

Location	Problem
Madison College Ped Crossing (Badger/Park)	Peds crossing midblock
W Lakeside St	Speeding
Wheeler Rd	Speeding
Post Rd & Todd Dr	Disregarding Stop signs / speeding
Barton Rd	Speeding
Segoe Rd & Richland Ln	Dangerous school crossing (did not qualify for crossing guard)
1810 S Park St ped crossing at bus stop	No existing ped crossing at bus stop
Forster Dr	Speeding
Maher Ave & Cottage Grove Rd	Difficult pedestrian crossing
Glenway St at Cross St	Difficult pedestrian crossing
Rusk Ave	Speeding
Troy Dr	Speeding
Dempsey Rd	Speeding/no bike facilities
Midvale Blvd at Southwest Path	Speeding/difficult bike crossing
Midvale Blvd at Southwest Path	Speeding/difficult bike crossing
Park St between olin and Fish Hatchery	Difficult Crossing

Status in Existing Programs	Number of Travel Lanes	Number of Parking Lanes
Approved by NTMP in 2020		
Approved by NTMP in 2021	2	2
Approved by NTMP in 2021		
Approved by NTMP in 2021		
Approved by NTMP in 2021		
Approved by Ped/Bike in 2020		
Approved by Ped/Bike in 2021		
Approved by NTMP in 2021		
Not ranked high enough in Ped/Bike in 2020		
Not ranked high enough in Ped/Bike in 2021	2	1
Not enough points in NTMP		
Enough points but no project		
Enough points but no project		
Approved by Ped/Bike in 2020		
Approved by Ped/Bike in 2020		
Custom	6	

Potential Infrastructure	
None	

Two Stripes	
Continental	Somev
RFRB	
Full Signal	

The following categories
well for both point (inte

Current Crossing and Pedestrian Infrastructure	Current Bicycle Accomodations	Daily Traffic Volume
Not Safe and/or Not Convienent	Very confident bikers only (LTS 4)	2500-5000
Not Safe and/or Not Convienent	Moderately Confident Bikers (LTS 3)	100-2500
Not Safe and/or Not Convienent	Very confident bikers only (LTS 4)	20000+

Ranking Criteria and Score

Max Points 52

Lanes	Score	Assigns points based on number of lanes that need to be added. This is a non-linear scale.
Parking	0.5	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	

Current level of stress for biking	Score	Assigns points based on current level of biking stress at the local corridor.
Very confident bikers only (LTS 4)	10	
Moderately Confident Bikers (LTS 3)	6	
Mostly All Ages and Abilities (LTS 2)	3	
All Ages and Abilities (LTS 1)	0	

Current crossing condition and pedestrian infrastructure	Score	Many of the discarded crossings were consolidated into this category. Crossing or corridor condition
Dangerous or Highly Inconvenient	10	

Not Safe and/or Not Convienent	5
What Safe and/or Somewhat Convienent	3
Moderately Safe and/or Convienent	1
Safe and/or Convienent	0

a whole. It was also de
current ped infrastru
convenience scale ratl
infrastructure. A fully s

Daily Traffic Volume	Score
20000+	10
10000-20000	7.5
5000-10000	5
2500-5000	3
100-2500	1

Average daily traffic vo

Posted Speed Limit	Score
35+	5
25	3
<20	1

Assigns points based o
limit. Should this be ba
data such as % over 3

Ped demand	Score
High	5
Med	3
Low	1

Assigns points based o
potential future pedest

Transit Ridership	Score
>500/day	5
250-500	4
100-250	3
50-100	2
<50	1

Daily transit boardings
single location or corri

es were discussed and it was decided to remove them from the ranking criteria because the model was
ersection) and line (block or corridor) problem types. There was also some redundancy occuring. They f

Ped Activator within quarter mile	Score
School	1
Library	1
Business Corridor	1
Parks	0
Medical Facilities	1
Housing Density	1
Equity Metric	1

Is there a pedestrian a
certian distance of the
corridor? Parks were g
because it was though
park density are often
areas and this could b

Number of Movements to Cross Street	Score
4	4
3	3

How many actual cross
does it take to cross th
example, a slip lane cr
one.

