
Town of Bath, West Virginia

Sidewalk Self-Evaluation for ADA Accessibility



Prepared for the Streetscape Committee by
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August 2017

Town of Bath; Sidewalk Self-Evaluation for ADA Accessibility

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I. Purpose

The purpose of this paper is to inform and guide the community and various decision makers in formulating better and more cost-effective decisions regarding pedestrian movement through the Town of Bath.

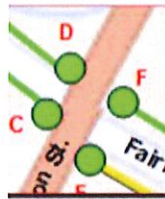
Executive Summary

This document provides the methods, standards of review and resulting existing conditions of the sidewalks and pedestrian street crossings within the downtown area of the Town of Bath, WV.

The Town has completed the first three phases of a four phased streetscape project. The area of the Town included in Phase IV reflects the “Six block” strategy articulated in the Town’s Streetscape Guideline Plan. The fourth phase focuses on the continuation of improvements along Mercer Street and Wilkes Street, as well as Green Street and Union Street. It also includes the south side of Fairfax Street between Washington Street and Mercer Street. The sidewalk information that has been collected and analyzed within this document will be useful in the accomplishment of Phase IV.

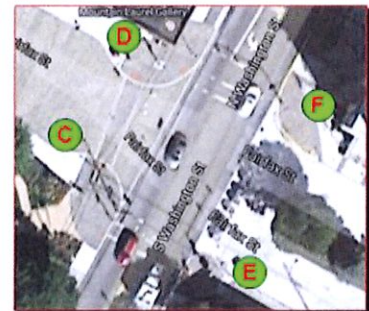
The data included in this document was collected during a visual assessment conducted by walking each street. Using a “Self-assessment Checklist” included within this paper, team members evaluated each sidewalk segment and corner pedestrian crossing. Each sidewalk segment and corner was coded to allow simple documentation of the conditions. Photographs were used to record existing conditions.

The visual assessment revealed that there are a variety of conditions within the Town of Bath. There are several intersections that have been installed during previous Streetscape projects. Many of these are designed with ADA compliant crosswalks and corner ramps at all four sides.

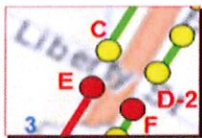


Example of Intersection designed for ADA compliant crosswalks and corner ramps at all four sides. Installed in various Streetscapes Phases

Washington at Fairfax

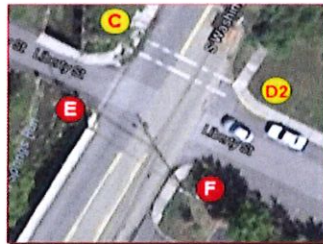


The only marked crosswalk is from C to D-2; but while curb and street are level at C, there is no DWS or ADA compliant ramp at C and no DWS at D-2



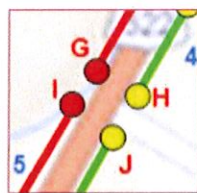
Example of Crosswalk with corner modifications to improve accessibility, but not fully ADA compliant

So. Washington at Liberty



Additionally, there are some intersections where crosswalks have corner modifications that improve accessibility, but are not fully ADA compliant. It is possible to get around the area by walking, but is not ideal for pedestrians.

Various intersections have existing ramps that do not meet ADA dimension requirements and have no DWS (detectable warnings surface) warnings. There are also several intersections with no marked crosswalks and no ramps.



There is 1 marked crosswalk at this intersection. The existing ramps do not meet ADA dimensions and there are no DWS warnings

So. Washington at Market



A few streets have improvements on one side of the street but no sidewalks or other improvements on the other side of the street.

After completing the initial assessment and reviewing the Town's Comprehensive Plan and Streetscape Guidelines, several recommendations were formulated.

Given the limited resources available for improving pedestrian access it is suggested that the Town focus on those streets that carry the most pedestrian traffic and are the easiest to tackle. A lower priority should be given to streets where there are potential issues such as right-of-way concerns or where vehicles back out directly from parking spaces on to the street pavement.

It is also recommended that where one side of the street is already improved to ADA standards, that the other side be placed as a lower priority.

The review also indicates a need to expand the area to include linkages to community amenities such as the post office, schools, and the Board of Education Offices. Since many of the sidewalks primarily serve commercial establishments, it is important to bring local businesses into the process.

With the Warm Springs Run transecting the town there are several bridges that do not provide safe pedestrian access that need to be reviewed in more detail. While these crossings are important, the cost of design and construction may place these at a lower priority.

It is important to assure that Town signage and improvement designs safely direct the pedestrian through the town. Any public improvements including utility projects should contemplate the impact of the project on pedestrian circulation. There are some sidewalks that can be improved by replacing only damaged segments rather than the complete sidewalks.

While the information included here will be helpful in planning pedestrian improvements and redevelopment in the town, it is anticipated that it may also be useful in the preparation of grant applications. Additionally, consultants and contractors responsible for the further implementation of pedestrian improvements for the Town may find the information helpful.

II. Scope

This document provides the methods, standards of review and resulting existing conditions of the sidewalks and street crossings within the Town of Bath, WV. The review is intended to contain the sidewalk and street crossing improvements both completed and planned by the Streetscapes Committee projects. As such, it portrays and discusses the existing conditions found and highlights several factors such as material condition and ADA accessibility features. This review considers only sidewalks and curbs associated with street crossings. Streets with no existing sidewalks are not addressed in this report.

III. Intended Uses of the Existing Conditions Data

This document identifies existing conditions on Town of Bath sidewalks that the Streetscapes Committee and Town Council may use to make decisions on the following:

- Streets and upgrades to be included in the Design and Implementation of Phase IV
- Content and Planning for future Phases
- Work that may be needed to correct existing problem areas
- Current conditions that provide data for grant applications

Streetscapes Committee Projects have been completed through Phase III. In each Phase, the detailed design provided by the engineering organization considered both the existing condition of sidewalks/crossings and the various guidelines and standards (such as ADA criteria) called-for by the State of West Virginia. The Town is in the early design stages of Phase IV of the Projects. The area of the Town included in Phase IV reflects the basic “Six-Block” strategy, and extends the area of consideration along Washington St all the way north to Williams St. It also includes the south side of Fairfax St between Washington St and Mercer St. Figure 1 shows the planned Phase IV area.

