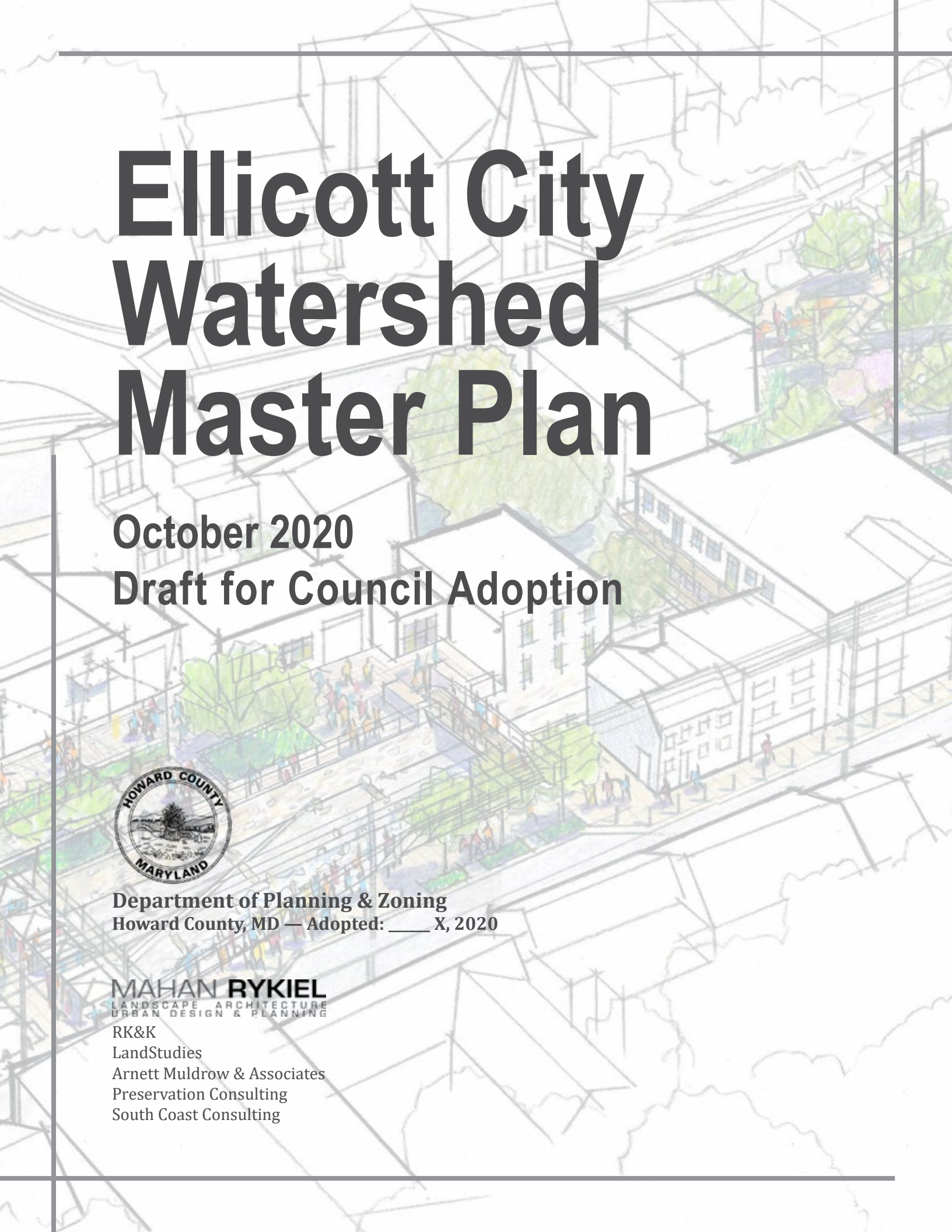
Ellicott City Watershed Master Plan

October 2020
Draft for Council Adoption



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Ellicott City Watershed Master Plan

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OLD

ICOTT CITY

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BALTO & OHIO

Forward

ABSTRACT

This Plan contains text, graphics and supporting maps for an amendment to the county's General Plan, PlanHoward 2030. This General Plan Amendment provides policies and implementing actions for protecting and enhancing flood-impacted Ellicott City and the surrounding Tiber-Hudson Watershed. To accomplish this protection and enhancement, the plan integrates strategies for community character and placemaking, flood mitigation, environmental sustainability, economic development and transportation and parking. Strategies are then illustrated through options for specific geographic areas. The plan is guided by and builds upon the EC Safe and Sound plan currently underway.

NOTICE TO READERS (HOW TO USE THIS DOCUMENT)

Howard County master plans reflect a vision for the future that responds to the unique character of the local community within the context of a countywide perspective. These plans convey guiding policies and implementing actions for defined geographic areas.

Master plans are designed to "look ahead" through a shared vision for the county's growth and conservation. As communities and markets change and unexpected events occur, the approach to implementation of a master plan needs to be flexible over time. Generally, graphics provided in an adopted plan are for illustrative purposes only; they are intended to convey a general approach or character rather than an obligation to a specific detailed outcome.

REPORT STRUCTURE

This master plan report includes four primary sections, preceded by an Executive Summary.

I. INTRODUCTION

This section identifies the purpose and scope of the master plan, describes the importance of a master plan and describes plan geographies that are referenced throughout the document.

II. INFORMING THE VISION

This section provides an overview of previous, current, and ongoing planning efforts, studies and initiatives and the public outreach process that set a baseline and direction for the master plan.

III. A VISION FOR THE FUTURE

This is the primary section of the master plan. It identifies a vision statement, master plan goals, assessments of existing conditions and recommendations in the form of policy statements and implementing actions. Because Ellicott City's built and natural environments are closely interwoven, every action is interrelated with and dependent upon other actions. The Vision for the Future, therefore, is divided into 12 Master Plan frameworks that are based on both topics and geographic areas. Since the policy statements and implementing actions respond to challenges and opportunities identified through the existing conditions assessment, the order of policies generally follows the order of existing conditions issues.

III.1–5. TOPIC-RELATED PLAN FRAMEWORKS

These frameworks include assessments of existing conditions and outline policies and actions by topic such as community character and placemaking, flood mitigation, environmental sustainability, economic development and transportation and parking as they apply to the entire watershed.

III.6–12. GEOGRAPHIC AREA-RELATED FRAMEWORKS

These frameworks include assessments of existing conditions and address how the topic-related strategies could apply to specific geographic locations and project areas. In some instances, options are shown for geographic areas because how the vision is implemented in one geographic area may depend upon how the vision is implemented in other geographic areas. None of the options are intended to be preferred over other options. Their appropriateness depends upon what might be implemented elsewhere. An example of how this might apply is illustrated below.

IV. IMPLEMENTATION PLAN

The implementation plan outlines each policy, primary implementation responsibilities, implementation partners and timeframes for implementation (short, mid, or long term). For many policies, implementation is ongoing or will occur in phases in which case the timeframes may include ranges. Because the master plan is a long-range guiding document, implementation timeframes may change as the result of unforeseen opportunities or challenges that may arise.

EC SAFE AND SOUND

The EC Safe and Sound plan is a multi-phase plan built around the need for public safety, supporting business and property owners, preparing the County for a changing climate, and creating a more inclusive, community-driven process for decisions regarding Ellicott City's future. There are four primary focus areas of the plan: ensuring public safety, supporting business and property owners, maintaining Ellicott City's historic charm, and developing a more inclusive, community-driven process.

ILLUSTRATIVE EXAMPLE

The following is intended as an illustration to keep in mind when reviewing the options outlined in this plan and represents one of many ways that master plan recommendations might be implemented.

OPTION: Widen the Hudson Branch stream channel and create more green space, amenity space and green infrastructure in Lot D.

- **IMPACTS:** There exists a sufficient amount of parking spaces within the core, however, if a significant amount of parking were removed from one area, such as Lot D, then that lost parking may need to be accommodated in another location.
  - **RESULTING OPTIONS FOR PARKING RELOCATION:** This could be accomplished in a number of ways: a shuttle system could be implemented to draw upon distant parking resources such as the Courthouse Lot, a parking deck could be constructed, or the parking might be accommodated as part of the reuse of the Wilkins Rogers mill site on a short-term or long-term basis, negating the need for a parking deck.
    - **POTENTIAL APPROACH:** Assuming a parking deck is the desired solution, there are three locations where a parking deck would be logical – Lot A, Lot F and Lot D. Each location presents a different set of opportunities and challenges.
      - **POTENTIAL RECOMMENDATION:** Develop a parking deck on Lot A to provide more parking for Lower Main Street and allow visitors to park before arriving at congested Main Street.
        - **IMPLICATIONS:** A parking deck on Lot A may further justify a new pedestrian bridge spanning the Patapsco River, better connecting Lot A with Lower Main. Lot F and Lot D would likely remain as surface parking.

GLOSSARY OF ACRONYMS

This master plan includes numerous acronyms for departments, agencies and programs. While each are defined when they are introduced, the summary below provides a complete list for reference.

A&E	*Arts and Entertainment*
ADA	*Americans with Disabilities Act*
AE	*Architectural Engineering Firm*
AVs	*Autonomous Vehicles*
BMC	*Baltimore Metropolitan Council*
BPAG	*Bicycle and Pedestrian Advisory Group*
BRTB	*Baltimore Regional Transportation Board*
CAG	*Community Advisory Group*
CDC	*Community Development Corporation*
CRS	*Community Rating System (NFIP)*
DFIRM	*Digital Flood Insurance Rate Map*
DILP	*Howard County Department of Licenses and Permits*
DPW	*Howard County Department of Public Works*
DPZ	*Howard County Department of Planning and Zoning*
DRP	*Howard County Department of Recreation and Parks*
ECP	*Ellicott City Partnership*
EPA	*Environmental Protection Agency*
ESD	*Environmental Site Design*
FEMA	*Federal Emergency Management Agency*
FRM	*Flood Risk Management*
GIN	*Green Infrastructure Network*
GIS	*Geographic Information Systems*
H&H	*Hydrology and Hydraulic Study*
HCC	*Howard Community College*
HCEDA	*Howard County Economic Development Authority*
HPC	*Howard County Historic Preservation Commission*
MDE	*Maryland Department of the Environment*
MHT	*Maryland Historic Trust*
MPAT	*Master Plan Advisory Team*
MS4	*Municipal Separate Storm Sewer System Permits*
MTA	*Maryland Transit Administration*
NFIP	*National Flood Insurance Program*
NHPA	*National Historic Preservation Act*
NPDES	*National Pollutant Discharge Elimination System*
OCS	*Howard County Office of Community Sustainability*
PFI	*Patapsco Female Institute*
PRGP	*Patapsco Regional Greenway Plan*
READY	*Restoring the Environment and Developing Youth (Howard EcoWorks Workforce Program)*
RFI	*Request for Information*
RFP	*Request for Proposals*
RTA	*Regional Transportation Agency*
SBDC	*Small Business Development Center*
SHPO	*State Historic Preservation Office*
SWM	*Stormwater Management*
SWP	*Strategic Watershed Program*
TAP	*ULI Technical Assistance Panel Report*
TNC	*Traditional Neighborhood Center*
Tourism	*Howard County Tourism Council*
ULI	*Urban Land Institute*
UMBC	*University of Maryland Baltimore County*
USGS	*United States Geological Survey*
WAT	*Watershed Action Team (Howard EcoWorks Workforce Program)*

CONSIDERATIONS FOR THE COVID-19 PANDEMIC

The master plan's recommendations were mostly identified by late 2019, when the novel coronavirus that causes COVID-19 first emerged in Wuhan, China. By March 2020, when disruptions to everyday life in Maryland began, the draft master plan was already in production. Therefore, addressing the pandemic is not woven into the policies, illustrations and considerations contained throughout the document. While not minimizing the significant impacts of the health crisis, the current disruption is anticipated to be relatively short in duration as compared to the 20-year timeline for this long-term master plan. Yet, Howard County acknowledges that certain goals, policies and implementing actions contained herein have greater importance as a result of the pandemic and that they align with worldwide trends in adapting to life in the COVID-19 era.

PARKS AND OPEN SPACES: There is a renewed appreciation of parks and open spaces and recognition that many people are dependent upon parks and green spaces to provide much-needed relief mentally, physically and emotionally. Research shows that communities are experiencing significant increases in park and trail usage.

PEDESTRIAN SAFETY: Social distancing, or the ability to maintain physical distance between people, is fundamental to minimizing the spread of COVID. This distancing applies to sidewalk areas and outdoor public spaces, where pedestrians might need to move away from each other or cross the street to maintain a safe distance.

BICYCLE ACCOMMODATIONS: Cycling has increased as a way for people to move about, in some cases out of necessity and in others for recreational purposes.

ECONOMIC DEVELOPMENT: Restaurants and retail businesses are adapting and utilizing 'found space'—usually parking areas—to provide safer dining areas with the potential for improved social distancing. Retail communities are adapting façade grant programs and public art to include sanitizing stations, better accommodations for take-out and curbside services, and COVID-related signage and social distancing-related pavement markings.

Along with many communities in Central Maryland, Ellicott City is already following some of these above trends and responding to COVID-19. As readers review many of the policies and implementing actions in the plan, they will notice an emphasis on flexibility, particularly related to how parking areas—surface parking lots and street parking—can be used for other activities on a temporary basis including events, additional park space, outdoor dining, and expanded pedestrian areas. Readers will also notice an emphasis on improved and connected park spaces, access to nature, better pedestrian connectivity with sidewalks, trails and crosswalks, attention to bicycle accommodations, messaging through awareness campaigns, and support to existing businesses and property owners. While these policies and actions were not developed with COVID in mind, they support the trends outlined above, although some background studies, such as the market analysis, may need to be updated once the county recovers from the COVID-related economic disruption. Specific relevant policies are listed below:

Policy 1.5 Public Realm Design, Amenities & User Comforts
Policy 1.6 Public Art
Policy 1.7 Green Cultural Trail
Policy 4.1 Existing Business Support
Policy 4.5 Community Brand Extension
Policy 5.1 Pedestrian Accessibility and Safety
Policy 5.2 Sidewalk and Trail Connectivity
Policy 5.3 Bicycle Accommodations
Policy 5.5 Parking Management
Policy 5.6 Wayfinding System
Policy 6.1 Main Street Streetscape
Policy 6.2 Maryland Avenue
Policy 7.1 Patapsco River Pedestrian and Bicycle Crossing
Policy 7.2 Regional Trail Network
Policy 7.4 Ellicott City Riverfront Park
Policy 7.5 Lot B
Policy 8.3 Tiber Park
Policy 9.1 Lot E Enhancement
Policy 9.3 Lot D Enhancement
Policy 10.7 Lot G Temporary Parking
Policy 11.1 Frederick Road/Main Street Streetscape
Policy 12.1 Courthouse Property Reuse

FOR THE SAFETY
OF OUR STAFF
& CUSTOMERS:
• LIMIT 3 CUSTOMERS
• PLEASE WEAR MASKS
• USE SANITIZER

Little Sunshine
TRADING COMPANY
OPEN
8129

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Executive Summary

ELLICOTT CITY WATERSHED MASTER PLAN

Ellicott City is an historic community in Howard County, Maryland, located at the confluence of multiple tributaries that feed into the Patapsco River. The community is steeped in history, with much of its original architecture intact. Notable for its connections to the National Road, the original B&O Railroad line and rich mill heritage, the unincorporated town dates back to 1772. Today, Ellicott City is a regional tourism destination, a center for entrepreneurial endeavors, and a nationally significant historic district. All of these unique characteristics warranted a highly context-sensitive approach to planning and urban design provided in this master plan.

The planning effort was initiated following a deadly, historic flood which hit the town in 2016. After the initial emergency response, a series of action groups were developed to begin addressing the town's flood-prone nature. Numerous idea-generating workshops were held with focus groups and the general public, resulting in several resources outlining potential strategies for flood mitigation and improved public amenities in town. The Plan was underway for approximately one year and nearing completion when a second devastating flash flood occurred in May 2018.

This Watershed Master Plan addresses a complex set of inter-related challenges, including the opportunity to invest in useful and attractive amenity spaces while being sensitive to the community's rich history. The watershed-wide recommendations developed in this Plan are in direct response to the two historic floods and the County's vision for a future Ellicott City that lives in closer balance with the hydraulic forces that have shaped the town through the generations. Though Ellicott City will never be without flooding risk, the recommendations in this Plan will help generate a more resilient response to flood events should they occur again in the future.

PURPOSE AND SCOPE

OVERVIEW

The Ellicott City Watershed Master Plan process officially kicked off on May 31, 2017 with the goal of developing a comprehensive, community-driven vision for rebuilding a stronger and more resilient Ellicott City. Triggered by the devastating July 30, 2016 flood, the master plan effort was designed to take a fresh and creative look at potential long-term flood solutions and strategies. The effort was grounded by information gathered in the 2016 flood recovery phase, interrupted by the May 2018 flood, and then restarted with direction from the EC Safe and Sound plan for flood mitigation.

BACKGROUND

On July 30, 2016, the Ellicott City area of Howard County, Maryland, experienced devastating flooding when nearly six inches of rain fell within two hours (with a total of 6.6 inches of rain falling in 3.55 hours). While Ellicott City has experienced many floods throughout its 250-year history, the destruction caused by the 2016 flood—which displaced hundreds of residents, killed two people, significantly damaged dozens of businesses and cost millions of dollars in damage—was the worst in recent memory. Following the 2016 flood, the County's overarching goal was to return Ellicott City to normalcy as quickly and affordably as possible.

During the recovery phase, the Howard County Government effectively worked to stabilize Ellicott City and repaired and replaced damaged infrastructure—in some cases in a utilitarian fashion (e.g., asphalt poured over damaged sidewalk areas instead of concrete or brick replacement).

- **Clean Up and Rebuild:** Merchants, business owners, residents and many others worked tirelessly at the same time to clean up and rebuild.
- **Grand Reopening Celebration:** On November 26, 2016, these efforts culminated with an official grand reopening and ribbon cutting on Main Street.

With short-term recovery complete, a series of studies to inform long-term rebuilding were initiated, including this master plan. When the May 27, 2018 flash fl ood occurred, the master plan was nearing completion. In 2019, the master plan effort was renewed with direction from the EC Safe and Sound plan.

EC SAFE AND SOUND

As of fall 2020, several projects under the EC Safe and Sound plan are anticipated to start construction in FY2021, pending completion of the federal Section 106 process. In addition, several other projects will continue moving through the design and/or permitting process.

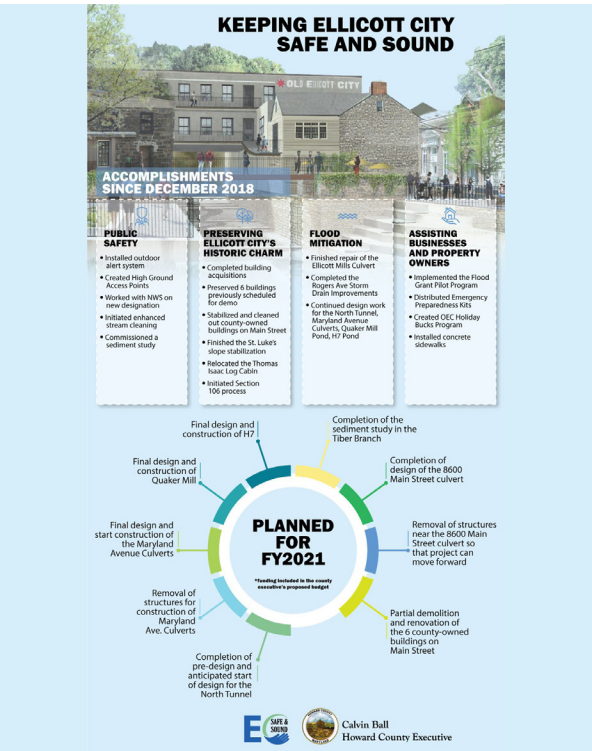


Figure 1: EC Safe and Sound Plan Infographic

PLAN GEOGRAPHIES

The master plan is informed by larger geographies surrounding the area to which the policies and implementing actions apply. These geographic boundaries include—from largest to smallest—the primary and secondary trade areas, the Ellicott City Planning area (as it is defined in PlanHoward 2030), the Tiber-Hudson Watershed (technically known as the "Tiber Watershed"), and the core which is comprised of the West End and downtown areas. The downtown area is further divided into five areas including the Riverfront, Lower Main, Upper Main, Ellicott Mills Gateway Area, and the Courthouse Area. Additionally, all of downtown and a portion of the West End are contained within the Ellicott City Historic District and Sustainable Community Area boundaries. The policies and implementing actions outlined in this master plan primarily apply to the watershed and core areas. All plan geographies are identified in Figures 5 and 6, in Section I, Introduction.

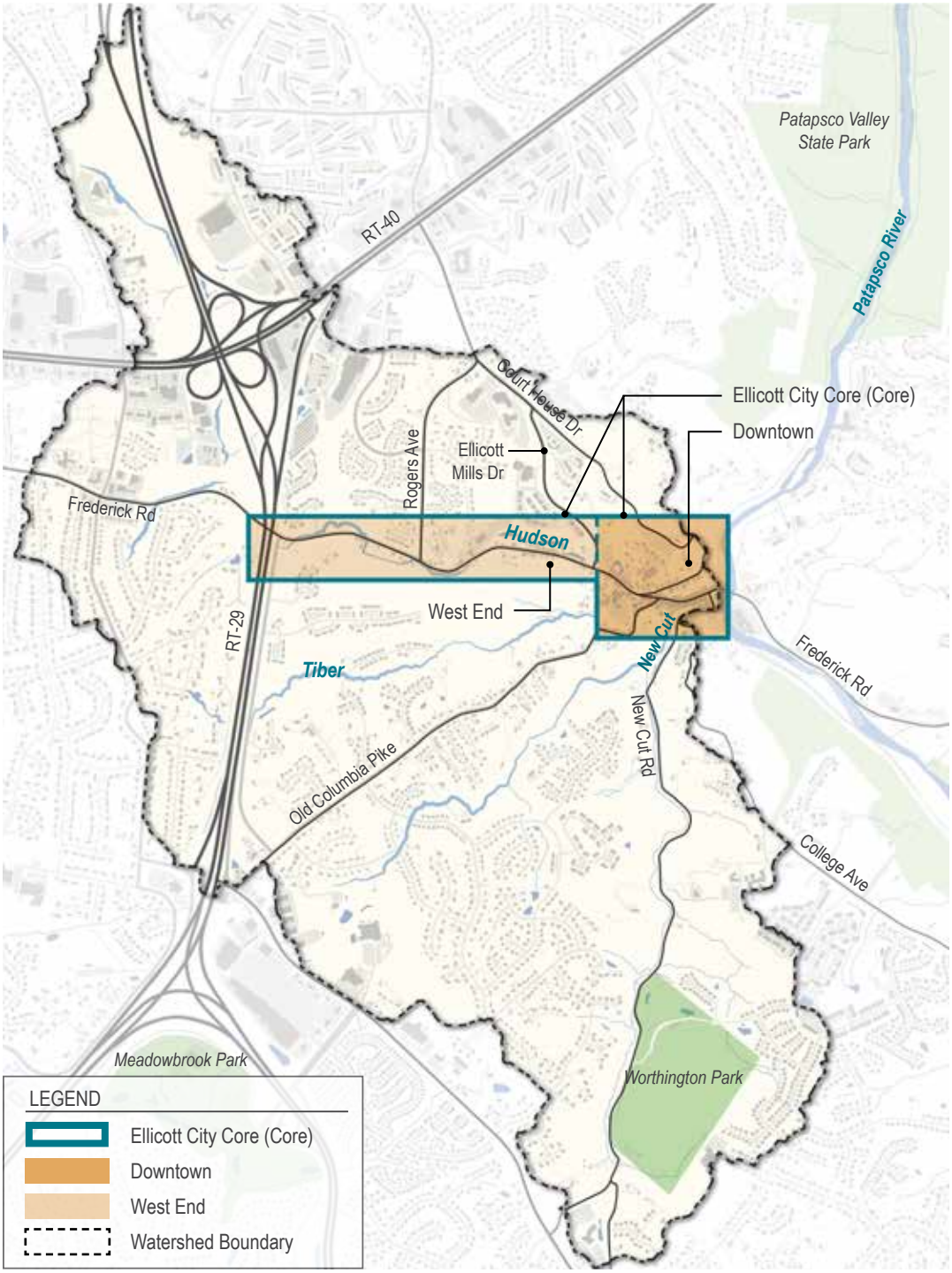


Figure 2: Tiber-Hudson Watershed Context Map

WHY A MASTER PLAN FOR ELLICOTT CITY?

While Main Street was open and functional upon reopening in the fall of 2016, many rebuilding decisions were postponed until a master plan for Ellicott City could be completed.

- **Comprehensive Vision:** Howard County needed a comprehensive, community-driven vision and plan for long-term rebuilding in a resilient approach. The master plan would need to address not only flood mitigation but also more traditional comprehensive planning elements (transportation, community character and economic development). The focus would be the core area of Ellicott City but the master plan would need to address the entire Tiber-Hudson Watershed (see Figure 2 for watershed boundary).
- **Multiple Objectives:** Since Ellicott City is an economically important tourism resource, a Maryland Main Street, a Maryland-designated sustainable community, part of a Maryland Heritage Area and a nationally-recognized historic treasure, strategies to alleviate flooding would have to meet multiple objectives – to advance economic, environmental, and preservation goals.
- **Long-Term Rebuilding:** Ellicott City's unique topography, hydrology, road network and mill town heritage would require a tailored, well-planned roadmap for long-term rebuilding.
- **Grounded in Hydrology and Hydraulics:** Planning for downtown would have to be grounded in broader evaluation of the hydrology and hydraulics of the Tiber-Hudson Watershed.
- **Informed Master Plan:** The master plan would have to be informed by technical evaluations, national best practices, and community input and ideas.

PROCESS

The development of the master plan was an iterative process rooted in community engagement. The process took place over the course of three years with multiple opportunities for public involvement. Public workshops, meetings with an advisory team, stakeholder interviews, a pop-up event and online open houses helped facilitate a rich dialogue with the community. From this input, a vision and goals for the future emerged.

Figure 3: 2016 Flood, Security Footage from the Howard House Looking East on Main Street

MASTER PLAN GOALS

Building upon Recovery Phase studies and community input during the master plan process and grounded in EC Safe and Sound, six primary goals were developed to achieve the vision. Associated with each goal, a listing of desirable outcomes is provided. When future projects or activities are undertaken to implement the master plan, project managers should strive to advance these goals and work towards these outcomes.

1. **Protect residents, employees and visitors**

   Safer buildings, advanced warnings of flood threat, clear access to high ground, greater preparedness, safer pedestrian and bicycle infrastructure

2. **Manage water quantity and protect water quality**

   Broader awareness of the water's beauty and strength, national resiliency model, resilient infrastructure, reduced flood impacts, managed stream debris, healthy natural resources, increased green space

3. **Plan for economic success**

   Variety of uses , diversity of businesses, new and existing business investment, thriving small businesses and entrepreneurs, opportunities for business expansion

4. **Enhance the experience**

   Welcoming and attractive downtown, walkable destination, more accessible physical design, improved public amenities, increased cultural offerings, places for people

5. **Preserve and promote the identity**

   Distinctive community, showcase for heritage, town setting, steep terrain and river valley, widespread appreciation for historic preservation, celebrated past, present and future

6. **Organize for success**

   Sustained focus on Ellicott City, flexibility to adapt to the unforeseen, multi-objective mindset, new collaborations, regional partnerships, ongoing and multi-disciplinary partnerships

VISION STATEMENT

Ellicott City, and its watershed, is a model, resilient community that thrives by protecting its people, commerce, history, culture and natural environment; and by enhancing its vibrant and authentic character.

MASTER PLAN FRAMEWORKS

The plan policies and implementing actions in the following sections are described as they relate to 12 master plan frameworks, organized by topics and geographic areas. The topic-related plan frameworks include existing conditions assessments, strategies, and recommendations related to community character, flood mitigation, environmental stewardship, economic development, and transportation as they apply to the entire watershed area. The geographic area-related plan frameworks focus on specific locations and project areas within the watershed area.

COMMUNITY CHARACTER + PLACEMAKING

The Community Character and Placemaking framework addresses elements and activities that reinforce Ellicott City's distinct character and strong sense of place. These elements are grounded in Ellicott City's historic origins and include physical place-defining features such as architecture, landscape, the natural environment, and public spaces.

FLOOD MITIGATION

The Flood Mitigation framework includes a combination of structural and nonstructural flood mitigation measures. The projects and actions outlined in EC Safe and Sound form the foundation of flood mitigation efforts.

ENVIRONMENTAL STEWARDSHIP

The Environmental Stewardship framework includes broader water quality and habitat improvement in the watershed beyond water quantity control and the functional priority of flood mitigation.

ECONOMIC DEVELOPMENT

The Economic Development framework places the economic dynamics of downtown in relation to how it functions in the regional economy and the role it will continue to play as a home for independent businesses serving residents and visitors to the region.

TRANSPORTATION + PARKING

The Transportation and Parking framework considers all modes of travel and parking and balancing the needs and desires of different user groups.

STRUCTURAL AND NONSTRUCTURAL FLOOD PROOFING

Structural measures include those that involve physical construction or the application of engineering techniques to reduce or avoid possible impacts of floods (such as dams, tunnels, culverts, etc.).

Nonstructural measures include those that remediate risk by removing vulnerable property and people from the flood threat (such as relocation), by making modifications to properties (such as flood proofing, elevation changes, etc.) or by protecting vulnerable people and properties by taking actions (such as flood warning systems).

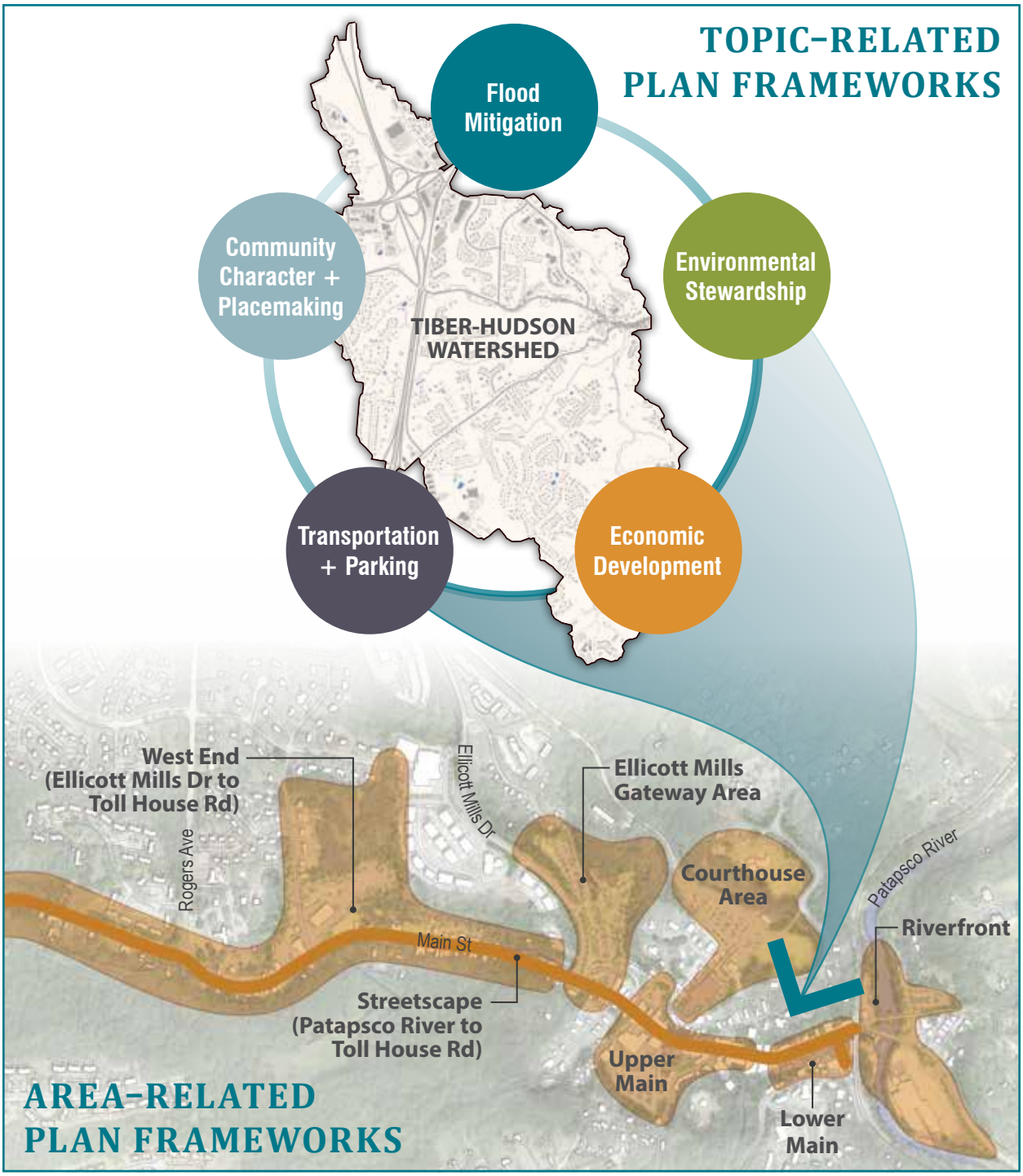


Figure 4: Plan frameworks

Transportation goals are balanced against other master planning goals such as flood management, economic development and livability.

STREETSCAPE

Ellicott City's primary street network consists of Main Street, Maryland Avenue, Old Columbia Pike and Ellicott Mills Drive with Church Road, Hamilton Street, Court Avenue, Merryman Street, Hill Street and Rogers Avenue connecting at various points. One's experience of the streetscape is informed by the elements that define a street from building face to building face, including travel lanes, parking/service lanes, sidewalk zones and associated amenities such as street furnishings, lighting, street trees, wayfinding, and public art.

RIVERFRONT

The "Riverfront" includes areas adjacent to the Patapsco River in Ellicott City and Oella/Baltimore County and the Main Street Bridge.

LOWER MAIN

The lower Main Street area, "Lower Main," extends from the bend in Main Street (near Caplans/8125 Main St.) to the Patapsco River bridge and includes the B&O Station Museum and Plaza, Tiber Park, Tiber Alley, the Oliver Viaduct railroad bridge and both sides of Main Street. Significant flood mitigation improvements are planned for this area as part of EC Safe and Sound that will result in building removal and a change to the area's character.

UPPER MAIN

The upper part of Main Street, "Upper Main," is the central anchor and activity hub for the core and includes parking Lots D and E, the Welcome Center, the Lot E Staircase and associated pedestrian areas, the restaurants and businesses associated with Tonge Row and the businesses along upper Main Street. Lot D is the site of major festivals and events. This area is also many visitors' first introduction to Ellicott City on foot, once they park and exit their vehicles.

ELLICOTT MILLS GATEWAY AREA

The area centered around Ellicott Mills Drive and Main Street serves as an important gateway. This area includes several county-owned assets, including parking resources (Lots F and G) and Department of Recreation and Parks (DRP) facilities (the Bernard Fort House and Thomas Isaac Log Cabin).

Riverfront & Lower Main

WEST END

The West End is a mixed-use community of homes and businesses located along Frederick Road (from Route 29 to Rogers Avenue) and Main Street (from Rogers Avenue to Ellicott Mills Drive). The Hudson Branch meanders throughout the West End, crossing under the street several times as it flows near historic buildings. Several flood mitigation projects are planned to lessen flood impacts in the West End.

COURTHOUSE AREA

The Courthouse Area includes the historic courthouse and jailhouse, the Patapsco Female Institute, Mt. Ida, the large surface parking area and surrounding street network and uses supportive of courthouse functions, such as Lawyers Row. The Courthouse Area is removed from Main Street by a distance of approximately 650 feet and an elevation change of 70 feet—with the historic courthouse perched prominently above Main Street.

IMPLEMENTATION

This master plan is a framework to manage change and enhancements in Ellicott City over the next twenty years and beyond and intends to be a guiding, yet flexible document. The plan provides the ability to adapt to a changing climate and more intense storms. Howard County Government will serve as the entity in charge of implementing the master plan and will work among a partnership of public and private entities and individuals as implementation occurs. As unforeseen challenges and opportunities emerge, the multi-objective vision and flexible approach offered in this master plan will guide Howard County Government and its partners. Together, they will protect and enhance Ellicott City as a model, resilient community. Implementation timeframes will be determined by need, funding, emerging opportunities, and impacts/adjacencies related to the implementation of EC Safe Sound flood mitigation.

Lower Main

Upper Main

West End

Courthouse Area

Lower Main (TIBER PARK)

ICOTT CITY

The Firehouse Museum

Introduction

ELLICOTT CITY WATERSHED MASTER PLAN

Ellicott City is an historic community in Howard County, Maryland, located at the confluence of multiple tributaries that feed into the Patapsco River. The community is steeped in history, with much of its original architecture intact. Notable for its connections to the National Road, the original B&O Railroad line and rich mill heritage, the unincorporated town dates back to 1772. Today, Ellicott City is a regional tourism destination, a center for entrepreneurial endeavors, and a nationally significant active historic district. All of these unique characteristics warranted a highly context-sensitive approach to planning and urban design provided in this master plan.

The planning effort was initiated following a deadly, historic flood which hit the town in 2016. After the initial emergency response, a series of action groups were developed to begin addressing the town's flood-prone nature. Numerous idea-generating workshops were held with focus groups and the general public, resulting in several resources outlining potential strategies for flood mitigation and improved public amenities in town. The Plan was underway for approximately one year and nearing completion when a second devastating flash flood occurred in May 2018.

This Watershed Master Plan includes a complex set of inter-related challenges, including the opportunity to invest in useful and attractive amenity spaces while being sensitive to the community's rich history. The watershed-wide recommendations developed in this Plan are in direct response to the two historic floods and the County's vision for a future Ellicott City that lives in closer balance with the hydraulic forces that have shaped the town through the generations. Though Ellicott City will never be without flooding risk, the recommendations in this Plan will help generate a more resilient response to flood events should they occur again in the future.

PURPOSE AND SCOPE

OVERVIEW

The Ellicott City Watershed Master Plan process officially kicked off on May 31, 2017 with the goal of developing a comprehensive, community-driven vision for rebuilding a stronger and more resilient Ellicott City. Triggered by the devastating July 30, 2016 flood, the master plan effort was designed to take a fresh and creative look at potential long-term flood solutions and strategies. The effort was grounded by information gathered in the 2016 flood recovery phase, interrupted by the May 2018 flood, and then restarted with direction from the EC Safe and Sound plan for flood mitigation.

BACKGROUND

On July 30, 2016, the Ellicott City area of Howard County, Maryland, experienced devastating flooding when nearly six inches of rain fell within two hours (with a total of 6.6 inches of rain falling in 3.55 hours). While Ellicott City has experienced many floods throughout its 250-year history, the destruction caused by the 2016 flood—which displaced hundreds of residents, killed two people, significantly damaged dozens of businesses and cost millions of dollars in damage—was the worst in recent memory. Following the 2016 flood, the County's overarching goal was to return Ellicott City to normalcy as quickly and affordably as possible:

During the recovery phase, the Howard County Government effectively worked to stabilize Ellicott City and repaired and replaced damaged infrastructure—in some cases in a utilitarian fashion (e.g., asphalt poured over damaged sidewalk areas instead of concrete or brick replacement).

- **Clean Up and Rebuild:** Merchants, business owners, residents and many others worked tirelessly at the same time to clean up and rebuild.
- **Grand Reopening Celebration:** On November 26, 2016, these efforts culminated with an official grand reopening and ribbon cutting on Main Street.

WHY A MASTER PLAN FOR ELLICOTT CITY?

While Main Street was open and functional, many rebuilding decisions were postponed until a master plan for Ellicott City could be completed:

- **Comprehensive Vision:** Howard County needed a comprehensive, community-driven vision and plan for long-term rebuilding in a resilient approach. The master plan would need to address not only flood mitigation but also more traditional comprehensive planning elements (transportation, community character and economic development). The focus would be the core area of Ellicott City but the master plan would need to address the entire Tiber-Hudson Watershed (see Figures 5 and 6 for watershed boundary).
- **Multiple Objectives:** Since old Ellicott City is an economically important tourism resource, a Maryland Main Street, a Maryland-designated sustainable community, part of a Maryland Heritage Area and a nationally-recognized historic treasure, strategies to alleviate flooding would have to meet multiple objectives – to advance economic, environmental, and preservation goals.
- **Long-Term Rebuilding:** Ellicott City's unique topography, hydrology, road network and mill town heritage would require a tailored, well-planned roadmap for long-term rebuilding.
- **Grounded in Hydrology and Hydraulics:** Planning for downtown would have to be grounded in broader evaluation of the hydrology and hydraulics of the Tiber-Hudson Watershed.
- **Informed Master Plan:** The master plan would have to be informed by technical evaluations, national best practices, and community input and ideas.

PLAN GEOGRAPHIES

The master plan is informed by larger geographies than the area to which the policies and implementing actions apply. These geographic areas are described below—from largest to smallest—and illustrated in Figures 5 and 6.

- **Trade Area:** The Trade Area that informed the market analysis includes the Secondary Trade Area (Zip Codes 21044, 21045, 21075, 21163, and 21228) and the Primary Trade Area (Zip Codes 21042 and 21043).
- **Ellicott City Planning Area:** The boundary for greater Ellicott City defined in PlanHoward 2030.
- **The Watershed:** The focus of this master plan is technically the Tiber Watershed; this document uses the name more commonly used, the "Tiber-Hudson Watershed."
- **The Sustainable Community Area:** The "Sustainable Community" designation is a place-based designation offering a comprehensive package of resources that support holistic strategies for community development, revitalization and sustainability.
- **The Ellicott City Historic District:** This district is a national and local historic district within Ellicott City. The Howard County Local District was established in 1974 and the National Register District was established in 1978.
- **Core:** From east to west, the "core" extends from the Patapsco River to Toll House Road and includes West End, downtown, and the streetscapes within.
- **Streetscapes:** Streetscapes include Main Street/ Frederick Road (through the length of the core), Maryland Avenue and other downtown streets connecting to Main Street.

- **Downtown:** The downtown area is subdivided into five primary areas. All of the downtown is included within the Sustainable Community Area and the Ellicott City Historic District.
  - » Riverfront
  - » Lower Main
  - » Upper Main
  - » Ellicott Mills Gateway
  - » Courthouse Area
- **West End:** The West End extends from Ellicott Mills Drive to Toll House Road. A portion of the West End is included within the Sustainable Community Area and the Ellicott City Historic District.

The policies and implementing actions outlined in this master plan primarily apply to the watershed and core.

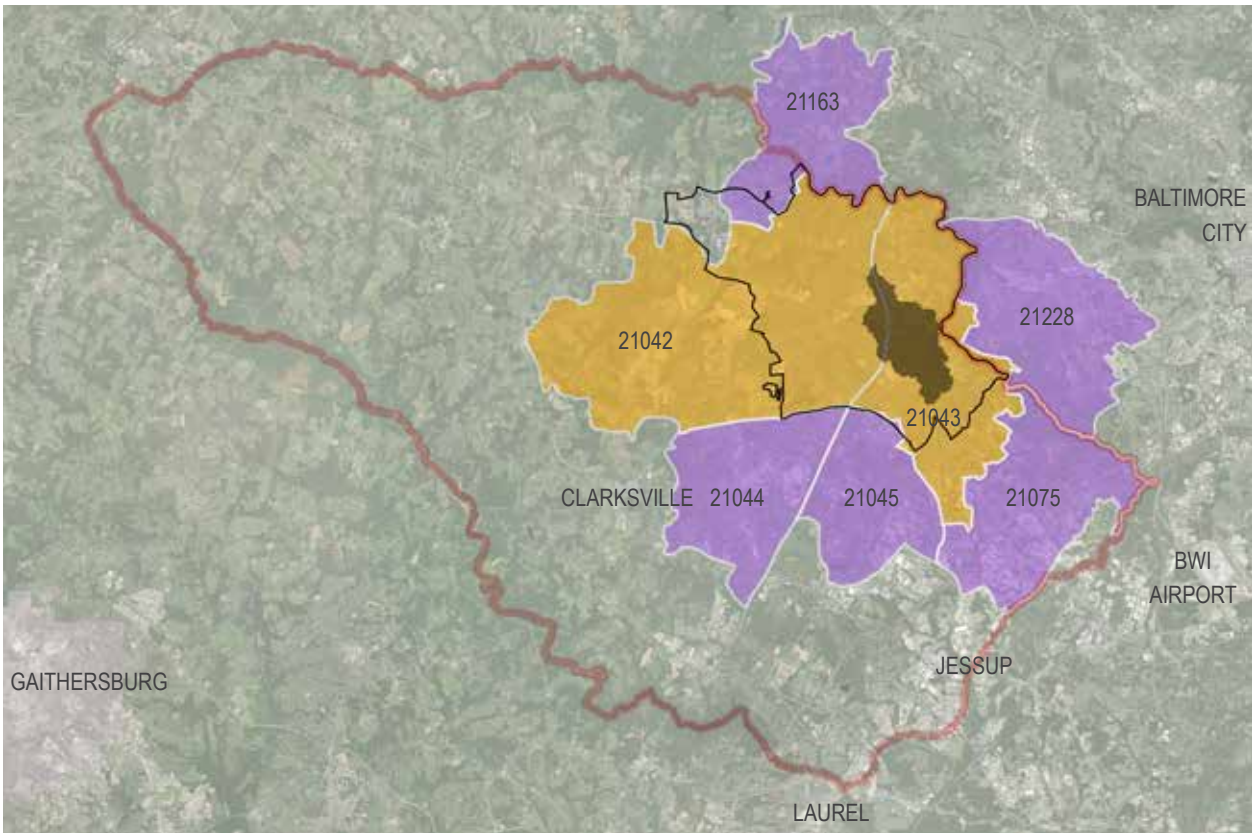


Figure 5: Plan Geographies: Context

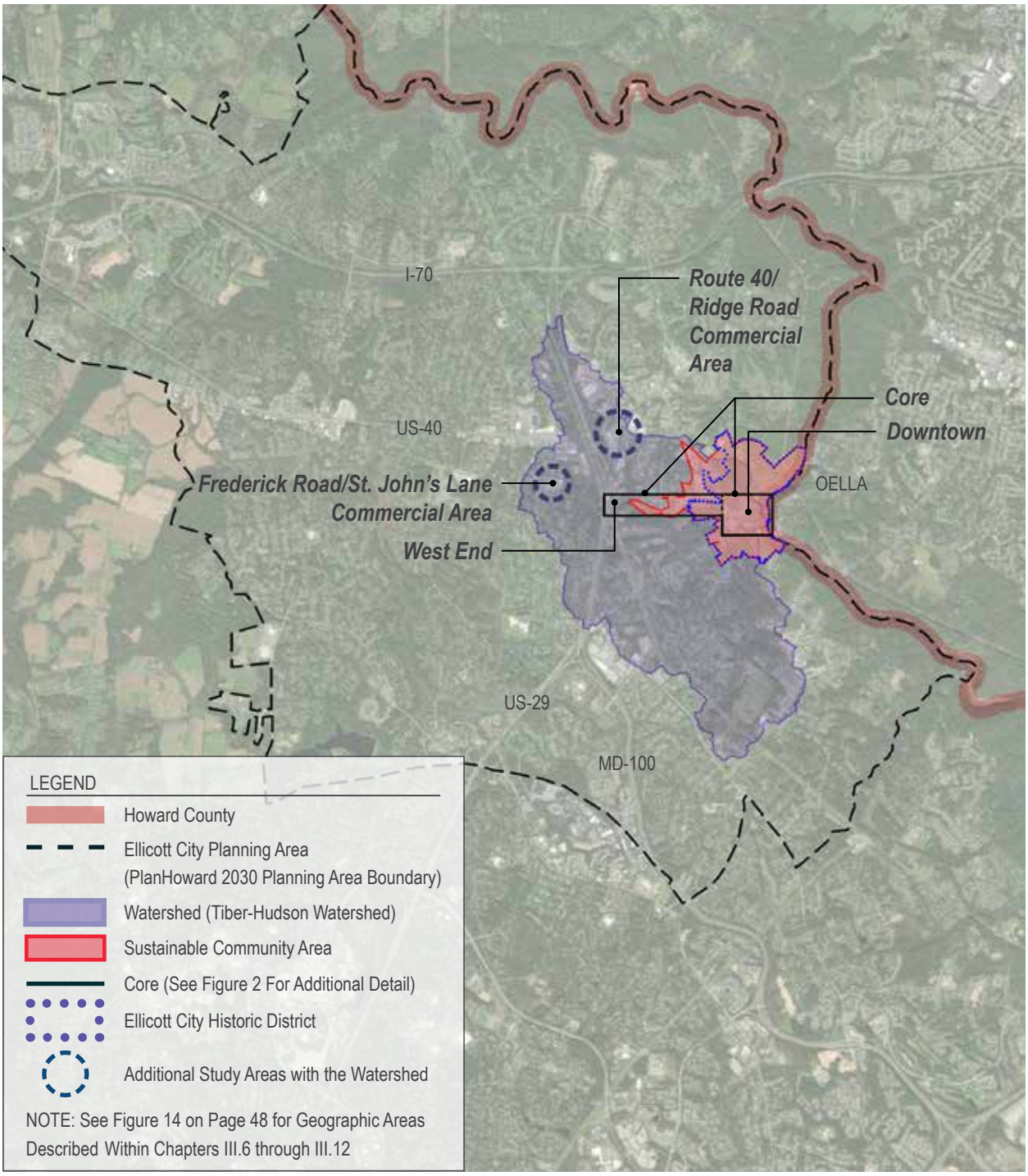


Figure 6: Plan Geographies: Detail

ELLICOTT CITY
13'3"

ELLICOTT CIT

II Informing the Vision

In addition to garnering stakeholder input, the master plan consultant team reviewed current and previous documents focused on Ellicott City. Some of the most relevant as they pertain to the Ellicott City Watershed Master Plan are summarized below, followed by a list of others.

PLANNING AND OUTREACH PROCESS

A robust public engagement process has been critical to the development of the watershed master plan and a goal of Howard County since the early days of flood recovery. Input from the public has been considered, alongside technical analysis and national best practices, to help define a comprehensive, community-driven vision for rebuilding a stronger and more resilient Ellicott City.

RECOVERY PHASE STUDIES AND ACTIVITIES – PRECURSORS TO THE MASTER PLAN

Before the master plan process began, Howard County hired outside professionals to engage the community, assess stream corridors, study the watershed's hydrology and hydraulics, propose ideas for flood alleviation, and identify flood proofing options:

- **Ellicott City Recovery Community Advisory Group (CAG):** As part of the recovery effort, Howard County established the Ellicott City Recovery Community Advisory Group (CAG). CAG included representatives from local organizations, preservation groups, businesses, residents and the faith-based community. It was chaired by former County Executive Jim Robey. CAG's mission was to: "foster community awareness and provide input for the future of Historic Ellicott City to make it a model resilient town through an emphasis on mitigation practices that integrates people, organizations, and local government." CAG concluded its work with the production of a final report in early 2017.
- **Targeted Community Engagement:** As part of the CAG process, the County retained Public Engagement Associates to assist with the recovery process, specifically to identify objectives, frame the issues, and design and facilitate the meetings. At each meeting, and via an online comment form, the County invited ideas for long-term rebuilding. As project ideas were generated, they were categorized as either master plan projects (to be evaluated through the master plan effort) and non-master plan projects (those that could be implemented immediately, as the master plan process was underway). The process resulted in the collection of 315 ideas, memorialized in CAG's final report. The CAG process represented a significant and important precursor to the master plan public outreach strategy.
- **Assessments and Case Studies:** Smith Planning and Design produced the "Tiber-Hudson Branch Stream Corridor Assessment" in January 2017 and the "Case Study—the 2016 Ellicott City Flood Event" in April 2017.
- **Hydraulic and Hydrology Study:** McCormick Taylor completed the "Ellicott City Hydrology & Hydraulic Study and Concept Mitigation Analysis" in June 2017. The study included the creation of a two-dimensional hydraulic computer model to help inform decision-making. The model was used to identify and test opportunities to better convey stormwater and where to store it (whether in a stream channel, or underground, or via tunnel conveyance).

  While potential projects were identified in concept, they were not vetted for constructibility.

Howard County initiated more detailed design/ engineering for a subset of "H&H" concept projects in July 2017.

- **Nonstructural Flood Proofing Study:** The U.S. Army Corps of Engineers released the "Nonstructural Flood Proofing Study for Ellicott City, MD" in February 2018.

MASTER PLAN PHASE ACTIVITIES

Following the Fall 2016 recovery meetings described above, Howard County launched its master plan process for Ellicott City and its watershed in 2017. From May 2017 to May 2018, the consultant team developed a series of recommendations, including several flood mitigation strategies to be implemented over the near, medium and longer terms. The May 2018 flood required the County to take a renewed look at the master plan and it became a priority to develop an accelerated concept for flood mitigation with master plan concepts being developed in response. Alternative flood mitigation options were then explored under County Executive Ball's EC Safe and Sound plan.

PRE-EC SAFE AND SOUND

At the beginning of the master plan process, Howard County established the Ellicott City Master Plan Advisory Team (MPAT) by Executive Order 2017-06, comprised of 11 appointed residents, business owners, property owners and non-profit representatives. MPAT's charge was to advise the master plan process, provide input at key intervals during the process, and serve as a liaison to the community. These individuals provided a local understanding of the broader issues concerning the Ellicott City watershed, served as a sounding board for emerging ideas and concepts, and promoted public involvement during the development of the plan. The master plan consultant team met with MPAT prior to each public workshop. Prior to developing the draft plan, the County hosted four public meetings between May 2017 and March 2018 as part of the master plan public engagement process.

Figure 7: May 2017 Kickoff Meeting

Figure 8: September 2017 Main Street Music Fest Event

Figure 9: May 2019 EC Soak It Up Event

WORKSHOPS AND ONLINE ENGAGEMENT

May 31, 2017—October 25, 2018

» Six public workshops with a total of over 700 attendees
» Online engagement with 290 participants

July 26—October 15, 2019

» One public workshop with a total of 40 attendees
» Online engagement with 226 participants

Summer 2020

» Public online review of Draft Plan

OUTREACH METHODS

The County encouraged public participation in the master plan process through multiple methods, as listed below:

» Howard County Government: Notices placed on the Howard County Government website, Twitter account and Facebook page
» Master Plan Email Distribution List: Email notices sent to approximately 1,500 subscribers
» Howard County Association of Student Councils: Presentation to youth leaders at their September 2017 meeting (~70 student attendees)
» Ellicott City Main Street Music Fest: Attendance at the September 2017 Main Street Music Fest with a master plan booth offering interactive activities
» Master Plan Advisory Team: Flyers provided to Master Plan Advisory Team members for distribution to their networks of residents, business owners, interested individuals and groups
» Stakeholder Interviews and Focus Groups: Meetings with several dozen individuals and groups over the course of the master plan effort, including representatives from:
    Ellicott City Partnership, Historic Ellicott City Flood Work Group, Historic Preservation Commission, Howard County Historical Society, Preservation Howard County, Patapsco Heritage Greenway, Howard EcoWorks, One EC Recovery Project, Religious institutions, Main Street merchant community, West End residential community, West End Service Center, Main Street and West End area development, real estate and design communities, Watershed-level development and engineering community, Howard County Council District 1, Baltimore County Revenue Authority, Baltimore County Council District 1, Ellicott City Arts Coalition, Maryland State Highway Administration, Howard County Commission on Disability Issues – Access Committee, Private property owners potentially impacted by flood mitigation solutions
» EC Soak It Up Event on 5/24/19
» Historic Preservation Commission: Worksession in November 2019 and meeting in August 2020
» Safe and Sound Open House: Master plan representation at the May 2019 open house

These meetings allowed the public the opportunity to: 1) stay informed on technical analysis, ideas and concepts throughout the planning process, 2) understand implications of concepts, and 3) provide feedback for consideration. At each meeting, the County collected comments from the public. The County also offered periodic online opportunities for public comment. The County included a robust project website to help boost public participation. The website contained many of the prior studies, policies and reports concerning Ellicott City. This allowed project participants access to projects and materials that formed the basis for much of the master plan effort. In addition, following each of the public meetings, meeting materials were posted to the project website to keep the broader public informed and allow participants to keep up with planning progress.

Following the 2018 flood, the master planning process continued, informed by the County's plans to accelerate flood mitigation. MPAT continued to advise the master plan process, provide input at key intervals during the process, and serve as a liaison to the community.

POST-EC SAFE AND SOUND

County Executive Calvin Ball developed the EC Safe and Sound plan for flood mitigation following the change in administration. In addition he appointed a new MPAT by Executive Order 2019-06 since the previous MPAT had expired in late 2018. The new MPAT continued to serve as a sounding board in the process, in collaboration with the master plan consultant team and County staff. The master plan consultant team met with MPAT either prior to or following the public workshops.

EC SAFE AND SOUND

The EC Safe and Sound plan is a multi-phase plan built around the need for public safety, supporting business and property owners, preparing the County for a changing climate, and creating a more inclusive, community-driven process for decisions regarding Ellicott City's future. There are four primary focus areas of the plan: ensuring public safety, supporting business and property owners, maintaining Ellicott

City's historic charm, and developing a more inclusive, community-driven process.

PHASE I

» Building Acquisitions
» Emergency Public Alert System
» Clearing the Waterways
» Flood Mitigation Assistance Program
» Working with State Partners
» Supporting Main Street Businesses
» Creative Options for Lower Main Street
» Renovating and Reinvigorating Historic Buildings
» Section 106 Process
» Creation of a Community Development Corporation Exploration Committee

PHASE 2

» Flood Mitigation Projects
» High Ground Access Points
» West End Property Acquisitions
» Ellicott City Watershed Master Plan
» Capital Projects Tracker

Specific plan components that are particularly relevant to the master plan are summarized below. Their direct relevancy is described in more in detail as it relates to recommendations outlined in section III. A Vision for the Future.

BUILDING ACQUISITIONS

Howard County acquired ten buildings in the lower Main Street area that were heavily damaged during the 2018 floods, would be vulnerable to future flooding and are needed to implement fl ood mitigation projects. Four of these buildings will be removed and six altered to improve flood w ater conveyance, dramatically changing the character of the area centered on Tiber Alley.

EMERGENCY PUBLIC ALERT SYSTEM

An outdoor tone-based alert system is being implemented to complement existing alert and warning tools. A temporary system was tested and an intermediate solution has been developed and is under construction with completion scheduled for late 2020.

CLEARING THE WATERWAYS

Howard County has increased the inspection of and debris removal from specific stream channels after major weather events at approximately 55 points, all but one having public access. This work is being done in partnership with Howard EcoWorks (see Page 91 for more information).

SECTION 106 PROCESS

Section 106 specifies that federal agencies must take into account the effect their undertakings will have on historic and culturally significant resources. Section 106 requires the lead federal agency to identify historic properties, assess their proposed undertaking's impacts upon those historic resources, and seek to avoid, minimize or mitigate any adverse effects. This is done through coordination with the State Historic Preservation Office (SHPO – Maryland Historical Trust), consulting parties, and the public. This is one step in moving forward with flood mitigation plans. The process is as follows:

1. Initiate the process
2. Identify historic properties
3. Assess adverse effects
4. Resolve adverse effects

While the EC Safe and Sound flood mitigation plan serves as the foundation for the master plan, the flood mitigation plan—and associated Section 106 process— is on a separate, yet parallel track. The master plan is likely to be adopted prior to the resolution of the Section 106 process and is distinct in the following ways:

- **Flexible Document:** The master plan is intended to be a fluid, flexible document containing a menu of options with policies and goals that are designed to be adaptable.
- **Early Guidance:** The master plan offers early guidance on design for projects such as the lower main channel, but the master plan is not meant to represent the final design or only design option for the project. If some element of the flood mitigation plan does not come to

fruition, the overall comprehensive nature of the master plan—its goals, desired outcomes and policies—should be looked upon for guidance.

- **Detailed Building Information:** The master plan is not intended to include detailed information on the impacted buildings (history, mitigation options, etc.). This information will be included as part of the Section 106 process.

FLOOD MITIGATION PROJECTS

Several flood mitigation projects are being implemented and include large detention facilities and conveyance improvements (including the north diversion tunnel from Lot F to the Patapsco River). In 2019, the County issued grants to property owners to flood proof or otherwise make structures more flood resilient.

