Pedestrian and Traffic Safety Committee Meeting Minutes

Date: Wednesday, December 7th, 2016
Time: 1:00 – 2:30PM
Location: Hennepin County's 701 Building 2nd Floor Board Room
Speakers: Jason Pieper, Sierra Saunders, and Bob Byers (Hennepin County)
Topic: Managing Public Requests

Attendees

Name	Company
Natalie Lindsoe	HDR
Caitlin Wotruba	Kimley-Horn
Brian Hansen	City of Bloomington
Amy Marohn	City of Bloomington
Elizabeth Stiffler	City of St. Paul
Sierra Saunders	Hennepin County
Jason Pieper	Hennepin County
Bob Byers	Hennepin County
Carla Stueve	Hennepin County
Melissa Barnes	MnDOT
Joe Gustafson	Washington County
Dan McCormick	Carver County
Greta Alquist	Toole Design Group
Mark Granlund	Metro Transit
Kristine Stehly	Hennepin County
Emily Gross	SRF
Chad Braun	Carver County
Hannah Pritchard	Toole Design Group
Ken Levin	Hennepin County

Committee Updates

- Upcoming Pedestrian/Traffic Safety Committee Meetings:
    - January 2017 Brainstorming Meeting: We'll be kicking off 2017 with a committee brainstorming meeting. Please bring any meeting topic ideas that you would be interested in learning about in 2017. More information will be sent out as the date approaches.
    - Meeting posts are found on our committee page and the NCITE general calendar. Email announcements are sent out closer to the meeting date.

- Committee Needs
  - 2017 Co-Chair
  - Technical Articles (1-2 throughout the year)
- Questions? Contact the 2017 committee chair, Caitlin Wotruba at Caitlin.wotruba@kimley-horn.com or visit our committee page at http://nc-ite.org/pedestrian_and_traffic_safety_committee

Presentation

Hennepin County talked about their Unofficial guide to evaluating pedestrian crosswalks (see attached) and talked through the below steps.
Step 1: Develop guidelines to formulize the evaluation process.
-Talk to the person complaining to try to understand the situation better.
Step 2: Vet the initial inquiry among subject matter experts and determine appropriate next steps
-Hennepin County formed a Pedestrian Safety Committee that talks through these issues.
Step 3: Perform observations and determine the following
-counts to determine peak
-yield from cars
-Pedestrian timing
-who is crossing, children, elderly, bikes, etc.
Step 4: Summarize results
-Short Memo with color and logo!

Hennepin County has put together an Uncontrolled Leg Pedestrian Crossing Guidance Draft document to provide guidance for evaluating pedestrian crossing situations. (See attached for the Uncontrolled Leg Pedestrian Crossing Guidance Draft)

Hennepin County tracks complaints in a document, some of the information about the tracked information is below
-What the complaint is
-Location of the problem
-Status and Data found
-Who received the complaint
-link to documents (like the memo)
-Ped Prioritization Score (see attached document)
-Other information relevant to the complaint

Other Resources

-MnDOT Traffic Safety Fundamentals Handbook (http://www.dot.state.mn.us/trafficeng/publ/fundamentals/MnDOT_Safety_Handbook_FINAL.pdf)
-Minnesota's Best practice for Pedestrian/Bicycle Safety (http://www.dot.state.mn.us/research/TS/2013/201322.pdf)

-Uncontrolled Pedestrian Crossing Evaluation Incorporating Highway Capacity Manual Unsignalized Pedestrian Crossing Analysis Methodology (https://www.lrrb.org/PDF/201421.pdf)

Project Examples

Washington Ave – North Loop
-Long Stretch between signals at 6th & 10th
-Community wanted a signal at 8th St.
-Stage 1 was a crosswalk with delineators
-Stage 2 would be a median

Three Rivers Parks – Lake Minnetonka Trail Crossing
-Driver compliance was minimal due to crosswalk confusion
- Trail crossing also confused the users
-Separated grade crossing was recommended and got Federal approval but was too expensive
-Now it is back to a crosswalk with landscaped median

County Road 15/Tanger Lake Marina
-Two marinas with parking on opposite sides of the road
-When a pedestrian hits the button for either crossing there are advanced crossing flashers and flashers at the crosswalk to alert drivers.