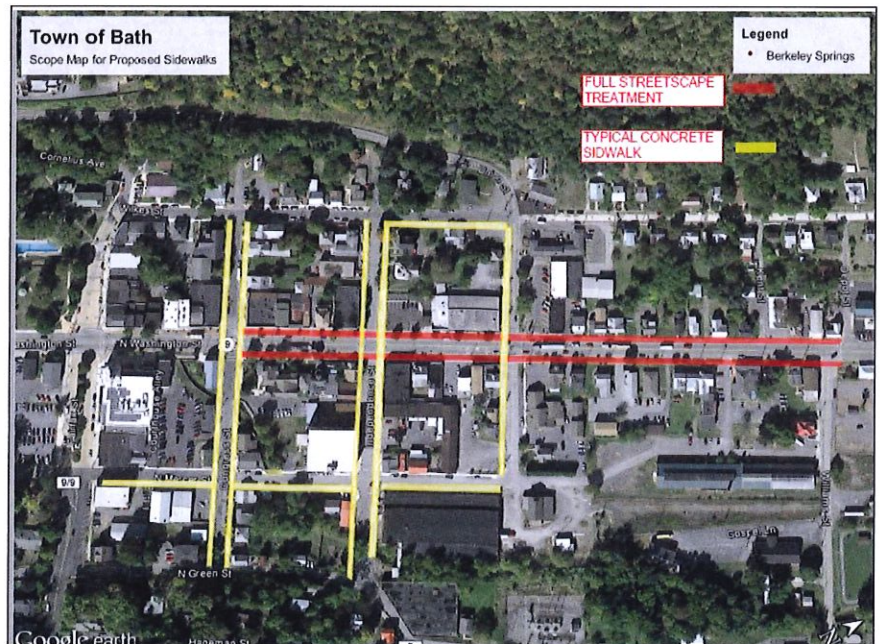


Figure (1)

IV. Standards and Guidelines used to Capture the Existing Conditions

The existing data was collected through a visual walking review of all streets with existing sidewalks. The review was guided by several “Self Evaluation” guidelines contained in the Referenced documents. The Team used a simplified version of the Table (1) guidelines. That simplified version is shown in Table (2). A sample of the resulting data is shown in the next Section.

SELF-EVALUATION CHECKLIST	
ISSUE	POSSIBLE BARRIERS
Sidewalk and Pathway Clear Width	Narrow, Below Guidelines
Sidewalk and Pathway Cross Slope	Steepness, Irregularity, Variability, Warping
Landings Along Sidewalks and Pathways	Less Than 4 feet by 4 feet
Sidewalk and Pathway Grade	Steepness, Angle Points
Materials and Finishes	Deterioration of Surfaces, Deterioration of Markings, Appropriateness of material (ex. Cobblestones)
Gratings	Grating Type, Grate Opening Orientation
Discontinuities	Missing Sections, Gaps, Drops, Steps
Detectable Warning System	Missing, Inappropriate Materials, Inadequate Size, Wrong Location
Obstructions	Signs, Mail Boxes, Fire Hydrants, Benches, Telephones, Traffic Signal Poles, Traffic Signal Controller Boxes, Newspaper Boxes, Drainage Structures, Tree Grates, Pole Mounted Objects, Standing Water, Snow or Ice
Traffic Signal Systems	Lack of Provision for the Visually Impaired such as APS, Inadequate Time Allowed, Inoperable Buttons, Inaccessible Buttons
Curb Ramp	Missing, Doesn't Fall within Marked Crosswalk, Doesn't Conform to Guidelines
Curb Ramp Flares	Missing Where Required, Too Steep

Table (1) Self Evaluation Guidelines from Ref. (a)

1	2	3	4	5	6	7
Street	Sidewalk Map No.	Corner Map Letter	Evaluated Condition Code	Condition Found (Missing Sections; warped; steps/drops; patches; <4 ft wide)	Complies w/ADA Stds?	Notes
	1, 2, 3 etc	A, B, C etc	G-Y-R	MS-W-S/D-P-<4'	Ramps/Material	Status in Streetscapes Plans
		A	G	No deterioration; fairly new 1-way Corner Ramp	Yes	Done in Streetscapes Phase # ??
Sample	1		R	Warped; steps & drops; patches	No	Planned for replacement in Phase 4
		C	G	New Install in Ph 3; 2-way ramps	Yes	Completed in Phase 3
Sample		B	R	End ramps match to street level; no ADA provisions	No	Planned for replacement in Phase 4
	2		R	Warped; steps & drops; patches	No	Planned for replacement in Phase 4
Sample		D	Y	Older ADA design; 1-way ramp to x-walk only	Partial	Planned for replacement in Phase 4

Table (2) Sample Data using the Self Evaluation Guidelines for this Report

The numbered columns in Table (2) are explained as follows:

- Column 1: The name of the Street
- Column (2): The sidewalk number code from the map attached to each set of street data
- Column (3): The corner letter code from the map attached to each set of street data
- Column (4): The evaluated condition code for the segment (street or corner); either Green; Yellow; or Red
- Column (5): The actual conditions found. The factors refer to the Table (1) conditions such as: (Missing Sections; warped; steps/drops; patches; Less than 4 ft wide)
- Column (6): The evaluators' opinion as to whether the sidewalk or crossing complies with the ADA standards in existence at the time any improvements were completed.
- Column (7): Notes from the Evaluators; includes reference to completed or planned Streetscape Committee Projects.

V. Existing Conditions (The Data)

Table (3) identifies the streets and sidewalks evaluated. Data tables and results are shown only for streets that have existing sidewalks and crossings. The complete sets of data are contained in the Appendices. A Sample of one street's data is contained in this section.

Street Name	Start Block	End Block
STREETS WITH NO SIDEWALKS		
Coughlan	So. Washington	End
Duane	Independence	End
Ewing Court	Ewing	End
Gospel	Williams	End
Pendle	Fairfax	End
Thomas	So. Washington	End
Lee Circle	Fairfax	End of Loop
College	So. Green	Ewing
Dawson	So. Green	Ewing
First Church	Green	Fairfax
Pratt	Market	First Church
Warren	West End	Green
Johnson Mill	So. Washington	High
Hageman	Fairfax	Independence
No. Green	Fairfax	Independence
Market	So. Washington	Lee Circle
Ewing	Martinsburg	Market
Liberty	Park	Near So. Mercer
Depot	Wilkes	No. Washington
Kent	Wilkes	No. Washington
Legion	Wilkes	No. Washington
Bath	So. Washington	So. Mercer
Broadway	West End	So. Washington
Biser	So. Green	Town Boundary
Fairfax	Green	Town Boundary
Independence	Mercer	Town Boundary
Rockwell	Johnson Mill	Town Boundary
Martinsburg	Coffee Shop	Town Boundary
Harrison	Independence	Williams
Laurel	Independence	Williams
No. Mercer	Union	Williams
STREETS WITH EXISTING SIDEWALK		
Congress	Wilkes	Green
Fairfax	Wilkes	Green
Green	Martinsburg	Fairfax
Independence	Wilkes	Green
Liberty	So. Washington	End (Church)
Martinsburg	So. Washington	Coffee Shop
Mercer	Martinsburg	Union
Union	Wilkes	Mercer
Washington	Broadway	Legion
Wilkes	Fairfax	Legion
Williams	No. Washington	Harrison

Table (3) Streets Reviewed

A Sample Data Set from one street (Congress St) is included to assist the readers' understanding of what information is available. There are four sections of information for each street:

Section One: Identification and Coding of each Sidewalk and Corner: Figure (2)

It was determined that the best information would include each segment separately. In that case each sidewalk section was identified by a number; and each corner section by a letter. An effort was made to be consistent among all the streets; for example one side of a street block was coded as "A-1-C" and the opposite side of that street block would be "B-2-D" and this would be the same for similar streets. This coding is the second sheet of the data packages in the Appendices.

