

Metro Orlando Pedestrian Fatality Trends & Issues



July 2021

This Presentation

Dangerous By Design

- Pedestrian Danger Index
- Scenarios

Safe System Approach

Crossing Law

Crash Factors



Pedestrian Danger Index

Pedestrian Fatalities

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(Population X 100,000)

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% Walking to Work

Dangerous By Design includes Lake
County for the Orlando metro area



Scenarios



Accounting for Visitor Population

Without Visitor Population	With Visitor Population	Change
PDI = 284	PDI = 259	-9%

From 2012-13 Study of Metro Orlando Residence of Pedestrians Involved in Fatal Crashes	Pedestrians Fatalities	
	Number	Percent
Reside in Orlando Metro	77	79%
Florida, Outside Metro Orlando	14	14%
USA, Outside Florida	4	4%
Foreign	-	0%

Scenarios



Only Increase Walking to Work

Average PDI 2011-13	Average PDI 2017-19	Change
245	282	15%
Walk-to-Work 1.1%	Walk-to-Work 1.7%	+21%

Walk-to-Work 2011-13 1.1%	Walk-to-Work 2017-19 +100% 2.2%	Change
PDI = 245	PDI = 178	-27%

Scenarios



Only Decrease Fatalities 20%

Average Yearly Fatals 2011-13 60	Average Yearly Fatals 2017-19 Reduced 20% = 48	Change
PDI = 235	PDI = 136	-42%

A New Safety Principle



New 2021 Florida Highway Safety Plan introduces the **Safe System** approach ...

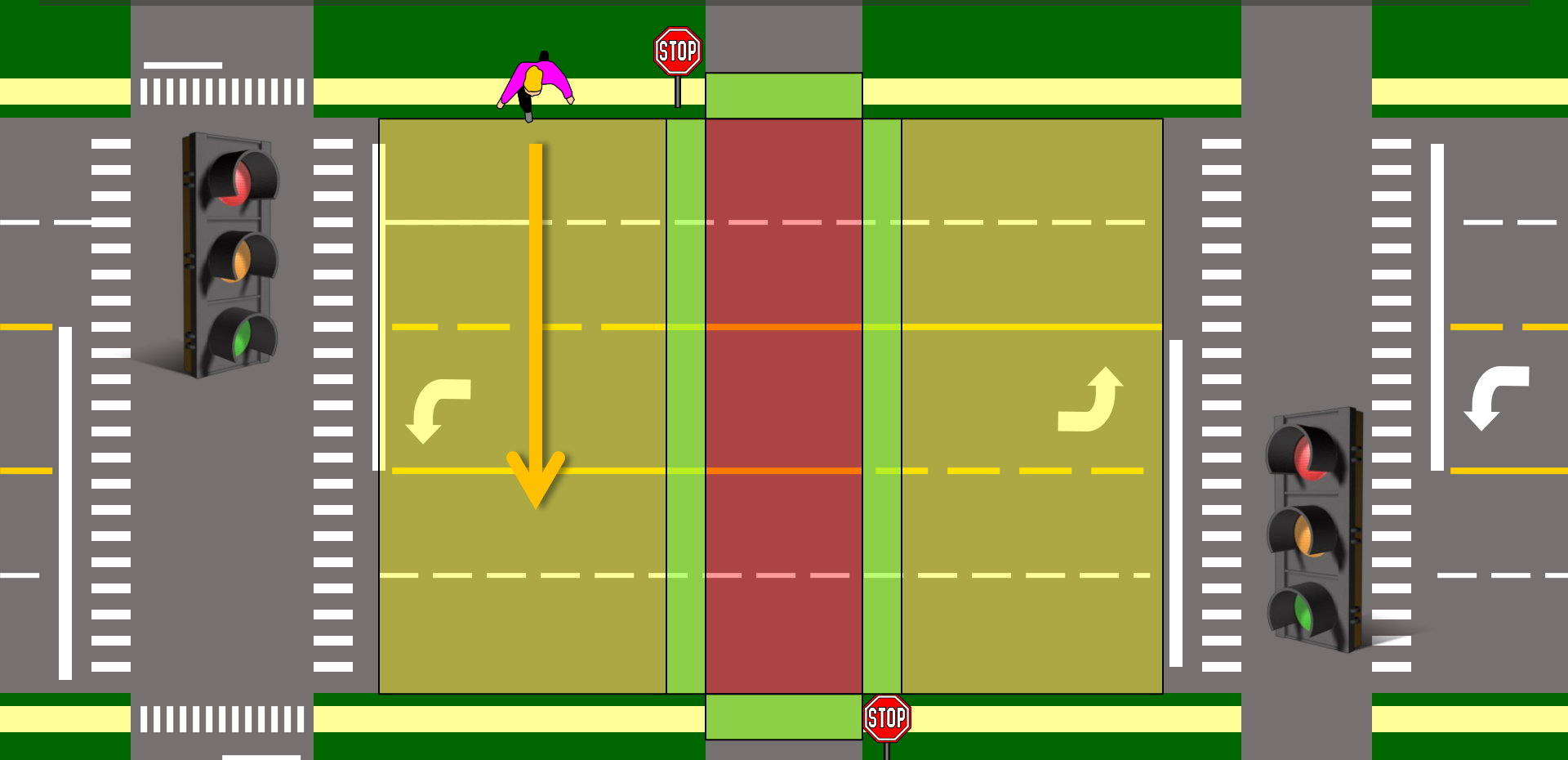
*“... which acknowledges that **humans make mistakes**, the human body is vulnerable, and that we should design and operate our transportation system to ensure that if crashes do occur they do not result in serious human injury.”*

