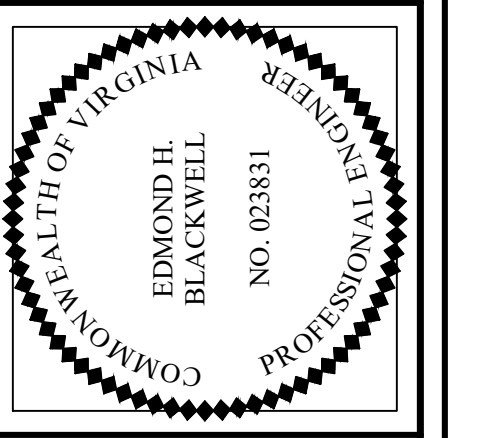


Date: 4-7-21
 Scale: AS SHOWN
 Designed by: EHB
 Drawn by: BWK/RJ
 Checked by: EHB

BLACKWELL ENGINEERING, PLC
 566 East Market Street
 Harrisonburg, Virginia 22801
 PHONE: (540)432-3555 FAX: (540)434-7604
 E-Mail: BBlackwell@blackwellengineering.com



Revision Dates

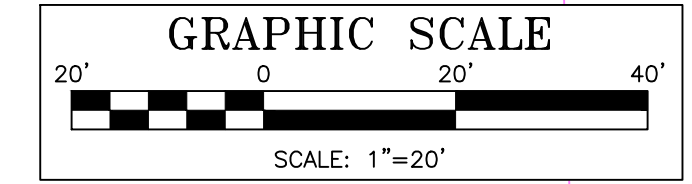
REZONING & PRELIMINARY PLAT
 VINE ST. TOWNHOMES
 BASU SATYAL
 1577 SPRING HILL RD., SUITE 300B
 VIENNA, VA. 22182

VICINITY MAP
 SCALE: 1" = 300'

OWNER/DEVELOPER:
 BASU SATYAL
 1577 SPRING HILL RD.
 SUITE 300B
 VIENNA, VA. 22182
 (571)-334-2878

PROPERTY INFO:
 107,137 VINE STREET
 TAX MAP 42-D-21 & 22
 EXISTING ZONING=B-2C
 PROPOSED ZONING=R-8
 2.25± ACRES
 EXISTING USE: UNDEVELOPED
 PROPOSED USE: RESIDENTIAL
 FEMA FLOOD ZONE X

- LEGEND**
- CENTER LINE
 - E/T — ELECTRIC/TELEPHONE
 - METER/TRANSFORMER
 - UTILITY POLE
 - LIGHT POLE
 - WATER LINES
 - GAS LINES
 - 1.340 — EXISTING CONTOURS
 - 1.340 — PROPOSED CONTOURS
 - EXISTING PROPERTY LINE
 - PROPOSED PROPERTY LINE
 - SETBACK LINE
 - EASEMENT LINE
 - PROPOSED ROAD/EOP
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 - CURBING: CG-2 OR CG-6
 - PROPOSED SIDEWALK
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 - DUMPSTER
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 - CG-12/ASPHALT RAMP
 - FIRE HYDRANT
 - WATER METER
 - EXISTING UTILITY POLE
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 - EXISTING FENCE LINE
 - PROPOSED 42" TALL FENCE
 - CONCRETE PAVING
 - LIGHT PAVEMENT SECTION
 - PROPOSED BUILDING
 - LANDSCAPED OR GRASS AREA
 - PROPOSED CROSSWALK



