

CONTEXT SENSITIVE DESIGN CASE STUDY NO. 7

Route 50 – Loudoun-Fauquier Counties, Virginia

LOCATION:

Route 50 from US 17 near Paris to SR 600 in Lenah, Virginia. Approximate length is 24 miles.

PROJECT DESCRIPTION:

This project is a national demonstration project, funded under TEA-21 and VDOT's (Virginia Department of Transportation) Virginia Transportation Development Plan. The project is described as "Traffic Calming Measures for Route 50 in Loudoun and Fauquier Counties." The portion of US Route 50 affected by this project (called the Route 50 Corridor in this case study) is 24 miles long and located approximately 45 miles west of Washington, D.C. in the VDOT Northern Virginia District. Route 50 is a rural highway, serving as a through route as well as the main street for several small towns. The area economy is based on tourism and agriculture, so the road serves farm vehicles, bicyclists and tourists as well as local businesses, schools, churches, residents and commuters. Route 50 is functionally classified as a Minor Arterial. Current funding for the project totals \$16.25 million. The corridor of Route 50 under study begins in the village of Paris and continues through Upperville, Middleburg, Aldie and ends at Lenah.

The problems expressed by residents and business owners in the area are those of excessive speeds of motor vehicle traffic, aggressive driving along the corridor, poor and unsafe conditions for pedestrians and cyclists, and harm to historic buildings and noise due to high speed traffic, especially trucks. The intent of the project is to employ traffic calming measures that will require drivers to comply with posted speed limits within the towns and along the intervening roadway segments. The purpose is to reduce speeding and aggressive driving, enhance safety, and promote local business, scenic beauty and the historic nature of the area.

This project was federally funded for the purpose of being a demonstration project and a model for the rest of the country. Part of the importance of the project is the public process by which it was and is to be developed. The study of the project and the process, before, during and after implementation is to be shared with interested communities throughout the country.

CONTEXT SENSITIVE FACTORS

There are several interrelated sensitive features along the 24-mile US 50 traffic-calming corridor. Immediately west of Paris at Route 17, the project's west terminus is Ashby's Gap. Ashby's Gap was a lookout post during the Civil War and is the current location of the Appalachian Trail (AT) crossing of US 50. The view to the east from the AT over the hamlet of Paris and Sky Meadows State Park is arguably one of Virginia's most scenic.

In this area of Loudoun and Fauquier Counties the pastoral setting has been maintained since the fields were first cleared. This land use is maintained in the respective county comprehensive

future land use plans and ensured through preservation easements and agreement between the property owners and the Virginia Outdoor Foundation (VOF).

As part of the Rural Policy Area of the Revised Countywide Transportation Plan (CTP) and General Plan, Route 50 can be seen as one of the many rural roads originally developed to serve the needs of a predominantly farm-based community. The General Plan states that, "Sensitivity to centuries-old stone walls, large trees, homes and outbuildings, scenic views and the Green infrastructure must be an essential element of road improvements if Loudoun County is to retain its rural character." The goal of any rural road improvements should be to incorporate rural character features as well as safety. The CTP states that, "Residential growth will not be encouraged in the Rural Policy Area by additional road capacity." The General Plan further identifies that, "There is strong citizen support for keeping Route 50...a two-lane road that is the subject of a 'traffic calming' initiative from Aldie in Loudoun County to Paris in Fauquier County."

The proposed land use for the majority of the project areas encompasses the Southern Tier area of the Rural Policy area, which is planned for a base residential density of 1 dwelling unit per 50 acres. Residential development can occur at a density of 1 dwelling unit per 20 acres if clustered. By lowering the zoned density, the County is attempting to assure that additional pressure is not placed on the road's capacity. The existing zoning is predominantly rural residential with a density of 1 dwelling unit per three acres.

The villages of Upperville and Aldie, and the Town of Middleburg each have historic districts that are on or eligible to be on the National Register of Historic Places. Within each historic district area there are numerous architectural structures individually eligible for inclusion to the Register. US 50 bisects each of these districts and has played a prominent role in the development of the communities.

Each of the communities is also included as part of cavalry battlefields leading to the Battle of Gettysburg. Views and interpretive signs of the Civil War battlefield areas have been incorporated into the concept plans. Citizens have established The John Singleton Mosby Heritage Area to tell the story of these battles and of the cultural, economic and political history illustrated in this area.

Part of the economic vitality of each of the respective communities is tourism. Maintaining the setting for scenic, historic and economic preservation were all raised by members of the communities and incorporated into their vision statement, "A scenic, unique, rural community in an historical, agricultural, quiet, and natural setting."

Traffic calming elements were selected to address significant safety problems but also to avoid adverse impacts on both historic and scenic resources. A finding of No Adverse Effect was made by the SHPO (state historic preservation officer). The project is under review for a Categorical Exclusion from NEPA requirements.

No historic structures will need to be relocated throughout the 24-mile route.

Minimal right-of-way (ROW) acquisition is required. If the alternative for a triad of roundabouts is selected for Gilbert's Corners, ROW will be needed to construct the roadway connecting the roundabouts on Route 50 east and south of Gilberts' Corners. Otherwise, ROW requirements are just slivers of land.

Shoulders along the project length will be stabilized turf shoulders. A VDOT maintenance staff person is working with personnel at the Virginia Transportation Research Council on a number of test areas this season to test the result of different plant material and gravel mixes.

Part of the scope of work is developing a maintenance program for the 24-mile route.

The project includes several noteworthy design elements:

- The use of a roundabout at a high accident intersection (US 50 and Watson Road) as opposed to a traffic signal. Located immediately to the south of and adjacent to the intersection is the National Register listed Mount Zion Church. Current studies show that there is a reduction in the number and severity of accidents at roundabouts. In this particular location, the roundabout is a less intrusive visual element in front of the National Register site than a traffic signal. In fact, the roundabout provides far greater landscaping opportunities that would enhance the National Register site.
- Rural Splitter Islands that announce an intersection location and provide space for one car either making a left turn from Route 50 or attempting to cross Route 50 from a side road.
- The overall integration of landscape materials throughout the concept development phase. Landscape is as much of a traffic calming tool and element as any of the roadway design features. The effectiveness of the roadway elements will increase with the addition of landscape elements.

Design exceptions for lane widths are being used in the project. However, the goal of the Design Team was to use a design guideline that was either provided by AASHTO or by another state that has incorporated similar measures. The travel lanes will be 10 ft. wide within the village areas, with an additional 1 ft. of the adjacent valley gutter drainage system available if needed.

