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*DRAFT Feasibility Report*

# White Creek Pedestrian and Parking Study

Prepared for:

Adirondack | Glens Falls Transportation Council

11 South Street, Suite 203  
Glens Falls, New York 12801

And

Town of White Creek

28 Mountain View Drive  
Cambridge NY 12816

Revision 1  
July 2023

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11 South Street, Suite 203  
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Town of White Creek  
28 Mountain View Drive  
Cambridge NY 12816

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## 1.0 INTRODUCTION

The Town of White Creek has identified several pedestrian improvements and parking needs to be addressed near the Cambridge Community Forest (CCF) and Town Hall area including Rockside Drive and Mountain View Drive. The need for this study has developed from the expansion and increased popularity of the CCF. Currently the CCF leases a small parking lot area near Rockside Drive and Old Route 313 intersection that is approximately 1,000 ft. away from the CCF entrance. Users of the CCF will frequently park along Rockside Drive to be closer to the entrance or because they are unaware of the leased parking lot. Rockside Drive is a narrow two-way local residential roadway that does not include provisions for on-street parking. Parked cars will often block the traveled way of the roadway or encroach on the resident's lawns. This study also includes parking improvements to the nearby Town Hall with the intent to provide additional parking capacity for both the CCF and the nearby Cambridge Central School, and to improve pedestrian mobility from the Town Hall to the Nearby State Route 22. Additionally, the Town intends to install Electric Vehicle (EV) charging stations at or around the Town Hall. EV charging stations for public or commercial use are categorized as Level 2 or Direct Current Fast Charging (DCFC or Level 3) equipment. Level 2 stations will charge a Battery Electric Vehicle (BEV) in 4 – 10 hours and a Plug-In Hybrid Electric Vehicle (PHEV) in 1 – 2 hours. The Level 3 equipment will charge the BEV in an hour and is not compatible with most PHEV's. For the purposes of this study, level 2 EV charging stations are assumed to be the most compatible with the needs of the Town of White Creek.

The study will examine the existing conditions of the project area including the Town Hall parking lot, the CCF parking area, Rockside Drive, and Mountain View Drive. This report will assess potential mitigation options to address the parking concerns as well as provide conceptual designs of the revised parking plan at the Town Hall.



Figure 1-1: Project Overview Map

## 2.0 INVENTORY OF EXISTING CONDITIONS

A site visit was conducted on April 10, 2023 to inventory the existing project area conditions. The inventory included signing, striping, roadway widths, existing structures, and any noteworthy features or conditions. The existing conditions of the roadways are described below as well as displayed on the existing conditions map in Appendix A. The existing roadways included as part of this study, Rockside Drive, Brookside Drive, and Mountain View Drive, are all owned and maintained by the Village of Cambridge.

### 2.1. Cambridge Community Forest Parking Assessment

The trailhead and entrance to the CCF is located at the northeast corner of the intersection of Rockside Drive and Brookside Drive. Currently, parking is not accommodated within the vicinity of the trailhead to the CCF. The flat berm at the trailhead entrance to the CCF that connects Rockside & Brookside Drive to the bridge over the White Creek is approximately 24 feet wide, which is not wide enough to support parking in any configuration at this location. Additionally, the available pavement width of both Rockside and Brookside Drive ranges from 19-20 feet, which is the minimum recommended by the NYSDOT Highway Design Manual for two-way travel on local residential roadways.



Figure 2-1: Rockside Drive looking West (left) and trailhead to the CCF (right).

A small area for parking has been leased by the CCF located approximately 1,000 feet west of the trailhead on Rockside Drive. The parking lot is a grass and gravel surfaced area delineated by wooden logs and signage directing CCF users to park in this area. The area measures approximately 55 feet in length by 40 feet in width. The parking area can accommodate approximately 6-8 cars in its current configuration. However, without clear parking delineation, the lot is perceived to hold less vehicles as users tend to park their vehicles further apart when parking stall delineation is not provided.





Figure 2-2: CCF Parking area on Rockside Drive

## 2.2. Town Hall Parking Lot

The existing parking facility surrounding the White Creek Town Hall consists of a gravel surface with two separate parking areas, one directly in front of the entrance to the town hall and a larger area to the side of the Town Hall building. The front area measures approximately 72' x 33' and the larger parking area on the east side measures 65' x 125'. There are two reserved parking spaces in front of the Town Hall for ADA accessible parking.

## 2.3. Pedestrian Mobility between Town Hall and State Route 22

No dedicated pedestrian facilities are present along Mountain View Drive between the Town Hall and State Route 22. There are sidewalks along State Route 22, and a marked crosswalk to cross State Route 22 to the Cambridge School Campus.

### 3.0 CONCEPT ALTERNATIVES

#### 3.1. Standards

The proposed design layouts and recommendations are based on the following standards:

- NYSDOT Highway Design Manual (HDM),
- AASHTO Policy on Geometric Design of Highways and Streets 7<sup>th</sup> ed., 2018,
- FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009,
- NYS Supplement to the MUTCD,
- Empire State Trail Design Guide, October 2017

#### 3.2. Cambridge Community Forest Parking Opportunities

Since parking within the immediate trailhead area and on-street parking on Rockside or Brookside Drive is not feasible within the existing right-of-way (ROW) and roadway footprint, additional auxiliary parking lot improvements should be considered to provide more parking opportunities for users of the CCF. One option for additional parking is within the former roadway footprint and ROW of Old Route 313, which connects Rockside Drive to State Route 22. The roadway is currently barricaded off on the northern side near Rockside Drive and appears to be most recently used as a driveway to access adjacent properties along State Route 22, which have since been abandoned. The ROW of the former roadway is assumed to be owned by the Town or Village of Cambridge. A Highway Work Permit (HWP) from NYSDOT will be required for any work that overlaps onto State Route 22 or State Route 313 (Gilbert Street). The available ROW width of the former roadway is approximately 40 feet, which is enough space for one way travel operation and 45° parking stalls. If installed, traffic operation should be from Rockside Drive to State Route 22 and should contain 8-10 parking stalls. The recommended travel lane width is 14 feet, and the parking stalls should be 20 feet measured perpendicular to the edge of the travel lane to the edge of the parking surface. An asphalt pavement surface is desirable for the roadway and parking stalls to provide a durable surface and reduce the future maintenance of the roadway and parking area. Additionally, pavement markings should be installed on the asphalt to delineate the angled parking stalls. Wayfinding signage should also be installed to notify users that this area can be used for CCF parking and to direct them to the trailhead. EV charging stations should also be installed near the new parking stalls and connected to the existing utility pole for power supply.