Pedestrian Fatality Factors

- Failure to Yield
- Darkness
- Distraction
- Speed

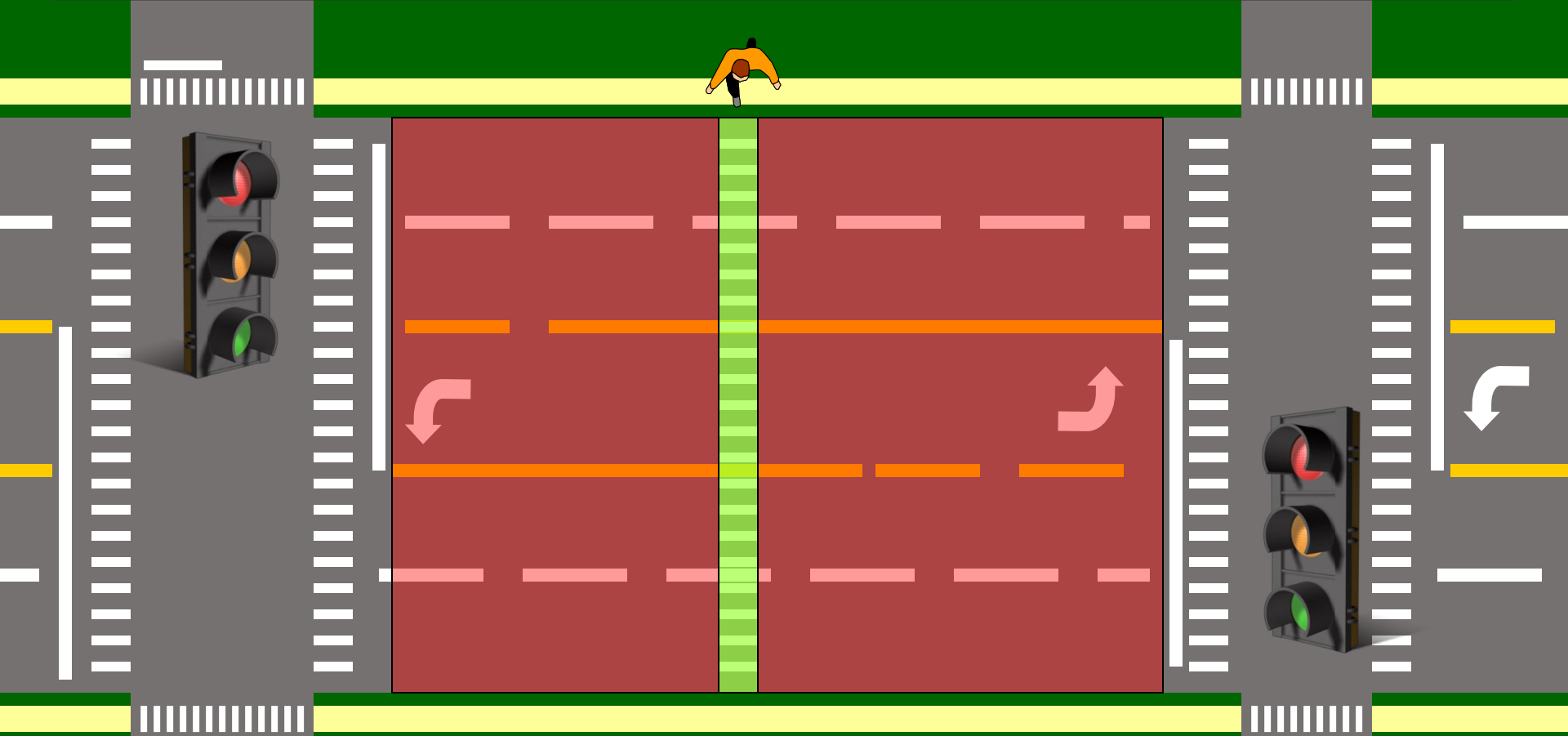


When at least one of the nearest intersections are not signalized, pedestrians may cross mid-block, provided they yield to traffic.



A crosswalk is the continuation of the lateral lines of the sidewalk across the roadway.
Most crosswalks are unmarked.

Between adjacent signalized intersections, pedestrians may only cross in marked crosswalks.



-  Motorists Yield to Pedestrians
-  Pedestrians May Not Cross

“...humans make mistakes...”



Pedestrian Fatality Factors



Night Versus Daytime

Night		Avg. 2011-13	Avg. 2017-19	Change
	All Crashes	277	316	+14%
	Fatals	38	65	+71%
	% Fatal	14%	21%	
Day		Avg. 2011-13	Avg. 2017-19	Change
	All Crashes	360	382	+6%
	Fatals	8.7	9.3	+7%
	% Fatal	2%	2%	Pop. +14%

Pedestrian Fatality Factors



Pedestrian Failure to Yield, Mid-Block

		Avg. 2011-13	Avg. 2017-19	Change
Night	All Crashes	98	103	+5%
