You can do it, too! Breaking down institutional barriers to improve safety for all road users

Monday, December 18, 2023
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Webinar Logistics

• Please post questions at any time
• We will be saving time at the end of the session for questions and discussion
• Webinar slides and recording will be posted at

https://www.pedbikeinfo.org/webinars/webinar_details.cfm?id=129
Continuing Education Credits

• Webinar approved for 1.5 CM credits through AICP
• Brief questionnaire following webinar for sharing feedback.
• Information about webinar archive materials, recording and certificates of attendance will be sent in a follow-up email this afternoon.
Webinar Objectives

• Identify potential internal obstacles, barriers and challenges for improving nonmotorized road user safety.

• Learn from agencies that have undertaken efforts to revise internal policies and address these barriers.

• Understand the steps involved in conducting this work to identify and overcome your own institutional barriers.
Panelist Introductions

- Rebecca Crowe, FHWA
- Jacqueline DeWolfe, Massachusetts DOT
- Carrie Lavallee, Massachusetts DOT
- Commissioner Garrett T. Eucalittoo, Connecticut DOT
- Natasha Fatu, Connecticut DOT
Institutionalizing Safety

Carrie Lavallee
Deputy Administrator/Chief Engineer

Jackie DeWolfe
Director of Mobility Policy and Program Management

FHWA Webinar / December 18, 2023
You can do it too!
Multipronged approach to institutionalizing safety in projects

1. **Integrate** safety for all into project development process
2. **Initiate** stand-alone complete streets / safety projects
3. **Provide** funding to municipalities to advance complete streets / safety locally
Long-term aim / outcomes / “north star”

Safety
• Zero roadway deaths and serious injuries

Resiliency
• Improve the resiliency of our transportation network to better withstand natural hazards (i.e., sea level rise, flooding, heat)

Mobility
• Provide all people safe, comfortable, and convenient mobility options (walk, bike, transit, drive, etc.).
1

Safety for all in project development

Integrate
Changes at every step of the process = key
Controlling Criteria – a super short history

Healthy Transportation Policy (2013)


Update in progress (2024)

2014 >>> 2020
Target Speed

PEDESTRIAN FATALITY & SERIOUS INJURY RISK

18%  50%  77%

- 20 MPH  30 MPH  40 MPH +

CONES OF VISION

Mass.gov/safe-speeds
Pedestrian Facilities Criteria

- **Sidewalks** on both sides required if…
  - Roadway in an urbanized area, urban cluster, or rural village (where pedestrians are legally allowed)
  - Roadway on or under a bridge where legally allowed
  - Roadways with a High Potential for Everyday Walking
- Minimum **width** 5'-0”
- Marked **crosswalks** across all legs of signalized intersections where sidewalks are present or proposed
- Marked crosswalks shall be provided at existing crosswalks
Bicycle Facilities Criteria

- Bicycle facilities **required** (where bicycles are legally allowed)
- Bicycle facilities shall **have separation** (shared use path, side path, separated bike lane, buffered bike lane) if...
  - Posted speed limit ≥ 40 MPH
  - Vehicular volumes ≥ 10,000 vehicles per day
  - Roadway has more than one travel lane in a single direction
  - Intersection more than one travel lane in a single direction
  - Roadway classified as corridor with a High Potential for Everyday Biking
- Minimum **width** 5’-0” (single direction), 10’-0” (bidirectional)
  - Does not include curbs, buffers
Potential for Everyday Biking

https://www.mass.gov/service-details/bicycle-plan
Transit Provisions Criteria

• If roadway is within a service area of a Regional Transit Authority or MBTA has an existing or proposed transit route (rail or bus)
  • Consultants required to submit 25 Percent Design construction plans to RTA for review
  • Invite RTA/MBTA to planning or scoping meetings
• Crosswalks required within 250 feet of a transit stop
• A shelter or brequired at transit stop with 100 or more boardings a day
• Transit priority treatment required along transit routes with headways of 15 minutes or less
Design Justification Workbook

Project: 60XXXX
Description: MUNICIPALITY PROJECT DESCRIPTION
PEDESTRIAN FACILITIES

Facility: Street Road (Route X)

☐ Pedestrians are not legally allowed on the facility, check this box and do not fill out this sheet.

(Fill in information about the proposed Pedestrian Accommodations on this facility.)
(For the purposes of this Workbook, the entries for this criterion have been split into several "subcriteria".)

Type of Pedestrian Accommodation: 

Subcriterion: Width

Minimum: 5.0 FT
Existing: FT
Proposed: 5.0 FT
(If the width varies, provide a minimum.)

Source used for minimum: MassDOT Controlling Criteria

Justify the proposed width.

(Attach additional sheets as necessary.)

