

NORTH MARTINSBURG AREA

PEDESTRIAN PLAN

Berkeley County, West Virginia

March, 2012

Prepared By:

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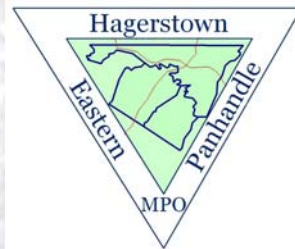


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1. Executive Summary

This study expands on a pedestrian connectivity review conducted for Edwin Miller Boulevard in July of 2011. The region, identified herein as the Study Area, is located north of downtown Martinsburg and south of Interstate 81 (see Exhibit A). The Study Area is characterized by strip development along major roadways blending to residential areas on the secondary road system. The intent of the Study is to evaluate the existing pedestrian networks and to establish long term strategies to enhance the quality and safety of future pedestrian mobility. Throughout this study the term pedestrian will be used, in the context of this report pedestrians include all non motorized forms of transportation including bicycles.

Currently there are minimal sidewalks and paths to serve the residents and commercial entities in this area. The lack of a sidewalk system compromises the walkability experience and safety for pedestrians, even for short distances. Neighborhoods are not connected through a pedestrian network forcing pedestrians to take long circuitous routes. This has lead to a reliance on vehicles for most trips in the Study Area.

The study examines the opportunities to enhance the existing pedestrian network by inventorying existing land uses, pedestrian infrastructure, pedestrian barriers and pedestrian destinations. Opportunities were identified to help determine locations which would benefit from increased pedestrian infrastructure. Routes within the Study Area were assessed and designated as Primary, Secondary or Tertiary based on their ability to connect neighborhoods and provide access to employment or commercial services.

Pedestrian Planning Zones within the Study Area were delineated to identify regions that provide the greatest opportunity and/or need for a pedestrian network of sidewalks or paths. The Pedestrian Planning Zones and pedestrian routes represent the beginning of a comprehensive pedestrian network for the entire Study Area.

This study is being presented to Berkeley County and the City of Martinsburg by the Berkeley County Development Authority, the Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEMPO) and the Eastern Panhandle Transportation Authority. The hope is that the County and the City will use this study as a tool for future planning purposes. The Recommendations and Implementation are suggestions that could be implemented as opportunities arise.

2. Plan Development

2.1. Scoping: This document expands on the Edwin Miller Boulevard (EMB) Pedestrian Master Plan completed in July of 2011 (See Attachment F) which focused on pedestrian activity along EMB between Trooper Drive and Forbes Drive (Future Raleigh Street). This study will explore the existing pedestrian infrastructure within the Study Area and provide guidance for the expansion of the existing pedestrian network.

2.1.1. Study Area: The study area is defined by Interstate 81 to the west, Mid-Atlantic / Shape Charge Road to the north, Gregory Drive to the east and Tavern Road/Moler Avenue to the south. The future Raleigh Street Extension is included within the study area to demonstrate the importance of this corridor in providing a second connection to downtown Martinsburg. **See Attachment A.**

2.1.2. Existing Conditions: An inventory of existing pedestrian infrastructure within the study area is established to evaluate the existing pedestrian framework and guide recommendations for potential expansion. Existing sidewalks, land use, transit, circulation patterns, pedestrian nodes and known future improvements are included within the existing conditions review to provide a basis for the overall Pedestrian Plan.

Pedestrian nodes can be divided into general categories;

- a. Schools;
- b. Employment centers or commercial hubs that service the surrounding residential neighborhoods;
- c. Parks and recreation facilities;
- d. Bus stops

2.1.3. Connectivity Review: This section of the report explores options for enhancing the pedestrian network and includes potential pedestrian corridors, neighborhood circulation and access to major pedestrian nodes. Pedestrian Planning Zones within the Study Area are identified to locate areas which may benefit the most from an improved pedestrian network. Potential pedestrian routes, connections and anticipated benefits are identified within this section of the report.

2.2. Goals & Objectives:

2.2.1. To provide an inventory of existing pedestrian infrastructure within the Study Area.

2.2.2. Identify key intersections, crossings and other potential pedestrian links that provide connectivity past major pedestrian barriers such as railroads and high speed road ways.

2.2.3. Identify opportunities to connect, expand on and repair the existing pedestrian grid.

2.2.4. To provide a hierarchy for improvements based on potential impact/use, urgency and safety. **This study will serve as a major tool for future grant applications and enhance opportunities to acquire grant funding in Martinsburg/Berkeley County.**

3. Existing Conditions

3.1. Context: The Study Area is located north of the downtown Martinsburg area and south of Interstate 81. Existing sidewalks within the Study Area are extensions of the downtown Martinsburg grid or part of private subdivisions. The Study Area is dominated by commercial uses along primary roadways and suburban development on the secondary roads. Construction is under way on the Raleigh Street Extension which will provide a second connection to downtown Martinsburg and there is a TIF district in place to fund improvements along Lutz Avenue/Adams Drive, Meridian Parkway and Courthouse Drive. A regional trail head is located three miles from the Study Area, which follows Route 9 and connects Martinsburg to the City of Ranson. Regional connections are important for local groups such as the Eastern Panhandle Trailblazers (EPTB), a local organization which promotes and develops trails throughout the eastern panhandle. One of the EPTB goals is to create a trail, designated as the Eastern Panhandle Recreational Trail (EPRT), which will connect Hancock and Harpers Ferry. The proposed route for the EPRT includes Edwin Miller Boulevard and is envisioned to connect with the existing Route 9 pedestrian trail.

3.2. Pedestrian Nodes: **See Attachment B**

3.2.1. Commercial Centers – A pedestrian will frequently walk one-quarter mile (5 minutes) for local goods or services. The existing commercial centers within the study area were developed to provide vehicular access, and do not have pedestrian routes to the surrounding residential neighborhoods.

3.2.2. Schools – Walking to school is a healthy activity for all students, for younger students who need to be accompanied by an adult, good pedestrian systems are important to encourage this behavior. A walking distance of one mile, or twenty minutes, is manageable for most students. The residents within the Study Area are extremely fortunate to have four schools that are located within walking distance of many homes. The schools serve as neighborhood destinations within the larger community. Safe pedestrian routes from the schools to the adjacent neighborhoods encourage students to walk opposed to taking the bus or being driven by adults. Building a network around a school provides the foundation for a neighborhoods pedestrian activity and encourages a healthier lifestyle for students while reducing traffic on local roadways. Schools also provide local neighborhoods a civic space that is often utilized for recreational activities, local meetings and community open space.

3.2.3. Parks & Recreation – Martinsburg & Berkeley County Parks & Recreation maintains two parks within the study area, Oatesdale Park & Lambert Park. These parks serve as a destination for both the immediate neighborhood and the whole County. It can be expected that pedestrians will travel farther for these amenities than commercial centers and smaller local parks.

Today more people are using pedestrian infrastructure for health/fitness and recreational purposes. From an early morning jog to children riding their bike, pedestrian routes provide a designated area for these activities.

3.2.4. Public Transit – The potential reach of a pedestrian network is extended through the use of public transit which provides access to areas that would otherwise be outside of walking distance. PanTran bus service provides pedestrians within the Study Area direct access to downtown Martinsburg, Charles Town, Ranson, Shepherdstown & Harpers Ferry. Pan Tran’s North & South Red Routes provide service to the Study Area. The North Red Route stops at the DMV (Sheetz on Edwin Miller Boulevard), on Mid-Atlantic Parkway, near Warm Springs Ave./Williamsport Pike intersection and Berkeley Station (7-11). The South Red Route follows Tavern Road with a stop just outside of the Study Area at City Hospital.

3.3. Pedestrian Barriers

3.3.1. Walkability – Is a measure of the pedestrian experience and the character of urban design and pedestrian routes. The installation of sidewalks may not increase the level of pedestrian activity if they do not feel safe to the user. While this study predominantly focuses on connectivity and enhancing the pedestrian grid, walkability will need to be addressed during the design of future sidewalks and paths.

3.3.2. Missing Infrastructure – The lack of sidewalks/paths within the Study Area discourages pedestrian activity. The lack of this infrastructure requires pedestrians to use road shoulders, adjacent parking lots and private property. Trails have formed in the ground/vegetation from frequent pedestrian use which demonstrates the need for adequate sidewalks/paths throughout the study area. Defined and/or signalized road crossings are limited within the study area. Pedestrian infrastructure is missing for most of the Study Area.

3.3.3. Major Roadways – A roads width, traffic volume and vehicle speed all impact pedestrian safety/walkability and serve as a barrier to pedestrians. The lack of defined/signalized pedestrian crossings on these roads fragments the pedestrian network and discourages pedestrian activity. The primary roads within the Study Area include Route 9, Route 11, Tavern Road, Martinsburg Pike and the Future Raleigh Street Extension. For the purposes of this study, roads with a posted speed of 35 mph or greater are considered high speed roads that present greater concern for pedestrian safety.

3.3.4. Railroad Tracks – Two railroads run north/south through the Study Area. Crossing railroads should be limited to major pedestrian routes to reduce conflict areas and discourage unauthorized access within the railroad right-of-way. Proper signage and warning devices should be provided at all crossings.