2	2	
1	1	
Multiplier for Number of Movements		
All Signalized	0.5	A multiplier for the number of movements to account for safer infrastructure.
Some Signalized but not all	0.8	
None Signalized	1	
Another multiplier for the number of movements to account for street type.		
Major Artery	1	
Collector	0.5	
Local Street	0.2	

Cross Slip Lane?	Score	Slip lanes are often dangerous and inconvenient. This score accounts for that.
Yes, Unsignalized	2	
Yes, Signalized	1	
No	0	

Distance to nearest safe crossing (based on street)	Score	Longer distances between crossings make it more likely that people will block and are inconvenient.
>300 m	5	
200-300	4	
100-200	3	
50-100	2	
0-50	0	

Length of Missing Sidewalk or Bike Facility	Score	Accounts for length of missing bicycle facility.
Entire Corridor	10	
Many Blocks	7.5	
Major Intersection/Multiple Crossings	5	
Few Blocks	2.5	
Single Block	1	
Single Intersection	1	

Can all potential crossings be completed in one movement?	Score	This is meant to account for the number of light cycles it takes to complete a crossing.
Yes	0	
No	3	

Maximum distance to negotiate intersection	Score	This is meant to assign a score to the worst case scenario for a person wishing to cross the street. An intersection has crossings on four sides, a pedestrian
<100 ft	1	
100-200 ft	3	
>200 ft	5	

Ped Issue	Score
Missing Sidewalk 2 sides	5
Missing Sidewalk 1 side	3

Posted Speed Limit	Ped Demand	Transit Ridership	Points in NTMP (30 pts needed)	Points in Ped/Bike (out of 100) No point threshold
				41
25	Med	<50	44	
			68	
			59	
			34	
				20
				38
			31	
				16
25	Low	<50		10
			22	
			42	
			42	
				18
				18
25	High	100-250		



on the number of
crossed. This could

on the current level of
ation or along the

metrics were
score so that the
ould be considered as

decided to consider the
ure on a safety and
her than
ignalized crossing

lume.

on the posted speed
ased on speed study
5 mph?

on existing and
rian demand.

. Can be used for
dor projects.

becoming too inflexible and wasn't working
have been retained here as reference and

activator within a
problem location or
given a zero score
it that areas with high
already privileged
e an equity issue.

ssing movements
ne street. For
crossing counts as

number of movements to structure.

the number of t for safer road types.

dangerous and are would account for

between crossings make people will cross mid-ent.

missing pedestrian or

account for the number of complete a crossing.

in a score based on ratio for a pedestrian street. For example, if crossings on three of n may need to cross

proposed solution(s)	Impact on safety (0-3)	Impact on ped gap (0-3)	Impact on bike gap (0-3)	EJ area / high social vulnerability index
Ped Ramps, Continental X-walk, & signs				
Speed Humps & Circle				
Islands				
Islands				
Speed Humps				
RRFB				
Ped Ramps, Continental X-walk, & signs				
Islands				
RRFB				
RRFB				
Speed Humps				
Speed Humps				
Bike lanes				
Upgrade lighting to LED				
Narrow Lanes				
At-Grade Crossing				
Full Signal				

can we assign points for slip lanes?

cost	timing	t/cost = (I + J + K + L)/N
\$15,000		
\$24,000		
\$45,000		
\$14,000		
\$40,000		
\$20,000		
\$15,000		
\$40,000		
\$20,000		
\$20,000		
\$35,000		
\$40,000		
\$30,000		
\$4,000		
\$4,000		

Resources:
 Traffic counts
 Metro boardings
 Speed limits and c
 Traffic level of str

Harald notes
 - consider some k
 - have a couple "e
 - what to do about
 -prioritizing equity

<https://data-cityofmadison.opendata.arcgis.com/datasets/traffic-flow-map?geometry=-89.464%2C43.048%2C>

<https://haraldkliems.netlify.app/posts/bus-boardings-in-madison/>

<https://data-cityofmadison.opendata.arcgis.com/datasets/street-centerlines-and-pavement-data>

<https://cityofmadison.maps.arcgis.com/apps/webappviewer/index.html?id=cb7a2e78477044c19bf6a5eaa182>

Kind of score for lack of accessibility?

