

Sidewalk Gap Prioritization



January 2021

Public Works Committee Meeting

Michael Park, PE, PTOE

City Traffic Engineer

LS

Yours Truly

Continued Discussion Agenda

- ❖ Review December PWC Discussion & Direction
- ❖ Recommend Priority Factors & Project Identification Process
- ❖ Funding, Implementation & Next Steps

CIP included \$500K of \$2.5M in FY21 for Sidewalk Gap Program
Over \$25M in Sidewalk Gaps Exist

December PWC Discussion Review

- ❖ Inventory Completed and Updated
- ❖ Gaps and Funding Issue
- ❖ A sidewalk gap considered for program purposes:
 - ❖ Break in continuous sidewalk.
 - ❖ Missing sidewalk in an area that generally has sidewalk.
 - ❖ The absence of sidewalk where required by standards except as provided below.
- ❖ Not a sidewalk gap considered for program purposes:
 - ❖ Developing Residential Lot pending sidewalk
 - ❖ Funded Projects in the Capital Improvement Plan pending sidewalk
 - ❖ Unimproved and Interim Standard Arterial Roads pending future Urban Standard
 - ❖ Corridors requiring reconstruction/storm sewer system installation.
An apparent capital improvement project of much larger scale and scope.
- ❖ Revise Prioritization Process

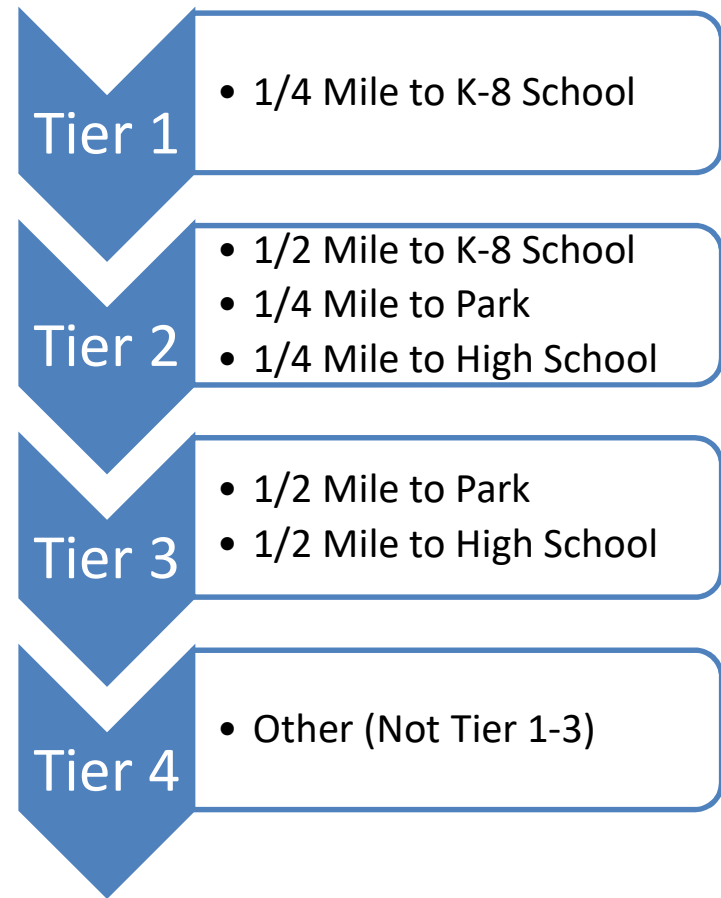
Sidewalk Gap Prioritization (Existing)

Higher Priority “A” (Recommended)

- ❖ Streets with No Sidewalk
 - ❖ Areas over 20 years old (adjusted date)
- ↓
- ❖ Streets with Some Sidewalk
 - ❖ Areas less than 20 years old (adjusted date)

Lower Priority “B” (Deferred)

- ❖ Industrial Areas
- ❖ Cul-de-sacs with fewer than 6 Lots
- ❖ RDR and RLL Density



(2009 Inventory Included 95 Miles of “Priority A” and 190 Miles of “Priority B” Sidewalk Gaps)

Sidewalk Gap Prioritization (Considerations)