4. Connectivity Review

4.1. Primary Pedestrian Routes – Are major pedestrian connectors which link neighborhoods and larger geographical areas to goods, services, work and recreation. The paths along these routes should be wider to accommodate a greater volume of traffic and potentially provide dedicated facilities for cyclists. Within the Study Area the Primary Pedestrian Routes follow major roadways which often have multiple lanes, wider lanes and increased speed limits. Due to the

characteristics of these roadways it is desirable to provide separation between the roadway and pedestrian route. Four Primary Pedestrian Routes have been identified:

- Edwin Miller Boulevard / Queen Street
- Tavern Road / East Moler Avenue
- Raleigh Street Extension / Williamsport Pike

4.2. Secondary Pedestrian Routes – Are secondary routes that include pedestrian thoroughfares which connect neighborhoods to the primary routes and link adjacent neighborhoods. These routes are often along secondary streets with higher traffic volumes and often coincide with schools, churches and other civic/community features. The secondary pedestrian routes provide access between the tertiary and primary pedestrian routes.

4.3. Tertiary Pedestrian Routes – Includes all pedestrian thoroughfares which are not identified as primary or secondary.

4.4. Pedestrian Planning Zones – Four zones have been identified within the Study Area (**see Exhibit D**). These zones include regions which have multiple pedestrian nodes, are part of a future planned improvement and/or where improvements will have the greatest impact. A critical objective in these areas is to increase the connectivity of the pedestrian grid. The four Pedestrian Planning Zones identified in this plan are as follows:

- A. West Edwin Miller Boulevard Zone – This area was evaluated within the Edwin Miller Boulevard Pedestrian Plan (EMB) dated July 19 of 2011. The EMB Plan provided an evaluation of the existing conditions and a conceptual alignment for the west side of EMB. This area includes the planned developments as part of a TIF District which will provide pedestrian infrastructure along Lutz Avenue/Adams Drive, Meridian Parkway and Courthouse Drive. The northern terminus for the Raleigh Street Extension is located at the southern limits of this Pedestrian Planning Zone. The Raleigh Street Extension plans will provide pedestrians a secondary access to Oatsdale Park and Downtown Martinsburg.
- B. East Edwin Miller Boulevard Zone – This area is characterized by commercial uses along EMB and a residential neighborhood located between the commercial properties and Warm Spring Avenue. The absence of pedestrian infrastructure and connections between Warm Springs Avenue & EMB discourages pedestrian activity from the adjacent neighborhood. This area was evaluated as part of the EMB Pedestrian Connectivity Review. Providing the necessary pathways along EMB would allow for a future connection to the west side of EMB and begin to develop a larger comprehensive pedestrian network.
- C. Eagle School Road Zone – A mix of multi-family residential, single family residential, commercial and the Eagle School Intermediate School are located in this zone. Development of pedestrian infrastructure in this area should focus on linking residents to the planned Primary Pedestrian Route located adjacent to Williamsport Pike and to

the intermediate school. A critical connection which is currently used without adequate pedestrian infrastructure is Meadow Lane. Field observations indicate that residents are currently using this corridor to access the East Edwin Miller Boulevard Zone which requires pedestrians to cross the rail road and Williamsport Pike without the benefit of sidewalks, proper signage or a signalized crossing.

- D. Northeast Moler Avenue Zone— The existing pedestrian grid extends to the eastern edge of this zone along East Moler Avenue. This grid provides an opportunity for a connection to and the expansion of the existing pedestrian framework of the City of Martinsburg. This zone includes North Martinsburg Middle School, Opequon Elementary and the Lambert Park Pool. The adjacent pedestrian network and the various civic uses will provide pedestrian activity if encouraged with proper pedestrian infrastructure such as sidewalks, signage and cross walks.

5. Recommendations and Implementation

5.1. Acknowledgement of the North Martinsburg Area Pedestrian Plan as a masterplan for pedestrian infrastructure for both development and redevelopment.

It is important for both Berkeley County and Martinsburg to address the need for good pedestrian design. This is often managed through zoning and subdivision/land development ordinances which do not have the ability to address the needs of specific neighborhoods or parcels. The proposed plan will set known expectations that will allow jurisdictions to incorporate enhanced pedestrian standards into their development requirements.

5.2. Prepare and adopt standards for pedestrian infrastructure.

This task should be undertaken by both Martinsburg and Berkeley County. Standards should be adopted for primary, secondary and tertiary pedestrian routes. The standards should address path design, signage and wayfinding, benches and trash receptacles, bus stops, crosswalks, rail crossings, landscaping and other pertinent features affecting walkability. PanTran should be consulted during the design process to facilitate the integration of the transit service with the pedestrian system. Standards should include maintenance provisions.

5.3. Establish funding and schedule for detailed planning in the Pedestrian Planning Zones.

The North Martinsburg Area Pedestrian Plan is the first step of the pedestrian planning process. This plan needs to be supplemented by detailed neighborhood planning. If these plans are budgeted and scheduled it will ensure the ongoing enhancement of the pedestrian grid.

5.4. Apply for grant funding.

Significant grant funding is available for pedestrian projects, including Safe Routes to Schools grants. The North Martinsburg Area Pedestrian Plan will act as a tool for these grant efforts. Local funds can be leveraged to obtain money for planning, design and construction.

5.5. Expand stakeholder involvement.

The North Martinsburg Area Pedestrian Plan is a cooperative effort between the City and the County. The schools within the study area need to be involved as stakeholders in the future planning and design of pedestrian infrastructure. As appropriate, additional stakeholders should also be included.

5.6. Build support within the Development Community and general public for pedestrian infrastructure.

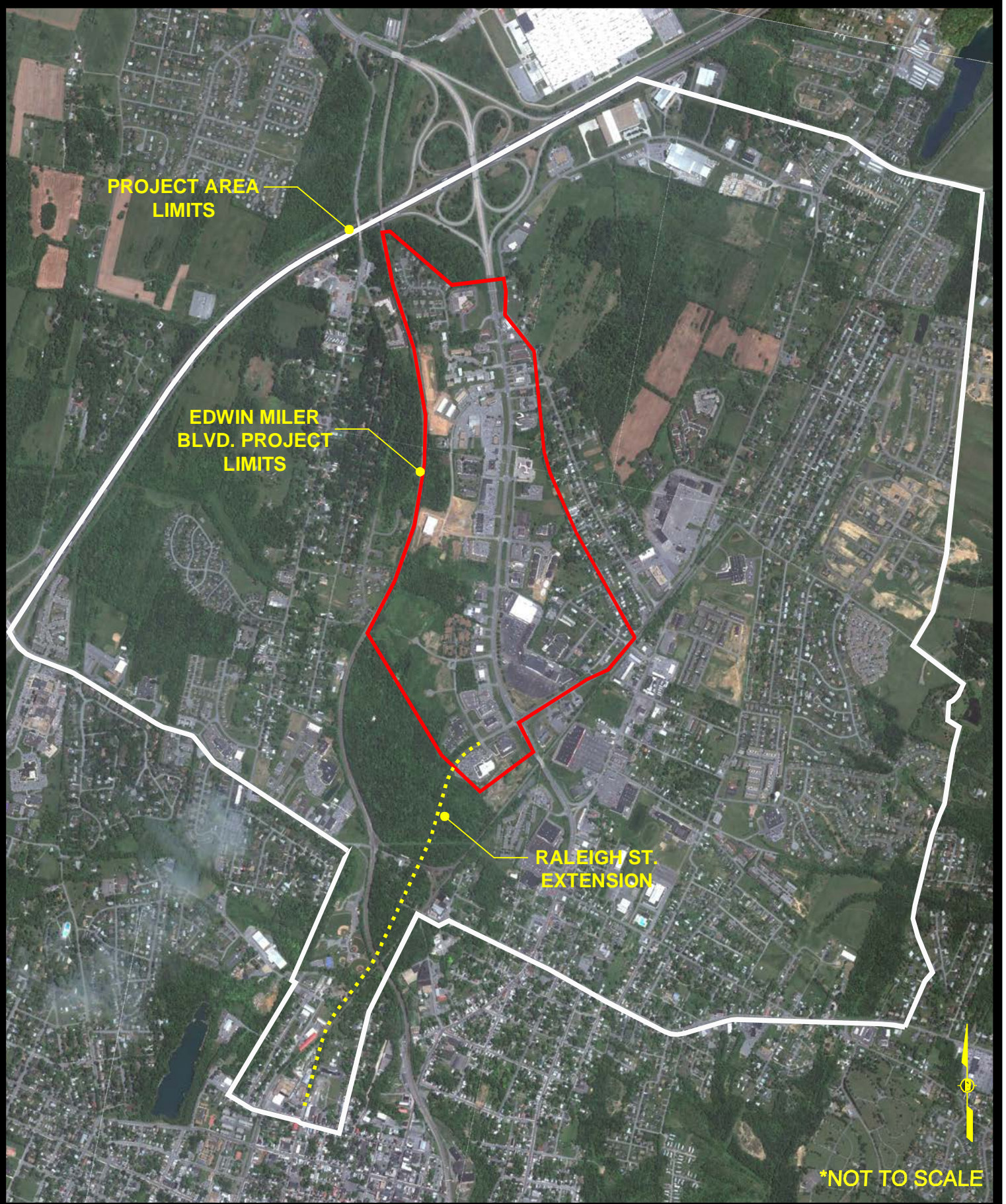
The lack of comprehensive planning has limited the support from the development community and general public for pedestrian infrastructure. The North Martinsburg Area Pedestrian Plan demonstrates the connectivity that can be achieved through pedestrian planning and sets expectations within the Study Area. Public support of pedestrian objectives can be achieved through the consistent application of planning documents. The North Martinsburg Area Pedestrian Plan should be supplied to Planning Commissions and neighborhood groups to develop consensus during planning and design of future development.

5.7. Expansion of the existing pedestrian grid.

The Study Area benefits from the adjacency of existing Martinsburg pedestrian infrastructure. Opportunities exist to expand on the existing pedestrian system to provide the residents of the Study Area an established pedestrian network. The natural expansion of this amenity will provide citizens the opportunity to be included in a larger pedestrian network which would otherwise be unachievable in the near future.