Engineering judgment" points for special circumstances (context specific situations)

Is the "let's fix a corridor" idea (corridor vs intersection project) - should this be on the solutions side?

issues

2-89.355%2C43.059

[!0e38](#)

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Glenway St at Cross St	Difficult pedestrian crossing
Rusk Ave	Speeding
Troy Dr	Speeding
Dempsey Rd	Speeding/no bike facilities
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Approved by NTMP in 2021	2	2
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Not ranked high enough in Ped/Bike in 2020		
Not ranked high enough in Ped/Bike in 2021	2	1
Not enough points in NTMP		
Enough points but no project		
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Approved by Ped/Bike in 2020		
Custom	6	

Potential Infrastructure	
None	D
Two Stripes	
Continental	Somewhat Sa
RFRB	Mc
Full Signal	

The following categories
inflexible and wasn't w

Current Crossing and Ped Infrastructure	Daily Traffic Volume	Posted Speed Limit	Ped Demand
Somewhat Safe and/or Somewhat Convenient	2500-5000	25	Med
Not Safe and/or Not Convenient	100-2500	25	Med
Not Safe and/or Not Convenient	20000+	25	High

Ranking Criteria and Score

Max Points 41

Lanes	Score	Assigns points based on the number of lanes that need to be crossed. This could be a non-linear scale
Parking	0.5	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	

Current crossing condition and ped infrastructure	Score	Many of the discarded metrics were consolidated into this score so that the crossing or corridor could be considered as a whole. It was also decided to consider the current ped infrastructure on a safety and convenience scale rather than infrastructure. A fully signalized crossing
Dangerous or Highly Inconvenient	10	
Not Safe and/or Not Convenient	5	
Safe and/or Somewhat Convenient	3	
Moderately Safe and/or Convenient	1	
Safe and/or Convenient	0	

Daily Traffic Volume		Score	Average daily traffic volume.
20000+		10	
10000-20000		7.5	
5000-10000		5	
2500-5000		3	
100-2500		1	

Posted Speed Limit		Score	Assigns points based on the posted speed limit. Should this be based on speed study data such as % over 35 mph?
35+		5	
25		3	
<20		1	

Ped demand		Score	Assigns points based on existing and potential future pedestrian demand.
High		5	
Med		3	
Low		1	

Transit Ridership		Score	Daily transit boardings. Can be used for single location or corridor projects.
>500/day		5	
250-500		4	
100-250		3	
50-100		2	
<50		1	

es were discussed and it was decided to remove them from the ranking criteria because the model was working well for both point (interstecion) and line (block or corridor) problem types. There was also some

Ped Activator within quarter mile		Score	Is there a pedestrian activator within a certian distance of the problem location or corridor? Parks were given a zero score because it was thought that areas with high park density are often already privileged areas and this could be an equity issue.
School		1	
Library		1	
Business Corridor		1	
Parks		0	
Medical Facilities		1	
Housing Density		1	
Equity Metric		1	

Number of Movements to Cross Street		Score	How many actual crossing movements does it take to cross the street. For example, a slip lane crossing counts as one.
4		4	
3		3	
2		2	
1		1	

Multiplier for Number of Movements	
All Signalized	0.5
Some Signalized but not all	0.8
None Signalized	1
Major Artery	1
Collector	0.5
Local Street	0.2

A multiplier for the number of movements to account for safer infrastructure.

Another multiplier for the number of movements to account for safer road types.

Cross Slip Lane?	Score
Yes, Unsignalized	2
Yes, Signalized	1
No	0

Slip lanes are often dangerous and inconvenient. This score would account for that.

Distance to nearest safe crossing (based on street)	Score
>300 m	5
200-300	4
100-200	3
50-100	2
0-50	0

Longer distances between crossings make it more likely that people will cross mid-block and are inconvenient.

Length of Missing Sidewalk	Score
Entire Corridor	10
Many Blocks	7.5
Major Intersection/Multiple Crossings	5
Few Blocks	2.5
Single Block	1
Single Intersection	1

Accounts for length of missing sidewalk.

Can all potential crossings be completed in one movement?	Score
Yes	0
No	3

This is meant to account for the number of light cycles it takes to complete a crossing.