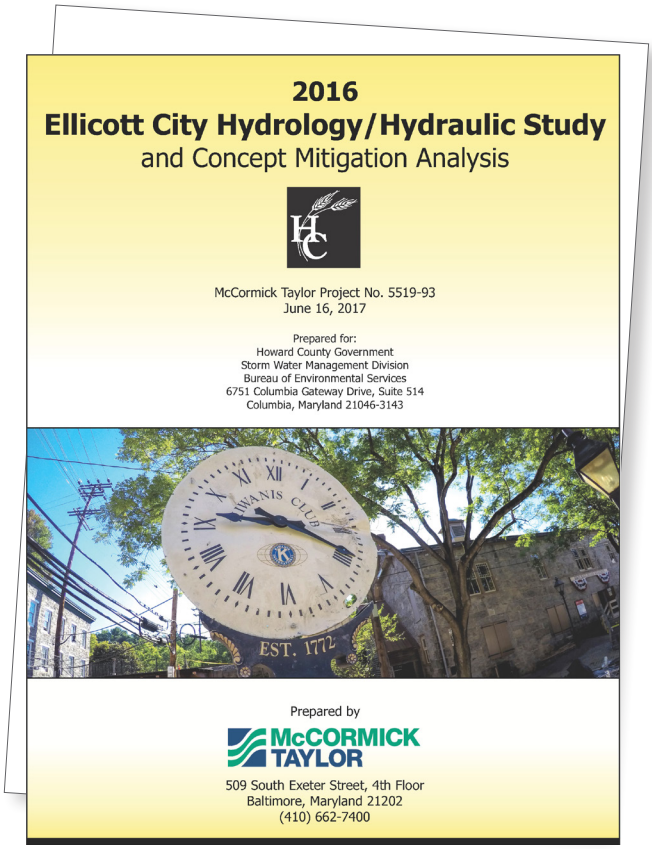


Figure 10: The 2016 H&H Study Outlined Conceptual Interventions to Address Flooding in Ellicott City

HIGH GROUND ACCESS POINTS

The County has identified high ground access points throughout the core that include parking lot information signs, high-ground access signs and directions on how to exit the floodplain.

HYDROLOGY AND HYDRAULIC (H&H) STUDY

The County retained McCormick Taylor to conduct a hydrology and hydraulic study—a comprehensive analysis of the Tiber Hudson Watershed—that modeled the Main Street flooding reduction of certain water retention controls and channel enhancements in various storm conditions. This study expanded the hydraulic boundary first established in 2014, and broadened the scope of possible flood mitigation sites to privately owned as well as publicly owned land.

The Ellicott City Hydrology & Hydraulic Study and Concept Mitigation Analysis (H&H Study) was released in June 2017. The H&H Study utilized TUFLOW simulation software to provide computations for flood analysis using 1-dimensional and 2D solutions. The 2D model, leveraged as part of the H&H study, provides a platform to run flood scenarios and test potential solutions for minimizing flood impacts. The study effectively conveyed the sheer magnitude of rainfall associated with the historic flood event of July 2016. For example, McCormick Taylor described the flood flow volume, at 34.7 million cubic feet, as equivalent in scale to an 80-story building on a 1-acre site like parking Lot F. The study analyzed 18 conceptual projects—including in-line storage management, below-ground stormwater management, diversion pipes and culvert expansions—that could be most effective at reducing impacts of the flooding. Additionally, the study analyzed two conceptual tunnels that could reduce the impacts of tributary flooding in the lower Main Street area. The results of the H&H study—including the hydraulic model—were used throughout the master plan process to test scenarios. Following the 2018 flood, the County worked with McCormick Taylor to test additional flood mitigation options, resulting in the selection of the EC Safe and Sound flood mitigation package in 2019.

NONSTRUCTURAL FLOOD PROOFING

Concurrent to the H&H Study effort, the US Army Corps of Engineers conducted a separate study: Nonstructural Flood Proofing Study for Ellicott City, MD (February 2018). This study examined how different properties could utilize nonstructural flood proofing techniques and flood risk management (FRM) measures for structures located in and near the floodplain to reduce the damage of future flooding. The study included building elevation surveys for 80 buildings, viable nonstructural flood proofing assessments for 16 sample structures, construction cost estimates for nonstructural flood proofing measures and a preliminary economic assessment.

The study recognized that nonstructural flood proofing does not reduce the probability of flooding but can help build resiliency by reducing the consequences of flooding. Further, the study provided a resource for residents and property owners to understand the nonstructural flood proofing options that might be appropriate for them. At the same time, it provided a starting point for those interested in implementing some measure of nonstructural flood proofing.

The details of the recommendations and options are not described in this master plan; however, some points to emphasize include:

- Nonstructural flood proofing would likely not have prevented damages to many buildings in a storm as intense as the July 30, 2016 event. However, for smaller storm events, nonstructural flood proofing can reduce damage and increase resiliency.
- At the request of the County, the study focused on the most effective nonstructural flood proofing methods that could avoid the relocation of buildings due to historic preservation and community cohesion concerns. Relocation of buildings was not presented among the study's flood proofing options; instead, the study identified options for dry flood proofing, wet flood proofing, and elevation.
- Though the document does not speak to the issue specifically, during a presentation of the study, the study authors recognized shear stresses on paving materials outside of buildings as an important factor that should be considered, particularly when trying to minimize impacts to buried utilities.
- Nonstructural flood proofing can be particularly challenging in Ellicott City because of the lack of manufacturers in the United States who provide historically-appropriate flood doors and other flood proofing materials.
- As the H&H Study emphasized, flood risks will continue. While flood proofing can increase resiliency in smaller storm events, it will be more impactful when combined with flood mitigation projects to make Ellicott City more resilient to larger, more intense storm events (i.e. July 30, 2016 or equivalent high-intensity, short-duration flash floods).

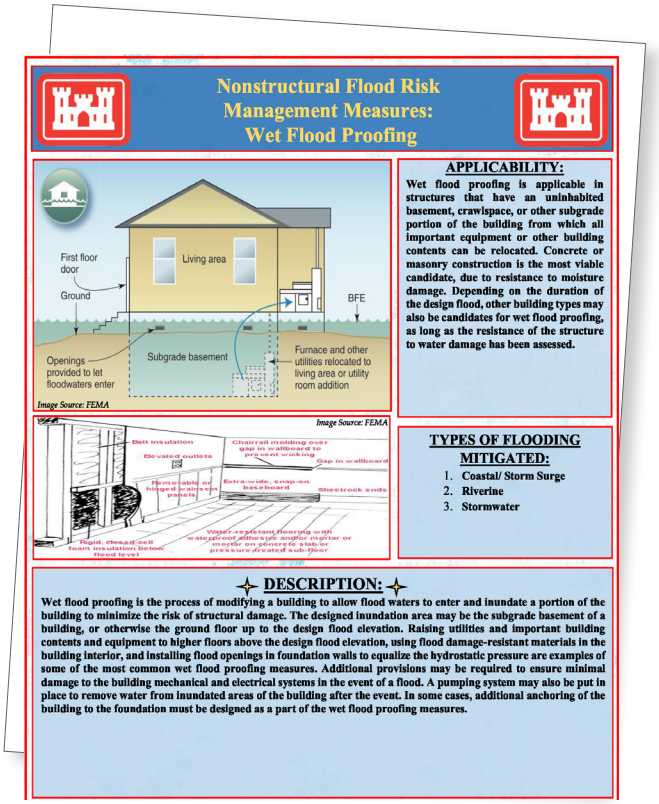


Figure 11: The 2018 Nonstructural Flood Proofing Study Presented Flood Risk Management Measures and Demonstrated How These Approaches Apply to a Variety of Buildings in Ellicott City

While this study did not often reference the role of the Historic Preservation Commission, their role is significant within the historic district. All exterior alterations to buildings within the Ellicott City historic district must be approved by the Historic Preservation Commission. The district includes the majority of flood-impacted properties in Ellicott City.

COMMUNITY ADVISORY GROUP (CAG) REPORT

The CAG Report outlined 315 separate ideas organized around "Four "Pillars" of recovery: rebuilding, environment, preservation, and economy. An "other" category was added to capture ideas that did not fit into those four pillars. In broad terms, the CAG ideas suggested need for resilience and placemaking in rebuilding, protection of the environment, preservation of Ellicott City's heritage, and revitalization of the downtown economy.

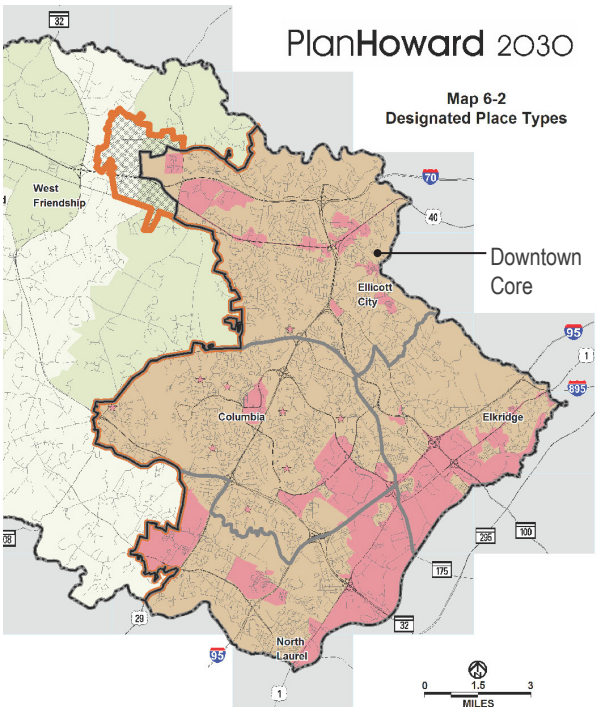


Figure 12: The 2012 PlanHoward2030 Report Identifies the Downtown Core of Ellicott City as a Growth and Revitalization Area (Areas in Pink)

GENERAL PLAN

The General Plan, PlanHoward 2030, is the comprehensive long-range plan for all of Howard County. It guides decisions related to development, land preservation, changing demographic and employment trends, neighborhood sustainability, capital projects, County services and other key issues. The Plan is the basis for land use decisions made by the Planning Board, County Council and Zoning Board. Howard County's General Plan has been updated approximately every ten years (1960, 1971, 1982, 1990, 2000, 2012) to reflect shifting demographics, regional growth, new laws and changes to priorities and community goals.

PLANHOWARD 2030

Key policies of PlanHoward 2030 include: environmental protection, resource conservation, economic development, growth, transportation,

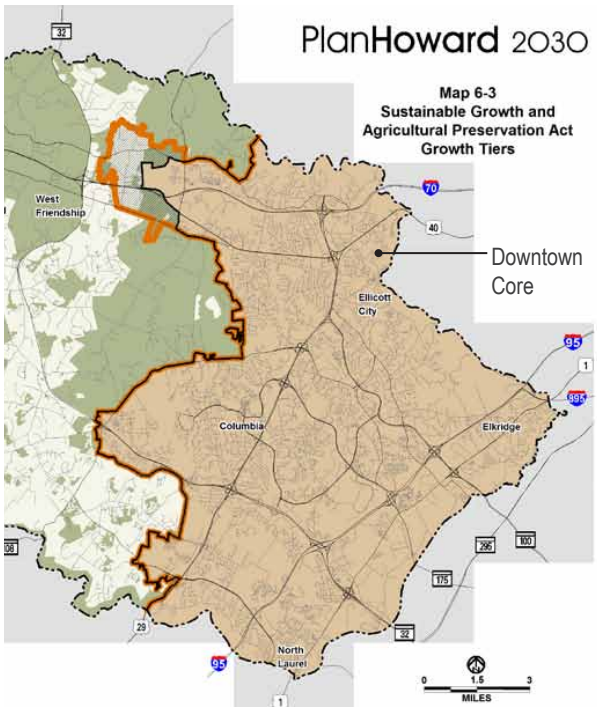


Figure 13: The 2012 PlanHoward2030 Report Identifies the Downtown Core of Ellicott City as a Tier 1 Sustainable Growth Area (Areas in Tan)

public facilities and services, housing, community design and implementation and stewardship.

Within the Plan, Designated Place Types describe Ellicott City's core as an area targeted for "Growth and Revitalization" while neighborhoods surrounding the core are predominantly "Established Community" place types. In addition to the core, the Route 40 corridor, the commercial area at St. John's Lane and Frederick Road, and the area around Sheppard Pratt Hospital are identified as areas targeted for "Growth and Revitalization" (see Figure 12).

Additionally, the Sustainable Growth and Agricultural Preservation Act Growth Tiers describe Ellicott City as "Tier 1" which is a designated growth area served by public sewer (see Figure 13).

GENERAL PLAN UPDATE: HOCO BY DESIGN

PlanHoward2030 established land use policies and goals over a two-decade period and was scheduled for an update by 2022. The County is accelerating this schedule and on July 6, 2020, the Howard County Council approved the Guidelines for the General Plan Update. The Guidelines provide a framework for collecting and organizing information to develop the County's new General Plan, HoCo By Design. They also emphasize a comprehensive strategy to stakeholder engagement; highlight the value of data and analysis to promote more informed decision making; and encourage strategies that sustain the flow of information to stakeholders throughout the planning process.

DOWNTOWN ELLICOTT CITY PARKING STUDY, APRIL 2009

The Howard County Revenue Authority retained DESMAN Associates in 2009 to assess current and future public parking supply and deficit conditions in Ellicott City, to prepare a preliminary evaluation of structured parking opportunities and to provide recommendations regarding operations, management, and technology costs and benefits.

HISTORIC DISTRICT DESIGN GUIDELINES

The County, the Historic Preservation Commission, their partners and citizen stakeholders protect Ellicott City's character-defining elements and rigorous review process.

- **Current Guidelines Document:** The Ellicott City Historic District Design Guidelines were adopted in 1998.
- **Guidelines Document Update:** In 2017 the Historic Preservation Commission and the Department of Planning and Zoning launched an update of the Historic District Design Guidelines. The update is ongoing and will provide for a more user-friendly document, reflect current preservation standards, and incorporate guidelines addressing accommodations for flood resiliency.

PATAPSCO REGIONAL GREENWAY CONCEPT PLAN

The Patapsco Regional Greenway Concept Plan is a community-driven concept plan initiated by the Bicycle and Pedestrian Advisory Group (BPAG) of the Baltimore Regional Transportation Board (BRTB) and the Baltimore Metropolitan Council (BMC) that identifies opportunities to connect the entire Patapsco Valley with one trail system, ultimately linking Baltimore's Inner Harbor with Sykesville. Ellicott City plays a prominent role in the plan as there are several existing trails terminating near Ellicott City but not connecting through.

THE PATAPSCO HERITAGE AREA MANAGEMENT PLAN

Ellicott City falls within the boundaries of the Patapsco Valley Heritage Area, an approximately 24.6 square mile area along the Patapsco River from below Elkridge to above Daniels. Primary components of the heritage area include the places where natural resources supported industrial development in the 18th and 20th centuries, communities such as Ellicott City that developed as a result of industrial development,

adjacent rural lands, and the travel routes—notably the National Road and B&O rail line—that connected the valley to Baltimore. These resources within the valley and Ellicott City already offer many heritage experiences to residents and visitors and have the potential to offer more and higher quality experiences.

The Patapsco Heritage Area Management Plan outlines the vision as well as the goals and objectives for the heritage area. The Plan was created through a cooperative public process, and unanimously approved by Howard County and Baltimore County government as well as by the Maryland Heritage Authority Areas—the governing body for all Maryland Heritage Areas.

The regional non-profit Patapsco Heritage Greenway, Inc. serves as the managing entity and is charged with the implementation of the Management Plan.

CB56-2018 REPORT, MAY 2019

The Tiber Branch Watershed and Plumtree Branch Watershed Safety Act (CB-56-2018) was passed in response to the May 27, 2018 flood—the second major flash flood in two years. The Act directed the Departments of Public Works and Planning and Zoning to study the interrelated factors of land use, storm water management, drainage infrastructure, and flood mitigation in the Tiber Branch and Plumtree Branch Watersheds and make recommendations about changes in law and procedures that may help protect the Watershed from the effects of future flood events. In that study, the agencies looked at the intersection of existing land use, historical storm water management requirements and future potential watershed development. The results of the evaluation are available at www.howardcountymd.gov/ecmp under "Resources."

ADDITIONAL PLANS AND STUDIES

In addition to the plans and studies described above, the master plan consultant team also drew upon numerous resources prepared both before and after the 2016 flood, spanning over 40 years.

POST-2016 FLOOD

- Rebuilding Meeting Summaries
- Recovery Project Idea Themes
- The Economic Impact of the 2016 Ellicott City Flood, Jacob France Institute
- "WalkHoward" Howard County Pedestrian Master Plan, 2019
- Case Study—The 2016 Ellicott City Flood Event, April 2017
- Tiber-Hudson Branch Stream Corridor Assessment, January 2017
- Ellicott City Flood Recovery Community Advisory Group: Final Report, January 30, 2017
- ULI Ellicott City TAP, January 11-12, 2017

PRE-2016 FLOOD

- Flood Working Group report, 2015
- Main Street Maryland Application, 2014
- Flood Study, 2013
- Downtown Ellicott City Revitalization Initiative Process Summary, 2013
- Tiber Hudson Subwatershed Restoration Plan, 2013
- Sustainable Community Application, 2012
- Versar's Concept Plan for Old Ellicott City LID Project, 2012
- Improvements to Patapsco Open Space-Concept Design, 2005
- Ellicott City Plan, 2003
- Ellicott City Improvements: Recommendations, 1988
- Ellicott City Master Plan, 1981
- Ellicott City: New Life for an Old Town, 1977

III
A Vision for the Future

The Ellicott City Watershed Master Plan addresses challenges and opportunities within the Tiber-Hudson Watershed, an area that covers 3.7 square miles in eastern Howard County. While the planning, assessment, and overall recommendations address the entire watershed area, Ellicott City's core along Main Street and the West End are a significant focus of the effort. The core has been given a higher level of specificity for a few reasons. First, the core is a significant economic driver for the broader region and all of Howard County as well as a nationally- and locally-recognized historic and cultural resource. Second, the core is located at the confluence of three tributaries—the Hudson, Tiber and New Cut Branches—which feed into the Patapsco River at the bottom of Main Street. This condition makes the area particularly at risk of flooding—and the primary driver behind the master plan has been enhancing resiliency in the flood-impacted Ellicott City core. Lastly, this area contains the Ellicott City Historic District, an important locally and nationally-recognized historic and cultural resource. As such, all exterior alternations to a site and structure require approval from the Historic Preservation Commission.

VISION STATEMENT

Ellicott City, and its watershed, is a model, resilient community that thrives by protecting its people, commerce, history, culture and natural environment; and by enhancing its vibrant and authentic character.

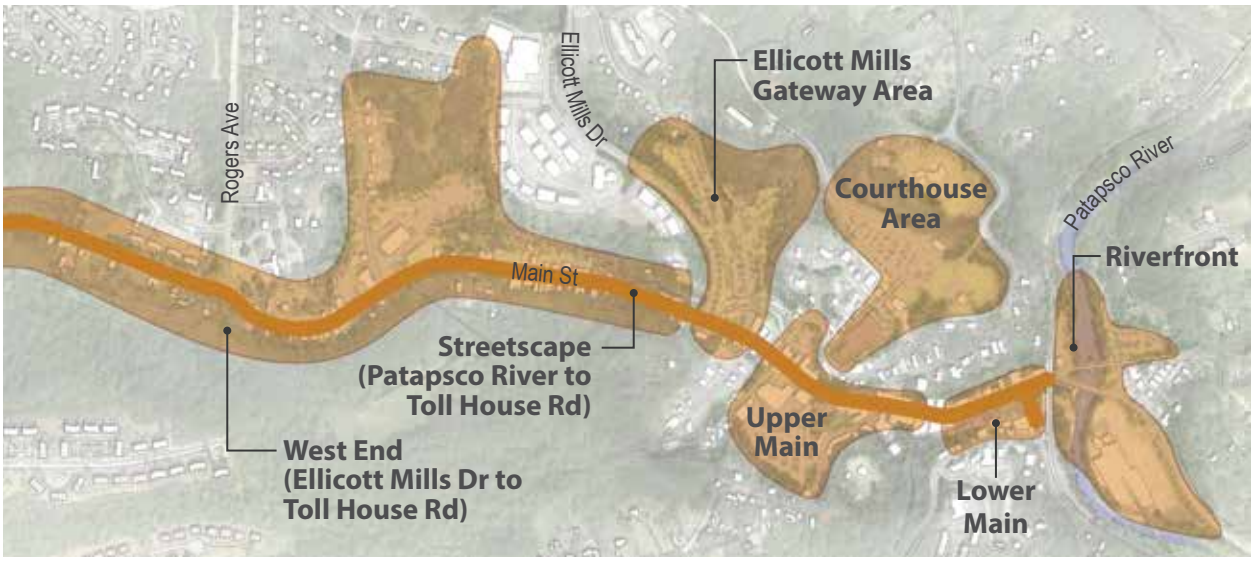


Figure 14: Key Map — Geographic Areas Described Within Chapters III.6 through III.12

MASTER PLAN FRAMEWORKS

The plan policies and implementing actions in the following chapters are described as they relate to 12 plan frameworks, organized by topics and geographic areas. The topic-oriented plan frameworks include existing conditions assessments, strategies, and recommendations related to community character, flood mitigation, environmental stewardship, economic development, and transportation as they apply to the entire watershed area. The geographic-oriented plan elements focus on specific locations and project areas within the watershed area.

THE TIBER-HUDSON WATERSHED

While officially named the Tiber Branch Watershed—itself a branch of the Patapsco River—the community refers to this watershed as the Tiber-Hudson Watershed. For the purposes of this plan and corresponding graphics the watershed is being referred to as the 'Tiber-Hudson Watershed.' This watershed can be further subdivided into three sub-watersheds: the Hudson, the New Cut, and the Tiber.

MASTER PLAN GOALS

Building upon Recovery Phase studies and community input during the master plan process and grounded in EC Safe and Sound, six primary goals were developed to achieve the vision. Associated with each goal, a listing of desirable outcomes is provided. When future projects or activities are undertaken to implement the master plan, project managers should strive to advance these goals and work towards these outcomes.

1. **Protect residents, employees and visitors**

   Safer buildings, advanced warnings of flood threat, clear access to high ground, greater preparedness, safer pedestrian and bicycle infrastructure

2. **Manage water quantity and protect water quality**

   Broader awareness of the water's beauty and strength, national resiliency model, resilient infrastructure, reduced flood impacts, managed stream debris, healthy natural resources, increased green space

3. **Plan for economic success**

   Variety of uses , diversity of businesses, new and existing business investment, thriving small businesses and entrepreneurs, opportunities for business expansion

4. **Enhance the experience**

   Welcoming and attractive downtown, walkable destination, more accessible physical design, improved public amenities, increased cultural offerings, places for people

5. **Preserve and promote the identity**

   Distinctive community, showcase for heritage, town setting, steep terrain and river valley, widespread appreciation for historic preservation, celebrated past, present and future

6. **Organize for success**

   Sustained focus on Ellicott City, flexibility to adapt to the unforeseen, multi-objective mindset, new collaborations, regional partnerships, ongoing and multi-disciplinary partnerships

Plan Summary: A Vision for the Future

WEST END SERVICE:
Long-Term Planning Opportunity
(Private Property)

STREETSCAPE ENHANCEMENTS
(Patapsco River to Toll House Rd):
Pedestrian-Friendly, Historic Character, Resilient, Environmental Site Design

WEST END (Ellicott Mills Dr to Toll House Rd):
Streetscape Improvements, Traffic Calming, Flood Mitigation, Stream Channel Maintenance

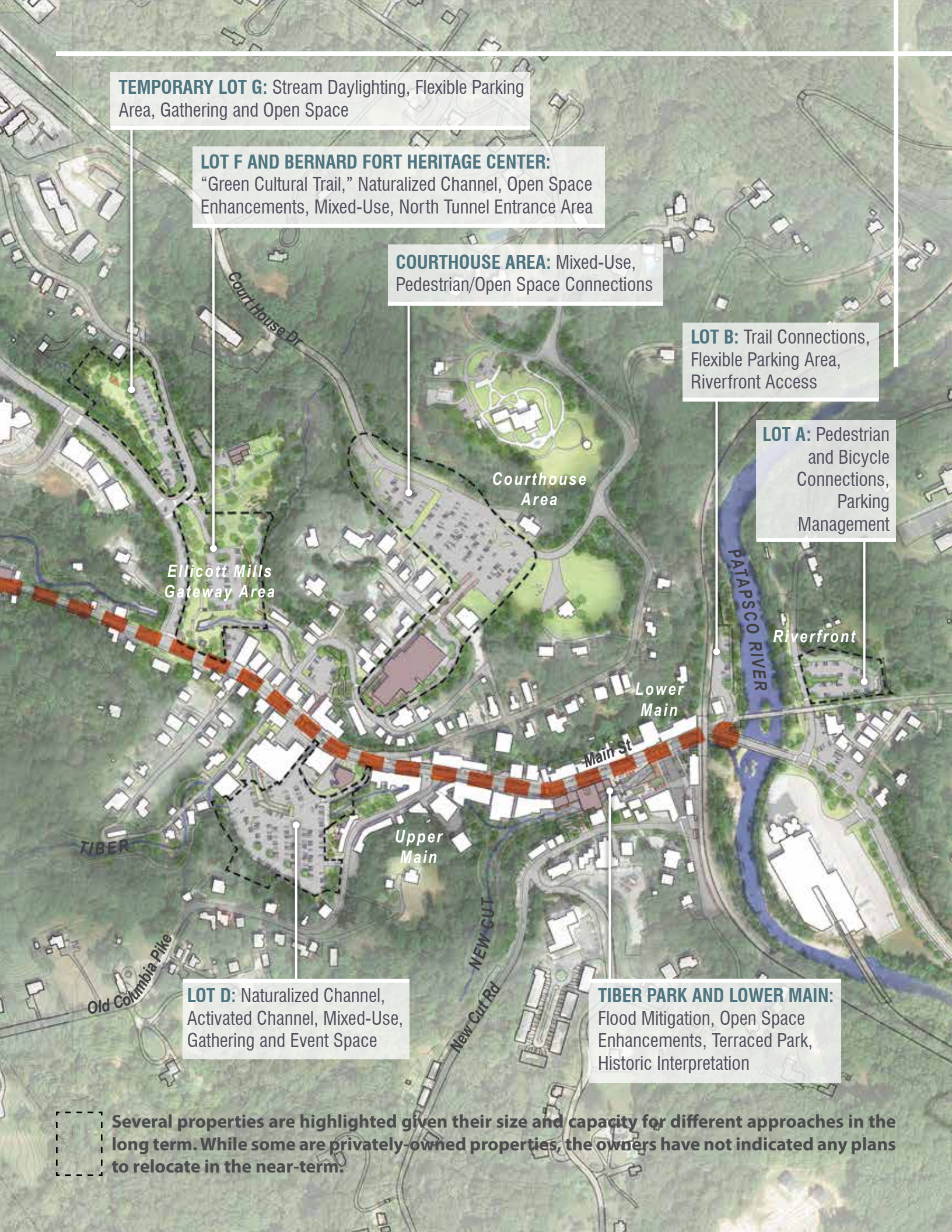
ADDITIONAL PROPOSALS

Core

- Public Art and Lighting
- Flexible Open Space
- Business Support
- Streetscape and Pedestrian Experience Improvements
- Parking Management and Wayfinding
- Public Realm and Open Space Enhancements

Watershed

- Flood Mitigation Facilities and Conveyance Improvements
- Stream Restoration
- Debris Management
- Tree Canopy and Greening Strategies
- Trail Connections


TEMPORARY LOT G: Stream Daylighting, Flexible Parking Area, Gathering and Open Space
LOT F AND BERNARD FORT HERITAGE CENTER: "Green Cultural Trail," Naturalized Channel, Open Space Enhancements, Mixed-Use, North Tunnel Entrance Area
COURTHOUSE AREA: Mixed-Use, Pedestrian/Open Space Connections
LOT B: Trail Connections, Flexible Parking Area, Riverfront Access
LOT A: Pedestrian and Bicycle Connections, Parking Management
Court House Dr
Courthouse Area
Ellicott Mills Gateway Area
PATAPSCO RIVER
Riverfront
Lower Main
Main St
Upper Main
TIBER
NEW CUT
Old Columbia Pike
New Cut Rd
LOT D: Naturalized Channel, Activated Channel, Mixed-Use, Gathering and Event Space
TIBER PARK AND LOWER MAIN: Flood Mitigation, Open Space Enhancements, Terraced Park, Historic Interpretation
Several properties are highlighted given their size and capacity for different approaches in the long term. While some are privately-owned properties, the owners have not indicated any plans to relocate in the near-term.

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III.1 Community Character + Placemaking

DESCRIPTION

The Community Character and Placemaking framework addresses elements and activities that reinforce Ellicott City's distinct character and strong sense of place. These elements are grounded in Ellicott City's historic origins and include physical place-defining features such as architecture, landscape, the natural environment, and public spaces. They also include events and programming that enhance one's experience of Ellicott City.

ELLICOTT CITY TODAY

HISTORIC ORIGINS

At its core Ellicott City is a well-preserved mill town with much of its original architecture still intact. It stands out among others as an historic community that has retained significant integrity and authenticity.

- **Significance:** Ellicott City's historic significance is notable in the broad span of time reflected and the many influences that shaped the town. The industrious, practical and inventive Ellicott family established their various businesses and supporting settlement in the late 1700s along the Patapsco River and its tributaries, utilizing their waters as a source of power.
- **Role of Natural Resources:** Available natural resources of stone and timber shaped the appearance of the town and spurred nearby quarries and sawmills.
- **Mills:** From its settlement in 1772, Ellicott Mills expanded to become the milling, manufacturing, and cultural seat of the Patapsco Valley.
- **Historic National Road:** In 1805 the Ellicott family, along with other prominent

Figure 15: Historic Drawing and Photo of Downtown Core, Credit: MD Covered Bridges (Left), George Stewart (Right)

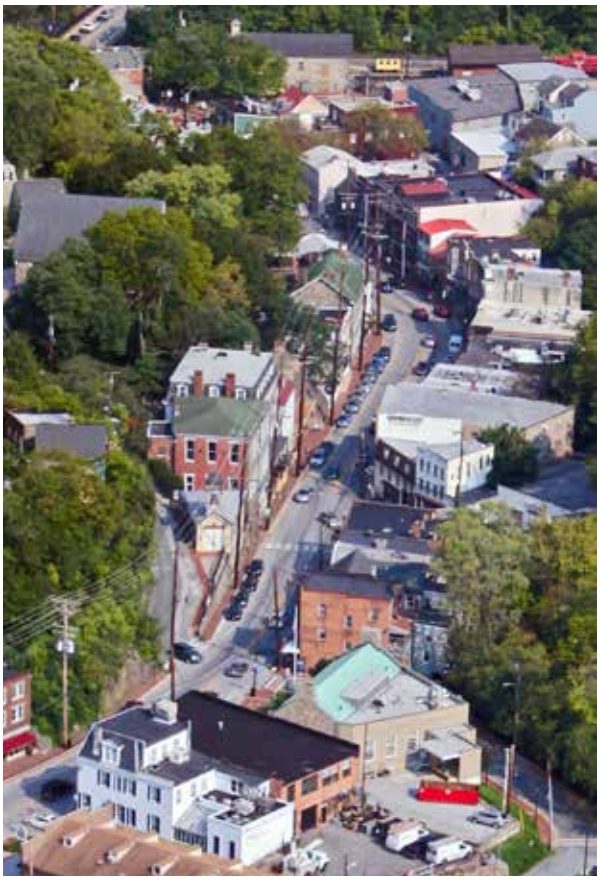


Figure 17: Historic Character of Ellicott City, Buildings Adapted To Steep Slopes and Site

Figure 18: Wooded Slopes and Rock Outcroppings Create Character in the Historic Core

Figure 16: Historic West Main Street House Overlooking Former Mill Race

Figure 19: Steep Hillsides, Rock Outcroppings and Context-Sensitive Architecture in the Core

businesspeople, established a turnpike spanning west from Baltimore toward Frederick and later to Cumberland. This roadway—now referred to as the Historic National Road—eventually connected Baltimore to St. Louis. In town, that corridor is Main Street.

- **Nation's First Railroad:** The railroad arrived in 1830 to help transport passengers and goods to market.
- **County Seat:** When Howard County was created in 1851, Ellicotts Mills was chosen as the county seat, and the town became incorporated as Ellicott City in 1867.
- **Civil War:** The transportation crossroads enhanced Ellicott City's role during the Civil War. Schools, churches, and businesses provided services. New housing was built, with workers' dwellings closer to Main Street and larger homes on the hills, some of which were summer retreats.
- **Expansion and Adversity:** The town continued to grow and evolve through the 20th century, despite floods, fires, and economic downturns.

In 2022, Ellicott City will celebrate 250 years of history. A nonprofit group, EC250 Inc., has formed to plan the celebration.

CHARACTER

The character of Ellicott City's core springs from and depends upon the tightly woven relationship between the built and natural environments. The authenticity extends beyond the historic buildings themselves. The structures interface with the surrounding geography, water, steep topography, exposed bedrock, streams and their channel walls, and narrow, winding roads and alleys. Both subtle and broad viewsheds contribute to one's experience of this complex and unique settlement. The fact that so much of the community and its complicated interrelationships have been preserved enhances historic Ellicott City's authentic charm and allure.

HISTORIC PRESERVATION

Ellicott City is both a locally and nationally designated historic district. Overall, there is widespread recognition among county and community stakeholders that historic preservation is something to be valued and an understanding that working with historic buildings presents unique challenges when considering economically viable reuse. Preservation does, however, require that owners in the historic district participate in a review and approval process to alter the exterior appearance of their property. Materials approved for repairs are limited to those that are historically compatible and the review process can add additional time and cost to the renovation process. However, there are several benefits associated with preservation:

- **Tax Credits:** Historic building repairs may qualify for the County Historic Property Tax Credit, the Maryland Historic Revitalization Tax Credit, and/or federal tax credit programs to offset the additional cost of historically appropriate materials.

Figure 20: Typical Materials of Mid-19th Century Buildings in Ellicott City Include Stone, Brick and Wood Frame

- **Heritage Tourism:** Funding for building improvements related to heritage tourism may also be available through the Maryland Heritage Areas Program.
- **Effective Solutions:** The review process can help lead to solutions that allow for flexibility and creativity, particularly for potential uses that may not yet be anticipated.
- **Role of Iconic and Modest Buildings:** The historic integrity of Ellicott City is grounded in an appreciation and understanding that preserving modest buildings is as critical as preserving iconic ones.
- **Adapting and Evolving Community:** Ellicott City should not be frozen in time. Rather, this special place should continue to creatively adapt and evolve to accommodate contemporary needs and be strengthened as a vibrant, pedestrian-friendly, mixed-use community that values the protection of its historic integrity.

Newcomers to the process may not be aware of the importance the approval process plays in protecting and enhancing Ellicott City's historic integrity, which is intrinsic to the town's economic value.

PROPERTY MAINTENANCE

Neglected properties (whether inside or outside of the historic district) negatively impact the community's aesthetic experience, as is especially evident for highly visible properties along Main Street in the West End.

- **Current Process:** Currently, the Department of Inspections, Licenses and Permits (DILP) intervenes when code violations exist and if there is a safety hazard, however, if no safety hazard exists, the neglected property can remain for years.
- **Past Efforts:** In the past, the historic preservation community has raised concerns about "demolition by neglect." Demolition by neglect occurs when a property owner allows a historic building to severely deteriorate – beyond the point of repair – which then results in the building's demolition. Preservationists have

Figure 21: Residential Character of the West End

Figure 22: Site Design to Fit Architecture (Middle), Architecture Integrated into Site Design (Bottom)

Figure 23: Architecture Not Responding to Overall Site

Figure 24: New Cut Road Provides a Scenic Approach to the Historic District

advocated for property maintenance policies to be developed and applied to properties in both the county's locally designated historic districts (Ellicott City and Lawyers Hill) and on the county's Historic Sites Inventory. While this concept has merit, a number of challenges were identified that impeded implementation; these challenges involved defining neglect, access to properties, mechanism for enforcement, allowing for economic hardship, and staff capacity.

DEVELOPMENT CHARACTER (BEYOND THE HISTORIC DISTRICT AND CORE)

While Ellicott City's historic district is quite distinct and has evolved to meet contemporary needs with minimal sacrifice to its character-defining elements, development patterns in the surrounding neighborhoods often belie the character one finds in the core. Development in the areas surrounding and leading to the historic district is controlled by conventional zoning codes and site development review. Both are limited as tools to inform aesthetics and form.

- **Architectural Design:** Architectural design is frequently suburban in style and can be found most anywhere in the Mid-Atlantic.
- **Site Design:** Site design often lacks the human scale found in the core. With contemporary construction methods, sites tend to be adapted to the design of a building, rather than the design of the building adapting to the site, as is the precedent in Ellicott City's core.
- **Undeveloped Properties:** There are a limited number of undeveloped properties in the watershed. In 2019, as part of the CB56-2018 moratorium report, the Department of Planning and Zoning analyzed the watershed's remaining development potential. DPZ found 1% of the watershed, comprising 29 total acres, remained undeveloped.
- **Redevelopment Opportunities:** The watershed contains several older commercial areas that could become redevelopment opportunities in the future. However, it is important to note there has been no indication from property owners that such change is anticipated. These areas include the West End Service Center site, the Route 40/Ridge Road commercial area, and the Frederick Road/St. John's Lane commercial area. While redevelopment of commercial corridors has occurred in neighboring jurisdictions (such as selected areas along Rockville Pike in Montgomery County), this trend is not common in Howard County.

- **Ellicott City Gateways and Rt. 40 Design Manual:** There are several highly visible properties along gateways leading into the core that are outside the watershed. Along the Route 40 corridor, new projects are subject to review by the Design Advisory Panel. The Route 40 Design Manual outlines guidelines that, when applied to new development or redevelopment, will enhance the overall aesthetics and function of the corridor. However, the design manual is broken into requirements and recommendations.
- **TNC Zoning:** Most Route 40 design requirements apply only to the Traditional Neighborhood Center overlay zone (TNC). The TNC zone is a mapped overlay that applies to a handful of commercial areas rather than the entire Route 40 corridor. Within the Tiber-Hudson Watershed, TNC applies only to the St. John's Lane/Frederick Road commercial area. To date, no property owner has opted to use the TNC zone to develop or redevelop their property. A zoning consultant hired by the county to evaluate existing development regulations recommended that the TNC zone be eliminated and replaced with a consolidated, community-scale mixed-use zoning category that would also replace other existing mixed-use zoning districts. The 2018 land development regulations assessment noted that if the TNC zone were replaced, then the Route 40 manual should be updated accordingly.
- **Conventional Zoning:** The conventional zoning found in Ellicott City's historic district limits permissible uses. More flexible zoning is needed to accommodate a broader array of future uses which will make historic buildings more adaptable and resilient to changing needs.

PARKS AND OPEN SPACE IN ELLICOTT CITY

- Patapsco Valley State Park
- Tiber Park
- B&O Plaza
- Thomas Isaac Log Cabin
- Hamilton Street and Lot D Parklet
- Tonge Row Patios (private)
- Welcome Center Grounds
- Rock-Outcroppings (8170 and 8270 Main Street)
- Bernard Fort House Grounds
- Ellicott City Colored School Grounds
- Lot E Staircase
- Courthouse Plaza
- Patapsco Female Institute
- Worthington Park and Dog Park
- Fels Lane Parklet (Housing Commission)
- Roger Carter Community Center
- Oella Riverfront Park (in Baltimore County)

SCENIC ROADS

The topography and wooded stream valleys and hillsides provide for scenic approaches into the historic district from surrounding areas. Several of these approaches have Scenic Road designation.

- **Notable Scenic Road:** Most notable of the scenic roads in Ellicott City is New Cut Road, which winds through the valley alongside the New Cut Branch and evokes the feeling of a much more rural area.
- **Enforcement:** While these roads are formally designated as scenic roads, until recently the County only had guidelines and a few regulations, so the scenic road program lacked "teeth." However, recent changes to the regulations (CB63-2019) have added requirements for Planning Board review of subdivisions to minimize impacts to the scenic road character; a minimum 100-foot vegetated buffer between the road and major new subdivisions; and access along a non-scenic road, where practicable.
- **Impacts:** The new legislation described in the previous bullet is intended to address impacts to scenic roads from new development (street widening to accommodate ingress and egress, tree loss and viewshed impingements). The

impact of the new regulations will need to be monitored so that the regulations can be strengthened, if needed.

PUBLIC REALM

While Main Street functions as the most used and most notable public space in Ellicott City, other parks and open spaces (both public and private) provide additional infrastructure for one to experience Ellicott City in a variety of ways.

- **Active Spaces (Within the Core):** Most of the park spaces are small and intimate, appropriate to the tight scale of much of Ellicott City. These spaces provide places for informal socialization, relaxation and small pop-up displays during events. The Patapsco Female Institute grounds, at the edge of the core, is a larger park space that provides event and cultural experiences.
- **Active Spaces (Outside of the Core):** Worthington Dog Park is a larger active open space at the southern end of the watershed, connected to the core by New Cut Road.
- **Passive Spaces:** Some of the larger open spaces within the watershed are primarily passive spaces associated with conservation easements and open space requirements.
- **Public Space Network:** While there are numerous active and passive open spaces as part of Ellicott City's public realm, the interconnectivity of these spaces is often lacking or isn't always clearly defined.
- **Interpretation:** Interpretation enhances the public realm and is provided throughout Ellicott City with interpretive signs and on building plaques. There is the opportunity to expand interpretation efforts to increase the level of interpretation beyond signs, however, with appropriate features, exhibits and even public art.
- **Solid Waste Management Enclosures:** With limited outdoor space, managing solid waste has been a challenge in the core with dumpsters and trash receptacles visible in public places such as Lot D and Tiber Alley. Howard County

Figure 25: Ellicott City Events and Event Spaces

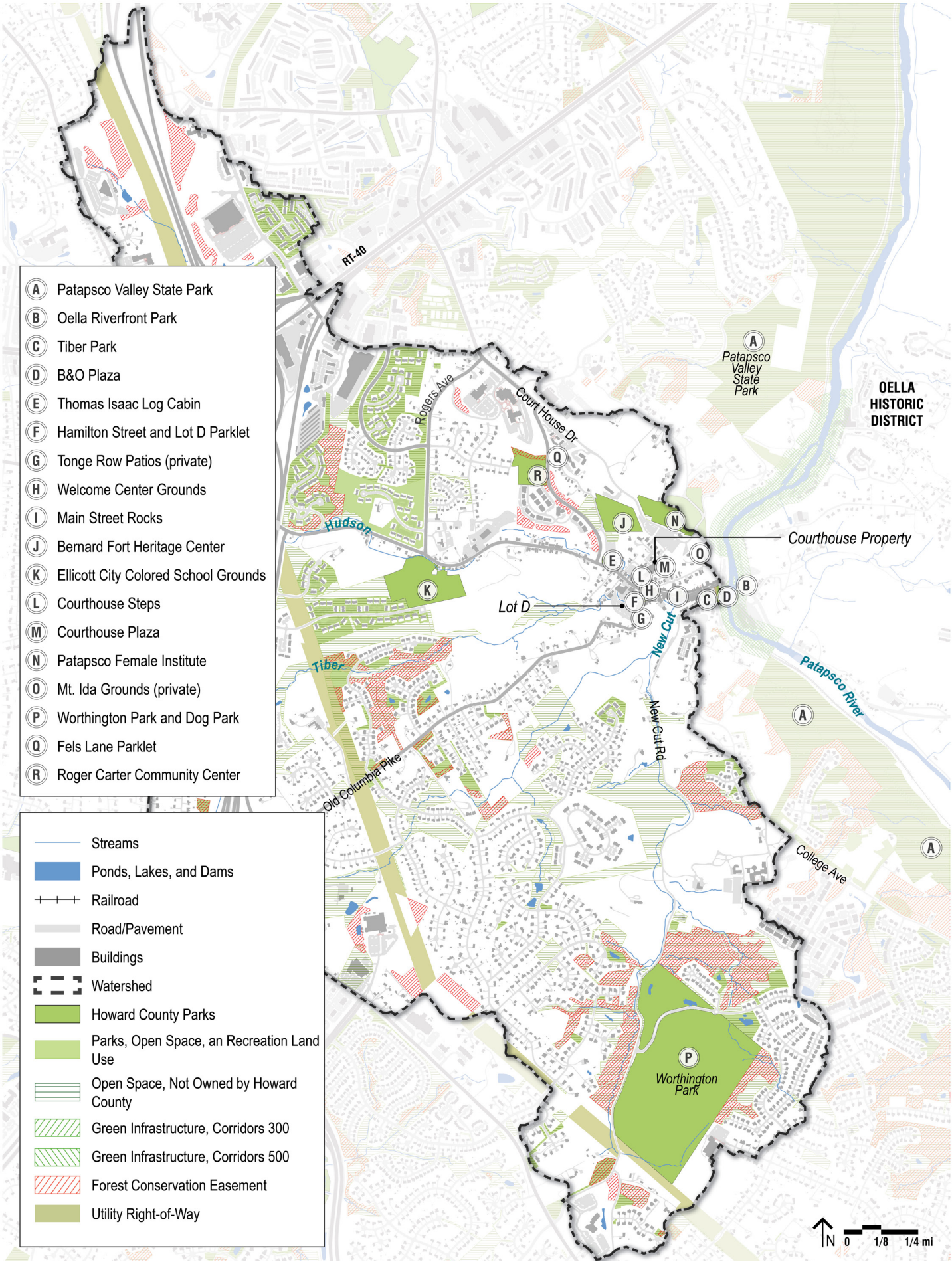


Figure 26: Watershed Diagram: Parks and Open Space

recently installed dumpster enclosures in Lot D and added dumpsters in Lot B. With removal of the four buildings as part of EC Safe and Sound, the need for solid waste management may be diminished along Tiber Alley, however, this will be dependent upon future uses in that area.

ACCESSIBILITY

Accessibility and ADA compliance is a challenge throughout the core. Narrow sidewalks with obstructions such as protruding steps and utility poles coupled with steep inclines make navigating the core difficult for pedestrians with special needs. Opportunities to address these challenges as best as possible need to be considered as changes to the physical environment occur. Some improvements to accessibility are already underway as Howard County continues to make sidewalk repairs following the floods. Several ADA compliant ramps have been upgraded or added along Main Street and uneven asphalt sidewalk pavement has been replaced with concrete in several areas.

PUBLIC ART

Art plays a prominent role in Ellicott City, evident by the numerous galleries located throughout the core and West End and art-related events. While attention to the arts is becoming more and more prominent in the community, public art is less pronounced than it could be, particularly within a community as unique as Ellicott City. Part of this can be attributed to limited space within the core's public realm.

- **Role of Public Art:** Public art plays a valuable cultural, economic and social role in communities, providing a vehicle to highlight history, environment and evolving culture and activate the public realm. In Ellicott City public art plays an important role in adding vibrancy, engaging its citizens and connecting them to the places that make the community iconic and memorable.
- **Art-Related Events:** Ellicott City hosts notable art-related events including Paint It!, an annual Plein Air paint-out and the Patapsco River Rock Building event.
- **Past Initiatives:** Howard County considered pursuing a Maryland State Arts Council, Arts and Entertainment District designation for Ellicott City prior to the recent initiatives described above, however, the County determined at the time that there were not enough existing arts and entertainment uses upon which to base the application.
- **Recent Initiatives:** Property owners with the support of state bond funds and donations through "The Fund for Art in Ellicott City" recently installed two murals, based on historic themes, along Main Street bringing the total to three. Ellicott City also participated in the Howard County Arts Council's ARTsites program and acquired the Aubergine sculpture for display at the Welcome Center.

PROGRAMMING AND EVENTS

In addition to physical infrastructure, the programming of the public realm plays a prominent role in one's experience of a community. Ellicott City's geography and extensive historic district provides a dramatic setting for these to occur.

Regardless of the theme, events play a role in activating the community and reinforcing it as a special place in all seasons. Some events play an important role in bringing awareness to cultural and natural resources. For example, the Patapsco River Rock Building event (sometimes referred to as Cairn Constructing) was designed in memory of a local artist and educator who inspired watershed awareness and involvement.

- **Programming:** The Department of Recreation and Parks (DRP) offers special programs at their sites that engage and educate visitors. Additionally, private businesses, such as Little Market Café along Tonge Row, create weekly programming throughout the summer.
- **Significant Events:** Numerous events, both large and small, occur in the core throughout the year; the largest events, Springfest, Main Street Music Fest and Midnight Madness, draw thousands of visitors.

- **Event Purpose:** Events are important for Ellicott City. They attract visitors, support businesses, and build community pride. While many businesses don't attract shoppers during the event itself, events provide opportunities to increase awareness of and promote the businesses for return visits. Events also generate revenues for Ellicott City Partnership (ECP) which helps fund direct business support. Lastly, events increase awareness of Ellicott City, its historic district and natural resources.
- **Event Locations:** Lot D is the primary location for large events, while smaller movie events take place adjacent to The Wine Bin. Holiday events take place throughout the core, primarily along Main Street.
- **Event Challenges:** While events are important, they also require a tremendous amount of volunteer effort, are resource-intensive and can be time consuming. Organizers often question and discuss the cost/benefit in terms of benefit to Main Street businesses vs. the time and organizational resources required to implement the event.

THE VISITOR EXPERIENCE

While one of Ellicott City's most compelling traits is the overall integrity of its historic district, there are numerous historic 'gems' throughout the district that serve as individual attractions. These include significant cultural resources such as the B&O Station Museum, the Ellicott City Colored School, the Patapsco Female Institute and the former Ellicott City Post Office (which contains oil on canvas mural paintings that were installed as part of Franklin D. Roosevelt's New Deal and are protected by interior MHT easements), just to name a few. These attractions are well-maintained and curated by Howard County and its partners, however, visitors don't always recognize them as part of a connected experience. In addition to these significant attractions, visitors' experiences of Ellicott City are heightened by the numerous humble, but equally important, structures and small open spaces throughout the core.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 1.1 PRESERVATION FACILITATION

Continue and build upon efforts to facilitate historic preservation and communicate its importance.

Implementing Actions

a. **Historic Sites Inventory Updates:** As the existing county-wide Historic Sites Inventory is updated, include information and/or a link to promote information that DPW maintains as it relates to flood reduction. DPW's webpage includes information on how people can get access to DFIRM and flood elevation certificate information, which might be helpful to make newcomers aware of, in addition to the Historic Preservation Commission (HPC) process.

b. **Stakeholder Education:** Prepare concise messaging for use when conveying the importance and value of historic preservation, the importance of the historic district itself, opportunities for the historic district, description of best practices and ongoing threats. This messaging can be used to educate new property owners, new residents, new businesses, newly-elected officials and new County employees whose responsibilities impact the Historic District.

c. **Public Interpretation:** Incorporate interpretive signage, markers and displays and explore ways to highlight historic features to increase the awareness of Ellicott City's heritage.

POLICY 1.2 PROPERTY MAINTENANCE

Build upon existing tools that encourage maintenance—including rehabilitation tax credits, guidelines, and technical assistance—with potential maintenance codes. Maintenance is critical to the resilience and continued use of any historic property.

Implementing Actions

a. Maintenance Policy Precedents: Research property maintenance policies in other historic district communities and evaluate options to prevent severe deterioration of properties, given the challenges previously identified. Consider whether the policy should be applied solely to the Ellicott City Historic District where exterior alterations are already regulated and whether new resources are needed for implementation.

Figure 27: Rehabilitated Tonge Row Facades as part of Howard County Facade Improvement Program

PRESERVATION PRINCIPLES

Outlined below are a number of guiding preservation principles that are modeled after the Secretary of the Interior's Standards for Rehabilitation. These principles help convey how a project can both enhance historic buildings or sites and preserve character-defining features.

RELATIONSHIPS: When evaluating the appropriateness of a given project, the structure, the site, and their relationship to the rest of the district should be given careful consideration.

USE: Historic structures within a local preservation district should be used for their originally intended purpose or for an alternate purpose that requires minimal alteration to the building and site.

ALTERATIONS: Repair is always preferred over replacement. When replacement is necessary, materials should replicate or match the visual appearance of the original. A high level of craftsmanship distinguishes structures within local preservation districts. Distinctive features, finishes, and construction techniques should be preserved whenever possible. Removal or alteration of historic fabric compromises the original character of a building or site and should be avoided. Properties, however, do change over time. Those alterations that have become historic in their own right should be maintained as a record of a resource's physical evolution.

NEW CONSTRUCTION AND ADDITIONS: Additions should be designed to minimize impact to historic fabric and should be compatible with the main structure in massing, size, and scale. New construction should be designed so that it is compatible with its neighbors in size, massing, scale, setback, facade organization, and roof form. New construction and additions should also draw upon established stylistic elements to create a sympathetic design that is clearly of its own era.

ARCHEOLOGY: Historic sites often contain archaeological resources, which should be protected and preserved whenever possible.

POLICY 1.3 DEVELOPMENT CHARACTER AND ZONING

Further assess community character countywide and identify applicable next steps for the subsequent zoning code rewrite.

Implementing Actions

a. Assessment of Community Character: Conduct a qualitative and quantitative assessment of the elements of community character. The assessment may include evaluation of: topography; street and block patterns; open space, tree canopy and natural resources; lot size and building placement; building scale and massing; private frontages; historic preservation; and gateways.

b. Place Type Palette: Develop a place type palette. The place type palette should go beyond land use and density controls to include other place-making features that reinforce intended design and character elements for future development and redevelopment.

c. Character-Based Codes: Explore the potential applicability of character-based codes through the subsequent zoning code rewrite. As part of the general plan update, HoCo By Design, DPZ and its consultant team will assess Howard County's community character and develop a "character area palette" to inform the general plan update. The character area palette will help Howard County and its citizens define the physical qualities (natural and built environments) of the county that are desirable and worth protecting and replicating. Ultimately, this can inform the code rewrite with an emphasis on physical form rather than focusing primarily on land use.

POLICY 1.4 SCENIC ROADS

Monitor the impact of the recent CB63-2019 legislation's changes and the effectiveness of those changes in protecting scenic roads and the views from scenic roads within the watershed. Monitor the impacts and effectiveness with respect to site ingress and egress, placement of buildings and roads, protection of vegetation, grading, location and design of utilities, parking and service areas, and preservation of open views.

POLICY 1.5 PUBLIC REALM DESIGN, AMENITIES AND USER COMFORTS

Design public spaces and park enhancements with a sensitivity to their context, potential for activation by a broad range of people, flexibility, durability, user comforts, and potential for interpretation and education on a variety of topics.

Implementing Actions

a. Community Engagement: Engage relevant stakeholders and user groups in the design of public spaces.

b. Adjacent Uses: Consider the potential for adjacent uses or future uses that could front onto the spaces, activate them, leverage value from them and provide potential revenue sources to help fund their implementation.

c. Visibility: Plan for visibility into and out of the public space.

d. Resiliency: Utilize resilient materials and design approaches and seek opportunities to make these visible and educational.

e. Open Space Network: Consider the role of the public spaces in and potential connections to an overall open space network that includes a series of interconnected public outdoor spaces, parks and open areas with a hierarchy of sidewalks and paths.

f. Accessibility: Ensure that parks and open spaces include amenities that are appealing and accessible to all ages and abilities and are ADA-compliant.

g. Public Amenities: Incorporate public amenities and user comforts into or near existing and new park spaces to make the spaces attractive and functional to a wide group of users. Consider seating, particularly movable chairs and tables, bicycle accommodations, wayfinding signage,

water features, shade (trees and shade structures) and public restrooms.

h. **Restaurant Partnerships:** Explore partnerships with nearby restaurants to provide opportunities for outdoor dining and the provision of food and drink, an important component of successful urban open spaces.

i. **Pop-Up Spaces /Multi-Use Design:** Utilize "pop-up" or temporary public spaces to activate an area during a specific time of day, days of the week or seasonally. These could occur in place of a parking space, multiple spaces or an entire parking area. Explore how new or reorganized parking lots can be designed to function as parking resources most of the time and public gathering spaces some of the time.

CHARACTER-BASED CODES

Character-based codes can create and reinforce 'sense of place' through dimensional standards to define spaces between buildings and control how buildings relate to each other, to streets, to other public spaces and to site topography. As compared to conventional zoning, character-based codes focus more on the size, form and placement of buildings and site elements, and less on land use and density. Character-based codes help create predictable outcomes by focusing on form rather than function. Although land use is a consideration, it is not the overriding regulatory element.

- **ARCHITECTURAL DESIGN STANDARDS:** Character-based codes can incorporate architectural design standards for new buildings and parking garages, particularly related to how they are designed to fit the site and natural grades, respond to their context and reinforce area design characteristics.
- **SITE GRADING:** Character-based codes can provide guidance on appropriate site grading that responds and transitions to the natural landform, rather than responding to a building design that is not appropriate for the site.
- **SITE DESIGN DETAILS:** Character-based codes can identify site design details, materials and standards that are appropriate for specific areas vs. "one-size-fits-all" standards such as granite curb vs. concrete curb and gutter or use of retaining walls, to name a few.
- **ACCESSIBILITY:** Character-based codes can supplement other regulations to provide guidance on how to sensitively incorporate ADA compliance.
- **WALKABILITY:** Character-based codes can guide the elements that contribute to greater community walkability including not just the necessary infrastructure (sidewalks and trails), but also connecting meaningful destinations, interesting and engaging adjacent land uses, and safety and comfort.
- **LANDSCAPE STANDARDS:** Character-based codes can describe landscape standards that, in addition to quantity, canopy coverage, buffering, habitat and environmental criteria, emphasize design and aesthetics that are appropriate to the context.
- **ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES:** Character-based codes can provide guidance on enhanced protection of environmental features – streams, wetlands, steep slopes, and forests – and on the design of ESD practices and green technologies, such as stormwater management facilities, green roofs and living walls that can be integrated into the overall building and landscape design.
- **SIGNAGE STANDARDS:** Character-based codes can include standards for signage that is integrated into the overall site and building designs.
- **INCENTIVES:** Character-based codes can identify incentives to encourage stronger architectural design, buildings that better fit the landform, and/or better integrated environmental features.

j. Demonstration Projects: Consider opportunities to incorporate demonstration projects as part of the public realm design, such as that described in Policy 3.6.

k. Naming: Elevate the importance of public spaces by naming those not yet named and including them on wayfinding maps and directories, regardless of how small they are.

POLICY 1.6 PUBLIC ART

Incorporate public art into a wide range of improvement projects to highlight and increase awareness of historic resources, natural and geologic features, flood risk, and prominent citizens, and to create attractions in and of themselves.

Implementing Actions

a. Permanent and Temporary Installations: Consider temporary and permanent installations.

b. Context: Integrate public art thoughtfully and sensitively to the context of Ellicott City and the historic district.

c. Quality: Public art should demonstrate artistic excellence and technical competence.

d. Arts District: Explore pursuing a Maryland State Arts Council, Arts and Entertainment District designation for the downtown core that includes Main Street and the West End, once additional arts and entertainment uses open.

e. ARTsites Program: Continue to participate in the Howard County Arts Council's ARTsites program which provides outdoor sculpture exhibits at locations throughout Howard County.

f. Public Arts Plan: Consider developing a community-engaged Public Arts Plan for the core as a complement to this Master Plan. This plan would allow the community to methodically consider permanent and temporary art in the public domain, targeting existing and new spaces, infrastructure and development within the core or future arts district and, possibly, the entire community. The purpose, goals and elements of the plan would need to be established by art district promoters and partners. Additionally, the plan should include a component of Howard County Historic Preservation Commission (HPC) Advisory review to ensure the plan complies with the guidelines. Consider a process for incorporating public art, particularly as part of major new infrastructure projects; opportunities to use art to bring awareness to cultural, historic and environmental resources as well as ongoing initiatives for making the community more resilient; and specific focused initiatives such as introducing more color or more interactive art into the core.

g. Lighting Program: As part of the Public Arts Plan or as a separate initiative, develop a plan for using limited lighting to enliven the core and highlight natural and architectural resources. It will be important to utilize lighting methods, such as downlighting and new technologies to minimize light pollution. A coordinated effort should examine lighting holistically; however, some specific opportunities are outlined within

PUBLIC ART CONSIDERATIONS

Public art should be of the highest quality in design and execution and may include:

- Three-dimensional artwork such as sculpture in the round, bas-relief, mobile and kinetic in any material or combinations of material;
- Two-dimensional artwork including paintings, prints, photographs, murals and mosaics;
- Fine crafts including clay, fiber and textiles, wood, stone, metal, plastics, glass and other materials;
- Functional and nonfunctional artwork;
- Artwork involving lighting, audio properties and water; and
- Interactive artworks.

Figure 28: Lighting Can Be Used to Highlight Features of Ellicott City Such as Building Facades. Other Features Might Include Boulders, Underpass, Bridges, etc, Credit: chooyutshing (Top), Gulfport Main Street (Middle)

Figure 29: Public Art Can Be Used to Interpret Flood Risk and Historic Features, Credit: Philip Halling (Top), JB Parrett / jbparrettphotography.com (Middle)

Figure 30: Mural in Ellicott City Highlighting the Former Use of the Building

each geographic area. As with the Public Arts Plan, the program should include a component of HPC Advisory review. Additionally, carefully place lighting to avoid creating obstacles for emergency vehicles and first responders.

h. **Interpretation:** Incorporate interpretive signs, displays and features throughout the core and watershed to increase public awareness of Ellicott City's flood risk. Consider art to mark high water levels during past floods, or to mark the location of a stream channel that is covered by a structure or roadway.

i. **Attracting Arts and Entertainment Uses:** Promote attraction of artist housing or arts-based businesses.