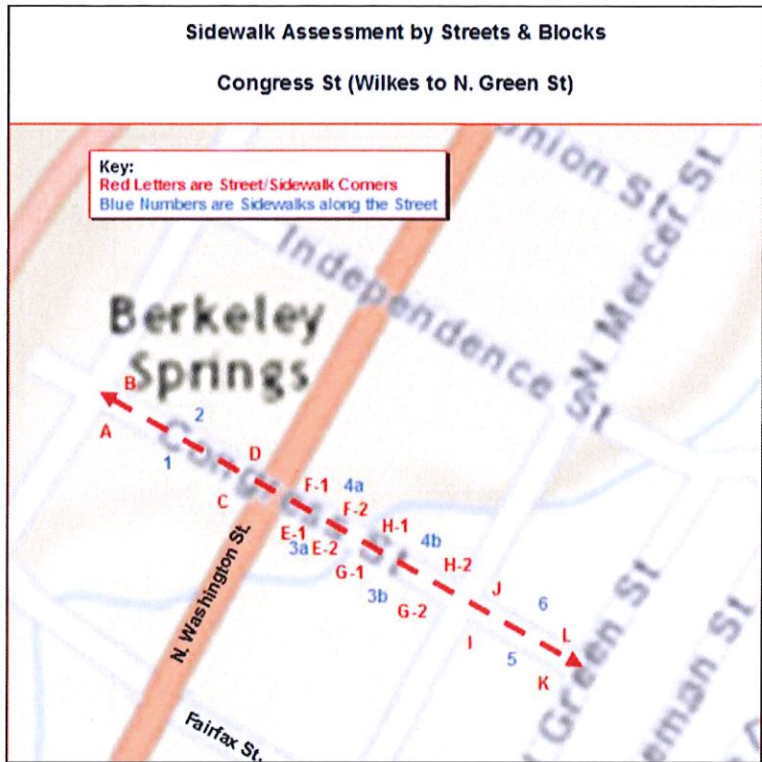


Figure (2) Sidewalk & Corner Codes for Congress St.

Section Two: Walking Tours to Visualize and Record the Conditions Found: Figure (3)

This will be found as the first sheet of the data sets. The block of Congress St, between North Washington St and Wilkes St is shown and discussed in Figure (3). This figure shows the results of evaluating this block of Congress using the guidelines previously discussed in Section III. Data and evaluation for each street can be found in the Appendices.

Street	Sidewalk Map No.	Corner Map Letter	Evaluated Condition Code	Condition Found (Missing Sections; warped; steps/drops; patches; <4 ft wide)	Complies w/ADA Stds?	Notes
	1, 2, 3 etc	A, B, C etc	G-Y-R	MS-W-S/D-P-<4'	Ramps/Material	Status in Streetscapes Plans
		A	G	No deterioration; fairly new 1-way Corner Ramp	Yes	Done in Streetscapes Phase # ??
Congress	1		R	Warped; steps & drops; patches	No	Planned for replacement in Phase 4
		C	G	New Install in Ph 3; 2-way ramps	Yes	Completed in Phase 3
		B	R	End ramps match to street level; no ADA provisions	No	Planned for replacement in Phase 4
Congress	2		R	Warped; steps & drops; patches	No	Planned for replacement in Phase 4
		D	Y	Older ADA design; 1-way ramp to Congress x-walk only	Partial	Planned for replacement in Phase 4

Figure (3) Sidewalk & Corner Conditions Found for Congress St.

Section Three: Color-Coding of the Results and Conditions Found: Figure (4)

Figure (4) uses the conditions found and recorded on the Data Sheets to pictorially display the results for each street and block. The conditions shown in the color-coding of Figure (4) are defined as follows:

Key:	
	Green – Near-new/new condition; meets ADA Criteria (also completed/Streetscapes Phase)
	Yellow – S/W & Corner with some patches/steps/erosion; serviceable; not fully up to ADA Criteria
	Red – Poor condition, materials; major patches, steps and drops; not ADA compliant

