

**City of Winchester**

**Sidewalk Master Plan**



**Revised September 2017**

## **Introduction**

Making improvements to sidewalks has long been identified by City residents as one of the highest priorities when looking at City services where they feel improvements need to be made. City Council has responded to this strong desire for improved sidewalks by appropriating significant funding the past several years for sidewalk improvements. In addition, the City's Strategic Plan contains the following goal:

### **Strategic Plan Goal #3: Enhance the quality of life for all Winchester residents**

This document has been prepared to help address this goal as sidewalk improvements are necessary to enhance the quality of life.

There are three primary sidewalk issues within the City that are addressed in this Master Plan. They are:

1. Existing sidewalks that are in poor condition that need to be replaced.
2. Locations where new sidewalks need to be constructed because no sidewalks currently exist.
3. On-going maintenance of sidewalks.

Due to the high number of existing sidewalks that are in poor condition and the large number of locations where no sidewalks currently exist, it will continue to take a sustained effort over many years and a significant amount of funding to address all of the sidewalk needs within the City.

## **Existing Sidewalks**

The City currently maintains approximately 706,000 linear feet (133 miles) of existing sidewalks within the City which are shown in Figure 1. Many of these existing sidewalks are in relatively poor condition and need to be replaced entirely because they have deteriorated past the point where spot repairs are feasible or cost effective. Figure 2 shows the existing sidewalks that are in poor condition. The approximate length of the existing sidewalks in poor condition is approximately 242,000 linear feet (45.9 miles), or 35% of the total length of existing sidewalks.

## **Previous Sidewalk Replacements**

Since 2007, the City has implemented an aggressive program of sidewalk replacements. During this period, approximately 144,300 linear feet (27.3 miles) of new sidewalks have been installed. This length also includes adding sidewalks where none previously existed. Figure 3 shows the locations of the new sidewalks that have been installed since 2007.

## **Priority of Future Sidewalk Replacements**

With such a large number of existing sidewalks in poor condition, it is very important that sidewalk replacements be prioritized so that those sidewalks with the highest amount of use by pedestrians are replaced first. It is also important to coordinate sidewalk only replacement projects with utility replacement projects so that sidewalks are not replaced one year and then excavated a few years later to replace the underground utilities.

The following criteria have been used to prioritize future sidewalk replacements:

**Priority A:** Location along an arterial roadway with a high number of pedestrians.

**Priority B:** Location along a collector roadway or adjacent/near:

- 1) a school
- 2) Winchester Transit bus stop or other facility
- 3) Other public institution with a high number of pedestrians.

**Priority C:** All other locations (i.e. residential areas)

## **Costs for Sidewalk Replacements**

Based on recent sidewalk replacement projects, the current cost per linear foot of a sidewalk replacement (5-foot wide) is approximately \$90/linear foot. There can be a fairly wide range in the actual cost depending on factors such as if curb and gutter and drainage inlets need to be replaced as part of the sidewalk replacement, or if brick sidewalks are installed. Based on this cost figure, the total cost to replace all of the sidewalks that are currently in poor condition would be approximately \$21.8 million.

## **Funding Sources for Sidewalk Replacements**

The following are the primary funding sources that are available to the City to fund sidewalk replacements and a brief discussion of each:

### 1. City's General Fund

The City's General Fund is a funding source for sidewalks. Most recently, the General Fund paid for the sidewalk replacements that were completed on N. Loudoun (north of Wyck), Cork Street (between Pleasant Valley and East Lane), and Handley Blvd.

### 2. City's Utility Fund

Approximately half of the sidewalk replacements during the past ten years have been included as part of utility replacement projects. The Utility Department plans to continue with the program to replace underground utility lines throughout the City as part of a long term program needed to replace aging infrastructure. Replacing sidewalks as a part of these projects is expected to continue in the future.

### 3. Highway Maintenance Fund

The City receives approximately \$3.1 million per year from the state based solely on the number of lane miles of streets the City maintains. These funds can be used for sidewalk repairs and replacements. However, since this amount of funding is not adequate to properly maintain all the streets at a level desired, there is generally very little of this funding available for sidewalk replacements.

### 4. VDOT Revenue Sharing Funds.

Revenue sharing funds administered by VDOT is another possible funding source for sidewalk replacements. While the City was successful several years ago in obtaining revenue sharing funds for sidewalks, the City's applications for these funds for sidewalk replacements have not been successful the past few years due to funding limitations.

