Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Ann F. Jennings
Secretary of Natural and Historic Resources

David K. Paylor
Director
(804) 698-4000

October 21, 2021

Bill Mawyer
Rivanna Water & Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902

BY E-MAIL: bmawyer@rivanna.org
RECEIPT CONFIRMATION REQUESTED

RE: Joint Permit Application Number 21-1154
Urban Water System Withdrawal, Albemarle County, Virginia
Additional Information and Permit Application Fee Request Letter

Dear Mr. Mawyer:

The Virginia Department of Environmental Quality (DEQ) received your application dated May 19, 2021 for the above-referenced project on June 15, 2021. DEQ is evaluating your application under the Virginia Water Protection (VWP) Permit Program, in accordance with 9VAC25-210. The following information is required to complete your application:

1. In accordance with 9VAC25-210-80 B 1 h, provide a copy of the approved Wetland Jurisdictional Confirmation from the Army Corps of Engineers and delineation map, or if one has not been received, a copy of your submitted request for a jurisdictional determination from the Corps.
    a. At a minimum, the areas where 30% or more of the design has been completed (as is the case for both pipeline projects) and the intake, should be obtainable or already in process.
    b. Please provide delineations for all areas proposed to be constructed during this permit term, to determine the linear feet/acreage of impacts to be permitted.
2. Provide a project schedule covering the next 15-20 years, inclusive of permit review and potential upcoming permit term (9VAC25-210-80 B 1 d). This timeline should note the current projected timeline for each of the various projects noted in the JPA, with easement acquisition, design completion, and start/completion of construction.
3. In accordance with 9VAC25-210-80 B 1 g, provide additional alternatives analysis and avoidance and minimization for the proposed construction activities. The statements on submission Pages 13 and 50 noting RWSA's intent to minimize impacts and continue compliance "with the resource assessments and mitigation requirements established under the existing permit for the remaining infrastructure" are not sufficient to evaluate the proposed impacts.
    a. Include a mitigation plan for all the proposed permanent impacts, in accordance with 9VAC25-210-80 B 1 m. Compensation/mitigation requirements may have changed since the issuance of the 2006 permit.
4. Submit a table of permitted impacts and mitigation from VWP Permit No. 06-1574, noting type, impacts taken, any permitted impacts remaining, as well as what authorized or projected additional stream and

wetland impacts (both temporary and permanent) are proposed for the RMR to SFRR pipeline project (1 mile of 9 completed) and related intakes/pump stations (9VAC25-210-80 B 1 h).
    a. Include details regarding expected impacts of the applicable stream crossings noted in the JPA Table 7. It appears that 6 or 7 of these crossings apply to this project, with the remaining crossings part of the RMR to Observatory pipeline project.
5. Provide a table of projected impacts for the 2.6 miles of pipeline from RMR to Observatory WTP, as that was not included in the initial permit and may have wetland and/or surface water impacts, including the 3-4 applicable stream crossings noted in JPA Table 7 (9VAC25-210-80 B 1 h).
6. Submit a separate table of additional permanent and temporary impacts projected for the following projects (expected to be completed within the upcoming permit term) and/or confirmation for any of these projects that will create no new or additional impacts on an already mitigated footprint (9VAC25-210-80 B 1 h):
    a. New raw water intake and low lift station at the SFRR
    b. Pre-treatment facility at SFRR
    c. Expansion of the water treatment facilities at the Observatory and SFRR WTPs
    d. Release structures to meter flows and release water to the streams
7. In accordance with 9VAC25-210-80 B 1 i, provide plan view drawings of the project site sufficient to assess the project that includes the location of wetland and stream impacts. The map (dated 4/4/2018) on the RWSA website roughly aligns with the "Figure 13: RMR to SRR Pipeline Wetland Stream Crossing Locations" map provided in your JPA documentation; however, Figure 13 is not a formal plan view drawing and lacks a sufficient level of detail for analysis. Figure 13, for example, does not provide any orientation reference points (road, area, and/or landmarks to allow for comparison and specific placement), a scale reference, a North arrow, date (as project is still in partial planning, this is an important detail), etc. Additionally, Figure 13 appears to vary in both route, scale, and details from that noted on the website, and this discrepancy must be clarified.
8. Discuss expected general design parameters (such as directional drilling, number of crossings, etc.) in order to allow for appropriate assessment of construction related impacts and practices which will be applied to RMR to SFRR pipeline project, RMR to Observatory WTP pipeline, and the four projects noted in item #5 (above).
    a. A future permit modification may be necessary where sufficient detail to assess impacts, alternatives, and avoidance and minimization is not available at this time.
    b. JPA page 19 (page 67 of submission) notes: "details of construction practices and materials to be used for utility crossings will be defined as the design of the pipeline is progressed" is not sufficient to evaluate the project impacts.
9. Discuss expected general design parameters (specifically the maximum design parameters for withdrawal velocity and intake screen mesh size, etc.), with final design specifics later appropriately conveyed and handled through the modification process, similar to that noted above. JPA page 22 (page 70 of submission) notes for the intake: "TBD/concept being developed", is insufficient.
10. A permit application fee of $25,000 is required to complete the application. DEQ will continue processing the permit application; however, a draft permit cannot be issued until the required permit application fee is deposited by the DEQ Receipts Control department. Checks or money orders should be made payable to the Treasurer of Virginia. Do not send cash. Please complete the enclosed Permit Application Fee Form and mail with the designated fee to the following address: DEQ, Receipts Control, P.O. Box 1104, Richmond, Virginia 23218.

DEQ understands that untaken authorized and projected additional impacts may change slightly, once final design and easement acquisition are complete, and these changes must be conveyed and handled through the modification process as appropriate

Please submit the information to my attention by **November 22, 2021** so that DEQ can continue to process your application. Please be advised that upon receipt of the requested information, additional information may still be required for DEQ to reach a permit decision.

Please contact me by phone at (804) 814-6954 or email at Shana.Moore@deq.virginia.gov if you have any questions or concerns regarding this request. Thank you for your cooperation in this matter.

Respectfully,

Shana Moore
Water Withdrawal Permit Writer

Enclosure: Permit Application Fee Form

Cc (by e-mail):
Joseph Grist, Water Withdrawal Permitting and Compliance Manager
Laura Galli, Water Withdrawal Permitting Team Lead
Andrea Bowles, RWSA
Jennifer Whitaker, RWSA
Aaron Duke, Hazen and Sawyer
Vincent Pero, U.S. Army Corps of Engineers

Hazen and Sawyer
498 Seventh Avenue, 11th Floor
New York, NY 10018 • 212.539.7000

July 11, 2021

Kathy Dobbie
Water Withdrawal Permit Writer
Virginia Department of Environmental Quality
1111 E. Main Street, Suite 1400
Richmond, VA 23219

Re: JPA 21-1154 Additional Information

Dear Ms. Dobbie:

The purpose of this letter is to provide additional information in response to the Virginia Department of Environmental Quality (DEQ) request for additional information related to Joint Permit Application (JPA) No. 21-1154 and dated October 21, 2021. Hazen and Sawyer (Hazen), on behalf of the Rivanna Water and Sewer Authority (RWSA), is responding to the request for additional information and supporting details regarding the subject application. JPA No. 21-1154 supports RWSA's ongoing activities related to the Community Water Supply Plan (CWSP), the planning for which began in the early 2000s and continues to this day and forms the basis of RWSA's long-term plan for drinking water supply to the City of Charlottesville and other residents of Albemarle County.

Hazen and RWSA met on several occasions to discuss the requested additional information and to develop the materials to support the response. There are several documents enclosed with this letter that form our team's collective response to the additional information request. These documents include:

- Summary table of review comments noting the information included in this submittal.
- A summary memorandum that provides additional information on wetlands and stream delineations, crossing details and notes, and impacts/mitigation summary tables.
- Phase IA Cultural Resource Survey of the Rivanna Water and Sewer Authority Community Water Supply Plan, Albemarle County, Virginia
- Jurisdictional Determination Request submitted to the USACE.

Very truly yours,

Aaron W. Duke, PE, BCEE
Associate Vice President

Enclosures
cc: file; by email: J. Grist (DEQ); J. Whitaker, A. Bowles (RWSA)

Job no. 31430-005

Rivanna Water and Sewer Authority
Urban System VWP Renewal
Project Number: 31430-005
JPA # 21-1154
DEQ NOD Comments Dated 10/21/21

#	COMMENT	RESPONSE 11/19/21	Additional information provided July 2022
1	In accordance with 9VAC25-210-80 B 1 h, provide a copy of the approved Wetland Jurisdictional Confirmation from the Army Corps of Engineers and delineation map, or if one has not been received, a copy of your submitted request for a jurisdictional determination from the Corps.	Per the current permit "At least ninety (90) days prior to construction, the permitee shall submit to the Corps the selected pipeline alignment and identify all waters and/or wetlands crossings." Therefore, wetlands delineations are underway and have not been completed for the project elements currently being designed. RWSA will submit this information to DEQ when it is available.	JD application included with July 2022 submittal
1.a	At a minimum, the areas where 30% or more of the design has been completed (as is the case for both pipeline projects) and the intake, should be obtainable or already in process.		
1.b	Please provide delineations for all areas proposed to be constructed during this permit term, to determine the linear feet/acreage of impacts to be permitted.		See section 1 of the July 2022 Supporting Information Memo
2	Provide a project schedule covering the next 15-20 years, inclusive of permit review and potential upcoming permit term (9VAC25-210-80 B 1 d). This timeline should note the current projected timeline for each of the various projects noted in the JPA, with easement acquisition, design completion, and start/completion of construction.	The overall program schedule for the remaining elements of the Community Water Supply Plan are shown on the attached Microsoft Project schedule arranged by program element.	
3	In accordance with 9VAC25-210-80 B 1 g, provide additional alternatives analysis and avoidance and minimization for the proposed construction activities. The statements on submission Pages 13 and 50 noting RWSA's intent to minimize impacts and continue compliance "with the resource assessments and mitigation requirements established under the existing permit for the remaining infrastructure" are not sufficient to evaluate the proposed impacts.	Refer to attached Additional Supporting Information document dated 11/19/21.	
3.a	Include a mitigation plan for all the proposed permanent impacts, in accordance with 9VAC25-210-80 B 1 m. Compensation/mitigation requirements may have changed since the issuance of the 2006 permit.	The only potential permanent impacts identified may be associated with the new intake facility at the South Rivanna Reservoir (SRR). However, the project is in the conceptual planning stages and impacts cannot be quantified at this stage. All other impacts are will be temporary. Refer to attached Additional Supporting Information document dated 11/19/21.	See section 3 of the July 2022 Supporting Information Memo
4	Submit a table of permitted impacts and mitigation from VWP Permit No. 06-1574, noting type, impacts taken, any permitted impacts remaining, as well as what authorized or projected additional stream and wetland impacts (both temporary and permanent) are proposed for the RMR to SFRR pipeline project (1 mile of 9 completed) and related intakes/pump stations (9VAC25-210-80 B 1 h).	Refer to attached Additional Supporting Information document dated 11/19/21.	See section 3 of the July 2022 Supporting Information Memo
4.a	Include details regarding expected impacts of the applicable stream crossings noted in the JPA Table 7. It appears that 6 or 7 of these crossings apply to this project, with the remaining crossings part of the RMR to Observatory pipeline project.	Refer to attached Additional Supporting Information document dated 11/19/21.	See section 1 of the July 2022 Supporting Information Memo
5	Provide a table of projected impacts for the 2.6 miles of pipeline from RMR to Observatory WTP, as that was not included in the initial permit and may have wetland and/or surface water impacts, including the 3-4 applicable stream crossings noted in JPA Table 7 (9VAC25-210-80 B 1 h).	Note that the pipeline from RMR to Observatory WTP was included in the original permit. Refer to Item 4 of the project description in permit 06-V1574 "4. A new pipeline from RMR to the Observatory Water Treatment Plant;" Refer to attached Additional Supporting Information document dated 11/19/21.	See section 3 of the July 2022 Supporting Information Memo
6	Submit a separate table of additional permanent and temporary impacts projected for the following projects (expected to be completed within the upcoming permit term) and/or confirmation for any of these projects that will create no new or additional impacts on an already mitigated footprint (9VAC25-210-80 B 1 h):	See responses for each sub-item,	
6.a	New raw water intake and low lift station at the SFRR	The new raw water intake facility at the South Rivanna Reservoir (SRR) is expected to result in some impacts to surface water. However, the project is in the conceptual planning stages and impacts cannot be quantified at this stage. Refer to attached Additional Supporting Information document dated 11/19/21.	See section 3 of the July 2022 Supporting Information Memo

Rivanna Water and Sewer Authority
Urban System VWP Renewal
Project Number: 31430-005
JPA # 21-1154
DEQ NOD Comments Dated 10/21/21

#	COMMENT	RESPONSE 11/19/21	Additional information provided July 2022
6.b	Pre-treatment facility at SFRR	No permanent or temporary surface water impacts are projected for this project. Refer to attached Additional Supporting Information document dated 11/19/21.	
6.c	Expansion of the water treatment facilities at the Observatory and SFRR WTPs	No permanent or temporary surface water impacts are projected for this project. Refer to attached Additional Supporting Information document dated 11/19/21.	
6.d	Release structures to meter flows and release water to the streams	This project is complete.	
7	In accordance with 9VAC25-210-80 B 1 i, provide plan view drawings of the project site sufficient to assess the project that includes the location of wetland and stream impacts. The map (dated 4/4/2018) on the RWSA website roughly aligns with the "Figure 13: RMR to SRR Pipeline Wetland Stream Crossing Locations" map provided in your JPA documentation; however, Figure 13 is not a formal plan view drawing and lacks a sufficient level of detail for analysis. Figure 13, for example, does not provide any orientation reference points (road, area, and/or landmarks to allow for comparison and specific placement), a scale reference, a North arrow, date (as project is still in partial planning, this is an important detail), etc. Additionally, Figure 13 appears to vary in both route, scale, and details from that noted on the website, and this discrepancy must be clarified.	Refer to attached Additional Supporting Information document dated 11/19/21.	See section 1 of the July 2022 Supporting Information Memo
8	Discuss expected general design parameters (such as directional drilling, number of crossings, etc.) in order to allow for appropriate assessment of construction related impacts and practices which will be applied to RMR to SFRR pipeline project, RMR to Observatory WTP pipeline, and the four projects noted in item #5 (above).	Refer to attached Additional Supporting Information document dated 11/19/21.	See section 1 of the July 2022 Supporting Information Memo
8.a	A future permit modification may be necessary where sufficient detail to assess impacts, alternatives, and avoidance and minimization is not available at this time.	No response required.	
8.b	JPA page 19 (page 67 of submission) notes: "details of construction practices and materials to be used for utility crossings will be defined as the design of the pipeline is progressed" is not sufficient to evaluate the project impacts.	Refer to attached Additional Supporting Information document dated 11/19/21.	See section 2 of the July 2022 Supporting Information Memo
9	Discuss expected general design parameters (specifically the maximum design parameters for withdrawal velocity and intake screen mesh size, etc.), with final design specifics later appropriately conveyed and handled through the modification process, similar to that noted above. JPA page 22 (page 70 of submission) notes for the intake: "TBD/concept being developed", is insufficient.	The maximum withdrawal velocity will be 0.25 ft/s and the intake screen mesh size will be 1 mm for the proposed intake per the document "Design Criteria for Fish Screens in Virginia: Recommendations Based on a Review of the Literature" prepared for the Virginia Department of Wildlife Resources (formerly the Department of Game and Inland Fisheries).	
10	A permit application fee of $25,000 is required to complete the application. DEQ will continue processing the permit application; however, a draft permit cannot be issued until the required permit application fee is deposited by the DEQ Receipts Control department. Checks or money orders should be made payable to the Treasurer of Virginia. Do not send cash. Please complete the enclosed Permit Application Fee Form and mail with the designated fee to the following address: DEQ, Receipts Control, P.O. Box 1104, Richmond, Virginia 23218.	RWSA will submit payment to DEQ under separate cover.	

Community Water Supply Plan Project Elements Additional Supporting Information

Joint Permit Application Number 21-1154

Rivanna Water and Sewer Authority Urban Water System

Albemarle County, Virginia

July 2022

This memo provides additional supporting information to address comments raised by the Virginia Department of Environmental Quality in its letter to the Rivanna Water and Sewer Authority dated October 21, 2021, in regards to its Joint Permit Application Number 21-1154.

This memo includes:

1. Wetlands and Stream Crossing Delineations
2. Wetlands and Stream Crossing Details and Notes
3. Wetland and Stream Impacts and Mitigation Tables

32380-002

1. Wetlands and Stream Crossing Delineations

	Impact Site Number 1	Impact Site Number 2	Impact Site Number 3	Impact Site Number 4	Impact Site Number 5	Impact Site Number 6	Impact Site Number 7	Impact Site Number 8	Impact Site Number 9
Impact Description	EX, NT, TE, PR, NV (pipe installation)	EX, NT, TE, IN, NV (pipe installation)	EX, NT, TE, PR, NV (pipe installation)	EX, NT, IN, NV (pipe installation)	EX, NT, PR, NV (pipe installation)	EX, NT, TE, V (pipe installation)	EX, NT, TE, PR, NV (pipe installation)	EX, NT, TE, PR, NV (pipe installation)	EX,NT, TE, IN, NV (pipe installation)
Latitude / Longitude	38.079845 -78.504368	38.079644 -78.509211	38.0771941 -78.512665	38.070873 -78.522482	38.070764 -78.522565	38.070873 -78.522585	38.057616 -78.530327	38.035586 -78.535968	38.032587 -78.536735
Wetlands / Waters impact area	n/a	n/a	n/a	n/a	n/a	135/0.003	n/a	n/a	n/a
Dune / beach impact area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Stream dimensions at impact site	64/8/512	61/7/417	65/12/780	61/2/122	78/4/312	n/a	65/3/195	66/10/660	67/2/134
Volume of fill below Mean High Water or Ordinary High Water	0	0	0	0	0	n/a	0	0	0
Cowardin classification of impacted wetland / water	Class C	Class C	Class C	Class C	Class C	PEM1E	Class C	Class C	Class C
Average stream flow at site	0.1	0.1	0.6	0.1	0.1	n/a	0.5	0.8	0.1
Contributing drainage area	50 acres	7 acres	400 acres	4 acres	10 acres	n/a	85 acres	550 acre	6 acres
DEQ classification of impacted resource(s)	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Water Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III

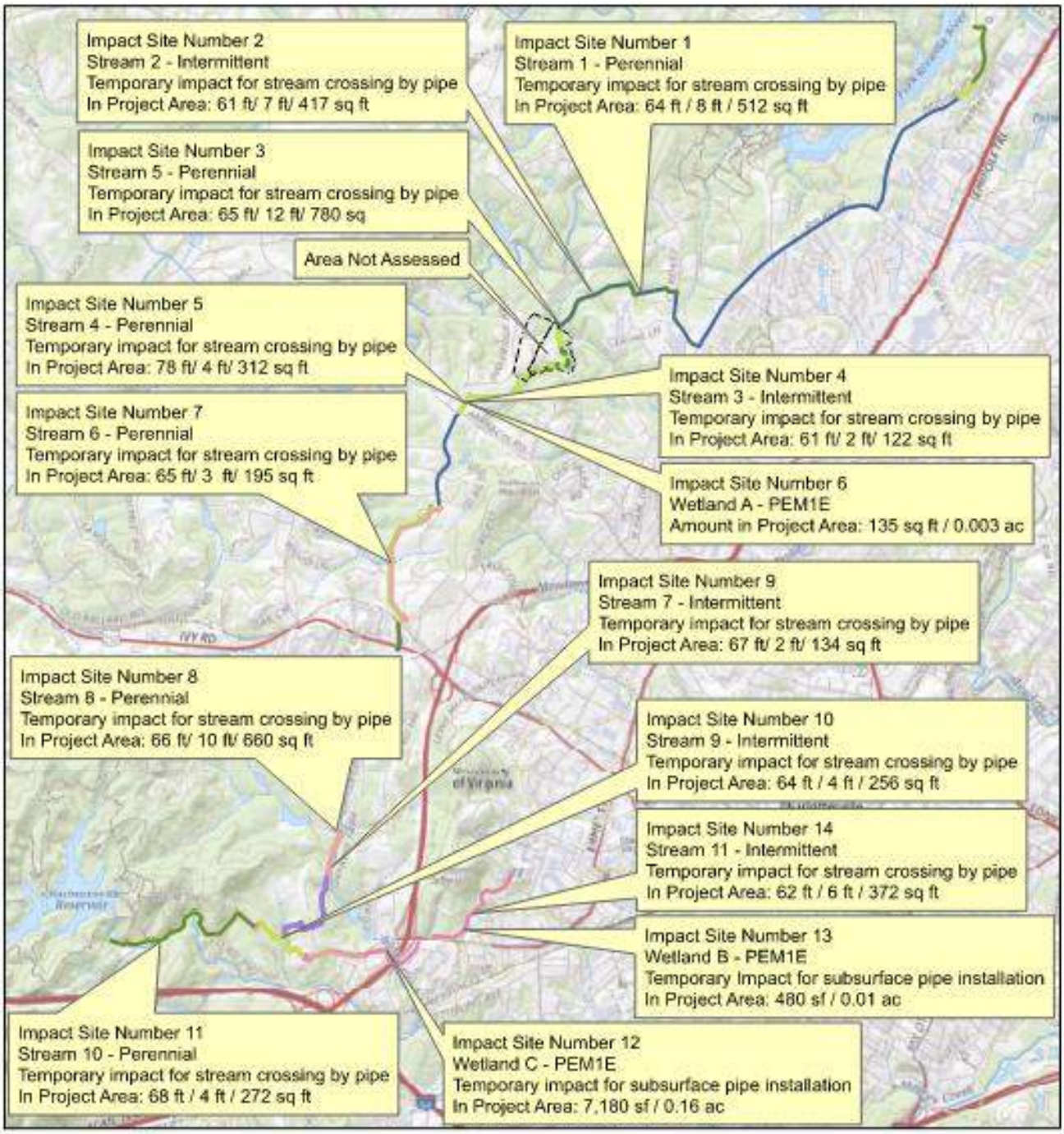
32380-002

	Impact Site Number 10	Impact Site Number 11	Impact Site Number 12	Impact Site Number 13	Impact Site Number 14
Impact Description	EX, NT, TE, PR, NV (pipe installation)	EX, NT, TE, PR, NV (pipe installation)	EX, NT, TE, V (pipe installation)	EX, NT, TE, V (pipe installation)	EX, NT, TE, IN, NV (pipe installation)
Latitude / Longitude	38.032706 -78.536699	38.026466 -78.554981	38.026766 -78.541632	38.027473 -78.522665	38.028794 -78.521769
Wetlands / Waters impact area	n/a	n/a	7,180/0.16	480/0.01	n/a
Dune / beach impact area	n/a	n/a	n/a	n/a	n/a
Stream dimensions at impact site	64/4/256	68/4/272	n/a	n/a	62/6/372
Volume of fill below Mean High Water or Ordinary High Water	0	0	0	0	0
Cowardin classification of impacted wetland / water	Class C	Class C	PEM1E	PEM1E	Class C
Average stream flow at site	0.2	0.1	n/a	n/a	0.1
Contributing drainage area	108 acres	55 acres	n/a	n/a	18 acres
DEQ classification of impacted resource(s)	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III	Non-tidal Waters Class III

Hazen

RIVANNA WATER & SEWER AUTHORITY

JURISDICTIONAL FEATURES MAP
Proposed Raw Water Main Project
Rivanna Water & Sewer
Charlottesville, Virginia



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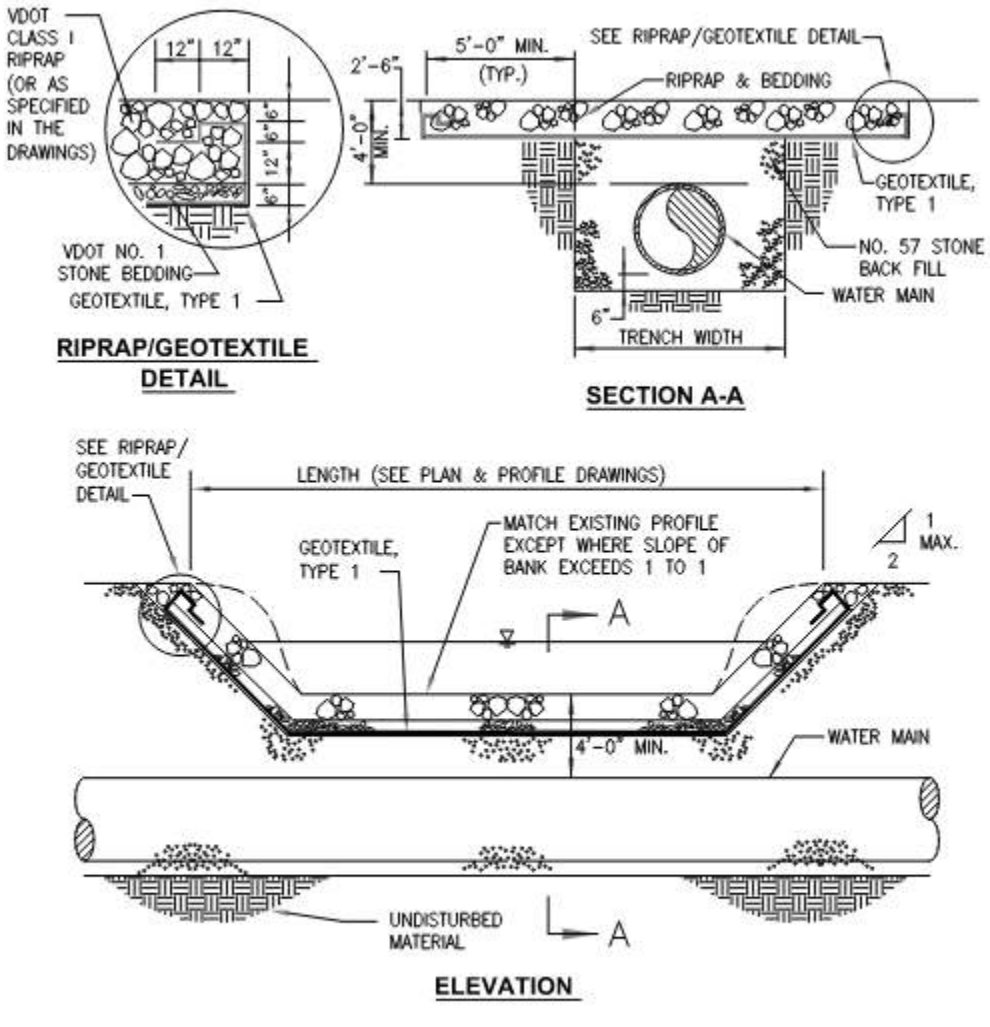
2. Wetlands and Stream Crossing Details and Notes

2.1 Stream Utility Crossing Details



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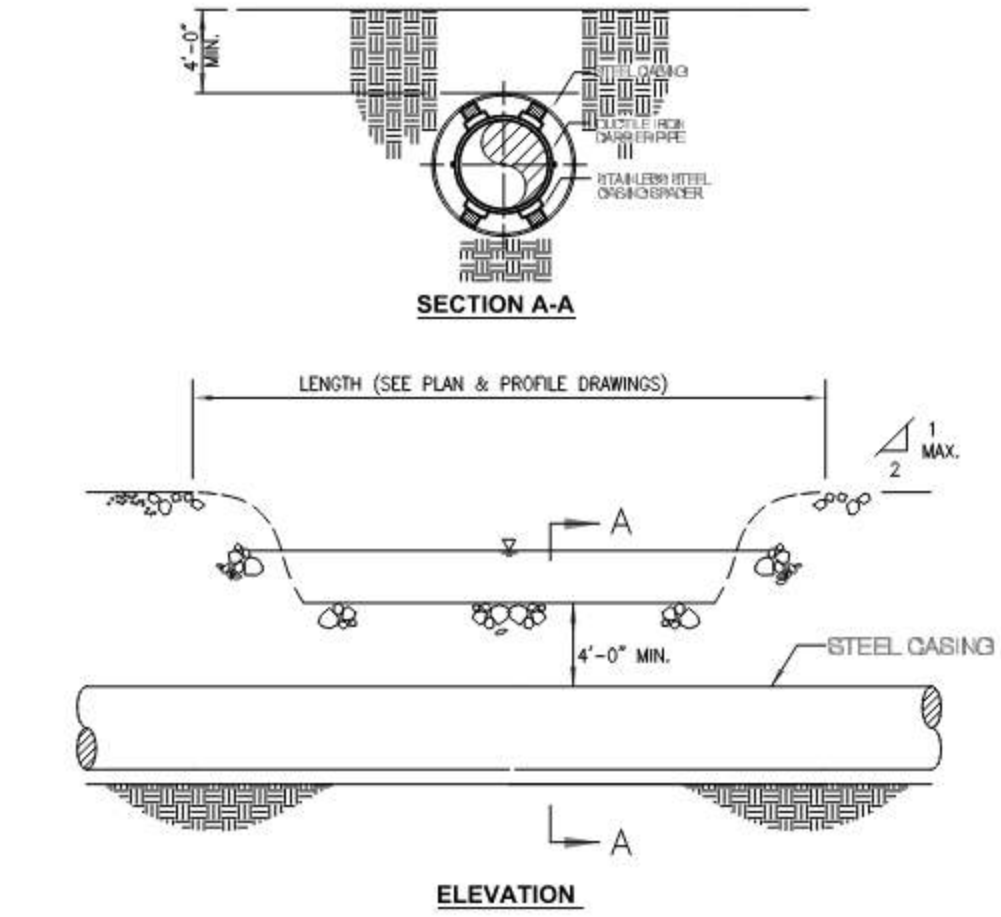

JACK AND BORE STREAM CROSSING

2.2 Stream Utility Crossing Procedure Notes

1. CLEARING SHALL BE DONE BY CUTTING, NOT GRUBBING THE ROOTS AND STUMPS SHALL BE LEFT IN PLACE TO HELP STABILIZE THE BANKS AND ACCELERATE REVEGETATION.

2. CROSSING WIDTH - THE WIDTH OF CLEARING SHALL BE MINIMIZED THROUGH THE RIPARIAN AREA. THE LIMITS OF DISTURBANCE SHALL BE AS NARROW AS POSSIBLE INCLUDING NOT ONLY CONSTRUCTION OPERATIONS WITHIN THE CHANNEL ITSELF BUT ALSO CLEARING DONE THROUGH THE VEGETATION GROWING ON THE STREAM BANKS AND APPROACHES TO THE STREAM. THE LIMITS OF DISTURBANCE AT THE STREAM CROSSING SHALL NOT EXCEED 40 FEET IN WIDTH.

3. NO CONSTRUCTION VEHICLE CROSSING IS PERMITTED IN THE CREEK.

4. CONTROL RUNOFF ALONG THE RIGHT-OF-WAY TO PREVENT SEDIMENT-LADEN RUNOFF FROM FLOWING TO THE STREAM. RUNOFF SHALL BE DIVERTED TO SEDIMENT FILTERING DEVICES AT A MINIMUM OF 50 FEET FROM THE STREAM.

5. THE TIME BETWEEN INITIAL DISTURBANCE OF THE STREAM AND FINAL STABILIZATION SHALL BE KEPT TO A MINIMUM. CONSTRUCTION SHALL NOT BEGIN ON THE CROSSING UNTIL THE UTILITY LINE IS IN PLACE TO WITHIN 50 FEET OF THE STREAM BANK.

6. TO THE EXTENT OTHER CONSTRAINTS ALLOW, STREAMS SHALL BE CROSSED DURING PERIODS OF LOW FLOW.

7. FILL PLACED WITHIN THE CHANNEL - THE ONLY FILL PERMITTED IN THE CHANNEL SHALL BE CLEAN AGGREGATE, STONE, OR ROCK. NO SOIL OR OTHER FINE ERODIBLE MATERIAL SHALL BE PLACED IN THE CHANNEL. THIS RESTRICTION INCLUDES ALL FILL FOR TEMPORARY CROSSINGS, DIVERSIONS, AND TRENCH BACKFILL WHEN PLACED IN FLOWING WATER. IF THE STREAM FLOW IS DIVERTED AWAY FROM THE CONSTRUCTION ACTIVITY, THE MATERIAL ORIGINALLY EXCAVATED FROM THE TRENCH MAY BE USED TO BACKFILL THE TRENCH.

8. SEDIMENT-LADEN WATER FROM PUMPING OR DEWATERING SHALL NOT BE DISCHARGED DIRECTLY TO A STREAM. FLOW SHALL BE ROUTED THROUGH A SEDIMENT FILTERING DEVICE, DEWATERING SUMP, OR A FLAT, WELL-VEGETATED AREA ADEQUATE FOR REMOVING SEDIMENT BEFORE THE PUMPED WATER REACHES THE STREAM.

9. MATERIAL EXCAVATED FROM THE TRENCH SHALL BE PLACED AT LEAST 20 FEET FROM THE STREAM BANK TOPS AND SURROUNDED WITH SILT FENCE TO MINIMIZE SEDIMENT-LADEN RUNOFF.

10. STREAM BANK/CHANNEL RESTORATION - STREAM BANKS/CHANNELS SHALL BE RESTORED TO THEIR ORIGINAL LINE AND GRADE AND STABILIZED WITH RIPRAP OR VEGETATIVE BANK STABILIZATION.

2.3 Wetland Construction Area Notes

IN THE AREAS DESIGNATED AS WETLANDS, AS SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL ABIDE BY THE CONDITIONS OF VA DEQ AND THE US ARMY CORPS OF ENGINEERS 401/404 PERMITS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. PERIMETER SEDIMENT AND EROSION CONTROL MEASURES SUCH AS SILT FENCING SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE.

2. THE CONSTRUCTION CORRIDOR (INCLUDING ACCESS ROADS AND STOCKPILING OF MATERIALS) IS LIMITED TO 40 FEET IN WIDTH IN WETLANDS AND MUST BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL.

3. THE GENERAL CERTIFICATION DOES NOT AUTHORIZE ANY PERMANENT CHANGES IN PRE-CONSTRUCTION ELEVATION CONTOURS IN WATERS OR WETLANDS. THE CONTRACTOR SHALL HAVE A SPECIFIC PLAN FOR RESTORING WETLAND CONTOURS. ANY EXCESS MATERIAL SHALL BE REMOVED TO A HIGH GROUND DISPOSAL AREA.

4. TOP 12" OF EXCAVATED SOILS IN WETLANDS AREAS TO BE STOCKPILED AND REPLACED IN WETLANDS AREAS AS TOPSOIL PRIOR TO SEEDING.

5. ANY DEWATERING WILL BE DISCHARGED EITHER INTO A SEDIMENTATION DEVICE OR A SILT BAG PRIOR TO DISCHARGE BACK IN TO THE WETLANDS AREA.

6. MEASURES SHALL BE TAKEN TO PREVENT LIVE OR FRESH CONCRETE FROM COMING INTO CONTACT WITH WATERS OF THE US OR STATE UNTIL CONCRETE HAS HARDENED.

7. ANTI-SEEP COLLARS SHALL BE PLACED AT THE DOWNSTREAM (UTILITY LINE GRADIENT) WETLAND BOUNDARY AND EVERY 150 FEET UP THE GRADIENT UNTIL THE UTILITY EXITS THE WETLANDS FOR BURIED UTILITY LINES.

8. ANTI-SEEP COLLARS SHALL BE PLACED AT THE DOWNSTREAM (UTILITY LINE GRADIENT) BOUNDARY OF EVERY STREAM CROSSING. ANTI-SEEP COLLARS MAY BE CONSTRUCTED WITH CLASS B CONCRETE OR PRE-CAST UNITS SEALED WITH SILICONE-BASED SEALANT.

9. CONTRACTOR SHALL SEED WETLAND AREAS WITHIN 14 DAYS OF COMPLETING DISTURBANCE WITH 75+/AC BROWN TOP MILLET AND 75+/AC ANNUAL RYEGRASS. ADD 2000+/AC STRAW MULCH - NO FERTILIZER. PERENNIALS SUCH AS FESCUE ARE PROHIBITED.

10. NO FERTILIZER SHALL BE APPLIED WITHIN 10 FEET OF STREAMS.

11. DRAINAGE DITCHES INDICATED AS WETLANDS SHALL BE RECONSTRUCTED TO THEIR ORIGINAL CONTOURS, SEEDED IN ACCORDANCE WITH NO. 9 ABOVE AND STABILIZED WITH SURFACE EROSION CONTROL MATTING STAPLED TO THE SURFACE. SOIL EROSION MEASURES WITH BE INSTALLED TO PREVENT SCOURING OF THE DITCH DURING CONSTRUCTION.

12. FIBER FILTRATION TUBES SHALL BE PLACED ALONG THE WETLAND AND STREAM BOUNDARIES TO PREVENT SEDIMENT-LADEN RUN OFF FROM ENTERING WATERS.

13. ALL SEDIMENT AND EROSION CONTROL DEVICES PLACED IN WETLANDS SHALL BE REMOVED AND THE NATURAL GRADE RESTORED AFTER THE DIVISION OF LAND

RESOURCES HAS RELEASED THE PROJECT (DEGRADABLE FIBER FILTRATION TUBES MAY BE LEFT IN PLACE POST CONSTRUCTION). RESEED DISTURBED AREAS AS OUTLINED ABOVE.

3. Wetland and Stream Impacts and Mitigation Tables

Include a mitigation plan for all the proposed permanent impacts, in accordance with 9VAC25-210-80 B 1 m. Compensation/mitigation requirements may have changed since the issuance of the 2006 permit.

Submit a table of permitted impacts and mitigation from VWP Permit No. 06-1574, noting type, impacts taken, any permitted impacts remaining, as well as what authorized or projected additional stream and wetland impacts (both temporary and permanent) are proposed for the RMR to SFRR pipeline project (1 mile of 9 completed) and related intakes/pump stations (9VAC25-210-80 B 1 h).

3.1 Permanent Impacts

Table 3-1 summarizes the originally permitted and currently taken permanent wetlands impacts included in VWP Permit No. 06-1574. No additional projected wetland impacts have been identified beyond what was originally permitted for the project elements.

Table 3-1: Permanent Wetland Impacts Table

Project Element	Originally Permitted Impacts (ac)	Impacts Taken (ac)	Impacts Remaining (ac)
Raise Ragged Mt Dam	2.63	2.63	0
RMR to SRR Pipeline	0	0	0
RMR to SRR Raw Water Pump Station	0	0	0
SRR to RMR Raw Water Pump Station	0	0	0
RMR to OBS pipeline	0	0	0
SRR Intake and PS	0.06	0	0.06

- Raise Ragged Mt Dam – The impacted wetlands area was originally calculated in the document *Conceptual Stream & Wetland Mitigation Plan* (Dec 2006) at 2.61 ac, but was increased to 2.63 ac in the Major Modification No. 1 of VWP Individual Permit No. 06-1574 (Dec 28, 2011). All wetland impacts for raising the dam were taken once the pool was raised by 30 feet to its current level at 671 feet msl.

- SRR Intake and PS – Intake wetlands impacts were included in the VWP permit Major Modification No. 1 for open water fill associated with construction.

Table 3-2 summarizes the originally permitted and currently taken permanent stream impacts included in VWP Permit No. 06-1574. No additional projected stream impacts have been identified beyond what was originally permitted for the project elements.

Table 3-2: Permanent Stream Impacts Table

Project Element	Originally Permitted Impacts (lf)	Impacts Taken (lf)	Impacts Remaining (lf)
Raise Ragged Mt Dam	12,392	11,152.8	1,239.2
RMR to SRR Pipeline	0	0	0
RMR to SRR Raw Water Pump Station	0	0	0
SRR to RMR Raw Water Pump Station	0	0	0
RMR to OBS pipeline	0	0	0
SRR Intake and PS	0	0	0

- Raise Ragged Mt Dam – The impacted stream length was originally calculated in the document *Conceptual Stream & Wetland Mitigation Plan* (Dec 2006) at 14,435 linear feet (lf) for a full pool elevation of 686 feet. The stream mitigation was reduced to 12,392 lf in the Major Modification No. 1 of VWP Individual Permit No. 06-1574 (Dec 28, 2011) based on a full pool elevation of 683 feet. It is estimated that 90% of the stream lengths at RMR have been inundated once the pool was raised by 30 feet to its current level. The remaining 10% will be inundated when the pool is raised 12 feet to its final elevation at 683 feet msl.

3.2 Temporary Impacts

Table 3-3 summarizes the originally permitted temporary wetland impacts from VWP Permit No. 06-1574, along with the currently projected and currently taken temporary wetland impacts.

Table 3-3: Temporary Wetland Impacts Table

Project Element	Originally Permitted Impacts (ac)	Current Impact Projections (ac)	Impacts Taken (ac)	Impacts Remaining (ac)
Raise Ragged Mt Dam	0	0	0	0
RMR to SRR Pipeline	0.05	0.09	0	0.09
RMR to SRR Raw Water Pump Station	0	0	0	0
SRR to RMR Raw Water Pump Station	0	0	0	0
RMR to OBS pipeline	NA	0.18	0	0.18
SRR Intake and PS	0	0	0	0

- RMR to SRR pipeline – RMR to SRR pipeline temporary wetlands impacts were included in the VWP permit Major Modification No. 1. The values from the permit are updated based on recent wetlands delineations.

- RMR to OBS pipeline – The RMR to OBS pipeline was not mentioned in the VWP permit Major Modification No. 1. However, it was listed as part of the project in the US Army Corps Permit No. 06-V1574. No impacts were estimated in the original permit.

Table 3-4 summarizes the originally permitted temporary stream impacts from VWP Permit No. 06-1574, along with the currently projected and currently taken temporary stream impacts.

Table 3-4: Temporary Stream Impacts Table

Project Element	Originally Permitted Impacts (lf)	Current Impact Projections (lf)	Impacts Taken (lf)	Impacts Remaining (lf)
Raise Ragged Mt Dam	0	0	0	0
RMR to SRR Pipeline	693	693	0	693
RMR to SRR Raw Water Pump Station	0	0	0	0
SRR to RMR Raw Water Pump Station	0	0	0	0
RMR to OBS pipeline	NA	150	0	150
SRR Intake and PS	0	0	0	0

- RMR to SRR pipeline – RMR to SRR pipeline temporary stream impacts were included in the VWP permit Major Modification No. 1 for coffer dams and trenching at stream crossings.
- RMR to OBS pipeline – The RMR to OBS pipeline was not mentioned in the VWP permit Major Modification No. 1. However, it was listed as part of the project in the US Army Corps Permit No. 06-V1574. No impacts were estimated in the original permit.

3.3 Mitigation Requirements

Permanently impacted wetlands and streams require mitigation based on the ratios as described below. Mitigation ratios are from the *Conceptual Stream & Wetland Mitigation Plan* (Dec 2006).

Table 3-5: Wetlands Mitigation Requirements

Wetland Type	Impacted Area (ac)	Mitigation Ratio	Mitigation Area (ac)	Project Element
Forested wetlands[1]	0.81	2:1	1.62	Raise RMR Dam
Scrub-shrub wetlands[1]	0.08	1.5:1	0.12	Raise RMR Dam
Emergent wetlands[1]	1.73	1:1	1.73	Raise RMR Dam
Open Water Wetlands	0.06	1:1	0.06	SRR Intake
Totals	**2.68**		**3.53**	

1 – These wetlands areas are exactly as listed in the VWP permit Major Modification No. 1, but do not add up to the 2.63 ac value from the permit.

Table 3-6: Stream Mitigation Requirements

Impacted Stream Length (lf)	Mitigation Ratio[1]	Mitigation Length (lf)	Project Element
12,392	1.49	18,464	Raise RMR Dam

3.4 Mitigation Implementation

RWSA implemented mitigation at two sites to address the impacts and mitigation requirements for the project elements related to its Community Water Supply Plan. The Moores Creek site was designed to provide compensatory mitigation of wetland impacts. Mitigation included wetland creation, wetland enhancement, and upland riparian buffer enhancement during the initial construction in 2012 and 2013. The Buck Mountain site was designed to provide compensatory mitigation for stream impacts. This included stream channel enhancement, upland buffer enhancement, and preservation of all enhancement areas during the initial construction in 2012 and 2013. RWSA has been providing monitoring of these sites as required in the permit, and modification, as necessary, to achieve the mitigation objectives.

