

Shared Space & Flush Streets

APA Urban Design and Preservation Division Webinar Series

October 23, 2020



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@path_as_place @IanLockwoodPE

TOOLE
DESIGN

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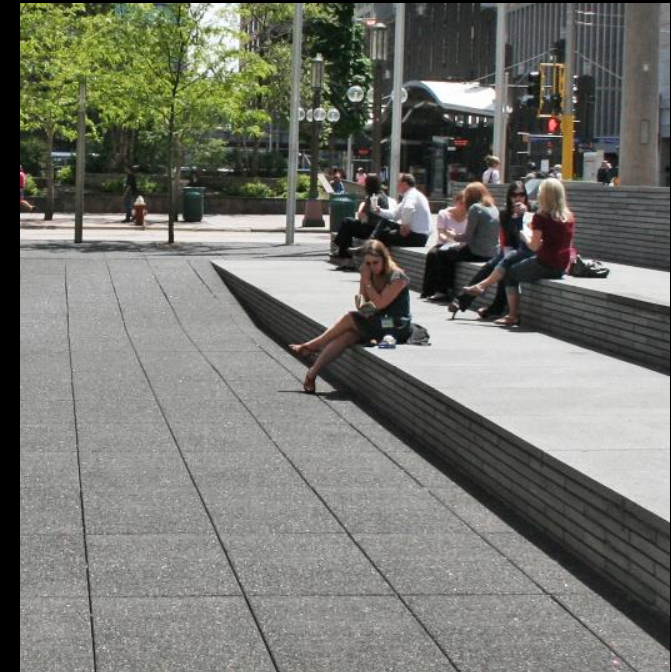
Cindy Zerger

Director of Urban Design, California

TOOLE
DESIGN

Cindy's work is focused on design of the public realm.

Coined the term "Path as Place" to express a holistic approach to designing for streets in a way that ensures engagement with it, not just passage through it.



Ian Lockwood, PE

Livable Transportation Engineer

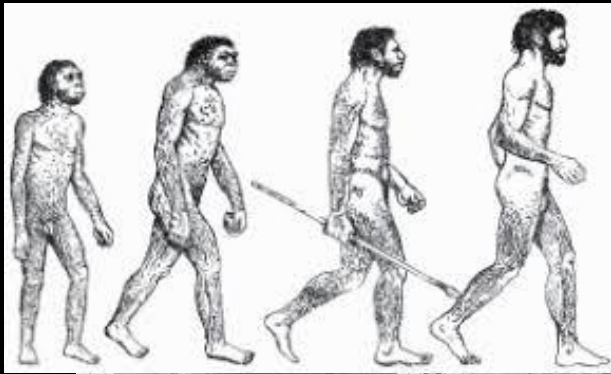
TOOLE
DESIGN

Recognized national leader in sustainable transportation policy and urban design.



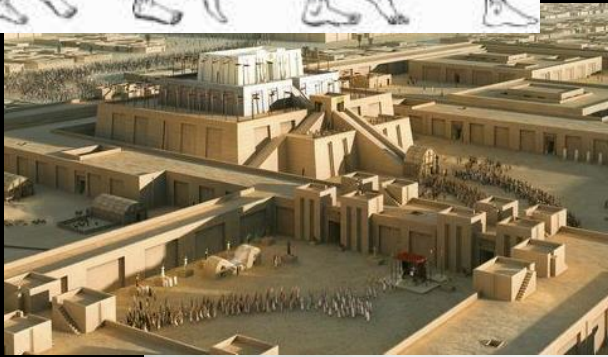






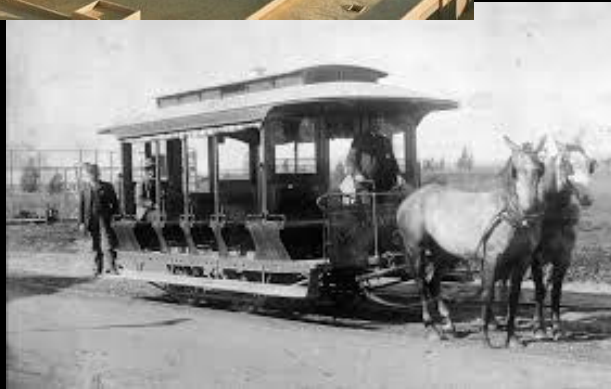
Walking & Trails

5,000,000 years ago



Cities & Streets

6,500 years ago



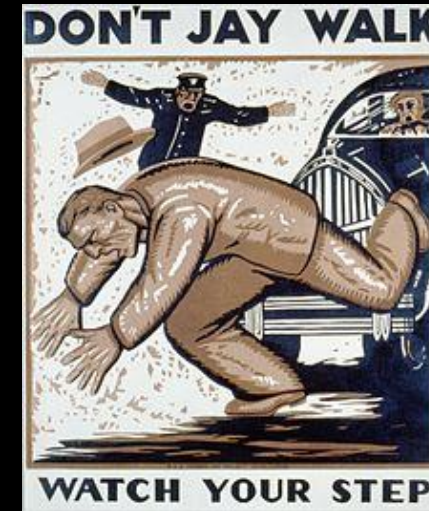
Transit & Wooden Rails

400 years ago



Bicycle

200 years ago



Modernist Transportation Values

85 years ago



Automobile

130 years ago

Trains & Iron Rails

170 years ago





KING OF THE KILLERS!

GREATEST menace to human life smirks at law—total penalty for thirty-one killings is merely four and one-half years in prison —

By TOM LEVINE.

The danger and the crime. Speed is a crime as old as man, with Greek myths and King Arthur legends, creating the path of destruction with the wheels, but speed is death.

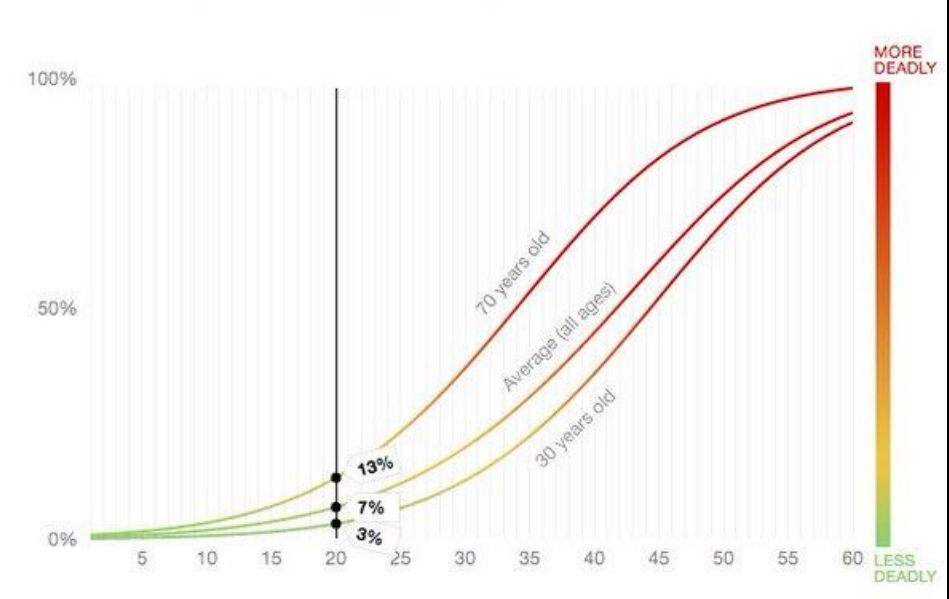
It should not be that simple when the wheel is turned and the motor is started. The law is simple, and the penalty is simple. The law is simple, and the penalty is simple. The law is simple, and the penalty is simple.

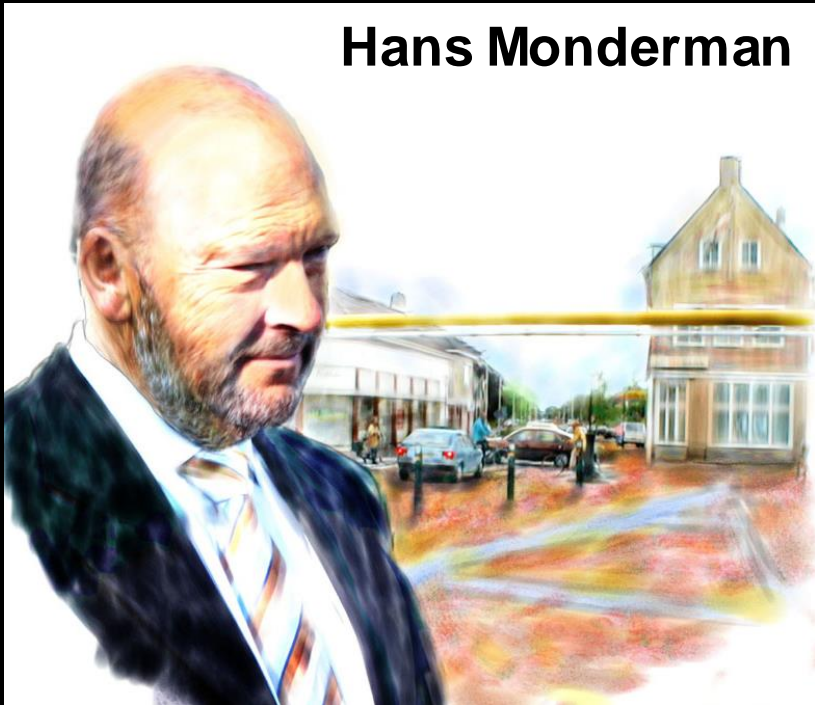
SAVER COSTS FORTY-TWO.

It should not be that simple when the wheel is turned and the motor is started. The law is simple, and the penalty is simple. The law is simple, and the penalty is simple. The law is simple, and the penalty is simple.

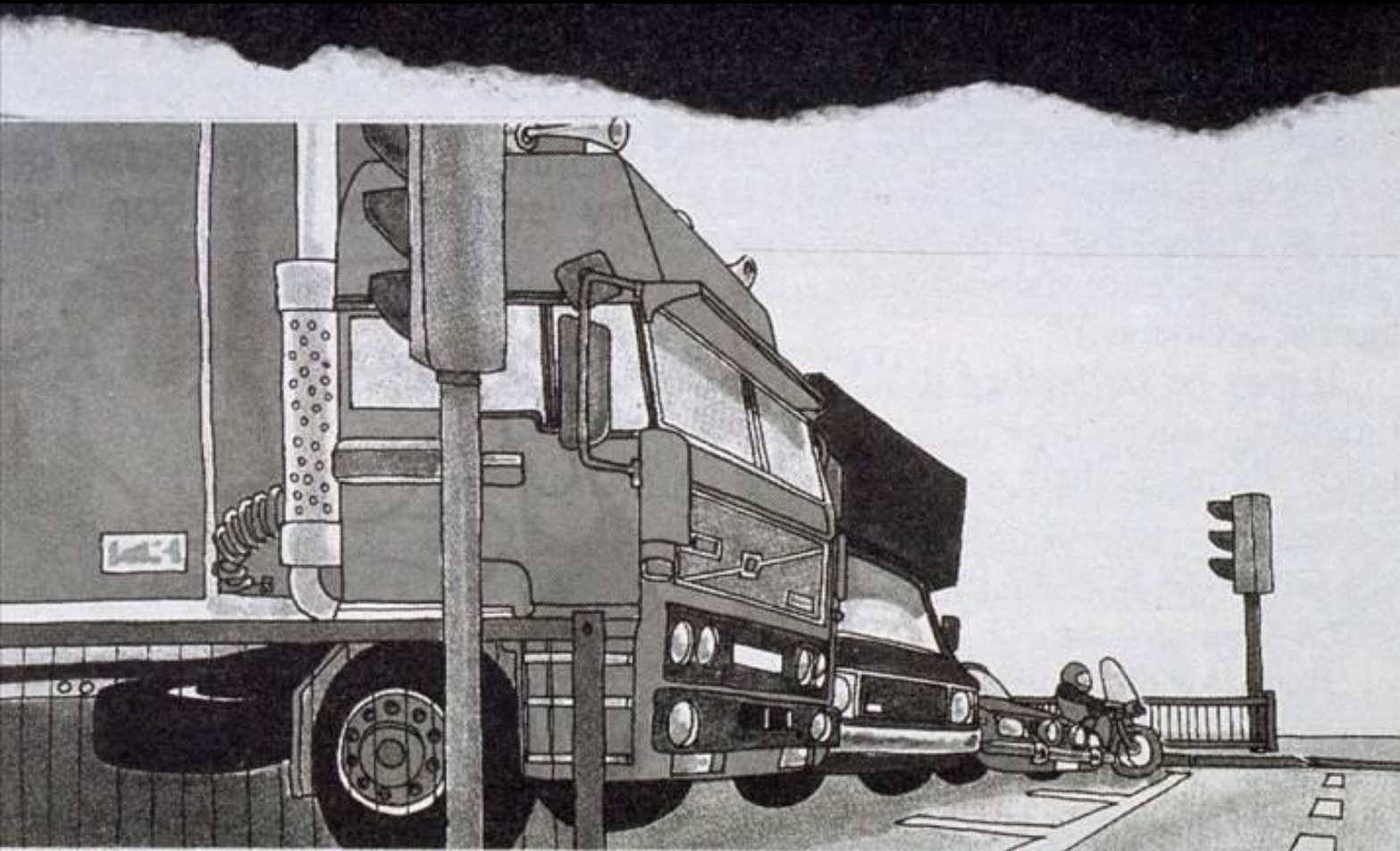
The Chance of Being Killed by a Car Going 20 mph