To reduce parking along the roadways around the CCF, parking restriction signs along the roadways can be installed to limit parking for residents only. It appears that some residents may have already installed similar signs on their own on adjacent trees. All signs installed on public roadways should conform to the Manual on Uniform Traffic Control Devices (MUTCD), which states that “the legend on parking signs shall state applicable regulations. Parking signs shall comply with the standards of shape, color and location.” Therefore, the Town or Village may pass a local ordinance to restrict parking along these roadways for residents only and install

signs indicating that this restriction is in place. Signs shall follow the requirements of the MUTCD and should include a green outline and text that reads “Resident Parking Only” or a sign with a red outline and text that reads “No Parking Except for Residents”. The locally placed signs on trees should be removed to not cause conflicts with the MUTCD compliant municipally owned signage.



Figure 3-1: Modified parking signs R7-5 (left) and R7-1 (right)

### 3.3. Town Hall Parking Opportunities

Improvements to the existing Town Hall parking area should consist of formalizing the parking by adding asphalt pavement and delineating spaces with pavement markings. Drivers will typically park their vehicles further apart from others when no pavement markings are present; therefore, reducing the number of available parking spaces. If paved within the existing footprint of the gravel parking area, the new asphalt parking lot will accommodate 30 vehicles. The two existing handicap parking spaces should remain in front of the Town Hall and an EV charging station could be added to the east side of the building. Additionally, there is a large grass field to the North of the Town Hall building that could be converted to parking in the future, if the need for more than 30 parking spaces arises. See Appendix B for conceptual plans.

### 3.4. Pedestrian Mobility Improvements between Town Hall and State Route 22

Until recently, the Town Hall parking area has been used as an informal drop-off location for the nearby Cambridge Central School. Parents would drop their children off at the Town Hall and the Children would then walk along Mountain View Drive and cross State Route 22 at the crosswalk with the assistance of a crossing guard. However, the drop off situation recently ended, and the school is no longer providing a crossing guard at this location. The option to install sidewalks along Mountain View Drive to provide pedestrians with a dedicated walking area still exists. The parcel of land in the northeast corner of the intersection of Mountain View Drive and State Route 22 is owned by the Town and a sidewalk could be installed directly from the crossing of State Route 22 to the Town Hall. Additionally, new ADA compliant sidewalk ramps should be installed at the State Route 22 crossing as the current crossing is not ADA compliant. This sidewalk connection along with an extension along State Route 22 in front of the Car Dealership would provide the continuous pedestrian facility between the Town Hall, pedestrian path or parking area along the abandoned road ROW, Rockside Drive, and the CCF.



### 3.5. Environmental / Permitting Requirements

Preliminary investigations into Environmental and Cultural Resources and potential impacts and recommendations are included in the following discussion, along with the anticipated permitting needs. Additional detailed environmental investigations will be required during the Engineering phase, depending on the type of funding that is secured.

#### 3.5.1. Surface Waters

Review of the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM) indicated that White Creek is a mapped NYSDEC Class C Stream with C Standards, is identified as resource PWL:1102-0026, and is a tributary of the Upper Hudson River. The ERM also indicated that the creek is listed as a 303(d) stream. No work is proposed to this stream. There are no mapped NYS wetlands located within or adjacent to the project area.

The National Wetland Inventory (NWI) mapping was reviewed to determine whether any wetland polygons are depicted within the project limits. There are no mapped NWI wetlands within or adjacent to the project area.

#### 3.5.2. Flood Zone

The 100 year flood zone of White Creek encroaches into the project area along Brookside Drive and a portion of Mountain View Drive. However, no proposed excavation work is located within the floodzone of the White Creek. See Appendix C for the Flood map.

#### 3.5.3. Historical Resources

A review of the New York State's Office of Historic Preservation's (SHPO) Cultural Resource Information System (CRIS) was completed. The review indicated that the corridor is not located within an historical district, and there are no recorded National Register (NR) Listed, Eligible buildings, or structures within or substantially contiguous to the proposed improvements. Coordination with SHPO should be progressed once the SEQR process begins and a Lead Agency for the project has been established or coordination with a permitting agency requiring SHPO coordination such as NYSDEC or USACE has begun.

#### 3.5.4. SEQRA/NEPA Review

If federal funding is obtained for the project, a review under the National Environmental Policy Act is required. The project will likely be categorized as a Categorical Exclusion. If state funding, federal funding administered by a state agency, local funding, or a permit is required from a state agency, then a review under the State Environmental Quality Review Act is required. The project will likely be categorized as an Unlisted Action and the Town of White Creek will be able to issue a Negative Declaration as the Lead Agency.

#### 3.5.5. State Pollutant Discharge Elimination System (SPDES)

If the excavation area of the proposed project disturbs more than one acre of land, then a SPDES permit (GP-0-20-001) and the development of a Stormwater Pollution Prevention Plan will be required. The proposed parking lots/areas at Town Hall and on Old Route 313 total approximately 0.4 acres; therefore, will not require a SPDES permit at this time.

#### 3.5.6. Anticipated Permits

- NYSDOT Highway Work Permit for work within the State Route 22 and Route 313 right-of-way.

#### 4.0 COST ESTIMATES

Preliminary cost estimates were prepared for the four project elements and also combined to show the total project costs, if pursued as one project. The cost estimates were prepared with the assumption that the project would receive funding through a federal or state grant and constructed through the traditional design-bid-build process. Federal or state grant programs typically provide funding to cover 50% to 80% of the total project costs and require engineering and construction inspection services. The cost estimate table below also includes the potential costs that would be the responsibility of the Town at the typical 20%, 25%, and 50% match requirements.