The original design for the Moores Creek wetlands mitigation site was to provide 4.0 ac of forested wetlands credit (Figure 3-1). Review of as-builts from 2012 and 2013 for the site identified an area of approximately 4.0 ac of new wetland. Drainage improvements to Moores Creek occurred in summer 2019 to improve water levels for the forested wetland system established in the area. Per the year 7 (2020) mitigation report, a steady increase was observed for woody stem counts and herbaceous cover from the 2018 monitoring period at the Moores Creek site. Invasive species eradication treatments were completed at the Moores Creek site in the summer of 2020 and the spring of 2022.

The original design for the Buck Mountain stream mitigation was to provide 19,672 lf of stream mitigation. Invasive species eradication treatments were completed at the Buck Mountain site in the summer of 2020 and again in the spring of 2022. Supplemental tree planting was completed in the summer of 2020 and occurred in spring 2021 (ECS, 2020). Recommendations from the year 7 report include continued monitoring of invasive species, monitoring of woody stem success at the Buck Mountain Creek site, and some corrective actions to ensure better stream channel stability at Buck Mountain Creek. The stream channel stabilization of the Buck Mountain stream restoration sites is taking place in 2022.

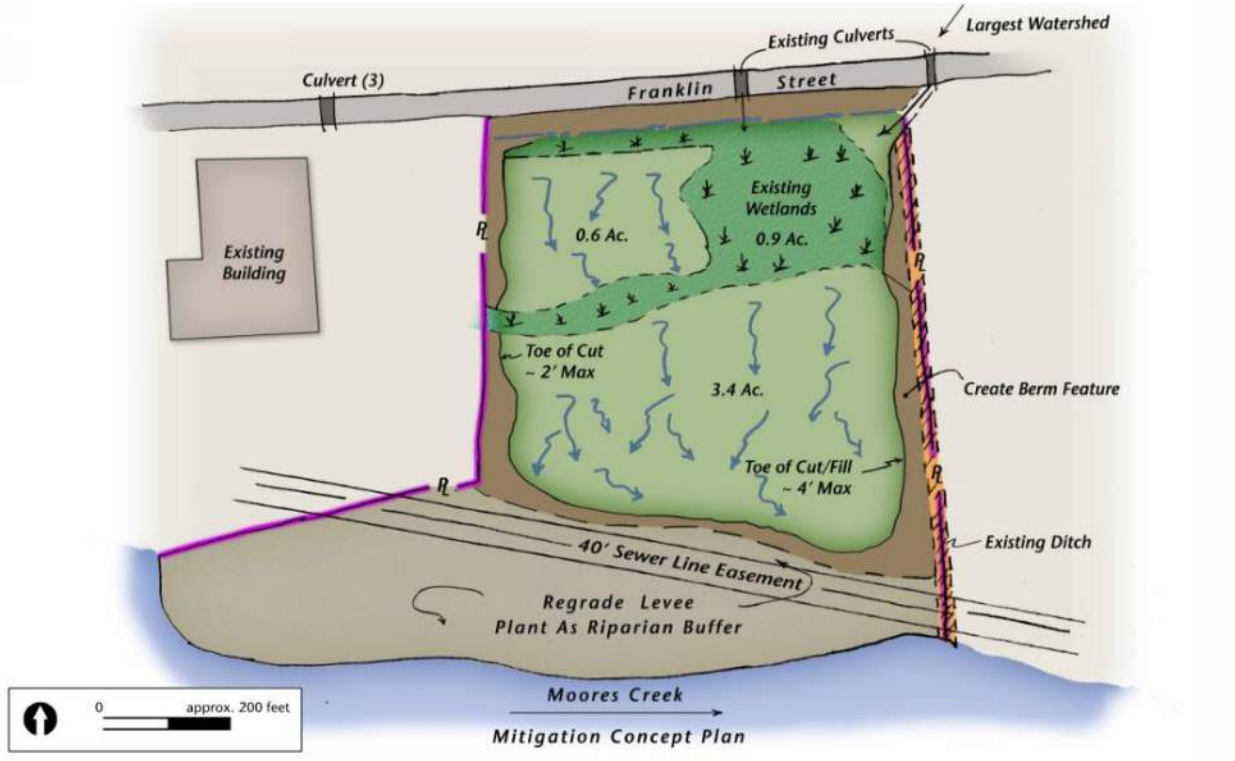

Figure 3-1: Moore's Creek Proposed Wetland Restoration Site

3.5 Impact and Mitigation Summary

Table 3-7 and Table 3-8 present summaries of the permanent and temporary impacts, impacts taken, impacts remaining, required mitigation, and mitigation implemented for the Community Water Supply Plan. Overall, there are no additional permanent impacts that would require mitigation projected for the remaining project elements. Further, all of the identified wetlands along the pipeline alignment are emergent, so there are no conversion impacts projected for the project.

Table 3-7: Summary of Permanent Impacts and Mitigation for the RWSA Community Water Supply Plan

	Permitted Impacts	Taken Impacts	Remaining Impacts	Required Mitigation	Mitigation Implemented	Surplus Mitigation
Wetlands	2.69 ac	2.63 ac	0.06 ac	3.53 ac	4.0 ac	+ 0.47 ac
Stream	12,392 lf	11,152.8 lf	1,239.2 lf	18,464 lf	19,672 lf	+ 1,208 lf

Table 3-8: Summary of Temporary Impacts for the RWSA Community Water Supply Plan

	Projected Impacts	Taken Impacts	Remaining Impacts
Wetlands	0.27 ac	0 ac	0.27 ac
Stream	843 lf	0 lf	843 lf

PHASE IA CULTURAL RESOURCE SURVEY OF THE RIVANNA WATER AND SEWER AUTHORITY COMMUNITY WATER SUPPLY PLAN, ALBERMARLE COUNTY, VIRGINIA

by

Curtis McCoy and Jonathan Valalik

Prepared for

Hazen and Sawyer

Prepared by

DOVETAIL
CULTURAL RESOURCE GROUP

May 2022

Phase IA Cultural Resource Survey of the Rivanna Water and Sewer Authority Community Water Supply Plan, Albemarle County, Virginia

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Dovetail Job #21-105
May 2022

Heather D. Staton — May 26, 2022

Heather D. Staton, Principal Investigator — Date
Dovetail Cultural Resource Group

May 26, 2022

Michael L. Carmody, Principal Investigator — Date
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ABSTRACT

On behalf of Hazen and Sawyer, Dovetail Cultural Resource Group (Dovetail) conducted a Phase IA cultural resource survey of the Rivanna Water and Sewer Authority (RWSA) community water supply plan project area in April 2022. The approximately 60,337-linear-foot (18,391-m) project area is located in Albemarle County, Virginia. The Phase IA survey was intended to determine the location, nature, and, if possible, extent, of any cultural features visible on the surface and to identify areas with the potential to contain archaeological sites or other cultural resources within the project area. The survey was conducted in order to determine whether a Phase IB survey of the project area is necessary prior to proposed development thereon. The survey was also meant to identify areas that do not warrant further Phase IB archaeological investigations due to inundation or other disturbance.

The Phase IA archaeological reconnaissance study included a pedestrian survey of the project area. No subsurface investigations were completed during this phase of work. The work resulted in the definition of locations suitable for subsurface archaeological survey within the project area based on the probability of encountering intact archaeological resources. Large portions of the project area have been purposely placed under existing roads and along existing utility corridors to minimize impacts of the proposed RWSA community water supply plan project. Approximately 16,462 linear feet (5,018 m) of the 60,337-foot (18,391-m) corridor has potential for cultural resources which warrant Phase IB archaeological survey. Although only minimal disturbance was noted outside of portions of the alignment under existing roads, significant portions of the project area are considered unsuitable for subsurface archaeological survey because of excessive slope. Three previously identified sites are located within the project area (44AB0427, 44AB0395, and 44AB0396). Sites 44AB0395 (a small lithic scatter) and 44AB0396 (a twentieth-century dwelling) appear to be completely demolished by the construction of Hydraulic Road, while site 44AB0427 appears intact, though previously recommended as not eligible for the National Register of Historic Places (NRHP). Based on the field findings, **Dovetail recommends that a Phase IB archaeological survey of 16,462 linear feet (5,018 m) of the 60,337-foot (18,391-m) project area is warranted.** Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals within areas deemed suitable for subsurface survey.

The Phase IA architectural study noted all previously recorded and all previously unrecorded above-ground resources 50 years of age or older within the project's architectural project area, defined as the project area and a 350-foot (106.7-m) buffer. Dovetail identified 39 previously recorded and 65 previously unrecorded resources. Two resources, Albemarle High School (002-5312) and the house at 113 Mimosa Drive (104-5267), were surveyed within the last five years. These two resources will not need to be resurveyed. The remaining 102 resources have either not been surveyed and evaluated for the NRHP within the last five years, have never received a formal NRHP eligibility determination, or are newly identified. **Dovetail recommends that these 102 resources should be the subject of a Phase IB reconnaissance-level survey.**

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TABLE OF CONTENTS

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List of Figures

List of Photos

List of Tables

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INTRODUCTION

On behalf of Hazen and Sawyer, Dovetail Cultural Resource Group (Dovetail) conducted a Phase IA cultural resource reconnaissance of the Rivanna Water and Sewer Authority (RWSA) community water supply plan project area. The approximately 60,337-linear-foot (18,391-m) project area is located in Albemarle County, Virginia (Figure 1–Figure 2, pp. 2–3). The survey complied with guidelines set forth by the Virginia Department of Historic Resources (DHR) on cultural resource studies and reports (DHR 2017).

The Phase IA survey was intended to determine the location, nature, and, if possible, extent, of any cultural features visible on the surface and to identify areas with the potential to contain archaeological sites or other cultural resources within the project area. The survey was also conducted in order to determine whether Phase IB survey of the project area is necessary prior to proposed development thereon, as well as identify areas that do not warrant further Phase IB archaeological investigations due to inundation or other disturbance.

The Phase IA cultural resource survey included an archaeological reconnaissance of the entire 60,337-linear-foot (18,391-m) project area and an architectural reconnaissance of the project area plus a 350-foot (107-m) buffer (referred to as the "architectural project area" in this report). The archaeological reconnaissance work resulted in the definition of locations suitable for subsurface archaeological survey within the project area based on the probability of encountering intact archaeological resources. The architectural study resulted in a roster of resources over 50 years in age in the architectural project area, noting those that warrant recordation at the Phase IB level.

The Phase IA study, conducted on April 20 and 21, 2022, included an archaeological pedestrian survey of the project area as well as a windshield architectural study of the architectural project area. No subsurface investigations or building documentation were completed during this phase of work. The archaeological component of the study was completed by Curtis McCoy and Jordan Scott. The architectural portion of the study was conducted by Jolene Keen, Jonathan Valalik, and Heather D. Staton. Mike Carmody and Heather D. Staton served as the Principal Investigators for the Phase IA study. Mr. Carmody and Mr. McCoy exceed the standards established for archaeologists by the Secretary of the Interior (SOI). Ms. Staton and Mr. Valalik meet or exceed the SOI standards for architectural historians.

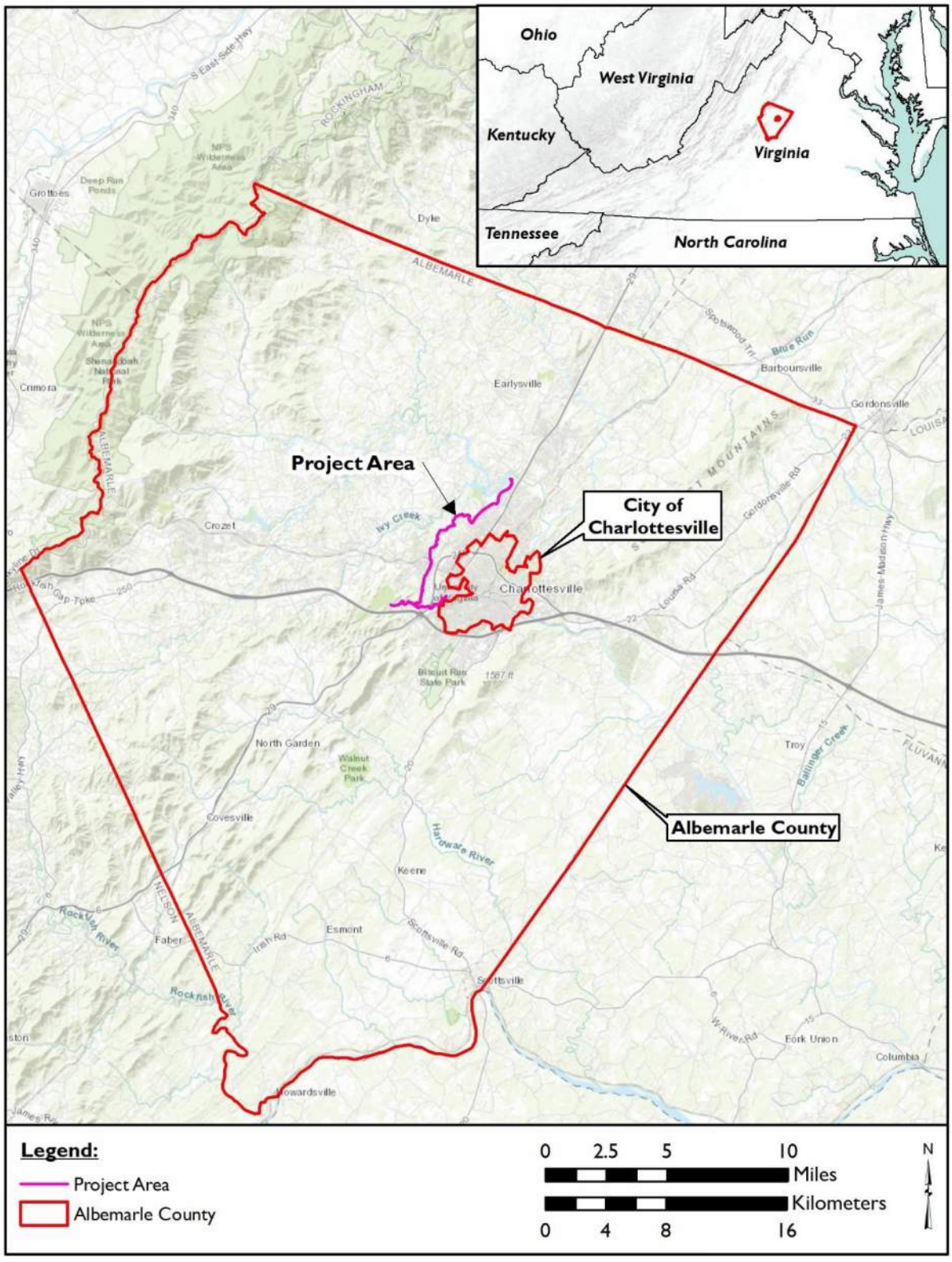

Figure 1: Map of Albemarle County, Virginia, and the Project Area Location (Esri 2021).

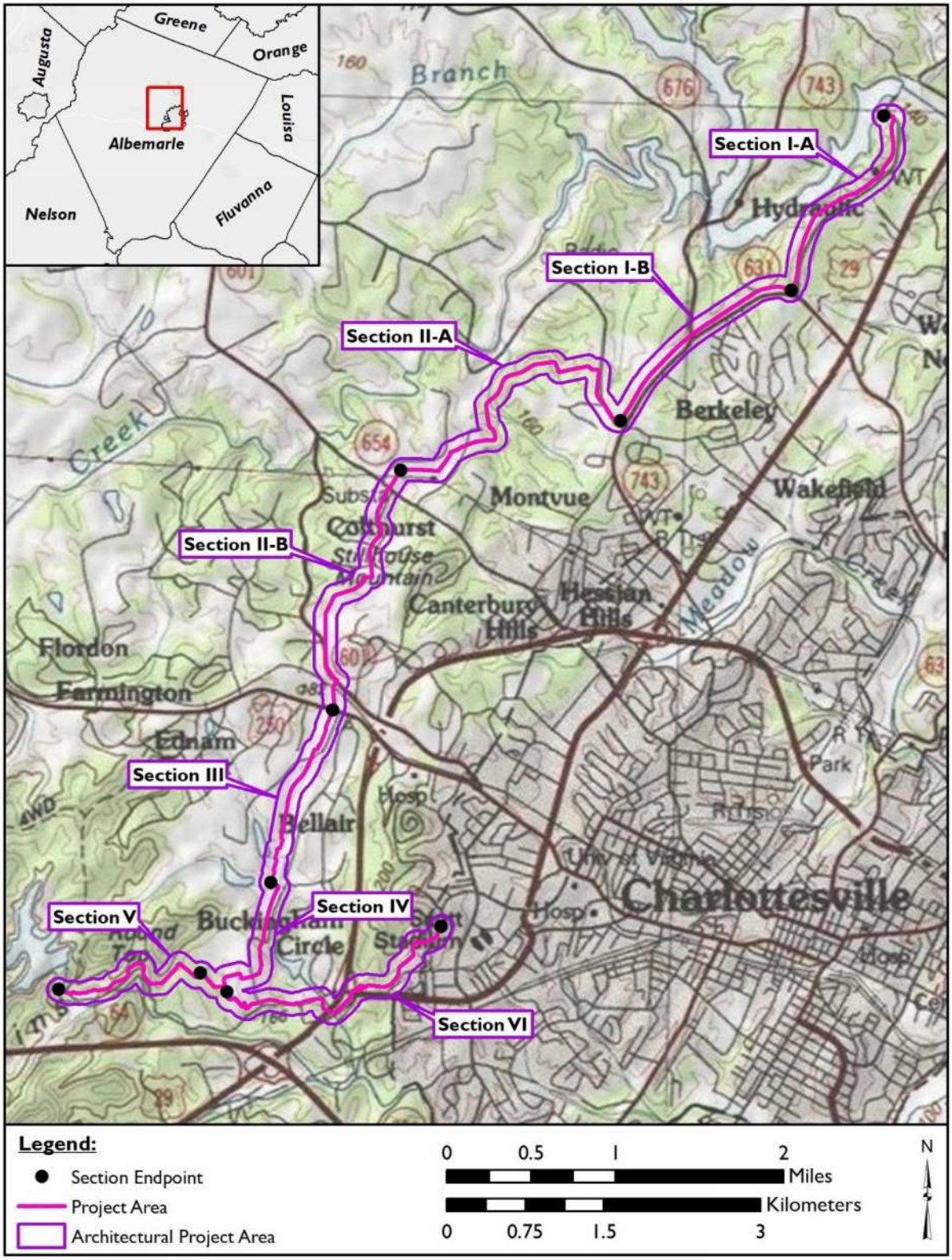

Figure 2: Location of the Project Area on the United States Geological Survey (USGS) Albemarle County, Virginia, 7.5 Minute Digital Raster Graphic Mosaic (Esri 2019).

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PROJECT AREA DESCRIPTION

The RWSA community water supply plan project area is located in central Albemarle County, Virginia, just west of Charlottesville city limits (Figure 3, p. 6). The project area was split into eight sections: Section I-A, I-B, II-A, II-B, III, IV, V, and VI.

Section I-A

Section I-A of the RWSA project area extends 7,212 feet (2,225 m) from the northern terminus southwest along Woodburn Road and Rio Road West. The northern portion of the alignment travels along the northwest side of Woodburn Road for 2,094 feet (638 m) until reaching a water tower on the north side of Woodburn Road where it crosses and travels along the southeast side of Woodburn Road for 5,118 feet (1,587 m). Elevations for Section I-A range from approximately 452 feet (138 m) to 604 feet (184 m) above mean sea level (AMSL).

Section I-B

Section I-B of the RWSA project area extends 7,109 feet (2,167 m) from its northern terminus at the intersection of Woodburn Road and Rio Road West south to the intersection of Hydraulic Road and Lambs Road. The proposed alignment follows the southbound lane of Rio Road West and Hydraulic Road, generally within the turn lanes and bike lanes. This alignment was selected to minimize construction disturbance and maximize construction in existing right-of-way and utility corridors. Elevations for Section I-B range from approximately 552 feet (168 m) to 596 feet (182 m) AMSL.

Section II-A

Section II-A of the RWSA project area extends 10,849 feet (3,307 m) from the intersection of Hydraulic Road and Lambs Road to the southern edge of Ingleridge Farm along Barracks Road. The proposed alignment turns from Hydraulic Road onto Lambs Road and stays in the northbound lane of Lambs Road before crossing behind Albemarle County School Board property. The alignment crosses two streams and a wetland. Elevations for Section II-A range from approximately 424 feet (129 m) to 596 feet (182 m) AMSL.

Section II-B

Section II-B of the RWSA project area extends 8,994 feet (2,741 m) from just north of Barracks Road to Ivy Road. The proposed alignment crosses Barracks Road and runs along Colthurst Drive until it reaches the University of Virginia Foundation (UVAF) property, also referred to as the “Westover” property. The alignment then follows the tree line along the edges of open fields to minimize impacts. It then crosses a CSX railroad line and Ivy Road before reaching its southern terminus at the northern boundary of Birdwood Golf Course. Elevations for Section II-B range from approximately 520 feet (158 m) to 608 feet (185 m) AMSL.

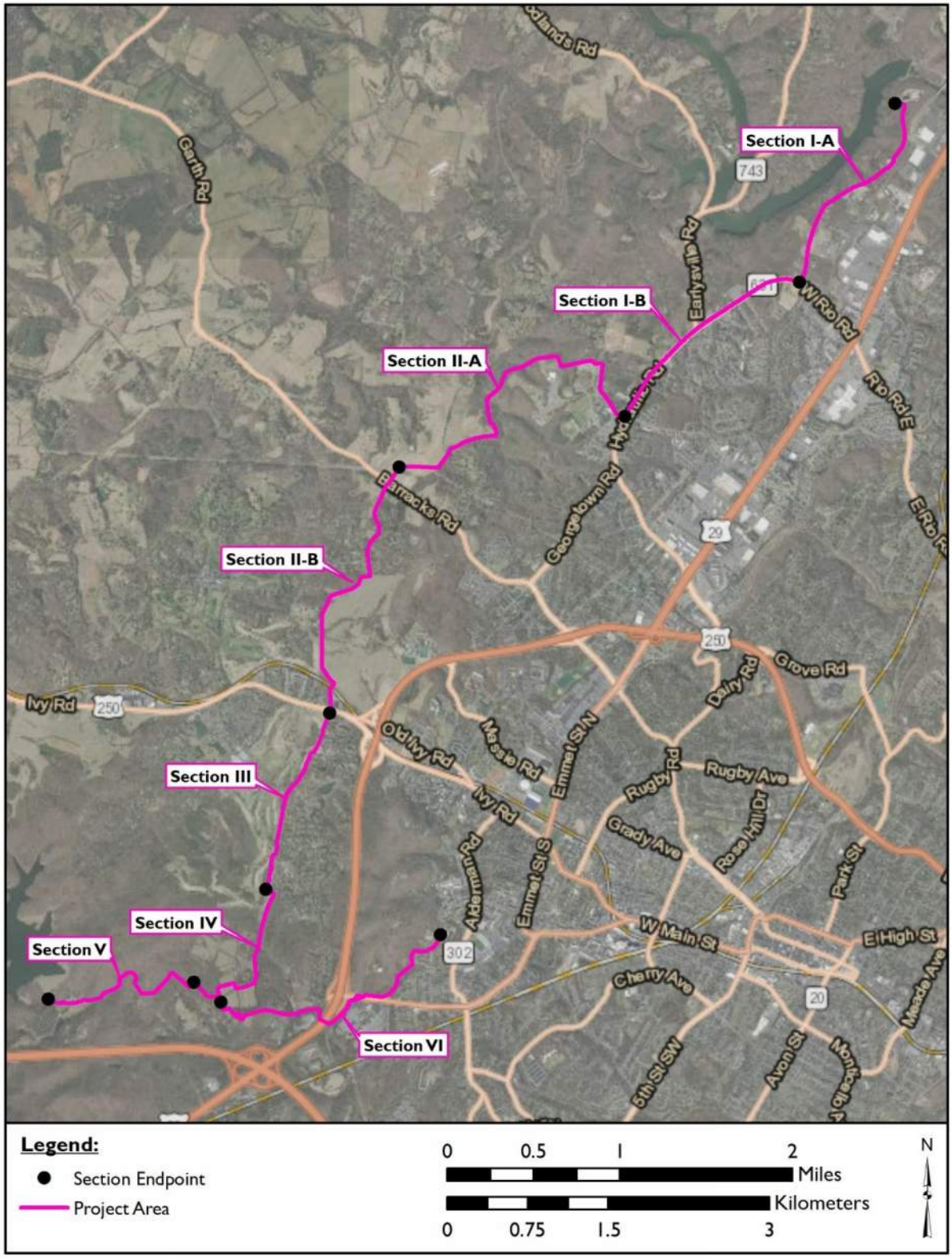

Figure 3: Location of the Project Area and Architectural Project Area on Aerial Imagery (Virginia Geographic Information Network [VGIN] 2021).

Section III

Section III of the RWSA project area extends 5,955 feet (1,815 m) from Ivy Road south along the eastern edge of the Birdwood Golf Course. Construction of this section has been previously completed. The southern boundary of Section III is at the approximate southern boundary of Birdwood Golf Course and the border of UVAF Foxhaven Farm parcels. Elevations for Section III range from approximately 476 feet (145 m) to 564 feet (172 m) AMSL.

Section IV

Section IV of the RWSA project area extends 2,335 feet (712 m) from the southern terminus of Birdwood Golf Course through Foxhaven Farm. The northern portion of the alignment travels just west of a dirt road which parallels Morey Creek before traveling south up a steep hill, travelling across the southern portions of Foxhaven Farm. The majority of the alignment in Section IV lies on gentle to low slopes along Morey Creek and through the historic Foxhaven Farm property. Elevations for Section IV range from approximately 460 feet (140 m) to 592 feet (180 m) AMSL.

Section V

Section V of the RWSA project area extends 7,027 feet (2,142 m) from the Foxhaven Farm property west, primarily following Reservoir Road to where it will connect with the Ragged Mountain Reservoir. The majority of this section follows Reservoir Road along steep slopes as well as paralleling an existing 18-inch (46-cm) pipeline. The alignment follows the toe of the slope as feasibly as possible where topography transitions from gradual slopes to steep slopes, though this area is generally still above 15 percent slope. The alignment also parallels a Dominion Energy easement on the northern side of Reservoir Road, pushing the current alignment up the steep slope to avoid impacts to this existing underground line. Elevations for Section V range from approximately 488 feet (149 m) to 584 feet (178 m) AMSL.

Section VI

Section VI of the RWSA project area extends 10,856 feet (3,309 m) from the intersection of the southern portion of Section IV and eastern end of Section V at Foxhaven Farm. The section travels east along the south side of Reservoir Road and eventually crosses the Route 29 Bypass Expressway. The alignment then travels north, paralleling a portion of the Rivanna Trail before crossing Route 29, traveling along high slopes before paralleling Hereford Drive up to the Observatory Hill Water Treatment Plant. Large portions of the project area lie along high slopes greater than 15 percent, while other portions of this section fall within existing pavement and disturbance. Elevations for Section VI range from approximately 432 feet (132 m) to 688 feet (210 m) AMSL.

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ENVIRONMENTAL SETTING

The project area is located in central Albemarle County. Albemarle County was rural through much of the twentieth century, but has experienced increasing growth in population and development due to its proximity to Charlottesville and the Interstate 64 (I-64) corridor in the last several decades.

Geology and Topography

Situated in central Virginia, Albemarle County encompasses approximately 726 square miles (1,880.3 sq km). The current project area is near the Blue Ridge Mountains along the western portion of the Piedmont physiographic province. The Piedmont, located between the Coastal Plain to the east and the Blue Ridge Mountains to the west, is characterized by gently rolling topography generally underlain by crystalline metamorphic rocks. Bedrock in the Piedmont consists primarily of granite, granite gneiss, hornblende gneiss, and schist of Paleozoic and Precambrian ages. Triassic-age dikes of diabase and gabbro intrude in some sections of the Piedmont province. Outcrops of granite, quartz, and/or gneiss occur in the project vicinity and greenstone occurs in discontinuous lenses in intermediate volcanic flows of the volcanic-plutonic belt of central Virginia (Lonsdale 1927:48–51; Virginia Division of Mineral Resources 1993).

Hydrology

Albemarle County is within the Chesapeake watershed. The project area is drained primarily by Morey Creek. Morey Creek flows predominantly southeast into the Rivanna River. The headwaters of the Rivanna River lie north of the project area in the foothills and mountains west of Charlottesville and flows for 42.1 miles before joining the James River near Colombia, Virginia. The James River drains to the Chesapeake Bay, which joins the Atlantic Ocean between Cape Henry and Cape Charles.

Soils

Fertile, well-drained soils attracted both humans and game over millennia. The wild grasses, fruits, and seeds consumed by people both before and after the adoption of agriculture flourish in such settings. As a consequence, numerous archaeologists have cited the correlation between the distribution of level to gently sloping, well-drained, fertile soils and archaeological sites (e.g., Lukezic 1990; Potter 1993; Turner 1976; Ward 1965). Soil scientists classify soils according to natural and artificial fertility and the threat posed by erosion and flooding, among other attributes. Soil Classes 1 and 2 represent the most fertile soils, those best suited for not only agriculture but for a wide range of uses. Soil productivity must be considered in relation to the productivity of the surrounding soils as well.

The substantial majority of the project area, approximately three-quarters, is underlain by Class 2 or 3 soils, accounting for 52.5 percent of all soils in the project area. Although Class 2 and 3 soils are generally associated with low slopes and soils well-suited for archaeological sites, a large majority of this area encompasses paved areas where these soils have likely been stripped during recent development. Class 4 soils make up 24.5 percent of the project area while classes 6–8 account for the remaining 22.2 percent of soils underlying the project area. These higher soil classes are generally associated with high slopes and are not well-suited for human occupation. Additionally, 86 percent of all soils are classified as subclass "e," or prone to erosion. In conjunction with the sloping terrain that makes up most of the project area, these soils, prone to erosion, are less likely to be a site of long-term occupation, and less likely to contain well-preserved deposits (Table 1). Although much of the current project area falls under existing roads and parking lots, less than one percent of the project area is classified as urban land. This is primarily due to the nature of soil surveys where many paved areas are classified as what they would have been prior to construction.

Table 1: Soils in the Project Area (Soil Survey Staff 2021).

Soil Name	Class	Slope	Percentage of Project Area
Albemarle Fine Sandy Loam	4e	15–25%	4.6%
Ashe Loam	6e	15–25%	3.1%
Ashe Loam	7e	25–45%	Less than 1%
Chester Loam	2e	2–7%	1.5%
Chester Loam	3e	7–15%	Less than 1%
Chester Loam	4e	15–25%	Less than 1%
Chester Loam	7e	25–45%	3.9%
Chester Very Stony Loam	6s	15–25%	Less than 1%
Chester Very Stony Loam	7s	25–45%	3.9%
Minnieville Loam	2e	2–7%	3.8%
Minnieville Loam	3e	7–15%	5.1%
Minnieville Loam	4e	15–25%	2.5%
Minnieville Clay Loam	4e	7–15%	Less than 1%
Minnieville Clay Loam	6e	15–25%	3.0%
Culpeper Fine Sandy Loam	2e	2–7%	2.5%
Culpeper Fine Sandy Loam	3e	7–15%	2.3%
Glenelg Loam	3e	7–15%	Less than 1%
Hayesville Loam	2e	2–7%	7.3%
Hayesville Loam	4e	7–15%	12.6%
Hayesville Loam	6e	15–25%	Less than 1%
Hazel Loam	4e	15–25%	Less than 1%
Hazel Loam	7e	25–45%	1.4%
Hazel Loam	7e	25–45%	2.7%
Philomont Sandy Loam	7e	15–25%	1.7%
Philomont Sandy Loam	7e	25–45%	Less than 1 %
Philomont Sandy Loam	7s	25–45%	1.5%
Meadowville Loam	2e	2–7%	1.9%
Fairview Sandy Loam	2e	2–7%	20.0%
Fairview Sandy Loam	4e	7–15%	2.9%

Soil Name	Class	Slope	Percentage of Project Area
Dan River-Codorus Complex	2w	0–2%	6.3%
Germanna Loam	2e	2–7%	Less than 1%
Udorthents Loamy	8s	2–25%	Less than 1%
Urban Land	8s	-	Less than 1%
Toast Sandy Loam	2e	2–7%	Less than 1 %
Toast Sandy Loam	4e	7–15%	Less than 1%

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HISTORIC CONTEXT

Virginia's Native American prehistory is typically divided into three main periods, Paleoindian, Archaic, and Woodland, based on changes in material culture and settlement patterns. Recently, the possibility of a human presence in the region that pre-dates the Paleoindian period has moved from remote to probable; for this reason, a Pre-Clovis discussion precedes the traditional tripartite division of Virginia's Native American history. The seventeenth- through twentieth-century historical overview follows DHR (2017) guidelines. The cultural context, as defined by the *Secretary of the Interior's Standards and Guidelines* for archaeology (United States Department of the Interior 1983) and DHR's 2017 *Guidelines for Conducting Historic Resource Surveys in Virginia*, provides the historic social and environmental information required for evaluation of any archaeological and architectural resources present within the project area that may be conducted at a later date.

Precontact Period

Pre-Clovis (?–13,000 BP)

The 1927 discovery, at Folsom, New Mexico, of a fluted point in the ribs of an extinct species of bison proved that ancient North Americans had immigrated during the Pleistocene. It did not, however, establish the precise timing of the arrival of humans in the Americas, nor did it adequately resolve questions about the lifestyle of those societies (Meltzer 1988:2–3). Recent discoveries imply that humans occupied the Americas, including Virginia, prior to the appearance of fluted points in the archaeological record. Both the stratigraphic record and the radiocarbon assays from the recently excavated Cactus Hill site in Sussex County suggest the possibility of human occupation of Virginia well before the fluted point makers appeared on the scene (McAvoy and McAvoy 1997). Buried strata at the Cactus Hill Site have returned radiocarbon dates of 15,000 years ago from sandy strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165).

Fieldworkers excavating through levels containing Paleoindian chert artifacts and Clovis-type fluted points encountered artifacts and charcoal separated from the Paleoindian level by 3–4 inches (7.6–10.2 cm) of sterile sands. Subsequent fieldwork confirmed the presence of artifact-bearing strata located between 3 and 8 inches (7.6 and 20.3 cm) below the fluted-point levels. The artifacts recovered from the sub-fluted-point levels present a striking contrast with the tool kit used by Paleoindians. Rather than relying on extremely well-made and formalized chert knives, scraping tools, and spear points, the pre-Clovis peoples used a different but highly-refined stone technology. Prismatic blade-like flakes of quartzite, chipped from specially prepared cobbles and lightly worked along one side to produce a sharp edge, comprise the majority of the stone cutting and scraping tools. Sandstone grinding and abrading tools, possibly indicating production of wood and bone tools, also occurred in significant numbers in the deepest artifact-bearing strata. Because these tools do not possess characteristics which immediately identify them as dating to the Pleistocene, archaeologists recognize the possibility that 15,000-year old sites have been overlooked for years (McAvoy and McAvoy 1997).

Paleoindian Period (13,000−10,000 BP)

The Paleoindian settlement-subsistence pattern revolved around hunting and foraging in small nomadic bands. Evidence for this occupation is recognized through distinctive fluted projectile points used for hunting. Fluted points are rare and often identified as isolated occurrences. While these discoveries are infrequent, the eastern half of the United States has some of the highest concentrations of these finds. Almost 1,000 known fluted projectile points have been discovered in Virginia (Anderson and Faught 1998). While the fluted Clovis and Folsom projectile points are the best known of the Paleoindian point types, others include Hardaway-Dalton and Hardaway Side-Notched (Barber and Barfield 1989). Most large Paleoindian period sites in the southeastern United States are quarry or quarry related (Meltzer 1988:21). Though the full range of available lithic resources was used to manufacture fluted points (e.g., Phelps 1983), a number of studies have noted a focus on cryptocrystalline materials (e.g., chert, jasper, chalcedony) (Gardner 1974, 1989; Goodyear 1979). The Paleoindian tool kit included scrapers, gravers, unifacial tools, wedges, hammerstones, abraders, and other tools used for chopping and smashing (Gardner 1989). The Williamson site, a chert quarry located in Dinwiddie County, is one of the best preserved Paleoindian quarry and campsites in the country (Barber and Hubbard 1997:132).

In Culpeper County, archaeologists excavated the Brook Run site. A hearth feature from the site revealed a radiocarbon date of 11,670 BP suggesting a Paleoindian occupation. Additional dates at the site provide evidence for a later Early Archaic occupation as well. This site sits on a jasper seam that would have provided good quality lithic material for tool production (Voigt 2004).

Archaic Period (10,000–3200 BP)

The Archaic period is generally divided into three phases, Early (10,000–8800 BP), Middle (8800–5500 BP), and Late (5500–3200 BP). There does not appear to be a dramatic change in the tool kits of the Early Archaic and their Paleoindian predecessors. Actually, their settlement and subsistence patterns appear to be very similar (Anderson et al. 1996; Cable 1994). The transition into the Archaic period is marked by an increase in site size and artifact quantity, as well as an increase in the number of sites (Egloff and McAvoy 1990). Diagnostic artifacts of the Early Archaic period include the Kirk Corner-Notched and Palmer Corner-Notched projectile points (Coe 1964; Custer 1990). In addition, some bifurcated stem points such as St. Albans and LeCroy appear to be associated with the increased use of hafted endscrapers (Coe 1964). The Early Archaic also marks the first appearance of ground stone tools such as axes, celts, adzes, and grinding stones. At the close of this period, there is a shift to an increased reliance on a wider range of lithic resources.

While there appears to be a relatively high degree of cultural continuity between the Early and Middle Archaic periods, sites dating to the Middle Archaic period are more numerous, suggesting an increase in population, and sites appear to be occupied for longer periods of time. The Middle Archaic period coincides with a relatively warm and dry period that may have resulted in widespread population movements (Delcourt and Delcourt 1987; Stoltman and Baerreis 1983). Projectile points diagnostic of the Middle Archaic period include Stanley Stemmed, Morrow Mountain Stemmed, Guilford Lanceolate, and Halifax Side-Notched.

The Late Archaic period is often seen as the culmination of trends that began during the Early and Middle Archaic (Dent 1995:178). Mouer (1991:10) sees the primary cultural attributes of the first half of the Late Archaic as "small-group band organization, impermanent settlement systems, infrequent aggregation phases, and low levels of regional or areal integration and interaction." Dent (1995:178) suggests that the Late Archaic is "a time that contains both the ends of one way of life and the beginnings of a significant redirection." The artifact assemblage is dominated by bifacial tools; however, expedient flake scrapers, drills, perforators, and utilized flakes also characterize Late Archaic assemblages. Ground stone tools, including adzes, celts, and axes, are seen during this period with the grooved axe making its first appearance during the Late Archaic (Dent 1995:181–182). Holmes points appear near the end of the Late Archaic period (Dent 1995; Mouer 1991).

The period of time from approximately 4500 BP to 3200 BP is referred to as the Transitional period by some (Mouer 1991), while others argue that due to the lack of pottery it is more accurately classified as an extension of the Late Archaic (Dent 1995:180). By the early portion of this time period, glacial retreat led to higher sea levels on the Atlantic seaboard. This allowed for the development of large estuaries and tidal wetlands that were conducive to the development of coastal resources such as fish and shellfish. Sites dating to this time period are often located in areas where populations could exploit these types of resources, such as river valleys, the lower portion of the coastal plain tributaries of major rivers, and near swamps. This has led archaeologists to postulate that fish began to play a larger role in the subsistence system. Platform hearths seen during this period are interpreted as being associated with fish processing (Dent 1995:185).

Transitional period sites tend to be larger than those of the Archaic periods, likely reflecting an increase in population. Dent (1995) argues that the larger sites may be misinterpreted as reflecting longer term occupation and may simply be sites that were revisited for short periods on many occasions. Material culture associated with the Transitional period includes soapstone vessels and broadspears. Broadspears associated with the later portion of the Late Archaic or Transitional period include the Savannah River, Susquehanna, and Perkiomen projectile points (Dent 1995; Mouer 1991).

Woodland Period (3200–400 BP)

The Woodland period is divided into three phases, Early (3200 BP–2300 BP), Middle (2300–1100 BP), and Late (1100–400 BP). The introduction of pottery, agriculture, and a more sedentary lifestyle mark the emergence of the Woodland period. The population surge that began in the Archaic continues in this period. The concurrent development of agriculture and pottery led early theorists to posit that they were linked; however, few still support this position. Alternatively, the evolution of technological and subsistence systems as well as various aspects of pan-Eastern interaction are currently believed to underlie the evolution of ceramic vessels (Egloff 1991).

Steatite-tempered Marcey Creek pottery, dating to the Early Woodland period, is thought to be the earliest ceramic ware in Virginia's Piedmont. Marcey Creek wares, considered experimental, are typically shallow, slab-built forms (Dent 1995; McLearen 1991). Another steatite-tempered ware, Selden Island, followed Marcey Creek and soon other temper types

appear in the archaeological record (McLearen 1991). At approximately 1100 BP there is a shift from the earlier slab-construction techniques to coil-made conoidal or globular vessels. This shift is accompanied by the introduction of surface treatments such as cord marking and net impression (Dent 1995; McLearen 1991). Projectile points associated with the Early Woodland period include teardrop points sometimes classified as the Rossville and Piscataway types (Dent 1995; Mounier and Martin 1994).

The Middle Woodland is marked by the rise of "interregional interaction spheres, including the spread of religious and ritual behaviors which appear in locally transformed ways; localized stylistic developments that sprung up independently alongside interregional styles; increased sedentism; and evidence of ranked societies or incipient ranked societies" (McLearen 1992:55). While there is a degree of commonality among Middle Woodland peoples, one of the striking characteristics of this period is the rise of regional trends, particularly in pottery. Coastal Plain and Piedmont ceramic styles can be distinguished, as can north–south differences that correspond to river drainages that drain into the Chesapeake Bay or Albemarle Sound. The diversity of surface treatments increased after 1500 BP, and analysis of the regional pottery indicates that the Potomac, the Rappahannock, and the Upper Dan were slightly different cultural subareas in the physiographic province of the Piedmont (Hantman and Klein 1992). The Middle Woodland period also sees the introduction of the triangular Levanna projectile point.

The Late Woodland period is marked by an increased reliance on agriculture, attendant population growth, larger villages and increased sociocultural complexity (Turner 1992). Ceramic types of the Late Woodland period in the James River Piedmont include the quartz-tempered Gaston Simple Stamped and crushed rock-tempered Albemarle pottery (Hantman and Klein 1992). The trend towards sedentary settlements continues throughout the Late Woodland period. In the early portion of this period, settlements consist of small clusters of houses with little to no internal organization. However, by 300 BP, larger villages are observed. Features associated with these villages include palisades, houses, hearths, storage pits, and burials (Hantman and Klein 1992). The smaller Madison triangular projectile point is generally associated with the Late Woodland period.

Historic Period

Contact Period (1607–1750)

Settlement in Virginia gradually moved beyond the Fall Line into the Piedmont, as English colonists pushed westward in continued search of more land to grow tobacco (Cooper 2007:26). Stretching from the Tidewater region all the way to the Blue Ridge Mountains, the deep red clay soil was highly fertile, making the Piedmont especially attractive for English settlement (Fischer and Kelly 2000:94). The Piedmont was occupied by the Monacan and Manahoac tribes, rather than the Powhatan Confederation, who were found along the coastal plain (Cooper 2007:22). The Monacan and Manahoac wanted little to do with the English intruders and tried to move north, south, and west to avoid them, while having to abandon their own land (Cooper 2007:25).