CITY GENERAL NOTES

- Work in this project shall conform to the latest editions of the Virginia Department of Transportation (VDOT) Road and Bridge Specifications, the VDOT Road and Bridge Standards, the Virginia Erosion and Sediment Control Handbook, the Virginia Erosion and Sediment Control Regulations and the City of Harrisonburg Design and Construction Standards Manual. In the event of conflict between any of these standards, specifications or plans, the most stringent shall govern. All utilities to be dedicated to the City of Harrisonburg Municipal Water and/or Sanitary Sewer System shall be constructed and tested to conform to Commonwealth of Virginia/State Board of Health Waterworks and/or Sewerage Regulations and the City of Harrisonburg Design and Construction Standards Manual.
- Erosion and sediment control measures shall be maintained continuously, relocated when and as necessary and shall be checked after every rainfall. Seeded areas shall be checked regularly and shall be watered, fertilized, reseeded and mulched as necessary to obtain a dense stand of grass.
- All drain inlets shall be protected from siltation. Ineffective protection devices shall be immediately replaced and the inlet cleaned. Flushing is not an acceptable method of cleaning.
- When the crushed stone construction entrance has been covered with soil or has been pushed into the soil by construction traffic, it shall be replaced with a depth of stone equal to that of original application derived from any source.
- The location of existing utilities as shown is approximate only. The contractor is responsible for locating all public or private utilities which lie in or adjacent to the construction site. The contractor shall be responsible for repairing, at his expense, all existing utilities damaged during construction. Forty-eight (48) hours prior to any excavation call Miss Utility 1 (800) 552-7001.
- All underground facilities located within the City's rights-of-way shall be installed prior to the placement of any part of the pavement structure.
- Installation of concrete storm pipe shall comply with VDOT standard Drawing PB-1.
- All materials used for fill or back-fill shall be free of wood, roots, rocks, boulders or any other non-compatible soil type material. Unsatisfactory materials also include man-made fills and refuse debris derived from any source.
- Satisfactory material for use as fill for public streets include material classified in ASTM D-2487 as GW, GP, GM, GC, SW, SP, SM, SC, ML and CL groups. The moisture content shall be controlled within plus or minus 2 percentage points of optimum to facilitate compaction. Generally, unsatisfactory materials include materials classified in ASTM D-2487 as PT, CH, MH, OH, CH, and any soil too wet to facilitate compaction. CH and MH soils may be used subject to approval of the City Engineer. Soils shall have a minimum dry density of 92 lb./cu. ft. per ASTM D-698 and shall have a plasticity index less than 17.
- Compaction of fill material under building slabs shall be based upon recommendations of soils engineer after completion of standard Proctor test and shall meet bearing requirements of architect of buildings. The contractor shall be responsible for testing.
- Materials used to construct embankments for any purpose, back-fill around drainage structures or in utility trenches or any other depression requiring fill or back-fill shall be compacted to 95% of maximum density as determined by the standard Proctor test as set out in ASTM standard D-1558. The contractor shall, prior to any operations involving filling or back-filling, submit the results of the Proctor test together with a certification that the soil tested is representative of the materials to be used on the project. Tests shall be conducted by a certified materials testing laboratory and the certification made by a licensed professional engineer representing the laboratory.
- Embankment fill and trench back-fill shall be placed in lifts at a maximum uncompacted depth of 8-inches and 6-inches, respectively. Density tests shall be conducted at the following minimum frequencies:
 - Embankments for roads, street, dams, etc.: One test per lift per 10,000 square feet of lift.
 - Back-fill around structures and in trenches: One test per lift per 500 lineal feet of trench.
- Compaction tests for street pavement structure shall be made in cut and fill areas at the following minimum frequencies:
 - Sub-Grade: One test per lot per 500 lineal feet.
 - Stone Base: One test per lot per 6" compacted lift per 500 lineal feet.
 - Hot Asphaltic Concrete: One test per lot per lift per 500 lineal feet.
- All excavations, including trenches, shall be kept dry to protect their integrity.

15. Test results shall be submitted to the City Engineer. Failure to conduct density tests shall be cause for non-acceptance of the facility. Tests shall be conducted at the sole cost of the developer or his agent.

16. Combination under-drains type CD-1 shall be installed at the lower end of cut sections. Under-drains type CD-2 shall be installed at the low point of all vertical curves.

17. Standard UD-1 and UD-3 under-drains shall be installed where indicated on plans and further where determined necessary in the field by City Inspectors.

18. Pavement design is based upon subgrade CBR of 3 and an RF of 2. Upon bringing the street subgrade to approximate elevation the contractor shall cause soil samples for CBR determination to be taken at a maximum interval of 300 feet measured along the street centerline. The CBR of each sample shall be determined and the average CBR shall be used to determine the pavement requirements. The pavement materials and the amount thereof as shown on the typical street section may be modified by the results of these tests in accordance with the City standards and if approved by the City Engineer. A copy of all soils test results shall be submitted to the City Engineer prior to the placing of any base or subbase material. This work shall not be required on streets classified as Local/Sub-Class A. Paving sections shall not be reduced below the City minimum section.

19. City Inspectors have full authority to reject fill or backfill materials, require undercutting or subgrade stabilization, require provisions for subdrainage, or require other measures which affect the integrity of road and utility construction. Failure to comply with Inspector's directives shall be cause for non-acceptance to the facility.

