City of Lawrence
Transportation Commission Study Session
August 15, 2018 Minutes

MEMBERS PRESENT:	Charlie Bryan, Mark Hurt, Steve Evans, John Ziegelmeyer, Donna Hultine, Kathryn Schartz
MEMBERS ABSENT:	Erin Paden, Ron May, Michele Dillon
STAFF PRESENT:	David Cronin, Public Works Department Zach Baker, Public Works Department Amanda Sahin, Public Works Department Jessica Mortinger, MPO
PUBLIC PRESENT:	N/A

A complete video recording of the meeting is available on the City's website at https://lawrenceks.org/boards/transportation-commission/

1. Mixed Traffic Facilities

Dave Cronin presented on mixed traffic facilities from the Small Town and Rural Design Guide.

Transportation Commission Study Session
August 15, 2018

Name	Initials
Members	
Charlie Bryan Lawrence DGCO Health Dept. Representative	CWB
Donna Hultine University of Kansas	
Kathryn Schartz Multi-Modal Transportation / Planning Eng Rep	KSS
Mark Hurt PTAC representative	MH
Michele Dillon Pedestrian Representative	
Steve Evans Planning/Engineering Field Representative	SE
Erin Paden Bicyclist Representative	
John Ziegelmeyer Local Business Representative	
Ron May USD-497	
City Staff	
David Cronin City Engineer	DC
Jessica Mortinger Senior Transportation Planner	
Ashley Meyer Transportation Planner	
Amanda Sahin Transportation Engineer	
Zach Baker Project Engineer	ZDB
Jon Marburger Project Engineer	

Transportation Commission Study Session
August 15, 2018
Public Sign In Sheet

Name	Contact Info
Michael Almon	(ph) (e-mail)
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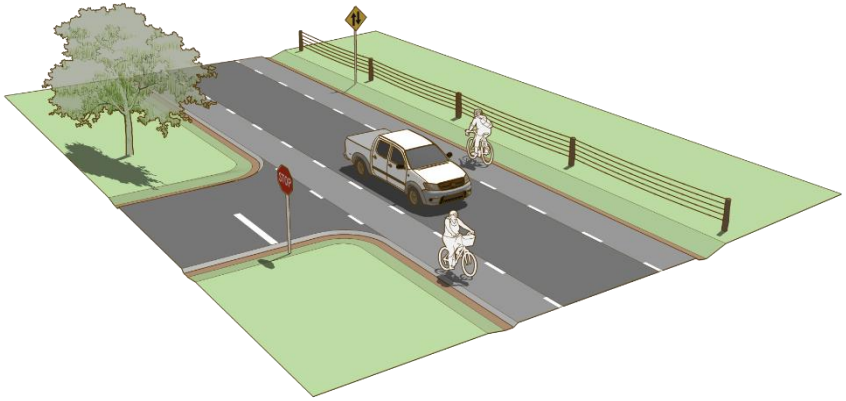
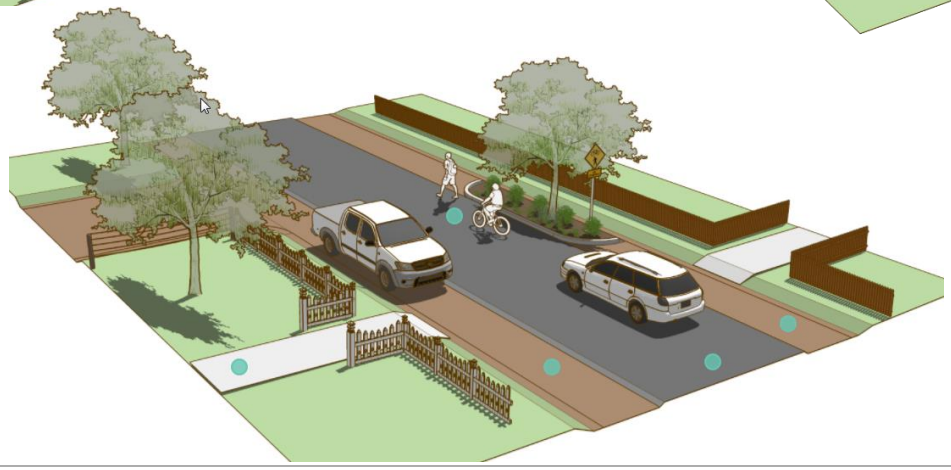




MIXED TRAFFIC FACILITIES

Small Town and Rural Design Guide

Facilities for Walking and Biking

Mixed Traffic Facility Types

Facilities are shared between motorists, bicycles and sometimes pedestrians. Most appropriate on roads with low volume/low speed.