Subcriterion: Width

Minimum: 5.0 FT
Existing: FT
Proposed: 4.5 FT
(If the width varies, provide a minimum.)

Source used for minimum: MassDOT Controlling Criteria

Justify the proposed width.

(Attach additional sheets as necessary.)

Subcriterion: Presence

Pedestrian facilities exist on the facility.
Pedestrian facilities are proposed on the facility.

(Check the boxes if any of the following apply.)
☐ The roadway is in an urbanized area, an urban cluster, or a rural village.
☐ The project involves work on an underground bridge.
☐ The roadway is identified as having a High Potential of Walkable Trips in the Pedestrian Facility Inventory.
Changes at every step of the process = key
Does not compute

- On time
- On budget
- Within scope
- Consultant scope of services
- Setting public and municipal expectations

- Add requirements
- Add process
- Add scope
- Add sign-offs/approvals
- Add committee meetings
Lessons

1. **Integrating** complete streets and safety early and often!

2. **Defining** what constitutes a pedestrian, bicycle, and transit accommodation

3. **Simplifying process**: Design Justification Workbook to document decision and design

4. **Approval** by Chief Engineer / Administrator / Secretary

5. **Exception process** for when accommodations cannot be made or stray from definition (= creativity!)

"design exceptions create exceptional designs"

- Assistant Chief Engineer
Initiate

1

Advance stand-alone projects too

2
Created new function – Program Management

Where do projects come from in the first place?

• A program is a set of related measures or activities with a particular long-term aim

• The MassDOT capital plan is organized by over a dozen programs – every project fits with a program
  • Programs include Bicycle & Pedestrian, Bridge, Safety, Intelligent Transportation Systems, Interstate Pavement, etc.

• Program managers look to maximize the outcome within their respect areas

• Identify and prioritize projects, facilitates project scoping, plans program financing
Program Management role in Project Development Process

- Project Identification
- Project Initiation
- Project Scoping
- 25% Design
- 75% Design
- 100% Design
- Plans, Specifications and Estimates (PS&E)

= Lead
= Track / Assist
How we work
Focused on outputs we control in support of outcomes we desire

### Input (examples)
- Projects programmed
- Funding spent
- Projects delivered / constructed
- Guidance released
- Website created
- Assets maintained
- Snow & Ice operations
- ...

### Outputs (examples)

- **Increase in percent…**
  - People who have access to high comfort pedestrian network for everyday short trips
  - High visibility crosswalk at every bus stop/transit station
  - Bus transit accommodations on road
  - Trails in good condition
  - Curb ramps that are accessible

- **Reduction in…**
  - Number of vulnerable culverts
  - Operating speeds exceeding target speeds state-wide
  - ...

### Outcomes (examples)

- **Zero pedestrian fatalities and serious injuries**
- **Triple walking, biking, and transit trips**
- **Air quality improved**
- **More kids walking/biking to school**
- **Cleaner water**
- **Reduction in number of closed roads due to weather events**
- **Reduction in heat island temperatures**
- **…**
Mobility

Every day short trips

More than 50% of all trips are less than 3 miles
3 miles = 16-minute bike ride

Majority of trips are not commute trips

<table>
<thead>
<tr>
<th>Distance Buckets</th>
<th>Percentage of all trips</th>
<th>Bicycle</th>
<th>Pedestrian</th>
<th>Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – .5 mi</td>
<td>27%</td>
<td>.5%</td>
<td>97%</td>
<td>2%</td>
</tr>
<tr>
<td>.5 – 3 mi</td>
<td>34%</td>
<td>2%</td>
<td>48%</td>
<td>50%</td>
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<tr>
<td>3 – 6 mi</td>
<td>13%</td>
<td>1%</td>
<td>5%</td>
<td>94%</td>
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<tr>
<td>All trips</td>
<td>---</td>
<td>1%</td>
<td>44%</td>
<td>55%</td>
</tr>
</tbody>
</table>

MassDOT Tracker, 2021

Source: National Household Travel Survey (NHTS), 2009
Program development examples
Systemic Safety Example
Sidewalk Network Example

Image: LiDAR scanning proposal for MassDOT
Project examples
Project type examples

Constructing Bass River Bridge, Cape Cod (now complete)

New roundabout on Route 140, Princeton, MA

Newly built Kelley Square, Worcester
Project type examples

Lane markings for safety  New bridges for shared use path
1

2

3

Support local projects

Provide
Community / Municipal Funding

- Chapter 90
- Safe Routes to School
- Small Bridge
- Complete Streets
- Shared Streets and Spaces
- MassTrails
- And more!