5.8. Work with West Virginia Department of Highways to develop primary pedestrian routes.

The development of the Primary Routes identified in Exhibit D will provide the backbone in which a comprehensive pedestrian system can be constructed. These routes will provide citizens access to many of the areas features and increase the pedestrian connectivity of the region. Support from the WVDOH will greatly enhance the future construction of these amenities.



**PROJECT AREA
LIMITS**

**EDWIN MILER
BLVD. PROJECT
LIMITS**

**RALEIGH ST.
EXTENSION**

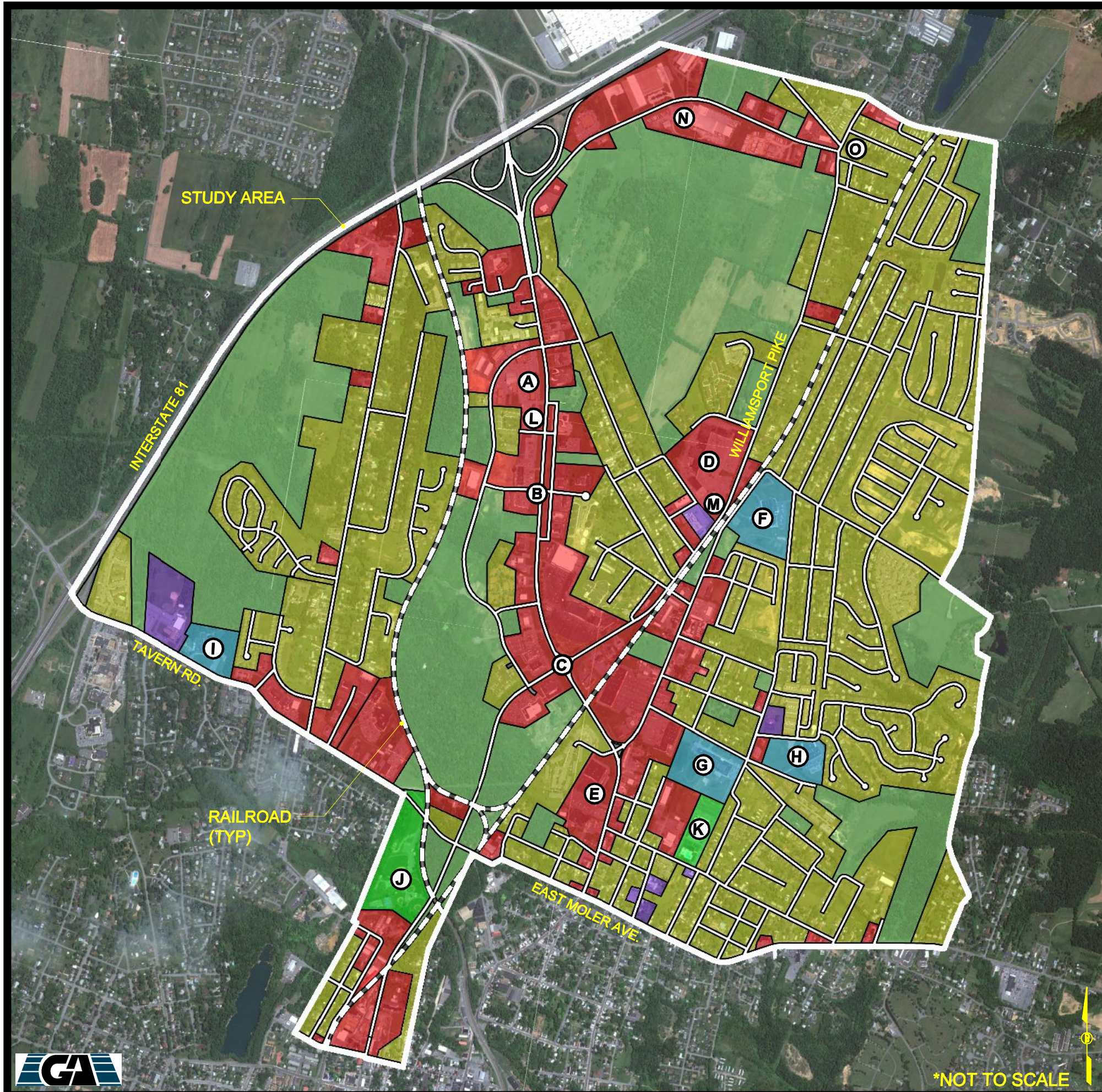
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**North Martinsburg Area Pedestrian Plan
Berkeley County, West Virginia**

**STUDY AREA
LIMITS**

EXHIBIT

A



EXISTING LAND USES

- COMMERCIAL
- RESIDENTIAL
- CIVIC
- SCHOOL
- PARKS & RECREATION
- VACANT

PEDESTRIAN NODES

COMMERCIAL CENTERS

- (A)** - AIKENS CENTER
- (B)** - CENTRAL EMB COMMERCIAL AREA
- (C)** - OLD COURTHOUSE AREA
- (D)** - BERKELEY PLAZA
- (E)** - WEIS MARKET

SCHOOLS

- (F)** - EAGLE INTERMEDIATE
- (G)** - MARTINSBURG NORTH MIDDLE
- (H)** - OPEQUON ELEMENTARY
- (I)** - TUSCARORA ELEMENTARY

PARKS AND RECREATION

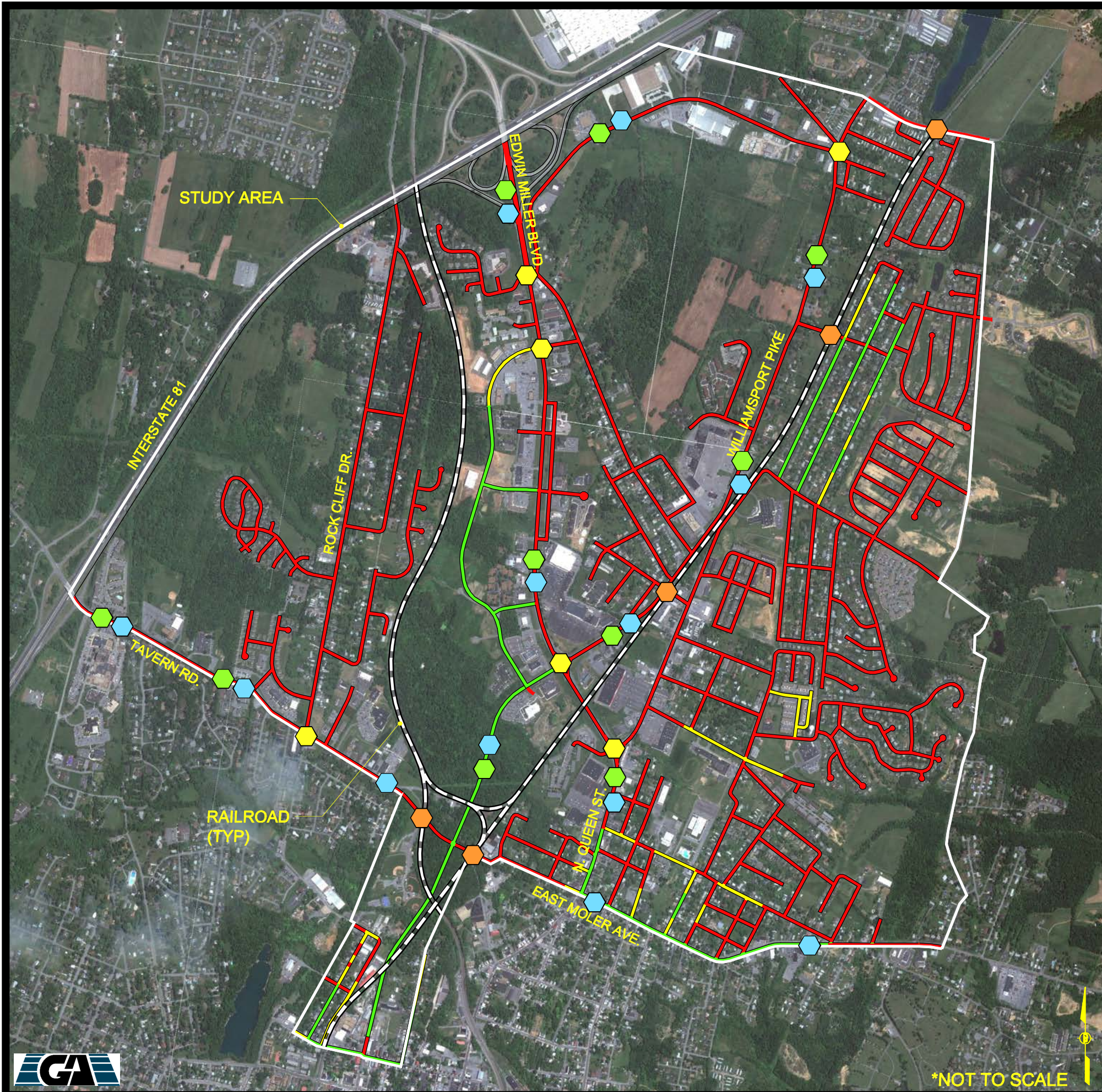
- (J)** - OATESDALE PARK
- (K)** - LAMBERT PARK

TRANSIT

- (L)** - DMV BUS STOP
- (M)** - UNEMPLOYMENT OFFICE BUS STOP
- (N)** - MID-ATLANTIC BUS STOP
- (O)** - BERKELEY STATION

NOTES:

1. LAND USE IDENTIFIED THROUGH SITE RECONNAISSANCE, AERIAL IMAGERY AND SITE DEVELOPMENT PLANS.
2. THIS MAP FOR INFORMATIONAL PURPOSES ONLY. WHERE LAND USE IS MIXED THE PREDOMINANT TYPE IS USED TO IDENTIFY THE AREA.