Roll over the curved lines to see the risk at any speed

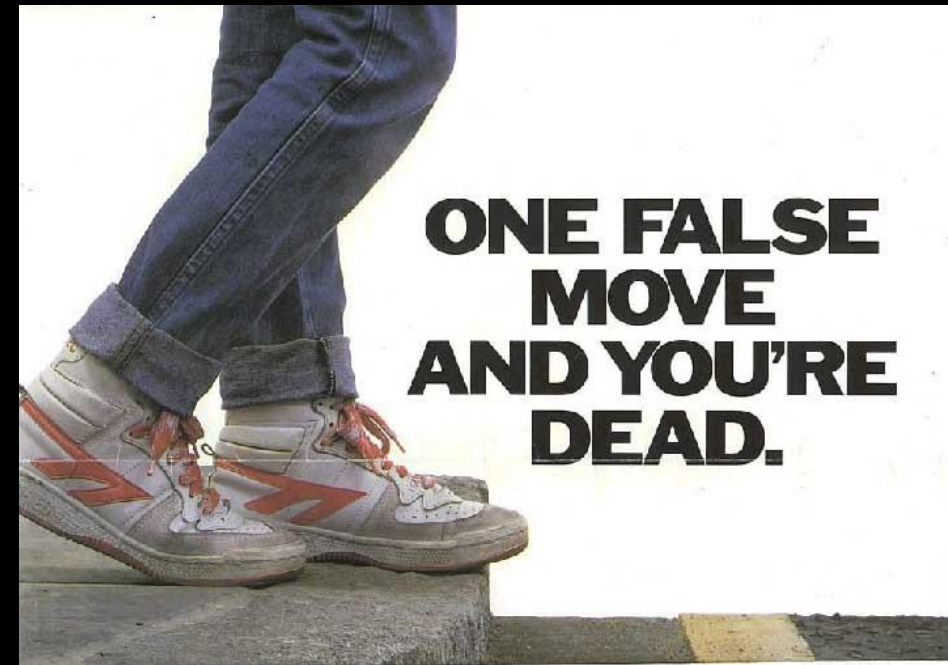








Be sure that children know how dangerous traffic can be. Roads are for cars and lorries – not for pedestrians.



**ONE FALSE
MOVE
AND YOU'RE
DEAD.**

BEFORE YOU CROSS THE ROAD.

STOP AT THE KERB.



**Kensington High Street
London**







Shared Space:

a space that **lacks the formal separation** found in conventionally-designed streets, **blurring the line** between the space intended for pedestrians and for cars, while still **comfortably accommodating all** of the users of the space. Typically, shared spaces employ minimal to no traffic control devices.





Informal/Casual



Plaza'ish Space



Rural/Natural



Formal/Chique

Shared Space:

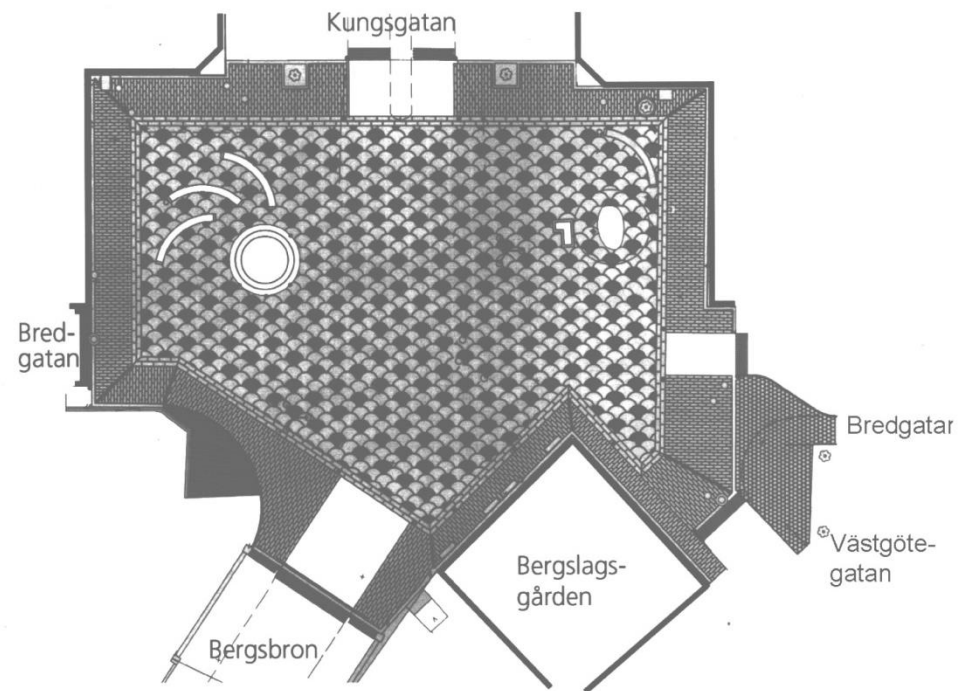
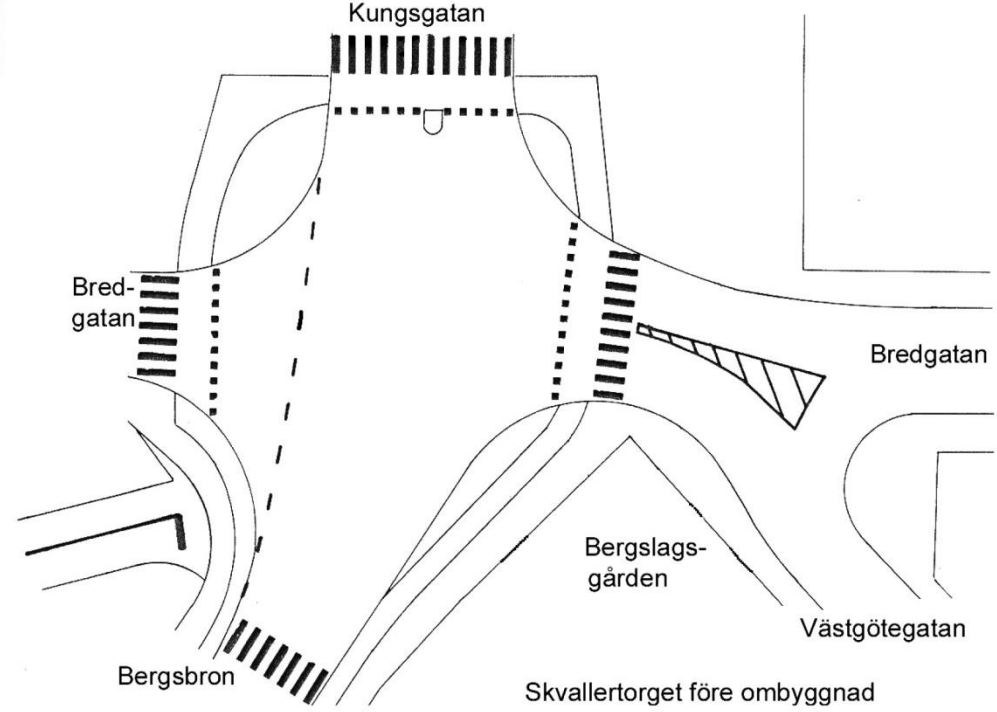
a space that **lacks the formal separation** found in conventionally-designed streets, **blurring the line** between the space intended for pedestrians and for cars, while still **comfortably accommodating all** of the users of the space. Typically, shared spaces employ minimal to no traffic control devices.















Bredgatan

h.u. UMEÅS UNIVERSITET

Pafti





Shared Space
or
Shared Street?

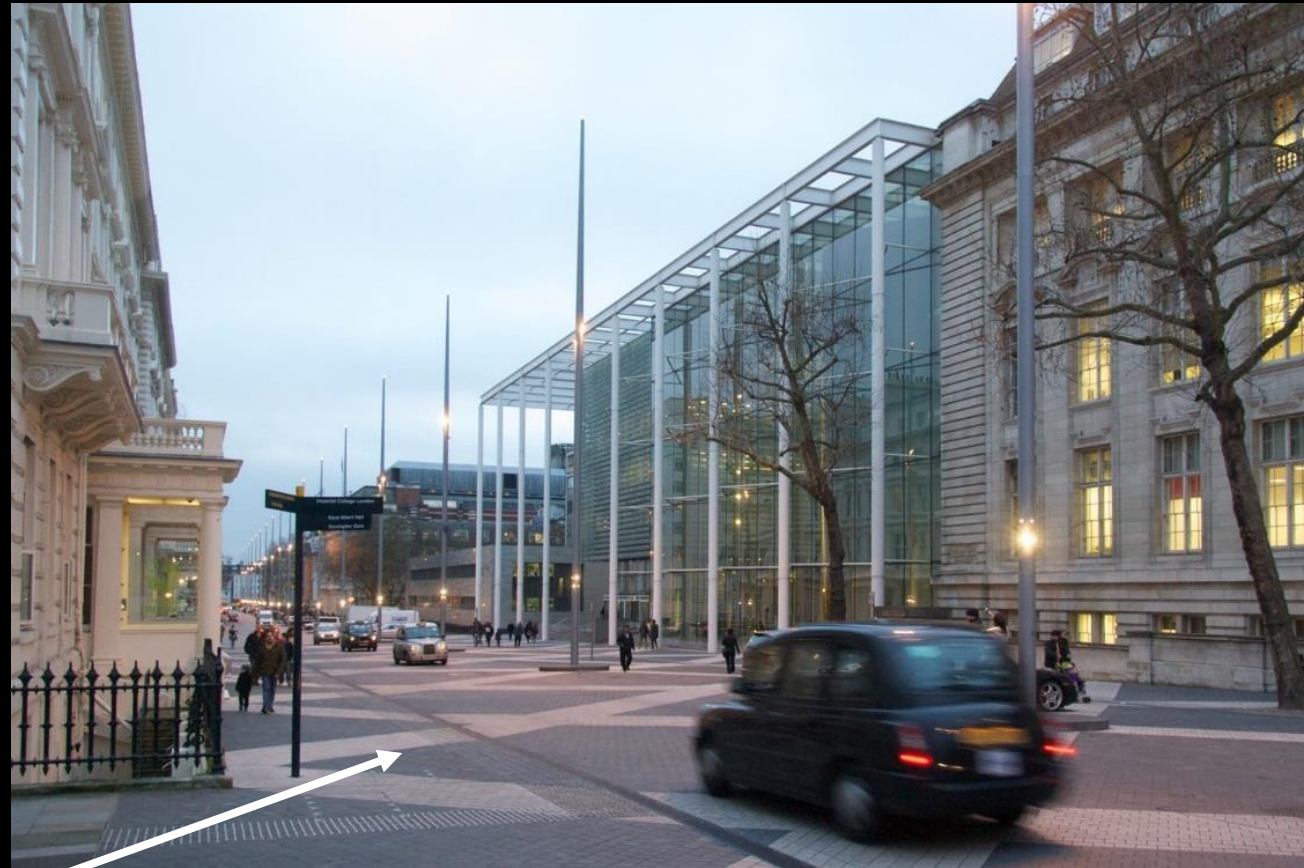




Shared Space
or
~~Shared Street?~~



Shared Space is
inclusive of
intersections &
integrated open
spaces, plaza,
squares, etc.