Three types of facilities:

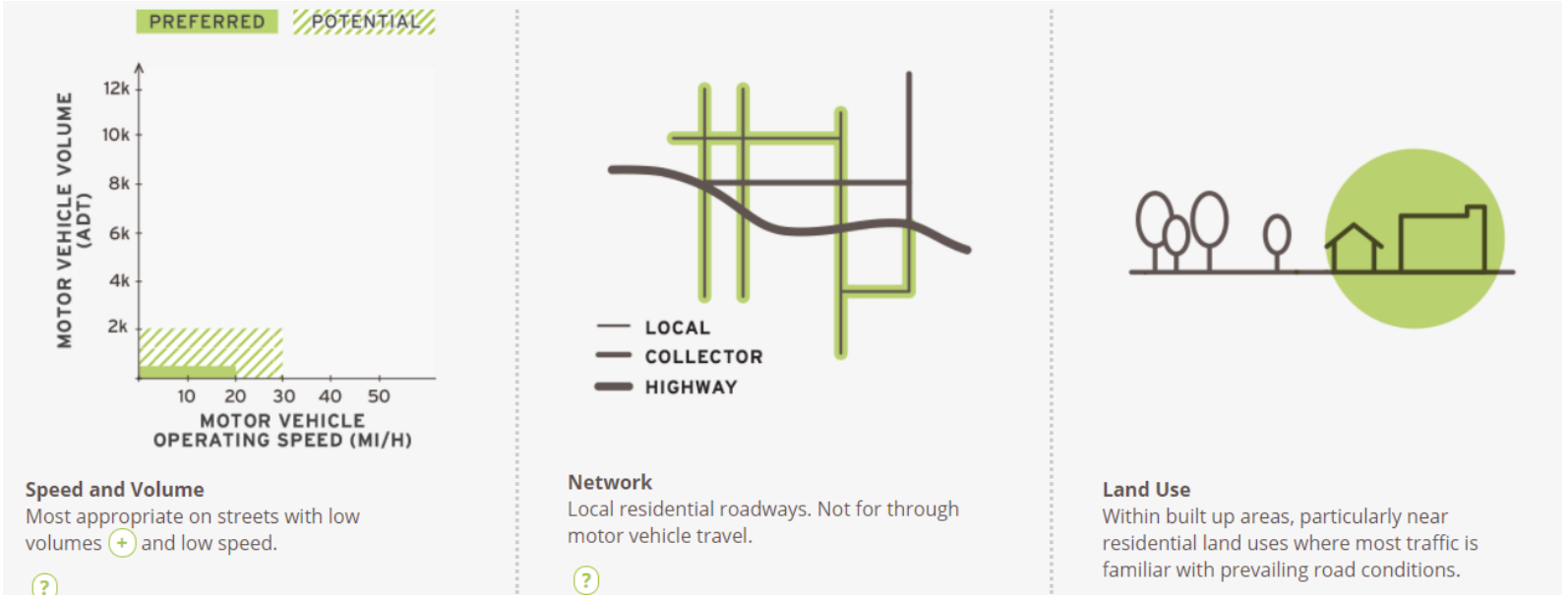
- Yield Roadway
- Bicycle Boulevard
- Advisory Shoulder (variations include Advisory Bike Lanes or Dashed Bike Lanes)

Types of Mixed Traffic Facilities
Yield Roadway

- Designed to serve pedestrians, bicyclists, and motor vehicle traffic in the same slow-speed travel area. Yield roadways serve bidirectional motor vehicle traffic without lane markings in the roadway travel area.
- Common elements include:
  - Narrow paved two-way travel lane (16’-20’)
  - No marked centerline
  - Signage to warn users of pedestrians on roadway or two way traffic
  - No markings on roadway
  - Roadside parking, if desired, constructed out of contrasting material
- Benefits:
  - Narrow road slows speeds
  - Connects local residential roads to destinations on the network
  - Limits impermeable surface and minimizes stormwater runoff

