

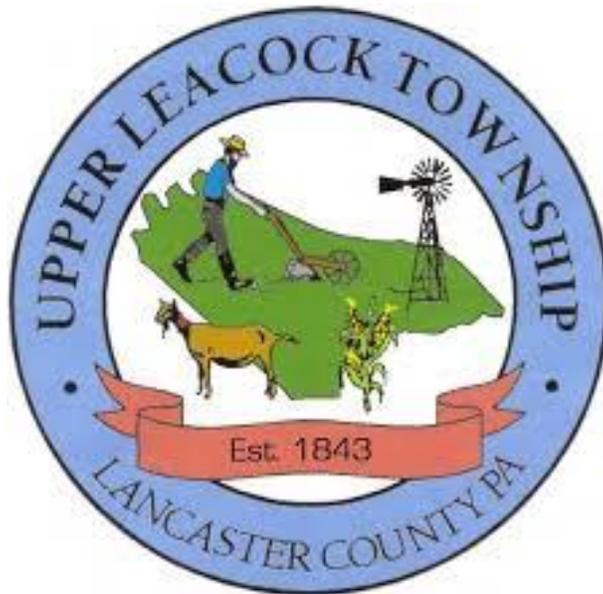
ROUTE 23 SIDEWALK MASTER PLAN

Upper Leacock Township, Lancaster County

Upper Leacock Township, 36 Hillcrest Avenue PO Box 325, Leola, PA 17540

RETTEW Project No. 057392021

SEPTEMBER 14, 2016



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Upper Leacock Township Route 23 Sidewalk Master Plan

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Introduction

Community Background

Nearly all of the Route 23 corridor, the heart of Upper Leacock Township, is part of Leacock-Leola-Bareville, a Census-Designated Place with a population of 7,214 according to the 2010 U.S. Census. Residences and businesses line both sides of Route 23 for most of the corridor. Upper Leacock Township as a whole contains a unique mix of commercial, industrial, residential, and agricultural areas, all within close proximity to each other. With so many residents within walking distance of community facilities, bus stops, banks, restaurants, grocery stores and other businesses, the sidewalk infrastructure of the Route 23 corridor and adjacent areas should promote pedestrian use rather than deter it. The Leola Core Area (delineated on the Sidewalk Master Plan Map on Page 3) is the center of the corridor and heart of the community and contains key community facilities such as the Upper Leacock Township Community Building, the Leola Library, Leola Community Park, the U.S. Post Office, the Upper Leacock Fire Department, Leola Elementary School, and Leola Ambulance.

Master Plan Approach

This document is intended to serve as a long-term Plan for constructing curbs and sidewalks along the Route 23 corridor in Upper Leacock Township, Lancaster County, from the western boundary with East Lampeter Township to the eastern boundary at Peters Road. Upper Leacock Township's goal is to encourage the creation of a healthy, walkable community, promote the pedestrian use of sidewalk as a viable and preferred mode of transportation, and provide a safe environment for these activities. An integrated sidewalk system that links residences with community facilities and businesses is essential to achieve this goal. The Township has a limited amount of resources available to address issues of walkability and safety, but recognizes the need to improve sidewalk conditions along the Route 23 corridor. The Township also understands that the cost and construction of an integrated sidewalk system cannot be achieved in the short term, and the Township's vision of a connected, safe, walkable community is a long term goal to be achieved over the next couple of decades.

The purpose of this Plan is to determine where curbs and sidewalks should be constructed along the Route 23 corridor and also to determine which typical cross-section should be constructed on each portion of the corridor. This Plan will also discuss private and public implementation options for initiating construction along the corridor, identify the key stakeholders and evaluate the actions needed to construct curb and sidewalk. Cost opinions and a schedule of first steps and action items are also included.

