

Pedestrian Level of Traffic Stress

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“Blergh”

- The internal dialogue of parents everywhere while crossing busy roads with small children

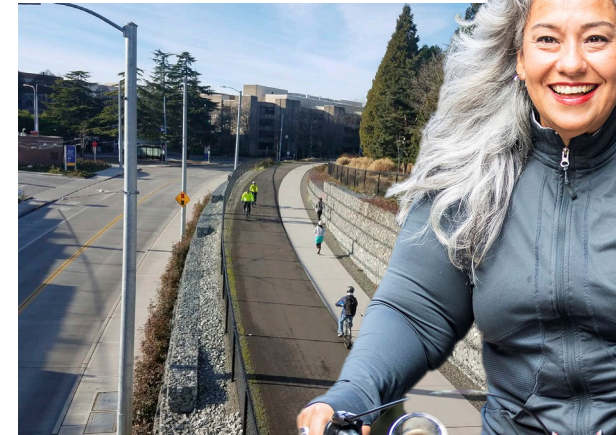
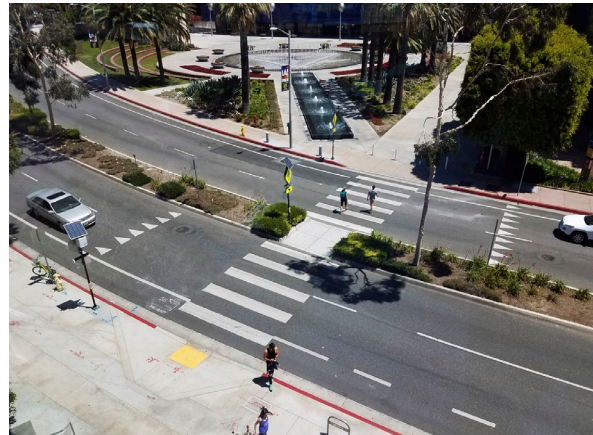