\*The draft study currently assumes that the EV Charging Stations would be level 2 equipment and 1 would be installed at the proposed new parking area along Old Route 313 and 1 would be installed at the Town Hall.

Description of Work	Old Route 313 Parking Conversion	Town Hall Parking Improvements	Pedestrian Mobility from Town Hall to Route 22	Signs on Rockside and Brookside Drive	TOTAL
DEMO., CLEARING, & GRUBBING	\$ 5,000	\$ -	\$ -	\$ -	\$ 5,000
EARTHWORK	\$ 12,000	\$ 30,000	\$ 2,000	\$ -	\$ 44,000
SUBBASE	\$ 12,000	\$ 30,000	\$ 2,000	\$ -	\$ 44,000
SIGNING & STRIPING	\$ 3,000	\$ 4,000	\$ 3,000	\$ 5,000	\$ 15,000
LANDSCAPE & SITE AMENITIES	\$ 2,000	\$ 3,000	\$ 1,000	\$ -	\$ 6,000
ASPHALT/CONCRETE	\$ 17,000	\$ 40,000	\$ 17,000	\$ -	\$ 74,000
EV CHARGING STATIONS	\$ 18,000	\$ 18,000	\$ -	\$ -	\$ 36,000
ITEMIZED CONSTRUCTION COSTS SUBTOTAL:	\$ 69,000	\$ 125,000	\$ 25,000	\$ 5,000	\$ 224,000
CONTINGENCY (20%)	\$ 13,800	\$ 25,000	\$ 5,000	\$ 1,000	\$ 44,800
<b>TOTAL CONSTRUCTION COSTS (2023)</b>	<b>\$ 82,800</b>	<b>\$ 150,000</b>	<b>\$ 30,000</b>	<b>\$ 6,000</b>	<b>\$ 268,800</b>
AMOUNT INFLATED 4% (2025 DOLLARS)	\$ 90,000	\$ 163,000	\$ 33,000	\$ 7,000	\$ 293,000
ENGINEERING AND SURVEY	\$ 10,000	\$ 15,000	\$ 15,000	\$ -	\$ 40,000
CONSTRUCTION INSPECTION	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	\$ 30,000
<b>TOTAL PROJECT COSTS</b>	<b>\$ 110,000</b>	<b>\$ 188,000</b>	<b>\$ 58,000</b>	<b>\$ 7,000</b>	<b>\$ 363,000</b>
Cost with 20% Grant Match	\$ 22,000	\$ 37,600	\$ 11,600	\$ 1,400	\$ 72,600
Cost with 25% Grant Match	\$ 27,500	\$ 47,000	\$ 14,500	\$ 1,750	\$ 90,750
Cost with 50% Grant Match	\$ 55,000	\$ 94,000	\$ 29,000	\$ 3,500	\$ 181,500

## 5.0 FUNDING OPPORTUNITIES

There are several potential funding opportunities that are available for pedestrian, parking, and recreational improvement projects. The Town should be aware that all the funding sources are reimbursement programs that will require the Town to expend the initial project costs and then receive reimbursements from the funding source. Most of the programs also require the local municipality to provide a portion of the total grant amount, which varies by program.

A/GFTC Make the Connection Program is available to assist municipalities with funding to improve the region's non-motorized travel network. Project types that are considered in the program include new sidewalk and trail connections, pedestrian safety improvements, and pavement marking improvements. Make the Connection funding is available through the FHWA and administered by the A/GFTC.

- 20% Local Match
- Design Only Projects have a minimum of \$25,000
- Design & Construction or Construction Only Projects have a minimum of \$75,000
- Federal Aid Procedures Apply
- EV charging stations are not eligible for funding through this program

NYSOPRHP Recreational Trails Program (RTP) provides funding for the development and maintenance of recreational trails or trail-related facilities. RTP funding is available through the FHWA and administered by the NYSOPRHP. RTP can be applied for through the NYS CFA that is due at 4:00pm on July 28, 2023.

- 20% Local Match
- Federal Aid Procedures Apply
- Design & Construction: Minimum = \$25,000; Maximum = \$250,000
- \$1.9 Million available during the 2023 CFA application period
- EV charging stations are not eligible for funding through this program

NYSOPRHP Environmental Protection Fund (EPF) provides funding for the development and planning of parks and recreational facilities open to the public to preserve these lands for recreation, or conservation purposes. EPF projects can be applied for through the NYS CFA that is due at 4:00pm on July 28, 2023.

- Grant will fund up to 50% of total project cost
- Design & Construction: Minimum = \$25,000; Maximum = \$500,000
- \$26.0 Million available during the 2023 CFA application period
- EV charging stations are not eligible for funding through this program

Northern Border Regional Commission (NBRC), Catalyst Program is designed to stimulate economic growth and inspire partnerships that improve rural economic vitality across the NBRC region that includes public infrastructure and outdoor recreation projects. The 2023 application process has already passed so the spring 2024 program should be targeted.

- 100% Federal Funds (0% Local Match)

- Federal Aid Procedures Apply
- \$45 Million was available during the 2023 application period
- EV charging stations are eligible for funding through this program

NYSDEC Municipal Zero-Emission Vehicle Infrastructure Grant Program is available to municipalities for the installation of Level 2 or DCFC electric vehicle supply equipment that are for public use. The 2023 program has not been announced at this time.

- Up to 80% State Funds
- There is no project minimum cost; Maximum = \$250,000
- Funding may be combined with the Utility Make Ready Program

Electric Vehicle Make-Ready Program is available in White Creek through National Grid to provide municipalities with funding assistance for the construction of the infrastructure necessary (transformers, meters, electrical panel, trenching, conduit, etc.) to support the Level 2 or DCFC charging stations for public use. The charging stations can be municipal pay to park or free parking locations. Currently the program can be applied for at any time.