- - NO SIDEWALKS
- - SIDEWALKS ONE SIDE
- - SIDEWALKS BOTH SIDES

PEDESTRIAN BARRIERS

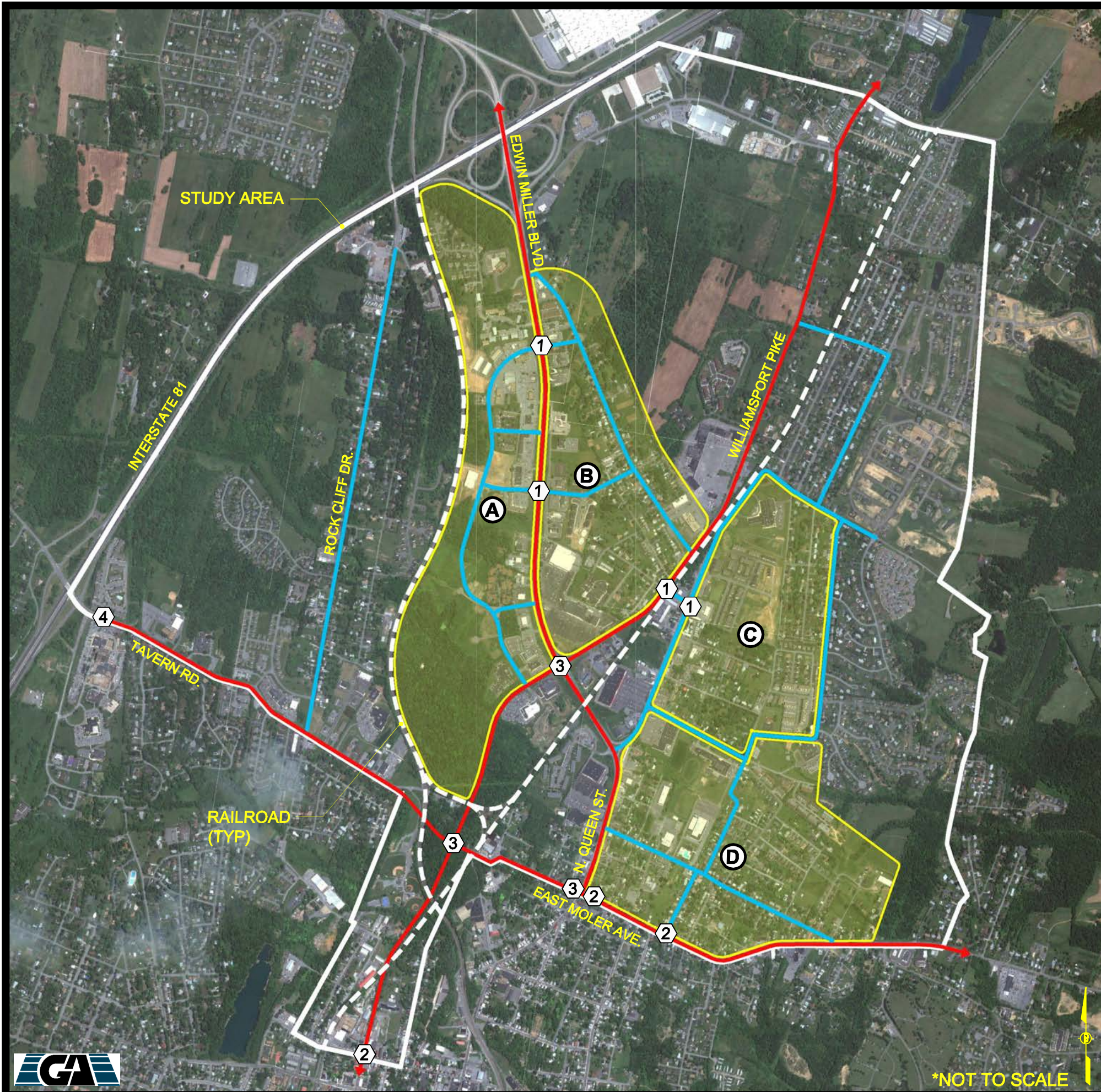
- ⬡ - RAIL CROSSING
- ⬡ - HIGH SPEED ROAD
- ⬡ - HIGH VOLUME ROAD
- ⬡ - MAJOR INTERSECTION

NOTES:

1. SIDEWALK LOCATIONS IDENTIFIED THROUGH SITE RECONNAISSANCE, AERIAL IMAGERY AND SITE DEVELOPMENT PLANS.
2. PEDESTRIAN BARRIER LOCATIONS WILL REQUIRE SPECIAL DESIGN MEASURES TO PROTECT PEDESTRIAN SAFETY.
3. WITH THE EXCEPTION OF THE RAILWAY RIGHTS-OF-WAY THERE ARE NO BARRIERS OF SUFFICIENT MAGNITUDE TO PREVENT PEDESTRIAN PATHS FROM BEING PROPERLY DESIGNED TO ENHANCE THE PEDESTRIAN GRID.



*NOT TO SCALE



- - PRIMARY ROUTES
- - SECONDARY ROUTES
- X - PEDESTRIAN PLANNING ZONE
- X - CRITICAL CONNECTION

PEDESTRIAN PLANNING ZONES

- A - WEST EDWIN MILLER BLVD. ZONE
- B - EAST EDWIN MILLER BLVD. ZONE
- C - EAGLE SCHOOL RD. ZONE
- D - NORTHEAST MOLER AVE. ZONE

CRITICAL CONNECTIONS

- 1 - PRIMARY NEIGHBORHOOD CONNECTION
- 2 - CONNECTION TO OLD TOWN GRID
- 3 - PRIMARY ROUTE CONNECTION
- 4 - HOSPITAL/TRANSIT CONNECTION

NOTES:

1. EXISTING INFRASTRUCTURE IDENTIFIED THROUGH SITE RECONNAISSANCE, AERIAL IMAGERY AND SITE DEVELOPMENT PLANS.
2. FOCUS AREAS DEFINED THROUGH EVALUATION OF LAND USE, EXISTING INFRASTRUCTURE AND PEDESTRIAN GENERATORS.

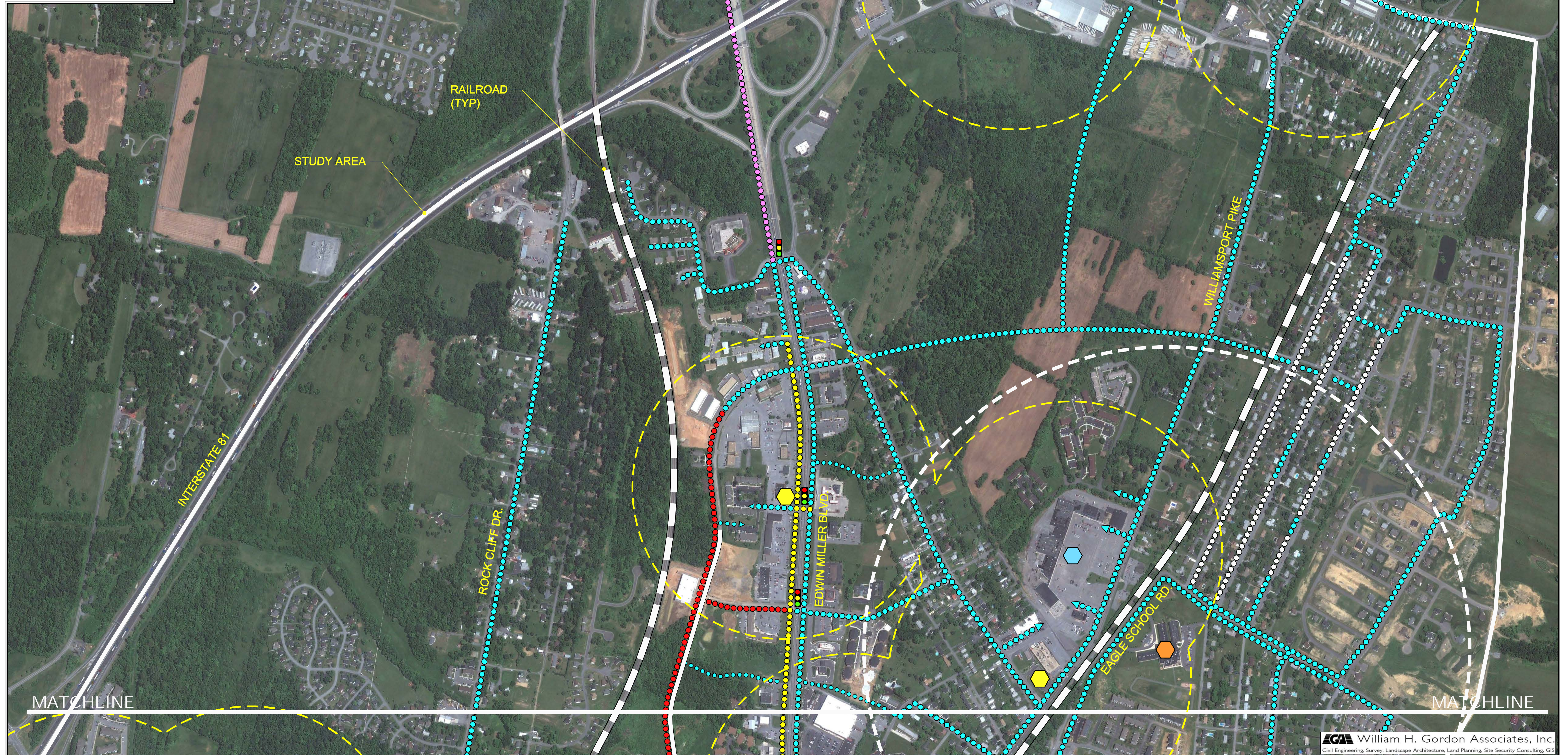
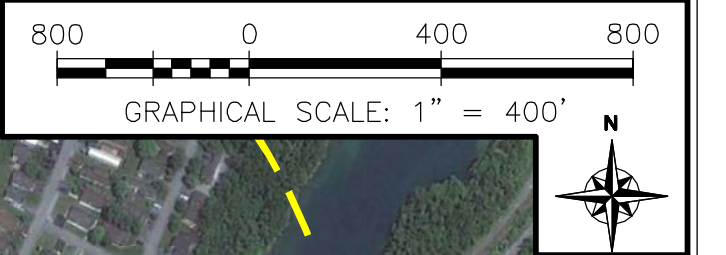