HISTORY OF PROJECT

In 1994, VDOT was asked by the Loudoun County Board of Supervisors to reexamine earlier proposals for building bypasses around Aldie and Middleburg and expanding Route 50 in the area from a two-lane road to a four-lane divided highway. The town council of Middleburg established a committee to study the effects of such potential plans. As the interest and concern of citizens and business owners grew regarding the prospective effects of this proposed construction on local commerce, the environment, and the historical heritage of the area, the Route 50 Corridor Coalition, an organization of people who live and work in the area, was formed to seek an acceptable alternative for handling traffic.

The Route 50 Corridor Coalition raised several hundred thousand dollars in private funds over several years and hired a transportation engineer to lead the preparation of a traffic-calming plan for the Route 50 corridor. Numerous workshops were held to educate stakeholders and to gather

advice from the community. A Traffic Calming Plan for Virginia's Rural Route 50 Corridor was published by the Coalition in 1996. The Middleburg Town Council and the Loudoun and Fauquier Boards of Supervisors all unanimously approved the plan.

In the plan, Traffic Calming is defined as the combination of physical measures and a supportive environment that reduces the negative effects of motor vehicle use on individuals and society in general, by changing the design and role of streets to serve a broad range of transportation, social, and environmental goals and objectives, including:

- Increasing the quality of life,
- Improving conditions for people,
- Incorporating the preferences and requirements of the people using the area (residing, working, playing, etc) along the streets or at intersections,
- Creating safe and attractive streets,
- Helping reduce the negative effects of motorized vehicles on the environment, and
- Promoting pedestrian, cycle and transit use.

The objectives of Traffic Calming are to:

- Achieve slower, safer speeds for motor vehicles, require drivers to observe speed limits,
- Reduce collision frequency and severity,
- Improve the real and perceived safety for non-motorized users of the street,
- Reduce the need for police enforcement,
- Provide more greenery (trees, shrubs, etc.), and
- Increase access to land for all modes of transportation.

In 1998, Senator John Warner secured \$13 million in federal Demonstration funds for the project. VDOT provided the required 20% match. A Task Force to oversee the project was formed under the authorization of the Virginia Commonwealth Secretary of Transportation. The 11-member task force is made up of elected officials from Loudoun and Fauquier Counties and the Town of Middleburg, representatives from the Route 50 Corridor Coalition, local businesses, residents, commuters, and historic preservation groups. The VDOT District Administrator is a non-voting member of the Task Force.

HIGHWAY AGENCY INVOLVEMENT

Under pressure to accommodate increased motor vehicle travel between expanding suburbs and the nation's capital, the Virginia Department of Transportation developed a preliminary design to widen Route 50 to four lanes, with bypasses around Aldie and Middleburg. Once the Congress had approved the "Traffic Calming Measures for Route 50 in Loudoun and Fauquier Counties" as a demonstration project, VDOT established a close working relationship with the community appointed Task Force to convert the community goals into design plans.

RESOURCE AGENCIES INVOLVEMENT

Because a NEPA document is required for the project, other interested state and federal agencies were contacted through VDOT's document Scoping Process. Additionally, agencies with jurisdiction and review authority were contacted, specifically the Virginia Department of Historic Resources and the Virginia Outdoor Foundation, for 106 Coordination and Preservation Easement information. The State Historic Preservation Officer issued a finding of No Adverse Effect for the project.

COMMUNITY INVOLVEMENT

Before a consultant team was hired for the project, a Task Force of interested citizens, local elected officials, a member of the Commonwealth Transportation Board and VDOT had been formed. The Task Force is scheduled to meet every month and is open to the public

Near the beginning of the schedule, project kick-off meetings were held at each of the three communities. During the day informal meetings were held to introduce the consultants, the project concepts, and listen to those that choose to be heard. During the evenings, seminars discussing the goals of traffic calming were discussed followed by a question and answer period concerning the potential uses of traffic calming along the corridor. Through the three-day period a list of potential stakeholders was developed. Members of the design team were available to meet with interested parties throughout the concept development portion of the project.

A design charrette was held with members of the design team and VDOT. The issues noted during the initial stakeholder interviews were addressed as best as possible one by one. An overall concept for the corridor was developed and presented to the Task Force. Additional meetings were held with the stakeholders to refine the concepts. A public meeting was then held to present the overall and specific concepts. Meeting notes from this public presentation were again reviewed by the design team and refinements made.

SIGNIFICANT ENVIRONMENTAL ISSUES

Natural Environment

Among the design goals for the project team was to preserve and enhance views from the roadway that provide residents and travelers a connection to and an appreciation of the vast farmlands and preserved environmental lands along the Route 50 corridor. It was agreed that the rural rolling terrain would be maintained to preserve the natural topography of the land.

Human Environment

The typical section proposed in Middleburg will result in a potential reduction in the current curb-face to curb-face width from approximately 40-feet to a proposed width of 36 feet for the travel lanes and parking areas. The additional 4-foot area (2-feet north and south of US 50) will

be “added” back to the existing sidewalk. Two additional feet of sidewalk may allow room for two people to walk abreast and other streetscape amenities.

In Aldie, a sidewalk is being incorporated into the typical section to provide pedestrian access from the portion of the village to the Aldie Mill. This will better accommodate residential and tourist foot traffic.

In Upperville, the existing footpath is being restored. The proposed changes in Upperville include an extension of the existing footpath from its current terminus near the county store to the eastern end of the village near the entrance to the park.

Public Involvement

The community’s input through out this project has been a determining factor, from selection of the consulting team, participation on the community Task Force that directs the project team’s work, participation in small group meetings, and participation in larger public meetings.

There are four sub-committees of the Task Force, covering safety, community issues, design and engineering, and finance. These groups meet on an as-needed basis and report to the Task Force at their monthly meetings.

The Project Team has been extremely responsive to community input and concerns. They have endeavored to seek input in ways that encourage creative and collaborative thinking. For example, in public meetings when the project concept was being discussed, all sections of the road were printed out in 1”=100”scale. Preliminary concepts, many drawn from earlier small informal meetings with individuals as well as from the Project Teams collaborative brainstorming were presented in sketch form on tracing paper and participants were given markers and asked to draw themselves on the tracing paper to suggest additional ideas.