### 5. Community Development Block Grant Funds (CDBG).

CDBG funds can be used for sidewalk replacements in areas of the City that are below income threshold levels. The sidewalks on National, N. Kent, Baker Lane, and Liberty that have been replaced during the past ten years were paid for using CDBG funds. Recently, City Council did vote to pursue a section 108 loan for \$1 million for sidewalk

replacements that will use the City's annual CDBG allocations to pay back the loan. The sidewalks that will be replaced utilizing these funds are shown in Figure 5.

#### 6. Federal Transit Authority Funds.

Federal Transit Authority funds are a possible funding source for sidewalk improvements where the sidewalk is necessary for the safety and access of pedestrians that utilize the Winchester Transit services.

#### **Areas with No Existing Sidewalks**

There are several areas within the City where no sidewalks currently exist. These locations are shown in Figure 4. A large number of these areas are locations that were already developed when they were annexed into the City in the 1970's. Beginning in 1989, the City required that sidewalks be constructed adjacent to public streets within all new developments, unless an exception was granted. In 1995, Council amended the walkway provisions of the Subdivision Ordinance to explicitly require a minimum of 4-foot wide sidewalks instead of 5-foot wide sidewalks along all public streets. Sidewalks that are only 4-feet wide do not provide desirable width for two persons to walk side by side. Many jurisdictions across the country, including VDOT, require new sidewalks to be a minimum of 5-feet wide.

One of the primary goals in the City's Comprehensive Plan is for the entire City to be a "walkable community". To achieve this goal of sidewalks on both sides of all streets throughout the City, approximately 64 miles of sidewalks will need to be constructed in locations along streets where none currently exist. There are some locations, however, where a new sidewalk on one side of the street would be sufficient.

#### **Priority of Locations for New Sidewalks**

The criteria for determining the locations to construct new sidewalks where none currently exist are basically the same criteria for prioritizing sidewalk replacements. They are:

**Priority A:** Location along an arterial roadway with a high number of pedestrians.

**Priority B:** Location along a collector roadway or adjacent/near:

- 1) a school

- 2) Winchester Transit bus stop or other facility
- 3) Other public institution with a high number of pedestrians.

**Priority C:** All other locations (i.e. residential areas)

### **Costs for New Sidewalks**

The costs for constructing new sidewalks within the City will vary greatly depending on the specific location. Most of the areas that do not have sidewalks also do not have curb & gutter. Installing curb & gutter and adequate drainage facilities is usually necessary before sidewalks can be installed and the cost for this infrastructure will be much higher than the actual cost of the sidewalk. In addition, some locations will require significant grading or retaining walls for the new sidewalks to be constructed which will greatly increase the overall cost.

For purposes of this report, the following assumptions were used to estimate the costs for new sidewalks (5-foot wide):

- Cost per Linear Foot of New Sidewalk Only: \$60/linear foot
- Cost for Curb & Gutter/Drainage/Grading per Linear Foot of New Sidewalk: \$125 - \$300+/linear foot (depends on drainage requirements) – Use average of \$175/linear foot for purposes of this report.
- Total Cost per Linear Foot of New Sidewalk and Curb & Gutter: \$235/linear ft.

Based on this unit cost, the total estimated cost to construct sidewalks along both sides of all existing streets where a sidewalk does not currently exist is approximately \$79 million.

### **Funding Sources for New Sidewalks**

The following are the primary funding sources that are available to the City to fund sidewalk replacements and a brief discussion of each:

1. City's General Fund

The City's General Fund is a funding source for new sidewalks.

## 2. City's Utility Fund

During recent utility replacement projects, there were some areas where new sidewalks were constructed as a part of the project where no sidewalks previously existed. Examples of this were on East Lane, Woodstock Lane, and some sections of Amherst Street. There will be other utility replacement projects in the future where the potential will exist to include the construction of new sidewalks.

## 3. Highway Maintenance Fund

The City receives approximately \$3.1 million per year from the state based solely on the number of lane miles of streets the City maintains. These funds can be used for new sidewalks. However, since this amount of funding is not adequate to properly maintain all the streets at a level desired, there is generally very little of this funding available for sidewalk replacements, let alone new sidewalks.