*NOT TO SCALE



NORTH MARTINSBURG AREA PEDESTRIAN PLAN

EXHIBIT E - CONNECTIVITY REVIEW



MATCHLINE

MATCHLINE

William H. Gordon Associates, Inc.
Civil Engineering, Survey, Landscape Architecture, Land Planning, Site Security Consulting, GIS

PATHWAYS / SIDEWALKS

- - EDWIN MILLER BLVD. PLAN
- - RALEIGH ST. EXT. PATH
- - TIF FUNDED PATH
- - FUTURE PATH
- - EXISTING PATH
- - FUTURE REGIONAL PATH

PEDESTRIAN NODES

- - SCHOOL
- - PARKS / RECREATION
- - COMMERCIAL CENTER
- - TRANSIT / BUS STATION

OTHER

- - FUTURE ROAD EXTENSION
- - - - - COMMERCIAL/TRANSIT WALKING RADIUS
- - - - - SCHOOL/PARK WALKING RADIUS
- - TRAFFIC SIGNAL

NOTES:

1. THE OPTIMAL BUILD-OUT FOR THE PEDESTRIAN NETWORK INCLUDES SIDEWALKS / PATHS ON BOTH SIDES OF EVERY ROAD WITHIN THE STUDY AREA.
2. EXISTING INFRASTRUCTURE INFORMATION OBTAINED FROM SITE RECONNAISSANCE, AERIAL IMAGERY AND SITE DEVELOPMENT PLANS.
3. SOME ROUTES INCLUDE EXPANSION THROUGH PRIVATE PROPERTIES. ALTERNATIVES MAY BE REQUIRED BASED ON PROPERTY ACQUISITION.
4. BUS ROUTE INFORMATION OBTAINED FROM THE WEBSITE OF PANTRAN.
5. PEDESTRIAN NODES SUCH AS SCHOOLS, PARKS AND COMMERCIAL CENTERS OBTAINED FROM SITE RECONNAISSANCE AND TAX MAP INFORMATION.
6. WALKING RADIUS ILLUSTRATED FOR PEDESTRIAN NODES INCLUDE 1/4 MILE (5 MIN WALK) FOR COMMERCIAL & TRANSIT STATIONS AND 1/2 MILE (10 MIN. WALK) FOR SCHOOLS & PARKS.



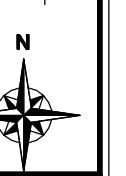
NORTH MARTINSBURG AREA PEDESTRIAN PLAN

EXHIBIT E - CONNECTIVITY REVIEW



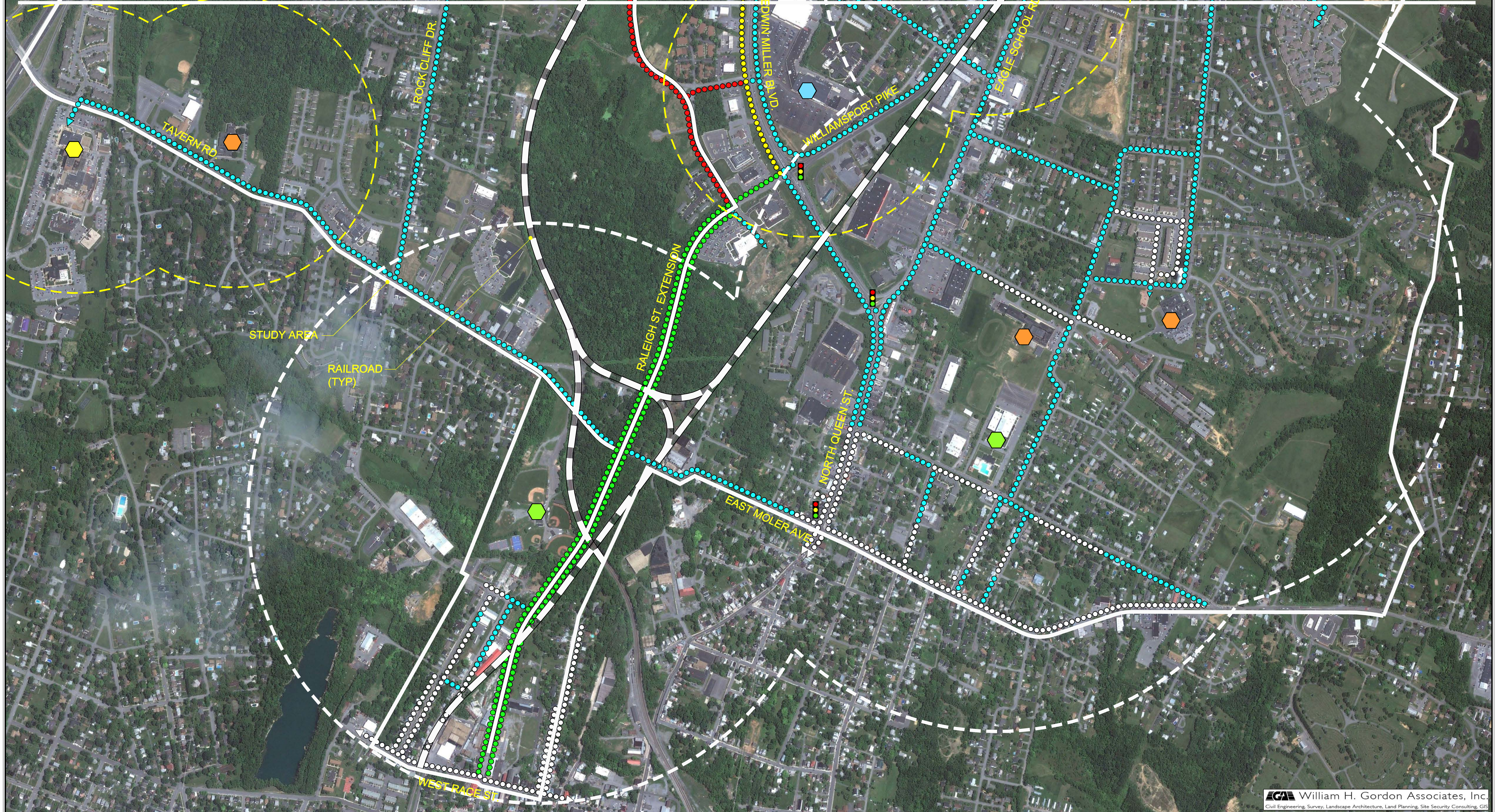
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GRAPHICAL SCALE: 1" = 400'