- Up to 90% of costs are covered
- There is no project minimum or maximum costs
- Funding may be combined with the NYSDEC Municipal Zero-Emission Vehicle Infrastructure Grant Program



APPENDIX A  
EXISTING CONDITIONS FIGURE





Parcel Boundaries

20' ± Pavement width

Cambridge Community Forest (CCF)

Entrance & Trail-head to Cambridge Community Forest

Brookside Drive

ROW = 47' ±

Rockside Drive

Barricade

Former roadway currently used as dead end driveway

Existing 65' x 125' gravel parking area

85' ± Driveway Opening

Town Hall

Mountain View Drive

19' ± Pavement Width

White Creek

Auto Dealer/Repair

Additional Parking in front of Town Hall

Town owned parcel

Existing Crosswalk between Town Hall and School with Non-ADA Compliant Curb Ramps

ROW = 40' ±

Cambridge Central School

Gilbert Street (NYS Route 313)

S. Park Street (NYS Route 22)

Existing Constraints/Opportunities  
June 2023



Barton & Loguidice

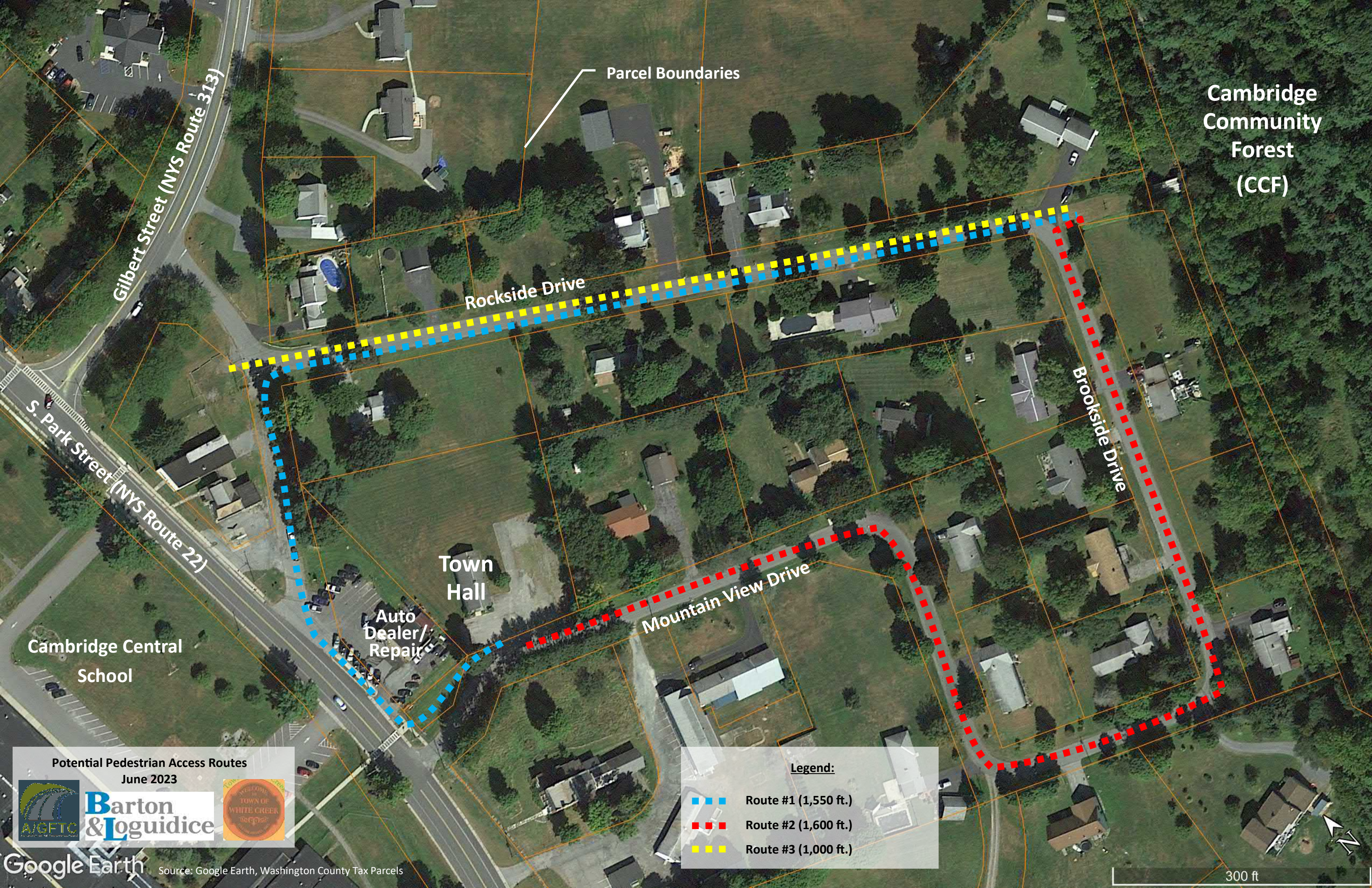


Google Earth

Source: Google Earth, Washington County Tax Parcels

300 ft





Parcel Boundaries

Cambridge  
Community  
Forest  
(CCF)

Rockside Drive

Brookside Drive

Town  
Hall

Auto  
Dealer/  
Repair

Mountain View Drive

Cambridge Central  
School

Potential Pedestrian Access Routes  
June 2023



**Barton  
& Loguidice**



Legend:

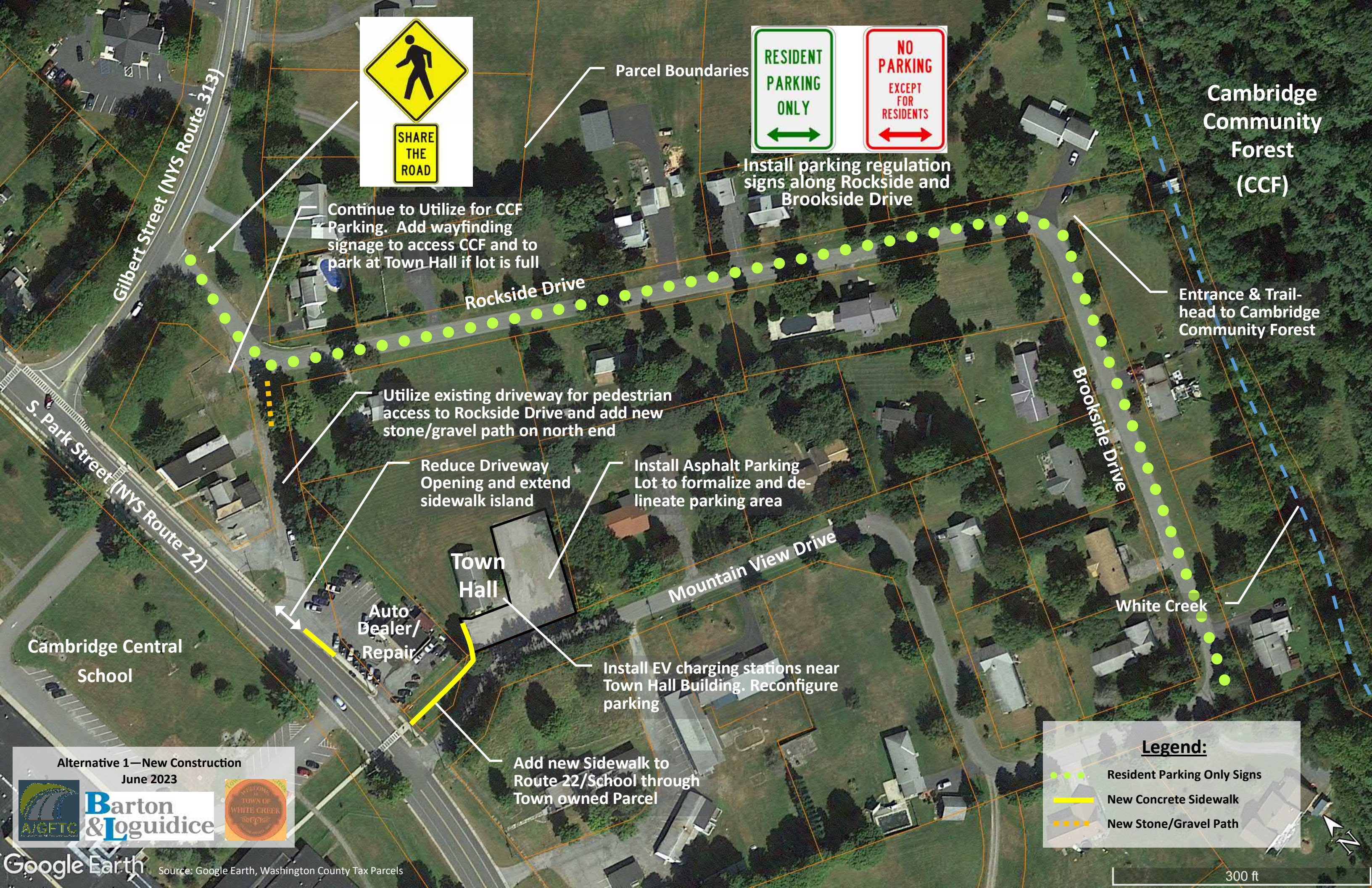
- Route #1 (1,550 ft.)
- Route #2 (1,600 ft.)
- Route #3 (1,000 ft.)

300 ft



APPENDIX B  
CONCEPTUAL PLAN





Parcel Boundaries

Install parking regulation signs along Rockside and Brookside Drive

Cambridge Community Forest (CCF)

Entrance & Trail-head to Cambridge Community Forest

Continue to Utilize for CCF Parking. Add wayfinding signage to access CCF and to park at Town Hall if lot is full

Rockside Drive

Brookside Drive

Utilize existing driveway for pedestrian access to Rockside Drive and add new stone/gravel path on north end