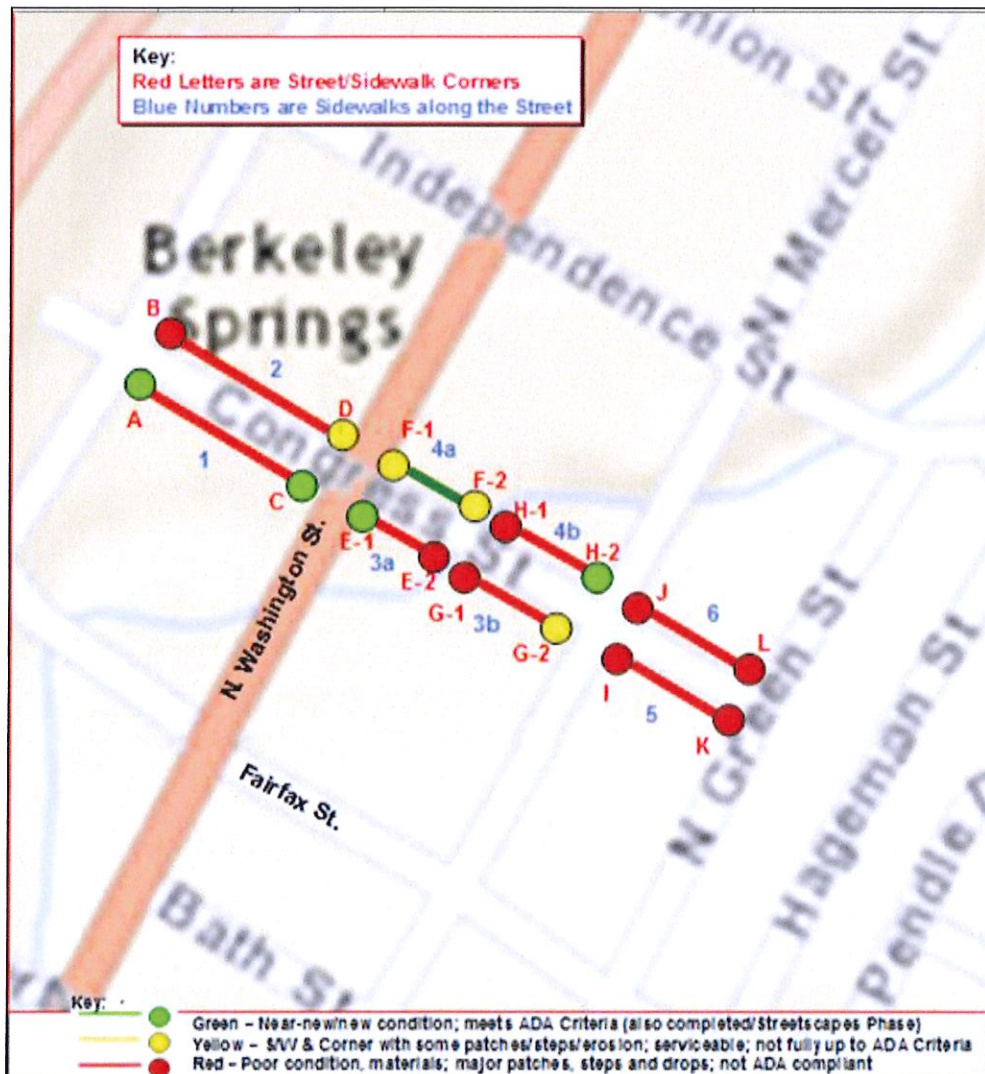


Figure (4) Color-Coding of the Results and Conditions Found for Congress St

Section Four: Photos of Specific Areas: Figure (5)

In general, photos were taken of areas of interest in order to visualize the conditions found. Figure (5) shows these areas for the Congress St block between North Washington St and Wilkes St. The basic Coding of the sidewalks/corners is carried over in the photos. Each data set in the Appendices has these types of photos.

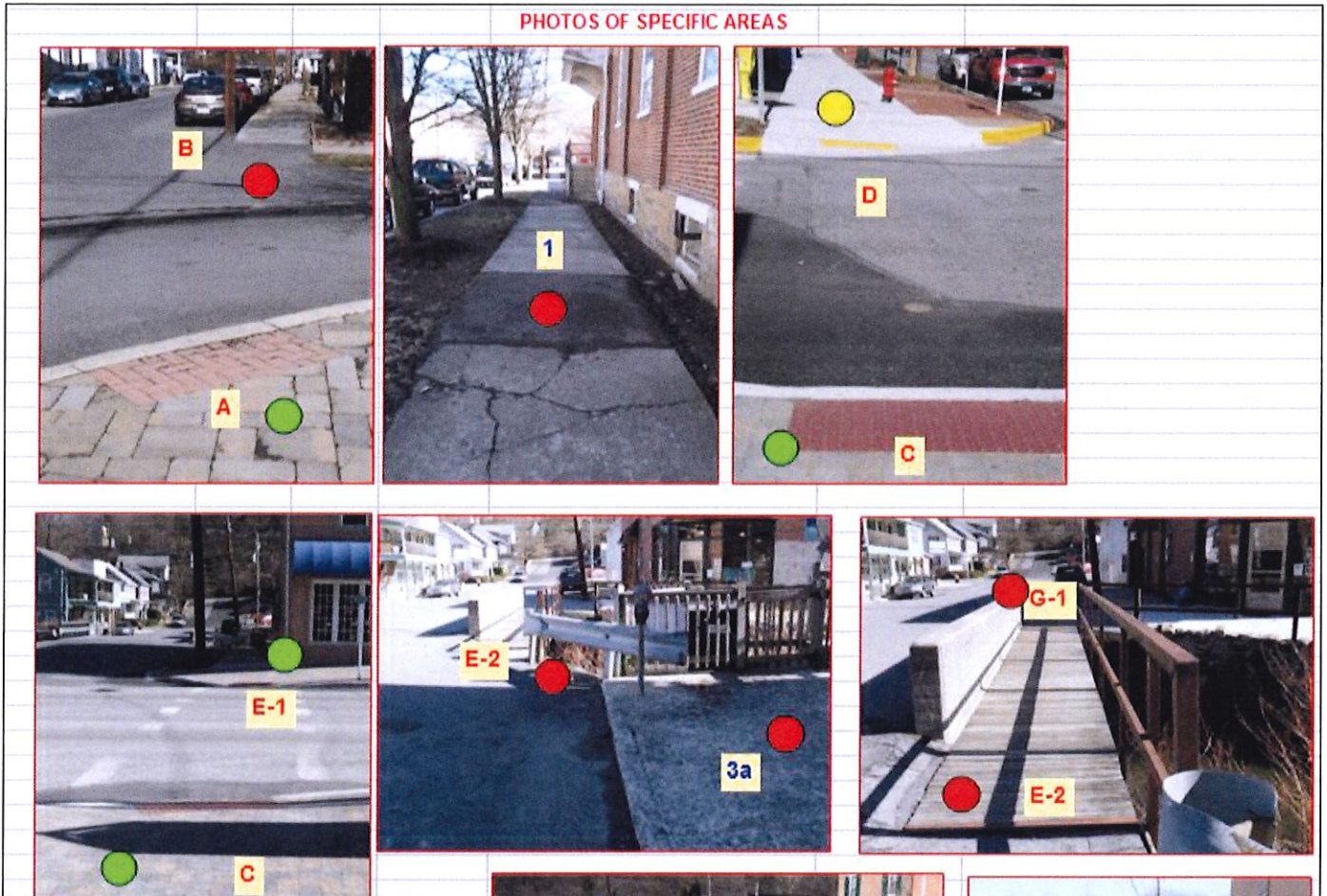


Figure (5) Photos of Specific Areas on Congress St

VI. Display of the Sidewalk Conditions Found in the Town of Bath

A. Sidewalks and Corners

Figure 6-1 thru 6-4 provides the summary results from the Self-Evaluation. In this four-part figure, the color coding for all the sidewalks and corners is superimposed on an aerial map of the Town of Bath (from a Google-Earth image dated Sep 16, 2016). The details of the evaluation that resulted in this color-coding are found in the Appendices; there are separate files for each street. The Figure 6 map includes a portion of the Town that is outside the areas that are the focus of the Streetscape Projects such that a broader section of the Town is evaluated. Figure 6 also includes a listing of Town streets that do not currently have sidewalks.