## 4. VDOT Revenue Sharing Funds

Revenue sharing funds administered by VDOT is another funding source for new sidewalks. Projects where new sidewalks are constructed (along with curb & gutter and drainage improvements) are eligible to receive 50% of the total project cost from state Revenue Sharing funds. Projects with new sidewalks have a higher priority than projects with sidewalk replacements when state Revenue Sharing funds are allocated. Revenue sharing funds will be used to construct new sidewalks during the next three years on the following projects: Tevis Street Extension, Hope Drive Extension, and Valley/Tevis Drainage and Sidewalk Improvements.

## 5. Community Development Block Grant Funds (CDBG).

CDBG funds can be used for new sidewalks in areas of the City that are below income threshold levels.

## 6. Special Improvement Districts

Section 2-11 of the City Code describes the process where a special improvements district may be established to pay for the costs of constructing new sidewalks. An additional property tax is levied against the properties within the established district to pay for the improvements.

## 7. Federal Transit Authority Funds.

Federal Transit Authority funds are a possible funding source for sidewalk improvements where the sidewalk is necessary for the safety and access of pedestrians that utilize the Winchester Transit services.

## 8. Federal/State Safe Route to Schools Funds.

The City has been awarded \$450,000 from this program to construct new sidewalks along Wentworth Drive. The construction of these improvements is expected to be completed in 2018.

### **Sidewalk Maintenance**

As the City has invested a considerable amount of funding for sidewalk replacements and new sidewalks in recent years and since this trend is expected to occur in the future, it is imperative that the City allocate adequate resources in the future to properly maintain these sidewalks. This is especially true in order to avoid the current situation where little maintenance was completed on existing sidewalks in the past resulting in the very high number of existing sidewalks that are in poor condition.

### **Proposed Sidewalk Improvements Plan for Period 2018 - 2021**

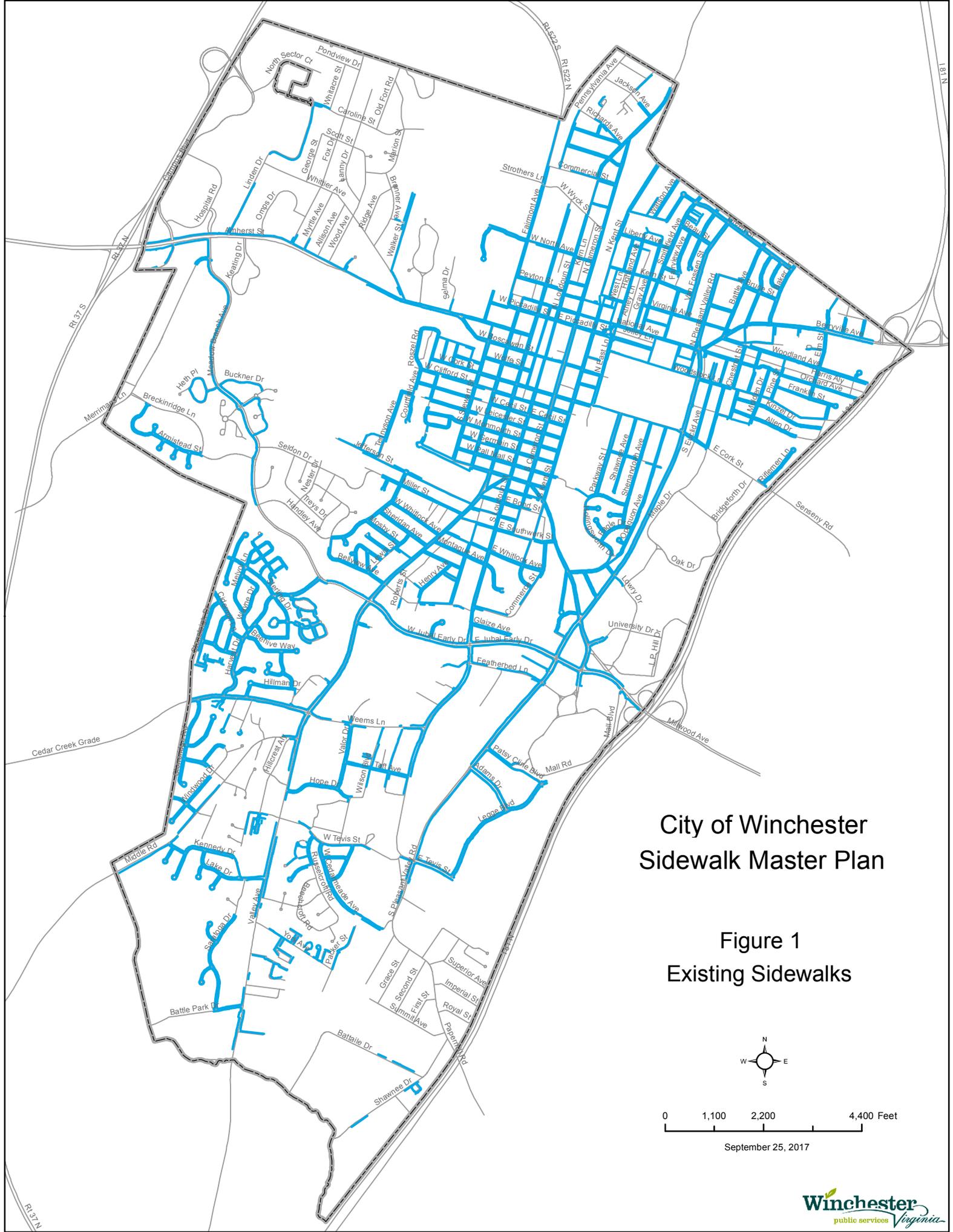
Based on the priorities developed herein and anticipated revenue sources for sidewalk replacements, the plan for sidewalk replacements during this period has been developed and is presented in Figure 5.