Comfort Zone:
a part of a shared space
where motor vehicle use is
discouraged



Comfort Zone:
a part of a shared space
where motor vehicle use is
discouraged



Shared Zone:
a part of a shared space
where motor vehicle use is
encouraged



Flush Street (also know as “curbless street” or “festival street”): a street that can be closed to motorists and used as public open space without vertical curbs, reducing barriers to people with related mobility impairments.

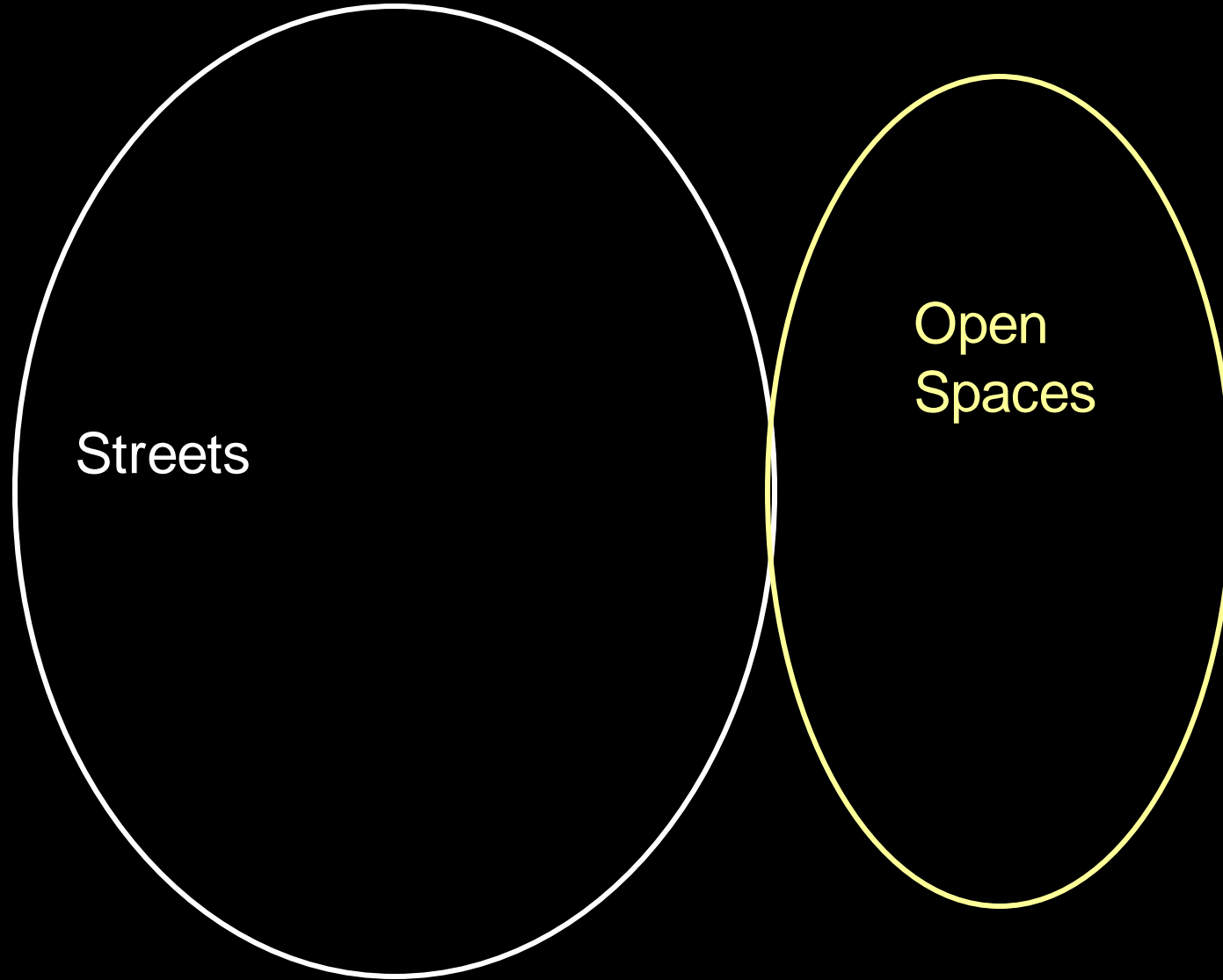








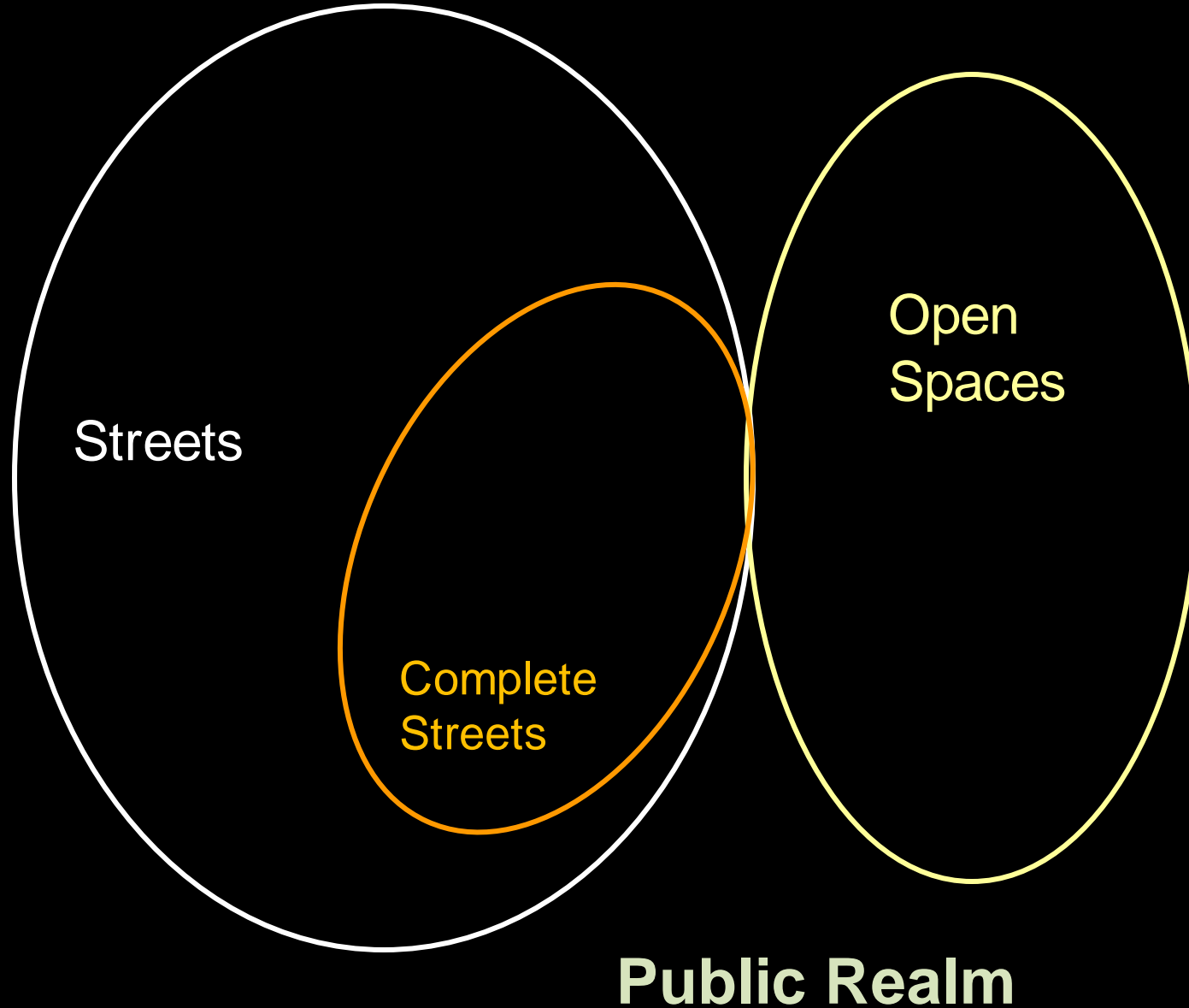




Streets

Open
Spaces

Public Realm

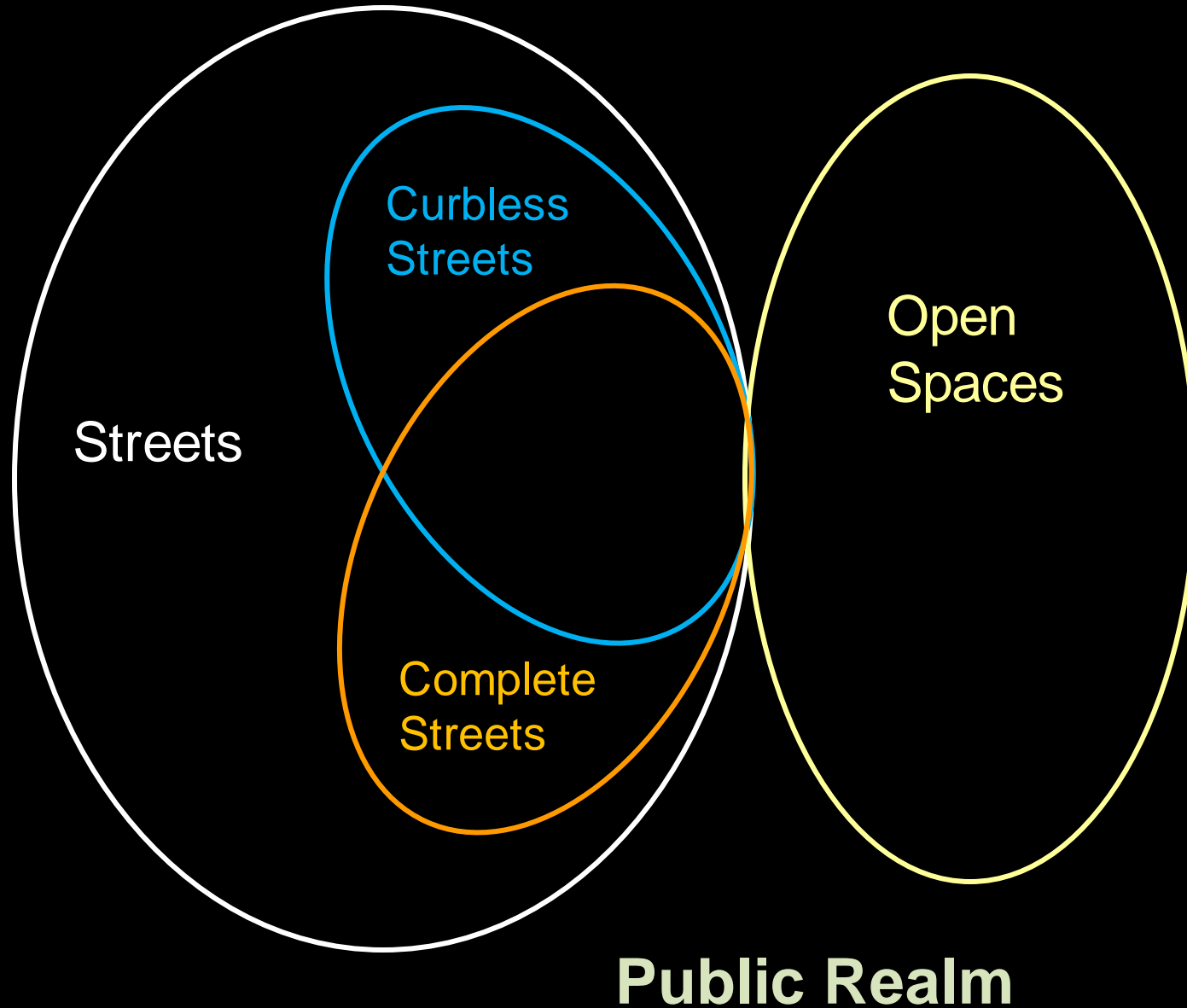


Streets

Open
Spaces

Complete
Streets

Public Realm



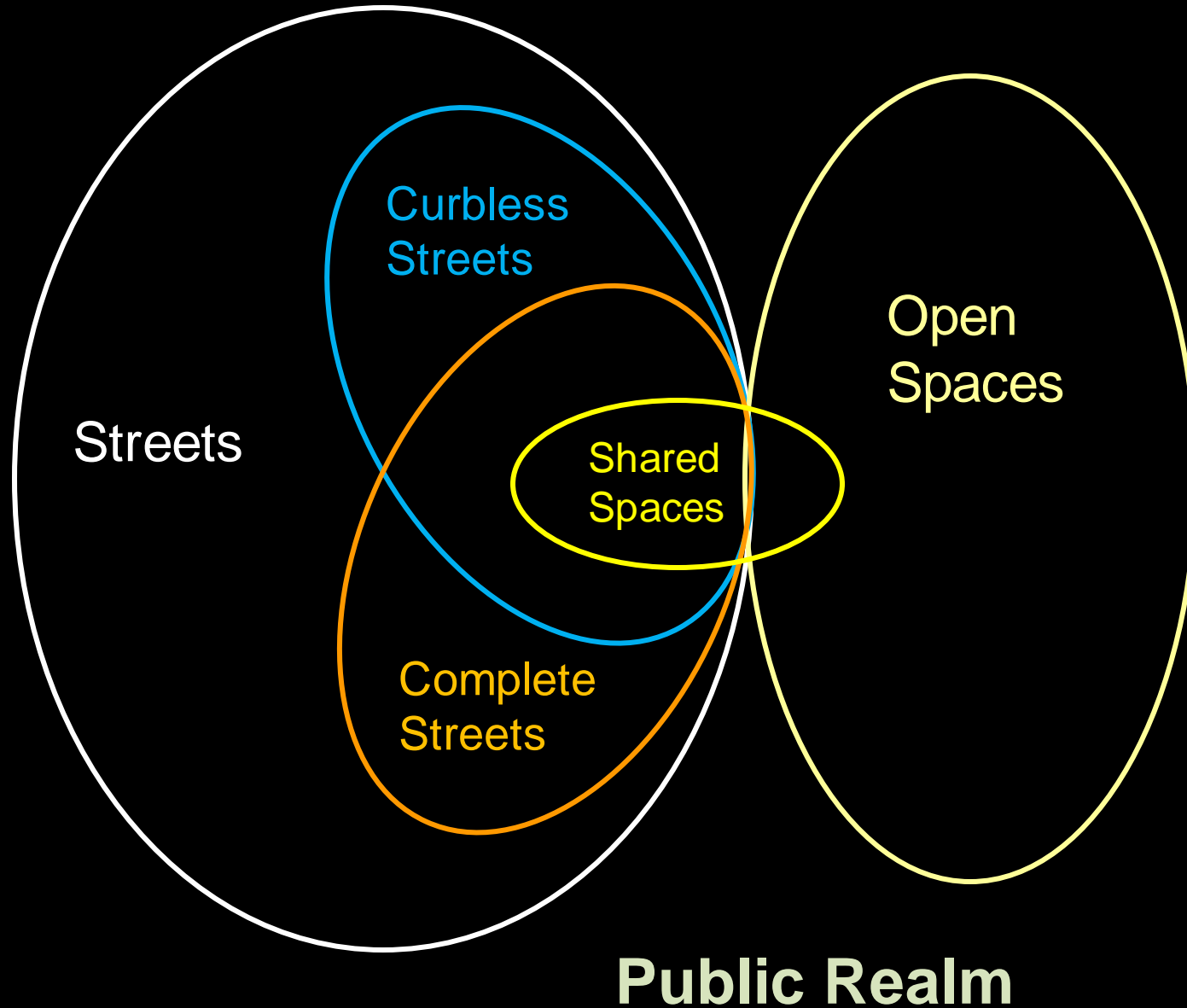
Streets

Curbless
Streets

Complete
Streets

Open
Spaces

Public Realm



Public Realm

SULPHUR SPRINGS

Creating Inclusive Spaces and Places













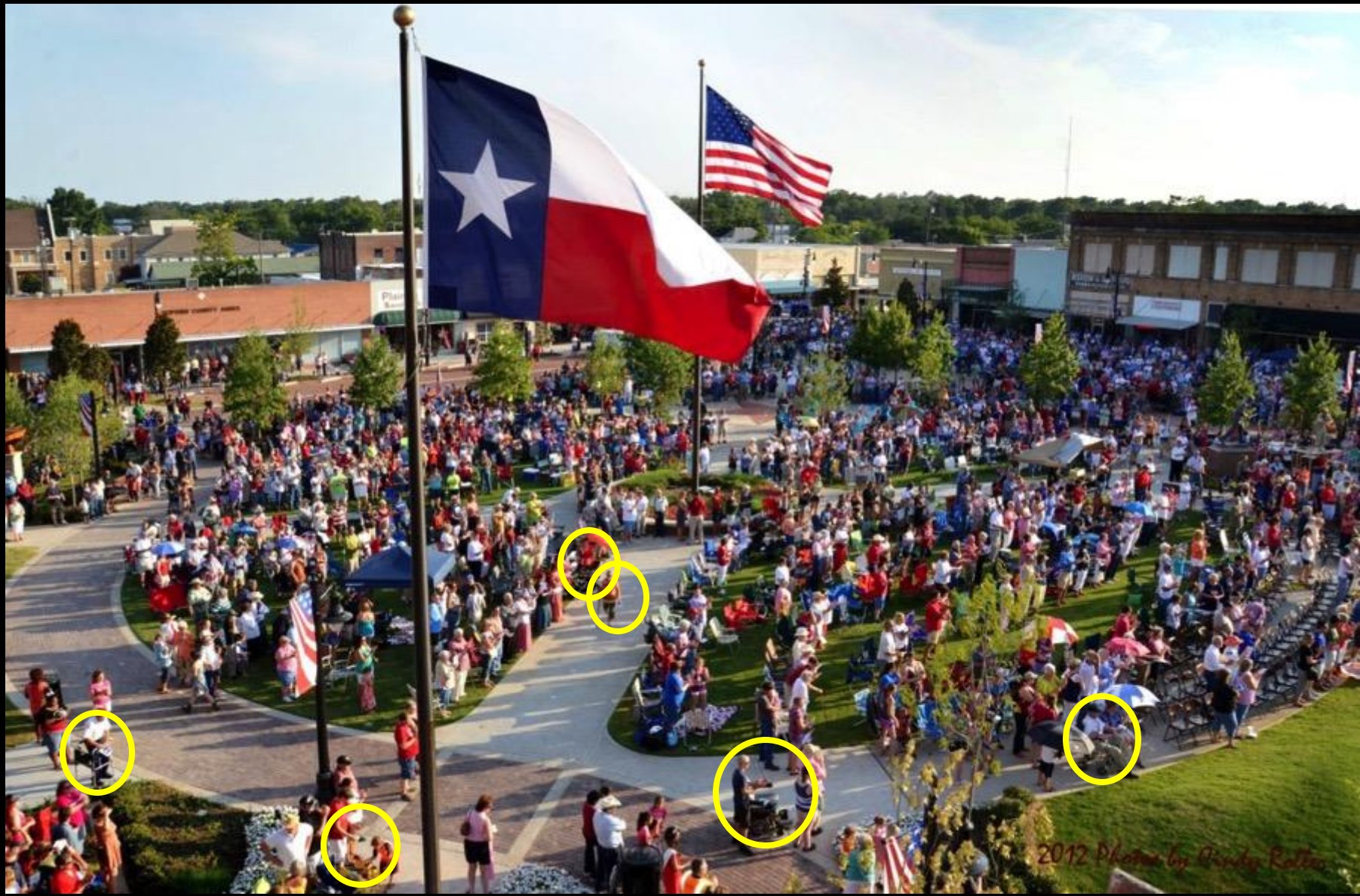






2014 Photos by Cindy Roller











Summary of Common Terminology Involving Shared Space & Flush Streets

Shared Space:

a space that **lacks the formal separation** found in conventionally-designed streets, **blurring the line** between the space intended for pedestrians and for cars, while still **comfortably accommodating all** of the users of the space. Typically, shared spaces employ minimal to no traffic control devices.

Complete Street:

a street that **comfortably accommodates all** of the users of the street.

Flush Street / Curbless Street / Festival Street:

a street that can be closed to motorists and used as public open space **without vertical curbs** creating barriers to people with related mobility impairments.

Comfort Zone:

a part of a shared space where **motor vehicle use is discouraged**.

Shared Zone:

the part of a shared space where **motor vehicle use is encouraged**.



**Designing the Public
Realm to Better
Accommodate People
with Vision Disabilities**



Directional Indicators



Warning Surfaces

Use Directional Indicators and Warning Surfaces to guide people with vision disabilities:

- i) to places and services;
- ii) through plazas, around campuses, along conventional streets, through networks, across roundabouts, along and across shared spaces; and
- iii) around large venues and buildings



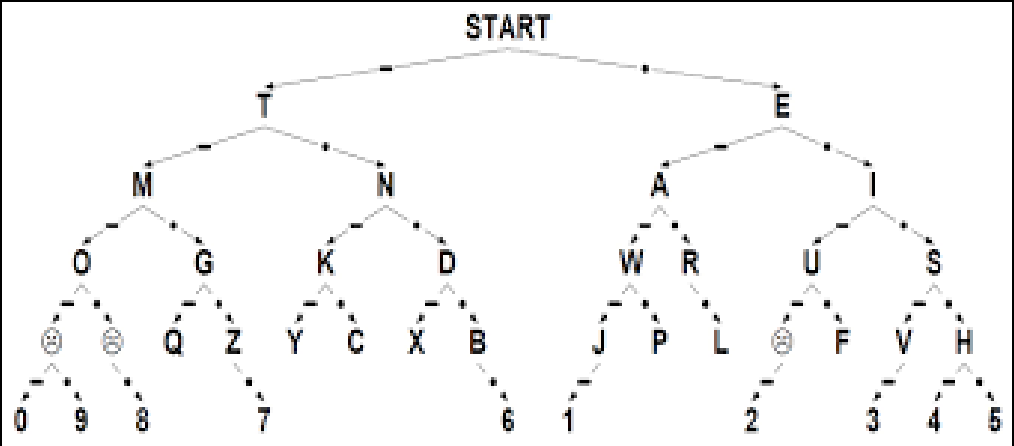
Directional Indicators

INTERNATIONAL MORSE CODE

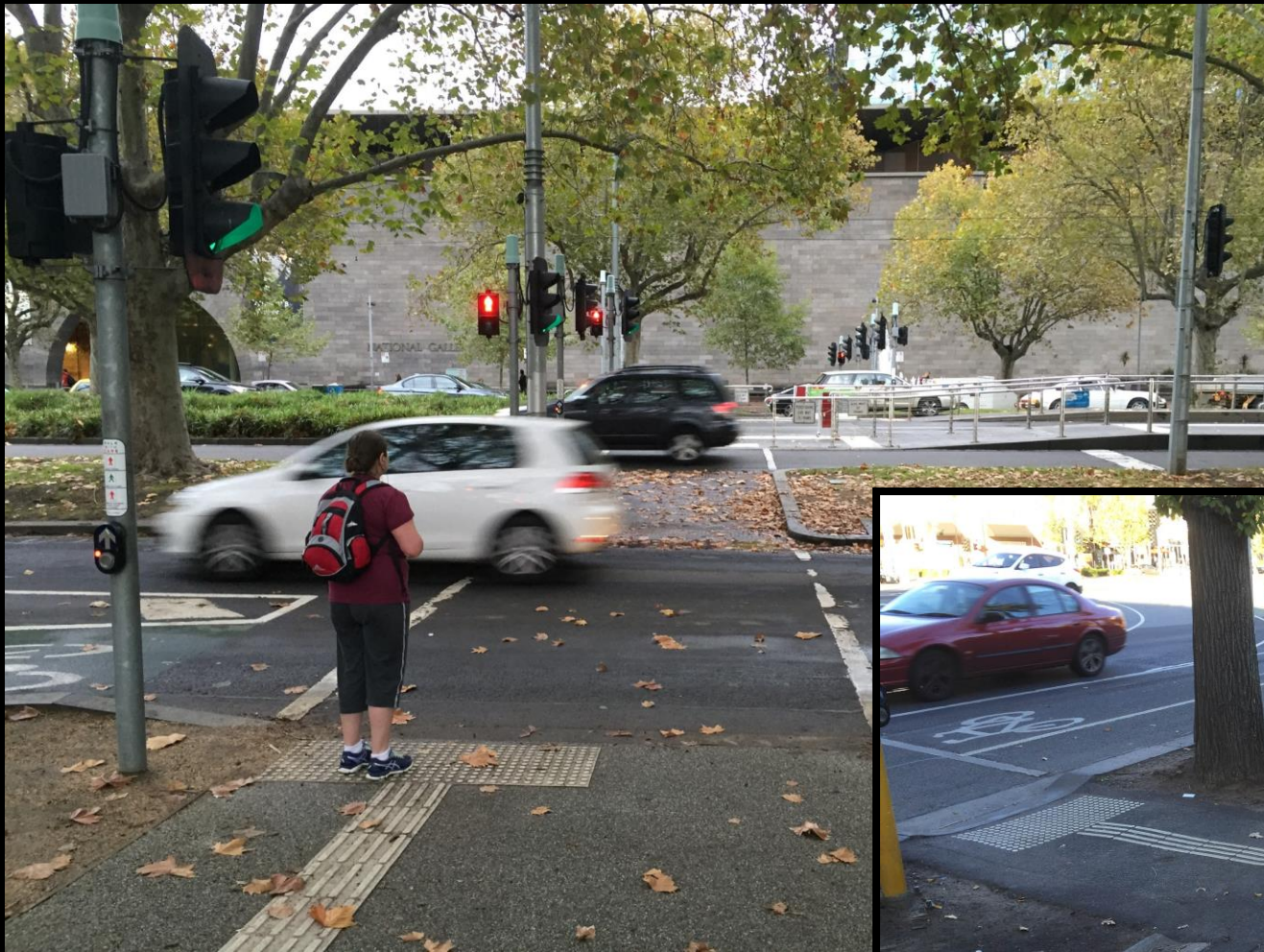
A	• —	N	— •	1	• — — — —	.	• — • — • —
B	— • • •	O	— — —	2	• • — — —	,	— — • • — —
C	— • — • •	P	• — • •	3	• • • — —	?	• • — — • •
D	— • • •	Q	— — • • —	4	• • • •	!	— — — — • •
E	•	R	• — •	5	• • • • •		— • • • — —
F	• • — •	S	• • •	6	— • • • •	/	— • • — •
G	— — — •	T	—	7	— — • • •	:	— — — • • •
H	• • • •	U	• • —	8	— — — — • •	;	— • • • — —
I	• •	V	• • • —	9	— — — — •	=	— • • • •
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K	— • — —	X	— • • •			-	• • • • •
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M	— — —	Z	— — • •			"	• • • — • —
						@	• — — • • •



