

cities of all sizes are changing



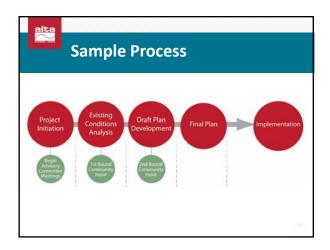




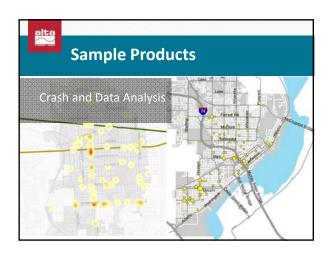




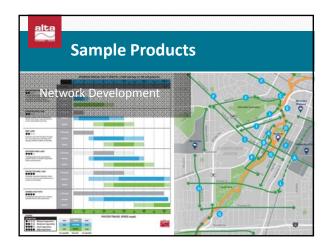


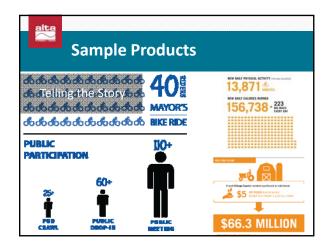






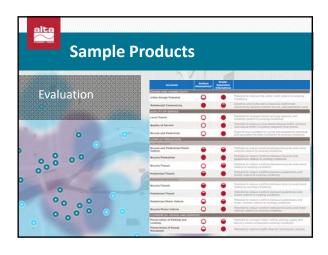


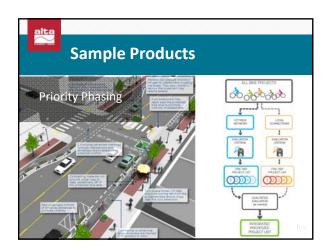




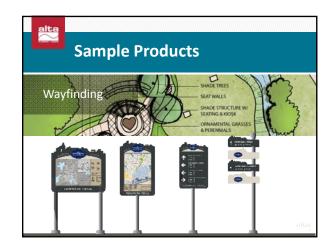


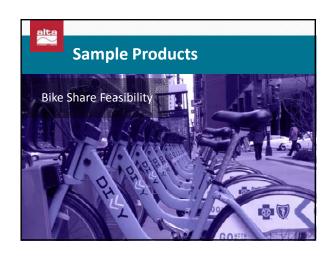


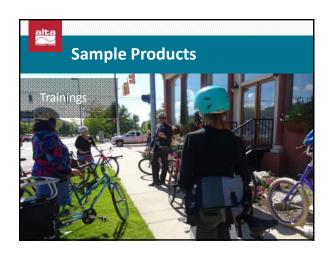










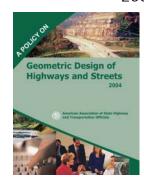






government institutions are catching up to the grassroots

2004



"The bicycle has become an important element for consideration in the highway design process. Fortunately, the existing street and highway system provides most of the mileage needed for bicycle travel."

- 900 pages of guidance
- Less than 1 page on bicycles

2010 Design Accommodation Memo

"...DOT encourages transportation agencies to **go beyond the minimum requirements**, and proactively provide convenient, safe, and context-sensitive facilities that foster **increased use by bicyclists and pedestrians of all ages and abilities**, and utilize universal design characteristics when appropriate."

fhwa.dot.gov/environment/bicycle_pedestrian/overview/policy_accom.cfm

NACTO Urban Bikeway Design Guide

BIKE LANES

-Conventional Bike Lanes -Left-side Bike Lanes -Contra-Flow Bike Lanes -Buffered Bike Lanes

CYCLE TRACKS

-One-way Protected Cycle Tracks -Raised Cycle Tracks -Two-way Cycle Tracks

SIGNING & MARKING

-Bike Route Wayfinding Signage and Markings System -Colored Bike Facilities -Colored Pavement Material Guidance -Shared Lane Markings

SIGNALS

-Bicycle Signal Heads -Signal Actuation and Detection -Active Warning Beacon for Bike Route at Unsignalized Intersection -Hybrid Signal for Bike Route Crossing of Major Street

INTERSECTIONS

IN LEASEL HONS
-Bike Boxes
-Intersection Crossing Markings
-Two-stage Turn Queue Boxes
-Median Refuge Island
-Through Bike Lanes
-Combined Bike Lane/Turn Lane
-Cycle Track Intersection Approach

BICYCLE BOULEVARDS

-Route Planning
-Signs and Pavement Markings
-Speed Management
-Volume Management
-Minor Street Crossings
-Major Street Crossings
-Offset Intersections
-Green Infrastructure

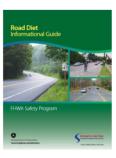
2013 Design Flexibility Memo Wemorandum September Sept

2013 Design Flexibility Memo

"...support for taking a **flexible approach** to bicycle and pedestrian facility design. FHWA **supports the use of [NACTO, ITE and other]** resources to further develop nonmotorized transportation networks, particularly in urban areas."

www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/design_flexibility.cfm

2014 FHWA Road Diet Guidance:



2015 FHWA Separated Bike Lane Planning and Design Guide



"FHWA encourages the use of all appropriate design resources as well as continued experimentation and modifications of designs, in order to develop safe, comfortable, and predictable separated bike lane treatments that fit unique site conditions and needs for each project."

2015 FHWA Bicycle and Pedestrian Funding Misconceptions

Heyele and Pedestrian Funding, Design, and Environmental Review
Addressing Common Misconceptions
Agents.

Bersiew
Addressing Common Misconceptions
Agent 8, 2013

Introduction

The U.S. Papers 8, 2013

Introduction

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2015 "Clarifying Document"

- 1. Federal Funds CAN be used to build protected bike lanes
- 2. Federal Funds CAN be used for road diets
- Engineers are ALLOWED to use design guides other than the AASHTO Green Book for projects that receive federal funds
 - 1. FLEXIBILITY in Design
- "Highway" funding CAN be used for bike and pedestrian infrastructure
- Vehicle lanes DON'T have to be a certain width to receive federal funds
- 6. Curb extensions, roundabouts and trees CAN be used on streets in the NHS
- Speed limits DO NOT need to be set using average (85%) vehicle speeds.

https://www.transportation.gov/fastlane/separating-fact-fiction-bike-ped-project-fundingdesign-and-environmental-review

new tools are ready for you