Route 23 Conditions and Analysis

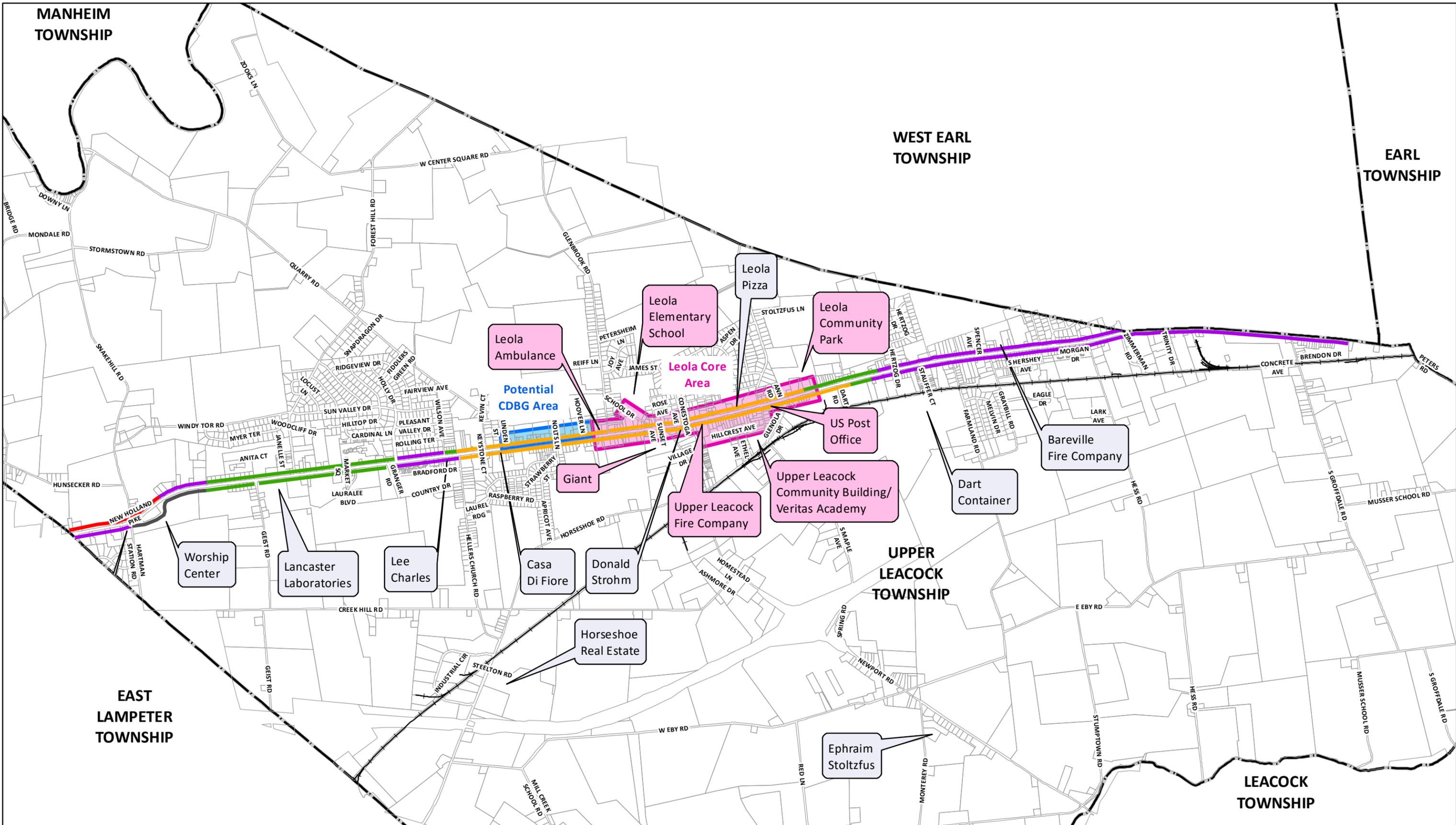
Existing Conditions

Route 23 is heavily traveled, with an average daily traffic of 17,000 vehicles. The higher the number of vehicles, the higher the frequency with which pedestrians and bicyclists interact with, and react to, motorists. While sidewalks exist sporadically along the Route 23 corridor in Upper Leacock Township, discontinuity and lack of connectivity presents a variety of challenges and is a safety concern for pedestrians, who currently must walk along the shoulder of the road in many areas.

