AGENDA ITEM 6
NEXT AREA OF EFFORT FOR THE BICYCLE ADVISORY COMMITTEE

July 30, 2018

Objective and Agenda

Objective: Come to agreement on rankings for three potential areas of next effort for the TxDOT Bicycle Advisory Committee

Agenda:

- Background
- Review Working Group activities
- Review Working Group recommendations
- Discussion
- BAC selection/action
Projects Developed in Collaboration with TxDOT BAC

- Strategic Direction Report
- TxDOT’s Bicycle Tourism Trails Study
- What is next?

Previous meeting feedback results

When should these SDR focus areas be addressed?

<table>
<thead>
<tr>
<th>Later</th>
<th>Sooner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand bikeway network</td>
<td></td>
</tr>
<tr>
<td>Design safer b/p infrastructure</td>
<td>3.4</td>
</tr>
<tr>
<td>Train engineers, planners, and construction staff</td>
<td>2.6</td>
</tr>
<tr>
<td>Educate on safe driving/biking/walking</td>
<td>4.2</td>
</tr>
<tr>
<td>Encourage walking and biking</td>
<td></td>
</tr>
<tr>
<td>Develop bike/ped data resources</td>
<td>4.4</td>
</tr>
<tr>
<td>Fund bike/ped projects</td>
<td>4.8</td>
</tr>
</tbody>
</table>
In what order should PTN and the BAC address the SDR focus areas?

![Diagram showing order of focus areas]

**Sooner**

**Technical training**

- TxDOT Bicycle Planning and Implementation Training

**Safe design**

- TxDOT Guidance on Safe Routes to New and Existing Schools
- TxDOT Bikeway Design and Selection Recommendations
- Bicycle Safety Analysis

**Fund projects**

**Data collection**

**Public education**

- Bikeway Inventory and Map

- Public Awareness Campaigns for Safe Bicycling and Driving

**Later**

**Expand network**

**Encourage bike/ped**
How to advance this potential area of next effort?

Who will do the work?
- TxDOT-PTN, consultants, and/or other TxDOT district/division staff

How does the BAC contribute?
- BAC Working Group provides input and reviews progress through regular WebEx meetings
- BAC approves quarterly milestones

What about schedule/timelines?
- 1-2 year period with interim objectives

How will effectiveness be measured?
- Establish performance measures

TxDOT Bicycle Planning and Implementation Training

- TxDOT offers over 400 technical and professional development training courses

  - Technical training topics include:
    - Design
    - Construction
    - Bridge
    - Right-of-way
    - Traffic
    - Environmental
    - Maintenance
    - Safety

- Courses are open to:
  - TxDOT retirees
  - Consultants
  - Contractors
  - Government employees
  - Other agency staff
Create TxDOT-focused training course on bikeway planning essentials for state and local government professionals.

Curriculum may include:
- Planning for safe, connected bikeways
- Available bikeway guidance and design manuals
- Best practices from Bicycle Friendly states
- Collaboration between state/local entities
- TxDOT/MPO bike plan best practices
- Bicycle and pedestrian counting/data collection
- Rural bicycle accommodation best practices
- TxDOT’s Bicycle Tourism Trails Example Network
- Low-cost methods for adding bikeways (ex. BikeStripe)

Purpose:
- To educate TxDOT and local government staff about bikeway planning and design considerations with an emphasis on safety and collaboration

BAC input:
- Prioritize B/P course topics
- Identify Texas-specific case studies
- “Test drive” classroom activities
- Identify topics for educational literature
- Evaluate best practices from MPO/TxDOT District bike plans

Potential Deliverables (to be determined):
- TxDOT-specific curriculum and course materials: PowerPoint presentations, handbook, handouts, graphics, flyers, etc.
- Educational brochures/“meeting in a box” for selected topics or audiences
- Training sessions for state and local entities at multiple locations throughout the state
Safe Routes to School is an international movement with two basic goals:
1) improve the safety and accessibility of sidewalks and bike routes to schools, and
2) encourage more children and families to walk or bike to school.

In 1969, About 48% of children walked or biked to school.

By 2009, About 13% of children walked or biked to school.

Background
- Many existing schools are located on state roadways
- Rapid population growth in Texas leads to new school construction, frequently along state-maintained roadways.

Guidance can help TxDOT, local government, and school district staff:
- Identify needed safety/accessibility improvements around schools.
- Inform siting considerations
Purpose:
- To establish TxDOT guidance for planning safe routes to schools, including coordination of new school siting, along state-maintained roadways

BAC input:
- Prioritize SRTS topics to be addressed
- Identify Texas-specific case studies
- Focus group to “test drive” materials
- Evaluate SRTS national best practices

Potential Deliverables (to be determined):
- SRTS design guidelines for safer bike/ped infrastructure
- School siting guidance documentation
- Recommendations for coordination with schools
- Summary materials: PowerPoint presentations, graphics, flyers, technical memos, etc.