20. Traffic control on public streets shall be in conformance with the Manual of Uniform Traffic Control Devices and as further directed by City Inspectors.

21. Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in drawings or specifications shall be immediately reported to the engineer, in writing, who shall promptly address such inconsistencies or ambiguities. Work done by the contractor after his discovery of such discrepancies, inconsistencies, or ambiguities shall be done at the contractor's risk.

22. A preconstruction conference shall be held prior to the start of the construction. The contractor shall arrange the meeting with the City Engineer.

23. Install City standard street centerline monuments where required for new streets.

24. All proposed public water and sewer mains to have a dedicated easement in place and recorded before the City of Harrisonburg will turn on the public water supply. Owner to coordinate with surveyor, owner's attorney, and City Engineer's Office for easement plot and City standard Deed of Easement. The plot and deed to be reviewed by City prior to recordation and after recordation the deed book and page number or copy of Clerk of Court recordation receipt to be provided to City Engineer Office (Doug Adams).

ADDITIONAL NOTES

- Site statistics: Proposed Zoning R-8, Total Area = 97,839± SF, Disturbed Area = TBD, Green Space = 22,493± SF (22.98% of Total Area).
- City Landscape requirements: Paved area = 28,898± sf; Landscape/green area within 30' of pavement = 22,493± sf (22.98% of entire site)
- All exterior lot lines will have a 10' utility easement centered on the property line. All exterior lot lines will have a 10' utility easement along the inside of the property line. Additional easements are shown on the plans. The final location of easements will be shown on the final subdivision plat.
- If water and sanitary sewer laterals are placed in the same trench, construction must comply with BOCA, 1987 Section P-1502.2. Requiring water service to be 12" above and on a shelf to the side of the sanitary sewer.
- The proposed water laterals and water meters are to be a City Standard Type C (double 3/4") connection. (water main static pressure approximately 48 psi).
- Sanitary sewer lateral shall be 4" PVC SDR 21 (W/Gasket) PVC from building to sanitary main at a minimum slope of 1/8" per foot (see DCSM Chapter 7, Page 19).
- All storm sewer piping shall be either HDPE smooth walled or reinforced concrete pipe (RCP) Class III. See Storm Pipe Schedule on Sheet TBD.
- All sanitary sewer piping shall be PVC SDR 35, unless stated otherwise on plans.
- All water lines shall be 8" ductile iron slip joint class 52, unless stated otherwise on plan. The minimum depth to the top of the pipe shall be 36" and a 10' minimum separation between sewer lines.
- All water main terminations shall conform with the City of Harrisonburg Design and Construction Standard detail #9, "Dead End Fire Hydrant".

35. The City of Harrisonburg has an established protocol for testing and disinfection of mains which shall be the responsibility of the Contractor to ascertain "on-site" approval by the Office of Community Development Inspection personnel. The protocol includes: a.) Hydrostatic testing of all water mains; b.) Disinfection and Bacteriological sampling of all water mains; c.) Final Inspections Operations test for all water main valves and hydrants; d.) Low Pressure Air Test of sanitary sewer pipe; e.) PVC sewer requires pulling of a 5% mandrel; f.) Sanitation or Air Vacuum testing of mains. The Contractor is responsible for coordinating a testing schedule with the City Inspectors.

36. Street signs required at all intersections. The exact locations shall be coordinated with the City's Street Department.

37. Sign: Sign location and size to be determined. Sign contractor and/or owner to coordinate with the City Zoning Administrator for sign size, type, location, permits and fees. Sign will be built per City Sign Ordinance.

38. Handicap spaces to have vertical signs with the international handicap symbol. At least one space must be van accessible with "Van Accessible" sign below the international sign. Minimum height to sign bottom is 4'-0", maximum is 7'-0".

39. Site Lighting: Site lighting shall comply with City of Harrisonburg regulations.

40. Topsoil stockpile to remain in place no longer than 1 year from date of approved plan. Permission for extension must be granted by the City Engineer.

