784](#).

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.

Code of Virginia
 Title 36. Housing
 Chapter 1.2. Virginia Housing Development Authority Act

§ 36-55.26. Definitions.

As used in this chapter, unless the context requires a different meaning:

"Bonds," "notes," "bond anticipation notes," and "other obligations" mean any bonds, notes, debentures, interim certificates, or other evidences of financial indebtedness issued by HDA pursuant to this chapter.

"City" means any city or town in the Commonwealth.

"County" means any county in the Commonwealth.

"Earned surplus" shall have the same meaning as in generally accepted accounting standards.

"Economically mixed project" means residential housing or housing development, which may consist of one or more buildings located on contiguous or noncontiguous parcels that the HDA determines to finance as a single economically mixed project, to be occupied by persons and families of low and moderate income and by other persons and families as the HDA shall determine.

"Federal government" means the United States of America or any agency or instrumentality, corporate or otherwise, of the United States of America.

"Federal mortgage" means a mortgage loan for land development for residential housing or residential housing made by the United States or an instrumentality thereof or for which there is a commitment by the United States of America or an instrumentality thereof to make such a mortgage loan.

"Federally insured mortgage" means a mortgage loan for land development for residential housing or residential housing insured or guaranteed by the United States or an instrumentality thereof, or a commitment by the United States or an instrumentality thereof to insure such a mortgage.

"HDA" means the Virginia Housing Development Authority created and established pursuant to § 36-55.27.

"Housing development costs" means the sum total of all costs incurred in the development of a housing development, which are approved by the HDA as reasonable and necessary, which costs shall include, but are not necessarily limited to: fair value of land owned by the sponsor, or cost of land acquisition and any buildings thereon, including payments for options, deposits, or contracts to purchase properties on the proposed housing site or payments for the purchase of such properties; cost of site preparation, demolition and development; architecture, engineering, legal, accounting, HDA, and other fees paid or payable in connection with the planning, execution and financing of the housing development; cost of necessary studies, surveys, plans and permits; insurance, interest; financing, tax and assessment costs and other operating and carrying costs during construction; cost of construction, rehabilitation, reconstruction, fixtures, furnishings, equipment, machinery and apparatus related to the real property; cost of land improvements, including without limitation, landscaping and off-site improvements, whether or not such costs have been paid in cash or in a form other than cash; necessary expenses in connection with initial occupancy of the housing development; a reasonable profit and risk fee in addition to job overhead to the general contractor and, if applicable, a limited profit housing sponsor; an allowance established by HDA for working capital and contingency reserves, and reserves for any anticipated operating deficits during the first two years of occupancy; in the case of an economically mixed project within a revitalization area designated in or pursuant to § 36-55.30:2, the costs of any nonhousing buildings that are financed in conjunction with such project and that are incidental to such project or are determined by such governing body to be necessary or appropriate for the revitalization of such area or for the

industrial, commercial or other economic development of such area; the cost of such other items, including tenant relocation, if such tenant relocation costs are not otherwise being provided for, as HDA shall determine to be reasonable and necessary for the development of the housing development, less any and all net rents and other net revenues received from the operation of the real and personal property on the development site during construction.

"Housing development" or "housing project" means any work or undertaking, whether new construction or rehabilitation, which is designed and financed pursuant to the provisions of this chapter for the primary purpose of providing sanitary, decent, and safe dwelling accommodations for persons and families of low or moderate income in need of housing and, in the case of an economically mixed project, other persons and families; such undertaking may include any buildings, land, equipment, facilities, or other real or personal properties which are necessary, convenient, or desirable appurtenances, such as but not limited to streets, sewers, utilities, parks, site preparation, landscaping, and such offices, and other nonhousing facilities incidental or related to such development or project such as administrative, community, health, nursing care, medical, educational and recreational facilities as HDA determines to be necessary, convenient, or desirable. For the purposes of this chapter, medical and related facilities for the residence and care of the aged shall be deemed to be dwelling accommodations.

"Housing lender" means any bank or trust company, mortgage banker approved by the Federal National Mortgage Association, savings bank, national banking association, savings and loan association or building and loan association, mortgage broker, mortgage company, mortgage lender, life insurance company, credit union, agency or authority of the Commonwealth or any other state, or locality authorized to finance housing loans on properties located in or outside of the Commonwealth to persons and families of any income.

"Housing sponsor" means individuals, joint ventures, partnerships, limited partnerships, public bodies, trusts, firms, associations, or other legal entities or any combination thereof, corporations, cooperatives and condominiums, approved by HDA as qualified either to own, construct, acquire, rehabilitate, operate, manage or maintain a housing development whether nonprofit or organized for limited profit subject to the regulatory powers of HDA and other terms and conditions set forth in this chapter.

"Land development" means the process of acquiring land for residential housing construction, and of making, installing, or constructing nonresidential housing improvements, including, without limitation, waterlines and water supply installations, sewer lines and sewage disposal and treatment installations, steam, gas and electric lines and installations, roads, streets, curbs, gutters, sidewalks, storm drainage facilities, other related pollution control facilities, and other installations or works, whether on or off the site, which HDA deems necessary or desirable to prepare such land primarily for residential housing construction within the Commonwealth.

"Loan servicer" means any person who, on behalf of a housing lender, collects or receives payments, including payments of principal, interest, escrow amounts, and other amounts due, on obligations due and owing to the housing lender pursuant to a residential mortgage loan or who, when the borrower is in default or in foreseeable likelihood of default, works on behalf of the housing lender with the borrower to modify or refinance, either temporarily or permanently, the obligations in order to avoid foreclosure or otherwise to finalize collection through the foreclosure process.

"Mortgage" means a mortgage deed, deed of trust, or other security instrument which shall constitute a lien in the Commonwealth on improvements and real property in fee simple, on a leasehold under a lease having a remaining term, which at the time such mortgage is acquired does not expire for at least that number of years beyond the maturity date of the interest-bearing obligation secured by such mortgage as is equal to the number of years remaining until the maturity date of such obligation or on personal property, contract rights or other assets.

"Mortgage lender" means any bank or trust company, mortgage banker approved by the Federal National Mortgage Association, savings bank, national banking association, savings and loan association, or building and loan association, life insurance company, the federal government or other financial institutions or government agencies which are authorized to and customarily provide service or otherwise aid in the financing of mortgages on residential housing located in the Commonwealth for persons and families of low or moderate income.

"Mortgage loan" means an interest-bearing obligation secured by a mortgage.

"Multifamily residential housing" means residential housing other than single-family residential housing, as hereinafter defined.

"Municipality" means any city, town, county, or other political subdivision of the Commonwealth.

"Nonhousing building" means a building or portion thereof and any related improvements and facilities used or to be used for manufacturing, industrial, commercial, governmental, educational, entertainment, community development, health care, or nonprofit enterprises or undertakings other than residential housing.

"Persons and families of low and moderate income" means persons and families, irrespective of race, creed, national origin, sex, sexual orientation, or gender identity, determined by the HDA to require such assistance as is made available by this chapter on account of insufficient personal or family income taking into consideration, without limitation, such factors as follows: (i) the amount of the total income of such persons and families available for housing needs, (ii) the size of the family, (iii) the cost and condition of housing facilities available, (iv) the ability of such persons and families to compete successfully in the normal private housing market and to pay the amounts at which private enterprise is providing sanitary, decent and safe housing, and (v) if appropriate, standards established for various federal programs determining eligibility based on income of such persons and families.

"Real property" means all lands, including improvements and fixtures thereon, and property of any nature appurtenant thereto, or used in connection therewith, and every estate, interest and right, legal or equitable, therein, including terms for years and liens by way of judgment, mortgage or otherwise and the indebtedness secured by such liens.

"Residential housing" means a specific work or improvement within the Commonwealth, whether multifamily residential housing or single-family residential housing undertaken primarily to provide dwelling accommodations, including the acquisition, construction, rehabilitation, preservation or improvement of land, buildings and improvements thereto, for residential housing, and such other nonhousing facilities as may be incidental, related, or appurtenant thereto. For the purposes of this chapter, medical and related facilities for the residence and care of the aged shall be deemed to be dwelling accommodations.

"Single-family residential housing" means residential housing consisting of four or fewer dwelling units, the person or family owning or intending to acquire such dwelling units, upon completion of the construction, rehabilitation, or improvement thereof, also occupying or intending to occupy one of such dwelling units.

1972, c. 830; 1975, c. 536; 1987, c. 363; 1988, c. 218; 1996, c. 498; 2004, c. 187; 2011, c. 690; 2020, c. 1137.



COUNCIL REGULAR WORK SESSION AGENDA STATEMENT

Meeting Date: March 3, 2025

Item# 03A

Agenda Item: Request for Revisions to Subdivision Development Plan for Happy Creek Knolls, Section 4, Lots 4, 5, 6, 29 & 30 by Maronda Homes Inc.

Summary:

Zoning Approval was issued on the lots on the following dates:

Lot 4: September 6, 2024

Lot 5: October 23, 2024

Lot 6: September 6, 2024

Lot 29: September 17, 2024

Lot 30: September 11, 2024

The Zoning Permits were approved contingent upon the construction and completion of a retaining wall prior to the Certificate of Occupancy being issued for each lot.

Town Code Section 148-315.4.a. Revision to Subdivision Design requires that any change must be approved by the Town in accordance with the procedures of this chapter prior to field changes. The extent of the revision determines whether or not the change to the plans can be approved administratively or by the Planning Commission. The initial approval by the Town was for no slope to be greater than a 3:1 ratio unless retaining walls are constructed. The proposed changes, i.e. no retaining walls cannot be approved administratively. This constitutes a revision to the major site development.

Budget/Funding:

Staff Recommendation:

Staff recommends Council deny the site plan waiver request which would require the applicant to construct retaining walls which were previously approved for slope mitigation.

Town of Front Royal, Virginia

Planning Commission Regular Meeting Agenda

☐ Consent Action ☒ Administrative Action ☐ Public Hearing ☐ Discussion

Agenda Item: Application #2500022

MEETING DATE: February 19, 2025

SUMMARY: A request for revisions to FRSUB1521-2019 Subdivision Plan for Happy Creek Knolls, Section 4 regarding lots 4, 5, 6, 29, and 30, Tax Map No. 20A21-3-4 submitted by Maronda Homes, Inc. to create slopes steeper than what was previously approved.

STAFF RECOMMENDATION: Staff recommend denial of the requested revisions.

DRAFT MOTION: "I move that the Planning Commission forward a recommendation of denial to the Town Council for application #2500022 for revisions to the approved Subdivision Plan FRSUB1521-2019 for Happy Creek Knolls, Section 4 regarding lots 4, 5, 6, 29, and 30, Tax Map No. 20A21-3-4 submitted by Maronda Homes, Inc."

NOTE: This is only a draft motion. Alternative motions are also welcome.

PLANNING COMMISSION ACTION:

Moved _____ Seconded _____

Neel _____ Brooks _____ Marshner _____ Marrazzo _____ Vacancy _____

☐ Approved ☐ Approved w/ Conditions ☐ Denied ☐ Other



**TOWN OF FRONT ROYAL
DEPARTMENT OF PLANNING & ZONING**

**STAFF REPORT – FINAL PLAT APPROVAL MAJOR SUBDIVISION
PLANNING COMMISSION– FEBRUARY 19, 2025**

APPLICATION #:

2500022 Revision to Approved
Subdivision Plan FRSUB1521-2019 –
Happy Creek Knolls, Section 4

APPLICANT:

Amber Johnson – Maronda Homes of Virginia
LLC

SUMMARY OF REQUEST:

A request for revisions to Subdivision Plan FRSUB1521-2019 for Happy Creek Knolls, Section 4 pertaining to lots 4, 5, 6, 29, and 30, submitted by Maronda Homes, Inc. to create slopes steeper than what was previously approved.

GENERAL INFORMATION:

<i>Site Addresses</i>	1193, 1191, 1189, 1194 and 1196 Happy Ridge Drive
<i>Property Owner(s)</i>	Maronda Homes of Virginia LLC
<i>Zoning District</i>	R-1, Residential District
<i>Tax Identification</i>	20A21-3-4-4, 5, 6, 29, 30

AERIAL MAP – 1193, 1191, 1189, 1194 & 1196 Happy Ridge Drive – Warren County GIS



INFORMATION ON THE APPLICATION:

<i>SUMMARY</i>	Zoning Approval was issued on the lots on the following dates: Lot 4: September 6, 2024 Lot 5: October 23, 2024 Lot 6: September 6, 2024 Lot 29: September 17, 2024 Lot 30: September 11, 2024 The Zoning Permits were approved contingent upon the construction and completion of a retaining wall prior to the Certificate of Occupancy being issued for each lot. Town Code Section 148-315.4.a. Revision to Subdivision Design requires that any change must be approved by the Town in accordance with the procedures of this chapter prior to field changes. The extent of the revision determines whether or not the change to the plans can be approved administratively or by the Planning Commission. The prior approval was for no slope to be greater than a 3:1 ratio with retaining walls. The proposed changes, i.e. no retaining walls cannot be approved administratively. This constitutes a revision to the major site development.
<i>CONCLUSION</i>	Staff do not support approval of the amendment. Staff recommends that the Planning Commission deny the amendment in favor of the previous approval with retaining walls.

ATTACHMENTS:

1. Application
2. Slope Stability Analysis for Happy Creek Lots 4-6 TM: 20A213-4-4 to 6 and House Location Surveys Showing No Retaining Walls
3. Previous Zoning Permit Approvals and Proposed House Location Surveys Showing Required Retaining Walls for Lots 4, 5, and 6
4. Staff Slope Profile and Renderings of the Existing Properties Lots 4, 5, and 6
5. Town Consultant's Review Comments on the Slope Stability Analysis
7. Slope Stability Analysis for Happy Creek Lots 29-30 TM: 20A213-4-29 to 30 and House Location Surveys Showing No Retaining Walls
8. Previous Zoning Permit Approvals and House Location Surveys Showing Required Retaining Walls for Lots 29 and 30
9. Staff Slope Profile and Renderings of the Existing Properties Lots 29 and 30
10. Town Consultant's Review Comments on the Slope Stability Analysis
11. Town Code Chapter 148-860 Environmental Improvements
12. Previously Approved Subdivision Plan Pages 1, 2, 5 and 6



TOWN OF FRONT ROYAL

DEPARTMENT OF PLANNING & ZONING
102 EAST MAIN STREET
P.O. BOX 1560
FRONT ROYAL, VA 22630

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Internet: www.frontroyalva.com

FRSITE FRSUB1521-2019

RECEIVED
JAN 29 2025

**TOWN OF FRONT ROYAL
PLANNING & ZONING DEPARTMENT**

DEVELOPMENT APPLICATION REQUEST FOR SITE PLAN APPROVAL

APPLICANT

NAME Amber Johnson - Maronda Homes of Virginia LLC PHONE 703-753-7020

ADDRESS 7051 Heathcote Village Way Suite 255 Gainesville VA 20155

Designated Contact for Applicant permittingva@maronda.com

PROPERTY DESCRIPTION

PROPERTY ADDRESS 1193, 1191, 1189, 1194 & 1196 Happy Ridge Dr

TAX MAP 20A21 SECTION 3 BLOCK 4 LOT 4-6, 29 & 30

SUBDIVISION NAME Happy Creek Knolls ACREAGE .25

REQUEST

ZONING DISTRICT _____

PROPOSED USE OF PROPERTY Single Family Residential Home - Remove retaining wall

PROPOSED BUILDING SIZE _____

BUILDING COVERAGE _____

NUMBER OF PARKING SPACES PROVIDED _____

AMOUNT OF OPEN SPACE AREA _____

ATTACHMENTS ----The following **must** be submitted with this application. Additional information may be required depending on the nature of the request.

1. Four (4) copies of the site plan, prepared in accordance with the requirements of Town Code Section 148-1020. Fewer paper copies may be allowed for Minor Site Plan Applications as determined by the Planning and Zoning Director.
2. One (1) digital copy of the site plan.
3. Application Fee.

(The required number of copies of the Erosion and Sediment Plan should be to the Warren County Bldg. Inspection office, as their approval is required before the development plan can be approved by the Town.)

CERTIFICATION

I certify that the information provided with this application is correct to the best of my knowledge, and the project will be implemented as presented and approved by the Town of Front Royal, in accordance with the Town's Land Development Regulations (Chapter 148) and Zoning Ordinance (Chapter 175).

Signature [Signature] Date 1/29/25

Fee: Site Development Plan, Minor \$100 Site Development Plan, Major \$750

See Town Code Section 148-900 for definition of Major and Minor Site Development Plan

Amount Received: 750.00 Date 1-29-25

By submitting this application, the applicant grants permission to Town officials and employees to enter upon the property, which is the subject of this application, during reasonable hours and for purposes related to the application process.

Revised 8-23-19



CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

December 9, 2024

Mr. Marty Rhodes
Moranda Homes
7051 Heathcote Village Way, Suite 255
Gainesville, VA 20155

Re: Slope Stability Analysis for Happy Creek Lots 4-6 TM: 20A213-4-4 to -6, Warren County, 22630.

Dear Mr. Rhodes:

In accordance with your authorization, Soil Consultants Engineering Inc. (SCE) has completed a Slope Stability Analysis for the existing slope along the lots at TM: 20A213-4-4 to -6, Warren County, and we are pleased to provide you this Slope Stability Analysis for the above referenced project. The following paragraphs present the results from subsurface exploration performed by Soil Consultants Engineering, LLC (SCE) and Slope Stability Analysis of the encountered soil conditions. SCE personnel explored the subsurface conditions of the site on November 15, 2024 by advancing four (4) soil test borings (B-9 through B-12) with an ATV-Mounted CME45 Drill Rig equipped with a manual drop hammer and rotary hollow stem augers (HSA 3 1/4-inch).

In the soil test borings, the soil was tested using continuous penetration through fill material and sampled using split-spoon samplers in accordance with ASTM D-1586 sampling procedures. A geologist from SCE logged the soil cuttings and samples in the field as the drilling proceeded.

The cuttings and samples were visually classified in accordance with the Unified Soil Classification System (USCS). Samples of the soils were obtained at selected depths and were taken to our geotechnical laboratory for further visual examination and testing.

The approximate test boring locations are shown on a copy of the site plan entitled "Boring Location Plan", which is in the appendix in this report.

Soil Consultants selected the number and location of the test borings to provide general coverage subject for stability review at the required slope locations onsite. The crew estimated the location of the borings in the field by using existing site features.

While performing the subsurface exploration, our staff engineer logged the recovered soil samples and observed ground water conditions during the drilling. The samples were transported to our office where representative samples were logged into our laboratory for soil classification.

The Soil Consultants laboratory performed two (2) classification tests, per ASTM D-2487, on representative soil samples and four (4) natural moisture samples in accordance with ASTM D-2216.

The logs of the soil test borings, along with our laboratory classification of the recovered soil samples, are presented in the appendices. The strata boundaries indicated on our logs are an interpretation of the soil profile. Soil types often grade into one another, and the strata changes are usually gradual rather than distinct.

OBSERVED SUBSURFACE CONDITIONS

The subsurface conditions at the site generally consist of two (2) distinct soil strata, as summarized within the table below. Detailed boring logs can be found in the appendix; the boring logs included in the appendix should be reviewed for specific information at the boring locations, in the attached “**Boring Logs**”. The strata boundaries indicated on our logs are an interpretation of the subsurface profile. Soil types often grade into one another, and the strata changes are usually gradual rather than distinct.

Summary of Subsurface Boring Profiles

Approximate Depth Range (feet)	Approximate Elevation Range (feet)	Stratum	Description	SPT N-Values (bpf)
0.0 – 5.5	702.0 – 690.0	I	FILL consisting of very stiff to hard SILT (ML) and very dense Silty SAND (SM).	23 – 57
1.8 – 30.0	700.2 – 664.0	II	Native, interbedded stiff to very stiff SILT (ML), stiff to very stiff ELASTIC SILT (MH), stiff SILT with sand (ML), stiff to hard Sandy SILT (ML), stiff to very stiff Lean CLAY (CL), and very stiff Sandy Lean CLAY (CL)	13 – 42

*The approximate elevation ranges and depth ranges represent the highest and lowest elevations that the associated stratum were found at. The ranges overlap while presented as a summary within this report, but this overlap is due to the different elevations of the borings onsite.

Groundwater was not encountered during time of drilling. Observed water level elevations serve as an indication of the water level at the specified elevations at a specific time of year and may be higher or lower depending on the season. Mottling, an indication of high seasonal water table, was also not encountered.

The Soil Consultants laboratory performed two (2) classification tests in accordance with ASTM D-2487 and four (4) natural moisture content tests in accordance with ASTM D-2216 on representative soil samples. The results of the laboratory classification tests are summarized in the following table:

Summary of Laboratory Testing Results

Boring No.	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Gravel (%)	Sand (%)	% <200 Sieve	Classification USCS	Water Content (%)
B-9	19.5	77	47	30	0.0	6.5	93.5	MH	48.2
B-10	24.5	--	--	--	--	--	--	--	60.5
B-11	9.5	47	23	24	1.4	40.6	58.0	CL	21.4
B-12	24.5	--	--	--	--	--	--	--	62.1

“NP” is abbreviated for “non-plastic”, a term used when soils exhibit non-plastic behavior. Typically, these soils contain limited amounts of cohesive soils, i.e., silt and clay, and mainly consist of “clean” coarse-grained soils. Non-plastic soils do not have a transitional phase between the solid phase and liquid phases, and immediately exhibit liquid properties when water is added to the sample.

SLOPE STABILITY ANALYSIS

To investigate the stability of the existing steep slope, Soil Consultants Engineering performed global stability analysis at two cross sections, E-E’ and F-F’.

The geometry of the slope at the selected cross section locations was modeled for the stability analysis after reviewing the provided Warren County global stability analyses request and Site Plan. Global stability analysis of the slope cross section was performed using the simplified Bishop method.

SCE test borings indicate a soil profile of stiff to very stiff SILT (ML), stiff to very stiff ELASTIC SILT (MH), stiff SILT with sand (ML), stiff to hard Sandy SILT (ML), stiff to very stiff Lean CLAY (CL), and very stiff Sandy Lean CLAY (CL). The table below summarizes the soil parameters used in the slope stability analysis.

Summary of Material Parameters used in the Global Stability Analyses

Soil Description	Soil Type No	Total Unit Weight (pcf)	Saturated Unit Weight (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)
FILL	1	120	125		28
CL ML	2	115	120		26
ML CL	3	120	125		30
CL ML	4	120	125		32
MH	5	120	125		30
GM	6	130	135		35
Concrete	7	140	145	8000	

Slope stability analysis of the slope cross-section was performed and the minimum factors of safety were calculated for globally stable condition in E-E’ and F-F’, shown in the table below:

Factors of Safety from Global Stability Analyses

Cross Section	Minimum Factor of Safety Required	Modelled Factor of Safety
E-E’	1.5	1.94
F-F’	1.5	1.74

The failure planes with the factors of safety are shown in the slope stability results for the cross sections of the slope included in Appendix of this report.

SCE global stability analysis results indicated that the slope does have sufficient factor of safety against global stability. The failure surface presented in our analyses is an indication of potential future deep global instability.

At the time of this report, we are still awaiting the results of simple direct shear testing on soil samples taken in Shelby Tubes during drilling. If these results differ from our assumed values, we will conduct the slope stability analysis again and re-issue the report with the updated results.

CONCLUSIONS

In summary, it is our professional opinion based on the results of our evaluation that the slopes will be stable. Since there is no planned development on the top of the slope, man-caused factors will only affect the surface of the slope. We recommend surface protection measures such as vegetative matting to protect the surface of the slope from erosion and weathering that could lead to minor slope failures. We thank you for the opportunity to be of service. If you should have any questions regarding this letter, please do not hesitate to contact us.

Sincerely,

For: SOIL CONSULTANTS ENGINEERING, LLC.

12/10/2024



Warner Neal
Geotechnical Assistant



Lubomir Peytchev, P.E.
Principal Engineer

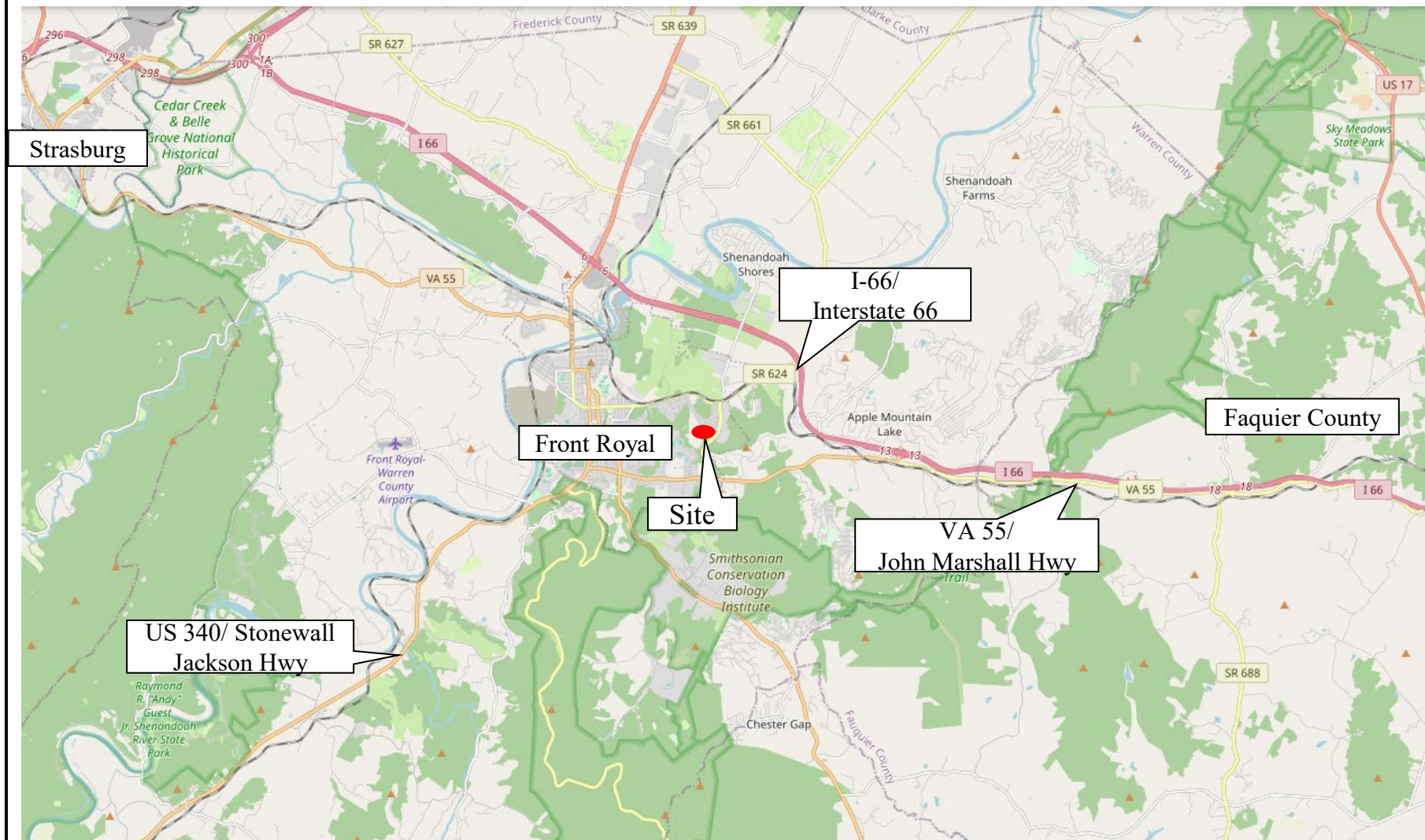
SCE #: 24-0367V

Enclosed:

- Site Vicinity Map
- Boring Locations Plan
- Log of Test Borings with Key to Terms and Symbols
- Laboratory Test Results
- Slope Stability Analysis

APPENDIX

Map Source: USGS 2024– Not to Scale



SITE VICINITY MAP
Happy Creek Knolls



CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

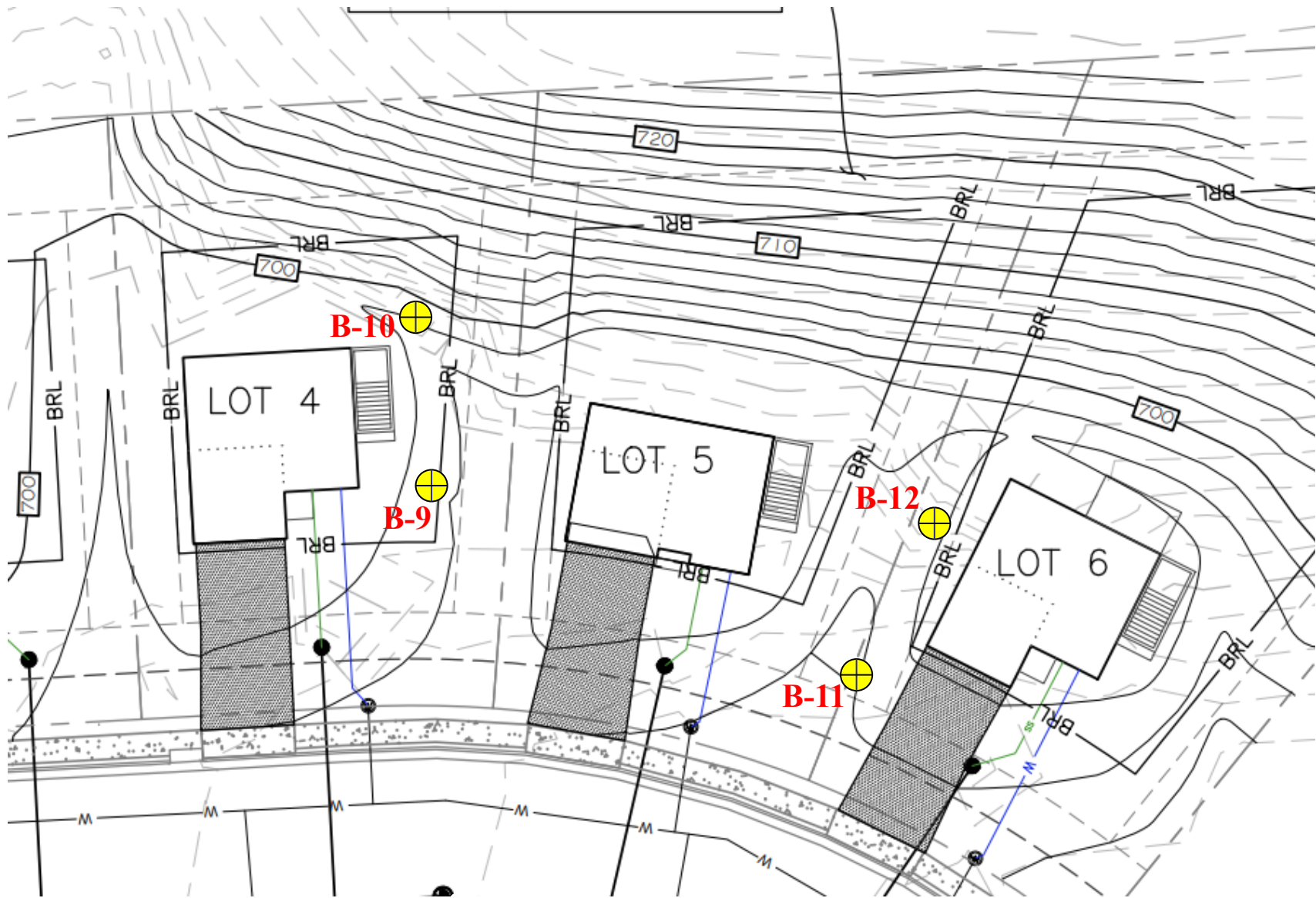
TM: 20A213-4-4 to -6, Warren County, 22630

12/09/2024

WN

Not Drawn To Scale

24-0367V



LEGEND

Approx. Boring Location



B-1



BORING LOCATION PLAN Happy Creek Knolls



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TM: 20A213-4-4 to -6, Warren County, 22630

12/09/2024

WN

Not Drawn To Scale

24-0367V



Soil Consultants Engineering, LLC
9303 Center Street
Manassas, VA 20110
Telephone: (703) 366-3000
Fax: (703) 366-3400

BOREHOLE NUMBER B-09

Sheet 1 of 1

CLIENT Mr. Marty Rhodes

PROJECT NUMBER 24-0367V

DATE STARTED 11-15-2024 COMPLETED 11-15-2024

DRILLING CONTRACTOR RECON Drilling

DRILLING METHOD Hollow Stem Auger, 3 1/4 inches

EQUIPMENT ATV-Mounted CME45 with Manual Drop Hammer

HOLE SIZE 6.0 in.

LOGGED BY Warner Neal CHECKED BY Lubo Peytchev

PROJECT NAME Happy Creek Knolls

PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630

POSITION

GROUND ELEVATION 698.00 ft FINAL DEPTH 20.00 ft

GROUNDWATER LEVELS:

▽ AT TIME OF DRILLING Dry

▼ AT END OF DRILLING Dry; Cave-in at 13.5 ft

▽ AFTER DRILLING N/A

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
		0.50	SILT (ML): very stiff; yellow; wet; little sand; FILL.	697.50							
			SILT (ML): very stiff; yellowish-red; moist; FILL.		83	6-10-19-19 (29)					
		2.50		695.50							
			SILT (ML): very stiff; red and yellow; moist; Natural.		100	7-11-12-12 (23)					
		4.00		694.00							
5	693		Lean CLAY (CL): very stiff; reddish-yellow; moist; Natural								
			Pockets of siltier material.		100	8-10-10-14 (20)					
10	688				100	6-7-9 (16)					
		14.00		684.00							
15	683		Sandy SILT (ML): stiff to very stiff; yellow; moist; Natural.		78	5-5-8 (13)					
		19.00		679.00							
			Elastic SILT (MH): very stiff; grayish-purple; moist; Natural.		56	9-9-10 (19)	48	77	47	30	94
20	678	20.00	Terminated at 20.00 ft.	678.00							

NOTES



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BOREHOLE NUMBER B-10

Sheet 1 of 1

CLIENT Mr. Marty Rhodes
PROJECT NUMBER 24-0367V
DATE STARTED 11-15-2024 **COMPLETED** 11-15-2024
DRILLING CONTRACTOR RECON Drilling
DRILLING METHOD Hollow Stem Auger, 3 1/4 inches
EQUIPMENT ATV-Mounted CME45 with Manual Drop Hammer
HOLE SIZE 6.0 in.
LOGGED BY Warner Neal **CHECKED BY** Lubo Peytchev

PROJECT NAME Happy Creek Knolls
PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630
POSITION
GROUND ELEVATION 702.00 ft **FINAL DEPTH** 30.00 ft
GROUNDWATER LEVELS:
▽ **AT TIME OF DRILLING** Dry
▼ **AT END OF DRILLING** Dry; Cave-in at 20.0 ft
▼ **AFTER DRILLING** N/A

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)
			SILT (ML): hard; strong red; moist; little sand, little gravel; FILL.				
			1.80	700.20	58	5-19-16-10 (35)	
			SILT (ML): very stiff; red and yellow; moist; Natural.				
			4.00	698.00	100	7-10-9 (19)	
5	697		SILT with sand (ML): stiff; red and yellow; moist; Natural Pockets of clayey material.				
			9.50	692.50	100	4-4-7 (11)	
10	692		Lean CLAY (CL): stiff; purplish-gray; moist; Natural.				
			13.50	688.50	83	5-8-9 (17)	
15	687		Sandy SILT (ML): very stiff; yellow and red; moist; Natural.				
			19.50	682.50	83	4-9-13 (22)	
20	682		SILT (ML): very stiff; yellow; moist; Natural.				
			23.50	678.50	89	8-11-13 (24)	
25	677		Sandy SILT (ML): very stiff; yellow; moist; Natural.				60
			28.50	673.50			
			29.50	672.50	89	8-9-10 (19)	
30	672		30.00 Lean CLAY with sand (CL): very stiff; yellow; moist; Natural. Terminated at 30.00 ft.	672.00			

NOTES



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BOREHOLE NUMBER B-11

Sheet 1 of 1

CLIENT Mr. Marty Rhodes
PROJECT NUMBER 24-0367V
DATE STARTED 11-15-2024 **COMPLETED** 11-15-2024
DRILLING CONTRACTOR RECON Drilling
DRILLING METHOD Hollow Stem Auger, 3 1/4 inches
EQUIPMENT ATV-Mounted CME45 with Manual Drop Hammer
HOLE SIZE 6.0 in.
LOGGED BY Warner Neal **CHECKED BY** Lubo Peytchev

PROJECT NAME Happy Creek Knolls
PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630
POSITION
GROUND ELEVATION 694.00 ft **FINAL DEPTH** 20.00 ft
GROUNDWATER LEVELS:
▽ **AT TIME OF DRILLING** Dry
▼ **AT END OF DRILLING** Dry; Cave-in at 12.0 ft
▽ **AFTER DRILLING** N/A

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
			Silty SAND (SM): very dense; grayish-brown; moist; little gravel; FILL.		79	11-23-34-33 (57)					
					79	23-23-27-38 (50)					
		3.80		690.20							
			SILT (ML): hard; brownish-red; moist; few gravel; FILL.								
5	689	5.50		688.50	88	14-23-25-26 (48)					
			Sandy Lean CLAY (CL): very stiff; strong red; moist; trace gravel; Natural.								
10	684				100	8-13-14 (27)	21	47	23	24	58
		14.00		680.00							
			Sandy SILT (ML): hard; strong red; moist; few gravel; Natural.		100	14-21-21 (42)					
15	679										
		18.50		675.50							
			SILT (ML): very stiff; strong red; moist; little sand; Natural.		100	10-12-14 (26)					
20	674	20.00		674.00							
			Terminated at 20.00 ft.								

NOTES



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BOREHOLE NUMBER B-12

Sheet 1 of 1

CLIENT Mr. Marty Rhodes
PROJECT NUMBER 24-0367V
DATE STARTED 11-15-2024 **COMPLETED** 11-15-2024
DRILLING CONTRACTOR RECON Drilling
DRILLING METHOD Hollow Stem Auger, 3 1/4 inches
EQUIPMENT ATV-Mounted CME45 with Manual Drop Hammer
HOLE SIZE 6.0 in.
LOGGED BY Warner Neal **CHECKED BY** Lubo Peytchev

PROJECT NAME Happy Creek Knolls
PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630
POSITION
GROUND ELEVATION 694.00 ft **FINAL DEPTH** 30.00 ft
GROUNDWATER LEVELS:
▽ **AT TIME OF DRILLING** Dry
▼ **AT END OF DRILLING** Dry; Cave-in at 20.5 ft
▽ **AFTER DRILLING** N/A

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)
			SILT (ML): hard; strong red; moist; little fine gravel; FILL.		71	14-17-19-20 (36)	
					71	9-13-17-18 (30)	
5	689		SILT (ML): very stiff; red with yellow; moist; trace fine gravel; Natural.		71	8-9-14-14 (23)	
10	684				72	7-10-16 (26)	
15	679		SILT (ML): stiff; red and yellow; moist; Natural.		67	6-7-8 (15)	
20	674		Lean CLAY (CL): stiff; bluish-gray; moist; little sand; Natural.		78	5-8-6 (14)	
25	669		Sandy SILT (ML): stiff; yellow; moist; Natural. Elastic SILT (MH): stiff; red and yellow; moist; trace sand; Natural.		67	5-7-6 (13)	62
30	664		Sandy SILT (ML): very stiff; light yellow; moist; Natural. Terminated at 30.00 ft.		61	9-11-11 (22)	

NOTES

KEY TO TERMS AND SYMBOLS

USCS SYMBOLS

	FILL – MAN-PLACED SOILS
	ASPHALT
	CONCRETE
	BEDROCK
	PEAT
	(OL) LOW PLASTICITY ORGANIC CLAY OR SILT
	(OH) ORGANIC SILT OR CLAY
	(ML) SILT
	(MH) ELASTIC SILT
	(CL) LEAN CLAY
	(CH) FAT CLAY
	(GP) POORLY-GRADED GRAVEL
	(GW) WELL-GRADED GRAVEL
	(GM) SILTY GRAVEL
	(GC) CLAYEY GRAVEL
	(SP) POORLY-GRADED SAND
	(SW) WELL-GRADED SAND
	(SC) CLAYEY SAND
	(SM) SILTY SAND

PENETRATION (SPT) RESISTANCE

DENSITY (SANDS, GRAVELS)		CONSISTENCY (SILTS, CLAYS)	
N-VALUE	TERM	N-VALUE	TERM
0 – 4	VERY LOOSE	0 – 2	VERY SOFT
5 – 10	LOOSE	3 – 4	SOFT
11 – 30	MED. DENSE	5 – 8	FIRM
31 – 50	DENSE	9 – 15	STIFF
50+	VERY DENSE	16 – 30	VERY STIFF
		31 – 50	HARD
		50+	VERY HARD

PARTICLE SIZE IDENTIFICATION

BOULDERS	GREATER THAN 12 INCHES
COBBLES	3 TO 12 INCHES
GRAVEL	COARSE - 3/4 INCH - 3 INCHES FINE - 4.75 MM - 3/4 INCH
SAND	COARSE - 2 MM – 4.75 MM MEDIUM - 0.425 MM – 2 MM FINE - 0.075 MM – 0.42 MM
SILT	0.005 MM – 0.075 MM
CLAY	LESS THAN 0.005 MM

WATER LEVEL DESIGNATION

	LEVEL AT TIME OF DRILLING
	LEVEL AT END OF DRILLING
	LEVEL AFTER DRILLING (24H+)

RELATIVE COMPOSITION OF SOILS

MAJOR CONSTITUENT

CONSTITUENT 50% OR MORE OF THE SAMPLE AND IS WRITTEN IN CAPITAL LETTERS. IF NO COMPONENT IS GREATER THAN 50%, THE PREDOMINANT COMPONENT IS CAPITALIZED.

MINOR CONSTITUENT

CONSTITUENT 25% - 40% OF SOIL TYPE AND WILL BE WRITTEN WITH THE FIRST LETTER OF THE SOIL TYPE CAPITALIZED.

ACCESSORY CONSTITUENTS

TRACE = <5%, FEW = 5 TO 10%, LITTLE = 11 TO 20%, WITH = 15 TO 25%, SOME = 21 TO 35%, AND = 36 TO 50%



SCE
SOIL CONSULTANTS ENGINEERING

ROCK KEY TO TERMS AND SYMBOLS

DEGREE OF WEATHERING

UNWEATHERED

ROCK GENERALLY FRESH, JOINTS LIGHTLY STAINED AND DISCOLORATION EXTENDS INTO ROCK NO MORE THAN ½ IN, OPEN JOINTS MAY CONTAIN CLAY, CORE RINGS UNDER HAMMER IMPACT.

WEATHERED

ROCK MASS DECOMPOSED 50% OR LESS, SIGNIFICANT DISCOLORATION, CORE CANNOT BE BROKEN BY HAND OR SCRAPED BY KNIFE

HIGHLY WEATHERED

ROCK MASS IS MORE THAN 50% DECOMPOSED, COMPLETE DISCOLORATION OF ROCK FABRIC, CORE MAY BE EXTREMELY BROKEN AND GIVES CLUNK SOUND WHEN STRUCK BY HAMMER, MAY BE SHAVED WITH A KNIFE.