SCHEDULE OF ACTIVITIES

Following is a time-line of significant events in the Route 50 Corridor project development process:

- 1994 VDOT reactivates previous studies to expand Route 50 to 4 lanes from the existing 4-lane section westward to 4 miles east of Route 15. Money is programmed in the VDOT Six Year Improvement Program for FY '96-'97 to study bypasses of Aldie and Middleburg.
- 1995 Route 50 Corridor Coalition forms an all volunteer group of residents and business owners to examine alternatives to widening Route 50 and bypassing towns to reduce aggressive driving, improve safety along the road and balance needs of travelers with needs of residents and business owners in the area.
- 1996 Route 50 Corridor Coalition published, “A Traffic Calming Plan for Virginia’s Rural Route 50 Corridor,” a concept plan prepared by a well-known traffic engineer skilled in traffic calming techniques.
- 1998 \$13 million in demonstration project funds was secured in the authorization of Tea-21.

- 1999 Project Task Force was created appointed by the Virginia Secretary of Transportation
- 2000 The Route 50 Traffic Calming project received a total of \$16.25 million in funding.
- 2001 Consultant team was selected including a diverse range of disciplines. Public meetings were held in Aldie, Middleburg and Upperville. The design team met with many community groups including the Aldie Mill group, the Loudoun and Fauquier Counties sheriff's offices, the Middleburg Police Department, the emergency services teams, the Prelude to Gettysburg group, and Middleburg Town Council.
A design charrette was held with members of the Task Force and VDOT to refine the conceptual plan developed by the community into a 24-mile Corridor Concept Plan.
- 2002 A Categorical Exclusion was requested from NEPA reviews. A finding of No Adverse Effect was made by the Department of Historic Resources.
- 2004 Construction is expected to begin. Current funds will cover complete design, right-of-way acquisition, and an estimated one-third of total construction costs. The Task Force together with VDOT will prioritize construction projects.

PROJECT OUTCOME TO DATE AND LESSONS LEARNED

Although it appeared that Virginia law did not allow citizens to participate on the consultant selection team, a ruling from FHWA's Chief Counsel clarified that this was possible. The 6-member selection team was equally divided between VDOT staff and community representatives. The team's collaborative effort to conduct a fair and impartial review of consultants resulted in a unanimous choice. This activity was a turning point in the relationship between VDOT and the Route 50 Corridor Coalition, and allowed a relationship of trust to begin.

The Design Team is comprised of a very diverse group of educational backgrounds including individuals with expertise in traffic calming measures, hard-line traffic engineers and designers, landscape architects, planners, and an architectural historian. During the team meetings and the design charrettes, ideas and concerns were freely floated, hard questions were asked and discussed, and concepts were evaluated openly. As a result, the product or overall design concept is an exceptional reflection of the diversity of the project team. Additionally, the enthusiasm of team members who are thoroughly enjoying the opportunity to exercise their creative skills in a national demonstration project is clearly evident. They are having fun!

An important element of the context sensitive design approach with this project was the willingness of the engineers to get away from a "template" mentality where often a typical section is designed and then uniformly applied to large areas of the corridor. Instead the designers and engineers all agreed about the overall design goals and principles – most related to transforming a rural highway to a village street – and then adapted the agreed upon principles to the very unique conditions of each of the three towns. The result is that each town will continue to retain its own unique character.

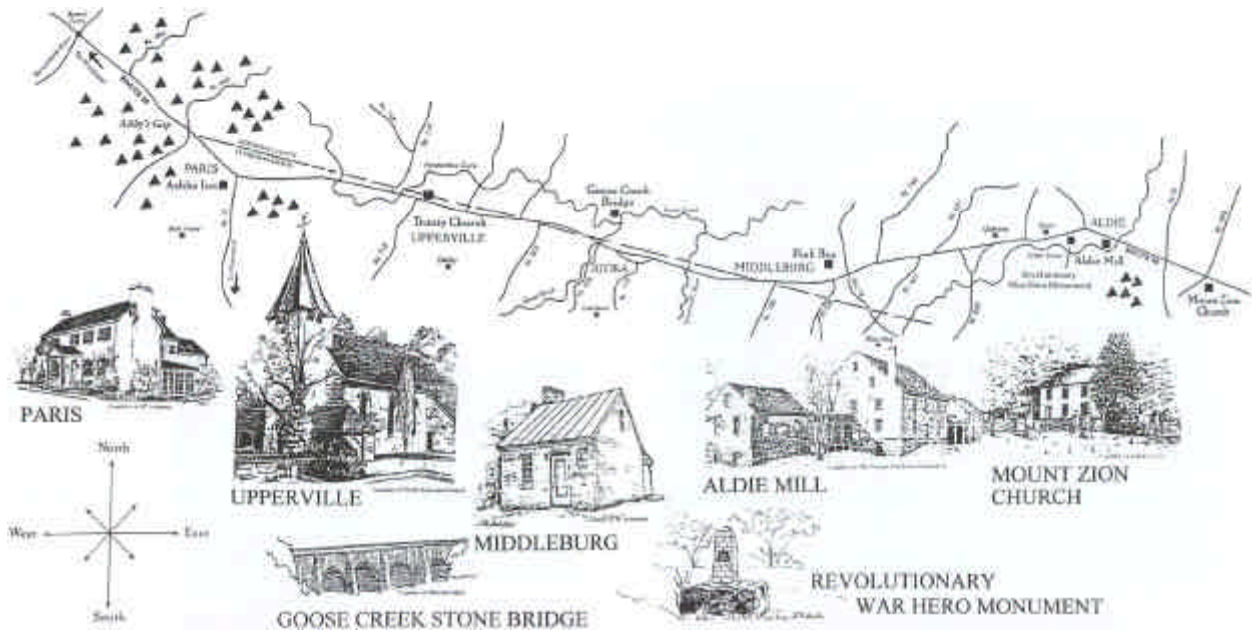
The design team has been particularly sensitive to the need to look at design elements in the context of the existing resources so they enhance these resources – not overwhelm or detract from them. For example, there has been debate on entrance features – size, scale, materials, etc. that are appropriate in this “quiet” environment. For a second example, the team is aware that the cumulative interest in promoting the corridor and its amenities through signage has the potential to induce sign pollution. Some stakeholders expressed a desire to combine the signs with the entrance features. This too has the potential to overwhelm the intent of the feature that the landscape architects were trying to accentuate. An example is the east entrance to Aldie that uses a slight vertical element (a pier) that frames the existing church. The teams’ lesson is to rely heavily on the trained eye of the landscape architects and to stay on top of ALL of the comments provided and consider the potential cumulative effect - in essence “less is more.”

One of the keys to the success of the project has been the availability of members of the design team and Task Force to address issues and concerns raised by interested citizens. This responsiveness has been through individual and small group meetings such that individual voices can be heard in an informal setting.