POLICY 1.7 GREEN CULTURAL TRAIL

Phase-in the establishment of an inter-connected "green cultural trail" for residents and visitors to experience Ellicott City through a connected trail network extending from the Patapsco River to the West End and beyond.

Implementing Actions

a. **Historic and Cultural Resources:** Connect historic and cultural resources (physically and programmatically) to allow for a broader understanding.

b. **Main Street Connections:** Consider appropriate design treatments and signage for areas where the trail intersects with and crosses Main Street and for areas where it coincides with Main Street when it is not possible to create a separate trail.

c. **Open Spaces:** Link existing and potential open spaces, both active and passive.

d. **Natural Areas:** Incorporate daylighted channels, naturalized channels, rock outcrops and associated open spaces.

e. **Stewardship and Interpretation:** Highlight environmental demonstration projects and provide interpretive displays to provide educational opportunities on flood mitigation and cultural, historic and environmental elements.

f. **Access:** Consider guided access through the expanded Tiber Branch channel in Lower Main for maintenance and educational purposes.

g. **Branding:** Consider an extension of the branding developed by ECP to brand and name the trail.

Refer to the geographic area frameworks to understand how the green cultural trail interfaces with each of these specific areas.

POLICY 1.8 PROGRAMMING AND EVENTS

Work with all entities responsible for special events within Ellicott City and evaluate existing events and their benefit to the businesses, downtown, West End and the community as a whole.

Implementing Actions

a. **Events Assessment:** Work with ECP to conduct a full assessment of each event including costs, logistics (access, parking, event location, etc.), attendance from outside visitors and benefits to the businesses and community. Consider eliminating events that are under-attended or overly costly. Choose events that have a strong visitor and retail focus and rebuild the event calendar from this standpoint to reap the most benefits.

b. **Annual Events Calendar:** Following the completion of the assessment, create and maintain an annual events calendar, keeping in mind that there are differences in special events, retail events and community events.

c. **New Events:** Following completion of an events calendar, discuss the need for any additional events, changes in events, restructuring of previous events, etc. While no new programs or events should be added until this assessment is completed, some considerations that evolved during this master planning process include new events to highlight some of the major infrastructure projects. Events could occur while

LEGEND

- Primary County-Owned Property and Opportunity Sites
- Significant Publicly and Privately-Owned Cultural Resources to Consider in Overall Planning Context (Protection, Views, Connections, Etc.)
- Existing and Future Open Space Opportunities (Public and Private Properties to Consider in Overall Planning Context)
- Significant Private Property Opportunity Sites, Should Current Uses Ever Change
- Relationship/Connection Between Opportunity Sites
- Urban "Main Street" Pedestrian/Bicycle Experience Along Streetscape
- "Green Cultural Trail" Pedestrian/Bicycle Experience Linking Open Spaces

(A) Patapsco Female Institute
(B) Mt. Ida
(C) Bernard Fort House
(D) Ellicott City Colored School
(E) Roger Carter Community Center
(F) West End Service
(G) Oella Riverfront
(H) Lot B
(I) Lot D
(J) Lot F

Figure 31: "Green Cultural Trail" Network, Opportunity Sites, Open Space and Pedestrian/Bicycle Connections

construction is underway to help stimulate business and later to celebrate the completion of projects.

d. **Excursion Train Service :** Explore the possibility of special event tourist train service linking the B&O Station Museum in Ellicott City and the B&O Railroad Museum in Baltimore to highlight the Patapsco Valley's significance in the development of U.S. railroads. Partnering with heritage groups such as Patapsco Heritage Greenway and the Howard County Historical Society, this long-term recommendation would require extensive coordination with the CSX Railroad. Its logical target implementation would be for the EC250 celebration.

e. **Shuttle Service:** Explore the feasibility of providing shuttle service to major community events.

WHAT'S HAPPENING IN ELLICOTT CITY?

Current events include, but are not limited to:

- Stroll Down Main
- Girls Night Out
- Mardi Gras Scavenger Hunt
- Springfest
- Musicfest
- Trick or Treat on Main
- Plein Air Event
- Small Business Saturday
- Midnight Madness
- Haunted House
- Arts Gallery Hop
- Patapsco River Rock Building Event
- Shakespeare at Patapsco Female Institute
- Wizarding Weekend on Magical Main Street
- History Walking Tours
- Ghost Tours/Pub Crawls
- Maryland History Tours

III.2
Flood Mitigation

DESCRIPTION

The Flood Mitigation framework includes a combination of structural and nonstructural flood mitigation measures. Structural measures include those that involve physical construction or the application of engineering techniques to reduce or avoid possible impacts of floods (such as dams, tunnels, culverts, etc.). Nonstructural measures include those that remediate risk by removing vulnerable property and people from the flood threat (such as relocation), by making modifications to properties (such as flood proofing, elevation changes, etc.) or by protecting vulnerable people and properties by taking actions (such as flood warning systems).

The projects and actions outlined in EC Safe and Sound form the foundation of flood mitigation included in this master plan, alongside additional long-term recommendations. Both EC Safe and Sound

Figure 32: Sidewalk and Utility Damage at 8247 Main Street Immediately Following the 2016 Flood

Figure 33: 1910 Historic Map Showing Buildings and Roadways Built Over Stream Channels in the Downtown Core, Credit: Library of Congress

and additional recommendations emphasize applying measures to improve floodwater conveyance that help to achieve multiple master plan goals while maximizing cost effectiveness.

ELLICOTT CITY TODAY

The Tiber-Hudson Watershed and its water resources represent a complex system, with multiple flooding influences. Consequently, Ellicott City has been—and continues to be—highly prone to flooding, leaving the core vulnerable to significant property damage.

FLOODING INFLUENCES

- **Torrential Rainfall:** The July 30, 2016 storm dropped 6.6 inches in 3.55 hours; the May 27, 2018 storm dumped 6.4 inches in 3.0 hours. According to NOAA's Atlas 14 precipitation frequency estimates, a storm dropping 6 inches of rain in 3 hours in the Ellicott City area should only have a 1 in 1,000 chance of occurring in a given year. However, NOAA's research indicates these previously rare storms capable of dropping torrential rainfall are becoming more frequent. NOAA's fourth national climate assessment (2018) noted a recent dominant trend toward increased rainfall intensity in the Northeast region of which Maryland is a part. The report suggests further increases in rainfall intensity are expected in the Northeast.
- **Floodplain Encroachment:** Prior to modern floodplain regulations, human settlement in Ellicott City's core has severely encroached within the floodplains and have directly altered the location and natural functions of multiple streams—the Tiber, Hudson and New Cut Branches—and the Patapsco River.

According To The National Weather Service's Baltimore/Washington Weather Forecast Office, The Ellicott City Core Is The Location Most Vulnerable To Catastrophic Flash Flooding In Its 44-County Forecast Region.

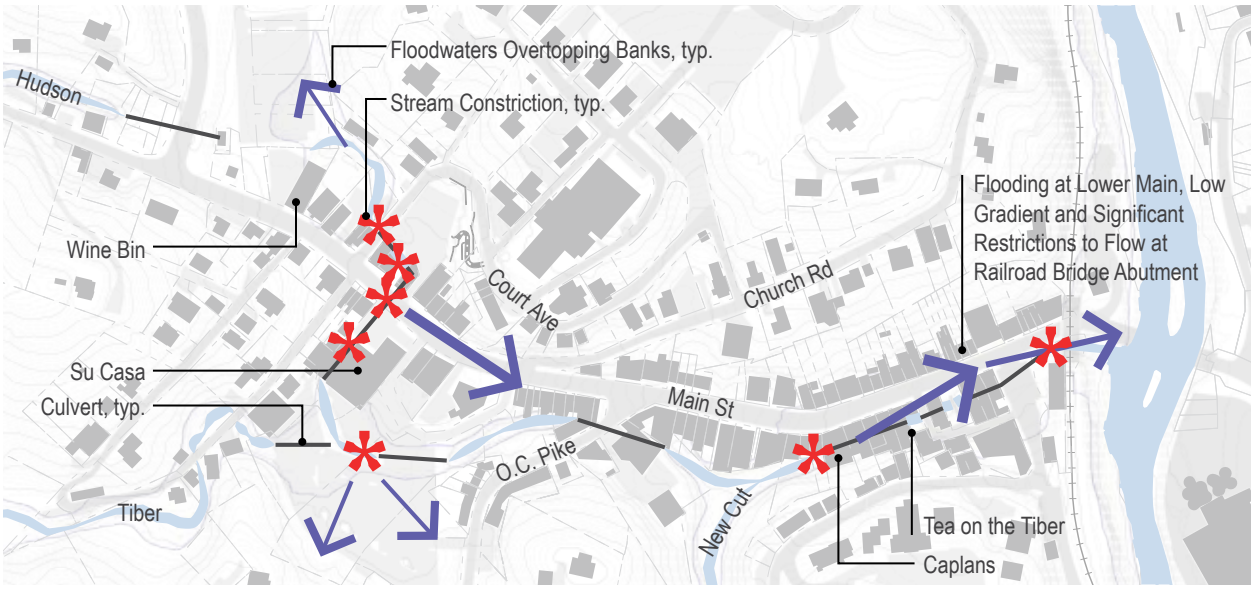


Figure 34: Stream Constriction Points and Floodwater Flows in the Downtown Core

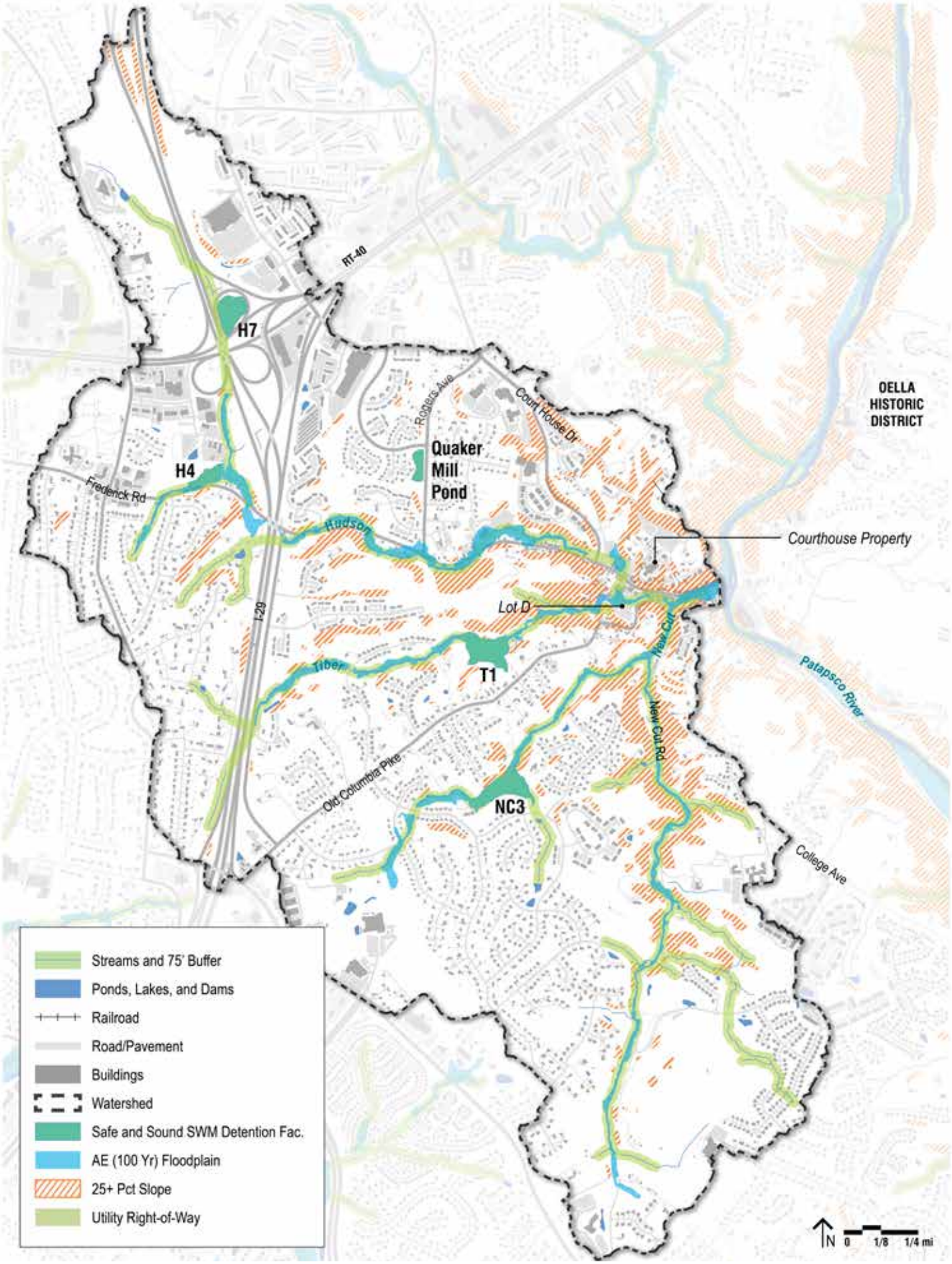


Figure 35: Watershed Diagram: Hydrology and Steep Slopes

- **Building Construction:** Buildings constructed within the floodplain span the streams in multiple locations.
- **Topography and Geology:** The topography and geology of the watershed include steep hillsides and narrow valleys comprised of shallow topsoil over granite bedrock.
- **Hindered Conveyance:** Conveyance, the tributary's capacity and performance, is hindered by a number of factors throughout the core. These include hydraulic pinch points (created at undersized crossings including culverts and bridges, sharp entrenched meander bends, floodplain constrictions, structures over the channel, etc.), increased obstructions and the presence of bedload (boulders and debris aggrading and blocking the channel), as described below (see Figure 34).
- **Stream Debris:** Debris in the channel hinders floodwaters. Debris includes fallen trees, poles, boulders, collapsed walls, pavers and other unsecured floatable items, such as cars, dumpsters, storage sheds, etc. Large debris can block culvert and bridge openings, as happened during the July 2016 and May 2018 events. Boulders and other bedload collect at various points along the channel, thereby reducing channel capacity. Existing and modeled shear stresses show levels significant enough to move boulders through the stream channel and dislodge cobblestone and brick pavement, turning it into debris.
- **Watershed Development and Redevelopment:** Because the earliest settlers in Ellicott City built dams and mill races, channelized, relocated and manipulated the stream channels/floodplains, even if most of the watershed was defined by "woods in good condition," there would still be significant flooding of infrastructure within the floodplain, as demonstrated in the Hydraulic and Hydrology (H&H) study. As the H&H study authors presented at the May 31, 2017 master plan kickoff meeting, under the "woods in good" condition scenario, a 100-year, 24-hour storm

COUNCIL RESOLUTIONS CR122-2019 + CR123-2019

For the Tiber-Hudson watershed, CR123 amends Volume I (Storm Drainage) of Howard County's Design Manual to require peak management control for 10-year, 24-hour storm events and 100 year, 24-hour storm events as well as 6.6-inch, 3.55-hour storm events (equivalent to the July 30, 2016 storm). This requirement will extend to all projects in the watershed, regardless of when a developer received subdivision or site development plan approval.
For redevelopment projects, the same requirements apply to achieve quantity management within the proposed limit of disturbance. With the addition of this short duration, high-intensity storm management, the county's stormwater management practices for this watershed include both long duration and short duration events while maintaining requirements to also provide the state mandated one-year, 24-hour event and water quality using small scale, filtering devices known as Environmental Site Design (ESD).

CR122 works as a companion to CR123 by more than doubling the fees-in-lieu to construct stormwater management from $72,000 to $175,000 per acre foot of water storage. The fees will only be paid if geotechnical issues exist that make managing the short duration, high intensity storm impossible on-site and there are no opportunities to implement stormwater management off-site within the same watershed. Any funds collected by the Department of Planning and Zoning (DPZ) will go toward flood mitigation efforts in the watershed.

event (8.51 inches of rainfall over 24 hours) would result in 6-8 feet of water on Lower Main versus more than 8 feet under the baseline existing conditions scenario. The H&H study also illustrated that in the woods and good condition scenario, the difference between discharges grew less as the storm event grew larger.

In addition to these conveyance challenges, previous residential and commercial developments with no or limited stormwater management facilities may have also had some impact on the magnitude of flooding. A large portion of the watershed was developed before 1984, prior to any Howard County stormwater management requirements. Between 1984 and 1990, the County introduced stormwater management regulations to manage the 24-hour, two and ten-year storms (see Figure 36). Development since 1990 has been required to manage for the 100-year, 24-hour storm. In late 2019, two Council Resolutions passed (CR122 and CR123), requiring more stringent stormwater management in the Tiber watershed. These resolutions are focused on managing the high-intensity, short-duration storm (i.e. 'flash flood').

When development occurs, impervious surfaces such as roofs and pavements reduce the ability for rainwater to infiltrate into the soil and for vegetation to slow the runoff as it moves downhill. Stormwater management facilities work to counter the effect of impervious surfaces by holding runoff within the facility, promoting infiltration into the soil, and then slowly allowing the water to leave the facility to match the rate at which the water would have run off if the area were not developed but left as a stand of "woods in good condition."

THE SPONGE ANALOGY

In a typical watershed, the soil profile acts as a sponge to absorb runoff from a storm. A gentle rainstorm is comparable to sprinkling water on a sponge; the sponge has the time to absorb a greater amount of water over time. A heavy rainstorm, on the other hand, is comparable to pouring water on a sponge; it will just run off as there is no time for it to be absorbed.

IMPERVIOUS COVER AND STORMWATER MANAGEMENT

Impervious cover is a variable directly related to stormwater runoff, however, the perception of increased run-off from impervious cover can be disproportionate to the magnitude of a storm event. As an example, woods with a thick, unsaturated soil layer can significantly reduce the amount of runoff with a mild rate of precipitation. However, woods with a thin layer of unsaturated soils, frozen ground or light groundcover will hold very little precipitation, even during mild storm events and the water will mostly run off. Stormwater management facilities are typically designed to either increase groundwater infiltration or store/detain precipitation to reduce downstream flows. Peak flows can only be reduced if the volume of the stormwater management facility is sufficient to manage the accumulated volume of rainfall draining to the facility during peak flow times. As a result, stormwater management facilities do not typically provide significant peak flow reduction during high flow events or events with extremely intense rain events, such as 5 inches of rain over 2 hours. As another example, if one fills a gallon bucket with water from a faucet for over an hour and then increases the flow after the bucket is full, there will be no reduction in peak flow.

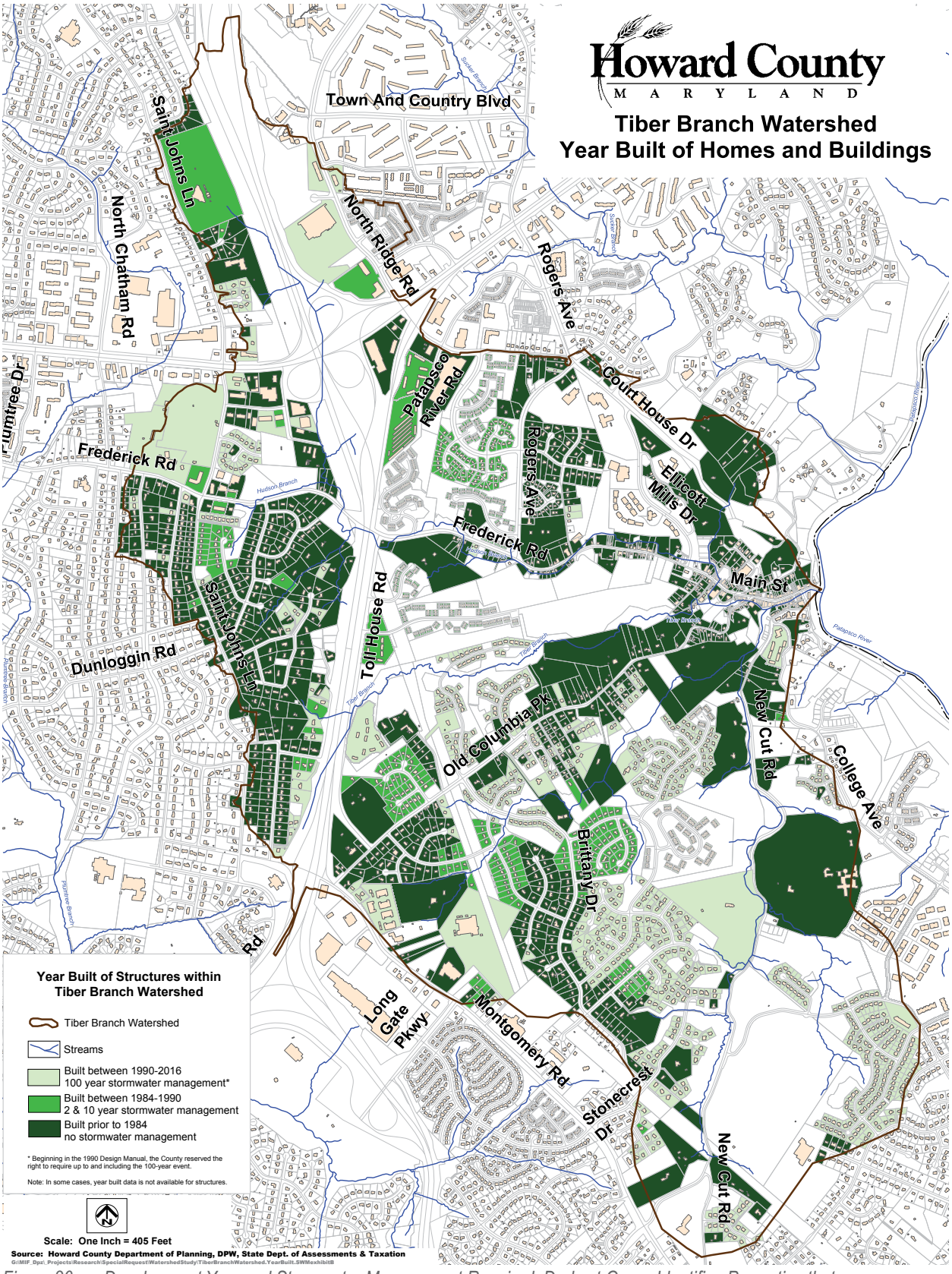


Figure 36: Development Year and Stormwater Management Required, Darkest Green Identifies Properties that were Developed Prior to 1984 with No Required Stormwater Management, Credit: Howard County DPZ

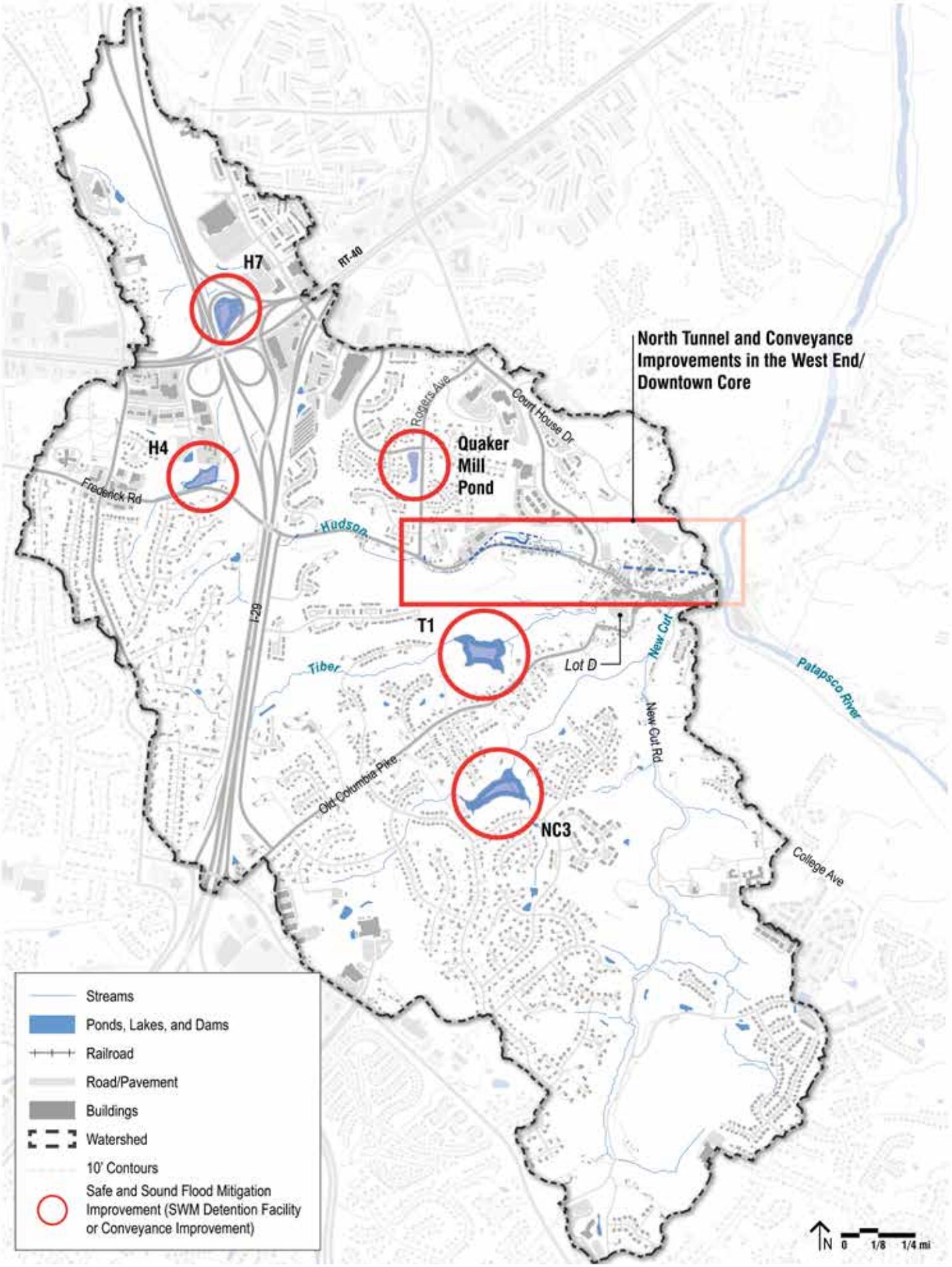


Figure 37: Watershed Diagram: EC Safe and Sound Flood Mitigation Facilities

- **Patapsco River Flooding:** Since the early settlement of Ellicott City, significant amounts of fill material, bridges and buildings located in the Patapsco River floodplain have created constrictions and increases in the water surface elevation at these constrictions. This results in a "backwater" or ponding effect upstream, during high flow events. Thus, the fill and structures located within the riverfront area, just downstream of the lower Main Street area, have reduced the capacity of the floodplain. These impacts may have significantly increased the vulnerability of the lower Main Street area to Patapsco River high flow events.

  Additionally, flooding associated with the Patapsco River is very different from the flash floods associated with the tributaries. Patapsco River floodwaters typically rise at a slower rate and primarily impact the lower Main Street area. These impacts, however, have been significant in past events such as 1972's Hurricane Agnes. The H&H study had not analyzed the flooding of the Patapsco River or potential ways to mitigate it. Therefore, this plan does not provide recommendations in the following section for a river rise event.

FLOOD MITIGATION MEASURES

Considering the various factors influencing flooding, a combination of techniques and approaches for managing floodwaters—interventions both large and small as the County is currently pursuing—is the best approach to optimize impact. Implementation of a single measure, or single type of measure, will not have an effective impact on flooding in this watershed. Small-scale stormwater management facilities—such as bioretention, rain gardens, permeable pavements, cisterns, and similar environmental site design (ESD) practices —while valuable, do not measurably reduce flooding during large storms in this watershed. Further, permeable paving may not be appropriate in some locations due to the presence of shallow granite bedrock. In order to significantly improve public safety and reduce the devastating flood damage to Ellicott City typically caused by intense rainfall events, a combination of large-scale storage facilities and, most importantly, flood conveyance improvements in critical locations are required.

Measures currently underway are described in the following paragraphs.

FLOODPLAIN DEVELOPMENT REGULATIONS

Howard County currently prohibits development in the 100-year regulatory floodplain which includes all areas subject to inundation by water of the one-percent annual flood, as delineated by the most recent revision of the Flood Insurance Study for Howard County and the accompanying Flood Insurance Rate Maps or the floodplain studies and requirements of DPW and DPZ, whichever is more restrictive.

EC SAFE AND SOUND FLOOD MITIGATION

Howard County explored numerous flood mitigation scenarios developed by the master plan team and McCormick Taylor following the 2016 flood. Following the 2018 flood, the County and McCormick Taylor then developed additional scenarios; all of these informed the foundation for the EC Safe and Sound flood mitigation plan. EC Safe and Sound is comprised of a balanced system of mitigation—dry flood mitigation facilities (within the stream channel) and both large and small scale conveyance projects including a tunnel (15 to 18 foot diameter diversion tunnel, intercepting storm water the Hudson from Parking Lot F and diverting it below grade directly to the Patapsco River). These proposed projects and systems are significant, large and costly construction projects and therefore must be sensitively integrated into the community.

- **Dry Flood Mitigation Facilities:** Four dry flood mitigation facilities (H-7, H-4, T-1 and NC-3) and one expanded detention facility (Quaker Mill) are planned for the Hudson, Tiber and New Cut branches (see Figure 37 for a map of mitigation facilities).
- **Conveyance Improvements:** Conveyance improvements include the North Tunnel which will divert floodwaters from the Hudson Branch to the Patapsco River, the Maryland Avenue

culverts which will convey a portion of the Tiber Branch to the Patapsco River, and West End conveyance projects located near 8777 Main Street, 8600 Main Street, and 8534 Main Street.

- **Nonstructural Flood Proofing:** Many properties, particularly within the lower Main Street area, will still be impacted by severe floods after EC Safe and Sound flood mitigation is implemented. Howard County's "Flood Mitigation Assistance Pilot Program" offered matching grants to fund private non-structural flood resiliency improvements in specified flood zone areas, including the Tiber-Hudson watershed. Examples of eligible projects included flood doors and windows, sealant, relocation of HVAC units, flood shields and drainage systems. This program was recently reinstated in 2020 for a second round of matching grants.
- **Flood Insurance:** Howard County participates in the National Flood Insurance Program (NFIP) and the NFIP's Community Rating System (CRS). As a participating jurisdiction, property owners can obtain flood insurance at a reduced rate. Since Howard County is a Class 6 community in the CRS, NFIP policyholders receive up to a 20% discount on their flood insurance in FEMA-mapped high risk flood hazard area, and up to a 10% discount outside the high risk area.

CHANNEL MAINTENANCE

Monitoring and removing debris can be a challenge as many sections of channel are located on private property and covered by roadways, parking lots or buildings. Another challenge is finding appropriate staging areas to place materials as they are removed from the channels. In many instances, bedload is removed and placed immediately adjacent to the stream, making it vulnerable to being washed back into the channel during the next storm. Additionally, large storm events may carry bedload and debris back into recently cleared areas, making the benefits of dredging short-lived if not paired with an ongoing monitoring and removal program.

NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM

As a part of the National Flood Insurance Program (NFIP), the Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum program requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the Community Rating System:

- Reduce flood damage to insurable property
- Strengthen and support the insurance aspects of the National Flood Insurance Program
- Encourage a comprehensive approach to floodplain management

Source: FEMA; for more information about the flood insurance program, visit FloodSmart.gov.

- **Unstable Stream Banks:** The master plan consultant team noted some sections of unstable and eroded stream banks along the tributaries, such as along the New Cut Branch shortly before it joins the Tiber. The team did not, however, conduct a stream stability assessment as part of this master planning effort.
- **EC Safe and Sound Channel Maintenance:** Howard County, in partnership with Howard EcoWorks, has increased the inspection of and debris removal from specific stream channels after major weather events at approximately 55 points, all but one having public access (see Page 91 for more information regarding EcoWorks).

Additionally, Howard County has installed bollards along the channel in Lots D and boulders and fencing in Lot F to prevent cars from being washed into the channels during floods.

- **Additional Maintenance Efforts:** In addition to the efforts by the partnership above, Howard EcoWorks has 100 renewable right-of-entry agreements across private property to access the channels to clear debris along channel lengths and areas not covered under EC Safe and Sound. Currently Howard EcoWorks is only clearing the Hudson and Tiber Branches from Route 29 to the Patapsco River.

Figure 38: Vulnerable Tree Cover Along Stream Edges Creates the Potential for Debris Mobilization and Damage Downstream (Top); Tree Lodged in Building (Bottom)

EMERGENCY PREPAREDNESS

As part of EC Safe and Sound, the Office of Emergency Management is bolstering the county's Emergency Public Alert System with new technology and elements to enhance capabilities during extreme weather situations.

- **Emergency Public Alert System:** The County is implementing an outdoor tone-based alert system to complement existing alert and warning tools. Temporary units are currently in place and an intermediate solution has been developed and is under construction with completion expected in late 2020.
- **High Ground Access:** The County has identified high-ground access points and installed signage to lead people out of the floodplain. Informational signs are located in parking lots to educate visitors on the outdoor emergency alert system and to provide instructions on

Figure 39: EC Safe and Sound High Ground Access Signs

what to do if the tone sounds ("when the tone sounds, seek high ground."). The County continued implementing additional high ground access points through agreements with private property owners in 2020.

FLOOD ELEVATION CERTIFICATES:

Howard County provides flood elevation certificates at no cost based on Federal Emergency Management Agency (FEMA) mapping as a resource to businesses and residents throughout the watershed. This is a service typically not provided by jurisdictions.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 2.1 EC SAFE AND SOUND IMPLEMENTATION

Implement EC Safe and Sound. As part of this effort, consider aesthetics in the design of the dry flood mitigation facilities.

Implementing Actions

a. **Grading:** Utilize grading that is as environmentally sensitive as practical during all aspects of construction.

b. **Tree Canopy:** Follow the Forest Conservation Manual as facilities are designed and implemented.

c. **Maintenance Program:** Establish a maintenance program that includes frequent inspection, access and management of woody growth that could impact the facilities' function over time, and keep debris from base flow openings.

d. **Hazard Mitigation and Water Quality Planning:** Integrate hazard mitigation planning and water quality planning into the design of each detention facility.

e. **Interpretation:** Include opportunities for interpretation to highlight the role these facilities play in flood mitigation, should there be any interface with public access along existing or future trails.

POLICY 2.2 STORMWATER MANAGEMENT FACILITY DESIGN

Provide thoughtful aesthetic design for public and private stormwater management (SWM) facilities throughout the watershed taking into consideration the context of their location, particularly within highly-visible public areas and the historic district.

Implementing Actions

a. **Design:** Integrate SWM facilities into the overall site design.

b. **Interpretation:** Provide interpretation in the form of signage and/or public art to bring greater exposure to SWM facilities and demonstrate the role they play in improving flood mitigation and water quality.

POLICY 2.3 CHANNEL MAINTENANCE AND DEBRIS MANAGEMENT

Continue to strengthen and expand current methods of routine channel maintenance throughout the watershed and provide ongoing expansion of debris management.

Implementing Actions

a. **Debris Management Plan:** Develop a debris management plan that includes a description of the situation, assumptions (what kind of debris is expected), and definitions of roles and responsibilities. Expand maintenance efforts to

occur along the reaches of the stream channels between current EC Safe and Sound collection points and those reaches not already covered by Howard EcoWorks. Once stream restoration occurs, focus efforts on the unrestored reaches.

b. Tributary Assessments: Conduct high-level assessments of the Tiber-Hudson watershed tributaries with water resource professionals and geomorphologists. Use the assessment to assemble existing data and identify additional data related to areas where stream restoration, stream bank repair, stream access and removal (and replacement) of vulnerable trees are most needed as part of a preventative debris management strategy. Use this effort to identify where to target both volunteer and professional channel maintenance/restoration efforts.

Maintenance and restoration of stream corridors, specifically designed to manage storm flows during high intensity events, require an understanding of stream dynamics that goes beyond the understanding of the basic design and installation of environmental projects such as invasive plant management and tree planting. Clearing debris is important; but noticing issues and identifying problem areas requires professional inspection and monitoring on a regular basis.

c. Stream Channel Maintenance/Restoration Training: Establish stream channel maintenance/restoration training for public staff and volunteers to develop skills in understanding stream dynamics, noting issues that need to be addressed and identifying problem areas before becoming too severe.

d. Vulnerable Tree Replacement: Inventory and develop a management plan for the proactive removal and appropriate replacement of vulnerable large trees that are being undercut and likely to fall to prevent woody debris buildup within the floodways.

e. Bedload Resource Yard: Evaluate bedload and work with appropriate state and federal regulatory agencies to manage the deposits in potential bedload resource yards located within the watershed or nearby.

f. Tiber and New Cut Debris Snag: Install debris snags at the confluence of the New Cut and Tiber Branches to capture debris and bedload before reaching Lower Main. Debris snags are vertical posts (natural or built) used to catch large woody debris before it can reach a point where it could create a blockage.

g. Watershed-Wide Debris Snags: In addition to the snag at the junction of the Tiber and New Cut Branches, install debris snags throughout the watershed. In the lower tributary reaches,

Figure 40: Example Stream Restoration Before (Top) and After (Bottom) (Credit: LandStudies)

the snags will likely need to be steel to withstand shear forces and velocities. In highly-visible locations, consider how snags can be developed as public art or to serve as an amenity such as a structure that can support a platform or overlook.

h. **Advanced Technologies:** Continue the use and development of advanced technologies (e.g., Geographic Information Systems (GIS)-based data collection and monitoring program) to improve culvert monitoring for debris jams, failures and constrictions.

i. **Solid Waste Management and Site Storage:** Continue to relocate dumpsters, storage containers and any outdoor storage sheds outside of the floodplains and floodways to avoid potential obstructions during flood events. Incorporate dumpster and storage into parking structures if they are developed.

j. **Additional Partnerships:** Explore potential partnerships with and support for Patapsco Heritage Greenway's Stream Watchers Program to help monitor and identify debris or blockage concerns within the Tiber-Hudson watershed that could then be addressed by Howard County and Howard EcoWorks.

POLICY 2.4 STREAM RESTORATION

Plan for the long-term restoration of the stream channels to address legacy sediments and stream bank erosion. If done properly, stream restoration would reduce the length of stream reaches to be maintained.

Implementing Actions

a. **Prioritization:** Control flood waters and reestablish and/or reconnect the floodplain with the channels in the Hudson Branch and the lower Tiber Branch (see Figure 41).

b. **Debris and Collection Areas:** Include debris collection areas in the restoration plans.

c. **Riparian Planting:** Use the appropriate measures in vulnerable areas of the floodplain/conveyance corridors, such as high shear stress pinch points. Focus riparian forest buffer planting on stable sections of the stream corridor and utilize more resilient and quicker establishing alternatives to forested buffers, such as shrub willows and sedge/rush planting,in vulnerable, higher stress areas.

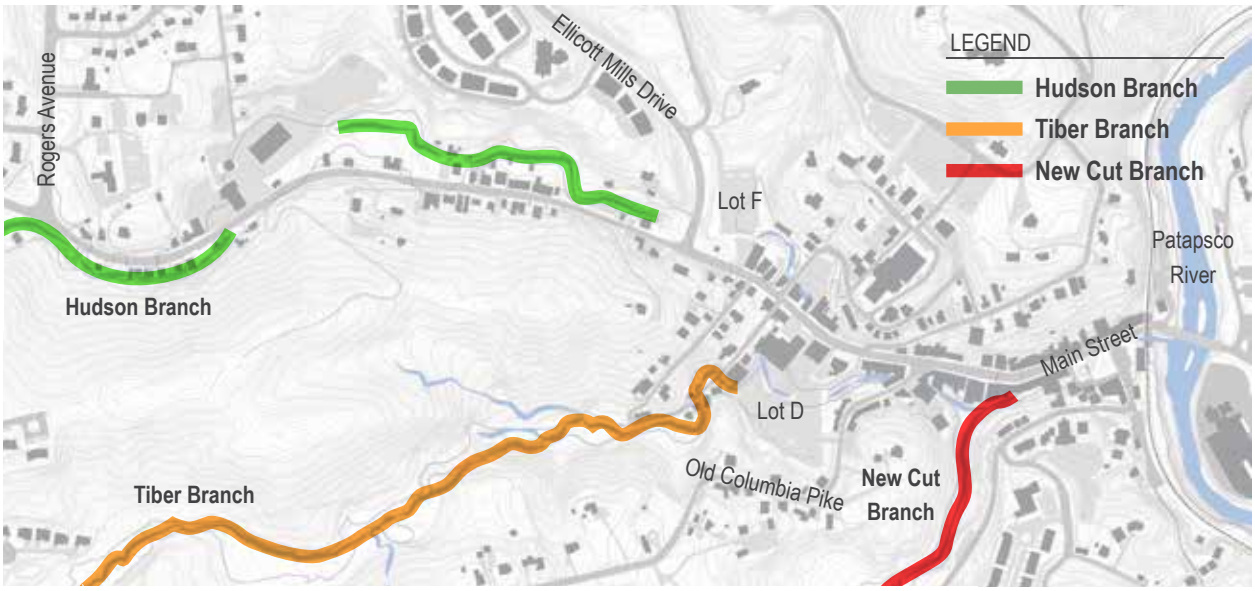


Figure 41: Stream Restoration

POLICY 2.5 PROCESS FOR ONGOING EVALUATION AFTER EC SAFE AND SOUND IMPLEMENTATION

Establish a regular evaluation and monitoring process to confirm the effectiveness of the EC Safe and Sound flood mitigation during and following major storm events, once implemented.

Implementing Actions

a. **Hydraulic and Hydrology Model Updates:** Continue to update the 2D Hydraulic and Hydrology model with post-construction as-built surveys of the flood mitigation projects and evaluate if additional flood mitigation facilities are needed in the long-term.

b. **Bed Aggradation Monitoring:** Evaluate bedload to determine if the channels are maintaining capacity, especially between Lot D and the Patapsco River and along Main Street upstream of Ellicott Mills Drive. Work with appropriate state and federal regulatory agencies to manage the deposits.

POLICY 2.6 PATAPSCO RIVER EVALUATION

Work with Baltimore County and other governmental partners to conduct a sensitivity analysis of the riverfront area and the Main Street bridge. Explore opportunities to expand the Patapsco River floodplain within the riverfront area and determine the potential to reduce the flood elevation for Ellicott City and Main Street.

Implementing Actions

a. **Main Street Bridge Changes:** Examine whether or not changes to the Main Street bridge (for example, increasing its span length) would improve conveyance and reduce backwater effects and flooding.

Figure 42: Patapsco River Regulatory Floodplain

POLICY 2.7 NONSTRUCTURAL FLOODPROOFING

Continue to support residents, business owners and property owners in mitigating the impacts of flooding with nonstructural flood proofing.

Implementing Actions

a. **Flood Proofing Strategic Planning:** In addition to the buildings acquired by Howard County, prioritize flood proofing assistance to the most vulnerable properties as part of an overall strategy to reduce the impacts of flooding where full conveyance improvements are not feasible (i.e., the Lower Main and West End).

b. **Flood Mitigation Assistance Pilot Program:** Evaluate the second round of flood mitigation assistance grants, once completed, to determine if the program should be continued in the future.

c. **Resources:** Encourage ECP to connect property owners with professional Architectural Engineering (AE) firms to further investigate the structural feasibility and costs of implementing nonstructural flood proofing measures as they relate to a specific property. Facilitate

coordination with the Howard County Historic Preservation Commission, and if needed, the Maryland Historical Trust.

d. **Database:** Develop a tracking system and database of properties that have implemented nonstructural flood proofing measures.

e. **Historically-Appropriate Materials:** Encourage ECP to work with manufacturers of flood proofing supplies and building materials to promote the development of more historically-appropriate materials for use in highly-visible locations within historic districts. Consider joining forces with other historic communities that are vulnerable to flooding.

POLICY 2.8 FLOOD ELEVATION CERTIFICATES

Continue to provide flood elevation certificates at no cost based on Federal Emergency Management Agency (FEMA) mapping and promote this resource to businesses and residents throughout the watershed.

POLICY 2.9 PUBLIC EDUCATION AND AWARENESS CAMPAIGN

Increase public awareness of Ellicott City's close relationship with the water and flood vulnerabilities to promote stewardship and respect for the watershed's natural systems.

Implementing Actions

a. **Visibility of Tributaries and Flood Mitigation Projects:** Make the water more visible as part of building renovation and site improvement projects, particularly for properties immediately adjacent to a channel.

b. **Interpretation:** Incorporate interpretive signs throughout the core and watershed. Utilize art to mark high water levels during past floods, or to mark the location of a stream channel that is covered by a structure or roadway.

c. **Watershed Signage:** Post "Entering the Tiber-Hudson Watershed" signs at key locations along roadways and trails entering the watershed boundary.

d. **Flood Insurance:** Provide ongoing assistance to the public to share information about flood insurance, the National Flood Insurance Program (NFIP), and Howard County's participation in the Community Rating System (CRS).

Figure 43: High Water Mark in Ellicott City on the Oliver Viaduct (Pre 2016 Flood), Credit Frank Monaldo

Figure 44: Interpretive High Water Mark, "Connect the Dots" Installation in Boulder, CO, Credit: City as Living Lab / Mary Miss

III.3 Environmental Stewardship

DESCRIPTION

The Environmental Stewardship Framework includes broader water quality and habitat improvement in the watershed beyond water quantity control and the functional priority of flood mitigation. It includes practices that individuals, organizations and public agencies can undertake to improve water quality within the watershed. These practices include prevention measures such as repairing poorly performing infrastructure, implementing environmental site design (ESD) practices, protecting the County's Green Infrastructure Network, improving maintenance practices and tracking the performance of water quality practices.

ELLICOTT CITY TODAY

THE TIBER-HUDSON WATERSHED AND STEWARDSHIP PARTNERS

The Tiber-Hudson watershed is approximately three and one-half square miles and is a good size to determine a baseline for restoration efforts. As an example, restoring 2,000 feet of the Patapsco River will have little impact downstream regarding pollutant and sediment inputs and would be extremely expensive. However, that same cost may equate to 10,000 feet of the Tiber Branch and have measurable ecological and nutrient reduction results. Based upon recent stream restoration projects by the stream restoration industry within Howard County and Maryland, restoration of the watershed is feasible. Current environmental stewardship efforts involve a partnership among County departments and offices and non-profit organizations.

- **Howard County Department of Public Works (DPW):** DPW's Bureau of Environmental Services operates the County landfill, implements and manages recycling programs, oversees residential curbside collections, manages watershed restoration through the NPDES permit program and administers stormwater management. As outlined in the Flood Mitigation Framework, they are administering debris management points along the Tiber-Hudson stream channels with Howard EcoWorks, as part of EC Safe and Sound.
- **Howard County Office of Community Sustainability (OCS):** The Howard County Office of Community Sustainability protects and enhances the quality of life in the County and engages in water quality, economic development, agriculture, energy and education initiatives and administers a number of initiatives and programs including Live Green Howard, Clean Water Howard, the Watershed Protection Fund and the Roving Radish.
- **Howard EcoWorks:** Howard EcoWorks is a non-profit organization with a mission to develop a workforce to undertake environmental projects in Howard County, MD. The projects are focused on water quality improvement and habitat restoration and include: invasive species management; rain garden and bioretention construction and maintenance; conservation landscape construction and maintenance; and tree planting projects, among others. Project implementation is conducted largely with Howard EcoWork's workforce programs Restoring the Environment and Developing Youth (READY) and Watershed Action Team (WAT). Howard

EcoWorks is partnering with DPW to manage stream channel debris points as part of EC Safe and Sound as well as undertaking debris removal along the channel length of the Hudson Branch. Recently, EcoWorks partnered with the University of Delaware to study the use of biochar on a property within the watershed to determine the benefits of this as a soil amendment for greater water infiltration. Biochar is a charcoal-like substance used as a soil amendment to sequester carbon.

- **Patapsco Heritage Greenway:** The Stream Watch initiative focuses on volunteers walking, cleaning and reporting issues for various sections of streams throughout the Patapsco River Valley.

WATER QUALITY

Water quality describes the condition of water in terms of chemical, physical, and biological characteristics in respect to the suitability for a particular purpose such as habitat.

- **Stream Classification:** According to the Maryland Classification of Streams, which utilizes "use classes," the Tiber-Hudson Watershed and Patapsco River tributaries are Use Class I and the Patapsco River main stem is Use Class IV. The use class is a grouping or set of designated uses that apply to a water body which individually may or may not be supported now, but should be attainable. Use Class I is defined as "Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life." Through efforts to implement its TMDLs and MS4 projects, the County aims to improve water quality which directly impacts meeting stream classification. The individual designated uses within Class I are:
  - » Growth and propagation of fish (not trout) and other aquatic life and wildlife
  - » Water contact sports
  - » Leisure activities involving direct contact with surface water
  - » Fishing
  - » Agricultural water supply
  - » Industrial water supply

  Use Class IV waters include all of the individual uses for Class I waters described above in addition to being capable of supporting adult trout for a put and take fishery.
- **Roadway Pollutants:** Preventing pollutants from entering the tributaries and river in the first place is one of the most effective ways of improving water quality and keeping pollutants from entering the drainage system. Street sweeping occurs four times per year in Howard County. It has occurred more frequently on Main Street, where additional street sweeping occurred following major flood events.
- **Road Salt:** Salt application harms the environment when it comes into contact with soil and water sources. In shallow soils along roadways, salt will continuously collect and build until a salt bank is formed. It remains in the soils through rain and snow events entering streams, waterways and groundwater as a direct result of melting and runoff. Salt that enters water sources can change the chemical composition and water quality, harming the aquatic organisms that live within the stream.

  Contamination of groundwater from salt can take a long time to dissipate, and the time period varies significantly based upon conditions of the watershed such as the depth and type of soils; frequency, concentrations and local inputs of salt; and frequency and volume of precipitation. It is difficult to identify a time period for the dissipation of contamination, however, the conditions of the Tiber-Hudson watershed which includes shallow soils and steep valleys are not as severe as they would be in a watershed with deeper soils and gradual slopes.

  DPW has begun using brine and other practices to reduce road salt use on County roads.
- **MS4:** The US Clean Water Act, which is managed by the Environmental Protection Agency (EPA), mandates municipal separate stormwater sewer system (MS4) permits to communities with a population greater than 50,000 for Phase 2 permits and greater than 100,000 for Phase

1 permits. MS4 permits are also referred to as National Pollutant Discharge Elimination System (NPDES) permits. The purpose of MS4 permits is to mandate that holders of MS4 permits comply with programs which mitigate and treat stormwater to remove pollutants which are carried by stormwater runoff such as fertilizers, chemicals (such as herbicides, pesticides or petrochemicals), sediment, and biological waste.

Howard County is one of nine jurisdictions in Maryland that are MS4 Phase 1 permit holders. A requirement of permit holders is that they develop a program to provide funding to pay for projects that improve the quality of stormwater runoff. In Howard County the MS4 funding is collected through the Watershed Protection and Restoration Fee as an annual payment required from property owners on their tax bills. In addition to stormwater projects funded through MS4, Howard County has outreach initiatives that promote stormwater management including READY (discussed above), rain garden assistance and rain barrel distribution.

CULVERTED STREAMS

Throughout the watershed there are streams and tributaries which have been put into culverts to convey flow under roadways, parking lots, building structures, and other infrastructure. While many of these culverts are necessary to support the vehicular road network, they interrupt or encroach upon the ability of the natural valley to maintain a natural stream bottom and habitat and convey floodwaters, as described in the Flood Mitigation Framework.

- **Opportunities to Daylight Stream Channels:** Culverted stream channels in the core that could be considered for daylighting include the segment of the Hudson Branch in Lot D and the small tributary along Ellicott Mills Drive, under the former Roger Carter Center site. A portion of the Hudson Branch was recently daylighted as part of the reconstruction of Ellicott Mills Drive following the 2018 flood. Potential benefits include improved habitat and water quality, flood conveyance and placemaking.

Figure 45: Ellicott Mills Drive Culvert After the 2018 Flood

Figure 46: Existing Culverted Stream Outfall in Lot F After the Reconstruction Following the 2018 Flood

Figure 47: Daylighted Section of the Hudson Branch in Lot F After the Reconstruction Following the 2018 Flood

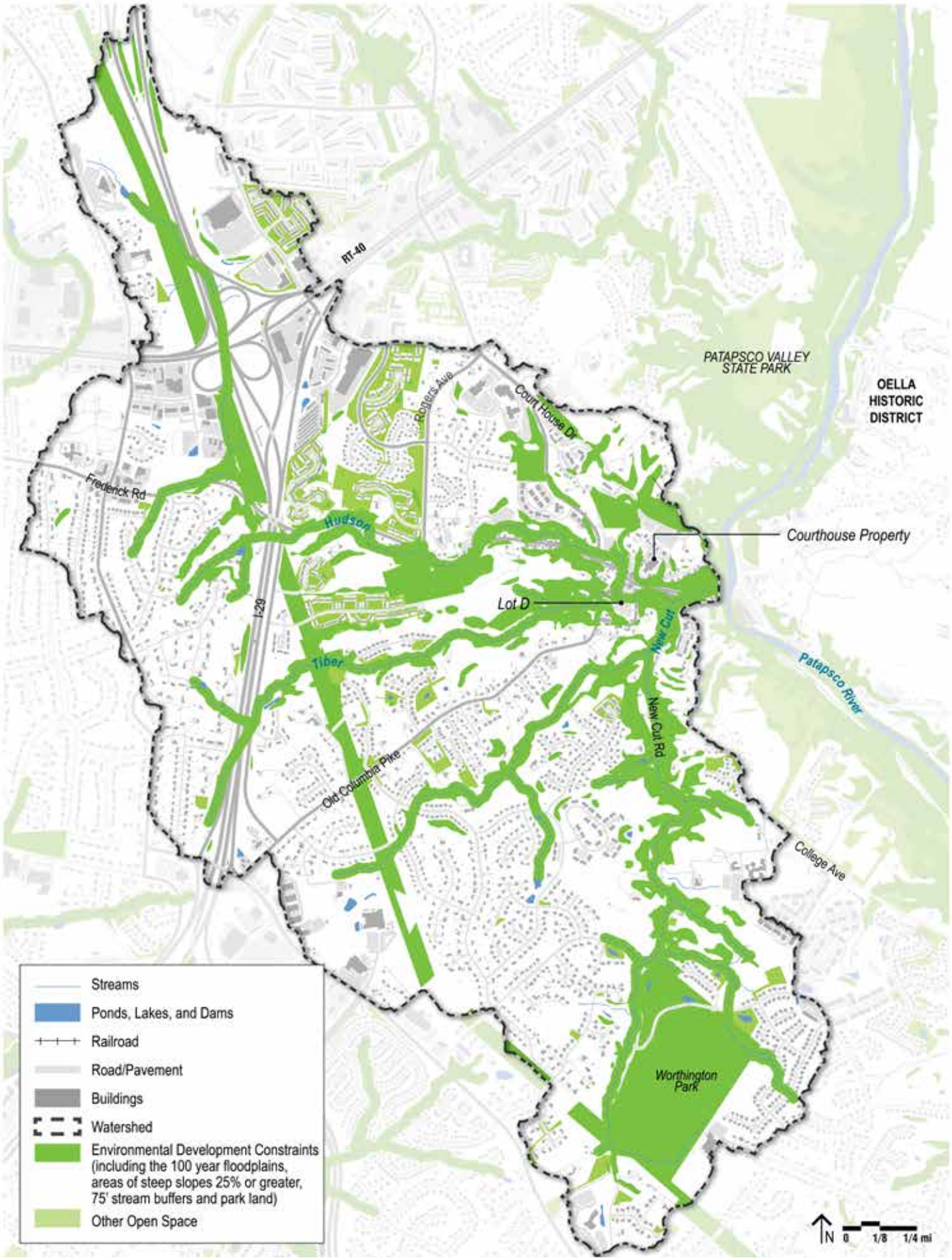


Figure 48: Watershed Diagram: Green Network and Open Space (Public and Private)

- **Stream Channel Bottom:** Even after daylighting culverted sections of a stream, the channel bottom will still convey significant floodwaters and require armoring with a hard surface to resist sheer stresses. The exception is the portion of the stream channel immediately downstream of the proposed North Tunnel entrance at Lot F to the confluence with the Tiber channel. As the floodwaters will be diverted into the tunnel, this section of stream channel will not be subjected to flood flows and is suitable for a naturalized stream bottom.

ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES AND GREEN TECHNOLOGIES

ESD practices include green roofs, green walls, rain gardens, flow-through planters, permeable paving, rain barrels etc. and is an effective tool to improve localized water quality—particularly because some of these practices can be implemented throughout the watershed and by almost everyone. Additionally, solar panels can be used to reduce energy costs and emissions.

Currently, the use of ESD practices within the core is limited. For example, permeable pavements can be successful water quality treatment devices in larger scale applications such as parking lots and in smaller scale installments by individual property owners. However, critical to the success of permeable pavements is that they be installed in the appropriate setting and where the geologic condition allows them to be successful. Areas, such as Ellicott City's core, with slopes greater than 5% and locations with shallow bedrock and soils that do not achieve the minimum percolation rates should be avoided. Limited space, maintenance requirements and noted failures of permeable pavements at previous installation sites in the County must be considered as well.

- **Community Interest:** There is widespread community interest in incorporating ESD practices throughout the watershed for improved water quality and to heighten awareness of water quality issues.
- **Opportunities in the Core:** While opportunities to utilize ESD practices within much of the core are limited, areas within the Patapsco River floodplain and the broader floodplains of the contributing tributaries, such as in Lot D and Lot F may be suitable. The floodplains are characterized by fluvial soils, which are more conducive to ESD practices. Howard County utilized permeable paving in a portion of Lot B, located within the Patapsco River floodplain where it is highly visible to visitors.
- **Innovative Stormwater Techniques**: Howard County is currently exploring emerging stormwater management techniques to retrofit existing stormwater facilities using smart technology to monitor the quantity and quality of the water which they treat. The County is also exploring soil amendments which have shown promise in filtering runoff and increasing the ability for the soils to retain water.

It is important to note that typically ESD practices apply to water quality but have negligible effect on flood flows.

TREE COVER

Howard County adopted the Forest Conservation Act in 1992 to protect and conserve forest resources within the county. The law contains incentives to retain existing forest and requirements to plant new forests when forest is cleared or a minimum forest cover is not present, or pay a fee-in-lieu that supports the Forest Mitigation program. Howard County adopted an update to strengthen and improve the Forest Conservation Act, effective February 2020. This update added site design requirements to increase forest retention, increased reforestation requirements for clearing, and added the Green Infrastructure Network as the first priority for forest retention and planting sites. The update also substantially increased the fee-in-lieu, while limiting its use for residential development. The County has also implemented several planting programs to reforest properties that are not classified as open space, including schools, homeowner associations and private properties.

- **Forest Mitigation:** The Forest Mitigation Program utilizes the fee-in-lieu monies collected from developers to conduct mitigation on open space and parkland throughout the County. Priority planting sites under the new Forest Conservation Act include sites within: the Green Infrastructure Network, 100-year floodplain, stream buffers, wetlands and wetland buffers, critical habitat buffers and forest corridors for wildlife movement, steep slopes and highly erodible soils.
- **Turf to Trees Program:** The Turf to Trees program helps to alleviate the damaging effects of stormwater runoff by increasing tree coverage throughout the County. Trees help to abate stormwater runoff by reducing water through absorption, slowing precipitation through canopy coverage, binding soil to prevent erosion, and reducing water through evaporation and transpiration. The program provides trees and planting services to Howard County property owners with lots of 1.5 to 10 acres in size, free of cost.

In addition to abating stormwater runoff, trees provide a variety of other direct environmental and economic benefits such as energy savings through shading of buildings, storage of carbon dioxide, absorption of air pollution, aesthetics, comforting shade and increased real estate values.

The Tiber-Hudson Watershed includes a significant amount of tree cover comprised of both protected and new forests and new tree plantings. This tree cover provides the benefits described above to the watershed. It is also important to note that particularly along streams, the value of the tree cover is dependent upon the type of trees, their condition, and the conditions of the stream banks. Vulnerable trees along eroding stream banks can be a detriment and become channel debris during flood events as noted earlier.

Additionally, deer and the presence of invasive plant species present significant challenges to maintaining forest health in Howard County. High numbers of deer browsing the understory limit the growth and establishment of native herbaceous plants, shrubs,

Figure 49: Environmental Site Design and Green Technology Projects in Howard County (Top and Bottom) and Elsewhere in Maryland (Middle) Provide a Variety of Benefits

and young trees, affecting forest health and limiting forest regeneration. Similarly, invasive plants can quickly invade disturbed areas of woodland sites and compete with native plants and young trees for space, nutrients and sunlight. They can also further impede forest health by not providing the food or shelter that native animals often need for survival.

GREEN SPACE

The steep wooded slopes, Patapsco River Valley and expansive public and private properties including the Patapsco Female Institute, Bernard Fort House and Mt. Ida provide broad swaths of green space within the core. However, there is limited green space within downtown along Main Street where the landscape is comprised primarily of buildings, surface parking lots and hard-surfaced stream channels. The grounds surrounding the Welcome Center and the Thomas Isaac Log Cabin are two exceptions.