The vast majority of roadways in Massachusetts is under municipal control, highlighting the need for interjurisdictional cooperation.
You can do it too!
INSTITUTIONALIZING SAFETY

Garrett Eucalitto, Commissioner
Natasha Fatu, Transportation Principal Engineer
Connecticut Department of Transportation

December 18, 2023
Goal

**To connect** Transportation Professionals (planners, engineers, public health professionals, and their partners) working for a variety of agencies and organizations with case studies and success stories related to bicycling, walking, and road safety.

**To inspire** State DOTs to look closely at any internal policies, practices, or guidance that may be keeping them from advancing safety and truly “institutionalizing” road safety as a priority in their work.
Collect and Analyze Data:

- Crash Data
- Traffic Volume Data
- Roadway Geometric Data
- Vehicle Data
- Driver Data
- Law Enforcement Data
- Injury Surveillance Data
- Demographic and Land Use Data

Identify:

- Systemic safety issues, as well as high-crash corridors, intersections, and/or facility types
- Crash types
- Roadway facility types where crashes are likely to occur
- Contributing crash factors
- Roadway characteristics associated with crashes
- Human factors or behaviors associated with the number and severity of crashes
Motivation

• Continual review of data and trends
• Fatal and Serious Injury Trends – Graphs and Bullets
• Despite all the positive changes, performance is trending down
• Recognition to do more
• What we had been doing was no longer working
Institutionalizing Safety at CTDOT

- Vision Zero Council
  - Multi-disciplinary group of traditional and non-traditional partners
  - Advances legislative and policy level initiatives

- SHSP
  - Vulnerable Road User Safety Assessment
  - Multi-disciplinary Partners
  - Identifies risk factors and priority areas

- Highway Safety Plan (HSP)
- Road Safety Audits
- Participated in Smart Growth America Complete Streets Leadership Academy
- Community Connectivity Grant Program
- Controlling Design Criteria
- Agency Reorganization

Source: FHWA.
Background

• Safety Performance Target Setting
  • VISION ZERO
  • Highway Safety Plan (HSP)
    • Sets goals to get to zero by focusing on driver behavior initiatives.
  • Strategic Highway Safety Plan (SHSP)
    • Sets incremental goals to get to zero
    • Current goal is 15% reduction in number of fatalities and serious injuries on all public roads in CT by 2026.

• Commissioner’s Priorities: Safety, Accessibility, Sustainability

CTDOT Crews, Newington
The Department has instituted three new controlling design criteria on applicable CTDOT projects.

**Pedestrian Facilities**

- Sidewalk (both sides of roads) Minimum Width – 5’-0”
- Marked Crosswalks – shall be provided at every leg of a signalized intersection where sidewalks are present and/or proposed
- Illumination – shall be provided for marked crosswalks on all State roads

**Bicycle Facilities**

- Bicycle Facility Selection Matrix & Updated Standards

<table>
<thead>
<tr>
<th>Bicycle Facility</th>
<th>Min. Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved shoulder and Bicycle Lane</td>
<td>5</td>
</tr>
<tr>
<td>Buffered Bicycle Lane*</td>
<td>5</td>
</tr>
<tr>
<td>Separated Bicycle Lane (one-way)*</td>
<td>5¹</td>
</tr>
<tr>
<td>Separated Bicycle Lane (two-way)*</td>
<td>8²</td>
</tr>
<tr>
<td>Shared Use Path and Side path</td>
<td>10</td>
</tr>
</tbody>
</table>

**Transit Provisions**

- Office of Transit and Ridesharing and Office of Rails input required on all projects
- Shelter or Bench to be provided at all transit stops with high levels of boarding per day or low levels of frequency of service
- Marked Crosswalks within 400’ of existing or proposed transit stops
- Illumination provided at all transit stops
- ADA compliance
Complete Streets Controlling Design Criteria

- **Project Application:**
  - CTDOT is the project proponent
  - CTDOT administers the project
  - CTDOT is responsible for providing project funding (state or federally aid)
  - CTDOT controls the affected infrastructure (State Highway)

- **Design Exceptions:**
  - Design Exceptions for CSCDC may only be granted by the Chief Engineer, with reporting requirements to the Commissioner.
  - This elevates the Design Exceptions review process for the CSCDC, as the approval of any requested Design Exceptions for the other 13 Controlling Design Criteria are determined by Engineering Administrator.
Challenges

- Project Screening requires robust enterprise level data
- Traffic Safety Culture
- Training
- Project Scoping, identifying opportunities
- NEPA/Environmental impacts
- ROW
- Evolving Standards

Farmington Canal Heritage Trail, Simsbury
Lessons Learned…

…TO BE DETERMINED

Commissioner Garrett Eucalitto
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Complete Streets Rendering, FHWA
Questions and Discussion
Thanks for joining!

• Be on the lookout for an email with:
  • An evaluation survey
  • Meeting materials (with contact information)