SCALE OF RELATIVE ROCK HARDNESS

CONSISTENCY	TSF
EXTREMELY SOFT	2.5 - 10
VERY SOFT	10 - 50
SOFT	50 - 250
MEDIUM HARD	250 – 525
MODERATELY HARD	525-1,050
HARD	1,050 – 2,600
VERY HARD	> 2,600

ROCK VOIDS

VOIDS	VOID DIAMETER
PIT	< ½ IN
VUG	½ IN – 2 IN
CAVITY	2 IN – 24 IN
CAVE	>24 IN

ROCK QUALITY DESCRIPTION

ROCK MASS DESCRIPTION

RQD VALUE (%)

EXCELLENT	90-100
GOOD	75-90
FAIR	50-75
POOR	25-50
VERY POOR	LESS THAN 25

ROCK BEDDING THICKNESS

DESCRIPTION	CRITERIA
VERY THICK BEDDED	GREATER THAN 3 FT
THICK BEDDED	1 FT – 3 FT
MEDIUM BEDDED	4 IN – 1 FT
THIN BEDDED	1 ¼ IN – 4 IN
VERY THIN BEDDED	½ IN – 1 ¼ IN
THICKLY LAMINATED	1/8 IN – ½ IN
THINLY LAMINATED	1/8 IN OR LESS

GRAIN SIZE TERMINOLOGY

COMPONENT	SIZE RANGE
VERY COARSE GRAINED	>4.76 MM
COARSE GRAINED	2.0 MM – 4.76 MM
MEDIUM GRAINED	0.42 MM – 2.0 MM
FINE GRAINED	0.075 MM – 0.42 MM
VERY FINE GRAINED	<0.075 MM

STRUCTURE DESCRIPTION

DESCRIPTION	CRITERIA	DESCRIPTION	CRITERIA
STRATIFIED	ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST ¼ -IN THICK	LENSED	INCLUSION OF SMALL POCKETS OF DIFFERENT SOILS
LAMINATED	ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN ¼ -IN THICK	LAYER	INCLUSION GREATER THAN 3-IN THICK
FISSURED	BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING	SEAM	INCLUSION 1/8 IN – 3 IN THICK EXTENDING THROUGH THE SAMPLE
SLICKENED	FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED	PARTING	INCLUSION LESS THAN 1/8 IN THICK
BLOCKY	COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALL ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN		

SUMMARY OF LABORATORY RESULTS

CLIENT Mr. Marty Rhodes

PROJECT NAME Happy Creek Knolls

PROJECT NUMBER 24-0367V

PROJECT LOCATION Lot 4-6, Happy Ridge Dr, Front Royal, VA 22630

[illegible]



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Manassas, VA 20110
Telephone: (703) 366-3000
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GRAIN SIZE DISTRIBUTION

CLIENT Mr. Marty Rhodes

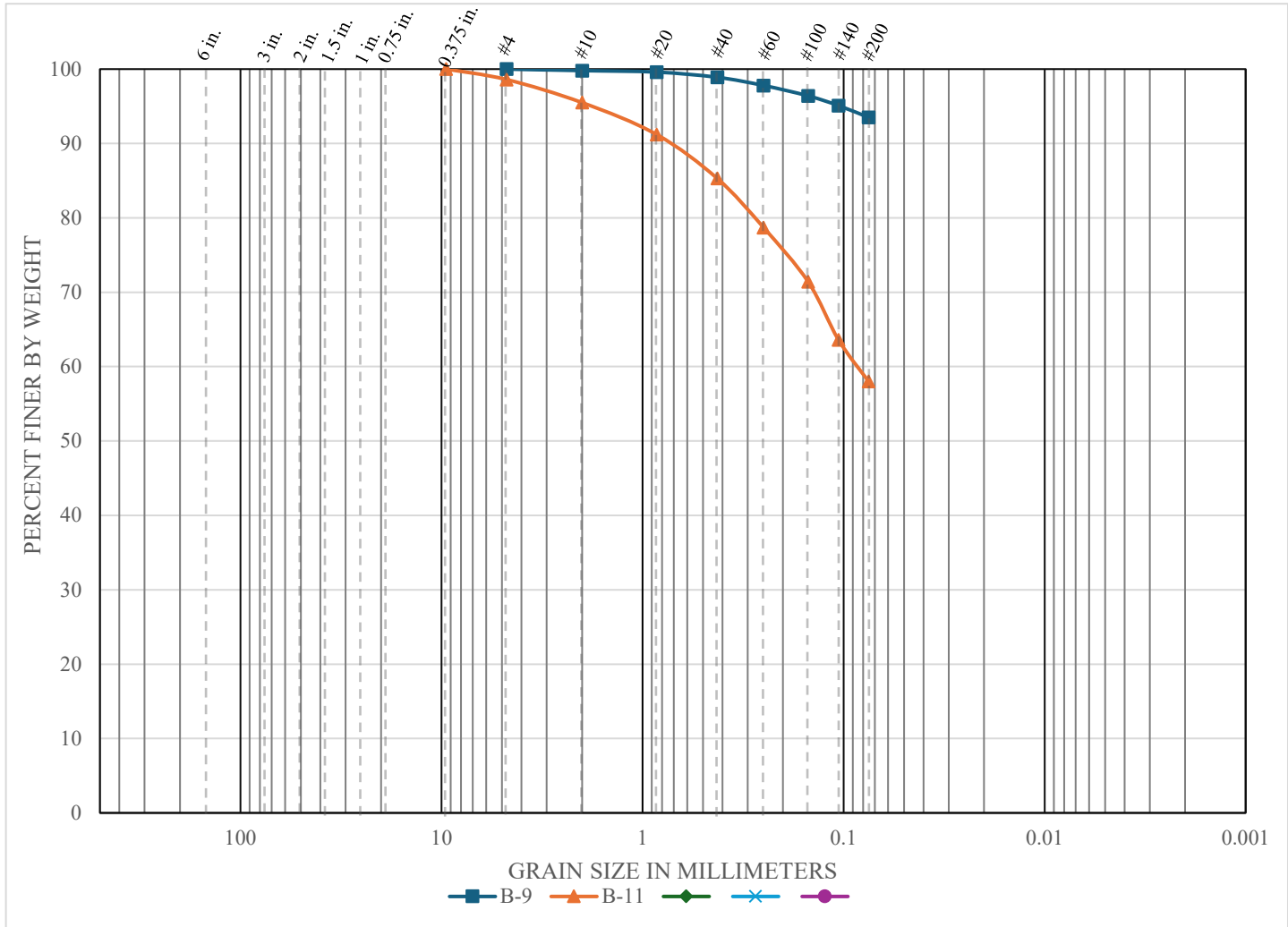
PROJECT NAME

Happy Creek Knolls

PROJECT NUMBER 24-0367V

PROJECT LOCATION

Lot 4-6, Happy Ridge Dr, Front Royal, VA 22630



BOREHOLE	DEPTH	CLASSIFICATION			LL	PL	PI	Cc	Cu
B-9	19.5	ELASTIC SILT			77	47	30		
B-11	9.5	Sandy Lean CLAY			47	23	24		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Fines	
B-9	19.5	4.75				0.0	6.5	93.5	
B-11	9.5	9.5	0.086			1.4	40.6	58.0	

ATTERBERG LIMITS' RESULTS

CLIENT Mr. Marty Rhodes

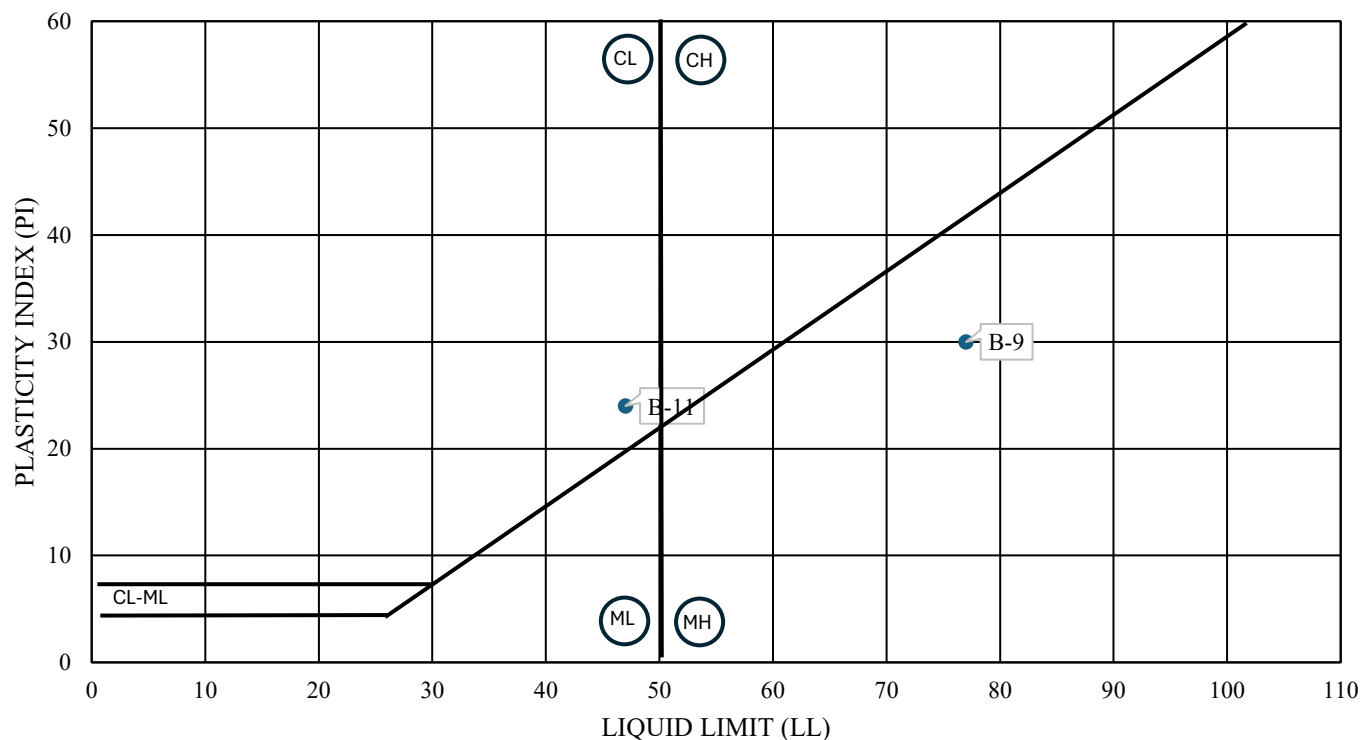
PROJECT NAME

Happy Creek Knolls

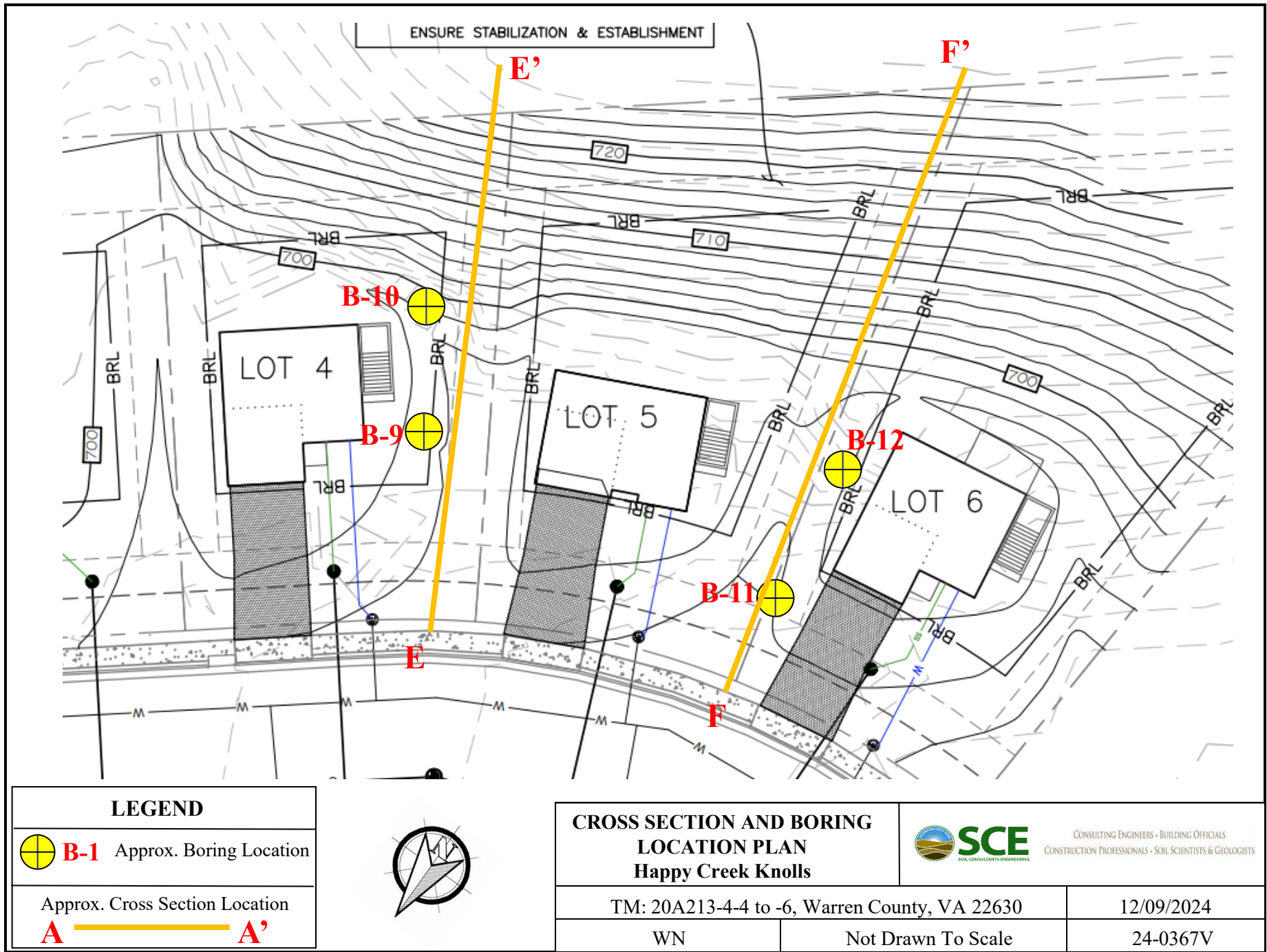
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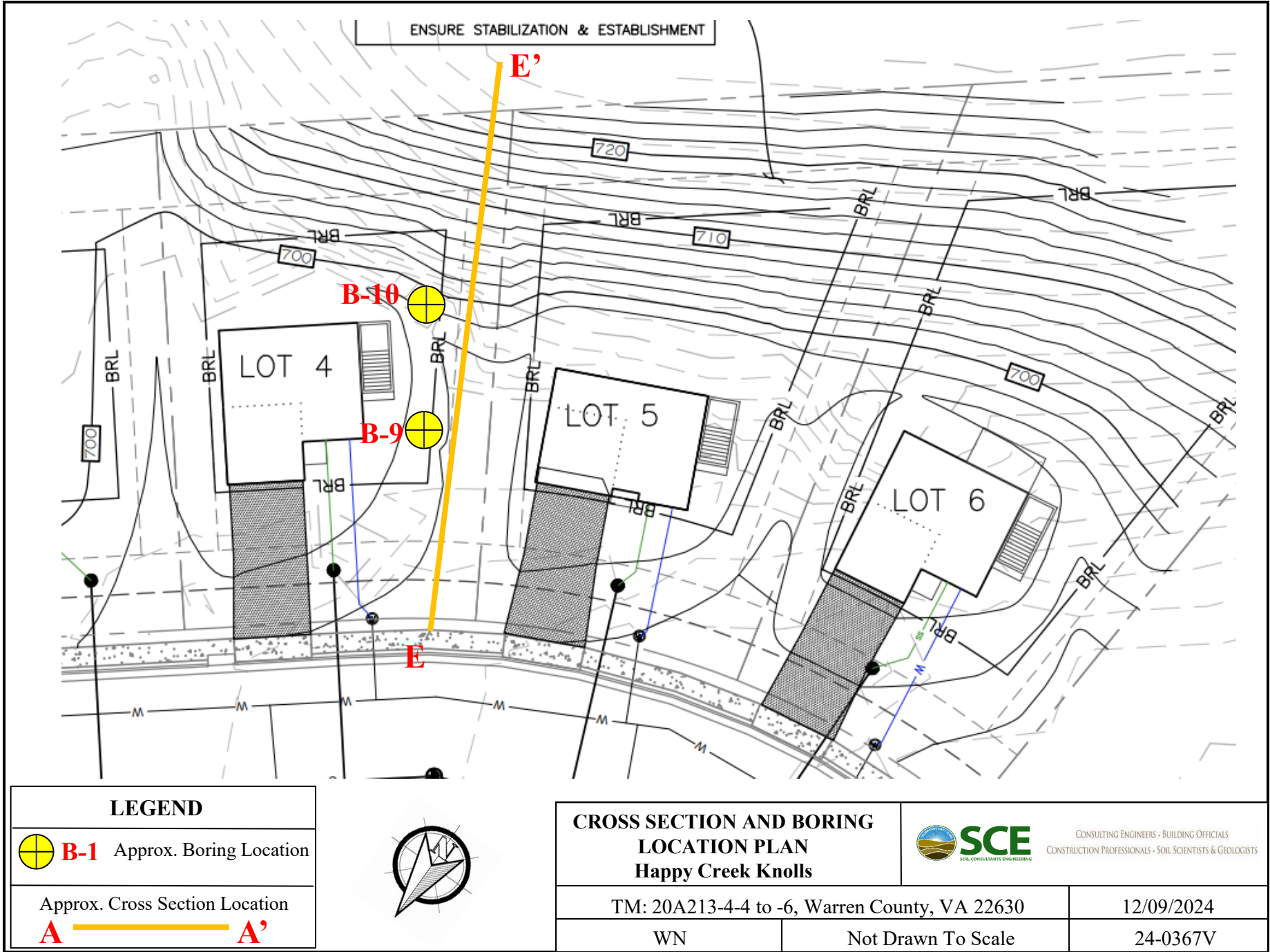
PROJECT LOCATION

Lot 4-6, Happy Ridge Dr, Front Royal, VA 22630

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SLOPE STABILITY ANALYSIS

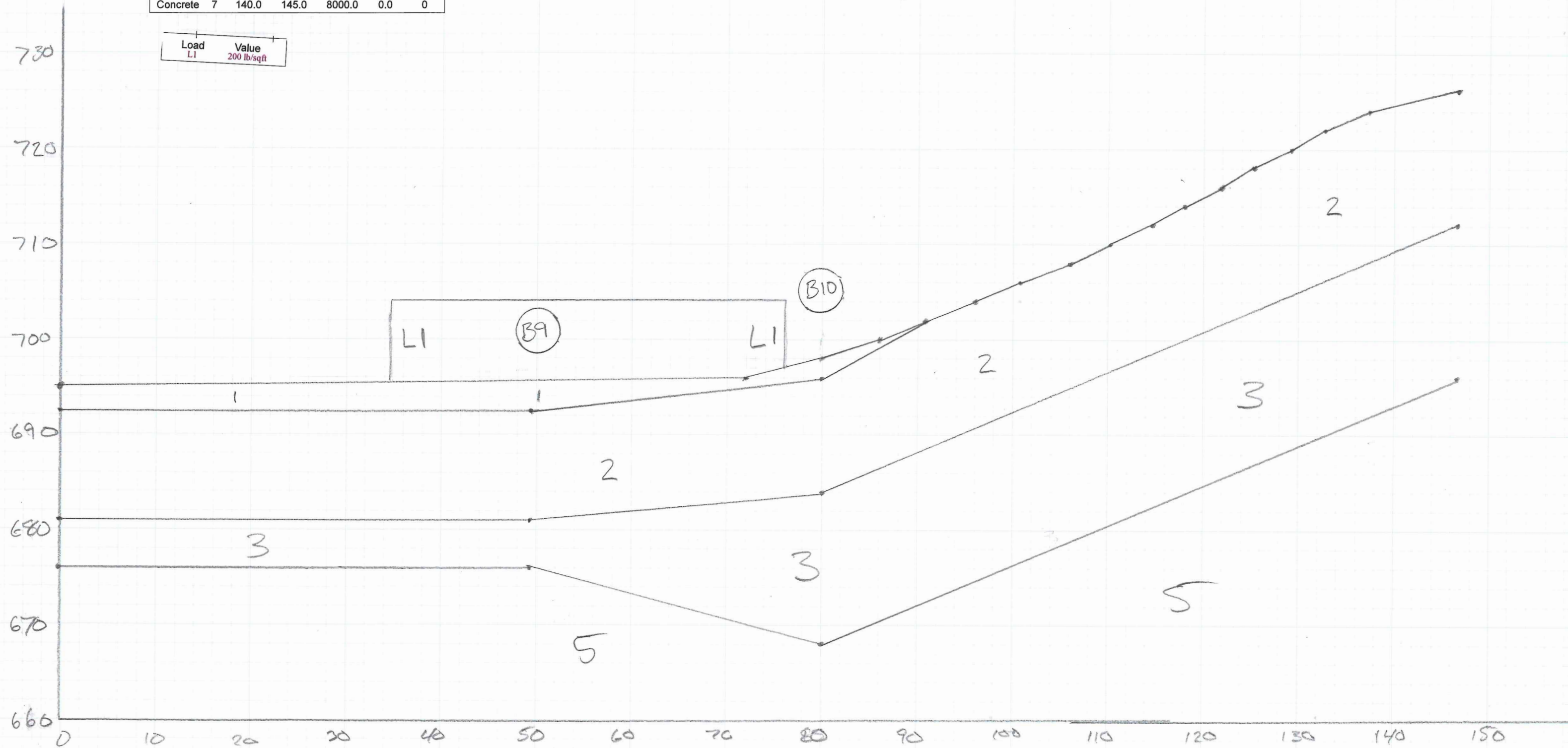




24-0367V_Happy_Creek_Lot_4_E-E'

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
FILL ML	1	120.0	125.0	0.0	28.0	0
CL ML	2	115.0	120.0	0.0	26.0	0
ML CL	3	120.0	125.0	0.0	30.0	0
CL ML	4	120.0	125.0	0.0	32.0	0
MH	5	120.0	125.0	0.0	30.0	0
GM	6	130.0	135.0	0.0	35.0	0
Concrete	7	140.0	145.0	8000.0	0.0	0

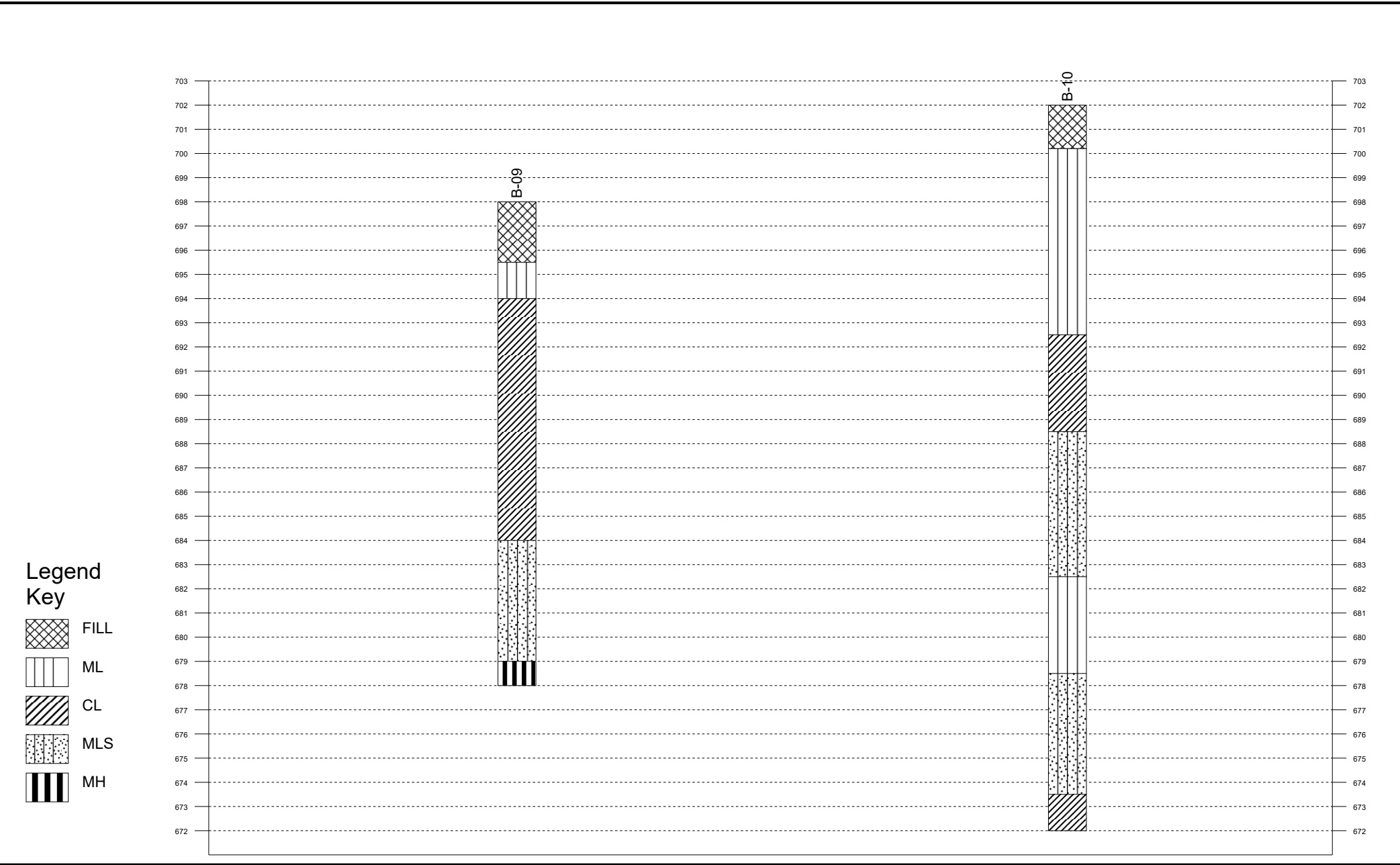
Load
LI Value
200 lb/sqft



CLIENT Mr. Marty Rhodes
PROJECT NUMBER 24-0367V

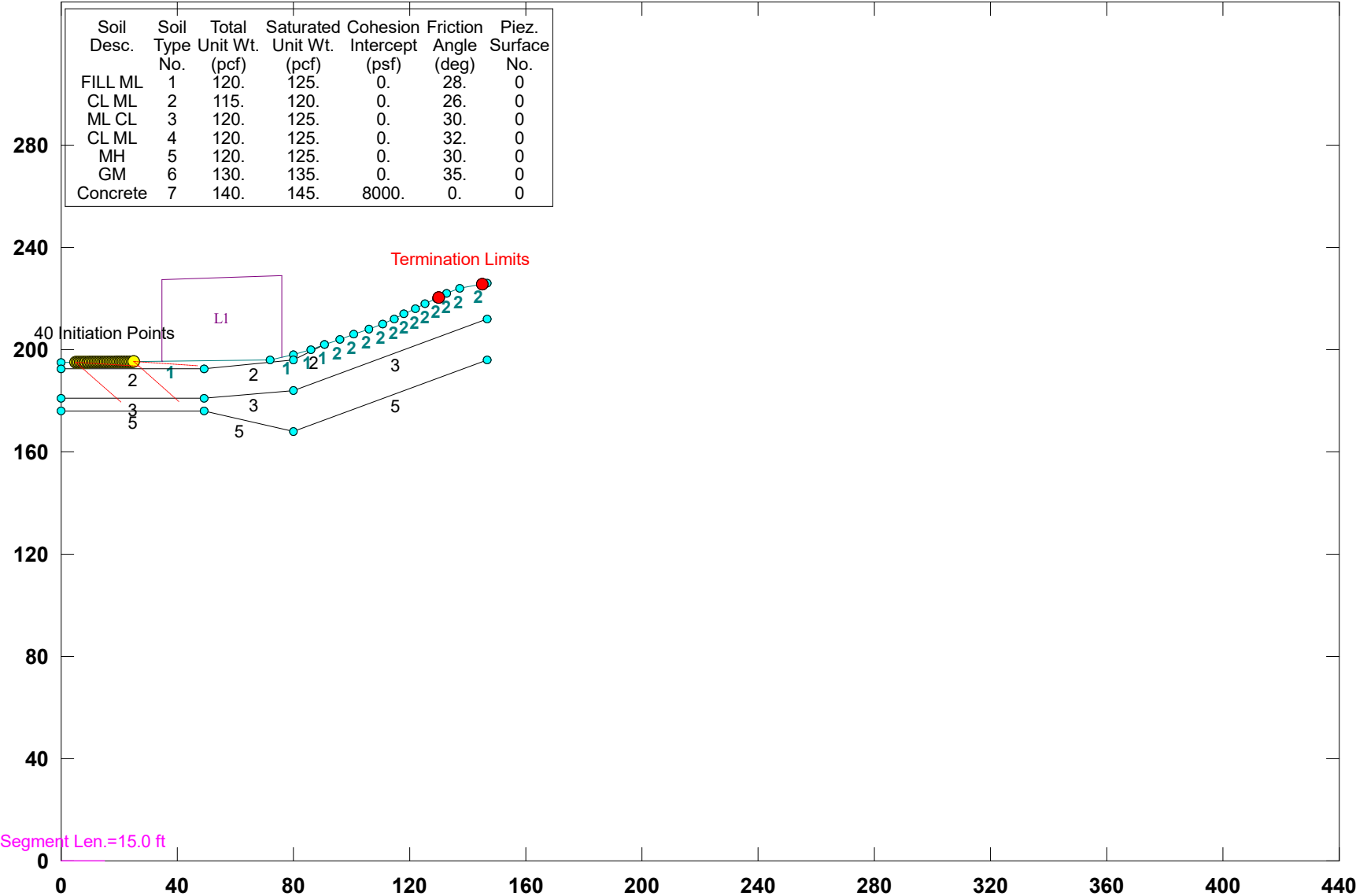
PROJECT NAME Happy Creek Knolls
PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630

VERTICAL SCALE 1:64
HORIZONTAL SCALE 1:191



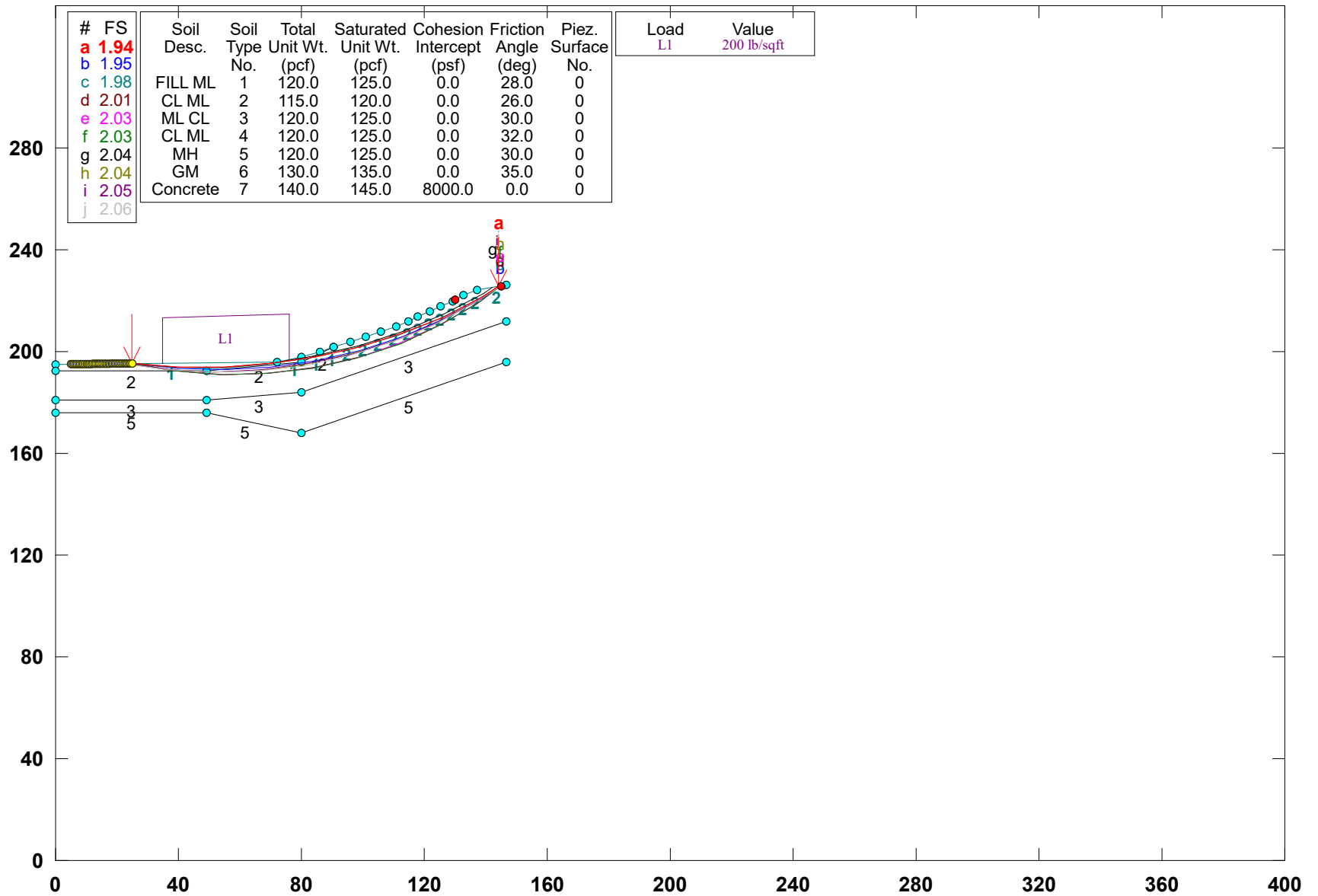
24-0367V_Happy_Creek_Lot_4_E-E'

c:\users\lpeytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_4_12-9-24.pl0 Geometry Preview 12/9/2024 11:47 AM



24-0367V_Happy_Creek_Lot_4_E-E'

c:\users\peytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_4_12-9-24.pl2 Run By: Username 12/9/2024 11:46AM



**** STABL6H ****

by

Purdue University

--Slope Stability Analysis--

Simplified Janbu, Simplified Bishop

or Spencer's Method of Slices

Run Date: 12/9/2024

Time of Run: 11:46AM

Run By: Username

Input Data Filename: C:24-0367v_happy_creek_lot_4_12-9-24.

Output Filename: C:24-0367v_happy_creek_lot_4_12-9-24.OUT

Plotted Output Filename: C:24-0367v_happy_creek_lot_4_12-9-24.PLT

PROBLEM DESCRIPTION 24-0367V_Happy_Creek_Lot_4_E-E'

BOUNDARY COORDINATES

16 Top Boundaries

25 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	195.00	72.00	196.00	1
2	72.00	196.00	80.00	198.00	1
3	80.00	198.00	86.00	200.00	1
4	86.00	200.00	90.70	202.00	1
5	90.70	202.00	96.00	204.00	2
6	96.00	204.00	100.70	206.00	2
7	100.70	206.00	106.00	208.00	2
8	106.00	208.00	110.70	210.00	2
9	110.70	210.00	114.70	212.00	2
10	114.70	212.00	118.00	214.00	2
11	118.00	214.00	122.00	216.00	2
12	122.00	216.00	125.30	218.00	2
13	125.30	218.00	129.30	220.00	2
14	129.30	220.00	132.70	222.00	2
15	132.70	222.00	137.30	224.00	2
16	137.30	224.00	146.70	226.00	2
17	0.00	192.50	49.30	192.50	2
18	49.30	192.50	80.00	196.00	2
19	80.00	196.00	90.70	202.00	2
20	0.00	181.00	49.30	181.00	3
21	49.30	181.00	80.00	184.00	3
22	80.00	184.00	146.70	212.00	3
23	0.00	176.00	49.30	176.00	5
24	49.30	176.00	80.00	168.00	5
25	80.00	168.00	146.70	196.00	5

ISOTROPIC SOIL PARAMETERS

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	120.0	125.0	0.0	28.0	0.00	0.0	0
2	115.0	120.0	0.0	26.0	0.00	0.0	0
3	120.0	125.0	0.0	30.0	0.00	0.0	0
4	120.0	125.0	0.0	32.0	0.00	0.0	0
5	120.0	125.0	0.0	30.0	0.00	0.0	0
6	130.0	135.0	0.0	35.0	0.00	0.0	0
7	140.0	145.0	8000.0	0.0	0.00	0.0	0

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	34.70	76.00	200.0	0.0

NOTE - Intensity Is Specified As A Uniformly Distributed

Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Circular Surfaces, Has Been Specified.

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 5.00 ft.

and X = 25.00 ft.

Each Surface Terminates Between X = 130.00 ft.

and X = 145.00 ft.

Unless Further Limitations Were Imposed, The Minimum Elevation
 At Which A Surface Extends Is Y = 0.00 ft.
 15.00 ft. Line Segments Define Each Trial Failure Surface.
 Following Are Displayed The Ten Most Critical Of The Trial
 Failure Surfaces Examined. They Are Ordered - Most Critical
 First.

* * Safety Factors Are Calculated By The Modified Bishop Method * *

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	25.00	195.35
2	39.94	193.98
3	54.94	193.97
4	69.88	195.33
5	84.63	198.04
6	99.07	202.09
7	113.09	207.43
8	126.56	214.03
9	139.38	221.82
10	144.34	225.50

Circle Center At X = 47.5 ; Y = 358.5 and Radius, 164.7
 *** 1.935 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	25.00	195.35
2	39.86	193.28
3	54.85	192.75
4	69.81	193.76
5	84.60	196.29
6	99.05	200.32
7	113.01	205.81
8	126.33	212.70
9	138.88	220.92
10	144.59	225.55

Circle Center At X = 52.5 ; Y = 339.1 and Radius, 146.4
 *** 1.953 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	22.95	195.32
2	37.87	193.79
3	52.87	193.62
4	67.82	194.81
5	82.60	197.36
6	97.09	201.25
7	111.17	206.43
8	124.71	212.87
9	137.62	220.52
10	144.56	225.54

Circle Center At X = 47.2 ; Y = 358.3 and Radius, 164.8
 *** 1.981 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	25.00	195.35
2	39.70	192.36
3	54.65	191.11
4	69.64	191.64
5	84.46	193.91
6	98.92	197.92
7	112.81	203.59
8	125.93	210.86
9	138.11	219.62
10	144.59	225.55

Circle Center At X = 57.7 ; Y = 318.6 and Radius, 127.5
 *** 2.005 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
--------------	----------------	----------------

1	23.97	195.33
2	38.66	192.28
3	53.60	190.97
4	68.60	191.42
5	83.44	193.61
6	97.92	197.53
7	111.84	203.11
8	125.01	210.29
9	137.25	218.95
10	144.58	225.55

Circle Center At X = 57.3 ; Y = 318.9 and Radius, 128.0
 *** 2.027 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	23.97	195.33
2	38.65	192.22
3	53.59	190.86
4	68.58	191.27
5	83.42	193.44
6	97.90	197.35
7	111.82	202.94
8	124.98	210.14
9	137.21	218.83
10	144.62	225.56

Circle Center At X = 57.6 ; Y = 317.7 and Radius, 126.9
 *** 2.031 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	25.00	195.35
2	39.94	194.05
3	54.94	194.13
4	69.87	195.58
5	84.61	198.40
6	99.02	202.55
7	112.99	208.01
8	126.40	214.73
9	139.14	222.65
10	142.35	225.08

Circle Center At X = 46.6 ; Y = 357.3 and Radius, 163.4
 *** 2.035 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	21.41	195.30
2	36.21	192.86
3	51.19	191.98
4	66.17	192.66
5	81.00	194.88
6	95.53	198.64
7	109.58	203.88
8	123.02	210.55
9	135.69	218.58
10	144.49	225.53

Circle Center At X = 52.2 ; Y = 336.3 and Radius, 144.4
 *** 2.039 ***

Failure Surface Specified By 10 Coordinate Points

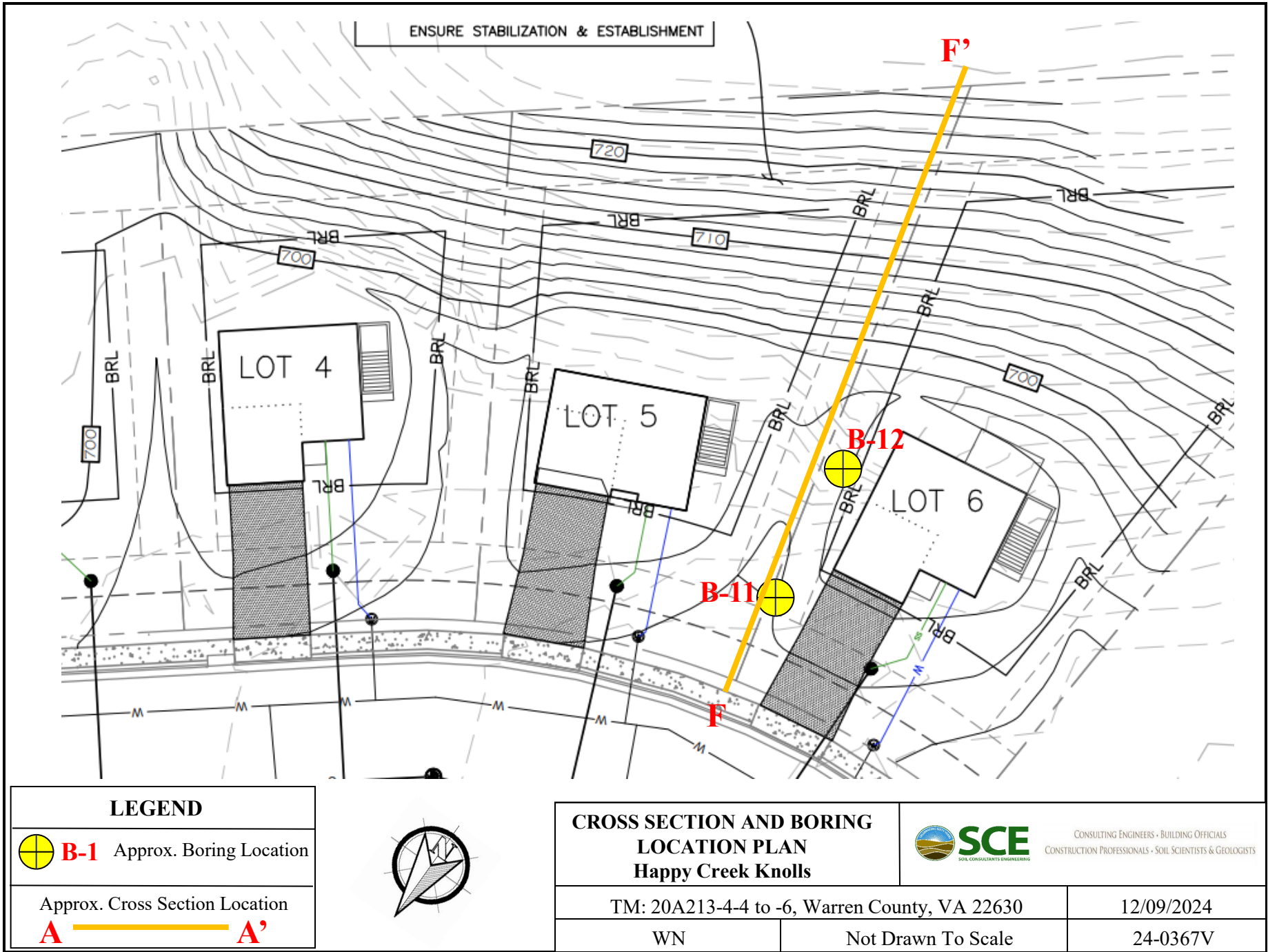
Point No.	X-Surf (ft)	Y-Surf (ft)
1	22.44	195.31
2	37.24	192.92
3	52.22	192.09
4	67.20	192.85
5	82.02	195.19
6	96.51	199.07
7	110.51	204.45
8	123.87	211.28
9	136.43	219.47
10	143.64	225.35

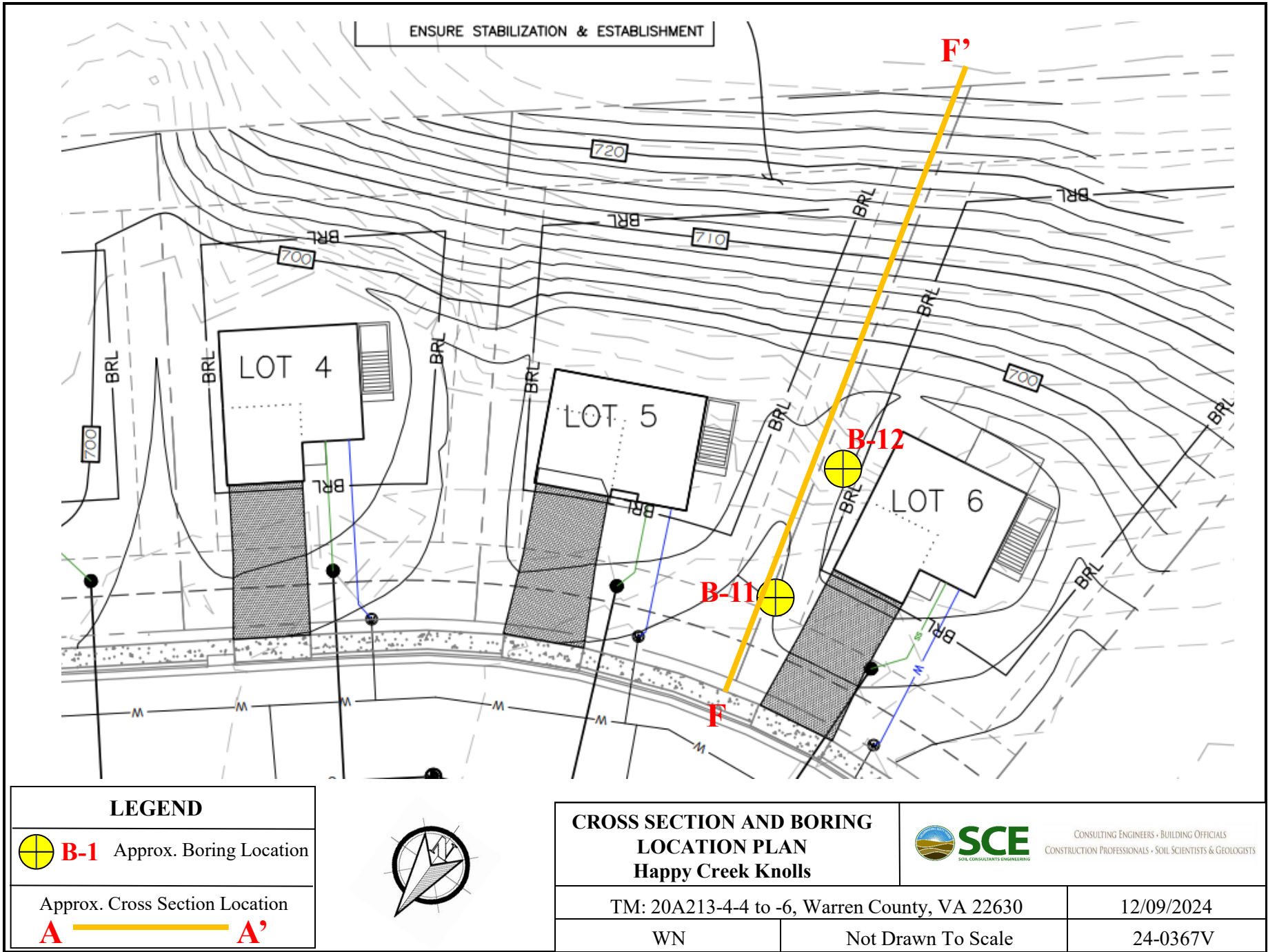
Circle Center At X = 52.5 ; Y = 334.4 and Radius, 142.3
 *** 2.049 ***