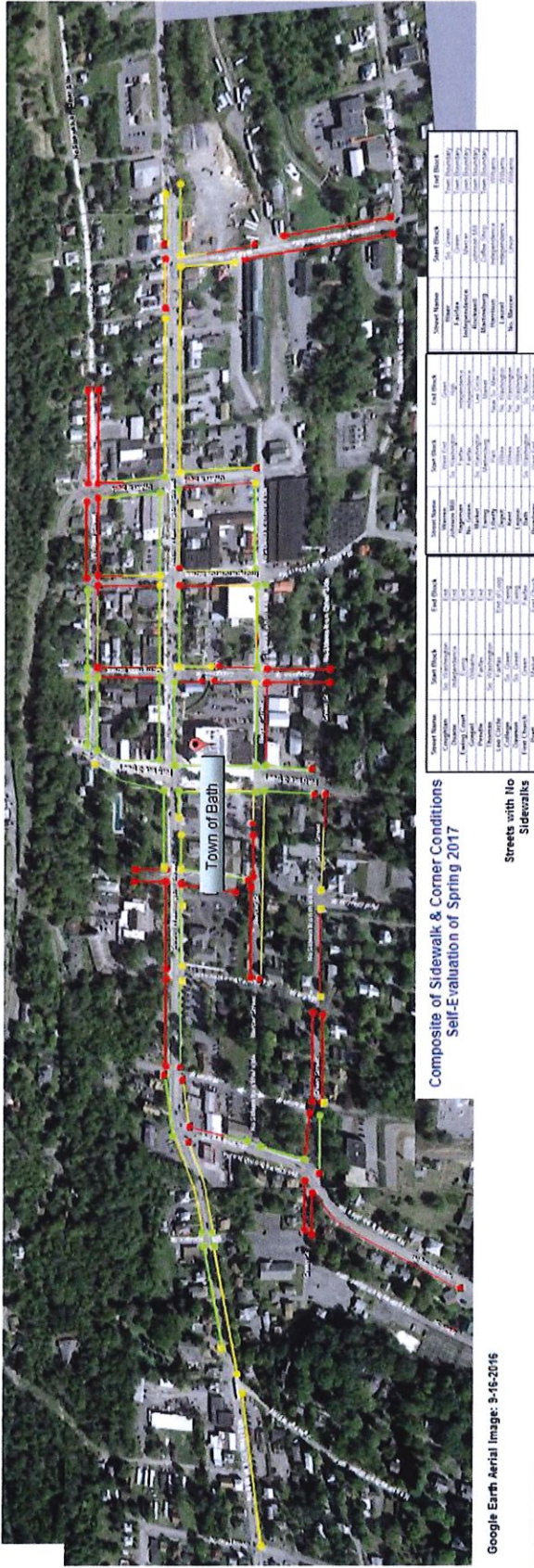


Figure 6

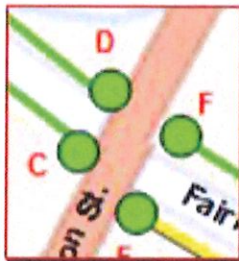
This is a four-page Map that has been enlarged to improve readability. It is shown here as a single page as a place-holder until the final graphics are completed.

B. Intersections

Figures 7-1 thru 7-7 illustrate the range of intersections found on significant streets. In many cases, the progress brought by the Streetscape Projects is visible with the installation and alignment of corners, ramps and DWS aspects. In several cases, the painted crosswalks (if present) are not fully aligned or provided with accompanying corner treatments. Phase IV of the Streetscape Project has the opportunity to complete or correct the problem street intersections.

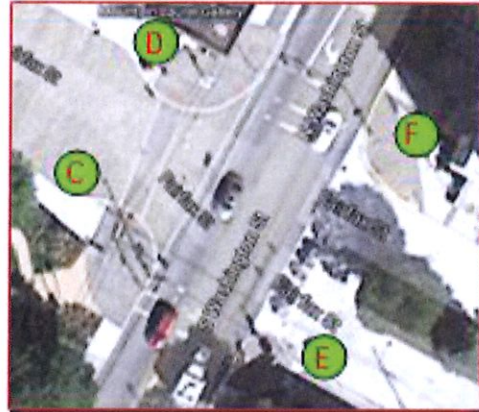
Sidewalk Assessment – Intersections Along South Washington Street

Figure 7-1

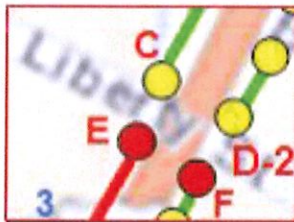


Example of Intersection designed for ADA compliant crosswalks and corner ramps at all four sides. Installed in various Streetscapes Phases

Washington at Fairfax

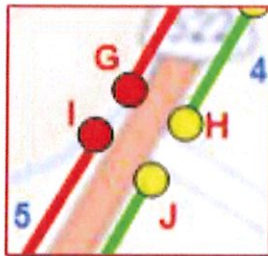
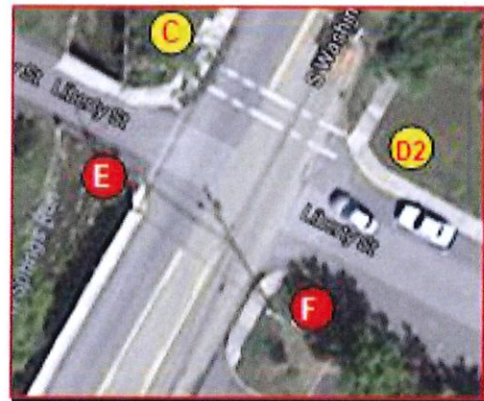


The only marked crosswalk is from C to D-2; but while curb and street are level at C; there is no DWS or ADA compliant ramp at C and no DWS at D-2



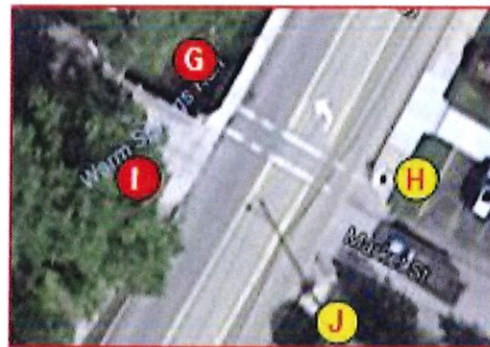
Example of Crosswalk with corner modifications to improve accessibility, but not fully ADA compliant

So. Washington at Liberty



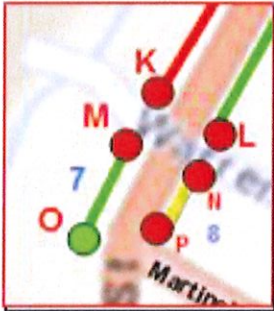
There is 1 marked crosswalk at this intersection. The existing ramps do not meet ADA dimensions and there are no DWS warnings