A November 2015 Walkability Audit of the Route 23 corridor was conducted and a report prepared by Lancaster Civil Engineering Company in partnership with Lighten Up Lancaster County. Route 23 is described in the report as being a divide that many pedestrians find difficult to cross. This is unfortunate because the majority of the township's population, and many of its businesses, institutions and key community facilities are centered on both sides of the Route 23 corridor. The Walkability Audit found that Route 23 in this Core Area to be "characterized by an inconsistent assortment of walkway materials, widths and surface conditions – or no walkway at all." Outside of the Core Area, the condition of sidewalk (where present) is similar.

Location and Configuration of Curb and Sidewalk along the Route 23 Corridor

A virtual walkthrough of the Route 23 corridor was conducted from the East Lampeter Township line to Peters Road within Upper Leacock Township in order to determine where curb and sidewalk (with no grass strip), curb and sidewalk (with grass strip), and sidewalk only should be placed along Route 23. This determination was based on the location of existing curb and sidewalk facilities, physical constraints (e.g. building locations, walls, utility poles, drainage, etc.) and pedestrian safety. Typical cross-sections for each of the curb and sidewalk options were developed in order to provide guidance for future curb and sidewalk design and construction. A table and map were created to show where each typical cross-section should be applied. The following **Sidewalk Master Plan Map**, and the **Curb and/or Sidewalk Locations Table** and **Typical Cross-sections** located in the Appendices have been reviewed with the Upper Leacock Township Planning Commission and PennDOT. This table, map and typical cross-sections will be adopted as the guiding documents for installing curb and sidewalk along the Route 23 corridor.

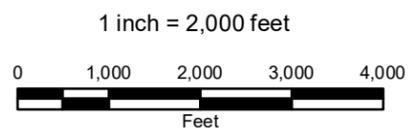


Upper Leacock Township Sidewalk Master Plan

Project No. 057392021

- Sidewalk
- Curb & Sidewalk (grass strip)
- Curb & Sidewalk (no grass strip)
- None
- To be determined with Worship Center
- Railroad Line
- Parcel Boundary
- Deferred Sidewalk
- Potential CDBG Area
- Leola Core Area
- Municipal Boundary

Projection: PA State Plane South, NAD 1983 (feet)
 Basemap Source: Lancaster County GIS
 RETTEW Associates, Inc.
 Map Date: 9/14/2016



Implementation

It is important to establish a framework for both private and public implementation so that the Township's effort can be focused. The heart of the community is the Leola Core Area and is the portion of the Route 23 corridor where public funding options are most feasible. The area on the north side of Route 23 (to the west of the Leola Core Area) is also targeted for potential public funding. The acquisition of public funding will quicken the construction and integration of curb and sidewalk along the corridor. However, by following this Plan, curb and sidewalk construction along the entire Route 23 corridor can be addressed solely through private implementation, albeit at a much slower rate.

In Upper Leacock Township, the following key stakeholders involved with curb and sidewalk replacement and/or installation have been identified:

- Developers (either already having sidewalk deferred or looking to develop property in the township)
- Property owners
- Municipal government of Upper Leacock Township

The following methods of implementation that the Township might take to construct curb and sidewalk along Route 23 have been identified:

- Calling in sidewalk deferrals that were granted to developers and businesses
- Requiring new developers to install or improve sidewalk as specified by map and cross-section
- Amending ordinance language to require sidewalk as part of land transfers
- Completing publicly-funded projects with financial contribution by affected property owners

PRIVATE

In order to implement the findings as summarized on the Sidewalk Master Plan Map, consideration was given to available funding sources that help to achieve this Plan's goal of extending curb and sidewalks along the entire Route 23 corridor. Upper Leacock Township views the implementation of this Plan as a shared initiative. To that end, private property owners, including developers, are considered part of the solution. The Township plans to take the following actions:

Ordinance and Policy Revisions

1. Add/revise language in Section 604 of the Subdivision and Land Development Ordinance, Sidewalks and Curbs, to clarify the requirements for developers to install curb and sidewalk along Route 23, including references to the Curb and/or Sidewalk Locations Table and the typical cross-sections in Appendix 13.
2. Amend Appendix 13 of the Upper Leacock Township Subdivision and Land Development Ordinance to add the Typical Cross-sections prepared as part of this Master Plan.
3. Work with the Township Solicitor to develop Ordinance language to allow the Township to require the installation of sidewalk when land is transferred between property owners.