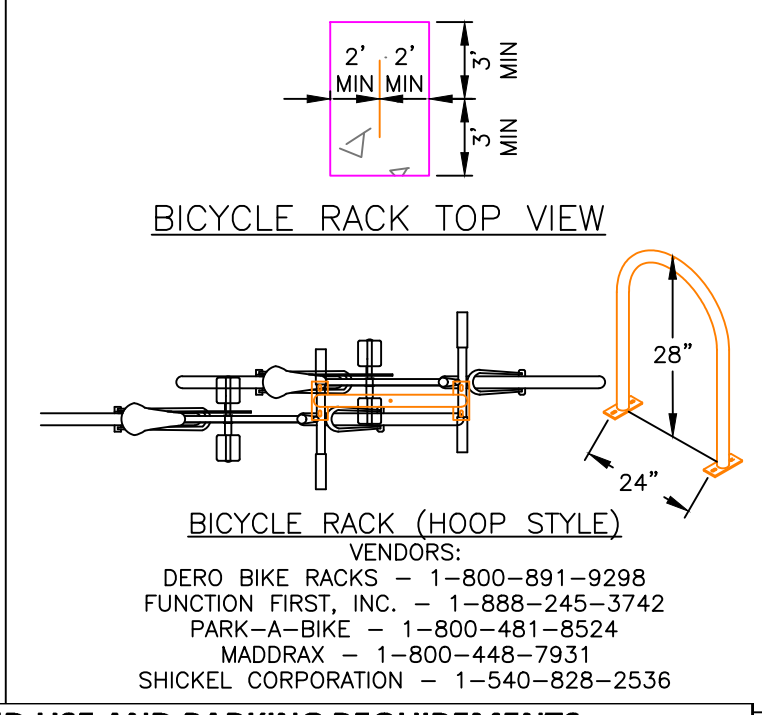
41. Trash collection: Trash collection will utilize a private trash service. The dumpster will be located as shown on the plans. The dumpster shall be screened from view as per City Ordinance.

42. Emergency Access: During construction the entrance is to remain open onto the site at all times. All parking drive areas are to be designated as permanent fire lanes with no parking allowed.

43. The Erosion Control Narrative is a part of these plans. Contractor to comply with any additional items contained in the narrative.

44. Electric service shall be underground and located approximately as shown on the plans. The contractor is responsible for coordinating with HEC for service connection.

45. Construction traffic to utilize proposed entrance off of Vine Street. A standard Construction Entrance per VESCH guidelines will be required prior to start of construction.