Albemarle County was formed, along with numerous other counties, from Goochland County in 1744 and was named after the second Earl of Albemarle, William Anne van Keppel, royal governor of Virginia at the time (Cooper 2007:26). Much like in the Tidewater region, family connections and power were highly intertwined with land ownership, so at first a few gentry families owned vast quantities of land in the Piedmont (Fischer and Kelly 2000:95).

Colony to Nation (1751–1789)

The first county seat of Albemarle was located at present-day Scottsville, known then as Scott's Landing, south of Charlottesville, but later moved to the more centrally-located Charlottesville proper in 1762, when Buckingham and Amherst counties (to the south/southwest) were split away from Albemarle County (Cooper 2007:28). Charlottesville was laid out as a 28-block gridded town and Dr. Thomas Walker was assigned by Albemarle County as a Trustee. Two acres (0.8 ha) on a hillside north of the 80-acre (20.2-ha) gridded town were set aside for a courthouse. Three Notch'd Road, a former Native American trail, became the main street of town (Schwartz 2005).

Thomas Jefferson built his mountaintop home, Monticello, in Albemarle County beginning in 1769, with the first house being habitable around 1770, and completed (except for porticoes and interior trim) by 1784 when he left for Europe. Monticello was remodeled and enlarged between 1796 and 1809 (Monticello 2019). Jefferson also convinced his friend and colleague James Monroe to settle in the area, first at a farm near town—neighboring the current site of the University of Virginia (UVA)—and then at a plantation site neighboring Jefferson's land, known as Highland, in 1793. A house was built on the Highland site by 1799 when the Monroe family moved there, although only the foundation remains today, with a guest house and later Victorian wing surviving (Highland 2019).

During the Revolutionary War, British troops gathered at Petersburg, anti-draft riots occurred, and enslaved people took advantage of the confusion to escape. Amid such chaos, Governor Thomas Jefferson called for a meeting of the General Assembly in Charlottesville, rather than in Richmond, in May 1781. Jefferson hoped the assembly would force the militia into action and even give him the power to declare martial law. Not seeking a third term, a vote for governor was scheduled for the beginning of June, but when the day came, Jack Jouett arrived with news that the British cavalrymen under Lieutenant Colonel Banastre Tarleton were headed to Charlottesville. The legislators fled over the mountain to Staunton, while Jefferson retreated south to his home in Bedford County, Poplar Forest. Tarleton arrived at Monticello only shortly after Jefferson had fled, leaving the colony without an elected governor, something that would continue to tarnish his reputation for the rest of his public life (McDonnell n.d.).

British and German troops captured at Saratoga, New York were quartered at the Albemarle Barracks, about 5 miles (8 km) north of the town of Charlottesville, from 1778 to 1781, after marching south from Boston for almost three months. The group consisted of about 2,000 British soldiers, 1,900 German soldiers, and 300 women and children. The land was given for this purpose by Colonel John Harvie, a member of the Continental Congress. The housing provided were basic log huts built without nails or roofs; British officers sought housing with local citizens instead. Some of the troops managed to escape, others deserted to the American side. Fearing that the British troops would join General Alexander Leslie who was establishing

a post on the Elizabeth River, Governor Jefferson ordered the prisoners to Fort Frederick, Maryland in October 1780. The 1,500 German troops were not seen as a threat to escape and were allowed to stay. The Albemarle Barracks were abandoned entirely in 1781 and the land was returned to Harvie without any valuable improvements (Virginia Places n.d.).

Early National Period (1790–1829)

In 1819, Thomas Jefferson established UVA about 1 mile (1.6 km) west of town. The location was purposeful, separating the non-sectarian, state-funded "Academical Village" from town life (Schwartz 2005). Within Charlottesville and Albemarle County were several factories, banks, hotels, and newspapers (Jordan n.d.). From around 1790 onward, along the Rivanna River were a series of mills: a cotton and wool mill, a grist mill, a saw mill, and a plaster mill. In 1820, the area was called Pierus, after the busy Greek port in Athens (Schutte 2019). The busy mills were especially important for the area's economy, with their advantageous location along the river and, later, the railroad.

Antebellum Period (1830–1860)

In 1852, John Marchant bought the 13-acre (5.3-ha) mill complex and it was reorganized as the Charlottesville Manufacturing Company in 1860, which became a major producer of wool and cotton in the area. Like much of the South on the eve of the Civil War, census data shows that Albemarle County had a Black majority, with 14,000 Blacks and 12,000 whites (Jordan n.d.). The railroad arrived in Charlottesville in 1850 with the Louisa Railroad Company (later known as the Virginia Central and then the Chesapeake and Ohio [C&O]). Eight years later new tunnels through the Blue Ridge Mountains connected the Shenandoah Valley to the Piedmont, allowing for a major increase in the movement of goods and raw materials in Virginia. The C&O station was located south of the original town grid. The railroad and associated freight yards provided jobs and encouraged development on this southern edge. The Southern Railroad arrived in 1863 with a north–south route, crossing the east-west tracks halfway between the university and downtown, creating a new station at the crossing, which is still there today (Schwartz 2005).

Civil War (1861–1865)

Although no Civil War battles occurred in Albemarle County according to the Civil War Sites Advisory Commission (CWSAC) and the American Battlefield Protection Program (ABPP), the citizens and products of Albemarle County contributed in other ways (CWSAC 2009). The Charlottesville mills continued to operate during the war, producing uniforms for the Confederate army, including jackets and pants designed for the local Albemarle Light Horse Cavalry. During the war, Charlottesville General Hospital was a makeshift military medical center located in hotels, churches, private buildings, and spaces owned by UVA. Opened in July 1861, the hospital served 22,700 soldiers total, employed approximately 300 Charlottesville residents, and at its height had a capacity of 500 beds (Jordan n.d.). The hospital employed free Blacks and conscripted Albemarle County enslaved persons as cooks, laundresses, nurses, and scavengers; throughout 1862 they employed at least 60 enslaved people or free Blacks at any given time (Jordan 1995:54–55).

As one of the largest counties in the state with approximately 14,000 enslaved persons, Albemarle County was asked to provide 940 enslaved people for conscription during the war, but constantly failed to meet its quotas (Jordan 1995:64). As the county seat, enslaved people had to report to the Charlottesville courthouse for examination by a doctor from the Charlottesville General Hospital to determine the type of work they would be assigned (Jordan n.d.). In addition to the hundreds of enslaved persons conscripted for Confederate service, recent research has led to the discovery that at least 240 Black men born in Albemarle County served in the Union Army's United States Colored Troops (USCT). Many of these men enlisted in places like Missouri and Louisiana, where they had been brought as eslaved people by the slave owners moving westward (Kelly 2017).

Charlottesville and Albemarle County recruits were the majority of the members of the 19th Virginia Infantry Regiment (19th Virginia), which saw battle at First Manassas, Williamsburg, the Seven Days' Battles, Antietam, Gettysburg, and Sailor's Creek. Of the approximately 1,600 men in the 19th Virginia throughout the war, only 30 were left to surrender at Sailor's Creek on April 6, 1865 (Jordan n.d.).

Albemarle County largely escaped the direct effects of battle save for an incident in 1864 occurring near Charlottesville, located approximately 7.68 miles (12.36 km) east of the current project area. The city, along with the City of Richmond, became a target for a small Union military operation, part of the Kilpatrick-Dahlgren Raid (Jordan n.d.). The Charlottesville raid was one of two to distract Confederate troops from the larger mission of freeing 15,000 Union prisoners of war held in Richmond. General George Custer was assigned the Charlottesville raid and he led a command of 1,500 men from Madison County south to destroy the Lynchburg Railroad Bridge and military supplies at Charlottesville. On February 29, Custer and his troops crossed the Rivanna River near the Earlysville-Charlottesville Road and surprised about 200 men of the Stuart Horse Artillery Battalion in their winter camp. The camp was largely destroyed, including most of the equipment, but a caisson accidentally exploded, causing Custer to withdraw, thinking Confederate reinforcements had arrived. Local residents began referring to this as the "Battle of Rio Hill," but the whole ordeal lasted less than an hour and Union troops did not reach Charlottesville, nor divert Confederate troops away from Richmond (Jordan n.d.).

In 1865, fearing pillage by the Union troops moving east after the Confederate loss at the Third Battle of Waynesboro on March 2, town officials surrendered the next day. The Union forces occupied Charlottesville for the next three days (Wolfe n.d.). Following General Lee's surrender at Appomattox in April, Charlottesville came under the jurisdiction of the Army of the James, including a regiment of Pennsylvania cavalry (Jordan n.d.).

In the early 1990s, CWSAC, aided by the ABPP, established boundaries for battlefields throughout the Commonwealth. As part of a 2009 boundary revision, the ABPP created a four-tiered system that included such factors as historic significance, current condition, and level of threat to determine preservation priorities among the battlefields (CWSAC 2009). The boundaries for battles, as currently mapped, include the regions of direct fighting (Core Area), the associated marching routes for soldiers (Study Area), and the potential NRHP boundaries of the battlefields (PotNR). Although there are no Civil War-era ABPP-defined battelfields within 10 miles (16.1 km) of the project area, there is one Revolutionary War Battlefield

(VA1008) with PotNR boundaries within the project area's vicinity. The following table notes the distance of this battlefield's PotNR boundary to the closest edge of the project area (Table 2).

Table 2: Revolutionary War Battlefield (VA1008) and Distance to the Project Area.

ABPP-Defined Battlefield	Distance from Project Area to Potential NRHP Area
Revolutionary War Battlefield (VA1008)	3.77 miles (6.06 km)

Reconstruction and Growth (1866–1916)

Much like the rest of the state, Charlottesville, UVA, and the surrounding county began the process of rebuilding their lives after the end of the war. Despite being burned by Union troops during the occupation of Charlottesville, the mills were rebuilt and reopened in 1867 as the Charlottesville Woolen Mills (Jordan n.d.). In 1887, Charlottesville began running its first horse-drawn street cars. An extra horse was kept by Vinegar Hill to assist with the climb. The whole length of Main Street in Charlottesville was "macadamized" in 1895, with six blocks of East Market Street receiving the same paving treatment a year later (Schwartz 2005).

One of the free Black men from Albemarle County who served in the USCT during the Civil War, Commissary Sergeant James T.S. Taylor, returned to Albemarle County after the war. He worked as a cobbler, a trade he learned from his father, and was elected in 1867 as one of the county's representatives to the State Convention (1867–1868) that would rewrite the state constitution in order to rejoin the Union. Taylor advocated for Black rights and election reform (using paper ballots instead of voice voting) at the convention (Kelly 2017). Virginia reentered the Union on January 24, 1870, having been Military District Number 1 for the previous five years (Chambers 1981:217). Taylor died in 1918 of pneumonia, but his wife, Eliza DeLancey, lived into the 1930s and provided an oral history to the Works Progress Administration Slave Narrative project (Kelly 2017).

World War I to World War II (1917–1945)

Transportation infrastructure improvements, such as street enhancements and increasing rail and trolley lines, provided greater access to remote parts of Charlottesville and Albemarle County; they also precipitated suburbanization. Several farm properties near the University (where housing was always in demand) were subdivided to create housing developments in the early-twentieth century (Schwartz 2005).

Charlottesville and Albemarle County citizens, both Black and white, served in both world wars, despite not having equal rights guaranteed by law. In the summer of 1919, when they returned home, a July 4th parade, celebrating both Black and white veterans together, was held in their honor. Elsewhere in the South, the summer of 1919 was full of violence and racial tension, including the lynching of several Black World War I veterans. This part of Virginia was not without racism and segregation at this time, and the Black troops marched separately, behind the white troops, yet the parade still happened peacefully and was well attended. In the years to follow, Paul Goodloe McIntire commissioned several statues in segregated public

parks, such as the Robert E. Lee Statue near Courthouse Square, and, in the 1950s, the area became known for massive resistance to school integration (Schwartz 2005; Smith 2019).

In 1940, Albemarle County was home to a population of 24,652 people, 18,990 were white and 5,662 were Black. Albemarle County was largely agricultural, with a few thousand people employed in business, retail, construction, manufacturing, and mining (Albemarle County Historical Society 1948:4).

Soon, more than 5,400 men and women from Albemarle County and Charlottesville would serve the United States in World War II (about 12 percent of the local population), and 200 would perish (Albemarle County Historical Society 1948:5). In addition to their service abroad, the local population was involved in preparations on the home front including blackouts and air raid tests, first-aid training classes, aircraft spotting, bomb demolition, recognition of poisonous gases, etc., with the Civilian Defense Council (Albemarle County Historical Society 1948:15–16). Local residents were also involved by buying war bonds and stamps, manufacturing war goods, growing extra food products, and volunteering for the Red Cross (Albemarle County Historical Society 1948:25, 78, 96, 126).

The New Dominion (1945–1991)

Albemarle County and Charlottesville shared in the post-World War II prosperity experienced throughout the country with the expansion of banks, businesses, and transportation. The GI Bill allowed for greater expansion of the UVA student body, faculty, and footprint, as the campus grew beyond the Central Grounds area to the southwest and west. The University soon became the area's largest employer. In the late 1950s and 1960s, a bypass was built away from downtown to provide an easier connection between the east-west connector road, Route 250, and the north-south road, Route 29. I-64, a major east–west highway that was part of the Federal Highway Act, was also built around this time, running about 1 mile (1.6 km) south of downtown (Schwartz 2005).

The Charlottesville Woolen Mills, which manufactured Navy uniforms during WWII, became Albemarle County's largest industry and continued operations until the 1960s (Jordan n.d.). The 1970s and 1980s saw extraordinary growth in strip mall developments on the periphery of Charlottesville, due to the lack of substantial zoning regulations in Albemarle County (Schwartz 2005).

Post Cold War (1992–present)

While agriculture remains a significant portion of Albemarle County's economy, both the county and the City of Charlottesville continue to be propelled by the University, businesses, hospitality, and tourism (Albemarle County Virginia n.d.). With the two presidential homes, Thomas Jefferson's Monticello and James Monroe's Highland, and countless wineries, breweries, and other historic sites in the county, tourism is at all-time high in the area.

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SURVEY METHODOLOGY

The goals of the survey were to identify any previously recorded and previously unrecorded historic properties over 50 years in age within the project area and to locate portions of the project area with the potential to contain archaeological sites. The architectural component of the survey encompassed the project area and a 350-foot (106.7-m) buffer, in which architectural resources over 50 years in age were noted that warrant recordation at the Phase IB level. The survey methods employed to meet these goals was chosen with regard to the project's scope and local field conditions. Based on the topographic and environmental setting of the project area, as well as the antiquity of the surrounding road system and length of historic occupation, it was judged to have a moderate to high potential for archaeological sites over 50 years in age.

Background Research/Map Review

Dovetail conducted a background literature and records review at the DHR including an investigation of records on previous cultural resource studies and previously recorded archaeological sites and architectural properties within a 500-foot (152-m) radius of the project area. The goal of the background research was to provide data on previously recorded resources to aid in the evaluation of properties identified during the current survey.

A historic map review was conducted to note the development of the general area and locate potential resources that have not yet been identified. To complete the historic map review, Dovetail examined historic maps and other resources that potentially provided information about the location of historic resources within the project area. Because a plethora of archival documents are now available online, extensive travel was not required to complete the research. Online resources included the Library of Congress in Washington, D.C., USGS maps, maps prepared by the ABPP, and resources available at the DHR.

Archaeological Survey

The field survey consisted of two archaeologists conducting a pedestrian survey to inspect the entire project area. Notes and photographs documented the landforms and field conditions. The field crew was also equipped with a handheld GPS capable of sub-meter accuracy for recording locations of interest. Once this was accomplished, archaeologists used the data collected to determine locations that had potential for subsurface deposits. Dovetail did not conduct subsurface excavations during this work, but any existing ground disturbance was investigated for archaeological remains.

Architectural Survey

The Phase IA architectural study included identifying all previously recorded resources and previously unrecorded above-ground resources 50 years in age or older within the project's

architectural project area, defined as the project area and a 350-foot (106.7-m) buffer. The field survey consisted of a visual inspection of the architectural project area via a vehicular survey, as well as a desktop survey. Digital photographs were taken of the architectural properties noted during the survey. No architectural documentation was completed during this work.

BACKGROUND RESEARCH

Dovetail conducted a background records review to locate earlier surveys and previously recorded historic architectural properties, and archaeological sites near the eight sections of the project area. Prior to conducting fieldwork, the potential of each section to contain NRHP-eligible archaeological or architectural properties was assessed by searching the DHR site and survey file records, as well as examining the CWSAC maps for the area. According to DHR and CWSAC records, the project area is not located within or adjacent to any CWSAC/ABPP-defined battlefields. See the Civil War section (p. 18) in the previous chapter entitled "Historic Context" for a discussion of the Civil War period in the City of Charlottesville and the surrounding region.

A total of 15 previous surveys, 17 previously recorded archaeological sites, and 55 previously recorded above-ground resources were identified within 500 feet (152 m) of the project area. This section of the current document summarizes the findings of the background review only; this background review does not serve as the results of the survey, which is discussed in the subsequent chapter entitled "Results of the Phase IA Survey" (p. 39).

Section I-A

Previous Cultural Resource Surveys

A total of eight cultural resource surveys has been completed within 500 feet (152 m) of Section I-A of the project area per DHR records (Table 3, p. 26); however, only three of these surveys examined areas within the present project area. The first survey overlapping the project area was conducted in September 1990 by John Milner Associates (JMA). JMA surveyed potential locations for a proposed bypass of Route 29. During the survey, 28 archaeological sites were identified. JMA recommended 24 of the sites potentially eligible for inclusion in the NRHP. None of these sites overlap the current project area (Stevens et al. 1990). In 1994, Louis Berger & Associates, Inc. conducted a Phase I cultural resource survey for improvements to the Route 29 corridor. The survey identified 12 archaeological sites, three of which were recommended eligible for inclusion in the NRHP. Of these 12 sites, only site 44AB0427 overlaps the current project area, though it was determined not eligible for the NRHP at the time (Botwick and Bashman 1994). The final survey to overlap the current project area was conducted in 2018 by Darby O'Donnell, LLC. This survey delineated the boundaries of the Shiflett-Munday cemetery (002-5208) as well as exploring a potential unmarked cemetery nearby. No additional grave shafts were identified during this survey and no further investigations were recommended (O'Donnell 2018).

Previously Recorded Archaeological Sites

Ten previously recorded archaeological sites are located within a 500-foot (152-m) radius of Section I-A of the project area (

Table 4, p. 27). Only one of these sites overlaps the current project area; site 44AB0427. The remaining nine sites do not intersect Section I-A. This site was identified in 1994 by Louis Berger & Associates, Inc. for improvements to the Route 29 corridor. The site, a likely historic dwelling, was identified east of the existing water tower along Woodburn Road by seven positive STPs and two depressions, a possible cellar and possible well. Artifacts recovered from STP survey included two quartz flakes and 64 historic artifacts dating to the late-nineteenth to early-twentieth century (Botwick and Bashman 1994). This site was deemed not eligible for the NRHP by DHR staff.

Site 44AB370 was identified as the Tyler family cemetery; a nineteenth- and twentieth-century cemetery containing 12 graves marked with a combination of fieldstones and headstones. Sites 44AB0420–44AB0426 were identified in the previously mentioned 1994 Louis Berger & Associates, Inc. survey. These sites were identified as part of improvements to the Route 29 corridor and were all deemed not eligible for inclusion in the NRHP by DHR staff. The most recently identified site in the vicinity of Section I-A is 44AB0432. This site was identified in a revision to the previous Louis Berger & Associates, Inc. survey and identified as a historic trash scatter of recent origin. No further work was recommended.

Table 3: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section I-A of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	1985	*The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia*	Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (University of Virginia Department of Anthropology)
AB-038	**1990**	***Phase I Archaeological Investigations of the U.S. Route 29 Corridor Study, Charlottesville and Albemarle County, Virginia***	**J. Sanderson Stevens, Donna J. Seifert, and Charles D. Cheek (John Milner Associates)**
AB-053	**1994**	***Phase I Cultural Resource Survey, Route 29, City of Charlottesville and Albemarle County, Virginia***	**Bradford Botwick and Leslie Bashman (Louis Berger & Associates, Inc.)**
AB-054	1994	*Phase I Cultural Resource Survey, Route 29 Bypass Around Charlottesville: Corridor 10 Revision at North End, City of Charlottesville and Albemarle County, Virginia*	Thomas J. Chadderdon (Louis Berger & Associates, Inc.)
AB-183	2013a	*Documentary Research for the Gibbons Harris Cemetery, Albemarle County, Virginia*	Sandra DeChard and Ellen Brady (Cultural Resources, Inc.)
AB-184	2013b	*Documentary Research for the Shiflett-Munday Cemetery, Albemarle County, Virginia*	Sandra DeChard and Ellen Brady (Cultural Resources, Inc.)
AB-201	2014	*Phase I Archaeological and Geoarchaeological Survey for the Berkmar Drive Extended Project, Albemarle County, Virginia*	Joshua D. Engle and Hank D. Lutton (Cultural Resource Analysts, Inc.)
AB-246	**2018**	***Archaeological Delineation of the Shiflett-Munday Cemetery (002-5208) and Archaeological Investigation of a Possible Unmarked Cemetery at 2115 Woodburn Rd, Albemarle County, Virginia***	**Darby O'Donnell (Darby O'Donnell, LLC)**

Table 4: Previously Recorded Archaeological Resources within a 500-Foot (152-m) Radius of Section I-A of the Project Area. Sites overlapping the project area are in bold.

DHR No.	Type	Period	NRHP Eligibility
44AB0370	Cemetery	19th Century, 20th Century	DHR Staff: Not Eligible
44AB0420	Springhouse	19th Century: 4th quarter, 20th Century: 1st quarter	Not Evaluated
44AB0421	Dwelling, single	19th Century, 4th quarter, 20th Century	DHR Staff: Not Eligible
44AB0422	Dwelling, single	19th Century: 4th quarter	DHR Staff: Not Eligible
44AB0423	Camp, temporary, Farmstead	Indeterminate, Prehistoric/Unknown	DHR Staff: Not Eligible
44AB0424	Camp, Dwelling, single	Prehistoric/Unknown, 20th Century	DHR Staff: Not Eligible
44AB0425	Camp, temporary, Other	20th Century	DHR Staff: Not Eligible
44AB0426	Farmstead	19th Century: 4th quarter, 20th Century	DHR Staff: Not Eligible
44AB0427	**Dwelling, single**	**19th Century: 4th quarter, 20th Century: 2nd quarter**	**DHR Staff: Not Eligible**
44AB0432	Dwelling, single	19th Century, 20th Century	Not Evaluated

Previously Recorded Architectural Resources

There are 21 previously recorded architectural resources within 500 feet (152 m) of Section I-A of the project area (Table 5). None of these resources have been determined eligible or potentially eligible for the NRHP or the Virginia Landmarks Register (VLR).

Table 5: Architectural Resources Located within a 500-Foot (152-m) Radius of Section I-A of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-1226	Deane House-Main	ca. 1880	Not Evaluated	Dwelling
002-1227	Gibbons-Harris Cemetery	ca. 1911	Not Evaluated	Cemetery
002-1752	Oakleigh Farm	1897	Not Evaluated	Dwelling
002-1762	House, 2175 Woodburn Road	ca. 1908	Not Evaluated	Dwelling
002-1810	Deane House Tenant	pre 1900	Not Evaluated	Dwelling
002-1811	House, Route 659	pre 1900	Not Evaluated	Dwelling
002-2057	House, Rio Road	post 1900	DHR Staff: Not Eligible	Dwelling
002-2058	House, 600 Rio Road	post 1900	DHR Staff: Not Eligible	Dwelling
002-2059	House, Route 659	ca. 1950	DHR Staff: Not Eligible	Dwelling
002-2060	House, Route 659	ca. 1900	DHR Staff: Not Eligible	Dwelling
002-2061	House, Route 659	post 1900	DHR Staff: Not Eligible	Dwelling

DHR ID	Property Names	Date	Evaluation Status	Type
002-2062	House, Route 659	post 1900	DHR Staff: Not Eligible	Dwelling
002-2063	House, Route 659	post 1900	DHR Staff: Not Eligible	Dwelling
002-2064	Garage, Route 659	post 1900	DHR Staff: Not Eligible	Commercial
002-2065	House, Route 659	post 1900	DHR Staff: Not Eligible	Dwelling
002-2066	House, Route 659	post 1900	DHR Staff: Not Eligible	Dwelling
002-2067	S.P.C.A. (Society for the Prevention of Cruelty to Animals)	post 1900	DHR Staff: Not Eligible	Dwelling
002-5208	Cemetery, 2115 Woodburn Road, Shiflett-Munday Cemetery	ca. 1912	Not Evaluated	Cemetery
002-5218	Confederate Encampment, Battle of Rio Hill	1864	DHR Staff: Not Eligible	Battle site
002-5230	South Fork Rivanna Water Treatment Plant, Water Treatment Plant, 2383 Woodburn Road	1963	DHR Staff: Not Eligible	Water treatment plant
002-5304	House, 3400 Berkmar Drive	ca. 1950	Not Evaluated	Dwelling

Thirteen of these previously recorded resources have been determined not eligible for the NRHP or VLR by DHR staff. Ten of these resources are dwellings, built post 1900 (002-2057, 002-2058–002-2063 and 002-0065–002-2067). Eight of these dwellings are single-story buildings while two are two-stories and one-and-a-half-stories (002-2062 and 002-2067, respectively). A one-story single commercial building was also noted was constructed with concrete blocks, post 1900 (002-2064). Additionally, a 1963 water treatment plant (002-5230) and an 1864 battle site (002-5218) are located within 500 feet (152 m) of Section I-A and were determined not eligible for the NRHP and VLR by DHR staff. See Civil War (1861–1865) section (p. 18) for more information.

The remaining eight resources have not been evaluated for listing in the NRHP and VLR by DHR staff. Six of these resources are dwellings all of which are wood-frame and one or two stories in height. Five of these dwellings were built between circa 1880 and circa 1908 (002-1226, 002-1752, 002-1762, 002-1810, and 002-1811) while one was constructed circa 1950 (002-5304). A single church constructed pre-1900 with no formal eligibility determination (002-1277) was last surveyed in 2011, and there is a small cemetery (002-5208) dating to circa-1921.

Section I-B

Previous Cultural Resource Surveys

Four cultural resource surveys have been completed within 500 feet (152 m) of Section I-B of the project area per DHR records (Table 6, p. 29); however, none of these surveys examined areas intersecting Section I-B of the current project area.

Table 6: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section I-B of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	1985	*The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia*	Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)
AB-038	1990	*Phase I Archaeological Investigations of the U.S. Route 29 Corridor Study, Charlottesville and Albemarle County, Virginia*	J. Sanderson Stevens, Donna J. Seifert, and Charles D. Cheek (JMA)
AB-039	1990	*Phase One Cultural Resources Survey of Proposed Improvements to Route 866, Albemarle County, Virginia*	L. Daniel Mouer (Virginia Commonwealth University Archaeology Research Center [VCUARC])
AB-045	1991	*Phase I Cultural Resources Survey of Proposed Highway Improvements to Route 743, Albemarle County, Virginia*	Douglas C. McLearen, Luke H. Boyd, Frederick T. Barker (VCUARC)

Previously Recorded Archaeological Sites

Four previously recorded archaeological sites are located within a 500-foot (152-m) radius of Section I-B of the project area (Table 7). Of these four sites, two are located outside of the project area. Site 44AB0065 was identified as a small surface collection of precontact soapstone and quartz tools and site 44AB0397 was identified as a small nineteenth century family cemetery. The other two sites intersect the current alignment of Section I-B: sites 44AB0395 and 44AB0396. Site 44AB0395 is identified as a small lithic scatter identified in 1991 by a VCUARC survey of proposed improvements to Route 743. The site included two quartz flakes, a single quartzite ground stone tool, and one door lock plate. Site 44AB0396 was identified during this same survey and consisted of a 30-by-35-foot (9-by-11-m) slump, lined with foundation stones as well as brick, mortar, cut and wire nails, clear bottle glass, molded whiteware, and a single mason jar glass fragment. The site was identified as a twentieth-century dwelling which had recently been demolished. No further work was recommended for either site.

Table 7: Previously Recorded Archaeological Resources within a 500-foot (152-m) Radius of Section I-B of the Project Area. Sites overlapping the project area are in bold.

DHR No.	Type	Period	NRHP Eligibility
44AB0065	Camp	Precontact/Unknown	Not Evaluated
44AB0395	**unknown**	**Precontact/Unknown**	**Not Evaluated**
44AB0396	**Dwelling, single**	**20th Century**	**Not Evaluated**
44AB0397	Cemetery	19th Century	Not Evaluated

Previously Recorded Architectural Resources

There are 12 previously recorded architectural resources within 500 feet (152-m) of Section I-B of the project area (Table 8, p. 30). None of these resources have been determined eligible or potentially eligible for listing in the NRHP or VLR by DHR staff.

Table 8: Architectural Resources Located within a 500-Foot (152-m) Radius of Section I-B of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-1135	Albemarle Normal School, Albemarle Training School	ca. 1912	Not Evaluated	School
002-1228	Lincoln Cemetery	ca. 1920	Not Evaluated	Cemetery
002-1231	Hydraulic Market, Rock Store	post 1900	DHR Staff: Not Eligible	Commercial
002-1233	House, Route 631 (Hydraulic Road)	post 1900	DHR Staff: Not Eligible	Dwelling
002-1752	Oakleigh Farm	1897	Not Evaluated	Dwelling
002-1753	House, 2948 Hydraulic Road	post 1900	Not Evaluated	Dwelling
002-1754	House, 2905 Hydraulic Road	1938	Not Evaluated	Dwelling
002-1765	House, Route 631	ca. 1900	Not Evaluated	Dwelling
002-2057	House, Rio Road	post 1900	DHR Staff: Not Eligible	Dwelling
002-2058	House, 600 Rio Road	post 1900	DHR Staff: Not Eligible	Dwelling
002-2059	House, Route 659	ca. 1950	DHR Staff: Not Eligible	Dwelling
002-2060	House, Route 659	ca. 1900	DHR Staff: Not Eligible	Dwelling

Six of these resources have been determined by DHR staff to be not eligible for the NRHP or VLR. Five of these resources are one-story dwellings built between 1900 and circa 1950 (002-1233 and 002-2057–002-2060). The sixth resource is a one-story, masonry commercial building, constructed post 1900 (002-1231).

The remaining six resources have not been evaluated for NRHP eligibility by DHR staff. Four of these resources are dwellings built between 1897 and 1938 (002-1752–002-1754 and 002-1765). A one-story, wood-frame school (002-1135) constructed circa 1912 and a circa-1920 cemetery are also situated within 500 feet (152 m) of Section I-B (002-1228).

Section II-A

Previous Cultural Resource Surveys

A total of four cultural resource surveys has been completed within 500 feet (152 m) of Section II-A of the project area per DHR records (Table 9, p. 31). Three of these surveys examined areas within Section II-A, the earliest of which was conducted in 1990 by JMA. This survey examined locations for a proposed bypass of Route 29. During the survey, 28 archaeological sites were identified. JMA recommended 24 of the sites potentially eligible for inclusion in the NRHP. None of the sites recorded by JMA overlap the current project area (Stevens et al. 1990). The next survey to occur which overlapped the project area was in 1991 by VCUARC. This survey examined proposed improvements to the Route 743 corridor. Two archaeological sites and one nineteenth-century cemetery were identified as well as six historic properties or structures. No further work was recommended as all resources could be avoided by construction (McLearen et al. 1991). The last survey to overlap a portion of the project area

was conducted by Cultural Resources, Inc. (CRI) in 2013. This survey examined two proposed realignments of the Route 29 Bypass at Lambs Road in Charlottesville, Virginia. One previously identified site was reexamined and three additional sites were identified (Liethoff et al. 2013). None of these sites overlap the current project area.

Table 9: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section II-A of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	1985	*The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia*	Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)
AB-038	**1990**	***Phase I Archaeological Investigations of the U.S. Route 29 Corridor Study, Charlottesville and Albemarle County, Virginia***	**J. Sanderson Stevens, Donna J. Seifert, and Charles D. Cheek (JMA)**
AB-045	**1991**	***Phase I Cultural Resources Survey of Proposed Highway Improvements to Route 743, Albemarle County, Virginia***	**Douglas C. McLearen, Luke H. Boyd, Frederick T. Barker (VCUARC)**
AB-182	**2013**	***An Archaeological Survey of the Proposed Route 29 Avoidance Alternatives Near Lambs Road, Albemarle County, Virginia***	**Aimee Leithoff, Sandra DeChard, R. Taft Kiser, Ellen Brady (CRI)**

Previously Recorded Archaeological Sites

No previously recorded archaeological sites have been recorded in a 500-foot (152-m) radius of Section II-A of the current project area.

Previously Recorded Architectural Resources

There are eight previously recorded architectural resources within 500 (152-m) feet of Section II-A of the project area (Table 10, p. 32). A single resource (002-5193), the two-story, wood-frame Sammons House and Cemetery at 1975 Lambs Road, was given a federal determination of eligibility in 2013 under Criterion B, for its association with the lives of Jesse Scott Sammons and Dr. George Rutherford Ferguson, and under Criterion D, for its potential to yield important information related to the physical extent of the cemetery and the identity of the people buried in unmarked graves there, and for its ability to add to our understanding of African American burial customs in the late-nineteenth and early-twentieth centuries.

One of the eight previously recorded resources was found potentially eligible for listing in the NRHP and VLR by DHR staff. This resource, a two-story, brick, Colonial Revival-style dwelling, was built in 1941 (002-1736).

Four of the previously recorded above-ground resources were determined not eligible by DHR staff. Three of these resources are dwellings (002-5191, 002-5192, and 002-5211), two of which were constructed in the Ranch style with brick veneer (002-5191 and 002-5192), and the third is a one-story concrete-block building. All three of these dwellings were built in the

mid-twentieth century. A 1953, two-story, brick school (002-5312) was also determined not eligible by DHR staff.

The remaining resource has not been evaluated for listing in the NRHP or VLR by DHR staff. This resource is a one-and-a-half-story, wood-frame, Craftsman-style dwelling built circa 1920.

Table 10: Architectural Resources Located within a 500-Foot (152-m) Radius of Section II-A of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-1735	House, 2901 Barracks Road, Sugar Day	ca. 1920	Not Evaluated	Dwelling
002-1736	Ingleridge Farm, Barracks Road (Rt 654), Schlesinger Farm	1941	DHR Staff: Potentially Eligible (1990)	Dwelling
002-5191	House, 223 Montvue Drive	ca. 1960	DHR Staff: Not Eligible	Dwelling
002-5192	House, 225 Montvue Drive	1960	DHR Staff: Not Eligible	Dwelling
002-5193	Sammons House and Cemetery 1975 Lambs Road (Rt 657)	ca. 1850	Federal Det. Of Eligibility	Dwelling
002-5211	House, 1995 Lambs Road	1955	DHR Staff: Not Eligible	Dwelling
002-5312	Albemarle High School	1953	DHR Staff: Not Eligible	School

Section II-B

Previous Cultural Resource Surveys

Two cultural resource surveys have been completed within 500 feet (152 m) of Section II-B of the project area per DHR records (Table 11); however, none of these surveys overlap the Section II-B portion of the project area.

Table 11: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section II-B of the Project Area.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	1985	*The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia*	Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)
AB-019	1980	*Phase I Archaeological Survey of the Birdwood Tract, Albemarle County, Virginia*	Patricia Plante, Kathryn Hardy and Stephan Plog (UVA Department of Anthropology)

Previously Recorded Archaeological Sites

No previously recorded archaeological sites have been recorded in a 500-foot (152-m) radius of Section II-B of the project area.

Previously Recorded Architectural Resources

There are three previously recorded architectural resources within 500 feet (152 m) of Section II-B of the project area, all of which are dwellings (Table 12). One resource, Colridge (002-0919), has been listed in the NRHP and VLR by DHR staff. Colridge is a two-story, Classical Revival dwelling built in 1922 and listed in the NRHP in 2008 under Criterion C in the area of architecture.

A single resource, Westover (002-0925), was determined eligible for the NRHP and VLR by DHR staff. This dwelling is a two-story, Greek Revival house built circa 1915 and recommended eligible for its distinctive characteristics of architecture/construction. Finally, a single resource has been determined potentially eligible. Ingleridge Farm is a two-story, Colonial Revival-style building constructed in 1941 (002-1736) that is potentially eligible for listing on the NRHP. Associated with Ingleridge Farm is a secondary dwelling, a barn, and nine agricultural outbuildings.

Table 12: Architectural Resources Located within a 500 Foot (152-m) Radius of Section II-B of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-0919	Colridge, House, 2447 Ivy Road, Kappa Sigma Headquarters, Kenridge	1922	NRHP Listing, VLR Listing (2008)	Dwelling
002-0925	Westover, north of Route 601	ca. 1915	DHR Staff: Eligible (1990)	Dwelling
002-1736	Ingleridge Farm, Barracks Road (Rt 654), Schlesinger Farm	1941	DHR Staff: Potentially Eligible (1990)	Farm

Section III

Previous Cultural Resource Surveys

Two cultural resource surveys have been completed within 500 feet (152 m) of the project area per DHR records (Table 13, p. 34). Section III of the project area intersects the eastern boundary of the 1980 survey conducted by UVA discussed in the Section II-B, Previous Cultural Resource Surveys section (p. 32). The next survey to take place intersecting Section III of the project area was conducted by UVA in 1985. This survey consisted of Phase I and Phase II archaeological surveys of approximately 340 acres (137.6 ha) across Albemarle County and examined 10 archaeological sites, none of which have been evaluated for inclusion in the NRHP by DHR staff (Hantman 1985). None of these identified sites overlap the current portion of the project area.

Table 13: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section III of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	**1985**	***The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia***	**Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)**
AB-019	**1980**	***Phase I Archaeological Survey of the Birdwood Tract, Albemarle County, Virginia***	**Patricia Plante, Kathryn Hardy and Stephan Plog (UVA Department of Anthropology)**

Previously Recorded Archaeological Sites

No previously recorded archaeological sites have been recorded in a 500-foot (152-m) radius of Section III of the project area.

Previously Recorded Architectural Resources

There is one previously recorded architectural resource within a 500-foot (152-m) radius of Section III of the project area (Table 14). Birdwood (002-0003), a two-story, Classical Revival-style building, was built post 1819 and was listed in the NRHP and VLR in 2003 under Criterion C for its architecture.

Table 14: Architectural Resources Located within a 500-Foot (152-m) Radius of Section III of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-0003	Birdwood, Birdwood Estate, Birdwood Pavilion, University of Virginia Golf Course, University of Virginia's Center for Politics	post 1819	NRHP Listing, VLR Listing (2003)	Dwelling

Section IV

Previous Cultural Resource Surveys

Two previous cultural resource surveys have been conducted within 500 feet (152 m) of Section IV of the project area (Table 15, p. 35). The only survey to overlap Section IV of the project area was conducted in 1985 by UVA. This survey consisted of Phase I and Phase II archaeological surveys of approximately 340 acres (137.6 ha) across Albemarle County and examined 10 archaeological sites, none of which had been evaluated for inclusion in the NRHP by DHR staff (Hantman 1985). None of these identified sites overlap the current portion of the project area.

Table 15: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section IV of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	**1985**	***The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia***	**Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)**
AB-019	1980	*Phase I Archaeological Survey of the Birdwood Tract, Albemarle County, Virginia*	Patricia Plante, Kathryn Hardy and Stephan Plog (UVA Department of Anthropology)

Previously Recorded Archaeological Sites

No previously recorded archaeological sites have been recorded in a 500-foot (152-m) radius of Section IV of the current project area.

Previously Recorded Architectural Resources

There is only one previously recorded architectural resource within a 500-foot (152-m) radius of Section IV of the project area (Table 16). Foxhaven is a circa-1930 farm complex with stone buildings that has not been evaluated by DHR staff (002-0128).

Table 16: Architectural Resources Located within a 500-Foot (152-m) Radius Section IV of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-0128	Foxhaven	ca. 1930	Not Evaluated	Farm

Section V

Previous Cultural Resource Surveys

A single survey was conducted within 500 feet (152 m) and also overlaps Section V of the project area (Table 17, p. 36). A 1985 survey by UVA consisted of a Phase I and Phase II archaeological survey of approximately 340 acres (137.6 ha) across Albemarle County. This work examined 10 archaeological sites, none of which have been evaluated for inclusion in the NRHP by DHR staff (Hantman 1985).

Previously Recorded Archaeological Sites

No previously recorded archaeological sites have been recorded in a 500-foot (152-m) radius of Section V of the project area.

Table 17: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section V of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	**1985**	***The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia***	**Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)**

Previously Recorded Architectural Resources

There is one previously recorded architectural resource within a 500-foot (152-m) radius of Section V of the project area (Table 18). The Ragged Mountain Reservoir Dams Complex (002-5102), built circa 1885, was determined eligible by DHR staff in 2007. It was evaluated as locally significant under Criterion A, for engineering, and Criterion C, for architecture, with a period of significance stretching from circa 1885 to 1910.

Table 18: Architectural Resources Located within a 500-Foot (152-m) Radius of Section V of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-5102	Ragged Mountain Reservoir Dams Complex	ca. 1885	DHR Staff: Eligible	Reservoir

Section VI

Previous Cultural Resource Surveys

Four previous cultural resource surveys have occurred within 500 feet (152 m) of Section VI of the project area (Table 19). In 1982, UVA carried out a survey for student dormitories and found two historic house sites (Haba and Rice 1982). In 1985, UVA conducted Phase I and Phase II archaeological surveys of approximately 340 acres (137.6 ha) across Albemarle County. This work examined 10 archaeological sites, none of which have been evaluated for inclusion in the NRHP by DHR staff (Hantman 1985). A 1990 Phase I and Phase II follow-up to the 1982 survey found no archaeological sites (Klein 1990).

Previously Recorded Archaeological Sites

A total of three previously recorded archaeological sites is located within a 500-foot (152-m) radius of Section VI of the project area (Table 20, p. 37), none of which intersect the project area. Site 44AB0071 constitutes a small lithic scatter of unknown temporal affiliation that has not been evaluated for inclusion in the NRHP. Sites 44AB0313 and 44AB0314 are single dwellings dating to the late-nineteenth and early-twentieth centuries, respectively. Neither site has been evaluated for the NRHP.

Table 19: Previous Cultural Resource Surveys within 500 Feet (152 m) of Section VI of the Project Area. Surveys overlapping the project area are in bold.

DHR Report #	Year	Title	Author(s)/Affiliation
AB-009	**1985**	***The Archaeology of Albemarle County: Results of a Systematic Survey of Proposed Development Areas in Albemarle County, Virginia***	**Jeffrey Hantman, Mark Catlin, Dawn Haverstock, Thomas Klatka, Michael Klein, Scott Parker, Douglas Sanford (UVA Department of Anthropology)**
AB-012	1979	*A Cultural Resources Reconnaissance of Proposed Water Distribution and Fire Protection Facilities for the University of Virginia, Albemarle County, Virginia*	Douglas C. McLearen (JMUARC)
AB-015	**1982**	***Phase I Archaeological Survey of the Stadium Road Student Housing Site, Charlottesville, Virginia***	**Alison T. de la Haba, John J. Rice (UVA Department of Anthropology)**
AB-092	**1990**	***Phase I and II Archaeological Survey of the Stadium Road Student Housing and Dining Facilities Site, Charlottesville, Virginia***	**Michael J. Klein (UVA Department of Anthropology)**

Table 20: Previously Recorded Archaeological Resources within 500 Feet (152 m) of Section VI of the Project Area.

DHR No.	Type	Period	NRHP Eligibility
44AB0071	Lithic Scatter	Precontact/Unknown	Not Evaluated
44AB0313	Dwelling, Single	19th Century: 2nd Half	Not Evaluated
44AB0314	Dwelling, Single	20th Century: 1st Quarter	Not Evaluated

Previously Recorded Architectural Resources

There are eight previously recorded architectural resources within a 500-foot (152-m) radius of Section VI of the project area (Table 21). A single resource, a Ranch-style dwelling built in 1958, was determined potentially eligible by DHR staff in 2017 (104-5267).