PUBLIC

Leola Core Area

The Leola Core Area is the heart of the community and contains key community facilities such as the Upper Leacock Township Community Building, the Leola Library, Leola Community Park, the U.S. Post Office, the Upper Leacock Fire Department, Leola Elementary School, and Leola Ambulance. These facilities are tightly clustered along Route 23, but sidewalk discontinuity and lack of connectivity presents a variety of challenges and is a safety concern for pedestrians, who currently must walk along the shoulder of the road in many areas. The close distribution of community facilities, existing sidewalk deficiencies, and the Township's intent to improve walkability and connectivity make the Leola Core Area a good fit for public funding programs.

Public funding resources include federal, state, regional, and local government and quasi-government grant and loan programs. These programs may be offered on an annual basis, or may be a one-time funding opportunity, and they may or may not require matching funds. The Township may wish to consider requiring affected residents and businesses to contribute to any match.

There are a multitude of funding programs that could be used to help fund the Leola Core Area curbs and sidewalks. A table of applicable funding sources and related details is included on Pages 6-7.

Currently, the best fits to fund the Leola Core Area are PennDOT's Multimodal Transportation Fund and the Transportation Alternatives Program. The potential award amounts are significant, although there is a bigger competitive pool as these programs are open statewide. The Smart Growth Transportation Program/Transportation Alternatives Program, through the Lancaster County Transportation Coordinating Committee (LCTCC), is another funding program that could dovetail with the PennDOT programs.

Potential CDBG Funding Area/CDBG Process

The area on the north side of Route 23, from Linden Street to just east of Hoover Lane, has been identified as a potential area for which Lancaster County Redevelopment Authority Community Development Block Grant (CDBG) Program funding may apply. The current limits of this area are shown on the Sidewalk Master Plan Map, but the Township will need to determine the final boundaries in consultation with the Township Engineer and the Lancaster County Housing and Redevelopment Authority. Submitting a CDBG application for this area, if eligible, is the logical first step for the Township due to a reasonable chance of receiving funding. Timing of the program is good with a likely application due date early in 2017. Eligibility for the CDBG program is dependent upon the results of an income survey. A maximum of \$200,000 will be granted to any project or program. For municipal infrastructure or community facilities projects, sponsors are required to certify that a minimum of twenty percent (20%) of the total project cost will be financed through non-CDBG sources of funding.

POTENTIAL FUNDING SOURCES

Upper Leacock Township Route 23 Sidewalk Master Plan

Funding Program	Funding Entity	Type of Projects Funded/Guidelines	Award Amount	Minimum Match	Application Deadline	Comments
Lancaster County Community Development Block Grant (CDBG)	U.S. Department of Housing and Urban Development (HUD)	<ul style="list-style-type: none"> Funds can be used for construction costs only. At least five percent (5%) of the cost of construction contracts must be paid with non-CDBG funds. Project sponsors are responsible for covering all legal, advertising, right-of-way acquisition, engineering, and design (soft) costs. All CDBG Projects must be designed to serve those areas of the community with the highest percent of low- and moderate-income (LMI) persons, using current census data or recent income survey results. If a census block group does not meet the 39.79% LMI threshold, an income survey must be conducted and the respondents must be comprised of at least 51% LMI. The project area must be primarily residential. 	Maximum \$200,000	20% match required	Letters of Intent generally due in December, applications due in early February	Between Linden Street and east of Hoover Lane (on the north side of 23) – TWP to determine limits
Multimodal Fund	PA Department of Community and Economic Development (DCED), through the Commonwealth Financing Authority (CFA)	Provides grants to encourage economic development and ensure safe and reliable systems of transportation. Funds may be used for transportation projects such as streetscape improvements, lighting, sidewalk enhancements, pedestrian safety, connectivity of transportation assets, and transit-oriented development. Projects on state roads are eligible to receive funding, with documentation from the appropriate PennDOT Engineering District.	The minimum total project cost is \$100,000	30% local match of the non-federal share of project costs is required	Next round anticipated in Summer 2017	Leola Core Area
Multimodal Fund	PA Department of Transportation (PennDOT)	Provides grants to ensure safe and reliable systems of transportation. Funds may be used for transportation projects such as streetscape improvements, lighting, sidewalk enhancements, pedestrian safety, connectivity of transportation assets, and transit-oriented development.	\$100,000 minimum - \$3 million maximum	30% local match	TBD \$40 million appropriated for next round, anticipated in early 2017	Leola Core Area