Reduce Driveway Opening and extend sidewalk island

Install Asphalt Parking Lot to formalize and delineate parking area

Mountain View Drive

Town Hall

Auto Dealer/Repair

Install EV charging stations near Town Hall Building. Reconfigure parking

Add new Sidewalk to Route 22/School through Town owned Parcel

White Creek

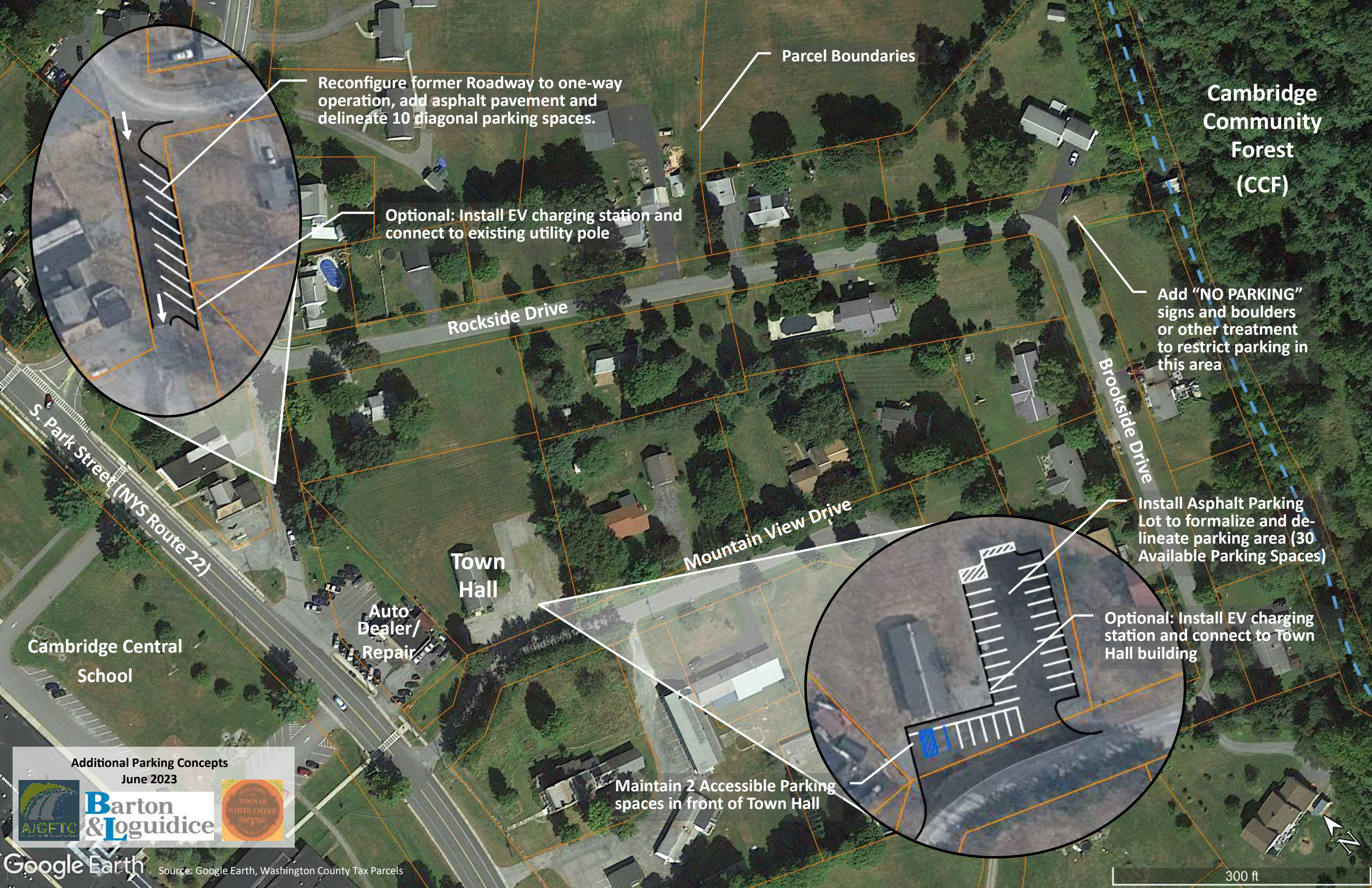
Cambridge Central School

**Legend:**

- Resident Parking Only Signs
- New Concrete Sidewalk
- New Stone/Gravel Path

Alternative 1—New Construction  
June 2023





Parcel Boundaries

Cambridge  
Community  
Forest  
(CCF)

Reconfigure former Roadway to one-way  
operation, add asphalt pavement and  
delineate 10 diagonal parking spaces.

Optional: Install EV charging station and  
connect to existing utility pole

Rockside Drive

Add "NO PARKING"  
signs and boulders  
or other treatment  
to restrict parking in  
this area

Brookside Drive

Install Asphalt Parking  
Lot to formalize and de-  
lineate parking area (30  
Available Parking Spaces)

