Meeting of the Bicycle Pedestrian Advisory Committee
Wednesday, June 12, 2019, 5:30 PM

I. Call to Order

II. Introductions

III. Public Comment - 3 minutes per speaker, please

IV. Approval of Minutes – May 8, 2019

V. Members’ Interests (2 Minutes Each)

VI. Special Presentation
   A. Fowler Land Use Study (Pedro Parra, Plan Hillsborough)

VII. Action Items
   A. Election of Officer - Vice Chair
   B. It’s Time Hillsborough Survey (Lisa Silva, MPO Staff)
   C. Temple Terrace Low Speed Electric Vehicle Study (Wade Reynolds, MPO Staff)

VIII. Old Business & New Business
   A. July Retreat – Location and Discussion Items
   B. Letter From Tampa Police Department Regarding Parking Enforcement

IX. Adjournment

X. Addendum
   A. MPO Meeting Minutes & Committee Report
   B. Sidewalk Labs Street Design Principles

The full agenda packet is available on the MPO’s website, www.planhillsborough.org, or by calling (813) 272-5940.

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I. CALL TO ORDER

Vice Chair Monk called the meeting to order at 5:31 p.m. in the Plan Hillsborough Room and introductions were made.

II. INTRODUCTIONS

Members present: Katrina Corcoran, Rafael Hernandez, Tim Horst, Jason Jackman, Richard Johnson, Mara Latorre, John Marsh, Tony Monk, Karla Price, Diana Ramirez, Richard Ranck, Bill Sapper, Jim Shirk, Sally Thompson, Calvin Thornton, Wanda Vinson and Alain Watson

Others present: Beth Alden, Wade Reynolds, Sarah McKinley and Johnny Wong - Hillsborough MPO; Sharon Snyder - Planning Commission; Wally Blain – Tindale Oliver; Alex Henry – FDOT; Brigitte Hofmeister; Wyatt Buettschell, Lori Palaio and Runan Yange – USF Students; Robert Bertini – USF; Jon Dengler – Well Built Bikes; Monica Martin – Hillsborough County

III. PUBLIC COMMENT

Jon Dengler introduced Well Built Bikes, a non-profit bike shop located in the University Mall that rebuilds used bicycles. They have an “earn a bike” program for those lacking transportation. They can apply to earn a bike by working community service hours. At graduation they are given a bike, locks, helmet, water bottle and a safety class. The effort is supported by retail sales. Bicycles are also refurbished for sale and they also offer a repair service, tools and parts. If anyone has bicycle(s) to donate, please bring them by the shop or contact Mr. Dengler for a convenient drop off location. Their website is www.bikeshoptampa.com and distributed informational flyers to the Committee.

Dr. Wong presented BPAC Liaison, Wade Reynolds, with a refurbished bicycle on behalf of the Committee and MPO Staff, as his bicycle was recently stolen from the County Center.

IV. APPROVAL OF MINUTES

Motion: Approval of the minutes of April 10, 2019 (Shirk - Thornton). The motion passed unanimously.

V. MEMBERS’ INTERESTS (2 minutes each)

Mr. Shirk encouraged members to attend the May 15, 2019 BOCC meeting at 9:00 a.m. at which they will declare Florida Bike Month. A group will be meeting at 8:00 a.m. at CityBikeTampa Bike Shop.

VI. ACTION ITEMS
A. Committee Appointments and Discussion (Wade Reynolds, MPO)

Mr. Monk explained that Temple Terrace recently assigned a new representative so Mr. Forbes technically isn’t on the Committee tonight. Mr. Forbes still has a year left as Chair of the Committee. Mr. Monk will serve as Chair for tonight’s meeting before he resigns at the end of this meeting and once Mr. Forbes is approved again by the MPO Board, he can resume the Chair position. A Vice Chair will need to be elected at the June meeting.

Motion: Recommend to the MPO Board the re-appointment of Jonathan Forbes to fill the Citizen-at Large vacancy when Mr. Monk tenders his resignation at the end of this meeting (Shirk - Thornton). The motion passed unanimously.