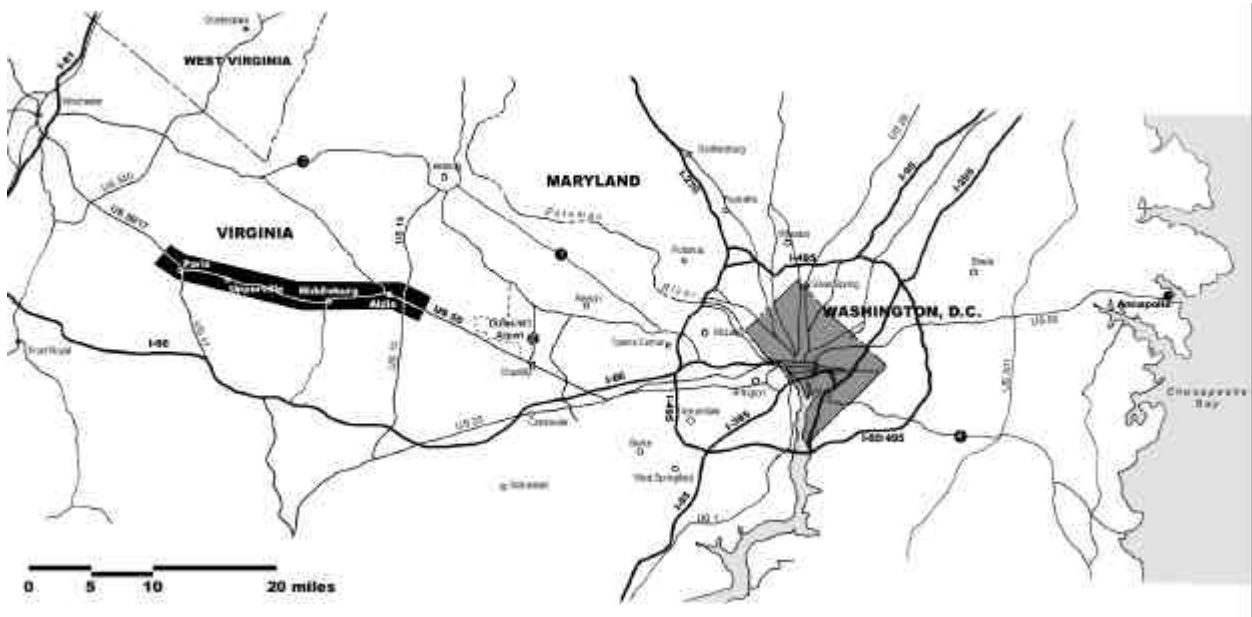
Having a design team that brings a full appreciation for the flexibility in the design guidelines has been very important along with the ability to research and bring for consideration successful design concepts from other states and countries.

One of the best examples in this project of the power of a small group meeting was with representatives of the Middleburg Fire Department. These individuals were concerned about the potential reduction of response time and the ability of their fire trucks to negotiate the proposed traffic calming measures. The fire department drove their largest truck through a mock raised intersection to discern if the traffic-calming feature would adversely affect the turning ability. The truck negotiated each approach without incident thereby settling the concerns of many of the firemen.

A significant accomplishment is that a concept for overall treatments in the corridor and for specific treatments in three communities and several rural intersections was developed and will be presented in a formal Public Hearing in a little over one-year’s time.



A.1 The corridor – Approximately 24 miles between Paris and Mount Zion Church.



A.2 Route 50 Corridor – The Regional Context.



A.3 Upperville, founded in 1797, relied economically on the nearby Panther Skin Creek, used to turn millstones for grinding corn and wheat.



A.4 Middleburg is a community with a population of 700 and 250 business licenses. One of the design requirements developed based on public input was to, “Support multiple uses and users of the roadway.”



A.5 Another design requirement was to “Preserve / Enhance Views.” Views from the roadway provide residents and travelers a connection to and an appreciation of the vast farmlands and preserved environmental lands round along the Route 50 Corridor.

COMMUNITY GOALS AND OBJECTIVES

In 1995, the Route 50 Corridor Coalition engaged the community in an intensive planning process. The process first focused on the strengths of the area, those elements that tied the residents to the place. The Coalition then formed design and development characteristics that residents believed would enhance the quality of life completely surrounding their neighborhoods. Based on intensive public discussion, the Route 50 Corridor Coalition defined the Vision Statement for the Rural Route 50 Corridor:

A scenic, unique, rural community in an historical, agricultural, quiet, and natural setting.

The Vision Statement is being used by the community to guide and assess local, state planning and transportation decisions for the next 100 years. All future planning and development plans should support and help fulfill this vision. The public planning process that defined the Vision Statement is detailed in the recent planning report, *A Traffic Calming Plan for Virginia's Rural Route 50 Corridor*.

GOALS

- Increase the quality of life.
- Improve the conditions for pedestrians.
- Incorporate the preferences and requirements of the people using the street and intersections.
- Create safe and attractive streets.
- Reduce the negative effects of motor vehicles on the environment, and
- Retain the historical, agricultural, and natural setting.

OBJECTIVES

- Slow traffic within the posted speed limits.
- Reduce collision frequency and severity.
- Improve the perception and reality of safety for non-motorized users of the streets.
- Reduce the need for police enforcement.
- Provide more greenery.
- Enhance the historical, agricultural, and natural setting.
- Increase access to main street and intersecting pedestrian and car users, and
- Accommodate but not invite through traffic.

Virginia Route 50 Traffic Calming Project
Version 1.0



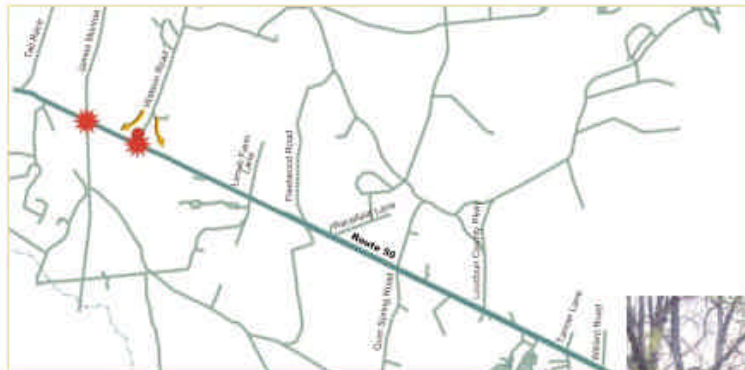
A.6 Community Goals and Objectives from “A Traffic Calming Plan for Virginia’s Rural Route 50 Corridor,” published 1996.