Optional: Install EV charging  
station and connect to Town  
Hall building

Maintain 2 Accessible Parking  
spaces in front of Town Hall

Town  
Hall

Auto  
Dealer/  
Repair

Cambridge Central  
School

Additional Parking Concepts  
June 2023



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& Loguidice**



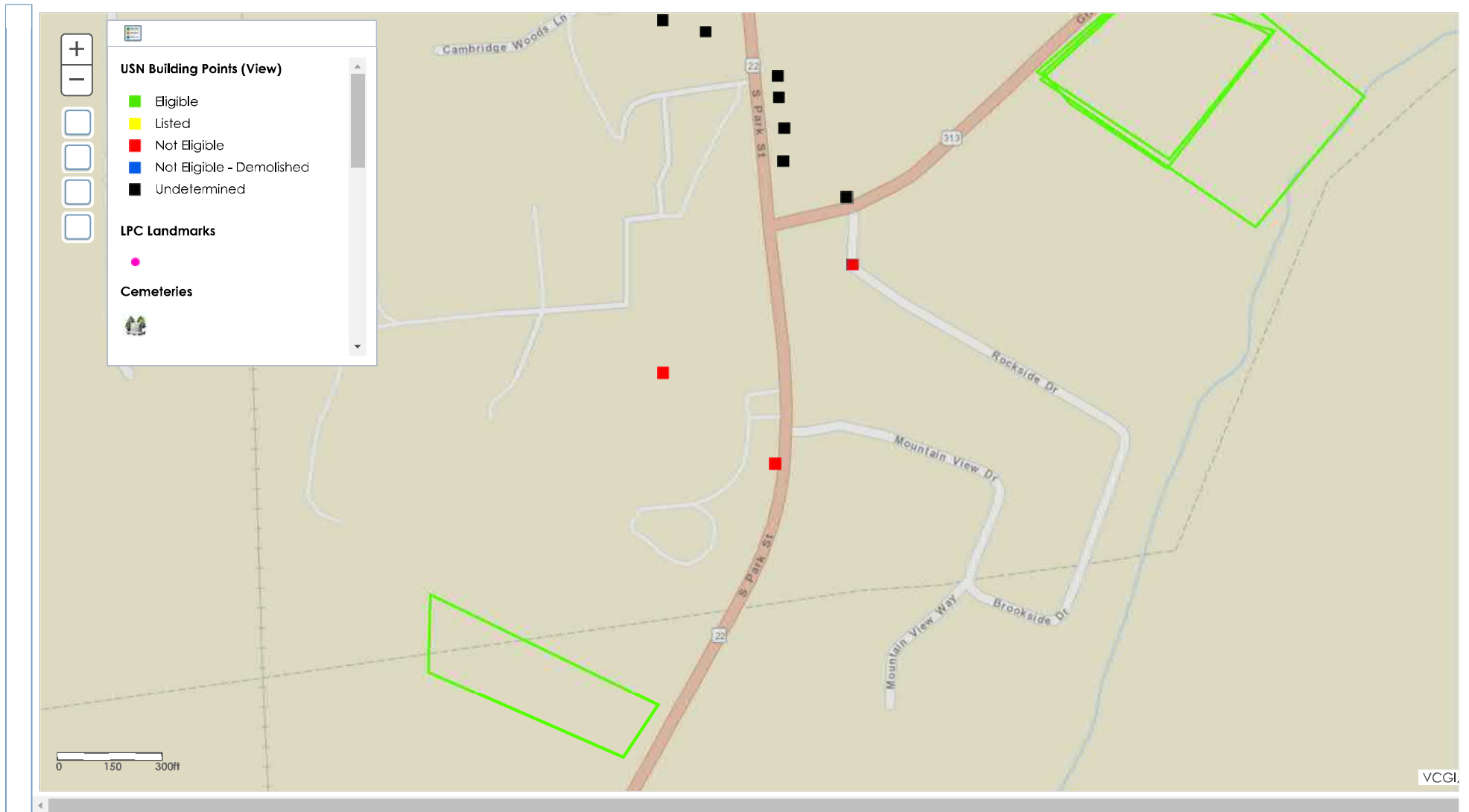
Google Earth

Source: Google Earth, Washington County Tax Parcels

300 ft



APPENDIX C  
ENVIRONMENTAL DATA



## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly bank-top discharge areas of small size. The community map repository should be consulted for possible updates or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Elevation Elevations (FIRM) contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent modeled water level elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood damage information. Accordingly, flood elevation data presented in this report should be utilized in conjunction with the FIS for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to the 100-year North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Elevation Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Elevation Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was the New York State Plane east zone (PPSCONE 310). The horizontal datum was NAD83. (NAD83) (National Datum of 1983). Differences in datum, projection or State Plane zones used in the production of FIRM for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NDA, NAD83  
National Geodetic Survey  
SSC-2, #202  
1315 East-West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (202) 734-3342, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format from NYS Office of Cyber Security and Critical Infrastructure Coordination. Image type is Panormatic with a horizontal accuracy of +1.5 feet at the 95% confidence level. Images were acquired in April 2024.

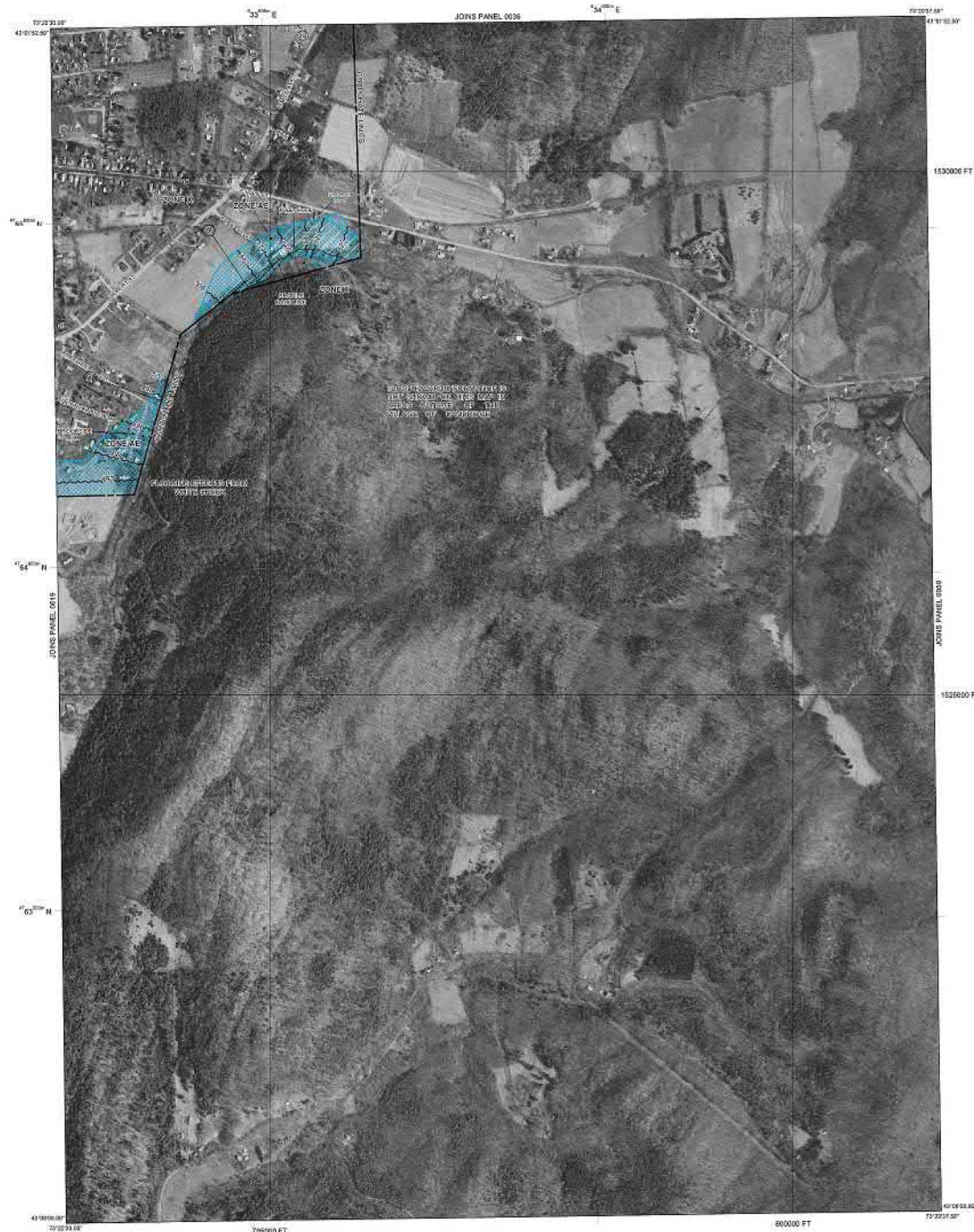
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodways and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contain authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the appendix printed Map Index for an overview map showing the layout of map panels for this jurisdiction.

Contact the FEMA Map Service Center at 1-800-358-5619 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9020 and its website at <http://www.fema.gov/>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-6647, 1-877-358-3627, or visit the FEMA website at <http://www.fema.gov/>.