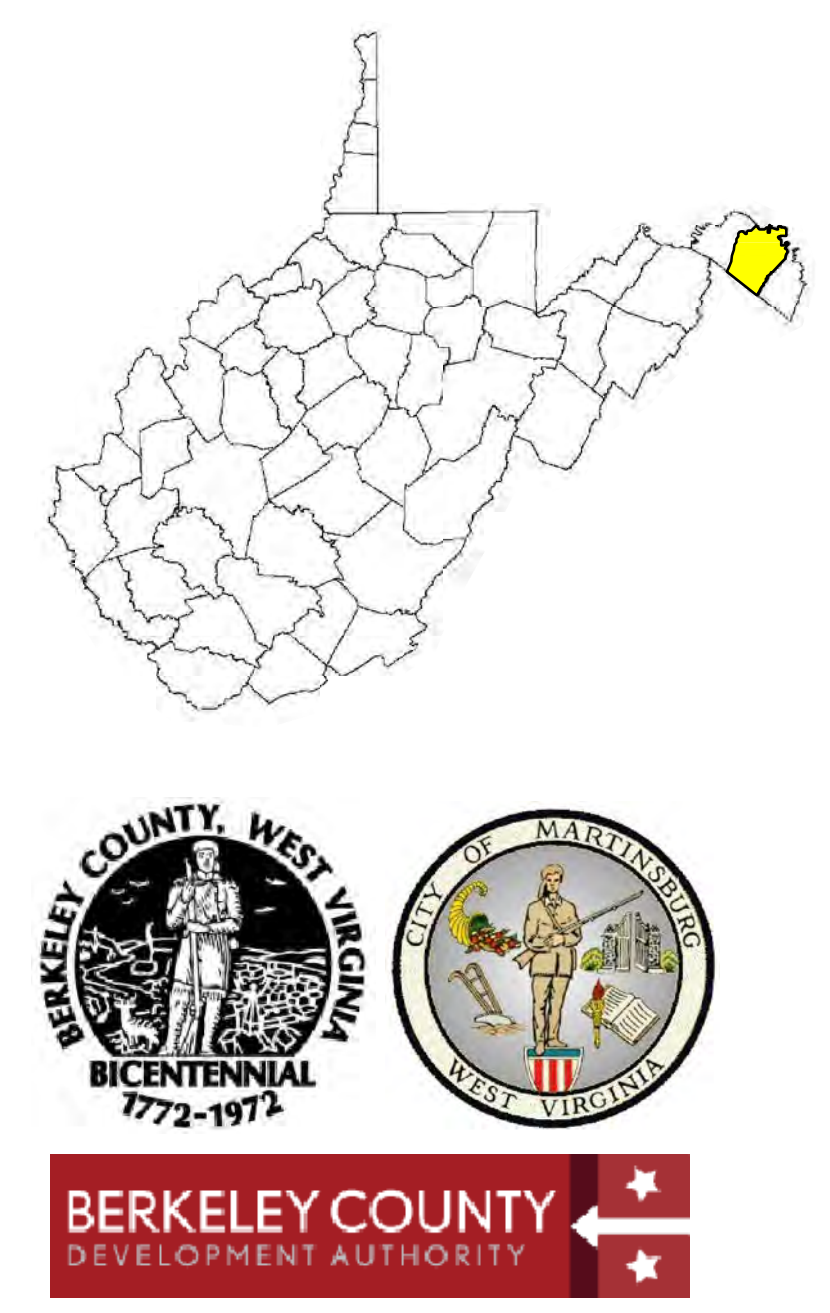
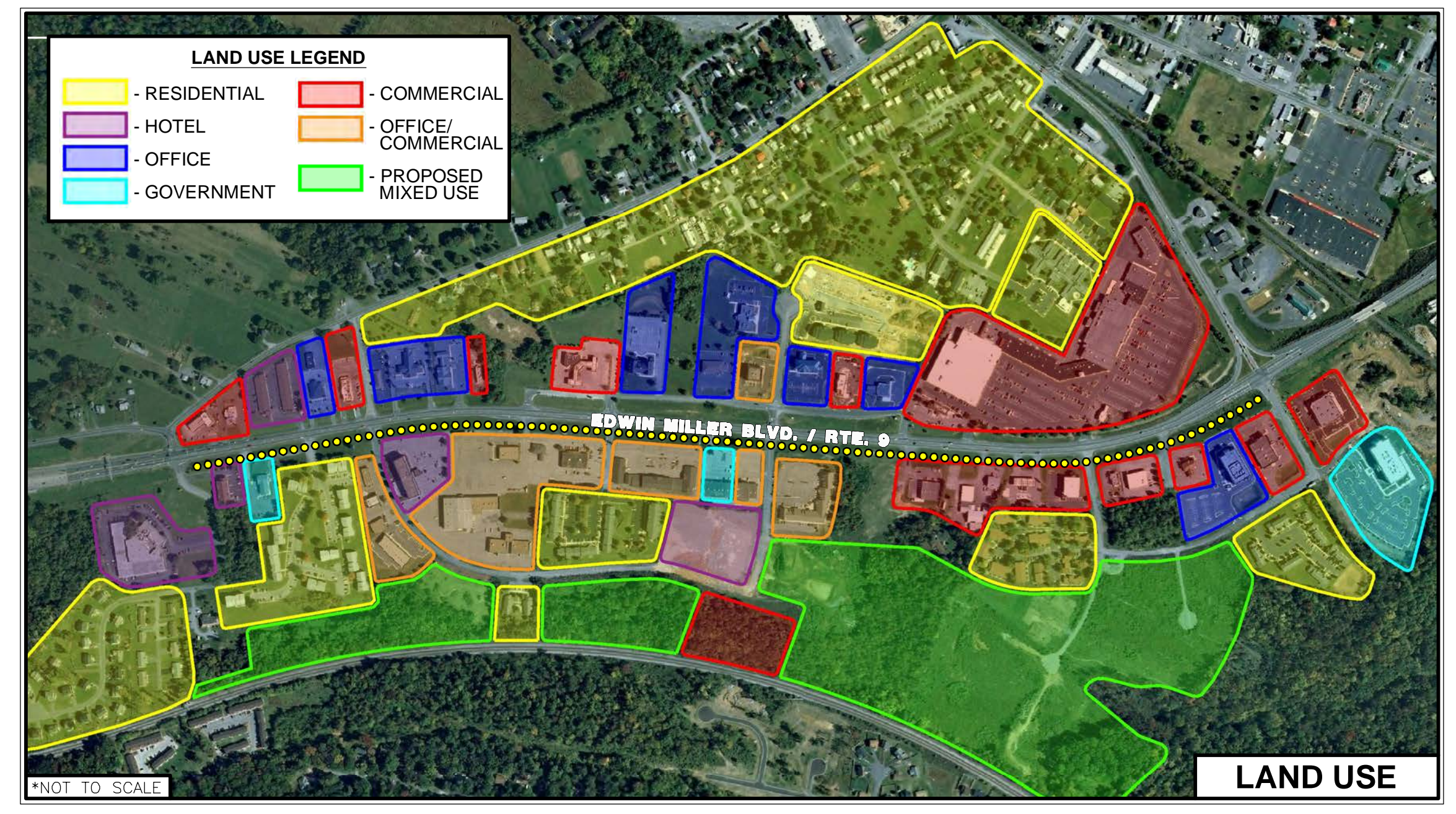
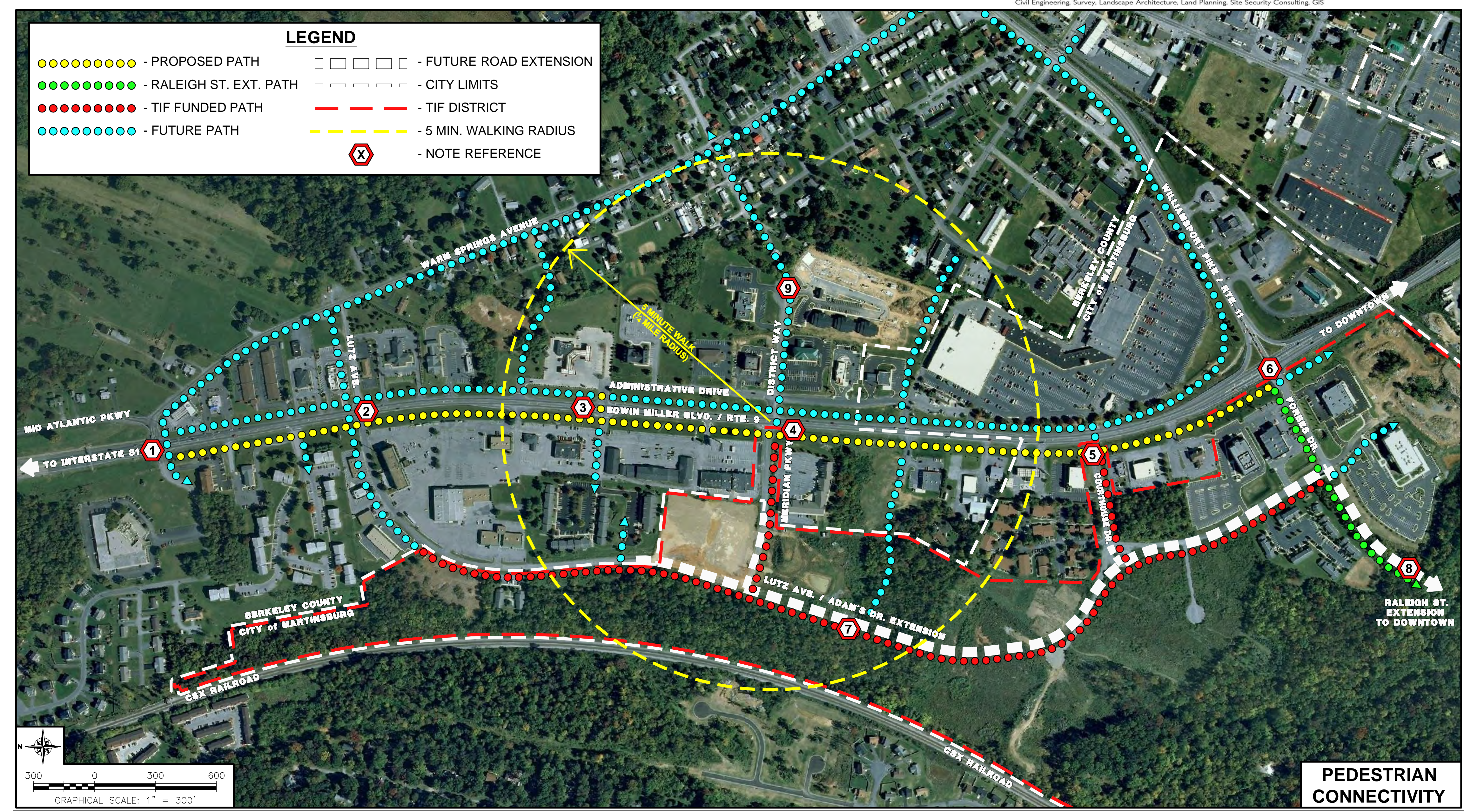
MATCHLINE