Failure Surface Specified By 10 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	21.41	195.30
2	36.19	192.74
3	51.16	191.77
4	66.15	192.39
5	80.98	194.60
6	95.50	198.37
7	109.54	203.66
8	122.93	210.41
9	135.53	218.54
10	144.07	225.44

Circle Center At X = 52.8 ; Y = 332.9 and Radius, 141.1
 *** 2.059 ***







Soil Consultants Engineering, LLC
9303 Center Street
Manassas, VA 20110
Telephone: (703) 366-3000
Fax: (703) 366-3400

Lot 6 F-F' Subsurface

CLIENT Mr. Marty Rhodes

PROJECT NAME Happy Creek Knolls

VERTICAL SCALE 1:64

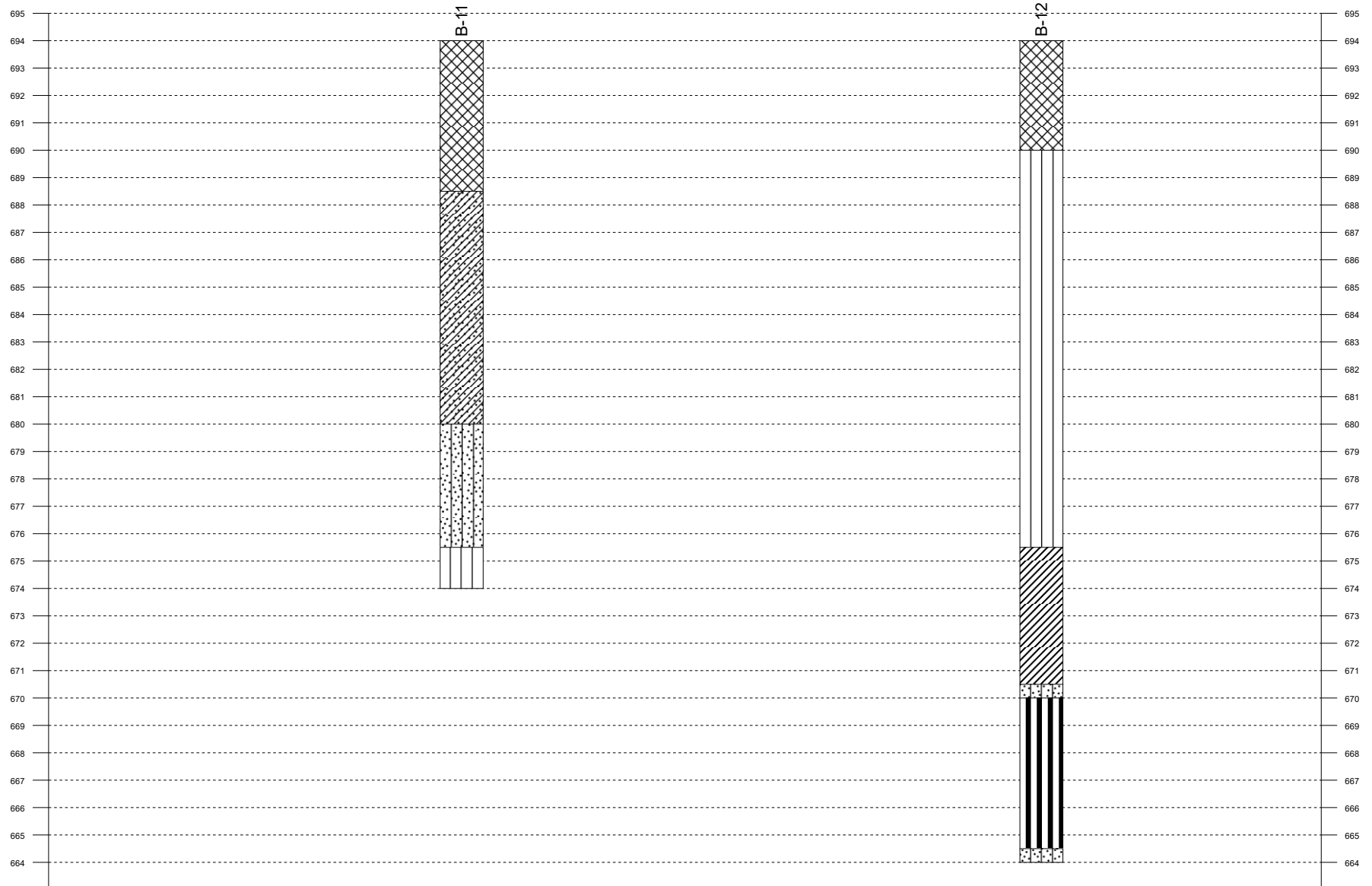
PROJECT NUMBER 24-0367V

PROJECT LOCATION TM: 20A213-4-4 to -6, Warren County, 22630

HORIZONTAL SCALE 1:173

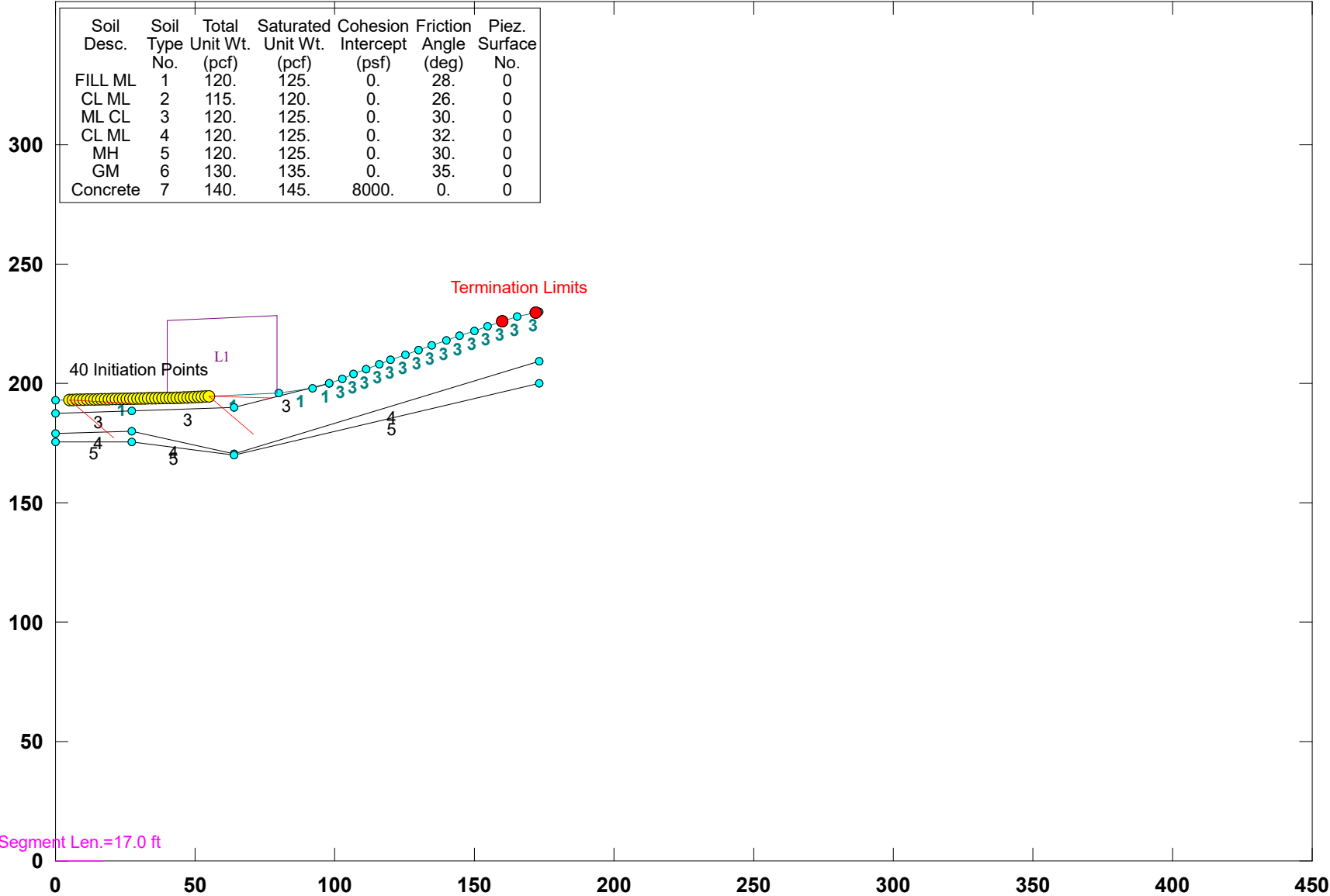
Legend Key

-  FILL
-  ML
-  CLS
-  MLS
-  CL
-  MH



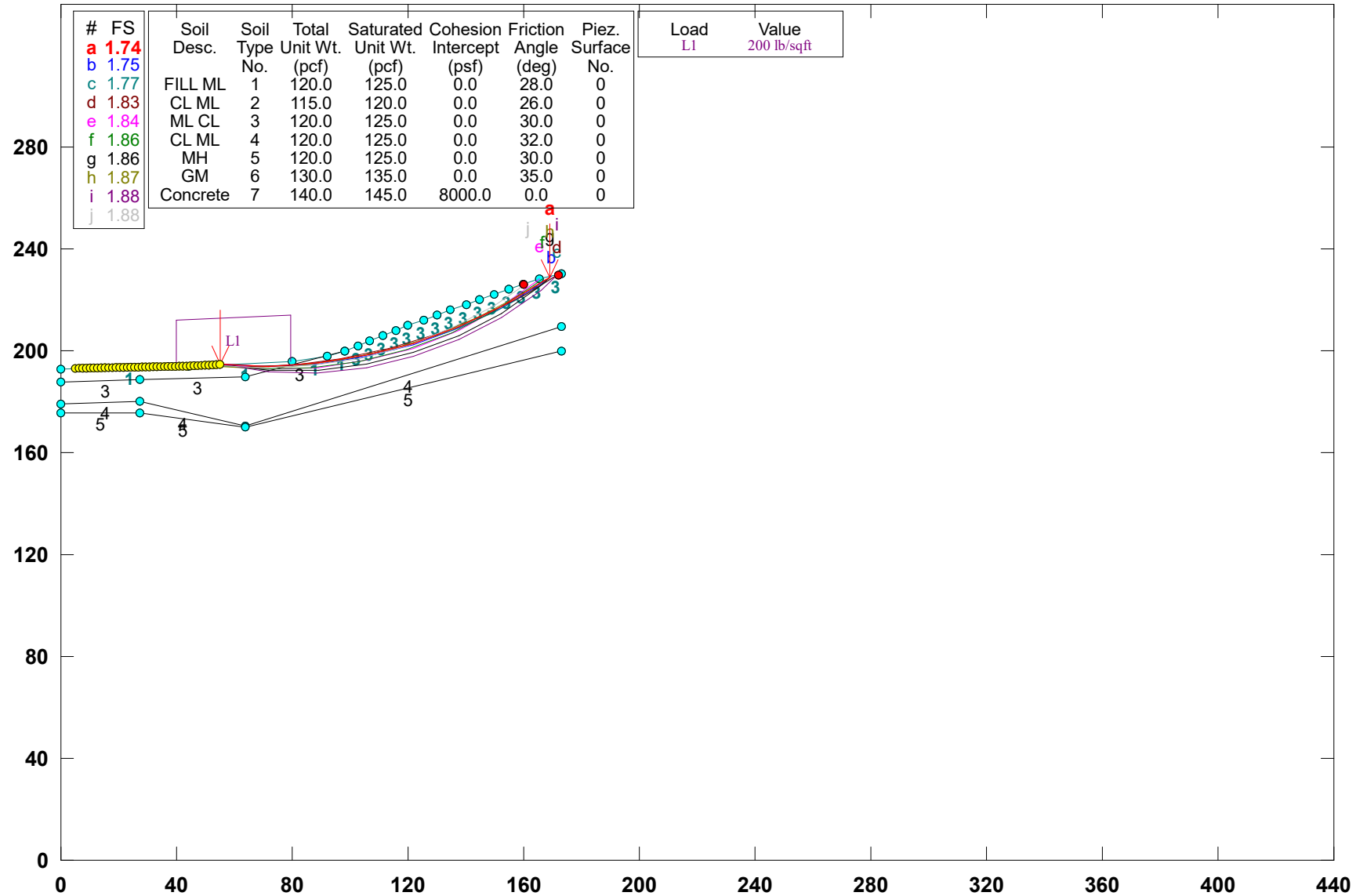
24-0367V_Happy_Creek_Lot_6_F-F'

c:\users\lpeytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_6_12-9-24.pl0 Geometry Preview 12/9/2024 11:58 AM



24-0367V_Happy_Creek_Lot_6_F-F'

c:\users\lpeytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_6_12-9-24.pl2 Run By: Username 12/9/2024 11:57AM



STABL6H FSmin=1.74

Safety Factors Are Calculated By The Modified Bishop Method

**** STABL6H ****

by

Purdue University

--Slope Stability Analysis--

Simplified Janbu, Simplified Bishop

or Spencer's Method of Slices

Run Date: 12/9/2024

Time of Run: 11:57AM

Run By: Username

Input Data Filename: C:24-0367v_happy_creek_lot_6_12-9-24.

Output Filename: C:24-0367v_happy_creek_lot_6_12-9-24.OUT

Plotted Output Filename: C:24-0367v_happy_creek_lot_6_12-9-24.PLT

PROBLEM DESCRIPTION 24-0367V_Happy_Creek_Lot_6_F-F'

BOUNDARY COORDINATES

19 Top Boundaries

28 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	193.00	44.00	194.00	1
2	44.00	194.00	80.00	196.00	1
3	80.00	196.00	92.00	198.00	1
4	92.00	198.00	98.00	200.00	1
5	98.00	200.00	102.70	202.00	3
6	102.70	202.00	106.70	204.00	3
7	106.70	204.00	111.30	206.00	3
8	111.30	206.00	116.00	208.00	3
9	116.00	208.00	120.00	210.00	3
10	120.00	210.00	125.30	212.00	3
11	125.30	212.00	130.00	214.00	3
12	130.00	214.00	134.70	216.00	3
13	134.70	216.00	140.00	218.00	3
14	140.00	218.00	144.70	220.00	3
15	144.70	220.00	150.00	222.00	3
16	150.00	222.00	154.70	224.00	3
17	154.70	224.00	160.00	226.00	3
18	160.00	226.00	165.30	228.00	3
19	165.30	228.00	173.30	230.00	3
20	0.00	187.50	27.30	188.50	3
21	27.30	188.50	64.00	190.00	3
22	64.00	190.00	98.00	200.00	3
23	0.00	179.00	27.30	180.00	4
24	27.30	180.00	64.00	170.50	4
25	64.00	170.50	173.30	209.30	4
26	0.00	175.50	27.30	175.50	5
27	27.30	175.50	64.00	170.00	5
28	64.00	170.00	173.30	200.00	5

ISOTROPIC SOIL PARAMETERS

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	120.0	125.0	0.0	28.0	0.00	0.0	0
2	115.0	120.0	0.0	26.0	0.00	0.0	0
3	120.0	125.0	0.0	30.0	0.00	0.0	0
4	120.0	125.0	0.0	32.0	0.00	0.0	0
5	120.0	125.0	0.0	30.0	0.00	0.0	0
6	130.0	135.0	0.0	35.0	0.00	0.0	0
7	140.0	145.0	8000.0	0.0	0.00	0.0	0

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	40.00	79.30	200.0	0.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.
A Critical Failure Surface Searching Method, Using A Random Technique For Generating Circular Surfaces, Has Been Specified.
1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 5.00 ft.

and X = 55.00 ft.
 Each Surface Terminates Between X = 160.00 ft.
 and X = 172.00 ft.
 Unless Further Limitations Were Imposed, The Minimum Elevation
 At Which A Surface Extends Is Y = 0.00 ft.
 17.00 ft. Line Segments Define Each Trial Failure Surface.
 Following Are Displayed The Ten Most Critical Of The Trial
 Failure Surfaces Examined. They Are Ordered - Most Critical
 First.

* * Safety Factors Are Calculated By The Modified Bishop Method * *
 Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	55.00	194.61
2	71.99	194.01
3	88.95	195.21
4	105.68	198.20
5	122.01	202.95
6	137.74	209.40
7	152.69	217.47
8	166.71	227.09
9	168.80	228.88

Circle Center At X = 69.2 ; Y = 354.3 and Radius, 160.3
 *** 1.740 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	55.00	194.61
2	71.98	193.84
3	88.95	194.92
4	105.70	197.82
5	122.04	202.51
6	137.77	208.95
7	152.72	217.05
8	166.70	226.72
9	169.36	229.01

Circle Center At X = 70.6 ; Y = 350.8 and Radius, 157.0
 *** 1.749 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	51.15	194.40
2	68.14	193.76
3	85.11	194.78
4	101.90	197.46
5	118.35	201.77
6	134.29	207.66
7	149.59	215.08
8	164.08	223.96
9	171.46	229.54

Circle Center At X = 66.2 ; Y = 367.5 and Radius, 173.8
 *** 1.770 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	46.03	194.11
2	63.02	193.56
3	79.99	194.53
4	96.81	197.02
5	113.33	201.01
6	129.43	206.46
7	144.98	213.34
8	159.85	221.58
9	171.65	229.59

Circle Center At X = 60.7 ; Y = 382.9 and Radius, 189.4
 *** 1.826 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	55.00	194.61

2	71.92	192.94
3	88.91	193.48
4	105.69	196.23
5	121.96	201.13
6	137.47	208.10
7	151.94	217.03
8	165.12	227.76
9	165.36	228.01

Circle Center At X = 76.3 ; Y = 323.5 and Radius, 130.6
 *** 1.843 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	52.44	194.47
2	69.37	192.91
3	86.36	193.42
4	103.16	195.99
5	119.53	200.58
6	135.22	207.12
7	150.01	215.51
8	163.66	225.64
9	166.45	228.29

Circle Center At X = 73.7 ; Y = 332.7 and Radius, 139.9
 *** 1.857 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	55.00	194.61
2	71.85	192.33
3	88.85	192.34
4	105.69	194.65
5	122.07	199.20
6	137.69	205.92
7	152.26	214.68
8	165.51	225.32
9	168.91	228.90

Circle Center At X = 80.3 ; Y = 317.9 and Radius, 125.9
 *** 1.858 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	46.03	194.11
2	63.00	193.25
3	79.99	194.05
4	96.81	196.49
5	113.32	200.55
6	129.35	206.19
7	144.77	213.37
8	159.41	222.00
9	168.85	228.89

Circle Center At X = 63.3 ; Y = 368.2 and Radius, 174.9
 *** 1.874 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	55.00	194.61
2	71.77	191.85
3	88.77	191.44
4	105.66	193.41
5	122.11	197.69
6	137.80	204.23
7	152.43	212.88
8	165.73	223.48
9	171.46	229.54

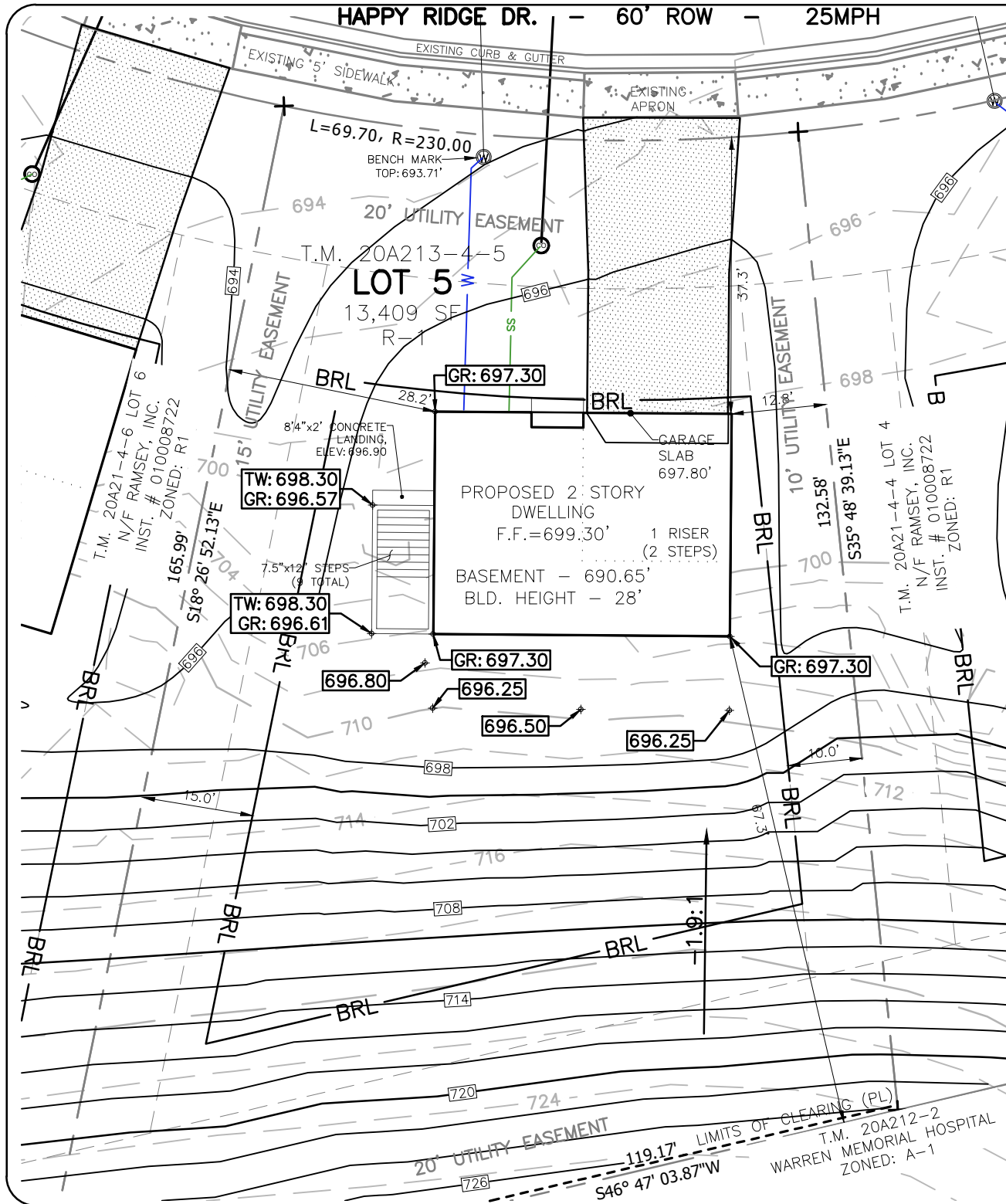
Circle Center At X = 83.2 ; Y = 313.3 and Radius, 122.0
 *** 1.880 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	52.44	194.47

2	69.39	193.25
3	86.37	194.10
4	103.12	196.99
5	119.40	201.90
6	134.96	208.73
7	149.59	217.41
8	161.43	226.54

Circle Center At X = 70.9 ; Y = 333.3 and Radius, 140.1
*** 1.881 ***



LOT 5

HAPPY CREEK MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA

EX. CONTOUR --- 706 ---
PR. CONTOUR --- 706 ---
SETBACK LINE --- BRL ---
EX. WATER --- W ---
EX. SANITARY --- S ---
PR. WATER --- W ---
PR. SANITARY --- SS ---
EX. WATER METER --- W ---
EX. SANITARY CLEANOUT --- ● ---

*THIS PLAT DOES NOT
GUARANTEE THE EXISTANCE
OR NON-EXISTANCE OF
UTILITIES WITHIN THE WORK
LIMITS. CALL MISS UTILITY AT
811 OR 1-800-552-7001
BEFORE DIGGING

*THE LOT GRADING SHOWN
HEREON IS INTENDED FOR THE
CONSTRUCTION AND DRAINAGE
FOR THE SPECIFIC LOT ONLY.
ADJACENT LOT GRADING AND
HOUSE LOCATION IS
ILLUSTRATIVE AND SUBJECT TO
CHANGE WITHOUT NOTICE.

ELEVATION DATUM: NAVD 88

BOUNDARIES SHOWN HEREON ARE BASED ON FINAL PLAT PER
INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY
EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL
EASEMENTS OF RECORD.

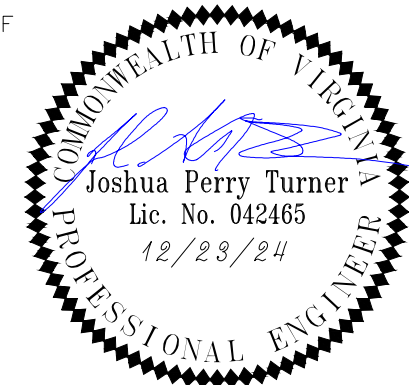
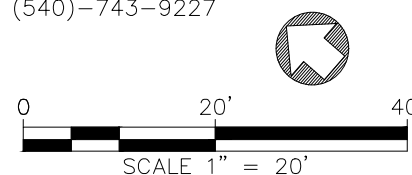
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE
AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

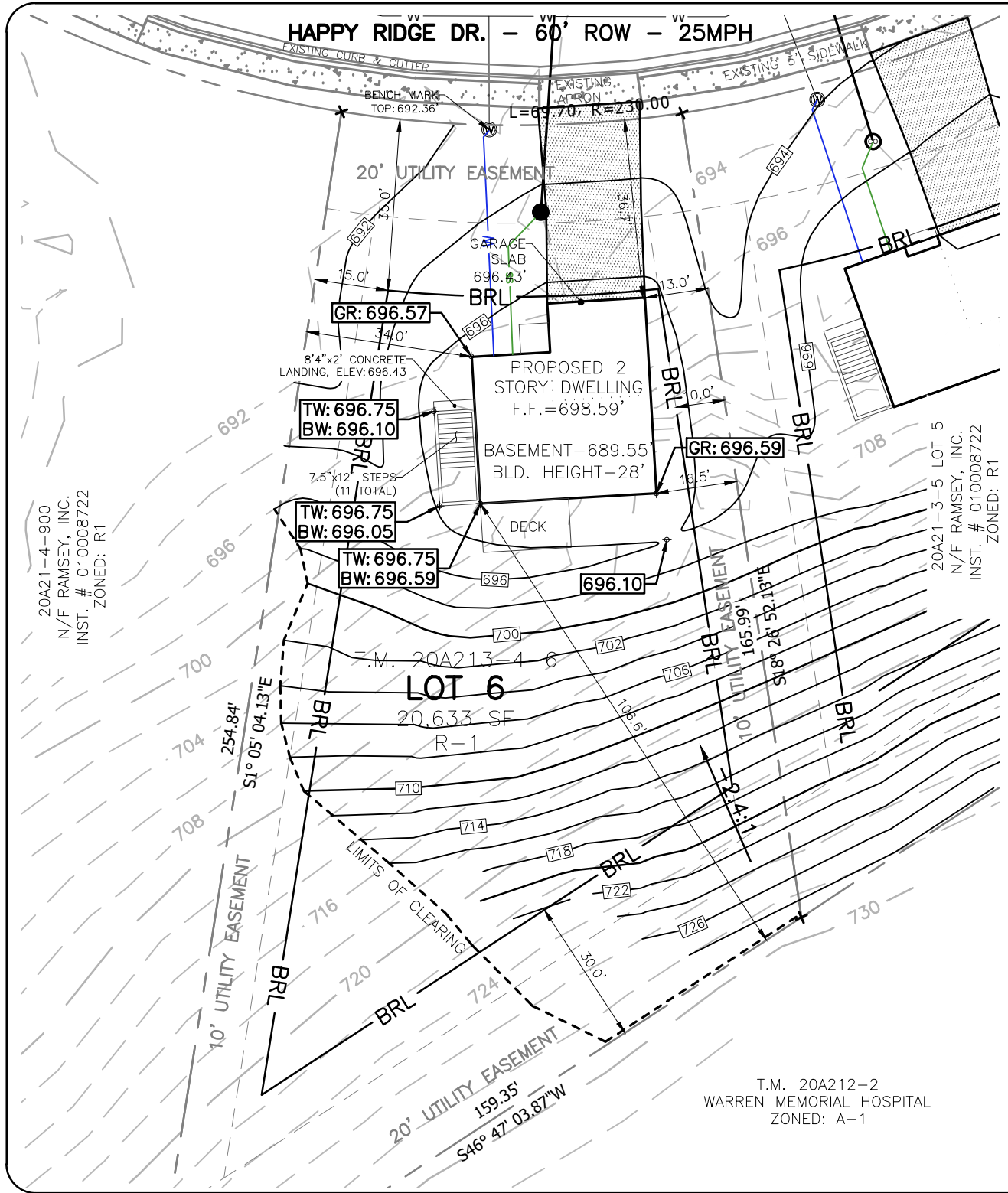
BUILDING FOOTPRINT AREA: 1,186 SF
AREA OF DISTURBANCE: 13,409 SF

PREPARED BY:
RACEY ENGINEERING, PLLC
312 WEST MAIN STREET
LURAY, VA 22835
(540)-743-9227



PH.540-743-9227-FAX: 540-743-6118

DATE:	DESCRIPTION:		DRAWN	CHECK
	1ST SUB GRADING PLAN	2ND SUB GRADING PLAN		
9/25/24			HV	JPT
12/23/24			ZEW	JPT
MARONDA HOMES 7051 HEATCOTE VILLAGE WAY SUITE 255 GAINESVILLE, VA 20155				
HAPPY CREEK KNOLLS LOT GRADING SURVEY - LOT 5				
TOWN OF FRONT ROYAL, VIRGINIA				
SCALE: 1"=20'				
PRO. 10089				



LOT 6

HAPPY CREEK MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA

- EX. CONTOUR --- 706 ---
- PR. CONTOUR --- 706 ---
- SETBACK LINE --- BRL ---
- EX. WATER --- W ---
- EX. SANITARY --- S ---
- PR. WATER --- W ---
- PR. SANITARY --- SS ---
- EX. WATER METER --- (W symbol) ---
- EX. SANITARY CLEANOUT --- (dot symbol) ---

*THIS PLAT DOES NOT GUARANTEE THE EXISTANCE OR NON-EXISTANCE OF UTILITIES WITHIN THE WORK LIMITS. CALL MISS UTILITY AT 811 OR 1-800-552-7001 BEFORE DIGGING

*THE LOT GRADING SHOWN HEREON IS INTENDED FOR THE CONSTRUCTION AND DRAINAGE FOR THE SPECIFIC LOT ONLY. ADJACENT LOT GRADING AND HOUSE LOCATION IS ILLUSTRATIVE AND SUBJECT TO CHANGE WITHOUT NOTICE.

ELEVATION DATUM: NAVD 88

BOUNDARIES SHOWN HEREON ARE BASED ON FINAL PLAT PER INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

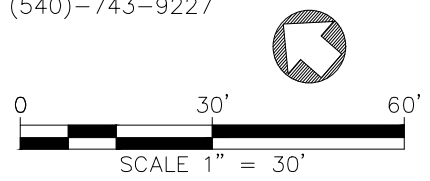
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

BUILDING FOOTPRINT AREA: 1,316 SF
AREA OF DISTURBANCE: 15,085 SF

PREPARED BY:
RACEY ENGINEERING, PLLC
312 WEST MAIN STREET
LURAY, VA 22835
(540)-743-9227



RACEY
ENGINEERING, PLLC
312 WEST MAIN ST.
LURAY VIRGINIA 22835
PH.540-743-9227-FAX: 540-743-6118

DATE:	DESCRIPTION:	DRAWN	CHECK
08/07/24	1ST SUB GRADING PLAN	HV	JPT
09/04/24	2ND SUB GRADING PLAN	HV	JPT
12/23/24	3RD SUB GRADING PLAN	ZEW	JPT

MARONDA HOMES
7051 HEATCOTE VILLAGE WAY SUITE 255
GAINESVILLE, VA 20155

HAPPY CREEK KNOLLS
LOT GRADING SURVEY - LOT 6

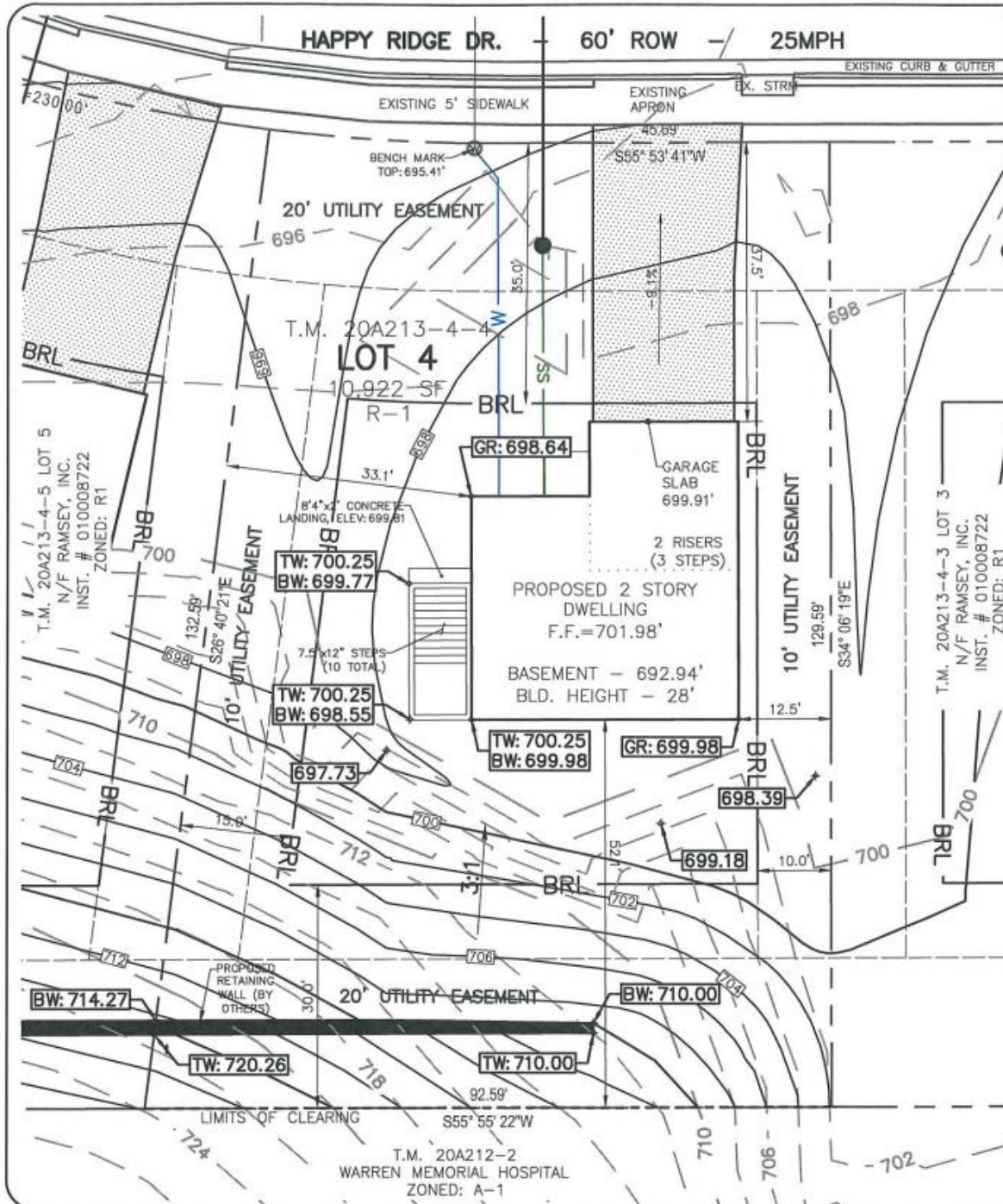
TOWN OF FRONT ROYAL, VIRGINIA

SCALE: 1"=30'

PRO. 10089

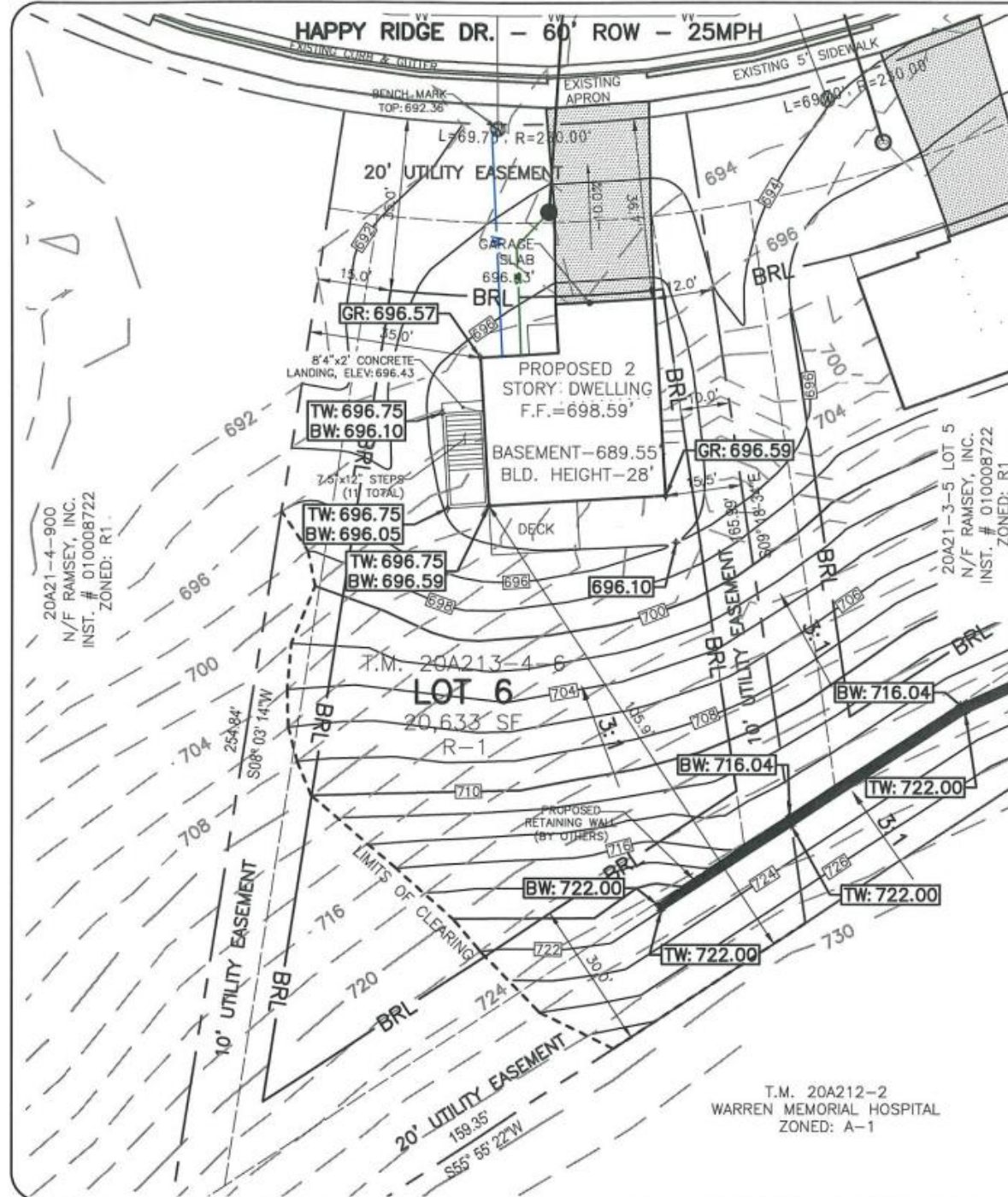
1193 Happy Ridge Drive
Lot 4

Town of Front Royal 102 E. Main Street Front Royal, VA 22630 540-635-4236 Permit Number: 2400399 Zoning Approval APPROVED  						
Job Location: 1193 HAPPY RIDGE DR City, State, Zip: FRONT ROYAL, VA 22630 Tax Map #: 20A213 4 4 Square Feet: [Square Feet] Valuation: Status: Approved Pending Payment FOR ZONING Plan Type: Zoning - Major Construction - New Single Family Detached Work Class: Project: District: Front Royal Completion Date: 09/06/2024 Request Description: New Residential Single-Family Dwelling - Detached						
Company Name: Maronda Homes Applicant Name: Johnson, Amber Address: 7051 Heathcote Village Way Suite 255 City, State, Zip: Gainesville VA 20155 Phone: (703) 753-7020 / Cell: 540-935-6077-Amber Johnson Email: permittingva@maronda.com Owner: MARONDA HOMES OF VIRGINIA LLC Address: 7051 HEATHCOTE VILLAGE WAY SUITE 255 City, State, Zip: GAINESVILLE , VA 20155 Phone: (703) 753-7020 Email: permittingva@maronda.com						
<table><tr><th>REVIEW INFORMATION</th><th>Pass/Fail</th></tr><tr><td> Department of Planning and Zoning Review Approved for the Location to construct an SFD. NEW ADDRESS is 1193 Happy Ridge Drive. Rear Yard RETAINING WALL SHALL BE CONSTRUCTED & COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. Rear of the Lot Tree Plantings required are as follows: five (5) 3" caliper White Pines (Pinus strobus), one (1) 2" caliper Thornless Honey Locust (Gleditsia triacanthos) and one (1) 2" caliper Red Maple (Acer rubrum "Red Sunset"). Street Tree Plantings required are as follows: one (1) 2" caliper Pin Oak (Quercus palustris). Please consult the Happy Creek Knolls Section 4 approved Landscape Plan for planting locations. A WARREN COUNTY BUILDING PERMIT IS REQUIRED. </td><td>Approved</td></tr><tr><td> Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections. </td><td>Complete</td></tr></table>	REVIEW INFORMATION	Pass/Fail	Department of Planning and Zoning Review Approved for the Location to construct an SFD. NEW ADDRESS is 1193 Happy Ridge Drive. Rear Yard RETAINING WALL SHALL BE CONSTRUCTED & COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. Rear of the Lot Tree Plantings required are as follows: five (5) 3" caliper White Pines (Pinus strobus), one (1) 2" caliper Thornless Honey Locust (Gleditsia triacanthos) and one (1) 2" caliper Red Maple (Acer rubrum "Red Sunset"). Street Tree Plantings required are as follows: one (1) 2" caliper Pin Oak (Quercus palustris). Please consult the Happy Creek Knolls Section 4 approved Landscape Plan for planting locations. A WARREN COUNTY BUILDING PERMIT IS REQUIRED.	Approved	Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections.	Complete
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Town of Front Royal 102 E. Main Street Front Royal, VA 22630 540-635-4236 Permit Number: 2400598 Zoning Approval APPROVED  							
Job Location: 1191 HAPPY RIDGE DR City, State, Zip: FRONT ROYAL, VA 22630 Tax Map #: 20A213 4 5 Square Feet: [Square Feet] Valuation: Status: Approved Pending Payment	FOR ZONING Plan Type: Zoning - Major Construction - New Single Family Detached Work Class: Project: District: Front Royal Completion Date: 10/23/2024						
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Company Name: Maronda Homes Applicant Name: Johnson, Amber Address: 7051 Heathcote Village Way Suite 255 City, State, Zip: Gainesville VA 20155 Phone: (703) 753-7020 / Cell: 540-935-6077-Amber Johnson Email: permittingva@maronda.com	Owner: MARONDA HOMES OF VIRGINIA LLC Address: 7051 HEATHCOTE VILLAGE WAY SUITE #255 City, State, Zip: GAINESVILLE , VA 20155 Phone: (703) 753-7020 Email: permittingva@maronda.com						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%; text-align: center; padding: 5px;">REVIEW INFORMATION</th> <th style="width: 20%; text-align: center; padding: 5px;">Pass/Fail</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"> Department of Planning and Zoning Review Approved for the Location to construct an SFD. NEW ADDRESS is 1191Happy Ridge Drive. The Rear Yard RETAINING WALLS SHALL BE CONSTRUCTED & COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. Rear of the Lot Tree Plantings required are as follows: six (6) 3" caliper White Pines (Pinus strobus), one (1) 2" caliper Red "Sunset" Maple (Acer rubrum "red sunset") and one (1) 2" caliper Pin Oak (Quercus palustris) for a Total of eight (8) Trees. Please consult the Happy Creek Knolls Section 4 approved Landscape Plan for planting locations. A WARREN COUNTY BUILDING PERMIT IS REQUIRED. </td> <td style="text-align: center; vertical-align: middle; padding: 5px;">Approved</td> </tr> <tr> <td style="padding: 5px;"> Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections. </td> <td style="text-align: center; vertical-align: middle; padding: 5px;">Complete</td> </tr> </tbody> </table>		REVIEW INFORMATION	Pass/Fail	Department of Planning and Zoning Review Approved for the Location to construct an SFD. NEW ADDRESS is 1191Happy Ridge Drive. The Rear Yard RETAINING WALLS SHALL BE CONSTRUCTED & COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. Rear of the Lot Tree Plantings required are as follows: six (6) 3" caliper White Pines (Pinus strobus), one (1) 2" caliper Red "Sunset" Maple (Acer rubrum "red sunset") and one (1) 2" caliper Pin Oak (Quercus palustris) for a Total of eight (8) Trees. Please consult the Happy Creek Knolls Section 4 approved Landscape Plan for planting locations. A WARREN COUNTY BUILDING PERMIT IS REQUIRED.	Approved	Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections.	Complete
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LOT 6

HAPPY CREEK MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA

EX. CONTOUR ——— 706 ———
PR. CONTOUR ——— 706 ———
SETBACK LINE ——— BRL ———
EX. WATER ——— W ———
EX. SANITARY ——— S ———
PR. WATER ——— W ———
PR. SANITARY ——— SS ———
EX. WATER METER (W)
EX. SANITARY CLEANOUT (●)

*THIS PLAT DOES NOT
GUARANTEE THE EXISTENCE
OR NON-EXISTENCE OF
UTILITIES WITHIN THE WORK
LIMITS. CALL MISS UTILITY AT
811 OR 1-800-552-7001
BEFORE DIGGING

*THE LOT GRADING SHOWN
HEREON IS INTENDED FOR THE
CONSTRUCTION AND DRAINAGE
FOR THE SPECIFIC LOT ONLY.
ADJACENT LOT GRADING AND
HOUSE LOCATION IS
ILLUSTRATIVE AND SUBJECT TO
CHANGE WITHOUT NOTICE.