GREEN INFRASTRUCTURE NETWORK

Howard County's Green Infrastructure Network Plan (GIN) was established in 2012 to improve the quality of life of county citizens and to protect, enhance and restore natural areas throughout the county. The plan identifies and maps the most ecologically significant natural areas (hubs) and the critical connections between them (corridors). The goal of the GIN Plan is to identify, protect and enhance the network of hubs and corridors. Within the watershed of this project, the Patapsco corridor was identified as an important "corridor" for protection and restoration. In addition to the hubs and corridors as identified in the GIN, there is an interconnected open space system within the watershed, defined by the network of tributaries. This open space system includes Howard County park lands and environmental development constraints (floodplains, steep slopes, stream buffers) with dedicated easements. There are opportunities to bolster this open space system.

Figure 50: Within Howard County's Green Infrastructure Network, The Patapsco River "Corridor" Links Two "Hubs" Along the Eastern Edge of the Watershed

GREEN NEIGHBORHOOD PROGRAM

The Green Neighborhood Program is a program of the Live Green Howard County initiative. The intent of the program is to promote the development of more environmentally sustainable neighborhoods in Howard County by providing housing allocations as an incentive. Since Fiscal Year 2008, up to 100 housing unit allocations have been—and continue to be—set aside annually for projects that meet Green Neighborhood requirements, based upon a point credit system. Point Credits are divided into six sections, and are applicable to only the residential portions of a development project. They include:

- Innovation/Integrated Design Process
- Materials Beneficial to Environment/Waste Management
- Energy and Water Efficiency
- Indoor Environmental Quality
- Healthy Living Environment
- Operations and Maintenance Education

However, due to an excess of housing unit allocations, the incentive to participate in the Green Neighborhood program is not as robust as it could be. New incentives should be considered for this program. More information about the Green Neighborhood Program is available at: https://www.howardcountymd.gov/Departments/Inspections-Licenses-and-Permits/Plan-Review/Green-Neighborhoods.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 3.1 STRATEGIC WATERSHED PROGRAM

Continue to build upon current efforts to improve water quality in a more comprehensive and strategic approach, using a Strategic Watershed Program (SWP) for the Tiber-Hudson watershed as a case study for other areas within the county. The SWP needs to be iterative and adaptive and will require coordination at various levels and types of government, non-profit and community groups, human service agencies and the private sector. The SWP also provides an opportunity to engage residents and the public to better understand the connection between their actions and its impact on the environment.

Implementing Actions

a. Restoration Efforts Coordination: Synchronize multiple restoration efforts including ecological, stormwater, wastewater, industrial, drinking water and land use. For example, the design/construction of replacement or new water/wastewater lines for industrial or residential uses adjacent to any of the streams within the watershed should coordinate with any potential stream or floodplain improvement projects. These efforts may include relocating the utilities far from the stream banks; relocating the lines such that groundwater (thermal improvement to streams) is not captured, collected and diverted away from entering the streams by the utility lines and/or restoring the stream for multiple improvements to reduce the potential for flooding downstream or improving the ecology.

b. Watershed-Based Permit Process: Stormwater management and watershed restoration is managed through the NPDES permit program as described in Ellicott City Today on the previous pages. Permitting for individual environmental projects can be streamlined with a watershed-based permit process to achieve watershed-wide goals. The process should adhere to EPA's NPDES Permitting Implementation Guidance. The following links provide additional guidance.

- https://www.epa.gov/sites/production/files/2015-09/documents/watershedpermitting_finalguidance.pdf
- https://www.epa.gov/sites/production/files/2015-09/documents/watershed_techguidance_entire.pdf

c. Monitoring and Maintenance Efficiency: Improve monitoring and maintenance efficiency associated with infrastructure, especially sanitary sewer repairs. Conduct regular inspections and address failures as soon as they occur.

d. Street Sweeping: Consider increasing street sweeping throughout the watershed from four to six times per year and to eight times per year within the core in addition to that which is done following large storm events.

e. Salt Application: Explore opportunities to reduce the use of salt in parking lots and on sidewalks within the watershed. These opportunities could include reducing salt stockpiles in parking lots, increasing awareness among the public and private property owners of the damaging effects of salt usage and considering post winter cleanups to remove remaining salt rather than allowing for it to wash away over time.

f. Salt Application Alternatives: Explore salt application alternatives and additional remediation/management efforts within the watershed and monitor effectiveness and compare with other areas in the county where salt is used. Streams that have high seasonal base flow conditions with moderate to high velocities can remove or flush the toxins to downstream waters quickly and return the waters to similar conditions prior to the intrusion of salt.

g. Water Quality Monitoring/Report Card: Consider preparing a detailed plan for outlining County water quality objectives and the

monitoring of water quality. For events that may significantly change the water quality, consider monitoring seasonally for a couple years following the event, then every 5 years afterwards. Monitor sewer breaks or overflows quarterly until returning to pre-event conditions. Consider a Water Quality Report Card every five to ten years where measurable results may be identified and include the different events that occurred during that period.

h. **Private Landowner Incentives:** Explore options to encourage stormwater improvements on private property that is already developed, such as through increased reimbursement for stormwater improvements or an expansion of eligible items for reimbursement.

SALT ALTERNATIVES

CHEESE BRINE ADDITIVE: Wisconsin has found that mixing salt with cheese brine is effective at reducing the amount of salt that bounces off the road when applied, allowing less to be used.

BEET-HEAT: Many States are starting to use "Beet-Heat", which is a mixture of sugar beet juice and molasses. This mixture allows salt to stick to the roads and increases salt's ability to melt ice at extreme temperatures (below 15 degrees).

ECO-TRACTION: Eco-Traction is made from hydrothermal volcanic material, and while it is mainly sold to individuals, the company is beginning to make contracts with municipalities. Eco-Traction does not cause any negative environmental impacts and can even improve the condition of the environment directly related to the road. Eco-traction is more efficient than salt therefore saving the amount of material deposited on the roadways; however the cost is almost double.

POLICY 3.2 FOREST MANAGEMENT

Consider a comprehensive forest management program within the watershed to inventory and assess existing tree canopy, identify vulnerable trees and provide guidance for future tree planting that considers water quality and flood resiliency goals. Build upon and reinforce current planting programs to establish beneficial and functional landscapes that produce food, support habitat, prevent erosion and increase canopy coverage.

Implementing Actions

a. **Urban Forestry Services:** Engage the services of an Urban Forester or Board-Certified Arborist to assist the County and community partners with long-term goals and strategies to preserve and enhance existing tree cover.

b. **Inventory Platforms:** Utilize digital mapping and inventory platforms (such as GIS and Autocad) to map and record existing conditions and long-term maintenance.

c. **Tree Canopy Management:** Manage the tree canopy for long term sustainability, managing invasive species, predatory insects and diseases that threaten the health of the urban forest. Proactively inventory and remove trees that are vulnerable to falling into stream channels and becoming damaging debris.

d. **Invasive Plant Management:** Manage invasive plants as the best first step toward improving biodiversity and creating more resilient landscapes.

e. **Urban Wildlife Management:** Consult an urban wildlife specialist to determine the threat of pest wildlife and most effective approaches for the unique needs of the community. Certain urban and suburban wildlife pest species that thrive and reproduce in protected urban environments can be detrimental to establishing a bio-diverse plant community and effective restoration. Measures to deter the proliferation of resident pest wildlife include using native plant species, fencing, trapping, controlled hunts, reducing reproduction, discouraging overwintering and others. Measures

will continue to be evaluated for effectiveness and new measures explored as needed.

f. Lawn Conversion: Encourage the conversion of lawn to sustainable natural systems such as meadow or tree plantings when appropriate within the surrounding context.

g. Private Landowner Incentives: Explore options to encourage forest management on private land.

h. Guidelines: Provide guidelines for sustainable landscapes that residents and property owners can reference when converting lawn to successional, native plant communities and functional landscapes. These guidelines could include open-canopy meadows, reforestation, forest understory, and wetlands—four primary categories of alternatives. The guidelines should also include design applications showing how formal and/or traditional aspects of residential landscapes can still be achieved using these categories.

i. Native Plants: Encourage the predominant use of native plants by residents and property owners and educate local landscape contractors and garden centers about the benefits of using native plants. Discourage the planting of non-native invasives, many of which are readily available at local nurseries (Periwinkle, English Ivy, Japanese Barberry, etc.).

POLICY 3.3 STREAM RESTORATION

Plan for the long-term restoration of the stream channels as described in the Flood Mitigation framework. In addition to flood mitigation benefits, proper restoration within the watershed would increase wetlands (likely in upper reaches of the subwatersheds) and biodiversity as well as process nutrients associated with runoff from adjacent roads.

POLICY 3.4 SOIL AMENDMENTS

Based upon the assessments of the EcoWorks/ University of Delaware study on the use of biochar, consider opportunities within the watershed to process and incorporate a variety of soil amendments that allow for greater water infiltration, reduce compaction, reduce runoff, and improve soil health.

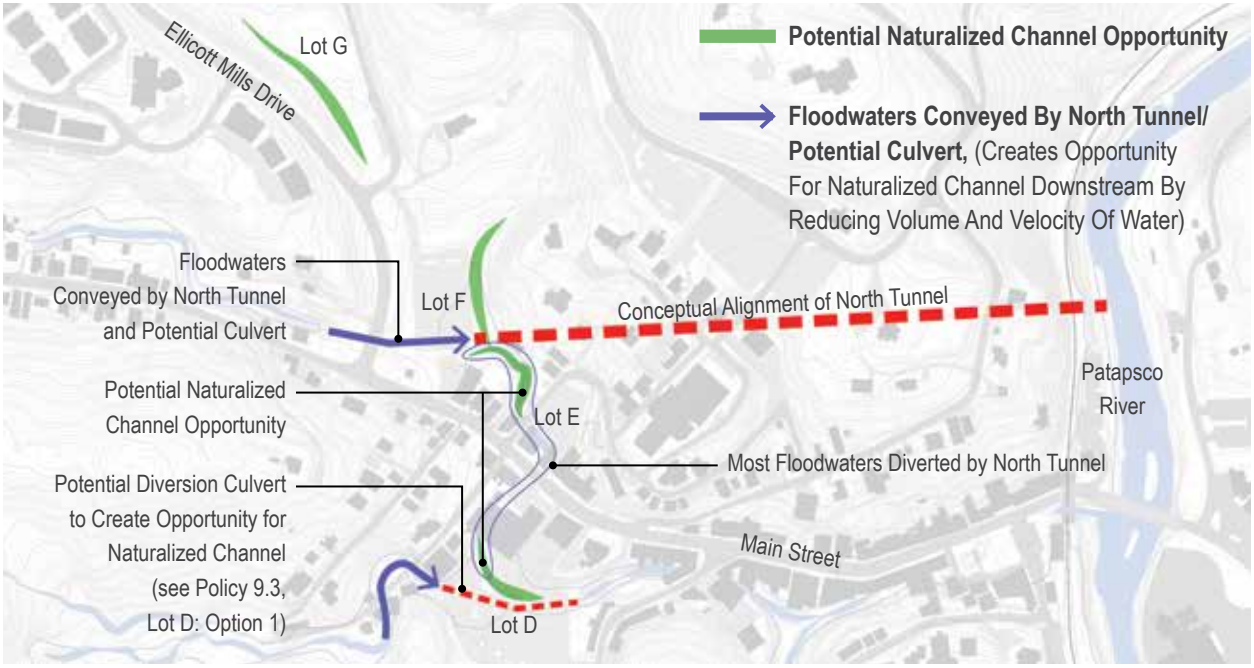


Figure 51: Opportunities for Naturalized/Green Open Stream Channel Reaches within the Downtown Core

Figure 52: La Rosa Reserve Stream Daylighting Project in New Zealand, Credit: Boffa Miskell, Photographer: Claire Hamilton

POLICY 3.5 STREAM DAYLIGHTING

While it is more important to restore the existing unstable streams within the watershed from a water quality and flood mitigation standpoint, as described earlier in Flood Mitigation, explore opportunities to daylight sections of stream and minor tributary channels currently culverted (see Figure 51).

Refer to Chapters III.9 and III.10 for specific opportunities that exist and are described in Lot G and Lot D.

Implementing Actions

a. Site Design and Redevelopment Projects: Explore stream daylighting opportunities as part of site design and/or redevelopment projects where daylighted streams could enhance the project and provide a community benefit.

b. Channel Armoring: Armor daylighted streams within the core to the degree necessary to still convey floodwaters.

POLICY 3.6 ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES AND GREEN TECHNOLOGIES

Evaluate opportunities to incorporate ESD practices and green technologies into new site design and building projects within the core and broader watershed where it would be effective in: improving water quality, providing increased awareness of the benefits of green practices, and offering aesthetic benefits.

Implementing Actions

c. Partners: Continue to work with individual citizens to implement ESD practices on their own properties, should they be interested and have the resources to spend, and work with the development community to explore new incentives as part of the Green Neighborhood program.

d. Options: Pursue options for ESD practices and green technologies that include:

- » Rainwater collection integrated into the overall design of the architecture and site design;

- » Permeable paving within surface parking lots and pedestrian gathering areas (the limited areas where it might be feasible); and
- » Micro-bioretention and flow-through planters integrated into the overall site design. Refer to Chapters III.6-12 for opportunities that exist within specific geographic areas.

e. Demonstration Project: Consider integrating environmental site design, native plans and public art as part of demonstration gardens within the public realm that contribute to outdoor education and help the public visualize how everyone can contribute to water quality improvements and water management.

POLICY 3.7 DEDICATED OPEN SPACE AND CONSERVATION EASEMENTS

Evaluate opportunities to increase the network of publicly and privately-owned dedicated open space and conservation easements throughout the watershed.

Implementing Actions

a. Partnership to Expand Network: Work with Baltimore County, State partners, and other partners to continue seeking opportunities to acquire additional land and/or easements that can be incorporated into and reinforce an interconnected open space system.

b. Strengthen Connections: Seek opportunities that strengthen environmental corridors and public access between park and amenity spaces, particularly along both sides of the Patapsco River and along the tributaries. Opportunities might include establishing a Conservation Easement within the 100 year floodplain as a starting point. These floodplain conservation easements would then allow for consistent management and regional opportunities for restoration managed by an umbrella organization that oversees the operation and maintenance. The first steps of establishing landowner agreements can be challenging, but could result in more comprehensive and consistent implementation and oversight.

POLICY 3.8 PUBLIC EDUCATION

Make a consistent effort to educate existing and new property owners in the watershed regarding stormwater and environmental stewardship. Property owners should understand the role they can play in improving water quality and detaining stormwater, and be familiar with the programs available to assist them in being environmental stewards.

LIVE GREEN
HC
Howard County
This traffic island incorporates bioretention, a system using native plants and special soils that reduce damaging run-offs to our streams

REYES
CASH
-4-
GOLD

III.4 Economic Development

DESCRIPTION

The Economic Development framework places the economic dynamics of downtown in relation to how it functions in the regional economy and the role it will continue to play as a home for independent businesses serving residents and visitors to the region. The framework also addresses the community marketing efforts that support promoting the downtown to investors, residents, and visitors. Lastly, it considers the importance of partnerships necessary for the master plan implementation and for Ellicott City staying on track as an environmentally, socially and economically sustainable community

ELLICOTT CITY TODAY

Ellicott City's downtown is an economic engine for Howard County. It is the County's largest collection of independent merchants and restaurants located in a historic environment. As such, it is a regional tourism destination, a center for entrepreneurial endeavors, and a nationally-significant, active historic commercial district.

MARKET ASSESSMENT SUMMARY

The Plan effort included a market study to examine existing and projected retail patterns in Ellicott City and the region. The findings of the market study, summarized here, inform the Economic Development framework. The market study explores the core as a hub for tourism and locally-based businesses, and places the core in the broader market context of Howard County and the region.

The market study provides demographic and segmentation data as well as retail trade patterns and projections that help understand the current market climate and guide future opportunities, business recruitment and development. The primary source for the data in the retail market report is Environics Analytics, a trusted resource for data, analytics and market projections.

The market definition portion of the study was conducted after the 2016 flood to establish the basic trade areas for the core. After the 2018 flood, this data was updated with 2019 numbers.

The master plan consultant team also conducted a ZIP code survey with the assistance of the Howard County Department of Planning and Zoning (DPZ) and the Ellicott City Partnership (ECP). This survey serves as the foundation for defining the Trade Area for downtown. Merchants in the core completed two surveys—one in July 2017 and a follow-up in September of 2017.

- **Trade Area:** The ZIP Code survey identified a primary trade area (21043 Ellicott City and 21042 Ellicott City) and a secondary trade area (21228 Catonsville, 21045 Columbia, 21044 Columbia, 21163 Woodstock, and 21075 Elkridge) for downtown.
- **Visitor Destination:** The retail market assessment confirms that downtown is indeed a strong visitor destination, with businesses participating in the ZIP code survey recording customers from 396 unique ZIP codes, 38 states and 4 foreign countries. While downtown is a strong visitor destination, Ellicott City currently offers no accommodations options within or near downtown.
- **Regional Destination:** Having affirmed through the ZIP code survey that out-of-state visitors comprise a significant 10% of the market, it is important to recognize that downtown remains primarily a regional destination, where the

independent merchants and restaurants serve customers from Howard and Baltimore Counties.

- **National Market Trends:** Retail districts similar to Ellicott City's downtown are thriving amidst a national retail climate that is rapidly eroding the traditional big box retailer and shopping mall in lieu of highly specialized, customer-oriented independent businesses. Other national trends include the development of creative spaces such as coworking spaces, accelerators, makerspace and hybrid concepts that are thriving throughout the United States. These spaces continue to grow as they provide unique spaces for entrepreneurs. Such spaces are expected to have robust growth as businesses and entrepreneurs rethink the traditional work environment.
- **Importance of Adaptation:** Market forces alone will not sustain a district as unique as downtown— the community must continually evolve and adapt to retain existing customers and attract new customers to be the vibrant place it is today. The flood events in recent years have also highlighted the need for business resiliency and the importance of having an online presence.
- **Retail Market Opportunities:** A retail leakage analysis identified key retail sectors that have existing unmet demand in the primary trade area. This analysis indicates that opportunities exist downtown in the following key categories:
  - » Restaurants (both full-service and limited service)
  - » Home furnishings
  - » Specialty shops
  - » Clothing stores
  - » Antique stores
  - » Jewelry stores
  - » Specialty grocers and food stores
- **Demographics:** Population in the primary trade area increased by nearly 12% from 2010 to 2017 and is projected to increase another 7% by 2022. Additionally, the median household income in Ellicott City's primary trade area ($121,296) is near the top for the United States, further accenting the potential for downtown to continue to thrive in the local market.
- **Projected Household Growth:** Population growth projections provided by Environics Analyitcs indicate the primary trade area will grow by 2,358 households from 2017 to 2022. A conservative estimate of five percent of projected household growth indicates potential for 118 housing units over this five-year period.
- **Housing Product Type Opportunities:** Additional housing product types are likely to be similar to existing housing units in the area and could be within walking distance to local businesses. There is a possibility that the courthouse may be an opportunity for new

COMMUNITY DEVELOPMENT CORPORATION (CDC) EXPLORATORY COMMITTEE REPORT

Recognizing the need for a holistic, community-driven advocate for Ellicott City—as stakeholders confirmed in the master planning process—the County launched the "Ellicott City Community Development Corporation Exploration Committee." This representative and diverse group of stakeholders examined whether there is a need for a Community Development Corporation in Ellicott City and, if created, what its role would be, and how it would interact with other existing organizations already working for the residents and businesses owners of Ellicott City. The committee concluded that Ellicott City would benefit from the creation of a new entity focused on addressing the unique economic development and revitalization challenges of Ellicott City and the Tiber-Hudson Watershed.

housing as an adaptive reuse, but this use has yet to be identified. A more detailed housing study could shed light on the potential for new housing units in downtown and the broader core.

MIXED-USE INFILL NEW CONSTRUCTION AND REDEVELOPMENT

Significant development opportunities within downtown are limited because of topographic and environmental constraints and lack of sites. Here, geography and historic buildings limit areas for growth. The exceptions are large surface parking lots where redevelopment could occur without physically impacting historic resources or encroaching on areas where development is prohibited (such as floodplains, steep slopes, and stream buffers).

Beyond Ellicott City's downtown and broader core, there are two older commercial areas within the watershed that are well-suited for long-term redevelopment, should property owners be interested in the future. These older commercial areas are located at Frederick Road and St. John's Lane and at Ridge Road and Route 40.

Any commercial redevelopment, whether within or outside of downtown, presents opportunities to capture some of the retail uses that are underrepresented as described in the market analysis.

COMMUNITY BRAND

ECP developed a brand for the core —"Old Ellicott City: Individually Crafted Since 1772"—just prior to the flood of 2016. The brand uses a custom typeface, bold colors and an iconic seven-pointed star that over time can evolve into a stand-alone feature. The Old Ellicott City brand system provides a platform for expansion to businesses, products and services available in the district and uses colors and icons that are ideally suited for partnerships with private businesses. Many communities and organizations keep these identities strictly as a tool to communicate from an entity directly to a constituency. The most successful communities share the identity with businesses and partners that reach a larger audience.

The master plan consultant team is comfortable with the brand as a marketing concept and believes the brand has elements that can be deployed to better promote Ellicott City, as identified below.

COMMUNITY MARKETING

Ellicott City has protected its identity and image through careful attention to historic preservation. As stated above, ECP has also put the new brand to use on the web and in other collateral materials. While this is an excellent first step in marketing the community, there are opportunities to better promote and market "the place." There is an opportunity to further deploy the brand and extend it to make it even more user-friendly for businesses in Ellicott City, extend it to the adjacent West End and demonstrate that the community is an important part of the broader Patapsco Heritage Area. Specifically, the "Independently Crafted" tagline can be leveraged into a more robust marketing product that businesses in the community can use.

POST-FLOOD PARTNERSHIPS

Howard County, ECP and numerous public and private stakeholders in Ellicott City partnered to get the community back on its feet following the 2016 and 2018 flood events. In addition to its broader responsibilities, the County repaired utilities, roads and sidewalks, improving the ability for streams to convey stormwater in targeted areas; and launched EC Safe and Sound. The Howard County Economic Development Authority (HCEDA) and Small Business Development Center (SBDC) provided "boots on the ground" from the early stages of recovery. ECP's activities centered on fundraising with the business community, and Howard Community College (HCC) utilized students to assist with the construction of websites for several businesses.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 4.1 EXISTING BUSINESS SUPPORT

Continue to support existing property and business owners. When accommodating new uses, such as those that may be associated with any potential reuse of the courthouse property, emphasize ones that are complementary—rather than competitive—to the retail mix that currently exists along Main Street.

Continue business support programs through a partnership among the HCEDA, ECP and SBDC. This ongoing support is critical to help businesses navigate the evolving market conditions. Market dynamics in Ellicott City are growing and changing as customers are looking for authenticity, fresh retail approaches and creative independent businesses they cannot find elsewhere.

Implementing Actions

a. **Business Consultations:** Coordinate business resources available to Ellicott City merchants through the HCEDA and continue business consultations with SBDC through ECP. SBDC worked closely with both the HCEDA and ECP to provide practical guidance to businesses—from merchandising and marketing, to finance and cash flow after the first flood. This direct consultation service reaped benefits for participating business and by many accounts "upped the game" of participating businesses during trying times while prepping them for the imminent rebounding of the core.

b. **Foster Partnerships with Colleges:** Explore the potential for increased and ongoing collaboration with Howard Community College (HCC) beyond the assistance provided post floods. Community Colleges can play an important role as a resource for local communities. Additionally, explore partnerships with University of Maryland Baltimore County (UMBC) as many UMBC students live in and visit Ellicott City.

c. **Online Presence:** Assist businesses in developing an online presence in addition to having a brick and mortar one to help them become more resilient to future business disruptions.

POLICY 4.2 BUSINESS ATTRACTION AND RECRUITMENT

In addition to retaining existing businesses, expand the variety of uses and businesses in the core, based upon the market research described above. Any explorations will need to consider any challenges related to zoning and parking.

Implementing Actions

a. **Commercial Space Inventory:** Examine available space for large- and small-scale commercial inventory within downtown. The market data clearly indicated a demand for a variety of retail uses, some requiring larger floorplates than what are typically available in the downtown. While some of this inventory may be accommodated within existing buildings, the limited number of large floorplate buildings (such as the building that houses Su Casa and La Palapa), indicate that new construction should also be considered, particularly in conjunction with the development of parking structures.

b. **Adaptive Reuse and Redevelopment Potential:** Explore the potential for and preserve opportunities for adaptive reuse and redevelopment (where permitted) that provides a variety of space sizes for retail, restaurant, and service uses while strengthening existing businesses and amenities. This variety of spaces could include spaces for entrepreneurial "start-ups" and micro-retail.

POTENTIAL RETAIL SPACES TO CONSIDER

ENTREPRENEURIAL START UP SPACE /EMPORIUMS: The "emporium" retail concept allows for multiple retailers to co-locate in one larger space. Unlike the traditional antique mall model, these emporiums often combine food-related retail with a variety of small footprint "stores." Such spaces allow the entrepreneur interested in starting a business to explore the concept without the full commitment of a long-term lease on a space. Some excellent examples of these spaces include Building Character in Lancaster, Pennsylvania and Shepherd's Old Field in Leonardtown, Maryland. Even some components of the concept behind Savage Mill could be applicable on a much smaller scale in Ellicott City.

Some of these spaces may provide opportunities for temporary or permanent spaces for businesses impacted by flood improvement projects that may take time to implement. Providing a "relief valve" in the core of Ellicott City for potential business relocation even if it is temporary may be important as large public works projects come underway in the coming years.

MICRO-RETAIL: The "micro-retail" space concept has become a companion to the emporium concept. It follows a similar model yet provides for a more independent business setting. Examples of such small retail projects have been deployed in communities recovering from disaster such as Anchor Square in Pascagoula where 17 micro-retail spaces were opened to enhance the critical mass of retail following Hurricane Katrina. Art Walk in Greenville, South Carolina follows a model that takes the space that is the depth of a parking space at the base of a parking structure and allocates it to art gallery space, enlivening the adjacent riverwalk.

Figure 53: Emporium Retail Concept, Building Character in Lancaster, PA, Credit: B.B. Bellezza/J. Geoghan

Figure 54: Su Casa and La Palapa are Examples of Existing Large Floorplate Businesses in Ellicott City, Credit: Ellicott City Partnership/Su Casa

POLICY 4.3 CREATIVE SPACES INITIATIVE

Promote creative spaces for entrepreneurs and start-up businesses.

Implementing Actions

a. **Arts and Entertainment District Designation:** Re-explore establishing an Arts and Entertainment (A&E) District Designation for Main Street as part of a creative places initiative. Maryland's A&E Districts provide local tax-related incentives to attract artists, arts organizations, and other creative enterprises to towns and cities within the State.

b. **Coworking Space:** Examine regional and national models for coworking space to accommodate professionals looking for creative places to work and share resources. The walkable environment and access to numerous restaurants and amenities provide a desirable setting for these types of spaces.

c. **Makerspace:** Explore the potential for a "makerspace" in downtown or the West End. An alternative to coworking space is a makerspace. Makerspaces are physical locations where people gather to share resources and knowledge and "make" products. Unlike coworking spaces, makerspaces focus on projects and fabrication. Applicability of this concept will be limited to sites where loading and back of house access can be provided.

d. **Food Hall/Creative Food Establishment:** Explore the opportunity for a food hall or creative food establishment within the core, as the market study indicates that opportunities for food-related retail is significant. Additional food options for downtown could involve a "culinary kitchen" where locals and visitors could take cooking classes in a retail/restaurant setting. The Baltimore Chef Shop in Baltimore's Hampden neighborhood is a successful example of one that occupies a relatively small storefront. Of course, specialty food options themselves continue to grow. The Specialty Food Association cites continued growth

Figure 57: Artist Studios and Art Walk in Greenville, SC

Figure 56: R-House Marketplace, Baltimore, MD

Figure 55: Culinary Kitchen and Cooking Classes in Baltimore, MD, Credit: Baltimore Chef Shop

across all categories of specialty food including cheese, bread, meat, snacks, coffee and alcoholic beverages.

e. **Technical Assistance:** Strive to make this initiative sustainable and equitable by helping build the capacity of all entrepreneurs involved in creative spaces by coordinating with business consultations described under Policy 4.1 and learning from successful models for technical assistance. Successful models include the Build Institute in Detroit, the Cultivate Lancaster Entrepreneurship Coalition (Pennsylvania) and the Maryland SBDC.

POLICY 4.4 MIXED-USE NEW CONSTRUCTION AND REDEVELOPMENT

Provide for long-term opportunities for a complementary mix of uses within downtown and within other commercial areas offering the potential for redevelopment supportive of a vibrant core. Consider retail (complementary to what currently exists and located so not to create an area competitive to Main Street), lodging, office, attractions and a greater diversity of residential products appropriate for a walkable core.

Implementing Actions

a. **In-Town Residential:** Explore opportunities for in-town residential uses within the walkable core. Residential use is essential for an authentic and vibrant walkable community. Ellicott City's core has long been a place of residents and there is the potential for additional creative places for people to live—above retail, in mixed use buildings and in repurposed buildings—to expand the variety of options available. Market rate, mixed income and affordable housing options should be explored.

b. **Office:** Explore opportunities for in-town office uses within the core that could support daytime patronage of businesses. Explore opportunities for shared parking arrangements with nearby retail uses.

c. **Accommodations:** Pursue accommodations or lodging options for the core. With a strong visitor market, and unique setting, the core has the opportunity to capitalize on lodging as a means to "round out" the offerings of the community with options that are close to tourist attractions and are within walking distance of downtown businesses and restaurants. The lodging industry is evolving and includes many options such as accommodations through online platforms (Airbnb and VRBO), boutique hotels, self-catering inns, specialty lodging and lodging tied to experience.

d. **Core and Watershed Redevelopment Opportunities:** Plan for the potential long-term redevelopment of key sites within the core and watershed in a sensitive and strategic manner and explore how each could accommodate some of the market demand to provide for a healthy mix of uses. These sites include:

- Courthouse Site (adaptively reusing the historic courthouse and jail)
- Parking Lot D
- West End Service site (should the property owner wish to redevelop)
- The commercial properties at St. John's Lane and Frederick Road and along Ridge Road at Route 40 (should the property owners wish to redevelop)

The Courthouse site and Lot D, in particular, represent significant opportunities for Ellicott City's core. This idea is reinforced by the findings of the Urban Land Institute's (ULI) Technical Assistance Panel report (TAP).

Each of these areas is described in Chapters III.6-12.

POLICY 4.5 COMMUNITY BRAND EXTENSION

Continue to deploy and expand the "Old Ellicott City" community brand and provide a variety of ways for the ECP to create intentional partnerships with allies to successfully deploy the brand in as many formats as possible, creating a seamless impression on the local community, visitors and investors.

Implementing Actions

a. Brand Extension Partnerships: Support the cooperation of the many partners of ECP, which currently serves as the prime steward of the brand, to allow for successful continued implementation of the brand. The Howard County Tourism Council (Tourism) should play a greater and more direct role in the promotion of Ellicott City businesses and events. Given the limited financial and staff capacities of the ECP, Tourism can assume those responsibilities that are in alignment with their financial resources and mission to promote Howard County's leading tourist attraction.

b. Character Narrative: Adopt a narrative that frames the community brand based upon input from stakeholders throughout the planning process and conveys the environment, history, and discoveries associated with Old Ellicott City. Such a narrative can be used by ECP as a way to define its mission and the community and provide context for the adopted brand tagline of "Individually Crafted Since 1772."

c. Brand Roundtable: Work with ECP partners to convene a kick-off brand roundtable to share the brand style guide, brainstorm ways for the brand to be launched in a variety of formats and share additional brand concepts developed through the master plan process. Key partners include, but are not limited to, ECP, DPZ, DRP, HCEDA, and Tourism. While ECP may be the steward of the brand, it should share this brand freely with partner groups while maintaining the brand standards. Over time, explore turning this initial meeting into a quarterly or biannual meeting to check on the brand's deployment, reassess its use and explore new ways to deploy it.

d. Brand Extension for Districts and Attractions: Expand the brand for Old Ellicott City and deploy it to cover geographic areas within the core and attraction and attractions in the community. For districts, retain the existing base brand (the typeface, color scheme and five-pointed star icon), but adapt it as needed. Geographic areas include:

- West End Main
- Upper Main
- Courthouse Area
- Lower Main
- Riverfront

e. Brand Extension for Events: Utilize the style guide provided by the original designers of the graphic and the additional brand elements as guidance for expanded brand uses for specific events. The nostalgic imagery, color scheme and layouts present opportunities to keep a consistent theme throughout the brand's deployment. Specific events that attract visitors may allow ECP to partner with Tourism on events that may attract visitors in from outside Howard County.

f. Brand Extension for Awareness Campaigns: Facilitate a partnership among ECP, Howard County, HCEDA and other entities to share project information, track investment and share information in a quick and concise way. Develop and use information cards that keep customers informed about the recovery process, the impact of the floods and implementation of EC Safe and Sound. This step is important to communicate to customers that the core is open for business. Such information should utilize short messages to customers (that will serve the dual purpose of keeping merchants and others apprised of progress).

Figure 58: A Community Marketing Campaign Can Help Further the Message of the Community and Attract a Diverse Group of Visitors to Ellicott City

Figure 59: Merchant FAQ Card

Figure 60: Brand Extension Graphics can be Created to Market Upcoming Events

Figure 61: Potential Branded Merchandise Can Foster Greater Brand Awareness for Ellicott City

Figure 62: Districts and Attractions May Utilize Brand Extension Graphics to Create a Unified Experience Across Ellicott City

POLICY 4.6 COMMUNITY TOURISM AND MARKETING CAMPAIGN

Launch a community marketing campaign to provide a variety of ways for Tourism to leverage the brand beyond its conventional partners, allowing it to evolve through the private sector to further the message of the community. This will engage the business community directly along with partner groups so that the burden of creating brand equity is shared. Moreover, it gives partners a set of clear tools to use that maintain the integrity of the Old Ellicott City Brand while expanding its reach.

Implementing Actions

a. Brand Share with Partner Entities: Share the brand style guide with partner entities including Tourism, the Patapsco Valley/Heritage Area, Visit Baltimore and the Maryland Office of Tourism Development. The objectives for this effort include:

- » Position the core as one of a series of gems along the Patapsco River Valley
- » Continue to curate the "destination status" of downtown and the broader core
- » As facilities expand, market the core as a center for heritage, recreation, bicycling and environmental tourism

Such a partnership may extend within Howard County to include DRP to showcase the critical mass of heritage sites more comprehensively as happens in places like Harpers Ferry, WV. This could "connect the dots" between heritage sites, encourage foot traffic throughout the core and better tell the overall story.

b. Old Ellicott City Branded Merchandise: Create Old Ellicott City branded merchandise and brand extension. Over time ECP may consider a simple licensing agreement to allow local businesses to use the Ellicott City brand in merchandise. A simple licensing agreement would allow merchants to use the logo system and color scheme on branded items. This could even extend to items like craft beer or a special food item. ECP should not look at this as a revenue stream but rather a way to have the brand extended to the business community and foster greater brand awareness.

III.5 Transportation + Parking

DESCRIPTION

The Transportation and Parking Framework considers all modes of travel and parking and balancing the needs and desires of different user groups. Transportation goals are balanced against other master planning goals such as flood management, economic development and livability.

ELLICOTT CITY TODAY

Ellicott City's character is distinguished by its steep slopes, narrow stream valleys, historic buildings, limited access points, winding roads and tight sidewalks. Yet, these very assets present challenges related to pedestrian, vehicular, and bicycle circulation and parking. These challenges, if not addressed thoughtfully, can negatively impact the resident, worker and visitor experience.

TRANSPORTATION CHALLENGES

- **Pedestrian Accommodations and Experience:** Pedestrian facilities are limited throughout the watershed. Sidewalks are narrow or disconnected, crosswalks are few, and many facilities were built prior to the Americans with Disabilities Act (ADA).
- **Pedestrian Safety:** High traffic speeds, in combination with on-street parking and narrow or absent sidewalks in the West End impact pedestrian safety. In the West End, the road character changes west of Rogers Avenue to a wider cross-section lacking sidewalk facilities, and the speed limit increases from 25 mph to 35 mph. In other parts of the watershed, narrow and absent sidewalks also present pedestrian safety challenges. Some of these, such as segments along Main Street in the West End and along Sarah's Lane in the Courthouse Area are being widened or added as part of WalkHoward.

Figure 63: West of Rogers Avenue, The Road Character Changes and the Speed Limit Increases

Figure 64: Pedestrians Face a Lengthy Walk Across Old Columbia Pike, Requiring Some to Sprint

- **Bicycle Facilities:** While Ellicott City features one Howard County bikeshare station, bicycle facilities are otherwise limited in terms of bike parking and separated bike lanes.
- **Drop-Off and Pick-Up:** The core lacks designated areas to accommodate valet and rideshare services such as Uber and Lyft.
- **Single Through Street:** Main Street is used by both commuters, traveling between Howard and Baltimore Counties, and visitors to the core. As the only through street, this creates considerable demand on this minor arterial, particularly during peak periods. Residents report routine delays on Friday evenings and on weekends. Drivers looking for on-street parking or spaces within lots accessible from Main Street (i.e. Lots E, D and B) can contribute to Main Street traffic.
- **Overhead Clearances:** The low clearance beneath the Oliver Viaduct (railroad bridge) has caused a recurring problem of trucks becoming stuck beneath the bridge or having to turn around once arriving at the bridge where the clearance is posted. Consequently, this can result in roadblocks for an hour or more. This could severely impact the ability for vehicles to get off of Main Street should this problem occur during flood events.
- **Transit:** Transit serving the Main Street business community is limited to the Regional Transportation Agency (RTA) bus service, which offers a bus stop at Ellicott Mills Drive and Main Street. Bus service is unlikely to expand in the Lower Main Street area due to Main Street vehicular traffic, lack of bus turnaround areas and cost.
- **Wayfinding:** Ellicott City lacks a cohesive wayfinding system that helps visitors navigate the core, find a place to park and identify local attractions.

TRANSPORTATION ASSETS

- **Pedestrian-Friendly Environment:** Main Street's narrow width combined with on-street parking, curbside activity (drop-off, parking, etc) and traffic signals combine to help maintain the lower travel speeds that are compatible with a

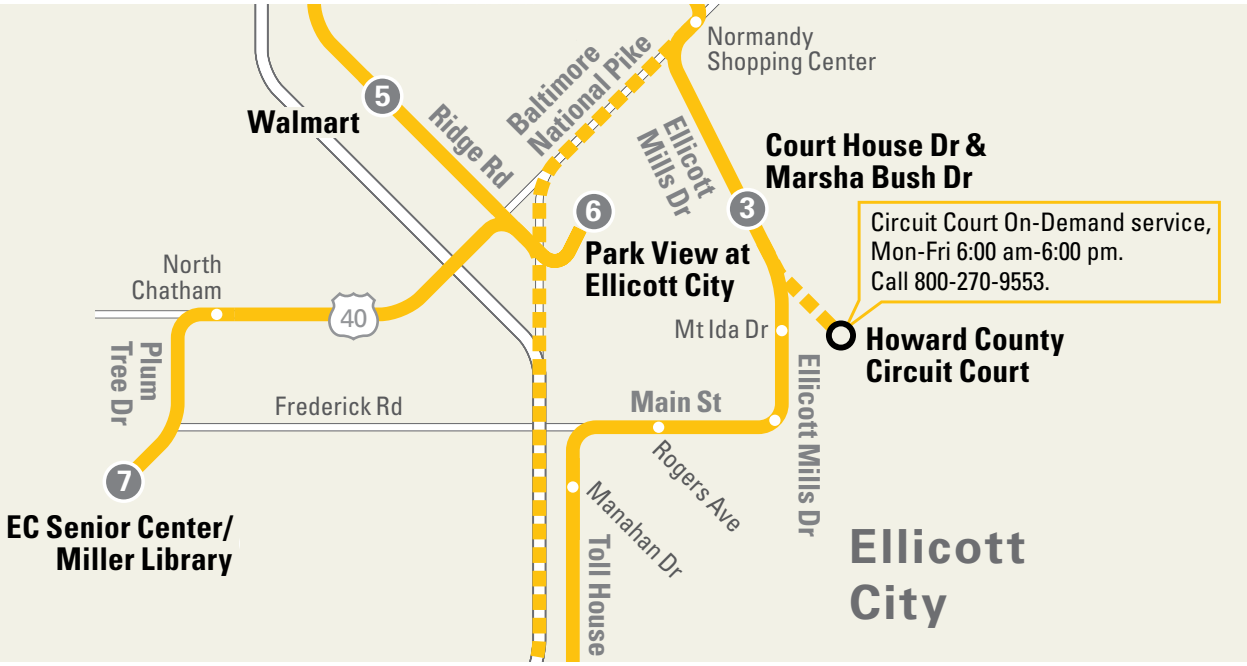


Figure 65: RTA Route 405/Yellow Provides Limited Access to Ellicott City, Stopping at the Edge of the Core at Ellicott Mills Dr

Figure 66: Utility Poles Often Limit Usable Sidewalk Space

Figure 67: Bike Share Station Outside of Su Casa, 8307 Main Street

Figure 68: Car Parked on Sidewalk in the West End

Figure 69: Narrow Sidewalk along Tonge Row Contribute to the Character of Ellicott City

Figure 70: Main Street and Limited Pedestrian Space

pedestrian-friendly environment, east of Ellicott Mills Drive.

- **Pedestrian Scale:** While the narrow sidewalks create challenges when there are high volumes of pedestrian traffic adjacent to vehicular travel lanes, the tight spaces throughout the core do distinguish Ellicott City's scale from other places in the region.
- **Road Network Capacity:** Following the 2016 flood, Main Street was closed temporarily and traffic diverted to surrounding roads. During Main Street's closure, the surrounding road network was able to absorb diverted traffic. This experience suggests temporary closures for construction projects, including traffic calming measures, can be managed.
- **Trolley Line #9 Trail:** The former #9 streetcar line has been converted to a popular multi-use trail that connects Catonsville with Oella and downtown.
- **Regional Trail Network:** The Baltimore Metropolitan Council's Patapsco Regional Greenway Plan proposes a primary trail network connecting regional attractions, including the Trolley Line #9 Trail, with segments along the Patapsco River. Several segments are near the core of Ellicott City and would provide improved pedestrian connectivity and access to regional attractions and natural resources.

WALKHOWARD PLAN RECOMMENDATIONS

The Howard County Pedestrian Master Plan, WalkHoward, identifies several structured projects and priority connections to address gaps in the pedestrian framework within the core and connecting to the core from other areas within the watershed.

- **Proposed Sidewalks:** New sidewalks are proposed or have been recently completed along streets where none currently exist/recently existed including, Frederick Road/Main Street (west of Ellicott Mills Drive and Rogers Avenue), Rogers Avenue, Court House Drive and Sarah's Lane.
- **Proposed Sidewalk Improvements:** Sidewalk widenings and improvements are proposed or have been recently completed along Main Street west of Ellicott Mills Drive, Court House Drive, and Ellicott Mills Drive.
- **Intersection Improvements:** Intersection improvements are proposed or have been recently completed at intersections along Main Street including Rogers Avenue and Klein Avenue.

WalkHoward does not identify any sidewalk improvements or new sidewalks along Old Columbia Pike or College Avenue within or leading to the core.

MAIN STREET NAME

The "Main Street" name designation applies to the section of Frederick Road between the Patapsco River and Rogers Avenue, covering all downtown but not the entirety of the West End. This can lead to some confusion and creates an artificial "divide" within the core.

PARKING CHALLENGES

- **Parking Supply:** Ellicott City's surface parking lots were added over time as opportunities arose. Several of the existing lots replaced outdoor storage buildings that were demolished. There is currently an adequate number of total spaces; however, they are not well distributed. With a parking surplus in some areas and a deficit in others during peak periods, there is a perception that the amount of parking is insufficient (see Figure 73).
- **Parking Facility Naming:** The naming of parking lot facilities by letters ("Lot D", "Lot F", etc.) is not memorable to visitors.
- **Employee and Resident Parking:** Residents, business owners and/or staff frequently occupy premium on-street parking spaces and centrally-located surface lot spaces when these spaces ideally would be available to visitors or customers.
- **Remote Parking:** Some parking areas are remote to core activity areas and involve difficult pedestrian access because of topography.
- **Parking Fees:** Parking is free throughout the district, leaving no incentive to park in remote or less desirable locations.

Figure 71: Boulders and Fencing Were Placed Between Lot F and the Stream Channel as Part of the Parking Lot's 2019 Reconfiguration.

Parking Resource	Existing Spaces (Total)
Main Street (Between Ellicott Mills Drive and Maryland Ave)	85
Maryland Avenue	18
Lot A	76
Lot B	24
Lot C	21
Lot D	238
Lot E	28
Lot F	61
Temporary Lot G	70
Courthouse Lot	269
Total	890*
*820 If Excluding the 70 Spaces in Lot G	

Figure 72: Existing Parking Facilities in Downtown Core

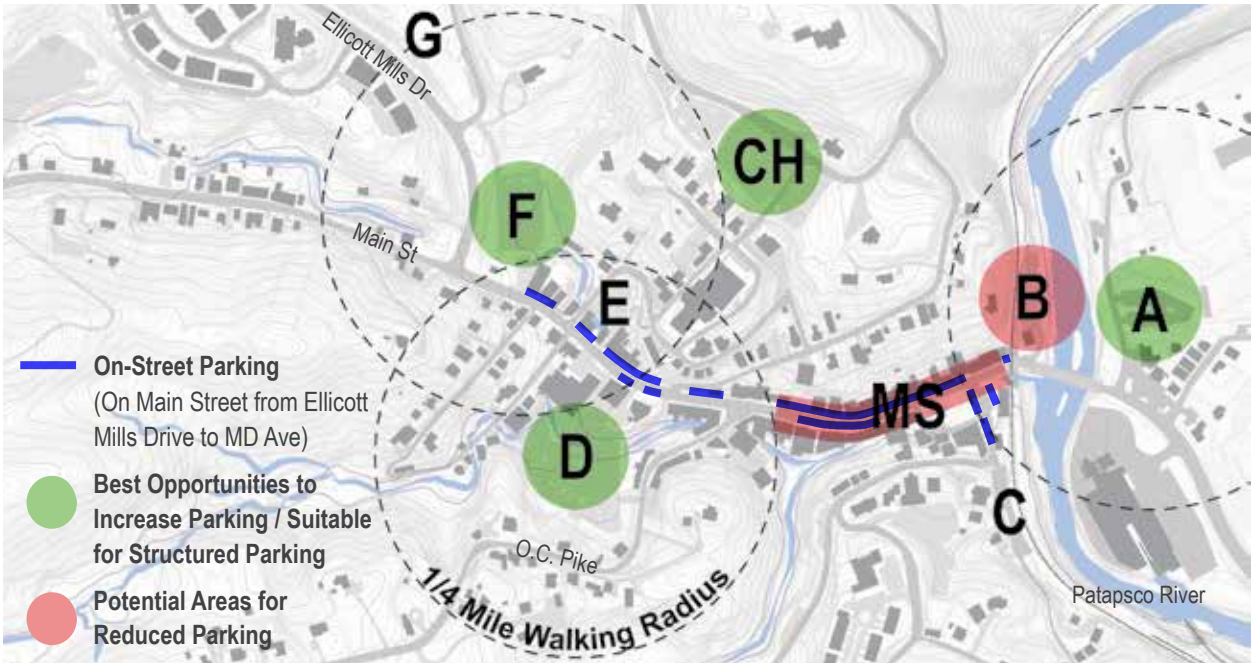


Figure 73: Areas of Opportunity for Increasing Parking Supply

- **Major Infrastructure Construction Projects:** Some close-in parking resources will likely be taken temporarily offline in order to accommodate construction activities for flood mitigation and, potentially, streetscape improvements.
- **Limited Physical Space:** On-street parking along Main Street east of Ellicott Mills Drive and on Maryland Avenue is convenient for businesses, upper floor residences and visitors. On-street spaces, however, limit the ability to create wider sidewalks. The ideal minimum sidewalk range for pedestrians is 5-6 feet in width.
- **Floodwaters:** Fast moving flood waters, even at low depths, have the potential to lift and carry away vehicles, causing the vehicles to become dangerous debris during major storm events.

VEHICLES IN FLOODWATERS

- An experiment conducted by the University of New South Wales, Australia, found that:
  - » A Toyota Yaris weighing 1 ton began to move in 6 inches of water moving at 3.3 feet/second. The Yaris completely floated away in 2 feet of water[1].
  - » A larger Nissan Pathfinder weighing 2.5 tons began to move in 18 inches of water and floated away in 3 feet of water[1].
- According to the US Geological Survey (USGS), water flowing at just 6 mph exerts the same force per unit area as air blowing at EF5 tornado wind speeds[2].

1: https://www.abc.net.au/news/2016-06-18/research-shows-cars-deadly-in-floodwaters/7522798

2: https://weather.com/safety/floods/news/flash-flooding-vehicle-danger-20140717

Figure 74: Trolley #9 Trail Leading to Ellicott City

Figure 75: The George Howard Complex Parking Lot Could Serve as Overflow Parking For Main Street

Figure 76: Hand-Created Wayfinding Sign

PARKING ASSETS

- **Large Surface Parking Lots:** Large, County-owned parking lots offer the future potential for redevelopment to support economic development efforts and/or to be reconfigured to serve multiple uses. Area plan chapters include options for the reconfiguration of selected large parking lots to provide flood conveyance, restored streams, pedestrian connections, amenities and/or new construction. Several of the lots are large enough to accommodate a parking garage, should one be needed in the future.
- **Additional Parking Resource Opportunities:** Additional parking resources exist outside of the core at the George Howard Building complex lot and, potentially, in Baltimore County with the recent closing of the Wilkins Rogers mills.
- **Ridesharing Impacts:** In cities throughout the country, there are visible impacts from ridesharing services. Every trip that is converted into a rideshare trip reduces the demand for parking.
- **Autonomous Vehicle Influences:** There is growing evidence that autonomous vehicles (AVs)will be part of the future. Like valet service, AVs can drop off and pick up passengers—potentially reducing demand for close-in parking while increasing the need for drop-off/pick-up zones. The timing of AV adoption remains an unknown. As such, planning for AVs is not considered a short- or mid-term solution. However, the design of parking lots, garages and on-street spaces should consider the potential long-term implications of AVs.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 5.1 PEDESTRIAN ACCESSIBILITY AND SAFETY

Within the core, prioritize people on foot over automobiles.

Implementing Actions

a. Pedestrian Crossings: Provide additional well-marked pedestrian crossings, including mid-block crossings, throughout the length of Main Street. The crosswalks should be very visible, with parking restricted at/near the crosswalk to maintain lines of sight between pedestrians and motorists. Raised crosswalks should also be considered, particularly for mid-block crossings, to further draw attention to the crosswalks.

b. Improved Accessibility: Provide improved accessibility for pedestrians, particularly those with disabilities. The primary way to accomplish this is by providing wider sidewalks with fewer obstructions such as signs and utility poles. While this will be challenging in several areas due to the numerous constraints along Main Street, such as existing buildings (most of which are historic), stairs and even the rocky slopes, any streetscape modifications should seek opportunities to provide greater sidewalk width, as well as opportunities to relocate or remove signs and utilities that restrict pedestrian flow.

POLICY 5.2 SIDEWALK AND TRAIL CONNECTIVITY

Better connect destinations and neighborhoods to the core.

Implementing Actions

a. Multi-Experience Network: Build upon and expand the existing pedestrian network within the watershed, with new and improved sidewalks, natural surface trails, hard surface

trails, hard surface shared-use pathways, and bridges connecting to the downtown core.

b. Capital Project Coordination: Use capital projects—such as flood mitigation projects, park improvements, or other changes to county owned-land—to provide missing links in the pedestrian network.

c. New and Extended Sidewalks:

i. Old Columbia Pike Sidewalk Extension: Improve the existing sidewalk connecting Lot D and Main Street. Fill in missing sidewalk sections from Lot D to Montgomery Road to provide safer pedestrian access to the core.

ii. Main Street/Frederick Road Sidewalk Extension: As outlined in WalkHoward, Extend the sidewalk along one side of Main Street/Frederick Road from Rogers Avenue to Plumtree Drive and beyond to connect with the existing sidewalk network and the Miller Library.

iii. College Avenue Sidewalk Extension: Evaluate the need, feasibility and extent of extending a sidewalk along College Avenue, connecting the core to the neighborhoods off College Avenue.

iv. Court House Drive Sidewalk: As identified in the county's pedestrian master plan, WalkHoward, add a sidewalk along Court House Drive.

v. Rogers Avenue Sidewalk Extension: Evaluate extending a sidewalk along Rogers Avenue from Main Street/Frederick Road to Court House Drive/Rogers Avenue to connect the core to the neighborhoods off Rogers Avenue.

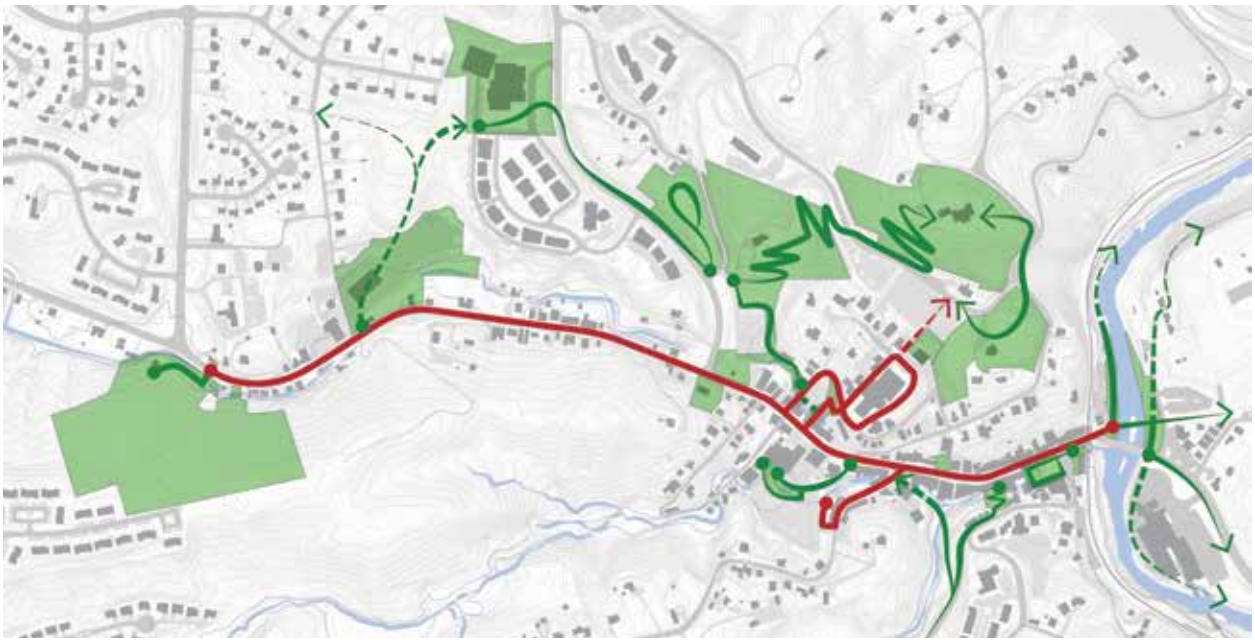


Figure 77: "Green Cultural Trail," Open Opportunity Sites and Pedestrian/Bicycle Connections

f. Trails:

i. "Green Cultural Trail": As described in Community Character and Placemaking, phase-in the establishment of an inter-connected "green cultural trail" for residents and visitors to experience Ellicott City through a connected trail network extending from the Patapsco River to the West End and beyond.

ii. New Cut Trail: Plan and design a trail along New Cut Road linking Main Street and the proposed "green cultural trail" with Worthington Park. Work with private property owners to explore options for easements for the trail alignment and identify opportunities to incorporate access easements to accommodate stream maintenance. Plan the alignment to respect and capitalize upon the scenic qualities of the corridor and facilitate future stream maintenance efforts. Develop typical design treatments that respond to the localized site conditions of various sections of the trail. Design treatments may include hard and soft surface pavement, boardwalks and bridges.

iii. Grist Mill Trail: Participate in discussions with Baltimore County regarding the design and extension of the Grist Mill Trail. This should include the current plans to run along River Road (as part of its conversion to one-way traffic flow) and any potential opportunities to align the trail along the Patapsco River edge.

iv. Patapsco Natural Surface Trail: Continue to work with the Patapsco Regional Greenway/ BMC plan and other groups to explore a natural surface trail extending along the west side of the Patapsco River, north of Main Street, and connecting to the Hollofield Area of the Patapsco Valley. Work with the North Tunnel design team to explore opportunities for a safe trail connection past the tunnel outfall.

Figure 78: Opportunity for Pedestrian/Bicycle Connectivity Between Core and Upper Watershed Neighborhoods, Credit: Google Maps

Figure 79: Pedestrian/Bicycle Bridges Through Woodlands Can Create Unique Experiences in Ellicott City

Figure 80: Woodland Trail/Multi-use Pathways Can Create Alternative Ways to Experience Ellicott City on Foot or Bicycle

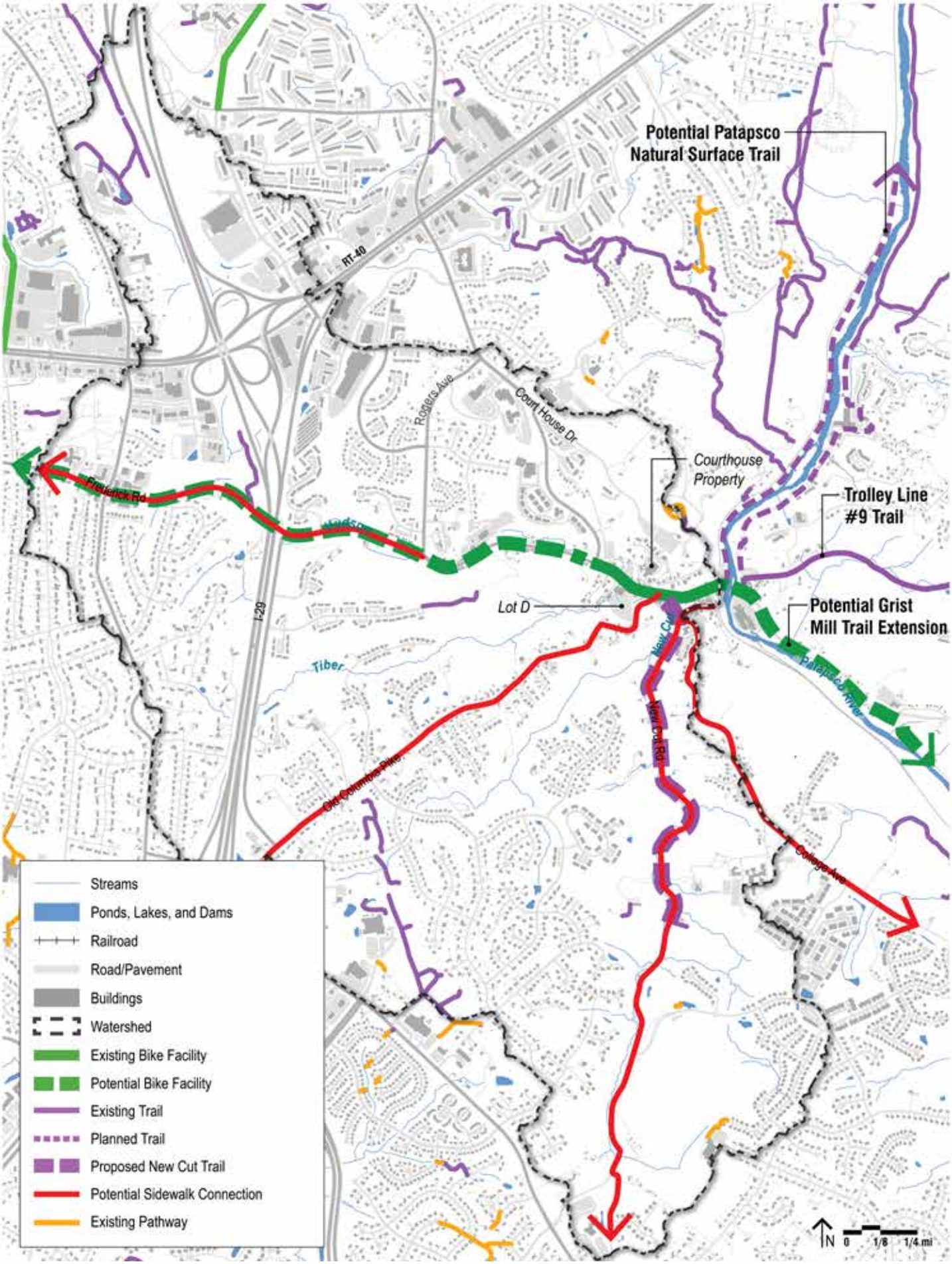


Figure 81: Watershed Diagram: Pedestrian and Bicycle Connectivity

e. **Attractions:** Seek opportunities to make some pathway linkages attractions in and of themselves (for example, a pedestrian-bicycle bridge, if pursued, should be designed as an attraction).

   i. **Patapsco River Pedestrian And Bicycle Crossing:** Implement the recommendations of the Concept Plan for a Patapsco Regional Greenway and explore options for a pedestrian/bicycle (shared-use) crossing over the Patapsco River, connecting Main Street to the Trolley Line #9 Trail (see Policy 7.1 for more information).