A summary of these sidewalk replacements is shown in the following table:

<b>Project Name</b>	<b>Length of Sidewalks</b>	<b>Cost and Funding Source</b>
Utility Infrastructure Replacements	18,400 linear feet (3.5 miles)	\$2.9 million (Utility Fund)
Water Meter Replacements	39,100 linear feet (7.4 miles)	\$4.25 million (\$4 million - Utility Fund) (\$250,000 – General Fund)
CDBG Sidewalk Replacements	11,300 linear feet (2.1 miles)	\$1.0 million (CDBG Section 108 Loan)
<b>Total Sidewalk Replacements</b>	<b>68,800 linear feet (13.0 miles)</b>	<b>\$8.15 million</b>

There will also be many new sidewalks constructed during this period where none currently exist. A summary of these projects is shown in the table below.

<b>Project Name</b>	<b>Approx. Length of New Sidewalks</b>	<b>Cost of Sidewalk Portion of Project and Funding Source</b>
Tevis Street Extension	2,600 linear feet (0.5 miles)	\$600,000 (Private Developer and State Revenue Sharing Funds)
Hope Drive Extension	8,000 linear feet (1.5 miles)	\$1.9 million (General Fund and State Revenue Sharing Funds)
Valley/Tevis Drainage and Sidewalks	5,300 linear feet (1.0 miles)	\$1.3 million (General Fund and State Revenue Sharing Funds)
Wentworth Drive Sidewalks	1,700 linear feet	\$785,000 (General Fund and Federal Safe Routes to School Funds)
<b>Total New Sidewalks</b>	<b>17,600 linear feet (3.33 miles)</b>	<b>\$4,585,000</b>