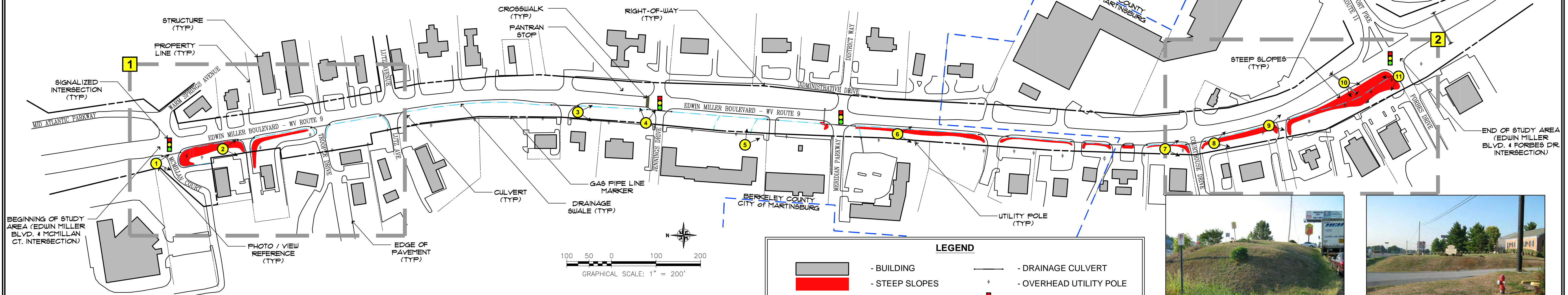
MATCHLINE





- 1 McMillan Court / Warm Springs Avenue Intersection (Signalized)**
 This intersection represents the northern terminus of the proposed pathway and is 1 of 4 signalized intersections within the project area. A cross walk at this intersection should be considered to provide residents on Mid Atlantic Pkwy and Warm Springs Ave a safe crossing of Edwin Miller Blvd (EMB). Currently no sidewalks exist on the eastern side of this intersection that the crosswalk may tie into. Future pedestrian routes east of EMB are necessary to build upon the framework established with this project.
- 2 Lutz Avenue Intersection**
 The Lutz Ave intersection is not signalized but will serve as a major access point to the TIF district proposed to the west. Due to the traffic volume associated with Edwin Miller Blvd (EMB), only signalized intersections should be considered for crosswalks across EMB. A pedestrian crossing should be provided at this location if this intersection becomes signalized with future development. Good sight lines and existing site conditions make this intersection preferable over McMillan Ct for pedestrians crossing EMB.
- 3 Jennings Drive Intersection (Signalized)**
 Striping for a crosswalk currently exist at this signalized intersection and is the location of a PanTran stop. As it exists, this crosswalk is a hazard due to the absence of a pedestrian signal, signage, ADA access and pathways beyond the crosswalk. The existing crosswalk should be upgraded to provide a strong pedestrian connection between Administrative Dr and the development located west of Edwin Miller Blvd. A covered bus stop should also be considered with future development.
- 4 Meridian Parkway / District Way Intersection (Signalized)**
 This location is centrally located along the proposed trail with good site conditions for a pedestrian crosswalk across Edwin Miller Blvd. The intersection is currently signalized and therefore is an ideal location for a crosswalk. Direct access to the future development of Lutz Ave will encourage pedestrian activity, linking proposed and existing developments. Increased amenities in this location, such as landscaping, signage or benches will help strengthen the connection between proposed and existing developments.
- 5 Courthouse Drive Intersection**
 This intersection is not suitable for a crosswalk across Edwin Miller Blvd unless signalized with future development. Pedestrian traffic along Courthouse Drive will increase with the development of Meridian Point South. This entrance from EMB would benefit from increased amenities to draw visitors into the future development along Lutz Ave. Steep slopes and existing drainage patterns will need to be incorporated into the trail design to meet ADA requirements.
- 6 Forbes Drive / Williamsport Pike Intersection (Signalized)**
 This is the southern terminus of the proposed path along Edwin Miller Blvd (EMB). This signalized intersection contains the highest traffic volume of all intersections in the project area and is scheduled for upgrades with the Raleigh St. Extension. Pedestrian access across EMB would be expensive and may disrupt existing traffic patterns. Provisions should be made for future trail extensions to the south for future sidewalks and to the west for both the future Raleigh St Extension and the Lutz Ave loop. Steep slopes, large drainage structures and utilities may increase the cost of trail construction in this area. Cooperation from adjacent land owners may negate some of the expenses associated with this section of trail.
- 7 Lutz Avenue / Adams Drive Extension**
 Improvements associated with the extension of this road will occur as part of the Tax Increment Financing (TIF) District. The projected increase in tax revenue from the proposed development within the TIF District will be used for expanding the areas infrastructure, including pedestrian friendly streetscapes. The TIF District will fund pedestrian routes along Lutz Avenue/Adams Drive, Courthouse Drive and Meridian Parkway. This pedestrian system will tie into the paths proposed along EMB.
- 8 Raleigh Street Extension**
 The extension of Raleigh Street from Race Street to Edwin Miller Boulevard (EMB) provides a great opportunity to link downtown Martinsburg with both the existing and proposed growth along EMB. Not only will traffic congestion be mitigated but a pedestrian link, which currently does not exist, will be provided to down town. Residents within the EMB path study area will also be within a +/-15 minute walk to Oatesdale Park. This connection will build upon overall pedestrian framework of the City of Martinsburg and Berkeley County.
- 9 District Way**
 Much of the land located east of Edwin Miller Boulevard (EMB) includes existing residential in the form of both multi-family and single family housing. The neighborhoods along Warm Springs Avenue do not currently have a pedestrian system of sidewalks that provide connectivity to the adjacent developments. It is envisioned that the EMB trail will be the spine in which this neighborhood could connect and drive the pedestrian activity within this neighborhood. As it exists today, the most direct route available to residents would be along Lutz Avenue or along Williamsport Pike, both occurring on the outer edges of the neighborhood. A central connection such as District Way would allow a connection to the heart of the neighborhood and would further encourage pedestrian activity. Currently District Way dead ends and does not contain a right-of-way in which a pedestrian trail could be constructed. A long term goal for the area would be to acquire easements or land in which a pedestrian route could be located.





NARRATIVE

The goal of the inventory and connectivity report for the project is to identify existing conditions for opportunities and constraints that will impact the location and ultimate design of the Edwin Miller Boulevard (EMB) trail. The trail will be located on the west side of Edwin Miller Boulevard between McMillan Court and Forbes Drive. Constraints and obstacles include steep slopes, existing utility lines, multiple entry drives for businesses and the traffic volume on EMB. Opportunities for this project include future connections to proposed projects, wide right-of-ways and limited vegetation.