B. FY20-24 Transportation Improvement Program and Priorities (Sarah McKinley, MPO)

Ms. McKinley presented the draft of the Transportation Improvement Program (TIP) for FY20 – FY24 which includes projects programmed by the Florida Department of Transportation (FDOT) based on priorities adopted by the MPO on June 12, 2018. These priorities were based on the adopted 2040 Long Range Transportation Plan.

Ms. McKinley explained what the TIP is, how it is organized and what the MPO’s role is. The MPO last updated the priorities in June 2018. FDOT programmed funding based on the priorities in November and December of 2018, creating the Tentative Work Program, which approved by the Legislature and Governor, will be effective July 1, 2019. The MPO will present and adopt the updated 5-year TIP and priority list at the Public Hearing scheduled for June 11, 2019.

Ms. McKinley presented the sources of the TIP funds and the use of the FDOT Work Program funds broken down by work type. She also discussed the percentages of sources revenues by work type and by fiscal year, the use of funds for the local capital improvement programs and the allocation of funds.

Ms. McKinley discussed what is new for the major project highlights which are based on the Imagine 2040 Long Range Plan performance measures: Preserve System, Real Choices when not driving, reduce crashes and vulnerability, major capacity projects for economic growth and minimize traffic for drivers and shippers. She reviewed the highlights and funding changes this year and the new priority requests.

Discussions ensued regarding if this includes the transportation surtax (No, the jurisdictions are looking at how to spend the money and planning those projects now); what the time frame for crashes is (5 years); the TIP is still heavily weighted to automobile and there is a need to rebalance funds; and who is responsible for setting the percentage of how much goes to bicycle/pedestrian projects (Mr. Monk stated the MPO Board sets whatever priorities they want. Ms. McKinley clarified the MPO Board doesn’t allocate funds, they can only prioritize funds and remove federally funded projects. The MPO Board prioritizes some state funds.). Mr. Monk feels the ratio should be 80/20 bicycle/pedestrian/transit to cars and he won’t vote in favor of the TIP.

Motion: Recommend approval of the TIP for FY2018-20 – 2023/24 and the TIP Priorities for FY 2020/21 – 2024/25 (Shirk - Thornton). Thirteen members were for and three members were opposed (Monk, Hernandez and Vinson). The motion carried.
VII. STATUS REPORTS

A. 2045 Needs Assessment (Wally Blain, Tindale - Oliver)

Mr. Blain presented the Needs Assessment for Major Projects. He explained the transportation plan is the blueprint for the future, it shows systems and projects over the 20+ year time horizon, it is not a wish list but shows where the tax dollars will be spent. The plan is created with public involvement, approved by local elected officials and built by state and local agencies. He explained the three steps to developing the plan are (1) how much and where will growth occur, (2) what facilities will be needed and (3) who builds or operates what and when. Mr. Blain explained a 45% growth in population and employment is expected by 2045 and he reviewed the investment choices, including the major projects to support economic growth.

Mr. Blain presented the 2045 traffic congestion forecast which assumes only the projects in the funded TIP are built and all other projects are the subject of this long range plan analysis. Road segments in yellow, orange or red are all considered “failed” by current level of service measures. Widening all “failed” roads would be astronomically expensive and have tremendous community impact.

The identification of major projects includes roadway widening and expansion, right-sizing in the urban core, new and reconstructed interchanges, fixed guideway transit, and evaluates performance using the Regional Travel Demand Model. Mr. Blain discussed some of the major projects identified. He explained the Planning Commission Staff reviewed all of the Comprehensive and Community Plans and found the majority of projects were generally determined to be consistent with growth patterns and strategies; however, they did note a few potential projects that are not complementary or are in conflict.

The next steps include refinement of the major investment projects, developing project cost estimates, summarizing investment program performance, completion by the public of the online survey in June and July, and preparing the cost feasible LRTP based on analysis and public involvement.