## LEGEND

### SPECIAL FLOOD HAZARD AREAS (SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD)

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equal or exceeded in any given year. The Special Flood Hazard area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AV, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A**  
No Base Flood Elevation determined.
- ZONE AE**  
Base Flood Elevation determined.  
Base Flood Elevation is the water-surface elevation of the 1% annual chance flood. Flood depths of 1 to 3 feet (usually shown as an empty symbol) are indicated. Average depths determined for areas of shallow fast flooding velocities are determined.
- ZONE AH**  
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently abandoned. Zone AH indicates that the former flood control system is being retained to provide protection from the 1% annual chance or greater flood.
- ZONE AR**  
Area is protected from 1% annual chance flood by a Federal flood protection system under operation. No Base Flood Elevation determined.
- ZONE AV**  
Coastal Flood zone with velocity hazard (wave action) to Base Flood Elevation determined.
- ZONE VE**  
Coastal Flood zone with velocity hazard (wave action) to Base Flood Elevation determined.

### FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

### OTHER FLOOD AREAS

Areas of 0.2% annual chance flood (500-year flood) are indicated by a dashed line. Areas of 0.2% annual chance flood (500-year flood) are indicated by a dashed line. Areas of 0.2% annual chance flood (500-year flood) are indicated by a dashed line.

### OTHER AREAS

Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood hazards are determined, but precise flood depths are not determined.

### COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

### OTHERWISE PROTECTED AREAS (OPAs)

OPAs are areas currently located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone A boundary

CBRS and OPA boundary

Boundary showing Special Flood Hazard Areas of different base flood elevations, flood depths or flood velocities.

Base Flood Elevation line and value, elevation in feet

Base Flood Elevation value where uniform within area; elevation in feet

Reference to the North American Vertical Datum of 1988 (NAVD 88)

Transverse line

Diographic coordinates referenced to the North American Datum of 1983 (NAD 83)

100-meter Universal Transverse Mercator grid, zone 18

300-foot grid - New York State Plane coordinate system, east zone (PPSCONE 310), Transverse Mercator

Base map (see explanation in Notes to Users section of the FIS report)

Base map

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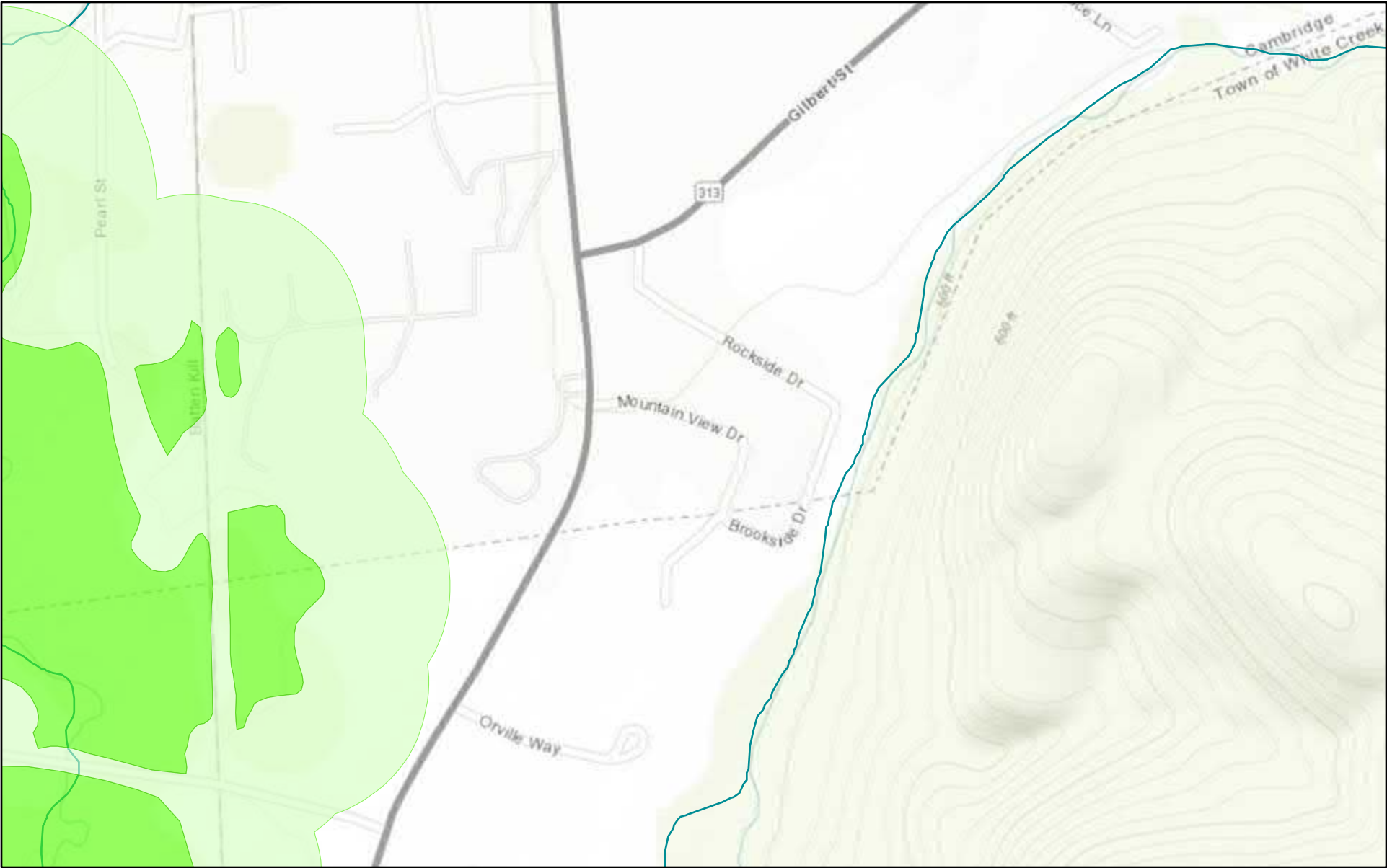
Base map

Base map

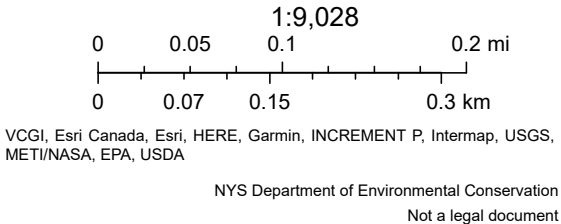
Base map

Base map

# Environmental Resource Mapper



June 23, 2023





APPENDIX D  
PUBLIC INVOLVEMENT

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