Maximum distance to negotiate intersection	Score
<100 ft	1
100-200 ft	3
>200 ft	5

This is meant to assign a score based on the worst case scenario for a pedestrian wishing to cross the street. For example, if an intersection has crossings on three of four sides, a pedestrian may need to cross

Ped Issue	Score
Missing Sidewalk 2 sides	5
Missing Sidewalk 1 side	3

as becoming too
ne redundancy

Ped Gap issue quantified - missing sidewalk, street crossings, volumes, proximity to transit	Importance of Ped Gap Issue	Bike Gap issue quantified - level of stress, importance of route, alternatives	proposed solution(s)	Impact on safety (0-3)
			Ped Ramps, Continental X-walk, & signs	
			Speed Humps & Circle	
			Islands	
			Islands	
			Speed Humps	
			RRFB	
			Ped Ramps, Continental X-walk, & signs	
			Islands	
			RRFB	
			RRFB	
			Speed Humps	
			Speed Humps	
			Bike lanes	
			Upgrade lighting to LED	
			Narrow Lanes	
			At-Grade Crossing	
			Full Signal	

Impact on ped gap (0-3)	Impact on bike gap (0-3)	EJ area / high social vulnerability index	cost	timing
			\$15,000	
			\$24,000	
			\$45,000	
			\$14,000	
			\$40,000	
			\$20,000	
			\$15,000	
			\$40,000	
			\$20,000	
			\$20,000	
			\$35,000	
			\$40,000	
			\$30,000	
			\$4,000	
			\$4,000	

can we assign points for slip lanes?

Benefit/cost = (I + J + K + L)/N

Resources:
 Traffic counts <https://data-cityofmadison.opendata.arcgis.com/datas>
 Metro boardings <https://haraldkliems.netlify.app/posts/bus-boardings-in>
 Speed limits and <https://data-cityofmadison.opendata.arcgis.com/datas>
 Traffic level of str <https://cityofmadison.maps.arcgis.com/apps/webappvi>

[ets/traffic-flow-map?geometry=-89.464%2C43.048%2C-89.355%2C43.059](#)

[-madison/](#)

[ets/street-centerlines-and-pavement-data](#)

[eviewer/index.html?id=cb7a2e78477044c19bf6a5eaa1820e38](#)

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Maher Ave & Cottage Grove Rd	Difficult pedestrian crossing
Glenway St at Cross St	Difficult pedestrian crossing
Rusk Ave	Speeding
Troy Dr	Speeding
Dempsey Rd	Speeding/no bike facilities
Midvale Blvd at Southwest Path	Speeding/difficult bike crossing
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Park St between olin and Fish Hatchery	Difficult Crossing

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Approved by NTMP in 2021	2	2
Approved by NTMP in 2021		
Approved by NTMP in 2021		
Approved by NTMP in 2021		
Approved by Ped/Bike in 2020		
Approved by Ped/Bike in 2021		
Approved by NTMP in 2021		
Not ranked high enough in Ped/Bike in 2020		
Not ranked high enough in Ped/Bike in 2021	2	1
Not enough points in NTMP		
Enough points but no project		
Enough points but no project		
Approved by Ped/Bike in 2020		
Approved by Ped/Bike in 2020		
Custom	6	

Current traffic level of stress	Score
Agressive bikers only (LTS 4)	10
Moderately Agressive Bikers (LTS 3)	6
Mostly All Ages and Abilities (LTS 2)	3
All Ages and Abilities (LTS 1)	0

Length of Gap	Score
Entire Corridor	10
Many Blocks	7.5
Major Intersection, Multiple crossings such as interstate overpass	5
Few Blocks	2.5
Single Block	1
Single Intersection	1

Current Crossing and Ped Infrastructure	Daily Traffic Volume	Posted Speed Limit	Ped Demand
Somewhat Safe and/or Somewhat Convienent	2500-5000	25	Med
Not Safe and/or Not Convienent	100-2500	25	Med
Not Safe and/or Not Convienent	20000+	25	High

Potential
Infrastructure

None
Two Stripes
Continental
RFRB
Full Signal

Transit Ridership	Points in NTMP (30 pts needed)	Points in Ped/Bike (out of 100) No point threshold	Points in SSM (Out of 41)	Documented safety issue (HIN) quantified (VZ Funding if Yes)
		41		Yes
<50	44		16	No
	68			Yes
	59			No
	34			No
		20		No
		38		Yes
	31			No
		16		No
<50		10	15.5	No
	22			No
	42			Yes
	42			No
		18		Yes
		18		Yes
100-250			32	Maybe

Max Points 41

Lanes	Score	Assigns points based on the number of lanes that need to be crossed. This could be a non-linear scale
Parking	0.5	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	