stress
matters

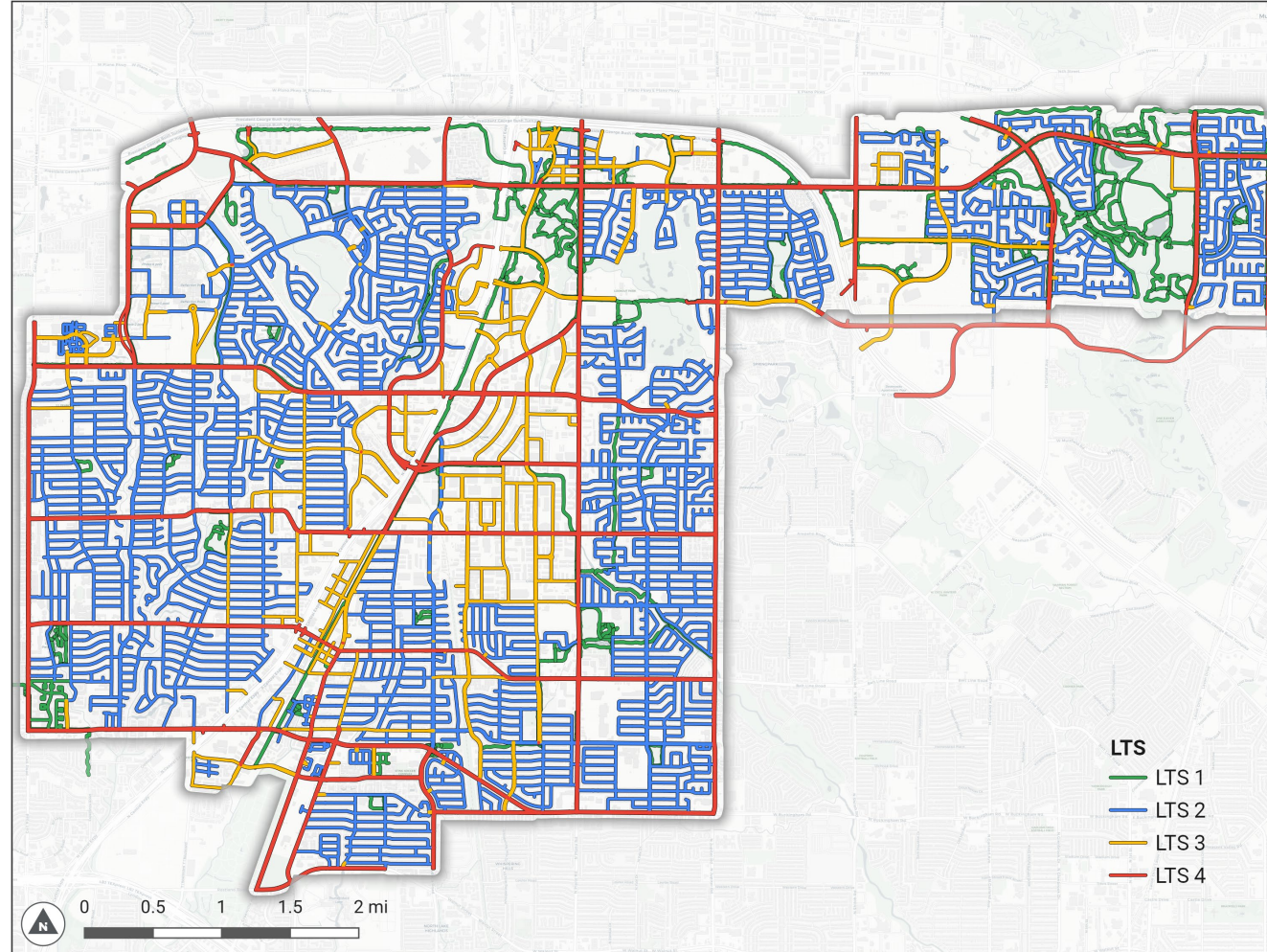
Measure the level of traffic stress



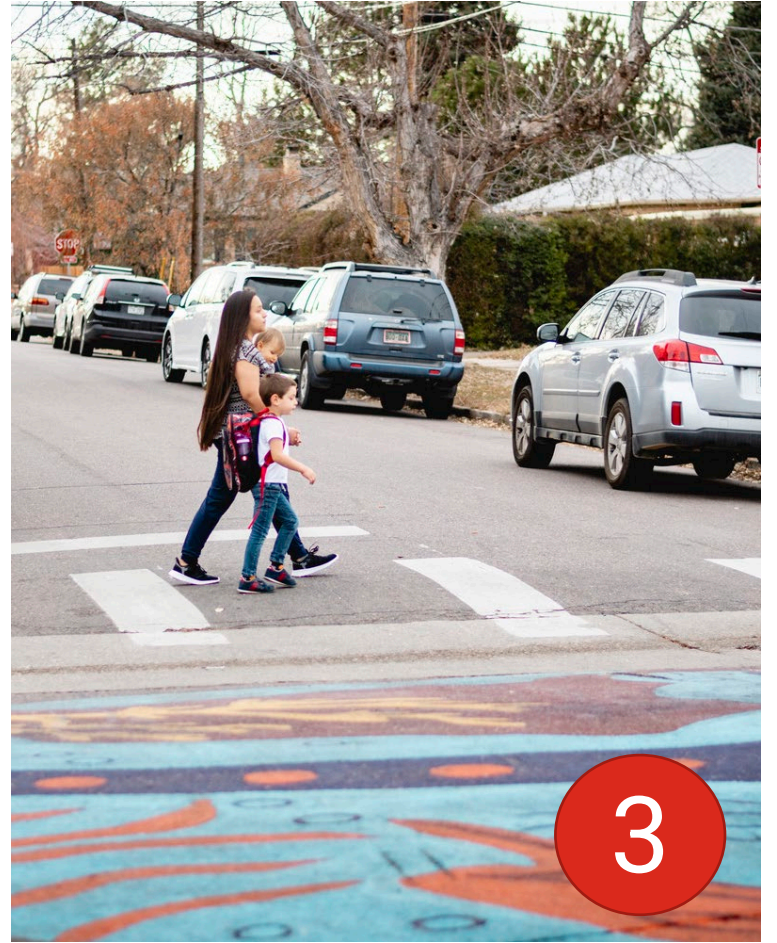
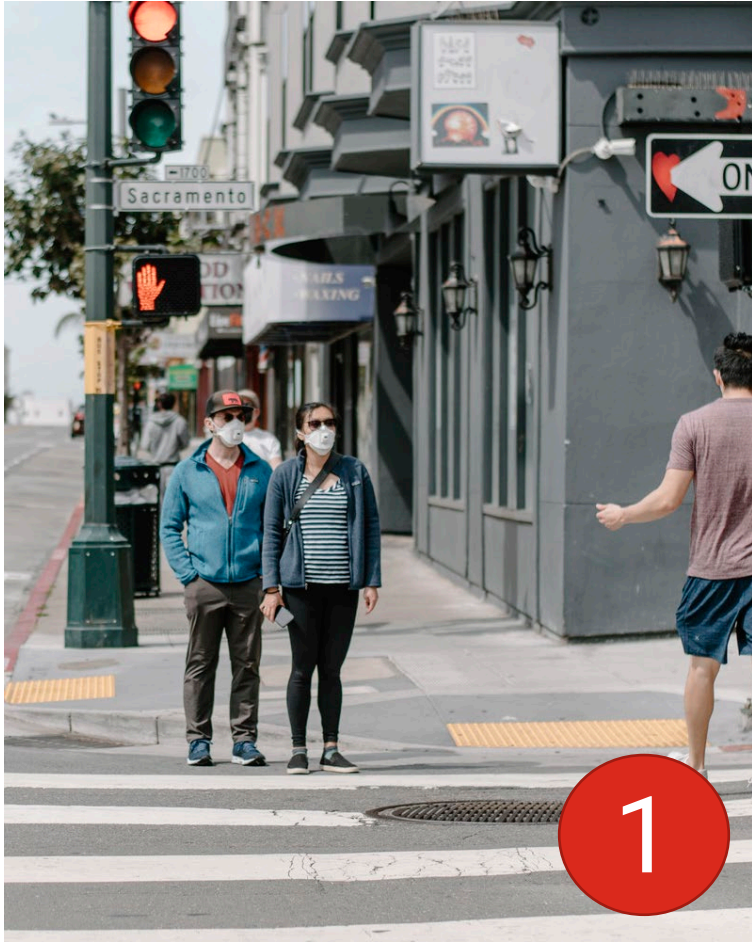
Measure the level of traffic stress



Measure the level of traffic stress







How stressed out are you?



Why are you stressed out?

Pedestrian Level of Traffic Stress



Pedestrian Level of Traffic Stress

- Traffic volume
- Number of vehicle lanes, as a proxy for crossing distance
- Functional classification
- Posted speed limit
- Traffic control device
- Mid-block crossing locations
- Pedestrian crossing island



Ped LTS – Criteria for Local / Collector Unsignalized Crossings

Observed 85th Percentile Speed (MPH)

Total Lanes Crossed

	1 Lane*	2 Lanes	3 lanes	4+ lanes
≤ 25 mph	PLTS 1	PLTS 1	PLTS 1	PLTS 3
30	PLTS 1	PLTS 2	PLTS 2/1**	PLTS 3
35	PLTS 2	PLTS 2	PLTS 3/2**	PLTS 3
≥ 40	PLTS 3	PLTS 3	PLTS 3	PLTS 4

Notes:

PLTS = Pedestrian Level of Traffic Stress

* For example, a one-lane, one-way street

** if pedestrian crossing island is present, the lower PLTS score is assigned

Ped LTS – Crossing Infrastructure

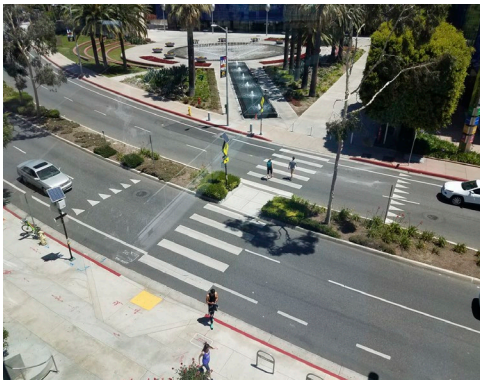
Without median refuge



Observed 85 th Percentile Speed (MPH)	Total Lanes Crossed					
	2 Lanes			3+ Lanes		
	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd
≤ 25 mph	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4
30	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 3	PLTS 4
35	PLTS 3	PLTS 3	PLTS 4	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

VPD = Vehicle per day

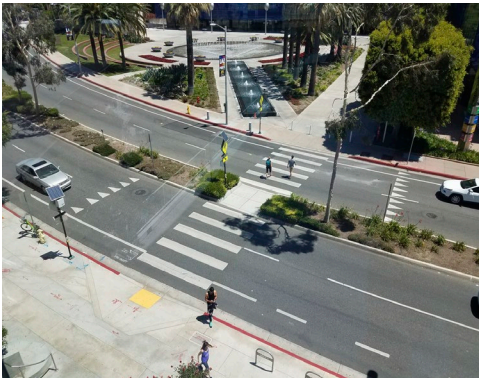
With median refuge



Observed 85 th Percentile Speed (MPH)	Maximum Through/Turn Lanes Crossed per Direction							
	1 Lane Any	2 Lanes			3 + Lanes			4+ Lanes Any
		< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd	
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 1	PLTS 2	PLTS 3	PLTS 4
30	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 4
35	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

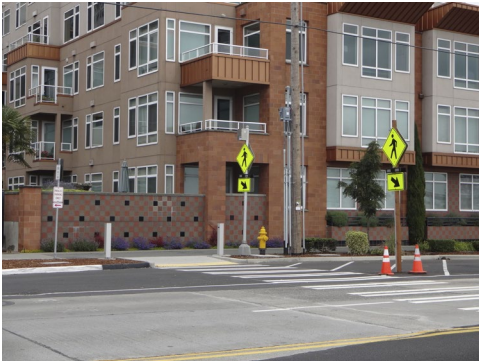
Ped LTS – Crossing Infrastructure

With median refuge



Observed 85 th Percentile Speed (MPH)	Maximum Through/Turn Lanes Crossed per Direction							
	1 Lane Any	2 Lanes			3 + Lanes			4+ Lanes Any
		< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd	
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 1	PLTS 2	PLTS 3	PLTS 4
30	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 4
35	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

With all-way stop or RRFB



Observed 85 th Percentile Speed (MPH)	2 Lanes			3 + Lanes		
	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 2	PLTS 3
30	PLTS 1	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3
35	PLTS 2	PLTS 2	PLTS 3	PLTS 2	PLTS 3	PLTS 3
≥ 40	PLTS 2	PLTS 3		PLTS 3	PLTS 3	PLTS 3

Ped LTS – Crossing Infrastructure

Total Lanes Crossed

≤ 5	PLTS 2
≥ 6	PLTS 3

Time to apply...



Time to apply...

Observed 85 th Percentile Speed (MPH)	Total Lanes Crossed					
	2 Lanes			3+ Lanes		
	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd
≤ 25 mph	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4
30	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 3	PLTS 4
35	PLTS 3	PLTS 3	PLTS 4	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