COMMUNITY INPUT

By meeting with business owners, residents, and community leaders, the design team identified safety concerns, potential access improvements to local sites, and unique opportunities to support existing land uses, highlight historic sites, and reinforce the rural character of the area. The following maps identify these opportunities.



- LEGEND**
- Prelude to Gettysburg Battlefield Site
 - High Crash Rate
 - Pedestrian Crosswalk Requested
 - Poor Sight Distance
 - Difficult to Turn onto/off of Route 50
 - Drainage Problem
 - Need Additional Parking
 - Additional Lighting Needed



- A.7 By meeting with business owners, residents, and community leaders, the design team identified areas of concern and opportunities throughout the Corridor.

ROADWAY CHARACTERISTICS

Functional Classification: Minor Arterial (London)
Principal Arterial (Fauquier)

AADT (2001): 7,500-12,000

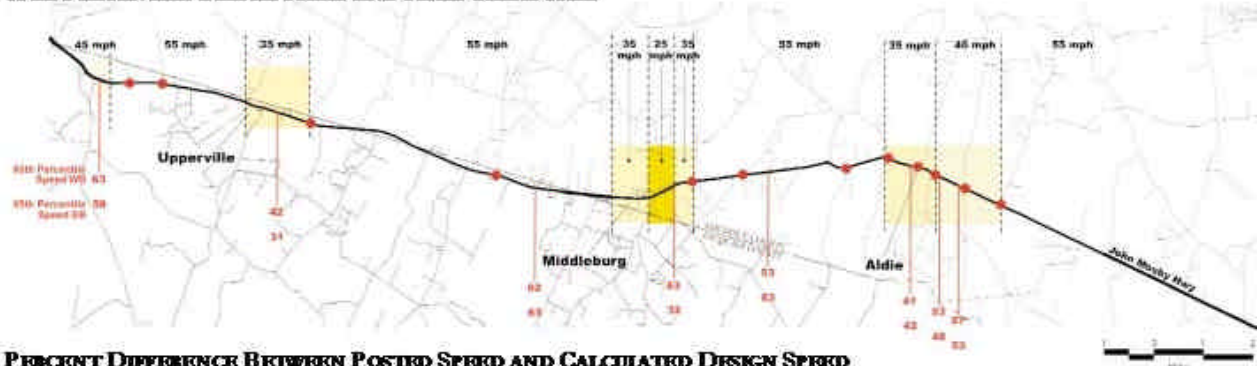
Percent Heavy Vehicles: 5.0%

A comprehensive field inventory was conducted to document existing roadway conditions. Data was collected on the posted speed limits, existing operating speeds, and crashes. Also, a profile analysis was conducted to calculate the design speed for roadway segments based on the stopping sight distance of the vertical curves.

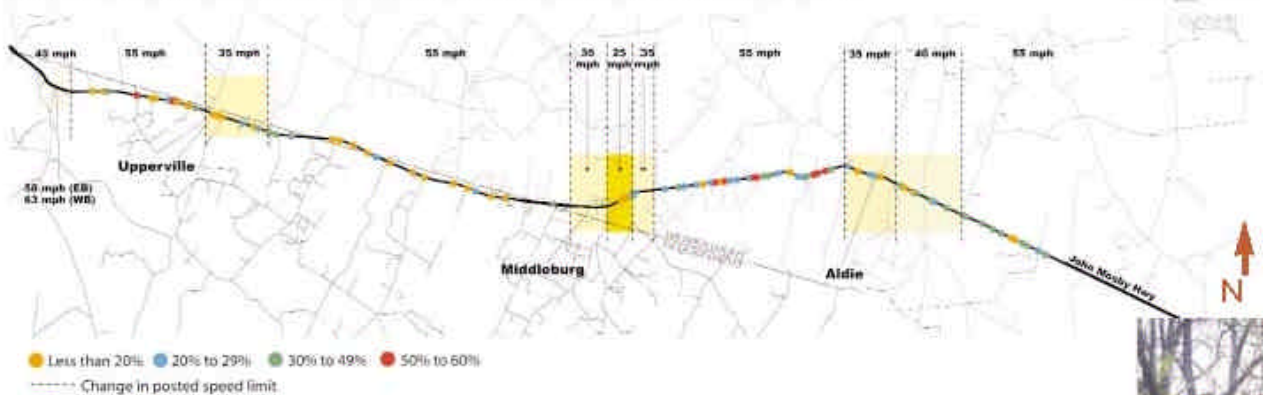
HIGH CRASH SITES (sites with more than 10 accidents in the past five years)

Street Name	# of Crashes (Past 5 years)	Risk Ratio per Million Entering Vehicles
Watson Road	66	2.45
James Monroe Highway	56	1.11
New Mountain Road	40	
Dumfries Road	28	1.44
Saint Louis Road	23	1.40
Champe Ford Lane	19	
Aldie Dam Road	18	1.04
Spike Den Road	15	
Maxville Road	14	
Tal Race Road	13	
Sam Fred Lane	12	
Greengarden Road	11	

85TH PERCENTILE TRAVEL SPEED AND HIGH CRASH SITES



PERCENT DIFFERENCE BETWEEN POSTED SPEED AND CALCULATED DESIGN SPEED



A.8 A comprehensive field inventory was conducted to document existing roadway conditions.

RURAL TRAFFIC CALMING MEASURES

Roundabouts

Location

- At intersections where a traffic control device is required to increase safety and/or accessibility.

Geometric Design Elements

- Design speed = 50 mph approaches
- 1 lane on approaches.
- single, 15 foot wide lane in roundabout.
- 90 foot diameter center island. (may vary)