Table 21: Architectural Resources Located within a 500-Foot (152-m) Radius of Section VI of the Project Area.

DHR ID	Property Names	Date	Evaluation Status	Type
002-0123	House, 121 Mimosa Drive, Piedmont, Piedmont Farm	ca. 1820	Not Evaluated	Dwelling
002-1622	Department of Forestry, James W. Garner Building, State Forestry Headquarters Complex	ca. 1937	DHR Staff: Not Eligible	Education - Admin Building
104-5265	House, 109 Mimosa Drive	1958	DHR Staff: Not Eligible	Dwelling
104-5266	House, 111 Mimosa Drive	1958	DHR Staff: Not Eligible	Dwelling
104-5267	House, 113 Mimosa Drive	1958	DHR Staff: Potentially Eligible (2017)	Dwelling
104-5268	Apartment Building, 115 Mimosa Drive	1958	DHR Staff: Not Eligible	Apartment Building

DHR ID	Property Names	Date	Evaluation Status	Type
104-5271	House, 104 Westerly Avenue	1947	DHR Staff: Not Eligible	Multiple Dwelling
104-5285	Gooch-Dillard, Residence Hall, Floyd Drive	1984	Not Evaluated	Dormitory

Five of the eight resources were determined not eligible by DHR staff. These buildings include two Ranch-style dwellings built in 1958 (104-5265 and 104-5266), an apparent single-family dwelling that was built in 1958 and has since been subdivided into a multi-family dwelling (104-5268), a two-story, Colonial Revival-style apartment building built in 1947 (104-5271), and a two-story administration building built for the Department of Forestry circa 1937 (002-1622).

The remining two resources have not been evaluated by DHR staff. These resources are a Federal/Adamesque-style, two-story dwelling built circa 1820 (002-0123) and a Modernist-style dormitory building constructed in 1984 (104-5285).

RESULTS OF THE PHASE IA SURVEY

The Phase IA study included a historic map review and windshield survey across the entire project area for both archaeological potential and architectural resources. The goal was to identify areas that have the potential for archaeological sites, architectural resources 50 years or older, and also identify cultural resources on the surface.

Section I-A

Historic Map Review

Historic maps suggest that the areas immediately adjacent to Section I-A were relatively undeveloped immediately after the Civil War, though located in the vicinity of Woodburn Lane, an important thoroughfare at the time, and the Rivanna River. An 1867 map indicates just two buildings within or adjacent to Section I-A of the project area (Figure 4) (Library of Congress 1867). An 1892 map does not indicate an increase in development or the construction of additional roads in the immediate vicinity (Figure 5, p. 40) (USGS 1892).

Figure 4: 1867 Map with the Approximate Location of Section I-A Circled in Pink (Library of Congress 1867). Not to scale.

A 1935 map shows increased development along what would become Woodburn Lane. Unpaved roads or lanes branched off of this main road by this time as well, and several buildings had been constructed along them (USGS 1935). Note the Albemarle Training School to the south of Section I-A; this was a school for African American students in the county

(Figure 6, p. 41) (USGS 1935). At the very southern end of Woodburn Lane is Rio Road, which runs east-west through the project area, turns southwest, and then turns into Hydraulic Road farther southwest. This portion of Rio Road experienced little development by 1935. Highway 29/Seminole Trail was then visible along the eastern portion of the project area. A significant increase in development occurred to the east of this alignment between 1935 and 1987, especially along Highway 29/Seminole Trail and Rio Road (Figure 7, p. 41) (USGS 1987). By this time, several subdivisions and commercial buildings had been constructed to the east and southeast of Section I-A. Presently, the site has not changed much since the 1987 topographic map.

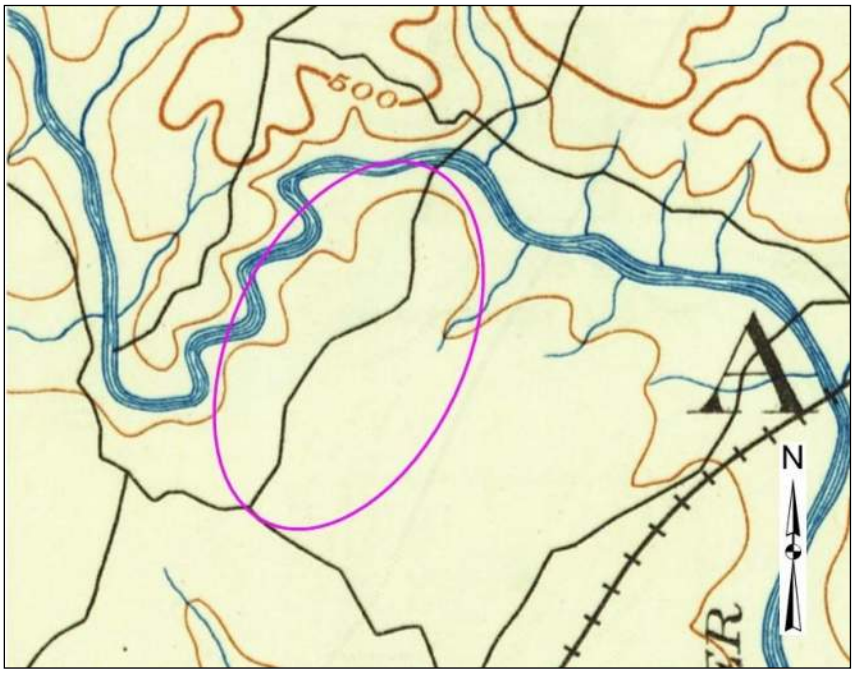

Figure 5: 1892 USGS Topographic Quadrangle Map with the Approximate Location of Section I-A Circled in Pink (USGS 1892b). Not to scale.

Archaeological Field Survey Results

Section I-A of the RWSA project area extends 7,212 feet (2,225 m) from the northern terminus of the section, southwest along Woodburn Road and Rio Road West (Figure 8, p. 42). The northern portion of the alignment travels along the northwest side of Woodburn Road for 2,094 feet (638 m) until approximately a water tower on the north side of Woodburn Road where it crosses and travels along the southeast side of Woodburn Road. This northern portion of Section I-A appears to lie adjacent to a multitude of existing utilities, though disturbance cannot be confirmed within the current alignment (Photo 1, p. 43). A single previously identified archaeological site (44AB0427) falls just northeast of the water tower, overlapping the current alignment. Scattered historic refuse can be seen in the vicinity along with two deep depressions, which were previously identified as a cellar foundation and well (Photo 2, p. 43). The site was previously recommended not eligible for inclusion in the NRHP. Additionally, at the northern terminus of Section I-A, a historic trash midden was observed containing glass and ceramic artifacts dating roughly to the early-twentieth century (Photo 3, p. 44).

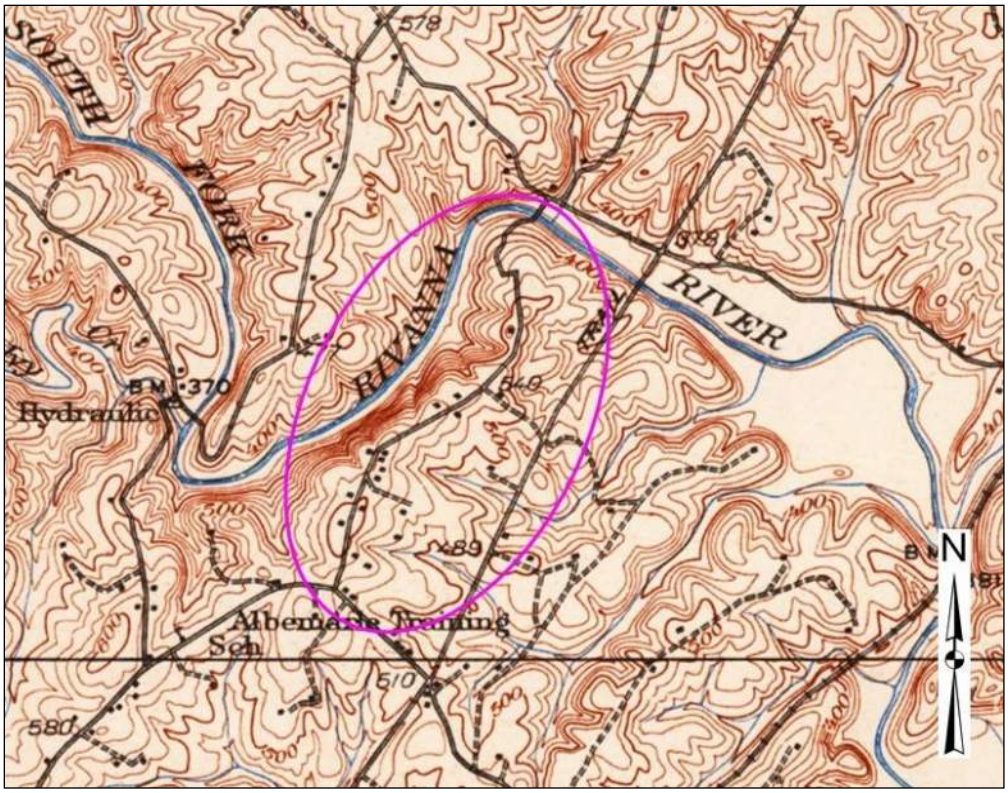

Figure 6: 1935 USGS Topographic Quadrangle Map with the Approximate Location of Section I-A Circled in Pink (USGS 1935). Not to scale.

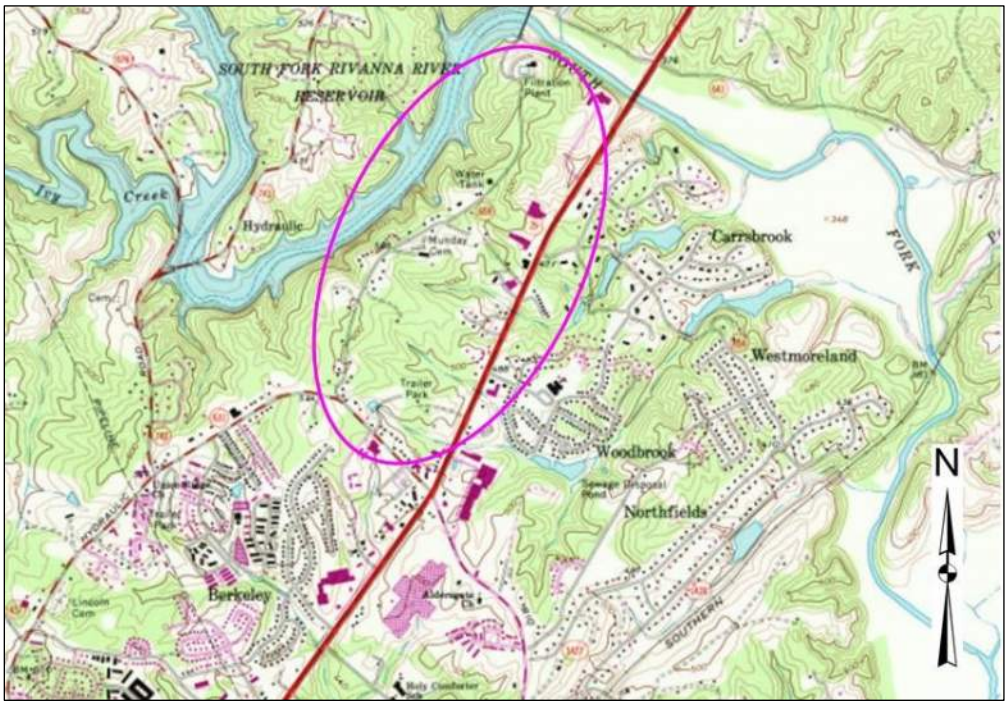

Figure 7: 1987 USGS Topographic Quadrangle Map with the Approximate Location of Section I-A Circled in Pink (USGS 1987). Not to scale.

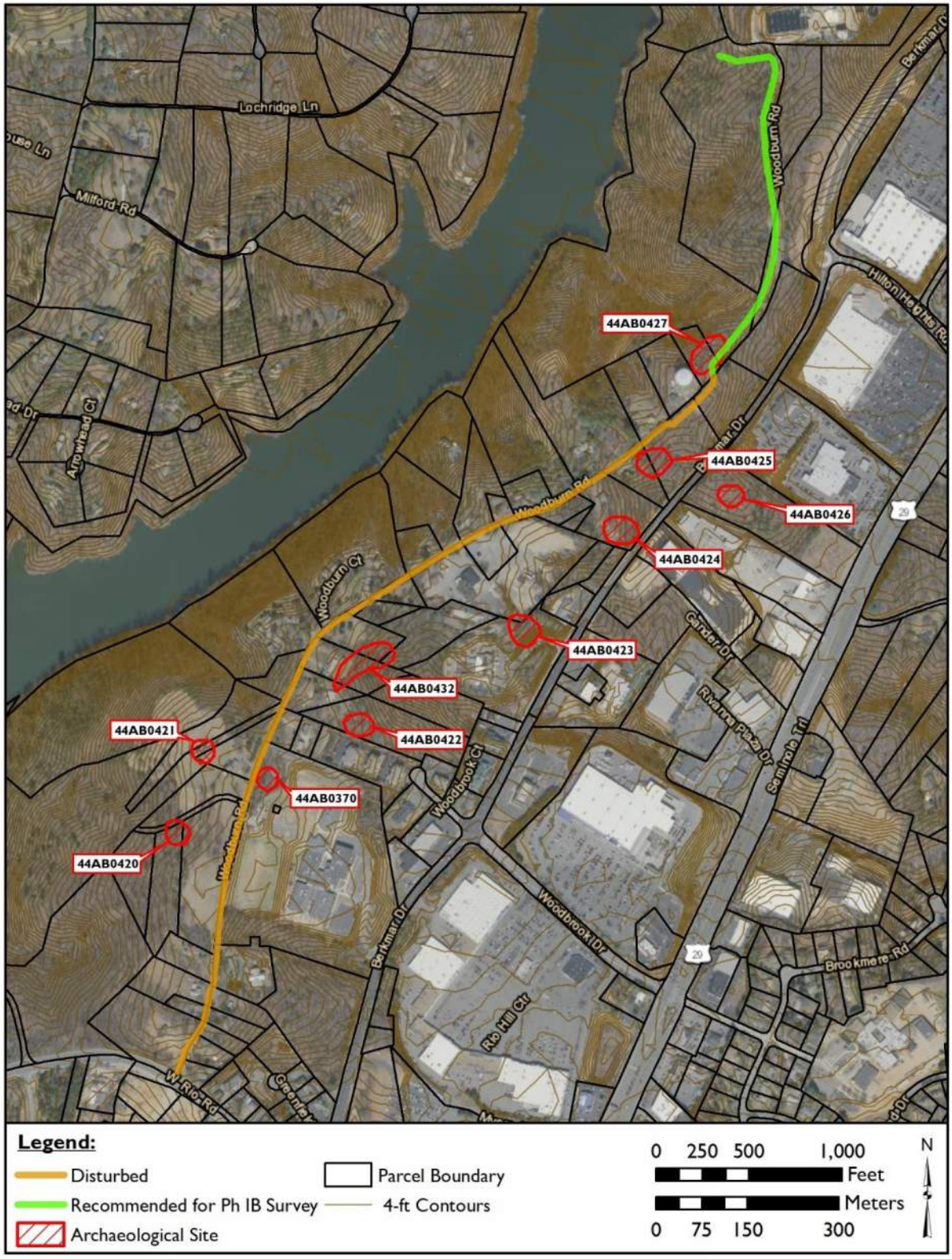

Figure 8: Location of Section I-A Showing Previously Recorded Sites Within 500 feet (152 m) as well as Areas Recommended for Phase IB Survey (VGIN 2021).

Photo 1: Overview of Area Suitable for Subsurface Survey Adjacent to Existing Utilities in the Northern Portion of Section I-A, Facing North.

Photo 2: Previously Identified Site 44AB0427 Showing Remnants of Well and Cellar Hole, Facing South.

Photo 3: Historic Trash Midden at Northern Terminus of Section I-A. McCoy Hunting Dog Planter dating to the 1950's shown in center.

South of the water tower, the alignment lies within the existing road pavement and shoulder which has been disturbed by the construction of the road. Much of the area within the current alignment is disturbed by existing utilities or Woodburn Road and therefore does not possess high potential for the presence of intact archaeological sites (Photo 4, p. 45). Nevertheless, sections along the northern portion of the alignment that do not show evidence of obvious disturbance would need to be subjected to Phase IB archaeological survey. The area recommended for Phase IB archaeological survey is approximately 2,094 linear feet (638 m)

of the alignment while the remainder appears heavily disturbed. Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals (see Figure 8, p. 42).

Photo 4: Disturbed Portion of Section I-A Showing Existing Road and Marked Utility Line Along the East Side of Woodburn Road, Facing Northeast.

Architectural Field Survey Results

The architectural study of the architectural project area in Section I-A identified a total of 27 above-ground resources that are either previously recorded (n=18) or previously unrecorded and are 50 years in age or older (n=9) (Table 22; Figure 9, p. 47).

Table 22: Architectural Resources within the Architectural Project Area in Section I-A.

Temp Number/ DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-1226	Deane House-Main	ca. 1880	Not Evaluated	Phase IB Survey Recommended
002-1227	Gibbons-Harris Cemetery	ca. 1911	Not Evaluated	Phase IB Survey Recommended
002-1762	House, 2175 Woodburn Road	ca. 1908	Not Evaluated	Phase IB Survey Recommended
002-1810	Deane House Tenant	pre 1900	Not Evaluated	Phase IB Survey Recommended
002-1811	House, Route 659	pre 1900	Not Evaluated	Phase IB Survey Recommended

Temp Number/ DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-2057	House, Rio Road	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2058	House, 600 Rio Road	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2059	House, Route 659	ca. 1950	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2060	House, Route 659	ca. 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2061	House, Route 659	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2063	House, Route 659	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2064	Garage, Route 659	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2065	House, Route 659	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2066	House, Route 659	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-2067	S.P.C.A.	post 1900	DHR Staff: Not Eligible (1994)	Phase IB Survey Recommended
002-5208	Cemetery, 2115 Woodburn Road, Shiflett-Munday Cemetery	ca. 1912	Not Evaluated	Phase IB Survey Recommended
002-5218	Confederate Encampment, Battle of Rio Hill	1864	DHR Staff: Not Eligible (2014)	Phase IB Survey Recommended
002-5230	South Fork Rivanna Water Treatment Plant, Water Treatment Plant, 2383 Woodburn Road	1963	DHR Staff: Not Eligible (2014)	Phase IB Survey Recommended
Temp 1	House, 2110 Woodburn Road	ca. 1960	N/A	Phase IB Survey Recommended
Temp 2	House, 2021 Woodburn Road	ca. 1968	N/A	Phase IB Survey Recommended
Temp 3	House, 2005 Woodburn Road	ca. 1970	N/A	Phase IB Survey Recommended
Temp 4	House, 1989 Woodburn Road	ca. 1960	N/A	Phase IB Survey Recommended
Temp 5	House, 1885 Woodburn Road	ca. 1951	N/A	Phase IB Survey Recommended
Temp 6	House, 1875 Woodburn Road	ca. 1960	N/A	Phase IB Survey Recommended
Temp 7	House, 1854 Woodburn Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 8	House, 1853 Woodburn Road	ca. 1969	N/A	Phase IB Survey Recommended
Temp 9	House, 580 Rio Road West	ca. 1970	N/A	Phase IB Survey Recommended

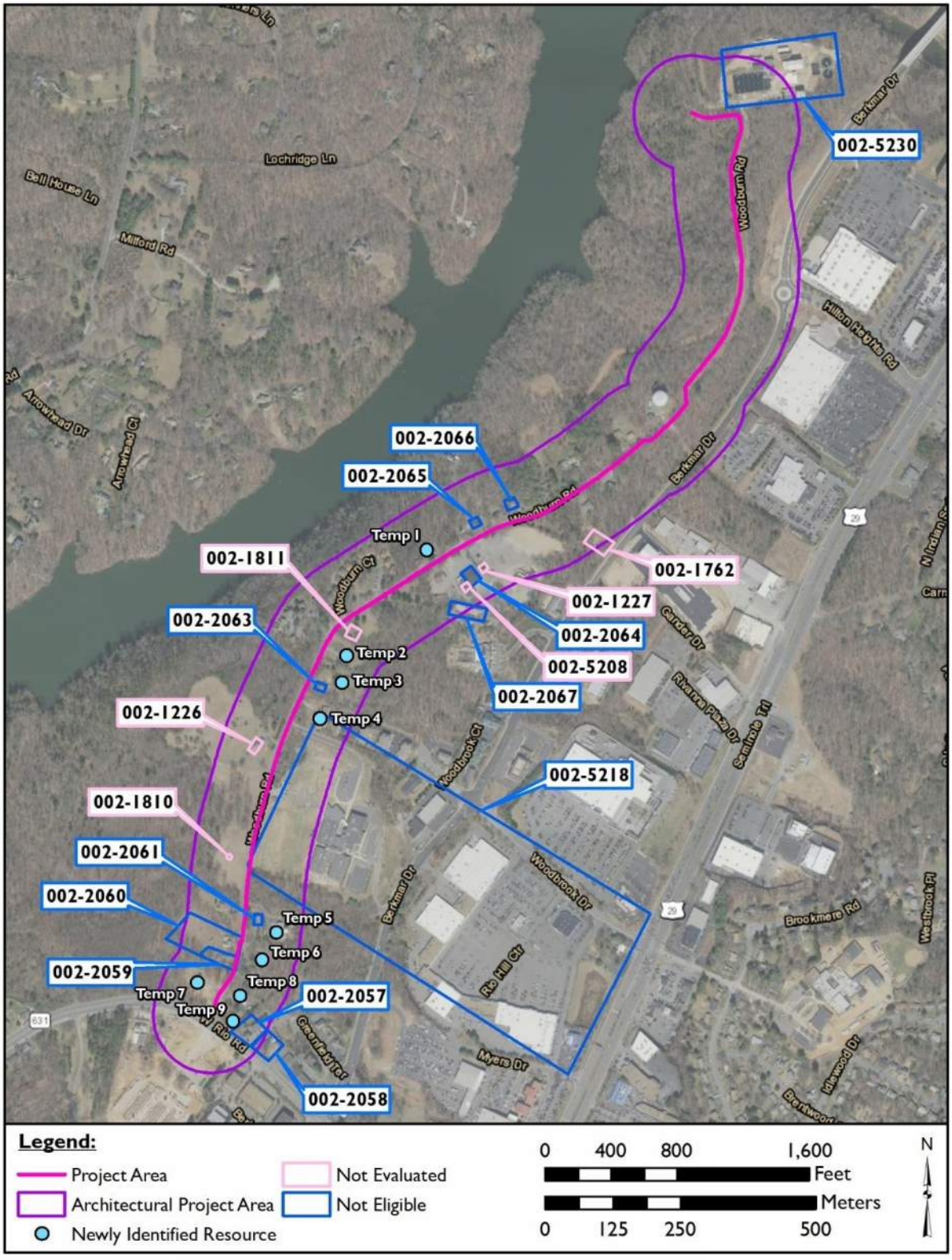

Figure 9: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section I-A (VGIN 2021).

Although none of the 18 previously recorded resources have been listed in or determined eligible or potentially eligible for the NRHP, 12 have been previously determined not eligible for the NRHP by DHR staff. Eight of those 12 resources are single-family houses constructed in the early- to mid-twentieth century (002-2057–002-0061 and 002-2063–002-0066). In addition, there is an S.P.C.A. office building (002-2067), an 1864 Confederate encampment area (002-5218), and a water treatment plant constructed in 1963 (002-5230). All 12 of these resources were determined to be not eligible for the NRHP in either 1994 of 2014. Because the 12 previously recorded resources were last surveyed more than five years ago, Dovetail **recommends that they be resurveyed at the Phase IB level to ensure they should remain not eligible for the NRHP.**

The remaining six above-ground resources within the architectural project area of Section I-A have been previously recorded with DHR; however, they have not been formally evaluated for the NRHP. Three resources are houses that were built in the nineteenth century: the circa-1880 Deane House-Main (002-1226); the Deane House Tenant (002-1810); and House on Route 659 (002-1811), the latter two of which are listed as dating to pre-1900. The remaining previously recorded resources within the architectural project area all date to the twentieth century and include a house (002-1762) and two cemeteries (002-1227 and 002-5208). These resources have never been formally evaluated for NRHP eligibility and, as such, Dovetail r**ecommends that they be the subject of a Phase IB survey.**

The remaining nine resources have not been previously surveyed (Temp 1–Temp 9). They include one- to two-story, single-family dwellings constructed between circa 1951 and circa 1970. Most of the houses are modest representations of common architectural trends of the early- to mid-twentieth century, although some high styles, or elements of those high styles, are represented, such as Folk Victorian, Colonial Revival, Ranch, and Minimal Traditional styles and the Cape Cod form (Photo 5; Photo 6, p. 49). Dovetail **recommends that these nine newly identified resources that meet the survey criteria within the architectural project area of Section I-A should be the subject of a Phase IB reconnaissance-level survey.**

Photo 5: Sample of Previously Recorded Resources within the Architectural Project Area in Section I-A: 002-5320 (Left) and 002-2065 (Right).

Photo 6: Previously Unrecorded Resources within the Architectural Project Area in Section I-A: Temporary Number 1 (Left) and Temporary Number 2 (Right).

Section I-A Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas suitable and unsuitable for subsurface survey within the project area based on the likelihood of encountering archaeological resources and determined that a small portion of Section I-A, 2,094 feet (638 m), has the potential for containing intact soils and thus intact archaeological sites. One previously recorded site (44AB0427) is within a small portion of the Section I-A corridor. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 2,094 feet (638 m) of Section I-A of the project area.**

During the Phase IA architectural survey, in addition to the 18 previously recorded resources, Dovetail identified nine previously unrecorded resources within the architectural project area. Dovetail **recommends that all 27 above-ground resources that meet the survey criteria and are located within the architectural project area should be the subject of a Phase IB reconnaissance-level survey**.

Section I-B

Historic Map Review

Historic maps suggest that the areas immediately adjacent to Section I-B were relatively undeveloped shortly after the Civil War, though located along what appears to be an important thoroughfare (current Rio Road). Research suggests that the area comprised scattered houses and farms during most of the nineteenth century. An 1867 map indicates just three buildings within or adjacent to the project area (Figure 10, p. 50) (Library of Congress 1867). According to mapping, the area appears to have remain undeveloped throughout the remainder of the nineteenth century (Figure 11, p. 50) (USGS 1892a, 1892b).

By 1935, a dramatic increase in development is visible in historic mapping along what would become Rio Road to the north, and Hydraulic Road to the south (USGS 1935). Unpaved roads or lanes branch off of the main road by this time as well, and many buildings were located along them. Albemarle Training School, a school for African American students, is visible at the northern end of Section I-B (Figure 12, p. 51) (USGS 1935). To the east of the project area,

Highway 29/Seminole Trail was also constructed by this time. There was a significant increase in both residential and commercial construction, especially to the east of the project area, between 1935 and 1987 (Figure 13, p. 51) (USGS 1987). Currently, the area is much as it was in 1987. Some additional residential development has occurred to the northwest, and commercial development to the southeast.

Figure 10: 1867 Map with the Approximate Location of Section I-B Circled in Pink (Library of Congress 1867). Not to scale.

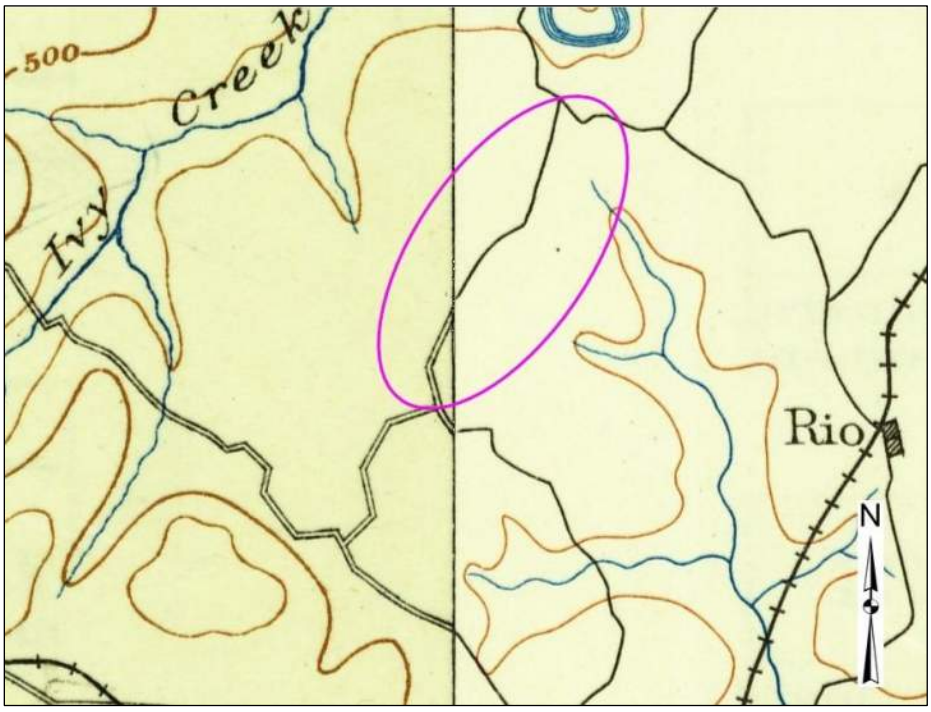

Figure 11: 1892 USGS Topographic Quadrangle Map with the Approximate Location of Section I-B Circled in Pink (USGS 1892a, Left; USGS 1892b, Right). Not to scale.

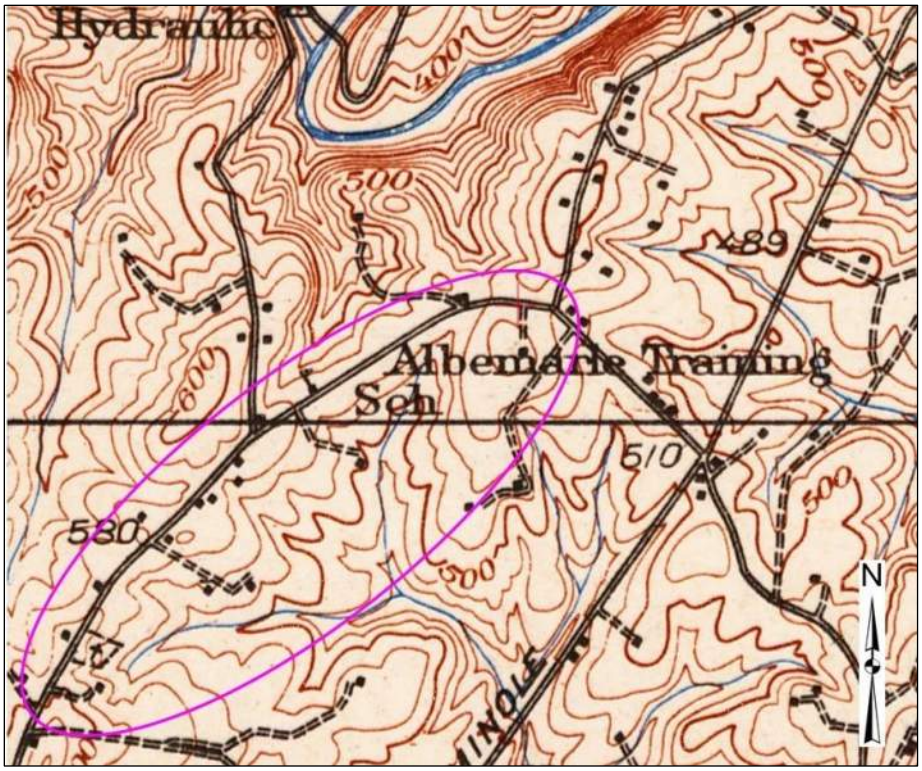

Figure 12: 1935 USGS Topographic Quadrangle Map with the Approximate Location of Section I-B Circled in Pink (USGS 1935). Not to scale.

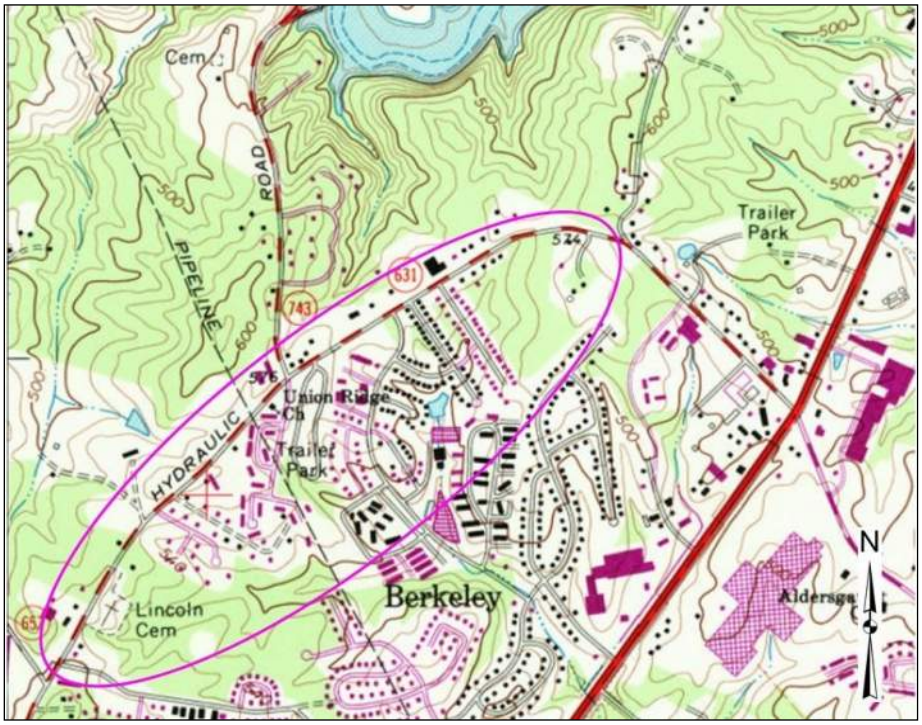

Figure 13: 1987 USGS Topographic Quadrangle Map with the Approximate Location of Section I-B Circled in Pink (USGS 1987). Not to scale.

Archaeological Field Survey Results

Section I-B of the RWSA project area extends 7,109 feet (2,167 m) from its northern terminus at the intersection of Woodburn Road and Rio Road West south to the intersection of Hydraulic Road and Lambs Road. The proposed alignment follows the southbound lane of Rio Road West and Hydraulic Road, generally within the turn lanes and bike lanes (Photo 7; Figure 14, p. 53; Photo 8, p 54). This alignment was selected to minimize construction disturbance and maximize construction in existing right-of-way and utility corridors. Although the alignment crosses through two previously identified archaeological sites (44AB0395 and 44AB0396), the portions of these sites the alignment passes through have likely been heavily disturbed or demolished by the construction of Hydraulic Road. As such, no portions of Section I-B are recommended for Phase IB archaeological survey (see Figure 14, p. 53).

Photo 7: Location of the Southern Terminus of Section I-B at the intersection of Hydraulic Road and Lambs Road along the Southbound Lane, Facing Northeast.

Architectural Field Survey Results

The architectural study of the Section I-B architectural project area identified a total of 22 above-ground resources that are either previously recorded (n=7) or previously unrecorded and are 50 years in age or older (n=15) (Table 23, p. 54; Figure 15, p. 56).

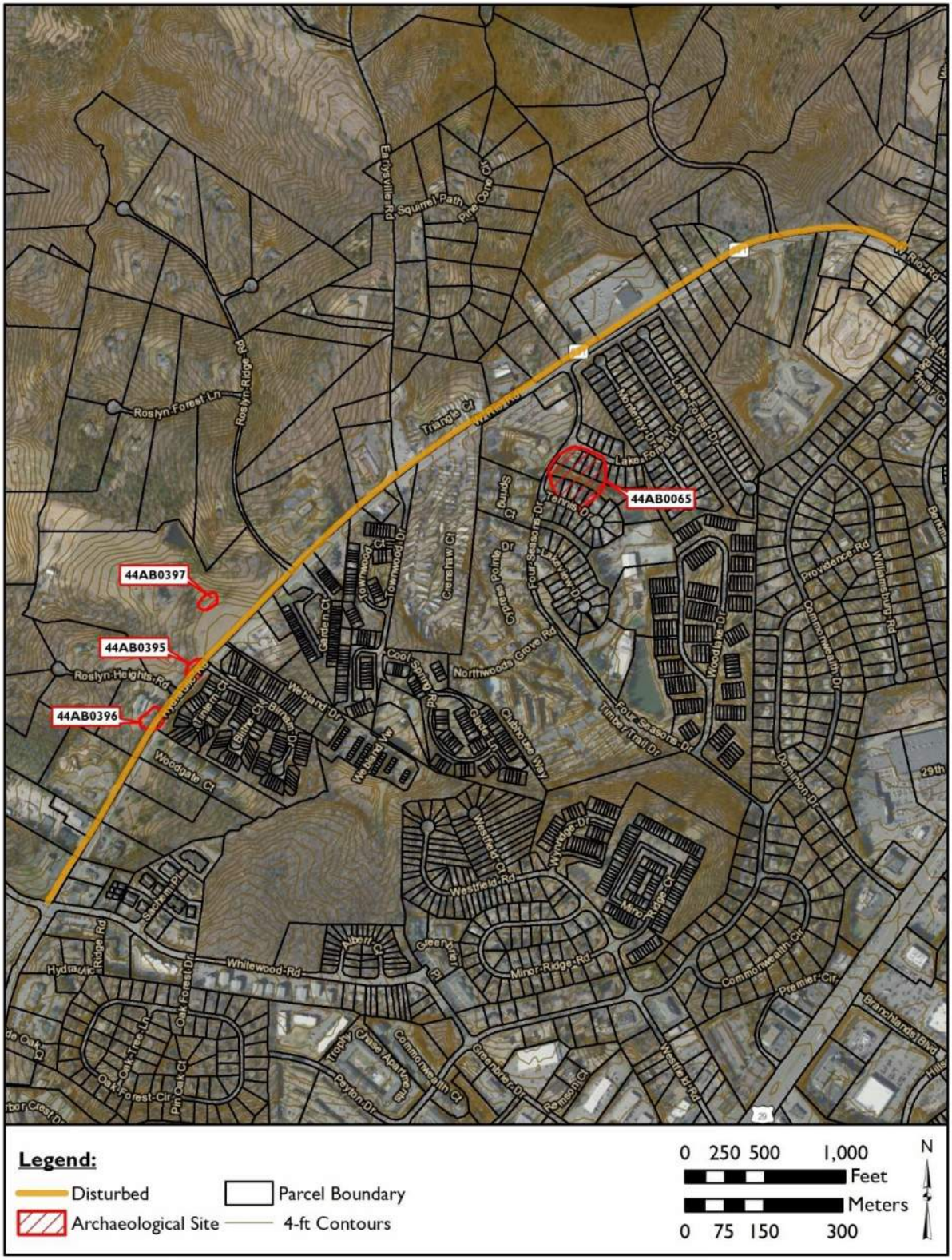

Figure 14: Location of Section I-B Showing Previously Recorded Sites Within 500 Feet (152 m) (VGIN 2021).

Photo 8: View of the Section I-B Alignment at the Intersection of Hydraulic Road and Roslyn Ridge Road, Facing Northeast.

Table 23: Architectural Resources within the Architectural Project Area of Section I-B.

Temp Number/ DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-1135	Albemarle Normal School, Albemarle Training School	ca. 1912	Not Evaluated	Phase IB Survey Recommended
002-1228	Lincoln Cemetery	ca. 1920	Not Evaluated	Phase IB Survey Recommended
002-1231	Hydraulic Market, Rock Store	post 1900	DHR Staff: Not Eligible	Phase IB Survey Recommended
002-1233	House, Route 631 (Hydraulic Road)	post 1900	DHR Staff: Not Eligible	Phase IB Survey Recommended
002-1752	Oakleigh Farm	1897	Demolished	Phase IB Survey Recommended
002-1753	House, 2948 Hydraulic Road	post 1900	Not Evaluated	Phase IB Survey Recommended
002-1765	House, Route 631	ca. 1900	Not Evaluated	Phase IB Survey Recommended
Temp 10	House, 515 Rio Road W.	ca. 1971	N/A	Phase IB Survey Recommended
Temp 11	House, 470 Rio Road W.	ca. 1961	N/A	Phase IB Survey Recommended
Temp 12	House, 460 Rio Road W.	ca. 1962	N/A	Phase IB Survey Recommended
Temp 13	House, 442 Rio Road W.	ca. 1957	N/A	Phase IB Survey Recommended
Temp 14	House, 445 Rio Road W.	ca. 1958	N/A	Phase IB Survey Recommended
Temp 15	House, 440 Rio Road W.	ca. 1960	N/A	Phase IB Survey Recommended

Temp Number/ DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
Temp 16	House, 435 Rio Road W.	ca. 1958	N/A	Phase IB Survey Recommended
Temp 17	House, 425 Rio Road W.	ca. 1955	N/A	Phase IB Survey Recommended
Temp 18	House, 370 Rio Road W.	ca. 1963	N/A	Phase IB Survey Recommended
Temp 19	House, 352 Rio Road W.	ca. 1960	N/A	Phase IB Survey Recommended
Temp 20	Office Building, 301 Rio Road W.	ca. 1971	N/A	Phase IB Survey Recommended
Temp 21	Trailer Park, 251 Triangle Court	ca. 1961	N/A	Phase IB Survey Recommended
Temp 22	Church, 2980 Hydraulic Road	ca. 1754	N/A	Phase IB Survey Recommended
Temp 23	Commercial Building, 2817 Hydraulic Road	ca. 1965	N/A	Phase IB Survey Recommended
Temp 25	Grocery Store, 2808 Hydraulic Road	ca. 1961	N/A	Phase IB Survey Recommended

None of the seven previously recorded resources have been listed in the NRHP or determined eligible or potentially eligible by DHR staff, but two of the resources have been determined not eligible for listing in the NRHP or VLR by DHR staff. One of these resources is a single-story, stone-masonry commercial building constructed post 1900 (002-1231). The other resource is a one-story, concrete-block dwelling, also built post 1900 (002-1233). Both of these resources were determined to be not eligible for the NRHP in 1994. Because they were last surveyed more than five years ago, Dovetail **recommends that these two resources be resurveyed at the Phase IB level to ensure they should remain not eligible for the NRHP.**

The remaining five previously surveyed above-ground resources within the architectural project area have been previously recorded with DHR; however, they have not been formally evaluated for the NRHP. Two of these resources are one-story dwellings built circa 1900 (002-1765 and 002-1753). One, Oakleigh Farm (002-1752), was noted as being demolished. The remaining two resources include a circa-1912, wood-framed school (002-1135) and a circa-1920 cemetery (002-1228) that have also not been evaluated by DHR staff (Photo 9, p. 57). These resources have never been evaluated for NRHP eligibility and, as such, Dovetail **recommends that they be the subject of a Phase IB survey.**

The remaining 15 resources (Temp 8–23 and Temp 25) are newly identified as part of this study. Many of these are mid-twentieth-century Ranch-style dwellings, including a modest Modernist brick dwelling built around 1957 (Temp 13). Many commercial buildings are also located within the architectural project area in Section I-B, including a one-story garden center (Temp 10) and a large commercial office building (Temp 20), both constructed around 1971. A small grocery store (Temp 25) and a trailer park (Temp 21) associated with a mid-century commercial building were also identified. The oldest previously unrecorded resource is a wood-frame church constructed around 1754 (Temp 22). Dovetail **recommends that these 15 newly identified resources that meet the survey criteria within the architectural project area should be the subject of a Phase IB reconnaissance-level survey** (Photo 10, p. 57).