ELEVATION DATUM: NAVD 88

BOUNDARIES SHOWN HEREON ARE BASED ON FINAL PLAT PER
INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY
EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

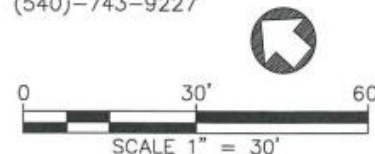
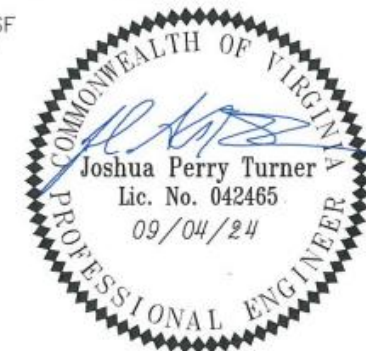
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

BUILDING FOOTPRINT AREA: 1,316 SF
AREA OF DISTURBANCE: 15,085 SF

PREPARED BY:
RACEY ENGINEERING, PLLC
312 WEST MAIN STREET
LURAY, VA 22835
(540)-743-9227



MARONDA HOMES 7051 HEATCOTE VILLAGE WAY SUITE 255 GAINESVILLE, VA 20155		DATE:	DESCRIPTION:	DRAWN	CHECK
HAPPY CREEK KNOLLS LOT GRADING SURVEY - LOT 6		08/07/24	1ST SUB GRADING PLAN	HV	JPT
		09/04/24	2ND SUB GRADING PLAN	HV	JPT
TOWN OF FRONT ROYAL, VIRGINIA					



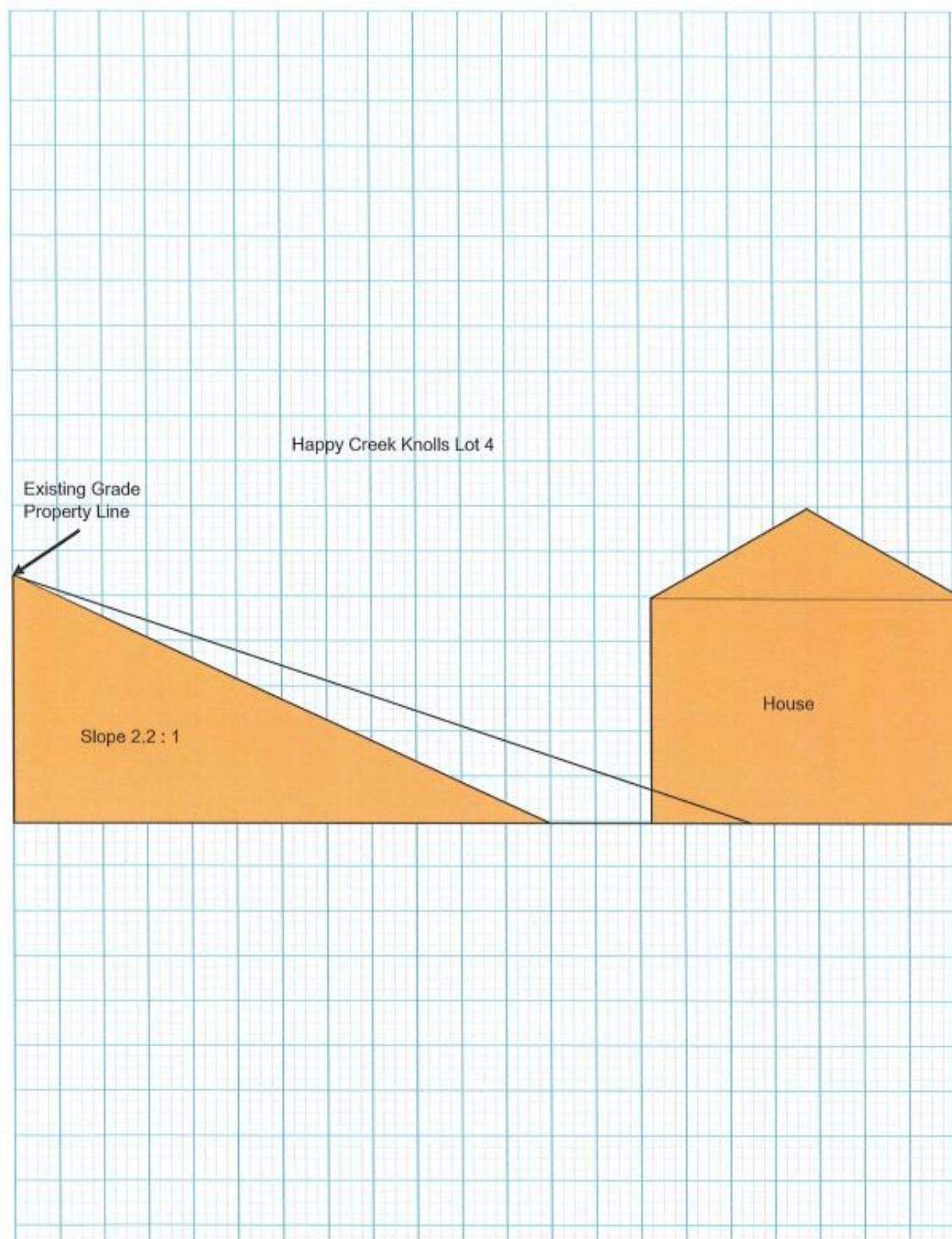
RACEY
ENGINEERING P.C.
312 WEST MAIN ST.
LURAY VIRGINIA 22835
PH: 540-743-9227 FAX: 540-743-6118

SCALE: 1"=20'
PRO. 10089

SCALE: 1"=20'

PRO. 10089

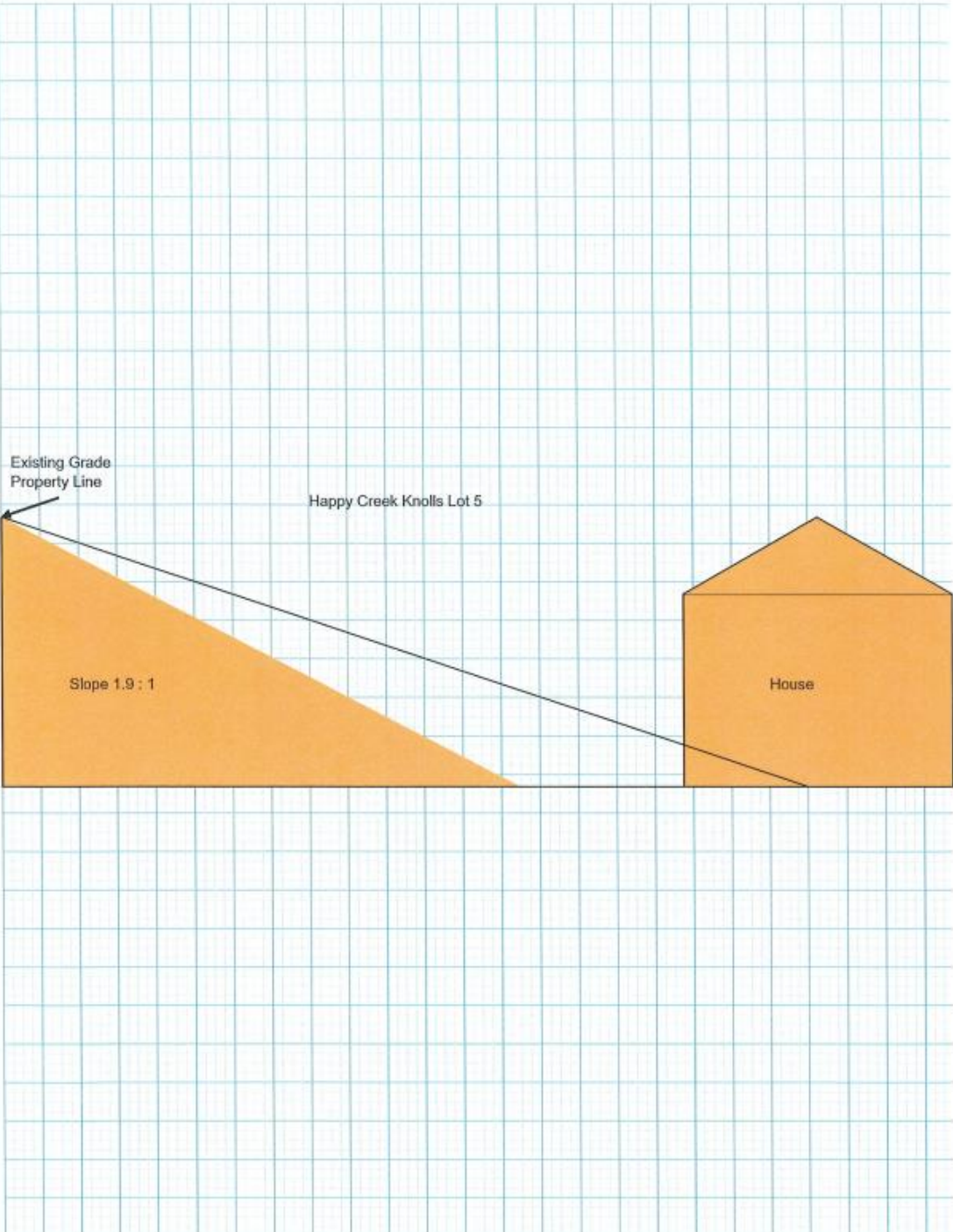
LOT 4



LOT 4



LOT 5



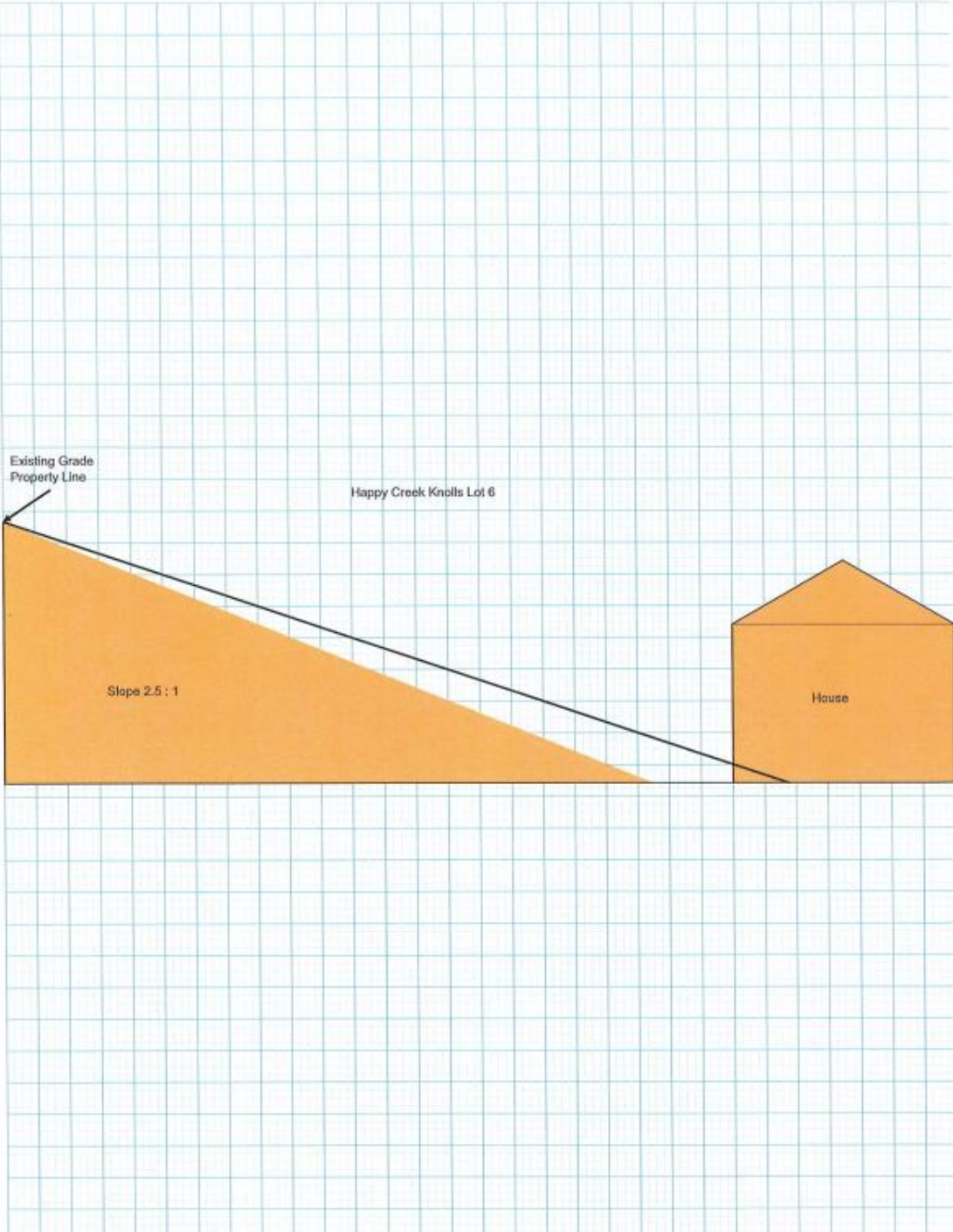
LOT 5



LOT 5



LOT 6



LOT 6



LOT 6



LOT 6



LOT'S 4, 5, & 6



LOT'S 4, 5 & 6



2500022

Connie Potter

From: Lauren Kopishke
Sent: Friday, January 31, 2025 10:33 AM
To: Connie Potter
Subject: FW: [--EXTERNAL--]: FW: Geotechnical Report



Lauren E. Kopishke

Director of Planning & Zoning
Zoning Administrator
Town of Front Royal
Dept. of Planning and Zoning
102 E Main St | PO Box 1560
Front Royal, VA 22630
T./540-635-4236

From: Steele, Stephen <SSteele@chasolutions.com>
Sent: Thursday, January 30, 2025 10:56 AM
To: John Ware <jware@frontroyalva.com>
Cc: Lauren Kopishke <lkopishke@frontroyalva.com>
Subject: RE: [--EXTERNAL--]: FW: Geotechnical Report

John,

My Geotech looked at the report and has the following concerns:

- It is concerning that the report is based on modeling all failure surfaces as passing beneath the house, with the house providing a stabilizing surcharge force of 200 psf over its entire footprint. The cut slopes typically fail are generally relatively shallow slides that happen when soils get saturated from rain, which push out from the toe of the cut.
- The Town should recommend evaluation of potential failures that send slide debris into the back yard (or the back door). It doesn't appear that the report evaluated those scenarios.
- The report says that they have some direct shear lab tests in progress. The Town should request that information.

Let me know if this helps.

Stephen Steele, PE*

Vice President
Key Account Manager
CHA
Office: (540) 212-4368
sssteel@chasolutions.com
www.chasolutions.com

*VA, NC





CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

December 9, 2024

Mr. Marty Rhodes
Moranda Homes
7051 Heathcote Village Way, Suite 255
Gainesville, VA 20155

Re: Slope Stability Analysis for Happy Creek Lots 29-30 TM: 20A213-4-29 to -30, Warren County, 22630.

Dear Mr. Rhodes:

In accordance with your authorization, Soil Consultants Engineering Inc. (SCE) has completed a Slope Stability Analysis for the existing slope along the lots at TM: 20A213-4-29 to -30, Warren County, and we are pleased to provide you this Slope Stability Analysis for the above referenced project. The following paragraphs present the results from subsurface exploration performed by Soil Consultants Engineering, LLC (SCE) and Slope Stability Analysis of the encountered soil conditions. SCE personnel explored the subsurface conditions of the site on November 16, 2024 using an ATV-Mounted CME45 Drill Rig equipped with a manual drop hammer and rotary hollow stem augers (HSA 3 ¼-inch). Soil Consultants personnel were also on-site November 21, 2024 advancing one (1) 3.0-inch hand auger boring on the slope where the drill rig could not access.

In the soil test borings, the soil was tested using continuous penetration through fill material and sampled using split-spoon samplers in accordance with ASTM D-1586 sampling procedures. A geologist from SCE logged the soil cuttings and samples in the field as the drilling proceeded.

The cuttings and samples were visually classified in accordance with the Unified Soil Classification System (USCS). Samples of the soils were obtained at selected depths and were taken to our geotechnical laboratory for further visual examination and testing.

The approximate test boring locations are shown on a copy of the site plan entitled “Boring Location Plan”, which is in the appendix in this report.

Soil Consultants selected the number and location of the test borings to provide general coverage subject for stability review at the required slope locations onsite. The crew estimated the location of the borings in the field by using existing site features.

While performing the subsurface exploration, our staff engineer logged the recovered soil samples and observed ground water conditions during the drilling. The samples were transported to our office where representative samples were logged into our laboratory for soil classification.

The Soil Consultants laboratory performed one (1) classification test, per ASTM D-2487, on representative soil samples and two (2) natural moisture samples in accordance with ASTM D-2216.

The logs of the soil test borings, along with our laboratory classification of the recovered soil samples, are presented in the appendices. The strata boundaries indicated on our logs are an interpretation of the soil profile. Soil types often grade into one another, and the strata changes are usually gradual rather than distinct.

OBSERVED SUBSURFACE CONDITIONS

The subsurface conditions at the site generally consist of two (2) distinct soil strata, as summarized within the table below. Detailed boring logs can be found in the appendix; the boring logs included in the appendix should be reviewed for specific information at the boring locations, in the attached “**Boring Logs**”. The strata boundaries indicated on our logs are an interpretation of the subsurface profile. Soil types often grade into one another, and the strata changes are usually gradual rather than distinct.

Summary of Subsurface Boring Profiles

Approximate Depth Range (feet)	Approximate Elevation Range (feet)	Stratum	Description	SPT N-Values (bpf)
0.0 – 0.2	708.0 – 707.8	N/A	Approximately 2.0-inch Organic Surface Layer in HA-5	N/A
0.0 – 3.7	705.0 – 697.0	I	FILL consisting of firm to stiff SILT (ML) and soft to firm SILT with sand (ML)	4 – 12
0.0 – 30.0	721.0 – 666.0	II	Native, interbedded stiff to hard SILT with sand (ML), very stiff to hard ELASTIC SILT (MH), and stiff to hard Sandy SILT (ML)	12 – >100

*The approximate elevation ranges and depth ranges represent the highest and lowest elevations that the associated stratum were found at. The ranges overlap while presented as a summary within this report, but this overlap is due to the different elevations of the borings onsite.

Groundwater was not encountered at the time of drilling. Observed water level elevations serve as an indication of the water level at the specified elevations at a specific time of year and may be higher or lower depending on the season. Mottling, an indication of high seasonal water table, was also not encountered.

The Soil Consultants laboratory performed two (2) classification tests in accordance with ASTM D-2487 and two (2) natural moisture content tests in accordance with ASTM D-2216 on representative soil samples. The results of the laboratory classification tests are summarized in the following table:

Summary of Laboratory Testing Results

Boring No.	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Gravel (%)	Sand (%)	% <200 Sieve	Classification USCS	Water Content (%)
B-7	14.5	58	38	20	0.0	6.2	93.8	MH	39.1
B-8	24.5	43	NP	NP	0.0	20.3	79.7	ML	24.0

“NP” is abbreviated for “non-plastic”, a term used when soils exhibit non-plastic behavior. Typically, these soils contain limited amounts of cohesive soils, i.e., silt and clay, and mainly consist of “clean” coarse-grained soils. Non-plastic soils do not have a transitional phase between the solid phase and liquid phases, and immediately exhibit liquid properties when water is added to the sample.

SLOPE STABILITY ANALYSIS

To investigate the stability of the existing steep slope, Soil Consultants Engineering performed global stability analysis at the cross-section D-D'.

The geometry of the slope at the selected cross section locations was modeled for the stability analysis after reviewing the provided Warren County global stability analyses request and Site Plan. Global stability analysis of the slope cross section was performed using the simplified Bishop method.

SCE test borings indicate a soil profile of stiff to hard SILT with sand (ML), very stiff to hard ELASTIC SILT (MH), and stiff to hard Sandy SILT (ML). The table below summarizes the soil parameters used in the slope stability analysis.

Summary of Material Parameters used in the Global Stability Analyses

Soil Description	Soil Type No	Total Unit Weight (pcf)	Saturated Unit Weight (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)
FILL	1	120	125		28
CL ML	2	115	120		26
ML CL	3	120	125		30
CL ML	4	120	125		32
MH	5	120	125		30
GM	6	130	135		35
Concrete	7	140	145	8000	

Slope stability analysis of the proposed slope cross-section was performed and the minimum factor of safety was calculated for globally stable conditions.

Factors of Safety from Global Stability Analyses

Cross Section	Minimum Factor of Safety Required	Modelled Factor of Safety
D-D'	1.5	1.94

The failure plane with the factor of safety is shown in the slope stability results for the cross section of the slope included in Appendix of this report.

SCE global stability analysis results indicated that the proposed west retaining wall does have sufficient factor of safety against global stability. The failure surface presented in our analyses is an indication of potential future deep global instability.

At the time of this report, we are still awaiting the results of simple direct shear testing on soil samples taken in Shelby Tubes during drilling. If these results differ from our assumed values, we will conduct the slope stability analysis again and re-issue the report with the updated results.

CONCLUSIONS

In summary, it is our professional opinion based on the results of our evaluation that the slopes will be stable. Since there is no planned development on the top of the slope, man-caused factors will only affect the surface of the slope. We recommend surface protection measures such as vegetative matting to protect the surface of the slope from erosion and weathering that could lead to minor slope failures. We thank you for the opportunity to be of service. If you should have any questions regarding this letter, please do not hesitate to contact us.

Sincerely,

For: SOIL CONSULTANTS ENGINEERING, LLC.

12/10/2024



Warner Neal
Geotechnical Assistant



Lubomir Peytchev, P.E.
Principal Engineer

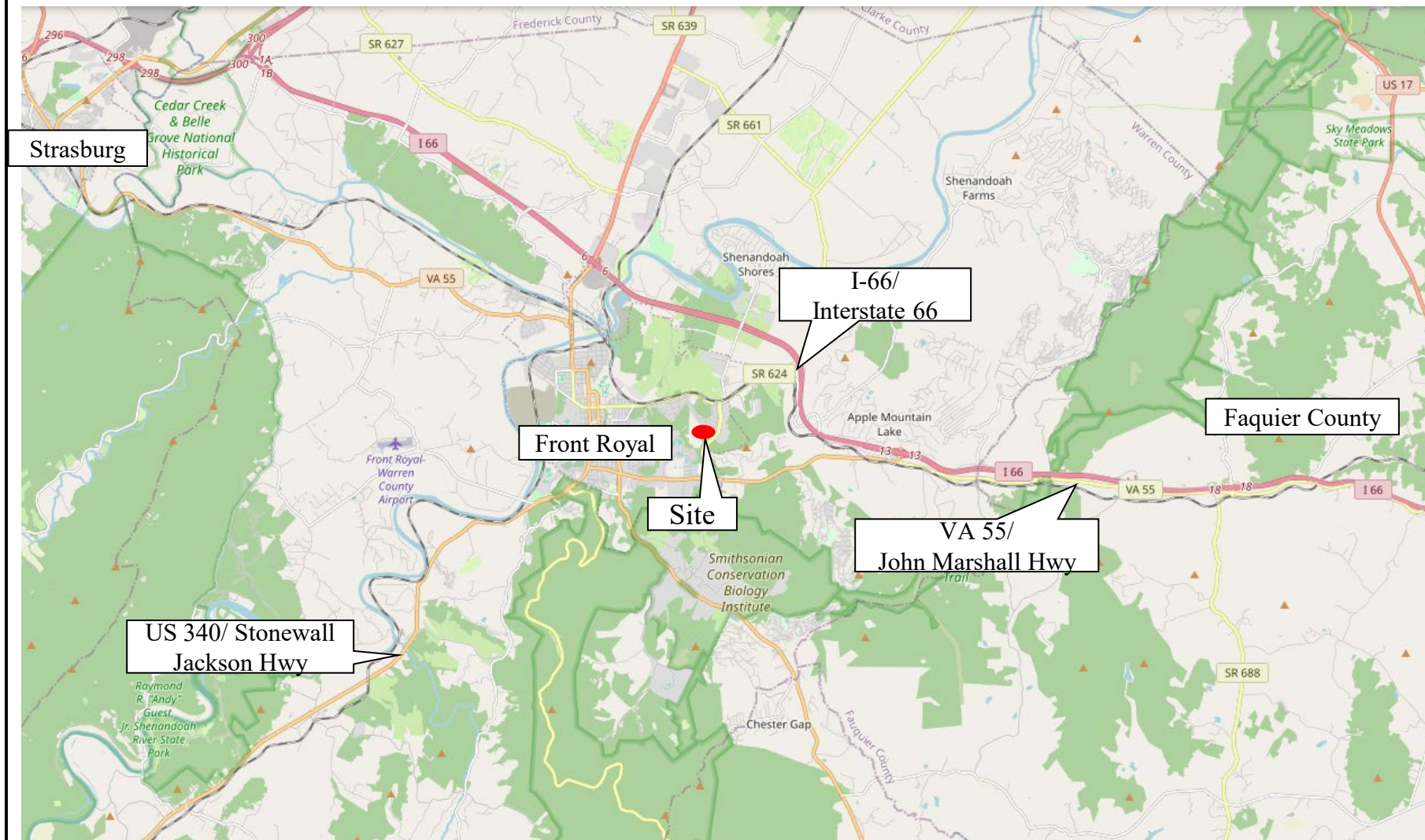
SCE #: 24-0367V

Enclosed:

- Site Vicinity Map
- Boring Locations Plan
- Log of Test Borings with Key to Terms and Symbols
- Laboratory Test Results
- Slope Stability Analysis

APPENDIX

Map Source: USGS 2024– Not to Scale



SITE VICINITY MAP
Happy Creek Knolls



CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

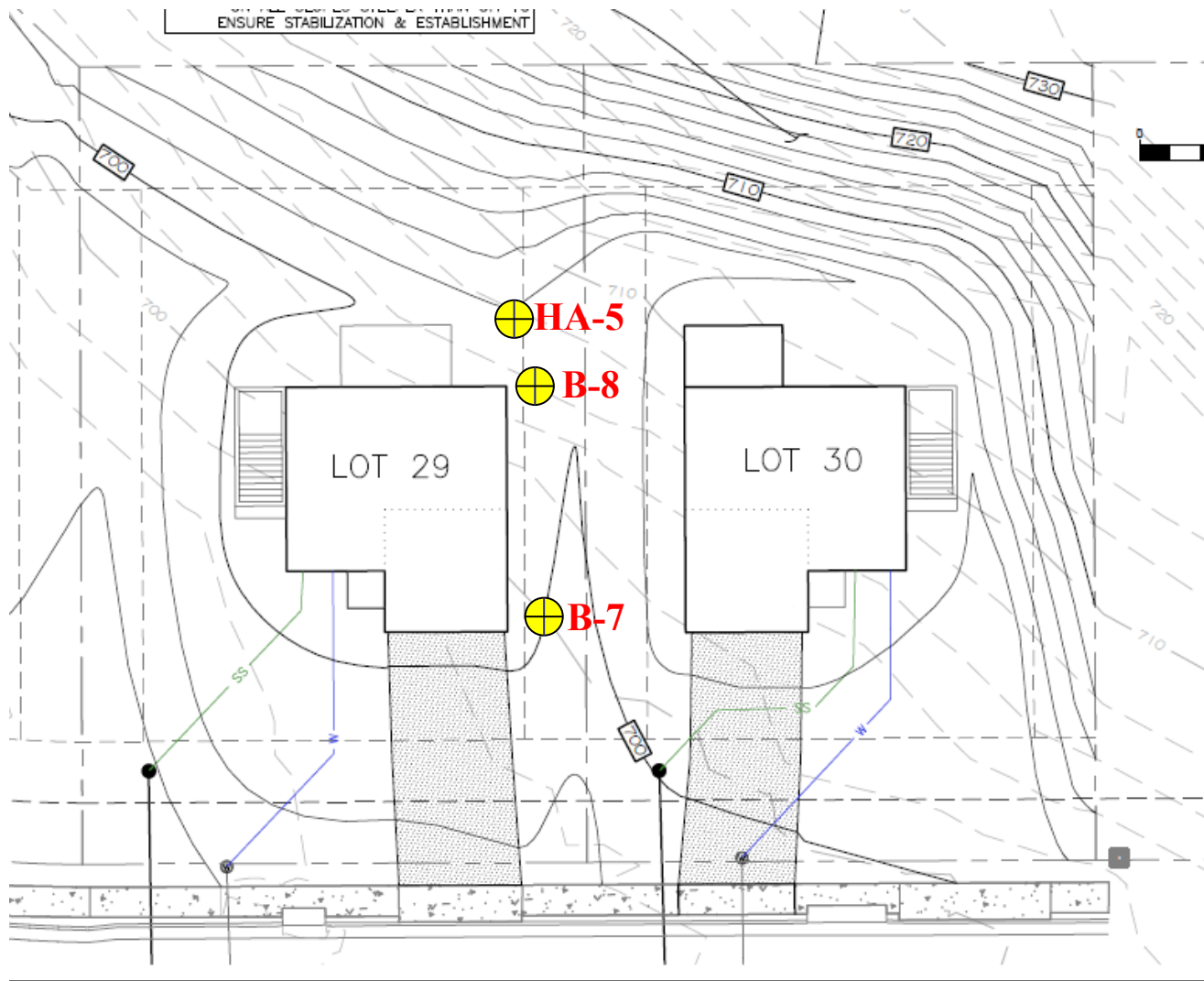
TM: 20A213-4-29 to -30, Warren County, 22630

12/09/2024

WN

Not Drawn To Scale

24-0367V



LEGEND

Approx. Boring Location



B-1



BORING LOCATION PLAN Happy Creek Knolls



CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

TM: 20A213-4-29 to -30, Warren County, 22630

12/09/2024

LH

Not Drawn To Scale

24-0367V

Sheet 1 of 1

PROJECT NAME	Happy Creek Knolls		
PROJECT LOCATION	TM: 20A213-4-29 to -30, Warren County, 22630		
POSITION			
GROUND ELEVATION	700.00 ft	FINAL DEPTH	20.00 ft
GROUNDWATER LEVELS:			
▽ AT TIME OF DRILLING	Dry		
▼ AT END OF DRILLING	Dry; Cave-in at 14.0 ft		
▼ AFTER DRILLING	N/A		

NOTES

Template: Master Template - Default Letter - US v2 / Strip Set: Geotech BH Columns (3) / Produced on : December 05 2024 by OpenGround

CLIENT Mr. Marty Rhodes

PROJECT NUMBER 24-0367V

DATE STARTED 11-16-2024 COMPLETED 11-16-2024

DRILLING CONTRACTOR RECON Drilling

DRILLING METHOD Hollow Stem Auger, 3 1/4 inches

EQUIPMENT ATV-Mounted CME45 with Manual Drop Hammer

HOLE SIZE 6.0 in.

LOGGED BY Warner Neal CHECKED BY Lubo Peytchev

PROJECT NAME Happy Creek Knolls

PROJECT LOCATION TM: 20A213-4-29 to -30, Warren County, 22630

POSITION _____

GROUND ELEVATION 705.00 ft FINAL DEPTH 30.00 ft

GROUNDWATER LEVELS:

▽ AT TIME OF DRILLING Dry

▼ AT END OF DRILLING Dry; Cave-in at 22.0 ft

▽ AFTER DRILLING N/A

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
			SILT with sand (ML): soft to firm; yellow; moist; FILL.		29	1-2-2-1 (4)					
					67	2-3-4-7 (7)					
5	700	3.70	SILT with sand (ML): firm to very stiff; red and yellow; moist; Natural.	701.30	71	3-6-8-11 (14)					
10	695				72	5-8-12 (20)					
15	690	13.50	Sandy SILT (ML): hard; red and yellow; moist; Natural.	691.50	100	9-24-38 (62)					
20	685	18.50	SILT with sand (ML): very stiff; yellow and white; moist; Natural.	686.50	94	9-15-14 (29)					
25	680	23.80	SILT with sand (ML): hard; grayish-brown; moist; Natural.	681.20	94	12-21-35 (56)	24	43	NP	NP	80
30	675	30.00	Terminated at 30.00 ft.	675.00	94	22-33-29 (62)					

NOTES

Sheet 1 of 1

PROJECT NAME		Happy Creek Knolls	
PROJECT LOCATION		TM: 20A213-4-29 to -30, Warren County, 22630	
POSITION			
GROUND ELEVATION	708.00 ft	FINAL DEPTH	6.00 ft
GROUNDWATER LEVELS:			
 AT TIME OF DRILLING	Dry		
 AT END OF DRILLING	Dry		
 AFTER DRILLING	N/A		

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)
			Approximately 2.0-Inch Organic Surface Layer		
			Sandy SILT (ML): very stiff; brown; moist; few gravel, trace organics; Natural.	707.80	12-19-30/1 (R)
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					

Template: Master Template - Default Letter - US v2 / Strip Set: Geotech BH Columns (3) / Produced on : December 05 2024 by OpenGround

KEY TO TERMS AND SYMBOLS

USCS SYMBOLS

	FILL – MAN-PLACED SOILS
	ASPHALT
	CONCRETE
	BEDROCK
	PEAT
	(OL) LOW PLASTICITY ORGANIC CLAY OR SILT
	(OH) ORGANIC SILT OR CLAY
	(ML) SILT
	(MH) ELASTIC SILT
	(CL) LEAN CLAY
	(CH) FAT CLAY
	(GP) POORLY-GRADED GRAVEL
	(GW) WELL-GRADED GRAVEL
	(GM) SILTY GRAVEL
	(GC) CLAYEY GRAVEL
	(SP) POORLY-GRADED SAND
	(SW) WELL-GRADED SAND
	(SC) CLAYEY SAND
	(SM) SILTY SAND

PENETRATION (SPT) RESISTANCE

DENSITY (SANDS, GRAVELS)		CONSISTENCY (SILTS, CLAYS)	
N-VALUE	TERM	N-VALUE	TERM
0 – 4	VERY LOOSE	0 – 2	VERY SOFT
5 – 10	LOOSE	3 – 4	SOFT
11 – 30	MED. DENSE	5 – 8	FIRM
31 – 50	DENSE	9 – 15	STIFF
50+	VERY DENSE	16 – 30	VERY STIFF
		31 – 50	HARD
		50+	VERY HARD

PARTICLE SIZE IDENTIFICATION

BOULDERS	GREATER THAN 12 INCHES
COBBLES	3 TO 12 INCHES
GRAVEL	COARSE - 3/4 INCH - 3 INCHES FINE - 4.75 MM - 3/4 INCH
SAND	COARSE - 2 MM – 4.75 MM MEDIUM - 0.425 MM – 2 MM FINE - 0.075 MM – 0.42 MM
SILT	0.005 MM – 0.075 MM
CLAY	LESS THAN 0.005 MM

WATER LEVEL DESIGNATION

	LEVEL AT TIME OF DRILLING
	LEVEL AT END OF DRILLING
	LEVEL AFTER DRILLING (24H+)

RELATIVE COMPOSITION OF SOILS

MAJOR CONSTITUENT

CONSTITUENT 50% OR MORE OF THE SAMPLE AND IS WRITTEN IN CAPITAL LETTERS. IF NO COMPONENT IS GREATER THAN 50%, THE PREDOMINANT COMPONENT IS CAPITALIZED.

MINOR CONSTITUENT

CONSTITUENT 25% - 40% OF SOIL TYPE AND WILL BE WRITTEN WITH THE FIRST LETTER OF THE SOIL TYPE CAPITALIZED.

ACCESSORY CONSTITUENTS

TRACE = <5%, FEW = 5 TO 10%, LITTLE = 11 TO 20%, WITH = 15 TO 25%, SOME = 21 TO 35%, AND = 36 TO 50%



SCE
SOIL CONSULTANTS ENGINEERING

ROCK KEY TO TERMS AND SYMBOLS

DEGREE OF WEATHERING

UNWEATHERED

ROCK GENERALLY FRESH, JOINTS LIGHTLY STAINED AND DISCOLORATION EXTENDS INTO ROCK NO MORE THAN ½ IN, OPEN JOINTS MAY CONTAIN CLAY, CORE RINGS UNDER HAMMER IMPACT.

WEATHERED

ROCK MASS DECOMPOSED 50% OR LESS, SIGNIFICANT DISCOLORATION, CORE CANNOT BE BROKEN BY HAND OR SCRAPED BY KNIFE

HIGHLY WEATHERED

ROCK MASS IS MORE THAN 50% DECOMPOSED, COMPLETE DISCOLORATION OF ROCK FABRIC, CORE MAY BE EXTREMELY BROKEN AND GIVES CLUNK SOUND WHEN STRUCK BY HAMMER, MAY BE SHAVED WITH A KNIFE.

SCALE OF RELATIVE ROCK HARDNESS

CONSISTENCY

TSF

EXTREMELY SOFT

2.5 - 10

VERY SOFT

10 - 50

SOFT

50 - 250

MEDIUM HARD

250 - 525

MODERATELY HARD

525-1,050

HARD

1,050 - 2,600

VERY HARD

> 2,600

ROCK QUALITY DESCRIPTION

ROCK MASS DESCRIPTION

RQD VALUE (%)

EXCELLENT

90-100

GOOD

75-90

FAIR

50-75

POOR

25-50

VERY POOR

LESS THAN 25

ROCK BEDDING THICKNESS

DESCRIPTION

CRITERIA

VERY THICK BEDDED

GREATER THAN 3 FT

THICK BEDDED

1 FT - 3 FT

MEDIUM BEDDED

4 IN - 1 FT

THIN BEDDED

1 ¼ IN - 4 IN

VERY THIN BEDDED

½ IN - 1 ¼ IN

THICKLY LAMINATED

1/8 IN - ½ IN

THINLY LAMINATED

1/8 IN OR LESS

ROCK VOIDS

VOIDS

VOID DIAMETER

PIT

< ½ IN

VUG

½ IN - 2 IN

CAVITY

2 IN - 24 IN

CAVE

>24 IN

GRAIN SIZE TERMINOLOGY

COMPONENT

SIZE RANGE

VERY COARSE GRAINED

>4.76 MM

COARSE GRAINED

2.0 MM - 4.76 MM

MEDIUM GRAINED

0.42 MM - 2.0 MM

FINE GRAINED

0.075 MM - 0.42 MM

VERY FINE GRAINED

<0.075 MM

STRUCTURE DESCRIPTION

DESCRIPTION

CRITERIA

STRATIFIED

ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST ¼ -IN THICK

LAMINATED

ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN ¼ -IN THICK

FISSURED

BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING

SLICKENED

FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED

BLOCKY

COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALL ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN

DESCRIPTION

CRITERIA

LENSED

INCLUSION OF SMALL POCKETS OF DIFFERENT SOILS

LAYER

INCLUSION GREATER THAN 3-IN THICK

SEAM

INCLUSION 1/8 IN - 3 IN THICK EXTENDING THROUGH THE SAMPLE

PARTING

INCLUSION LESS THAN 1/8 IN THICK

Soil Consultants Engineering, LLC
9303 Center Street
Manassas, VA 20110
Telephone: (703) 366-3000
Fax: (703) 366-3400

SUMMARY OF LABORATORY RESULTS

CLIENT Mr. Marty Rhodes

PROJECT NAME Happy Creek Knolls

PROJECT NUMBER 24-0367V

PROJECT LOCATION TM: 20A213-4-29 to -30, Warren County, 22630

[illegible]



Soil Consultants Engineering, LLC
9303 Center Street
Manassas, VA 20110
Telephone: (703) 366-3000
Fax: (703) 366-3400

GRAIN SIZE DISTRIBUTION

CLIENT Mr. Marty Rhodes

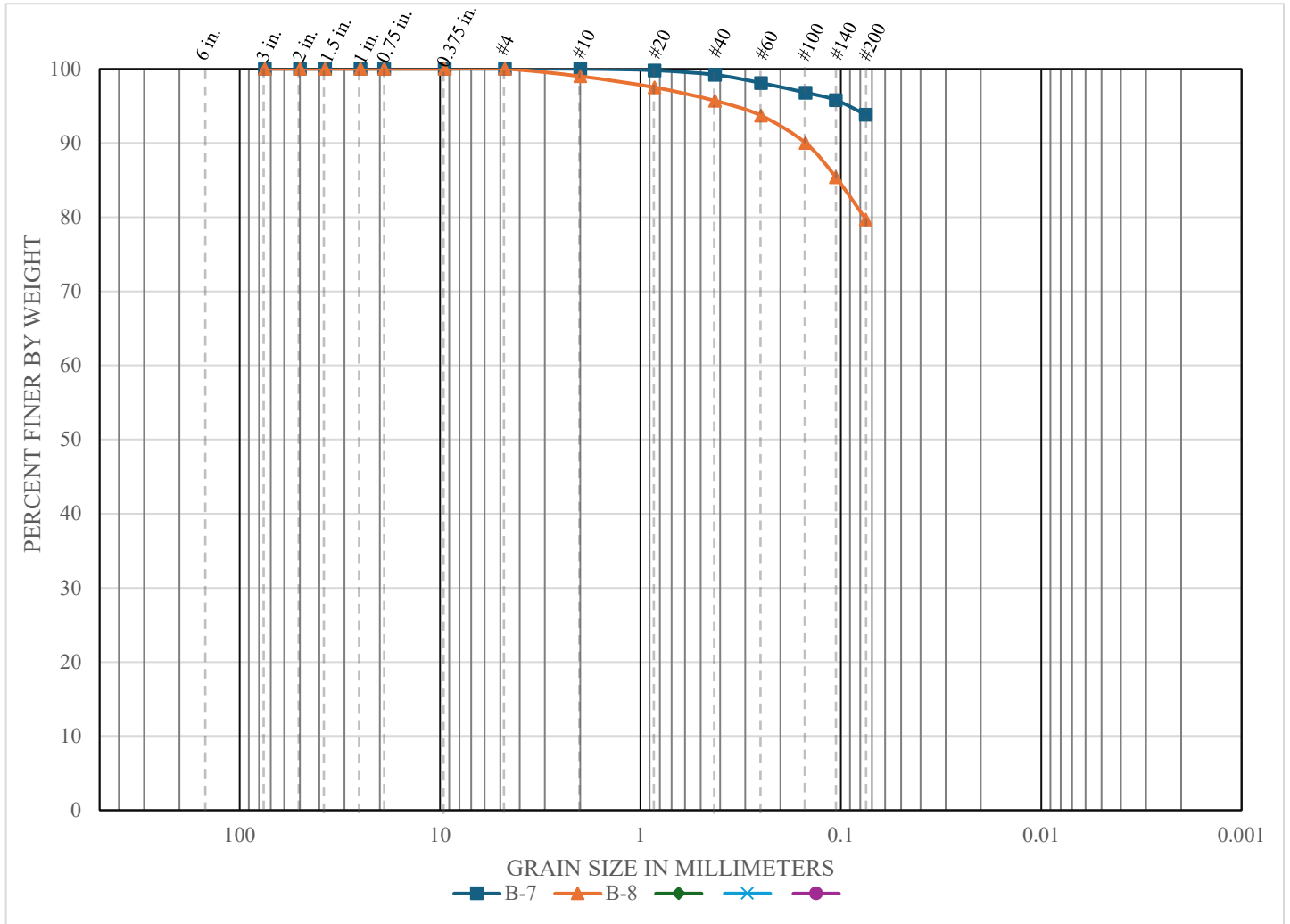
PROJECT NAME

Happy Creek Knolls

PROJECT NUMBER 24-0367V

PROJECT LOCATION

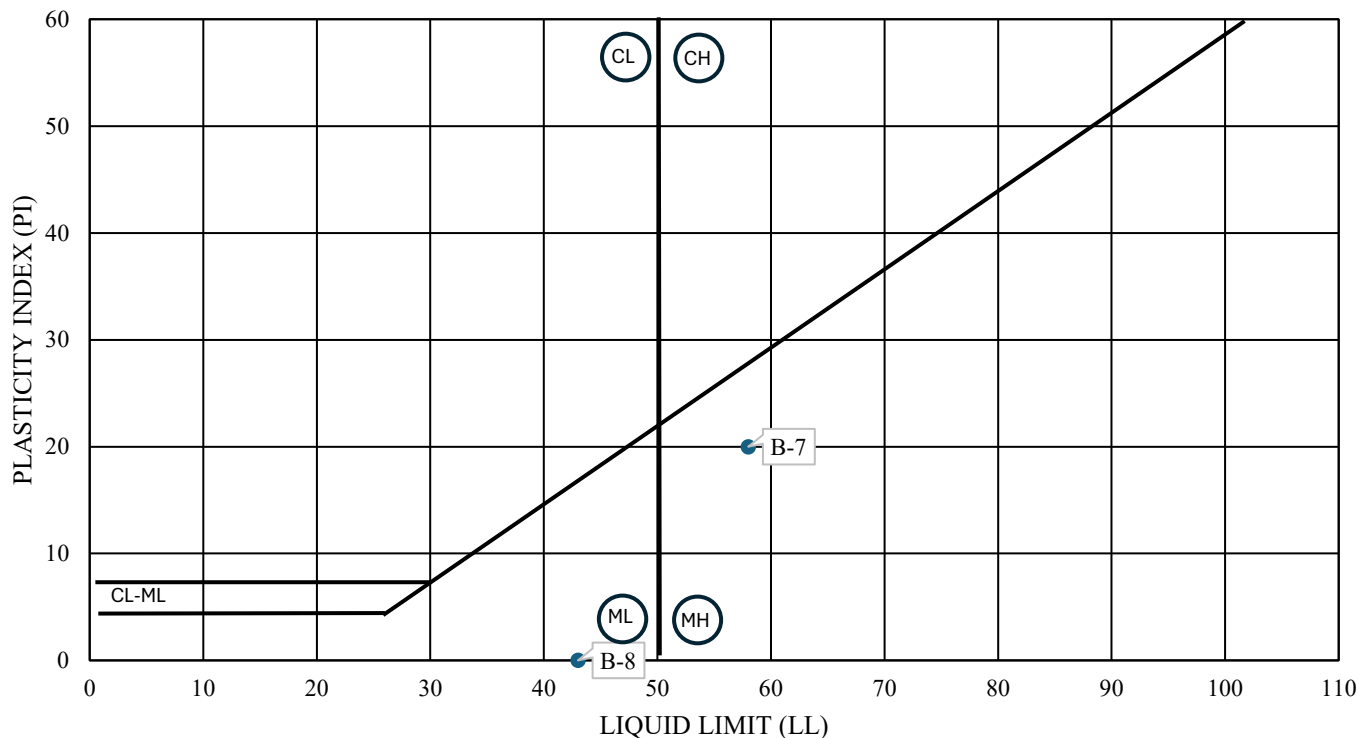
TM: 20A213-4-29 to -30, Warren County, 22630