Discussions followed regarding, as this is mainly a land use problem, the major projects need not be highway projects; clarification of the land use pattern on Tindale-Oliver’s presentation was suggested; clarification of if there is a list of projects that aren’t consistent with any of the comprehensive plans (yes, there is a list); additional satellite workcenters are being developed around the County, such as in Brandon and Ruskin; if Tindale-Oliver is aware of the workcenters in their models (yes); the issues before the City and the County are affordable housing and transportation; in addition, there is a need to modify the parking restriction minimums; if parking restrictions can be easily studied (Mr. Thornton stated the City of Tampa has already reduced parking to one space per 1,000 square feet. Everywhere else is three spaces per 1,000 square feet.); and what the impact would be if all jurisdictions county-wide changed their parking minimums. Mr. Blain provided an explanation of parking modeling.

Discussions continued regarding the need for a matrix to know what we’re getting; level of traffic stress methodology and after some investments, how does access to good facilities change; concerns over the increase in traffic on Himes and how bikeability will be affected (Mr. Reynolds will look into this); and the cost variation between building for bike/pedestrian resources with existing infrastructures compared to building for new interstates. Mr. Monk feels the first page of the TIP should define the goals but this plan shows we are planning to continue as is.
B. CUTR Sustainable Transportation Course (CUTR Representatives)

Dr. Robert Bertini, Director of the Center for Urban Transportation Research (CUTR) at the University of South Florida (USF), introduced the USF grad students who are presenting the Complete Streets Design Concepts project: Lori Palaio, Wyatt Burttschell, and Runan Wang. He explained the Sustainable Transportation Course offered at USF and the project locations. Tonight’s presentation is from Group 3 (South MacDill Avenue), Group 4 (East Sligh Avenue) and Group 5 (West Sligh Avenue). Dr. Bertini also gave an overview of the project and presented the students goals and objectives before thanking all who collaborated on this project.

Runan Wang gave the presentation for Group 3 which was along South MacDill Avenue, from Bay to Bay Blvd. to West Morrison Avenue. She discussed the existing conditions and proposed improvements for the segment from West Barcelona Street to West Bay to Bay Blvd. Discussions ensued regarding if additional space and right-of-way is needed to construct the proposed roundabout (based on their measurements, it will fit in the existing space); if the roundabout will work with the Complete Street project proposed for Bay to Bay Blvd.; if flashing beacons will be installed at the raised crosswalks for enhanced visibility (Mr. Thornton commented flashing beacons shouldn't be needed with the traffic signal at West Barcelona, but the roundabout at Bay to Bay may cause issues); and if onstreet parking was removed because backing into traffic causes issues (yes, it was removed. There could be a parking garage close by.)

Wyatt Burttschell presented Group 4’s presentation along East Sligh Avenue, from North Florida to North Nebraska Avenue. He explained the existing conditions along the ½ mile segment and presented the proposed improvements, including four crosswalks, bike lanes, a road diet from I-275 to North Nebraska, channelized right turn lanes at the off-ramps and safety and art improvements for I-275. Dr. Bertini discussed the field trip to this location and how students are encouraged to cross the street using a wheelchair so they can understand the limitations. Discussions followed regarding if traffic counts allow for changing the left turn lane to a combined left turn/straight lane (the signal will change from a left turn arrow to a green light); where buffered bike lanes will be used (buffered 2’ bike lanes are proposed for the portions that go under I-275 and East Sligh to North Nebraska. The segment that won’t have a buffered bike lane is from I-275 to North Florida. Bike lanes are consistent through the entire segments.); and were cost estimates completed (Cost estimates were not a requirement of the assignment but costs were taken into account.). Dr. Bertini explained the students were instructed to offer improvements that can be achieved quickly and at minimal expense (2025 improvements) and bolder improvements that may require land use changes, etc. (2040 improvements).