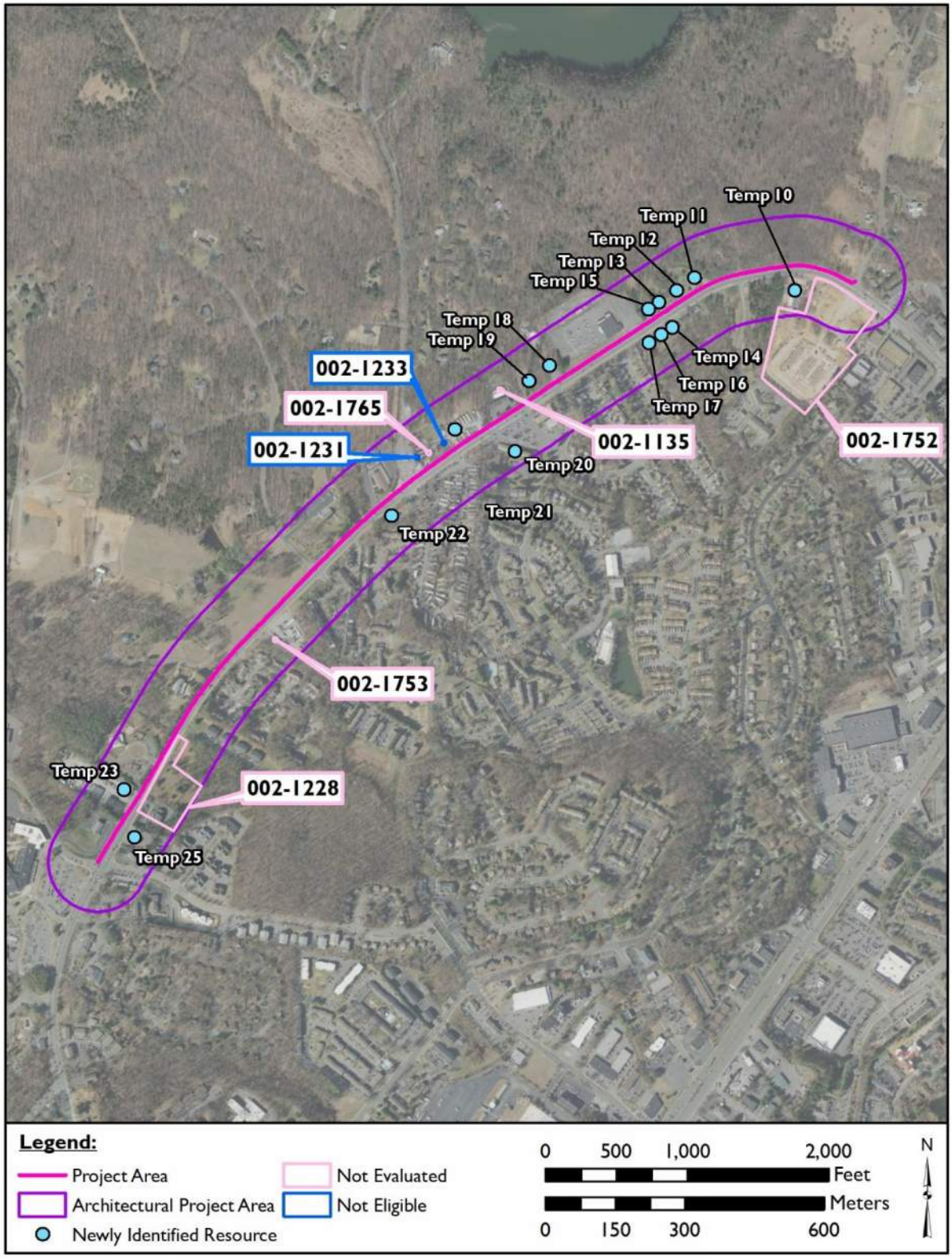

Figure 15: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section I-B (VGIN 2021).

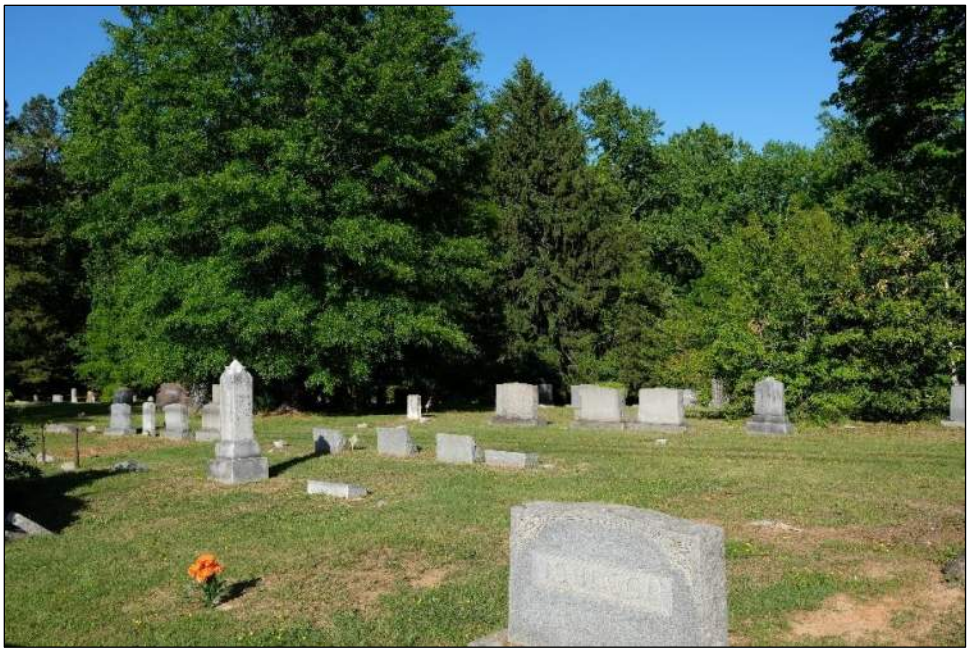

Photo 9: Sample of a Previously Recorded Resource within the Architectural Project Area in Section I-B: 002-1288

Photo 10: Sample of Newly Identified Resources within the Architectural Project Area in Section I-B: Temp 10 (Top Left); Temp 15 (Top Right); and Temp 20 (Bottom).

Section I-B Survey Summary and Recommendations

In sum, the Phase IA archaeological study resulted in the definition of areas which warrant Phase IB archaeological survey and portions of the project area which do not warrant further survey. Based on the current assessment of Section I-B, there is no portion of this section likely to encounter archaeological resources. This determination is based on the alignment lying within the current limits of Hydraulic Road, thus having limited potential to contain intact soils. Two previously recorded sites (44AB0395 and 44AB0396) are within this portion of the corridor, though the portions of these sites in the corridor are likely destroyed by the construction of Hydraulic Road. Based on the combined findings, **Dovetail recommends no further Phase IB archaeological survey for Section I-B of the current project area.**

During the Phase IA architectural survey, in addition to the seven previously recorded resources, Dovetail identified 15 previously unrecorded resources within the architectural project area. Dovetail **recommends that all 22 of these above-ground resources be the subject of a Phase I-B reconnaissance-level study.**

Section II-A

Historic Map Review

Historic maps suggest that the area immediately adjacent to Section II-A was relatively undeveloped shortly after the Civil War, though a single stream runs east-to-west through the area to the south and one building is visible. To the southeast of the project area is the City of Charlottesville (Figure 16, p. 59) (Library of Congress 1867). The area remained fairly undeveloped through the remainder of the nineteenth century. By the second quarter of the twentieth century, minimal development occurred in the project area but included several more secondary or private roads lined with several buildings (USGS 1931). Also apparent is the Virginia Western Power Line, which runs along the southern end of Section II-A (Figure 17, p. 59) (USGS 1931). A subsequent 1960 map again shows little development and the former Virginia Western Power Line was at that time denoted as belonging to the Virginia Public Service (Figure 18, p. 60) (USGS 1960). Albemarle High School (002-5312) was constructed near the easternmost portion of the project area prior to 1963, according to historic aerials (Historic Aerials 1963). Additional historic aerials show the construction of another school to the west of the previous school, circa 1965 (Figure 19, p. 60) (Historic Aerials 1965; USGS 1997). The area today remains fairly undeveloped.

Archaeological Field Survey Results

Section II-A of the RWSA project area extends 10,849 feet (3,307 m) from the intersection of Hydraulic Road and Lambs Road to the southern edge of Ingleridge Farm along Barracks Road (Figure 20, p. 61). The proposed alignment turns from Hydraulic Road onto Lambs Road and stays in the northbound lane of Lambs Road before crossing behind Albemarle County School Board property. The alignment crosses two streams and a wetland. A large majority of this section falls along high slopes greater than 15 percent (Photo 11, p. 62). These high-sloped areas are not recommended for further Phase IB survey. The portions of the alignment

following Lambs Road lie in the existing road and are not recommended for further archaeological survey (Photo 12, p. 62).

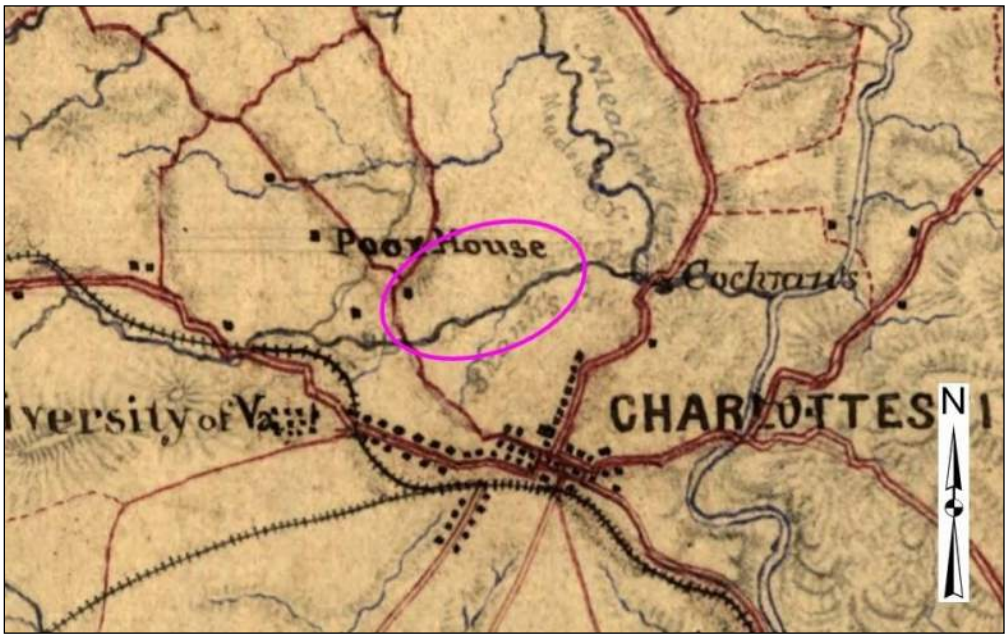

Figure 16: 1867 Map with the Approximate Location of the Section II-A Circled in Pink (Library of Congress 1867). Not to scale.

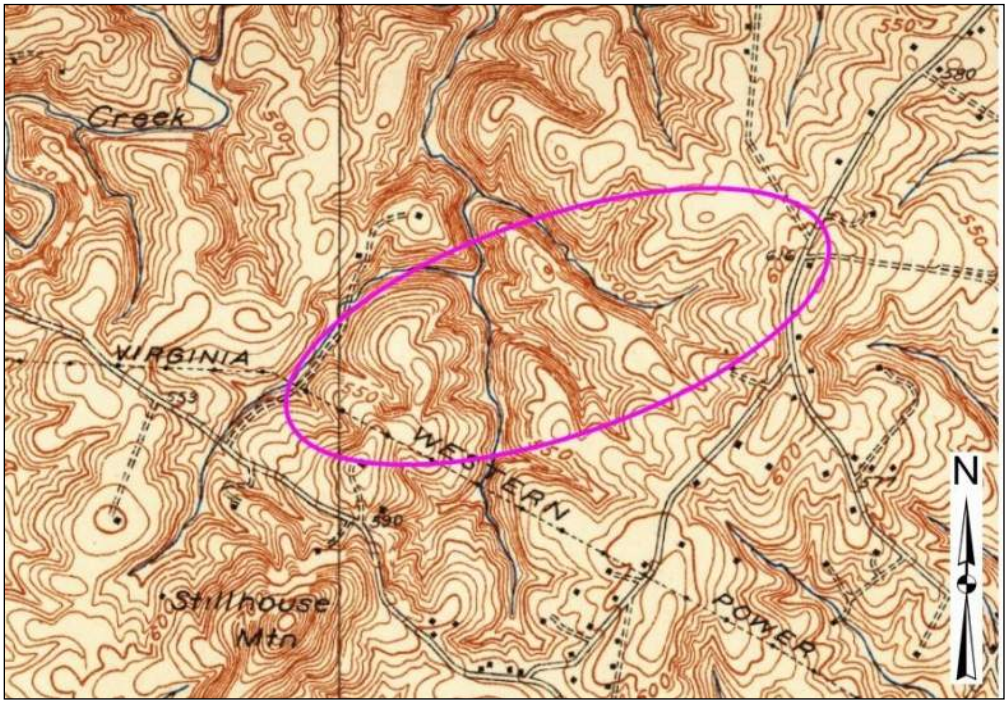

Figure 17: 1931 USGS Topographic Quadrangle Map with the Approximate Location of Section II-A Circled in Pink (USGS 1931). Not to scale.

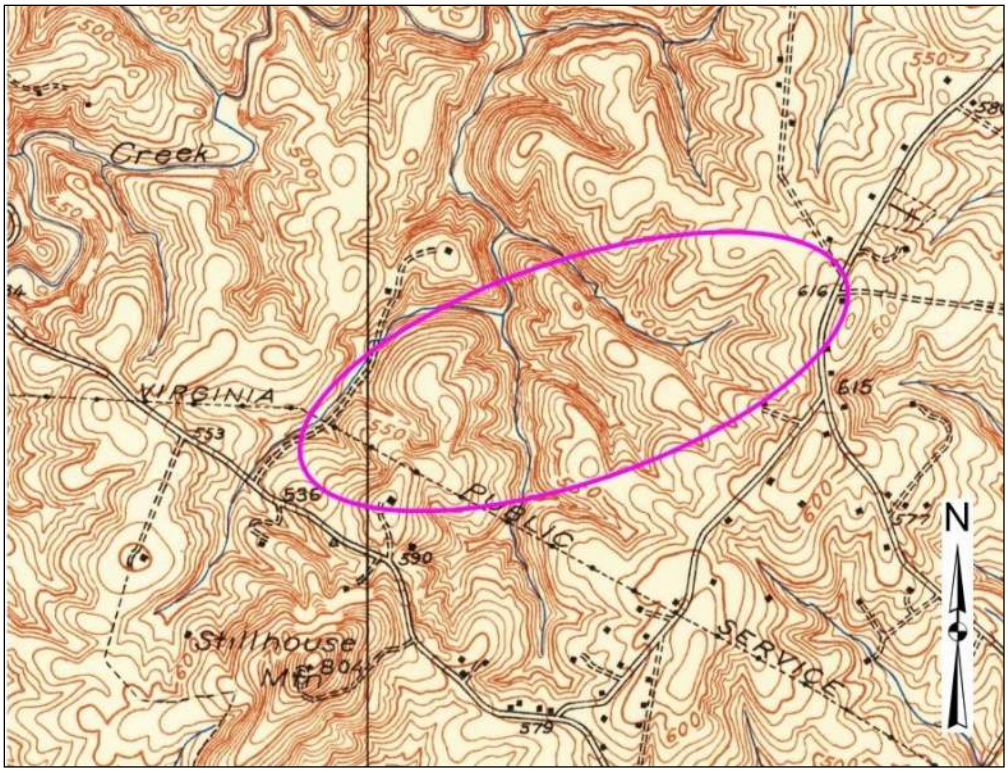

Figure 18: 1960 USGS Topographic Quadrangle Map with the Approximate Location of Section II-A Circled in Pink (USGS 1960). Not to scale.

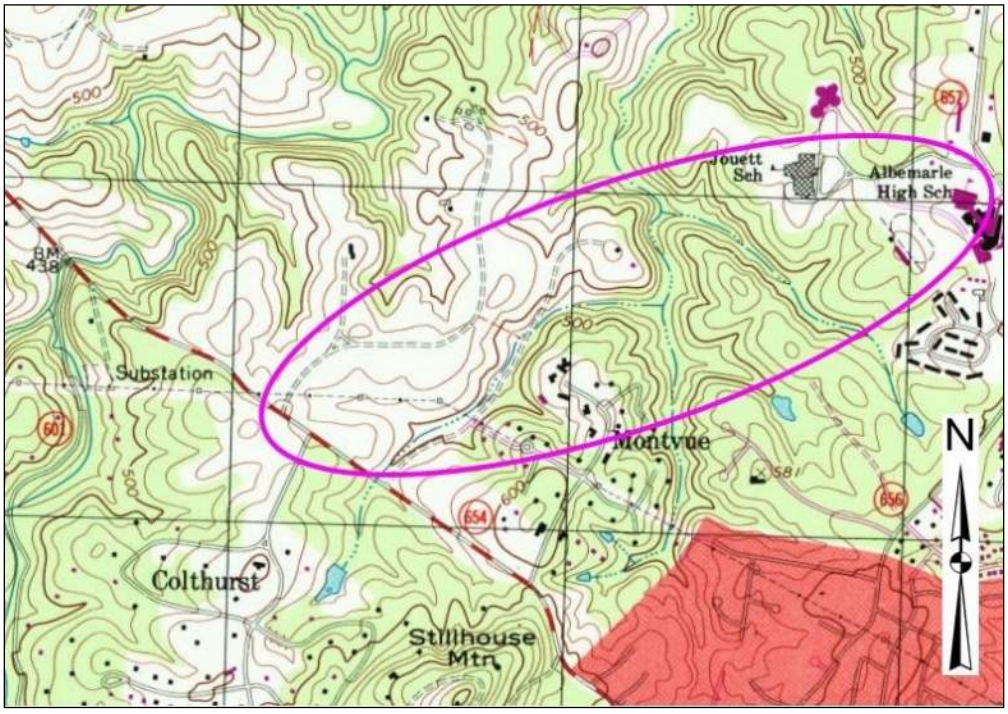

Figure 19: 1997 USGS Topographic Quadrangle Map with the Approximate Location of Section II-A Area Circled in Pink (USGS 1997). Not to scale.

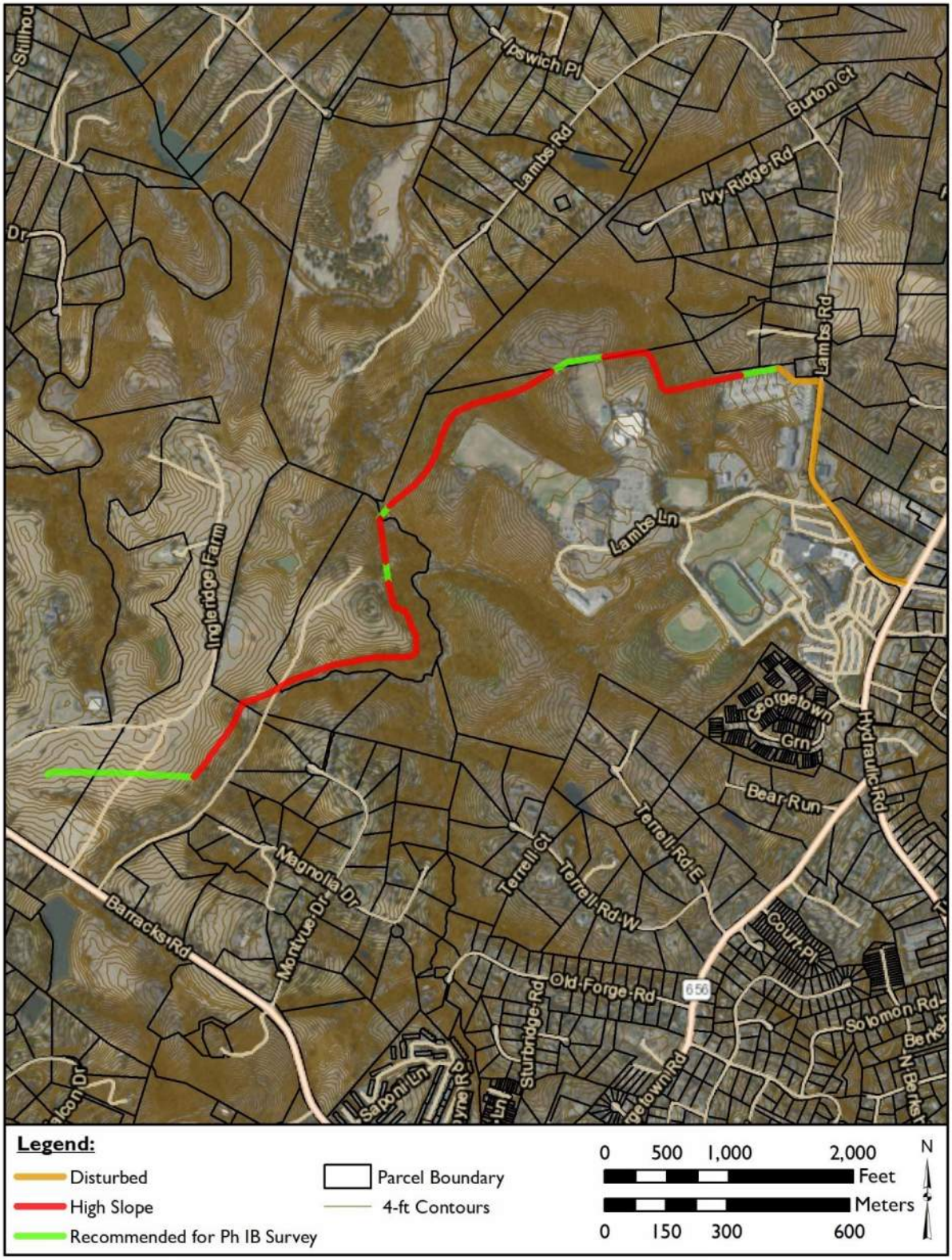

Figure 20: Location of Section II-A Showing Areas Recommended for Phase IB Survey (VGIN 2021).

Photo 11: Example of High Slopes Along the Section II-A Alignment, Facing North.

Photo 12: Disturbed Portion of Section II-A Along Lambs Road, Facing South.

Portions of Section II-A which are recommended for further survey include a small section of relatively flat ground behind the parking lot for the Albemarle County Public Schools Bus Garage and Lot measuring approximately 300 feet (91 m) in length (Photo 13). An additional area of low slope suitable for Phase IB archaeological survey lies behind Mary Carr Greer Elementary School. This area measure approximately 450 feet (137 m) and is bounded on either side by steep slopes (Photo 14, p. 64). Two small areas measuring approximately 150 feet (46 m), each along the narrow floodplains of small creeks, also seem suitable for further survey (Photo 15, p. 64). Lastly, the southernmost portion of Section II-A lies along an open field on moderate slopes (Photo 16, p. 65). While this area does not have high potential for archaeological remains, it is recommended for further Phase IB survey based on its proximity to a small drainage and relatively low slope compared to the surrounding terrain. The area recommended for Phase IB archaeological survey is 2,247 linear feet (6685 m) of the alignment while the remainder appears to be along high slopes or disturbed from road construction. Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals (see Figure 20, p. 61).

Photo 13: Area Suitable for Subsurface Survey Located Behind the Bus Garage and Parking Lot, Facing West.

Architectural Field Survey Results

The reconnaissance architectural study included an inspection of the architectural project area in Section II-A and identified a total of 10 above-ground resources that are either previously recorded (n=7) or previously unrecorded and are 50 years in age or older (n=3) (Table 24, p. 65; Figure 21, p. 66).

Photo 14: Area Suitable for Subsurface Survey Located Behind Mary Carr Greer Elementary School, Facing West.

Photo 15: Small Area Suitable for Subsurface Survey Along Small Creek in its Floodplain, Facing South.

Photo 16: Gentle Slopes Along Area Suitable for Subsurface Survey in the Southernmost Portion of Section II-A, Facing North.

Table 24: Architectural Resources within the Section II-A Architectural Project Area.

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-1735	House, 2901 Barracks Road, Sugar Day	ca. 1920	Not Evaluated	Phase IB Survey Recommended
002-1736	Ingleridge Farm, Barracks Road (Rt 654), Schlesinger Farm	1941	DHR Staff: Potentially Eligible (1990)	Phase IB Survey Recommended
002-5191	House, 223 Montvue Drive	ca. 1960	DHR Staff: Not Eligible (2012)	Phase IB Survey Recommended
002-5192	House, 225 Montvue Drive	1960	DHR Staff: Not Eligible (2012)	Phase IB Survey Recommended
002-5193	Sammons House and Cemetery 1975 Lambs Road (Rt 657)	ca. 1850	Federal Det. Of Eligibility (2013)	Phase IB Survey Recommended
002-5211	House, 1995 Lambs Road	1955	DHR Staff: Not Eligible (2013)	Phase IB Survey Recommended
002-5312	Albemarle High School	1953	DHR Staff: Not Eligible (2019)	Phase IB Survey Not Recommended
Temp 24	Commercial Building, 2811 Hydraulic Road	ca. 1965	N/A	Phase IB Survey Recommended
Temp 26	Commercial Building, 2050 Lambs Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 27	House, 2901 Barracks Road	ca. 1969	N/A	Phase IB Survey Recommended

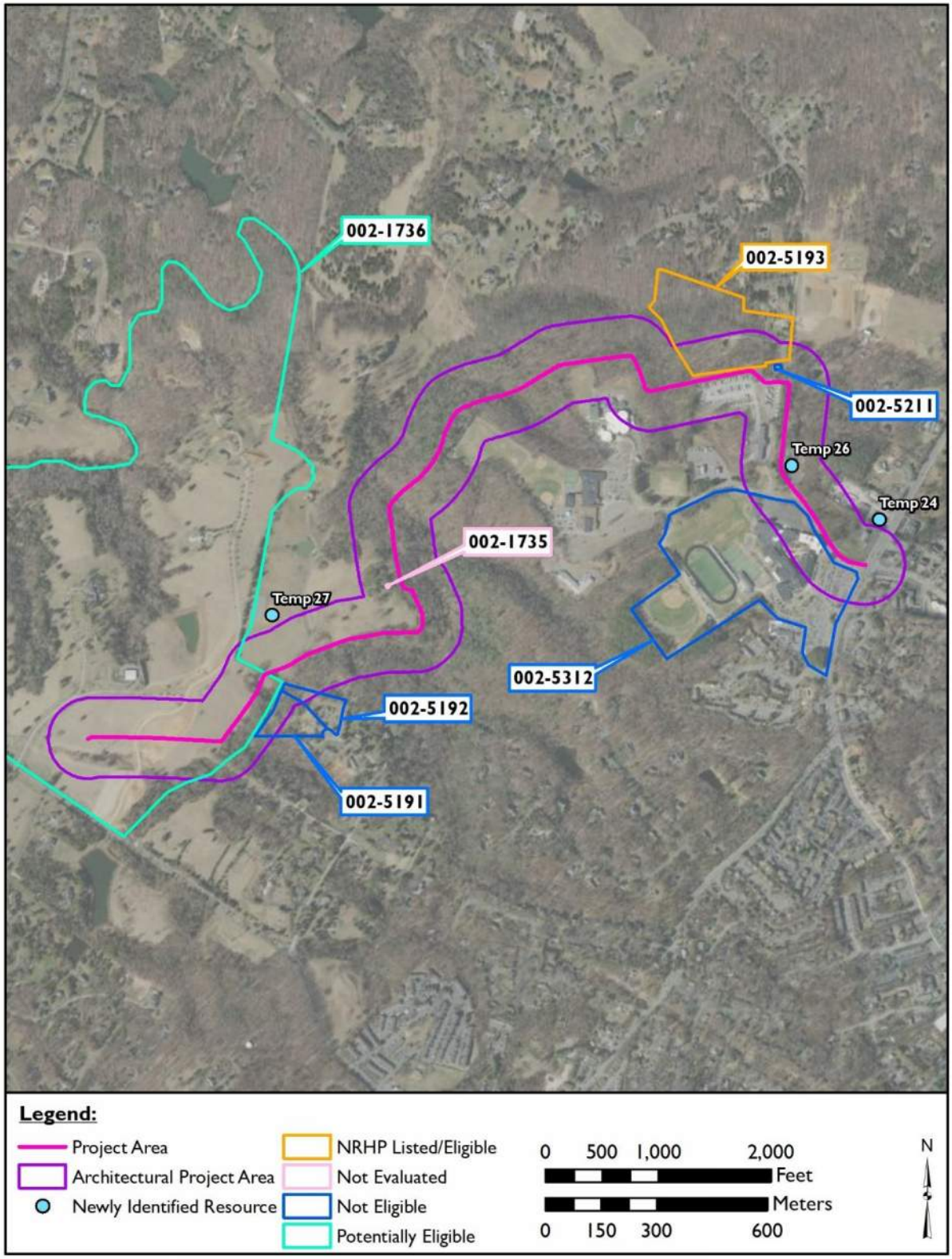

Figure 21: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section II-A (VGIN 2021).

One of the seven previously recorded resources was given a Federal Determination of Eligibility in 2013. This resource, the Sammons House and Cemetery (002-5193), is composed of a two-story, vernacular-style dwelling constructed circa 1850, a cemetery begun in 1901, a shed, a garage, and a secondary dwelling. Ingleridge Farm (002-1736) is the only property determined potentially eligible for listing in the NRHP and VLR. It was last surveyed in 2012. Ingleridge Farm is composed of a two-story, Colonial Revival-style dwelling built in 1941, as well as a secondary dwelling, and two agricultural buildings. Because these resources were last surveyed more than five years ago, Dovetail **recommends that these three architectural resources be resurveyed at the Phase IB level to ensure they should retain their status.**

One resource, Albemarle High School (002-5312) is a two-story, Contemporary-style educational building constructed in 1953. DHR staff determined it not eligible for the NRHP in 2019. Because this was surveyed and received a formal eligibility determination within the last five years, Dovetail **recommends this resource (002-4312) does not need to be the subject of a Phase IB survey.**

In addition to the previously mentioned Albemarle High School, three resources have been determined not eligible for listing in the NRHP and VLR by DHR staff. They are dwellings built around the middle of the twentieth century (002-5191, 002-5192, and 002-5211) (Photo 17). These three resources were last surveyed more than five years ago, and, as such, Dovetail **recommends that that these three resources be subject to a Phase IB level survey to ensure that their status remains not eligible.**

Photo 17: Sample of Previously Recorded Resources within the Section II-A Project Area: 002-5321 (Left), 002-5211 (Right).

A single resource within the architectural project area for Segment II-A has yet to be evaluated for the NRHP and VLR. This resource, a house at 2901 Barracks Road, is a one-and-a-half-story, Craftsman-style dwelling constructed circa 1920 (002-1735). Dovetail **recommends that this previously recorded resource be subject to a Phase IB survey.**

The remaining three resources are newly identified as part of this study (Temp 24, 26, and 27) (Photo 18, p. 68). Two of these resources are one-story commercial buildings built circa 1960 (Temp 24 and Temp 26) while the other is a two-story, wood-frame dwelling built circa 1969 (Temp 27). Dovetail **recommends that these three newly identified resources that meet the**

survey criteria within the architectural project area should be the subject of a Phase IB reconnaissance-level survey.

Photo 18: Sample of Previously Unrecorded Resources within the Section II-A Project Area: Temp 24, (Left) and Temp 26 (Right).

Section II-A Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas which warrant Phase IB archaeological survey. Based on the current assessment of Section II-A, the likelihood of encountering archaeological resources in the current section determined that a small portion of the project area, 2,247 feet (685 m), has the potential for containing intact soils and thus intact archaeological sites. No previously recorded sites are within this portion of the corridor. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 2,247 feet (685 m) of Section II-A of the project area.**

During the Phase IA architectural survey, Dovetail noted seven previously recorded resources and identified three previously unrecorded resources within the architectural project area. Dovetail **recommends that one of these resources (002-5312) does not require additional survey at the Phase IB level, while the remaining nine resources should be the subject of a Phase IB reconnaissance-level study.**

Section II-B

Historic Map Review

Historic maps suggest that the areas immediately adjacent to Section II-B were relatively undeveloped shortly after the Civil War, except for the area to the south, along the outskirts of Charlottesville. This area, along Ivy Road which led to the University of Virginia, was relatively densely populated with dwellings and commercial buildings (Figure 22, p. 69) (Library of Congress 1867). Also running along the southern and western sides of the project area by this time is the 1850 Virginia Central Railroad, later the C&O Railroad. By the second quarter of the twentieth century, minimal development occurred with several buildings denoted along unpaved or unfinished roads or private lanes (Figure 23, p. 70) (USGS 1931). By this time, the project area was sandwiched between two major thoroughfares: Barracks Road to the

north and Highway 250 to the south. In 1960, the project area looked much as it did in 1931 as roads remained unfinished or unpaved and dwellings were scattered (Figure 24, p. 70) (USGS 1960). However, historic aerials from 1963 show the beginnings of a residential development in the northern section of the project area, called Colthurst. This area appears to be just slightly more developed by 1978 (Figure 25, p. 71). The area was later shown on a 1997 map and by today, has become just slightly denser (Figure 26, p. 71) (NETR 1963; USGS 1997). No other major changes appear to have occurred between 1997 and today.

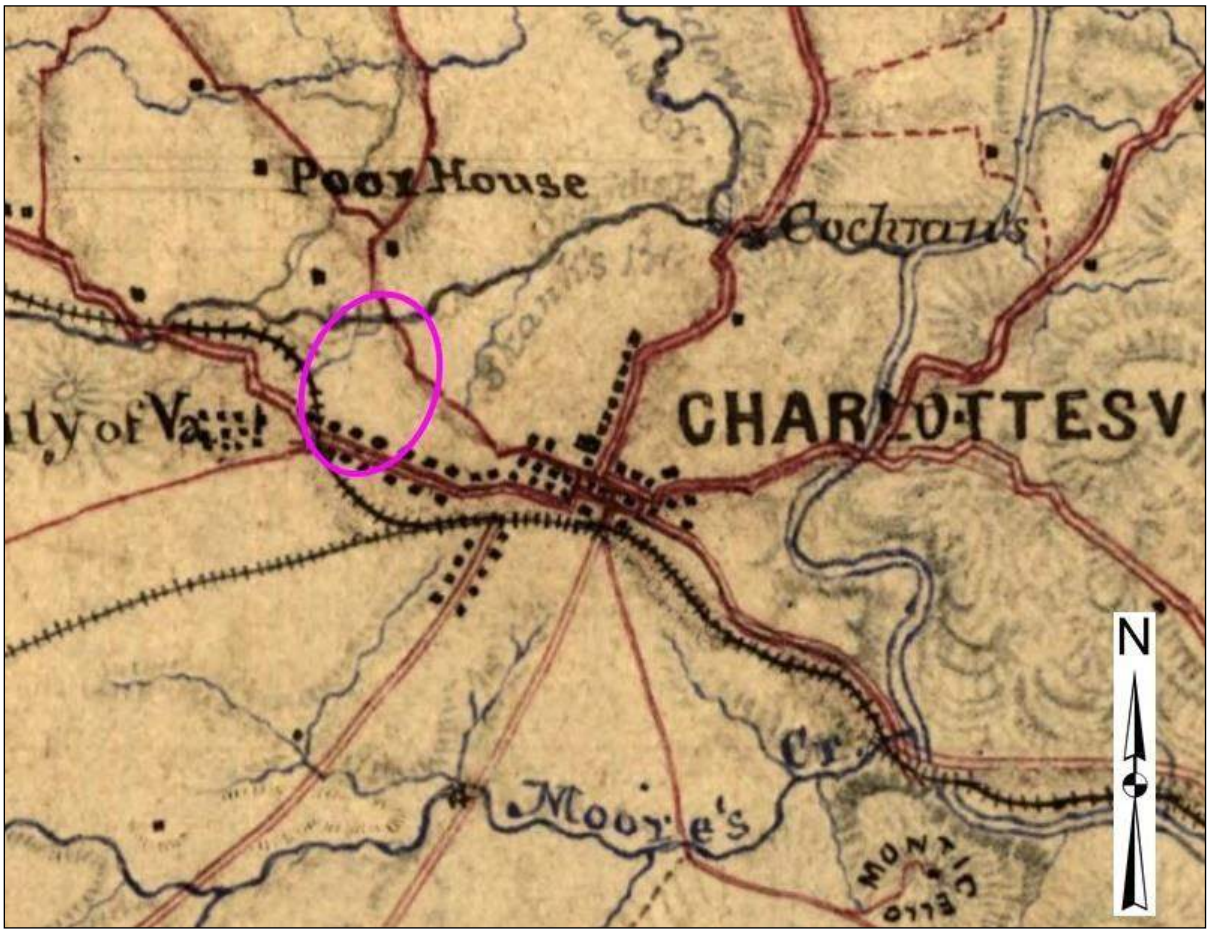

Figure 22: 1867 Map with the Approximate Location of Section II-B Circled in Pink (Library of Congress 1867). Not to scale.

Archaeological Field Survey Results

Section II-B of the RWSA project area extends 8,994 feet (2,741 m) from just north of Barracks Road to Ivy Road (Figure 27, p. 72). The proposed alignment crosses Barracks Road and runs along Colthurst Drive until it reaches the UVAF property, also referred to as the "Westover" property. The alignment then follows the tree line along the edges of open fields to minimize impacts. The alignment further crosses a CSX railroad line and Ivy Road before reaching its southern terminus at the northern boundary of Birdwood Golf Course.

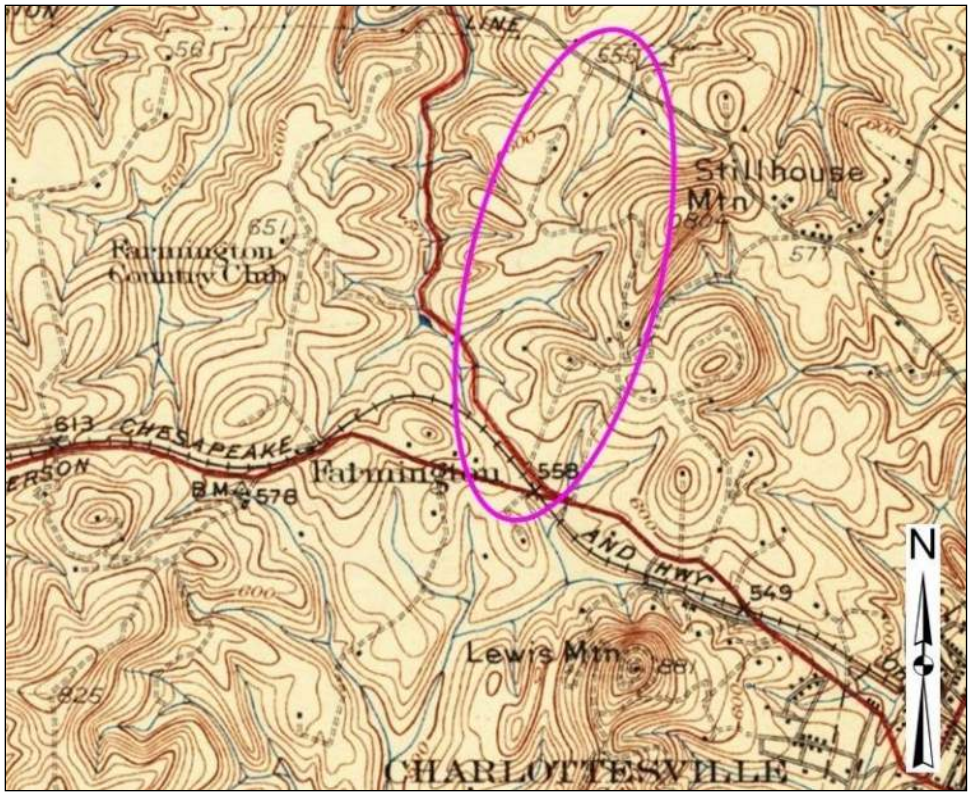

Figure 23: 1931 USGS Topographic Quadrangle Map with the Approximate Location of Section II-B Circled in Pink (USGS 1931). Not to scale.

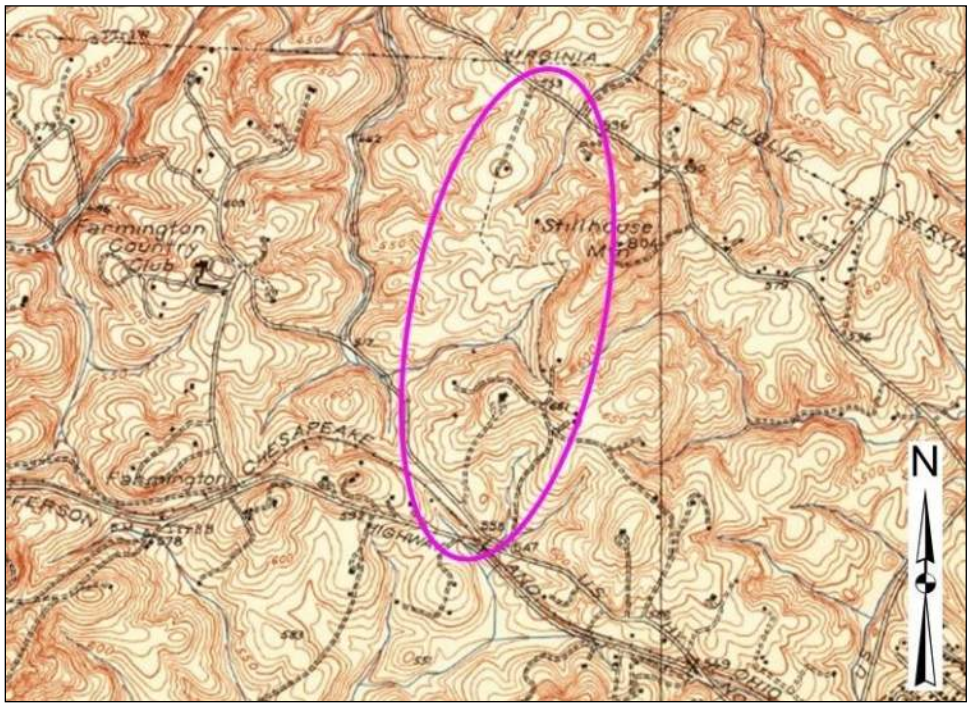

Figure 24: 1960 USGS Topographic Quadrangle Map with the Approximate Location of Section II-B Circled in Pink (USGS 1960). Not to scale.

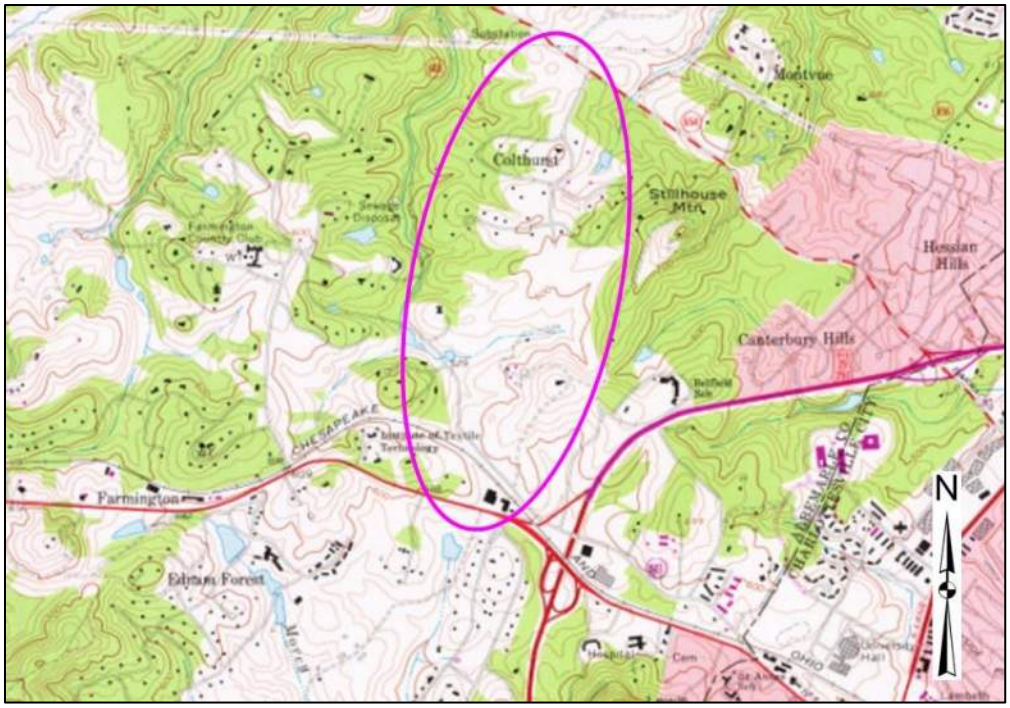

Figure 25: 1978 USGS Topographic Quadrangle Map with the Approximate Location of Section II-B Circled in Pink (USGS 1978). Not to scale.