Warning Surfaces



Key Ideas: Simple, Effective, Consistent, and Applicable to a Myriad of Contexts



Lone applications to indicate mid-block crossings



Tactile Network at Large Metro Station



Tactile Network at Airport (specifically at transit kiosk)

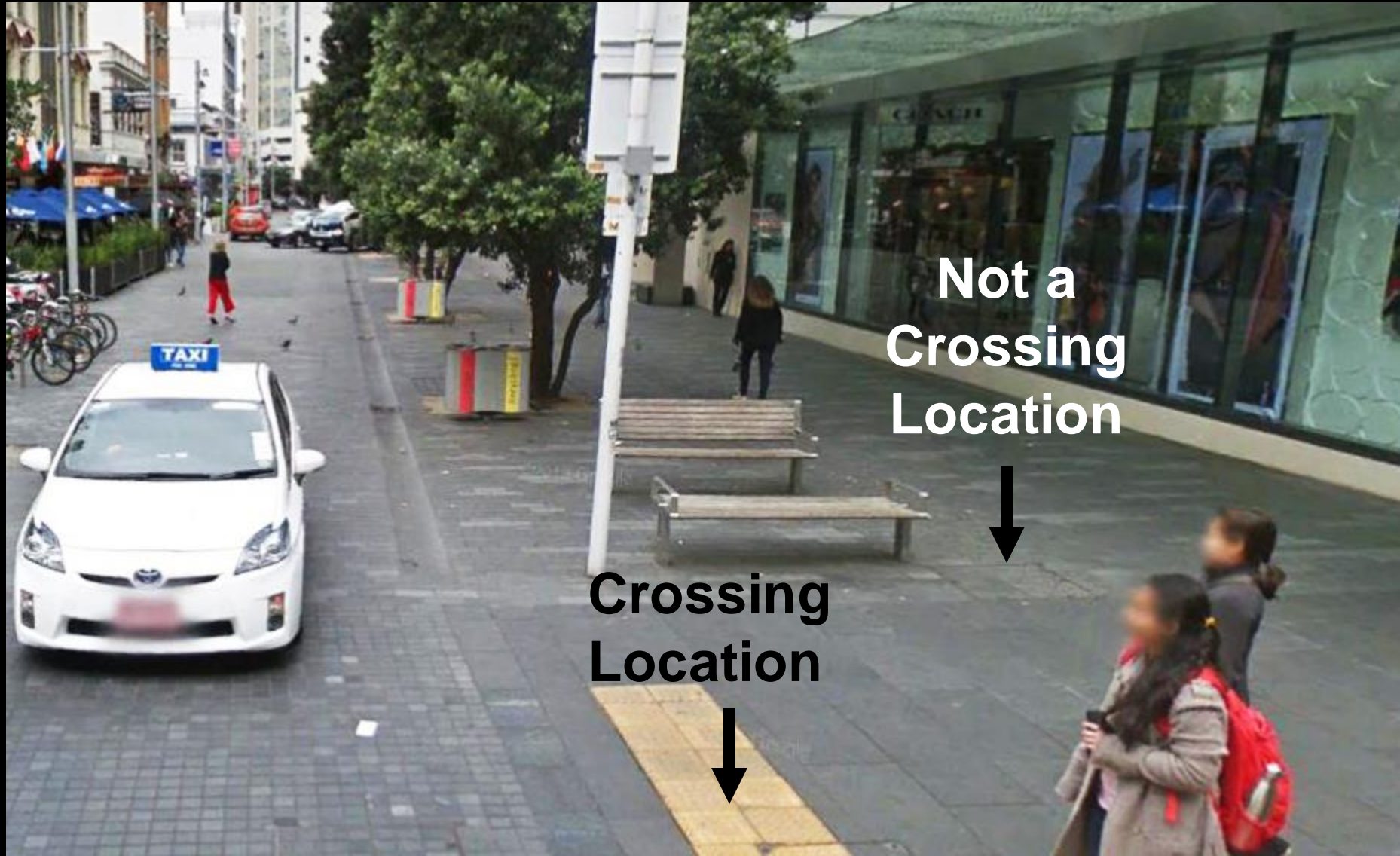


Delineator Strip: a tactile warning surface along the edge of the shared zone, for shared spaces, or along edge of the lanes, for flush streets

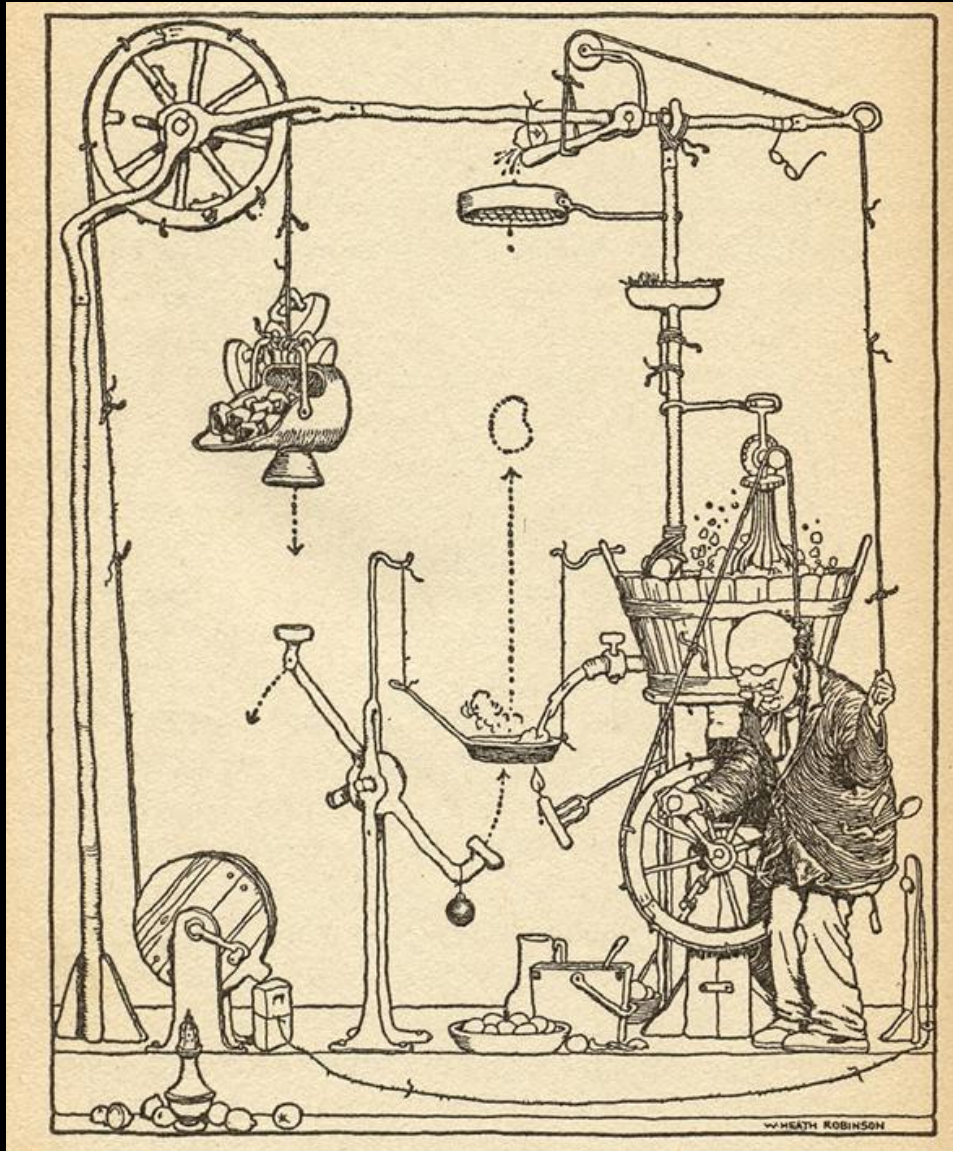


Delineator Strips are not for directional guidance due to street furniture, poles, fire hydrants, trees, etc.

