Innovative Bicycle Facility Treatments

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Traditional Bicycle Facilities

- Traditional
  - Bike lanes
  - Designated shoulders
  - Signed shared roadways
  - Marked shared lanes
  - Shared use paths

Source: capitalcoexist.org

Source: townofcary.org
Innovative Bicycle Facilities

- Innovative (corridor)
  - Cycle tracks
  - Buffered bike lanes
  - Advisory bike lanes
  - Bike boulevards

- Innovative (intersection)
  - Bike signal heads
  - Enhanced pavement markings
  - Bike detection
  - Bike boxes

Source: NACTO
Bicycle Mode Share

Source: *Making Cycling Irresistible*, Pucher & Buehler
Types of Bicyclists

Four Types of Transportation Cyclists in Portland
By Proportion of Population

- Interested but Concerned: 60%
- No Way No How: 33%
- Strong & Fearless: <1%
- Enthused & Confident: 7%

Source:
Geller, R. Four types of cyclists.
Innovative Design Guidance

- NACTO – Urban Bikeway Design Guide
- AASHTO – Guide for the Development of Bicycle Facilities
- MUTCD – Manual on Uniform Traffic Control Devices
- City Street Design Manuals
- State DOT Bicycle Design Manuals
Innovative Bicycle Facilities

- Corridor facilities
  - Bike boulevards
  - Advisory bike lanes
  - Buffered bike lanes
  - Cycle tracks (protected bike lanes)

- Intersection treatments
  - Bike signal heads
  - Enhanced pavement markings
  - Bike detection
  - Bike boxes
Bike Boulevards

- Collection of treatments
  - Wayfinding
  - Traffic calming
  - Volume management
  - Crossing treatments
  - Traffic control adjustments
  - Route planning

Source: NACTO
Advisory Bike Lanes

5’ Min. / 7’ Preferred
14’ Min. / 18’ Preferred
5’ Min. / 7’ Preferred

Source: bikewalktwincities.org
Advisory Bike Lanes

Motorists share the center lane with oncoming vehicles.

Yield to bikes before merging into the bike lane.

Source: Minneapolis Public Works
Contra-Flow Bike Lanes

Source: NACTO
Left-Side Bike Lanes

Source: NACTO
Enhanced Shared Lane Markings

Centered approximately in lane

Source: NACTO
Buffered Bike Lanes

- 18” Min. / 3’ Preferred
- 5’ Min. / 7’ Preferred

Source: NACTO
One-Way Cycle Tracks

Source: NACTO
Two-Way Cycle Track
Intersection/Conflict Area Treatments

Source: NACTO
Intersection/Conflict Area Treatments

Source: NACTO
Intersection/Conflict Area Treatments

Source: Chicago DOT
Intersection/Conflict Area Treatments

Source: NACTO
Intersection/Conflict Area Treatments

Source: NACTO
Intersection/Conflict Area Treatments

Source: NACTO
Two-Stage Turn Lane Markings

Source: NACTO
Signalized Control
Signalized Detection

Source: NACTO
Thank You

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