Funding Program	Funding Entity	Type of Projects Funded/Guidelines	Award Amount	Minimum Match	Application Deadline	Comments
Transportation Alternatives Program	PennDOT	Transportation alternatives projects include the construction of bicycle and pedestrian facilities; conversion of abandoned railway corridors to trails; historic preservation and rehabilitation of historic transportation facilities; and storm water management.	Minimum \$50,000 project cost; \$1 million maximum	20% match required	TBD Next round anticipated in Fall 2017	Leola Core Area
Smart Growth Transportation Program	PennDOT/Lancaster County Transportation Coordinating Committee (LCTCC)	Transportation projects/studies located in Lancaster County's designated Growth Areas that support non-motorized transportation facilities. At least 80% of the funding will be directed to construction projects and no more than 20% to studies.	No maximum stated	20% match required for studies; pre-construction costs for construction projects	TBD Next round anticipated in 2017	Leola Core Area
Transportation Alternatives Program	PennDOT/Lancaster County Transportation Coordinating Committee (LCTCC)	Transportation alternatives projects include the construction of bicycle and pedestrian facilities; conversion of abandoned railway corridors to trails; historic preservation and rehabilitation of historic transportation facilities; and storm water management.	No maximum stated	20% match required for studies; pre-construction costs for construction projects	TBD Next round anticipated in 2017	Leola Core Area
Automated Red Light Enforcement (ARLE) Grant Program	PennDOT	Provides grants to local governments for transportation enhancement projects that focus on highway safety or mobility, and which can be completed at relatively low cost. Eligible projects vary widely from traffic signal improvements and roadway improvements at signalized intersections, to projects involving school zones, guide rail, and roadside safety.	No maximum stated	Match encouraged	June 30 th each year	Leola Core Area

Preliminary Cost Opinions

Based on actual bid results from PennBID (Pennsylvania's Electronic Document and Bid Management Program) over the last 18 months, the cost for curb ranges from \$30-\$35 per linear foot (LF), and the cost for sidewalk ranges from \$85-\$90 per square yard (SY). The numbers below reflect the cost to construct 1,000 linear feet of curb and sidewalk.

- Curb: $(1,000 \text{ LF}) \times (\$35) = \$35,000$
- 5' Sidewalk: $(1,000 \times 5) / 9 = (556 \text{ SY}) \times (\$90) = \$50,040$

Estimated Cost per 1,000 linear feet of curb and sidewalk: \$85,040

The length of curb and sidewalk for the potential CDBG area (west of the Leola Core Area) is approximately 2,000 linear feet, with an estimated cost of approximately \$170,000. The length of the curb and sidewalk for the Leola Core Area along Route 23 is approximately 10,500 linear feet, with an estimated cost of approximately \$900,000. It should be noted that construction may also include additional stormwater and utility relocation costs. These costs may raise the overall cost of a particular project considerably; therefore, separate construction cost opinions will be required for each curb and sidewalk project that is considered for public funding.

Action Items/Phasing Plan

In order to advance the Township’s long term goal of a walkable and connected community along the Route 23 corridor, the following table categorizes and prioritizes action items for the Township so that the Township can move toward achieving its goal. It should be noted that in the Funding Category of this table, the action items assume that the funding programs listed and available today will exist over the next few years. Adjustments will need to be made as changes in funding programs occur.