- ❖ Tiered System Changes → **Tiers (Zones) treated more like Factors**

- ❖ **Scaled/Expanded Priority Factors**

 - ❖ Sidewalk Presence (Combined with Street Classification and Expanded)

 - ❖ Land Uses (Expanded for various land uses)

 - ❖ Age of Area (No Change, Minor Importance, but Kept Consideration)

- ❖ **Add Priority Factors**

 - ❖ Street Classification/Characteristics (2nd Most Important to Tiers)

 - ❖ Connection Value/Benefit (Maybe Next Important to Street Typology)

 - ❖ Difficulty of Construction (Desire to Stretch the Dollars)

 - ❖ Public Opinion/Demand (More or less a Tie-Break Factor)

- ❖ **Weighted Priorities** and Tiers (Importance/Impact)

- ❖ Assessment Methods: Funneled, Balanced, **Rated/Scored**

Sidewalk Gap Prioritization (Example)

❖ Scaled Categorical Ratings & Weighting System (Plus Tiers)

Connects Network (Block or Lot)

Commercial

Arterial (No Sidewalk)

High Density Residential

Politically Supported (Public Hearing) Areas

Collector (No Sidewalk)

Arterial (One Sidewalk)

Extends Network (Corridor or Neighborhood)

More than 20 Years Old

Medium Density Residential

Collector (One Sidewalk)

Publicly Supported Areas

Single Family Residential

Local (No Sidewalk)

New Network (Not Connected)

Low Density Residential

Less than 20 Year Old

Industrial

Access (No Sidewalk)