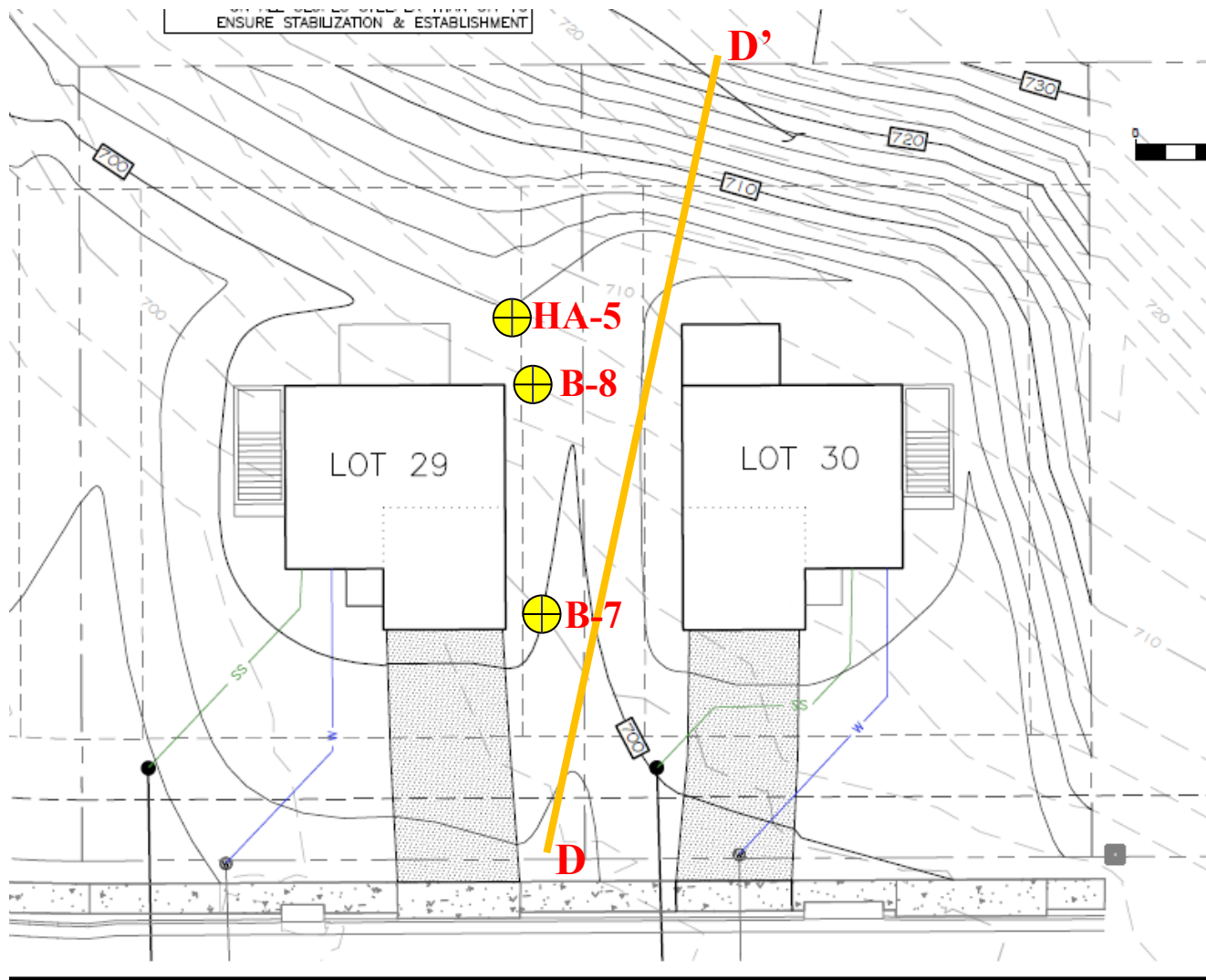
BOREHOLE	DEPTH	CLASSIFICATION			LL	PL	PI	Cc	Cu
B-7	14.5	ELASTIC SILT (ML)			58	38	20		
B-8	24.5	SILT WITH SAND (ML)			43	NP	NP		
BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Fines	
B-7	14.5	75				0.0	6.2	93.8	
B-8	24.5	75				0.0	20.3	79.7	



CLIENT	<u>Mr. Marty Rhodes</u>	PROJECT NAME	<u>Happy Creek Knolls</u>
PROJECT NUMBER	24-0367V	PROJECT LOCATION	TM: 20A213-4-29 to -30, Warren County, 22630

[illegible]

SLOPE STABILITY ANALYSIS



LEGEND

 **B-1** Approx. Boring Location

Approx. Cross Section Location
 **A'**



CROSS SECTION AND BORING LOCATION PLAN Happy Creek Knolls Lots 29-30



CONSULTING ENGINEERS • BUILDING OFFICIALS
CONSTRUCTION PROFESSIONALS • SOIL SCIENTISTS & GEOLOGISTS

TM: 20A213-4-29 to -30, Warren County, VA 22630

12/09/2024

LH

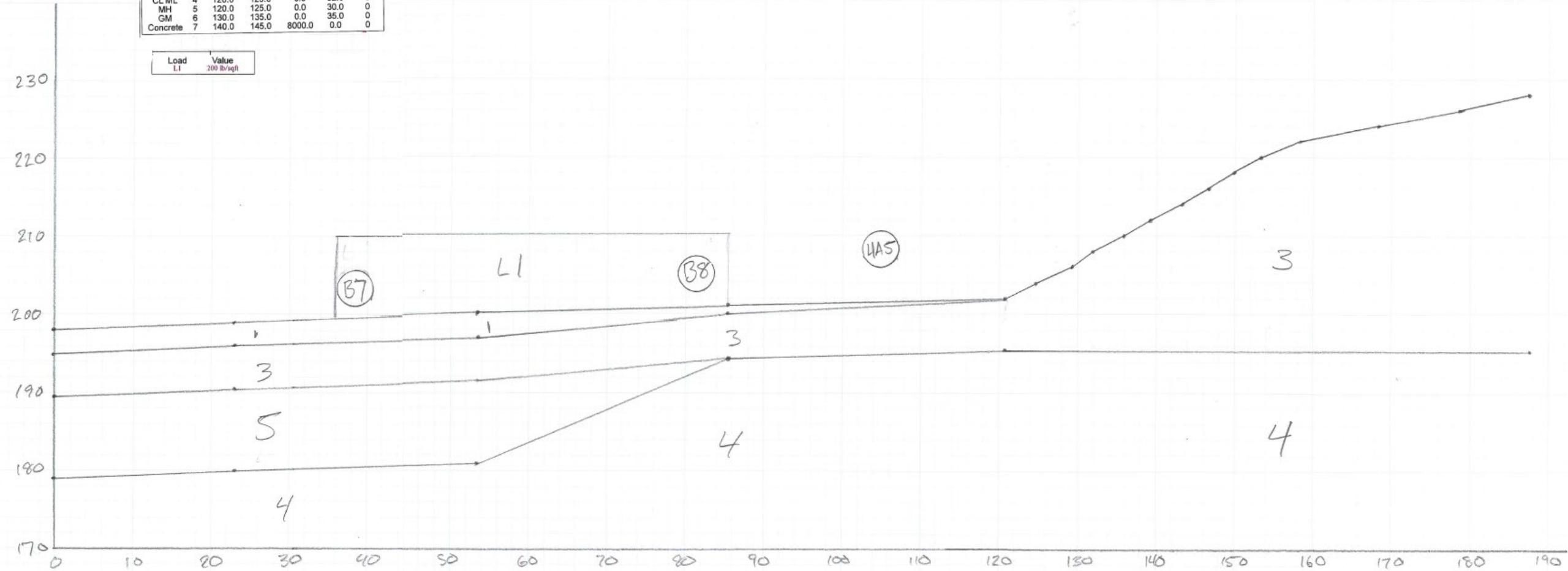
Not Drawn To Scale

24-0367V

24-0367V_Happy_Creek_Lot_29_D-D'

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
FILL ML	1	120.0	125.0	0.0	28.0	0
CL ML	2	115.0	120.0	0.0	28.0	0
ML CL	3	120.0	125.0	0.0	30.0	0
CL ML	4	120.0	125.0	0.0	32.0	0
MH	5	120.0	125.0	0.0	30.0	0
GM	6	130.0	135.0	0.0	35.0	0
Concrete	7	140.0	145.0	8000.0	0.0	0

Load	Value
L1	300 lb/sq ft





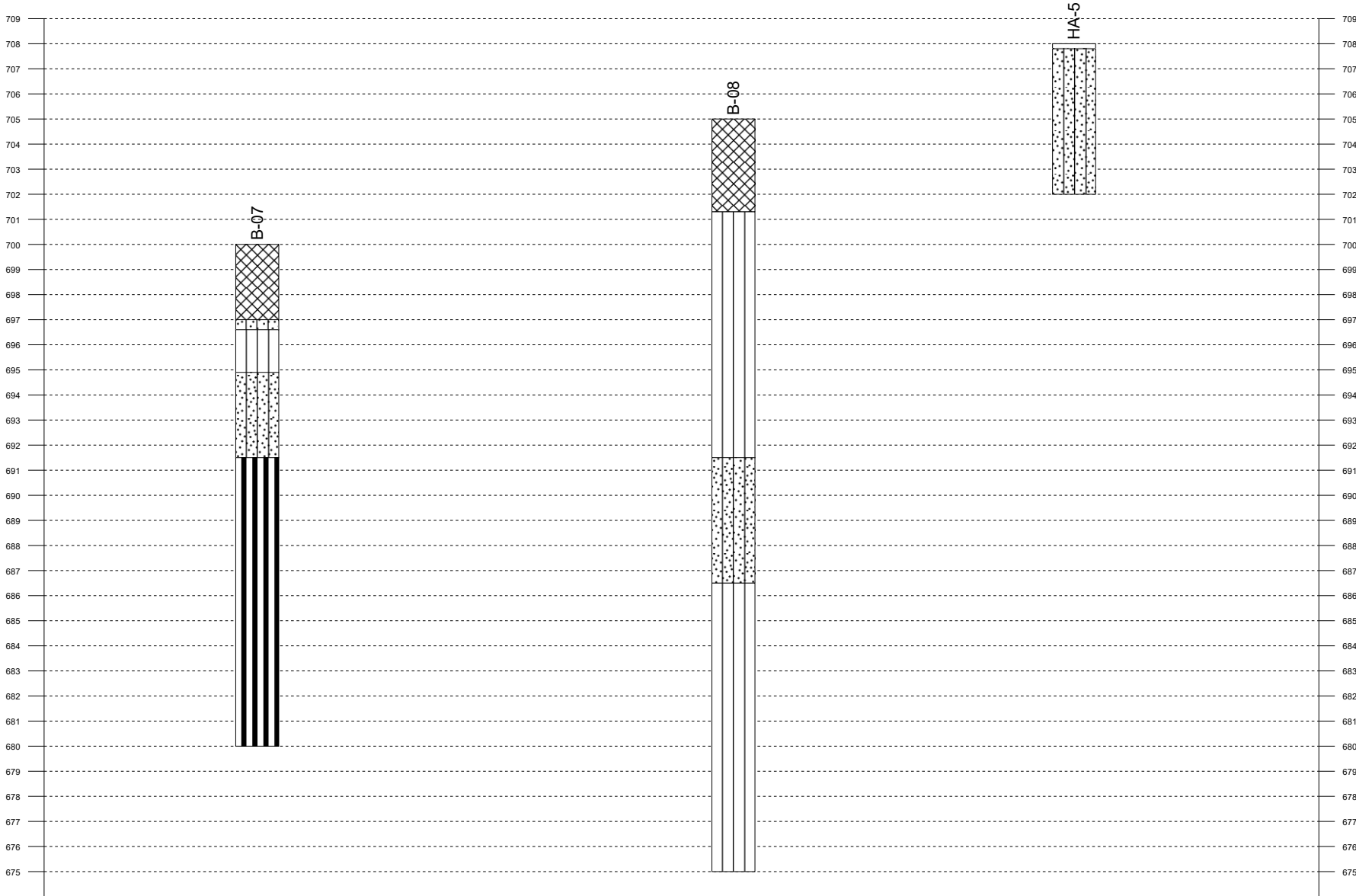
CLIENT Mr. Marty Rhodes
PROJECT NUMBER 24-0367V

PROJECT NAME Happy Creek Knolls
PROJECT LOCATION 1198 Happy Ridge Dr, Front Royal, VA 22630

VERTICAL SCALE 1:70
HORIZONTAL SCALE 1:246

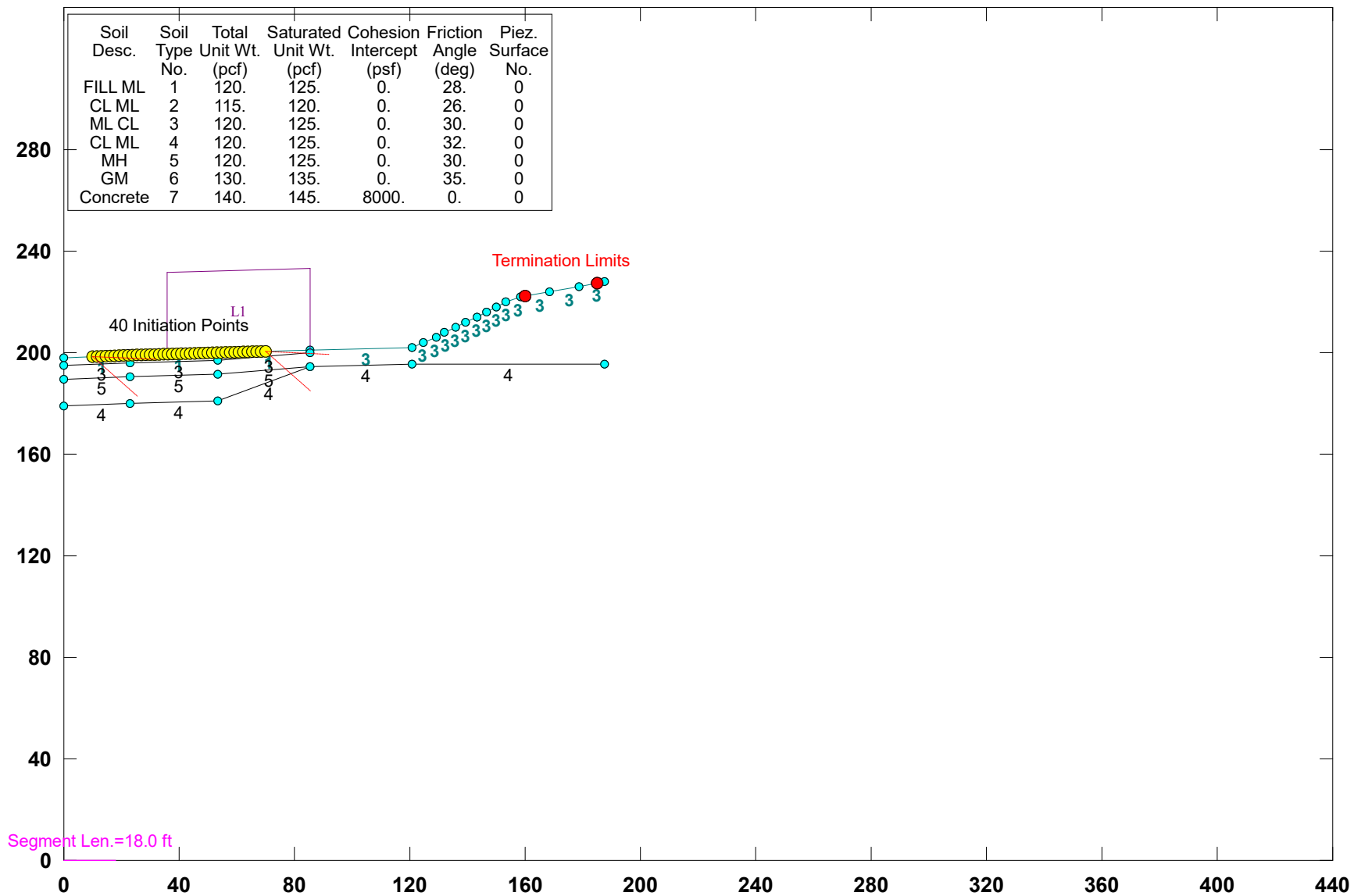
Legend Key

- OL
- MLS
- FILL
- ML
- MH



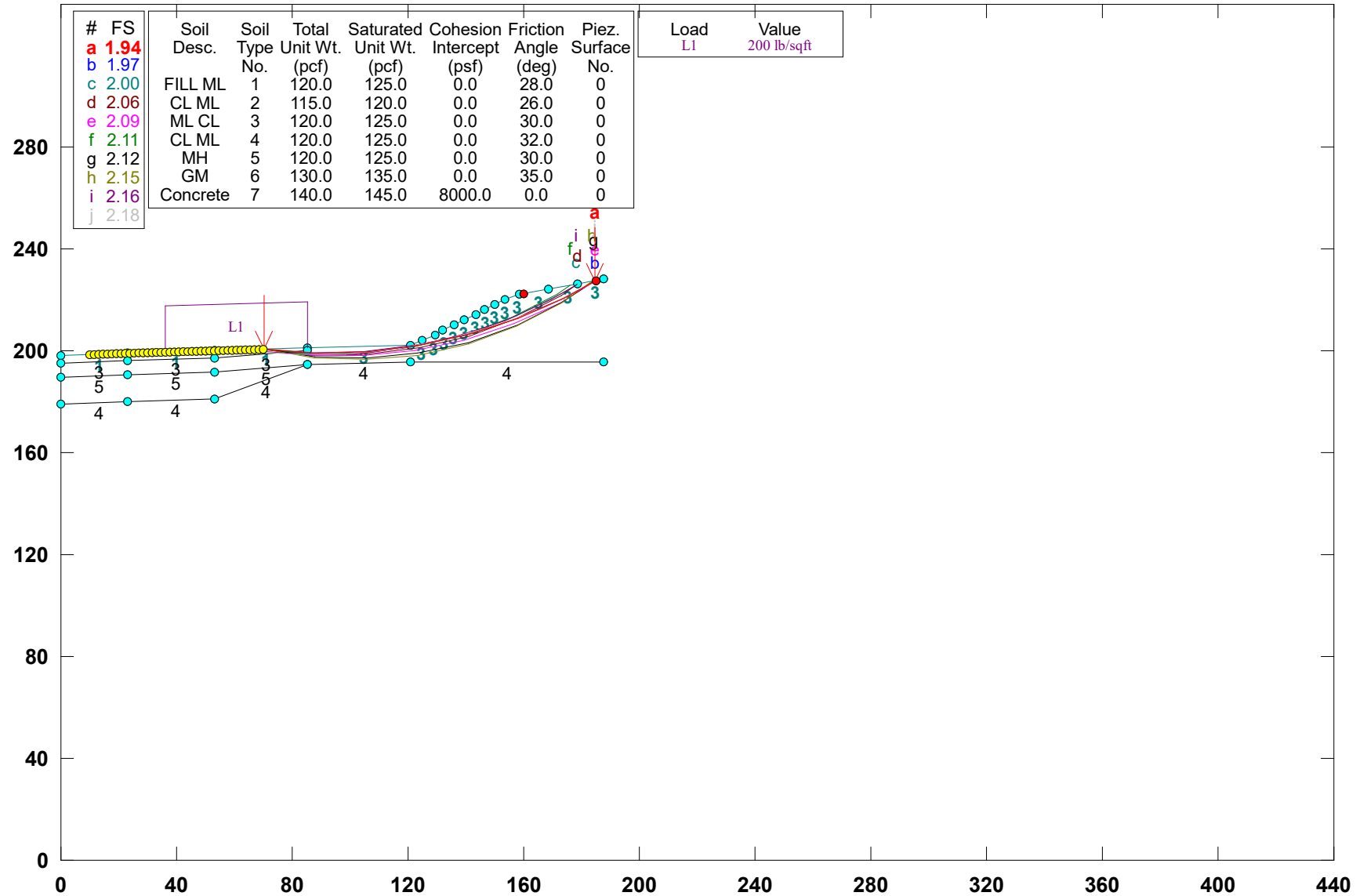
24-0367V_Happy_Creek_Lot_29_D-D'

c:\users\lpeytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_29_12-9-24.pl0 Geometry Preview 12/9/2024 12:13 PM



24-0367V_Happy_Creek_Lot_29_D-D'

c:\users\lpeytchev\onedrive - soils consultants engineering\desktop\stedwin and stabl\24-0367v_happy_creek_lot_29_12-9-24.pl2 Run By: Username 12/9/2024 12:14PM



STABL6H FSmin=1.94

Safety Factors Are Calculated By The Modified Bishop Method

**** STABL6H ****

by

Purdue University

--Slope Stability Analysis--

Simplified Janbu, Simplified Bishop

or Spencer's Method of Slices

Run Date: 12/9/2024

Time of Run: 12:14PM

Run By: Username

Input Data Filename: C:24-0367v_happy_creek_lot_29_12-9-24.

Output Filename: C:24-0367v_happy_creek_lot_29_12-9-24.OUT

Plotted Output Filename: C:24-0367v_happy_creek_lot_29_12-9-24.PLT

PROBLEM DESCRIPTION 24-0367V_Happy_Creek_Lot_29_D-D'

BOUNDARY COORDINATES

17 Top Boundaries

28 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	198.00	23.00	199.00	1
2	23.00	199.00	53.40	200.00	1
3	53.40	200.00	85.40	201.00	1
4	85.40	201.00	120.80	202.00	3
5	120.80	202.00	124.70	204.00	3
6	124.70	204.00	129.20	206.00	3
7	129.20	206.00	132.00	208.00	3
8	132.00	208.00	135.90	210.00	3
9	135.90	210.00	139.30	212.00	3
10	139.30	212.00	143.30	214.00	3
11	143.30	214.00	146.60	216.00	3
12	146.60	216.00	150.00	218.00	3
13	150.00	218.00	153.30	220.00	3
14	153.30	220.00	158.40	222.00	3
15	158.40	222.00	168.50	224.00	3
16	168.50	224.00	178.70	226.00	3
17	178.70	226.00	187.60	228.00	3
18	0.00	195.00	23.00	196.00	3
19	23.00	196.00	53.40	197.00	3
20	53.40	197.00	85.40	200.00	3
21	0.00	189.50	23.00	190.50	5
22	23.00	190.50	53.40	191.50	5
23	53.40	191.50	85.40	194.50	5
24	85.40	194.50	120.80	195.50	4
25	120.80	195.50	187.60	195.50	4
26	0.00	179.00	23.00	180.00	4
27	23.00	180.00	53.40	181.00	4
28	53.40	181.00	85.40	194.50	4

ISOTROPIC SOIL PARAMETERS

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	120.0	125.0	0.0	28.0	0.00	0.0	0
2	115.0	120.0	0.0	26.0	0.00	0.0	0
3	120.0	125.0	0.0	30.0	0.00	0.0	0
4	120.0	125.0	0.0	32.0	0.00	0.0	0
5	120.0	125.0	0.0	30.0	0.00	0.0	0
6	130.0	135.0	0.0	35.0	0.00	0.0	0
7	140.0	145.0	8000.0	0.0	0.00	0.0	0

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	35.90	85.40	200.0	0.0

NOTE - Intensity Is Specified As A Uniformly Distributed

Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Circular Surfaces, Has Been Specified.

1600 Trial Surfaces Have Been Generated.

40 Surfaces Initiate From Each Of 40 Points Equally Spaced Along The Ground Surface Between X = 10.00 ft.

and X = 70.00 ft.
 Each Surface Terminates Between X = 160.00 ft.
 and X = 185.00 ft.
 Unless Further Limitations Were Imposed, The Minimum Elevation
 At Which A Surface Extends Is Y = 0.00 ft.
 18.00 ft. Line Segments Define Each Trial Failure Surface.
 Following Are Displayed The Ten Most Critical Of The Trial
 Failure Surfaces Examined. They Are Ordered - Most Critical
 First.

* * Safety Factors Are Calculated By The Modified Bishop Method * *
 Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.00	200.52
2	87.95	199.15
3	105.94	199.71
4	123.77	202.19
5	141.23	206.58
6	158.11	212.81
7	174.23	220.81
8	184.35	227.27

Circle Center At X = 91.7 ; Y = 366.8 and Radius, 167.6
 *** 1.941 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	200.47
2	86.41	199.15
3	104.41	199.71
4	122.24	202.13
5	139.73	206.38
6	156.69	212.43
7	172.92	220.20
8	184.50	227.30

Circle Center At X = 90.1 ; Y = 372.4 and Radius, 173.3
 *** 1.971 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.00	200.52
2	87.92	198.84
3	105.92	199.34
4	123.72	202.01
5	141.06	206.81
6	157.70	213.67
7	173.39	222.50
8	177.97	225.86

Circle Center At X = 92.8 ; Y = 347.5 and Radius, 148.7
 *** 2.002 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.00	200.52
2	87.87	198.34
3	105.87	198.49
4	123.70	200.97
5	141.05	205.74
6	157.64	212.72
7	173.19	221.79
8	178.60	225.98

Circle Center At X = 95.7 ; Y = 336.7 and Radius, 138.6
 *** 2.061 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	200.47
2	86.31	198.12
3	104.31	197.96
4	122.19	200.02
5	139.69	204.24

6 156.53 210.58
 7 172.48 218.93
 8 184.61 227.33
 Circle Center At X = 96.5 ; Y = 344.5 and Radius, 146.7
 *** 2.094 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	68.46	200.47
2	86.36	198.57
3	104.36	198.92
4	122.17	201.52
5	139.51	206.33
6	156.12	213.27
7	171.73	222.24
8	176.02	225.47

Circle Center At X = 92.6 ; Y = 342.0 and Radius, 143.6
 *** 2.105 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.00	200.52
2	87.75	197.50
3	105.74	196.96
4	123.63	198.90
5	141.09	203.28
6	157.78	210.02
7	173.38	219.00
8	183.92	227.17

Circle Center At X = 100.7 ; Y = 327.4 and Radius, 130.5
 *** 2.121 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	70.00	200.52
2	87.69	197.19
3	105.67	196.44
4	123.58	198.28
5	141.04	202.67
6	157.68	209.52
7	173.17	218.69
8	183.61	227.10

Circle Center At X = 101.9 ; Y = 321.4 and Radius, 125.1
 *** 2.153 ***

Failure Surface Specified By 8 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	65.39	200.37
2	83.29	198.57
3	101.29	198.83
4	119.14	201.16
5	136.61	205.51
6	153.46	211.84
7	169.47	220.06
8	178.23	225.91

Circle Center At X = 90.0 ; Y = 355.2 and Radius, 156.8
 *** 2.164 ***

Failure Surface Specified By 9 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	62.31	200.28
2	80.23	198.57
3	98.23	198.70
4	116.12	200.66
5	133.72	204.43
6	150.84	209.99
7	167.31	217.26
8	182.95	226.17
9	184.56	227.32

Circle Center At X = 88.0 ; Y = 374.7 and Radius, 176.3

*** 2.178 ***

T.M. 20A213-2-76
TAYLOR TIMOTHY J
ZONED: R1

HAPPY CREEK MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA

*THIS PLAT DOES NOT
GUARANTEE THE EXISTANCE
OR NON-EXISTENCE OF
UTILITIES WITHIN THE WORK
LIMITS. CALL MISS UTILITY AT
811 OR 1-800-552-7001
BEFORE DIGGING

*THE LOT GRADING SHOWN
HEREON IS INTENDED FOR THE
CONSTRUCTION AND DRAINAGE
FOR THE SPECIFIC LOT ONLY.
ADJACENT LOT GRADING AND
HOUSE LOCATION IS
ILLUSTRATIVE AND SUBJECT TO
CHANGE WITHOUT NOTICE.

ELEVATION DATUM: NAVD 88

BOUNDARIES SHOWN HEREON ARE BASED ON FINAL PLAT PER
INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY
EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

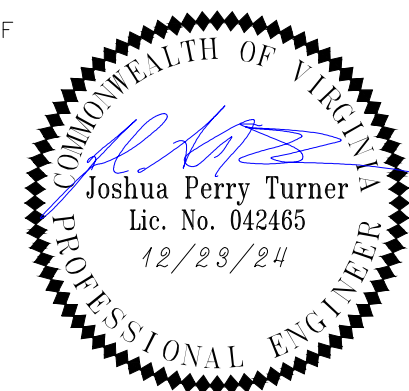
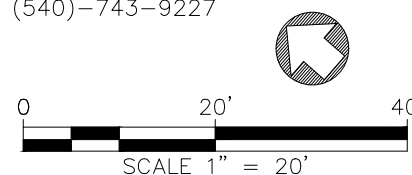
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

BUILDING FOOTPRINT AREA: 1,440 SF
AREA OF DISTURBANCE: 10,790 SF

PREPARED BY:
RACEY ENGINEERING, PLLC
312 WEST MAIN STREET
LURAY, VA 22835
(540)-743-9227



RACEY
ENGINEERING

312 WEST MAIN ST.
LURAY VIRGINIA 22835
PH.540-743-9227-FAX: 540-743-6118

MARONDA HOMES 7051 HEATCOTE VILLAGE WAY SUITE 255 GAINESVILLE, VA 20155		DATE:	DESCRIPTION:	DRAWN	CHECK
HAPPY CREEK KNOLLS LOT GRADING SURVEY - LOT 30		07/19/24	1ST SUB GRADING PLAN	BSR	JPT
		09/09/24	2ND SUB GRADING PLAN	BSR	JPT
TOWN OF FRONT ROYAL, VIRGINIA		10/18/24	3RD SUB GRADING PLAN	BSR	JPT
		12/23/24	4TH SUB GRADING PLAN	ZEW	JPT

1194 Happy Ridge Drive
Lot 29

Town of Front Royal
102 E. Main Street
Front Royal, VA 22630
540-635-4236
Permit Number: 2400535

Zoning Approval

APPROVED



Job Location: 1194 HAPPY RIDGE DR
City, State, Zip: FRONT ROYAL, VA 22630
Tax Map #: 20A213 4 29
Square Feet: [Square Feet]
Valuation:
Status: Approved Pending Payment

FOR ZONING

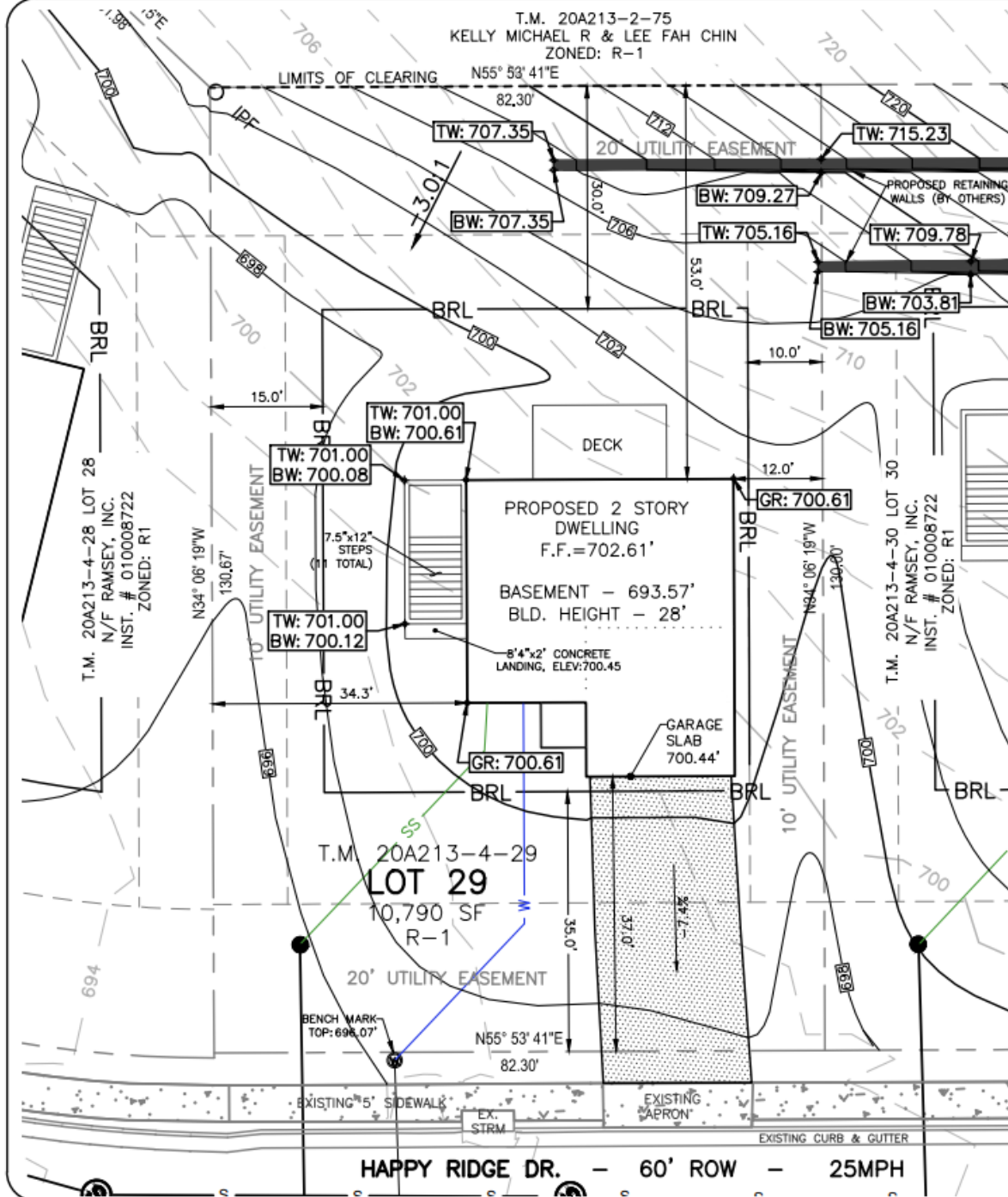
Plan Type: Zoning - Major Construction - New Single Family Detached
Work Class:
Project:
District: Front Royal
Completion Date: 09/17/2024

Request Description: New Residential Single-Family Dwelling - Detached

Company Name: Maronda Homes
Applicant Name: Johnson, Amber
Address: 7051 Heathcote Village Way Suite 255
City, State, Zip: Gainesville VA 20155
Phone: (703) 753-7020 / Cell: 540-935-6077-Amber Johnson
Email: permittingva@maronda.com

Owner: MARONDA HOMES OF VIRGINIA LLC
Address: 7051 HEATHCOTE VILLAGE WAY SUITE 255
City, State, Zip: GAINESVILLE, VA 20155
Phone: (703) 753-7020
Email: permittingva@maronda.com

REVIEW INFORMATION		Pass/Fail
Department of Planning and Zoning Review Approved for the Location to construct a Single-Family Dwelling (SFD). NEW ADDRESS is 1194 Happy Ridge Drive. Rear Yard RETAINING WALL SHALL BE CONSTRUCTED & COMPLETED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY. Rear of the Lot Tree Plantings required are as follows: four (4) 3" caliper White Pines (Pinus strobus), one (1) 2" caliper Pin Oak (Quercus palustris) and one (1) 2" caliper Red Maple (Acer rubrum "Red Sunset"). Street Tree Plantings required are as follows: one (1) 2" caliper Thornless Honey Locust (Gleditsia triacanthos). Please consult the Happy Creek Knolls Section 4 approved Landscape Plan for planting locations. A WARREN COUNTY BUILDING PERMIT IS REQUIRED.		Approved
Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections.		Complete



LOT 29

HAPPY CREEK MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA

EX. CONTOUR — 706 —
PR. CONTOUR — 706 —
SETBACK LINE — BRL —
EX. WATER — W —
EX. SANITARY — S —
PR. WATER — W —
PR. SANITARY — SS —
EX. WATER METER — (M) —
EX. SANITARY CLEANOUT — (C) —

*THIS PLAT DOES NOT
GUARANTEE THE EXISTENCE
OR NON-EXISTENCE OF
UTILITIES WITHIN THE WORK
LIMITS. CALL MISS UTILITY AT
811 OR 1-800-552-7001
BEFORE DIGGING

*THE LOT GRADING SHOWN
HEREON IS INTENDED FOR THE
CONSTRUCTION AND DRAINAGE
FOR THE SPECIFIC LOT ONLY.
ADJACENT LOT GRADING AND
HOUSE LOCATION IS
ILLUSTRATIVE AND SUBJECT TO
CHANGE WITHOUT NOTICE.

ELEVATION DATUM: NAVD 88

BOUNDARIES SHOWN HEREON ARE BASED ON FINAL PLAT PER
INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

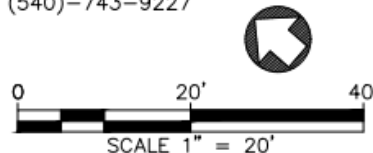
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

BUILDING FOOTPRINT AREA: 1,280 SF
AREA OF DISTURBANCE: 10,790 SF

PREPARED BY:
RACEY ENGINEERING, PLLC
312 WEST MAIN STREET
LURAY, VA 22835
(540)-743-9227



MARONDA HOMES 7051 HEATCOTE VILLAGE WAY SUITE 255 GAINESVILLE, VA 20155		DATE:	DESCRIPTION:	DRAWN	CHECK
HAPPY CREEK KNOLLS LOT GRADING SURVEY - LOT 29		08/06/24	1ST SUB GRADING PLAN	HV	JPT
		09/09/24	2ND SUB GRADING PLAN	HV	JPT
TOWN OF FRONT ROYAL, VIRGINIA					

SCALE: 1"=20'

PRO. 10089



312 WEST MAIN ST.
LURAY VIRGINIA 22835
PH.540-743-9227-FAX: 540-743-6118

SCALE: 1"=20'

PRO. 10089

1196 Happy Ridge Drive
Lot 30

Town of Front Royal
102 E. Main Street
Front Royal, VA 22630
540-635-4236
Permit Number: 2400435

Zoning Approval

APPROVED



Job Location: 1196 HAPPY RIDGE DR
City, State, Zip: FRONT ROYAL, VA 22630
Tax Map #: 20A213 4 30
Square Feet: [Square Feet]
Valuation:
Status: Approved Pending Payment

FOR ZONING

Plan Type: Zoning - Major Construction - New Single Family Detached
Work Class:
Project:
District: Front Royal
Completion Date: 09/11/2024

Request Description: New Residential Single-Family Dwelling Detached

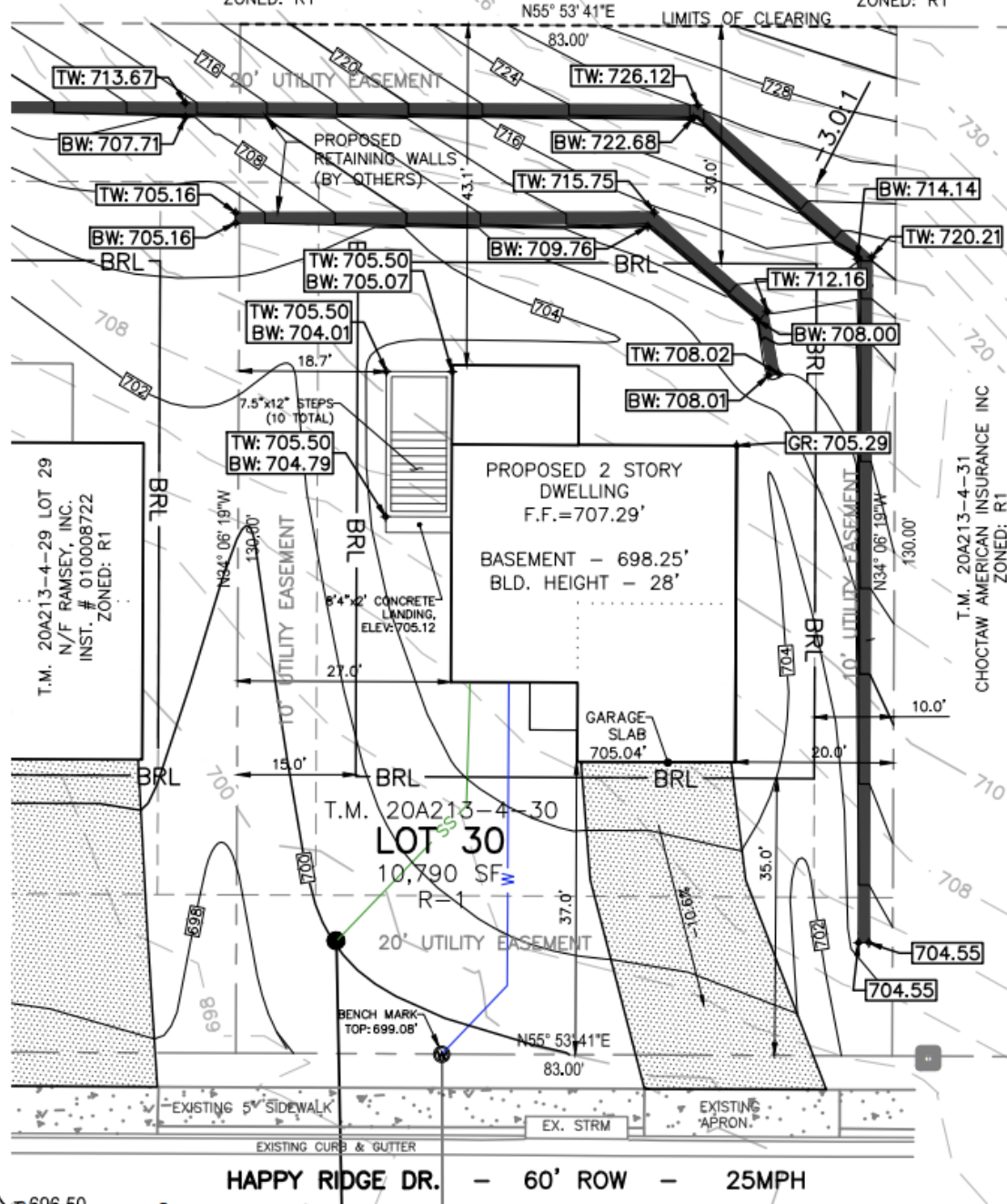
Company Name: Maronda Homes of Virginia LLC
Applicant Name: Johnson, Amber
Address: 7051 Heathcote Village Way Suite #255
City, State, Zip: Gainesville VA 20155
Phone: (540) 935-6077
Email: permittingva@maronda.com

Owner: MARONDA HOMES OF VIRGINIA LLC
Address: 7051 HEATHCOTE VILLAGE WAY SUITE #255
City, State, Zip: GAINESVILLE, VA 20155
Phone:
Email:

REVIEW INFORMATION		Pass/Fail
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Department of Planning and Zoning Review - Utility System Development & Energy Services Charges are DUE at the time of permit issuance. - A FOUNDATION LOCATION SURVEY is required. - A FINAL ZONING COMPLIANCE INSPECTION IS REQUIRED prior to final occupancy and use. - Call Planning & Zoning to schedule Final Compliance inspection (540) 635-4236. Final Compliance to include but not limited to: house numbers posted, landscaping, seed and straw. - All Site work shall be constructed per the approved house location survey, including but not limited to parking, grading and landscaping. - Any changes must be approved by Planning & Zoning. - It is the APPLICANT'S RESPONSIBILITY to obtain necessary permits from Warren County Building Inspections.		Complete

T.M. 20A213-2-75
KELLY MICHAEL R & LEE FAH CHIN
ZONED: R1

T.M. 20A213-2-76
TAYLOR TIMOTHY J
ZONED: R1



LOT 30

HAPPY CREEK MAGISTERIAL DISTRICT TOWN OF FRONT ROYAL WARREN COUNTY, VA

EX. CONTOUR --- 706 ---
PR. CONTOUR --- 706 ---
SETBACK LINE --- BRL ---
EX. WATER --- W ---
EX. SANITARY --- S ---
PR. WATER --- W ---
PR. SANITARY --- SS ---
EX. WATER METER --- (Symbol) ---
EX. SANITARY CLEANOUT --- (Symbol) ---

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ELEVATION DATUM: NAVD 88

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INST. # 190006202 BY BOWMAN CONSULTING GROUP, LTD.