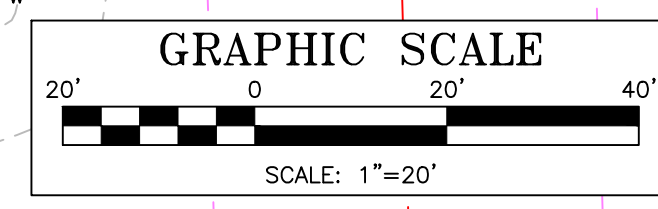
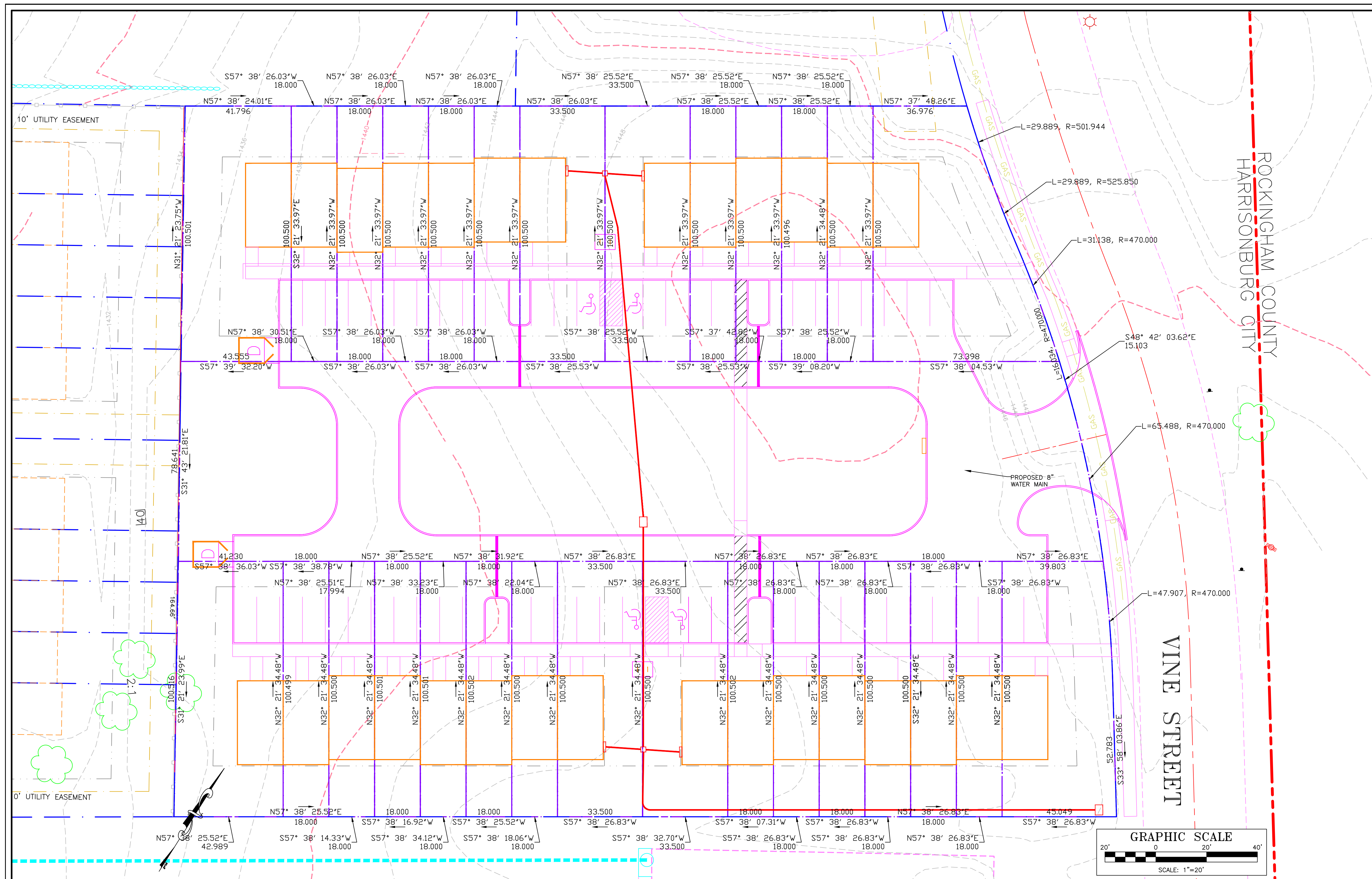


PROPOSED USE AND PARKING REQUIREMENTS

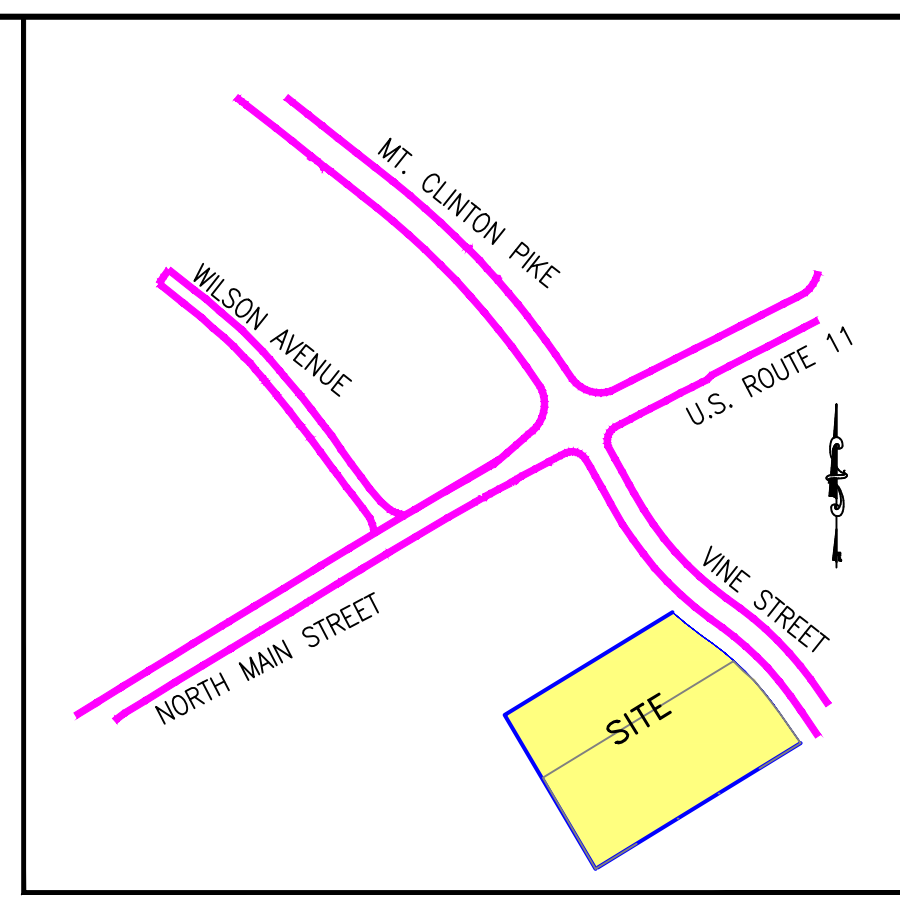
PROPOSED BUILDING	USE	UNITS	RATE	EMPLOYEES	COMPANY VEHICLES	SPACES/AREAS	
1	TOWNHOUSE	29	1/Unit	—	—	29	
SECTION 10-3-25 (7)						TOTAL SPACES REQUIRED	29
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN 208.2.3.2						TOTAL SPACES PROVIDED	58
BICYCLE PARKING DCSM 2.6.10						HANDICAP REQUIRED	3
						HANDICAP PROVIDED	4
LANDSCAPING SEC. 10-3-30.1						RACK SPACES REQUIRED	4
						RACK SPACES PROVIDED	4
AREA OF PARKING LOT (SF)						28,988	
GREENSPACE REQUIRED (SF)						4,348	
GREENSPACE PROVIDED (SF)						22,493	