Landscaping Elements

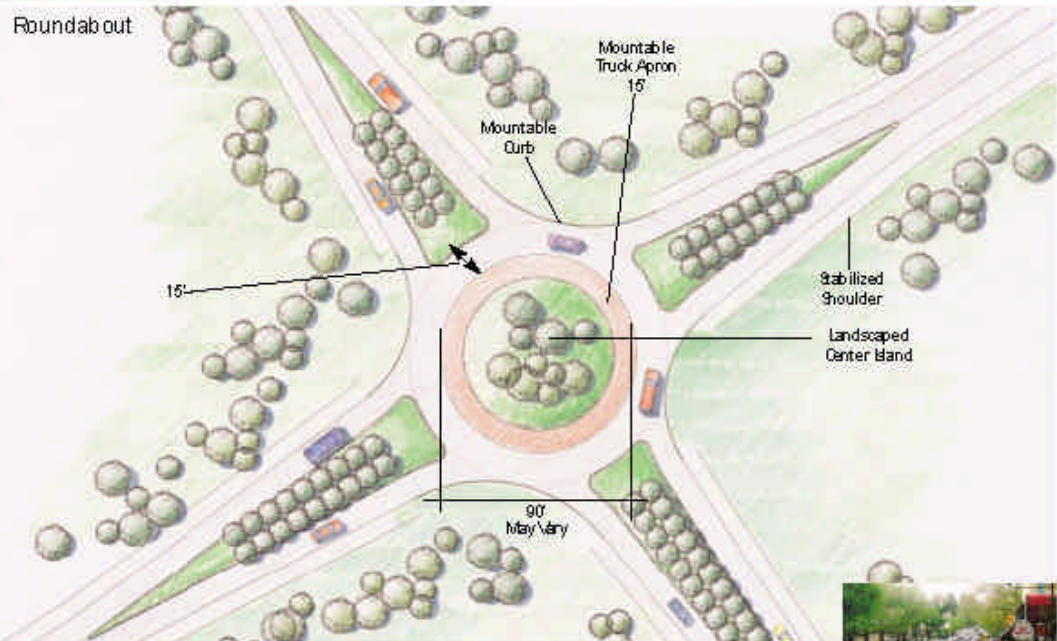
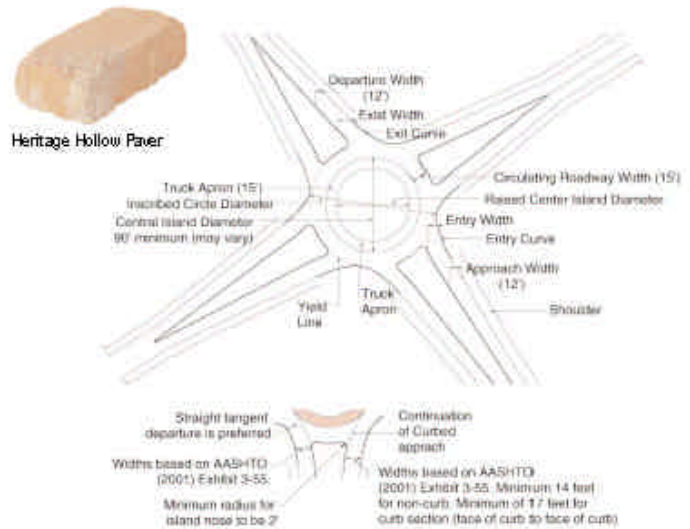
- Use to emphasize location of roundabout.

Signage

- Locate directional signs at roundabout.
- Locate warning signs for splitter island on Route 50 as recommended in MUTCD.

Material

- Mountable apron - heritage concrete pavers / aged brick appearance.



Virginia Route 50 Traffic Calming Project
Working Draft



A.9 A Design Memorandum prepared by the consulting team documents numerous traffic calming measures.

Stabilized Turf Shoulder

Replace gravel shoulders with stabilized turf shoulders. Stabilized turf shoulders reinforce the desired driving characteristics by visually narrowing the road and improve the aesthetics of the roadway.

Location

- Along edge of travel lane in Rural and Transition Areas

Geometric Design Elements

- 8 foot wide shoulders.
- 12 foot wide travel lanes.

Material

- Aggregate / topsoil blend.

Scenic Pull-offs

Location

- At scenic vistas and rural historic sites

Geometric Design Elements

- 14 foot wide.
- 150 foot long.
- Support 3,000 psi.

Material

- Aggregate / topsoil blend and terracell for stability.

Guardrails

Location

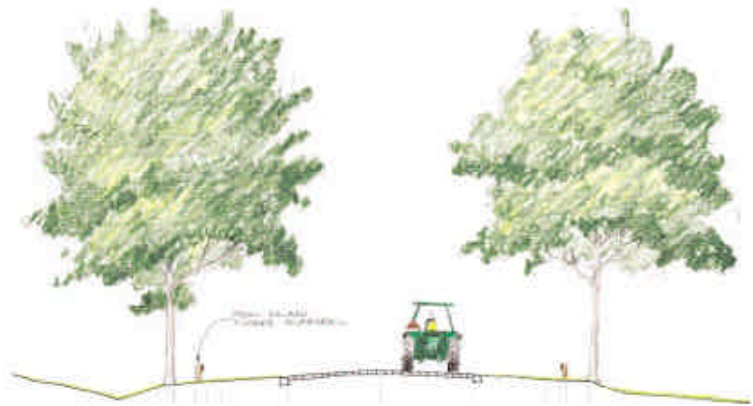
- Used to shield motorists from obstacles located in the clear zone, embankments, and steep slope.

Geometric Design Elements

- Pass the NCHRP 350 crash test requirements.

Material

- To be selected through further discussion with the community. Select from the following:
 - Steel-backed timber guardrails
 - Weathered steel guardrails
 - Three strand cable barrier system
 - Stone masonry walls with reinforced concrete core.



Sketch of stabilized turf shoulder and steel-backed timber guardrails.