	Fatals	15	27	+84%
	% Fatal	15%	26%	
	Night, With Street Lighting +148%			
		Avg. 2011-13	Avg. 2017-19	Change
Day	All Crashes	72	63	-13%
	Fatals	1.7	2.3	40%
	% Fatal	2%	4%	
Pedestrian Failure to Yield as % of All		29%	25%	

Pedestrian Fatality Factors



Distracted Driving

Pedestrian Crash Factor (All Injury Levels)	Avg. 2011-13	Avg. 2017-19	Change
All Pedestrian, Public ROW, No Freeway	691	741	+7%
Motorist Failure to Yield, Distracted (All Lighting)	17	38	+119%
Night, Distracted Driving	18	23	+27%
Smart Phone Ownership*	44%	78%	+77%

* Pew Research

Pedestrian Fatality Factors



Motorist Failure to Yield

		Avg. 2011-13	Avg. 2017-19	Change
Motorist Failure to Yield	All Crashes	158	197	+25%
	Daytime Only	73	135	+85%
	Fatals	5.7	6	+5%
	% Fatal	4%	3%	

Lee Vista Blvd., Orlando

Median to Curb = 26 ft.

Curb to Curb = 99 ft.



Oak Street, Bozeman, MT

Median to Curb = 28 ft.

Curb to Curb = 88 ft.



US 441,
Apopka
Curb to Curb = 62 ft.