POLICY 5.3 BICYCLE ACCOMMODATIONS

Provide additional bicycle facilities throughout Main Street and the core to accommodate visitors who arrive by bike and those utilizing Howard County's bike-share system. As facilities expand, consider marketing Ellicott City as a bike friendly destination. Specific recommendations for bike facility locations are described as part of recommendations for geographic areas (see sections III.6-12).

Implementing Actions

a. **Sharrows:** Continue to utilize Sharrows (shared lane markings) along Main Street and Frederick Road, consistent with the BikeHoward Plan and Council Bill 3-2016 for Main Street in Ellicott City.

b. **Bike Parking:** Provide bike parking. Include larger scale and covered facilities located in parking lots and parking decks and smaller scale bike racks in various locations – avoiding locations where sidewalk width is limited.

c. **Additional Bike Share Stops:** Plan for additional bike-share stops, potentially in the vicinity of the riverfront.

POLICY 5.4 TRANSIT

Provide improved transit service to numerous attractions and retail establishments along Main Street.

Implementing Actions

a. **Transit Master Plan Updates:** As the Central Maryland Transit Development Plan and Howard County Transit Development Plan is periodically updated, continue to explore the need and feasibility of including RTA service along Main Street, with the understanding of congestion along Main Street. Coordinate with the Maryland Transit Administration (MTA) and Baltimore County to explore direct connections between the core of Ellicott City, the Catonsville Business District and strategic locations in Baltimore City.

Figure 82: West End Mid Block Crossing, Approx. 8527 Main St/Frederick Rd, Illustrative Concept

Figure 83: Parking Spaces May be Converted to Bike Parking in Larger Lots

b. **Tour Bus Accommodations:** Explore opportunities for designated tour bus accommodations including pull-offs and turnarounds as part of the site planning for the various geographic areas described in the following chapters.

c. **Shuttle Service:** Consider running a small, user-friendly shuttle to Lower Main Street from the Courthouse Lot and George Howard government complex lots. The shuttle could offer well-advertised, frequent service during weekends, major events, and construction projects. Branding and marketing can make the system fun and appealing (see Figures 84 and 85).

POLICY 5.5 PARKING MANAGEMENT

Develop a variety of tools and strategies to manage parking resources while maximizing their function, efficiency, user-friendliness, and safety.

Implementing Actions

a. **Street Parking:** Along Main Street, plan for a mix of on-street spaces, drop-off/pick-up zones, and expanded pedestrian areas. Restrict on-street parking where flood risk is greatest; in these restricted areas, accommodate short-term needs (drop-off/pick-up, loading, and deliveries). To promote turnover of spaces, consider assigning 15-minute limits on short-term parking spaces and 2-hour limits in flood restricted areas and on all other on-street spaces.

b. **ADA Accessible Parking:** Provide ADA-accessible parking throughout the watershed.

c. **Valet Parking:** Under the lead of the private sector, explore valet parking as part of an overall parking management strategy, particularly during major construction projects. The primary consideration with valet parking is that the valet stations ideally need to be relatively close to the parking facility, particularly if the valet drivers are walking. If the facilities are further away, a shuttle would be required to take drivers to/from the facilities, thus requiring a larger operation.

d. **Updated Parking Study:** Develop an updated parking study that considers the parking supply and demand across Ellicott City if/when an investment in a parking garage is identified for the near-term. In addition, the study should address the following:

   i. **Parking Fees:** Explore implementing a parking management system that charges a premium for use of the most desirable on-street parking spaces, as well as potentially spaces in the most desirable lots (Lots A, B, C and D). To manage parking demand, the most distant lots should remain free.

Figure 84: Example of an Electric Shuttle From Another Community that Could be Used in Ellicott City

Figure 85: The "Funicular" Electric Shuttle Utilizing Ellicott City Branding, For Illustrative Purposes Only

ii. **Time Restrictions:** To allow greater turnover of premium spaces, post 15-minute limits on drop-off zones and on-street parking in flood-restricted zones, two-hour limits on on-street spaces, and up to four hour limits on close-in off-street spaces. If parking fees are charged, the payment system should be very easy to use, ideally consistent and compatible with parking systems implemented in nearby cities, including Baltimore, Washington, D.C., and Frederick, Maryland.

iii. **Traffic Impact:** Evaluate the impact a parking structure could have on Main Street traffic, and potential to intercept drivers before reaching Main Street (thereby reducing vehicular traffic on Main Street).

iv. **Traffic Study:** Include a traffic study to include a description of ingress/egress opportunities and associated sightlines and understand traffic impacts associated with different parking garage location strategies. For example, during the master plan planning process, the consultant team explored a "book end" concept of how parking garages at each end of Main Street (Lots A and F) could help intercept traffic before getting to Main Street.

v. **Stormwater Management:** Consider opportunities for managing stormwater and flood flows in the parking garage design.

vi. **Designated Employee Parking (Day and Night):** Designate areas of Lot F, Courthouse Lot or a Lot D deck (uppermost level, if constructed) for employee parking, including financial incentives, if a parking management system is implemented.

vii. **Ellicott City Parking Authority:** Consider establishing an Ellicott City Parking Authority for the core of the community. This can exist as part of a cooperative agreement between the County and ECP or under the County's Revenue Authority. If a parking management system is established, the revenues could be allocated to an enterprise fund and help fund maintenance and management of the parking areas.

Figure 86: Valet Parking Can be Used as Part of an Overall Parking Management Strategy, Food Market, Hampden, Baltimore, MD

Figure 87: Precedent Sign Topper and Example Sign Toppers Utilizing the Brand for Main Street, For Illustrative Purposes Only, Credit: AtlasPDX82 (Middle)

PARKING EDUCATION AND MARKETING TOOLS

Consider the following:

- Strategically placed signs that illustrate other parking options can be placed in cooperation with Howard County regulations. These signs could use humor and positive messaging to illustrate that while the lot is a bit further away, it may have the benefits of providing exercise for visitors;
- Consistent branding for the various parking initiatives that are implemented, including several options for parking alternatives to consider as well. These include valet parking contracted out to private vendors, a shuttle, accommodation for new technologies for parking and driving services such Uber, Lyft and ultimately self-driving vehicles;
- A wallet size parking card that includes a map, the location of the parking facilities and, if relevant, the shuttle schedule and route. These cards, which would incorporate the Old Ellicott City brand, could be available at the Welcome Center and from individual businesses. The map of Ellicott City that has already been developed is an excellent starting point; and
- Information on available parking lots should be provided on the Visit Howard County and Ellicott City Partnership websites.

e. **Electric Vehicles:** Include Electric Vehicle (EV) charge-ready accommodations within surface parking lots and in future parking garages.

POLICY 5.6 WAYFINDING SYSTEM

Design and execute a cohesive wayfinding system to help visitors navigate Ellicott City by foot and by vehicle.

Implementing Actions

a. **Variety of Sign Types:** Comprehensively plan, design and install a full suite of wayfinding signs, including: banners, parking directional signs, low and high speed vehicular trailblazers, pedestrian trailblazers, gateway signs and destination markers.

b. **High Ground Access:** Incorporate high ground access information in planning, design and installation of wayfinding system.

c. **Parking Facility Naming:** Rename the parking lots with names that are more memorable to users, reflecting the location, adjoining street name, or nearby landmark in the name. Avoid specific business names or uses that may not always remain. Additionally, take care to identify succinct names, conducive to wayfinding signage.

d. **Parking Education and Marketing:** Create a variety of educational tools and programs intended to educate visitors of their parking options.

e. **Main Street Name Extension:** Extend the "Main Street" name along Frederick Road from Rogers Avenue to Toll House Road to include the West End and help reinforce the entire core as a unified district.

WAYFINDING 101

A good wayfinding system should:

- Promote major community destinations, including heritage and natural tourism assets;
- Eliminate sign clutter that might confuse visitors to the community;
- Brand Ellicott City as a visitor destination with attractions extending beyond the core;
- Reinforce local community pride; and
- Feature an attractive, consistent signage system that reinforces Ellicott City's unique position in the region.

f. **Truck Clearance:** Provide enhanced signage and messaging at key intersections approaching town regarding clearance limitations at the Oliver Viaduct (railroad bridge) over Main Street to minimize congestion caused by trucks that need to turn around after reaching the bridge, particularly when there is a risk of flooding. Coordinate with Baltimore County to provide signage regarding truck clearance westbound of MD 144 in Baltimore County.

Figure 88: Sandwich Board Graphic for District, For Illustrative Purposes Only

POLICY 5.7 ADAPTABILITY FOR THE FUTURE

To the extent possible, anticipate future adaptation of significant capital investments to accommodate changing transportation technologies (such as self-driving/autonomous vehicles).

Implementing Actions

a. **Streetscape Improvements:** Provide dedicated pick-up and drop-off zones that could be adapted for self-driving vehicles in the future.

b. **Parking Garages:** Since future self-parking technologies could reduce the geographic footprint needed for parking, design any garages with potential to be repurposed to other uses.

c. **Parking Lot Flexible Use:** When redesigning surface parking lots, consider how they can serve multiple uses such as event space and additional open space.

Figure 89: Potential Destination Wayfinding Signage, For Illustrative Purposes Only

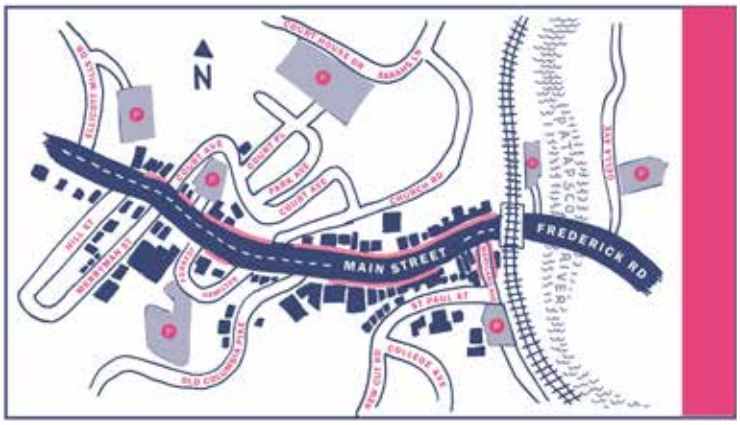


Figure 90: Pocket Card with Parking Resources, For Illustrative Purposes Only

Figure 91: Potential Destination Wayfinding Signage, For Illustrative Purposes Only

Figure 92: Potential Gateway Signage, For Illustrative Purposes Only

The Wine Bin
CAUTION
TRIPPING
HAZARD
UNEVEN
SIDEWALK
OPEN
RECYCLE

III.6 Streetscapes

DESCRIPTION

Ellicott City's primary street network consists of Main Street, Maryland Avenue, Old Columbia Pike and Ellicott Mills Drive with Church Road, Hamilton Street, Court Avenue, Merryman Street, Hill Street and Rogers Avenue connecting at various points. Residents, business owners and employees, visitors and passing commuters experience Ellicott City along these streets—whether as a pedestrian, bicyclist or motorist. The streetscape experience is informed by the elements that define a street from building face to building face, including travel lanes, parking/service lanes, sidewalk zones and associated amenities such as street furnishings, lighting, street trees, wayfinding, and public art. The focus for streetscape improvements as part of this master plan is Main Street and Maryland Avenue.

ELLICOTT CITY TODAY

MAIN STREET

As the only east-west road serving the historic core in a narrow valley, Main Street's physical environment is tightly constrained and must accommodate multiple modes of transportation and parking within a limited area. Still, these physical constraints contribute to Ellicott City's character and charm.

- **Active Building Edge:** Historic buildings representing different periods in history and activated by businesses define and anchor the streetscape experience.
- **Street Geometry:** The visual simplicity of the streetscape components – sidewalks, parking and travel lanes – provide a unifying link among diverse building styles.
- **Sidewalk Paving:** Prior to the 2016 flood, the sidewalks were paved with a combination of brick and concrete—the result of an initiative to install brick in the 1990s. At that time, some, but not all, private property owners opted to repave with brick. Post-floods, remaining brick adds richness and scale to the pedestrian experience. However, a simple concrete scoring is also appropriate to the district where brick is not possible.

Figure 93: Main Street, Ellicott City, Maryland

Figure 94: Overhead Utilities Often Dominate the Viewshed

Figure 95: Damage to Brick Paving after the 2018 Flood

- **Paving Resiliency:** Brick paving proved to be vulnerable to shear stresses from floodwaters, contributing to debris jams and exposing utilities beneath the sidewalks.
- **Rock Outcrops:** Periodic rock outcrops and stream crossings serve as highly visible reminders of Ellicott City's interdependence with its geography and geology.
- **Narrow Sidewalks and Limited Pedestrian Areas:** Particularly narrow sidewalks and obstructions, such as utility poles, steps, rock outcrops and steep grades, hinder pedestrian accessibility and outdoor gathering and dining.
- **Overhead Utility Lines:** Overhead utility lines often dominate the viewshed.
- **Loss of Granite Curbs:** Over time, granite curbs along Main Street have been replaced by concrete curb and gutter.
- **Tree Canopy and Planting:** There are limited opportunities to introduce trees and other plantings along Main Street because of narrow sidewalks and overhead utilities. Further, in some locations new trees could become flood-borne debris while plantings could be washed away in a flood event.
- **On-Street Parking:** On-street parking, while an important convenience to local businesses, presents a safety hazard during flash flood events as people try to flee flood waters in their cars and as the cars themselves become obstructing debris in the channels. As previously described in Transportation and Parking, controlled laboratory experiments have found that when subjected to fast-moving flood water (at 3.3 feet per second), small cars will begin moving at relatively low depths (6 inches). At depths of 2-3 feet, most cars will float away entirely.
- **Drop-Off/Delivery Zones:** Drop-off and delivery zones serve an important function for the businesses and visitors.
- **Wayfinding:** Limited signage exists to help first-time visitors navigate the core.

MAIN STREET AND FREDERICK ROAD (WEST END)

Main Street becomes Frederick Road at Rogers Avenue as it continues through the West End, which ends at Toll House Road, and extends further into Howard County.

- **Pedestrian Connectivity:** Sidewalks are disconnected with missing segments because of driveways, service and private parking areas, parked cars, steep vegetated slopes and retaining walls. Frederick Road from Rogers Avenue to Toll House Road lacks sidewalks.
- **Sidewalk Constraints:** Sidewalks, where they exist, are often highly constrained in width and obstructed by utility poles and retaining walls.
- **On-Street Parking:** On-street parking is often constrained by narrow roadway dimensions and speeding vehicles, resulting in residents parking cars on, or partially on, adjacent sidewalks.
- **Change in Character:** The streetscape character of Frederick Road changes west of Rogers Avenue to Toll House, where the roadway is wider and there are no sidewalk facilities. Additionally, the speed limit increases from 25 mph to 35 mph west of Rogers Avenue.

MARYLAND AVENUE

While just one block in length, Maryland Avenue represents Ellicott City's historic center of rural industry and is the "front door" for the B&O Station Museum.

Figure 96: Historic Photo of Main Street (Credit: Library of Congress/Albertype Co.)

Figure 97: Main Street Today, Credit: Google Maps

- **Utilitarian Design:** Maryland Avenue is utilitarian in design with narrow sidewalks, travel and turn lanes and pull-in parking.
- **Spatial Definition:** Maryland Avenue is quite wide in comparison to Main Street. In conjunction with the B&O Plaza, it is an important part of Ellicott City's public realm.
- **Loss of Granite Curbs:** Like Main Street, granite curbs along Maryland Avenue have been replaced over time with concrete curb and gutter.
- **EC Safe and Sound Impacts:** When the four lower Main Street buildings are removed, the spatial definition of Maryland Avenue will change dramatically, presenting an opportunity to enhance the streetscape and create an important public space.

OTHER STREETS

With the exception of Ellicott Mills Drive, the other streets connecting to Main Street are fairly utilitarian. Sidewalks are very narrow and, for the most part, paved with concrete. The original granite curbs are largely intact. Many of these streets include on-street parking but have limited room for streetscape amenities.

COMPETING EXPECTATIONS

For all streets within the core, particularly Main Street, customers, business owners, visitors, residents and motorists passing through have different expectations on how the street should function. Streetscape improvements need to strike a careful balance between addressing challenges while protecting historic integrity and enhancing positive attributes.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 6.1 MAIN STREET STREETSCAPE

Design and implement phased streetscape improvements for Main Street from Rogers Avenue to Oella Avenue, with an emphasis on balancing resiliency, pedestrian safety, aesthetics, historic district compatibility and flexibility. With the surrounding road network capable of handling regional through-traffic, reinforce Main Street as a pedestrian-friendly destination rather than a thoroughfare.

Implementing Actions

TRAFFIC CALMING AND PEDESTRIAN SAFETY

a. Rogers Avenue Gateway Improvements: Construct intersection improvements and gateway signage at the intersection of Main Street and Rogers Avenue to serve as a gateway and transition to a more pedestrian-friendly neighborhood and downtown environment while helping to slow traffic speeds. Consider a roundabout that is designed to accommodate large vehicles (including large tractor/trailer combinations) ensuring their ability to access residences and business located along Main Street, Frederick Road and Rogers Avenue (see Figure 98). This will likely require a center island containing a mountable truck apron and careful consideration of the geometry of the approaching and departing lanes. Like other modern roundabouts throughout Howard County, the truck apron within the central island should be designed with materials and/or slopes that can be traversed by trucks, but that discourage use by smaller vehicles.

Perform a feasibility analysis, including a right-sizing analysis, to ensure that a roundabout at this location would be able to accommodate existing and future traffic volumes, and could also accommodate both trucks and buses. If a roundabout is not feasible, consider stop signs and crosswalks at this intersection (consistent with recommendations in Walk Howard).

Figure 98: Potential Rogers Avenue Roundabout, Traffic Engineering Requires Further Study, For Illustrative Purposes Only

b. Toll House Signal: To calm traffic from the west, create a signalized intersection at Toll House and Frederick Road (as recommended in WalkHoward).

c. Crosswalks/Mid-Block Crossings: Construct mid-block crosswalks along Main Street where sight distances permit. Utilize bumpouts to provide no more than 11-foot wide lanes in each direction to create a 22-foot roadway at the pedestrian crossing. Explore raising crossings to further slow traffic and place a greater emphasis on pedestrian movement (see Figure 99).

d. Travel Lane Markings: Where not already 11 feet in width, modify travel lane markings to reduce lane widths to 11 feet (or further narrow to 10 feet where determined as appropriate as part of the streetscape design phase) between Rogers Avenue and the Patapsco River. This will help encourage slower speeds consistent with

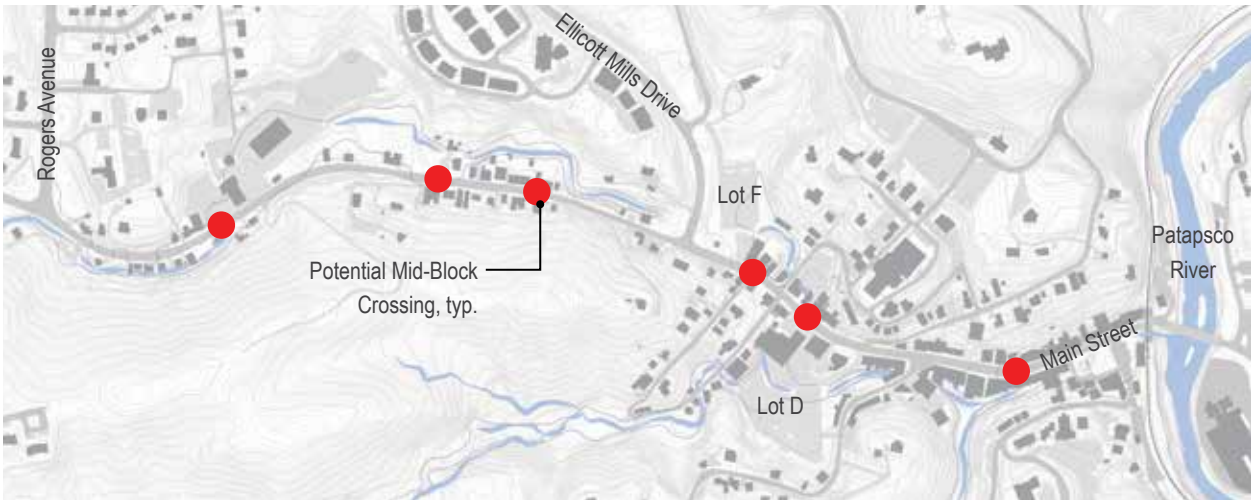


Figure 99: Potential Mid-Block Crossing Locations

the posted speed limit, while accommodating the ability to pass vehicles waiting to make left turns at intersections. Modify lane markings in conjunction with sidewalk improvements and parking lane delineations as described below.

e. **Parking/Service Lane Delineation:** In conjunction with travel lane modifications, better delineate parking and service lanes to reinforce slower travel speeds. West of Ellicott Mills Drive, locate parking lanes on primarily one side, but in some areas both sides, of the street as space allows. Consider delineating parking zones with a different pavement treatment such as textured asphalt or exposed aggregate concrete to visually distinguish them from the travel lanes. Where slopes currently extend to the curb, consider adding retaining walls and expanded on-street parking areas.

f. **Bumpouts:** Provide sidewalk curb extensions at utility poles where the pedestrian zone is less than four feet in width to provide ADA compliance and at mid-block crosswalk areas to shorten pedestrian crossing distances.

DESIGN

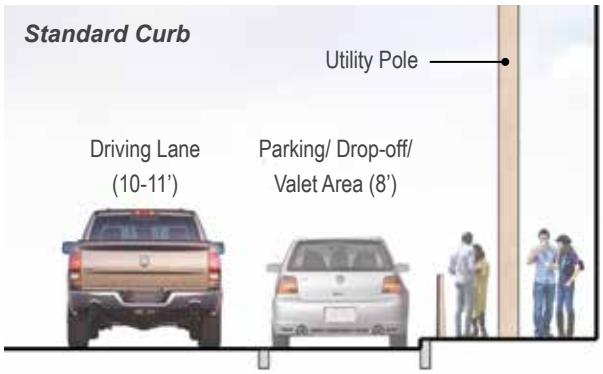
g. **Gateways:** In addition to the gateway features at Rogers Avenue, incorporate pedestrian improvements, signage and aesthetic treatments at Ellicott Mills Drive as described for that geographic area in the following chapters of this report.

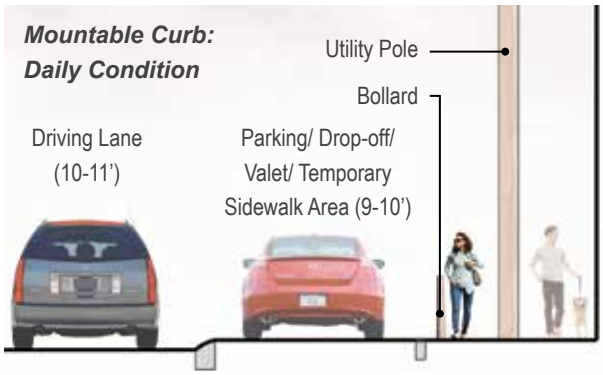
h. **Street Geometry:** Match paving color and/or material of the bumpout areas to that of the parking/drop-off lane to minimize the visual disruption of the shifting curb line and maintain the visual simplicity of the road geometry.

i. **Flexible Use Zone:** Along lower Main Street, where buildings are planned to be removed and where it will be possible to shift the curb line, consider a raised drop-off/short-term parking/service zone flush with the sidewalk and separated from the travel lane by a mountable curb (see Figures 100-102). This zone could serve as a flexible use zone that functions as a drop-off, short-term parking and service lane most of the time, and as an expanded pedestrian zone some of the time during events and periods of peak pedestrian use. If a mountable curb is pursued, bollards would need to be placed between the parking/service zone and everyday pedestrian zone.

Figure 100: Raised Parking Zones with Mountable Curbs Can Expand Pedestrian Areas During Events, Credit: Tiffany Shum/ Harlton Empire (Middle)

Figure 101: Existing Ornamental Lighting





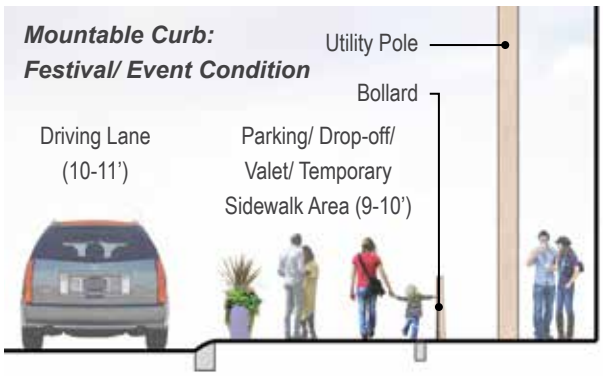


Figure 102: Flexible Use Zone with Mountable Curb Concept Section, For Illustrative Purposes Only, The raised parking/drop-off area with mountable curb concept will likely only be possible along Maryland Avenue and lower Main Street where curb lines can be potentially shifted with the removal of the four buildings as part of EC Safe and Sound.

Figure 103: Historic Precedent for Simple Geometry Along Main Street, Credit: George Stewart (Adapted)

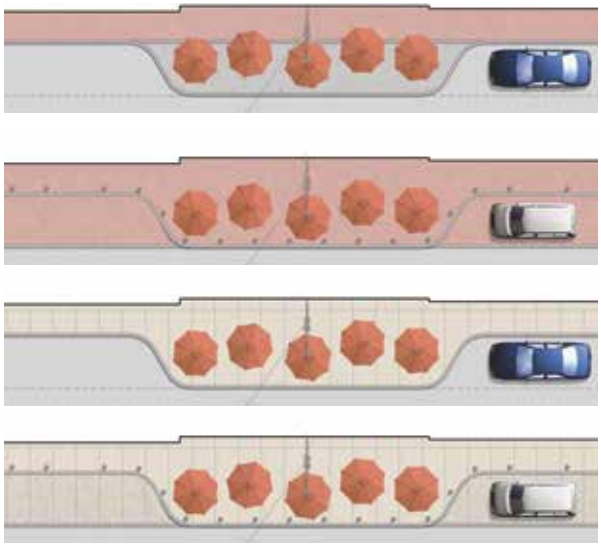


Figure 104: Paving Options That Convey Simple Geometry

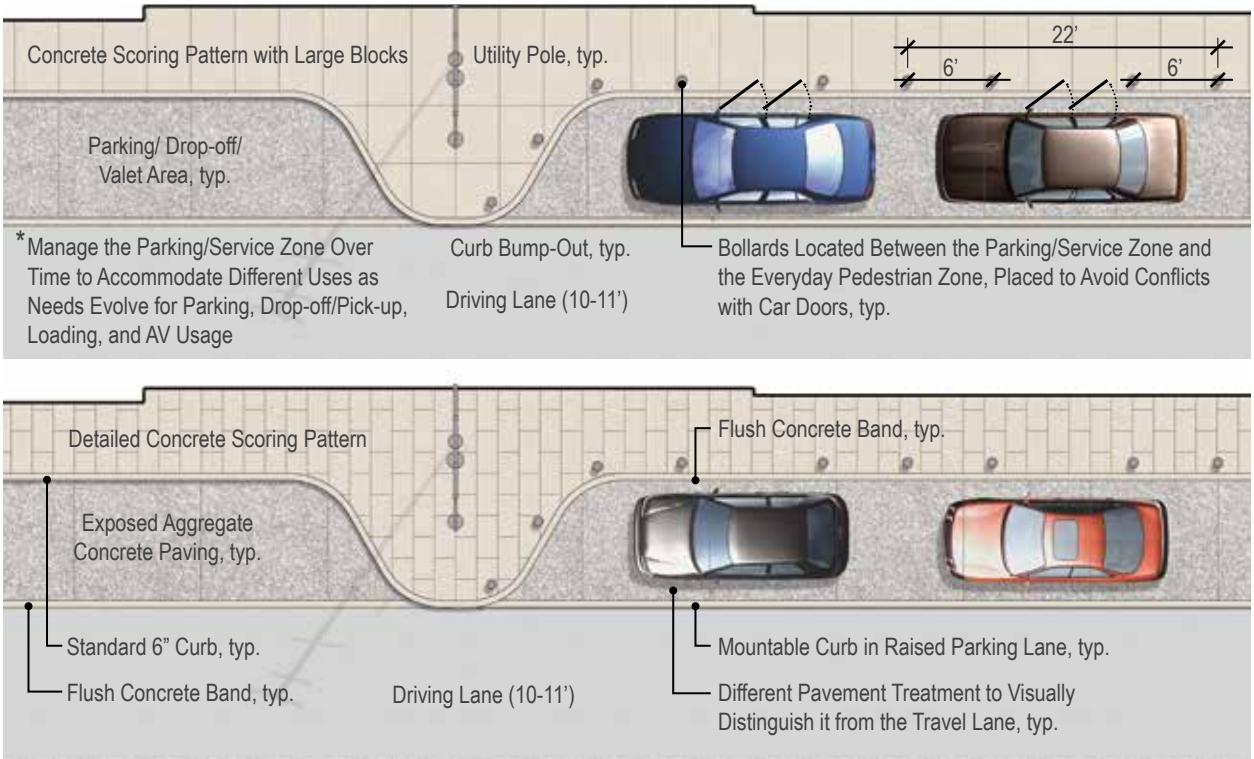


Figure 105: Potential Streetscape Improvements and Pavement Scoring Options. The raised parking/drop-off area with mountable curb concept will likely only be possible along Maryland Avenue and lower Main Street where curb lines can be potentially shifted with the removal of the four buildings as part of EC Safe and Sound.

During special events, the flexible use zone could be closed temporarily to vehicles with physical barriers such as roping, fencing, movable planters or other similar means. Any bollards should be designed to withstand anticipated flood depths and velocities. Additionally, a visual impact study should be performed to determine any potential impact of installing bollards in the historic district. This flexible use zone would be an alternative to widening the sidewalk for pedestrian use only.

j. **Temporary "Parklets":** As an alternative to the raised flexible use zones, or in areas where raised flexible use zones can't be used, consider platforms to raise the drop-off, short-term parking/service zone to sidewalk level that can function as temporary "parklets" during events, periods of peak pedestrian use or on a seasonal basis. These platforms could temporarily replace 1-2 short-term parking spaces and serve as outdoor dining areas or could be connected over a longer segment of Main Street to provide expanded pedestrian zones. Around the world there are examples of street parking spots temporarily becoming public spaces. Each year in September, designers celebrate "Park(ing) Day" with creative installations that transform parking to park.

k. **Public Art:** Work with local artists and incorporate public art into the streetscape design. Art may be incorporated into the pavement, crosswalk treatments and streetscape elements such as trash receptacles, bollards and planter pots. In particular, art could be used to highlight where the street covers the water to call attention to the fact that Ellicott City is built over the tributaries in many instances. Similarly, art could be used to delineate historic features no longer present.

l. **Main Street Rocks:** Consider using subtle lighting to highlight the rock outcrops along Main Street.

m. **Wayfinding Signage:** Incorporate wayfinding signage into the streetscape design with careful consideration to minimizing additional sidewalk obstructions.

n. **Materials:** Because of excessive shear stresses associated with floodwaters, utilize scored concrete paving for sidewalks as part of streetscape improvements made prior to flood mitigation. If streetscape improvements are implemented following the completion of EC Safe and Sound flood mitigation, consider brick paving (no mortar joints) for sidewalks, as depicted in historic photographs, and for the parking/service lane. Based on the preliminary hydraulic modeling utilized in the development of EC Safe and Sound, the flood mitigation included in the plan will reduce shear stresses on the paving materials of Main Street to levels acceptable for the use of brick paving. However, the hydraulic model must be kept updated as the design and construction of the mitigation measures advance to ensure shear stresses remain at acceptable levels for brick paving. Utilize granite curbs, regardless of the sidewalk paving material and maintain continuity of materials along Main Street between Rogers Avenue and the Patapsco River.

o. **Emergency Messaging:** Integrate visual and audible emergency messaging as part of the overall streetscape design.

p. **Overhead Utilities:** Recognize the presence of the overhead utilities and challenges associated with moving them; work with utility companies to explore how utilities can be consolidated.

PLANTING AND ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES

q. **Planters and Flower Baskets:** Incorporate planters with seasonal color at select locations along Main Street intersections where space allows and where they would not create obstacles for pedestrians. Consider flower baskets affixed to utility poles in addition to or as an alternative to planter pots.

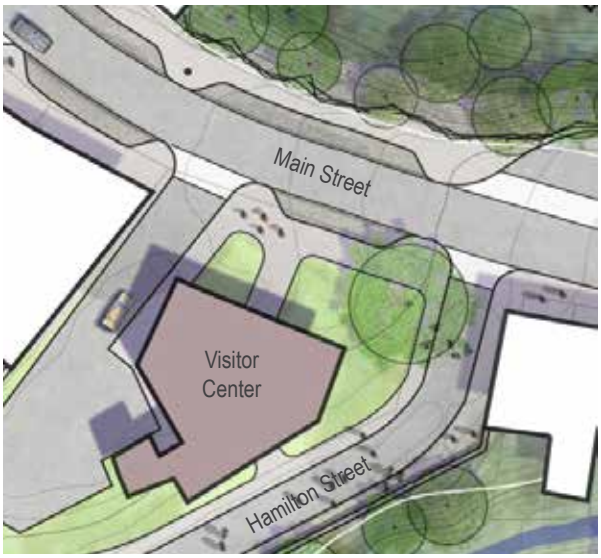


Figure 106: Images Top to Bottom: Potential Location for Mature Shade Trees, Large Impact from A Few Mature Shade Trees (Annapolis, MD), and Upright Trees Near Utility Lines (Greenville, SC)

Figure 107: Temporary "Parklets" Can Extend the Pedestrian Realm

Figure 109: Modest ESD Practices Can Serve as Demonstration Projects in Lower Main

Figure 108: Uplighting of Rock Outcropping to Highlight the Natural Features of the Area, Credit: Beste Cicek/Istandist

r. **Street Trees:** Punctuate the streetscape with canopy trees in the few locations where space allows to provide shade and visual interest. Potential locations include the front lawn of the Welcome Center and on private property easements (in cooperation with the property owners) throughout the West End. All of these locations should consider canopy trees with upright or columnar habit, set behind the overhead utility lines and set back from historic buildings to avoid root and limb damage to buildings over time. Avoid small ornamental trees with low canopies that block—rather than frame—views of historic buildings. See Figure 96 for historical precedent of a canopy tree punctuating the streetscape.

s. **Environmental Site Design (ESD) Practices:** Explore opportunities to incorporate ESD practices (such as flow-through planters) as a demonstration/educational project in part of the redesign of lower Main Street once the buildings are removed. This area will provide adequate space without conflicting with pedestrian movement and where fluvial soils, if present, may allow the facility to function properly.

AMENITIES

t. **Street Furnishings:** Incorporate street furnishings, such as benches, trash and recycling receptacles and movable tables and chairs throughout the streetscape as space allows. For benches, tables and chairs, limit placement to areas adjacent to wider public spaces, extended bumpouts, flexible use zones and parklets.

u. **Bicycle Facilities:** In addition to the "sharrow" markings on the travel lanes, provide bicycle parking in areas just off of Main Street where space allows as described for specific geographic areas in the following sections of this report. Bicycle parking should be located in highly visible locations, ideally with overhead shelter, to encourage use.

v. **Lighting:** Extend the installation of ornamental lighting along Main Street, between Ellicott Mills Drive and Rogers Avenue. To avoid creating additional obstacles in the sidewalk, continue to utilize ornamental brackets attached to existing utility poles. In areas where space allows, consider stand-alone ornamental poles and fixtures.

BRANDING

w. **Street Sign Toppers:** Utilize street sign toppers to distinguish different districts along Main Street, such as those found in Charleston, SC, which distinguish between the different neighborhoods in the city (see Figure 87, Page 129).

POLICY 6.2 MARYLAND AVENUE

Design and implement streetscape improvements for Maryland Avenue, from Main Street to St. Paul Street, in conjunction with the implementation of the Tiber Branch channel improvements as part of Safe and Sound.

Implementing Actions

a. **Raised Parking Zone:** Incorporate raised parking zones flush with the sidewalk separated from the travel lane by a mountable curb on each side of Maryland Avenue (see Figure 110). These could serve as flexible use zones that function as parking most of the time, and as expanded pedestrian zones some of the time during events and other periods of peak pedestrian use, while allowing the travel lanes to remain open. If a raised parking zone is pursued, bollards would need to be placed between the parking/service zone and everyday pedestrian zone. During special events, the parking/service zone could be closed temporarily to vehicles with physical barriers such as roping, fencing, movable planters or other similar means. Any bollards should be designed to withstand anticipated flood depths and velocities. Additionally, a visual impact study should be performed to determine any potential impact of installing bollards in the historic district.

b. **Materials:** Assuming that streetscape improvements will be implemented as part

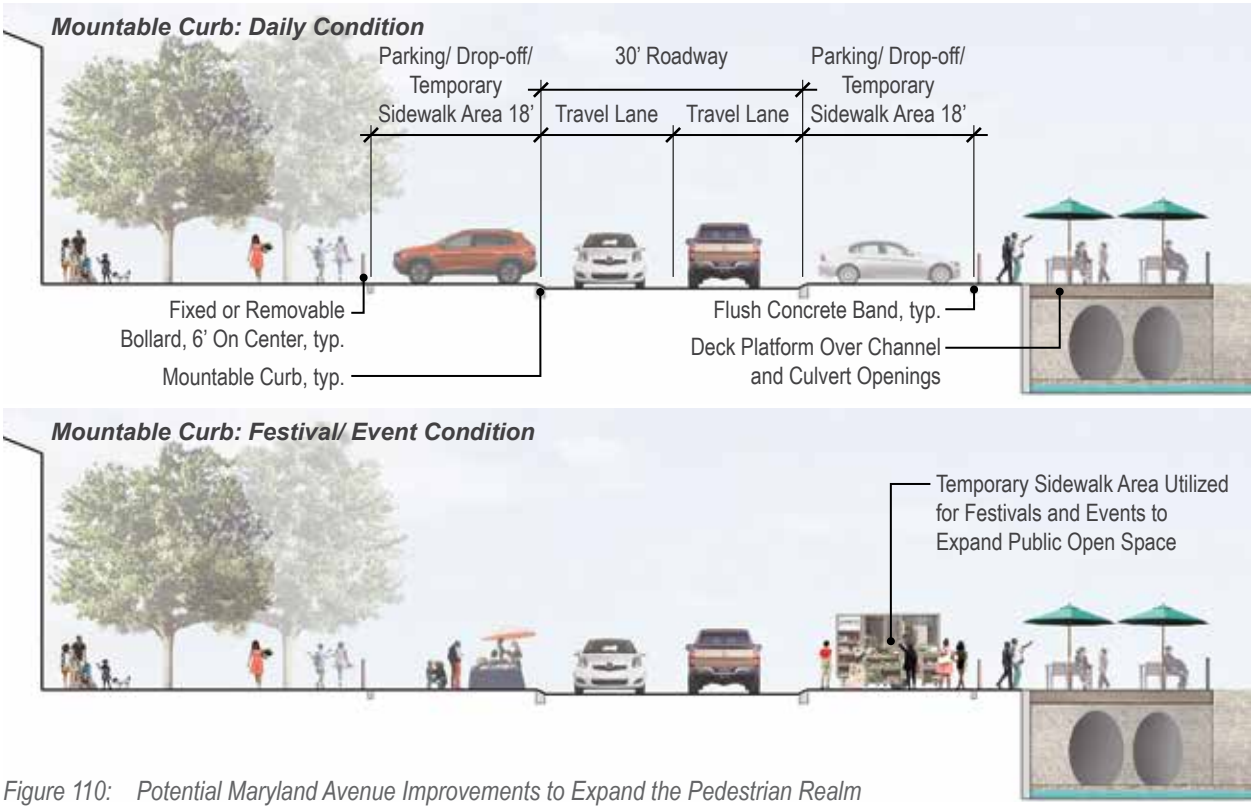


Figure 110: Potential Maryland Avenue Improvements to Expand the Pedestrian Realm

of or following the completion of EC Safe and Sound flood mitigation, utilize brick paving for sidewalks and consider special paving, such as cobblestone, for the raised parking zones. If feasible, explore utilizing the same special paving across the travel lanes of Maryland Avenue to create a continuous "plaza." Utilize granite curbs for both raised and flush curbing. Preliminary hydraulic modeling indicates that the EC Safe and Sound mitigation measures will reduce shear stresses on the paving materials to levels acceptable for brick, cobblestone and specialty pavers. The hydraulic model must be kept updated as the design and construction of the mitigation measures advance to ensure shear stresses remain at acceptable levels for brick and cobblestone.

c. **Emergency Messaging:** Integrate visual and audible emergency messaging as part of the overall streetscape design.

d. **Wayfinding Signage:** Incorporate wayfinding signage into the streetscape design with careful consideration to minimizing additional sidewalk obstructions.

Refer to Chapter III.8: Lower Main for additional master plan recommendations for adjacent channel area.

POLICY 6.3 OTHER STREETS

For the other streets connecting to Main Street, continue to utilize concrete or brick paving as sidewalks are replaced. Evaluate the decision to use brick or concrete at the time of the streetscape improvement project, considering the context and goals of the project. Protect the remaining granite curbing and, over time, replace segments of concrete curb and gutter with granite curb, particularly along Old Columbia Pike between the access to Lot D and Main Street.

Figure 112: West End Streetscape Improvements, For Illustrative Purposes Only

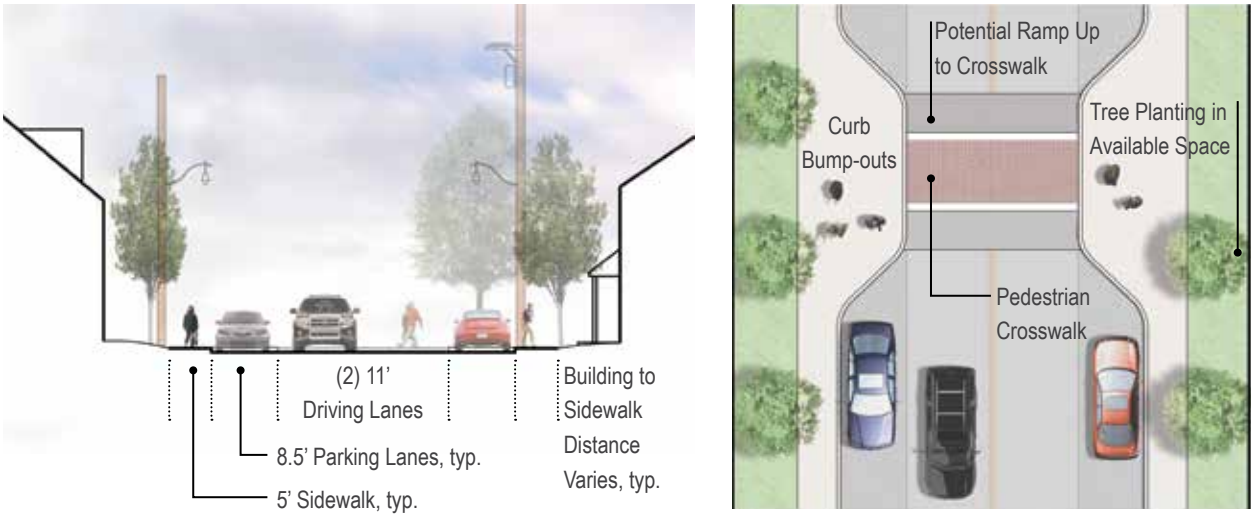


Figure 111: Typical Mid-block Crossing in the West End, For Illustrative Purposes Only

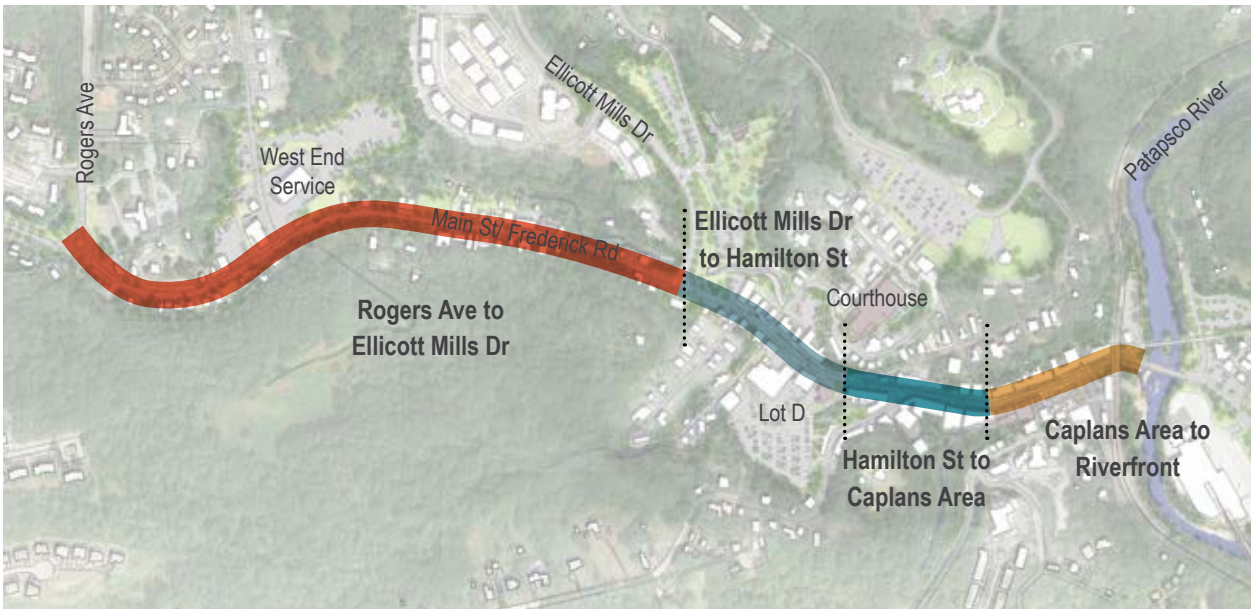


Figure 113: Potential Streetscape Improvement Segments

POLICY 6.4 STREETSCAPE CONSTRUCTION PHASING

During the streetscape design, identify sections of the street to be segmented for phased construction. Consider logical beginning and end points at intersections to allow for vehicular connections onto and off of Main Street during construction. Additionally, phasing should consider completing one side of the street at a time to always allow for one travel lane to remain open. Potential phasing segmentation could include:

- Riverfront to Caplans Area/8125 Main St
- Caplans Area/8125 Main St to Hamilton St
- Hamilton St to Ellicott Mills Dr
- Ellicott Mills Dr to Rogers Ave

POLICY 6.5 STREETSCAPE CONSTRUCTION MANAGEMENT MITIGATION PLAN

Establish expectations that streetscape construction will be highly disruptive and develop construction mitigation management plans for each phase of the streetscape improvement projects. These construction management plans should consist of three phases: pre-construction, during construction and post construction. Elements of the plan should include but not be limited to the following:

- Access to parking and changes to parking resources
- Pedestrian access to businesses
- Deliveries, pick-ups and trash collection
- Noise and dust control and mitigation of other disruptions
- Messaging that utilizes the Old Ellicott City branding to keeps customers, residents and businesses informed and that Ellicott City is "open for business"
- Interpretive information/signs that explain the streetscape design concept and the design features that support resiliency
- "Breakfast with Public Works" – different restaurants host weekly or monthly breakfasts with the project lead to share information and answer questions
- Social media
- Special events organized around project milestones and/or in celebration of the completion of the project or segment of the project
- Public meetings to solicit input and address concerns

Figure 114: Construction Messaging Using Ellicott City Branding

III.7 Riverfront

DESCRIPTION

The "Riverfront" includes areas adjacent to the Patapsco River and Oella/Baltimore County and the Main Street Bridge. Ideas and recommendations for enhancements on the Baltimore County side are for discussion purposes between the two counties.

ELLICOTT CITY TODAY

An assessment of current conditions along the riverfront includes evaluation of resources not only on the Ellicott City side of the river, but also on the Baltimore County side.

HISTORIC AND CULTURAL RESOURCES

- **B&O Station Museum Viewshed:** The B&O Station occupies a prominent site above the Patapsco River in Ellicott City. Mature tree canopy obscures views of this important structure much of the year, however.

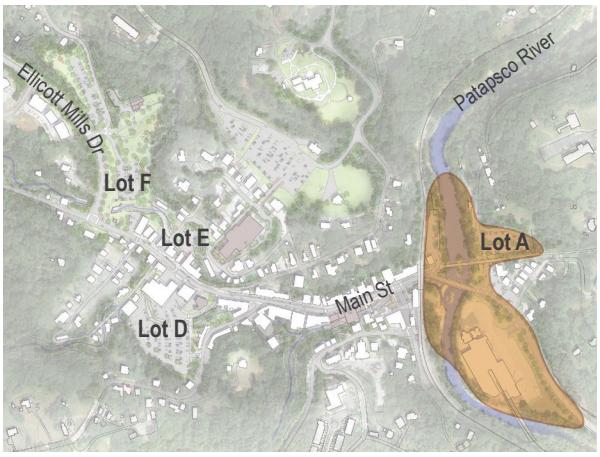


Figure 115: Key Plan — Riverfront

- **Wilkins Rogers Mill Site:** The Ellicott brothers settled along the Patapsco river banks on the very site of the Wilkins Rogers flour mill and developed the area's first industry, a grist mill utilizing the river's energy. They expanded the Ellicott Mills community and encouraged transportation networks to support their various milling operations, revamping their methods as technology changed. Despite radical economic shifts, fires, repeated flooding, and changes in ownership, flour milling continued between the river and Frederick Road for almost 250 years, until the recent closing of the Wilkins Rogers mill site in early 2020. With its closing, Maryland lost its last flour mill, further amplifying the significance of this site. A section of the early mill's stone wall is incorporated into the 20th-century factory. In fact, several buildings existed on the site prior to the 1868 flood; they were destroyed in the flood along with a tragic loss of lives. On a lighter note regarding the many items of interest to its storied history, the mill is the former home of the first automated donut machine and prepared donut mix factory in the world.
- **Granite Hill and Former Quarry:** Granite Hill is the name of the area located above Lot A in Baltimore County. Granite Hill is part of the Ellicott Mills National Register Historic District, a separate district from the Ellicott City National Register Historic District and is home to two log cabins. A former quarry, now Lot A, provided some of the iconic granite used to construct buildings in both Ellicott City and Oella. The quarry site was later used for housing, however, Patapsco River flooding in the 1970s ended the residential use of the lot.

- **Trolley Line #9:** The Trolley Line #9 connected Ellicott City (in the vicinity of the former fire house) to Catonsville and Baltimore for more than half of a century. The trolley service was discontinued in the 1950's and the truss bridge that spanned the Patapsco was demolished. Some of the stone piers that supported the truss bridge remain and offer a tangible link to an important transportation story for Ellicott City.

PATAPSCO VALLEY STATE PARK

Patapsco Valley State Park is an extensive nearby park resource along the Patapsco River, extending to the north and south of Ellicott City. The boundary is largely fragmented and does not extend into Ellicott City's core. The park has constructed an "Ellicott City Link" which opened in 2020. The link includes a trail network from the rear of the park adjacent to Park Drive which travels southeast along the Sucker Branch and discharges at the base of Sylvan Lane at the Sucker Branch. The trail guide and signage will indicate a link to Ellicott City by walking along Sylvan Lane to Church Road.

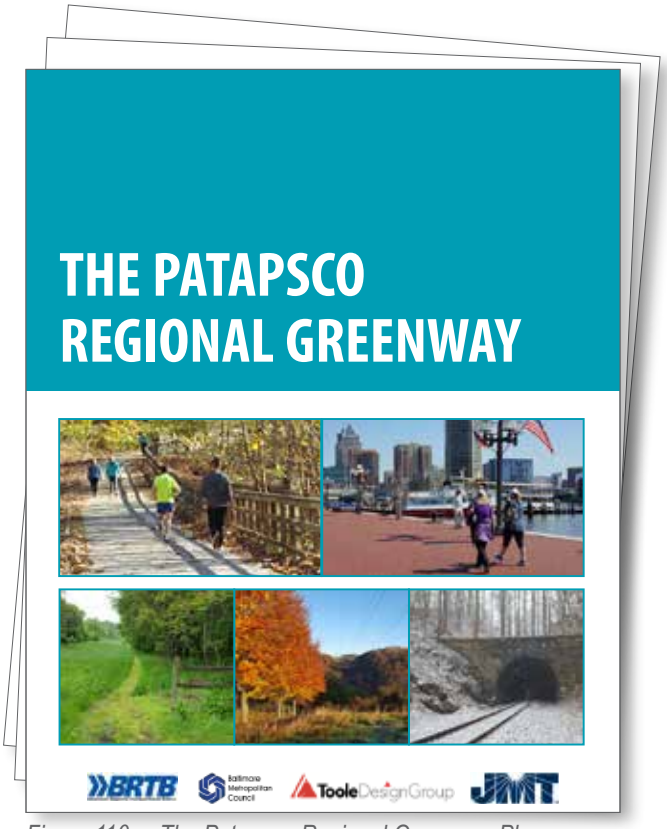


Figure 116: The Patapsco Regional Greenway Plan Outlines the Potential for Several Trail Connections in Ellicott City

TRAIL CONNECTION OPPORTUNITIES

The Patapsco Regional Greenway Plan (PRGP) outlines the potential for several trail connections on both sides of the Patapsco River, connecting Ellicott City to the existing Grist Mill Trail and Trolley Line #9 Trails and northward along the river to other trails. Additionally, other potential trail connections discussed by stakeholders present an opportunity to expand the trail network within the Ellicott City area.

- **Grist Mill Trail:** The Grist Mill Trail is a paved trail linking Ilchester with the Avalon Area of Patapsco State Park. Plans include extending the trail along River and Frederick Roads into Oella.
- **Supplemental Trail:** While not included in the Greenway master plan, there has been some conversation regarding a secondary trail linking Ellicott City and Ilchester on the west side of the Patapsco River.
- **Trolley Line #9 Trail:** The former rail line is now the Trolley Line #9 Trail, providing a significant recreational amenity between Oella and

Figure 117: Oella Entrance Garden and Passive Park

Catonsville. While there is ADA access to the trolley trail from Westchester Avenue, none exists between the trail and Lot A.

- **Nature Trail (Howard County):** With limited railroad right-of-way and steep wooded slopes, the plans call for a nature trail connection between Ellicott City, northward, before connecting to a proposed "Trail by Rail" where there is more space associated with the railroad right-of-way.
- **Oella Avenue and Mill Race Trail (Baltimore County):** A trail route on Oella Avenue will connect Oella to the existing Mill Race Trail further to the north. Ongoing conversations with private property owners have not been successful regarding northward trail easements along the river.

As planning for future trail connections continue, the intersection of Oella Avenue and Main Street needs to be considered. Turning movements at the Oella Avenue intersection can be difficult resulting in challenging conditions for pedestrians.

OELLA ENTRANCE GARDEN

The Oella Entrance Garden is an important open space that serves as a visible gateway to Ellicott City from the east. The once neglected park area has been transformed and continues to be cared for by volunteers.

- **Passive Park:** The entrance garden serves as an inviting community asset, enticing passersby to linger and enjoy the views of Ellicott City, passing trains, and the river.
- **Monarch Waystation:** The garden has rebounded into a designated Monarch waystation and is planted primarily with pollinator-friendly native plants.
- **Patapsco River Viewshed:** Existing trees behind the sign screen the roadway from those enjoying the space but also block views of the river from those approaching Ellicott City from the east.

Figure 118: Historic Photo of Trolley #9 Bridge, Credit: Baltimore County Public Library/MD Covered Bridges

Figure 119: View to River and Main Street Bridge from Lot B

Figure 120: Sense of Enclosure and Bedrock in Lot A

EC SAFE AND SOUND OUTFALLS

Howard County is planning the North Tunnel to divert the flood flows of the Hudson Branch through a tunnel which outfalls into the Patapsco River on the north side of Parking Lot B. The Maryland Avenue culvert will outfall into the Patapsco River south of the vehicular bridge (Frederick Road/Main Street).

- **Outfall Location:** The North Tunnel outfall will be set into the hillside between the CSX rail line and the edge of the river.
- **Construction Staging:** As Lot B is the only feasible point of access for the construction of the tunnel outfall, Howard County will likely utilize Lot B as a staging area for materials and equipment for the duration of the tunnel construction.

PARKING RESOURCES

- **Lot B:** Lot B is a surface lot with 24 spaces and serves the lower Main Street area. It is located on the east side of the CSX Railroad tracks and is the only area within the core that allows for Patapsco River access. It is spatially well-defined by mature trees and stone walls. Prior to the 2016 flood, Howard County installed permeable paving within the parking spaces.
- **Lot A:** Lot A provides 76 parking spaces and was created through a private/public partnership that spanned county lines. Its location within the floodplain makes it unsuitable for occupied construction, though it is ideally situated to provide overflow parking for the adjacent businesses and Ellicott City activities, intercepting visitors from the east before arriving at Main Street. The parking area is set back into the carved cavity of the former quarry. Canopy trees within the lot provide a human scale and cooling shade.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 7.1 PATAPSCO RIVER PEDESTRIAN AND BICYCLE CROSSING

Implement the recommendations of the Concept Plan for a Patapsco Regional Greenway and explore options for a pedestrian/bicycle (shared-use) crossing over the Patapsco River. This crossing would provide a more direct and safer connection for pedestrians and bicyclists between Oella and Ellicott City, particularly if parking resources are expanded in Lot A.

OPTION 1—NEW BRIDGE

Construct a new bridge dedicated to pedestrians and cyclists where the trolley bridge once stood as a direct extension from the Trolley Line #9 Trail.

Implementing Actions

a. **Signature Design:** Design a bridge that could be an attraction in and of itself, using contemporary technologies to create an iconic design, potentially stylistically referencing the former Trolley Bridge removed once trolley service was suspended. That former steel truss bridge was constructed to replace the original wooden covered bridge with the latest technology available to its builders at that time. Illuminate the structure using dark sky approaches to enhance the gateway to both Ellicott City and Oella. Consider how the bridge could serve as a venue for periodic art installations.

b. **Existing Infrastructure:** Investigate the feasibility of utilizing the existing stone piers. Evaluate them for structural stability and ability

to elevate the bridge decking to accommodate taller emergency vehicles passing below on Oella Avenue.

c. **River Overlooks:** Incorporate a well-designed landing and overlook at Lot B, integrated into the overall site design. Integrate overlooks along the span to allow pedestrians to take advantage of river views without impeding pedestrian and bicycle flow.

d. **ADA Accommodations:** Provide ADA accessibility on both sides of the river.

e. **Wayfinding and Interpretation:** Utilize wayfinding and interpretive signage as part of the proposed "green cultural trail" and riverfront trail networks.

OPTION 2—MODIFICATION TO MAIN STREET BRIDGE

As a potential option to a dedicated pedestrian/bicycle bridge, continue to explore the option of constructing a cantilevered extension attached to the existing Main Street bridge. The current study for a cantilevered extension is also going to look at re-configuring the existing driving lanes to widen the sidewalk.

Implementing Actions

f. **Design:** Design a bridge extension that is sensitive to the design of the existing roadway bridge. Consider overall context and goals when determining which side (or both sides) of the bridge is most appropriate for the extension, including long-term opportunities for the Wilkins Rogers mill site and Lot A. While the south side would be appropriate when considering the potential use of the mill site, the outfall of the Tiber Branch may limit the feasibility of this approach. A bridge extension on the north side would provide for a more direct pedestrian link to Lot A.

g. **Bridge Extension Elevation:** Evaluate the elevation of the bridge extension as it relates to potential floodwaters and potential impacts to river views.

Figure 121: Temporary Art Turns the Bridge into An Attraction of Itself in Greenville, SC

Figure 122: Contemporary Interpretations of Truss-Style Bridges, Credit: Cavin Teo (Middle), SPF:architects (Bottom)

h. **ADA Accommodations:** Provide ADA access from the Trolley Line #9 Trail through Lot A to street level as long as Lot A is a surface parking lot.

i. **Coordinated Site Planning:** Coordinate the access to the bridge crossing with the improvements to the surrounding street network, trail network and any planned improvements to private property. Plan for safe crossings at the Main Street and Oella Avenue intersection and connections to other planned trails and trail extensions on both sides of the Patapsco River.

POLICY 7.2 REGIONAL TRAIL NETWORK

Continue efforts to coordinate with regional partners, Baltimore County, CSX and private property owners to plan for and accommodate the long-term implementation of the recommendations of the Patapsco Regional Greenway Plan to extend the regional trail network into Ellicott City.