RESTRICTIVE COVENANTS PER INST. #210007168 REFERS TO UTILITY
EASEMENTS AS SHOWN ON THESE PLANS.

NO TITLE REPORT FURNISHED - PROJECT SUBJECT TO ANY AND ALL
EASEMENTS OF RECORD.

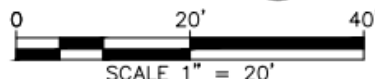
DERIVATION OF TITLE TO: RAMSEY, INC. PER INST. #010008722

SUBJECT PROPERTY IS OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

DRIVEWAY APRON AND DRIVEWAY SURFACE TO BE PAVED OR CONCRETE
AND IN CONFORMANCE WITH TOWN STANDARD (RC-5).

BUILDING FOOTPRINT AREA: 1,440 SF
AREA OF DISTURBANCE: 10,790 SF

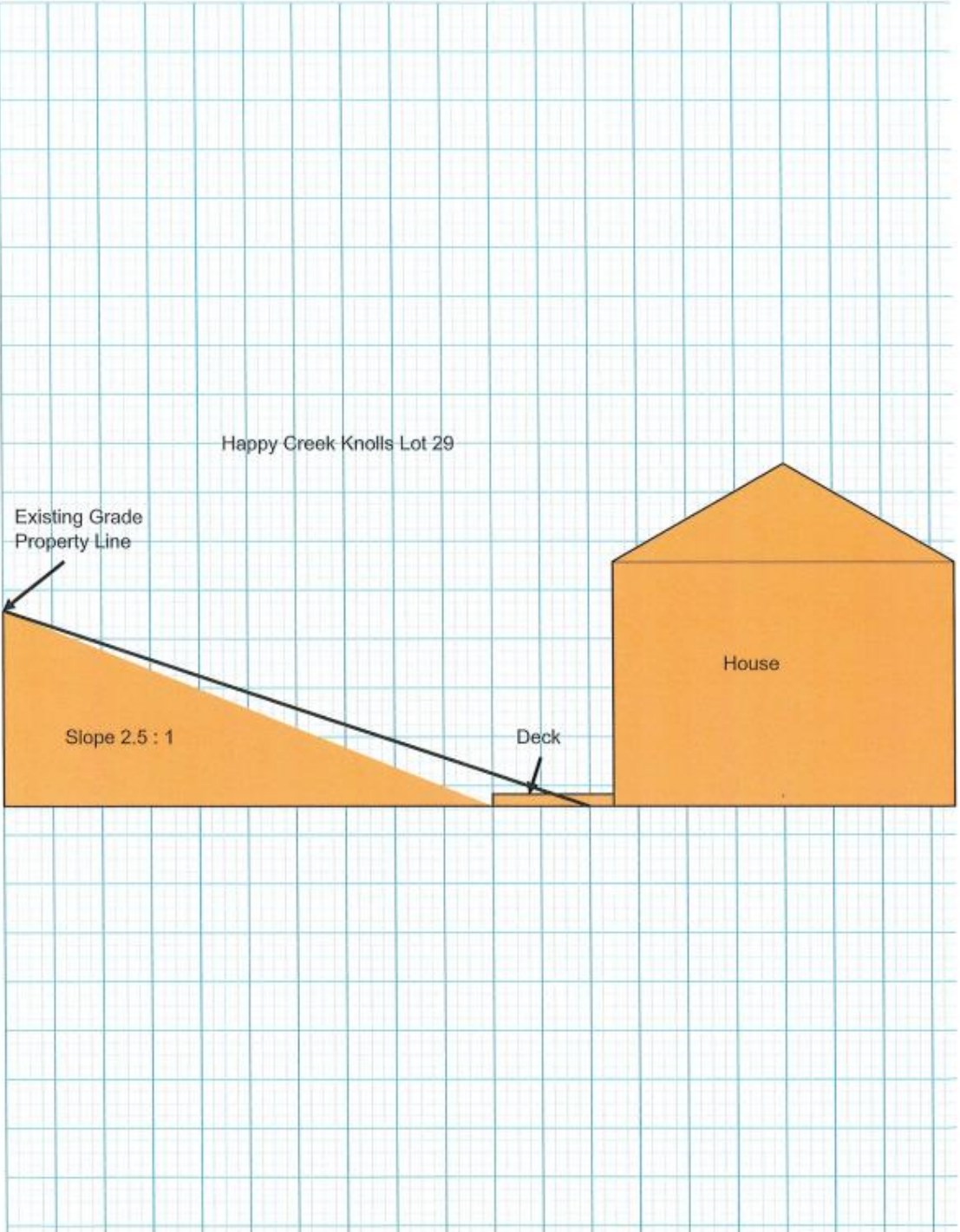
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(540)-743-9227



312 WEST MAIN ST.
LURAY VIRGINIA 22835
PH: 540-743-9227 FAX: 540-743-6118

DRAWN	CHECK	DESCRIPTION:	
		1ST SUB GRADING PLAN	2ND SUB GRADING PLAN
DATE:		07/19/24	09/09/24
MARONDA HOMES		7051 HEATCOTE VILLAGE WAY SUITE 255	
HAPPY CREEK KNOLLS		LOT GRADING SURVEY - LOT 30	
TOWN OF FRONT ROYAL, VIRGINIA			
SCALE: 1"=20'			
PRO. 10089			

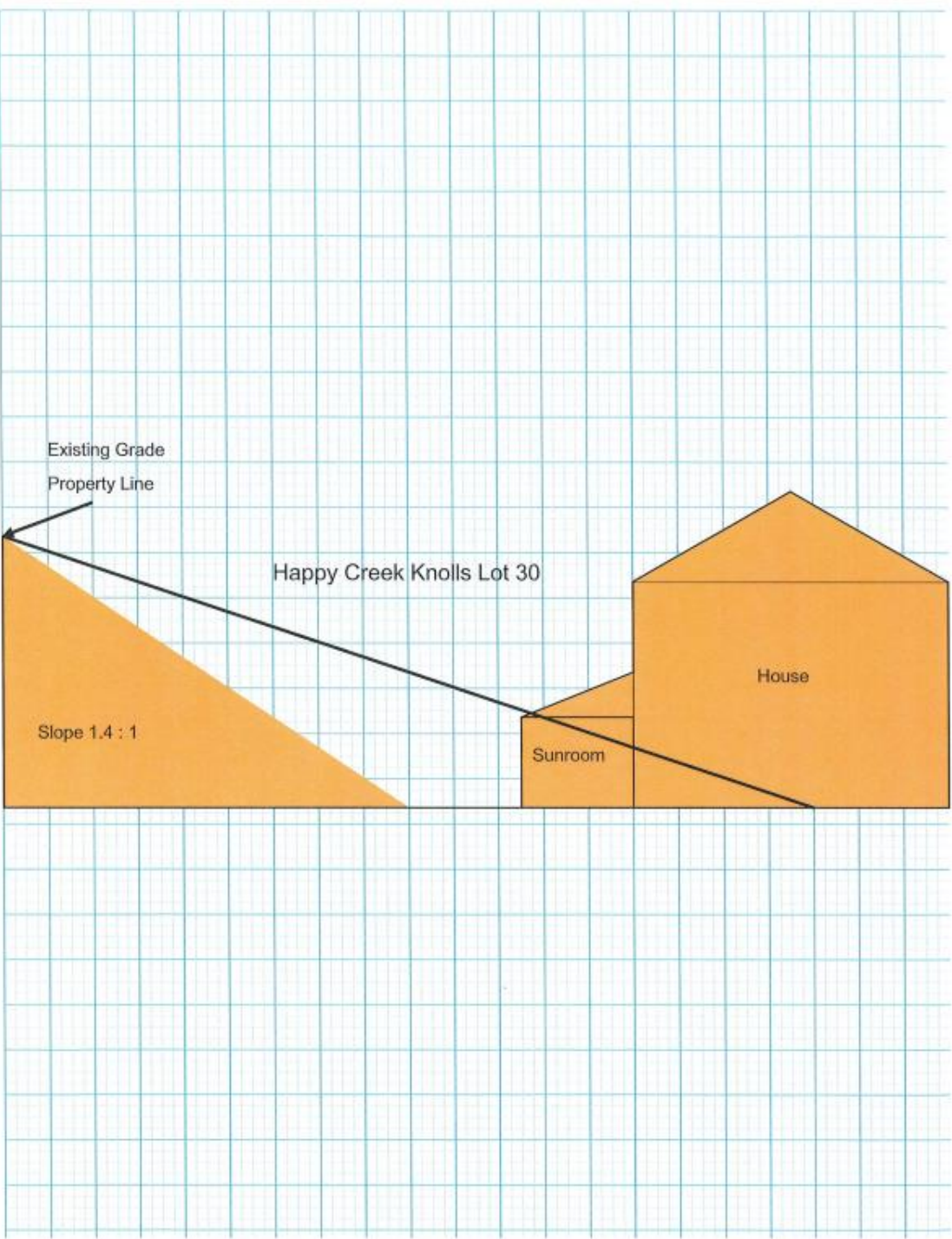
LOT 29



LOT 29



LOT 30



LOT 30



LOT 30



LOT 30



LOT 30



2500022

Connie Potter

From: Lauren Kopishke
Sent: Friday, January 31, 2025 10:33 AM
To: Connie Potter
Subject: FW: [--EXTERNAL--]: FW: Geotechnical Report



Lauren E. Kopishke

Director of Planning & Zoning
Zoning Administrator
Town of Front Royal
Dept. of Planning and Zoning
102 E Main St | PO Box 1560
Front Royal, VA 22630
T./540-635-4236

From: Steele, Stephen <SSteele@chasolutions.com>
Sent: Thursday, January 30, 2025 10:56 AM
To: John Ware <jware@frontroyalva.com>
Cc: Lauren Kopishke <lkopishke@frontroyalva.com>
Subject: RE: [--EXTERNAL--]: FW: Geotechnical Report

John,

My Geotech looked at the report and has the following concerns:

- It is concerning that the report is based on modeling all failure surfaces as passing beneath the house, with the house providing a stabilizing surcharge force of 200 psf over its entire footprint. The cut slopes typically fail are generally relatively shallow slides that happen when soils get saturated from rain, which push out from the toe of the cut.
- The Town should recommend evaluation of potential failures that send slide debris into the back yard (or the back door). It doesn't appear that the report evaluated those scenarios.
- The report says that they have some direct shear lab tests in progress. The Town should request that information.

Let me know if this helps.

Stephen Steele, PE*

Vice President
Key Account Manager
CHA
Office: (540) 212-4368
sssteel@chasolutions.com
www.chasolutions.com

*VA, NC



148-860 - ENVIRONMENTAL IMPROVEMENTS

A. Steep Slopes.

1. *Purpose:* Steep slopes, when developed, require more grading and land disturbance than development of flat to gently sloping topographical areas. Therefore, the purpose of this section is to establish protective regulations to:

- a. Minimize soil disturbance on steep or critical slopes due to the potential for erosion problems;
- b. Assist in the prevention of soil erosion from stormwater runoff, protect downstream buildings and yards from water and soil intrusion, and protect the Town's surface and groundwater resources from siltation and contamination;
- c. Promote stable building sites that prevent soil erosion and are structurally sound so as to maintain slope stability;
- d. Promote accessibility for fire and rescue apparatus;
- e. Maintain the visual and environmental resources that are part of the character of Front Royal; and
- f. Encourage innovative development in Front Royal by providing the flexibility necessary to produce environmentally sensitive subdivisions which direct building, parking and street locations to terrain more suitable to development while maximizing conservation of the original slopes, native cover, prominent land forms, rocky outcrops, natural open space, wildlife habitat and scenic resources.

2. *Applicability:* All proposed subdivisions which result in the creation of an additional building lot or lots with the exception of boundary line adjustments, must submit a plan, in addition to any required subdivision development, street construction or erosion & sediment control plan, identifying predevelopment areas of steep slope. Clear cutting or grading for the purpose of altering predevelopment slopes shall not be permitted.

3. *Establishment of Steep Slope Areas:* The predevelopment slopes shall be computed by rise over run from naturally occurring contour lines based on topographic information showing two-foot contour intervals and based on NAVD 88 vertical datum. The topographic data may be field run or from aerial photography, provided the information is current and the contouring method provides the precision expected for the contour interval used.

a. *Identification of Steep Slope Areas:* Steep slopes areas are classified into one (1) of the following two (2) categories:

[1] All areas of slope between fifteen percent (15%) and twenty-five percent (25%) which contain highly erodible, highly permeable or shrink-swell soils. Determination of soils which are highly erodible, highly permeable or shrink-swell shall be based on the USDA Soil Conservation Service Soil Survey of Warren County, Virginia, or based on soils analysis prepared by a geotechnical engineer or other appropriate licensed professional.

[2] All areas of slope greater than twenty-five percent (25%).

b. *Minimum Size of Steep Slope Area:* Steep slope standards do not apply to isolated steep slope areas that are less than five thousand (5,000) square feet in land area. For the purposes of this

provision, the entire contiguous area of the steep slopes shall be included in the minimum size calculations, regardless of the number of individual lots or different land ownerships involved.

4. *Creation of Slope Overlays:* The plan identifying steep slopes and critical slopes must include overlays over the entire tract involved identifying by color coding the following:

- a. All areas of slope between fifteen percent (15%) to twenty-five percent (25%) which contain highly erodible, highly permeable or shrink-swell soils.
- b. All areas of slope greater than twenty-five percent (25%).

5. *Plan Requirements:* An overlot grading plan, prepared by a professional licensed by the State of Virginia to prepare such a plan, for the development, management, stabilization and preservation of steep slope areas shall be prepared in accordance with the detail requirements of Town Code Section 148 and upon submission of a report by a certified soil or geotechnical engineer, and/or other appropriate licensed professional, indicating if and how the steep slope may be safely developed.

The final subdivision plat showing any lot or portion of any lot located within a steep slope overlay area must contain a note stating that the property shown hereon is subject to the provisions of Section 148-42, Steep Slopes, of the Town of Front Royal Subdivision Ordinance, in accordance with the conditions shown on the approved overlot grading plan and/or geotechnical report filed with the applicable and appropriate subdivision application.

6. *Building Site Requirements:* In addition to the requirements of the grading plan described herein, the plan shall include the following standards:

- a. Site development shall be designed in a manner that requires a minimum amount of alteration to the steep slope.
- b. Existing vegetation shall be preserved to the maximum extent possible.
- c. No finished slopes are to be created with a final grade greater than fifteen percent (15%) unless deemed feasible by a geotechnical report.
- d. Residential driveway grades exceeding ten percent (10%) are not recommended. Residential driveway grades greater than ten percent (10%) shall be constructed in conformance with Virginia Department of Transportation's (VDOT) standard CG-9 or other applicable entrance detail requirements. Commercial or industrial driveway grades shall be constructed in conformance with VDOT standard CG-11 or other applicable entrance detail requirements. All driveways shall have a nonerodable surface treatment, such as asphalt or concrete pavement. Side slopes for driveway cuts shall not exceed twenty-five percent (25%), (4:1) unless deemed feasible by a geotechnical report.
- e. Use of retaining wall is encouraged to reduce the steepness of man-made slopes and to provide planting pockets conducive to vegetation and landscaping. All retaining walls shall require an engineered design with the exception of non-tiered retaining walls with level backfill and no surcharge loading with a height of twenty-four (24) inches, (2.0 feet) or less from the finished grade. Retaining walls shall not exceed seventy-two (72) inches, (6.0 feet) in height from the finished

grade, however, the Town Council, at its discretion, may waive the maximum height requirement for retaining walls located within non-residentially zoned areas. This provision is not intended to preclude a structure's foundation or basement wall or the creation of a walkout basement.

f. Landscaping and plantings shall be in accordance with Town Standards.

7. As-Built Plan Required: A post construction as-built survey of the approved steep slope overlaid grading plan shall be required prior to the issuance of an approved occupancy permit. The as-built drawings shall clearly show any changes or variations from the approved design, and if deemed significant by the Director, may require any such change or variation be brought into compliance with the approved plan. The as-built information shall be shown on the original plan and include the following:

a. Horizontal variations greater than one (1.0) foot should be shown dimensionally or through plus stations. Horizontal variations greater than five (5.0) feet should also show the graphic relocation of the object. Vertical elevation variations greater than 0.1 feet shall be provided for all shown design elevations.

b. All as-built information shall be shown on the original plan either as blocked in or drawn in a different text style or font from that as shown on the original plan.

c. Each sheet of the plan shall contain the words "AS-BUILT" in bold text on or near the title block.

d. Date, plan legend, bar scale and north arrow.

e. Retaining walls. Indicate type and show elevations of the top of wall and the lowest adjacent finished grade.

f. Curb cut, driveway and material. Centerline grade of driveway with spot elevations.

g. Spot elevations of graded areas to determine grade of finished slope. Highlight all areas of finished slopes exceeding design grade by more than one percent (1%).

h. Horizontal location with dimensions of all structures with dimensions including porches, decks, garages, etc. Show vertical elevations of first floor and basement floor.

i. Horizontal and vertical location of roof drains, foundation drains and other drainage outlets. Locations of utility services.

j. Location of required plantings.

k. The final as-built plan must be stamped by Licensed Land Surveyor or Professional Engineer and include certification that the as-built plan is substantially in conformance with the original plan. If a geotechnical report is used, the appropriate licensed professional must certify that the as-built is in conformance with the report.

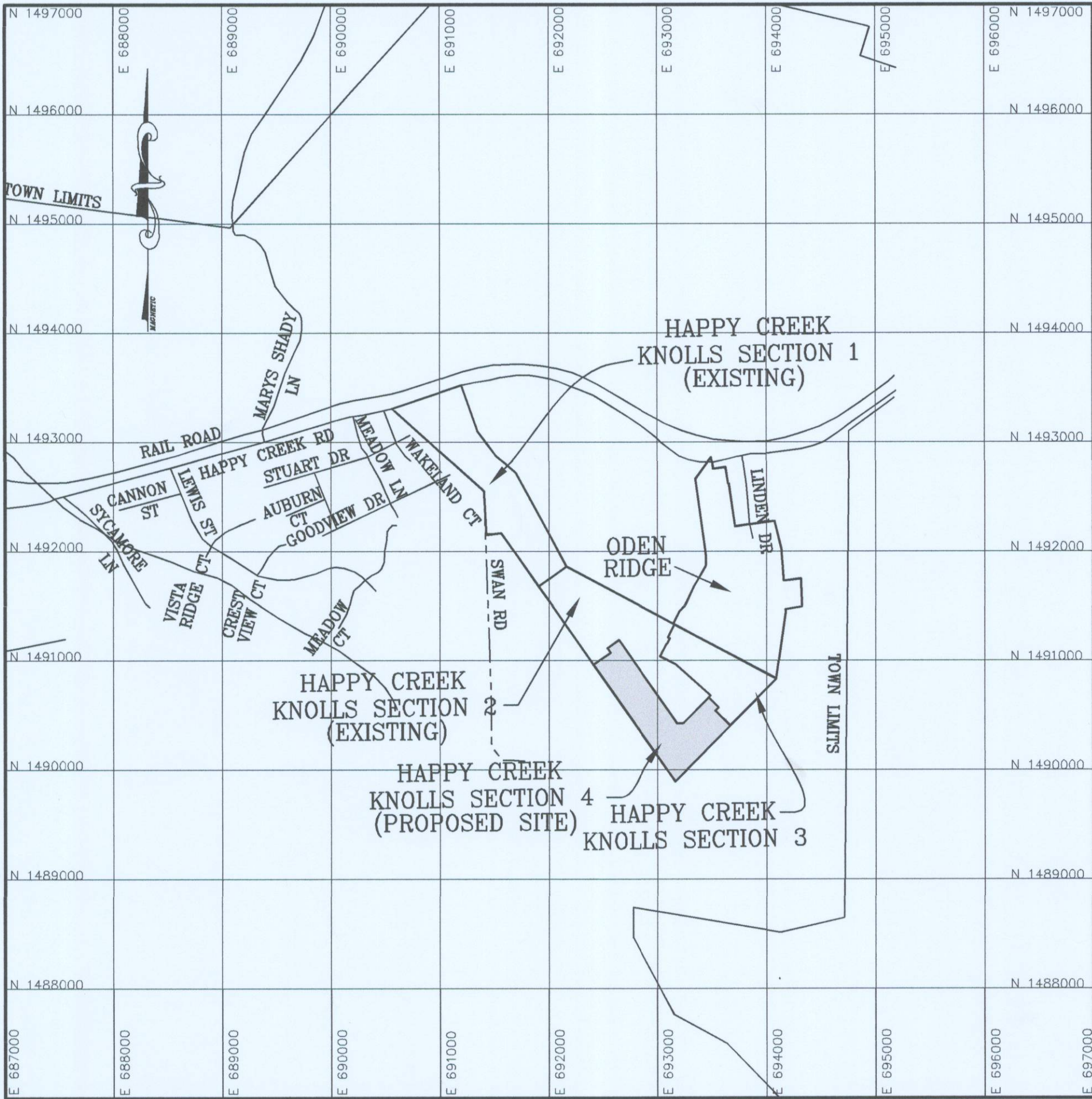
GENERAL NOTES:

1. BOUNDARY AND NORTH MERIDIAN INFORMATION AS SHOWN HEREON ARE BASED ON A RECORD PLAT OF HAPPY CREEK KNOLLS, SECTION 1 AS RECORDED IN INSTRUMENT 01-0009421 AMONG THE LAND RECORDS OF WARREN COUNTY, VIRGINIA.
2. THESE PLANS HAVE BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND DO NOT NECESSARILY INDICATE ALL ENCUMBRANCES.
3. TOPOGRAPHIC DATA AS CONTAINED HEREIN WAS OBTAINED FROM FIELD RUN SURVEY PREPARED BY BOWMAN CONSULTING GROUP LTD. SAID SURVEY BEING DATED OCT. 12, 2017. DATUM BASED ON ASSUMED DATUM PER EXISTING FACILITIES. THE CONTOUR INTERVAL IS 2 FOOT. STEEP AND VERY STEEP SLOPES HAVE BEEN IDENTIFIED ON THE SUBJECT PROPERTY BASED ON FIELD RUN TOPO BY BOWMAN CONSULTING.
4. THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-552-7001, UTILITY COMPANY REPRESENTATIVES, PERFORM TEST PITS, REVIEW CURRENT TEST PIT DATA, AND WHATEVER OTHER OPERATIONS AVAILABLE TO INSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY BOWMAN CONSULTING GROUP OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
5. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED TO MAKE THE PROPOSED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, CONDITIONS, AND CONFORMATION AND CONDITION OF EXISTING GROUND SURFACE AND THE CHARACTER OF THE EQUIPMENT AND FACILITIES NEEDED PRIOR TO AND DURING PROSECUTION OF THE WORK. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE CHARACTER, QUANTITY AND QUALITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES TO BE ENCOUNTERED. ANY INACCURACIES OR DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS MUST BE BOUGHT TO THE OWNER'S ATTENTION IN ORDER TO CLARIFY THE EXACT NATURE OF THE WORK TO BE PERFORMED PRIOR TO THE COMMENCEMENT OF ANY WORK.
6. IN ORDER TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF A GIVEN UTILITY AND TO ASSIST THE CONTRACTOR AND/OR OWNER IN DETERMINING AREAS OF SPECIAL CONCERN, BOWMAN CONSULTING GROUP HAS INDICATED HEREIN CERTAIN LOCATIONS WHERE TEST PITS SHOULD BE EXCAVATED PRIOR TO COMMENCING CONSTRUCTION. THESE INDICATIONS ARE NOT INTENDED TO BE ALL INCLUSIVE AND WILL NOT RELIEVE THE CONTRACTOR AND/OR OWNER OF THE RESPONSIBILITY OF DIGGING ADDITIONAL TEST PITS, AS MIGHT BE REQUIRED BY ACTUAL SITE CONDITIONS, ANY DISCREPANCIES FOUND BETWEEN ACTUAL AND ASSUMED CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF BOWMAN CONSULTING GROUP.
7. UNLESS OTHERWISE NOTED, ALL PROPOSED ELEVATIONS AS SHOWN HEREIN ARE FINISHED GRADE.
8. UNLESS OTHERWISE NOTED HEREIN ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.
9. FOR THE PURPOSE OF DESIGN COORDINATION, CERTAIN FUTURE CONSTRUCTION IMPROVEMENTS ARE SHOWN HEREIN AS EXISTING. THESE FEATURES MAY INCLUDE BUT ARE NOT NECESSARILY LIMITED TO THE HORIZONTAL & VERTICAL LOCATION OF CURBS, SIDEWALKS, PAVEMENTS AND UTILITIES.
10. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER OR SIDEWALK.
11. NO BLASTING SHALL BE PERMITTED WITHIN 25' OF EXISTING UTILITIES LINE OR STRUCTURES. BLASTING TO BE EXTENDED TO 25' BEYOND PROPOSED STRUCTURES IF CONDITIONS WARRANT FUTURE EXTENSIONS.
12. THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO EXISTING RIGHT-OF-WAY.
13. THE APPROVAL OF THIS PLAN SHALL IN NO WAY GRANT PERMISSION BY THE COUNTY FOR THE DEVELOPER TO TRESPASS ON OFF-SITE PROPERTIES.
14. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
15. THE ENGINEER SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK SHOWN ON THESE PLANS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.
16. IN RESPONSE TO THE TOWN OF FRONT ROYAL PUBLIC WORKS REQUEST FOR FIELD ASSISTANCE, WHEN REQUIRED TO IDENTIFY SPECIFICATIONS OF PROPOSED DEVELOPMENT, AS RELATED TO SPECIFIC SITE CONDITIONS, PLEASE CONTACT JERRY DOVE AT BOWMAN CONSULTING GROUP (703) 443-2400.
17. EMERGENCY VEHICLE ACCESS SHALL BE PROVIDED DURING ALL PHASES OF CONSTRUCTION.
18. WHERE IMPROVEMENTS ARE PROPOSED WITHIN EXISTING EASEMENTS OF RECORD, THE DEVELOPER SHALL OBTAIN WRITTEN PERMISSION FROM THE AUTHORITIES THAT ARE DOMINANT TENEMENTS OF THESE EASEMENTS FOR PERMIT FOR ANY DISTURBANCES WITHIN THESE AREAS PRIOR TO CONSTRUCTION.
19. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER
20. ALL EXISTING ON-SITE WELLS AND DRAINFIELDS WHICH ARE NOT REQUIRED TO SUPPORT THIS PROJECT WILL BE ABANDONED BY THE CONTRACTOR ACCORDING TO LAW.
21. NO KNOWN GRAVE SITES EXIST ON THIS SITE, IN THE EVENT GRAVE SITES ARE DISCOVERED DURING CONSTRUCTION, THE OWNER AND ENGINEER MUST BE NOTIFIED IMMEDIATELY. SHOULD GRAVE SITES BE FOUND THEY WILL BE PROTECTED IN ACCORDANCE WITH THE STATE LAW.
22. MAINTENANCE OF ALL STORM WATER MANAGEMENT FACILITIES SHALL BE THE RESPONSIBILITY OF THE HAPPY CREEK POA.
23. FINAL DESIGN OF THIS DEVELOPMENT HAS BEEN DONE IN CONFORMANCE TO THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY ECS MID-ATLANTIC, LLC, DATED 10/05/2018.
24. STORMWATER MANAGEMENT FOR THE SITE HAS BEEN PROVIDED HEREIN IN ACCORDANCE WITH PART IIB CRITERIA.
25. A NOTICE OF TERMINATION PACKAGE NEEDS TO BE SUBMITTED TO DEQ PRIOR TO ARRANGING FOR A FINAL DEQ INSPECTION. THIS INSPECTION WILL BE REQUIRED PRIOR TO TERMINATION OF THE CONSTRUCTION GENERAL PERMIT.

GENERAL SPECIFICATIONS:

1. UNLESS OTHERWISE NOTED OR SHOWN HEREIN, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE SUPPLIED AND INSTALLED IN STRICT CONFORMANCE WITH THE RULES, SPECIFICATIONS AND/OR REGULATIONS CONTAINED IN:
- A. THE VIRGINIA DEPARTMENT OF TRANSPORTATION, ROAD & BRIDGE SPECIFICATIONS AS AMENDED TO DATE.
- B. THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, LATEST EDITION, AND WARREN COUNTY CODE CHAPTER 150 SOIL EROSION AND SEDIMENT CONTROL.
- C. THE TOWN OF FRONT ROYAL MUNICIPAL CODE.
- D. THE TOWN OF FRONT ROYAL SANITATION AUTHORITY STANDARDS.
- E. THE DEPARTMENT OF JUSTICE FEDERAL REGISTER IMPLEMENTING TITLE III OF THE AMERICANS WITH DISABILITIES ACT, PUBLIC LAW 101-336 FOR NONDISCRIMINATION ON THE BASIS OF DISABILITY BY PUBLIC ACCOMMODATION.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS AND/OR RECONSTRUCTION OF ALL UTILITY COVER (MANHOLE FRAMES AND COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
4. THE CONTRACTOR MUST HAVE THE APPROVED CONSTRUCTION DRAWINGS IN POSSESSION PRIOR TO THE START OF CONSTRUCTION. AT LEAST ONE (1) COPY OF THE APPROVED PLANS, WITH REVISIONS, MUST BE KEPT ON-SITE AT ALL TIMES.
5. ALL UTILITIES NOTED TO BE RELOCATED OR REMOVED SHALL BE AT THE DEVELOPERS EXPENSE, TO INCLUDE ALL POLES AND STRUCTURES AS REQUIRED. ALL POLES REQUIRED TO BE RELOCATED MUST BE MOVED PRIOR TO CONSTRUCTION.
6. CONTROLLED FILLS SHALL BE COMPACTED TO MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT PER STANDARD PROCTOR AASHTO-199, ASTM-D698 OR VTM-1 AS APPLICABLE. DENSITY SHALL BE CONFIRMED AND CERTIFIED BY A QUALIFIED AND REGISTERED PROFESSIONAL ENGINEER.
7. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. AN ENTRANCE PERMIT SHALL BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ANY WORK WITHIN DEDICATED RIGHT-OF-WAYS OR FOR ANY TEMPORARY AND/OR PERMANENT ENTRANCE OFF OF A STATE MAINTAINED ROADWAY.
8. THE CONTRACTOR AND/OR OWNER SHALL OBTAIN A GRADING PERMIT FROM THE WARREN COUNTY BUILDING AND INSPECTIONS DEPARTMENT PRIOR TO COMMENCEMENT OF ANY LAND DISTURBING ACTIVITIES.
9. THE CONTRACTOR SHALL NOTIFY THE VIRGINIA DEPARTMENT OF TRANSPORTATION, THE TOWN OF FRONT ROYAL AND THE WATER AND SEWER AUTHORITY A MINIMUM OF THREE DAYS PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS SUBJECT TO INSPECTION AND/OR MAINTENANCE BY SAID AGENCIES.
10. STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO THE LATEST EDITION OF A.A.S.H.T.O. DESIGNATION M170. UNLESS OTHERWISE NOTED AND/OR SPECIFIED HEREIN ALL STORM SEWER AND CULVERT PIPE SHALL BE CLASS THREE, WALL B
11. REFER TO THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS FOR CONSTRUCTION DETAILS NOT SHOWN OR CONTAINED HEREIN.
12. UNLESS OTHERWISE NOTED HEREIN V.D.O.T. STANDARD IS-1 SHAPING SHALL BE APPLIED TO THE INVERTS OF ALL DRAINAGE STRUCTURES.
13. UNLESS OTHERWISE NOTED OR SHOWN HEREIN ALL COMMERCIAL/RESIDENTIAL STREET ENTRANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH V.D.O.T. STANDARD CG-11.
14. ALL STRIPING AND SIGNAGE SHOWN HEREIN IS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE SPECIFICATIONS AND/OR REQUIREMENTS CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS (M.U.T.C.D.) AND THE VIRGINIA SUPPLEMENTS THERE TO.
15. STRIPING AND SIGNAGE PLANS (AS REQUIRED) SHALL BE SUBMITTED AND APPROVED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO SUBMISSION OF AN ENTRANCE PERMIT APPLICATION.

FINAL
SUBDIVISION PLAN
FOR
HAPPY CREEK KNOLLS
SECTION 4
HAPPY CREEK MAGISTERIAL DISTRICT
WARREN COUNTY, VIRGINIA



VICINITY MAP
SCALE: 1"=1000'

OWNER:
RAMSEY INC.
508 COMMERCE AVENUE
FRONT ROYAL, VIRGINIA 22630
(540) 635-5637

DEVELOPER
RAMSEY INC.
508 COMMERCE AVENUE
FRONT ROYAL, VIRGINIA 22630
(540)635-5637

MISS UTILITY

CALL "MISS UTILITY" AT 811 OR 1-800-552-7001, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF TOWN OF FRONT ROYAL, VIRGINIA CODES AND REGULATIONS.

NOTICE REQUIRED

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. NAMES AND TELEPHONE NUMBERS OF THE OPERATORS OF UNDERGROUND UTILITY LINES APPEAR BELOW. THESE NUMBERS SHALL ALSO BE USED TO SERVE IN AN EMERGENCY CONDITION.

WATER/SEWER: TOWN OF FRONT ROYAL - DEPARTMENT OF PUBLIC UTILITIES
801 CROSBY ROAD
FRONT ROYAL, VIRGINIA 22630
(540) 635-7819

PHONE: SPRINT
450 REMOUNT ROAD
FRONT ROYAL, VIRGINIA 22630
(540) 635-3197

POWER: TOWN OF FRONT ROYAL - ELECTRIC DEPARTMENT
1101 MANASSAS AVENUE
FRONT ROYAL, VIRGINIA 22630
(540) 635-3027

MISS UTILITY: (800) 552-7001

APPROVED
Stormwater Management Plan
Date: 11/1/2021 Project #: 2020-0110
Reviewed: JMM
Approved: JMM
Department of Environmental Quality

SITE AND ZONING DATA

1. THE PROPERTY DELINEATED HEREON IS LOCATED ON WARREN COUNTY TAX ASSESSMENT MAP 20A2 ((13)) PARCEL G.
2. THE SUBJECT PROPERTY CONTAINS 541,330 SQUARE FEET OR 12.4272 ACRES OF LAND BE THE SAME MORE OR LESS.
3. THE SITE IS CURRENTLY ZONED R-1 AND IS BEING ADMINISTERED UNDER THE TOWN OF FRONT ROYAL ZONING ORDINANCE.
- MINIMUM LOT SIZE: 10,000 SF
 - REQUIRED YARD SETBACKS:
 - FRONT: 35'
 - SIDE: 15'/10' (25' TOTAL)
 - REAR: 30'
 - LOT COVERAGE: 30% MAX
 - MAX BUILDING HT: 35'
 - REQ. PARKING: 2 SPACES/DWELLING UNIT
4. THE FOLLOWING "APPROVED LAND DEVELOPMENT APPLICATIONS" WHICH PRECEDE THIS APPLICATION ARE ASSOCIATED WITH THIS PROJECT:
- A. HAPPY CREEK KNOLLS - SECTION II APPROVED
- B. HAPPY CREEK KNOLLS - SECTION III APPROVED
5. THE PROPERTY SHOWN HEREON IS NOT IN A 100-YEAR FLOODPLAIN. IT LIES IN ZONE "X" (UN-SHADED) AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP FOR TOWN OF FRONT ROYAL VIRGINIA, WARREN COUNTY, COMMUNITY-PANEL NUMBER 51067 0003 B, EFFECTIVE DATE JULY 15, 1988.
6. COMMON OPEN SPACE AREAS ARE TO BE DEDICATED TO AND MAINTAINED BY A HOME OWNERS' ASSOCIATION.
7. WATER AND SEWER SERVICES ARE TO BE PROVIDED BY THE TOWN OF FRONT ROYAL DEPARTMENT OF PUBLIC UTILITIES.

Sheet Index

- 1 COVER SHEET
- 2 DETAILS, TYPICAL SECTIONS, & SOILS MAP
- 3 SCHEMATIC PLAN
- 4 GEOMETRIC PLAN
- 4A UTILITY PLAN
- 5 GRADING PLAN
- 6 GRADING PLAN
- 7 PLAN AND PROFILE - HAPPY RIDGE DRIVE
- 8 PLAN AND PROFILE - HAPPY RIDGE DRIVE
- 9 PLAN AND PROFILE - HAYMAKER LANE
- 10 STORM SEWER PROFILES
- 11 STORM SEWER PROFILES & COMPUTATIONS
- 11A STORM SEWER DETAILS & COMPUTATIONS
- 12 SANITARY SEWER PROFILES AND COMPUTATIONS
- 13 PUMP STATION PLAN & DETAILS
- 14 PUMP STATION SPECIFICATIONS
- 15 PUMP STATION ELECTRICAL NOTES & CONTROL DIAGRAM
- 16 PUMP STATION ELECTRICAL SITE PLAN
- 17 PUMP STATION ELECTRICAL SPECS & DETAILS
- 18 PRE-DEVELOPMENT DRAINAGE DIVIDES
- 19 POST-DEVELOPMENT DRAINAGE DIVIDES
- 20 POND 1 DETAILS AND COMPUTATIONS
- 20A GEOTECHNICAL POND RECOMMENDATIONS
- 21 PRE-DEVELOPED OUTFALL HYDROLOGY
- 21A POST-DEVELOPED OUTFALL HYDROLOGY
- 22 POND ROUTING INFORMATION
- 22A BMP MAP, COMPUTATIONS AND NARRATIVE
- 22B POST-DEVELOPED VRRM SPREADSHEET & NUTRIENT CREDIT LETTER
- 22C POST-DEVELOPED VRRM SPREADSHEET & NUTRIENT CREDIT LETTER
- 23 EROSION AND SEDIMENT CONTROL - PHASE I
- 24 EROSION AND SEDIMENT CONTROL - PHASE II
- 25 EROSION AND SEDIMENT CONTROL NARRATIVE
- 26 EROSION AND SEDIMENT CONTROL COMPUTATIONS AND DETAILS
- 26A EROSION AND SEDIMENT CONTROL DETAILS
- 27 LANDSCAPE AND LIGHTING PLAN
- 27A SWM LANDSCAPE PLAN
- 28 LANDSCAPE DETAILS
- 29 FIRE HYDRANT LOCATION AND SIGNAGE PLAN
- 30 TOWN OF FRONT ROYAL WATER AND SEWER DETAILS
- 31 VDOT STORM AND PAVEMENT DETAILS
- 32 VDOT STORM AND PAVEMENT DETAILS
- 33 VDOT STORM AND PAVEMENT DETAILS

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THE LAND SHOWN IN THIS FINAL SUBDIVISION PLAN IS A PORTION OF THE LAND CONVEYED TO RAMSEY INC., BY DEEDS DATED MAY 29, 2001 AND NOVEMBER 6, 2001 OF RECORD IN THE WARREN COUNTY CIRCUIT COURT CLERK'S OFFICE IN INSTRUMENT # 010004122 AND 010008722.

PAUL SWARTZ, L.S. #002701

OWNER'S CERTIFICATE:

THE PLATTING OR DEDICATION OF THE FOLLOWING FINAL SUBDIVISION PLAN FOR THE RESUBDIVISION OF A PORTION OF HAPPY CREEK KNOLLS SUBDIVISION IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS AND TRUSTEES, IF ANY.

REVISION BLOCK

NO.	REVISION	DATE
1	SHEETS 1, 3-4A, 6-8, & 27-29 - COUNTY COMMENTS	10/01/2019
2	SHEETS 1, 22A, 25, 26, & 26A - DEQ COMMENTS	11/15/2019
3	SHEETS 1, 4-6, 11A, 18-23, 25-26A & 27A - DEQ COMMENTS	09/14/2020
4	SHEETS 1, 2, 4, 6, 10, 11A, 18-20, 20A, 21, 21A, 22, 22A, 22B, 22C, 24, 26, 26A, 27, & 27A - DEQ COMMENTS	03/30/2021
5	SHEETS 1, 2, 4, 11A, 18-22A, 22C, 23, 25, 26, 26A, & 27 - DEQ COMMENTS	06/07/2021
6	SHEETS 1, 4, 6, 11A, 20, 22A, 22B, 24, 25, 27 & 27A - DEQ COMMENTS	08/26/2021
7	SHEETS 1, 4, 20, 22A, & 27 - IDEQ COMMENTS	10/07/2021
8	SHEETS 1, 4, 5, 6, 9, 23, 25, & 33 - COUNTY COMMENTS	10/07/2021
9	SHEETS 1, 6, 9, 23, & 25 - COUNTY COMMENTS	11/01/2021

APPROVAL BLOCK

ALL TOWN REAL ESTATE TAXES HAVE BEEN PAID IN FULL

DIRECTOR OF FINANCE DATE
REVIEWED AND APPROVED BY THE TOWN OF FRONT ROYAL

DIRECTOR OF PLANNING AND ZONING DATE

TOWN COUNCIL DATE

DIRECTOR OF ENVIRONMENTAL SERVICES DATE

DIRECTOR OF ENERGY SERVICES DATE

Bowman
CONSULTING

Bowman Consulting Group, Ltd.
101 South Street, S.E.
Leesburg, Virginia 20175
Phone: (703) 443-2400
Fax: (703) 443-2425
www.bowmanconsulting.com
Bowman Consulting Group, Ltd.