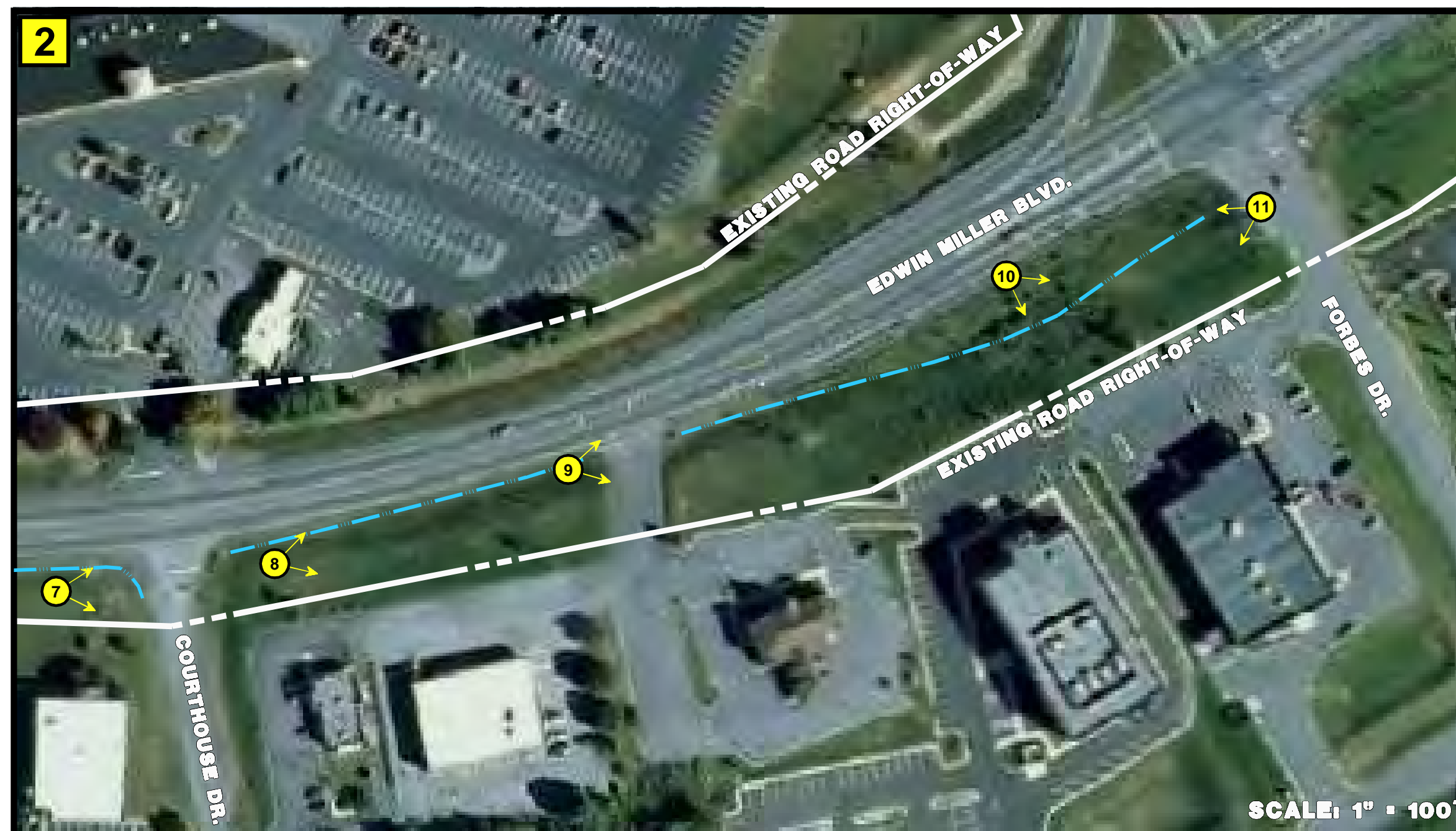
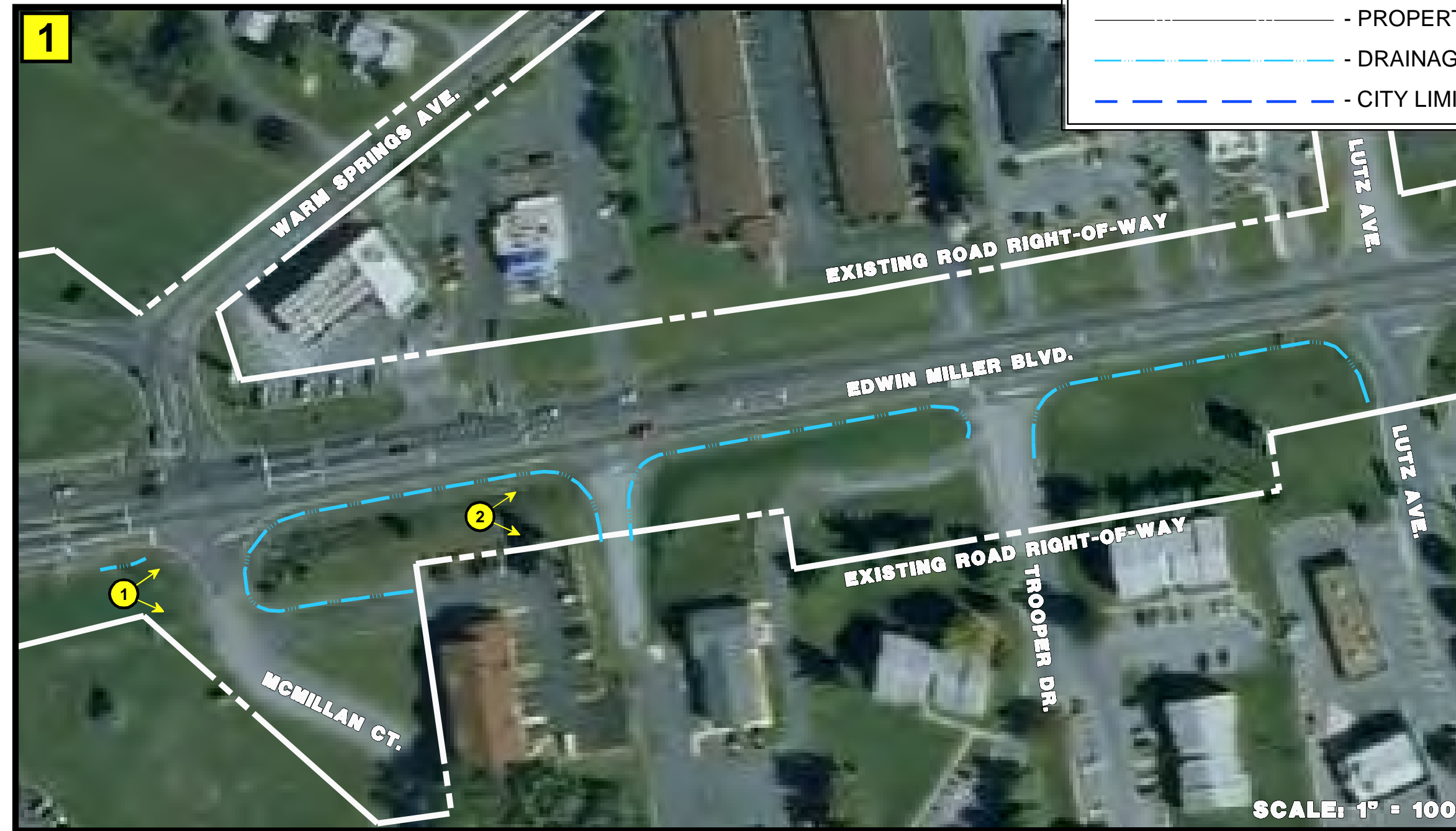
Currently pedestrian activity occurs along road shoulders, through parking lots and across undeveloped land which creates a dangerous environment for pedestrian and motorists alike. The addition of the proposed trail will provide pedestrians a clear and safe route that will link the increased residential and commercial developments within the area. The EMB trail will be the beginning of framework that will stretch across EMB, connect to the adjacent developments proposed within the TIF District and will connect to downtown Martinsburg via the Raleigh Street Extension.

1 AERIAL ENLARGEMENT (Northern Terminus)

The northern end of the trail is located at McMillan Court's intersection with Edwin Miller Boulevard (EMB). This area is characterized by steep slopes which form a mound between EMB and the entrance drive to the Super 8 motel. The grade then slopes down toward the entrance of the State Police entrance drive which is cut into the adjacent slope. The two trail locations which will be explored will include adjacent to EMB or the Super 8 entrance drive. Locating the trail adjacent to EMB will require significant cuts and may require a retaining wall. Aligning the trail at the top of the steep slopes adjacent to Super 8 would require less earthwork but may require an offsite easement from Super 8.

2 AERIAL ENLARGEMENT (Southern Terminus)

The southern end of the trail is located at the intersection of Edwin Miller Boulevard (EMB) and Forbes Drive. This area is defined by drainage swales that carry water runoff from areas to the north along EMB and from the east side of EMB. A 7' storm culvert then directs the water under the CVS parking lot before exiting west of Adams Drive. This area also contains multiple overhead utility lines and business signage that will impact the location of the trails alignment. It will be important to navigate pedestrians away from the drainage swale and its associated steep slopes. The trail should be located next to the business parking lots or abutting EMB to avoid the drainage area described above. The current Raleigh St. Extension design for this intersection provides a free flow right turn from EMB to current Forbes Dr. and a free flow right turn from Forbes Dr. onto EMB. The terminus of the trail should be designed to allow for future expansion of Forbes Drive/Raleigh Street Extension. From Forbes Drive the path will expand to form a loop following Adams Drive and Lutz Avenue.



McMillan Court: Topography near the end of the trail will challenge ADA requirements. The design phase will require additional investigation to identify both the trail location and most efficient solution.



State Police Entrance: Some road crossings may require additional earth work to provide an accessible path. Some steep slopes may interfere with pedestrian visibility.



Boulevard Plaza: Area is characterized as a wide lawn with multiple boulders/rock outcroppings. The lack of physical constraints provides the greatest opportunity for additional amenities and/or enhancements.



Crosswalk at Sheetz Intersection: The lack of connecting sidewalks and crosswalk signalization contribute to a dangerous environment for the pedestrian. Striping for the crosswalk is the only indication this is a pedestrian route.



Meridian Pkwy Intersection: Existing drainage patterns will influence the final location and design of the trail. A balance between cost, aesthetics and maintenance will be integral in providing a successful pedestrian thoroughfare.



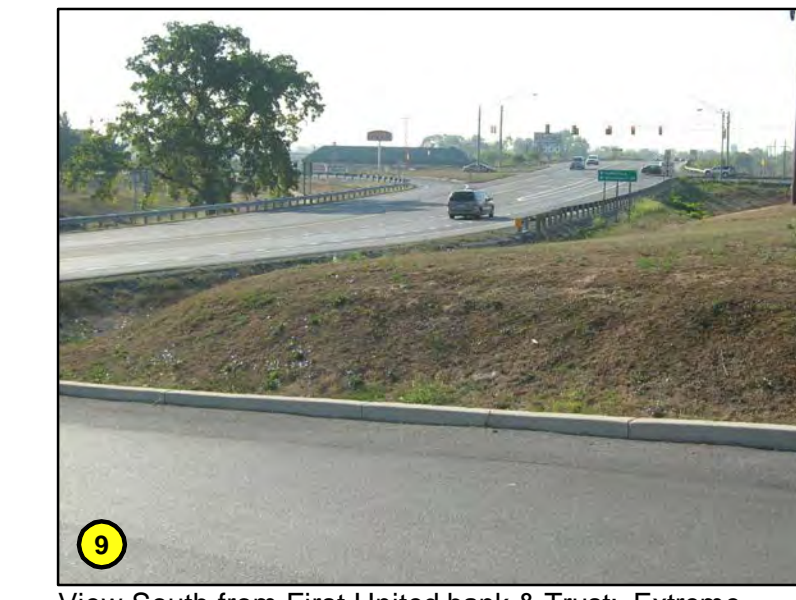
North of Advance Auto Parts: Existing pedestrian routes are evident by patterns formed in the turf adjacent to Edwin Miller Blvd. The current pedestrian routes include lawn areas, parking lots and roadways.



Southern End of the Project Area: This area is dominated by steep slopes, drainage swales and utilities. Meeting ADA criteria will play a major role in determining the pathways final location.



View South from Dunkin Donuts: Slopes can serve as both a constraint and opportunity when locating a pedestrian route. They will challenge ADA criteria but can also provide a natural barrier from oncoming traffic.



View South from First United Bank & Trust: Extreme slopes and large utilities may require offsite easements. Underground storm water conveyance may be possible but at significant increase in cost.



Front of CVS: This storm culvert is 7' tall and is located in the vicinity of the proposed trails southern terminus. Separation between the pedestrian route and the steep slopes & culverts in this area is necessary.



View North from Forbes Drive: As demonstrated in previous photos, this area contains significant obstacles. Cooperation from adjacent property owners could lead to significant cost savings. Retaining walls or utility relocation may be required to provide a safe pedestrian experience.