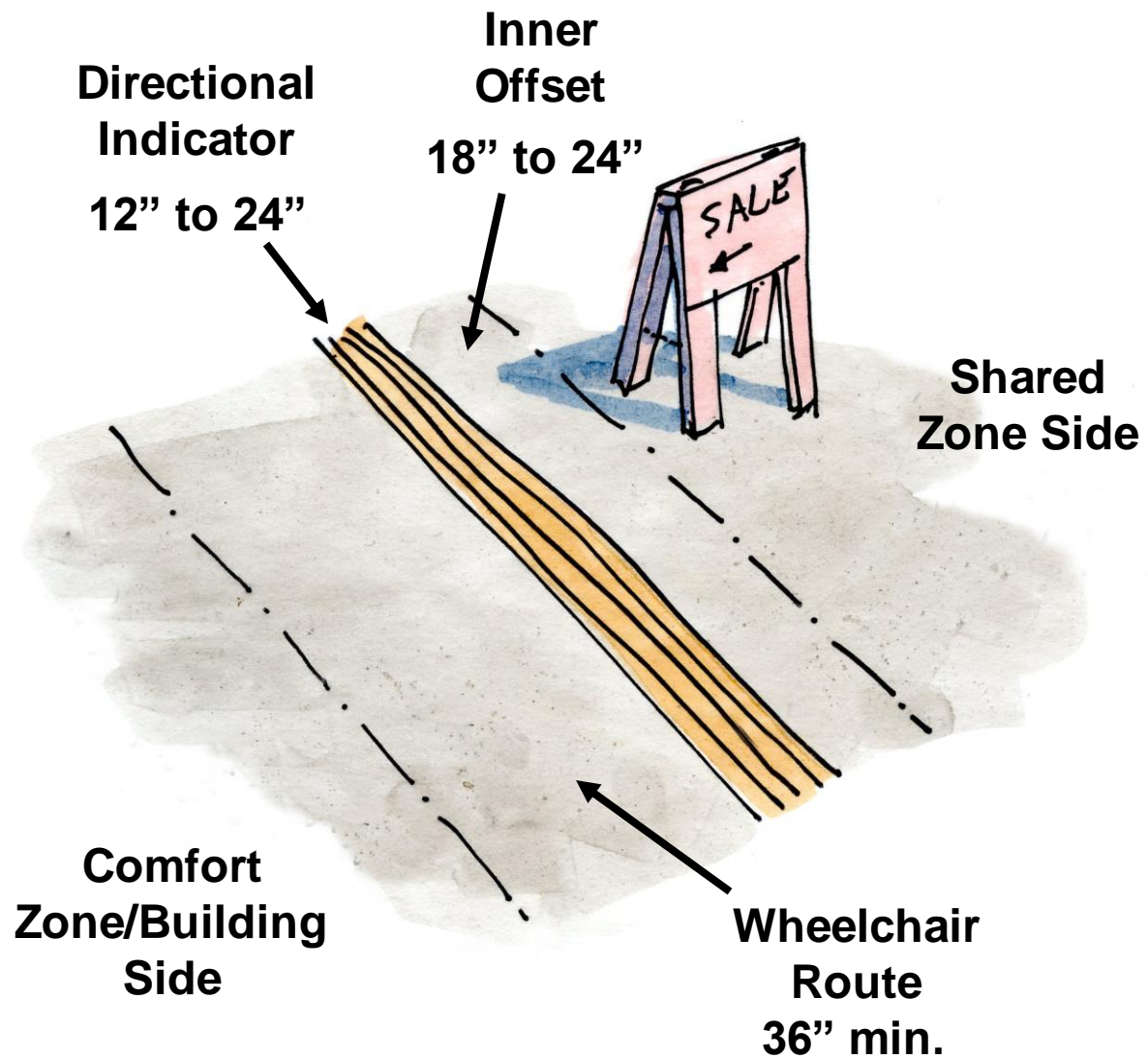




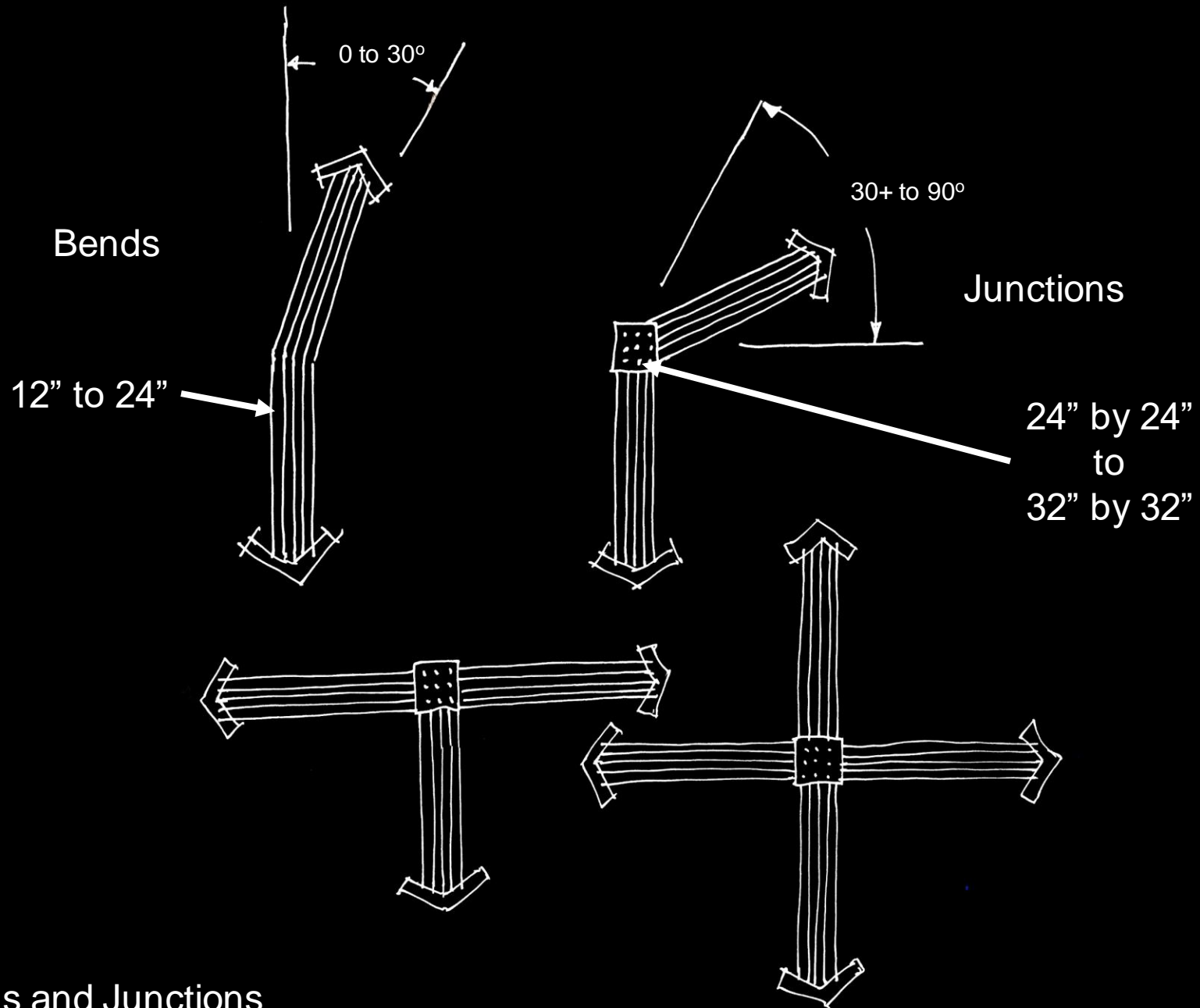
Truncated domes are used at crossings
(The distinction reduces confusion as to where to cross)



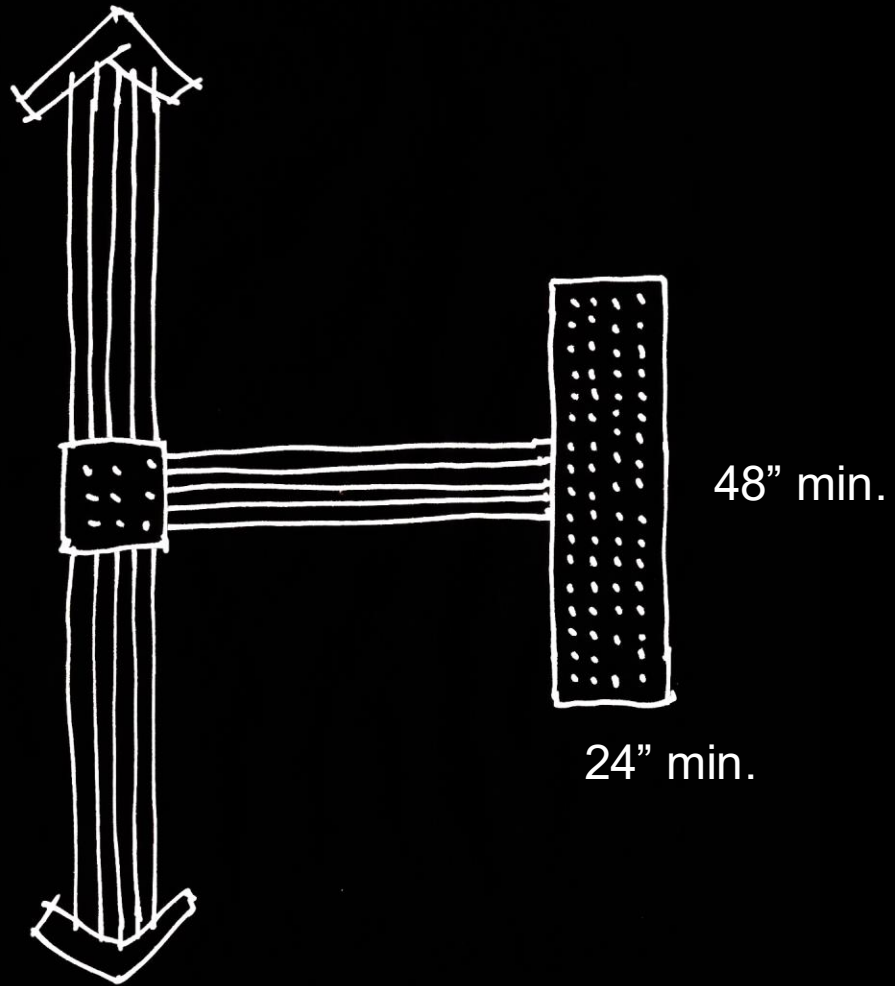
Putting Together the
Ideas for the North
American Context



Basic Pedestrian Access Route
(Clear & as straight as feasible, 72" minimum)