Publicly Opposed Areas

Undeveloped/Agricultural

Unimproved/Interim Arterials

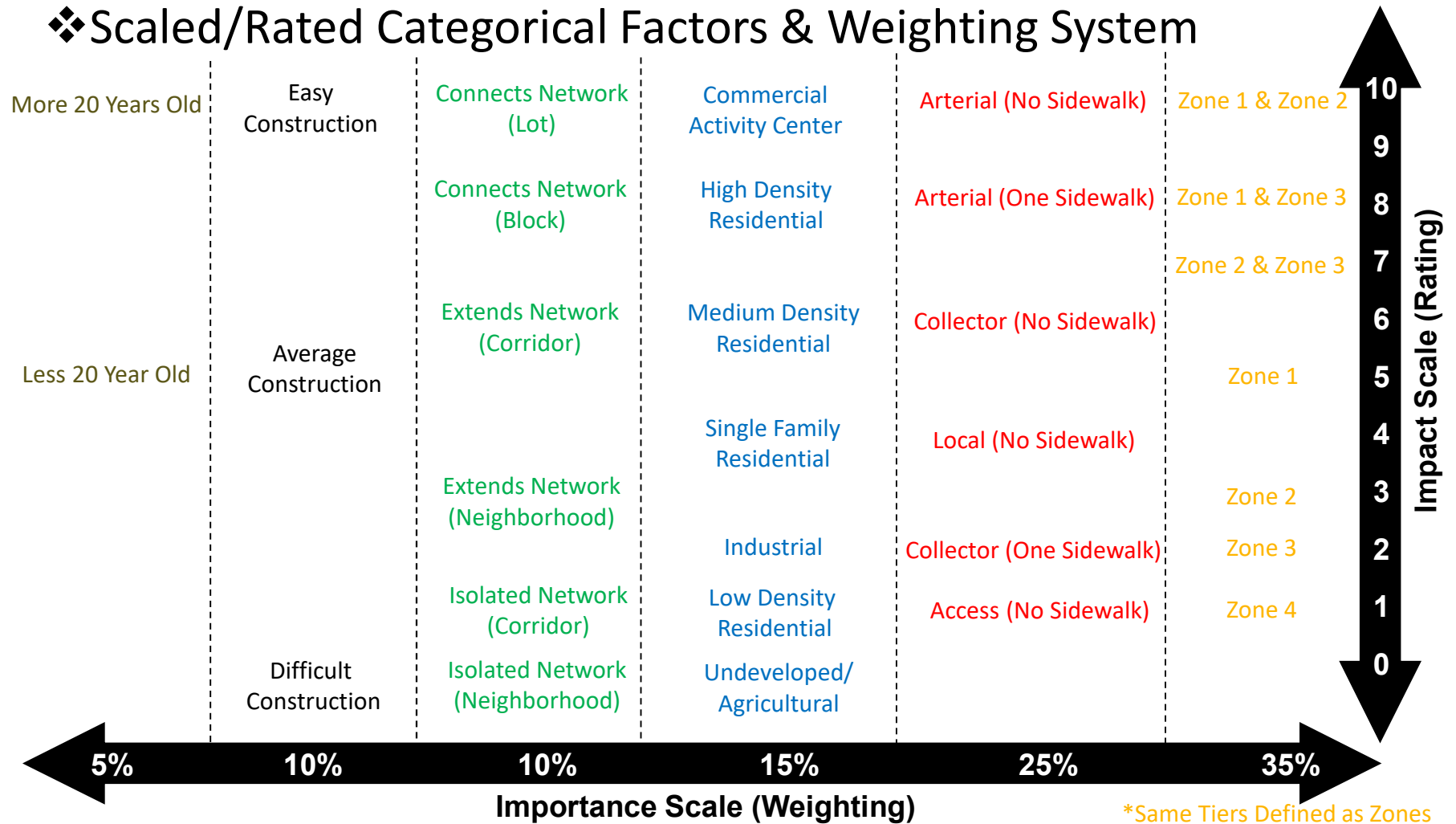
Street Reconstruction Required

Importance Scale

Impact Scale

Sidewalk Gap Prioritization (Updated)

❖ Scaled/Rated Categorical Factors & Weighting System



Tie Break - Public Demand/Opposition

Not Sidewalk Gap Program

- Street Reconstruction Required
- Unimproved/Interim Arterials
- Active Development/CIP Project

Sidewalk Gap Prioritization

❖ Scaled Categorical Ratings & Weighting System

Zone (i.e. "Tier") Factor	35%	Street Characteristic Factor	25%	Land Use Factor (1/4 Mile Walk Proximity)	10%
Combination Zone 1 & Zone 2	10	Arterial No Sidewalk	10	Commercial Activity Center	10
Combination Zone 1 & Zone 3	8	Arterial One Sidewalk	8	High Density Residential	8
Combination Zone 2 & Zone 3	7	Collector No Sidewalk	6	Medium Density Residential	6
Zone 1	5	Local No Sidewalk	4	Single Family Residential	4
Zone 2	3	Collector One Sidewalk	2	Industrial	2
Zone 3	2	Access No Sidewalk	1	Low Density Residential	1
Zone 4	1			Rural Residential/Agricultural	0

Connectivity Factor	15%	Infrastructure Age Factor	5%	Difficulty of Construction Factor	10%
Connects Network (Lot)	10	Over 20 Years	10	No Difficulty (Build Ready)	10
Connects Network (Block)	8	Under 20 Years	5	Medium Difficulty (Site Preparations)	6
Extends Arterial Network	6	Active Development	0	High Difficulty (Driveways/Grading)	3
Extends Neighborhood Network	3				
Isolated Arterial Network	1				
Isolated Neighborhood Network	0				

LOCATION:

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Combination Zone 1 & Zone 2 ▼	10	35%	3.5
Street Condition	Arterial No Sidewalk ▼	10	25%	2.5
Connectivity	Connects Network (Lot) ▼	10	15%	1.5
Trip Generation (Land Use)	Commercial Activity Center ▼	10	10%	1
Difficulty	No Difficulty (Build Ready) ▼	10	10%	1
Age	Over 20 Years ▼	10	5%	0.5
Public Demand (Tie-Break)		TOTAL	100%	10

Sidewalk Gap Prioritization

❖ Former Priority A – Tier 1 Test Sampling

LOCATION: Lorman (Near Pleasant Lea)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Combination Zone 1 & Zone 2 ▼	10	35%	3.5
Street Condition	Local No Sidewalk ▼	4	25%	1
Connectivity	Connects Network (Lot) ▼	10	15%	1.5
Trip Generation (Land Use)	Single Family Residential ▼	4	10%	0.4
Difficulty	No Difficulty (Build Ready) ▼	10	10%	1
Age	Over 20 Years ▼	10	5%	0.5
Public Demand			100%	7.9