So. Washington at Market



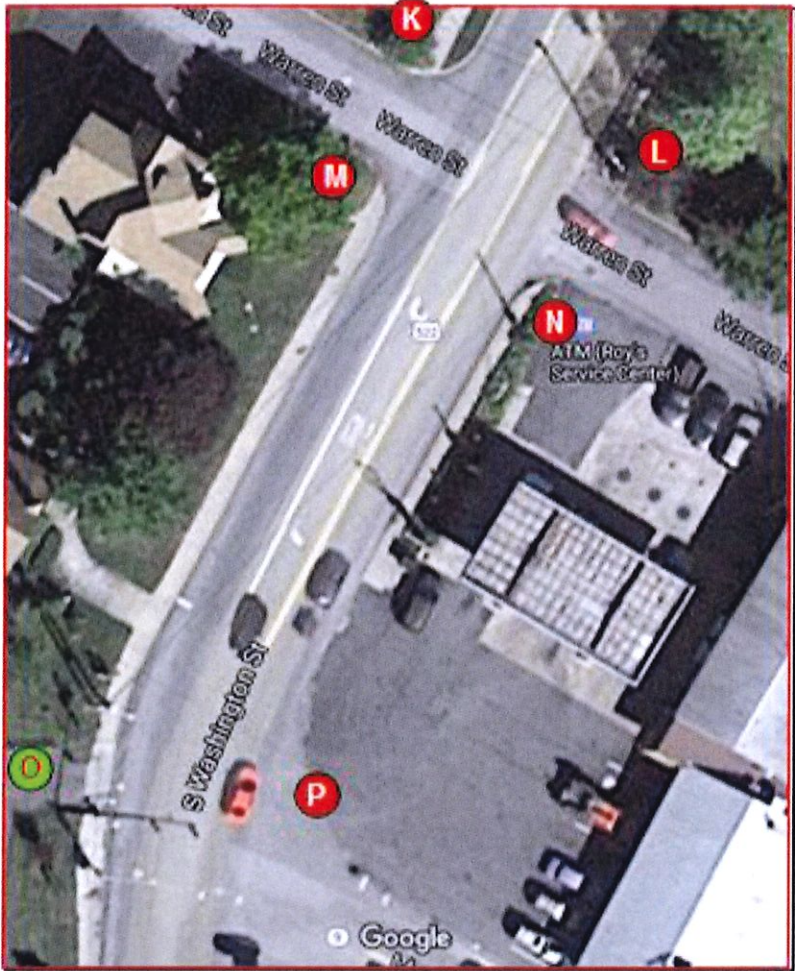
**Sidewalk Assessment – Intersections
Along South Washington Street**

Figure 7-2



There are no marked crosswalks at these two intersections. There are no ramps.

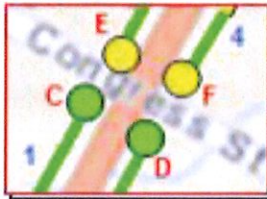
**So. Washington at
Warren &
Martinsburg Rd**



Sidewalk Assessment – Intersections Along North Washington Street

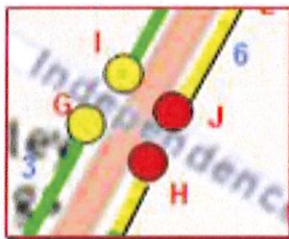
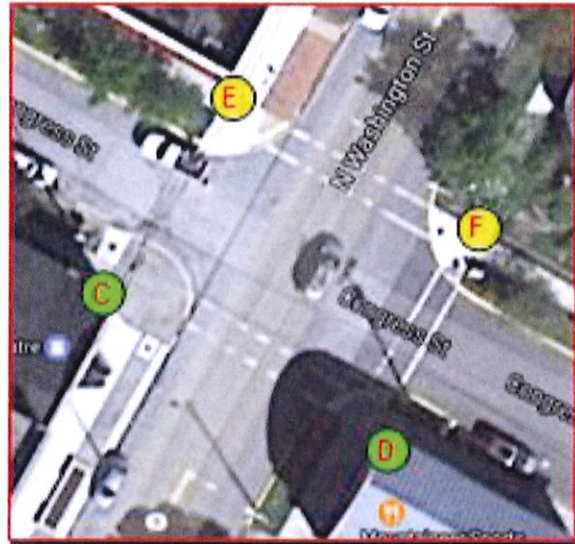
Figure 7-3

There is a crosswalk from E to F but no ADA compliant ramps or landings are aligned with this crosswalk



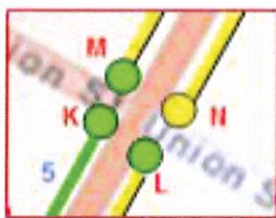
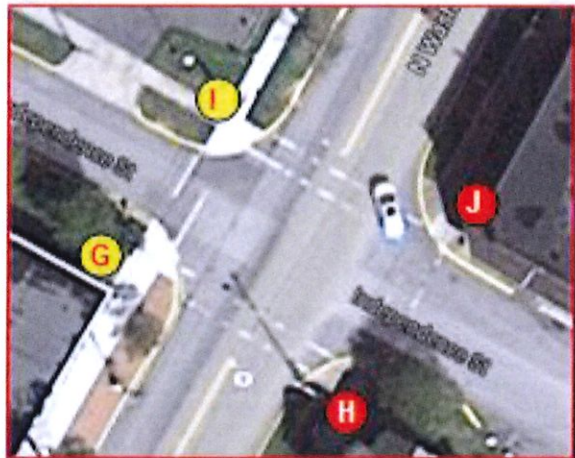
Example of Intersection designed for ADA compliant crosswalks and ramps at three of four sides: C-E; C-D; D-F; but not E-F

No. Washington at Congress



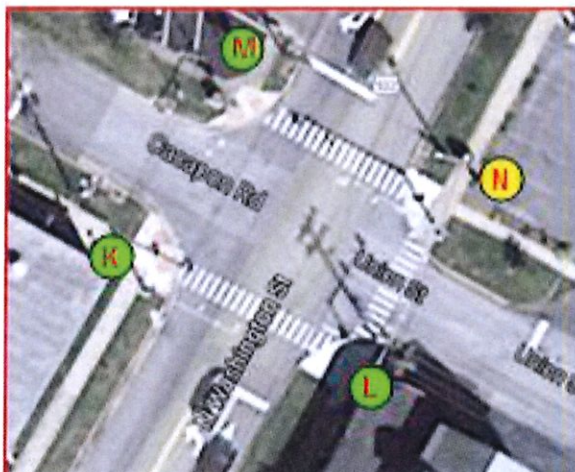
Example of Intersection with several designs for ADA compliant crosswalks and ramps at all four sides. Corners I & G have DWS and are aligned toward the turn apex.

No. Washington at Independence



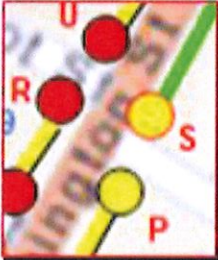
Example of Intersection with several designs for ADA compliant crosswalks and ramps at all four sides. Corner N has no DWS.