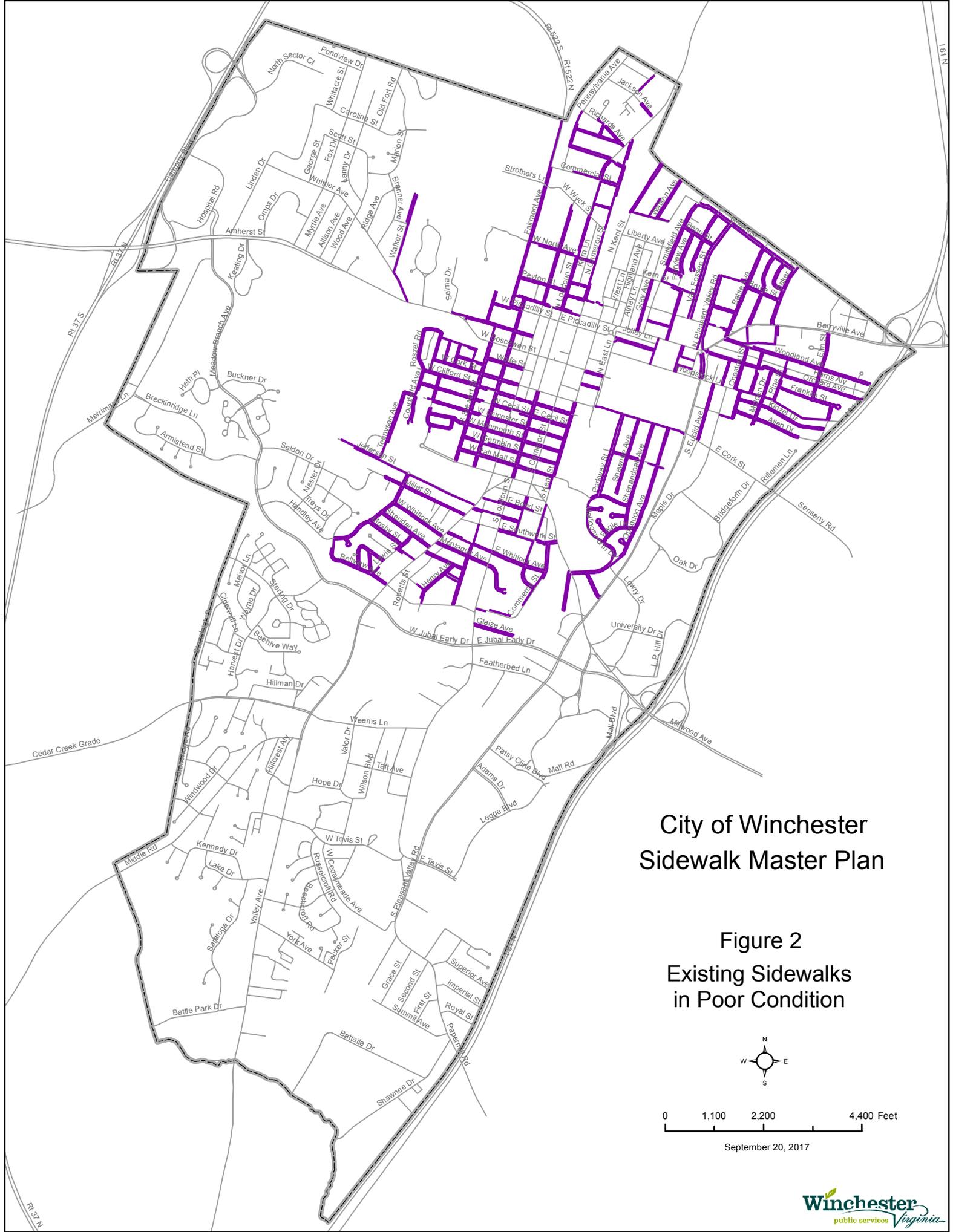


# City of Winchester Sidewalk Master Plan

Figure 1  
Existing Sidewalks



September 25, 2017



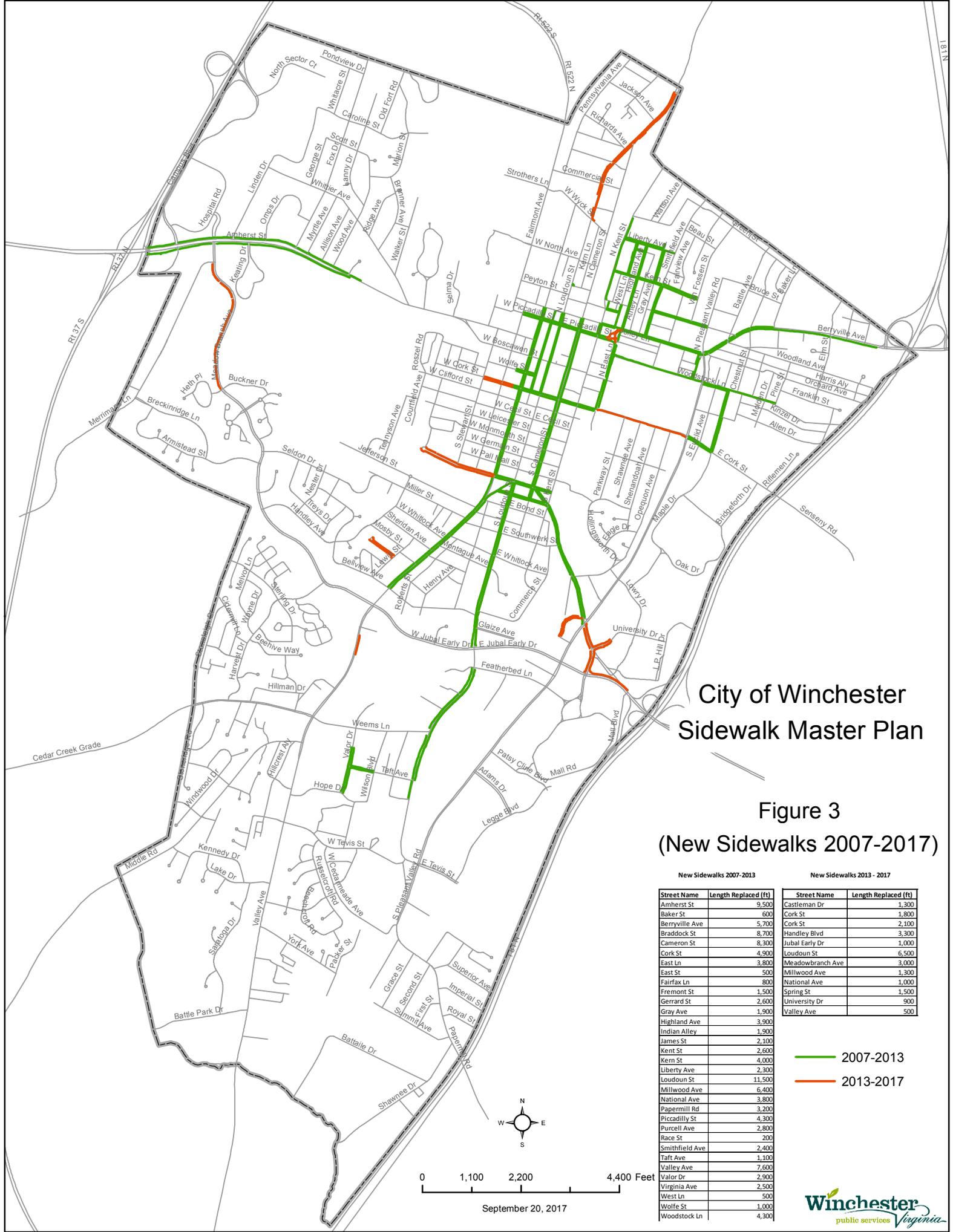
# City of Winchester Sidewalk Master Plan

Figure 2  
Existing Sidewalks  
in Poor Condition



0 1,100 2,200 4,400 Feet

September 20, 2017

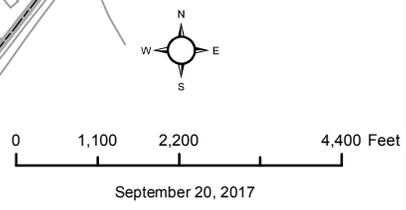


# City of Winchester Sidewalk Master Plan

Figure 3  
(New Sidewalks 2007-2017)