Round Robin

-RRFB is still under interim approval so make sure to send them in to MnDOT if you are installing them

Next Meeting

Date: Wednesday January 11th, 2017
Time: 1:00-2:00PM
Location: Kimley-Horn, Cedar Conference Room, 2550 University Ave. W Suite 238N, St. Paul, MN 55114
Topic: Brainstorming Topics for 2017

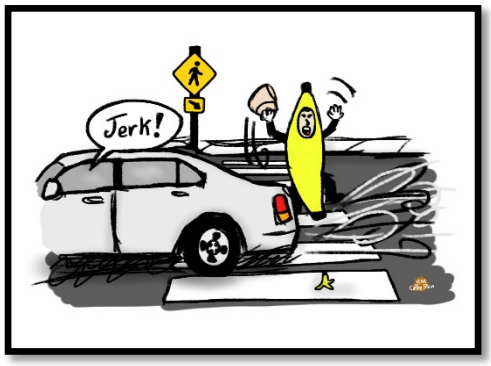
Meeting Minutes Prepared by Caitlin Wotruba

An unofficial guide to evaluating pedestrian crosswalks

Step 1: Develop guidelines to formulize the evaluation process

Step 2: Vet the initial inquiry among subject matter experts and determine appropriate next steps

Step 3: Perform observations and determine the following

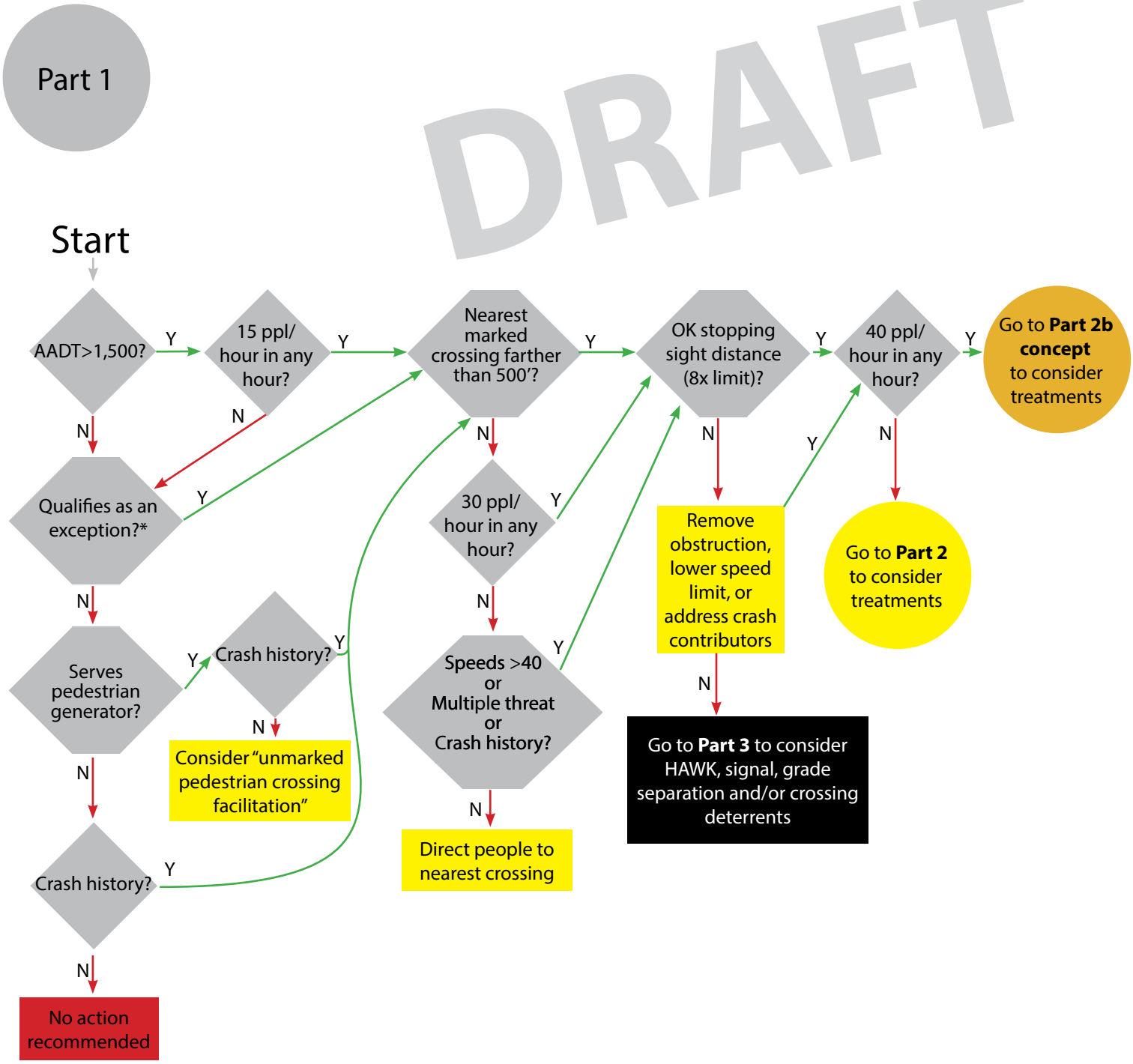


Step 4: Summarize results

Countermeasure toolbox

Uncontrolled Leg Pedestrian Crossing Guidance

Uncontrolled is defined here as pedestrians crossing one or more travel lanes that are not sign- or signal-controlled regardless of any other controls at an intersection. For example, at a two-way stop intersection, two legs would be considered uncontrolled and the other two would be considered controlled. See also the Controlled Pedestrian Crossing Guidance.



**Exceptional considerations include school traffic, low-mobility traffic, driver characteristics, regular events, anticipated development or any other factor that should influence the crossing decision.*

Part 2 — Evaluation of uncontrolled pedestrian crossing treatments.

Road configuration	Lanes crossed to reach refuge	Multiple threat lanes per crossing	Road AADT and posted speed limit in mph											
			1,500 - 12,000 AADT				12,000 - 15,000 AADT				15,000+ AADT			
			30-	35	40	45+	30-	35	40	45+	30-	35	40	45+
2 lanes	2	0,1												