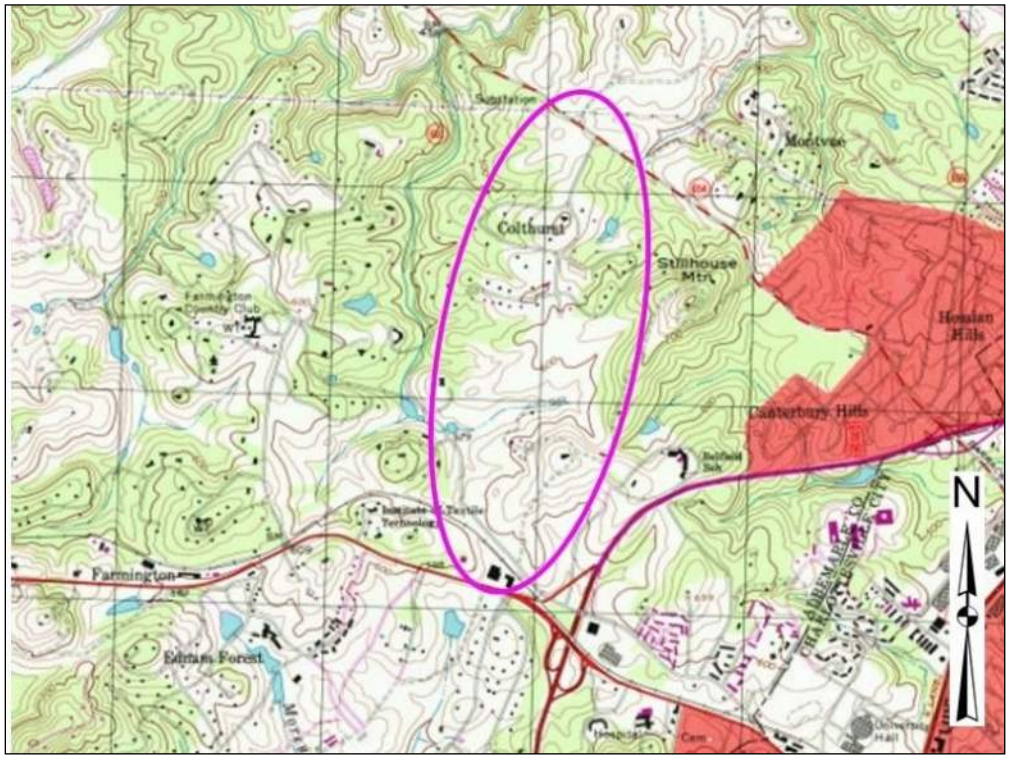

Figure 26: 1997 USGS Topographic Quadrangle Map with the Approximate Location of with Section II-B Circled in Pink (USGS 1997). Not to scale.

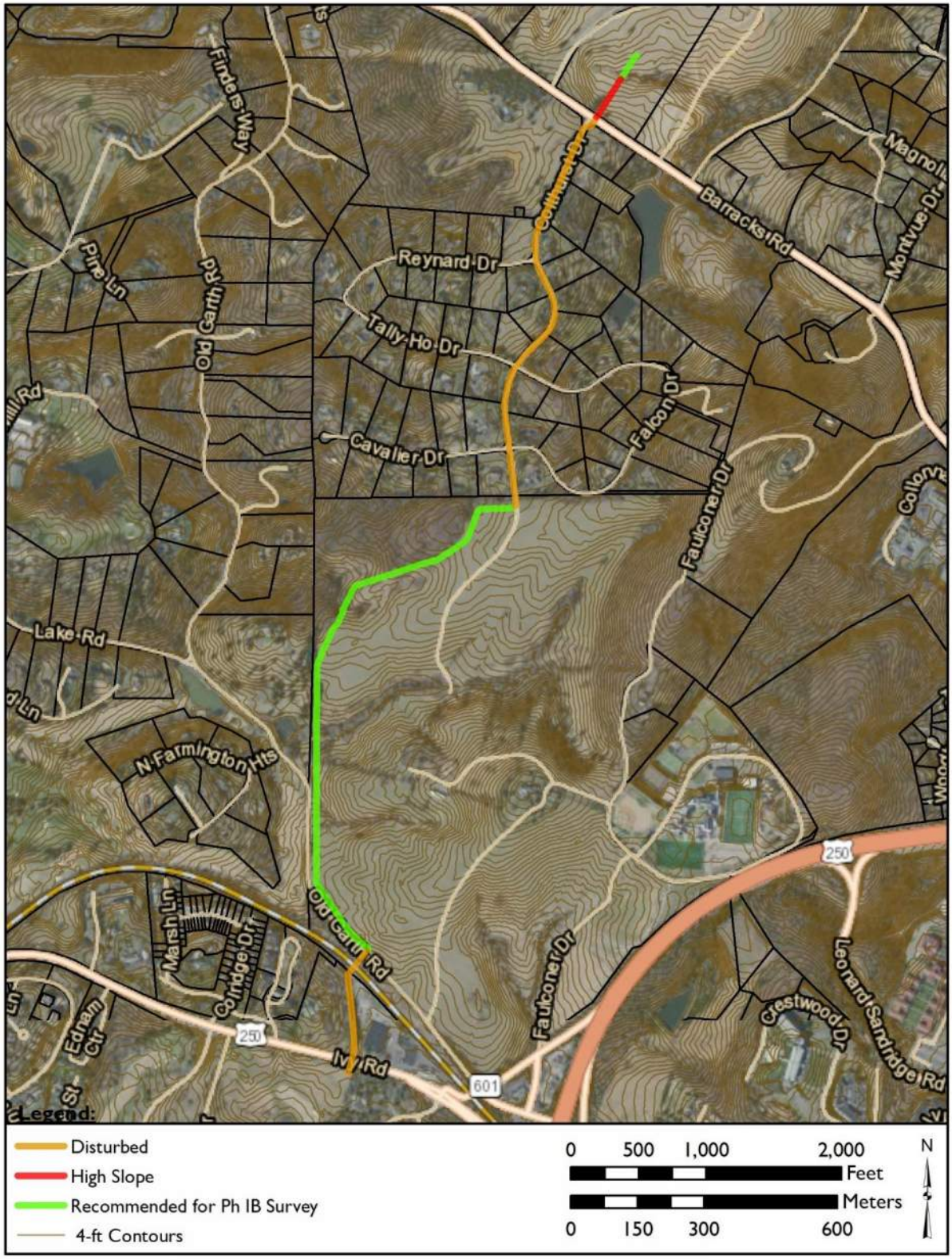

Figure 27: Location of Section II-B Showing Areas Recommended for Phase IB Survey (VGIN 2021).

Only two portions of the current Section II-B alignment have high potential for archaeological resources. The first area is along the very northernmost portion of Section II-B. This area lies along a gradual slope at the headwaters of a small unnamed stream (Photo 19) and measures approximately 200 feet (61 m) in length. The second area of high potential for archaeological resources is along the fields in the UVAF property. This area is relatively flat with potentially undisturbed soils (Photo 20, p. 74). The remainder of the current alignment appears heavily disturbed either within the limits of Colthurst Drive or along a newly constructed business plaza between the CSX line and Ivy Road (Photo 21 and Photo 22, pp. 74–75). The area recommended for Phase IB archaeological survey is 4,548 linear feet (1,386 m) of the alignment while the remainder appears to be disturbed from road construction and other development. Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals (see Figure 27, p. 72).

Photo 19: Area Suitable for Subsurface Survey in Section II-B, at its Northernmost Extent, Facing West.

Architectural Field Survey Results

The vehicular and desktop architectural study of the architectural project area of Section II-B identified a total of seven above-ground resources that are either previously recorded (n=1) or previously unrecorded and are 50 years in age or older (n=6) (Table 25, p. 75; Figure 28, p. 76).

Photo 20: Area Suitable for Subsurface Survey at the UVAF Property/Westover, Facing South.

Photo 21: Photo Showing the Alignment Falling Under Colthurst Drive, Facing North.

Photo 22: Photo Showing Alignment Running Along a Highly Graded Slope Along the Western Edge of a Business Plaza, Facing North.

Table 25: Architectural Resources within the Section II-B Architectural Project Area.

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-0925	Westover	ca. 1970	DHR Staff: Eligible (1990)	Phase IB Survey Recommended
Temp 28	House, 201 Colthurst Drive	ca. 1964	N/A	Phase IB Survey Recommended
Temp 29	House, 200 Colthurst Drive	ca. 1967	N/A	Phase IB Survey Recommended
Temp 30	House, 102 Cavalier Drive	ca. 1912	N/A	Phase IB Survey Recommended
Temp 31	House, 795 Old Garth Road	ca. 1964	N/A	Phase IB Survey Recommended
Temp 32	Commercial Building, 2405 Ivy Road	ca. 1950	N/A	Phase IB Survey Recommended
Temp 33	House, 2 Canterbury Road	ca. 1966	N/A	Phase IB Survey Recommended

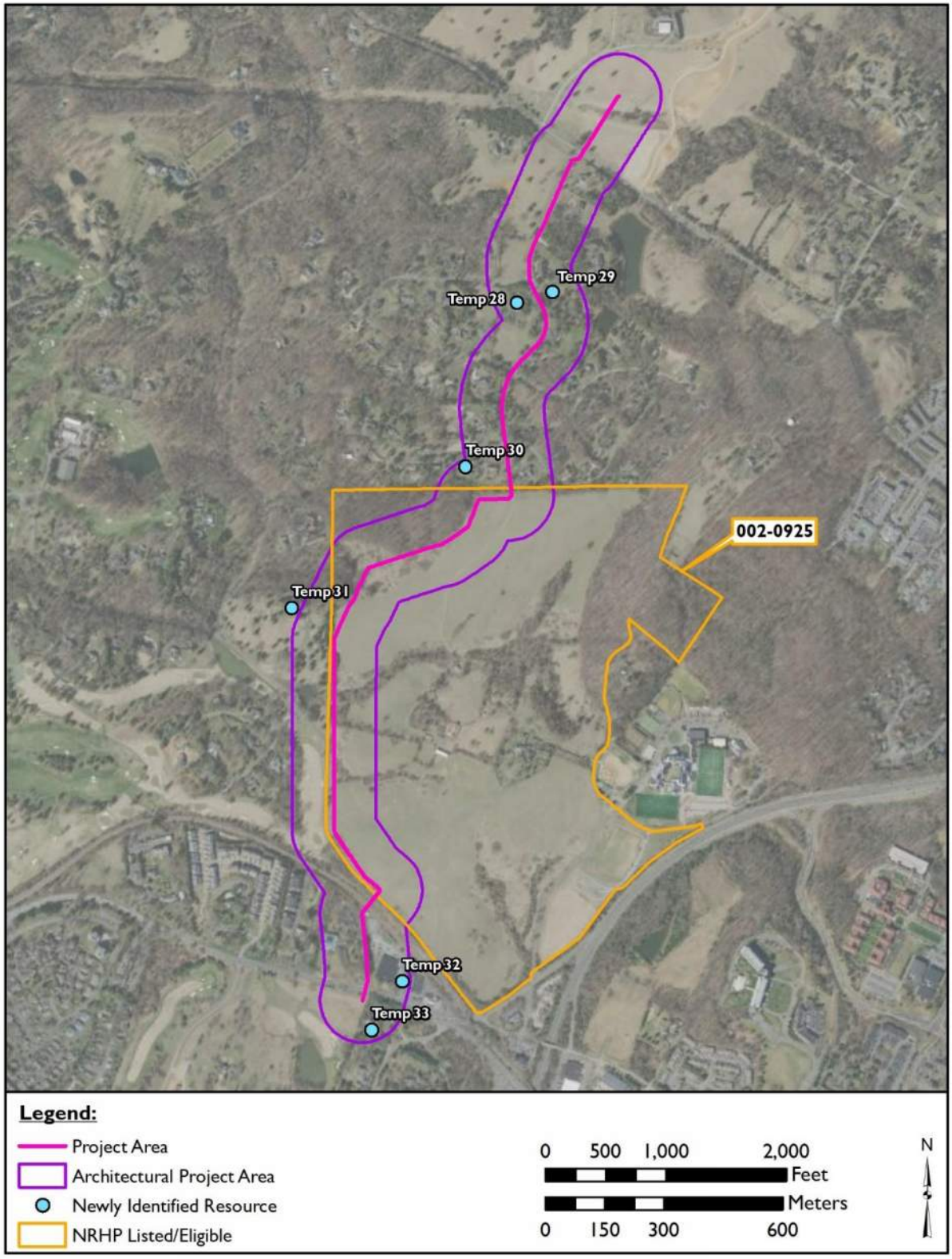

Figure 28: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section II-B (VGIN 2021).

One of the seven resources located within Section II-B has been previously surveyed. This resource, Westover (002-0925), was determined eligible for the NRHP and VLR by DHR staff in 1990 (Photo 23). Westover is a two-story, Greek Revival dwelling constructed circa 1915. Because this resource was last surveyed more than five years ago, Dovetail **recommends that it be resurveyed at the Phase IB level to ensure that it should retain its status.**

The remaining six resources are dwellings that are either one- or two-stories in height with wood-frame structural systems(Photo 24). The majority of these dwellings were constructed in the mid-twentieth century, though the earliest-built dwelling was constructed circa 1912 and the latest circa 1970 (Temp 28–33). Because these resources have not been the subject of a survey, Dovetail **recommends that these seven resources be subject to a Phase IB reconnaissance-level survey**.

Photo 23: Sample of Previously Recorded Resources within the Section II-B Project Area: 002-0925 (Westover).

Photo 24: Previously Unrecorded Resource within the Section II-B Project Area: Temporary Number 28 (Left), and Temporary Number 32 (Right).

Section II-B Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas which warrant Phase IB archaeological survey. Based on the current assessment of Section II-B, the likelihood of encountering archaeological resources in the current section determined that a small portion of the project area, 4,548 feet (1,386 m), has the potential for containing intact soils and thus intact archaeological sites. No previously recorded sites are within this portion of the alignment. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 4,548 feet (1,386 m) of Section II-B of the project area.**

During the Phase IA architectural survey, in addition to the single previously recorded resource, Dovetail identified six previously unrecorded resources within the architectural project area. Dovetail **recommends that these seven architectural resources that meet the survey criteria be the subject of a Phase IB reconnaissance-level study.**

Section III

Historic Map Review

Historic maps suggest that the areas immediately adjacent to Section III, which is located east of the core of Charlottesville and UVA, had been developed to some degree by the end of the Civil War, especially along Ivy Road, the area to the north. This area was relatively densely populated with dwellings and commercial buildings (Figure 29) (Library of Congress 1867). Much of the project area is situated between the Virginia and Central Railroad, which came to Charlottesville in 1850, and the Orange and Alexandria Railroad to the south, which arrived in the area a decade later.

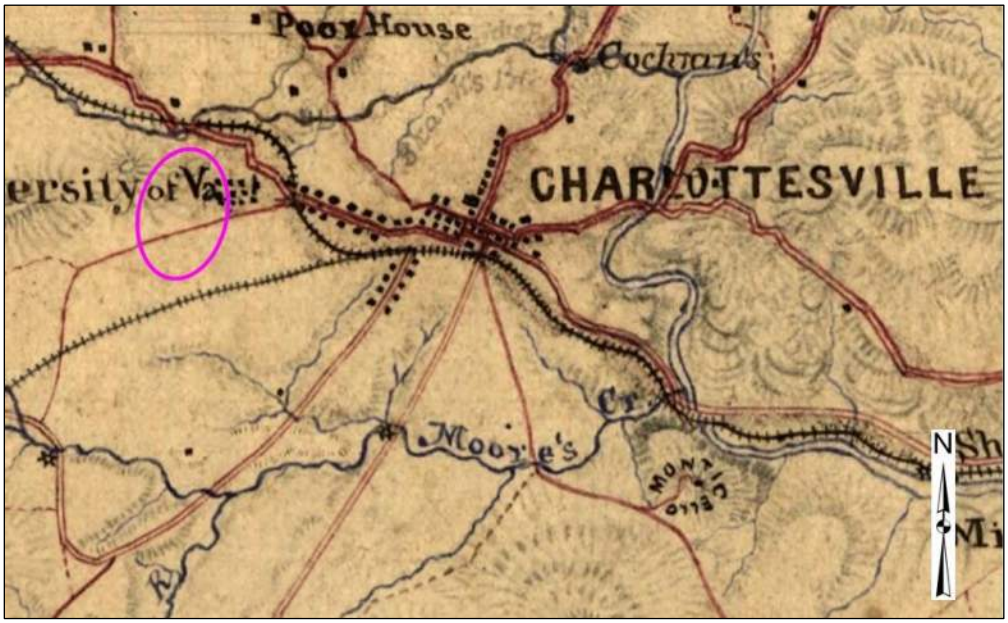

Figure 29: 1867 Map with the Approximate Location of Section III Circled in Pink (Library of Congress 1867). Not to scale.

The project area extends to the south and encompasses Lynchburg Road by 1930 (Figure 30) (USGS 1931). This road would eventually become Fontaine Avenue. These areas to the north and south experienced development beginning around the first quarter of the twentieth century. The central portion of Section III is steeply sloped as it traverses through Lewis Mountain and Mt. Jefferson; it is likely because of this topography that much of this section of the project area remained undeveloped through this period.

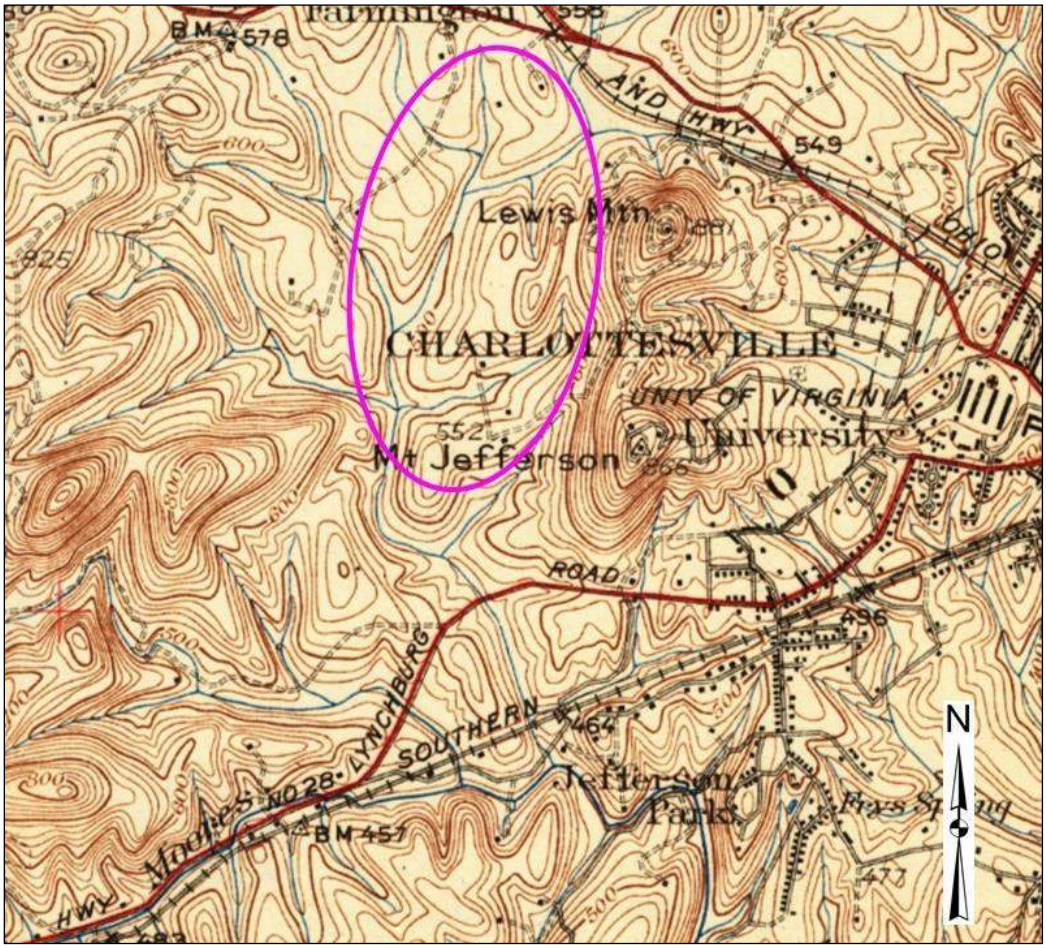

Figure 30: 1931 Map with Approximate Location of Section III Circled in Pink (USGS 1931). Not to scale.

By 1960, several UVA-affiliated buildings had been constructed within the project area, including the Leander McCormick Observatory, and the campus to the east of the project area experienced considerable development (Figure 31, p. 80) (USGS 1960). By 1978, Canterbury Drive was constructed and runs the length of the Section III project area. It is dotted with residential buildings (Figure 32, p. 80). In the late 1990s, several more UVA-affiliated buildings had been constructed and residential development occurred to the east (Figure 33, p. 81) (USGS 1997).

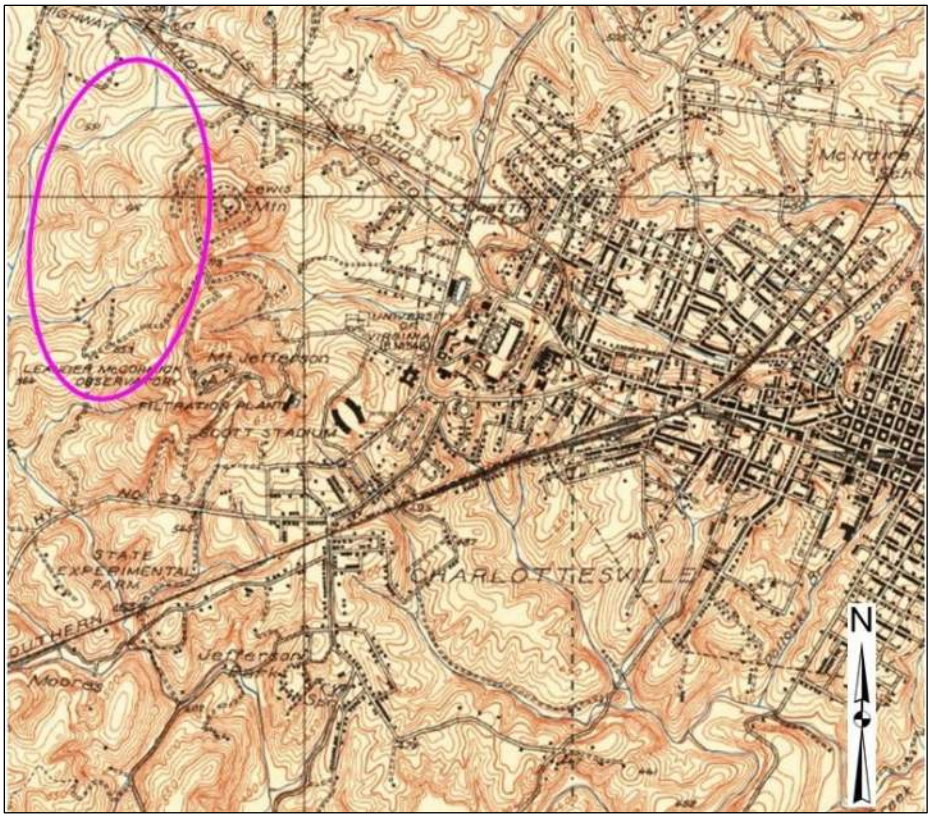

Figure 31: 1960 Map with the Approximate Location of Section III Circled in Pink (USGS 1960). Not to scale.

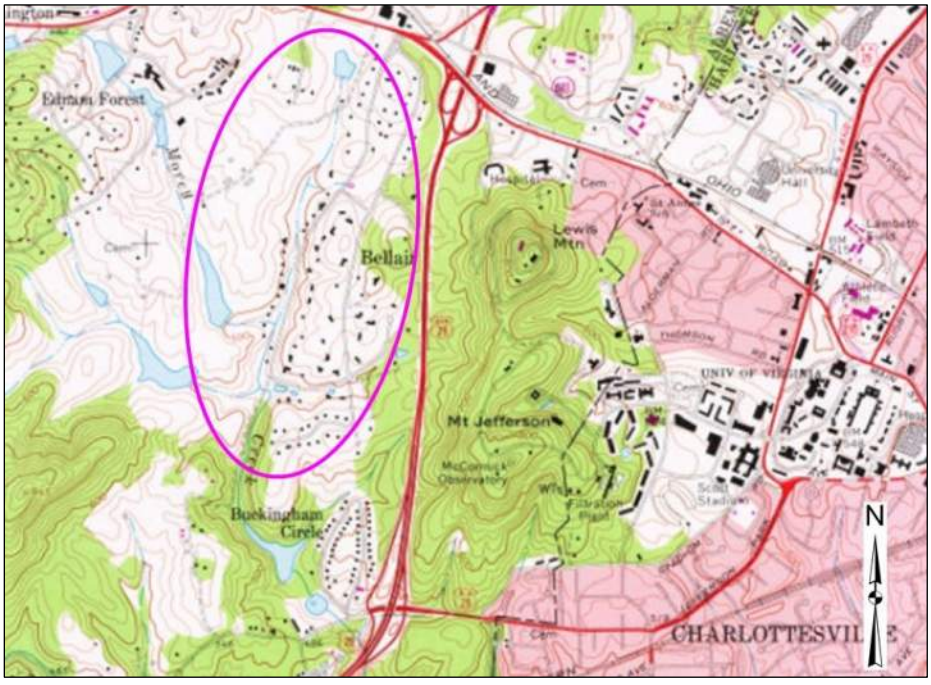

Figure 32: 1978 Map with the Approximate Location of Section III Circled in Pink (USGS 1978). Not to scale.

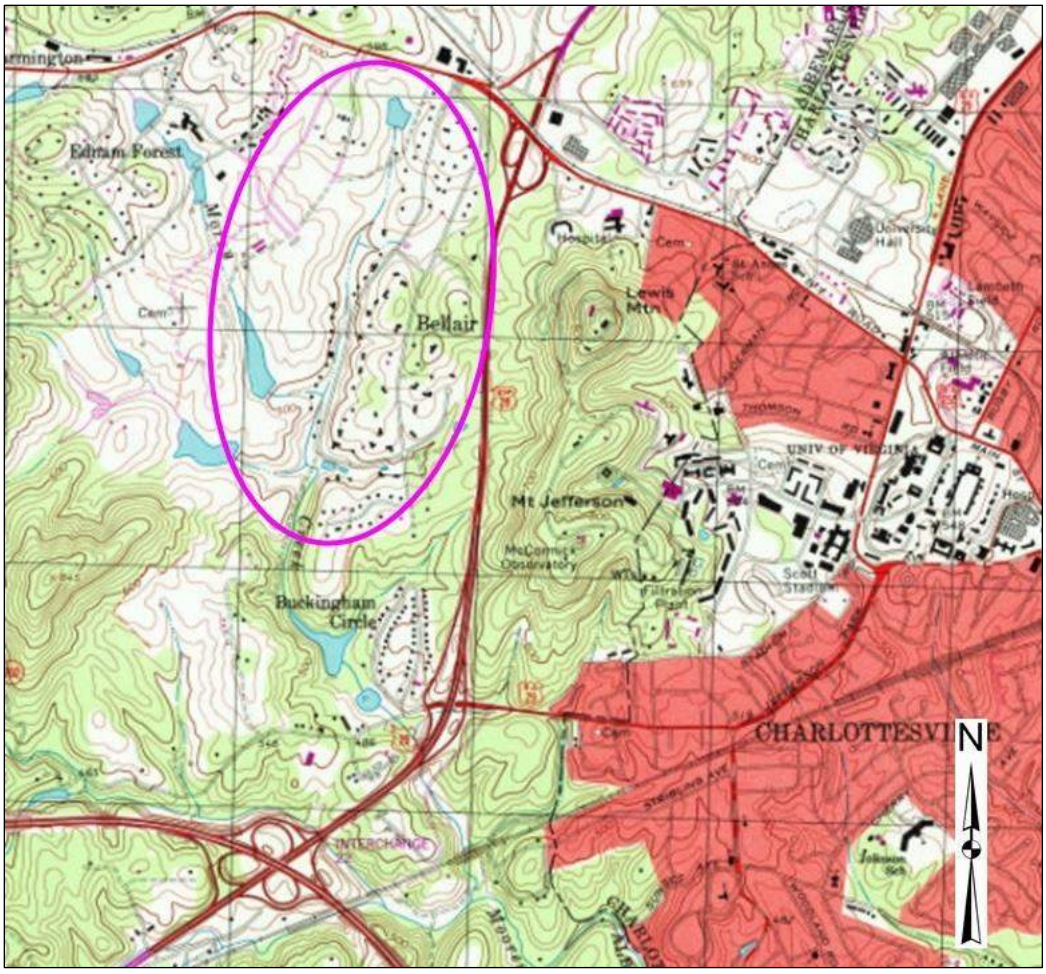

Figure 33: 1997 Map with Approximate Location of Section III Circled in Pink (USGS 1997). Not to scale.

Archaeological Field Survey Results

Section III of the RWSA project area extends 5,955 feet (1,815 m) from Ivy Road south along the eastern edge of the Birdwood Golf Course (Figure 34, p. 82). The golf course is highly manicured and as with most golf courses, has likely been heavily impacted in its construction (Photo 25, p. 83). Communications with RWSA have indicated that construction of Section III has been previously completed and no further impacts are anticipated. Therefore, no Phase IB survey is recommended (see Figure 34, p. 82).

Architectural Field Survey Results

The vehicular and desktop architectural study of the architectural project area in Section III identified a total of 28 above-ground resources that are either previously recorded (n=1) or previously unrecorded and are 50 years in age or older (n=27) (Table 26, p. 83; Figure 35, p. 85).

Figure 34: Location of Section III Showing Areas Recommended for Phase IB Survey (VGIN 2021).

Photo 25: The Northern Terminus of Section III Showing Disturbance and Staging Area from Previous Construction of the Alignment in this Section.

Table 26: Architectural Resources within the Section III Architectural Project Area.

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-0003	Birdwood, Birdwood Estate, Birdwood Pavilion, University of Virginia Gold Course, University of Virginia's Center for Politics	post 1819	NRHP Listing, VLR Listing, (2003)	Phase IB Survey Recommended
Temp 34	House, 4 Canterbury Road	ca. 1947	N/A	Phase IB Survey Recommended

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
Temp 35	House, 10 Canterbury Road	ca. 1961	N/A	Phase IB Survey Recommended
Temp 36	House, 12 Canterbury Road	ca. 1952	N/A	Phase IB Survey Recommended
Temp 37	House, 14 Canterbury Road	ca. 1966	N/A	Phase IB Survey Recommended
Temp 38	House, 16 Canterbury Road	ca. 1937	N/A	Phase IB Survey Recommended
Temp 39	House, 18 Canterbury Road	ca. 1938	N/A	Phase IB Survey Recommended
Temp 40	House, 22 Canterbury Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 41	House, 24 Canterbury Road	ca. 1953	N/A	Phase IB Survey Recommended
Temp 42	House, 26-26.5 Canterbury Road	ca. 1958	N/A	Phase IB Survey Recommended
Temp 43	House, 28 Canterbury Road	ca. 1940	N/A	Phase IB Survey Recommended
Temp 44	House, 30 Canterbury Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 45	House, 32 Canterbury Road	ca. 1963	N/A	Phase IB Survey Recommended
Temp 46	House, 34 Canterbury Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 47	House, 36 Canterbury Road	ca. 1956	N/A	Phase IB Survey Recommended
Temp 48	House, 38 Canterbury Road	ca. 1956	N/A	Phase IB Survey Recommended
Temp 49	House, 42 Canterbury Road	ca. 1972	N/A	Phase IB Survey Recommended
Temp 50	House, 44 Canterbury Road	ca. 1960	N/A	Phase IB Survey Recommended
Temp 51	House, 46 Canterbury Road	ca. 1955	N/A	Phase IB Survey Recommended
Temp 52	House, 48 Canterbury Road	ca. 1958	N/A	Phase IB Survey Recommended
Temp 53	House, 50 Canterbury Road	ca. 1951	N/A	Phase IB Survey Recommended
Temp 54	House, 52 Canterbury Road	ca. 1958	N/A	Phase IB Survey Recommended
Temp 55	House, 54 Canterbury Road	ca. 1956	N/A	Phase IB Survey Recommended
Temp 56	House, 56 Canterbury Road	ca. 1961	N/A	Phase IB Survey Recommended
Temp 57	House, 58 Canterbury Road	ca. 1960	N/A	Phase IB Survey Recommended
Temp 58	House, 2 Deer Path	ca. 1955	N/A	Phase IB Survey Recommended
Temp 59	House, 18 Orchard Road	ca. 1956	N/A	Phase IB Survey Recommended
Temp 60	House, 20 Orchard Road	ca. 1957	N/A	Phase IB Survey Recommended

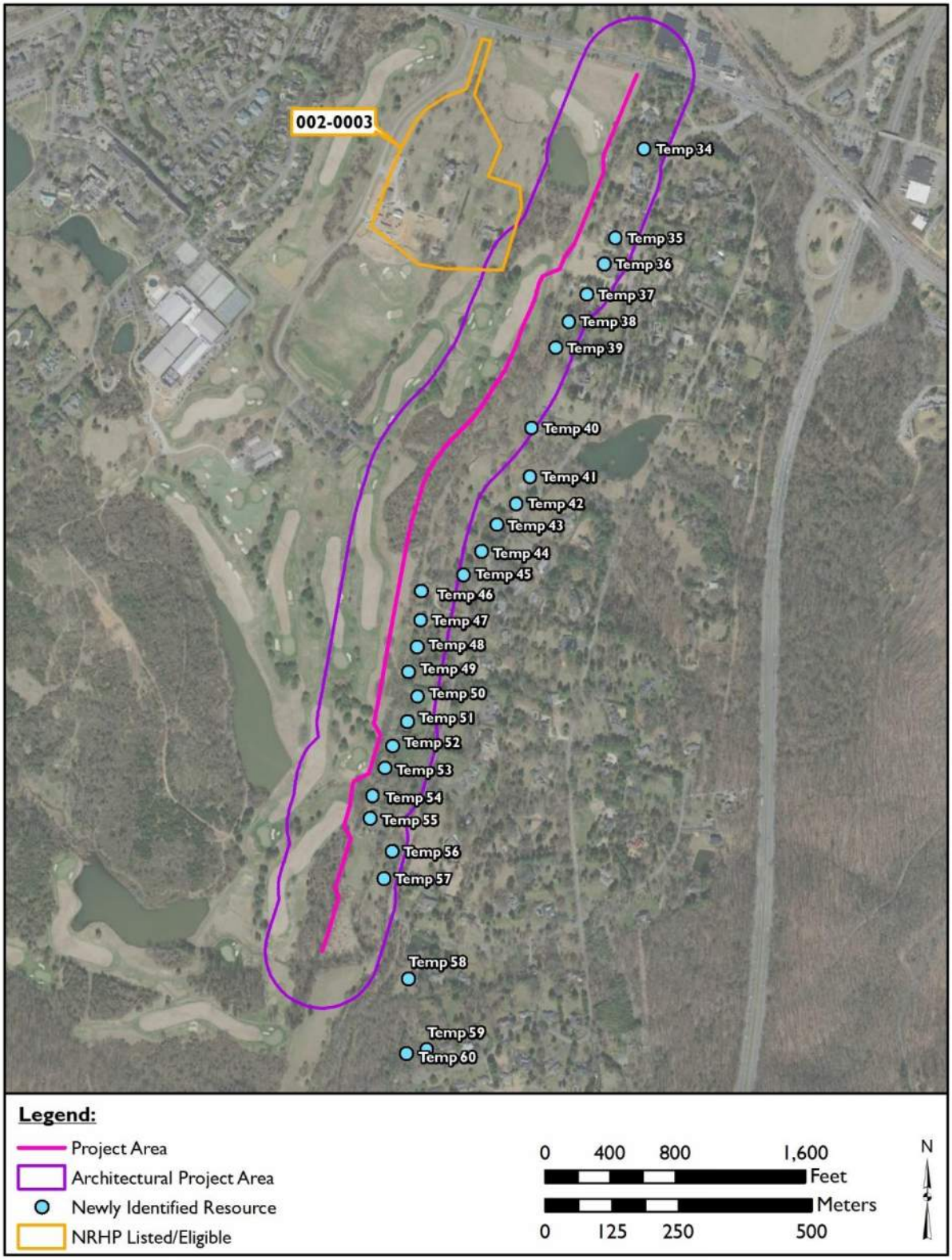

Figure 35: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section III (VGIN 2021).

One of the 28 resources located in the architectural project area in Section III has been previously surveyed. This resource, Birdwood (002-0003), was listed in the NRHP and VLR in 2003 (Photo 26). It comprises a dwelling constructed between 1819 and 1830, as well as two secondary dwellings and domestic and agricultural outbuildings. Because this resource was last surveyed more than five years ago, Dovetail **recommends that it be resurveyed at the Phase IB level to ensure that it should retain its status.**

The remaining 27 resources consist of one- to two-story dwellings built around the middle of the twentieth century (Photo 27, p.87). Twenty-four of these resources line the western side of Canterbury Road (Temp 34–Temp 57). The remaining three appear at the ends of cul-de-sacs on Deer Path and Orchard Place (Temp 58–Temp 60). Dovetail **recommends that these 26 newly identified resources within the project area should be the subject of a Phase IB reconnaissance-level survey**.

Photo 26: Sample of Previously Recorded Resources within the Section III Project Area: 002-0003 (Birdwood).

Section III Survey Summary and Recommendations

In sum, since the construction of Section III was previously completed, no further impacts are anticipated within this section. As such, **Dovetail recommends no further Phase IB archaeological survey is warranted within Section III of the project area.**

During the Phase IA architectural survey, in addition to one previously recorded resource, Dovetail identified 27 previously unrecorded resources within the architectural project area. Dovetail **recommends that all 28 architectural resources that meet the survey criteria be the subject of a Phase IB reconnaissance-level study.**

Photo 27: Previously Unrecorded Resources within the Section III Project Area: Temp 35 (Top Left), Temp 36 (Top Right), and Temp 56 (Bottom).

Section IV

Historic Map Review

Historic maps suggest that the sloping areas immediately adjacent to Section IV had been relatively undeveloped by the end of the Civil War. Mapping from the 1860s shows that adjacent to the project area are several buildings, and along the southern edge, which arrived in Charlottesville circa 1860 (Figure 36, p. 88) (Library of Congress 1867). By 1930, development had increased along the railroad, and Highway 28/Lynchburg Road was constructed in the northern portion of the project area; however, the project area in particular remained undeveloped. Many new residences and buildings associated with UVA were also constructed by this time (Figure 37, p. 88) (USGS 1931).

A 1960 topographic map shows increased construction around the University area, but little anywhere else outside of downtown Charlottesville (Figure 38, p. 89). The project area in particular shows little change, except for the addition of the State Experimental Farm in the southern half. By 1997, the beginnings of the Buckingham Circle residential neighborhood were constructed, as well as along the old Highway 28/Lynchburg Road. By this time, I-64 had been constructed just south of the project area, which occurred in this area in the late 1960s (Figure 39, p. 89). Today, the northern section intersects with a golf course.

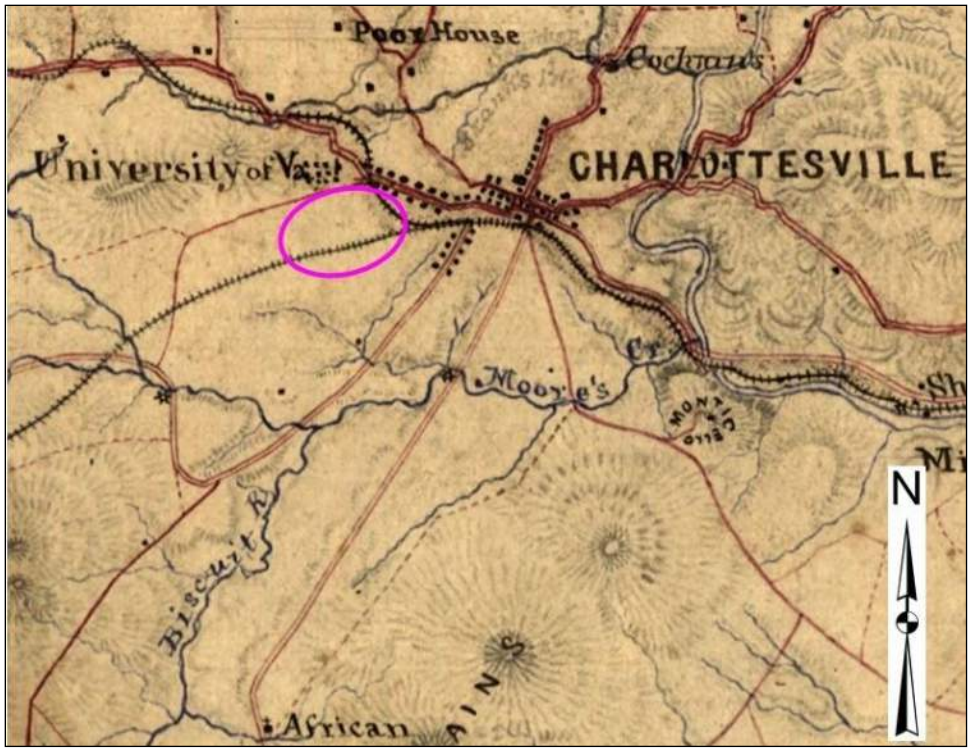

Figure 36: 1867 Map with Approximate Location of Section IV Circled in Pink (Library of Congress 1867). Not to scale.

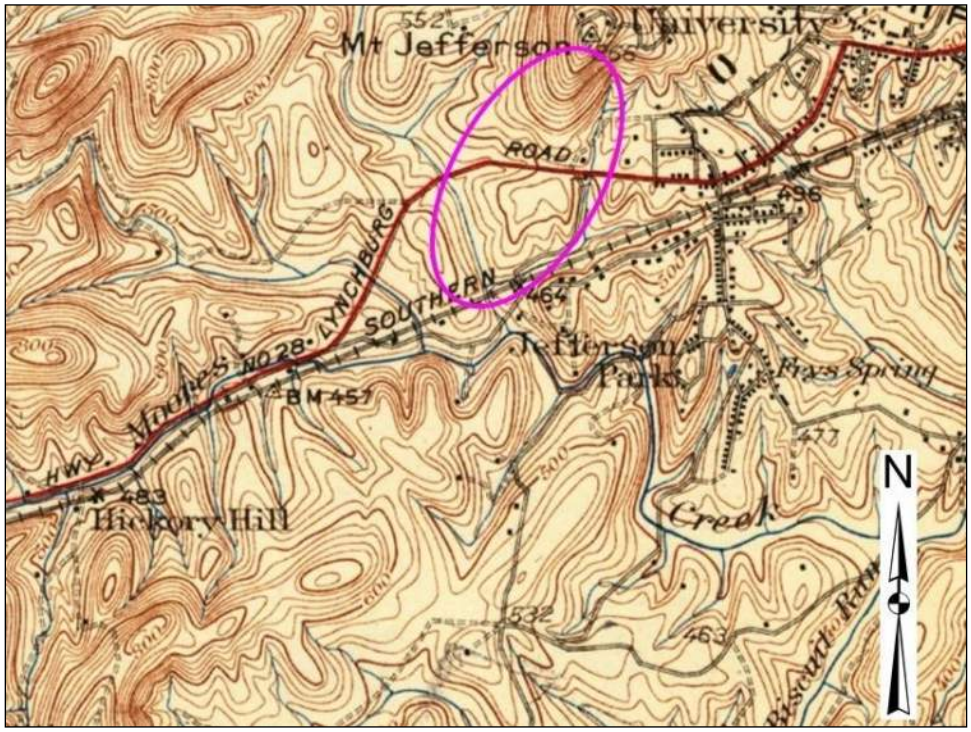

Figure 37: 1930 Map with Approximate Location of Section IV Circled in Pink (USGS 1931). Not to scale.