No. Washington at Union



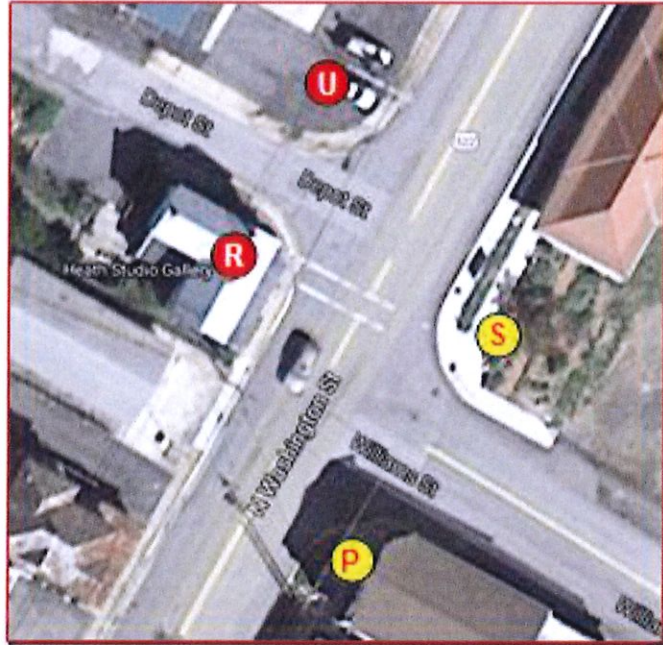
Sidewalk Assessment – Intersections Along North Washington Street

Figure 7-4

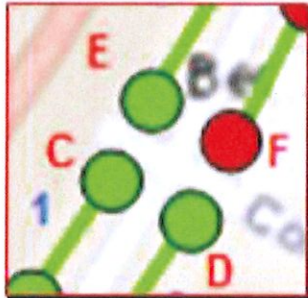


Example of Intersection modified for 3 crosswalks; but only 1 is painted. Corner R has a minimal ramp below ADA standards and no DWS. Corners P and S have ramps but no DWS. Corner U has a minimal ramp to cross Depot St only and no DWS.

No. Washington at Depot & Williams

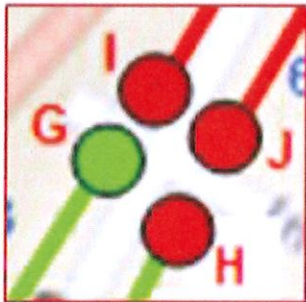


Sidewalk Assessment – Intersections Along Wilkes Street



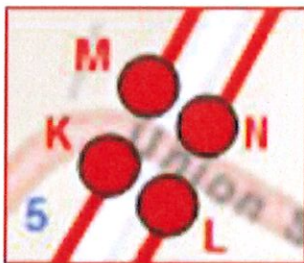
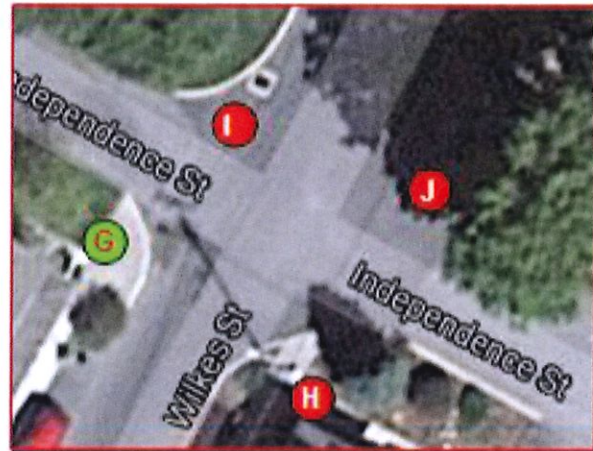
Example of Intersection designed for ADA compliant crosswalks and ramps at three of four sides: C-E; C-D; D-F; but not E-F. The "Ramp" at "F" is level with street; but no DWS.

Wilkes St at Congress St



Example of Intersection designed with only (1) ADA compliant Corner with Ramp and DWS; no marked crosswalks and incomplete corner treatments at "J" (gravel) or "H" (corner is at curb height).

Wilkes St at Independence St

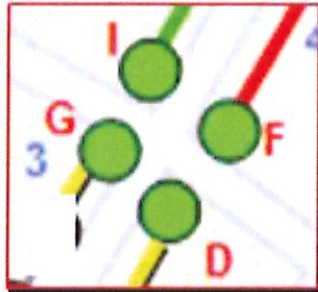


Example of an "open" intersection. There are no marked crosswalks and no corner treatments or ramps. Corners of intersection are marked by power poles and street signs. Corner "L" is at the intersection of two sidewalks (Wilkes and Union) but these are incomplete and do not reach Corner "L".

Wilkes St at Union St

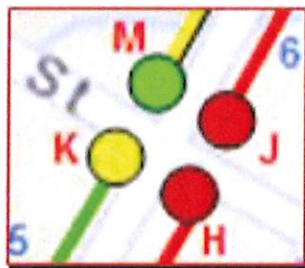
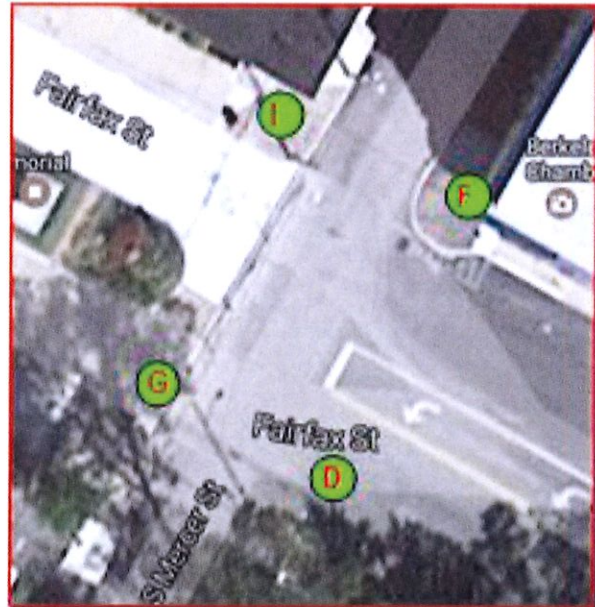


Sidewalk Assessment – Intersections Along Mercer Street



Example of Intersection designed for ADA compliant crosswalks, ramps and DWS at all four sides.

Mercer St at Fairfax St



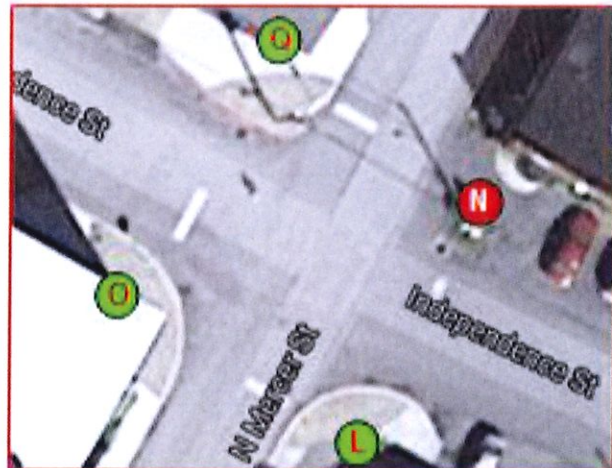
Example of Intersection designed with limited ADA compliant Corners with Ramp and DWS. Corners "K" & "M" are recent ADA designs, but "K" is only 1-way (cross Congress) with power pole obstruction and "M" provides proper apex access. There is no matching ramp across at "J". Corner "H" is a parking lot level with streets.