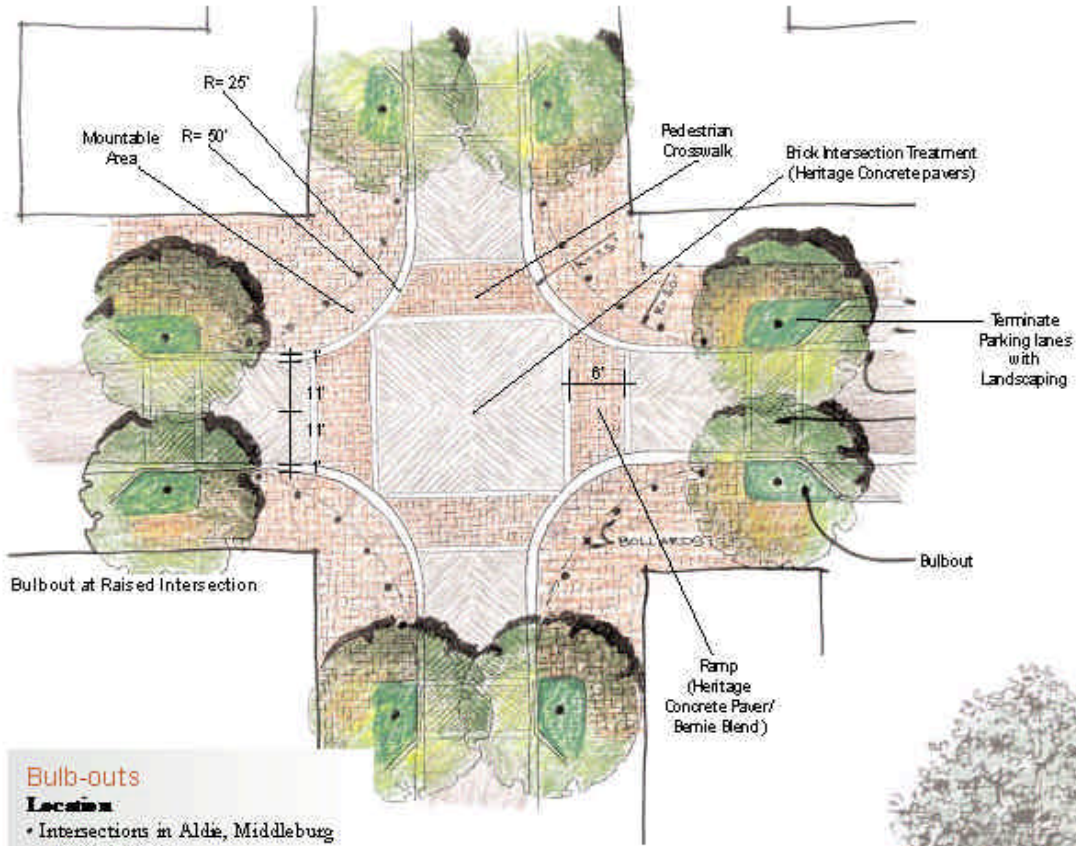


Example of steel-backed timber guardrails



A.10 The Design Memorandum calls for replacing gravel shoulders with stabilized turf shoulders.

TOWN AND VILLAGE



Bulb-outs

Location

- Intersections in Aldie, Middleburg and Upperville.

Signage

- Pedestrian crossing sign

Landscaping Elements

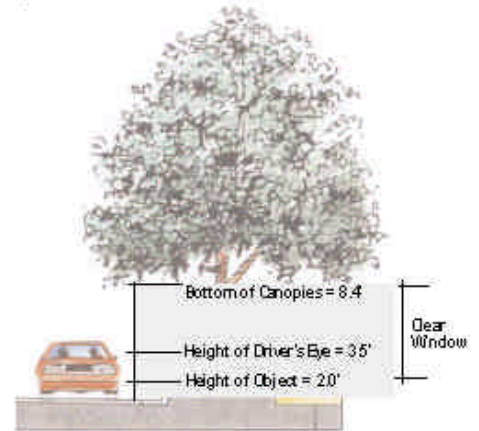
- Use to highlight location
- Will be compatible with the existing landscaping and proposed streetscaping.

Geometric Design Elements

- Design speed 25 mph
- 25' Curb Return Radius.

Materials

- Raised Table: Heritage Concrete Pavers
- Crosswalks: Similar material (color and pattern) to sidewalk. 12" tinted concrete bands with smooth finish will edge the crosswalk pavers.
- Detectable concrete warning pavers at edge of vehicle driving lane. Use darker color than sidewalk.



Clear window for landscaping or other obstructions within the sight triangle at town intersections

Approved: FDOT Roadway Design Manual

A.11 Bulb-outs are another traffic calming measure included in the Design Memorandum.

SPECIFIC CORRIDOR ENHANCEMENTS

There are two areas in the study that require comprehensive modifications to the roadway. These areas are defined as follows:

- Gilbert's Corner, and the associated traffic congestion.
- The 1.3 mile four-lane segment of Route 50 located west of Middleburg.

The Study Team outlined a detailed enhancement plan for each of these areas that address safety, access, and aesthetic concerns.



Gilbert's Corner (intersection of US 50 and US 15)



4-lane section of Route 50 west of Middleburg



- A.12 There are two areas in the Route 50 Corridor that require comprehensive modification to the roadway. These are Gilbert's Corner and a 1.3 mile four-lane segment of Route 50 located west of Middleburg.

4 LANE SECTION

Rural Route 50 widens to four-lanes west of Middleburg. Stakeholders identified the 1.4 mile long four-lane section as a safety concern, where drivers increase speeds in an attempt to pass other drivers before re-entering the two-lane road section. The high speed section is located immediately adjacent to the Middleburg west transition area. The slope, straight alignment and wide cross-section entice drivers to speed up as they approach town, working in opposition to the intent of the transition area and the entrance way features.

The recommended design restores this section of Route 50 to a two-lane roadway. A portion of the existing westbound lanes are redesigned to serve as a local access road. The existing westbound lanes are realigned to provide eastbound and westbound travel. The recommended alignment is designed to self-enforce the 50 mph travel speeds in this area.

Design Principles

- Self-enforce Posted Travel Speed
- Increase Safety of Vehicular Travel
- Provide Access to Historic Sites
- Preserve/ Enhance Views
- Maintain the Rolling Terrain
- Improve Shoulder Treatment
- Use Natural/ Traditional Landscaping Materials and Techniques
- Accommodate Agricultural/ Equestrian Transport/ Emergency Vehicles



4 lane section, looking east towards Middleburg.

Signage

- Signs associated with Prelude to Gettysburg/Mount Defiance Battlefield Site.

Landscaping Elements

- Will be compatible with the existing landscape.
- Will reflect historic landscaping features.

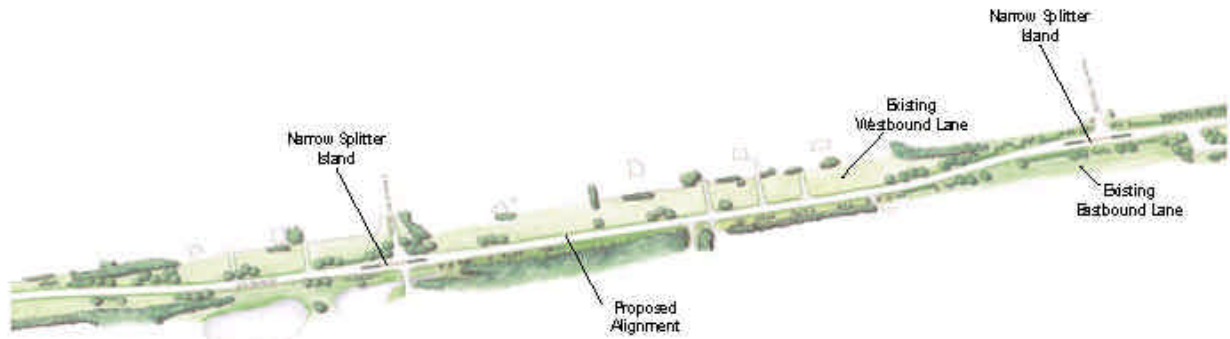
Geometric Design Elements

- 50 mph design speed on approaches.
- 2 lanes.
- 12 foot wide travel lanes.
- Maintain access to adjacent uses.