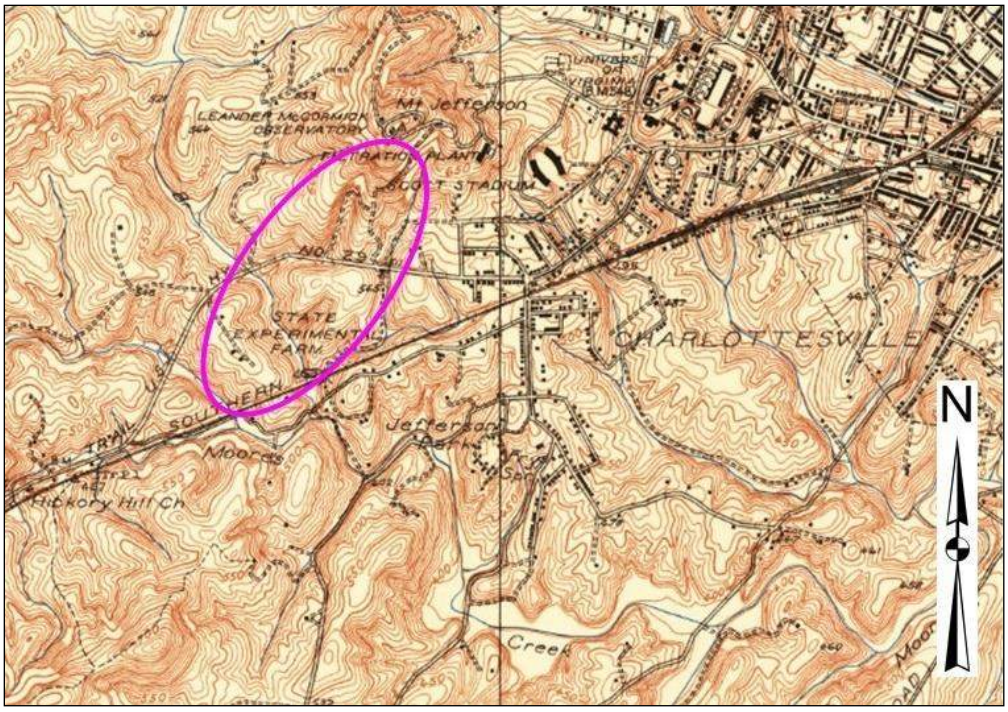

Figure 38: 1960 Map with Approximate Location of Section IV Circled in Pink (USGS 1960). Not to scale.

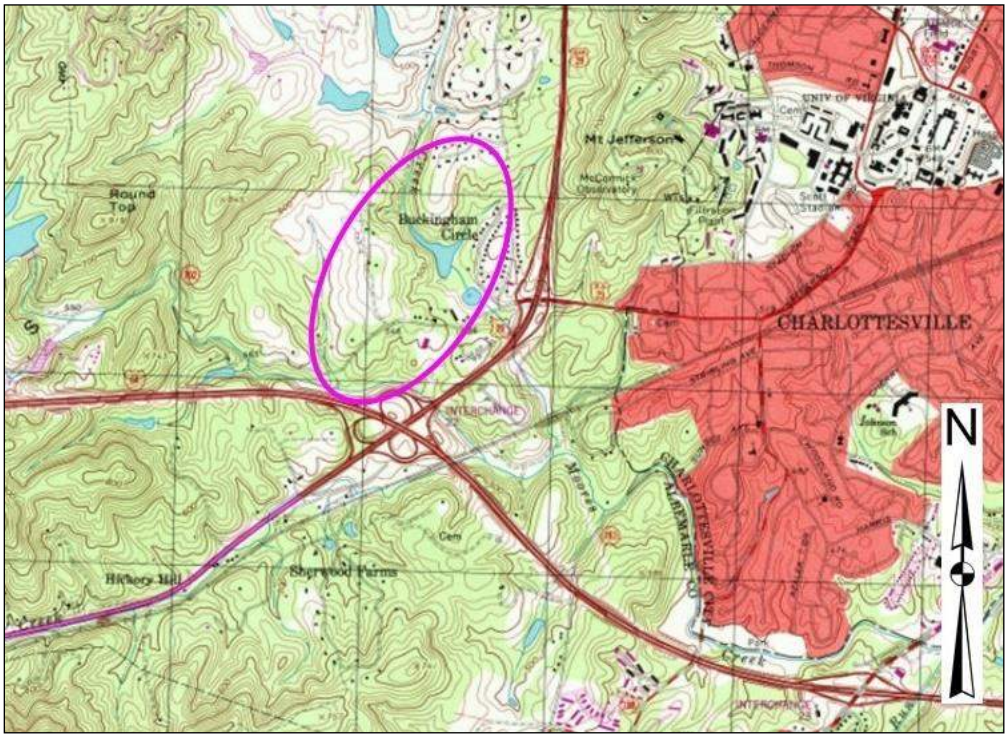

Figure 39: 1997 Map with Approximate Location of Section IV Circled in Pink (USGS 1997). Not to scale.

Archaeological Field Survey Results

Section IV of the RWSA project area extends 2,335 feet (712 m) from the southern terminus of Birdwood Golf Course through Foxhaven Farm (Photo 28; Figure 40, p. 91). The northern portion of the alignment travels just west of a dirt road which parallels Morey Creek before traveling south up a steep hill, traversing across the southern portions of Foxhaven Farm. The majority of the alignment in Section IV lies on gentle to low slopes along Morey Creek and through the historic Foxhaven Farm property (Photo 29, p.92). These areas are recommended for further Phase IB archaeological survey. Portions of Section IB which fall along high slopes, greater than 15 percent have a low probability of containing intact archaeological deposits and are not recommended for further archaeological survey (Photo 30, p.93). The area recommended for Phase IB archaeological survey is 1,940 linear feet (591 m) of the alignment while the remainder travels along high slopes. Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals (see Figure 40, p. 91).

Photo 28: Example of Gently Sloping Fields at Foxhaven Farm Suitable for Archaeological Survey.

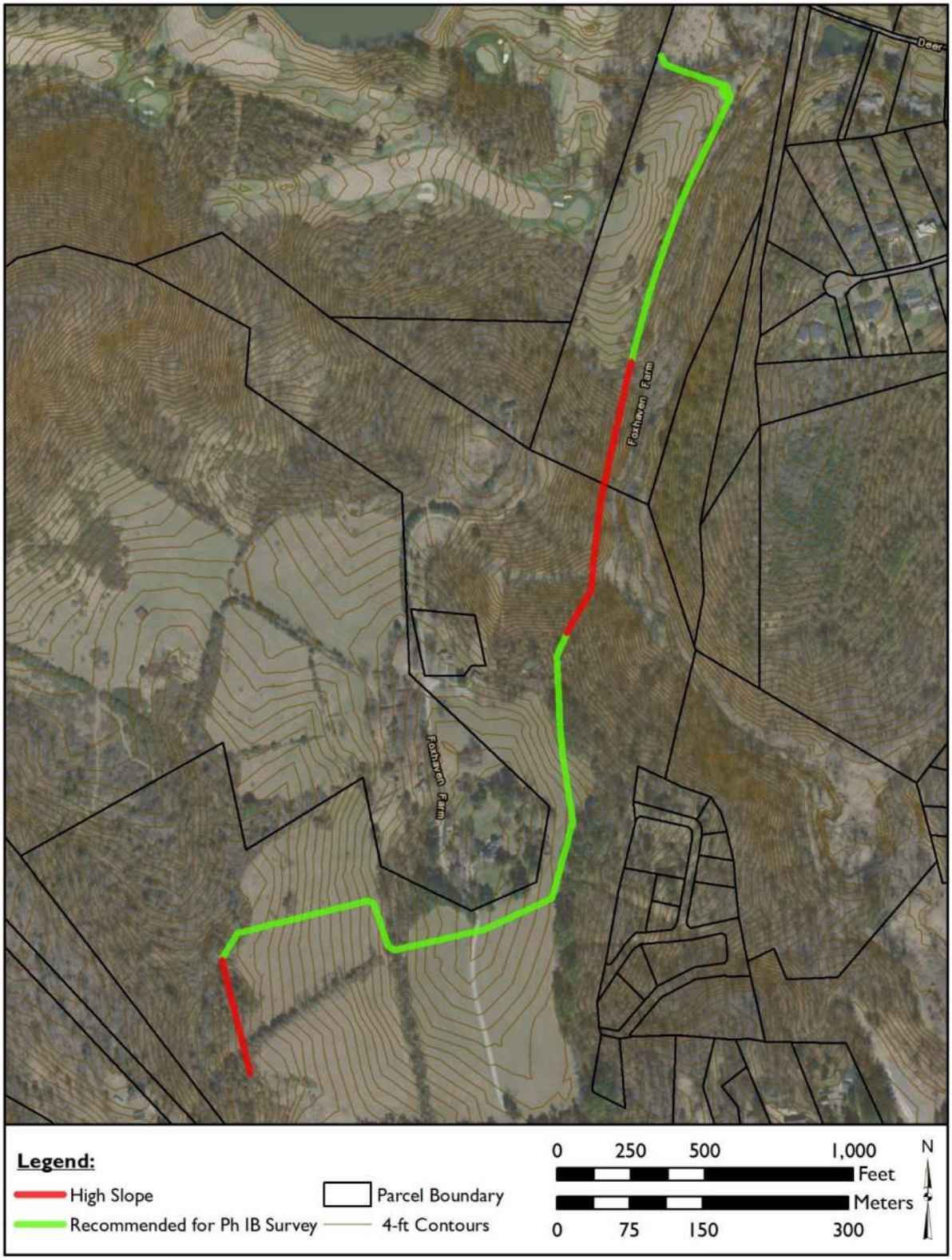

Figure 40: Location of Section IV Showing Areas Recommended for Phase IB Survey (VGIN 2021).

Photo 29: Example of Gently Sloping Fields at Foxhaven Farm Suitable for Archaeological Survey.

Architectural Field Survey Results

The architectural study, which included a vehicular and desktop review, of the proposed architectural project area in Section IV identified one above-ground resource that was previously recorded (n=1) (Table 27, p. 93; Figure 41, p. 94; Photo 31, p. 95).

The singular resource identified was previously recorded but not evaluated by DHR staff. This resource, Foxhaven (002-0128), is a circa 1930 farm complex with stone buildings (Photo 31, p. 95). Because the previously recorded resource has not been surveyed in the past five years, Dovetail **recommends that 002-0128 be resurveyed to ensure that it retains its status.**

Section IV Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas which warrant Phase IB archaeological survey. Based on the current assessment of Section IV, the likelihood of encountering archaeological resources in the current section determined that roughly half of the current Section IV alignment of the project area, 1,940 feet (591 m) has the potential for containing intact soils and thus intact archaeological sites. No previously recorded sites are within this portion of the corridor. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 1,940 feet (591 m) of Section IV of the project area.**

During the Phase IA architectural survey Dovetail identified one previously recorded resource (002-0128) within the architectural project area. Dovetail **recommends that the single resource that meets the survey criteria be the subject of a Phase IB reconnaissance-level study.**

Photo 30: Example of Steep Slopes Not Suitable for Archaeological Survey at Foxhaven Farm.

Table 27: Architectural Resources within the Section IV Architectural Project Area.

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-0128	Foxhaven	ca. 1930	Not Evaluated	Phase IB Survey Recommended

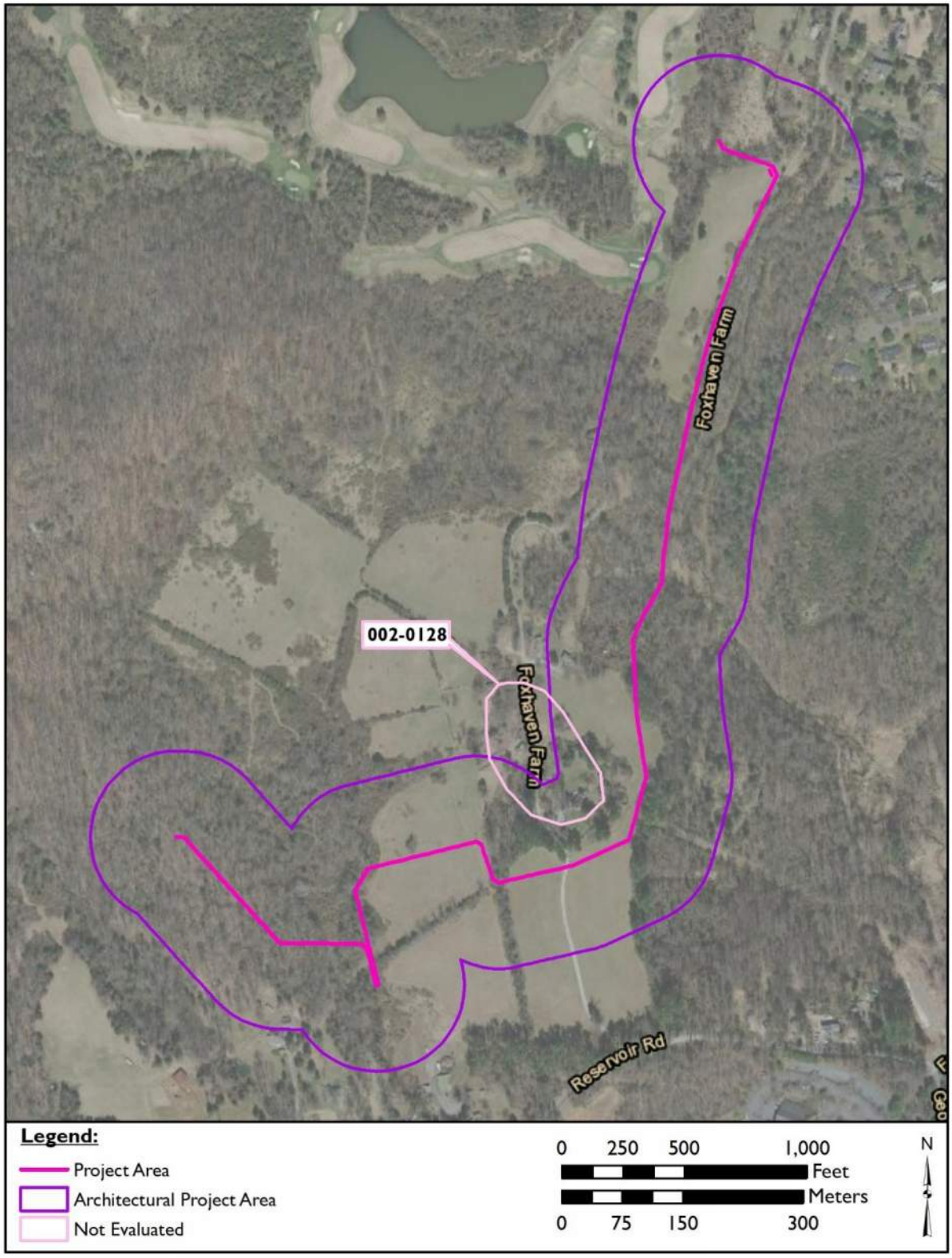

Figure 41: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section IV (VGIN 2021).

Photo 31: Sample of Previously Recorded Resources within the Section IV Project Area: 002-0128 (Foxhaven).

Section V

Historic Map Review

Historic maps suggest that the sloping areas immediately adjacent to Section V had been relatively undeveloped by the end of the Civil War. An 1867 map shows few, if any, buildings present within or closely adjacent to the project area (Figure 42, p. 96). Research indicates that the area comprised scattered houses and farms during the majority of the nineteenth century. Section V is situated between the Virginia and Central Railroad to the north, which came to Charlottesville in 1850, and the southern branch of the Orange and Alexandria Railroad to the south, which was built about ten years later. Aside from Charlottesville to the northwest, the project area and the surrounding area remained mostly undeveloped well into the first quarter of the twentieth century. The 1931 map also shows what would become Reservoir Road to the southeast (Figure 43, p. 96).

I-64 was constructed in the late 1960s directly to the south of the project area and runs east-west (Figure 44, p. 97). By this time, development had picked up slightly, and several roads and adjacent buildings are visible in the south and eastern areas in and around the project area. However, the topography likely contributed to the lack of development in the area as it flourished around nearby Charlottesville. There was a camp as well as a few newer homes scattered in the surrounding woods (Figure 44, p. 97).

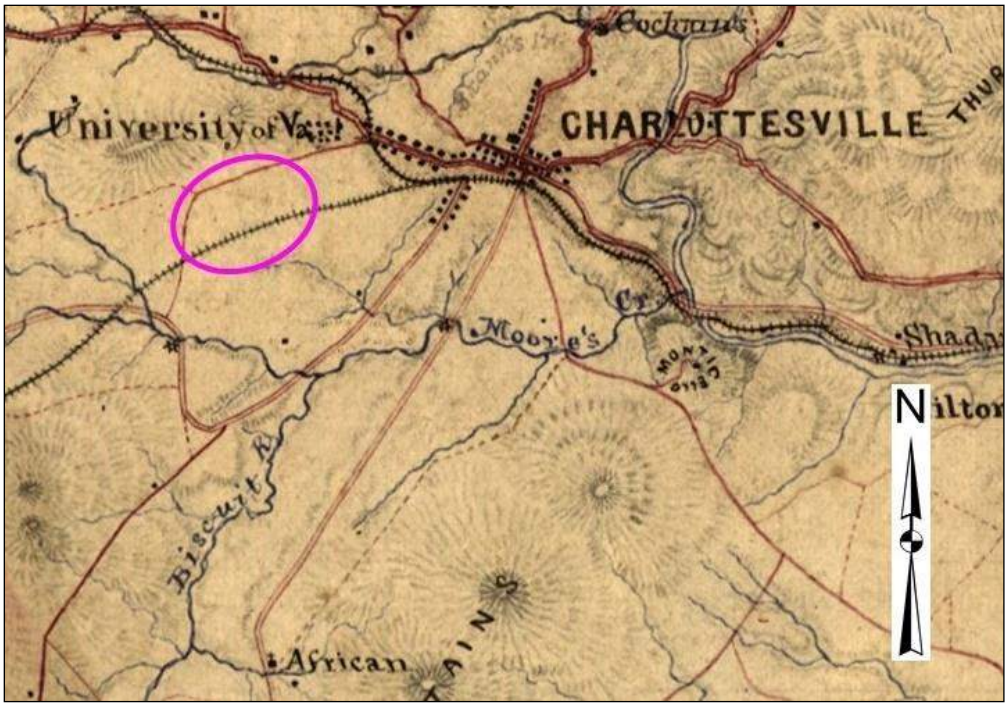

Figure 42: 1867 Map with Approximate Location of Section V Circled in Pink (Library of Congress 1867). Not to scale.

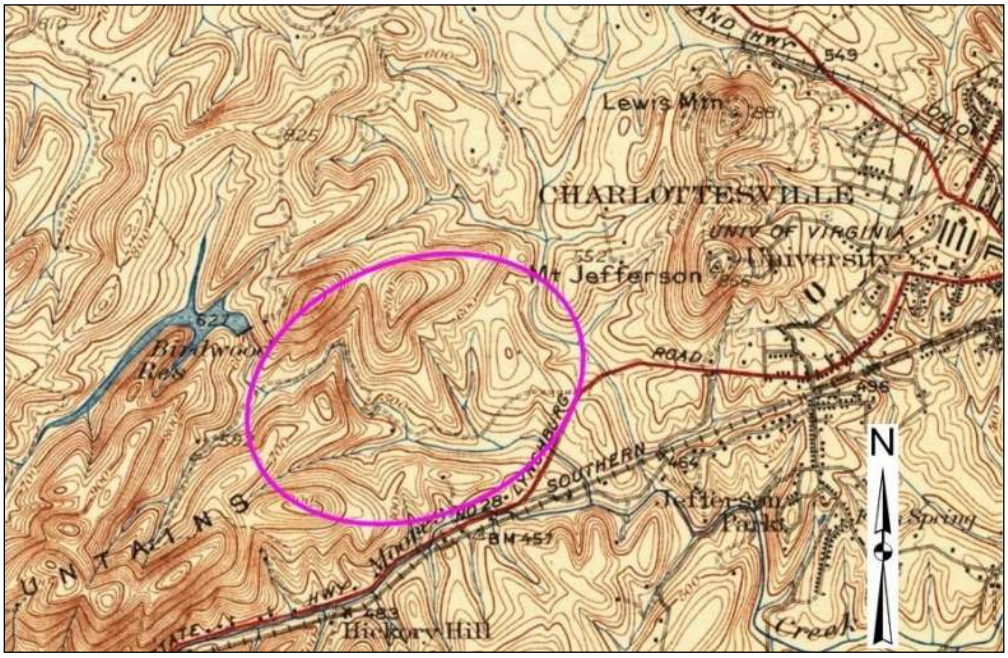

Figure 43: 1931 Map with Approximate Location of Section V Circled in Pink (USGS 1931). Not to scale.

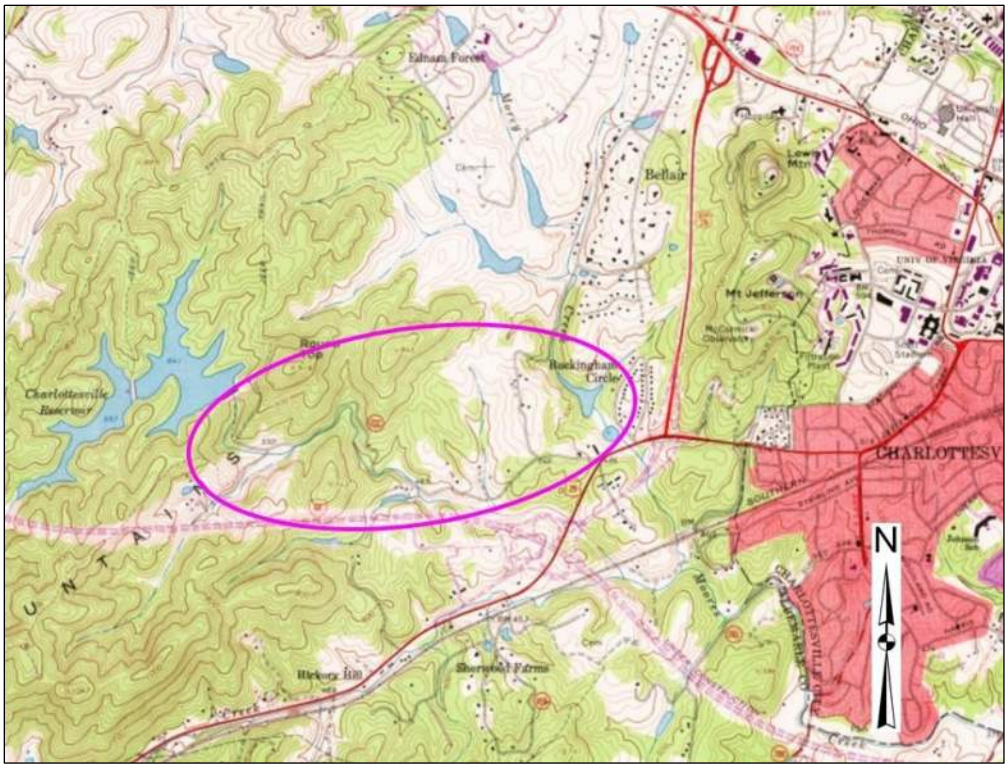

Figure 44: 1968 Map with Approximate Location of Section V Circled in Pink (USGS 1968). Not to scale.

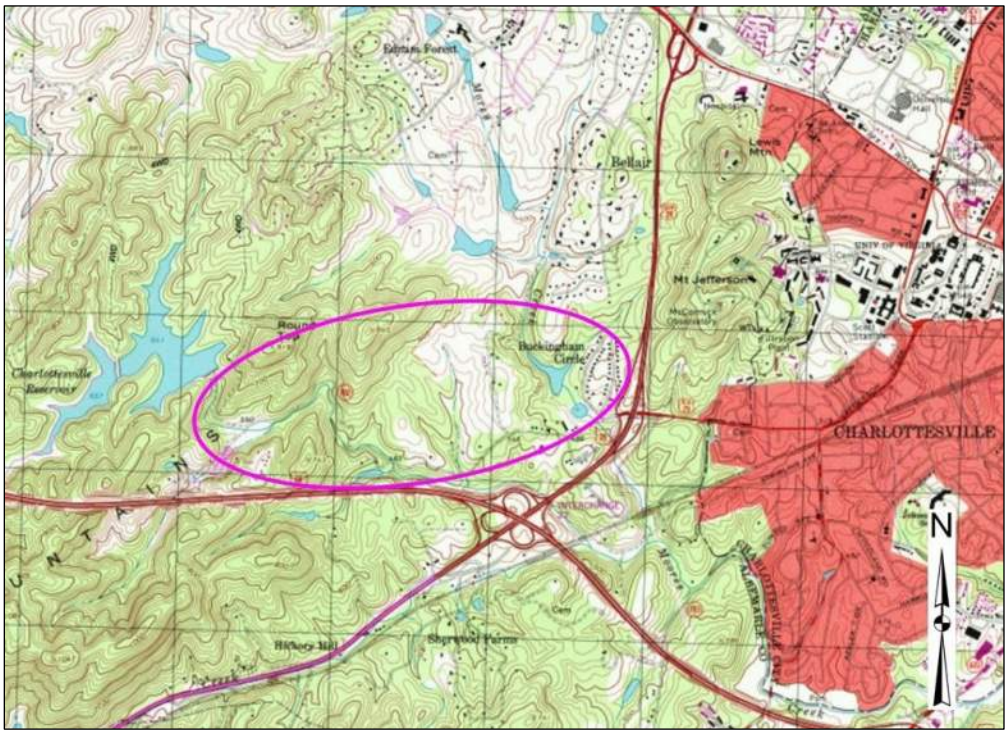

Figure 45: 1997 Map with Approximate Location of Section V Circled in Pink (USGS 1997). Not to scale.

Archaeological Field Survey Results

Section V of the RWSA project area extends 7,027 feet (2,142 m) from the Foxhaven Farm property west, primarily following Reservoir Road to where it will connect with Ragged Mountain Reservoir (Photo 32; Figure 46, p. 99). The majority of this section follows Reservoir Road along steep slopes as well as paralleling an existing 18-inch (46-cm) pipeline. The alignment follows the toe of slope as is feasibly possible where topography transitions from gradual slopes to steep slopes, though this area is generally still above 15 percent slope (Photo 33, p. 100). The alignment also parallels a Dominion Energy easement on the northern side of Reservoir Road, pushing the current alignment up the steep slope to avoid impacts to this existing underground line. The only portions of Section V which seem suitable for archaeological survey are on the easternmost portion of the alignment which has more gentle slopes than the western portions (Photo 34 and Photo 35, pp. 100–101). The area recommended for Phase IB archaeological survey is 2,055 linear feet (626 m) of the alignment while the remainder travels along high slopes. Further survey would include a single transect of STPs placed at 50-foot (15.2-m) intervals (see Figure 46, p. 99).

Photo 32: Example of Steep Slopes along the North Side of Reservoir Road, Facing East.

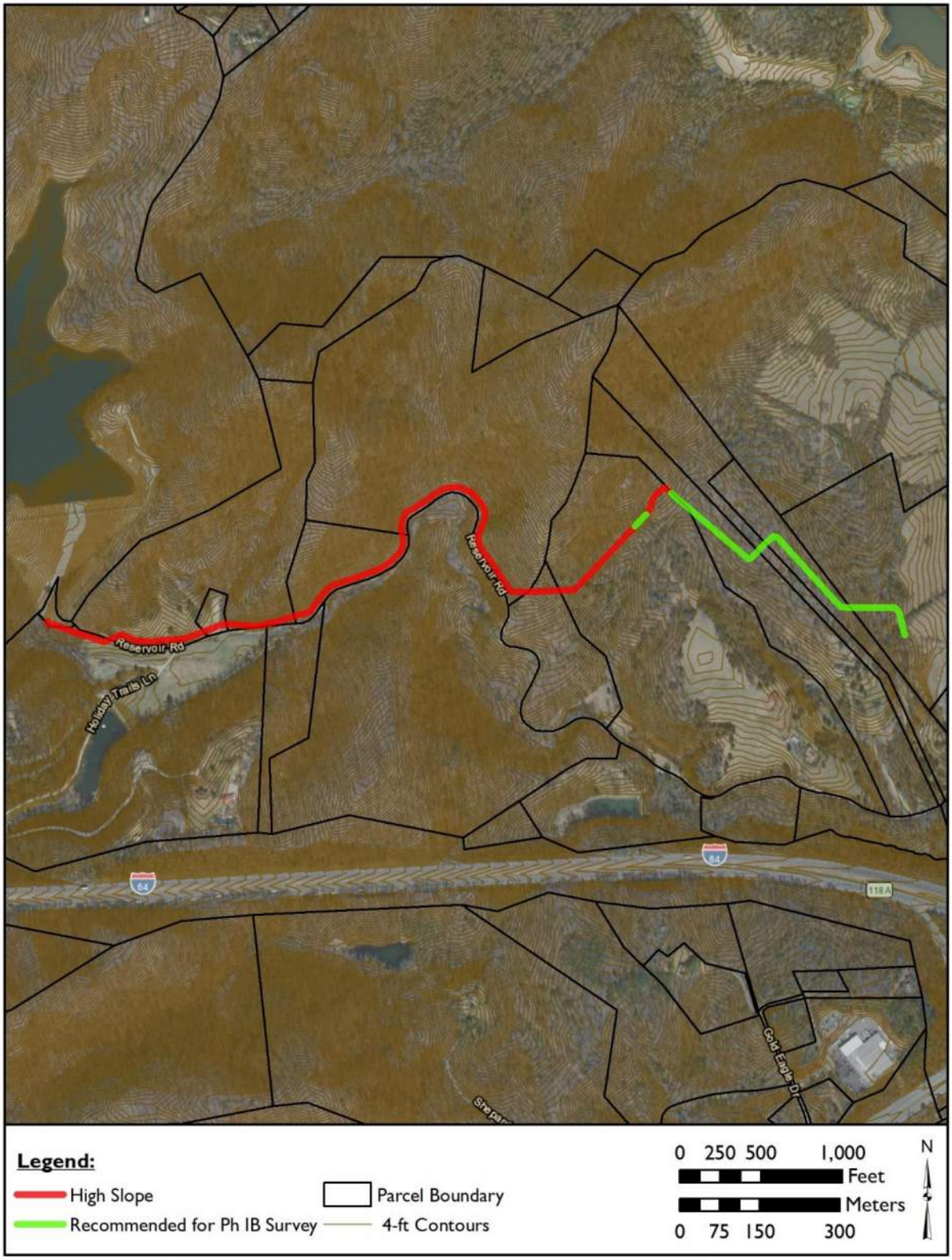

Figure 46: Location of Section V Showing Areas Recommended for Phase IB Survey (VGIN 2021).

Photo 33: Example of Steep Slopes Along the North Side of Reservoir Road, Facing East.

Photo 34: Example of Area Suitable for Subsurface Survey in Section V, Facing Southeast.

Photo 35: Example of Area Suitable for Subsurface Survey in Section V, Facing Southeast.

Architectural Field Survey Results

The vehicular and desktop architectural study of the architectural project area in Section V identified no above-ground resources that were previously recorded or newly recorded that meet the survey criteria (Figure 47, p. 102).

Section V Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas which warrant Phase IB archaeological survey. Based on the current assessment of Section V, the likelihood of encountering archaeological resources in the current section determined that a small portion of the project area, 2,055 linear feet (626 m) has the potential for containing intact soils and thus intact archaeological sites. No previously recorded sites are within this portion of the corridor. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 2,055 feet (626 m) of Section V of the project area.**

During the Phase IA architectural survey, no architectural resources were identified within the architectural project area that meet the survey criteria.

Figure 47: Project Area and Architectural Project Area of Section V (VGIN 2021). There are no architectural resources previously unrecorded or recorded within the architectural project area that meet the survey criteria.

Section VI

Historic Map Review

Historic maps suggest that the area within and adjacent to Section VI was minimally developed by the end of the Civil War. An 1867 map shows the Virginia and Central Railroad and the Orange and Alexandria Railroad entering Charlottesville in this area, where several dwellings and commercial buildings are situated (Figure 48) (Library of Congress 1867). An 1892 topographic map shows little change, except for a single road and the University of Virginia Observatory (Figure 49, p. 104). By the 1930s, Highway 29 (previously Highway 28) or Lynchburg Road, which would become an important travel route, was constructed and traversed through the southern portion of the project area. During this period, the majority of the project area was undeveloped except for the southeastern portion where several buildings along an unpaved road are extant (Figure 50, p. 104) (USGS 1931).

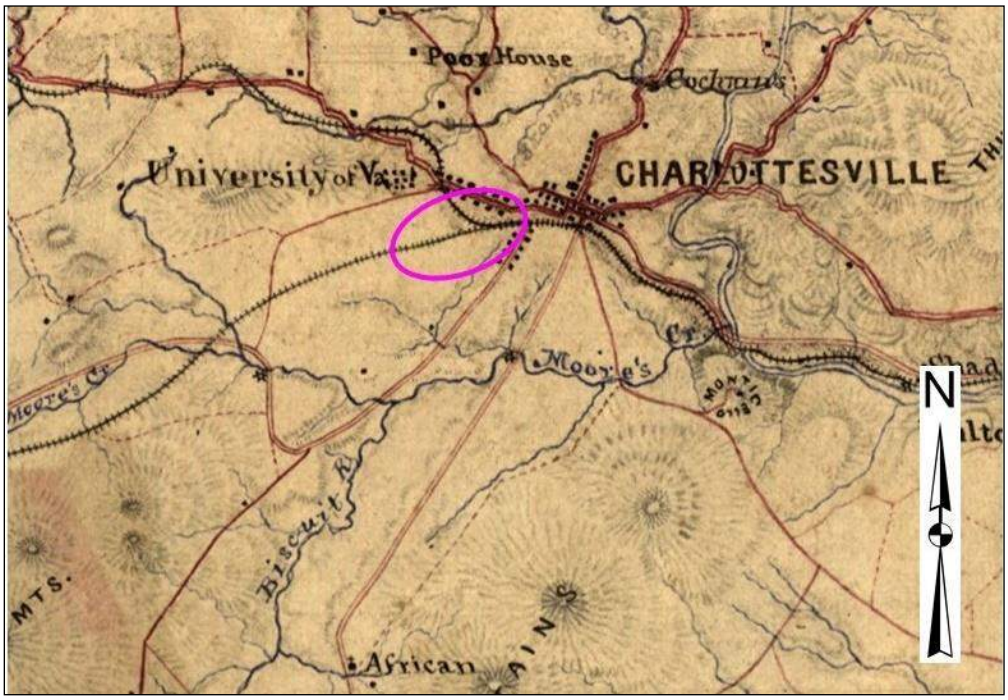

Figure 48: 1867 Map with Approximate Location of Section VI Circled in Pink (Library of Congress 1867). Not to scale.

The beginning of the 1960s brought the construction of UVA's Scott Stadium immediately northeast of the project area as well as further residential development associated with the university in the southern portion (Figure 51, p. 105) (USGS 1960). Furthermore, several roads were constructed that extend north from Highway 29/Lynchburg Road, which was also towards the summit of Mt. Jefferson. Highway 29, which runs north-south through the project area, and an interchange with Fontaine Avenue was constructed beginning in the late 1960s. This major highway is visible in a 1997 topographic map (Figure 52, p. 105) (USGS 1997). A residential subdivision denoted as Buckingham Place was also constructed by this time in the western

portion of the project area. Aside from a relatively large medical complex to the southeast of the intersection of I-64 and Highway 29, little has changed since 1997.

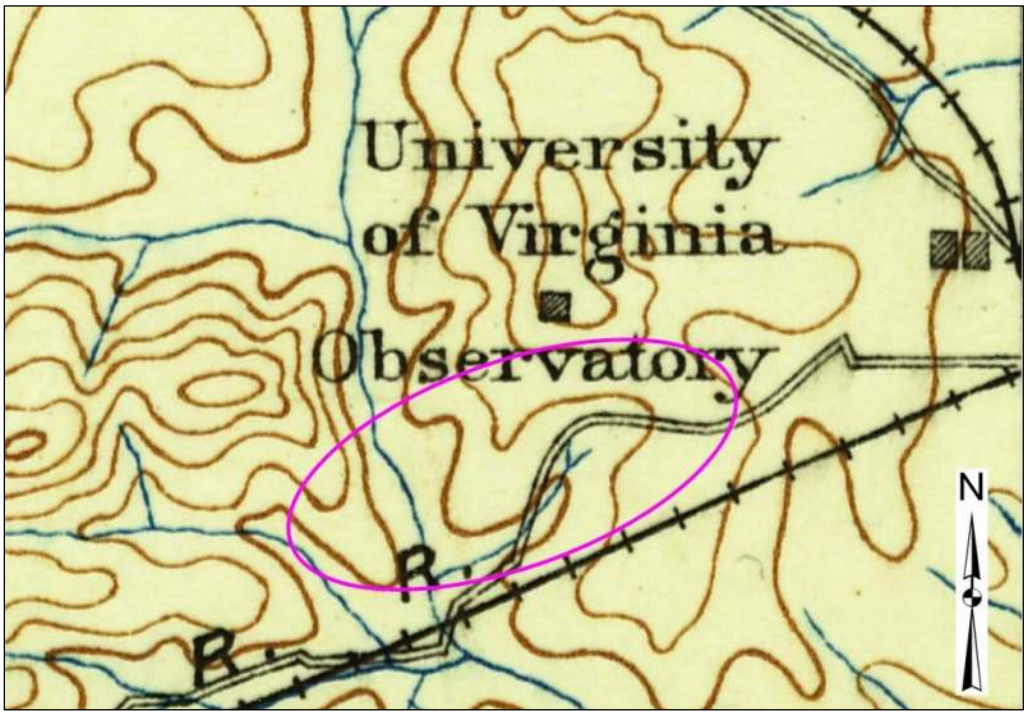

Figure 49: 1892 Map with Approximate Location of Section VI Circled in Pink (USGS 1892b). Not to scale.

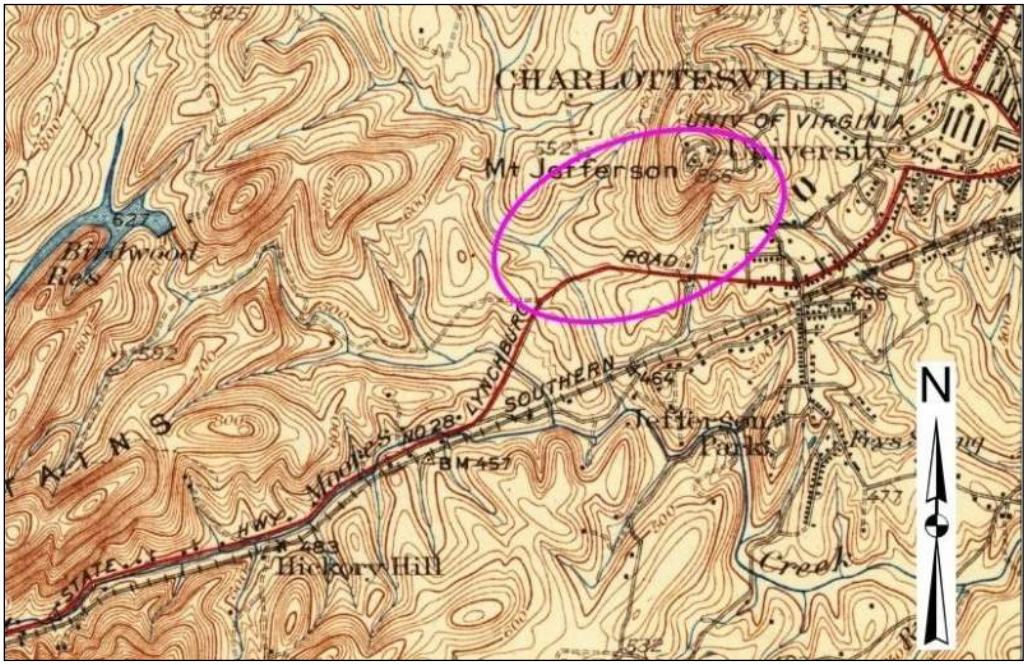

Figure 50: 1931 Map with Approximate Location of Section VI Circled in Pink (USGS 1931). Not to scale

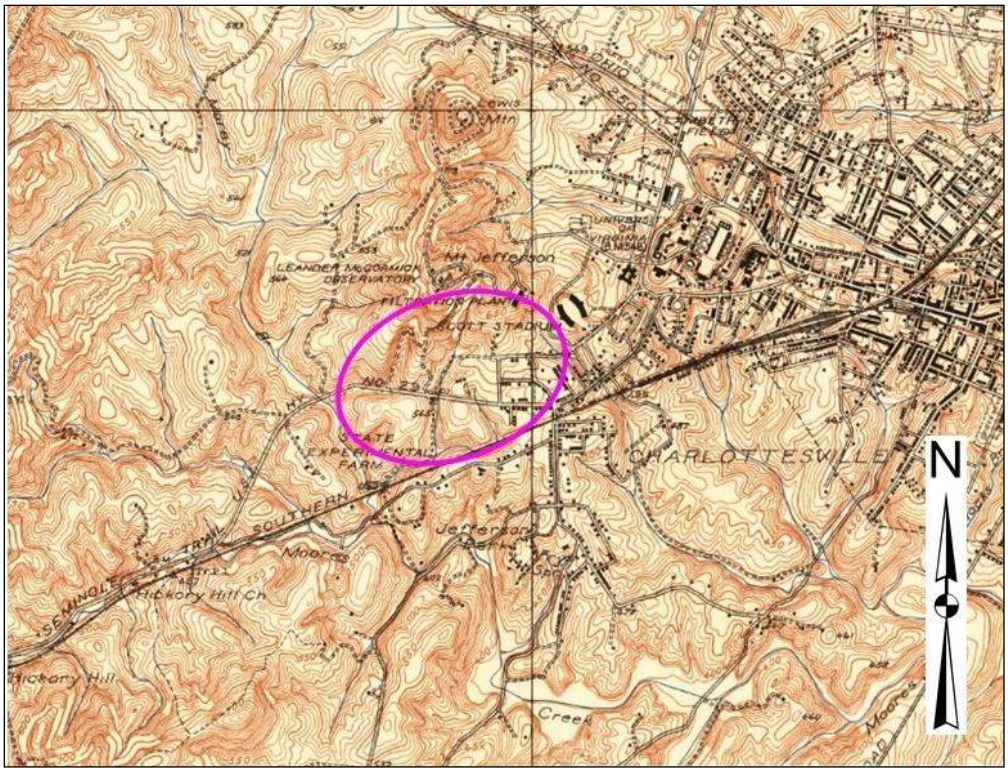

Figure 51: 1960 Map with Approximate Location of Section VI Circled in Pink (USGS 1960). Not to scale.