Types of Mixed Traffic Facilities
Yield Roadway

Context

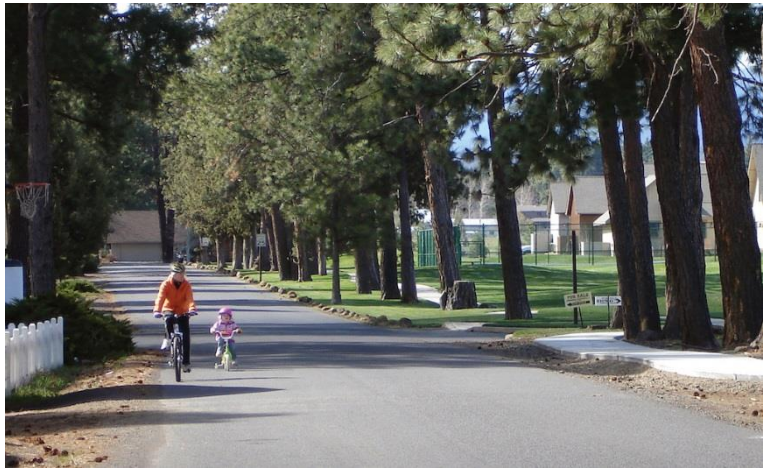


Speed and Volume
Most appropriate on streets with low volumes (+) and low speed.

Network
Local residential roadways. Not for through motor vehicle travel.

Land Use
Within built up areas, particularly near residential land uses where most traffic is familiar with prevailing road conditions.

Types of Mixed Traffic Facilities
Yield Roadway

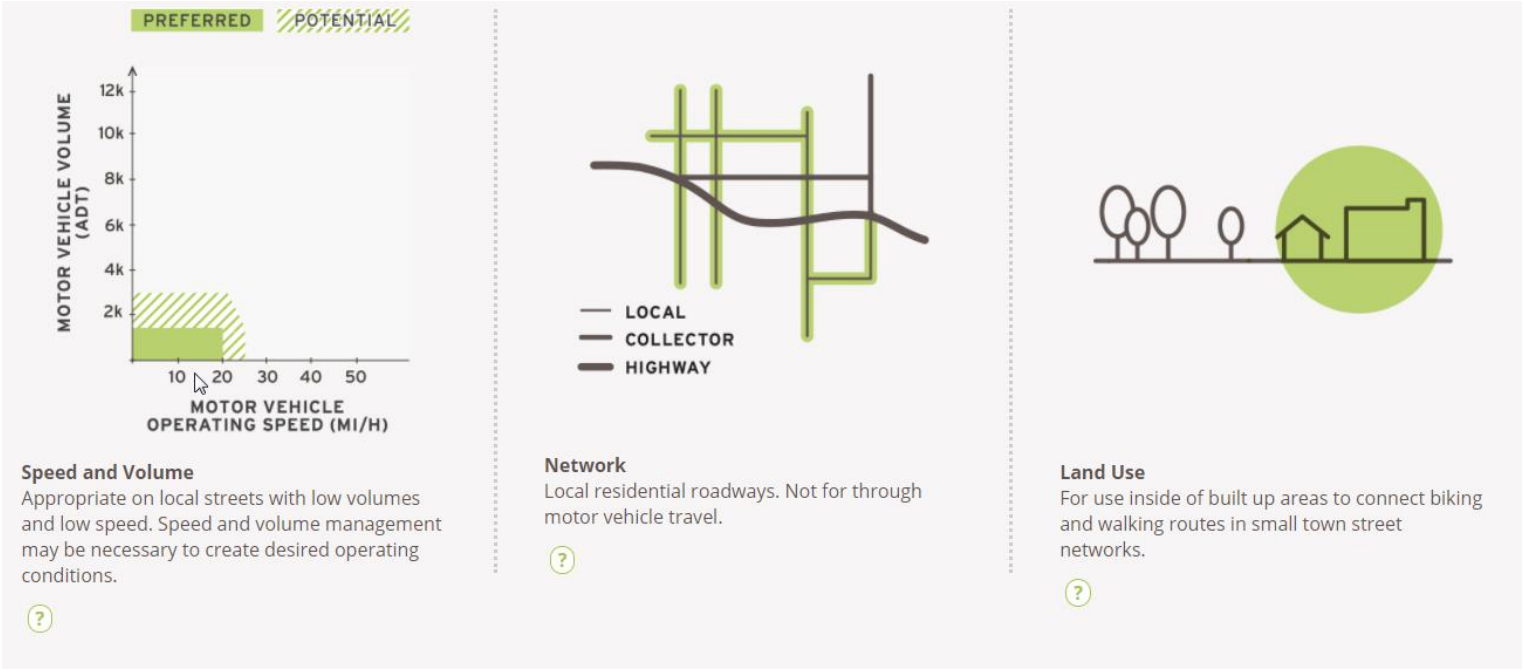


Types of Mixed Traffic Facilities
Bike Boulevard

- Low-stress shared roadway bicycle facility, designed to offer priority for bicyclists operating within a roadway shared with motor vehicles.
- Common elements include:
  - Signs and pavement marking
  - Speed management
  - Volume management
  - Crossing treatments
- Benefits:
  - Increases comfort for people bicycling
  - Slows traffic
  - Reduces cut-through traffic
  - Connects local residential roads to commercial corridors
  - Less visually impactful then separated facilities