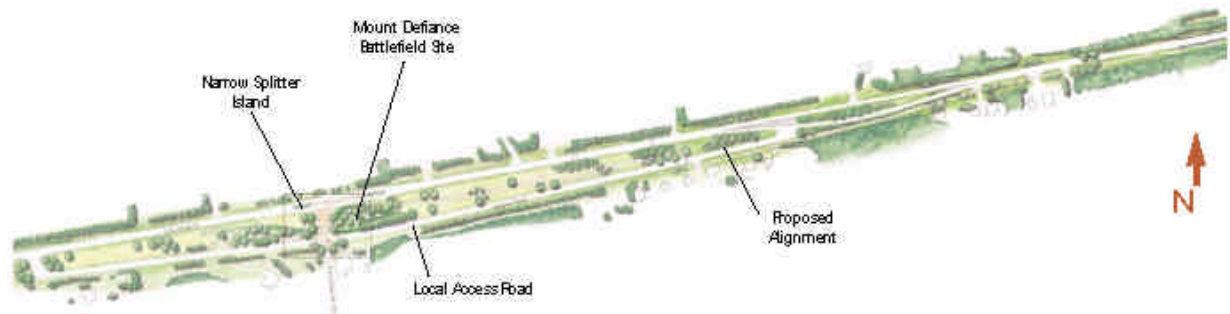


- A.13 In the four-lane section west of Middleburg, stakeholders identified this section as a safety concern, where drivers increase speeds in an attempt to pass other drivers before reentering the two-lane road section. The recommended design restores this section of Route 50 to a two-lane roadway.

CONCEPT SKETCHES



Four Lane Section to Two Lanes - Proposed Alignment (West)



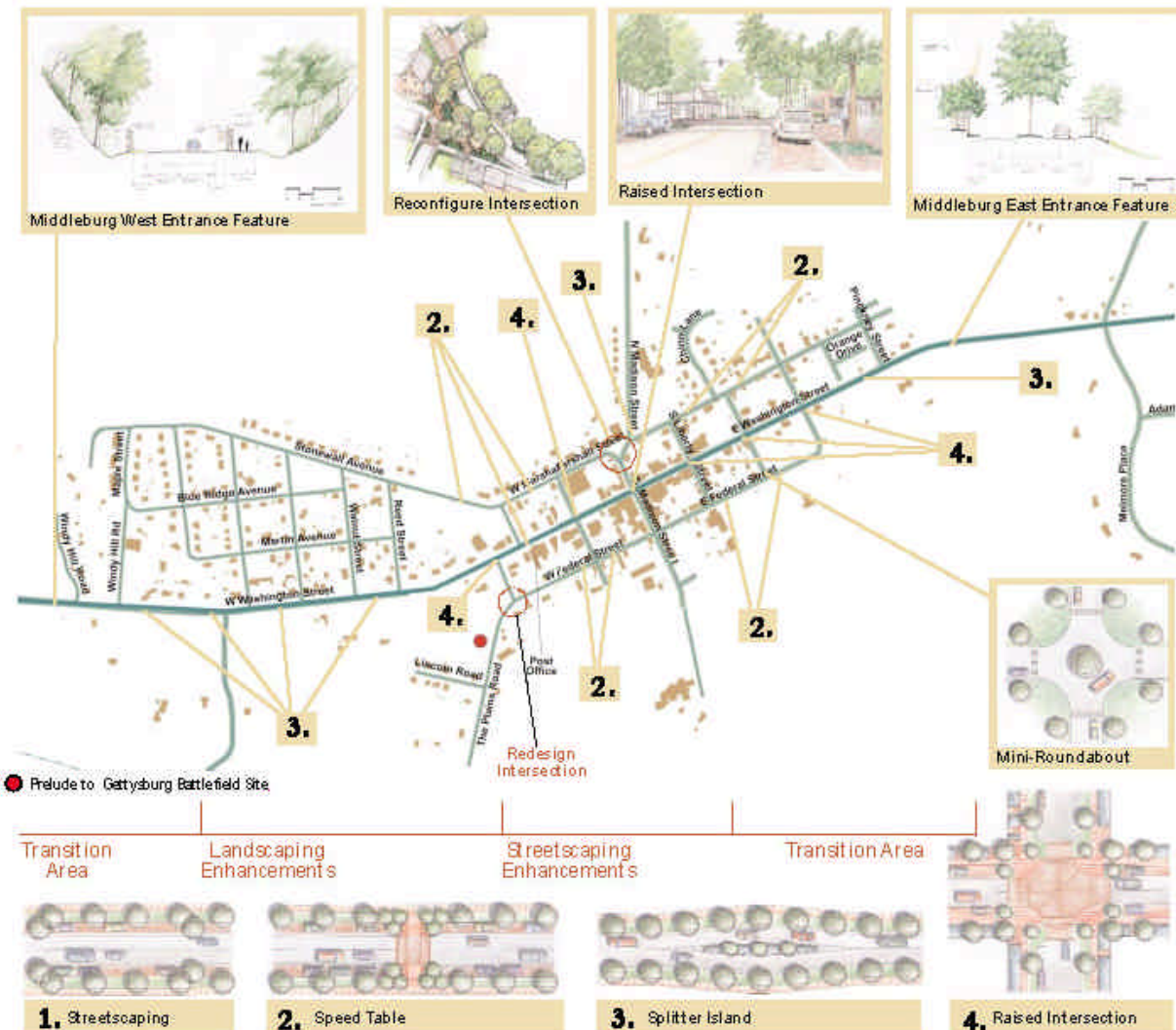
Four Lane Section to Two Lanes - Proposed Alignment (East)



- A.14 In the four-lane section west of Middleburg the Design Memorandum proposes that a portion of the existing eastbound lanes be redesigned to serve as a local access road. The existing westbound lanes are realigned to provide eastbound and westbound travel. The meandering alignment is designed to self-enforce the 50 mph travel speeds in this area.

THE CONCEPT PLAN - MIDDLEBURG

TRAFFIC CALMING MEASURES



Wiggin's Route 50 Traffic Calming Project Working Draft

A.15 The Design Memorandum includes concept plans for each of the three major communities along the Route 50 Corridor. This is the concept plan for Middleburg.