VPD = Vehicle per day

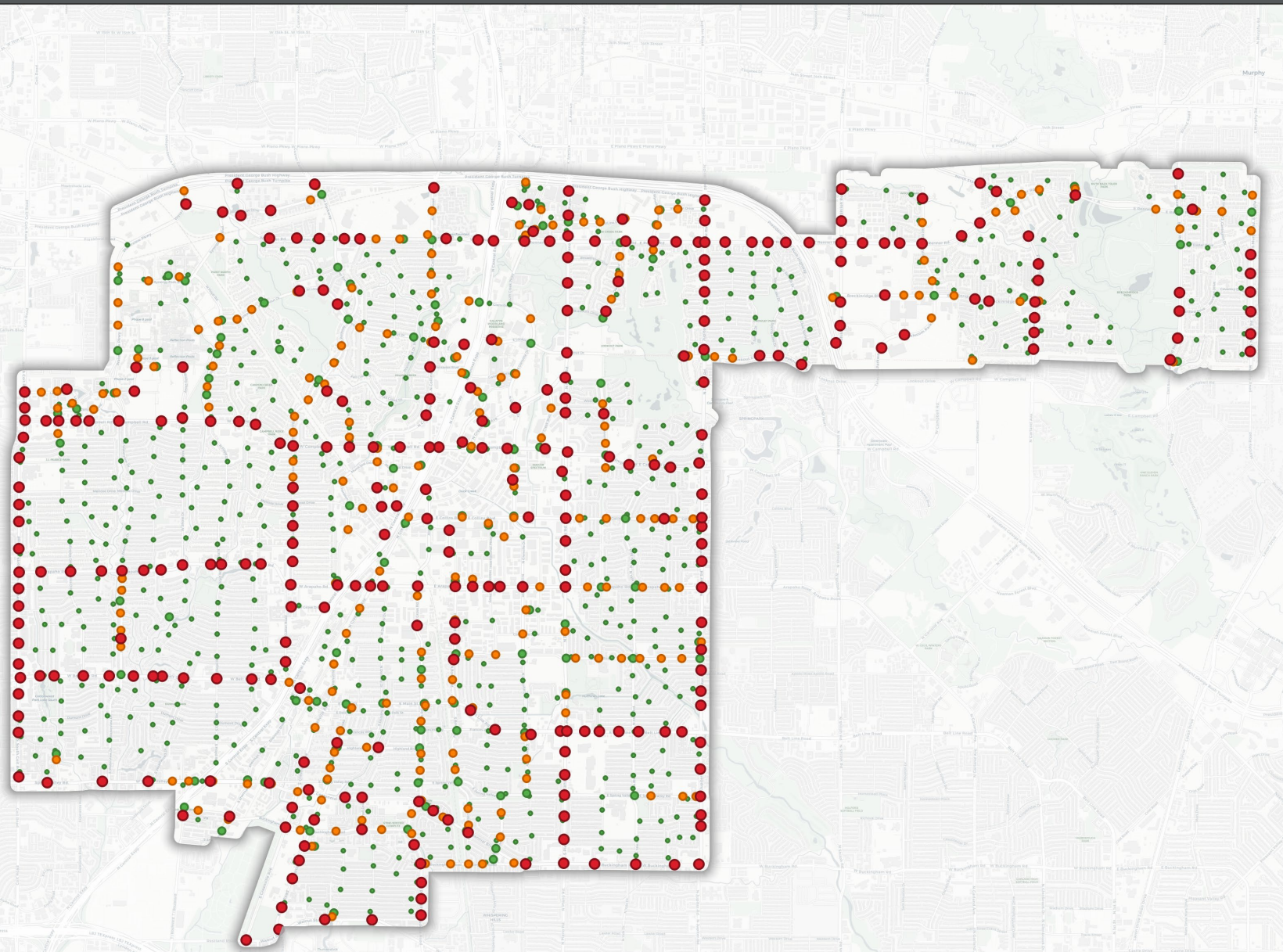
Observed 85 th Percentile Speed (MPH)	Maximum Through/Turn Lanes Crossed per Direction							
	1 Lane	2 Lanes			3 + Lanes			4+ Lanes
	Any	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd	Any
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 1	PLTS 2	PLTS 3	PLTS 4
30	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 4
35	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