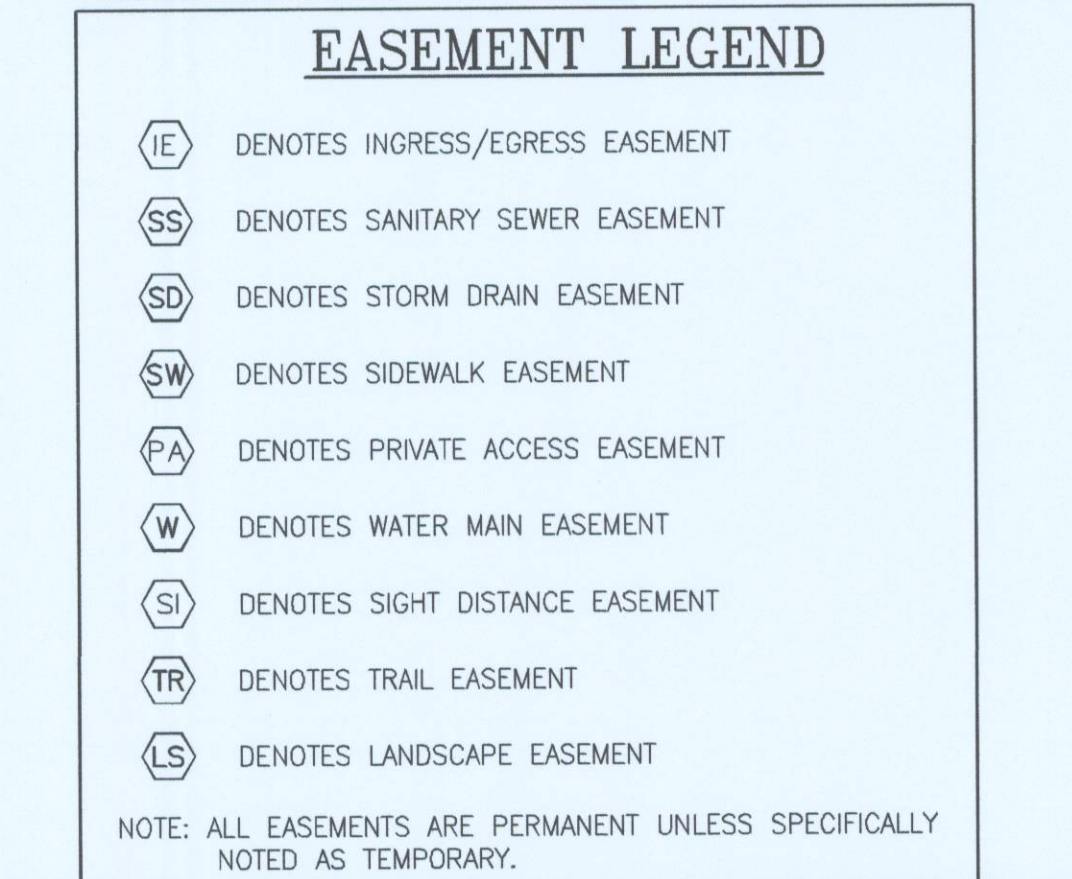
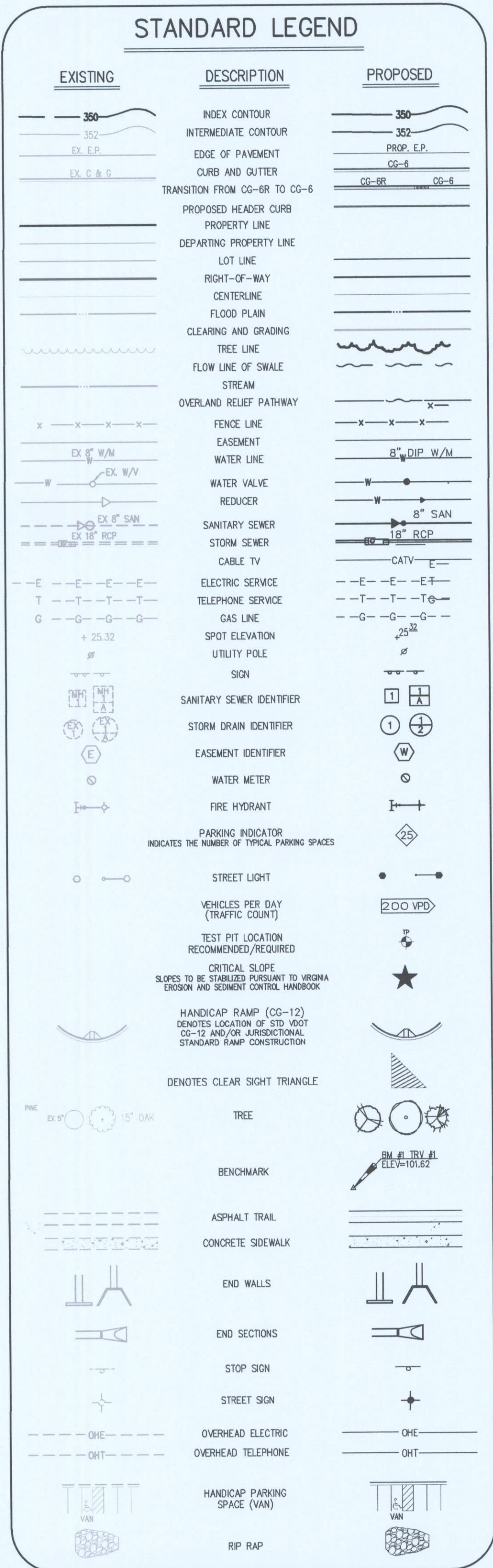
COVER SHEET
HAPPY CREEK KNOLLS
SECTION 4
FINAL SUBDIVISION PLAN
TOWN OF FRONT ROYAL
WARREN COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DOUGLAS H. WAGNER
Lic. No. 0328003
11/01/2021
PROFESSIONAL ENGINEER

PLAN STATUS
07/24/19 COUNTY SUBMISSION
10/01/19 COUNTY COMMENTS
09/22/20 DEQ COMMENTS
03/30/21 DEQ COMMENTS
06/07/21 DEQ COMMENTS
08/26/21 DEQ COMMENTS
10/07/21 DEQ COMMENTS
10/07/21 DEQ COMMENTS
11/01/21 COUNTY COMMENTS

DATE DESCRIPTION
GC MCW CHKD
DESIGN DRAWN
SCALE H: AS SHOWN
V:
JOB No. 1602-02-016
DATE JULY 19, 2019
FILE No. 1602-D-CP-005

SHEET 1 OF 33



- VDOT GENERAL NOTES
Revised 1/31/19
- These plans were prepared in accordance with the requirements of (select one):
 - VDOT Secondary Street Acceptance Requirements (SSAR 24VAC-30-92 effective December 31, 2014 and VDOT Road Design Manual Appendix B1). Schematic street layout and computations of Connectivity Index are provided with these plans per 24VAC30-92-60.
 - VDOT Secondary Street Acceptance Requirements (SSAR 24VAC-30-92 effective December 31, 2014 and VDOT Road Design Manual Appendix B1). Schematic street layout with phasing diagram for street acceptance are provided with these plans per 24VAC30-92-60.
 - VDOT Secondary Street Acceptance Requirements (SSAR 24VAC-30-92 effective December 31, 2014 and VDOT Road Design Manual Appendix B2 as approved for use in designated high density development areas). Schematic street layout with phasing diagram for street acceptance are provided with these plans per 24VAC30-92-60.
 - Methods and materials used shall conform to the current county/town and VDOT standards and specifications.
 - All utilities, including all poles, are to be relocated at the developer's expense, prior to construction.
 - Open cutting of paved or surface treated roads is not permitted. All utilities which will be placed under existing streets are to be bored or jacked. Any exceptions, due to extenuating circumstances, are to be addressed at the permit stage.
 - Any type of reverse curb (spill curb, CG-6 with a reversed slope, etc.) and transition to these curbs shall not be used with the public right of way.
 - The developer is responsible for any damage to existing roads and utilities which occur as a result of project construction within or contiguous to the existing right of way.
 - A smooth grade shall be maintained from the centerline of the existing road to the proposed edge of pavement to preclude the forming of false gutters and/or the ponding of any water in the roadway.
 - Standard guardrails and/or handrails shall be installed at hazardous locations as designated during the field review by the county/town inspector or VDOT.
 - The developer is responsible for all traffic control. The developer shall submit a signing, striping and/or signalization plan to the VDOT Land Development Section a minimum of thirty days prior to permit application. The developer shall not commence construction of any pavement course without an approved striping plan.
 - The pavement design is based on an assumed CBR value of 10 (use a CBR value of 8 in Loudoun Co.). Soil tests of subgrade must be submitted for the actual determination of the required thickness of the pavement including layers of asphalt and subbase prior to subgrade placement.
 - All untreated aggregate used in base or subbase courses shall be 21-B, except on roads with an ADT of 1000 vpd or less, where 21-A aggregate may be used. When 21-B aggregate is used, UD-4 underdrains must be provided.
 - A 4" (min) layer of stone is required beneath curb and gutter (may be shown on typical section in lieu of a note).
 - Additional ditch linings or siltation and erosion control measures shall be provided, at the developer's expense, as determined necessary by VDOT and/or the county/town during field review. All costs shall be assumed by the developer.
 - The entire surface of the roadway (old and new portions) shall be overlaid and re-striped as required by VDOT personnel. Overlay of existing pavement shall be a minimum of 1.25" depth; any costs associated with pavement overlay, or the milling of existing pavement to obtain required depth, shall be assumed by the developer.
 - The developer is responsible for the design and construction of any traffic signal installation or modification which will be necessary as a result of the development of this site.
 - All right of way dedicated to public use shall be clear and unencumbered.
 - The county/town shall obtain a permit for all sidewalks within the right of way that do not qualify for VDOT maintenance.
 - Traffic control devices or advisory signs, such as multiway stops, speed limits, Watch for Children, Pedestrian Traffic, etc., shall not be installed unless specifically shown on these plans or a VDOT approved plan revision. A speed study certified by a professional engineer should be submitted for VDOT approval prior to the street acceptance for any road to be posted other than the statutory speed limit. Should unapproved signs be noted at the time of VDOT inspection, the road acceptance process shall be terminated immediately and not recommenced until a determination is made regarding the approval of any additional signs. Immediate removal of such signs shall not negate the need for the submission of a revision.
 - Landscaping and irrigation systems shall not be installed within the public right of way except as shown on these plans or a VDOT approved revision.
 - Beginning July 1, 2009 all Land Use Permit applications are required to provide at least one (1) person who, at a minimum, is verified by VDOT Traffic Control for all permitted activities within state maintained right of way which involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of all work zone traffic control devices.

HAPPY CREEK KNOLLS SECTION 4 ENVIRONMENTAL IMPACT STATEMENT

HAPPY CREEK KNOLLS SECTION 4 IS THE FINAL PHASE OF THE HAPPY CREEK KNOLLS SUBDIVISION AS PLATTED IN 2002, CONTAINING APPROXIMATELY 12.4272 ACRES, HAPPY CREEK KNOLLS SECTION 4 IS THE FINAL PARCEL TO BE DEVELOPED IN AN OVERALL DEVELOPMENT OF 96 ACRES. THE HAPPY CREEK KNOLLS SUBDIVISION AND ODEN RIDGE SUBDIVISION AS DEVELOPED BY RAMSEY INC. HAS INCLUDED THE CONSTRUCTION AND PLANNED CONSTRUCTION OF 235 SINGLE FAMILY HOMES. A PORTION OF THE OVERALL DEVELOPMENT IS PART OF THE WARREN COUNTY INTERMEDIATE SCHOOL LEACH RUN PARKWAY AND ADJACENT TO THE IMMANENT DEVELOPMENT AND CONSTRUCTION OF THE NEW WARREN MEMORIAL HOSPITAL, AND ADJACENT TO A 90 ACRE SITE ZONED FOR PLANNED NEIGHBORHOOD DEVELOPMENT.

THE TOPOGRAPHY IS ROLLING WITH A VARIETY OF SOILS AS DEPICTED ON THE SOILS MAP. HAPPY CREEK KNOLLS SECTION 4 SLOPES RANGE FROM BEING FLAT TO 2:1 EXISTING GRADES. PROPOSED GRADES DO NOT EXCEED 2:1 SLOPES. OVER LOT GRADINGS IS MINIMIZED IN THE PROPOSED DEVELOPMENT OF HAPPY CREEK KNOLLS DEVELOPMENT PLANS THROUGH THE USE OF SITE SPECIFIC ADAPTIVE HOUSING. FURTHER EXPLAINED BY PROPOSING FINAL GRADES IN CONJUNCTION WITH EXISTING GRADES THAT ARE MINIMALLY ADJUSTED TO ACCOMMODATE HOUSE CONSTRUCTION AS OPPOSED TO GRADING THE LOT TO FIT A HOUSE THAT WOULD REQUIRE EXTENSIVE GRADING, EXCESSIVELY STEEP DRIVEWAYS AND/OR RETAINING WALLS. AN EXAMPLE OF ADAPTIVE HOUSE CONSTRUCTION WOULD BE THE CONSTRUCTION OF A SPLIT FOYER HOUSE ON A LOT THAT HAS A POSITIVE GRADE FROM THE STREET, WHEREBY THE MAIN ENTRANCE IS ON THE LOWER LEVEL OF THE HOUSE WITH STEPS TO THE SECOND LEVEL AND THE SECOND LEVEL (MAIN LIVING LEVEL) EXITING ON GRADE TO THE REAR (BACK YARD) OF THE HOUSE.

HAPPY CREEK KNOLLS SECTION 4 HAS BEEN ALTERED TOPOGRAPHICALLY DURING THE CONSTRUCTION OF VARIOUS PUBLIC PROJECTS. SUITABLE STRUCTURAL FILL WAS NEEDED FOR THE CONSTRUCTION OF SAMUELS PUBLIC LIBRARY AND WAS OBTAINED FROM HAPPY CREEK KNOLLS SECTION 4 WITH PROPER TESTING AND PERMITS. OVERBURDEN WAS GENERATED FROM THE HAPPY CREEK ROAD IMPROVEMENT PROJECT. WITH PROPER TESTING AND PERMITS THE EXCESS ROCK, DIRT, AND APPROVABLE FILL COMPONENTS WERE PLACED ON THE PROPERTY AND CERTIFIED FOR BOTH APPROPRIATE USE AND COMPACTION FOR RESIDENTIAL HOUSE CONSTRUCTION.

DURING THE PREVIOUSLY PERMITTED LAND DISTURBING ACTIVITIES ON HAPPY CREEK KNOLLS SECTION 4 THERE WERE NO PHYSICAL OR GEOLOGIC FEATURES OBSERVED THAT WOULD QUALIFY AS RESTRICTING FACTORS IN THE FINAL DEVELOPMENT OF THE PROPERTY FOR SINGLE FAMILY RESIDENTIAL USE. FACTORS LACKING PRESENCE INCLUDE BUT ARE NOT LIMITED TO: WET LANDS, RARE SPECIES OF ANIMALS OR FAUNA, PROTECTED SIGNIFICANT VEGETATIVE GROWTH, SINKHOLES, UNUSUAL GEOLOGIC ROCK OR SOIL FORMATIONS.

THE SINGLE MOST INVASIVE ACTIVITY PROPOSED IN THE DEVELOPMENT OF HAPPY CREEK KNOLLS SECTION 4 IS THE REDESIGN AND RECONSTRUCTION OF THE EXISTING STORM WATER MANAGEMENT POND. THE STORM WATER MANAGEMENT POND WAS DESIGNED AND CONSTRUCTED AS A STORM WATER MANAGEMENT DEVICE IN CONJUNCTION WITH THE DEVELOPMENT HAPPY CREEK KNOLLS SECTION 3 IN 2006. IT WAS LATER RECALCULATED AND ADJUSTED TO RECEIVE A PORTION OF THE STORM WATER RUN-OFF FROM HAPPY CREEK KNOLLS SECTION 2 TO FACILITATE THE PLACEMENT OF THE ABOVE REFERENCE OVERBURDEN FROM THE HAPPY CREEK ROAD IMPROVEMENT PROJECT. THE FACT THAT THE POND ALREADY EXISTS AND IS BEING MODIFIED CREATES THE LEAST INVASIVE IMPACT POSSIBLE TO SITE AS WELL AS THE ENVIRONMENT. THE STORM WATER MANAGEMENT AREA AS REQUIRED BY THE TOWN OF FRONT ROYAL WILL BE MAINTAINED BY THE NOW EXISTING HAPPY CREEK KNOLLS PROPERTY OWNERS ASSOCIATION.

IN THAT HAPPY CREEK KNOLLS SECTION 4 IS PRIMARILY AN OPEN GRASSED AREA THERE WILL BE A MINIMAL IMPACT ON THE EXISTING TREE CANOPY. THROUGH THE PROPOSED LANDSCAPING PORTION OF THE FINAL DEVELOPMENT PLAN THE NET CHANGE WILL LIKELY RESULT IN A GREATER NUMBER OF TREES ON THE SITE THAN CURRENTLY EXISTS.

AIR QUALITY WILL BE MINIMALLY IMPACTED THROUGH THE USE OF ENERGY EFFICIENT HEAT PUMPS AND LP (LIQUEFIED PROPANE) GAS FURNACES. AS DICTATED BY EXISTING BUILDING CODES AND CONSTRUCTION STANDARDS, THE CURRENT HOME CONSTRUCTION ENERGY PACKAGE RESULTS IN LOWER ENERGY CONSUMPTION AND THEREFORE LESS DEMAND ON ENERGY SERVICES AND LESS MEASURABLE POLLUTION.

ALL HOUSES WILL BE CONNECTED TO THE PUBLIC SERVICES AS PROVIDED BY THE TOWN OF FRONT ROYAL. THERE WILL BE NO ADVERSE IMPACT ON THE GROUND WATER TABLE, AS IMPACTED BY THE DRILLING OF PRIVATE WELLS, OR THE INSTALLATION AND MAINTENANCE OF PRIVATE INDIVIDUAL SEPTIC DISPOSAL SYSTEMS.

AS IDENTIFIED ON USGS MAPPING, HAPPY CREEK KNOLLS SECTION 4 IS NOT CONTAINED IN, OR ABOUT TO ANY 100 YEAR FLOOD WAYS, FLOODPLAIN, OR FLOOD ZONES.

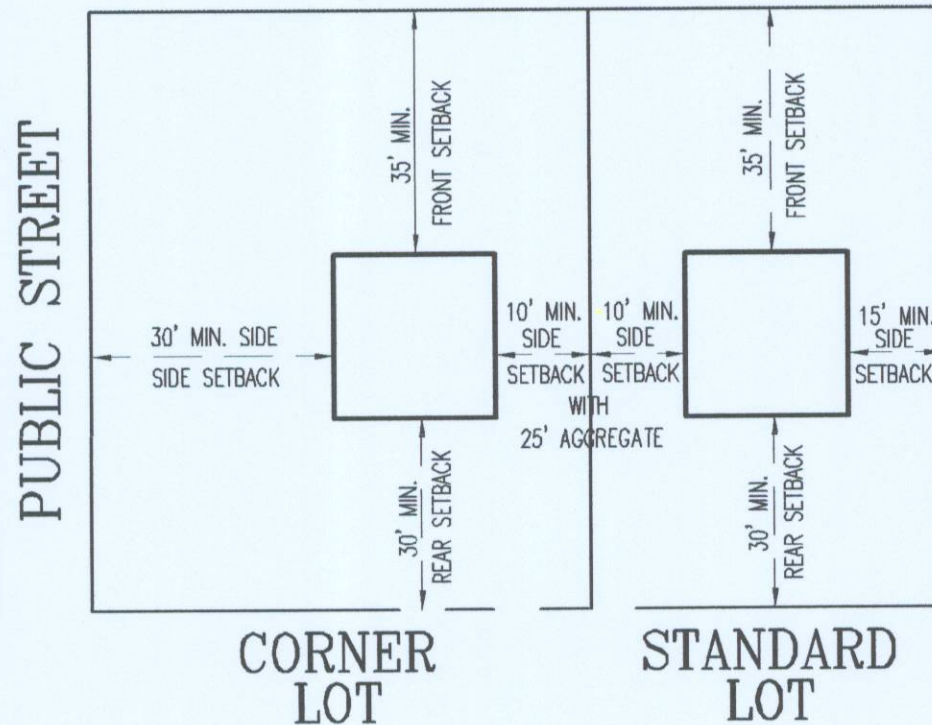
TOWN OF FRONT ROYAL GENERAL NOTES

- FOR TECHNICAL SPECIFICATIONS AND DETAILS REFER TO THE TOWN OF FRONT ROYAL WATER AND SEWER STANDARDS AND SPECIFICATIONS, LATEST EDITION. ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THESE SPECIFICATIONS. ANY DEVIATIONS OR CHANGES SHALL BE SUBMITTED IN WRITING TO THE TOWN FOR SUPPLEMENTAL APPROVAL. INSPECTIONS SHALL BE PERFORMED BY THE DEPARTMENT OF PUBLIC WORKS. CONTACT: DIRECTOR OF PUBLIC WORKS AT (540) 635-7819 OR FAX (540) 635-8973.
- LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXACT LOCATION, VERTICALLY AND HORIZONTALLY, OF THE UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AND ALL APPLICABLE UTILITY COMPANIES FOR CLEARANCE PRIOR TO EXCAVATION. CONTRACTOR WILL BE RESPONSIBLE FOR ADHERING TO THE COMMONWEALTH OF VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT, CHAPTER 10, TITLE 56 OF THE CODE OF VIRGINIA.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY DURING CONSTRUCTION IN ACCORDANCE WITH CURRENT STATE AND LOCAL REGULATIONS. DISTURBED AREA SHALL NOT REMAIN BARE FOR MORE THAN (7) CALENDAR DAYS. DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY INLET PROTECTION, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROCESS. CONTRACTOR SHALL CONTACT THE COUNTY BUILDING INSPECTION OFFICE AT (540) 636-9973 PRIOR TO SCHEDULE INSPECTIONS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TO TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.
- ANY STREET OR UTILITIES DAMAGED BY CONTRACTOR OR SUB-CONTRACTOR SHALL BE SOLE RESPONSIBILITY OF THE PRIMARY CONTRACTOR AND PROPERLY AND IMMEDIATELY REPAIRED BY THE CONTRACTOR. SUCH REPAIRS SHALL BE TO THE ORIGINAL CONDITION AND SHALL BE TO THE SATISFACTION OF THE TOWN INSPECTOR.
- ALL PLASTIC SANITARY SEWER PIPE SHALL BE 8" DIAMETER S.D.R. 35, UNLESS OTHERWISE NOTED. PIPE BEDDING SHALL BE DETERMINED BY FIELD CONDITIONS AND TOWN SPECIFICATIONS.
- SANITARY SEWER STRUCTURES SHALL BE PRE-CAST CONCRETE OR ACCEPTABLE EQUIVALENT APPROVED BY THE TOWN OF FRONT ROYAL'S PUBLIC WORKS DEPARTMENT.
- ALL PROPOSED WATER MAINS, HYDRANT BRANCHES AND FIRE SUPPRESSION LINES SHALL BE CLASS 52 DUCTILE IRON PIPE WITH A MINIMUM OF 42" COVER UNLESS OTHERWISE NOTED.
- ALL 2" AND SMALLER WATER SERVICES SHALL BE TYPE "K" COPPER PIPE. SOLDERED JOINTS ON BURIED LINES ARE NOT ACCEPTABLE.
- ALL PRECAST CONCRETE STRUCTURES SHALL BE MINIMUM 4000 PSI AND 28 DAYS WITH BITUMINOUS COATING.
- THE UNAUTHORIZED USE OF WATER WITHOUT DUE COMPENSATION IS ILLEGAL. NO PERSON SHALL CONNECT TO OR DO ANY WORK ON THAT PORTION OF THE SYSTEM OWNED BY THE TOWN UNLESS WRITTEN AUTHORIZATION IS RECEIVED PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS BEFORE ANY CONSTRUCTION BEGINS.
- THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF ALL UTILITY BOXES, VAULTS OR OTHER APPURTENANCES TO NEW FINISHED GRADE ELEVATIONS.
- CONTRACTOR TO RELOCATE ALL SIGNS AND UTILITIES REQUIRED FOR THIS WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TRUE LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
- SANITARY SERVICE LATERALS AND CLEAN OUTS SHALL BE CONSTRUCTED AS SPECIFIED IN NOTE #1.
- ALL CONSTRUCTION SHALL CONFORM TO ZONING AND CONSTRUCTION REQUIREMENTS OF THE TOWN OF FRONT ROYAL. ALL WATER AND SANITARY SEWER INSTALLATIONS SHALL BE INSPECTED BY THE TOWN OF FRONT ROYAL.
- CONSTRUCTION SHALL CONFORM TO THE AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS. CURB RAMPS SHALL BE PLACED WHERE ALL SIDEWALKS MEET CURBS.
- CONSTRUCTION LIMITS SHALL BE PROPERTY LINES OR AS INDICATED BY PLAN REQUIREMENTS.
- ANY PLANNED DISRUPTIONS OF OR TO THE EXISTING UTILITIES SHALL BE APPROVED AND COORDINATED WITH THE APPROPRIATE UTILITY OWNER. WITH EXCEPTION OF EMERGENCIES, THERE SHALL BE A MINIMUM NOTIFICATION OF 24 HOURS NOTICE GIVEN BY THE CONTRACTOR TO ALL RESIDENTIAL, COMMERCIAL AND INDUSTRIAL UTILITY USERS AFFECTED BY UTILITY INTERRUPTIONS.
- ELECTRIC SERVICE TO BE IN COMPLIANCE WITH ENERGY SERVICES CONDUIT POLICY, TFR CODE 12-1 TFR CODE 70-50.1

NOTE: FRONT SHALL BE THE SHORTEST SIDE PER TOWN OF FRONT ROYAL MUNICIPAL CODE SECTION 175-18.

- OF THE TWO (2) SIDES OF A CORNER LOT, THE FRONT SHALL BE DEEMED TO BE THE SHORTEST OF THE TWO (2) SIDES FRONTING ON STREETS.
- THE SIDE YARD ON THE SIDE FACING THE SIDE OF THE STREET SHALL BE THIRTY (30) FEET OR MORE FOR BOTH MAIN ACCESSORY BUILDINGS.
- EACH CORNER LOT SHALL HAVE A MINIMUM WIDTH AT THE SETBACK LINE OF ONE HUNDRED (100) FEET.

PUBLIC STREET



SINGLE FAMILY DETACHED TYPICAL SET BACKS

(NOT TO SCALE)

ROADWAY NOTES:

- SUBBASE DEPTH IS BASED ON A C.B.R. VALUE OF 6, BASED ON AN ACTUAL DETERMINATION PER SOIL TESTS (OR) AN ESTIMATE WHICH WILL BE REVISED ONCE THE SOIL TESTS OF SUBGRADE ARE PERFORMED.
- A SMOOTHING GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO THE PROPOSED CURB AND GUTTER, TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER ON THE ROADWAY.
- STANDARD GUARDRAIL AND HANDRAIL SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FINAL FIELD INSPECTIONS.
- * SHOULDER TO BE WIDENED WHERE GUARD RAIL IS REQUIRED.
- SIDEWALKS AND TRAILS SHALL BE CONSTRUCTED ON A 4" THICK LAYER OF NUMBER 57 STONE.
- FOR DITCH & SHOULDER ROADWAY SECTIONS THE BACK SLOPE OF THE DITCH SHALL EXTEND UP AT A SLOPE OF 3:1 FOR A DISTANCE EQUAL TO THE DEPTH OF THE DITCH ASSOCIATED WITH THE FRONT SLOPE.



SOIL MAP

SCALE: 1"=200'

SITE AND ZONING DATA (CONTINUED)

TABULATION

TOTAL SITE AREA	12.43 Acres
TOTAL DEVELOPED AREA	12.43 Acres
TOTAL DISTURBED AREA	12.02 Acres
TOTAL LOT AREA	8.60 Acres
TOTAL ON-SITE STREET AREA	2.28 Acres
TOTAL ON-SITE OPEN SPACE	0.41 Acres
STORMWATER MANAGEMENT FACILITY	1.55 Acres
TOTAL ON-SITE RESIDUE	0.00 Acres

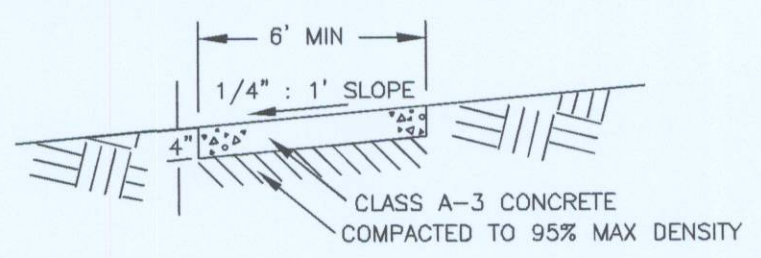
SOILS DESCRIPTIONS

TYPE	NAME	GROUP	SLOPE	CLASS	K-FACTOR
22E	LEW VERY STONY LOAM	B	25-65%	VII	0.17
32C	MYERSVILLE AND MONTALTA	B	7-15%	VI	0.32

788 DENOTES SOIL TYPE

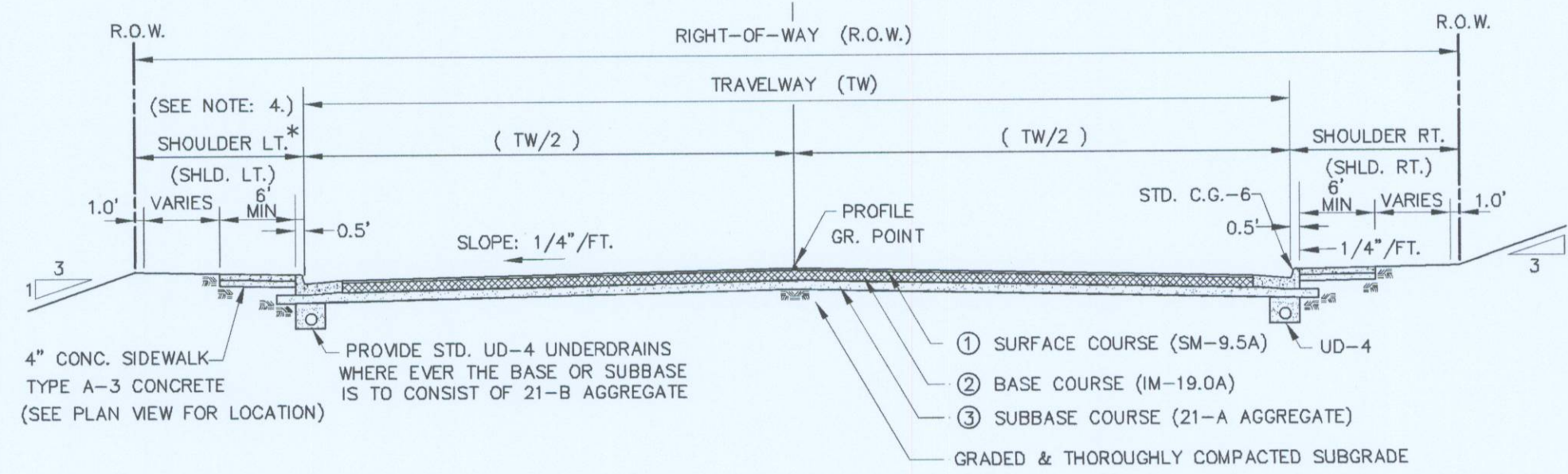
MODERATELY STEEP SLOPES (15%-25% SLOPE)

VERY STEEP SLOPES (25% OR GREATER)



TYPICAL SECTION SIDEWALK

(NOT TO SCALE)

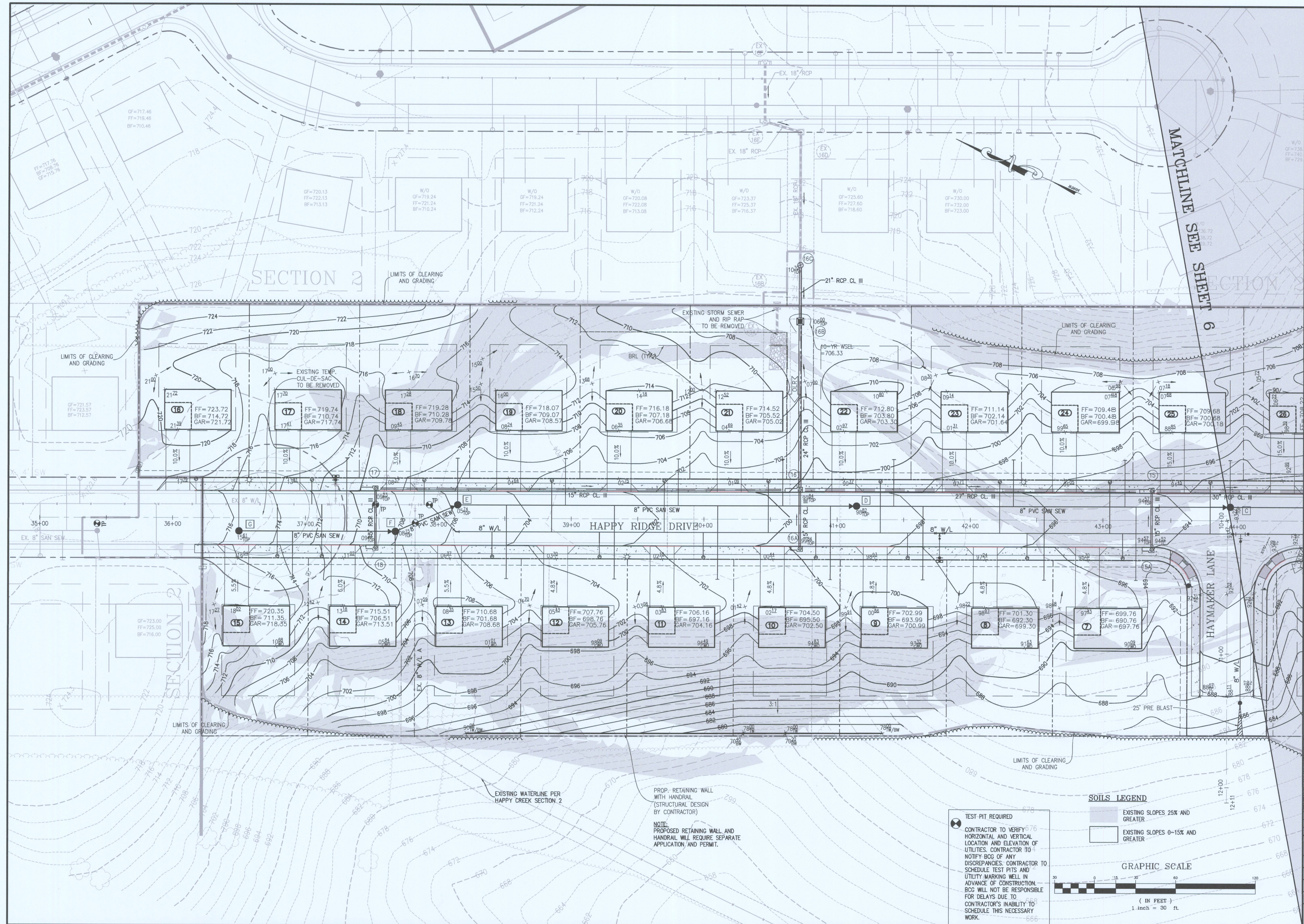


TYPICAL CURB AND GUTTER PUBLIC STREET SECTION

NOT TO SCALE

STREET NAME	CLASSIFICATION/TERRAIN	ADT (10+M LOTS)	DESIGN SPEED	①	②	③	④	R.O.W.	T.W.	MEDIAN	SHLD. (L.T.)	SHLD. (R.T.)
HAPPY RIDGE DRIVE	URBAN COLLECTOR/ROLLING	330	25	1 1/2"	3"	8"	N/A	60'	40'	N.A.	10.0'	10.0'
HAYMAKER LANE	STUB/SLOPE	N/A	25	1 1/2"	3"	8"	N/A	60'	40'	N.A.	10.0'	10.0'

NOTE: NO TIA WAS PREPARED FOR THIS SUBDIVISION



MATCHLINE SEE SHEET 5

HAYMAKER LANE

SECTION 4

NOTE: EX. EWELL STREET FROM THE INTERSECTION OF IMBODEN DRIVE SOUTH TO BE RENAMED HAPPY RIDGE DRIVE

Bowman
CONSULTING

Bowman Consulting Group, Ltd.
101 South Street, S.E.
Leesburg, Virginia 20175
Phone: (703) 445-2400
Fax: (703) 445-2425
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

GRADING PLAN
HAPPY CREEK KNOLLS
SECTION 4
FINAL SUBDIVISION PLAN
TOWN OF FRONT ROYAL
WARREN COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
DOUGLAS H. WAGNER
Lic. No. 0332903
11/01/2021
PROFESSIONAL ENGINEER

PLAN STATUS
07/24/19 COUNTY SUBMISSION
10/01/19 COUNTY COMMENTS
09/22/20 DEQ COMMENTS
03/30/21 DEQ COMMENTS
06/07/21 DEQ COMMENTS
08/26/21 DEQ COMMENTS
10/07/21 DEQ COMMENTS
10/07/21 COUNTY COMMENTS
11/01/21 COUNTY COMMENTS

DATE	DESCRIPTION
GC DESIGN	MCW
DRAWN	CHKD
SCALE	H: 1"=30'
	V: 1"=30'
JOB No.	1602-02-016
DATE	JULY 19, 2019
FILE No.	1602-D-CP-005

SHEET 6 OF 33

22.5' X 26' CL. 1 RIPRAP (2.5' DEEP)
EX. SANITARY SEWER
EX. SANITARY EASEMENT

VARIABLE WIDTH DRAINAGE EASEMENT
INSTRUMENT # 210004424

EX. SPILLWAY AND RIP-RAP TO BE REMOVED
LIMITS OF CLEARING AND GRADING

HEPTAD LLC
INSTR. # 49351
T.M. 20A212 Z
ZONED: PUD

VARIABLE WIDTH DRAINAGE EASEMENT
INSTRUMENT # 210004424

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

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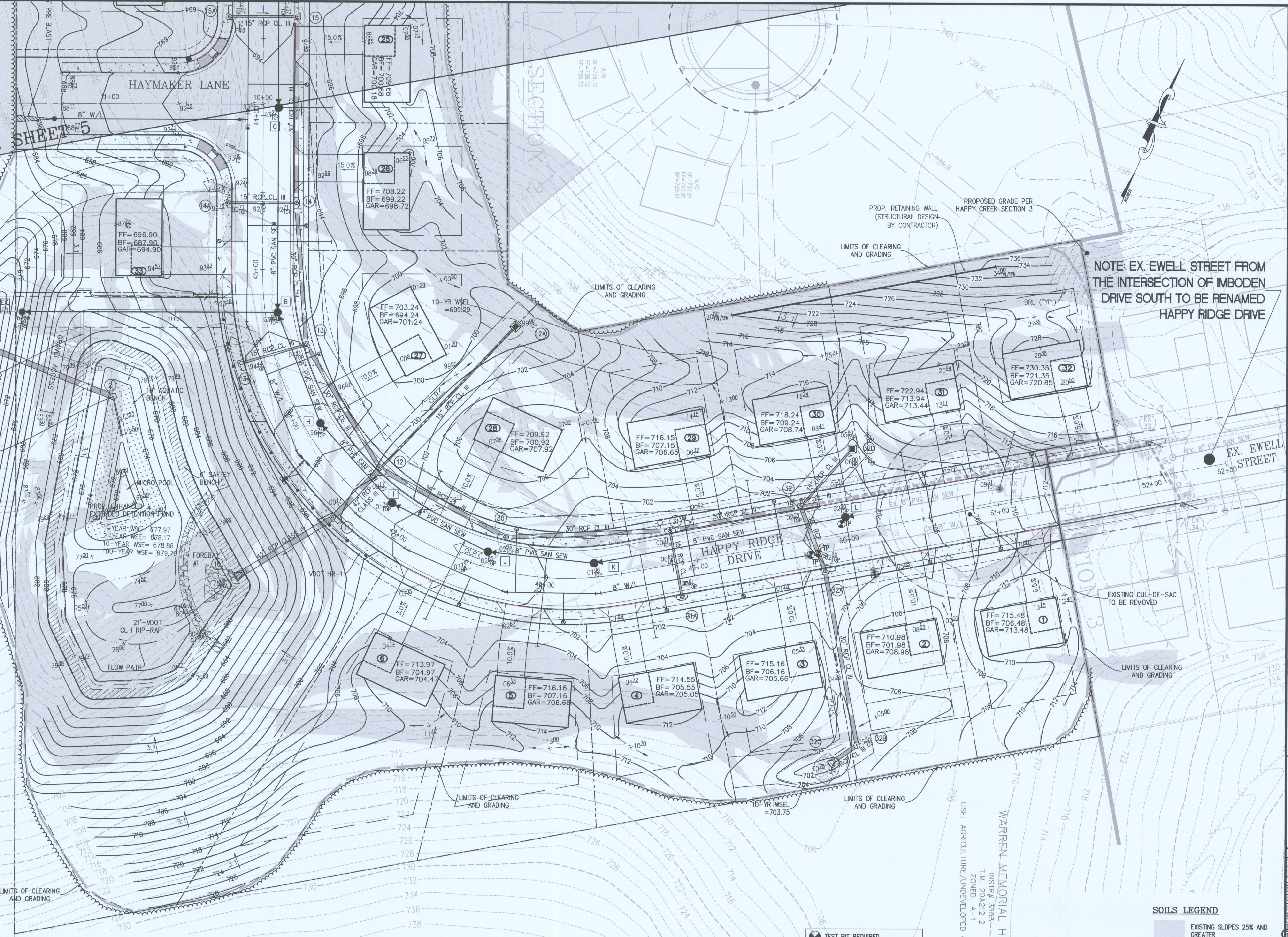
USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

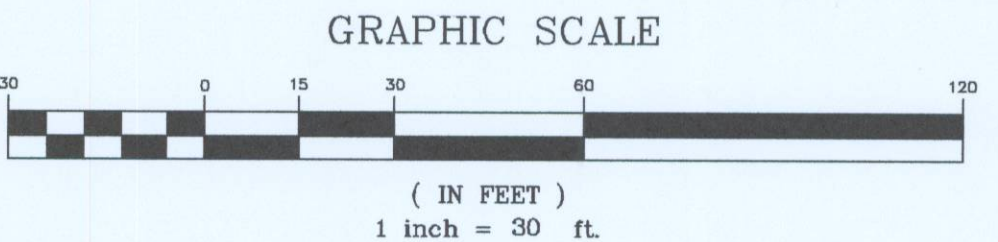
USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)

USE: AGRICULTURE/UNDEVELOPED (20-99ACRES)



TEST PIT REQUIRED
CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION AND ELEVATION OF UTILITIES. CONTRACTOR TO NOTIFY BCG OF ANY DISCREPANCIES. CONTRACTOR TO SCHEDULE TEST PITS AND UTILITY MARKING WELL IN ADVANCE OF CONSTRUCTION. BCG WILL NOT BE RESPONSIBLE FOR DELAYS DUE TO CONTRACTOR'S INABILITY TO SCHEDULE THIS NECESSARY WORK.

SOILS LEGEND
EXISTING SLOPES 25% AND GREATER
EXISTING SLOPES 0-15% AND GREATER





COUNCIL REGULAR WORK SESSION AGENDA STATEMENT

Meeting Date: March 3, 2025 Item# 03B

Agenda Item: Request for Final Subdivision Plat Approval for Major Subdivision by Ali Billoo from One 3.52 Acre Parcel into (8) residential lots, one Stormwater Management Lot and a Residue Lot at 336 W. Strasburg Road.

Summary: The eight lots can be developed as duplexes by right since the property is zoned R-2, Residential District.

Town Code 148-315 of the Town Code requires major subdivisions to obtain approval of a subdivision plan and final plats within thirty-six (36) months of approval of the preliminary plan. This will be the current step in the process for approval of this subdivision prior to recordation of the lots and development. Unlike Preliminary Plans, Subdivision Plans and Final Plats require approval by Town Council. In addition, bonding is required.

Staff have reviewed the plat for compliance with the Town Code and attests to its conformance with Town standards. The Planning Commission recommended approval at their February 19th regular meeting.

Budget/Funding:

Staff Recommendation: Staff recommends the Town Council approve the final subdivision plat.

Town of Front Royal, Virginia

Planning Commission Regular Meeting Agenda

☐ Consent Action

☒ Administrative Action

☐ Public Hearing

☐ Discussion

Agenda Item: Application #2500023 for Final Plat Approval Major Subdivision

MEETING DATE: February 19, 2025

SUMMARY: The application for review is a request for Final Subdivision Plat approval for a major subdivision submitted by Ali Billoo from a one (1) 3.52-acre parcel into eight (8) residential lots containing sixteen (16) dwelling units, one (1) stormwater management lot, and a residue lot located at 336 W. Strasburg Road. The eight lots can be developed as duplexes by right since the property is zoned R-2, Residential District.

STAFF RECOMMENDATION: Staff supports approval of the Final Subdivision Plat. Staff has reviewed the plat for compliance with Town Code and attests to its conformance with Town standards.

DRAFT MOTION: "I move that the Planning Commission forward a recommendation of approval to Town Council for Final Subdivision Plat application #2500023 located at 336 W. Strasburg Road, identified by tax map number 20A11-4-23B.

NOTE: This is only a draft motion. Alternative motions are also welcome.

PLANNING COMMISSION ACTION:

Moved _____ Seconded _____

Neel _____ Brooks _____ Marshner _____ Marrazzo _____ Vacancy _____

☐ Approved

☐ Approved w/ Conditions

☐ Denied

☐ Other



**TOWN OF FRONT ROYAL
DEPARTMENT OF PLANNING & ZONING**

**STAFF REPORT – FINAL PLAT APPROVAL MAJOR SUBDIVISION
PLANNING COMMISSION– FEBRUARY 19, 2025**

APPLICATION #:

Final Plat Approval Major Subdivision
#2500023

APPLICANT:

Ali Billoo

SUMMARY OF REQUEST:

A request for Final Subdivision Plat approval for a major subdivision submitted by Ali Billoo from a one (1) 3.52-acre parcel into eight (8) residential lots, one (1) stormwater management lot, and a residue lot located at 336 W. Strasburg Road.

GENERAL INFORMATION:

<i>Site Addresses</i>	336 W. Strasburg Road
<i>Property Owner(s)</i>	Ali Billoo
<i>Zoning District</i>	R-2, Residential District
<i>Tax Identification</i>	20A11-4-23B
<i>Location</i>	The subject property is located northeast of the intersection of Forrest Hill Drive and Strasburg Road.
<i>Existing Use</i>	Single Family Dwelling
<i>Proposed Use</i>	Duplex development of eight (8) structures composed of sixteen (16) dwelling units.

AERIAL MAP – 336 W. Strasburg Road – Warren County GIS



FINAL SUBDIVISION PLAT

[illegible]

INFORMATION ON THE APPLICATION:

SUMMARY

This 3.52-acre parcel will be divided into eight (8) residential lots, one (1) stormwater management lot, and a residue lot located at 336 W. Strasburg Road. The eight lots can be developed as duplexes by right since the property is zoned R-2, Residential District.

Staff has reviewed the plat for compliance with Town Code and attests to its conformance with Town standards.

PRELIMINARY SUBDIVISION PLAN

Town Code, Chapter 148, Section 310, specifies that “(a) Preliminary Plan is required for all proposed major subdivisions. The Preliminary Plan review process includes review and approval of the subdivision design before submission of a Subdivision Plan and Final Plats. The Planning Commission has approval authority for Preliminary Plans. The Planning Commission approved the Preliminary Plan at the August 21, 2024 regular meeting. The Preliminary Plan approval is effective beginning September 13, 2024. The Preliminary Plan shall be valid for a period of five (5) years, provided the subdivider (i) submits a final subdivision plat for all or a portion of the property within one (1) year of

<i>FINAL SUBDIVISION PLAT</i>	such approval or such longer period as may be prescribed by the commission, and (ii) thereafter diligently pursues approval of the final subdivision plat. Town Code 148-315 of the Town Code requires major subdivisions to obtain approval of a subdivision plan and final plats within thirty-six (36) months of approval of the preliminary plan. This will be the current step in the process for approval of this subdivision prior to recordation of the lots and development. Unlike Preliminary Plans, Subdivision Plans and Final Plats require approval by Town Council. In addition, bonding is required.
<i>CONCLUSION</i>	Staff supports approval of the Final Subdivision Plat.

ATTACHMENTS: 1) Application and supporting documentation.