Implementing Actions

a. **Secondary Trail:** Explore opportunities for a future secondary trail on the west side of the Patapsco River, between Ellicott City and Ilchester to provide a short "loop" between Ellicott City and Ilchester.

Figure 123: Natural Surface Trail, Oella Mill Race Trail, Credit: John Bedell/Benedante.blogspot.com

b. **"Nature Trail" (Howard County):** Plan for the long-term implementation of a nature trail connection to the north from Lot B, along the west side of the Patapsco River. Coordinate with the North Tunnel design team to explore ways to safely reserve space for a future trail as part of the North Tunnel design.

c. **Trolley Line #9 Trail Extension:** Incorporate a trailhead for the Trolley Line #9 Trail in Lot A in coordination with the improved pedestrian and bicycle connection across the Patapsco River.

d. **"Green Cultural Trail":** Connect the proposed "green cultural trail" in Ellicott City to the riverfront trail network.

e. **Grist Mill Trail Extension:** Work with Baltimore County and other partners as they coordinate and accommodate the extension of the Grist Mill Trail along River and Frederick Roads.

POLICY 7.3 NORTH TUNNEL OUTFALL

As the North Tunnel planning proceeds as part of the EC Safe and Sound flood mitigation, coordinate with the North Tunnel design team for a design of the tunnel outfall that is sensitive to its surroundings, keeping in mind that it will be visible from lower Oella.

Implementing Actions

f. **Trail Accommodations:** Coordinate with the North Tunnel design team to explore ways to safely reserve space for a future trail as part of the tunnel design.

g. **Functionality:** Incorporate energy dissipation devices to slow the water flow, armor the outfall to resist scour and erosion, and maintain an open outfall to allow debris to pass through while not restricting flow.

h. **Design and Materials:** Salvage stone from the existing retaining wall, if impacted, for use in the North Tunnel outfall design. Utilize stone and construction materials that visually blend with the natural stone of the river channel. Incorporate natural rock outcrops into the overall design.

i. **Messaging and Interpretation:** Provide appropriate signage, integrated into the overall design, for safety messaging and interpretation of the flood mitigation.

POLICY 7.4 ELLICOTT CITY RIVERFRONT PARK

Establish a riverfront park on the Ellicott City side of the river adjacent to Lot B to provide greater access to the Patapsco River. The park can be comprised of a boardwalk along the edge of Lot B and a re-designed Lot B, as described below, to function as park space during certain events.

Implementing Actions

a. **Boardwalk Overlook:** Explore opportunities to incorporate a boardwalk along the riverside edge of Parking Lot B above flood elevation and in a way that it could withstand flood events, working around existing trees. Utilize an ornamental fence and gates to allow river access via a nature path with stone steps and, if possible, an ADA accessible ramp.

b. **River Access:** Incorporate access points for kayaks and fishing and develop associated maintenance and stewardship plans to minimize negative impacts from increased river access.

c. **Site Amenities:** Incorporate site amenities such as seating, trash receptacles and lighting.

d. **Trailhead:** Recognize that this space has the potential to be a trailhead for multiple trails and integrate that into the overall design with appropriate bicycle accommodations, wayfinding, visitor information and interpretation.

e. **Public Art:** Allow for permanent and temporary river and nature-focused public art.

f. **Phasing:** Coordinate the design and implementation of the park with the North Tunnel outfall construction while the lot is closed as a staging area.

POLICY 7.5 LOT B

In conjunction with the development of a riverfront park, redesign Lot B as an expanded riverfront park.

OPTION 1

Design as a flexible use space that can function as an extension of the park for special events while continuing to function as a parking resource most of the time. This approach would be particularly important if Lot A remains surface parking and if the Wilkins Rogers mill site is not available for public parking.

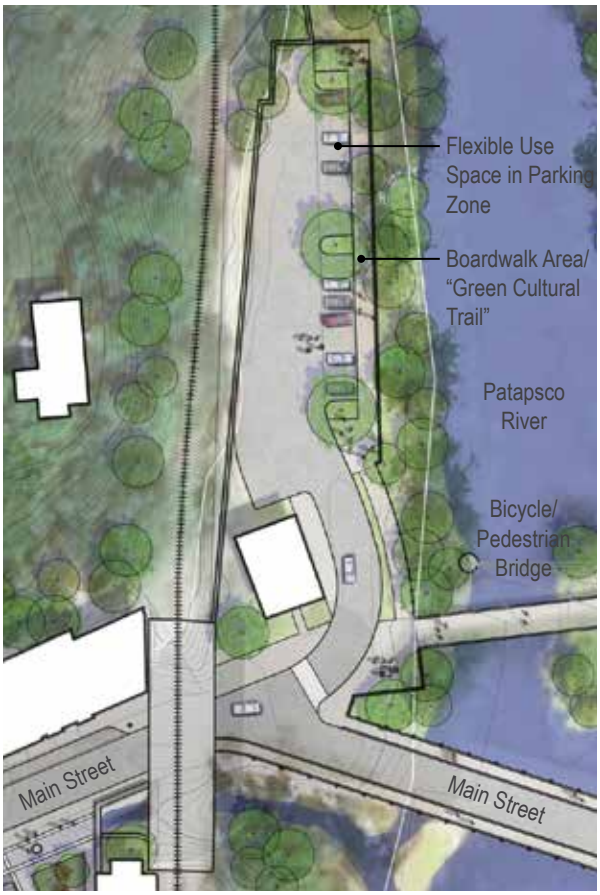


Figure 124: Riverfront Park and Lot B Flexible Use Space, For Illustrative Purposes Only

Implementing Actions

a. **Paving Treatment:** Utilize special paving, including permeable paving, to delineate parking areas and define a zone that could be closed for events.

b. **Planting Islands:** Incorporate planting islands to allow for canopy trees.

c. **Ornamental Lighting:** Provide lighting that is sensitive to the riverfront location and reinforces Lot B as a parking lot and park space.

Figure 125: Riverfront Trails and Park Spaces Can Add to the Diversity of Experiences in Ellicott City, Credit: Alice Clancy (Top Left), Daveynin Creative Commons (Top Right), Camknows Creative Commons (Bottom)

d. **Wayfinding Signage:** Incorporate wayfinding signage and dynamic parking information system technologies to help manage parking and improve the user experience.

e. **Branding:** Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

OPTION 2

Convert most of Lot B into park space if additional public parking is developed in Lot A with a garage and/or as part of the Wilkins Rogers mill site reuse.

POLICY 7.6 LOT A

As part of the overall parking strategy, work with Baltimore County and the Oella community in considering options for enhancements to Lot A to reinforce this lot as a major parking resource for Lower Main and the Riverfront. The options listed below could also serve as phases.

Implementing Actions (All Options)

a. **Public outreach:** As plans are developed, coordinate with Baltimore County to conduct public outreach to the Oella community.

b. **Pedestrian and Bicycle Connections:** Provide pedestrian and bicycle connections with ADA accommodations between Lot A and the Trolley Line #9 Trail and Patapsco River crossing.

c. **Bicycle Accommodations:** Incorporate bicycle parking and explore the potential for a future bike share station.

d. **Wayfinding Signage:** Provide wayfinding signage, visitor orientation maps and dynamic parking information system technologies to help manage parking and improve the user experience.

e. **Branding:** Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

CONSIDERATIONS FOR WILKINS ROGERS MILL SITE

This riverfront site offers great potential for creative, adaptive reuse that could dramatically change the character and function of the Riverfront. In summer 2020, Baltimore County rezoned the site from industrial use to mixed use. In context with this reuse, Baltimore County should consider the following:

a. **Interpretive Components:** Explore opportunities to incorporate arts and interpretive components, including the section of the early mill's stone wall.
b. **Public Open Space:** Connect to the open space network and seek opportunities for publicly accessible connections, particularly along the riverfront.
c. **Public Parking:** If the property reuse can accommodate it, explore opportunities for public parking through potential temporary or shared parking arrangements.
d. **Tour Bus Accommodations:** Explore opportunities for tour bus parking and/or turnaround area.
e. **Emergency Public Alert System:** Because the site is located within the 100-year floodplain, consider incorporating emergency public alert systems similar to those being installed throughout Ellicott City's core as part of EC Safe and Sound.

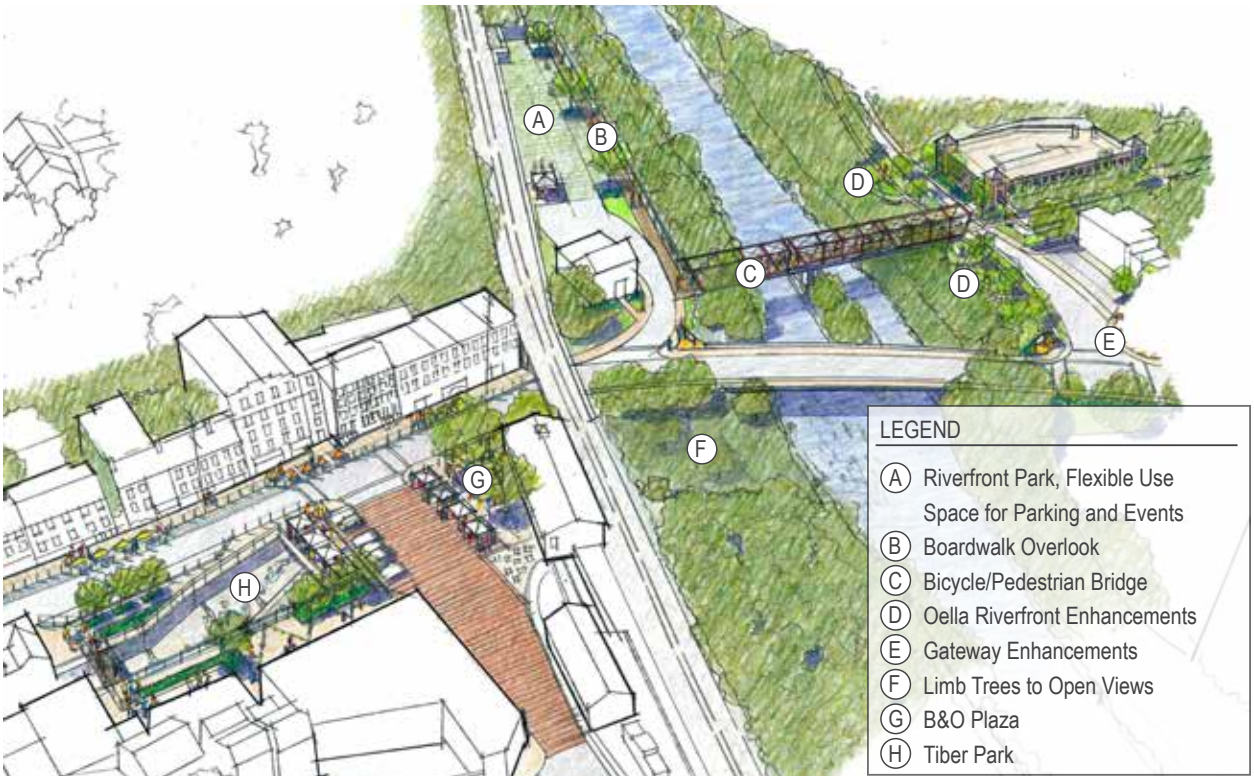


Figure 126: Ellicott City Riverfront Birds Eye View, For Illustrative Purposes Only

Figure 127: Lower Main Riverfront 1A, For Illustrative Purposes Only

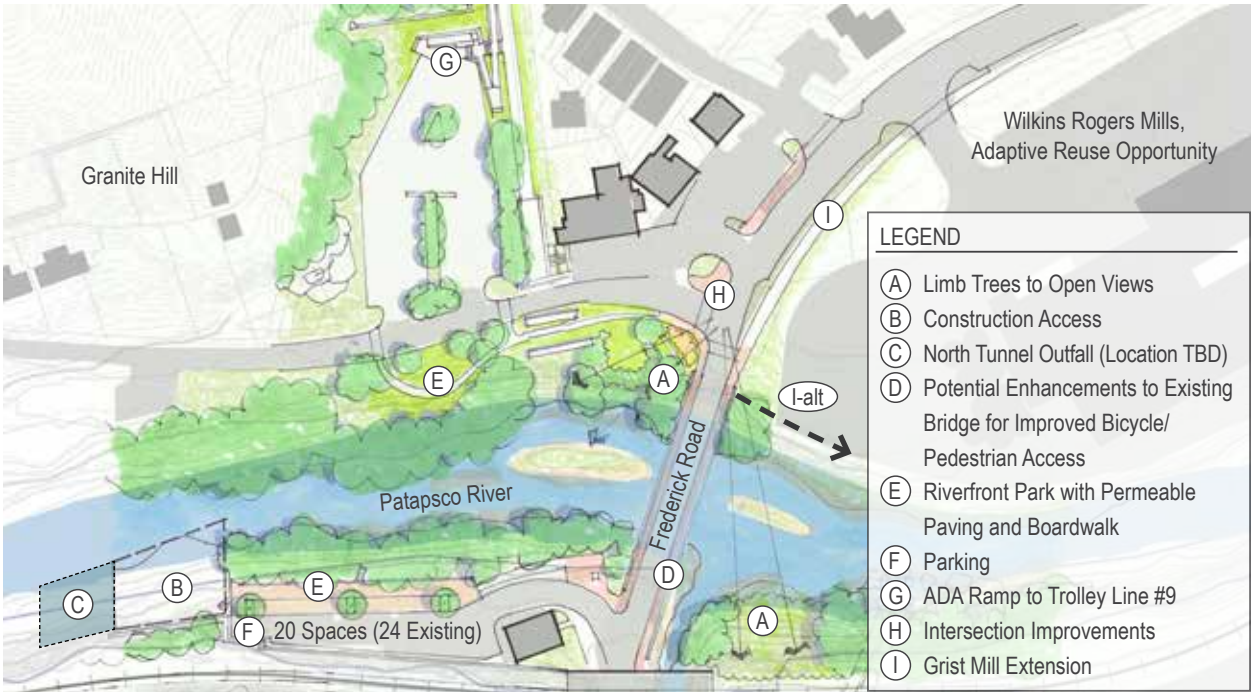


Figure 128: Lower Main Riverfront 1B, For Illustrative Purposes Only

OPTION A (SURFACE LOT)

Provide ADA accessibility in the form of a ramp leading from the parking lot surface to the Trolley #9 Trail until such time that a parking deck can be constructed or if the lot is to remain surface parking. This would accommodate ADA accessibility for both options of the Patapsco River bridge crossing.

OPTION B (PARKING DECK)

If the reuse/redevelopment of the Wilkins Rogers mill site does not provide for public parking, consider a parking deck to increase parking resources for Lower Main and the Riverfront as well as to allow for the potential enhancements to the adjacent private commercial properties, Oella Avenue and Frederick Road intersection improvements as described below.

Implementing Actions

f. **Architectural Design:** Develop an architectural design that is sensitive to the site context, including the rock outcrop along Oella Avenue, Granite Hill, the historic districts and adjacent residential properties. Consider the structure height in relationship to adjacent properties and architectural treatments that are sensitive to historic character while helping to mitigate noise. Utilize an external ramp that accommodates the small site and allows for level floors without internal ramping and accommodates ADA accessibility for bicycles and pedestrians. Consider rooftop ESD practices and green technologies to soften the appearance.

g. **Floodplain Sensitivity:** Consider the lot location within the 100-year floodplain in the design of the structure. Coordinate with Baltimore County and Maryland Department of the Environment (MDE) permitting, if needed.

h. **Traffic Considerations:** Design the garage to intercept traffic from Frederick Road/Main Street and use signage to encourage vehicles to exit back to Frederick Road/Main Street rather than traveling Oella Avenue with its narrow right of way and limited sight lines.

Figure 129: Opportunity to Enhance the Gateway Experience by Opening Views to the B&O Museum from the Patapsco River Bridge

POLICY 7.7 **B&O STATION MUSEUM HILLSIDE**

Consider selective tree pruning on the slope in front of the B&O Station Museum to open views to this important historic landmark on the approach to Ellicott City from the east.

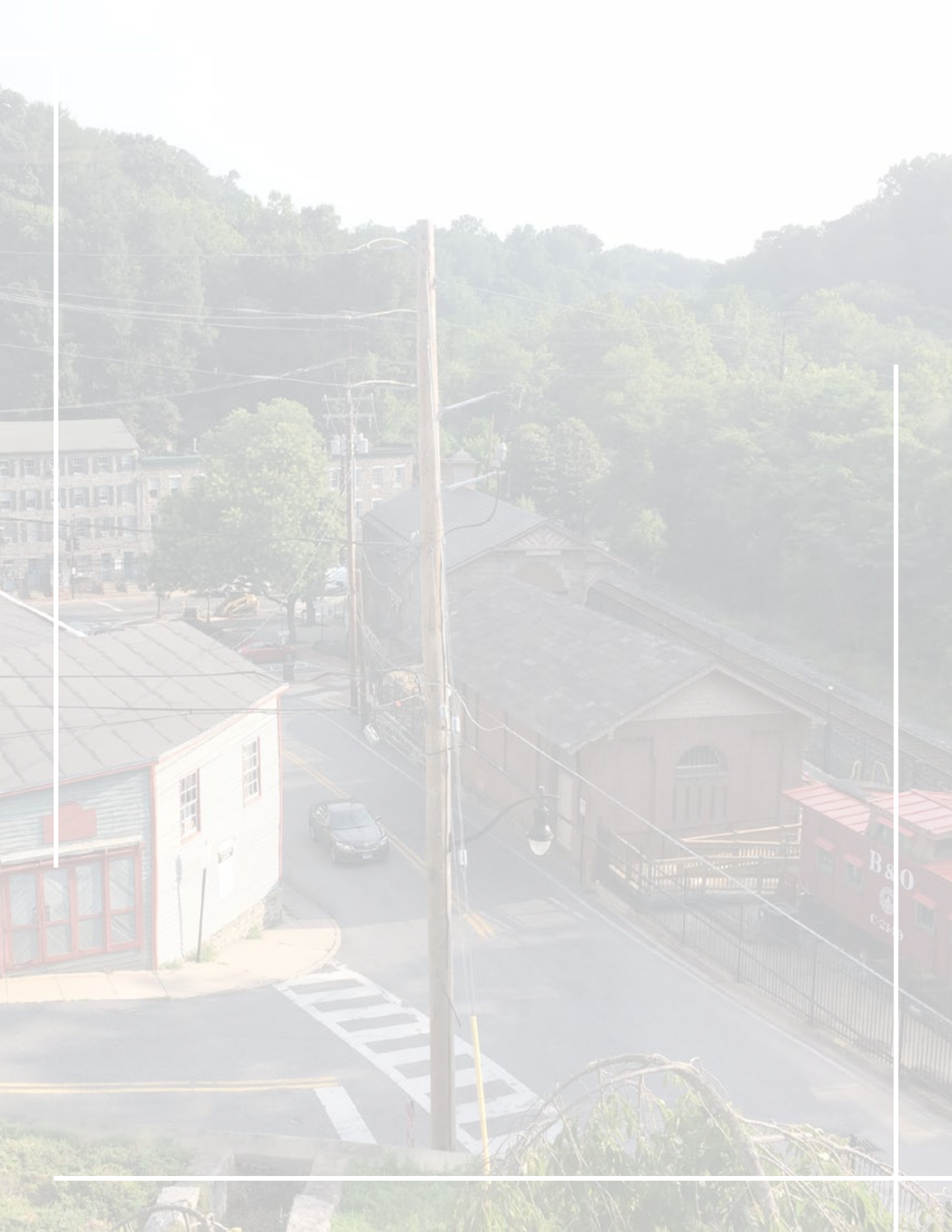
CONSIDERATIONS FOR GATEWAY IMAGE AND OELLA RIVERFRONT

Consider working with Baltimore County, property owners and volunteer organizations to explore potential enhancements to the east gateway to Ellicott City and Oella riverfront area. If there is interest, there is the potential to enhance properties and the public right-of-way area. Consider the following:

a. **Façade Enhancements:** Since this is a major Gateway for both Ellicott City and Oella, encourage façade improvements for properties along Frederick Road on the approach to lower Oella and Ellicott City.
b. **Streetscape:** Incorporate landscape improvements along the perimeter of the lots to include high canopy street trees to help define the street edge and improve businesses' curb appeal while maintaining customers' views of the river.
c. **Outdoor Dining:** Work with businesses to build upon their current efforts to activate outdoor areas by converting some parking spaces to outdoor dining (if additional parking resources are provided in Lot A).
d. **Pedestrian Safety:** Improve the pedestrian crossing at Oella Avenue and Frederick Road.
e. **Trail Network Coordination:** Coordinate any private property improvements with the planning of the riverfront trail network to accommodate logical and safe alignments and crossings.
f. **Site Design:** Explore ways to incorporate a bus/shuttle turnaround.
g. **Ellicott City-Oella Entrance Garden Enhancements:** Consider pruning the trees at the corner of Oella Drive and the Main Street bridge to open views beneath the canopies to the river, while maintaining the spatial definition of the garden space.
h. **Oella Riverfront Park:** Explore opportunities with private property owners to create a riverfront park with public access along the Oella riverfront northward to Lot A and on the south side of the Main Street Bridge. This could provide greater access to the riverfront, accommodate potential trail access to the north as outlined in the Patapsco Heritage Greenway plan, and provide outdoor gathering areas and access to the water. While private property interest may not exist at this time, maintain open lines of communication over the long-term.

Figure 131: Facade Improvement Opportunity, Oella Avenue and Main Street Intersection

Figure 130: The Wilkins Rogers Mills Site Presents a Significant Opportunity for the Riverfront Area



III.8 Lower Main

DESCRIPTION

The lower Main Street area, "Lower Main," extends from the bend in Main Street (near Caplans/8125 Main St) to the Patapsco River bridge and includes the B&O Station Museum and Plaza, Tiber Park, Tiber Alley, the Oliver Viaduct railroad bridge and both sides of Main Street. Significant flood mitigation improvements are planned for this area as part of EC Safe and Sound that will result in building removal and a change to the area's character.

ELLICOTT CITY TODAY

HISTORIC AND CULTURAL RESOURCES

Focused on the B&O Station Museum, Lower Main represents the oldest part of Ellicott City and the historic center of rural industry for this early industrial community. In Ellicott Mills' early years, businesses in Lower Main harnessed the power of the tributaries. A dam on the New Cut fed a mill race which ran along an elevation higher than the Tiber Branch (parallel to St. Paul Street) before dropping to turn a water wheel. The Tiber meanwhile, was channelized with side walls

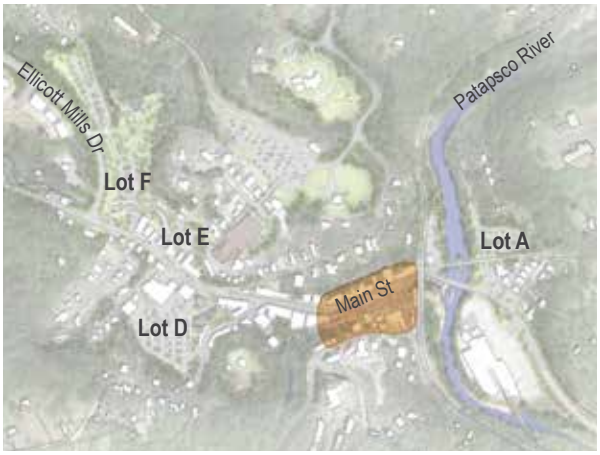


Figure 133: Key Plan — Lower Main

Figure 132: Spatial Breadth of Maryland Avenue

constructed of Ellicott Mill's iconic stone. Some of Ellicott City's oldest buildings—centered around Tiber Alley—and tallest buildings—banked into the hillside to the north across Main Street—are located here.

- **Place of Commerce:** As an industrial town, Ellicott Mills' buildings and active commerce were focused on the riverfront flour mill and the B&O Railroad Station. Maryland Avenue with Main Street and the plaza in front of the Station Museum create a relatively broad public space today that contrasts with the narrow confines along Main Street.
- **Oliver Viaduct:** The 1829 viaduct, also known as the railroad bridge, historically featured three stone arches; today, one stone arch remains. The railroad bridge, with its Ellicott City signage and historic arch, provides a strong gateway experience as one arrives from both the east and west. Previously existing flood markers on the stone arch provided a grim reminder of Ellicott City's history of flooding and its relationship with the water.

Figure 134: The Oliver Viaduct's Narrow Opening Restricts Flood Conveyance in Lower Main

PUBLIC REALM

Two of Ellicott City's iconic park spaces are found in Lower Main and anchor the public realm.

- **B&O Station Museum Plaza:** The plaza associated with the B&O Station Museum anchors lower Main Street and the confluence of the Tiber with the Patapsco. From the late 1990s, when it was installed, to the 2018 flood, a clock served as a marker and meeting spot. Mature trees provide shade and "green" relief within an environment largely defined by stone, brick and concrete. The plaza space provides a rare place for gathering.
- **Tiber Park:** A short distance from the B&O Plaza, Tiber Park is the most formalized park space within the core, anchoring Lower Main and Tiber Alley. The existing bosque of trees provides an oasis along Main Street. The park, built at the site of a building destroyed by fire, straddles the Tiber Branch and provides one of the few places where visitors can engage visually with the water. The park includes memorial benches, tributes to two young lives lost in a 2012 train derailment.
- **Tiber Alley:** Tiber Alley serves a dual function as a service alley and pedestrian thoroughfare harkening back to the pre-automobile era. The alley provides a complementary pedestrian experience to and a respite from the busyness of auto traffic along Main Street, in spite of the functional and visual conflicts of solid waste storage for the restaurants and businesses located along the alley. Tiber Alley's charm is rooted in the narrowly enclosed space and unfolding experiences within the space. The 2016 flood dislodged some of cobblestone paving that was an important character-defining element. Howard County has salvaged and stored these paving stones and repaved the alley in asphalt as a temporary repair.

  While Tiber Park, Tiber Alley and the B&O Plaza are within proximity to one another, they have not traditionally functioned as a connected open space network.

PARKING LOT C

Parking Lot C is located to the south of the B&O Station Museum, accessible from Maryland Avenue. The 21-space parking lot is an important resource serving Lower Main. The lot lacks formal organization and is utilitarian in design. A permanent EC Safe and Sound speaker array will be located in this lot.

FLOOD IMPACTS

Lower Main is highly vulnerable to flooding within Ellicott City.

- **Patapsco River Flooding:** Much of Lower Main is located within the Patapsco River floodplain, making it vulnerable to both flooding from the Patapsco River and the tributaries.
- **Steep and Narrow Valley:** The Tiber Branch valley is at its steepest and most narrow here. As the Tiber Branch descends toward the B&O Station Museum, it is highly constrained by buildings that encroach up to and over the channel walls.
- **Conveyance Obstacles:** Flood flow conveyance is further pinched at the Oliver Viaduct. The viaduct and large sanitary sewer junction box, just downstream of Maryland Avenue, create a backwater effect increasing the flood elevations during flooding from the upstream tributaries.
- **Access to High Ground:** The historic development patterns with few accessways between buildings and steep hillsides behind buildings limit areas where people can safely seek higher ground during flood events.

EC SAFE AND SOUND FLOOD MITIGATION

As part of EC Safe and Sound efforts to increase the resiliency of the core, Howard County acquired ten buildings along the south side of lower Main Street, all of which have building elements over the Tiber Branch channel that constrict the flow of flood water in the Tiber Branch. The acquisition of the buildings allows for significant conveyance improvements that include building removal, building alterations, and construction of Maryland Avenue culverts.

Figure 137: Main Street at Maryland Avenue

Figure 136: Tiber Park Links Main Street with Tiber Alley and Spans the Stream

Figure 135: Tiber Alley Provides a Complimentary Experience to Lower Main (Post-2016 Flood)

- **Building Removal:** With a focus on public safety, Howard County plans to remove the lower four buildings close to Maryland Avenue to allow for channel widening and the construction of the Maryland Avenue culverts.
- **Building Alterations:** The next six buildings to the west of Tiber Alley will be altered with the removal of building segments that encroach on the channel to allow for improved flood conveyance along the Tiber. Howard County intends to maintain these six Main Street properties purchased as public assets until flood mitigation projects are complete.

  The County will undertake an analysis to determine the best public use for the six buildings, until such time that the buildings can be returned to the private sector. Once partial demolition of structures over the stream channel is complete, the buildings will be renovated, including facade improvements, stabilization, cleaning of interiors, and filling in some basements to increase stability.
- **Maryland Avenue Culverts:** The County will construct a culvert extending from the Tiber, under Maryland Avenue and the CSX tracks, to convey floodwaters to the Patapsco River.
- **Section 106 Process:** The county is required to satisfy the mandates of Section 106 of the National Historic Preservation Act (NHPA) in order to obtain the necessary federal permits to proceed with flood mitigation plans.
- **Historic Preservation Commission (HPC) Approval:** A Certificate of Approval is needed to alter, move or demolish any building in the historic district and is a separate approval process from Section 106 review.

FLOOD MITIGATION PROJECT IMPACTS ON LOWER MAIN

The flood mitigation projects create both challenges and opportunities for Ellicott City.

- **Change in Lower Main Character:** The character of Lower Main has changed over time as Ellicott City grew as a place of commerce and a place that endured floods and fires. These influences changed how people viewed and interacted with the Tiber. Just as the loss of buildings to fire that led to the development of Tiber Park, the building removals associated with EC Safe and Sound will significantly alter the character of Lower Main. The four buildings along south Lower Main frame Tiber Alley, creating the narrow space with its unfolding views and charm. Two of the buildings planned for removal give Tiber Park its definition.
- **New Opportunities:** The removal and alteration of structures create opportunities for Lower Main. Building removal will reveal the stream hidden beneath and the National Historic Landmark B&O Station Museum structures will be more visually prominent from the west along Main Street. Buildings and businesses on the south side of Tiber Alley, including the once railroad-focused frame Antique Depot building (3720 Maryland Ave, formerly Edward T. Clark & Sons, est. 1845) and the stone mill behind 8081 Main St, aka Tea on the Tiber will be more visible from Main Street. Additionally, the rear facades of the humble buildings along St. Paul Street will have more prominence, as will the historic workers' houses farther up the hill. It is paramount that this area remain an asset and the changes result in positive contributions to Ellicott City's evolving story.

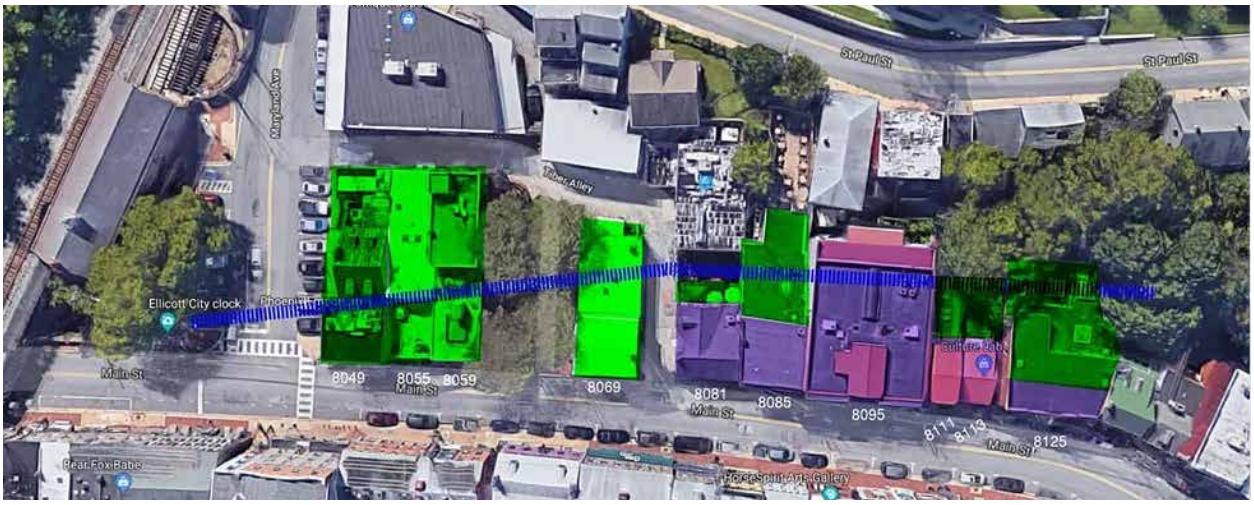


Figure 138: Howard County Acquired Ten Buildings on the South Side of Main Street. Under the EC Safe and Sound Plan, the Buildings or Rear Additions Shaded in Green Will Be Demolished (with Historical Building Components Salvaged) While Buildings Shaded Purple/Pink Will Remain. The Blue Line Indicates the Approximate Location of the Tiber Branch.

Figure 139: With the Removal of Structures in Lower Main, the Historic Workers' Houses On St. Paul Street Will Have More Prominence

SECTION 106 SUMMARY

Section 106 specifies that federal agencies must take into account the effect their undertakings will have on historic and culturally significant resources. Section 106 requires the lead federal agency to identify historic properties, assess their proposed undertaking's impacts upon those historic resources, and seek to avoid, minimize or mitigate any adverse effects. This is done through coordination with the State Historic Preservation Office (SHPO – Maryland Historical Trust), consulting parties, and the public. This is one step in moving forward with flood mitigation plans. The process is as follows:

1. Initiate the process
2. Identify historic properties
3. Assess adverse effects
4. Resolve adverse effects

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 8.1 NONSTRUCTURAL FLOOD PROOFING

Continue to work with property owners to implement the general recommendations of the USACE 2018 Nonstructural Flood Proofing Study, where feasible, to improve the resiliency of specific buildings within Lower Main, particularly those that will still be subject to flooding (although significantly reduced) following the implementation of EC Safe and Sound.

POLICY 8.2 CHANNEL DESIGN

As it will be highly visible, design the expanded channel to be an aesthetic feature of Lower Main. It will be important that the materials are appropriate for and compatible with the historic district.

Implementing Actions

a. **Stone Channel Walls and Terraces:** As the channel depth is 12-14 feet, explore visual impacts of straight walls versus steps and terraces, balanced against hydraulic requirements. As much as feasible, retain segments of original stone channel walls and/or reuse original stone (to the extent they will be protected from damage). For new walls, utilize predominantly stone. Consider incorporating complementary materials in addition to stone for visual interest, depending upon the ultimate design (such as the use of terraces and steps).

b. **Channel Surface:** In order to resist the high velocity and shear stresses of flood waters, utilize a relatively smooth, hard and sustainable surface to improve conveyance and reduce the potential for sediment and bedload buildup. Integrate stone into the channel surface, similar to existing areas along the channel, forming variations in the bed such as pools and riffles or steeper sections to create both visual and audible interest. The improved channel surface should extend up to Lot D at the confluence of the Hudson and Tiber Branches.

c. **Interpretation:** Interpret building spans no longer remaining, either through representations of former building/foundation walls, or by incorporating building remnants or materials (to the extent practical and to the extent they will be protected from damage). Utilize public art to interpret flood dynamics and history.

d. **Maintenance Access:** Plan for small crane truck access to remove bedload and debris removal.

e. **Fencing:** Restrict public access to the channel with fencing to minimize risks to people while still inviting them to view the Tiber. Use simple railings that blend unobtrusively with the area.

f. **Lighting:** Include subtle lighting to highlight stone walls, bedrock, and design elements, etc.

POLICY 8.3 TIBER PARK

Leverage the channel widening and Maryland Avenue culvert projects as an opportunity to create a new and expanded Tiber Park public space amenity encompassing the area surrounding the channel and incorporating Tiber Alley.

Implementing Actions

a. **Street-Level Gathering Areas:** Expand the sidewalk area at street level along Main Street, coordinated with the Main Street streetscape design. Explore incorporating a terrace extending off Maryland Avenue to expand the usable pedestrian space while minimizing visual impacts of the new Maryland Avenue culvert inlets.

b. **Pedestrian Access:** Incorporate a pedestrian bridge across the channel in the approximate location of the current Tiber Alley connection to Main Street. Design as ADA accessible, if possible, while still maintaining appropriate clearances above flood elevations.

Figure 140: View of Tiber Park with Exposed Views Toward the B&O Station Museum, For Illustrative Purposes Only

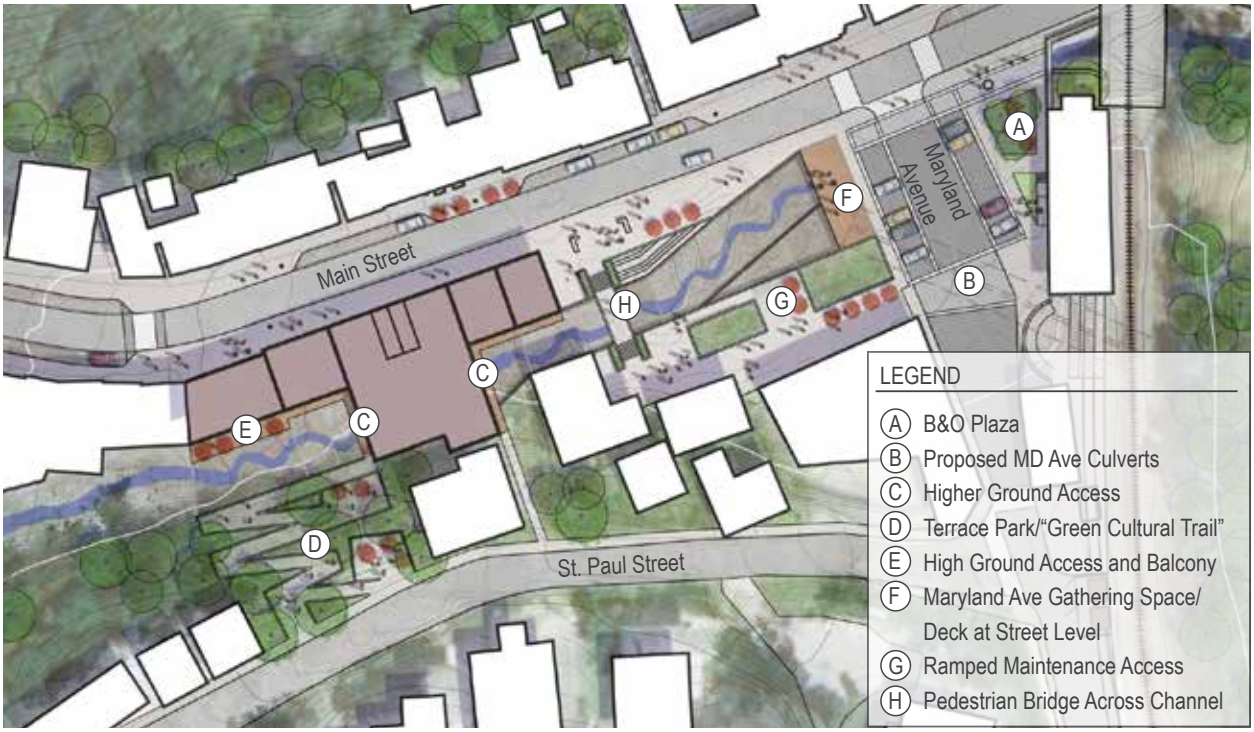


Figure 141: Lower Main Riverfront, For Illustrative Purposes Only

c. **Tiber Alley Spatial Definition:** Utilize pavement markers, planters, public art and/or architectural features to recall Tiber Alley's current—and historic—edges and spatial definition.

d. **Site and Bicycle Amenities:** Provide flexibility to accommodate outdoor dining, seating, event tents and gathering in Tiber Alley related to buildings newly visible from Main Street. Explore feasibility of using a combination of movable and fixed seating elements in conjunction with flood mitigation planning. As Tiber Park will be a major entry point to Ellicott City for bicyclists using the Grist Mill and Trolley Line #9 trails, incorporate bike parking into the overall park design and in locations that are highly visible yet do not impede pedestrian flow.

e. **Materials:** Choose resilient paving materials using shear stress evaluation to guide selection at time of installation. Materials may include cobblestone previously used in Tiber Alley, scored concrete and/or brick depending upon timing of installation relative to flood mitigation and anticipated shear stress levels. Incorporate ornamental railings along the perimeter of the channel, utilizing the Ellicott City design standard and/or a unique design as part of interpretation or public art.

f. **Trees and Planting:** Based upon flood modeling, incorporate appropriate planting to enliven the space and provide color with low shrubs and seasonal plantings. Evaluate opportunities to incorporate high canopy trees to provide shade and "green" relief while allowing clear sightlines throughout Tiber Park and to the B&O Station Museum, beneath the canopies.

g. **Shade Structures:** In addition to trees, consider the use of shade sails and/or structures, carefully integrated into the overall design and interpretation of the space.

h. **Lighting:** Incorporate pedestrian-scale street lighting and explore opportunities for overhead string lights in Tiber Alley. Give care to using light levels appropriate for the historic district, avoiding light pollution. Additionally, carefully place lighting to avoid creating obstacles for emergency vehicles and first responders.

Figure 142: Wash Lighting Can Highlight Feature Walls, Credit: Nicobobinus Creative Commons

Figure 143: Character of Existing Stone Channel Walls

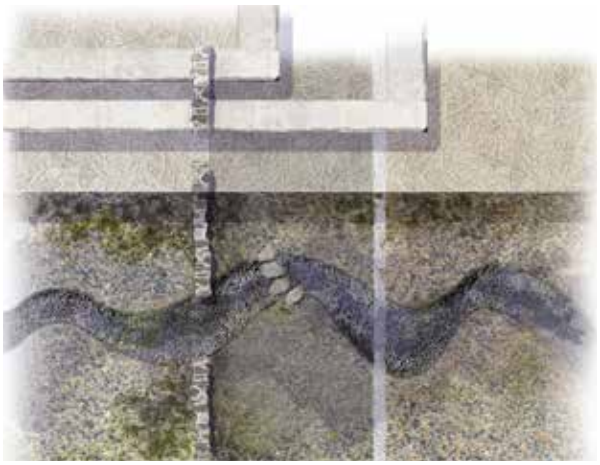


Figure 144: Lower Main Channel Surface Enlargement

Figure 145: Ellicott City Bird's Eye View, For Illustrative Purposes Only

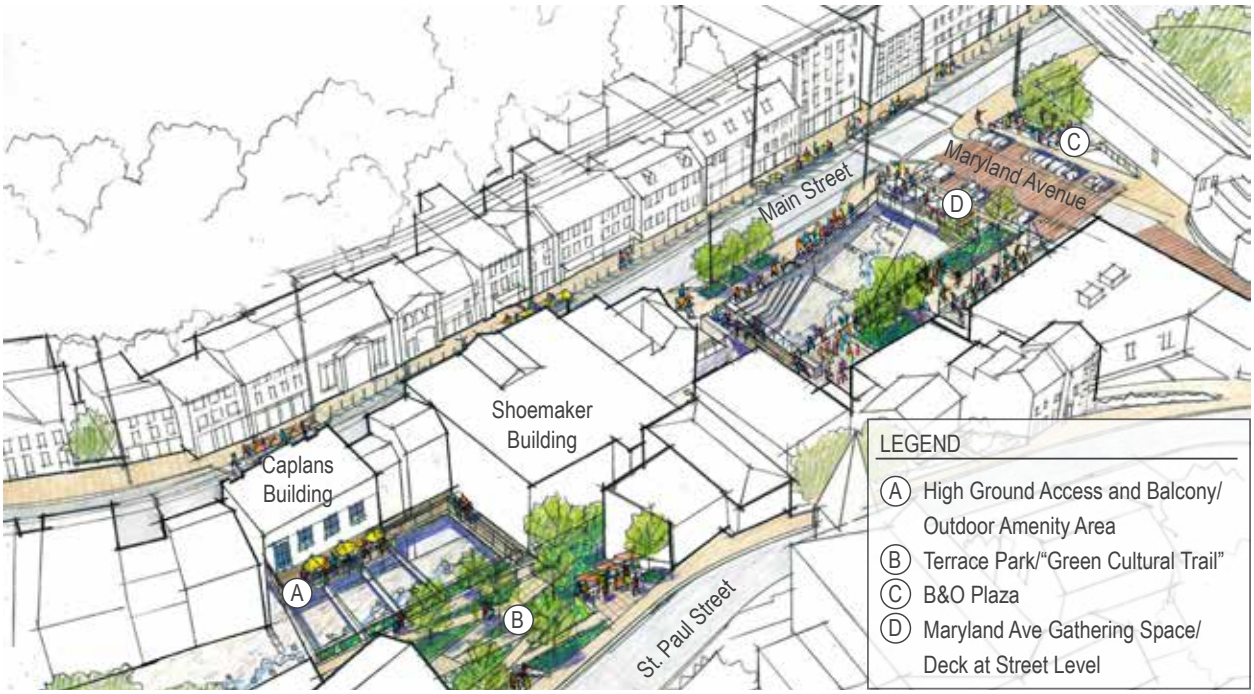


Figure 146: Ellicott City Lower Main Bird's Eye View, For Illustrative Purposes Only

i. **Water Features:** Consider incorporating water features to highlight the presence of the Tiber Branch. Water features could provide visual and audible interest and, if appropriate, opportunities to engage and touch.

j. **Environmental Site Design (ESD) Practices:** Explore opportunities to incorporate small "demonstration ESD practices," potentially in the form of a flow-through planter in the expanded Main Street sidewalk area, if feasible.

k. **Interpretation:** Provide interpretation of buildings slated for removal in a thoughtful manner, integrated into the overall design context. Interpretation might include signage, use of frame outline structures and/or special lighting. A frame structure representing a portion of the Phoenix outline could be effective in anchoring the street corner while providing a structural element for shade. Interpretation could also include preservation of facade segments, such as the first-floor, limestone deco facade at 8059 Main Street (Easton & Sons) and/or portions of the granite side walls of 8069 Main Street. Reestablish the flood mark levels alongside the Oliver Viaduct.

l. **Archaeological Resources:** As building and partial building demolition occurs, protect and preserve archaeological resources uncovered during the construction process and explore ways to incorporate them into Tiber Park as appropriate. Locate preserved building facades or elements where they will be protected from damage away from areas needed for flood water conveyance.

m. **Wayfinding:** Coordinate with the B&O Plaza design and incorporate wayfinding signage, especially a visitor orientation sign with visitor map, directory and high ground access points.

n. **Emergency Alert System:** Incorporate into the overall design visible and audible flood warning systems and high ground access signs as part of the overall emergency alert system.

Figure 147: Historic Interpretation Precedents for Lower Main Street; Recall Former Building Outlines and Site Features, Credit: Design by RIOS (Second From Top), JB Parrett / jbparrettphotography.com (Left Image, Third From Top)

Figure 148: Concept Rendering of Tiber Park, For Illustrative Purposes Only, Existing View Above

POLICY 8.4 B&O PLAZA

Enhance the existing B&O Plaza in conjunction with Tiber Park and Maryland Avenue upgrades to expand upon the network of usable open space in Lower Main (see Figures 145, 146, 149).

Implementing Actions

a. **Clock:** Restore and/or replace the clock. Though not historic, the clock has become an icon of Ellicott City's resilience, having been recovered twice after being swept away by flood water. Place the clock where it will not be at risk of damage.

b. **Materials:** In coordination with the Maryland Avenue streetscape design, if on-street parking is raised to sidewalk level, incorporate bollards to demarcate the sidewalk and raised parking area. Any bollards should be designed to withstand anticipated flood depths and velocities.

c. **Interpretation:** Utilize public art in the pavement to highlight where the channel passes beneath the plaza and roadway and to increase awareness of Ellicott City's close relationship to the water. Historically, the channel was open at this location (as shown in the 1887 Sanborn fire insurance map); public art can raise awareness of this heritage.

d. **Site and Bicycle Amenities:** Incorporate a combination of fixed and movable site furnishings, including ornamental accent lighting, movable cafe tables and chairs, and bicycle parking. Consider a bike parking facility located within high visibility of pedestrian activity within Tiber Park and the B&O plaza.

e. **Wayfinding:** Coordinate with the Tiber Park design and provide a wayfinding signage/visitor orientation map.

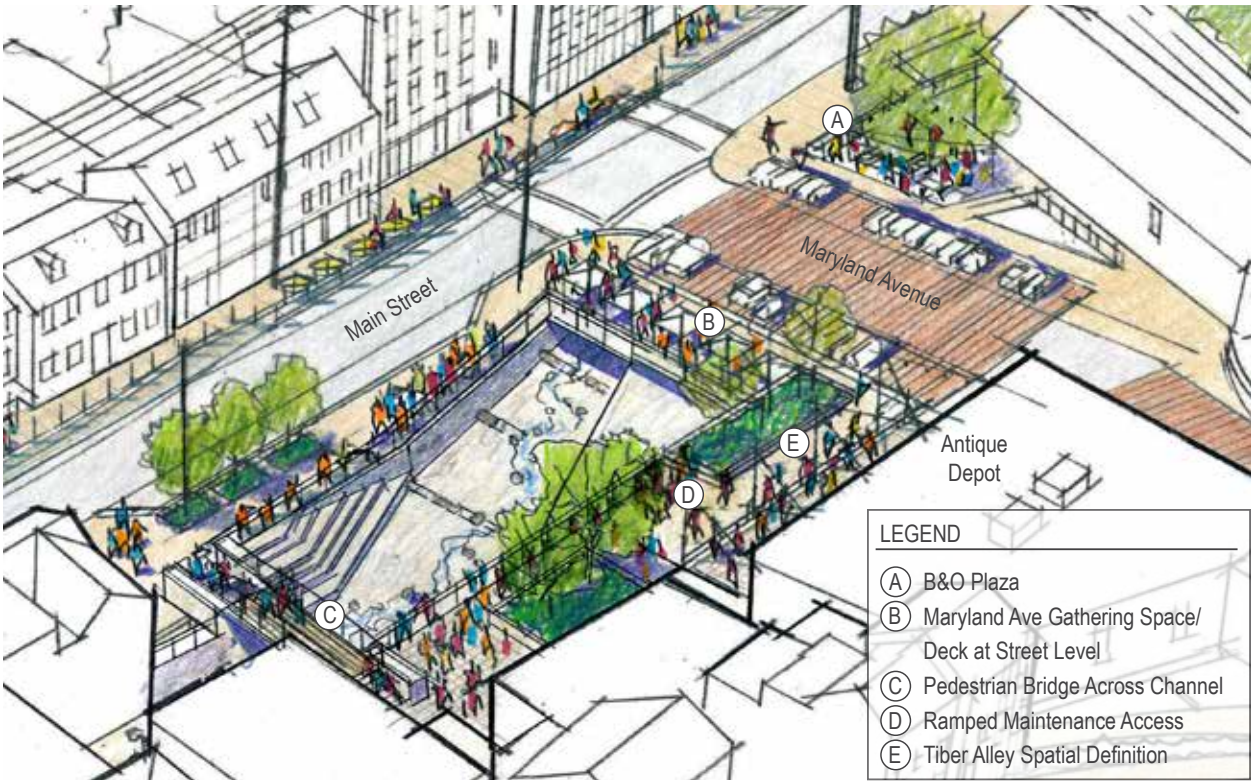


Figure 149: Tiber Park and B&O Plaza, For Illustrative Purposes Only

f. **Shade:** Maintain the existing canopy shade trees or replace with new canopy trees that provide shade relief and an overhead plane while allowing for views of the museum beneath the canopy.

g. **Façade Lighting:** Coordinate the pedestrian lighting in the plaza with the façade lighting of the B&O Station Museum to avoid the excessive glare that currently exists.

h. **Water Features:** Consider incorporating a water feature/fountain to highlight the presence of the Tiber Branch. The water features could provide visual and audible interest and, if appropriate, opportunities to engage and touch.

POLICY 8.5 COUNTY-OWNED LOWER MAIN STREET BUILDINGS

As the publicly owned Main Street properties are adapted to improve flood conveyance, enhance the functionality of the buildings and their appearance.

Implementing Actions

a. **High Ground Access:** Incorporate an accessway along the rear façades of the buildings above flood elevation to connect multiple upper floors. Provide for a publicly accessible elevator and stair in one of the altered buildings for daily and emergency access from Main Street via the upper floor shared accessway.

b. **Pedestrian Bridge:** Incorporate a pedestrian bridge, as part of a cohesive pedestrian network, across the Tiber Branch to connect the rear façade accessway with the terraced St. Paul Street access described below.

c. **Amenity Spaces:** Construct balconies along upper floors to serve a dual function: provide emergency access and support future businesses with outdoor amenity areas overlooking the Tiber.

d. **Interpretation:** Where feasible, retain building elements to recall that buildings once spanned the channel, such as the existing steel beams

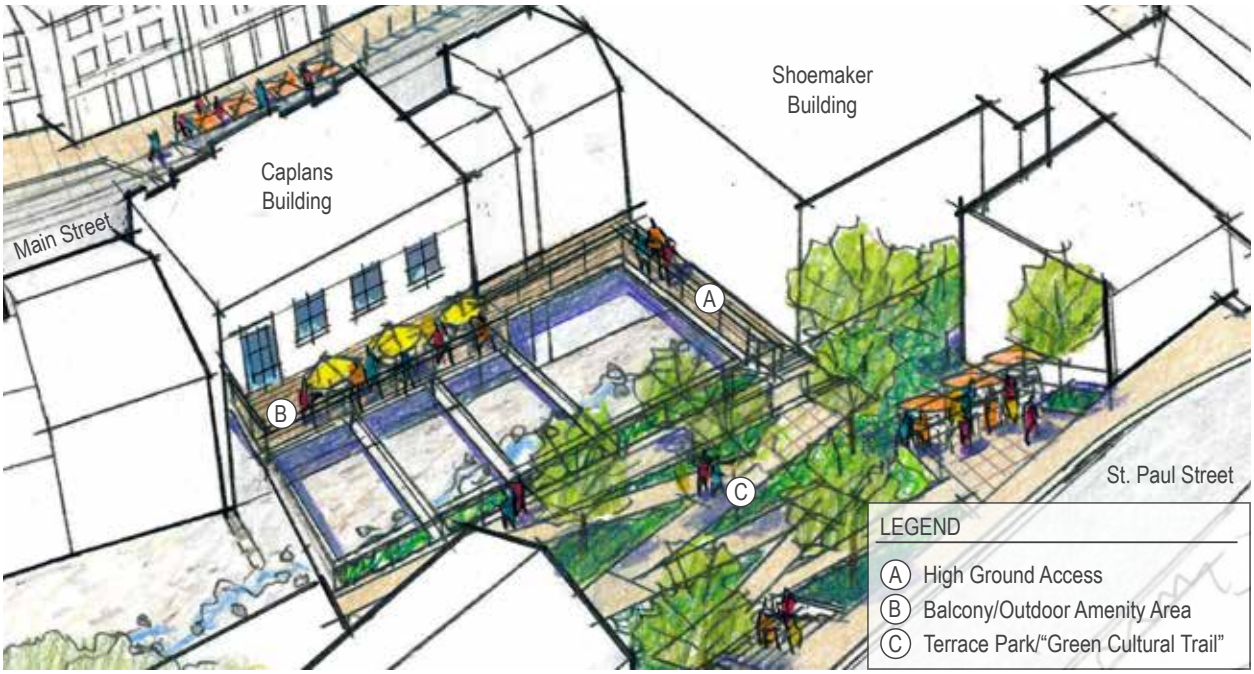


Figure 150: Terraced Park and "Green Cultural Trail" Connection, For Illustrative Purposes Only

and support wall associated with the portion of Caplans/8125 Main St that currently spans the channel.

e. **Rear and Side Façades:** Improve rear (south) and side facades that will be visible when additions over the channel and other buildings are removed, including the upper floor east façade of the Shoemaker Building/8101 Main Street which will be highly visible. Care should be given to avoid creating a false sense of historical development. The newly visible side and rear facades should read as side and rear facades.

f. **Lighting:** Consider subtle accent lighting to highlight unique architectural features in the rear, such as the steel beams that may remain crossing the channel behind Caplans/8125 Main Street.

POLICY 8.6 ACCESS TO ST. PAUL STREET

As an addition to the existing EC Safe and Sound high ground access points, incorporate pedestrian access to St. Paul Street from Main Street.

Implementing Actions

a. **High Ground Access:** Connect to the pedestrian bridge and rear façade accessways described above and incorporate high-ground access signage and directional arrows.

POLICY 8.7 ST. PAUL PLACEMAKING

Create a new public space on county-owned land along St. Paul Street.

Implementing Actions

a. **Terraced Park:** Develop and brand a new hillside park space on the County-owned land along St. Paul Street. Incorporate ramps, stairs, decks and landscaped terraces as a cohesive amenity and part of the "green cultural trail" network.

b. **Interpretation:** Within the terraced park, consider opportunities for heritage interpretation regarding the former mill race that started on the New Cut and once fed the mills of Lower Main.

c. **Lighting:** Utilize downlighting for pedestrian safety and to highlight specific design features.

d. **Wayfinding:** Incorporate wayfinding signage and a visitor directory at St. Paul Street, connecting visitors to Main Street and any future trail connections as they are added.

POLICY 8.8 LOT C

Maintain Lot C as a surface parking lot that continues to serve Lower Main.

Implementing Actions

a. **Interpretation:** Capitalize upon the visibility and proximity of the existing railroad tracks and the rails that cross some parking spaces as an interpretive opportunity to reinforce the railroad history of the community.

b. **Parking Management:** Allow for the incorporation of dynamic parking information system technologies as part of the overall Ellicott City parking strategy and consider long-term opportunities for autonomous vehicle parking.

c. **Solid Waste Management:** Explore locations in Lot C for a consolidated and flood resilient waste management system (trash and recycling) to serve Lower Main businesses, particularly any new restaurant uses that may locate along Tiber Alley following the implementation of EC Safe and Sound. To screen the system, select a location where it will be least visible from Lower Main and design an enclosure that is compatible with the character of the historic district and B&O Station Museum complex. Seek to minimize loss of parking spaces in Lot C.

d. **Patapsco Heritage Greenway Trailhead:** Consider the potential to incorporate a trailhead for a secondary alignment of a future trail on the west side of the Patapsco River. This trail, if realized, would extend between Ellicott City and Ilchester as part of the Patapsco Heritage Greenway.

ELLICOTT CITY
Est. 1772

PHOENIX
BREWERY
RESTAURANT

III.9 Upper Main

DESCRIPTION

The upper part of Main Street, "Upper Main," is the central anchor and activity hub for downtown and includes parking Lots D and E, the Welcome Center, the Lot E Staircase and associated pedestrian areas, the restaurants and businesses associated with Tonge Row and the businesses along upper Main Street. Lot D is the site of major festivals and events. This area is also many visitors' first introduction to Ellicott City on foot, once they park and exit their vehicles.

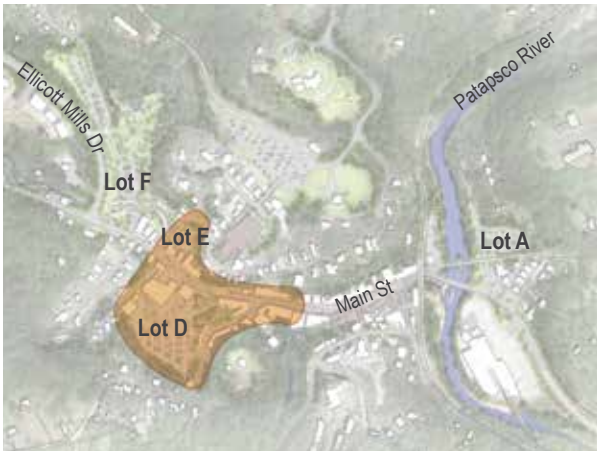


Figure 152: Key Plan — Upper Main

ELLICOTT CITY TODAY

HISTORIC AND CULTURAL RESOURCES

Upper Main includes historic and cultural resources, both built and natural, that can inform future planning initiatives.

- **Welcome Center:** The former Post Office building, now the Welcome Center, and its grounds serve as a prominent historic resource, destination, gathering spot and open space. The front lawn is one of the few green spaces along Main Street and is located midway between Tiber Park and the Thomas Isaac Log Cabin. Howard County Tourism planted three cherry trees with associated plaques in the rear yard, dedicated to the victims of the floods and as part of the ongoing "Blossoms of Hope" program. The Welcome Center also contains a Maryland Historic Trust (MHT) easement that includes its interior murals created during the New Deal.
- **Main Street Rocks:** Few Main Street communities include large rock outcrops—interspersed with historic architecture—as part of the street edge. The outcrops located between the Emory Methodist Church and Main

Figure 151: View of Upper Main from the Lot E Staircase

Street and across from the Welcome Center are an important part of Ellicott City's topography, geology, image and visitor experience. They also serve as reminders of the interdependent relationship between the built and natural environments, so distinct in Ellicott City. While dramatic features, they are not particularly celebrated and the outcrop across from the Welcome Center is often mostly obscured by vines.

PUBLIC REALM

While lacking a prominent park space, the public realm within Upper Main is comprised of a rich network of human-scaled spaces, both public and private.