Drawing No. **1**
 of 3 Sheets

Job No. 2876



NOTE: ALL BUILDING UNITS WILL BE SERVICED BY A METER PACK AND PRIVATE EASEMENTS FOR ELECTRICAL SERVICES SHALL BE RESERVED UNDER BUILDING UNITS THROUGH CONDUIT TO BE INSTALLED UNDER BUILDING SLABS.



VICINITY MAP
SCALE: 1" = 300'

DEVELOPER:
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SUITE 300B
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(571)-334-2878

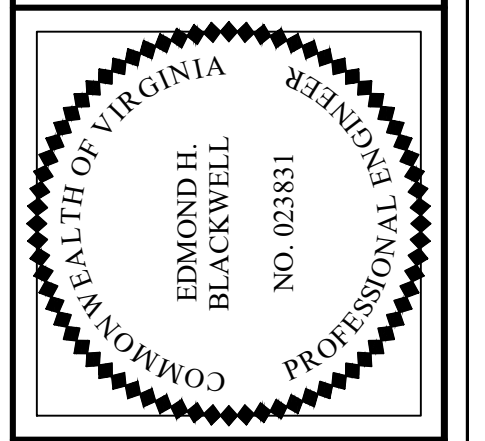
PROPERTY INFO:
107/137 VINE STREET
TAX MAP 42-D-21 & 22
EXISTING ZONING=B-2C
PROPOSED ZONING=R-8
2.25± ACRES
EXISTING USE: UNDEVELOPED
PROPOSED USE: RESIDENTIAL
FEMA FLOOD ZONE X

LEGEND

- CENTER LINE
- ELECTRIC/TELEPHONE
- METER/TRANSFORMER
- UTILITY POLE
- LIGHT POLE
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Date: 4-7-21
Scale: AS SHOWN
Designed by: EHB
Drawn by: BWK/RIJ
Checked by: EHB