3 lanes with raised median	1,2	0,1												
3 lanes with no or striped median	3	0,1												
4 lanes with raised median	2	1												
4 lanes with no or striped median	4	2												
5 lanes with raised median	2,3	2												
5 lanes with no or striped median	5	2												
6 lanes in any configuration	3-6	4												

Consider the following treatments based on the criteria above:

Level 1 — Marked crosswalk with roadside warning signs

Level 2 — Marked crosswalk with roadside warning signs plus in-road “stop for ped” signs

Level 3 — Marked crosswalk with roadside warning signs plus in-road “stop for ped” signs and, if engineering judgment suggests based on traffic flow, multiple threats and other considerations, improvements such as changing cross section, changing curve radius, modifying sight lines and installing medians.

Level 4 — Marked crosswalk with roadside warning signs plus in-road “stop for ped” signs plus improvements such as changing cross section, changing curve radius, modifying sight lines and installing medians.

Level 5 — Everything above and, if engineering judgment suggests based on traffic flow, multiple threats and other considerations, rectangular rapid flash beacons

Level 6 — Everything above plus rectangular rapid flash beacons

Level 7 — Do not install marked crosswalk without reducing speed limit to 40 or lower; then use chart. Consider improvements that do not create legal crosswalks but improve safety, such as medians. If not possible, go to Part 3.

Level 8 — Do not install marked crosswalk. Evaluate for HAWK, signal or grade separation using Part 3.

Part 2b concept

— Evaluation of uncontrolled pedestrian crossing treatments at high-pedestrian traffic locations (more than 40 (?) people in any hour).