TxDOT Bikeway Design and Selection Recommendations

Multiple guidance documents available:
- AASHTO Guide for the Development of Bicycle Facilities update in progress
- Other FHWA guidance
- TxDOT’s Roadway Design Manual
- Other guidance: NACTO, ITE, MassDOT
Bikeway selection guidance may take into account:
- Motor vehicle traffic volumes
- Motor vehicle speed
- Number of lanes
- Presence of shoulders, sidewalks, medians, etc.

**Purpose:**
- To coordinate efforts with Design Division to recommend bikeway type selection criteria based on roadway characteristics for TxDOT District engineers and other professional staff

**BAC input:**
- Share bicycling experiences on various types of bikeways
- Evaluate best practices from other states/national guidance documents
- Advise project team on volume, speed, and roadway functional class/setting thresholds
- Prioritize bikeway types

**Potential Deliverables (to be determined):**
- Updated design guidance (DES lead)
- Bikeway selection matrix (DES lead)
- Guidance/recommendations on incorporating bicycle facility selection into engineering design summaries and regular roadway maintenance schedules (DES lead)
- Recommendations Report: Write-up describing completed products, context, actions taken, and stakeholder involvement.
Additional discussion

Go to www.menti.com and use the code 17 81 45

Distribute 100 points between these three potential areas of BAC next effort.

Go to www.menti.com and use the code 17 81 45
AGENDA ITEM 7
Bicycle Mobility by Design in Corpus Christi: Installing the Right Infrastructure in the Right Places

TxDOT Bicycle Advisory Committee
July 30, 2018

Jeff Pollack, AICP ENV SP

Context

Corpus Christi ranked fattest city in America by Men's Health

Everything and everyone is bigger in Texas, according to magazine

By Katherine Rosenberg

Some weighty news for Corpus Christi to chew on: We are America's fattest city. At least according to calculations by Men's Health, which ranks the city as No. 1 out of 100 on its list.

But it's not always lonely at the top. Four other Texas cities are in the top 10.
The metropolitan area of the Coastal Bend is a place where walking and biking are integral to the community culture and represent viable, safe travel and recreation options for residents and visitors of diverse abilities.

Active Mobility Plan Vision

The metropolitan area of the Coastal Bend is a place where walking and biking are integral to the community culture and represent viable, safe travel and recreation options for residents and visitors of diverse abilities.
## Bicycle Mobility Network

<table>
<thead>
<tr>
<th>Key Destinations</th>
<th>Description</th>
<th>% within ¼ mile of Bike Network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic</strong></td>
<td>Early education/Daycare centers, grade schools (public and private), higher education campuses</td>
<td><strong>89%</strong> (158 of 175)</td>
</tr>
<tr>
<td><strong>Parks</strong></td>
<td>Greater than 2 acres in size</td>
<td><strong>85%</strong> (122 of 143)</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>Groceries, meat and fish markets, bakeries, corner markets</td>
<td><strong>80%</strong> (104 of 130)</td>
</tr>
<tr>
<td><strong>Low-income Housing</strong></td>
<td>Section 8 or Tax Credit properties</td>
<td><strong>82%</strong> (541 of 657)</td>
</tr>
<tr>
<td><strong>Transit</strong></td>
<td>Stops and stations</td>
<td><strong>83%</strong> (1088 of 1319)</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td>Pools, senior centers, recreation centers, movie theaters, fitness centers, museums and hotels</td>
<td><strong>77%</strong> (186 of 242)</td>
</tr>
</tbody>
</table>

## Stakeholder Engagement

**Strategic Plan for Active Mobility**

- **Introduction**: The Strategic Plan for Active Mobility for Nueces and San Patricio counties will replace the 2006 Bike and Pedestrian Master Plan. Phase I, Bicycle Mobility, will begin in 2018.

- **Vision**: The metropolitan area of the Coastal Bend is a place where walking and biking are integral to the community culture and represent viable, safe mobility and recreation options for residents and visitors of diverse abilities.

- **Map It!**: Use our on-line mapping tool to show us where you ride or where you’d like to ride if the conditions for cycling improved. View a short (2 min) video on how to use the mapping tool.

- **Track It!**: Download Share the Road and use it to log the routes you ride. These logs are being used as a tool for utilities. Share can also be used to track the miles of commuting or recreational cycling. The Bike Mobility planning team will use this information to identify priority issues.