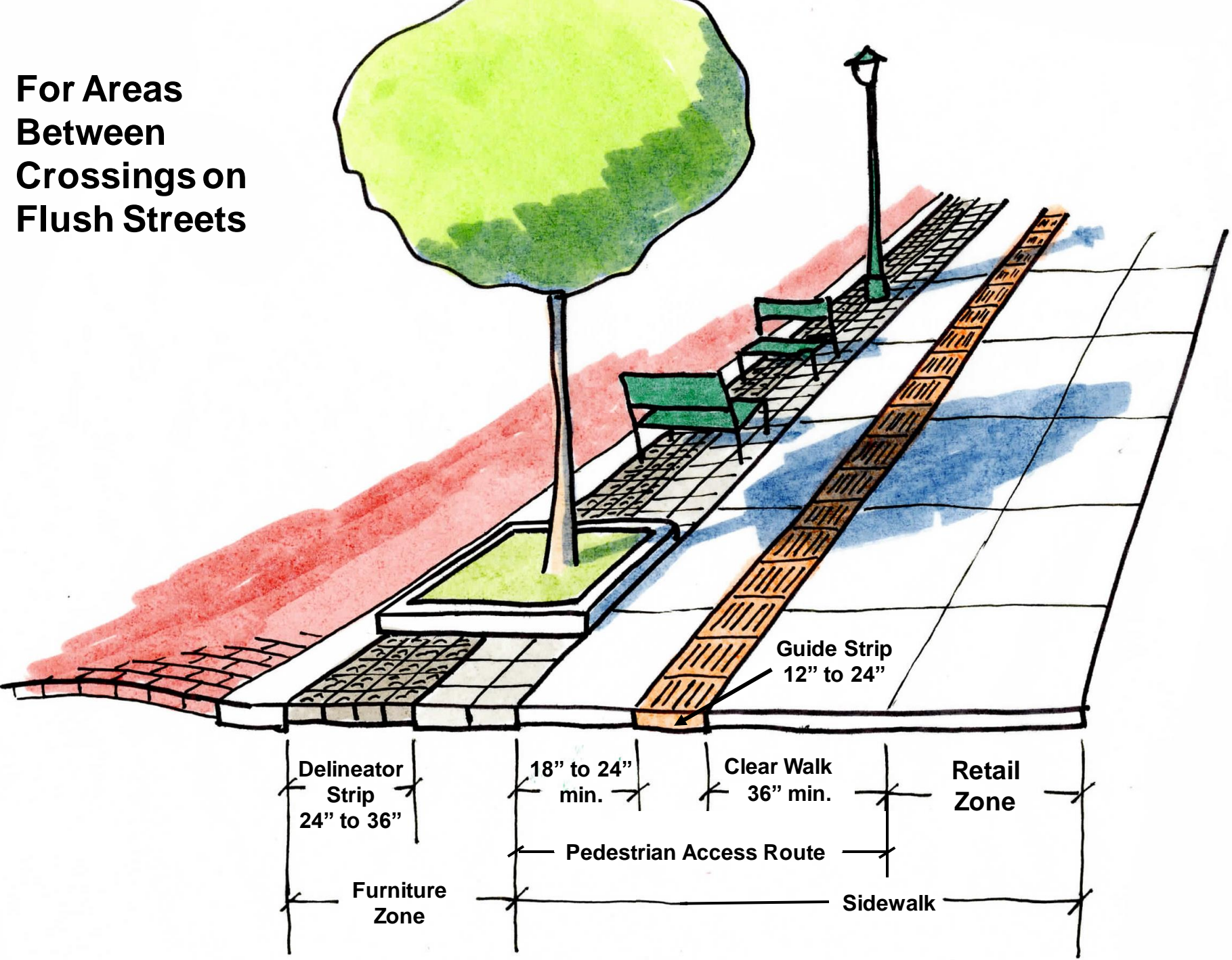


Bends and Junctions

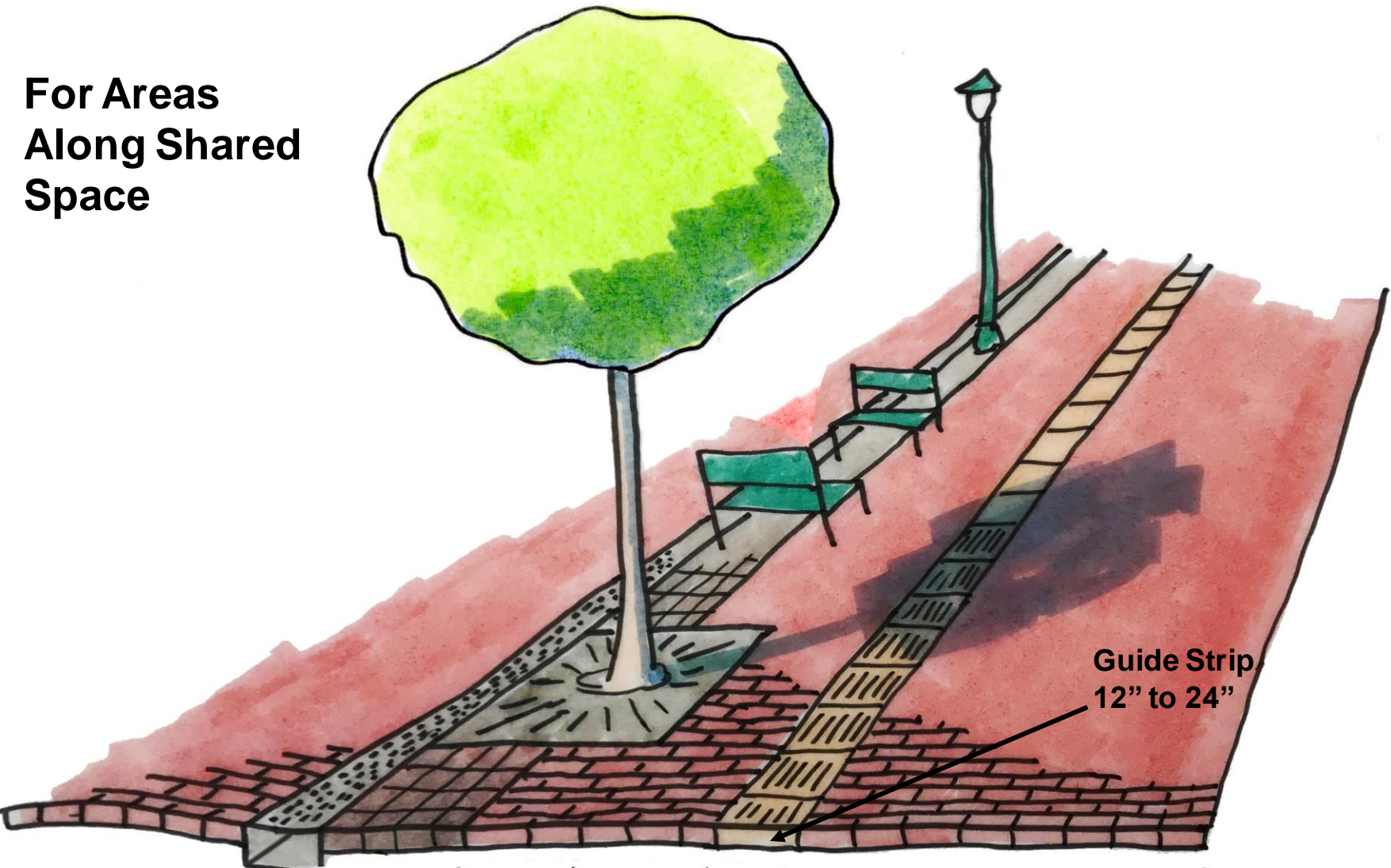


Ending a Directional Indicator (always with a warning surface)

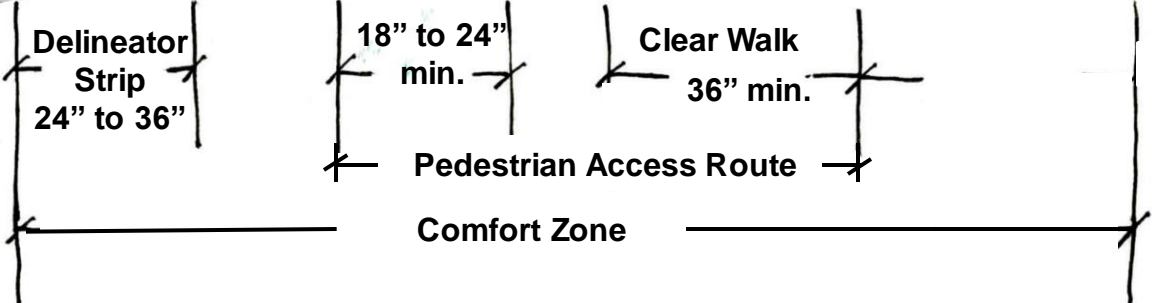
**For Areas
Between
Crossings on
Flush Streets**



**For Areas
Along Shared
Space**



**Guide Strip
12" to 24"**



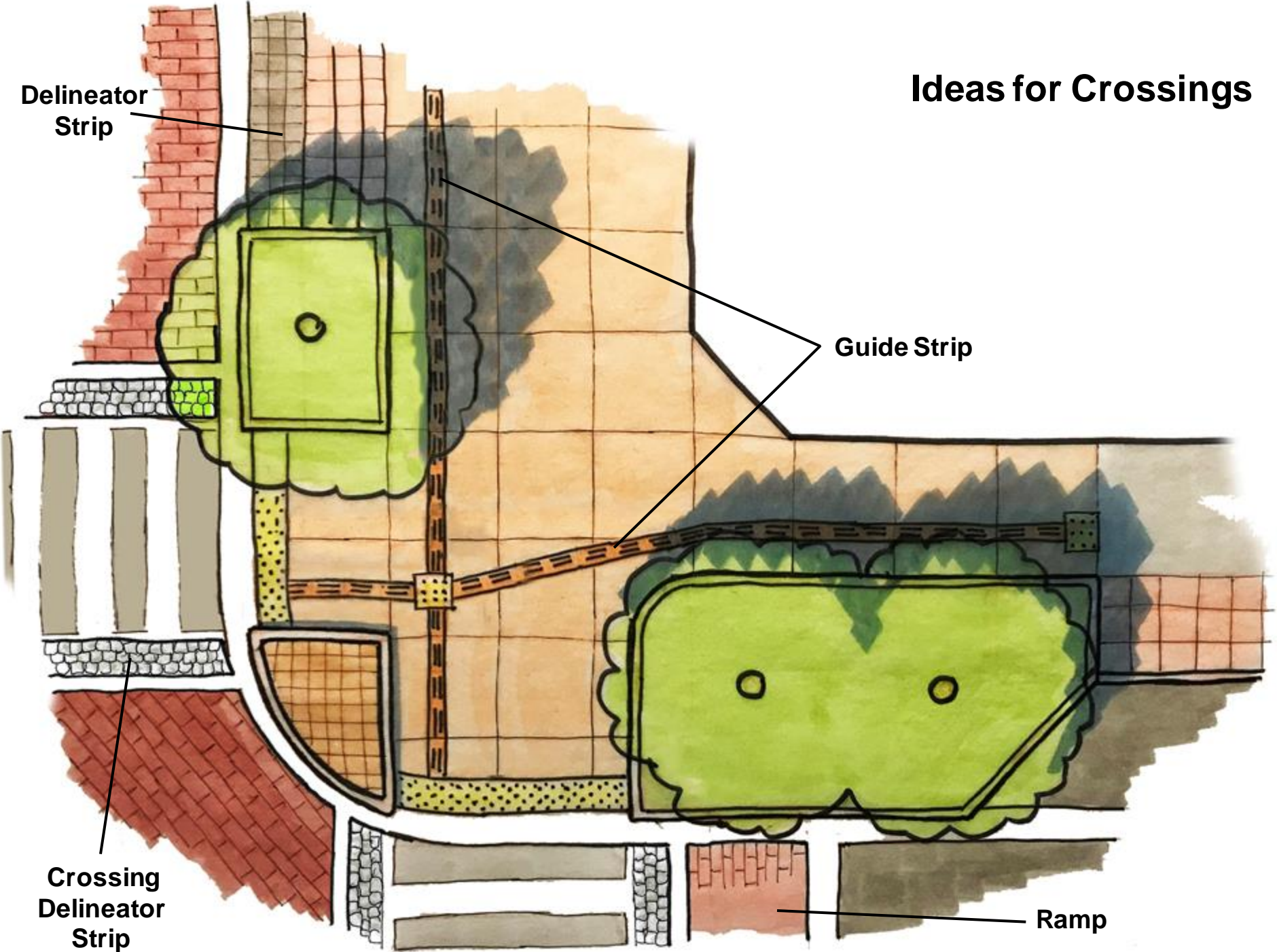
Ideas for Crossings

Delineator Strip

Guide Strip

Crossing Delineator Strip

Ramp



Roundabouts Designed to Better Accommodate People with Vision Disabilities

4) Slow-in Slow-Out Geometry to keep speeds down

9) Ramps

5) 2 Car Lengths

6) Crossing Delineator Strips

9) Ramps

8) Softscape next to sidewalks or, for hardscaped areas, a warning edge

1) Make the following parts of the crossing straight, parallel and aligned:

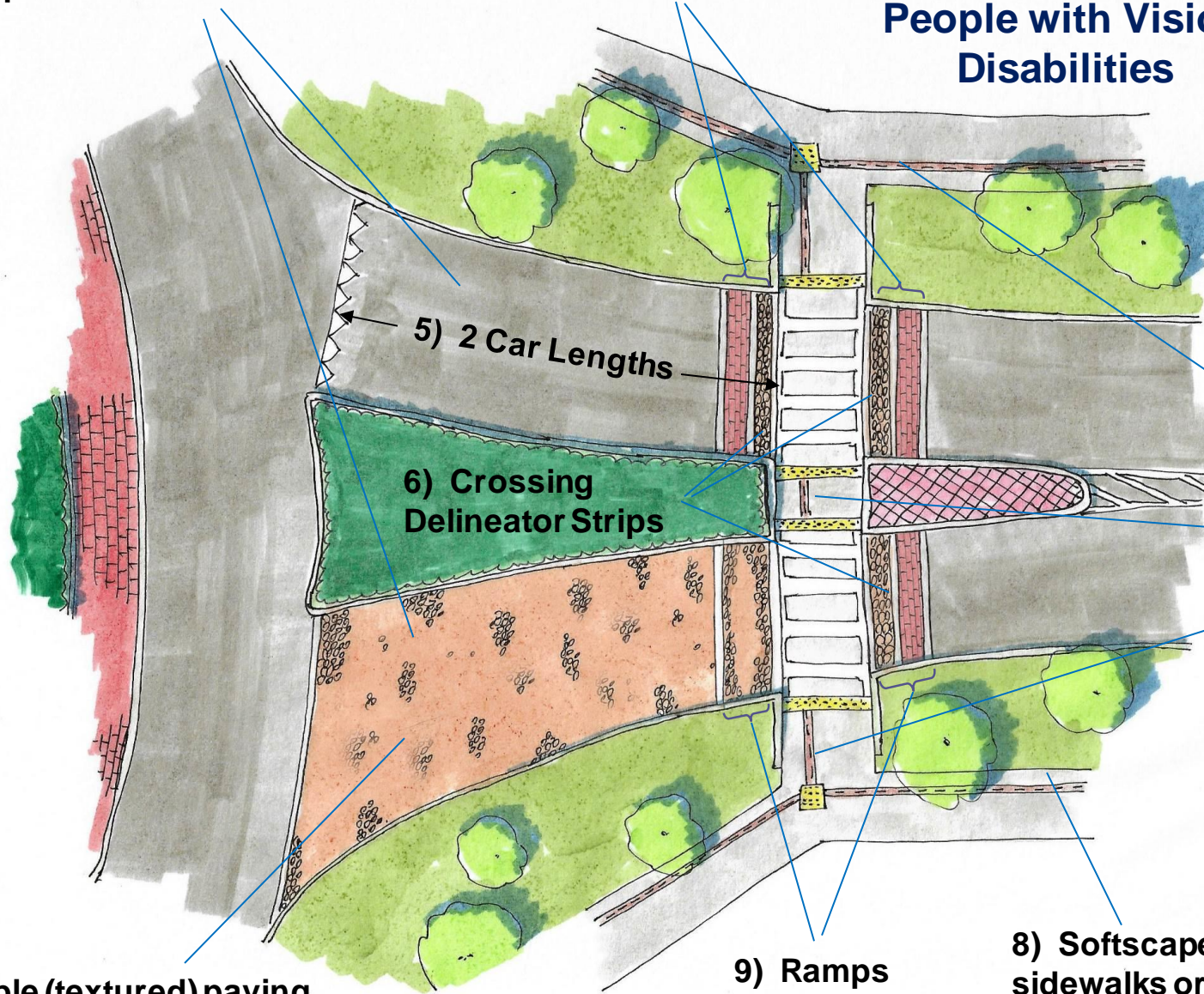
- the vertical curbs on pedestrian ramps;
- the vertical curbs on the splitter island's refuge;
- the directional indicators along the crossing; and
- the crosswalk's pavement markings.