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Harrisonburg, Virginia 22801
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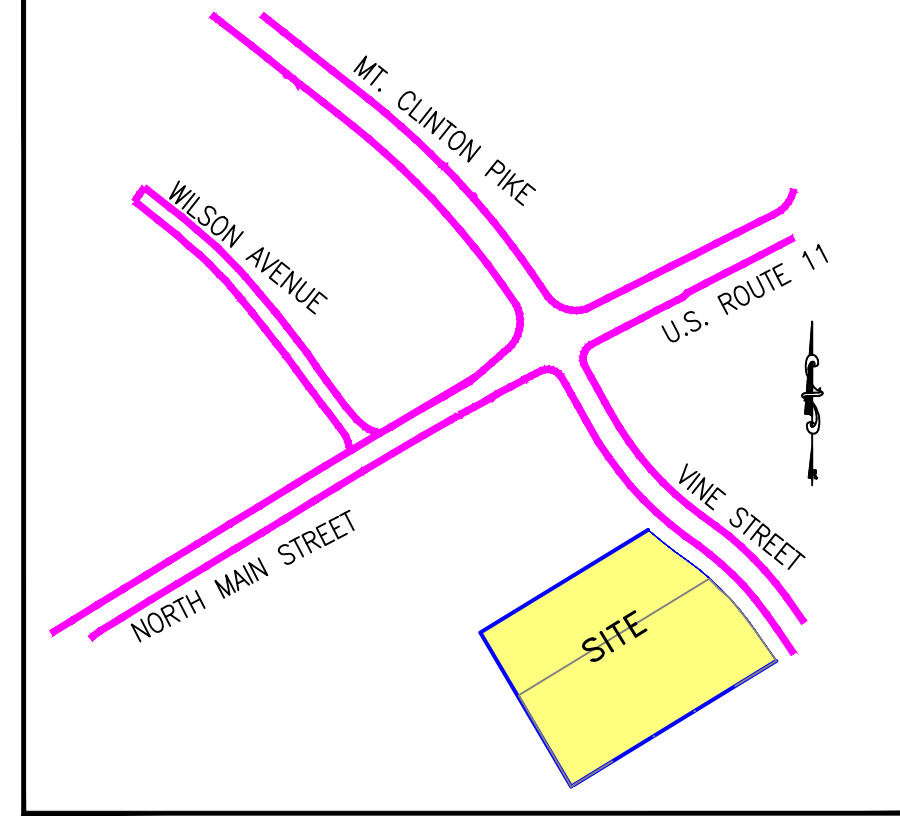
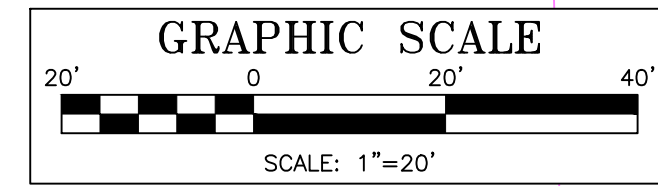
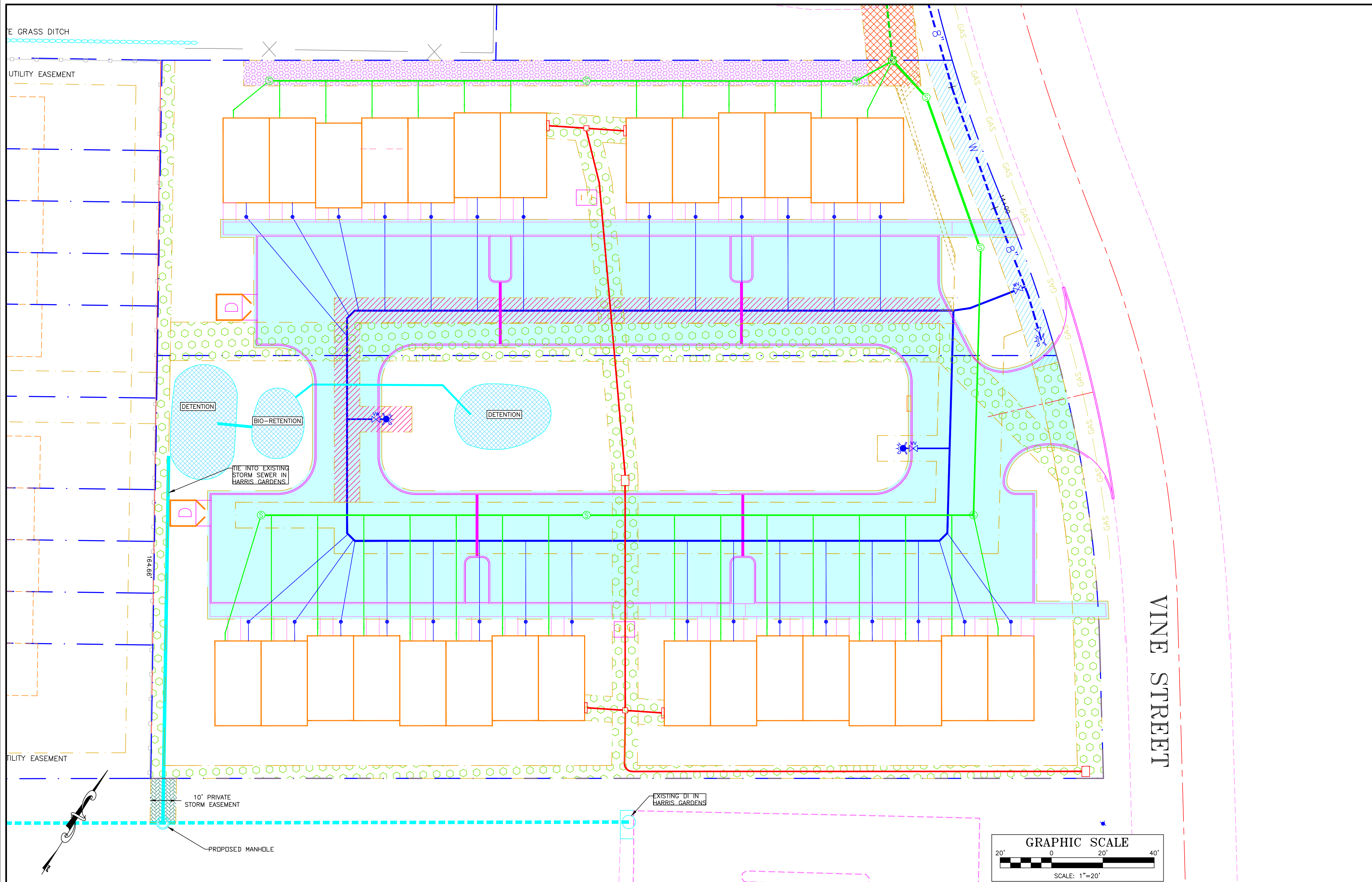
Revision Dates