Road configuration	Lanes crossed to reach refuge	Multiple threat lanes per crossing	Road AADT and posted speed limit in mph											
			1,500 - 12,000 AADT				12,000 - 15,000 AADT				15,000+ AADT			
			30-	35	40	45+	30-	35	40	45+	30-	35	40	45+
2 lanes	2	0,1												
3 lanes with raised median	1,2	0,1												
3 lanes with no or striped median	3	0,1												
4 lanes with raised median	2	1												
4 lanes with no or striped median	4	2												
5 lanes with raised median	2,3	2												
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Level 8 — Do not install marked crosswalk. Evaluate for HAWK, signal or grade separation using Part 3.

Part 3 — Evaluation of HAWK, signal, grade separation and crossing deterrents.

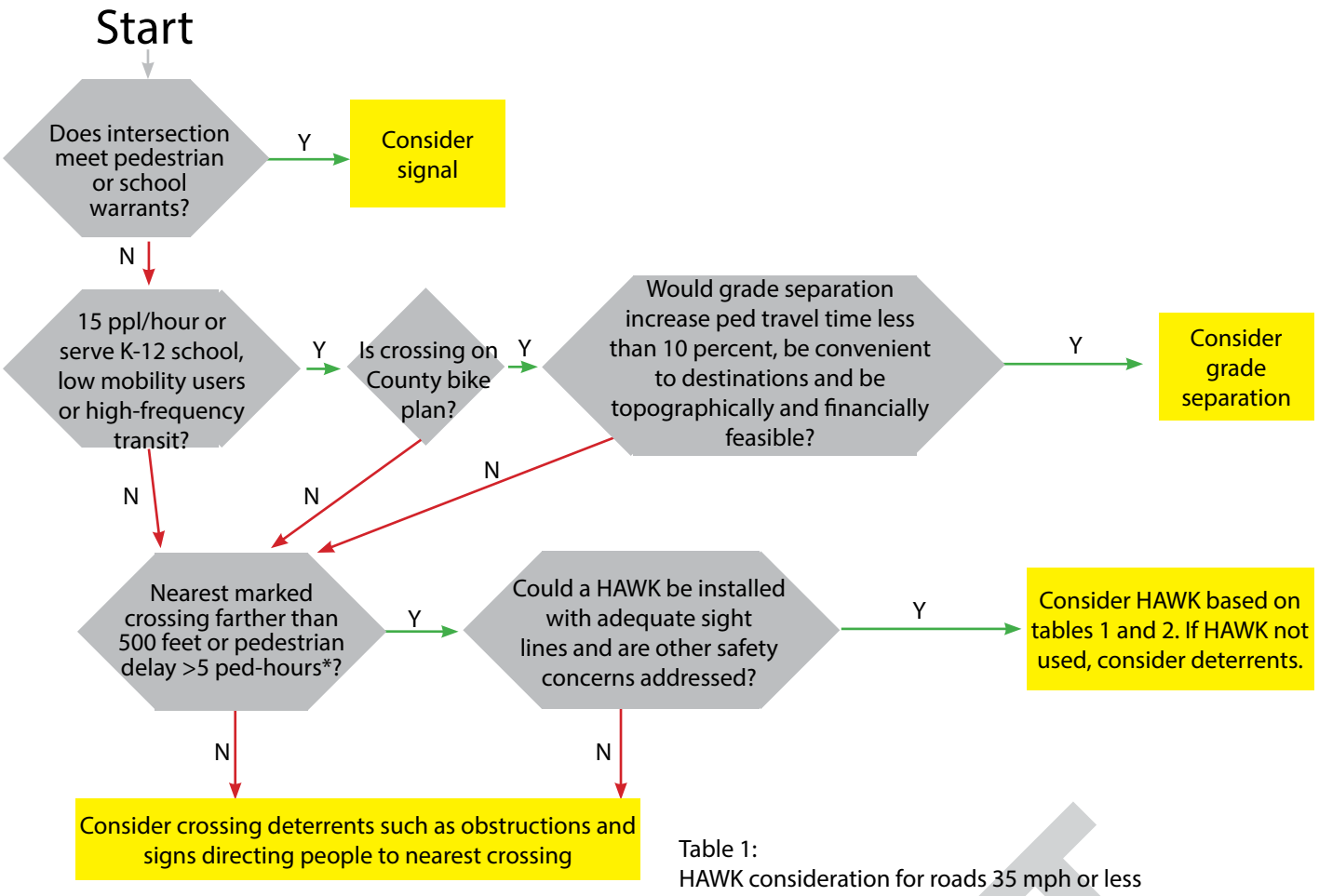


Table 1:
HAWK consideration for roads 35 mph or less

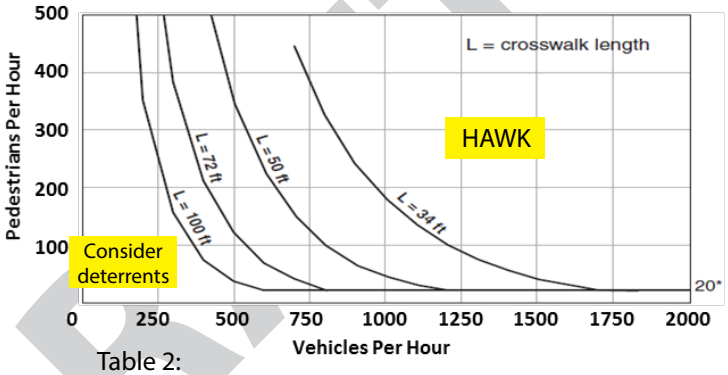
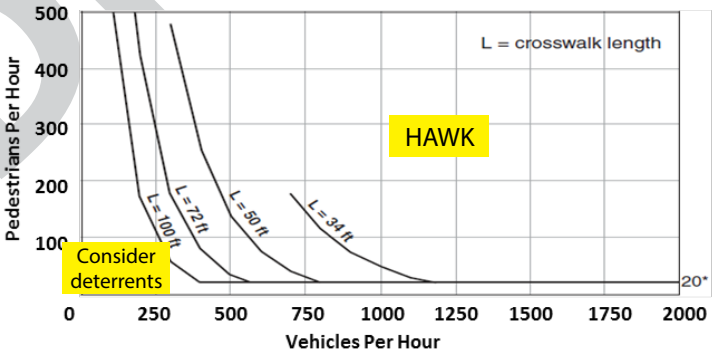


Table 2:
HAWK consideration for roads 40 mph or greater



* Pedestrian delay (in pedestrian-hours) =

$$\frac{\text{Seconds delay}}{\text{Pedestrian}} \times \frac{\text{Pedestrians}}{\text{Hour}} \times \frac{1 \text{ hour}}{3{,}600 \text{ seconds}}$$