CATEGORY	PHASE	ACTION ITEM	DATE
Ordinance Updates	1	Add/revise language in Section 604 of the SALDO, Sidewalks and Curbs, to clarify the requirements for curb and sidewalk along Route 23.	4 th Quarter, 2016
	1	Amend Appendix 13 of the SALDO to add the Curb and/or Sidewalk Typical Cross-sections.	4 th Quarter, 2016
	1	Work with the Township Solicitor to develop Ordinance language to allow the Township to require the installation of sidewalk when land is transferred between property owners.	4 th Quarter, 2016
Sidewalk Deferrals	2	Call in Sidewalk Deferrals (also see Appendices)	4 th Quarter, 2016
Funding	3	<i>Potential CDBG Area</i> – Apply to the Lancaster County CDBG Program	February 2017
		<i>Leola Core Area</i> – Apply to the PennDOT statewide funding programs	Summer 2017
		<i>Leola Core Area</i> – Apply to the LCTCC’s Smart Growth Transportation Program/Transportation Alternatives Program	Summer 2017
Ongoing	--	Include local funds in a Capital Improvement Plan (CIP) for required grants’ local matches and Township-initiated improvements	--
		Require curb and sidewalk installation as part of all future subdivision and land development plans	--
		Require curb and sidewalk installation as part of all future land transfers	--