Group 5’s presentation from Lori Palaio was on West Sligh Avenue, from North Rome Avenue to North River Blvd. She provided a segment overview, the goals and objectives of the project and the West Sligh Avenue Almanac. Ms. Palaio presented the proposed aerial views and the 2025/2040 proposed ideas which include concrete bollards, revised bridge design and sustainable trash bins, which dispense money points for free rides on the public transit system in exchange for depositing recyclable items. Discussions followed regarding lowering the height of the bridge sidewalks (the group proposed installing a barrier to separate the bicycle and pedestrian lane); where have the lighted concrete bollards have been used prior (Ms. Palaio doesn’t recall where); and has the group pitched the money points for recycling idea to HART (not yet). Mr. Thornton feels the proposal to use a portion of Lowry Park’s parking lot for mixed use is an excellent idea. Mr. Forbes asked the possibility of moving the bicycle track from the 2040 plan to the 2025 plan. Dr. Bertini commented they were hoping to integrate the construction of the bicycle track with the zoo as it is right at the entrance. Mr. Thornton feels construction of the bicycle track would connect the Green Artery.
VIII. OLD BUSINESS & NEW BUSINESS

Mr. Reynolds stated the MPO Board approved at this morning’s meeting the letter to be sent to the City of Tampa Police Department regarding drivers parking in the bicycle lanes. When the letter was included in the Board packet, it caught the attention of an ABC Action News reporter and there was a great segment on ABC Action News.

This Committee supported the CAC’s motion on the I-275 Boulevard Study and it will be inserted into the MPO’s Unified Planning Work Program. Details still need to be worked out. Mr. Horst asked who is slated to conduct the study and Mr. Reynolds said it hasn’t been determined, but probably will be one of our general planning consultants with experience with similar types of projects. The study will be conducted under the supervision of the MPO.

Nominations are being accepted for the 2019 Bike/Walk Tampa Bay “Michael R. Schwaid Bicyclist of the Year” Award. A link to the website was provided in the Board packet. Mr. Schwaid was a bicyclist who was hit by a drunk motorist while commuting in March 2016. He passed away in September 2017 from unrelated causes. The Bike Walk Tampa Bay Bicyclist of the Year Award was renamed the Michael R. Schwaid Bicyclist of the Year Award in his honor.

Mr. Watson asked Mr. Reynolds to check the status of the Tampa Bay Next reports from FDOT, as Alice Price stated at the April meeting the reports would be ready in the near future.

Mr. Forbes thanked Mr. Monk for his participation on the BPAC and presented him with a certificate and a gift. His guidance, vision and ideas spurred a lot of growth and he will be missed. Mr. Forbes suggested the Committee may reach out to him from time to time for his input.

IX. ADJOURNMENT

There being no further business, the meeting was adjourned at 7:08 p.m.
Hillsborough MPO
Metropolitan Planning for Transportation

Board & Committee Agenda Item

Agenda Item

East Fowler Avenue Land Use Study

Presenter

Pedro Parra, Planning Commission Staff

Summary

This study was requested by The Tampa Innovation Alliance, !p: POTENTIAL UNLEASHED to assist in planning for future land uses along the East Fowler Avenue Corridor between I-275 and I-75, up to the Tampa Bypass Canal that would foster a desirable, robust mixed-use space resulting in a work, play and live environment for a network of innovative and creative companies and associated workforce.

The study looked at other innovation districts, corridors, and centers across the country and compared these to existing development conditions, zoning and future land uses along East Fowler Avenue. The process included discussion of existing development patterns and future land use options in the Cities of Temple Terrace and Tampa and Unincorporated Hillsborough County. Future land use discussions included: mixed-use design, appropriate density, the range of uses, and incentives supporting the !p and jurisdictional objectives (included in the background section of this report).

The primary recommendations of the study are:

• That the Cities of Temple Terrace and Tampa, and Hillsborough County recognize the portion of the East Fowler Avenue from I-275, up to and including the intersection of North 56th Street, as “special study areas” in each of their adopted Comprehensive Plans to highlight the unique conditions of the area and describe the desired outcomes for the future.