TOWN OF FRONT ROYAL
DEPARTMENT OF PLANNING & ZONING
102 EAST MAIN STREET
P.O. BOX 1560
FRONT ROYAL, VA 22630

RECEIVED
JAN 24 2025
TOWN OF FRONT ROYAL
PLANNING & ZONING DEPARTMENT
Main: 540.631.4236
Fax: 540.631.2727
Internet: www.frontroyalva.com

#2500023

APPLICATION FOR FINAL PLAT APPROVAL
(involving new streets, utilities or more than 8 lots)
MAJOR SUBDIVISIONS

Application is hereby made for approval of a final plat of a major subdivision as shown on the accompanying documents.

1. Applicant's name ALI Billie Phone [REDACTED]
Applicant's Address [REDACTED]
2. Subdivision name Star Sky R 0217
3. Present owner (if other than #1) own
4. Location of Subdivision Forest Hill Rd
5. Tax Map Number 20A174-2317 Parcel Number 120
6. Total Acreage 3.52 ac Zoning Classification R2
Number of Existing Lots/Parcels 1
Total Number of Lots 10
7. Acreage of adjoining land in same ownership (if any) 1.25
8. Date of Preliminary Plat Approval by Planning Commission Jan 15
9. List any changes made in this plat since preliminary plat approval _____

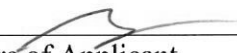
(attach additional sheets if needed)
10. Number of lots proposed for final approval 10

PLEASE COMPLETE REVERSE SIDE

11. Attach:
- (A) Eight copies of Final Plat, along with a *digital copy*
 - (B) Street Cross - Sectional Drawings showing existing & proposed grades (Section 148-14)
 - (C) Land Disturbing Permit (obtained through Building Inspector's office)
 - (D) Surface Drainage/Erosion & Sediment Control Information
 - (E) Landscaping Plan (Section 148-46)
 - (F) Performance Bond in amount determined by Town Engineer and approved by Town Attorney
 - (G) Additional documents required by Sections 148-14 and 148-15 of the Subdivision and Land Development Ordinance

The above information is correct and the proposed subdivision will conform with the regulations of the Town of Front Royal Subdivision and Land Development Ordinance and the Standards and Specifications for Water & Sewer, adopted January 11, 1988, as amended.

1/23/25
Date


Signature of Applicant

By submitting this application, the applicant grants permission to Town officials and employees to enter upon the property, which is the subject of this application, during reasonable hours and for purposes related to the application process.

Designated contact for applicant: _____

Fee \$2,000.00 *

Date Paid 1-24-25

CK# 4111

*Final plat fee is \$1,000.00 per plat, plus \$100.00 per lot.



Application Number: 2500023

148-1035 FINAL SUBDIVISION PLAT DETAIL CHECKLIST

The final subdivision plat shall be prepared by a land surveyor or professional engineer licensed by the Commonwealth of Virginia and shall conform to the Standards for Plats of the Virginia State Library Board (17VAC15-60-10, et seq). The final plat shall be prepared at a scale of no greater than one (1) inch equals one hundred (100) feet and shall be drawn in ink on sheets no larger than eighteen by twenty-four (18 x 24) inches and no smaller than eight and one-half by eleven (8.5 x 11) inches. Unless otherwise approved by the Director, the Final Plat shall include the following:

- ☒ Y ☐ N ☐ N/A 1. Cover Sheet (or first sheet) requirements:
- ✓a. Revision block. Show date and nature of all revisions.
 - ✓b. Index of sheets and match lines.
 - ✓c. Name, address and phone number of owner and developer.
 - ✓d. Name, address and phone number of plan preparer.
 - ✓e. Zoning designation(s) with minimum lot size requirements.
 - ✓f. Front, side and rear yard setback dimensions.
 - ✓g. FEMA Flood Zone designations, if applicable.
 - ✓h. Vicinity map (1'=1000'), with sheet index for multiple sheets.
 - ✓i. Area Tabulation showing total area and number of lots, streets, open space and residue. The number of units by type when mixed uses are proposed.
 - ✓j. Tax map number and/or parcel identification.
 - ✓k. Legend of symbols, abbreviations and line types used.
 - ✓l. Approval Block:

All Town Real Estate Taxes Have Been Paid in Full

Director of Finance Date

Reviewed and Approved by the Town of Front Royal

Town Council* Date

Director of Planning & Zoning Date

*use Town Manager for Minor Subdivision.



Application Number: 2500023

- ☒Y ☐N ☐N/A 2. Title Block requirements, on each sheet.
- ☒a. Plat type.
 - ☒b. Owner's name
 - ☒c. Lot, block, and subdivision name.
 - ☒d. Town and County designation.
 - ☒e. Sheet number.
 - ☒f. Plan date.
- ☒Y ☐N ☐N/A 3. Scale of drawing, written and graphic, on each sheet.
- ☒Y ☐N ☐N/A 4. North arrow with meridian reference on each sheet
- ☒Y ☐N ☐N/A 5. Preparer's seal, signature, and date on each sheet. (Original signature on first sheet)
- ☒Y ☐N ☐N/A 6. A statement that the final plat is substantially in accordance with the approved preliminary plan, if applicable. The final plat may include all or any part of the area covered by the preliminary plan, in accord with phasing designations shown on the preliminary plan.
- ☒Y ☐N ☐N/A 7. A statement or certificate signed by the preparer certifying to the correctness of the survey, the drawn plat, the placement of lot corner and street monuments and stating the source of title to the land subdivided and the place of record of the last instrument in the chain of title. When the property is of land acquired from more than one source of title, the outlines of the several tracts shall be indicated by means of a dotted line or within an inset block.
- ☒Y ☐N ☐N/A 8. A statement or certificate that "The subdivision and dedication of the land shown hereon is with the free consent and in accordance with the desire of the undersigned owner(s), proprietor(s) and trustee(s)". The statement shall be signed by such persons and duly acknowledged before an officer authorized to make such acknowledgements.
- ☒Y ☐N ☐N/A 9. The boundary lines of the land being subdivided shall be determined from a field survey meeting the requirements of the 'Minimum Standards and Procedures for Land Boundary Surveying Practice' (18 VAC 10-20-370) of the regulations promulgated by the Virginia State Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects. The survey



Application Number: 25 00023

shall be referenced to the Virginia Coordinate System of 1983 and the plat shall show the coordinate values of at least two corners of the subdivision.

- ☒Y ☐N ☐N/A 10. The location, number and area (square feet or acres) of proposed lots and parcels (both residential and non-residential).
- ☒Y ☐N ☐N/A 11. All dimensions, angular and linear, for locating boundary lines, lots, parcels, streets, street centerlines, alleys, and easements (public and private). Angular measurements shall be expressed in bearings shown in degrees, minutes, and seconds. Linear dimensions shall be expressed in feet to the nearest one hundredth of a foot. All curves shall be defined by their radius, arc length, central angle, tangent length, chord bearing and chord distance. A line and/or curve table may be used provided the data being tabulated and numbered corresponds with the respective information shown throughout the plat.
- ☒Y ☐N ☐N/A 12. A statement regarding the use and dedication of all non-residential parcels and lots.
- ☒Y ☐N ☐N/A 13. Proposed easements or rights-of-way, their widths and use, and any limitation on such easements or rights-of-way. Easements must be located in cooperation with the appropriate public utility provider.
- ☒Y ☐N ☐N/A 14. Existing easements or other encumbrances of record known to the professional. Indicate if a title report was furnished.
- ☒Y ☐N ☐N/A 15. Lot numbers in numerical order and block identification in accordance with the approved preliminary plan.
- ☒Y ☐N ☐N/A 16. Proposed streets and widths. Use street name(s) per approved preliminary plan with statement regarding dedication and use.
- ☒Y ☐N ☐N/A 17. Names and/or route numbers of existing roads or highways adjoining the property. Indicate if access is limited.
- ☐Y ☐N ☒N/A 18. Distance to nearest road intersection where applicable.
- ☐Y ☐N ☒N/A 19. A bearing and distance tie to the exterior boundary for parcels or sections located entirely within the perimeter boundary lines.



Application Number: 2500023

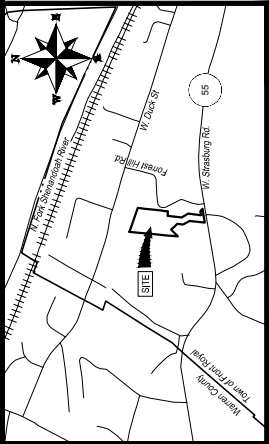
- ☐ Y ☐ N ☒ N/A 20. The location of any easement, right-of-way, or street to be vacated, if any.
- ☒ Y ☐ N ☐ N/A 21. The location and type of all boundary line and permanent reference monuments.
- ☒ Y ☐ N ☐ N/A 22. Adjoining property owner information, including name, deed reference and/or subdivision lot designation.
- ☒ Y ☐ N ☐ N/A 23. Building restriction setback lines with dimensions.

Reviewed By: _____

J. M. Wane

Date: _____

1/28/25



VICINITY MAP
1" = 1000'

- NOTES**
1. THE SUBJECT PROPERTY IS CURRENTLY ZONED RESIDENTIAL (R-2) IN ACCORDANCE WITH THE APPROVED PRELIMINARY PLAN.
 2. THE SUBJECT PROPERTY IS CURRENTLY IN THE NAME OF "BILL'S INVESTMENTS, LLC, a Virginia limited liability company", AS RECORDED AT INSTRUMENT NO. 220004952 AS FOUND AMONG THE LAND RECORDS OF WARREN COUNTY, VIRGINIA.
 3. THIS SURVEY WAS DONE WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT, THEREFORE ALL SETBACKS, EASEMENTS, ENCUMBRANCES AND RESTRICTIONS MAY NOT BE SHOWN HEREON.
 4. THE SUBJECT PROPERTY IS LOCATED ON FEMA FLOOD INSURANCE RATE MAP, NUMBER 17020Z0278E - A, DATED 06/2008 AND IS IN ZONE "X".
 5. ALL PROPERTY CORNERS NOT LABELED ARE TO BE SET AT THE TIME OF RECORDED.
 6. THE FINAL PLAT IS SUBSTANTIALLY IN ACCORDANCE WITH THE APPROVED PRELIMINARY PLAN.
 7. TAX MAP NUMBER 20A-114-23B IS CURRENTLY ZONED RESIDENTIAL (R-2).

- 1f.**
- Front Setback: 30'
Side Setback: 10'
Rear Setback: 25'
Minimum Frontage: 70'
Minimum Lot Size: 6,000 SF
Minimum Frontage: 100'
- 1e. 1f.**
- Corner Lots
Front Setback: 30'
Side Setback: 10'
Rear Setback: 25'
Minimum Frontage: 70'
Minimum Lot Size: 6,000 SF
Minimum Frontage: 100'

Owner/Developer: Bill's Investments, LLC
7214 Signs Lane
22003
Contact: Al Bilbo
Phone: 703-246-6254
Email: billsones@earthlink.net

1c.

THIS SUBDIVISION AND DEDICATION OF THE OF LANDS AS DESCRIBED HEREIN IS WITH FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE DESIGNATED OWNERS, PROPRIETORS AND TRUSTEES.

BY: _____
Name: _____
Its: _____
City/County of _____
Commonwealth of _____
The foregoing instrument was acknowledged before me by _____ the _____ of BILL'S INVESTMENTS, LLC, on behalf of the LLC, this _____ day of _____, 2025.

By: _____
Notary Public: _____
My Commission Expires: _____

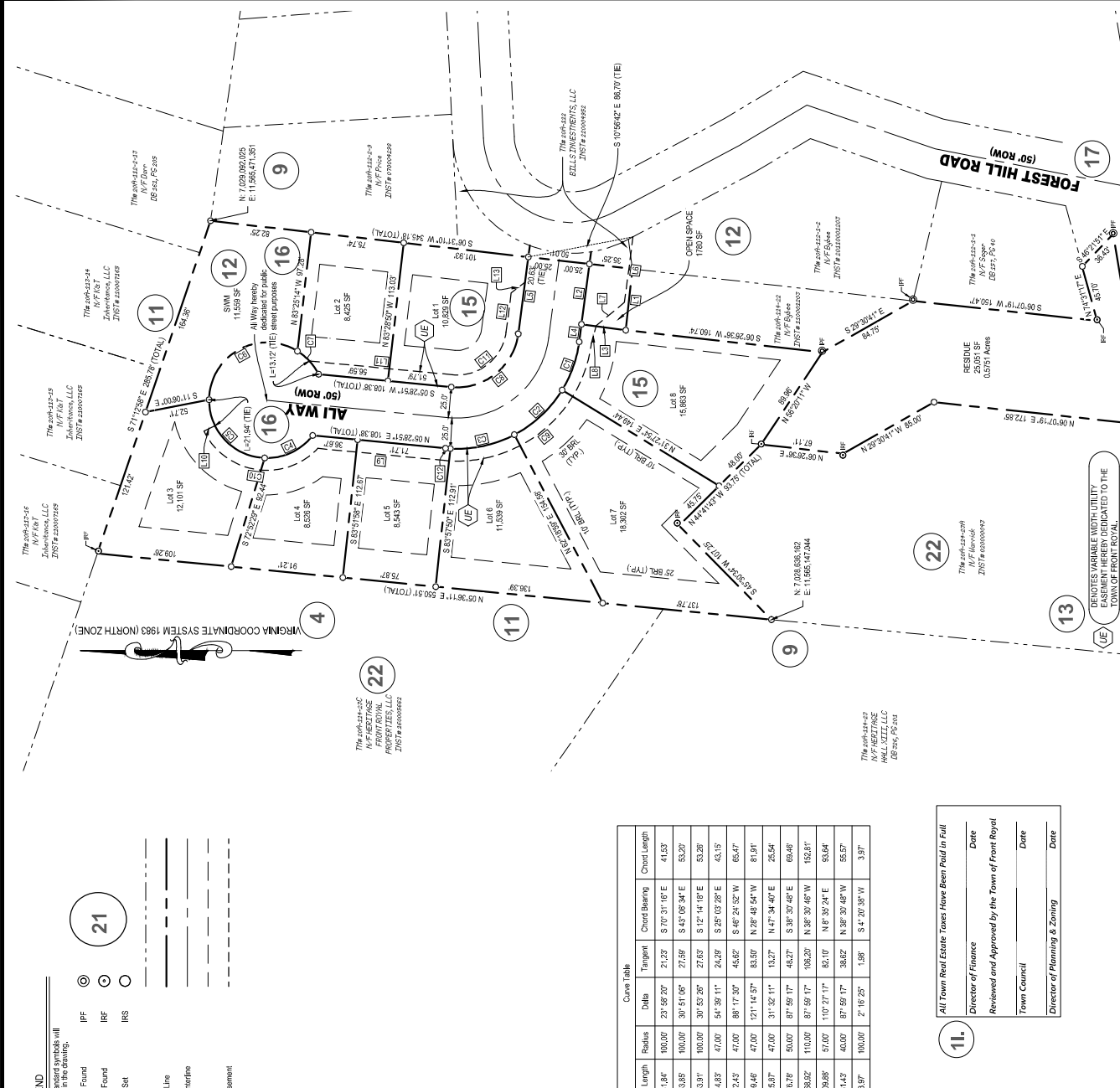
SURVEYORS CERTIFICATE

I, KEVIN S. BLANKENSHIP, A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND EXPERIENCE AND THE PROPERTIES SHOWN HEREON ARE NOW IN THE NAME OF BILL'S INVESTMENTS, LLC AS RECORDED IN INSTRUMENT NO. 220004952, AS FOUND AMONG THE LAND RECORDS OF WARREN COUNTY, VIRGINIA.

KEVIN S. BLANKENSHIP

NO.	Summittal / Revision	By	App'd	Date
1	CLIENT SUBMITAL	KSB		1/21/2025
2	Town Comments	KSB		1/26/2025
3	XXXXXXXX			
4	XXXXXXXX			
5	XXXXXXXX			

Lots	SF	Acres	New
20A-114-23B	153,561	3.5253	
Lots 1-8	94,127	2.1609	
Residue	25,051	0.5751	
SWM Lot	11,559	0.2654	
ROW	21,043	0.4831	
Open Space	1,780	0.0409	
Total	153,561	3.5253	3.5253



2a.	2b.	2c.	2d.
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24



COUNCIL REGULAR WORK SESSION AGENDA STATEMENT

Meeting Date: March 3, 2025

Item# 03C

Agenda Item: Request for Reimbursement of Special Use Permit (SUP) Application Fee from Warren Coalition

Summary: Council has received a request from Christa Shifflett, Executive Director of the Warren Coalition, asking a waiver of the Special Use Permit application fee of \$400.00 paid for 506 N. Royal Avenue to be used as a lodging house on February 19, 2025. The Warren Coalition has 501c3 nonprofit status.

Budget/Funding: 1000-3130306 General Fund Revenue – Zoning Income

Staff Recommendation: Staff recommends reimbursement and be placed under the Consent Agenda for March 24th



Warren Coalition

Supporting a safe, healthy and drug-free Warren County

February 18, 2025

Dear Mayor Cockrell and Town Council Members:

The Warren County Community Health Coalition, DBA Warren Coalition, is requesting the fee we paid for a special use permit for 506 N. Royal Ave to be used as a lodging house be waived given our 501c3 nonprofit status.

Thank you for considering this request.

My best,

Christa Shifflett, M.Ed.
Executive Director

PERMIT# 2500072

FRONT ROYAL, va. - Receipt Number 01002066189



donnotreply
To  Carol Buffa

TOWN OF FRONT ROYAL, VA

RECEIPT NUMBER: 01002066189

RECEIVED BY: CAROL PZ
TODAY'S DATE: 02/19/25

PAYOR: WC COMMUNITY HEALTH COAL.
REGISTER DATE: 02/19/25 TIME: 10:14

ZONING INCOME	SUP-506 N ROYAL AVE	\$400.00
CREDIT CARD FEES	1.000	\$9.65

TOTAL DUE:		\$409.65

TELEPHONE -: \$409.65 REF NUM:

TENDERED	CHANGE
\$409.65	\$.00



COUNCIL REGULAR WORK SESSION AGENDA STATEMENT

Meeting Date: March 3, 2025

Item# 03D

Agenda Item: Request for Sidewalk Waiver for 1011 and 1013 Virginia Avenue by Aaron Hike

Summary:

The applicant is constructing duplex units and is requesting a sidewalk waiver since there are no sidewalks within 300' of the property.

The Towns paving plan calls for this portion of Town to have curb and gutter installed in 2026.

The subdivision ordinance requires all new development to construct sidewalk with curb and gutter unless the Town Engineer supports waiver per 148-850.D.1, The Town Engineer may waive sidewalks for development projects comprising of no more than two (2) dwelling units in residential areas along existing streets where sidewalks are not currently present within 1000 feet of the property.

Budget/Funding:

Staff Recommendation: Staff recommends Council require a bond in place of sidewalk construction which would not create a "sidewalk to nowhere" situation but would allow the Town to be compensated for the cost of the installing the curb/gutter and sidewalk when the rest of the street is completed.

Request for Sidewalk Waiver for 1011 and 1013 Virginia Avenue submitted by Aaron Hike

Town Code Section 148-850.D.1:

D. Sidewalks.

1. Sidewalks shall be installed by the applicant along both sides of all new streets. For subdivisions involving the creation of an additional lot and for all new development projects, sidewalk sections shall be required along the frontage of all existing public streets. This requirement may be waived on vote of the Town Council in residential areas under the following conditions: where the character of the area is relatively low-density, after consideration of the traffic impact created by the subdivision and the total lots on a given street, drainage considerations and other environmental design parameters. The Town Engineer may waive sidewalks for development projects comprising of no more than two (2) dwelling units in residential areas along existing streets where sidewalks are not currently present within 1000 feet of the property.

Secondary Paving Plan												
STREET/ RATING		2026-2032										
YEAR	STREET	FROM	TO	ASPHALT	LINE PAINTING	WATER	SEWER	STORM SEWER	CURB	SIDEWALK	TOTAL	
2026	72 Luray Ave	W. Main St	W. Criser Rd	\$ 62,208.00	N/A	N/A			\$ 47,500.00	\$ 25,830.00	\$ 135,538.00	
	72 W. 12th St	Royal Ave	Shenandoah Ave	\$ 145,000.00					\$ 26,200.00	\$ 55,000.00	\$ 226,200.00	
	75 W. 13th St	Royal Ave	Shenandoah Ave	\$ 145,000.00					\$ 16,300.00	\$ 50,000.00	\$ 211,300.00	
	70 Virginia Ave	W. 8th St	W. 11th St	\$ 173,160.00	N/A				\$ 109,122.00	\$ 91,000.00	\$ 373,282.00	
	58 Kendrick Ln	N. Shenandoah Ave	Massanutten Ave	\$ 115,200.00		\$ 340,000.00			\$ 141,538.00	\$ 70,938.00	\$ 667,676.00	

The Town's paving plan anticipates installing curb and gutter on this portion of Virginia Ave in 2026. The estimated cost of this installation will be \$373,282.00.





The onsite photos show the lack of sidewalk, curb and gutter facilities on this street. There is a large culvert at the entrance to the applicant's property which appears to be well maintained. Installation of curb and gutter at this time would create a sidewalk to nowhere situation and it does not make sense to only have a small, isolated length of sidewalk. However, the requirement of new development having to install curb and gutter facilities allows for the developer to incur the cost of the improvements not that Town at large.

Staff recommends that in lieu of requiring the construction of the sidewalk, the Council require the applicant to bond the amount of the sidewalk so that the Town may complete the improvement when the rest of the street is improved.

Tina Presley

From: Connie Potter
Sent: Tuesday, February 18, 2025 11:17 AM
To: Tina Presley
Cc: Lauren Kopishke; Carol Buffa
Subject: FW: Sidewalk Waiver
Attachments: 2400636_Address Plat_1011 Virginia Ave_20A5 3 B3.pdf; 2400635_Address Plat_1013 Virginia Ave_20A5 3 B2.pdf

Hi Tina,

Below is a sidewalk waiver request from Aaron Hike. He is constructing a duplex. Attached is a copy of the house location survey plats for each address.

- 1011 Virginia Avenue – 20A5-3-B3
- 1013 Virginia Avenue – 20A5-3-B2

Thank you,
Connie

From: Lauren Kopishke <lkopishke@frontroyalva.com>
Sent: Tuesday, February 18, 2025 10:00 AM
To: Planning and Zoning <planning@frontroyalva.com>
Subject: FW: Sidewalk Waiver



Lauren E. Kopishke

Director of Planning & Zoning
Zoning Administrator
Town of Front Royal
Dept. of Planning and Zoning
102 E Main St | PO Box 1560
Front Royal, VA 22630
T./540-635-4236

From: build hikeconstruction.com <build@hikeconstruction.com>
Sent: Monday, February 17, 2025 3:14 PM
To: Lauren Kopishke <lkopishke@frontroyalva.com>
Subject: Sidewalk Waiver

Hi Lauren, I would like to request a sidewalk waiver for 1011 and 1013 Virginia Ave. There are no sidewalks in the area with the closest sidewalk being only in front of the entrance of the American Legion. There have been duplexes built on the same road in recent years without sidewalks as well.

Thank you for your consideration,

Thank you,

Aaron

Hike Construction Inc.

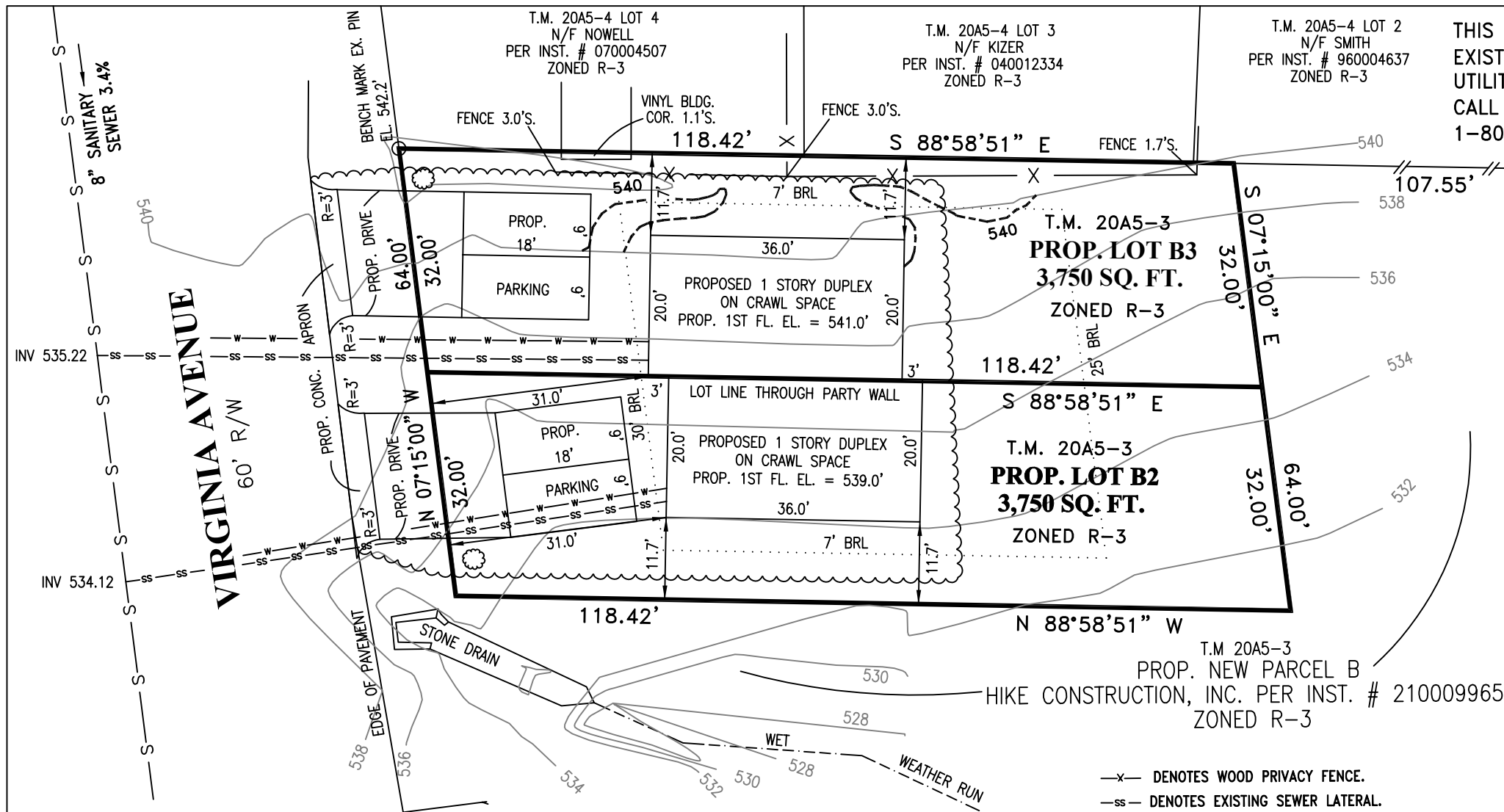
[417 N Royal Ave](#)

Front Royal, VA 22630

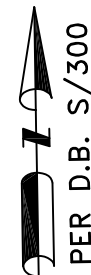
540-305-6643- Cell

540-313-6901- Office





THIS PLAT DOES NOT GUARANTEE THE EXISTENCE OR NON-EXISTENCE OF UTILITIES WITHIN THE WORK LIMITS. CALL MISS UTILITY AT 811 OR 1-800-552-7001 BEFORE DIGGING.



PROPOSED HOUSE LOCATION SURVEY ON PROPOSED LOTS B2 AND B3 OF THE HIKE CONSTRUCTION, INC. PROPERTY
NORTH RIVER MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA.

ELEVATIONS DATUM: NAVD 88.

DRIVEWAY APRON TO BE CONCRETE AND DRIVEWAY SURFACE TO BE EITHER CONCRETE OR PAVED AND TO CONFORM TO TOWN OF FRONT ROYAL STANDARD (RC-5).

PROPOSED BUILDING COVERAGE AREA 1,400 SQ. FT.

PROPOSED TOTAL AREA OF DISTURBANCE = 4,900 SQ. FT.

PROPOSED TREES = 2 STREET TREES.

NOTE: NO PROPOSED SLOPE ON LOT IS GREATER THAN 15%.

A WAIVER TO CURB AND GUTTER WILL BE REQUESTED DUE TO LACK OF EXISTING CURB AND GUTTER ALONG VIRGINIA AVENUE.

BOUNDARIES SHOWN HEREON ARE BASED OFF OF A CURRENT FIELD SURVEY.

NO TITLE REPORT FURNISHED TO THIS OFFICE. SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

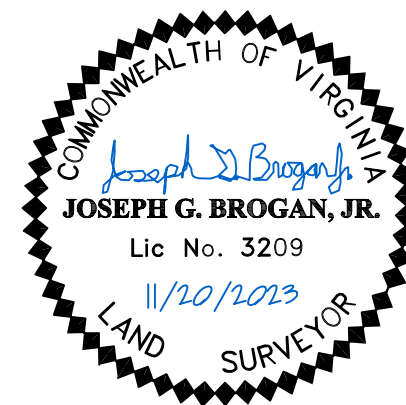
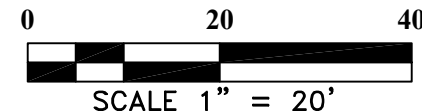
DERIVATION OF TITLE TO: HIKE CONSTRUCTION, INC. PER INST. # 210009965

PLAT REF: SLIDE 298 H.

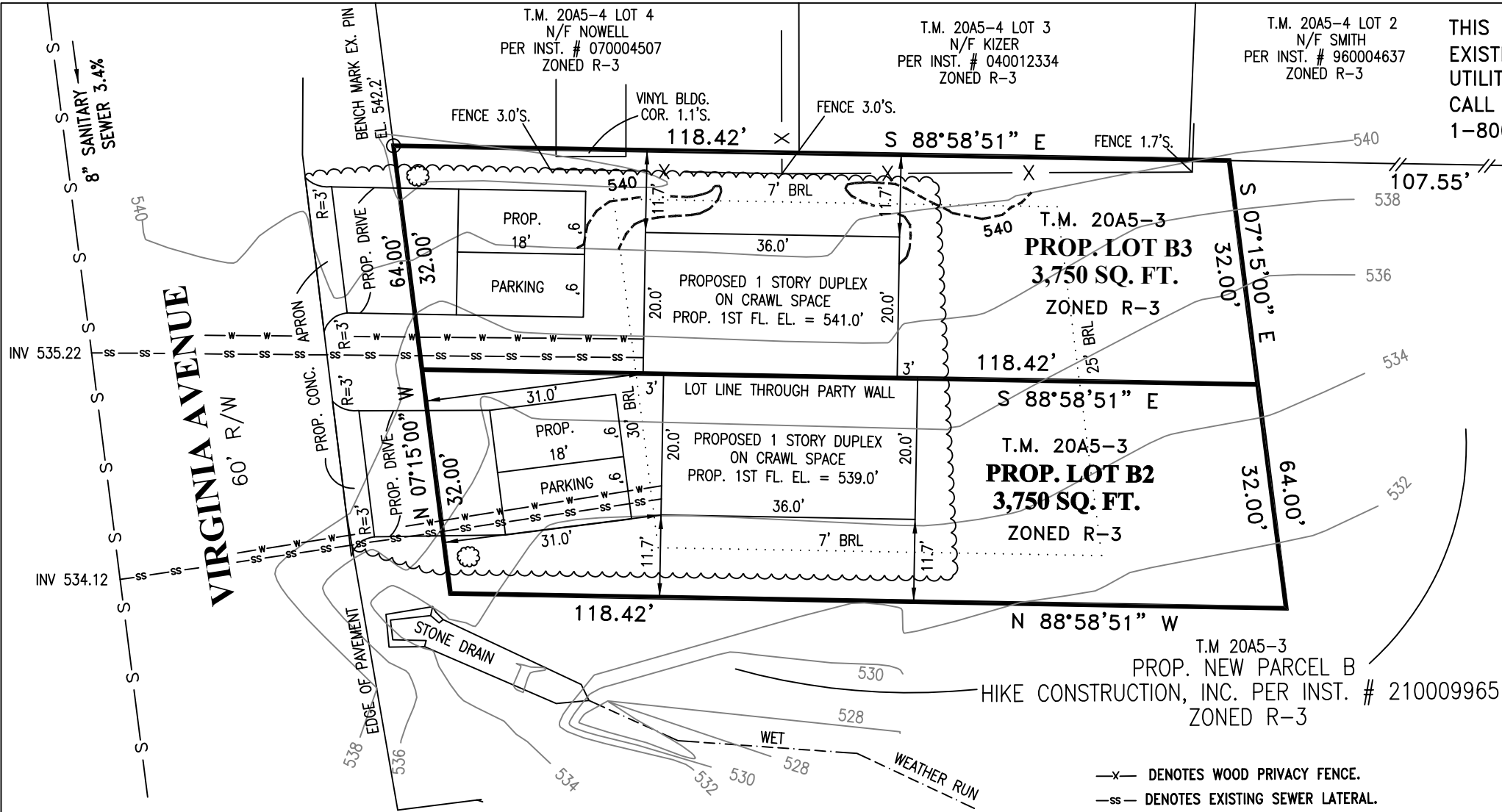
SUBJECT PROPERTY SITUATED OUTSIDE THE LIMITS OF THE FEMA FLOOD ZONE.

T.M. 20A5-3
PROP. NEW PARCEL B
HIKE CONSTRUCTION, INC. PER INST. # 210009965
ZONED R-3

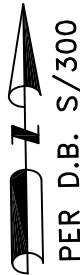
- x- DENOTES WOOD PRIVACY FENCE.
- ss- DENOTES EXISTING SEWER LATERAL.
- s- DENOTES EXISTING SEWER LINE.
- w- DENOTES PROPOSED WATER LINE.
- DENOTES EXISTING CONTOUR LINE.
- DENOTES PROPOSED CONTOUR LINE.
- ⊙ DENOTES PROP. 2" DIAMETER MAPLE TREE.
- ~~~~~ DENOTES LIMITS OF CONSTRUCTION.



PREPARED BY:
BROGAN LAND SURVEYING, PLC
P.O. BOX 1578
FRONT ROYAL, VA. 22630-0034
TEL. & FAX (540) 635-5657
NOVEMBER 20, 2023



THIS PLAT DOES NOT GUARANTEE THE
EXISTENCE OR NON-EXISTENCE OF
UTILITIES WITHIN THE WORK LIMITS.
CALL MISS UTILITY AT 811 OR
1-800-552-7001 BEFORE DIGGING.

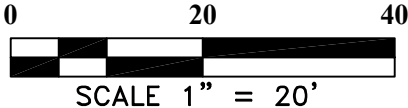


PROPOSED HOUSE
LOCATION SURVEY ON PROPOSED
LOTS B2 AND B3 OF THE HIKE
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NORTH RIVER MAGISTERIAL DISTRICT
TOWN OF FRONT ROYAL
WARREN COUNTY, VA.

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DRIVEWAY APRON TO BE CONCRETE AND DRIVEWAY
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PER INST. # 210009965
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- x- DENOTES WOOD PRIVACY FENCE.
- ss- DENOTES EXISTING SEWER LATERAL.
- s- DENOTES EXISTING SEWER LINE.
- w- DENOTES PROPOSED WATER LINE.
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P.O. BOX 1578
FRONT ROYAL, VA. 22630-0034
TEL. & FAX (540) 635-5657
NOVEMBER 20, 2023

Primary Paving Plan 2026-2032

YEAR		STREET	FROM	TO
2025		W. 6th	Royal Ave	Kendrick Ln
2026		N. Royal Ave	Commerce Ave	E. 6th St
2027		N.Royal Ave	E.6TH ST	Academy Dr
2028		John Marshall Hwy	Jamestown Rd	E/T/L
2029		N.Royal Ave	Academy Dr	Main St
2030		N.Royal Ave	Main St	South St
2031		Chester Gap Rd	Criser Rd	E/T/L
2032		N. Shenandoah Ave	W. 14th St	Kendrick Ln
PRIMARY TOTAL (2026-2032)				

Secondary Paving Plan 2026-2032

	STREET/ RATING			
YEAR		STREET	FROM	TO
2026	72	Luray Ave	W. Main St	W. Criser Rd
	72	W. 12th St	Royal Ave	Shenandoah Ave
	75	W. 13th St	Royal Ave	Shenandoah Ave
	70	Virginia Ave	W. 8th St	W. 11th St
	58	Kendrick Ln	N. Shenandoah Ave	Massanutten Ave
TOTAL				
2027	74	Oak St	Luray Ave	Cherry St
	73	Jamestown Rd	JMH	Cul-De-Sac
	58	W. 8th St	N. Shenandoah Ave	N. Royal Ave
	60	Kendrick Ln	Massanutten Ave	Adams Ave
	69	Virginia Ave	W. 11th St	W. 14th St
TOTAL				

2028	60	Sherwood Ave	Luray Ave	Cherry St
	78	River Dr	Dead end	Cherrydale Ave
	70	Cherry St	Sherwood Ave	Grand Ave
	68	Grand Ave	Cherry St	S. Shenandoah Ave
TOTAL				
2029	74	Brown Ave	S. Shenandoah Ave	Salem Ave
	60	Skyline Place	Grand Ave	Salem Ave
	75	Cypress St	Salem Ave	Grand Ave
TOTAL				
2030	58	Front St	Prospect St	Short St
	60	Short St	Front St	Blue Ridge Ave
	59	Cable St	Front St	Ritenour St
	52	Pullen St	Prospect St	Short St
TOTAL				
YEAR		STREET	FROM	TO
2031	STREET/ RATING			
	74	W.13TH ST	Massanutten St	Jefferson Ave
		Commonwealth Ave	W.14TH ST	W.13TH ST
	N/A	State Ave	W.14TH ST	W.13TH ST
	N/A	Mosby Ln	Prospect St	Stonewall Dr
TOTAL				
2032				
		E.Stonewall Dr	Commerce Ave	Dead End
		E.Stonewall Dr	Commerce Ave	N.Royal
		E.Stonewall Dr	N.Royal Ave	Luray Ave
TOTAL				

ALL YEARS SECONDARY TOTAL (2026-2032)

**PRIMARY TOTAL
SECONDARY TOTAL
TOTAL**

ASPHALT	LINE PAINTING	WATER	SEWER	STORM SEWER	CURB
\$ 87,388.00	\$ 6,000.00				N/A
\$ 130,985.00	\$ 3,022.00	\$ 324,000.00	N/A	N/A	N/A
\$ 95,785.00	\$ 2,788.00	\$ 336,000.00	N/A	N/A	N/A
\$ 658,791.00	\$ 15,000.00		N/A	N/A	N/A
\$ 96,005.00	\$ 10,000.00	\$ 378,000.00	N/A	N/A	N/A
\$ 135,000.00	\$ 8,000.00	N/A	N/A	N/A	N/A
\$ 216,880.00	\$ 8,000.00		N/A	N/A	N/A
\$ 153,186.00	\$ 11,000.00	N/A	N/A	N/A	N/A
\$ 1,574,020.00	\$ 63,810.00	\$ 1,038,000.00	\$ -	\$ -	\$ -

ASPHALT	LINE PAINTING	WATER	SEWER	STORM SEWER	CURB
\$ 62,208.00	N/A	N/A			\$ 47,500.00
\$ 145,000.00					\$ 26,200.00
\$ 145,000.00					\$ 16,300.00
\$ 173,160.00	N/A				\$ 109,122.00
\$ 115,200.00		\$ 340,000.00			\$ 141,538.00
\$ 640,568.00	\$ -	\$ 340,000.00	\$ -	\$ -	\$ 340,660.00
\$ 85,000.00	N/A	\$ 143,000.00			\$ 38,653.00
\$ 210,655.00	\$ 10,000.00	\$ 608,000.00			\$ 161,839.00
\$ 48,060.00	N/A				\$ 20,112.00
\$ 193,280.00	N/A	\$ 472,000.00			\$ 96,495.00
\$ 101,758.00					\$ 71,250.00
\$ 638,753.00	\$ 10,000.00	\$ 1,223,000.00	\$ -	\$ -	\$ 388,349.00

\$ 70,000.00	N/A	\$ 137,000.00			\$ 136,600.00
\$ 30,379.00		N/A			N/A
\$ 25,896.00					N/A
\$ 117,435.00					\$ 61,775.00
\$ 243,710.00	\$ -	\$ 137,000.00	\$ -	\$ -	\$ 198,375.00
\$ 50,427.00	N/A	\$ 173,000.00			\$ 76,426.00
\$ 51,792.00					\$ 33,576.00
\$ 35,079.00	N/A				\$ 25,643.00
\$ 137,298.00	\$ -	\$ 173,000.00	\$ -	\$ -	\$ 135,645.00
\$ 82,769.00	N/A				\$ 35,465.00
\$ 97,934.00	N/A				\$ 62,955.00
\$ 36,252.00	N/A				\$ 31,058.00
\$ 82,769.00	N/A				\$ 35,465.00
\$ 299,724.00		\$ -			\$ 164,943.00
ASPHALT	LINE PAINTING	WATER	SEWER	STORM SEWER	CURB
\$ 31,784.00	N/A	N/A			\$ 17,284.00
\$ 27,683.00	N/A	\$ 72,700.00			\$ 6,788.00
\$ 13,887.00	N/A	N/A			N/A
\$ 78,632.00	N/A				\$ 36,513.00
\$ 151,986.00	\$ -	\$ 72,700.00	\$ -	\$ -	\$ 60,585.00
\$ 174,120.00	\$ 7,750.00				\$ 67,375.00
\$ 87,278.00	N/A	N/A			N/A
\$ 42,258.00	N/A	N/A			N/A
\$ 303,656.00	\$ 7,750.00	\$ -	\$ -	\$ -	\$ 67,375.00
\$ 2,415,695.00	\$ 17,750.00	\$ 1,945,700.00	\$ -	\$ -	\$ 1,355,932.00

SIDEWALK	TOTAL
N/A	\$ 93,388.00
N/A	\$ 458,007.00
N/A	\$ 434,573.00
N/A	\$ 673,791.00
N/A	\$ 484,005.00
N/A	\$ 143,000.00
N/A	\$ 224,880.00
N/A	\$ 164,186.00
	\$ -
\$ -	\$ 2,675,830.00

SIDEWALK	TOTAL
\$ 25,830.00	\$ 135,538.00
\$ 55,000.00	\$ 226,200.00
\$ 50,000.00	\$ 211,300.00
\$ 91,000.00	\$ 373,282.00
\$ 70,938.00	\$ 667,676.00
\$ 292,768.00	\$ 1,613,996.00
\$ 19,373.00	\$ 286,026.00
\$ 81,112.00	\$ 1,071,606.00
\$ 39,438.00	\$ 107,610.00
\$ 86,845.00	\$ 848,620.00
\$ 42,000.00	\$ 215,008.00
\$ 268,768.00	\$ 2,528,870.00

\$ 40,040.00	\$ 383,640.00
\$ 26,901.00	\$ 57,280.00
\$ 14,000.00	\$ 39,896.00
\$ 123,550.00	\$ 302,760.00
\$ 204,491.00	\$ 783,576.00
\$ 34,902.00	\$ 334,755.00
\$ 14,000.00	\$ 99,368.00
\$ 12,852.00	\$ 73,574.00
\$ 61,754.00	\$ 507,697.00
\$ 21,150.00	\$ 139,384.00
\$ 37,485.00	\$ 198,374.00
\$ 18,495.00	\$ 85,805.00
\$ 21,150.00	\$ 139,384.00
\$ 98,280.00	\$ 562,947.00
SIDEWALK	TOTAL
\$ 45,518.00	\$ 94,586.00
\$ 10,584.00	\$ 117,755.00
N/A	\$ 13,887.00
\$ 29,025.00	\$ 144,170.00
\$ 85,127.00	\$ 370,398.00
\$ 52,952.00	\$ 302,197.00
	\$ 87,278.00
	\$ 42,258.00
\$ 52,952.00	\$ 431,733.00
\$ 1,064,140.00	\$ 6,799,217.00

\$ 2,675,830.00
 \$ 6,799,217.00
\$ 9,475,047.00



CLOSED MEETING AGENDA STATEMENT

Meeting Date: March 3, 2025

Item# 04

MOTION ON TO GO INTO CLOSED MEETING

[to be approved by affirmative recorded vote, with motion set forth in detail in the minutes. Council may take action in open session following closed meeting].

I move that Town Council convene a closed meeting, pursuant to Sections 2.2-3711 and 2.2-3712 of the Code of Virginia, for the following purpose:

- 1) *pursuant to §2.2-3711(A)(1) of the Code of Virginia, for the discussion, consideration, assignment, appointment, promotion, performance, demotion, salaries, disciplining or resignation of specific public officers, appointees, or employees of any public body, more specifically the Town Manager Position,*
- 2) *pursuant to §2.2-3711(A)(3) of the Code of Virginia, discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body, more specifically, the sale of a vacated portion of Kibler Street abutting 219 E. 7th Street.*

Motion to Certify Closed Meeting at its Conclusion

[At the conclusion of the Closed Meeting, immediately re-convene in open meeting and take a roll call vote on the following:]

I move that Council certify that to the best of each member's knowledge, as recognized by each Council member's affirmative vote, that only such public business matters lawfully exempted from Open Meeting requirements under the Virginia Freedom of Information Act as were identified in the motion by which the Closed Meeting was convened were heard, discussed or considered in the Closed Meeting by Council, and that the vote of each individual member of Council be taken by roll call and recorded and included in the minutes of the meeting of Town Council.

Moved _____ Seconded _____

Wood _____ Veitenthal _____ Sealock _____ Rappaport _____ Ingram _____ DeDomenico-Payne _____