Types of Mixed Traffic Facilities
Bike Boulevard

Context



Speed and Volume
Appropriate on local streets with low volumes and low speed. Speed and volume management may be necessary to create desired operating conditions.

Network
Local residential roadways. Not for through motor vehicle travel.

Land Use
For use inside of built up areas to connect biking and walking routes in small town street networks.

Types of Mixed Traffic Facilities
Bike Boulevard

- Signs and Pavement Marking:
  - Pavement markings identify the route as a bicycle boulevard and can guide users through jogs.
  - Signage should brand the route and provide wayfinding
- Speed Management
  - Raised crosswalks, speed humps, center islands, edge islands, chicanes
  - Reduction in speed limits , 25 mph max
- Volume Management
  - Forced turn at intersection, partial closures, diagonal diverters, median diverters
- Crossing Treatments:
  - Reduce delay at minor street crossings – flip stop signs, traffic circles
  - Improve safety at major street crossings – supplemental signs and markings, curb extensions, refuge islands, beacons, bike box

Types of Mixed Traffic Facilities
Bike Boulevard

Types of Mixed Traffic Facilities
Advisory Shoulder

- New treatment type and requires an approved Request to Experiment by FHWA (called “dashed bicycle lanes”) – 5 existing experiments nationwide
- Create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.
- Common elements include:
  - 4’-6’ space on each side for pedestrians/bicycles
  - Two way center travel lane, 13.5’-16’ width recommended (FHWA recommends 16’)
  - Work best on road segments without frequent stop controlled intersections
- Benefits:
  - Increase predictability and clarifies desired lateral position between people bicycling or walking and people driving a narrow roadway
  - Supports the natural environment through reduced paved surfaces
  - Decreases vehicle speeds due to limited space to pass other vehicles

Types of Mixed Traffic Facilities
Advisory Shoulder

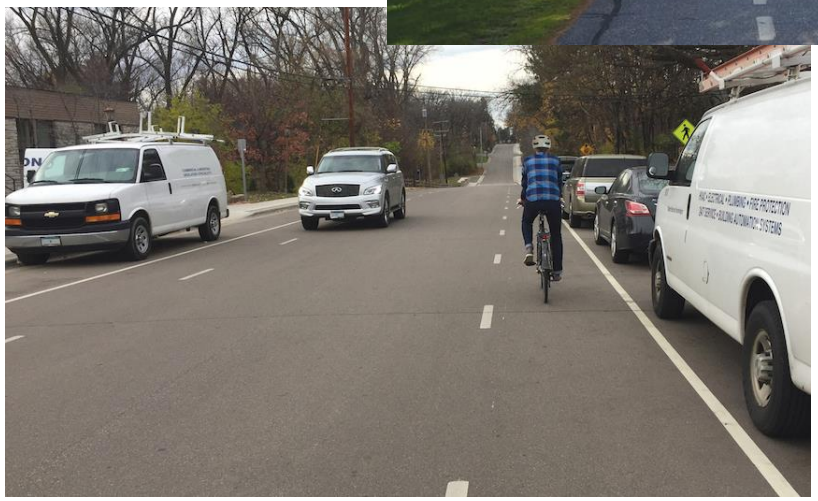
Context

Speed and Volume
Most appropriate on streets with low to moderate volumes and moderate speed motor vehicles. (+)

Network
Applies to constrained connections between built up areas.
(?)

Land Use
For use outside, between, and within built up areas with bicycle and pedestrian demand and limited available paved roadway surfaces.

Types of Mixed Traffic Facilities
Advisory Shoulder



Mixed Traffic Facility Types

References:

- Small Town and Rural Design Guide
  http://ruraldesignguide.com/mixed-traffic
- NACTO Urban Bikeway Design Guide
  https://nacto.org/publication/urban-bikeway-design-guide/
- FHWA Bicycle Facilities and the MUTCD – Dashed Bicycle Lanes
  https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/mutcd/dashed_bike_lanes.cfm