APPENDICES

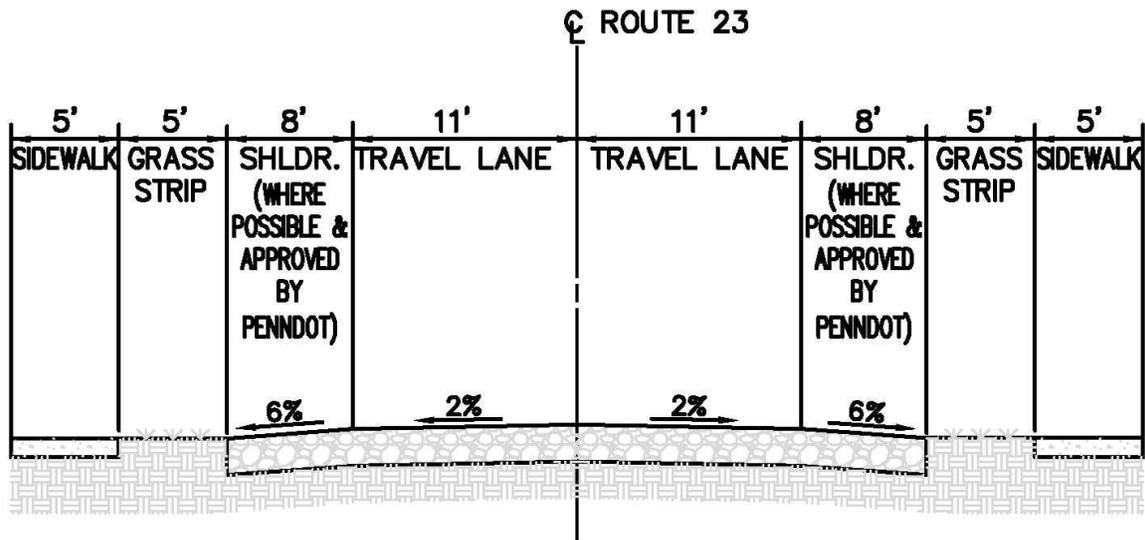
Proposed Curb and/or Sidewalk Locations

FROM	TO	NORTH SIDE	SOUTH SIDE
East Lampeter Township Line	Hartman Station Rd	None	Sidewalk
Hartman Station Rd	House west of 2339 New Holland Pike	None	To be determined with Worship Center
House west of 2339 NHP	Worship Center driveway	Sidewalk	To be determined with Worship Center
Worship Center driveway	Geist Rd	Curb & sidewalk	Curb & sidewalk
Geist Rd	Granger Rd	Curb & sidewalk	Curb & sidewalk
Granger Rd	Wilson Ave	Sidewalk	Sidewalk
Wilson Ave	Heller's Church Rd	Curb & sidewalk	Sidewalk
Heller's Church Rd	Quarry Rd	Curb & sidewalk (no beauty strip)	Curb & sidewalk (no beauty strip)
Quarry Rd	Glenbrook Rd	Curb & sidewalk (no beauty strip)	Curb & sidewalk (no beauty strip)
Glenbrook Rd	East entrance to Leola Community Park	Curb & sidewalk (no beauty strip)	Curb & sidewalk (no beauty strip)
East entrance to Leola Community Park	Middle C&D entrance	Curb & sidewalk	Curb & sidewalk (no beauty strip)
Middle C&D entrance	Ross Technology (east side)	Curb & sidewalk	Curb & sidewalk
Ross Technology	Zook's Motel	Curb & sidewalk	Sidewalk
Zook's Motel	Farmersville Rd	Sidewalk	Sidewalk
Farmersville Rd	Brendon Dr (Mobile Home Park)	None (West Earl Twp)	Sidewalk

Notes:

- Use standard cross-sections where no sidewalks (and curbs) are present, or are in disrepair on the property and adjacent properties.
- Use current sidewalk alignment where sidewalks are in reasonably good repair.
- Where there are existing sidewalks, but no curb (and curb is required), add curb.
- Upper Leacock Township has final discretion in all decisions.

Typical Cross-sections



UNCURBED SECTION VIEW (SIDEWALK ONLY)

NOT TO SCALE

PREFERRED CROSS SECTIONS
ALONG
ROUTE 23

UPPER LEACOCK TOWNSHIP

LANCASTER COUNTY, PA

RETTEW

RETTEW Associates, Inc.
3080 Columbia Ave., Lancaster, PA 17603
Phone (717) 394-3721 • Fax (717) 394-1063

DRAWN BY: SMS

DATE: AUGUST 8, 2018

SCALE: NOT TO SCALE

DWG. NO. 057392000

Sidewalk Deferral Recommendations



Sunset Valley Motel

- Due to the adjoining Eid project to the east and west of Sunset Valley Motel proposing to provide sidewalk along the frontage of PA 23, we recommend that sidewalk be installed to connect the sidewalk being installed for the Eid project.



Worship Center

- Due to the adjoining sidewalk in front of the Lancaster County Christian School, we recommend that sidewalk be installed along the frontage of PA 23.
- It appears that the installation of curbing will be appropriate if sidewalk is installed along PA 23.



- A layout of the proposed sidewalk will need to be provided showing that it does not impact the existing storm water management facilities running parallel to PA 23.
- There are alternative pathways farther away from Route 23 that may be considered.



Worship Center (continued)

- The Worship Center's sidewalk deferral does not extend across the existing Wenger property (2322 New Holland Pike). It does extend from the west side of the Wenger property to Hartman Station Road. This section west of the Wenger Property has some challenges due to the narrow width of the existing bridge over the stream and the lay of the land.
- Discussions with the Worship Center are needed to resolve several of the above matters.





Lancaster Laboratories

- We recommend that sidewalk be installed along PA 23 or within the site, as part of Lancaster Laboratories' Land Development plan, when it is submitted later this year.





Lee Charles

- We recommend sidewalk be installed along PA 23, connecting with the Bradford Commons sidewalk and in anticipation of PennDOT's Heller's Church and Quarry Road improvement project along PA 23.



Casa Di Fiore / Leola Village

- Sidewalk exists along PA 23. Only a deferral of curb along 23 was granted.
- PennDOT's Heller's Church and Quarry Road improvement project proposes to replace this sidewalk and to install curbing.
- We recommend that the deferral agreement continue to be in effect, in case PennDOT delays the project or reduces its size.



Donald Strohm

- We recommend sidewalk and curb be installed in accordance with the adjoining sidewalk and curb.



Leola Pizza

- We recommend sidewalk and curb be installed in accordance with the adjoining sidewalk and curb.



Dart Container

- We recommend sidewalk be installed as part of the current Dart Container Land Development plan.



Bareville Fire Company

- We recommend that this sidewalk deferral continue to be in effect until such time as the alignment / location of the necessary curb and sidewalk is determined by the Township or by PennDOT.