LOCATION: Persels (West of Jefferson)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Zone 1 ▼	5	35%	1.75
Street Condition	Arterial One Sidewalk ▼	8	25%	2
Connectivity	Connects Network (Lot) ▼	10	15%	1.5
Trip Generation (Land Use)	Commercial Activity Center ▼	10	10%	1
Difficulty	No Difficulty (Build Ready) ▼	10	10%	1
Age	Over 20 Years ▼	10	5%	0.5
Public Demand			100%	7.75

Sidewalk Gap Prioritization

❖ Former Priority A – Tier 1 Test Sampling

LOCATION: Emerald Drive (Near Voy Spears)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Combination Zone 1 & Zone 3 ▼	8	35%	2.8
Street Condition	Local No Sidewalk ▼	4	25%	1
Connectivity	Extends Neighborhood Network ▼	3	15%	0.45
Trip Generation (Land Use)	Single Family Residential ▼	4	10%	0.4
Difficulty	No Difficulty (Build Ready) ▼	10	10%	1
Age	Over 20 Years ▼	10	5%	0.5
Public Demand			100%	6.15

LOCATION: Winter Road (Near Cedar Creek)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Zone 1 ▼	5	35%	1.75
Street Condition	Local No Sidewalk ▼	4	25%	1
Connectivity	Extends Neighborhood Network ▼	3	15%	0.45
Trip Generation (Land Use)	Single Family Residential ▼	4	10%	0.4
Difficulty	Medium Difficulty (Site Preparation) ▼	6	10%	0.6
Age	Over 20 Years ▼	10	5%	0.5
Public Demand			100%	4.7

Sidewalk Gap Prioritization

❖ Former Priority A – Tier 2 Test Sampling

LOCATION: White Ridge Drive (South of 3rd Street)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Zone 2	3	35%	1.05
Street Condition	Local No Sidewalk	4	25%	1
Connectivity	Connects Network (Lot)	10	15%	1.5
Trip Generation (Land Use)	Commercial Activity Center	10	10%	1
Difficulty	No Difficulty (Build Ready)	10	10%	1
Age	Over 20 Years	10	5%	0.5
Public Demand			100%	6.05

LOCATION: Orchard (Between Olive and Douglas)

FACTOR	ATTRIBUTE	RATING	WEIGHT	SCORE
Trip Attraction (Tier)	Zone 2	3	35%	1.05
Street Condition	Collector No Sidewalk	6	25%	1.5
Connectivity	Connects Network (Block)	8	15%	1.2
Trip Generation (Land Use)	Single Family Residential	4	10%	0.4
Difficulty	High Difficulty (Driveways/Grad	3	10%	0.3
Age	Over 20 Years	10	5%	0.5
Public Demand			100%	4.95

Sidewalk Gap Prioritization

PWC Recommendations

- ❖ Maintain Current Priority System
- ❖ Forward Recommended Revised Priority System to Council
- ❖ Continue discussion again and make further adjustments before Council
 - ❖ May impact ability to include projects this fiscal year.

Schedule

- ✓ January: PWC Meeting (Update)
- ❖ February: CC Meeting to Present PWC Recommendations for Concurrence
- ❖ March-May: Staff Implements Council Approved Sidewalk Prioritization. Project Design/Bid
- ❖ Sidewalk Gap Program FY21, \$500K Adopted CIP, Construction Spring/Summer
- ❖ Sidewalk Gap Program FY22-FY25, \$500K Annually Funded CIP Program
- ❖ Sidewalk Gap Program - \$2.5M (A 2017 15-Year Transportation Sales Tax Commitment)

Review the prioritization results, weighting and factors, after implementation of program year(s) to make further adjustments as desired by Council if the expectations are not met.

Michael Park, PE, PTOE

City Traffic Engineer

Michael.park@cityofls.net

816.969.1800



LEE'S SUMMIT
MISSOURI



Yours Truly