• That future land use designation changes along the corridor be initiated to the Cities of Temple Terrace and Tampa, and Unincorporated Hillsborough County Future Land Use Maps to urban level mixed use categories that support the !p’s long-range vision and mission.

Recommended Action

None

Prepared By:

Lisa K. Silva, AICP, PLA

Attachments:

East Fowler Study Draft
Board & Committee Agenda Item

Agenda Item
It's TIME Hillsborough Survey

Presenter
Committee Liaison

Summary

This June 2019, the Hillsborough Metropolitan Planning Organization (MPO) kicks off the next phase of its public engagement campaign, collecting input on specific types of projects Hillsborough residents want to see in the county's 2045 Long Range Transportation Plan.

Book an It's TIME Hillsborough presentation now
We are scheduling presentations now for community groups and neighborhood associations meeting in June and July. May we schedule you?

Take and share the online survey in June and July
Contact us, we'll send you a direct link, along with information to share with your colleagues, friends and neighbors.

You'll have an opportunity to respond online and at community meetings. Survey found at: www.planhillsborough.org/2045lrtp

Survey participants will be eligible for prizes:
- Tickets to Rays;
- Tickets to Bucs;
- Tickets to Lightning.

If you know someone else who wants to participate, please share the link with your family, friends, neighbors, and local businesses. Together we can create a vision for Hillsborough County.

Recommended Action
Take the survey.

Prepared By
Lisa K. Silva, AICP, PLA (MPO Staff)

Attachments
Flyer
It’s TIME to tell us your priorities for major transportation projects.

You could win tickets to the Rays, Bucs, or Lightning thanks to our Marketing Partners:

BEASLEY MEDIA GROUP

Take and share the survey at planhillsborough.org/2045lrtp
The Long-Range Transportation Plan (LRTP) directs federal and state dollars towards transportation projects we value. It looks out at least 20 years and is updated every five years. The LRTP, which will be adopted in November 2019, identifies future projects recommended for state and federal funding.

CREATE GROWTH SCENARIOS
Why It’s TIME! Tampa Bay is growing up. We feel it every day as traffic congestion worsens and commutes get longer. Add another one million people to the region over the next 20 years, and it’s easy to see why It’s TIME to address our mobility needs.

ESTABLISH GOALS AND OBJECTIVES
You spoke, we listened. With input received from nearly 10,000 citizens in the It’s TIME Tampa Bay survey, the MPO developed goals and objectives for how we want our region to grow.

IDENTIFY NEEDED IMPROVEMENTS
What is It’s TIME Hillsborough? The Hillsborough MPO is collecting input on specific projects people in Hillsborough County want.

PLAN ADOPTION
November 5, 2019 at 6:00 pm
Public Hearing of the Hillsborough MPO Board
Hillsborough County Center
601 E. Kennedy Blvd., 2nd Floor

For more information or to request a presentation for your community group, contact Lisa Silva silva@plancom.org.
Board & Committee Agenda Item

Agenda Item
Temple Terrace Low Speed Electric Vehicle Study

Presenter
Wade Reynolds, MPO Staff

Summary
The City of Temple Terrace, which has historic roots as a golf course centered community, currently allows golf carts on city streets, but is bisected by two state roads. This causes portions of the city to be disconnected from the golf courses and limits the ability of residents to use golf carts for other tasks such as shopping for groceries. Golf cart crossings of state roads are restricted by the Florida Department of Transportation (FDOT) based on speed, volume, number of lanes, and other factors. Based on this need, the City of Temple Terrace requested a study to examine connections for golf carts across state roads.

The Temple Terrace Low Speed Electric Vehicle Study has evaluated the locations of crossings on 56th Street and Fowler Avenue. This study is focused primarily on golf carts and evaluating speed, volume, and crash data to determine whether one or more locations would meet FDOT warrants for a crossing, and if not, what variations to the standards will be required. Seven crossing locations were evaluated with input from Temple Terrace staff and FDOT.