- **Tonge Row:** The patios and yards of the Tonge Row businesses facing Lot D are privately owned, yet serve as gathering spaces. With outdoor seating provided by food-related establishments, these private patios attract activity and serve as vibrant venues for visitors to enjoy Ellicott City. Additionally, they activate the edge of a significant parking resource—a rather utilitarian use. These serve as a good model for future development around public space.
- **Hamilton Street:** While not a park, Hamilton Street wrapping around the Welcome Center is an important public pedestrian connection between Lot D and Main Street. The adjacent shaded sidewalk provides pedestrians another opportunity to visually interact with the Tiber-Hudson Branch as it emerges from the culvert under Lot D.
- **Pocket Park:** Hamilton Street leads to a popular pocket park at the east edge of Lot D, adjacent to the private open spaces along Tonge Row. It is a popular resting spot and the transitional space serves as a positive gateway for pedestrians moving between Main Street and Lot D.
- **Lot E Staircase:** The Lot E Staircase is a highly visible public space that is both functional and visually appealing. The staircase strengthens the connection between Main Street, the Courthouse Area and its associated parking lot. The staircase is also an excellent example of how

Figure 153: Tonge Row Creates an Active Edge along Lot D

Figure 154: Hudson Branch along Tonge Row and Hamilton Street

environmental site design (ESD) practices can be integrated into the overall landscape design; the project was recognized by the Chesapeake Stormwater Network with an award in 2017.

- **Pedestrian Alley:** The modest brick alley adjacent to the brewery connects the Lot E Staircase and Main Street with a human-scaled but underutilized open space. The space has recently been improved, however, with a mural and lighting as part of a television program filmed in Ellicott City. This alley historically served as the entrance to Talbot's Lumber Company yard, the previous use for Lot E.
- **Pedestrian/Bike Facilities:** Along the stream channel behind Main Street, a sidewalk connection links Lot F with Court Avenue and Lot E. Additionally, Upper Main contains a centrally-located bike rack in Lot E and Ellicott City's only bike share station.

LOT E

Howard County implemented improvements to Lot E as part of a larger project that included the construction of the Lot E Staircase prior to the 2016 flood. The lot offers 28 centrally-located parking spaces.

- **Strong Sense of Place:** Lot E is an attractive space bounded by Main Street buildings and the courthouse hillside with a well-defined sense of enclosure.

Figure 156: Exposed Bedrock Throughout Ellicott City Adds to the Character of Main Street

Figure 157: The Alley Between Main Street and Lot E was Improved as Part of the Television Program "24 Hours to Hell and Back"

Figure 155: The Lot E Staircase Strengthens the Connection Between the Courthouse and Main St

- **Pedestrian Link:** Lot E is part of an important network of pedestrian connections linking the Courthouse Area with Main Street.
- **Flood Impacts:** Court Avenue and Lot E include some of the greatest constrictions along the Hudson Branch. Culverts under Court Avenue and Main Street get blocked with debris, sending more flood flows onto Main Street. This will continue to happen until the North Tunnel is completed and will divert floodwaters prior to reaching Court Avenue.

  Lot E and the adjacent Brewery Annex building cover much of the Hudson Branch channel, concealing numerous pinch points and constrictions. Therefore, this location is particularly vulnerable to floodwaters that leave the channel.

LOT D

Centrally located, Lot D is the primary public parking resource for Ellicott City with 238 spaces; a vast majority of which are on public land. While located behind the buildings on Main Street, Old Columbia Pike and Merryman Street, some buildings do face inward toward Lot D, engaging visitors as soon as they park.

- **Strong Sense of Place:** As with Lot E, Lot D is characterized by a strong sense of place, evident from the hillside approach along Old Columbia Pike. This wooded hillside and the buildings define a distinct space activated by small parklets and businesses along Tonge Row.
- **Festival and Event Location:** The strong sense of place makes Lot D a popular location for weekly events and large annual festivals and an important part of the public realm.
- **Stream Channels:** The Hudson and Tiber Branches join in Lot D; however, they remain mostly obscured in culverts underneath the parking lot. The open sections that remain have been heavily channelized over the years. Although these sections with stone walls are aesthetically appealing, they are obscured by parked cars along much of the perimeter with

Figure 160: Lot D During the 2018 Flood

Figure 159: The Stream Channel in Lot D is Often Concealed Behind Rows of Parked Cars

Figure 158: Lot D has a Strong Sense of Place that is Framed by the Hillside and Architecture

limited opportunities for visitors to engage with or even see the stream.

- **Floodplain:** During the high-intensity, short-duration storms in 2016 and 2018, Lot D flooded and vehicles became debris. Much of Lot D is within either the 100-year floodplain or the 500-year floodplain. However, future flood mitigation projects will likely change the limit of these floodplain boundaries—with the extent of change to be determined in future remapping.
- **EC Safe and Sound Impacts:** The EC Safe and Sound flood mitigation will divert the Hudson Branch floodwater prior to reaching Lot D. The Tiber Branch, however, will still convey flood waters with strong shear forces even with the construction of the EC Safe and Sound T1 detention facility. Still, the mitigation will have significant positive impact and flooding within Lot D will be significantly reduced.
- **Emergency Alert System:** Howard County recently installed a temporary audible emergency alert system in Lot D. The permanent emergency alert system is being installed Summer 2020.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 9.1 LOT E ENHANCEMENT

Maintain Lot E in its current configuration as a surface parking lot. EC Safe and Sound flood mitigation improvements will divert floodwaters away from this part of the Hudson Branch, eliminating the need to make channel improvements that would impact this space.

Implementing Actions

a. **Site Amenities:** Include wayfinding signage, bicycle accommodations, and dynamic parking information system technologies.

b. **Connections:** Create pedestrian connections through/along the parking lot perimeter, across Court Avenue and connecting to the path network leading to Lots F and G and the Bernard Fort Heritage Center as part of the proposed "Green Cultural Trail." This may result in the loss of up to four parking spaces along the north side of the parking lot entrance drive to incorporate a sidewalk connection to Court Avenue. Should additional parking resources be developed in Lots D or F, these spaces may be recaptured in those locations.

c. **Alley Activation:** Continue to activate and build upon improvements made in the pedestrian alley to reinforce the connection as part of the proposed "Green Cultural Trail."

d. **Public Art:** Use pavement markings to highlight where the channel passes beneath Court Avenue to increase awareness of Ellicott City's close relationship with the water and/or highlight the lot's historic use as Talbot's Lumber Yard.

e. **Branding:** Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

Figure 161: Improvements to the Alley Leading to Lot E Can Create a Strong Gateway to the "Green Cultural Trail," Gulfport Main Street

f. Event Space: Consider designating Lot E as a flexible use space that functions as a parking lot most of the time but can be closed off to serve as an event space occasionally. The space could function well for small events because of its central location and natural enclosure.

POLICY 9.2 TIBER BRANCH CHANNEL ARMORING

Restore and armor the length of the Tiber Branch between Lot D and Lower Main to maximize floodwater conveyance.

a. Bedload Removal: Remove boulders/bedload and debris deposition from the channel.

b. Armoring: Armor the channel with a hard, relatively smooth surface that resists high velocity shear stresses and reduces the potential for additional sediment and bedload buildup. Hard surfaces (channel walls and bottom) should incorporate materials compatible with the historic district, such as stone, and be resistant to scour.

POLICY 9.3 LOT D ENHANCEMENT

Maintain Lot D as a significant centrally located parking resource and consider options to enhance the core. As with Lots F and G, there are several ways to accomplish this; the most appropriate approach will depend upon how parking resources are expanded or reduced in other locations in order to achieve other master plan goals. Several options are outlined below, from maintaining Lot D as it currently exists to incorporating a parking deck and mix of active uses. While these are listed as options, they can also be viewed as phases, with a variety of elements added over time as market conditions and needs warrant.

LOT D: BASELINE IMPROVEMENTS

While the EC Safe and Sound flood mitigation plan is being implemented, the following baseline improvements can enhance the visitor experience in Lot D, particularly if a portion of Lot F is closed as a

Figure 162: Potential Naturalized Channel in Lot D, For Illustrative Purposes Only

staging area for the tunnel construction. These can be implemented in the short-term and remain relevant in the long-term regardless of the option pursued.

Implementing Actions (All Options)

a. **Floodplain Remapping:** Initiate conversations with FEMA and the State to remap the 100-year regulatory floodplain to determine new boundaries following the implementation of the EC Safe and Sound North Tunnel.

b. **Tiber Branch Evaluation:** Evaluate the potential for a diversion culvert under Lot D that redirects flows, including flood flows, from Tiber Branch to downstream of Lot D. Evaluate the size and alignment of a culvert for the feasibility of the following potential benefits and opportunities: 1) the length of Hudson Branch through Lot D that can be restored to a more natural condition in place of hard armoring; 2) the reduction of frequency and magnitude of flooding in Lot D and adjacent areas; and 3) the increase in the level of public interaction that might be possible with new channel improvements and the creation of associated green space.

c. **Coordinated Site Planning:** When considering any changes to Lot D, work with adjacent businesses and property owners to create a coordinated site plan for Lot D and surrounding properties. The goal should be to best integrate access, parking resources, open space amenities and potential new uses into a cohesive district that is sensitive to and integrates with the surrounding context.

d. **Site Amenities:** Include wayfinding signage, bicycle accommodations, dynamic parking information system technologies, and solid waste management.

e. **Event Accommodation:** Plan for the continued accommodation of events within Lot D and around any amenity spaces created around the channel.

f. **Main Street Access:** Explore a redesign of the Lot D access from Main Street via a reorganized Forrest Street/Hamilton Street "loop," using Forrest Street and a new street between the Welcome Center and the building to the west, allowing Hamilton Street to become pedestrian space/emergency access only. Continue to utilize Forrest Street as the egress, however, confirm sight distances to determine the most appropriate directional flow.

g. **Branding:** Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

LOT D: OPTION 1—NATURALIZED CHANNEL

Once EC Safe and Sound flood mitigation is in place, and if additional parking resources are developed in other lots, widen the Hudson Branch and restore it as a naturalized channel and open space amenity.

Implementing Actions

a. **Pedestrian Access:** When considering future improvements, evaluate whether to allow pedestrian access within the channel.

b. **Interpretive Amenity:** While this represents only a limited section of stream channel and would offer limited ecological benefits, it could serve as an interpretive amenity in addition to serving as a functional open space and focal point that prominently showcases the stream as it meanders through the core.

c. **Reorganized Surface Parking:** Reorganize the surface parking to allow for a widened channel and amenity space (resulting in approximately 162 parking spaces alongside a new amenity).

d. **Diversion Culvert:** If the Tiber Branch Evaluation described above shows promising results, design and construct a diversion culvert for the Tiber Branch with an outfall into the Hudson Branch at the eastern end of Lot D. This will redirect floodwaters to the Hudson Branch just downstream of Lot D and allow for the maximum length of naturalized channel.

e. **Naturalized Channel:** Create a naturalized channel with an expanded channel bed and appropriate vegetation, including canopy trees

near the edges. Continue to utilize stone for channel walls as they are needed.

f. **Channel Bridge:** Incorporate a pedestrian bridge for direct access from the parking across the channel and to allow visitors to engage with the stream channel on a daily basis.

g. **Perimeter Walkway:** Incorporate a broad perimeter walkway along the top of the channel on both sides as part of the "green cultural trail" network to allow pedestrians to better engage with the stream channel, without it being hidden behind parked cars.

h. **Maintenance Access:** Provide for maintenance access to the channel.

i. **Environmental Site Design (ESD) Practices:** Explore integrating bioretention into the overall parking lot landscape as a feature (resulting in approximately 140 total parking spaces alongside the new amenity).

j. **Open Space Branding:** Brand and name the open space as a significant component of the open space network.

LOT D: OPTION 2—ACTIVATED CHANNEL

As an alternative to the naturalized stream channel amenity described in Option 1, enhance the visual interest of and potential access to the channel with additional design features.

Implementing Actions

k. **Pedestrian Access:** Evaluate whether to allow pedestrian access within the channel. If feasible, incorporate accessible terraces, steps, boardwalks and/or pathways in addition to vegetation that invite people to access and view the channel and interact with the open space and water in a variety of ways. With implementation of the Tiber Branch diversion channel, this would likely be one of the few areas within the core where people could safely access the water.

l. **Visual Interest:** Should implementation of the Tiber Branch diversion channel not be possible to divert floodwaters, create a visual amenity space that pedestrians can safely view from adjacent walkways. Emphasize the use of stone and hard surfaces to withstand high shear stresses and velocities and restrict planting and the use of boulders to areas that would likely experience lower stresses.

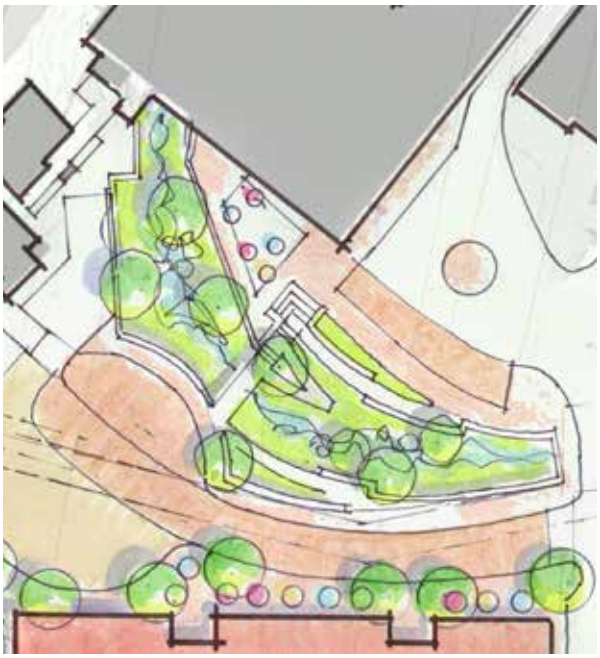


Figure 163: Potential Activated Channel in Lot D, For Illustrative Purposes Only

m. **Channel Surface:** Since most of the channel base would need to be relatively smooth and resistant to significant erosion, incorporate a design motif to create visual interest within the channel. Different textures and shades of color might be utilized to interpret an active stream channel and water movement.

n. **Public Art:** Consider the use of public art to interpret water levels for various storm events and floodplain levels to make more visible the delicate relationship that Ellicott City has with the water. For example, the stone walls at Atlanta's Historic Fourth Ward Park feature two horizontal stone bands with inscriptions marking the 100-year and 500-year flood depths.

Figure 165: Lot D Conceptual Redevelopment Framework

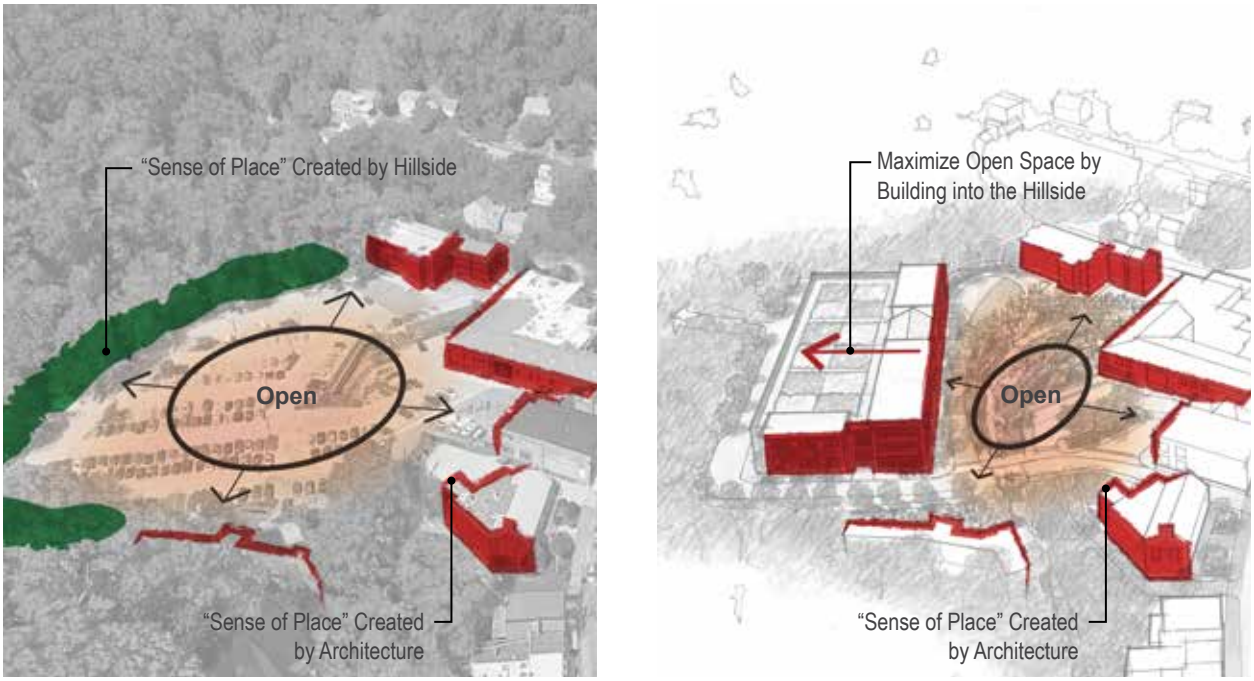


Figure 164: Lot D Open Space Characteristics, Open Space Framed by Hillside/Active Uses

LOT D: OPTION 3—PARKING GARAGE WITH MIXED USE SPACE

Preserve the long-term flexibility to add a parking garage wrapped with new space, which could be phased in over time. Active uses would leverage the investment in and further activate the open space amenity described above, however, this option could be developed in combination with any of the previous options.

Implementing Actions

a. Pedestrian Access: When considering future improvements, evaluate whether to allow pedestrian access within the channel.

b. Active Uses: Create opportunities for active uses—such as retail, office and accommodations—that would bring more activity to the area and leverage the investment in an expanded stream channel amenity.

c. Deck/Building Location: Set the parking deck to the rear of the lot, allowing it to be wrapped on the visible sides with active uses while maintaining as much open space around the channel as possible.

d. Architectural Design: Design all visible facades of the parking garage and new uses with equal consideration to aesthetic quality, scale, compatibility with the surrounding context and historic district, and with consideration of viewsheds. For any multi-story parking facilities, the design should also consider opportunities to incorporate outdoor amenity space on the top level and/or repurposing of the structure if the long-term demand for parking diminishes due to the adoption of AV technology.

e. Environmental Site Design (ESD) Practices and Green Technologies: Explore opportunities to incorporate ESD practices into the site and deck/building design to include stormwater management, micro-bioretention, rainwater capture, green roofs and/or solar panels.

f. Parking Deck Design: Consider floor heights and opportunities for repurposing to other uses should autonomous vehicle technology reduce parking space needs. A four-level deck could provide approximately 275-320 parking spaces, depending upon the amount of amenity space or green roof elements that might be designed into the top level. A parking garage of this size would be larger than most buildings in Ellicott City, however, it should be sufficiently large to make the investment worthwhile. Further, the number of spaces provided should consider not only existing parking needs, but the needs of new active uses wrapping the garage. Because of the potential size of the garage, It will be important that the design takes into account compatibility with surrounding uses and considers forms and articulation that help visually reduce its overall scale and massing.

g. Secondary Access: Explore the feasibility of a secondary access point from Old Columbia Pike to an upper level of the deck with appropriate sight distances and traffic controls.

h. Emergency Access: Accommodate fire truck and emergency vehicles with a turnaround area. Rather than designing the turnaround as a utilitarian cul-de-sac, design the space as a plaza capable of accommodating emergency vehicles and their movements.

i. Public Restrooms: Incorporate public restrooms into the parking deck design to serve the central core area.

j. Solid Waste Management: Incorporate solid waste management for surrounding businesses into the overall design of the lower level of deck.

k. Large Floorplates: Seek opportunities to incorporate large floorplates (similar in size to Su Casa/8307 Main Street) currently not available, to accommodate expanding or new businesses. Larger spaces could attract food-related uses that would complement the existing business mix.

l. Viewsheds: Consider the impacts to viewsheds from within the open space, to Tonge Row and upon the approach to Lot D from Old Columbia Pike and Main Street.

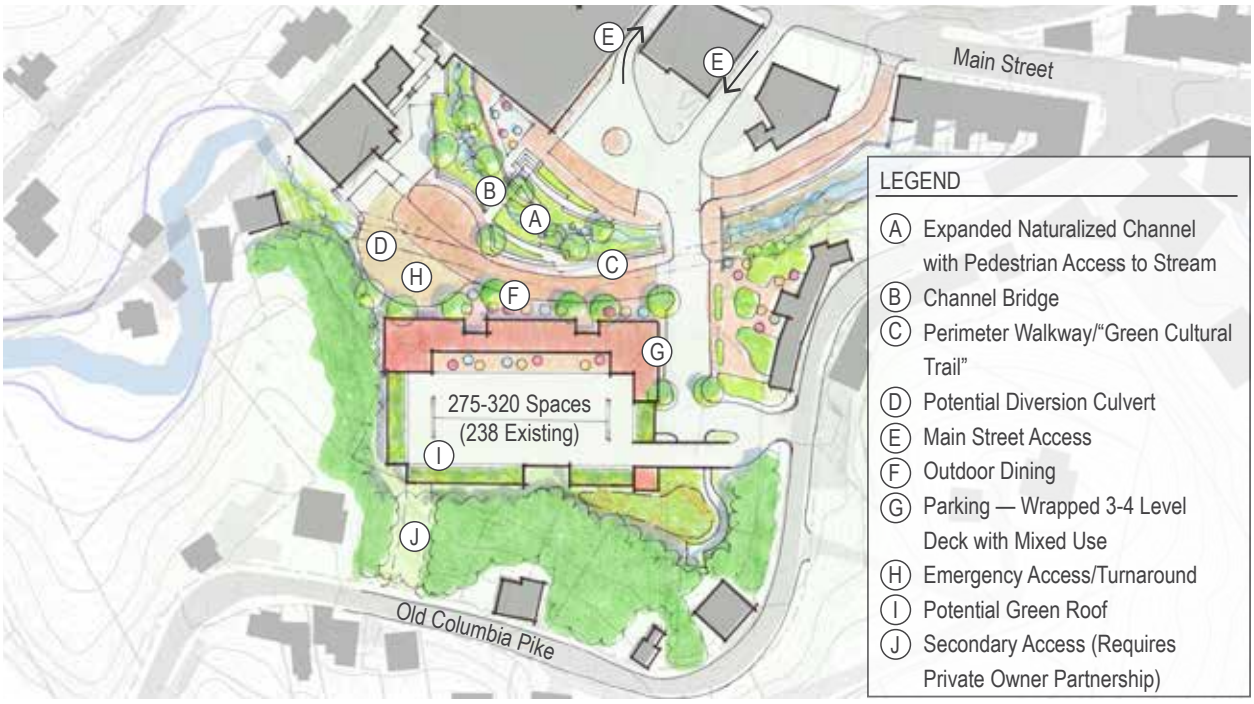


Figure 167: Parking Garage with Green Roof Elements, Mixed Use Space and Activated Channel

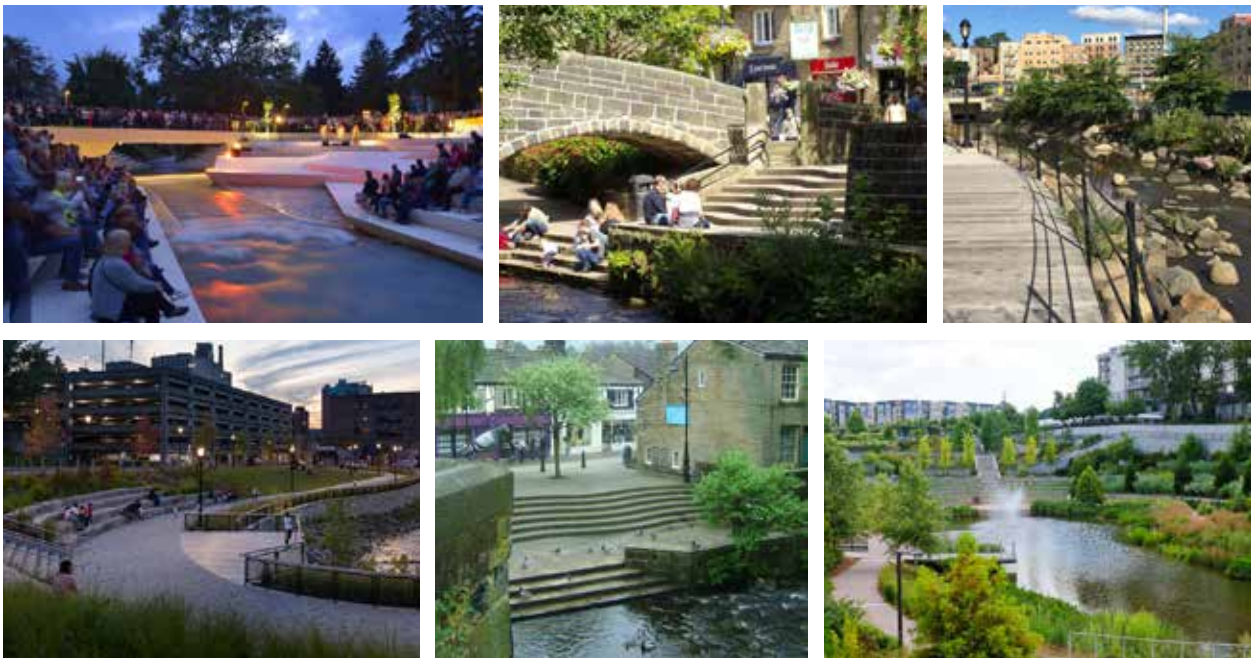


Figure 166: Open Channel Precedents, Naturalized and Active Spaces, Credit (Top Left to Bottom Right): Miran Kambic, Hebden Bridge Attic B&B, Mahan Rykiel, MNLA/Elizabeth Felicella, Flickr Creative Commons , Bikeabout

m. **Relationship with Tonge Row:** Respect the spatial relationship with Tonge Row, its businesses and amenity spaces, and the corner store facing onto the lot (3774 Old Columbia Pike). Use street, pedestrian and architectural edges to respond to and enhance this active edge. Avoid the creation of new structures whose height would put Tonge Row in a constant shadow or obscure the view to the historic buildings.

n. **Outdoor Dining:** Plan for outdoor dining to complement Tonge Row and leverage the open space investment.

o. **Event Accommodation:** Consider how the area could continue to serve as an event venue; existing and new events should take advantage of the enhanced stream channel, open space and additional businesses. Consider how events might utilize both outdoor space and the lower (or upper) level of the deck.

p. **Branding:** Brand and name the entire area with careful attention to authenticity to Ellicott City.

POLICY 9.4 FORMER POST OFFICE SIGNATURE USE (CURRENT WELCOME CENTER)

Consider enhancements to the former Post Office grounds to improve the functionality and aesthetics of this Main Street open space.

Implementing Actions

a. **Tree Canopy:** Consider one to two specimen upright canopy trees (not small ornamental trees) in the front setback area as this is one of the few areas along Main Street where canopy trees can be located and make a positive impact in terms of adding tree canopy along Main Street and shade for small gatherings that occur in the space. Consider species and locations as they relate to overhead utilities, tree forms that frame—rather than block—views to the building and potential root impacts to building foundation.

FORMER POST OFFICE BUILDING REUSE

Should the Howard County Welcome Center ever relocate to another space in the core, consider reuse with a signature use to add to the commercial business mix. Uses might include a destination restaurant or attraction use and consider the following:

a. **Accessibility:** Explore redesign of the ADA accessible entrance and parking to make more functional with the new building use and to allow for the redesigned Lot D ingress street.

b. **Outdoor Uses:** Incorporate usable open space as part of the site use, including use of Hamilton Street for outdoor gallery or dining space (if closed to allow for redesign of the Lot D ingress and egress, described below).

c. **Screening:** Screen and enclose service areas and integrate into overall site and architectural design.

b. **Lot D Ingress:** Redesign the parking area to accommodate the Lot D ingress street in place of Hamilton Street as described above. If necessary, ensure that the memorial cherry trees are relocated or replaced to accommodate this change.

c. **Bike Facilities:** Consider installing bike racks in this location to accommodate bicyclists visiting Upper Main.

Figure 168: The Welcome Center and its Grounds Serve as a Prominent Historic Resource, Destination, Gathering Spot and Open Space

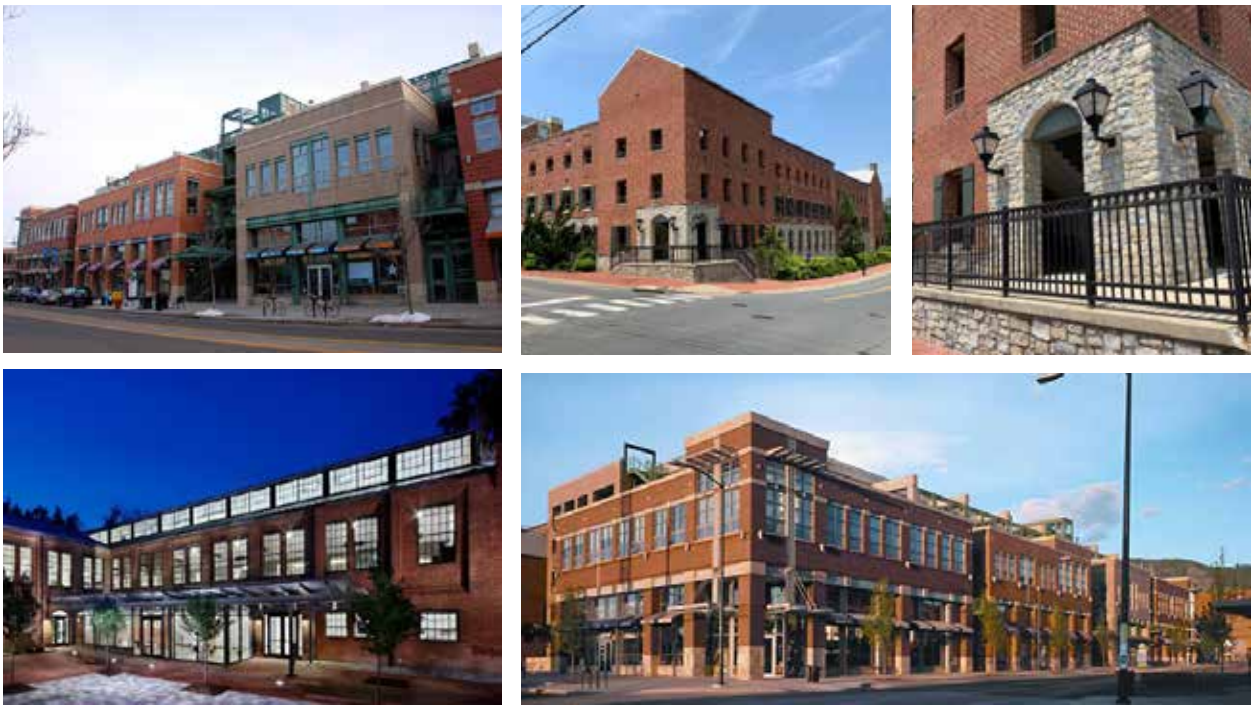


Figure 169: Mixed-use Wrapped Parking Deck, Credit (Top Left to Bottom Right): DC/Flickr Creative Commons, City of Fredericksburg, VA (Top Middle and Right), Pearce Brinkley Cease + Lee/JWest Productions, City of Boulder

Figure 170: Existing View Looking East from Behind La Palapa/8307 Main Street

Figure 171: Potential Naturalized Channel in Lot D, For Illustrative Purposes Only, Existing View Above

Figure 172: Potential Activated Channel and Mixed Use Building In Lot D, For Illustrative Purposes Only

Figure 173: Lot D Parking Studies (238 Spaces Existing)

Figure 174: Potential Activated Channel and Mixed Use Building In Lot D, For Illustrative Purposes Only

Figure 175: Lot D Aerial Sketch, For Illustrative Purposes Only — Not a Proposal for Development

III.10
Ellicott Mills Gateway Area

DESCRIPTION

The area centered around Ellicott Mills Drive and Main Street serves as an important gateway. This area includes several county-owned assets, including parking resources (Lots F and G) and Department of Recreation and Parks (DRP) facilities (the Bernard Fort House and Thomas Isaac Log Cabin).

ELLICOTT CITY TODAY

The intersection of Ellicott Mills Drive and Main Street had been a green, park-like gateway featuring two DRP resources—the historic courthouse building and Thomas Isaac Log Cabin—along with landscaping and pedestrian pathways. This area changed dramatically following the 2018 flood, which washed out Ellicott Mills Drive, several sidewalk segments, pedestrian paths and trees. Flood waters destroyed the historic courthouse building. Since then, a box culvert has been constructed under Ellicott Mills Drive, approximately 200 feet of the Hudson Branch has been daylit and armored, and streets and sidewalks reconstructed.

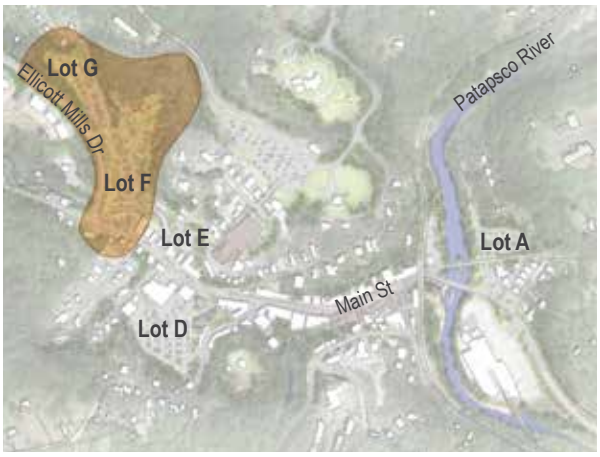


Figure 177: Key Plan — Ellicott Mills Gateway Area

HISTORIC AND CULTURAL RESOURCES

Numerous historic and cultural resources and their grounds are located within this gateway area and, together, establish an important framework for creating a meaningful transition area between the West End, Upper Main, and the Courthouse Area.

- **Bernard Fort House and Bernard Fort Heritage Center:** DRP recently acquired the Bernard Fort House and will use this building and extensive grounds—the "Bernard Fort Heritage Center"—as an as an orientation center for the DRP's historic resources within Ellicott City, special events and offices/meeting space for the Patapsco Heritage Greenway. A master plan is currently being prepared for the property, including building a wing to replace the existing one, additional parking, ADA accommodations and an event lawn and pathways. The location at the base of Fels Lane and above Lots F and G is well suited to becoming an integral part of

Figure 176: Lot F and Potential North Tunnel Entrance Area after 2019 Reconstruction

Figure 178: The Bernard Fort House has an Inviting Open Space that can be Viewed from Lot F

the park and open space network within the core. With the clearing to allow for the culvert construction, the Bernard Fort Heritage Center is currently visibly prominent from Main Street.

- **Log Cabin Site:** The historic Thomas Isaac Log Cabin was temporarily located in Lot F while Ellicott Mills Drive was reconstructed, and in May of 2020 it returned to its former location on Main Street. The historic log dwelling had been moved from Merryman Street to that corner in the late 1980s to preserve and display it amidst a pocket park along with the historic courthouse. Prior to the 2018 flood, the space was particularly active during large events when bands utilized the adjacent Wine Bin parking lot. The combination of the construction of the culvert, loss of the historic courthouse building and loss of trees and gateway plantings has resulted in the loss of the human scale and park-like setting this site once had.
- **Fels Lane:** The Fels Lane area had early ties to Quaker settlers, and was named for the Ezra Fell family, one of the last Quaker families that lived in Ellicott Mills. County Lane once connected Fels Lane to Main Street. Over time, it became Ellicott City's African American enclave. The ancestors of some former Fels Lane residents were said to have been slaves at Doughoregan Manor. A new Fels Lane Elementary School was built in the 1950s at the base of Fels Lane to serve the community. With school integration in the 1960s, the structure was converted first into the police station and later the Roger Carter Center (what is referred to as "Lot G/Former Roger Carter Center site" in this Plan). When the pre-Civil War wooden homes for approximately 40 families became run-down by the 1960s and lives were lost in a fire, the area was designated for urban renewal. Many buildings were demolished, Ellicott Mills Drive was built, and the Hilltop apartments were constructed. The Howard County Housing Commission replaced Hilltop with Burgess Mill Station to provide not only affordable, but also market rate units to create a mixed-income community.
- **St. Luke AME Church Slope:** St. Luke AME Church sets high above Main Street at Ellicott Mills Drive. Howard County recently repaired the slope in front of the church that subsided following the 2016 flood. The repairs included anchoring and replanting the slope. The highly visible slope shapes impressions of both the core and West End with its gateway prominence.

NORTH TUNNEL ENTRANCE

The County is currently exploring design options for the EC Safe and Sound flood mitigation North Tunnel entrance which will be located along the Hudson Branch adjacent to Lot F. The County has not yet determined a specific design, however, several criteria have been established.

- **Reduction in Channel Flow:** Between the new North Tunnel entrance and the junction with the Tiber Branch in Lot D, the Hudson Branch high water flows will be reduced commensurate with the conveyance capacity gained from the diversion tunnel.
- **Visible North Tunnel Entrance Area:** The tunnel entrance area will be highly visible from Main Street and Ellicott Mills Drive, Lot F and the Thomas Isaac Log Cabin. This visibility should be considered in the entrance design.
- **Potential for Uses Over North Tunnel Entrance:** It is possible that uses, such as parking or programmed open space, can be developed atop the tunnel entrance.

- **Flood Infrastructure Functions:** The recently constructed crossing of Hudson Branch at Ellicott Mills Drive is designed to handle a 100-year storm event. However, a temporary headwall was built to meter flow until the North Tunnel and other downstream improvements are completed. Flows exceeding 100-year storm event volumes flow over Ellicott Mills Drive into the channel/ floodplain behind the Thomas Isaac Log Cabin prior to 1) entering the Hudson Branch north tunnel; or 2) the channel upstream of Court Avenue or 3) both, depending upon the capacity of the North Tunnel and the magnitude of the flood flow. The recently constructed roadway and channel are designed to accommodate this overflow.
- **Public Safety:** The North Tunnel entrance design will incorporate appropriate safety measures and signage restricting public access.

LOT F

Lot F is a significant parking resource and provided 96 parking spaces prior to the 2018 flood. The parking lot is well-located as visitors can park their cars before arriving at Main Street which is often congested. Since the 2018 flood, much of the parking lot had been closed as a construction staging area for culvert improvements and a portion may be closed again as a staging area for the tunnel construction. The County recently resurfaced this lot for 61 spaces and incorporated boulders and fencing to reduce the likelihood of vehicles washing into the channel. Existing conditions to consider for future improvements to the lot include:

- **Redundant Drive Aisles:** The lot includes a stand-alone redundant drive aisle along the west side of the lot, resulting in a paved area that exceeds what is normally required for a two-bay parking lot.
- **Constrained Tributary:** A constrained tributary exists along the eastern perimeter of the lot at the base of a wooded slope. The channel was recently armored with rock.

Figure 179: View from Lot F Looking to the Bernard Fort Heritage Center

Figure 180: Existing Constrained Tributary East of Lot F

Figure 181: View of St. Luke's Slope from Ellicott Mills Drive

- **Storm Drain in Need of Repair:** An existing 36" diameter storm drain located under the western edge of the lot was recently inspected and is in need of repair.
- **100-Year Floodplain:** A portion of the lot lies within the current 100-year floodplain. Floodplain boundaries will likely change once the North Tunnel is constructed.
- **Strong Spatial Definition:** The lot sits below the adjacent slopes of Ellicott Mills Drive and the Bernard Fort Heritage Center, and wooded slope to the northeast, creating a strong spatial definition.
- **Mature Canopy:** The treed embankment along Ellicott Mills Drive creates a natural sense of enclosure and partially screens parking from the road.
- **Viewshed:** With the canopy no longer in place at the intersection of Ellicott Mills Drive and Main Street, there are relatively unobstructed views between the Bernard Fort Heritage Center and Main Street.

LOT G/FORMER ROGER CARTER CENTER SITE

Following the 2016 flood, Lot G was created as a temporary parking resource providing 71 parking spaces.

- **Prominent Location:** The site is located at the base of the Fels Lane neighborhood and at the entrance to the Bernard Fort Heritage Center and Lot F.
- **Strong Spatial Definition:** The site sits in a valley and is flanked by wooded steep slopes to the west and, across Fels Lane to the east, giving it a strong spatial definition and sense of place. It is visually prominent along both Fels Lane and Ellicott Mills Drive and serves as part of the gateway to the Bernard Fort Heritage Center and Lot F.
- **Stream Tributary:** A stream tributary passes through the site, however, much of it is culverted below grade.
- **Utilitarian Parking Lot Design:** Built to provide temporary parking, Lot G is utilitarian in design and does not incorporate other site enhancements for the property.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 10.1 BERNARD FORT HERITAGE CENTER

Enhance visual and physical connections to Bernard Fort House, allowing the future Bernard Fort Heritage Center to flourish as a centrally located point of orientation for heritage tourists.

Implementing Actions

a. **Open Space Connections:** Connect the Bernard Fort Heritage Center to the proposed "green cultural trail" and open space network with nature trail connections to the Courthouse Area and the Patapsco Female Institute.

b. **Wayfinding:** Utilize wayfinding to connect the Bernard Fort House to other historic sites within the core along the "Green Cultural Trail".

c. **Canopy Tree Planting:** Plant canopy trees to frame views of Main Street while buffering views of parking lots.

d. **Natural Amphitheater:** Use the hillside as an amphitheater and performance space, with the natural environment of the adjacent wooded stream valley as a backdrop.

e. **Play Space:** Integrate a nature-based playground into the overall landscape and amphitheater area.

Figure 182: Play Space with Nature-Based Play Elements, Credit: Moffat Creek Wetland Learning Grounds

Figure 183: Amphitheater and Performance Space, Credit: Balt. City Recreation and Parks (Middle)

POLICY 10.2 THOMAS ISAAC LOG CABIN SITE

Enhance the setting around the log cabin for educational interpretation, pedestrian comfort, and gateway experience.

Implementing Actions

a. Canopy Tree Planting: Add canopy trees in a natural grove to provide a backdrop and shade without impeding flood management or views to the Bernard Fort Heritage Center from Main Street.

b. Landscape Buffers: Use low landscape treatments along the channel retaining wall to buffer views of the channel and North Tunnel entrance.

c. Signage: Incorporate wayfinding and interpretive signage.

d. Pedestrian Connections: Create a gathering opportunity at the corner of Ellicott Mills Drive and Main Street near the log cabin by expanding paved area at the intersection.

POLICY 10.3 ST. LUKE AME CHURCH'S SLOPE

Continue to enhance the St. Luke's slope as part of the gateway experience and improved experience for pedestrians approaching from the West End.

Implementing Actions

a. Gateway Signage: Add a creative and appropriately-designed iconic gateway sign, incorporated into the slope.

POLICY 10.4 ELLICOTT MILLS DROP-OFF ZONE

Explore options to accommodate drop-off of visitors along Ellicott Mills Drive.

Implementing Actions

a. Drop-off Zone: Consider a zone suitably sized for tour buses as well as ridesharing services at this gateway.

Figure 184: Gateway Signage Concept for the St. Luke AME Church Hillside

POLICY 10.5 NORTH TUNNEL ENTRANCE AREA

As the North Tunnel design is developed, plan for its sensitive integration into the site context.

Implementing Actions

a. Open Space Connections: Create an inviting pedestrian open space and experience between Court Avenue and the Bernard Fort Heritage Center as part of the proposed "green cultural trail" and overall open space network.

b. Functional Space: Explore the feasibility of creating parking and/or usable gathering space atop the tunnel entrance area, integrated into the surrounding pedestrian and open space network.

c. Concealed North Tunnel Entrance: Integrate the tunnel entrance design into site walls, natural landscape, and/or the architecture of any parking structure developed in Lot F.

d. Interpretation: Incorporate signage and/or public art into the overall design to interpret the significant investment in and technologies associated with this flood mitigation solution.

e. Low-Stress Bedload Maintenance Area: Incorporate a management area on the downstream side of the Elliott Mills Drive culvert to trap large materials, preventing them from moving further downstream where they could constrict the channel and tunnel entrance.

f. Maintenance Access: Incorporate vehicular access from adjacent parking areas for maintenance and debris management.

g. Naturalized Channel: Incorporate the naturalized channel for the Hudson Branch between the tunnel entrance and Court Avenue.

POLICY 10.6 LOT F

Explore different options to maintain Lot F as a significant parking resource on the perimeter of the core where visitors can park before reaching Main Street. There are several ways to accomplish this and the most appropriate approach will depend upon how parking resources are expanded or reduced in other locations in order to achieve other master plan goals. Listed as options, they can also be viewed as phases as market conditions and needs warrant.

Implementing Actions (All Options)

a. Signage and Information Systems: Incorporate wayfinding signage and dynamic parking information system technologies.

b. Open Space and Pedestrian Connections: Enhance the eastern perimeter of Lot F as an open space and pedestrian link between Main Street, the Bernard Fort Heritage Center, Lot G and the Roger Carter Center, as part of the proposed "green cultural trail." Provide additional pedestrian connections that direct visitors past the Thomas Isaac Log Cabin to increase its exposure.

c. Bicycle Accommodations: Include bicycle parking for visitors located towards Main Street for visibility.

d. Branding: Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

e. Future Adaptability: Plan for the potential future adaptability for autonomous vehicle (AV) parking with drop-off along Ellicott Mills Drive. AV parking holds promise to be more efficient

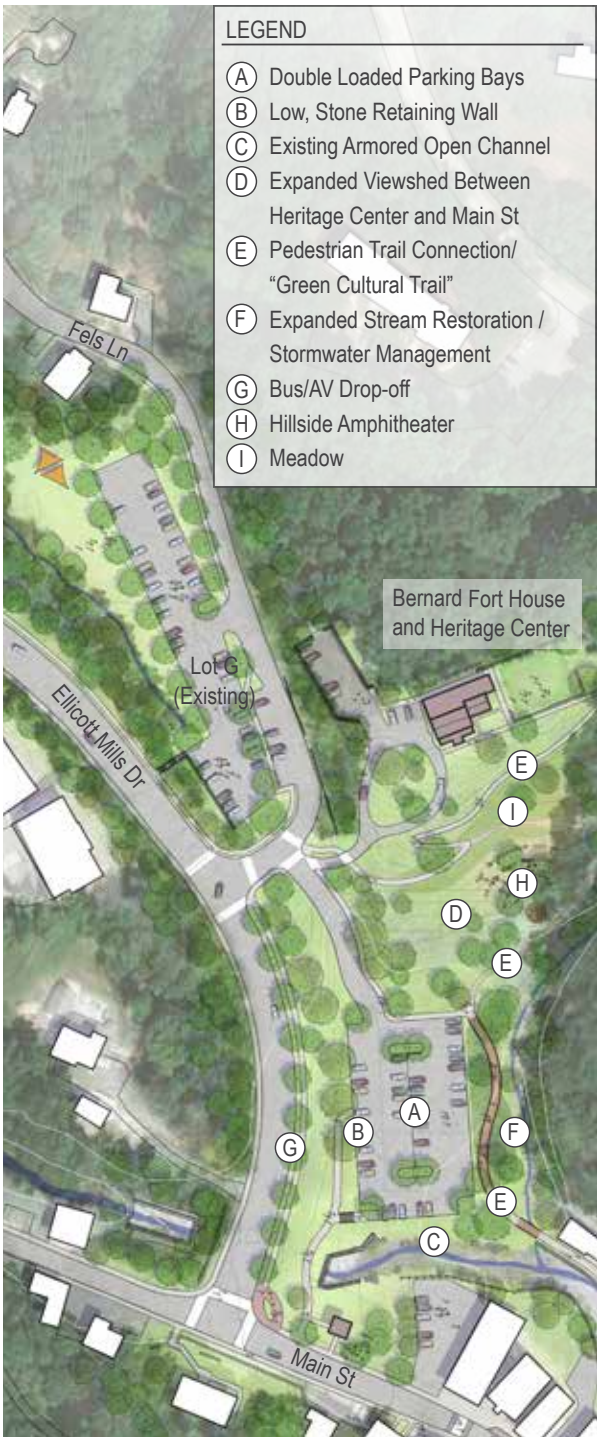


Figure 185: Lot F Option 1 + Existing Lot G

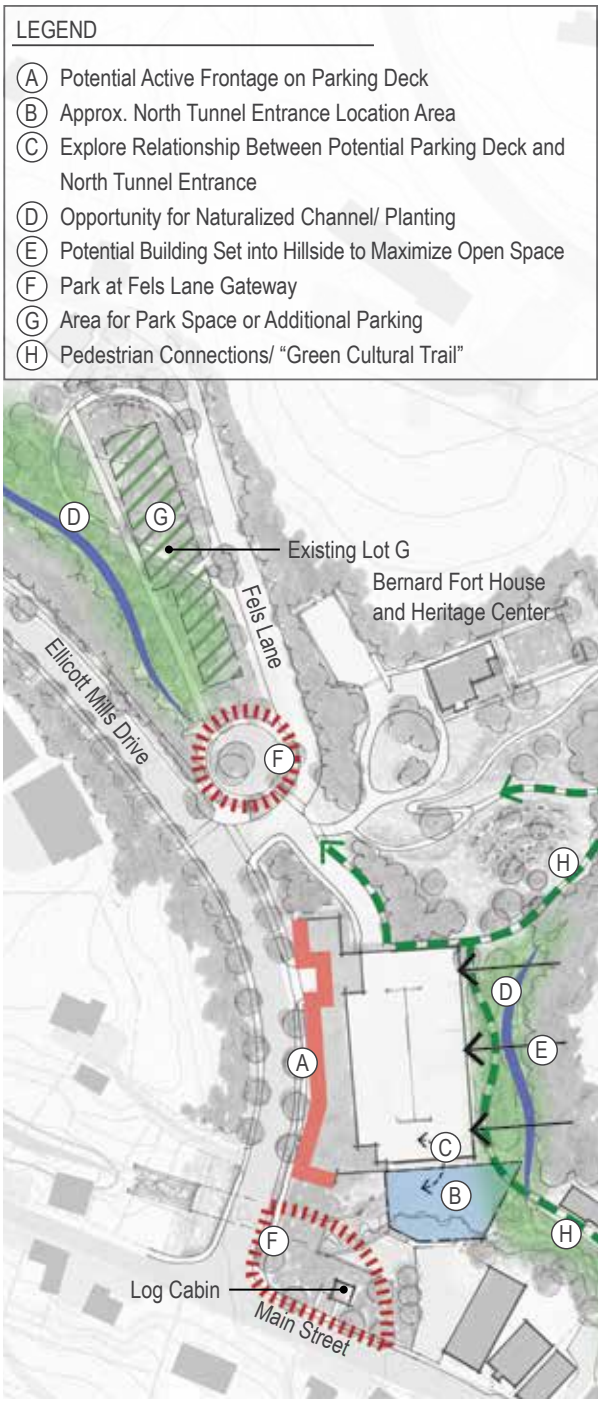


Figure 186: Lot F and G Conceptual Redevelopment Framework

and consume less land, allowing the potential to expand environmental site design (ESD) practices and open space amenities.

Implementing Actions (All Parking Deck Options)

f. **Architectural Design:** Design all visible facades with equal consideration to aesthetic quality and for compatibility with the surrounding context and historic district as well as with consideration of viewsheds. For any multi-story parking facilities, the design should also consider repurposing of the structure if the long-term demand for parking diminishes due to the adoption of AV technology.

g. **Vehicular Access:** Design the vehicular access points into the garage to take advantage of the grade change between Lot F and Ellicott Mills Drive and minimize internal ramping.

h. **Pedestrian Access:** Consider the design of streetscape elements in the vicinity of garage access points to provide for adequate sidewalk capacity that can accommodate concentrations of pedestrians, particularly during events.

i. **Active Uses:** Design any uses that might wrap a portion of the deck to activate the Ellicott Mills Drive pedestrian environment.

j. **Environmental Site Design (ESD) Practices and Green Technologies:** Explore ways to incorporate solar panels, green/garden walls and/or green roof elements.

k. **Restrooms:** Incorporate public restrooms into any parking structure or active uses.

LOT F: OPTION 1—SURFACE PARKING

Maintain Lot F as a surface parking lot; however, redesign it by eliminating the independent drive aisle on the west side to allow for additional green space adjacent to the small tributary for bioretention and naturalized channel treatment. This approach would maximize the viewshed to the Bernard Fort Heritage Center and would yield approximately the same number of spaces that exist today (61 spaces).

LOT F: OPTION 2—SINGLE BAY DECK AND SURFACE PARKING

Utilize the hillside to create a single-bay deck along Ellicott Mills Drive with surface parking over the remainder of the site, incorporating bioretention within the parking area. This approach would yield approximately 112 spaces but would also retain significant views of the Bernard Fort Heritage Center.

LOT F: OPTION 3—FULL PARKING DECK AND ACTIVE USES

Maximize parking resources with a double-bay deck, 2 to 3 levels, set back from Ellicott Mills Drive to provide flexibility for the deck to be lined with street-facing active uses at the time of construction or at some point in the future. A two-level deck could yield approximately 165 spaces and would not require internal ramping, thus maximizing the flexibility for adaptive use in the future. In addition, the moderate height would retain sightlines between the Bernard Fort Heritage Center and Main Street. If the garage is designed without internal ramping, dynamic parking supply and wayfinding technology should be sufficiently utilized so that electronic messaging/ parking availability is provided to approaching traffic.

A three-level deck would likely require internal ramping and might interfere with sightlines between the Bernard Fort Heritage Center and Main Street. Depending upon how the ramping could work with the existing slope across the site, a three-level deck could yield up to approximately 250 spaces.

LOT F: OPTION 4—FULL PARKING DECK AND VIEWSHED

Locate the double two to three-level deck as close to Ellicott Mills Drive as feasible. This would preclude the ability to line the deck with active uses but would maximize parking and allow for a broader viewshed between Main Street and the Bernard Fort Heritage Center.

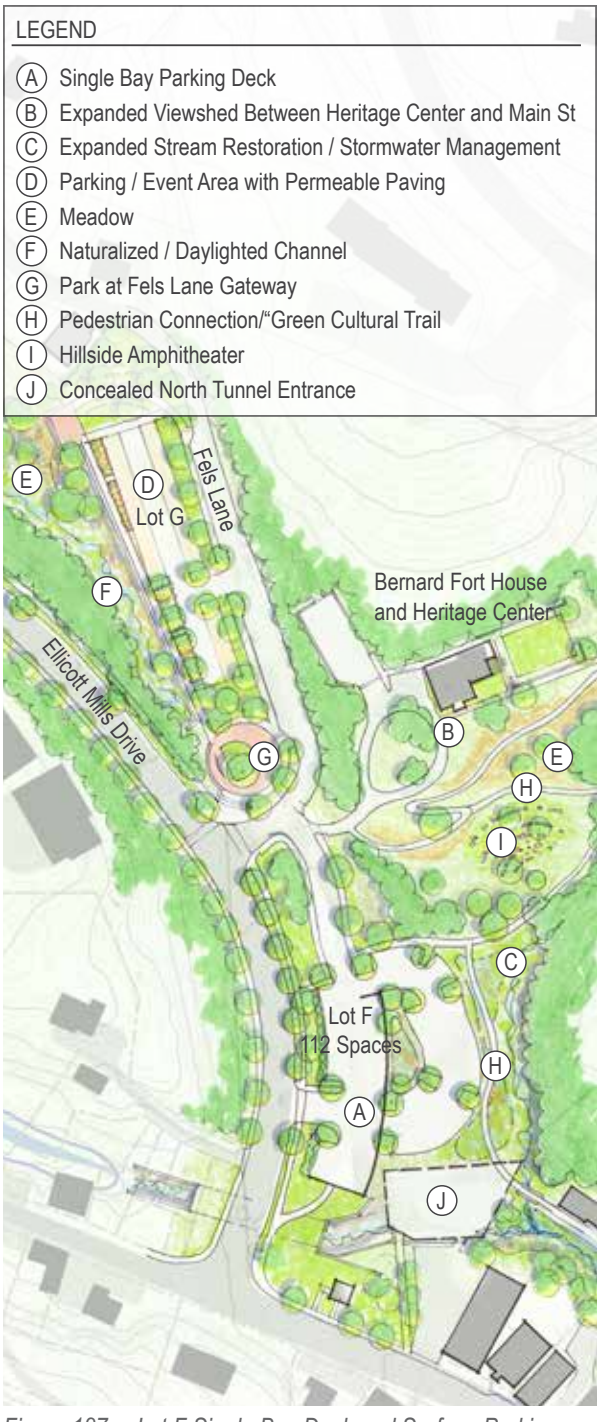


Figure 187: Lot F Single Bay Deck and Surface Parking + Lot G Multi-Use Parking and Park

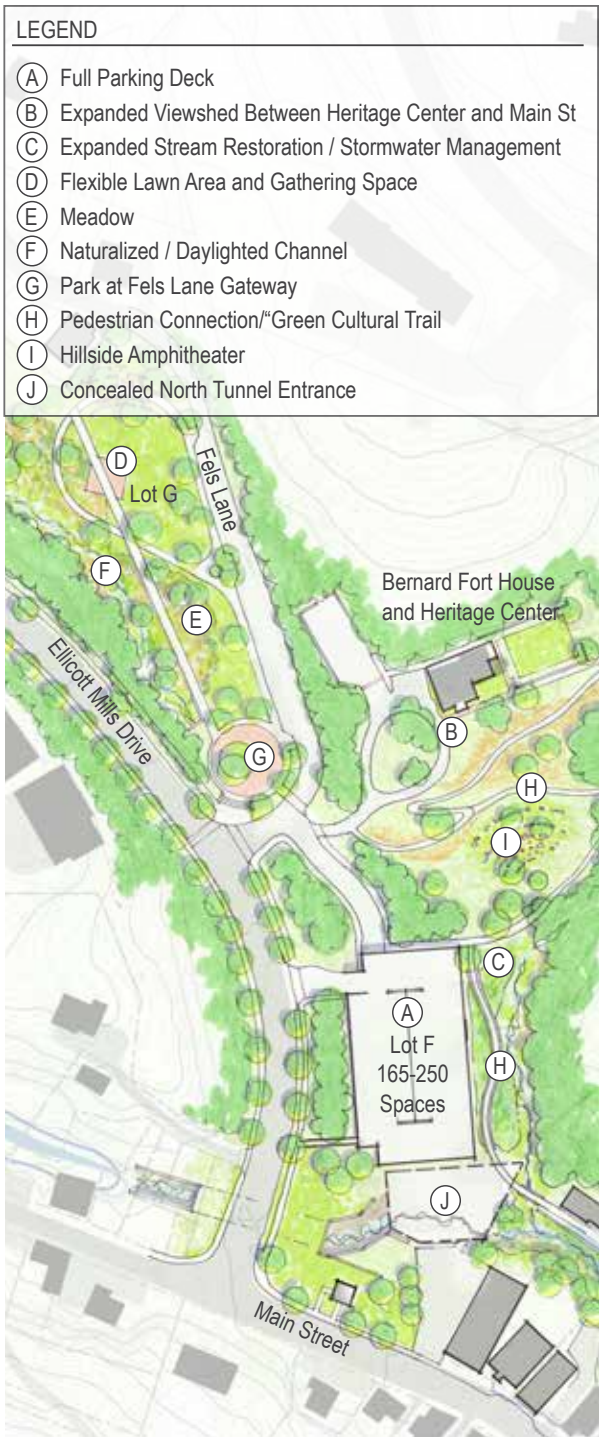


Figure 188: Lot F Full Parking Deck + Lot G Park

POLICY 10.7 LOT G TEMPORARY PARKING (FORMER ROGER CARTER CENTER SITE)

In the short-term, maintain the existing surface parking in Lot G. In the long-term, enhance the site as part of the park and open space network. As with Lot F, there are multiple ways to enhance the site and the most appropriate approach will depend upon how parking resources are expanded or reduced in other locations in order to achieve other master plan goals. As with Lot F, these options are flexible and can also be viewed as phases, with the site evolving over time as needs warrant.

Implementing Actions (Both Options)

a. **Park at Fels Lane Gateway:** Include a pedestrian gathering area and focal point near the intersection of Fels Lane and Ellicott Mills Drive with inviting entrances from the south and north. Potential names for the park space may include "Fels Lane Park" or "Ellicott Mills Park."

b. **Character-Defining Elements:** Preserve and/or restore the existing Fels Lane granite curbs and gutters and stone walls on the east side of the street which are important character-defining features of that street.

c. **Stream Daylighting:** Daylight stream channel and enhance stream buffer planting.

d. **Environmental Site Design (ESD) Practices:** Integrate permeable paving, rain gardens and bioswales into the overall landscape design when soil conditions are conducive and bedrock is not an obstacle.

e. **Gathering Spaces:** Add informal gathering spaces utilizing the slope toward the north end of the site.

f. **Landscape Buffers:** Provide tree buffers between the park and adjacent residences, comprised of an informal grouping of trees of various native species.

Figure 189: Neighborhood-Scale Gateway Park and Plaza, Roosevelt Park, Baltimore, MD

Figure 190: Flexible Parking Area with Environmental Site Design That Can Be Used as an Event Space

Figure 191: "Green Cultural Trail," Boardwalk and Naturalized Planting/Environmental Site Design, Credit: Daveynin Creative Commons

g. **Pedestrian Connections:** Add pedestrian crosswalks at Fels Lane and Ellicott Mills Drive and create pathway connections to the Roger Carter Center.

h. **Signage and Interpretation:** Incorporate coordinated wayfinding and interpretive signage to highlight the history associated with the Fels Lane African American heritage and highlight environmental site design improvements.