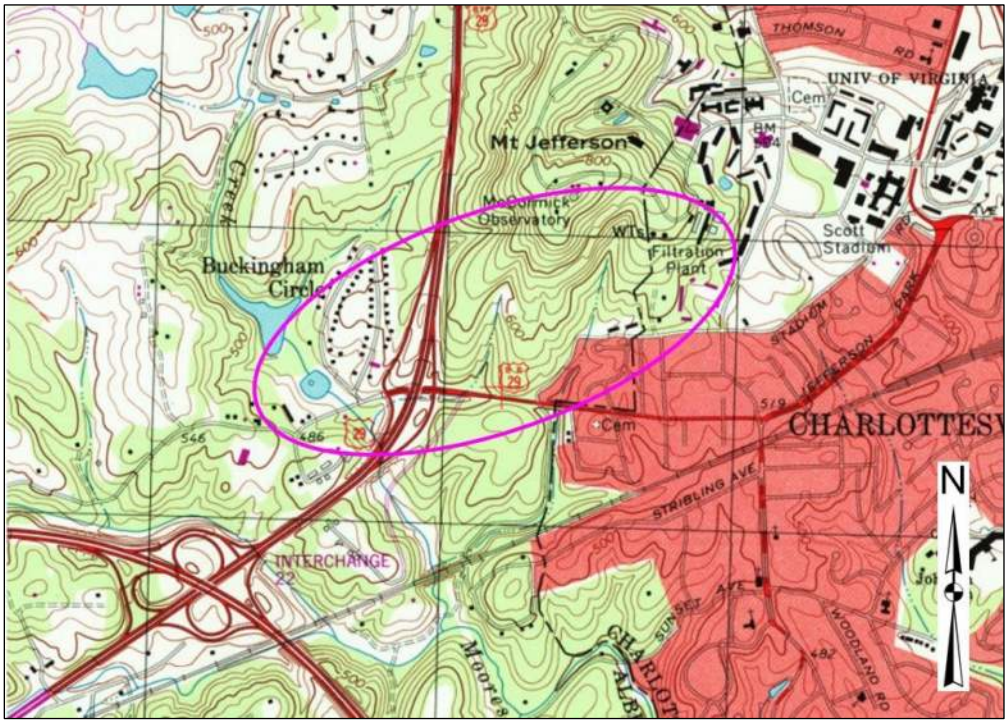

Figure 52: 1997 Map with Approximate Location of Section VI Circled in Pink (USGS 1997). Not to scale.

Archaeological Field Survey Results

Section VI of the RWSA project area extends 10,856 feet (3,309 m) from the intersection of the southern portion of Section IV and eastern end of Section V at Foxhaven Farm. The section travels east along the south side of Reservoir Road and eventually crosses the Route 29 Bypass Expressway. The alignment then travels north, paralleling a portion of the Rivanna Trail before crossing Route 29, traveling along high slopes, before paralleling Hereford Drive up to the Observatory Hill Water Treatment Plant. Large portions of the project area lie along high slopes greater than 15 percent, while other portions of this section fall within existing pavement and disturbance (Photo 36; Photo 37, p. 107). Additionally, a large segment between the Foxhaven Farm property and Fontaine Avenue Extension has been heavily disturbed due to the recent construction of the Regent School (Photo 38, p. 107). Small portions of Section VI appear to have potential for archaeological remains along relatively flat terraces along these slopes as well as a flat open field and yard at the westernmost portion of the section (Photo 39 and Photo 40, p. 108). While no previously identified archaeological sites intersect the current alignment, site 44AB0071 lies relatively close to portions of the alignment. This site was identified as a lithic scatter of unknown temporal affiliation along a gully surrounded by steep slopes, showing potential for precontact sites on flatter portions of the surrounding steep terrain. The area recommended for Phase IB archaeological survey is approximately 3,578 linear feet (1,091 m) of the alignment while the remainder appears either heavily disturbed or in highly sloped terrain. Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals (Figure 53, p. 109).

Photo 36: Example of High Slopes Along Observatory Hill, Facing Southwest.

Photo 37: Example of Steep Slopes Along Observatory Hill Along the Alignment, Facing West.

Photo 38: Recent Disturbance At the Regent School Property, Facing West.

Photo 39: Relatively Flat Terrace Suitable for Archaeological Survey, Facing Southwest.

Photo 40: Flat Area Along the Rivanna Trail Suitable for Archaeological Survey, Facing Southwest.

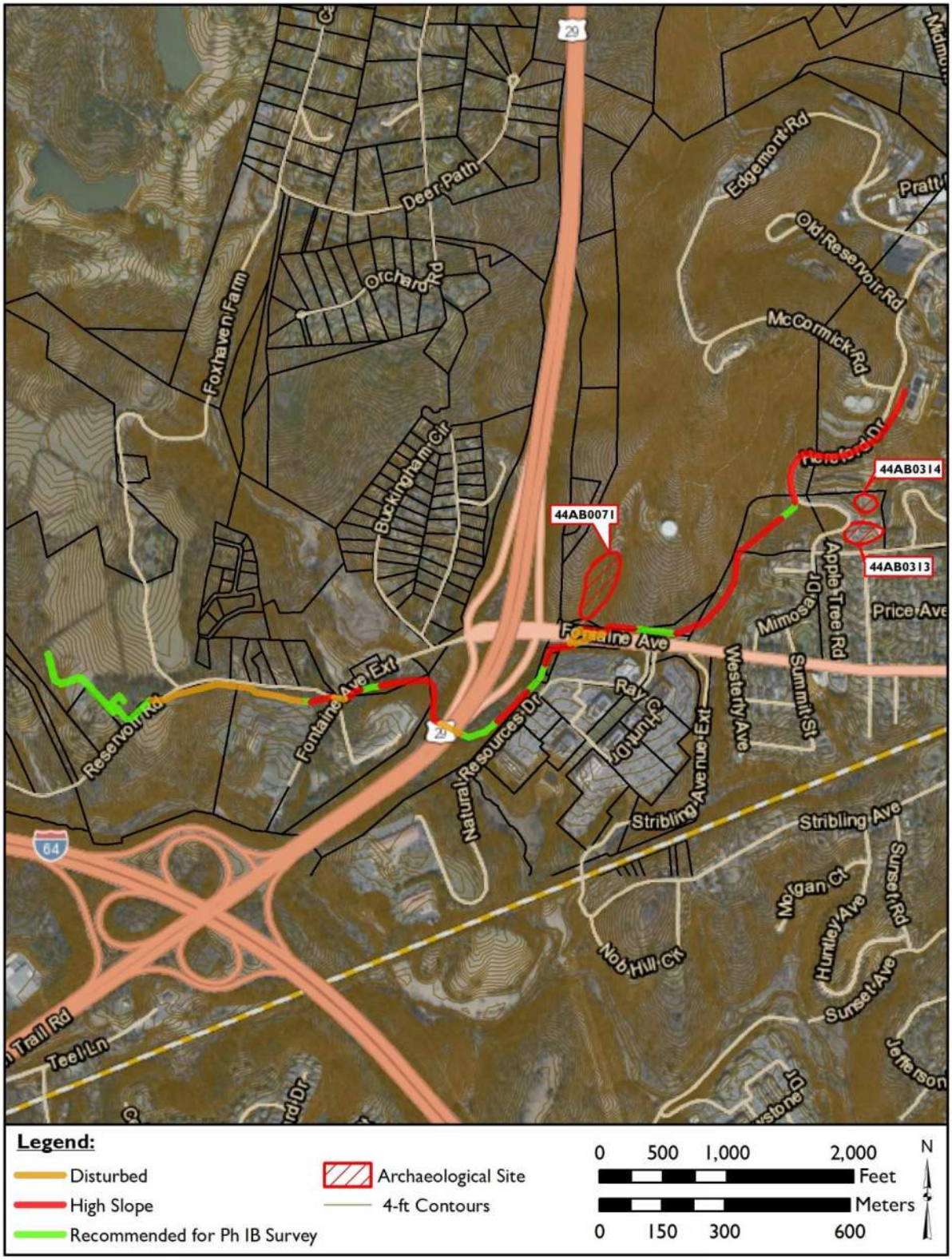

Figure 53: Location of Section VI Showing Previously Recorded Sites Within 500 Feet (152 m) as well as Areas Recommended for Phase IB Survey (VGIN 2021).

Architectural Field Survey Results

The architectural study, which included a vehicular and desktop survey, of the architectural project area identified a total of seven above-ground resources that were either previously recorded (n=4) or newly recorded (n=3) (Table 28; Figure 54, p. 111).

Table 28: Architectural Resources within the Architectural Project Area of Section VI.

Temp Number/DHR ID	Name/Address	Date of Construction	Previous Eligibility Determination	Survey Recommendation
002-1622	Department of Forestry, James W. Garner Building, State Forestry Headquarters Complex	ca. 1950	DHR Staff: Not Eligible (1991)	Phase IB Survey Recommended
104-5267	House, 113 Mimosa Drive	1958	DHR Staff: Potentially Eligible (2017)	Phase IB Survey Not Recommended
104-5268	Apartment Building, 115 Mimosa Drive	ca. 1954	DHR Staff: Not Eligible (2017)	Phase IB Survey Recommended
104-5285	Gooch-Dillard, Residence Hall, Floyd Drive	ca. 1961	Not Evaluated	Phase IB Survey Recommended
Temp 62	House, 1150 Reservoir Road	ca. 1950	N/A	Phase IB Survey Recommended
Temp 63	Day Care Center, 1034 Reservoir Road	ca. 1957	N/A	Phase IB Survey Recommended
Temp 64	House, 1004–1006 Reservoir Road	ca. 1937	N/A	Phase IB Survey Recommended

Four of the seven resources located within the architectural project area in Section VI are previously recorded (Photo 41, p. 112). One resource, a house at 113 Mimosa Drive (104-5267) was surveyed in 2020 and was determined potentially eligible for listing in the NRHP. The three remaining resources have not been surveyed within the last five years. Two of these resources are mid-century dwellings (104-5268 and 104-5285) and one is a circa-1950 commercial building. Dovetail **recommends that the three resources which have not been surveyed in the last five years be resurveyed at the Phase IB level**.

Three of the seven resources are newly identified during this effort (Photo 42, p. 112). Two of these resources are wood-framed dwellings, built circa 1950 and circa 1937 (Temp 62 and Temp 64). The final newly identified resource is a one-story commercial building constructed circa 1957 (Temp 63).

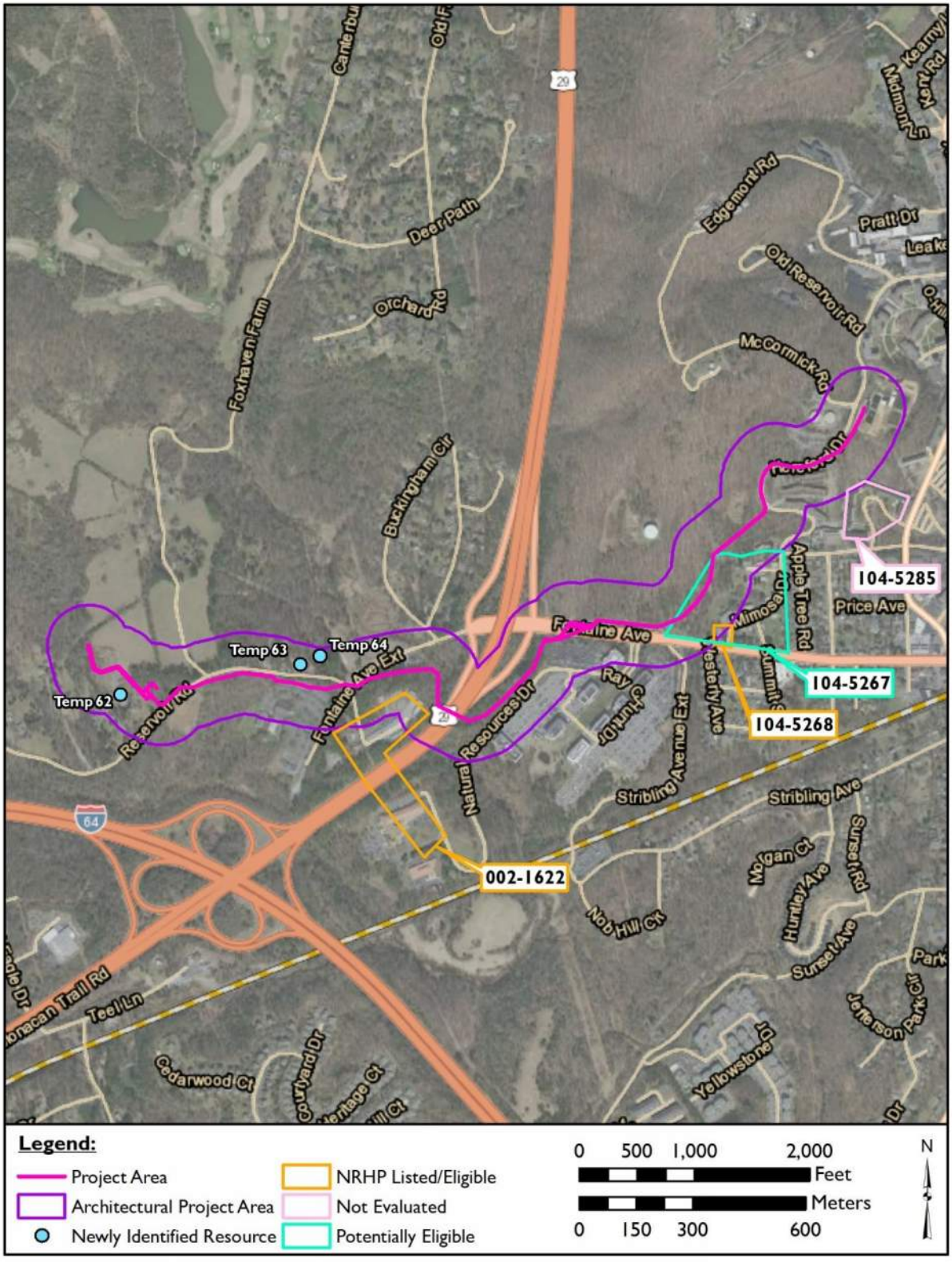

Figure 54: Approximate Location of Above-Ground Resources Noted During Architectural Survey of Section VI (VGIN 2021).

Photo 41: Sample of Previously Recorded Resources within the Section VI Project Area: 104-5267 (House, 113 Mimosa Drive: Left); 104-5271 (House, 104 Westerly Avenue: Right).

Photo 42: Previously Unrecorded Resources within the Section VI Project Area: Temp 63 (Left), Temp 64 (Right).

Section VI Survey Summary and Recommendations

In sum, the Phase IA archaeological study work resulted in the definition of areas which warrant Phase IB archaeological survey. Based on the current assessment of Section VI, the likelihood of encountering archaeological resources in the current section determined that small portions of the project area, 3,578 feet (1,091 m), has the potential for containing intact soils and thus intact archaeological sites. No previously recorded sites are within this portion of the corridor. Based on the combined findings, **Dovetail recommends Phase IB archaeological survey for 3,578 feet (1,091 m) of Section VI of the project area.**

During the Phase IA architectural survey, in addition to the four previously recorded resources, Dovetail identified three previously unrecorded resources within the architectural project area. One previous recorded resource (104-5267) received an eligibility determination in 2020. Dovetail **recommends that of the seven architectural resource within the architectural project area that meet the survey criteria, three previously recorded resources and three previously unrecorded resources be surveyed at the Phase IB reconnaissance-level.**

SUMMARY AND RECOMMENDATIONS

Dovetail conducted a Phase IA cultural resource survey of the RWSA water line expansion project for Hazen and Sawyer. Work was done as part of the county's preliminary project planning process. The results of the field study were used to make recommendations regarding whether a Phase IB cultural resource investigation is warranted prior to the proposed development of the project area and present recommendations on the scope of such work.

The Phase IA archaeological reconnaissance study included a pedestrian survey of the project area. No subsurface investigations were completed during this phase of work. The work resulted in the definition of locations suitable for subsurface archaeological survey within the project area based on the probability of encountering intact archaeological resources. Large portions of the project area have been purposely placed under existing roads and along existing utility corridors to minimize impacts of the proposed RWSA community water supply plan project area. Approximately 16,462 linear feet (5,018 m) of the 60,337-foot (18,391-m) corridor has potential archaeological resources, warranting Phase IB archaeological survey (Table 29, p. 114). Although only minimal disturbance was noted outside of portions of the alignment under existing roads, significant portions of the project area are considered unsuitable for subsurface archaeological survey because of excessive slope. Three previously identified sites are located within the project area, (44AB0427, 44AB0395, and 44AB0396). Sites 44AB0395 and 44AB0396 appear to be completely demolished by the construction of Hydraulic Road, while site 44AB0427 appears intact, though previously recommended as not eligible for the NRHP. Based on the field findings, **Dovetail recommends that a Phase IB archaeological survey of 16,462 linear feet (5,018 m) of the 60,337-foot (18,391 m) project area is warranted.** Further survey would include a single transect of shovel test pits (STPs) placed at 50-foot (15.2-m) intervals within areas deemed suitable in the current survey.

The Phase IA architectural study noted all previously recorded and all previously unrecorded above-ground resources 50 years of age or older within the architectural project area, defined as the project area and a 350-foot (106.7-m) buffer. Dovetail identified 39 previously recorded and 65 unrecorded resources. Two resources, Albemarle High School (002-5312) and the house at 113 Mimosa Drive (104-5267), were surveyed within the last five years. These two resources will not need to be resurveyed. The remaining 102 resources have either not been surveyed and evaluated for the NRHP within the last five years, have never received a formal NRHP eligibility determination, or are newly identified. Dovetail **recommends that these 102 architectural resources should be the subject of a Phase IB reconnaissance-level survey.**

Table 29: Areas Recommended For Further Phase IB Archaeological Survey of Each Section of the Proposed RWSA Project Area.

Section	Recommended for Phase IB Survey (feet)	Disturbed (feet)	High Slope (feet)	Total Length (feet)
I-A	2,094	5,118	0	7,212
I-B	0	7,109	0	7,109
II-A	2,247	2,323	6,279	10,849
II-B	4,548	4,112	334	8,994
III	0	5,955	0	5,955
IV	1,940	0	395	2,335
V	2,055	0	4,972	7,027
VI	3,578	2,052	5,226	10,856
Total	**16,462**	**26,669**	**17,206**	**60,337**

Table 30: Number of Architectural Resources Per Segment and Number of Resources Recommended for Phase IB Survey

Section	Number of Resources in the Section	Number of Resources Recommended for a Phase IB Survey
IA	27	27
IB	22	22
IIA	10	9
IIB	7	7
III	28	28
IV	1	1
V	0	0
VI	7	6
Total	**104**	**102**

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APPENDIX A: PRINCIPAL INVESTIGATOR QUALIFICATIONS

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DOVETAIL
CULTURAL RESOURCE GROUP
WWW.DOVETAILCRG.COM

YEARS OF EXPERIENCE

With this firm: 11

With other firms: 2

EDUCATION

MHP/Historic Preservation, 2011

MCert./Transportation Systems Management, 2011

BA/Historic Preservation, 2007

REGISTRATIONS/QUALIFICATIONS

Secretary of Interior Standards Qualified as Architectural Historian and Historian

PUBLICATIONS/PRESENTATIONS/COMMITTEES

Shiloh Baptist Church Old Site National Register of Historic Places (2015)

East End and Davis Bottom: A Study of the Demographic and Landscape Changes of Two Neighbohoods in Lexington, Kentucky. Master'sThesis (2011)

From Field to Subdivision: The Evolution of Elmhurst. *The Journal of Fredericksburg Hist*ory (2008)

Elmhurst National Register of Historic Places (2007)

HEATHER D. STATON, MHP

Architectural History Division Manager

EXPERIENCE

Ms. Staton has over 13 years of professional experience in the field of historic research, architectural history, and cultural resource management (CRM). Ms. Staton is involved with reconnaissance and intensive architectural history surveys. She is key author on cultural resource reports and has worked on and led several Phase I and II architectural surveys. Her tasks at Dovetail include primary archival research; windshield, reconnaissance- and intensive-level architectural field surveys; National Register of Historic Places (NRHP) nominations; report production; and data entry into the Virginia Cultural Resources Information System (VCRIS) database.

SAMPLE PROJECTS

Amtrack Hanson Landover Architectural Historian/Northern Neck Sandy Relief Survey, Lancaster, Northumberland, and Westmoreland Counties, Virginia (DHR). Reconnaissance-level architectural survey and report on 275 properties within the Northern Neck on behalf of the DHR and the NNPDC.

Architectural Historian/Violet Bank Historic District, City of Colonial Heights, Virginia (DHR). Reconnaissance-level architectural survey within the historic district for the City/DHR Cost Share program.

Principal Investigator/Occupacia-Rappahannock Historic District Survey Cost Share, Essex County, Virginia (DHR). Reconnaissance-level survey of approximately 150 properties in preparation for a future NRHP nomination.

Architectural Historian/Essex Three Historic District Cost Share, Essex County, Virginia (DHR). Architectural survey and evaluation of three potential historic districts with PIFs under state's cultural resource survey cost-share program.

Architectural Historian/Highland Springs Cost Share Survey, Henrico County, Virginia (DHR). Reconnaissance-level architectural survey of over 600 resources within the historic district and completion of VCRIS packets.

Architectural Historian/Warrenton Training Center Station C, Fauquier County, Virginia (US Army/EEE Consulting, Inc.). Reconnaissance-level architectural survey and completion of VCRIS packets for 12 resources within and surrounding Station C.

Architectural Historian/Shiloh Baptist Church (Old Site), City of Fredericksburg, Virginia (Shiloh Baptist Church). NRHP nomination of the church, constructed in 1890.

Architectural Historian/Southeast High Speed Rail Corridor Study, Washington D.C. to Raleigh, North Carolina (Virginia DRPT, NCDOT). Cultural resource studies for over 200 miles of rail, including the recordation of over 5,000 architectural resources.

Architectural Historian/City of Petersburg Three Historic District Survey, City of Petersburg, Virginia (City of Petersburg). Architectural studies on the Centre Hill, Courthouse, and Old Towne Historic Districts (over 300 resources) and evaluation of preservation laws in the city to help craft preservation plan.

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CULTURAL RESOURCE GROUP
WWW.DOVETAILCRG.COM

MICHAEL CARMODY, MA, RPA

Vice President/Principal Investigator

YEARS EXPERIENCE

With this firm: 16

With other firms: 12

EDUCATION

MA/Anthropology, 1999

BA/Anthropology, 1990

BA/Archeology, 1990

REGISTRATIONS/QUALIFICATIONS

Registered Professional Archeologist

Secretary of Interior Standards Qualified as Archeologist

PUBLICATIONS/PRESENTATIONS/COMMITTEES

Vice President/Fredericksburg Main Street (2018–present)

Design Chair/Fredericksburg Main Street Committee (2015–2017)

Co-Chair/Council of Virginia Archaeologists Award's Committee (2010–present)

Fredericksburg Riverfront Park Committee (2012–2017)

Native Peoples of the Rappahannock Fall Zone. Paper presented at the Council of Virginia Archaeologists and Archaeological Society of Virginia Annual Meeting (2009)

Tools of Contact. In Stone Tool Tradition of the Contact Era, edited by Charles Cobb (2003)

Through the Looking Glass: Standards and Guidelines and the Archaeological Record. Paper presented at the Mid Atlantic Archaeological Conference Annual Meeting (2009)

EXPERIENCE

Mr. Carmody, Vice President of Dovetail, has 28 years of experience in archeology and Cultural Resources Management (CRM). He has directed a wide array of archeological investigations in the region including archeological assessments, Phase I–III investigations, and agency and consulting party consultations. He has extensive experience in complying with federal, state, and local regulations, and has successfully worked with State Historic Preservation Offices to develop work plans and create Memoranda of Agreement (MOA) and Programmatic Agreements (PA) for cultural resources management projects.

SAMPLE PROJECTS

Principal Investigator and Project Manager/Division U Monitoring, Washington, DC (DC Water). In support of DC Water/Apex, served as Principal Investigator and Project Manager for the archeological monitoring of the installation of the Division U water project. Included extensive coordination with agencies and construction crews on schedules and findings.

Principal Investigator and Project Manager/Shepherd Park, Washington, D.C. (Baker). In compliance with Section 106 of the NHPA, led Phase I archeology survey of 2.35 acres for new city park.

Principal Investigator and Project Manager/Anacostia Streetcar Extension, Washington, D.C. (DDOT/HDR). Led the Phase I archeological survey and GIS assessment of the Anacostia Streetcar project area. Project involved geoarcheological studies and archival research to augment field findings.

Project Manager/The Foreign Mission Center (Former Walter Reed Army Medical Center), Washington, D.C. (USA/Gannett Fleming). In compliance with Section 106 of the NHPA, led Phase I archeology survey for the Foreign Mission building project and worked closely with agencies to assure compliance.

Principal Investigator and Project Manager/Oregon Avenue Widening, Washington, D.C. (DDOT/Volkert). In compliance with Section 106 of the NHPA, led Phase I archeology survey for the DDOT project. Included extensive coordination with many agencies on project results and schedules.

Principal Investigator and Project Manager/AT&T Cable Line Replacement, Potomac River Crossing, Washington D.C., Charles County, MD, and King George, VA (Titan Engineering). In compliance with Section 106, completed a Phase IA survey of a proposed AT&T fiber optic line replacement.

Principal Investigator and Project Manager/I-395 High Occupancy Toll Upgrades, Arlington, Alexandria, Prince William, and Stafford Counties, Virginia (VDOT/Parsons). Served as Principal Investigator for the upgrade to I-95 for the high occupancy toll lanes.

Principal Investigator and Project Manager/Phase I Survey of 2811 King Street, Alexandria, Virginia (2811 King Street, LLC). Directed archeological survey of a 1.3-acre parcel within the City of Alexandria for a retirement home project.

NORFOLK DISTRICT REGULATORY OFFICE PRE-APPLICATION AND/OR JURISDICTIONAL WATERS DETERMINATION REQUEST FORM

This form is used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and/or printed and then mailed, faxed, or e-mailed to the Norfolk District. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. **THIS FORM MUST BE SIGNED BY THE PROPERTY OWNER TO BE CONSIDERED A FORMAL REQUEST.**

The printed form and supporting documents should be mailed to:

U.S. Army Corps of Engineers, Norfolk District
Regulatory Office
803 Front Street
Norfolk, Virginia 23510-1096

Or faxed to (757) 201-7678

Or sent via e-mail to: CENAO.REG_ROD@usace.army.mil

Additional information on the Regulatory Program is available on our website at:
http://www.nao.usace.army.mil/technical%20services/Regulatory%20branch/homepage.asp

Please contact us at 757-201-7652 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination:

1. Date of Request: 6 July 2022

2. City or County where property located: Albemarle County

3. Address of property and directions (attach a map of the property location and a copy of the property plat): The property consists of a waterline easement and does not have an address. In general, the project extends from the South Rivanna Reservoir at the South Rivanna Reservoir Water Treatment Plant north of Charlottesville (38.1018°N, -78.4694°W to two points southwest of Charlottesville, the Ragged Mountain Reservoir downstream of the dam (38.0265°N, -78.5595 °W) and the Observatory Water Treatment Plant on the University of Virginia campus (38.0319°N, -78.5175°W).

4. Size of property in acres: ~42.5

5. Tax Parcel Number / GPIN (if available): Numerous, project area consists of multi-mile water line easement.

6. Name of Nearest Waterway: The project area traverses several named and unnamed waterways and terminates near two drinking water reservoirs, the South Rivanna Reservoir and the Ragged Mountain Reservoir. Several unnamed tributaries (UTs) to Ivy Creek are within the project area in the northern portion of the project corridor. The southern portion of the project corridor traverses Murey Creek and several UTs to Morey Creek and Moores Creek.

7. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request: The project entails installation of raw water mains that will connect to existing pipes. The Preapplication Request is being submitted to obtain concurrence of delineated jurisdictional features within the project areas to accompany the JPA **(Joint Permit Application Number: 21-1154).**

8. Has a wetland delineation/determination been completed by a consultant or the Corps on the property previously? ☒ YES ☐ NO ☐ UNKNOWN

   If yes, please provide the name of the consultant and/or Corps staff and Corps permit number, if available: Linda Diebolt, Hazen and Sawyer

Property Owner Contact Information:

Property Owner Name: William I. Mawyer, Jr., PE, Executive Director - Rivanna Water and Sewer Authority
Mailing Address: 695 Moores Creek Lane
City: State: Zip: Charlottesville, VA 22902
Daytime Telephone: (434) 977-2970
E-mail Address: bmawyer@rivanna.org

If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here:

Requestor Name: Linda Diebolt / Hazen and Sawyer
Mailing Address: 4011 WestChase Blvd., Suite 500
City: State: Zip: Raleigh, NC 27607
Daytime Telephone: 919-906-1775
E-mail Address: ldiebolt@hazenandsawyer.com

Additionally, if you have any of the following information, please include it with your request: wetland delineation map, other relevant maps, drain tile survey, topographic survey, and/or site photographs.

CERTIFICATION: I am hereby requesting a preapplication consultation or jurisdictional waters and/or wetlands determination from the U.S. Army Corps of Engineers, for the property(ies) I have described herein. I agree to allow the duly authorized representatives of the Norfolk District Corps of Engineers and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as "no trespassing" this consent specifically supercedes and waives that prohibition and grants permission to enter the property despite such posting. I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:

C.H. Mawyer Jr. — Property Owner's Signature

7/8/2022 — Date

Wetland Delineation Report Site Information Summary
Proposed Raw Water Main Project – Rivanna Water & Sewer
(Joint Permit Application Number 21-1154)
South Rivanna Reservoir to Ragged Mountain Reservoir (~42.5 Acres)
Albemarle County, Virginia

Date
July 6, 2022

Latitude/ Longitude in Decimal Degrees using coordinate plane (NAD 1983)
In general, the project extends from the South Rivanna Reservoir at the South Rivanna Reservoir Water Treatment Plant north of Charlottesville (38.1018^{o}N, -78.4694^{o}W to two points southwest of Charlottesville, the Ragged Mountain Reservoir downstream of the dam (38.0265^{o}N, -78.5595 ^{o}W) and the Observatory Water Treatment Plant on the University of Virginia campus (38.0319^{o}N, -78.5175^{o}W).

Has a previous delineation or JD been performed? If so, please provide USACE Project Number: N/A

Hydrologic Unit Code (HUC)
8-Digit HUC - 02080204

USGS Topographic Sheet
Charlottesville West Quadrangle

Nearest Waterbody (example given)
The project area traverses several named and unnamed waterways and terminates near two drinking water reservoirs, the South Rivanna Reservoir and the Ragged Mountain Reservoir. Several unnamed tributaries (UTs) to Ivy Creek are within the project area in the northern portion of the project corridor. The southern portion of the project corridor traverses Murey Creek and several UTs to Morey Creek and Moores Creek.

Delineation Methods
U.S. Army Corps of Engineers 1987 Wetland Delineation Manual in conjunction with the Eastern Mountains and Piedmont Regional Supplement (Version 2.0, April 2012) and the 2020 NWPL.

On-Site Investigation Date
Wetland boundary delineation and site data collection conducted between 9 May and 18 May 2022.

Wetland Delineation Plan
The proposed wetland boundaries and Data Sampling Point locations are depicted on the plan entitled "Jurisdictional Features Map" prepared by Hazen and Sawyer on July 6, 2022.

Wetland Investigation Results

Wetlands: Three palustrine emergent (PEM) wetlands, totaling approximately 0.173 acre of non-tidal wetlands, were identified within the approximately 42.5-acre parcel during this investigation. These wetlands are depicted on the provided Jurisdictional Features Map. The wetlands have a surface water connection to an abutting jurisdictional channel.

Stream Channels: Approximately 721 feet of the subject parcel were classified as stream channels with a bed and bank and the presence of an ordinary high-water mark. The stream channels within the project areas have a Cowardin classification of C.

Other Waters: No other open waters or ditches are present.

Water bodies onsite identified as Section 10: N/A

Uplands: A majority of the project area
Approximately 42.24 acres of 42.5 acres of the project corridor were classified as uplands. The uplands within the project area vary from maintained, regularly to irregularly maintained grass/herbaceous areas to disturbed roadside areas to undeveloped, wooded areas.

100-Year Floodplains
As depicted on the Virginia Department of Conservation and Recreation Virginia Flood Risk Information System (VFRIS), accessed on July 4, 2022, an approximately 0.5-mile segment of pipe is within the 100-year floodplain associated with a UT to Moores Creek and a 94-foot segment of pipe traverses Morey Creek. No base flood elevations have been determined for the project areas within the 100-year floodplain. FEMA 100-year floodplain is depicted on the provided Natural Resources Map.

National Wetlands Inventory
Other than riverine features, the National Wetland Inventory, which was accessed on July 4, 2022 via ESRI sponsored online data, no features are depicted within the project areas. Two palustrine features are present in proximity to, but not within, the project area. National Wetland Inventory wetlands are depicted on the provided Natural Resources Map.

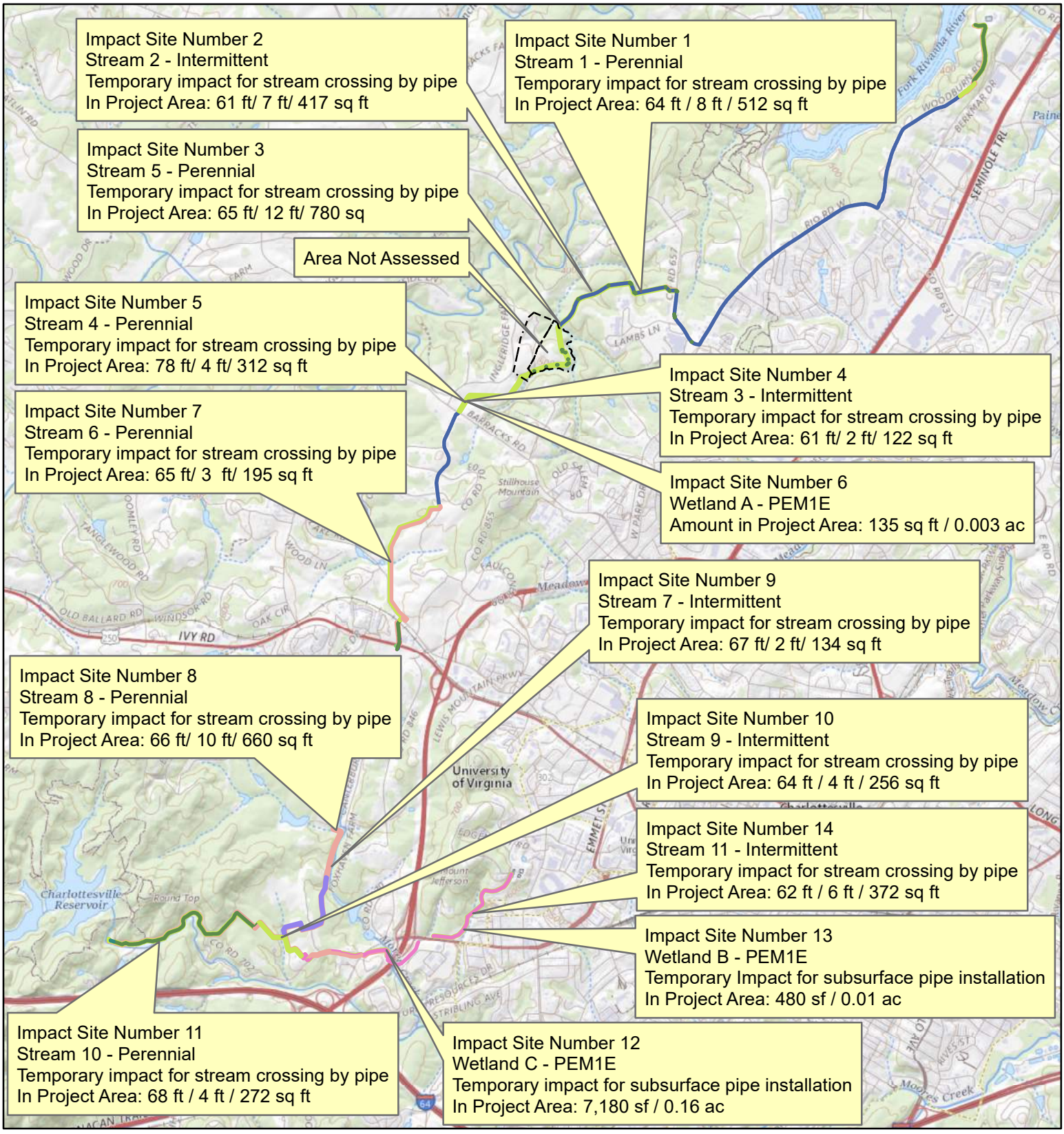
USDA Soil Survey
The on-line USDA Natural Resource Conservation Service Soils data identifies minimal areas of hydric soil in drainageways and floodplains in the project areas. The hydric soils are depicted on the provided Natural Resources Map.

Notes:
The project corridor mainly traverses undeveloped, wooded land; maintained grassed areas associated with roadway easements, lawns, and pastureland; and paved areas.

Waters Table:

Wetland/Water	Latitude	Longitude	Cowardin Class	Area (Acres)	Class of aquatic resource (Tidal/Non-tidal, Section 10/404)
Stream 1 – Perennial	38.079845	-78.504368	C	0.01	404
Stream 2 – Intermittent	38.079644	-78.509211	C	0.01	404
Stream 3 – Intermittent	38.070873	-78.522482	C	0.003	404
Stream 4 – Perennial	38.070764	-78.522565	C	0.007	404
Stream 5 – Perennial	38.077194	-78.512665	C	0.02	404
Stream 6 – Perennial	38.057616	-78.530327	C	0.004	404
Stream 7 – Intermittent	38.032587	-78.536735	C	0.003	404
Stream 8 – Perennial	38.035586	-78.535968	C	0.015	404
Stream 9 – Intermittent	38.032706	-78.536699	C	0.006	404
Stream 10 – Perennial	38.026466	-78.554981	C	0.006	404
Stream 11 – Intermittent	38.028794	-78.521769	C	0.009	404
Wetland A	38.070873	-78.522585	PEM1E	0.003	404
Wetland B	38.027473	-78.522665	PEM1E	0.01	404
Wetland C	38.026766	-78.541632	PEM1E	0.16	404

JURISDICTIONAL FEATURES MAP
Proposed Raw Water Main Project
Rivanna Water & Sewer
Charlottesville, Virginia

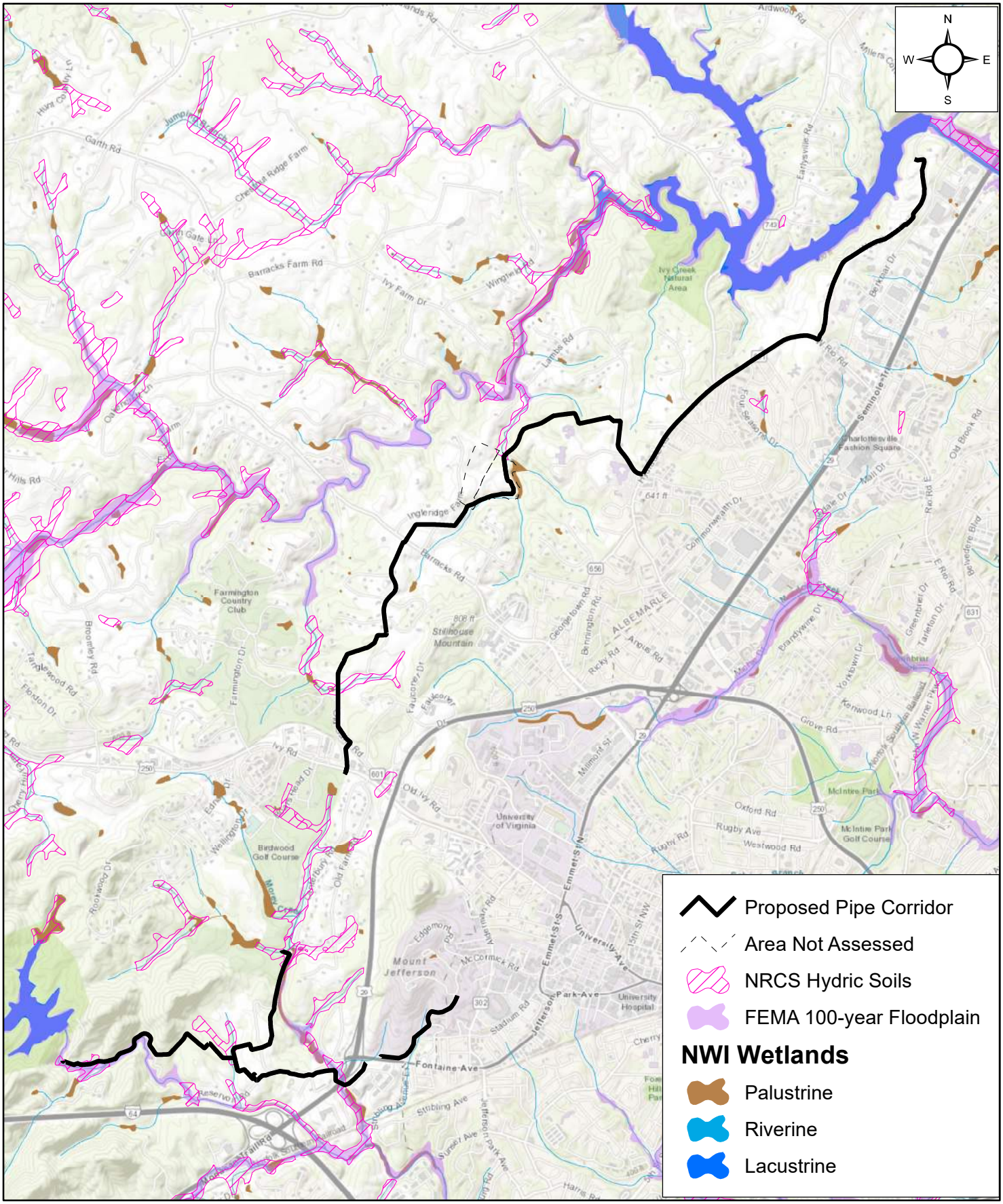


NATURAL RESOURCES MAP

South Rivanna Reservoir
Raw Water Main Project
Albemarle County, Virginia
RIVANNA WATER & SEWER AUTHORITY

0 0.375 0.75 1.5 Miles

1 in = 0.75 mile



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482 FAX (804) 698-4178
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Travis A. Voyles
Acting Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

08/17/2022

Bill Mawyer
Rivanna Water & Sewer Authority
695 Moores Creek Lane
Charlottesville, VA, 22902

SENT VIA EMAIL:bmawyer@rivanna.org

RE: Joint Permit Application Number 21-1154
Rivanna Urban Water System Withdrawal, Albemarle County, Virginia
Notice of Complete Application

Dear Mr. Mawyer:

The Department of Environmental Quality (DEQ) Office of Water Supply received your application for a Virginia Water Protection (VWP) permit on 05/20/2021 for the Rivanna Urban Water System. The application and supplemental material was reviewed and is complete as required by VWP regulation 9VAC25-210-340. DEQ will contact you if further review produces questions or identifies areas where additional information is needed to facilitate developing a draft permit for your facility.

Since a timely and complete application for a new permit was submitted, DEQ has determined that the VWP permit 06-1574 is eligible to be "administratively continued" past its expiration date under the provisions of the VWP regulation 9VAC 25-210-65. This means that the Rivanna Water and Sewer Authority (RWSA) may continue to withdraw surface water in accordance with the conditions of the current permit until the department is able to act on their application for a new VWP permit. To maintain this administrative continuance, RWSA must continue to cooperate with all permit application processing requests from DEQ in a timely manner.

Please contact me at 804-659-1727 or kathryne.dobbie@deq.virginia.gov with any questions or concerns.

Rivanna Sewer & Water Authority
JPA # 21-1154
08/17/2022

Respectfully,

Joseph Grist
Water Withdrawal Permitting and Compliance Manager

Cc (by-email):
Andrea Bowles, RWSA
Jennifer Whitaker, RWSA
Aaron Duke, Hazen and Sawyer