Current crossing condition and ped infrastructure	Score	Many of the discarded metrics were consolidated into this score so that the crossing or corridor could be considered as a whole. It was also decided to consider the current ped infrastructure on a safety and convenience scale rather than infrastructure. A fully signalized crossing such as Fish Hatchery at S Park could score well based on infrastructure or safety, but it has a very long maximum crossing distance, a large number of movements to complete a crossing, slip lanes to negotiate, etc. and is highly inconvenient.
Dangerous or Highly Inconvenient	10	
Not Safe and/or Not Convenient	5	
Somewhat Safe and/or Somewhat Convenient	3	
Moderately Safe and/or Convenient	1	
Safe and/or Convenient	0	

Daily Traffic Volume	Score	Average daily traffic volume.
20000+	10	
10000-20000	7.5	
5000-10000	5	
2500-5000	3	
100-2500	1	

Posted Speed Limit	Score	Assigns points based on the posted speed limit. Should this be based on speed study data such as % over 35 mph?
35+	5	
25	3	
<20	1	

Ped demand	Score	Assigns points based on existing and potential future pedestrian demand.
High	5	
Med	3	
Low	1	

Transit Ridership	Score	Daily transit boardings. Can be used for single location or corridor projects.
>500/day	5	
250-500	4	
100-250	3	
50-100	2	
<50	1	

The following categories were discussed and it was decided to remove them from the ranking criteria because they were becoming too inflexible and wasn't working well for both point (intersection) and line (block or corridor) problems. There was also some redundancy occurring. They have been retained here as reference and the Subcommittee may wish to re-evaluate them.

Ped Activator within quarter mile	Score	Is there a pedestrian activator within a certain distance of the problem location or corridor? Parks were given a zero score because it was thought that areas with high park density are often already privileged areas and this could be an equity issue.
School	1	
Library	1	
Business Corridor	1	
Parks	0	
Medical Facilities	1	
Housing Density	1	
Equity Metric	1	

Number of Movements to Cross Street	Score	How many actual crossing movements does it take to cross the street. For example, a slip lane crossing counts as one.
4	4	
3	3	
2	2	
1	1	

Multiplier for Number of Movements	Score	A multiplier for the number of movements to account for safer infrastructure.
All Signalized	0.5	
Some Signalized but not all	0.8	
None Signalized	1	

Major Artery	Score	Another multiplier for the number of movements to account for safer road types.
Collector	0.5	
Local Street	0.2	

Cross Slip Lane?	Score	Slip lanes are often dangerous and inconvenient. This score would account for that.
Yes, Unsignalized	2	
Yes, Signalized	1	
No	0	

Distance to nearest safe crossing (based on street)	Score	Longer distances between crossings make it more likely that people will cross mid-block and are inconvenient.
>300 m	5	
200-300	4	
100-200	3	
50-100	2	
0-50	0	

Length of Missing Sidewalk	Score	Accounts for length of missing sidewalk.
Entire Corridor	10	
Many Blocks	7.5	
Major Intersection/Multiple Crossings	5	
Few Blocks	2.5	
Single Block	1	
Single Intersection	1	

Can all potential crossings be completed in one movement?	Score	This is meant to account for the number of light cycles it takes to complete a crossing.
Yes	0	
No	3	

Maximum distance to negotiate intersection	Score	This is meant to assign a score based on the worst case scenario for a pedestrian wishing to cross the street. For example, if an intersection has crossings on three of
<100 ft	1	

100-200 ft	3
>200 ft	5

four sides, a pedestrian may need to cross three streets to complete one desired crossing safely. Fish Hatchery at S Park St.

Ped Gap issue quantified - missing sidewalk, street crossings, volumes, proximity to transit	Importance of Ped Gap Issue	Bike Gap issue quantified - level of stress, importance of route, alternatives	proposed solution(s)	Impact on safety (0-3)
			Ped Ramps, Continental X-walk, & signs	
			Speed Humps & Circle	
			Islands	
			Islands	
			Speed Humps	
			RRFB	
			Ped Ramps, Continental X-walk, & signs	
			Islands	
			RRFB	
			RRFB	
			Speed Humps	
			Speed Humps	
			Bike lanes	
			Upgrade lighting to LED	
			Narrow Lanes	
			At-Grade Crossing	
			Full Signal	

e model was
ypes. There was also
rrect them.

[ets/traffic-flow-map?geometry=-89.464%2C43.048%2C-89.355%2C43.059](#)

[-madison/](#)

[ets/street-centerlines-and-pavement-data](#)

[ewer/index.html?id=cb7a2e78477044c19bf6a5eaa1820e38](#)

. (context specific situations)

project) - should this be on the solutions side?