LOT G: OPTION 1—MULTI-USE PARKING AND PARK

Redesign the parking resource as a park space that can be used for vehicle parking as well as being repurposed for events and expanded open space.

Implementing Actions

a. **Signage and Information Systems:** Incorporate wayfinding signage and dynamic parking information system technologies.

b. **Paving and Design Details:** Explore feasibility for the use of special paving/permeable paving and non-typical parking lot design details with the goal to design a "park space that can accommodate parking" as opposed to a "parking lot."

c. **Landscape Design:** Utilize canopy tree planting and parking landscape to both define spaces and use areas (for when space is used for events and park activities) and seamlessly interface with the daylighted stream channel and broader open space.

d. **Branding:** Brand and rename the lot as part of a comprehensive and more user-friendly parking lot branding strategy.

LOT G: OPTION 2—PARK

If additional parking resources are developed elsewhere, establish the entire site as a named park space, integrating both active and passive use areas, including open flexible lawn areas, naturalized stream channel and an internal pathway and boardwalk system.

POLICY 10.8 NATURALIZED STREAM CHANNELS

Enhance the stream channels adjacent to Lot F as naturalized stream channels once EC Safe and Sound flood mitigation is in place. In addition to aesthetic improvements, these enhanced channels may also generate slight improvements to the aquatic habitat over the short length of restored stream channels.

Implementing Actions

a. **Hudson Branch:** Following North Tunnel construction, remove heavy armoring and naturalize the Hudson Branch as much as possible between the tunnel entrance and Court Avenue.

b. **Lot F Tributary:** Naturalize the tributary channel to the east of Lot F and expand the tributary's floodplain should Lot F shift to the west as described above.

Figure 192: "Green Cultural Trail," Naturalized Stream Channel Restoration, La Rosa Reserve in New Zealand, Credit: Boffa Miskell, Photographer: Claire Hamilton

c. **Canopy Tree Planting:** Incorporate canopy tree planting and other appropriate planting along naturalized channels.

d. **Channel Bed:** Integrate variations in the channel beds, including pools and riffles or steeper sections to create both visual and audible interest.

e. **"Green Cultural Trail":** Coordinate the channel designs with the proposed "green cultural trail" which should meander alongside and across these channels to create an inviting user experience.

Figure 193: "Green Cultural Trail," Naturalized Stream Channel Restoration, Credit: Bricoleurbanism Creative Commons

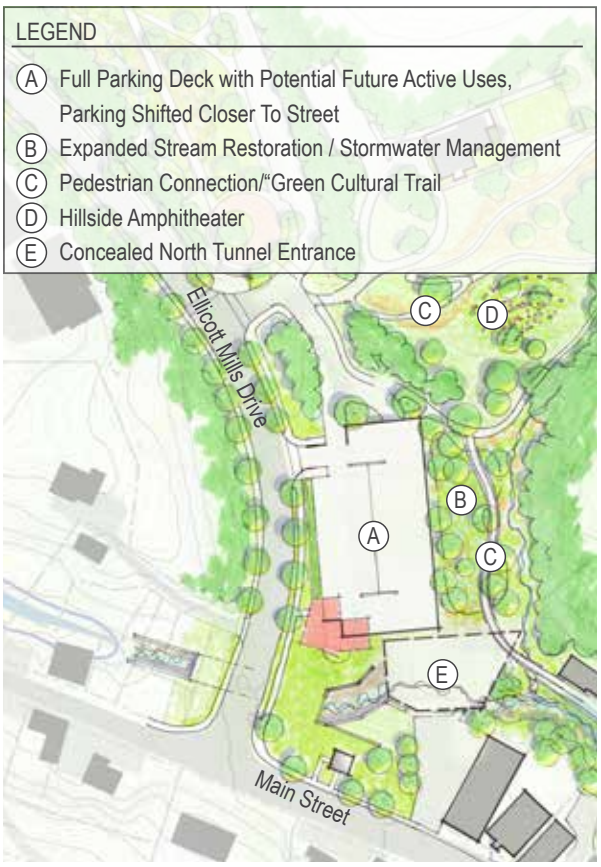


Figure 194: Lot F Full Parking Deck + Active Uses

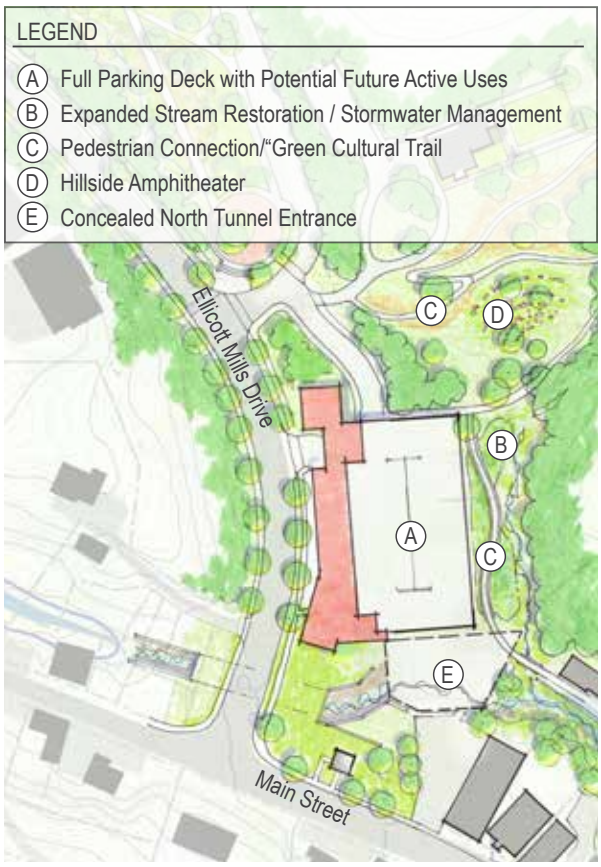


Figure 195: Lot F Full Parking Deck + Active Uses

Figure 196: Lot G Multi-Use Parking and Park

Figure 197: Lot G Park

Rogers Avenue
Main Street

III.11 West End

DESCRIPTION

The West End is a mixed-use community of homes and businesses located along Frederick Road (from Route 29 to Rogers Avenue) and Main Street (from Rogers Avenue to Ellicott Mills Drive). The Hudson Branch meanders throughout the West End, crossing under the street several times as it flows near historic buildings. Several flood mitigation projects are planned to lessen flood impacts in the West End.

ELLICOTT CITY TODAY

HISTORIC AND CULTURAL RESOURCES

Settled by mill workers, the West End was a logical extension of the town as it grew along Main Street and Frederick Road. Most of the buildings are modest and of frame construction, however, numerous older stone houses and estates are located throughout, remnants of Ellicott City's rural past. Historically, Burgess Mill operated near the intersection of Ellicott Mills Drive and Main Street with a mill race extending from the Hudson Branch. The eastern portion of the West End falls within the Ellicott City Historic District.

Figure 198: Existing House Spanning the Hudson Branch Channel in the West End

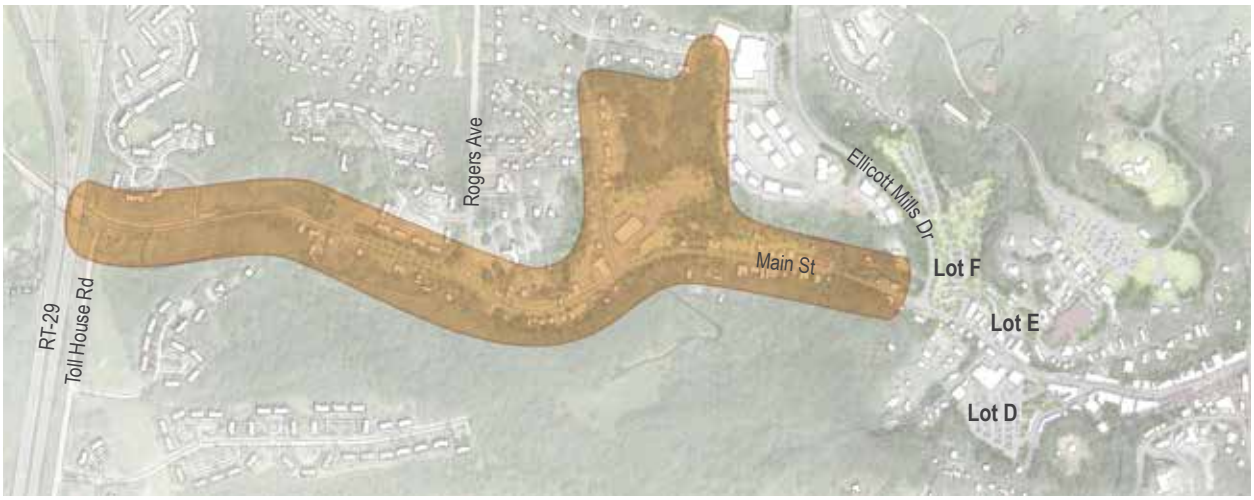


Figure 199: Key Plan — West End

- **Ellicott City Colored School:** This one room schoolhouse building dates to the 1880s and served as the first public school for African American children in Howard County. The building functioned as a school until the 1950s and was purchased and restored by the County in 1995. It now houses a genealogical resource center and museum chronicling the history of African Americans in Howard County.

NEIGHBORHOOD CHARACTERISTICS

Interwoven with the Hudson Branch and defined by the valley hillsides, the West End has a strong spatial definition and street edge.

- **Residential Community:** The West End is a community whose residential character is quite distinct from downtown and is comprised of a mix of duplexes, townhomes, and single-family detached homes lining Main Street/Frederick Road and the Hudson Branch. Some homes are built into the hillside, others span the stream channel and one is accessed by a footbridge across the stream. The homes have been constructed over a span of time and include wood frame structures as well as stone for the older structures.
- **Commercial Uses:** Some commercial uses are located throughout the West End, along Frederick Road. The most notable is West End Service, a company specializing in truck repairs, towing and related services. This business has operated from its central West End location since 1928, with modern buildings added over time to a portion of a site encompassing approximately 12 acres. The service garage and parking lot are located over a culverted portion of the Hudson Branch. While there is a lot of community interest in the reuse potential for this property, there are no plans for the existing business to relocate in the foreseeable future.
- **Artists' Studios:** Several artists and crafts people are located within the West End in commercially-zoned spaces next to West End Service.

Figure 200: Existing Conditions at the West End Service Site, Hudson Branch is Currently Culverted Underneath the Site

Figure 201: Foundations Scoured by Floodwaters in the West End

Figure 202: Historic Buildings in the West End

- **Neglected Properties:** A group of frame townhouses along Main Street are neglected and have been vacant for a number of years. They remain in poor condition and project a negative image on the West End community and the approach to downtown. The challenges associated with these properties are identified in more detail in Chapter III.1: Community Character + Placemaking of this report.
- **Open Space:** Except for the Ellicott City Colored School property, there is limited park amenity space within the West End.
- **Traffic and Pedestrian Safety:** Not faced with the congestion of Main Street, traffic along Frederick Road travels at higher speeds, resulting in challenging conditions for pedestrians and residents attempting to cross the street. Residents park cars partially onto the sidewalks to reduce the likelihood of being struck by speeding vehicles. These parked cars block the sidewalk for pedestrians. Sidewalk connectivity is not complete because of adjacent site constraints and there are limited places to cross the street safely, with few traffic controls.
- **Community Identity:** Residents have a strong sense of community pride and note the distinct appeal that the West End has to offer; however, they often feel their neighborhood is overshadowed by downtown and the commercial part of Main Street east of Ellicott Mills Drive. West End residents believe that they, too, are part of "Main Street."

EC SAFE AND SOUND FLOOD MITIGATION

Numerous flood mitigation projects are included in EC Safe and Sound that will reduce flood impacts within the West End. These include detention facilities west of Route 29, expansion of an existing stormwater detention facility near Rogers Avenue, numerous culvert replacements, new storm drain inlets, the incorporation of high flow bypass pipes and a flood berm to redirect flood waters away from existing structures. The removal of buildings associated with flood mitigation plans is under review as part of the Section 106 process.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 11.1 FREDERICK ROAD / MAIN STREET STREETSCAPE

Implement the streetscape and traffic-calming recommendations for the West End as outlined in Chapter III.6: Streetscapes of this master plan.

Implementing Actions

a. **Emergency Alert System:** Incorporate a visible and audible flood warning system as part of the larger strategy for Ellicott City.

b. **Pedestrian Safety and Aesthetics:** Utilize curb bump-outs to define parking zones, decrease crossing distances at raised crosswalk areas, and provide areas for tree and ground-plane planting to enhance the pedestrian experience. If buildings are removed for flood mitigation, explore opportunities for wider sidewalks on those lots if appropriate given floodplain regulations and funding requirements.

c. **Parking:** If buildings are removed for flood mitigation, explore the potential to add parking spaces if feasible given floodplain regulations and funding restrictions.

POLICY 11.2 PROPERTY MAINTENANCE

Build upon existing tools that encourage maintenance –including rehabilitation tax credits, guidelines, and technical assistance–with potential maintenance codes to address the neglected properties along Main Street in the West End. Maintenance is critical to the resilience and continued use of any property and adjacent properties.

See Chapter III.1: Community Character + Placemaking, for more detail on property maintenance.

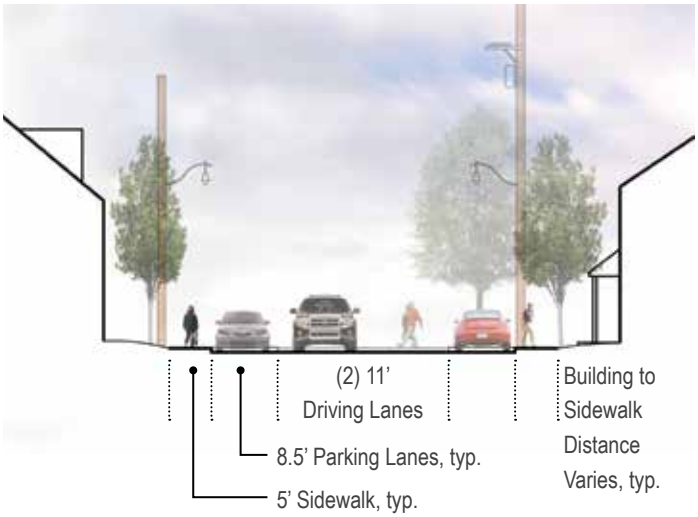
POLICY 11.3 WEST END COMMUNITY BRANDING

Extend the Old Ellicott City brand to reinforce the unique identity of the West End while strengthening it as an extension to the core.

Figure 204: Potential West End Community Branding

Figure 203: Existing Commercial Buildings can be Reused as Maker Spaces, Credit: Stephen Babcock (Top), The Foundery (Bottom)

Figure 206: West End Streetscape Improvements, For Illustrative Purposes Only



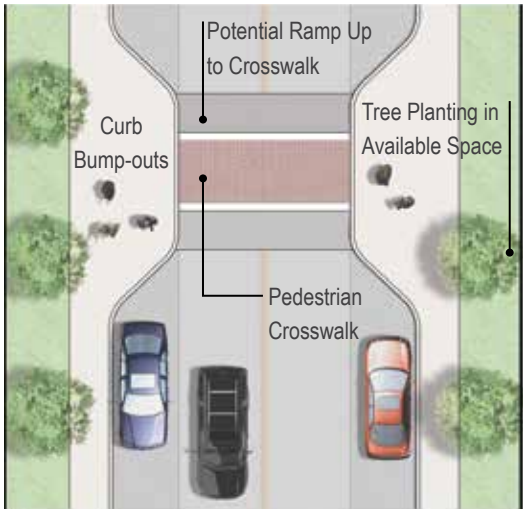


Figure 205: Typical Mid-block Crossing in the West End, For Illustrative Purposes Only

WEST END SERVICE SITE CONSIDERATIONS

Should the private property owner's interests and existing use change, consider a coordinated, master planned redevelopment of the West End Service site. This 12.9-acre site spans seven properties and offers the potential to provide a central community anchor for the West End, accommodating a mix of uses including open space, water management, commercial and residential uses. Given its size and strategic location, this site is too important to not identify opportunities. The narrative and concept diagram below illustrate long-term considerations for the property.

a. **Context-Sensitive Site Plan and Organization:** Consider a cohesive site plan that responds to the topography and connects adjacent neighborhoods and the Roger Carter Community Center.

b. **Character-Based Codes:** Explore the applicability of character-based codes as an alternative to conventional zoning for this site.

c. **Additional Flood Mitigation:** Explore opportunities to daylight the culverted section of Hudson Branch and restore some of its floodplain.

d. **Open Space Network:** Create open space in association with the channel and floodplain that includes both active and passive uses, serves as a focal point for the West End, and connects to the Roger Carter Center and adjacent neighborhoods.

e. **Increased Tree Canopy:** Incorporate significant new tree canopy within the overall site development plan and use to reinforce site circulation and definition of open spaces.

f. **Mixed-Use Infill:** Plan for an appropriately-scaled mix of uses that would complement and be sensitive to adjacent existing uses. Consider arts and maker spaces in the reuse of some of the existing commercial buildings or in newly constructed neighborhood-scaled commercial buildings to build upon the existing small cluster of artists.

g. **Public Parking Resource:** Incorporate a public parking resource into the overall site to serve the open space network, associated amenity spaces and residents within the West End.

h. **Path Network:** Connect paths to existing neighborhoods, Main Street, the Roger Carter Center and, ultimately, to Lot G and the Bernard Fort Heritage Center as part of the proposed "green cultural trail" network.

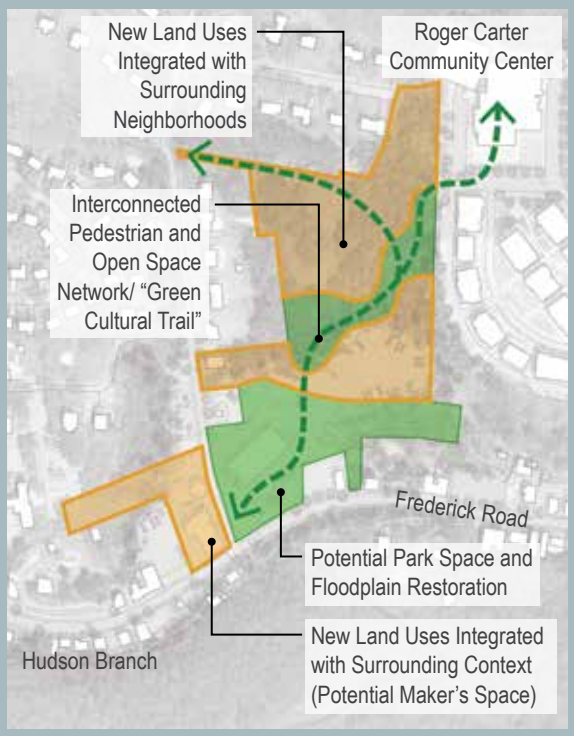


Figure 207: Conceptual Redevelopment Framework for West End Service Site, Should Use Ever Change

III.12 Courthouse Area

DESCRIPTION

The Courthouse Area includes the historic courthouse and jailhouse, the Patapsco Female Institute, Mt. Ida, the large surface parking area and surrounding street network and uses supportive of courthouse functions, such as Lawyers Row. The Courthouse Area is removed from Main Street by a distance of approximately 650 feet and an elevation change of 70 feet—with the historic courthouse perched prominently above Main Street.

ELLICOTT CITY TODAY

COURTHOUSE PROPERTY

Howard County plans to dispose of the courthouse property. This will occur once the courthouse functions relocate from the current location in the core to new facilities in 2021, leaving the current courthouse and its grounds available for reuse. While the new reuse is not yet determined, a study of the courthouse starting in 2017 indicated office space as an opportunity for reuse, in addition to other studies/evaluations that described a boutique hotel as an opportunity. There are several notable components to the site:

- **Courthouse Building:** The complex is anchored by the iconic Greek Revival courthouse building that sits high above Main Street and was completed in 1843.
- **Ellicott City Jail:** The unoccupied 1878 historic jailhouse is located to the northeast, with access from Emory Street. It sits well below the courthouse parking lot and sidewalk network, separated by stone retaining walls, and is connected via a modern second level pedestrian bridge.
- **Office Building:** Howard County owns the 1960s-era office building at 3716 Court Place next to the historic courthouse.
- **Courthouse Lot:** Most of the courthouse property is comprised of a large surface parking lot, situated to the north of the courthouse

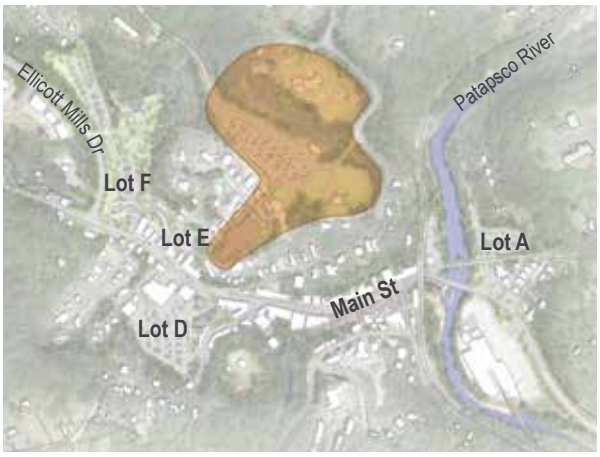


Figure 209: Key Plan — Courthouse Area

Figure 208: The Lot E Staircase Creates a Memorable Link Between the Courthouse Area and Main Street

and jail buildings. The lot includes 269 parking spaces and is utilitarian in design with limited green space and no tree canopy. Mature canopy and wooded hillsides define most of the lot's edges, however.

- **Court Place:** Court Place provides direct vehicular and pedestrian connection between the Courthouse Lot and Main Street, via Court Avenue. The pedestrian walkway is quite attractive and human-scaled with gathering areas along its length. It is a strong site organizing element.
- **Park Avenue:** Park Avenue wraps the southeastern part of the site, following the hillside topography and affording broad views of the Main Street area below. Like Court Place, the street is human-scaled and has several small gathering areas along its length.
- **Current Zoning:** The current zoning is "Historic Office" which supports a mix of offices and residences with supporting cultural and commercial uses. The district allows for and encourages new development and reuse of existing structures consistent with the existing character of the area. Apartments are only permitted within existing historic buildings.
- **Potential Reuse:** The County currently has not yet determined preferred uses for the reuse of the historic courthouse, jailhouse or the parking areas, however, any reuse planning should be done so comprehensively and consider the courthouse property's context with Main Street and the economic importance of Main Street. Stakeholders have indicated a variety of preferences for the property during early outreach in the master plan process. While the desired uses varied, there was a general desire for uses that would bring new customers to businesses along Main Street and support—rather than compete with—these businesses.

ADJACENT COURTHOUSE-RELATED USES

Offices supporting courthouse functions are housed within converted residential structures and contemporary office buildings that front onto lower Court Place and Park Avenue, west of Park Place. Most of the uses along Park Avenue are located within converted historic residential structures, with rear yards facing onto the large parking area. Once the courthouse moves to its new location, it is unclear how many of these uses will remain.

STAKEHOLDER IDEAS: REUSE OF THE COURTHOUSE PROPERTY

Courthouse Building

- » Unique hotel/accommodations
- » Apartments
- » Office space
- » Business incubator

Jailhouse

- » Integrated with courthouse reuse
- » Tour shop

Figure 210: The Ellicott City Jail Building Sits Below the Courthouse and Court Avenue

Figure 211: The Patapsco Female Institute Offers a Unique Experience to Visitors of Courthouse Area

PATAPSCO FEMALE INSTITUTE

The Greek Revival-style Patapsco Female Institute (PFI) opened atop the town's highest hill in 1837 as a girls' school, the second of its type in the country, and an innovative model for female education. Thomas Jefferson's great granddaughter is among PFI's headmistresses. PFI expanded, but the Civil War proved a severe financial burden, and the school's reputation subsequently diminished; it closed in 1891. The structure was converted into a hotel, then later a hospital for WWI veterans and a nursing home. Thanks to grassroots and County intervention, today it is a stabilized ruin, used for education, recreation and entertainment in a park-like setting.

The ruins and its associated grounds are one of the most dramatic park resources in Ellicott City and are accessed via Court House Drive, Sarah's Lane and Church Road. Visitors can interact, attend events and see performances amidst the ruins while high above the core. As PFI sits atop the wooded hillside, it is not highly visible from the Courthouse Lot. Owned by the Department of Recreation and Parks (DRP), the grounds and facilities are operated by the Friends of the Patapsco Female Institute and are only open during events. DRP has recently developed a master plan for the grounds.

MT IDA

The last of the homes built by an Ellicott was designed by architect Robert Cary Long, Sr., as was its uphill neighbor Patapsco Female Institute. The 1823 Greek Revival house commanded a panoramic view down the Patapsco River valley from its hilltop location. It is the rear of the yellow stucco dwelling that faces the Courthouse Lot today; the house is privately owned. Both the house and its grounds are highly visible from within the Courthouse Area and accessed from Sarah's Lane, an extension to Court House Drive. As its foreground, the large Courthouse Lot diminishes the presence of this historic resource, however.

OPEN SPACE NETWORK

Some of the largest public open spaces within the core converge at the Courthouse Area and include the grounds of the Bernard Fort House and those associated with PFI. Most of this acreage is characterized by steep wooded slopes.

ELLICOTT CITY TOMORROW: PLAN POLICIES AND ACTIONS

POLICY 12.1 COURTHOUSE PROPERTY REUSE

Explore different options to dispose of the courthouse property with creative solutions for redevelopment that complements and enhances Ellicott City's downtown and reinforces—rather than competes with—the economic importance of Main Street.

Implementing Actions

a. **Request for Information:** Consider developing and issuing a Request for Information (RFI) to generate the widest level of engagement and range of creative ideas for the reuse of the property.

b. **Request for Proposal:** Alternatively, consider issuing a Request for Proposals (RFP). The RFP process may generate fewer responses but they will be more detailed.

c. **Key Considerations:** Regardless of the process used, the RFI or RFP should encourage creativity, outline key considerations for the reuse of the property, emphasize the importance of a sensitive interface with adjacent properties and require a holistic master-planned approach to the reuse of the property. Specific key considerations are outlined in the implementing actions that follow.

d. **Street/Pedestrian Network:** Respect the existing street network around the courthouse building and draw upon this network as an organizing element of the area, should the courthouse parking lot redevelop. Emphasize clear visual and physical connections to Main Street, the Patapsco Female Institute and Mt. Ida.

e. **Mixed-Use New Construction:** While a variety of uses could be considered for the property, they should be determined as part of the disposition process, based upon market conditions and feasibility. Proposed uses should be complementary to the Main Street business community, and the form of new structures should be sensitive to the historic district.

Figure 213: Context-Sensitive Infill Development, Credit: City of Fredericksburg, VA (Top), Pearce Brinkley Cease + Lee/JWest Productions (Middle)

Figure 212: Mixed-use Wrapped Parking Deck, Credit: City of Boulder, CO

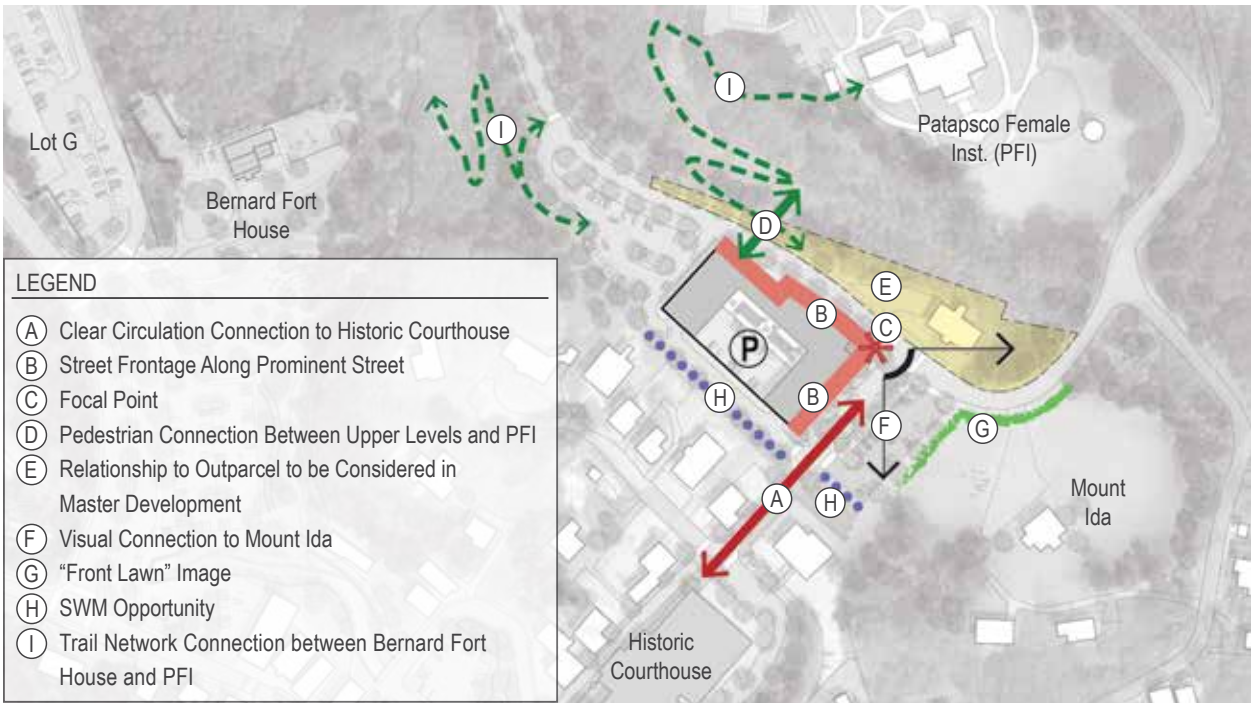


Figure 214: Conceptual Redevelopment Framework for Courthouse Site

Preferences expressed by the community during the process to create this plan included unique hotel/accommodations, apartments, office space and/or business incubator space.

f. Open Space Network and Amenity Areas: Include a clear, organized open space network within the overall site to include pedestrian amenity areas and clear connections to the open spaces associated with PFI, Mt. Ida (private open space) and the Bernard Fort Heritage Center.

g. Patapsco Female Institute Interface: Consider stronger connections to the PFI site which could include an upper level pedestrian bridge over Court House Drive, should a multi-level use be located nearby. Consider viewsheds to and from PFI with new infill on the Courthouse Lot.

Figure 215: Active Streetscapes and Building Zones Create Spaces that Attract Visitors

Figure 216: Courthouse Hill Aerial Sketch, Illustrative Concept Only—Not a Proposal for Development

h. Mt. Ida Interface: Protect and be sensitive to viewsheds to and from Mt. Ida with site redevelopment. Consider a landscaped multi-function surface parking area closest to the Mt. Ida property that can be designed to be flexible and serve as an occasional event space/open space amenity when not being utilized for parking.

i. Other Adjacent Properties Interface: Coordinate with adjacent property owners as concepts are developed.

j. Environmental Site Design (ESD) Practices and Green Technologies: Encourage creative ESD practices and green technologies that can be incorporated as an amenity into the overall site design, along the southern and eastern boundaries of the site. Consider the use of green roofs, green walls and the use of solar panels in building construction.

k. Public Art/Interpretation: Incorporate public art into the overall master plan. Consider creative ways to increase awareness of Ellicott City's flood vulnerability by interpreting the flood mitigation efforts associated with the EC Safe and Sound North Tunnel that will pass beneath the courthouse area. This might include pavement markings and/or signage identifying the presence or alignment of the tunnel below.

l. Parking Areas: In addition to parking that serves the reuse, include public parking to serve events at the PFI and Main Street businesses. If a parking garage is considered, conceal much of it by wrapping with active uses. Incorporate landscape, particularly tree canopy and ESD practices within surface parking lots.

m. Branding: Create a brand identity for the area to promote it as a distinct district within the downtown. It is important that the brand respect the site's history and is authentic to Ellicott City. An example could include "Courthouse Hill," however, the ultimate identity should emerge with reuse of the site and as part of a broader wayfinding effort.

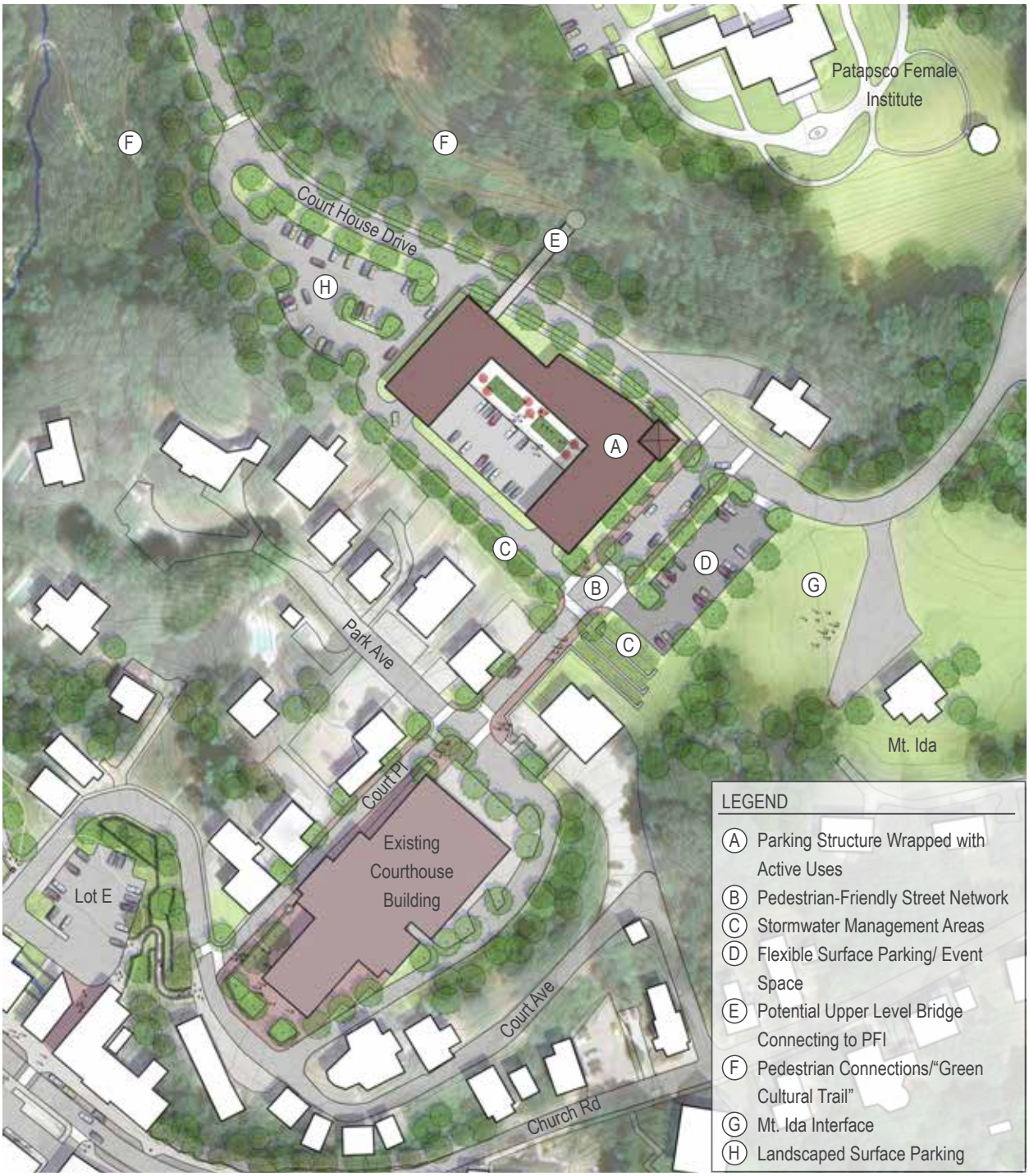


Figure 217: Courthouse Hill Plan, Illustrative Concept Only—Not a Proposal for Development

n. Interim Use: While the disposition process is underway, continue to maintain the existing Courthouse Lot in its current condition to maximize available parking during the implementation of EC Safe and Sound.

POLICY 12.2 PATAPSCO FEMALE INSTITUTE

In addition to the recommendations outlined in the master plan for PFI, consider additional long-term recommendations.

Implementing Actions

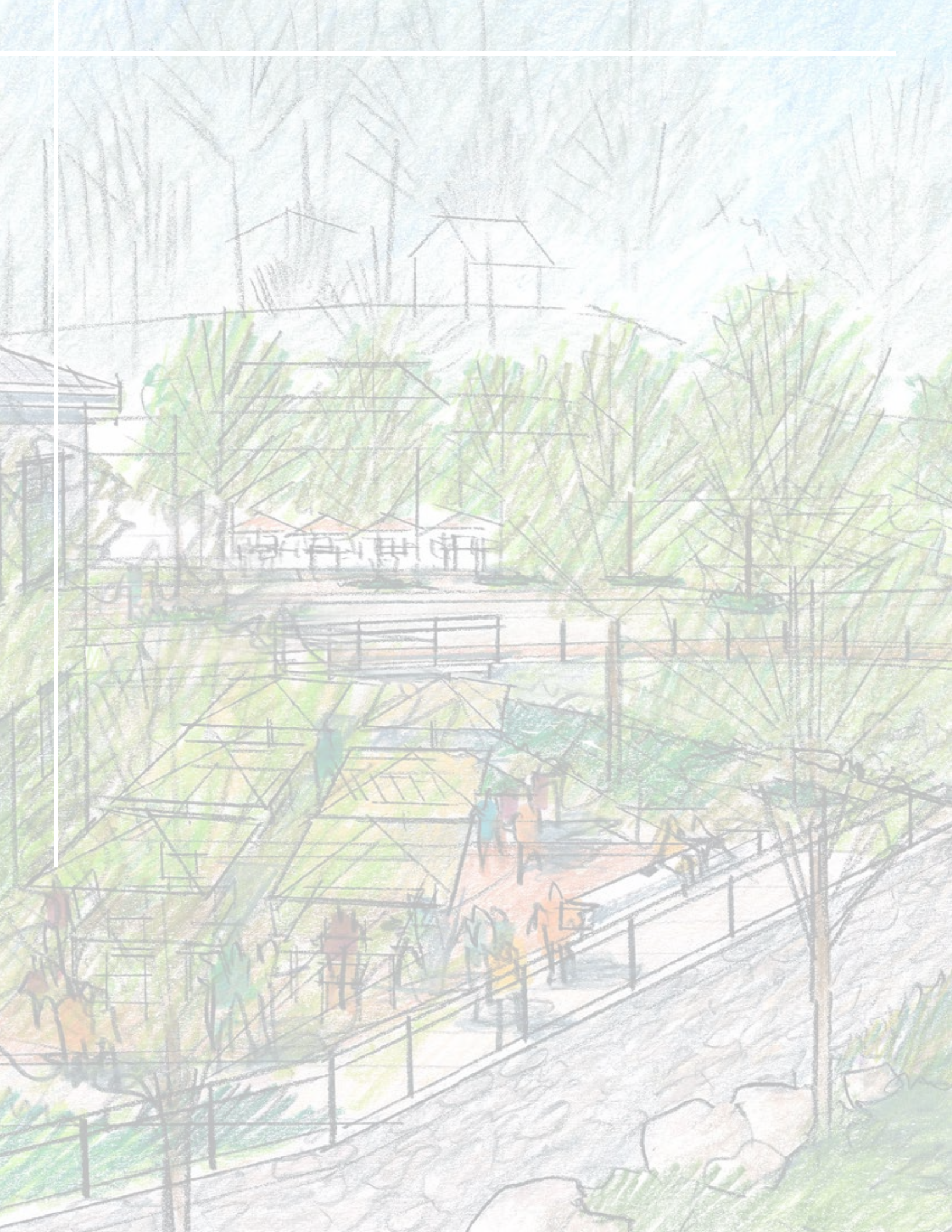
a. Tree Management: As new trees are planted on the grounds, consider locating them to frame and preserve long views into the valley below. Consider selective limbing of existing trees to open up certain views.

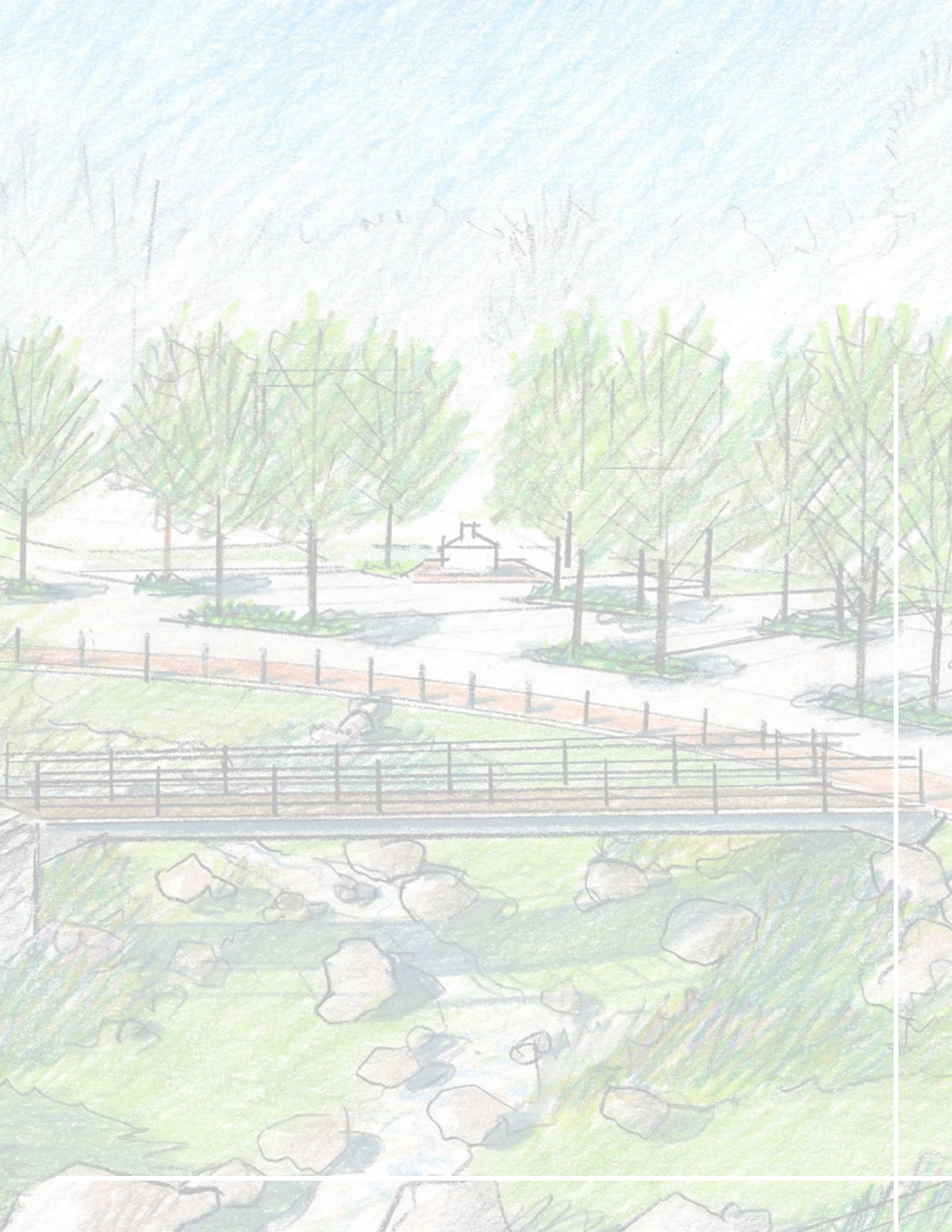
b. Nature Trail: Consider providing a switchback nature trail along the wooded hillside to connect to the Courthouse Area and the Bernard Fort Heritage Center grounds and the "green cultural trail" network. The trail would be gated at the boundary of the PFI and opened during events and for special hikes.

c. Public Access: Explore long-term operational and site design logistics that would allow for the grounds, or a portion of the grounds, to be more accessible to the public on a regular basis.

Figure 218: Courthouse Area Concept Sketches

HOWARD COUNTY COURTHOUSE





wellness center

IV
Implementation Plan

OVERVIEW

This master plan is a framework to manage change and enhancements in Ellicott City over the next twenty years and beyond and intends to be a guiding, yet flexible document. Howard County Government will be the entity in charge of incrementally implementing the master plan, however, private sector, non-profit entities and individuals will have a partnership role for many projects. Many of the concepts illustrated will be further refined and vetted should they become projects. Should opportunities arise, the plan also includes redevelopment concepts shown for inspiration. It is important to view the master plan as a "menu" of projects, particularly given current public sector fiscal constraints and the unknown opportunities and challenges that may arise over time. Implementation partners may likewise need to consider new technologies and/or strategies that may arise that are better suited for certain projects or that encourage innovation. As unforeseen challenges and opportunities emerge, the multi-objective vision and flexible approach offered in this master plan will guide Howard County Government and its partners. Together, they will protect and enhance Ellicott City as a model, resilient community.

IMPLEMENTATION TIMEFRAMES

Implementation timeframes will be determined by need, funding, emerging opportunities, and impacts/adjacencies related to the implementation of EC Safe and Sound flood mitigation. As of fall 2020, several projects under the EC Safe and Sound plan are anticipated to start construction in FY2021, pending completion of the federal Section 106 process. In addition, several other projects will continue moving through the design and/or permitting process.

IMPLEMENTATION PARTNERS

As the entity in charge of implementing the master plan, Howard County Government will work among a partnership of public and private entities and individuals. Implementation partners will vary depending upon the specific project and may include residential neighborhoods, business owners, property owners, advocacy groups, and the private sector.

IMPLEMENTATION MATRIX

The Implementation Matrix, divided among the following page spreads, is a summary of the recommendations and timeframes for implementation. The matrix is organized by plan frameworks and plan areas and outlines the key plan policies and actions for each. Implementing timeframes are noted as short (completion within five years), medium (six to ten years for completion) or long (11 or more years to implement fully). These periods align with Howard County's anticipated Capital Budget. In some instances, implementation will occur over a span of time (i.e. short-mid, mid-long, or short-long). Others may be listed as ongoing to indicate they won't necessarily have a completion date.

With this implementation matrix, it is important to note:

- Recommendations will not be implemented all at once. Rather, they will be implemented in phases over many years.
- The plan frameworks, elements and actions are often interrelated; therefore, implementation will occur simultaneously and require coordination among recommendations in many instances.
- The order that the plan policies and actions are listed does not indicate a prioritization.

As plan policies are implemented, progress can be tracked and reviewed during an "Annual Forum on Ellicott City" as described below.

ANNUAL FORUM ON ELLICOTT CITY

Howard County Government should consider hosting an annual "Forum on Ellicott City" to discuss ongoing partnerships; highlight past challenges and celebrate successes; and outline future projects, potential challenges and potential opportunities. All partners involved in working with Howard County to implement this plan should participate in this forum.

Tracking the success of this master plan will be critical to maintain the momentum of its implementation and keep partners energized. Such a forum could introduce ongoing baseline reporting on business conditions in the district, including value per square foot, retail sales within the district, net business openings, new jobs and investment dollars spent (public and private). As is the case in many communities, such a forum should discuss the status of parking resources as needs shift, construction projects continue and improvements take place. This is also an opportunity to celebrate partnerships, present the annual work program and provide a "report card" on the progress of recommendations in this plan.

BI-COUNTY FORUM

Howard County Government should consider facilitating a bi-county summit with both public and private stakeholders to discuss and coordinate common goals, challenges and solutions and celebrate successes. Explore holding the summit every two to five years.

Ellicott City is at the border between Howard and Baltimore Counties, with the historic community of Oella located just across the river and Catonsville's business district only a few miles east along Frederick Road. Each of these communities is part of the broader Patapsco Heritage Area. While the communities are distinct in many ways, the visitor experiences they offer are similar, and the three communities have similarities in terms of geography, environmental qualities and sharing the Patapsco River as a central amenity. Their individual successes are tied to the success of the whole area.

The forum focus could be a on a wide variety of issues including, but not limited to:

- Reuse of Wilkins Rogers Mill Site;
- Patapsco River flooding;
- Water Quality and Habitat;
- Recreational Amenities, Connections/Trails;
- Traffic Management and Pedestrian Safety;
- Transit;
- Parking;
- Complementary Business Districts; and
- Co-marketing.

#ECstrong

FRAMEWORK	POLICY #	PLAN ELEMENT/ACTION	TIMEFRAME
1. COMMUNITY CHARACTER + PLACEMAKING	1.1	Preservation Facilitation	Ongoing
	1.2	Property Maintenance	Short—Long
	1.3	Development Character and Zoning	Short
	1.4	Scenic Roads	Short— Mid
	1.5	Public Realm Design, Amenities and User Comforts	Ongoing
	1.6	Public Art	Ongoing
	1.7	Green Cultural Trail	Short—Long
	1.8	Programming and Events	Ongoing
2. FLOOD MITIGATION	2.1	EC Safe And Sound Implementation	Ongoing—Short
	2.2	Stormwater Management Facility Design	Short—Long
	2.3	Channel Maintenance and Debris Management	Ongoing
	2.4	Stream Restoration	Mid—Long
	2.5	Process for Ongoing Evaluation after EC Safe and Sound Implementation	Ongoing
	2.6	Patapsco River Evaluation	Short— Mid
	2.7	Nonstructural Flood Proofing	Ongoing
	2.8	Flood Elevation Certificates	Ongoing
	2.9	Public Education and Awareness Campaign	Ongoing—Short
3. ENVIRONMENTAL STEWARDSHIP	3.1	Strategic Watershed Program	Mid
	3.2	Forest Management	Short—Long
	3.3	Stream Restoration	Mid—Long
	3.4	Soil Amendments	Ongoing
	3.5	Stream Daylighting	Long
	3.6	Environmental Site Design (ESD) Practices and Green Technologies	Short—Long
	3.7	Dedicated Open Space and Conservation Easements	Mid—Long
	3.8	Public Education	Ongoing

KEY

- » Baltimore County, Maryland (Baltimore County)
- » Dept. of Inspections, Licenses and Permits (DILP)
- » Department of Public Works (DPW)
- » Department of Planning and Zoning (DPZ)
- » Department of Recreation and Parks (DRP)
- » Economic Development Authority (EDA)
- » Historic Preservation Commission (HPC)
- » Howard County Tourism Council (Tourism)

Ongoing: No Completion Timeframe; **Short:** 0–5 Years; **Medium (Mid):** 6–10 Years; **Long:** 11+ Years

PRIMARY RESPONSIBILITY	PARTNERS	REFERENCE IN REPORT
DPZ	Nonprofit Sector	"Policy 1.1" on page 64
DPZ	DILP, Property Owners	"Policy 1.2" on page 65
DPZ		"Policy 1.3" on page 66
DPZ		"Policy 1.4" on page 66
DPZ, DRP	Nonprofit Sector, Private Sector, Property Owners	"Policy 1.5" on page 66
DPZ	Nonprofit Sector, Private Sector	"Policy 1.6" on page 68
DRP	OOT, OCS, DPZ	"Policy 1.7" on page 70
Nonprofit Sector	Tourism, EDA, Private Sector	"Policy 1.8" on page 70
DPW	OCS, DPZ	"Policy 2.1" on page 85
DPW	Property Owners	"Policy 2.2" on page 85
DPW	DRP, OCS, Highways, Nonprofit Sector, Advocacy	"Policy 2.3" on page 85
DPW	Nonprofit Sector, Property Owners, Advocacy	"Policy 2.4" on page 87
DPW		"Policy 2.5" on page 88
DPW	Baltimore County, Property Owners	"Policy 2.6" on page 88
DPW	DPZ, DILP, Property Owners	"Policy 2.7" on page 88
DPW	Property Owners	"Policy 2.8" on page 89
DPW	DPZ, Nonprofit Sector	"Policy 2.9" on page 89
DPW	OCS, Nonprofit Sector, Advocacy	"Policy 3.1" on page 98
OCS	DRP, Nonprofit Sector, Advocacy, Property Owners	"Policy 3.2" on page 99
DPW	Nonprofit Sector, Property Owners	"Policy 3.3" on page 100
OCS	DPW, DRP, Nonprofit Sector, Property Owners	"Policy 3.4" on page 100
DPW	DPZ, OCS, Nonprofit Sector, Property Owners	"Policy 3.5" on page 101
DPW	DPZ, OCS, Private Sector	"Policy 3.6" on page 101
DPZ, DRP	OCS, Property Owners, Advocacy	"Policy 3.7" on page 102
OCS	DPZ, Advocacy, Nonprofit	"Policy 3.8" on page 102

» Maryland State Highway Administration (SHA)
» Office of Community Sustainability (OCS)
» Office of Emergency Management (OEM)
» Office of Transportation (OOT)
» Other Advocacy Groups (Advocacy)

FRAMEWORK/ AREA	POLICY #	PLAN ELEMENT/ACTION	TIMEFRAME
4. ECONOMIC DEVELOPMENT	4.1	Existing Business Support	Ongoing
	4.2	Business Attraction and Recruitment	Ongoing
	4.3	Creative Spaces Initiative	Mid
	4.4	Mixed-Use New Construction and Redevelopment	Mid—Long
	4.5	Community Brand Extension	Short
	4.6	Community Tourism And Marketing Campaign	Short
5. TRANSPORTATION + PARKING	5.1	Pedestrian Accessibility and Safety	Short— Mid
	5.2	Sidewalk and Trail Connectivity	Mid
	5.3	Bicycle Accommodations	Short— Mid
	5.4	Transit	Short— Mid
	5.5	Parking Management	Mid
	5.6	Wayfinding System	Short— Mid
	5.7	Adaptability for the Future	Mid—Long
6. STREETSCAPE	6.1	Main Street Streetscape	Short— Mid
	6.2	Maryland Avenue	Short— Mid
	6.3	Other Streets	Mid—Long
	6.4	Streetscape Construction Phasing	Short— Mid
	6.5	Streetscape Construction Management Mitigation Plan	Short— Mid
7. RIVERFRONT	7.1	Patapsco River Pedestrian and Bicycle Crossing	Mid—Long
	7.2	Regional Trail Network	Short—Long
	7.3	North Tunnel Outfall	Short
	7.4	Ellicott City Riverfront Park	Short—Long
	7.5	Lot B	Short—Long
	7.6	Lot A	Long
	7.7	B&O Station Museum Hillside	Mid

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- » Department of Recreation and Parks (DRP)
- » Economic Development Authority (EDA)
- » Historic Preservation Commission (HPC)
- » Howard County Tourism Council (Tourism)

Ongoing: No Completion Timeframe; **Short:** 0–5 Years; **Medium (Mid):** 6–10 Years; **Long:** 11+ Years

PRIMARY RESPONSIBILITY	PARTNERS	REFERENCE IN REPORT
EDA	Nonprofit Sector, SBDC, HCC, UMBC	"Policy 4.1" on page 108
EDA	Nonprofit Sector	"Policy 4.2" on page 108
Private Sector	EDA, Nonprofit Sector	"Policy 4.3" on page 110
Private Sector	DPZ, EDA, Nonprofit Sector	"Policy 4.4" on page 111
Nonprofit Sector	EDA, Tourism	"Policy 4.5" on page 112
Tourism	Nonprofit Sector, State Tourism, EDA	"Policy 4.6" on page 115
DPW	DPZ, OOT	"Policy 5.1" on page 123
DPW, OOT	DRP, DPZ, Property Owners	"Policy 5.2" on page 123
OOT	DPW, DRP, Property Owners	"Policy 5.3" on page 127
OOT	Nonprofit Sector	"Policy 5.4" on page 127
Finance	DPW, DPZ, Nonprofit Sector	"Policy 5.5" on page 128
DPW	DPZ, Nonprofit Sector, MDOT	"Policy 5.6" on page 130
DPW, OOT	DRP	"Policy 5.7" on page 131
DPW	OOT, DPZ, OEM, Property Owners	"Policy 6.1" on page 140
DPW	OOT, DPZ, OEM	"Policy 6.2" on page 146
DPW	OOT, DPZ, OEM, Property Owners	"Policy 6.3" on page 147
DPW	OOT, OEM, Nonprofit Sector	"Policy 6.4" on page 149
DPW	OOT, OEM, Nonprofit Sector, Private Sector	"Policy 6.5" on page 150
DPW, OOT	OCS, MDE, SHA, DRP, Baltimore County, Nonprofit Sector	"Policy 7.1" on page 156
OOT	OCS, MDE, DPW	"Policy 7.2" on page 158
DPW	OCS, MDE, Private Sector	"Policy 7.3" on page 158
DRP	OCS, MDE, DPZ, Private Sector	"Policy 7.4" on page 159
DPW	OOT, OCS, MDE, DPZ, DRP	"Policy 7.5" on page 159
DPW	OOT, OCS, MDE, Baltimore County, Community Members	"Policy 7.6" on page 160
DRP	OCS, MDE	"Policy 7.7" on page 163

- Maryland State Highway Administration (SHA)
- Office of Community Sustainability (OCS)
- Office of Emergency Management (OEM)
- Office of Transportation (OOT)
- Other Advocacy Groups (Advocacy)

FRAMEWORK/ AREA	POLICY #	PLAN ELEMENT/ACTION	TIMEFRAME
8. LOWER MAIN	8.1	Nonstructural Flood Proofing	Ongoing
	8.2	Channel Design	Short
	8.3	Tiber Park	Short
	8.4	B&O Plaza	Short
	8.5	County-Owned Lower Main Street Buildings	Short
	8.6	Access to St. Paul Street	Mid—Long
	8.7	St. Paul Street Placemaking	Mid—Long
	8.8	Lot C	Mid
9. UPPER MAIN	9.1	Lot E Enhancement	Long
	9.2	Tiber Branch Channel Armoring	Mid
	9.3	Lot D Enhancement	Long
	9.4	Former Post Office Signature Use	Short
10. ELLICOTT MILLS GATEWAY AREA	10.1	Bernard Fort Heritage Center	Short—Mid
	10.2	Thomas Isaac Log Cabin Site	Short
	10.3	St. Luke AME Church Slope	Short—Mid
	10.4	Ellicott Mills Drop-Off Zone	Mid
	10.5	North Tunnel Entrance Area	Short
	10.6	Lot F	Short—Long
	10.7	Lot G Temporary Parking	Long
	10.8	Naturalized Stream Channels	Mid—Long
11. WEST END	11.1	Frederick Road/Main Street Streetscape	Mid—Long
	11.2	Property Maintenance	Short—Long
	11.3	West End Community Branding	Short
12. COURTHOUSE AREA	12.1	Courthouse Property Reuse	Short—Mid
	12.2	Patapsco Female Institute	Mid

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PRIMARY RESPONSIBILITY	PARTNERS	REFERENCE IN REPORT
DPW	DPZ, DILP, Property Owners	"Policy 8.1" on page 172
DPW	DPZ, Property Owners	"Policy 8.2" on page 172
DPW, DRP	DPZ, OEM, Property Owners	"Policy 8.3" on page 172
DPW, DRP	DPZ, OEM, Tourism	"Policy 8.4" on page 178
DPW		"Policy 8.5" on page 179
DPW	DRP, OEM	"Policy 8.6" on page 180
DPW	DRP, DPZ	"Policy 8.7" on page 180
DPW	DRP	"Policy 8.8" on page 180
DPW	DPZ, DRP	"Policy 9.1" on page 187
DPW	DPZ, DRP	"Policy 9.2" on page 188
DPW, Private Sector	DPZ, DRP, EDA, OCS, OEM	"Policy 9.3" on page 188
DPW	DPZ, DRP, EDA, Nonprofit Sector	"Policy 9.4" on page 194
DRP	DPW, DPZ	"Policy 10.1" on page 204
DRP	DPW, DPZ	"Policy 10.2" on page 205
DPW	DPZ, Property Owners	"Policy 10.3" on page 205
DPW	OOT, DPZ, Tourism	"Policy 10.4" on page 205
DPW	DPZ, OCS, DRP, OEM	"Policy 10.5" on page 206
DPW	DPZ, OCS, DRP, Private Sector	"Policy 10.6" on page 206
DPW	DPZ, DRP, Community Members	"Policy 10.7" on page 210
DPW	DPZ, OCS, DRP	"Policy 10.8" on page 211
DPW	OOT, DPZ, OEM, Property Owners	"Policy 11.1" on page 218
DPZ	DILP, Property Owners	"Policy 11.2" on page 218
Nonprofit Sector	EDA, Tourism	"Policy 11.3" on page 218
DPW	DPZ, EDA, DRP, Private Sector	"Policy 12.1" on page 226
DRP	DPZ	"Policy 12.2" on page 230

» Maryland State Highway Administration (SHA)
» Office of Community Sustainability (OCS)
» Office of Emergency Management (OEM)
» Office of Transportation (OOT)
» Other Advocacy Groups (Advocacy)

Department of Planning & Zoning
Howard County, MD — Adopted: _____ X, 2020

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