Observed 85 th Percentile Speed (MPH)	Maximum Through/Turn Lanes Crossed per Direction							
	1 Lane	2 Lanes			3 + Lanes			4+ Lanes
	Any	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd	Any
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 1	PLTS 2	PLTS 3	PLTS 4
30	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 4
35	PLTS 2	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4
≥ 40	PLTS 3	PLTS 3	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

Observed 85 th Percentile Speed (MPH)	2 Lanes			3 + Lanes		
	< 5,000 vpd	5,000 – 9,000 vpd	>9,000 vpd	< 8,000 vpd	8,000 – 12,000 vpd	> 12,000 vpd
≤ 25 mph	PLTS 1	PLTS 1	PLTS 2	PLTS 2	PLTS 2	PLTS 3
30	PLTS 1	PLTS 2	PLTS 2	PLTS 2	PLTS 2	PLTS 3
35	PLTS 2	PLTS 2	PLTS 3	PLTS 2	PLTS 3	PLTS 3
≥ 40	PLTS 2	PLTS 3		PLTS 3	PLTS 3	PLTS 3

Total Lanes Crossed	
≤ 5	PLTS 2
≥ 6	PLTS 3

Welcome to Richardson



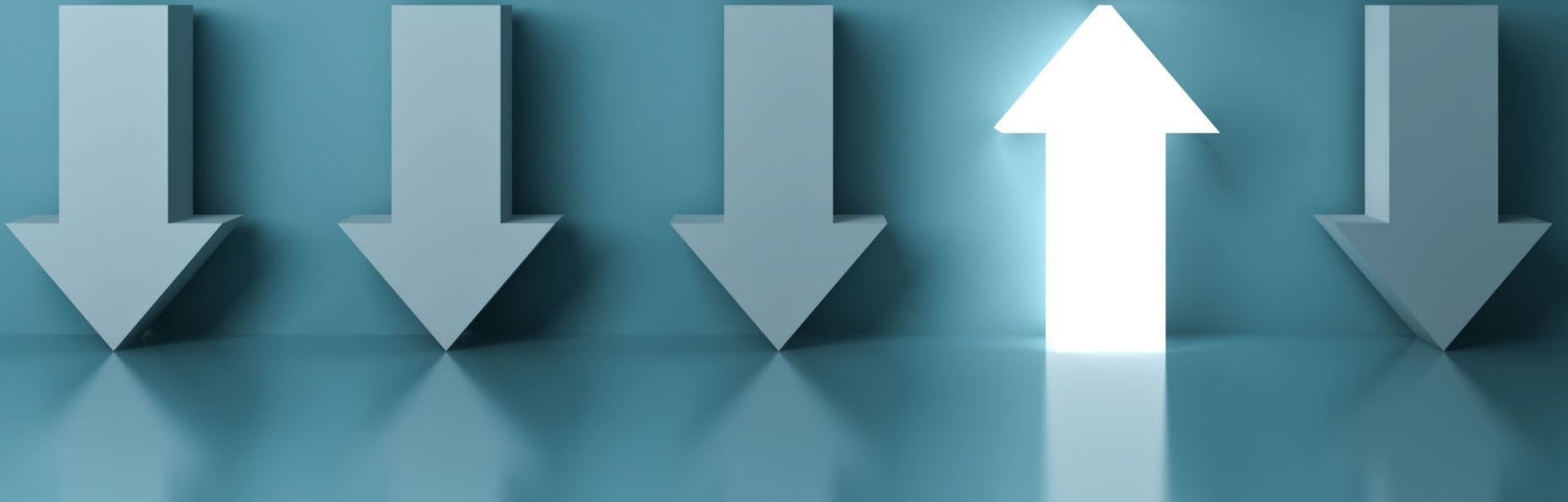
- High Stress Crossing
(Greater than 0.25 mi to
nearest low stress crossing)
- High Stress Crossing
(Less than 0.25 mi to
nearest low stress crossing)
- Low Stress Crossing
(Nearest to high stress)
- Low Stress Crossing
(Other)





“Blergh”

lanes . distance . signals . speed . aadt





Thank you

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