US 12,
Missoula, MT
Curb to Curb = 86 ft.



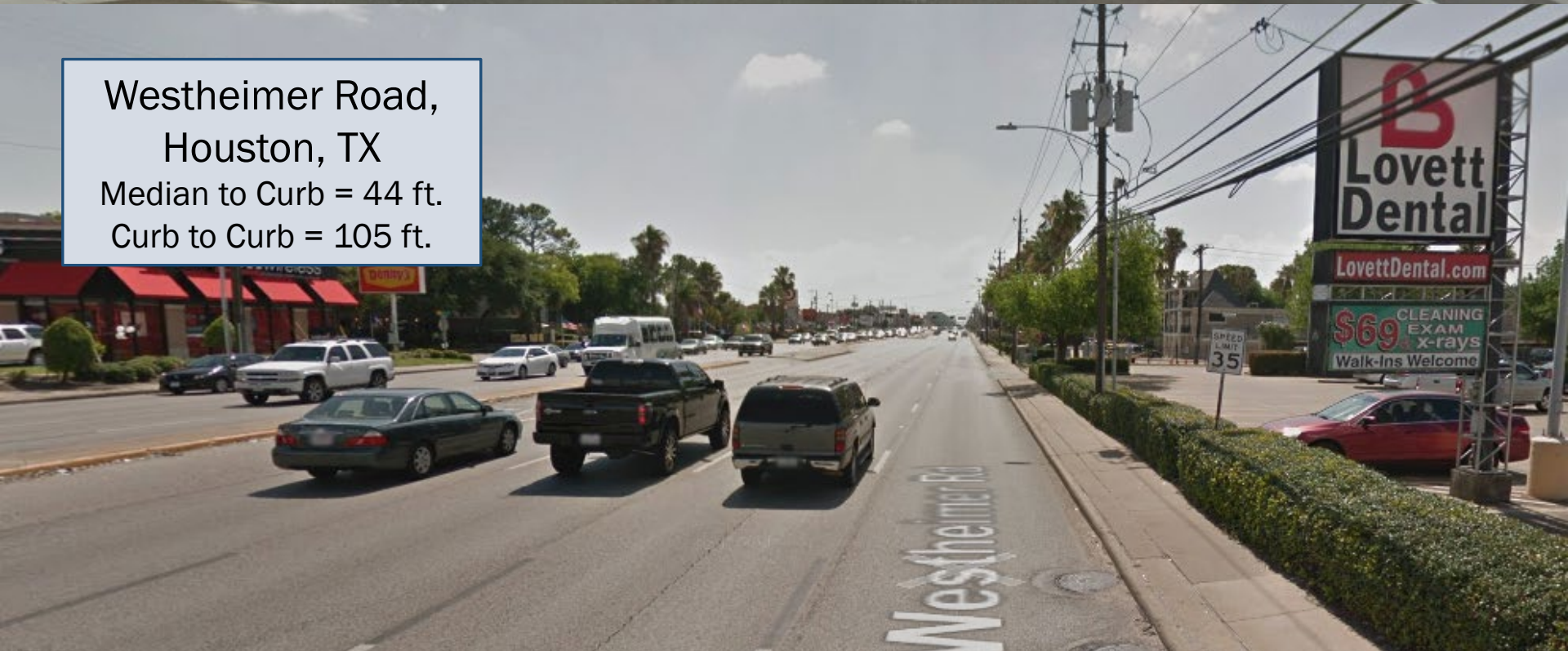
US 192,
Kissimmee

Median to Curb = 42 ft.
Curb to Curb = 96 ft.



Westheimer Road,
Houston, TX

Median to Curb = 44 ft.
Curb to Curb = 105 ft.



The Deadly Trio

Darkness
+
Distraction
+
Speed

+ Fewer Regular Passenger Cars
More Trucks and SUVs



Reduced Night-time Posted Speed

- US 1 on Big Pine Key
- 45 MPH Daytime
- 35 MPH Night-time to protect endangered key deer
- Leading pilot for some state roads here



Thank You

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