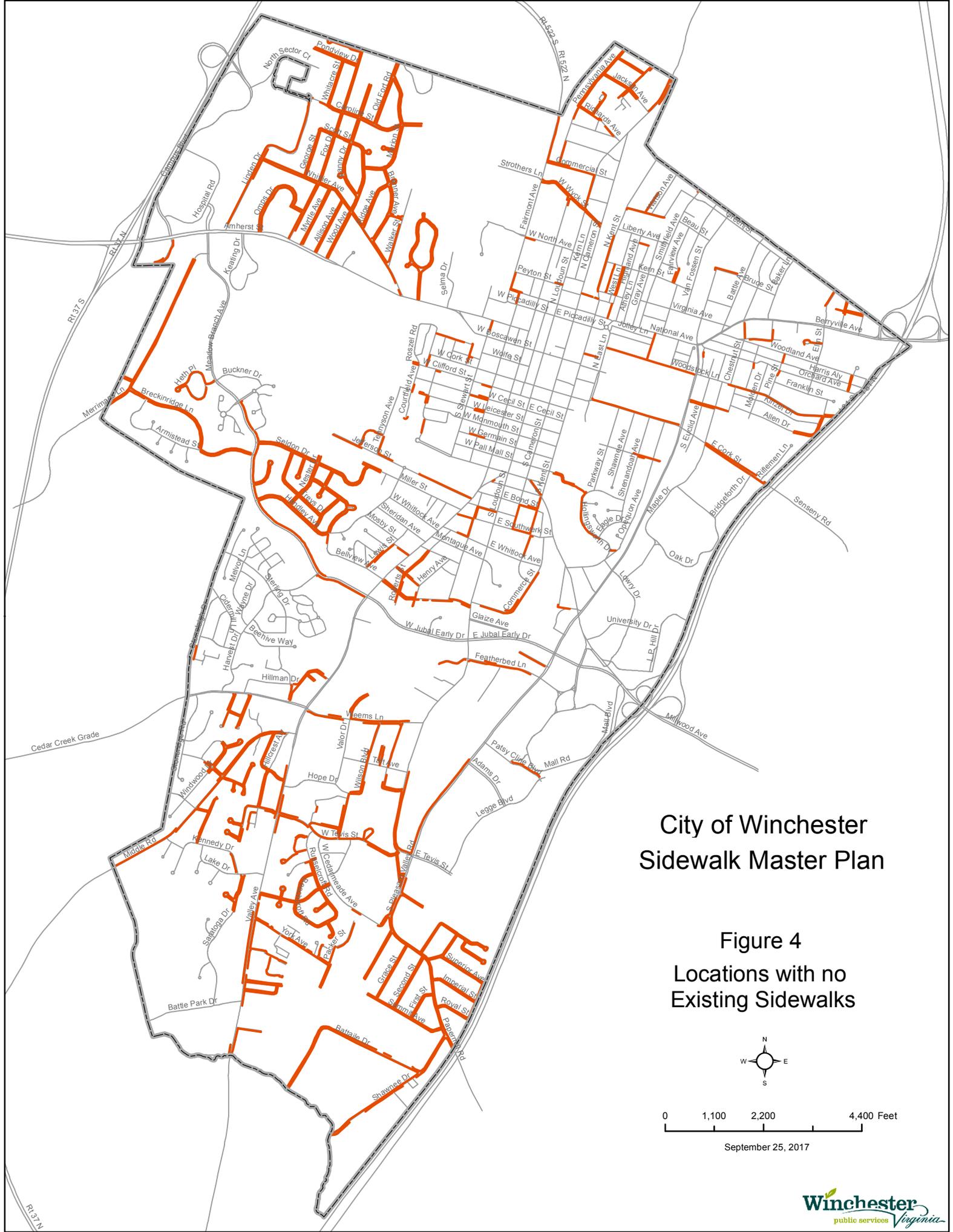
New Sidewalks 2007-2013		New Sidewalks 2013-2017	
Street Name	Length Replaced (ft)	Street Name	Length Replaced (ft)
Amherst St	9,500	Castleman Dr	1,300
Baker St	600	Cork St	1,800
Berryville Ave	5,700	Cork St	2,100
Bradstock St	8,700	Handley Blvd	3,300
Cameron St	8,300	Jubal Early Dr	1,000
Cork St	4,900	Loudoun St	6,500
East Ln	3,800	Meadowbranch Ave	3,000
East St	500	Millwood Ave	1,300
Fairfax Ln	800	National Ave	1,000
Fremont St	1,500	Spring St	1,500
Gerrard St	2,600	University Dr	900
Gray Ave	1,900	Valley Ave	500
Highland Ave	3,900		
Indian Alley	1,900		
James St	2,100		
Kent St	2,600		
Kern St	4,000		
Liberty Ave	2,300		
Loudoun St	11,500		
Millwood Ave	6,400		
National Ave	3,800		
Papermill Rd	3,200		
Piccadilly St	4,300		
Purcell Ave	2,800		
Race St	200		
Smithfield Ave	2,400		
Taft Ave	1,100		
Valley Ave	7,600		
Valor Dr	2,900		
Virginia Ave	2,500		
West Ln	500		
Wolfe St	1,000		
Woodstock Ln	4,300		