Controlled Leg Pedestrian Crossing Guidance

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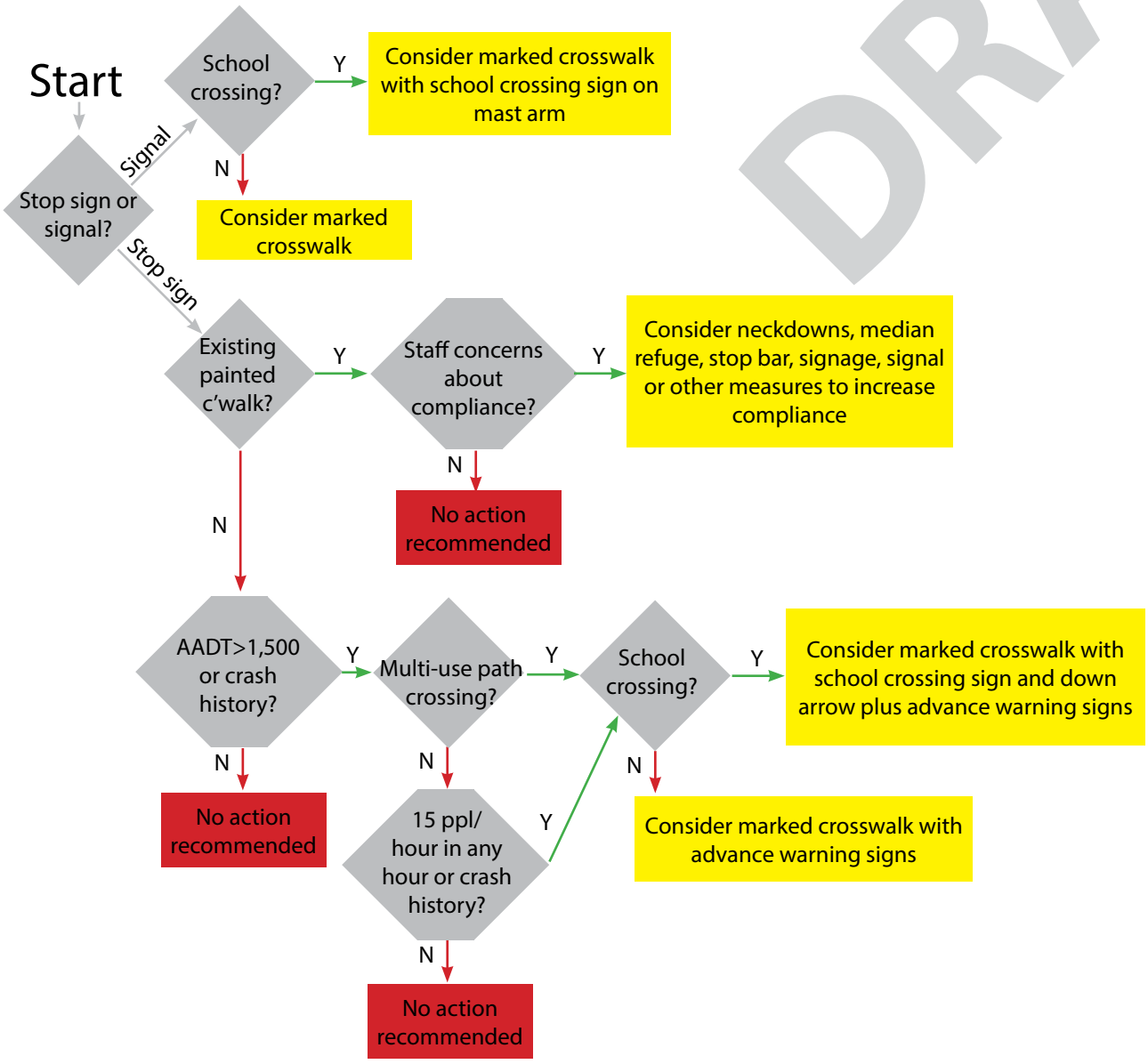

PEDESTRIAN PRIORITIZATION

METHODOLOGY

This process was developed In order to update the prioritization method from the Pedestrian Plan to include some of the recently collected data on the existing condition of the sidewalks along county roads in conjunction with the ADA Transition Plans. This updated prioritization method is comprised of weighted points based on the priorities of the Pedestrian Plan and the ADA Transition Plan in order to create a comprehensive list of pedestrian priority locations. The result will be two sets of pedestrian priorities: one for sidewalks ***along the road*** and another for intersections and pedestrian crossings ***across the road***. Similar to the Pedestrian Plan, segments with the lowest score will have the lowest priority and those with the highest will have the highest priority.

1. Along the road – prioritization of existing sidewalks and gaps in the sidewalk network
2. Across the road – prioritization of intersection and pedestrian crossing locations

DATA CATEGORIES AND WEIGHTED POINTS

Three data categories were developed to feed into the final prioritization scheme.

1. Needs Assessment
2. Demand Assessment
3. Equity Assessment

The Needs Assessment details the physical characteristics and conditions of the roadway and pedestrian environment. The Demand Assessment examines the potential effect of adjunct land use on the demand on pedestrian facilities. The Equity Assessment looks at the characteristics of the local population and the need for quality sidewalks.