REZONING & PRELIMINARY PLAT-LOT LAYOUT

VINE ST. TOWNHOMES
BASU SATYAL
1577 SPRING HILL RD. SUITE 300B
VIENNA, VA. 22182

Drawing No.
2
of 3 Sheets

Job No. 2876



VICINITY MAP
SCALE: 1" = 300'

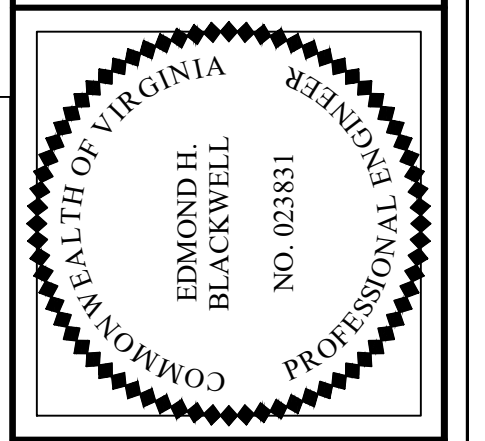
EASEMENT PLAN LEGEND

	EXISTING PROPERTY LINE
	EASEMENT BOUNDARY
	PROPOSED PUBLIC WATER EASEMENT
	EXISTING PUBLIC WATER EASEMENT
	PROPOSED PUBLIC SEWER EASEMENT
	EXISTING PUBLIC SEWER EASEMENT
	PROPOSED PUBLIC WATER/SEWER EASEMENT
	PROPOSED BMP AREA
	PROPOSED PRIVATE ACCESS EASEMENT
	PROPOSED GENERAL UTILITY EASEMENT
	PROPOSED PRIVATE STORM EASEMENT

- UTILITY EASEMENT NOTES**
1. Water: All water mains and fire hydrants to be centered in a 20-foot Exclusive Public Water Easement.
 2. Sewer: All public sewer mains and manholes are to be in a 20-foot Exclusive Public Sewer Easement.
 3. Storm: All storm lines on site are to be private and shall be located in a 10-foot Private Drainage Easement.
 4. Electric: All HEC electric mains and transformers are to be in a 10-foot general utility easement. The easement shall be centered upon the as-built alignment of the installed lines.

Date: 4-7-21
 Scale: AS SHOWN
 Designed by: EHB
 Drawn by: BWK/RIJ
 Checked by: EHB

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 PHONE: (540)432-9555 FAX: (540)334-7604
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Revision Dates

PROPOSED EASEMENTS
 VINE ST. TOWNHOMES
 BASU SATYAL
 1577 SPRING HILL RD. SUITE 300B
 VIENNA, VA. 22182

Drawing No.
3
 of 3 Sheets

Job No. 2876