Mercer St at Congress St

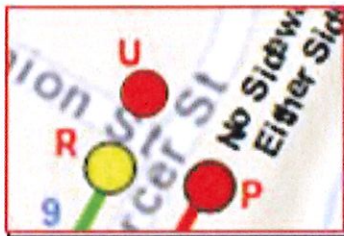


Corner ramps are generally the "apex" design that can assist in crossing either street. There are no adjacent sidewalks attached to Corner "L". There is no corner treatment nor sidewalks attached to Corner "N".

Mercer St at Independence St



Sidewalk Assessment – Intersections Along Mercer Street



There is (1) nearly compliant corner (R). It is an apex ramp, but has obstructions due to a power pole and Stop Sign. Corner "U" has a sidewalk that ends in a grass patch – with no street access. There are no sidewalks or corner treatments at "P".

Mercer St at Union St



VII. Alignment with Completed and Planned Streetscapes Projects, and other Methods of Improvement

Throughout this review, sidewalks and crossings were encountered where previous improvement work had been completed. The improved conditions resulting from the Streetscape Projects were notable. Earlier modifications were also noted, but while they improved crossing areas and ramps, they are not all up to the level of the Streetscape work. These are generally along Washington Street.

The Streetscape Projects have been made possible from a series of State and other organization grants with some matching Local funds. The project "Phases" are designed to fit within the budget constraints of such grants. The information in this report should inform the decisions made for streets in the next Streetscape Project: Phase IV. In addition, other financing opportunities may arise that can help resolve some of the issues notes in this report, especially where the issues lie outside of the Streetscape "Six-Block" area. Such financing sources could include State highway upgrade funds and commercial sources that may be associated with building or property modifications that affect sidewalks and/or crossings.

VIII. Recommendations

General:

1. Understand the Town's residents' and visitors' pedestrian flows in the area from Martinsburg Rd on the South to the Depot or Post Office on the North.
2. Use that understanding to focus repairs and upgrades to best align with these flows
3. Include linkages within the Town of Bath to community amenities such as post office, schools, Board of Education Offices, etc.
4. Make choices within budget constraints. An example would be updating or completing one side of a non-major street to meet ADA criteria or to complete a block where there is currently only a partial sidewalk. Give lower priority for streets where one side is already improved to ADA standards. An example would be on North Mercer Street, East Side.
5. Create a plan that addresses the sidewalks and crossings on South Washington St from Fairfax to Martinsburg Rd. Such plan might include a decision that the ADA compliant sidewalks will be the East side of South Washington Street
6. Consider how to treat bridges for pedestrian access (Examples: Congress St & Mercer St bridges over the Run)
7. Bring local businesses into the process as designs and project scopes are defined.

Intersections and Crossings: (See Figure 7)

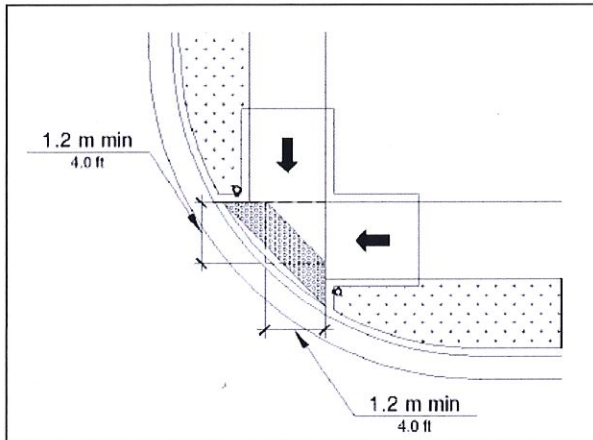
1. Determine/confirm the street and intersection crossing design that best meets the Town's pedestrian flows and pathways.
2. Improve the existing/chosen street crossings by renewing and/or adding crosswalk painting that best aligns with pedestrian pathways and ADA compliant sidewalk corners.
3. In Phase 4 of the Streetscape Project; complete or modify corner/crossings to best allow ADA compliant intersections identified in #1 above.
4. Ensure that crosswalks and ADA compliant corners are properly aligned

Sidewalks:

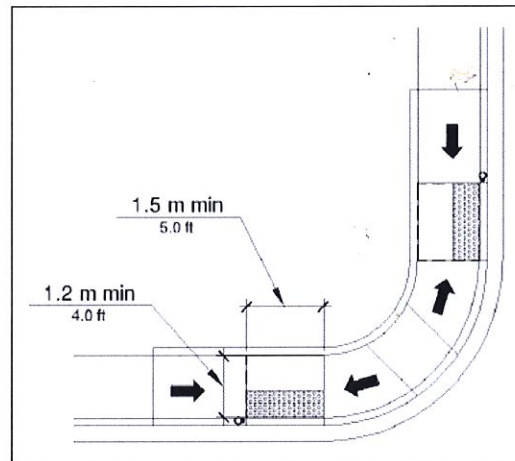
1. Many sidewalks can be improved by replacing only damaged segments rather than the complete sidewalk. This is especially true on street blocks that are not supporting majority commercial blocks.
2. In some areas, make a formal choice as to which side of the street will have the improved and ADA compliant sidewalk.

Street Corner Treatments:

1. Continue to optimize choices for the corner designs at intersections. For example; choosing single/apex ramps or double/two-way ramps based on specific streets and traffic.



Single Ramp that serves two streets



Double Ramps aligned with each street

2. Add DWS materials to ramps that are at or near ADA compliant designs

References: Listing of documents used to conduct the capture of existing conditions.

- (a) Self-Evaluation Check List taken from; The National Academy of Sciences National Cooperative Highway Research Program, ADA Transition Plans: A Guide to Best Management Practices; Jacobs Engineering Group, Baltimore, MD [http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07\(232\)_FR.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-07(232)_FR.pdf)

Appendices

Specific data and photos of conditions found for Town streets with existing sidewalks.

- Congress St - Bath Sidewalk Evaluation.pdf
- Fairfax Street - Bath Sidewalk Evaluation.pdf
- Green Street - Bath Sidewalk Evaluation.pdf
- Independence Street - Bath Sidewalk Evaluation.pdf
- Liberty St - Bath Sidewalk Evaluation.pdf
- Martinsburg Road - Bath Sidewalk Evaluation.pdf
- Mercer Street - Bath Sidewalk Evaluation.pdf
- North Washington St - Bath Sidewalk Evaluation.pdf
- So. Washington St - Rte-9 to Broadway St - Bath Sidewalk Evaluation.pdf
- So. Washington St- Fairfax to Rte-9 - Bath Sidewalk Evaluation.pdf
- Union St - Bath Sidewalk Evaluation.pdf
- Wilkes St - Bath Sidewalk Evaluation.pdf
- Williams Street - Bath Sidewalk Evaluation.pdf