2) Make the warning surfaces perpendicular to the crossing direction.

3) Directional indicators

9) With raised crossing

7) Audible (textured) paving on the approach to the crossing from the roundabout

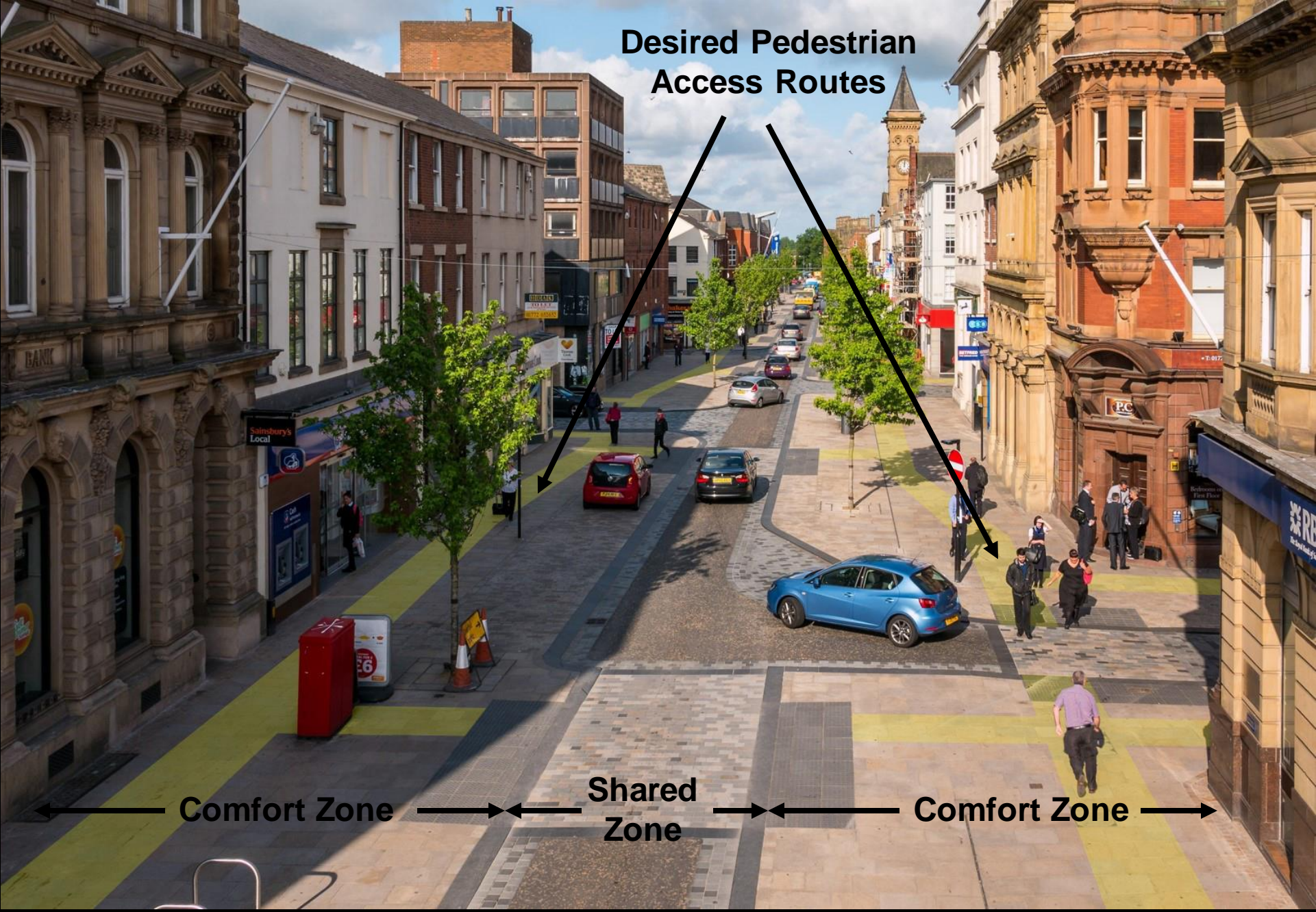




How would you retrofit these shared streets?



How would you retrofit these shared streets?



**Desired Pedestrian
Access Routes**

Comfort Zone

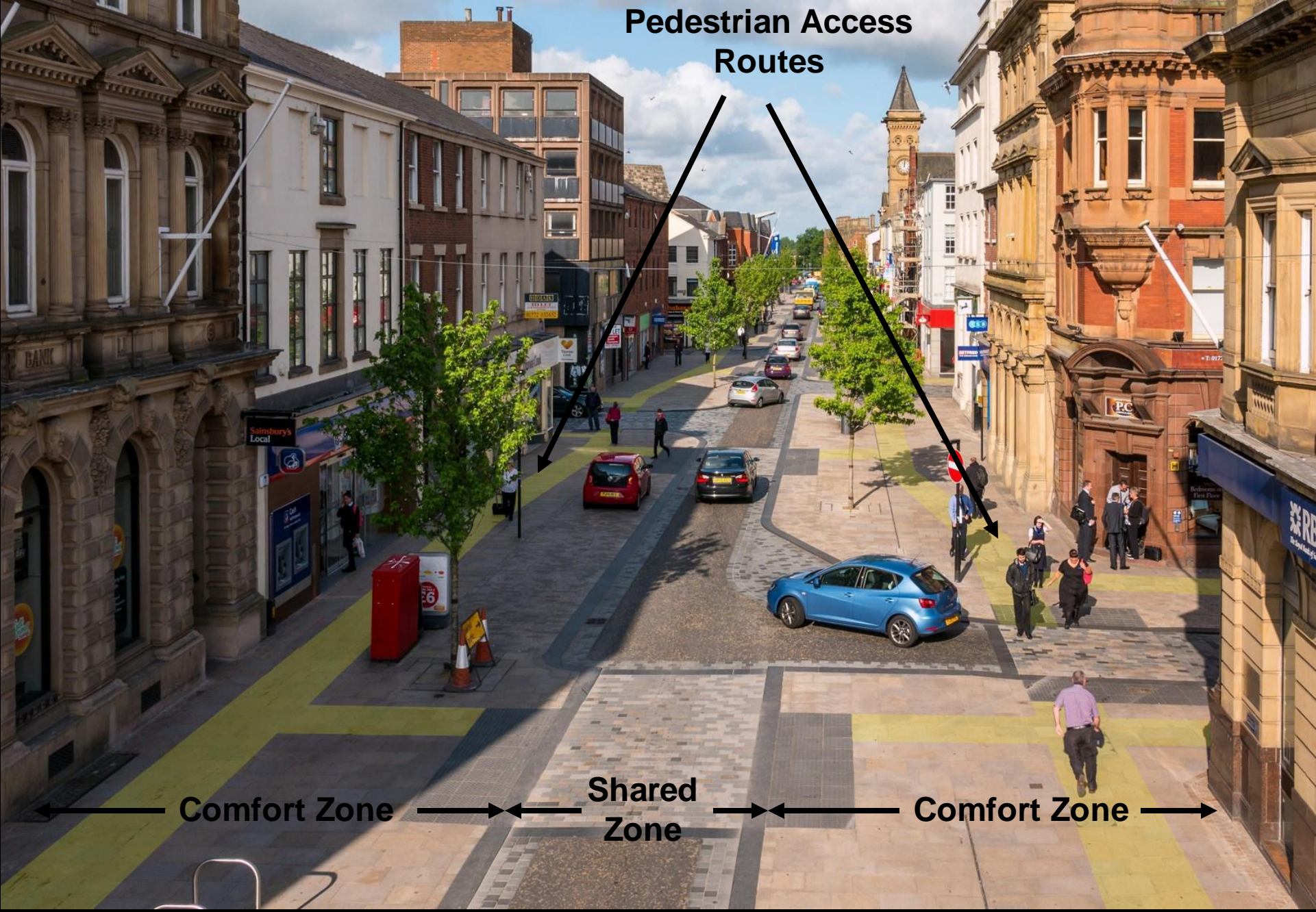
**Shared
Zone**

Comfort Zone

Plan out your desired pedestrian access routes.



Plan out your desired pedestrian access routes. Move the movable objects.



Pedestrian Access Routes

Comfort Zone

Shared Zone

Comfort Zone

Plan out your desired pedestrian access routes.



Plan out your directional indicators, junctions, bends, and destinations



Implement guidance



Implement delineator strips



How would you retrofit this flush street?



How would you retrofit this flush street?



How would you retrofit this flush street?



How would you retrofit this flush street?



How would you retrofit this flush street?



How would you retrofit this shared space?



How would you retrofit this shared space?



How would you retrofit this shared space?



How would you retrofit this shared space?

Applications for Tactile Guidance

Shared Spaces
Flush Streets
Conventional Streets
Roundabouts

Plazas
Event Spaces
Stadiums
Train Stations
Airports
Bus Stations
Campuses
Shopping Centers



Uses of Warning Surfaces

Crossings

- Separated Bicycle Lanes
- Motor Vehicle Lanes

Drops

- Subway Platform Edges
- Bus Stops
- **Stairs**

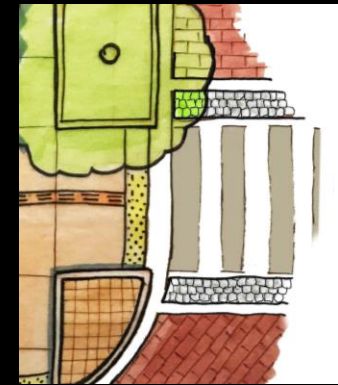
Important Destinations

- Information Kiosk (e.g., at transit stop)
- Bench at Bus Stop
- Transit Ticket Machine or Window
- Entrance to Bus Station
- Escalator to Train Platform
- Entrance to Post Office, Bank, Office Building...

Adjacencies

- Next to Flush Bus & LRT Facilities
- **Next to Shared Zones**
- **Next to Lanes on Flush Streets**
- **Next to Separated Bike Lanes**

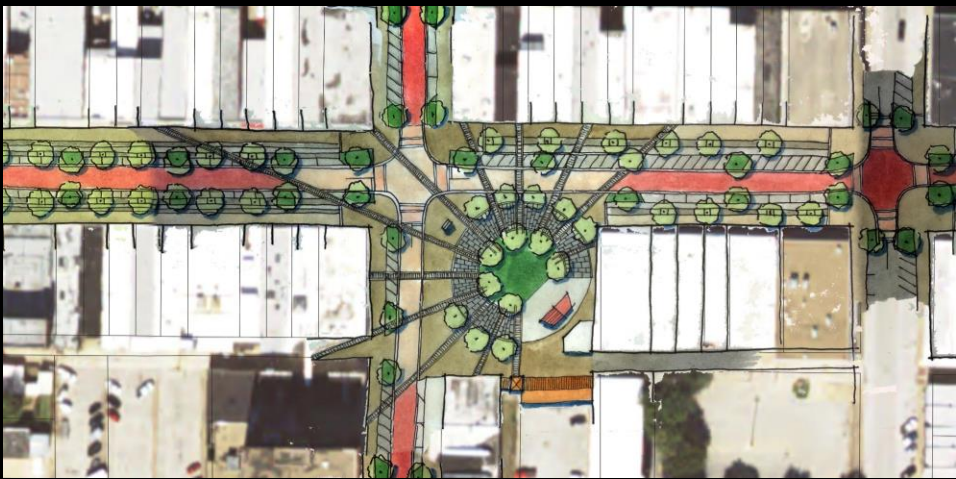
} Use Delineator Strips



Four Simple Ideas

- 1) Provide at Least the Basic Pedestrian Access Route
- 2) Indicate Changes Along the Way (i.e., Bends, Junctions, Pauses)
- 3) Ending a Directional Indicator
- 4) Differentiating Between Edges and Decision Points

Shared Spaces: Simple Principles but Limitless Potential



THANK YOU!

Cindy Zerger
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Ian Lockwood PE
@ianlockwood

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DESIGN