— 2007-2013  
— 2013-2017



September 20, 2017





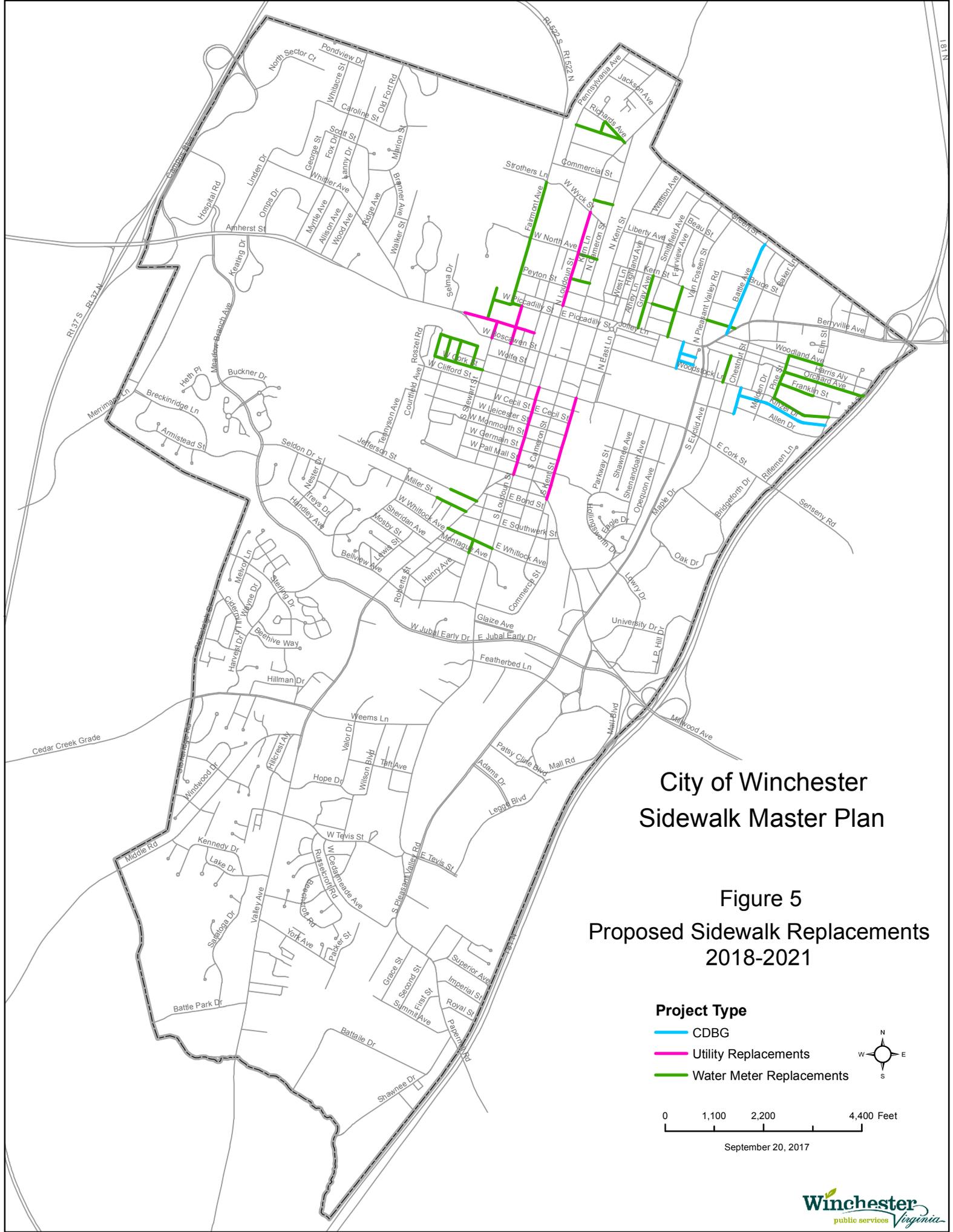
# City of Winchester Sidewalk Master Plan

Figure 4  
Locations with no Existing Sidewalks



0 1,100 2,200 4,400 Feet

September 25, 2017

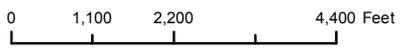


# City of Winchester Sidewalk Master Plan

## Figure 5 Proposed Sidewalk Replacements 2018-2021

### Project Type

- CDBG
- Utility Replacements
- Water Meter Replacements



September 20, 2017