- **Answer It!**: Take our very short (5 min) online survey to share your priorities for community cycling programs and supporting infrastructure.
# Network Development – Demand Analysis

<table>
<thead>
<tr>
<th>Primary Data</th>
<th>Supplemental Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Vehicular Origins/Destinations (TDM)</td>
</tr>
<tr>
<td>Parks</td>
<td>Employment to Population Ratio (TDM)</td>
</tr>
<tr>
<td>Food</td>
<td>Population and Employment Density (TDM)</td>
</tr>
<tr>
<td>Low-income Housing</td>
<td>Zero Car Households (census)</td>
</tr>
<tr>
<td>Transit</td>
<td>Bike to Work (census)</td>
</tr>
<tr>
<td>Recreation</td>
<td>City of Corpus Christi Destination Nodes</td>
</tr>
<tr>
<td></td>
<td>(City’s 2011 Community Sustainability Plan)</td>
</tr>
</tbody>
</table>

[Map Image: City of Corpus Christi Destination Nodes (City’s 2011 Community Sustainability Plan)]
Network Development – Facility Selection

Infrastructure Prescriptions:
• Proprietary model
• Segment data inputs:
  o Traffic volume
  o Posted speed
  o ROW and shoulder widths
  o Number travel lanes
  o Number driveways
  o Presence of curb/gutter
  o Presence/utilization on-street parking

Network Development – Specialized Treatments

<table>
<thead>
<tr>
<th>Specialized Intervention (See Infrastructure Illustrations Section)</th>
<th>Street Name</th>
<th>From</th>
<th>To</th>
<th>Final Infrastructure Prescription</th>
<th>Transitional Infrastructure Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Travel Lane Width</td>
<td>Up River Rd</td>
<td>Deer Run</td>
<td>West Gulf Park entrance</td>
<td>Buffered Bike Lane</td>
<td>N/A</td>
</tr>
<tr>
<td>Super Sharrow</td>
<td>N Port Ave</td>
<td>Mesquite St</td>
<td>Broadway St</td>
<td>Bike Boulevard</td>
<td>N/A</td>
</tr>
<tr>
<td>Road Diet</td>
<td>Alameda St</td>
<td>Ayers St</td>
<td>Louisiana Ave</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Goddard Rd</td>
<td>Staples St</td>
<td>Airline Rd</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>S 10th St</td>
<td>Morgan Ave</td>
<td>Prascott St</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>South Gregory St</td>
<td>4th St</td>
<td>Church St</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Spohn Dr</td>
<td>South Dr</td>
<td>Parkway Dr</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Spohn Dr South</td>
<td>Saratoga Blvd</td>
<td>Spohn Dr</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Violet Rd</td>
<td>Starke Ln</td>
<td>Willowood Creek Dr</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Violet Rd</td>
<td>Wedor St</td>
<td>Timbergrove Ln</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td>Recapture Parking, 1 Side</td>
<td>Broadway Blvd</td>
<td>Duke Ln</td>
<td>Country Club Blvd</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Brookhampton St</td>
<td>Stonehenge St</td>
<td>Brookhampton St - Proposed</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Camell Ln</td>
<td>Holly Rd</td>
<td>Braver Pkwy</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Cedar Pass Dr</td>
<td>Tiger Dr</td>
<td>Everhart Rd</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>MacArthur St</td>
<td>Horne Rd</td>
<td>Belton St</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Oso Pkwy</td>
<td>Yorktown Blvd</td>
<td>S Staples St</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Oso Pkwy</td>
<td>Bar-La-Doct Dr</td>
<td>Lens Dr</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Purun Rd</td>
<td>Ratta Dr</td>
<td>Walnut Rd</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Timbercreek Dr</td>
<td>Hunt Dr</td>
<td>Williams Dr</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Treyway Ln</td>
<td>Holly Rd</td>
<td>Castenon St</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Trojan Dr</td>
<td>Greenwood Dr</td>
<td>Country Club Blvd</td>
<td>1-Way Cycle Track, both sides</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Prescribed reduction in width affects only surplus curb lane width but does not impact the effective travel lane width.**

Reduction to 11’ travel lane widths allows surplus ROW to be repurposed for bicycle facilities and may have beneficial traffic calming effect but without impacting capacity of corridor.
Infrastructure

Bike Boulevard

1-way Cycle Track, Both Sides

Rodd Field Rd.
Infrastructure

1-way Cycle Track, Both Sides

Alameda St.

Infrastructure

Specialized Treatment: Crossings
Implementation

**Completed**
- 6.69 mi. Off-road Multi-use Trail
- 4.47 mi. Multi-use Sidepath
- 0.56 mi. Buffered Bike Lane
- 8 Bike Share Stations (45 bikes)

**In Design**
- 30.49 mi. Bike Boulevard
- 9.62 mi. 1-way Cycle Track (both sides)
- 2.74 mi. Off-road Multi-use Trail
- 1.0 mi. Buffered Bike Lane
- Bike Trip Support Hardware:
  - 1075 Multi-bike racks
  - 150 Air pumps
  - 65 Tool kiosks + Air pump
  - 15 Bike lockers + Tool kiosk

**Under Construction**
- 4.32 mi. 1-way Cycle Track (both sides)
- 0.79 mi. 2-way Cycle Track (one side)
- 0.23 mi. Bike Boulevard

www.corpuschristi-mpo.org
www.CoastalBendInMotion.org