NEED ASSESSMENT DATA AND POINTS FOR ALLOCATION ALONG THE ROAD

Factor/Criteria	Data Source	Characteristic	Points
Street Classification		collector	3
		minor arterial	5
Speed limit		30 mph	1
		35 mph	3
		40 mph	4
		45+ mph	5
Buffer/Blvd width		none	10
		narrow (1-3 feet)	2
		Standard (4-6 feet)	0
		Wide (+6)	-5
Tree presence		none	5
		in pit	0
		in boulevard	-5
Pedestrian clear zone width and presence		missing	20
		Narrow (>4')	10
		Standard (4-6')	0
		Wide (+6)	-10
Cross Slope		Low (0-2%)	0
		Moderate (2-6%)	2
		High (6%)	3
Parking		on-street (high use)	0
		none or minimal use	5
Curb		Yes	0
		none	2
Length of Block		Less than 500 Ft	0
		More than 500 Ft	3
Cracked		none or low severity	0
		medium severity	5
		high severity	10
Obstructions		none or low severity	0
		medium severity	5
		high severity	10

NEED ASSESSMENT DATA AND POINTS ALLOCATION FOR ACROSS THE ROAD

Factor/Criteria	Data Source	Characteristic	Points
Segment Value			
Street Classification		collector	3
		minor arterial	5
Speed limit		30 mph	1
		35 mph	3
		40 mph	4
		45+ mph	5
Road width		0-24 feet or 2 lanes	0
		24-36 or 3 lanes	2
		36-48 or four lanes	4
		48-60 or 5 lanes	6
		61+ or four lane divided +	10
Distance btw traffic signals and stop signs		0-500 feet	0
		500-1000 feet	2
		1000-2000 feet	4
		2000+ feet	5
Intersection Value			
Crosswalk		3/4 crosswalks per intersection	0
Counted within 50 ft of the intersection		1/2 crosswalks per intersection	1
		0 crosswalks per intersection	2
Curb Ramps		none (per missing ramp)	2
		directional (per ramp)	0
		diagonal (per ramp)	0.5
Signal Control		Signal	-3
		Ped Signal or HAWK	-2
		RRFB	-1
		none	3
Stop Sign Control			.25/stop sign

counted within 100 ft of the intersection			
Number of bike/ped crashes (3 years)		0	0
		1	5
		2 to 3	10
		4+	20
Fatalities		Ped/Bike Fatality	20

DEMAND ASSESSMENT DATA AND POINTS ALLOCATION

Category	Sub-Category	Example	Weight 1/8 mile	Weight 1/4 mile	Weight 1/2 mile
High Generators	University or College		15	10	5
	Major Generator	Convention center, stadiums	15	10	5
	Light Rail/Bus Rapid Transit		10	5	3
	Job Center	Over 10 jobs per acre	10	5	3
	Density	Density over 8 persons per acre	10	5	3
	Hi-Frequency Bus Stops		10	3	1
	Express bus stop		10	3	1
Medium Generators	Schools	Daycare to High school, public and private	5	3	1
	Major Retail		5	3	1
	Job Center	2 jobs per acre	5	3	1
	Local bus stop, shetler		5	3	1
	hospital		3	1	0
	Density	4-8 persons per sq mile	5	3	1
	Trails		5	3	1
	Community services		5	3	1
	Parks		5	3	1

Low Generators	Minor Retail		3	1	0
	Local bus stop, no shelter		3	1	0
	Park and Rides		3	1	0
	Bridges		3	1	0

EQUITY ASSESSMENT DATA AND POINTS ALLOCATION

Each of the equity assessment data will be analyzed within a ¼ mile buffer of the county road, divided in to 5 quantiles, and assigned points from 5 to 1 as outlined below.

Max 25, Min 5

Category	5 quantiles scored 5-1 points
Auto ownership	5 = high % of zero car households
Low income pop	5 = high % low income population
Disability	5 = high % with disabilities
Diabetes rates	5 = high % with diabetes
Physical Activity Rates	5 = low % of physical activity rates
Obesity Rates	5 = high % obese
Elderly population	5 = high % over the age of 65
Concentration children under 18	5 = high % under 18