Recommended Action
Recommend approval to MPO Board

Prepared By
Wade Reynolds, MPO Staff

Attachments
Draft Presentation
Project Overview

• Purpose:
  • 7 potential intersections for low speed electric vehicle crossings
    • East Fowler Avenue
    • 56th Street

• Other Florida Examples:
  • Dunedin
  • Sun City

• Fowler Avenue Project
Registered Golf Carts

• Current Registrations:
  • Total: 579 from 2013 - 2019

• Registration Clusters:
  • Whiteway Dr/Druid Hills Rd & Gillette Ave
  • Temple Terrace Golf Course

• City following up with survey
Discussed Crossings

A = Temple Heights Rd at 56th St
B = Mission Hills Dr at 56th St
C = Serena Dr/Druid Hills Rd at 56th St
D = Whiteway Dr at 56th St
E = Raintree Blvd at E Fowler Ave
F = Gillette Ave at E Fowler Ave
G = Hillsborough River at E Fowler Ave
Temple Heights Road at 56th Street

Opportunities:

• Utilize right turn lane as a shared bicycle and golf cart lane
• Consider easement on the east of the intersection
  • Permission from Frontier & Church

Constraints:

• Sidewalks are close to the street near 56th street; pavers on sidewalk
• Drainage concerns
• Lack of a pedestrian crossing on the North side
• Eastbound and westbound travel lanes do not have exclusive left turn lanes
• Steeper grades East and West of intersection
• Church owns property on east side
Temple Heights Road at 56th Street

Traffic Counts:
AM Peak Hour 9:00 AM
- Eastbound: 143
- Westbound: 14
PM Peak Hour 7:30 PM
- Eastbound: 100
- Westbound: 7

Crash Data (2014 – 2018)
- Total: 40
- Rear End: 20
- Angle: 6
- Pedestrian: 2
- Sideswipe: 3

Crossing Distance
- Crosswalk measures about 68 feet on 56th Street
- 2 thru lanes & 1 left turn lane on 56th Street

Main Crash Types for Intersection
- Angle
- Rear End
- Pedestrian
- Sideswipe

*Crashes not shown are located outside of picture boundary
Mission Hills Drive at 56th St

Opportunities:
• Good amount of right-of-way and separation of sidewalk

Challenges
• Utility conflicts at the intersection, less space with utility poles
• Westbound travel lanes does not have exclusive left turn lane
Mission Hills Drive at 56th Street

Traffic Counts:
AM Peak Hour 7:00 AM
- Eastbound: 89
- Westbound: 89
PM Peak Hour 5:00 PM
- Eastbound: 88
- Westbound: 68

Crash Data (2014 – 2018)
- Total: 28
- Rear End: 11
- Angle: 7
- Left-Turn: 5

Crossing Distance
- Crosswalk measures about 73 feet on 56th Street
- 2 thru lanes & 1 left-turn lane on 56th Street

Main Crash Types for Intersection
- Orange Circle: Angle
- Blue Triangle: Rear End
- Purple Triangle: Left-Turn

*Crashes not shown are located outside of picture boundary
Serena Drive/Druid Hills Rd at 56th Street

Opportunities:
• Consider RRFB or HAWK for school crossing, not a golf cart crossing

Challenges:
• Would require a mid-block crossing
  • Crossing hasn’t been warranted in the past
Serena Drive/Druid Hills Road at 56th Street

Traffic Counts:
- N/A

Crash Data
(2014 – 2018)
- Total: 40
- Bike/Pedestrian: 4
- Angle: 20
- Rear End: 7
- Hit-Fixed Object: 4

Crossing Distance
- No traffic signal or marked crosswalk on 56th street
- Crosswalk measures about 72 feet from curb to curb
- 2 thru lanes & 1 left-turn lane in each direction on 56th street
  - 1 right-turn lane North side

*Crashes not shown are located outside of picture boundary
Whiteway Dr at 56th Street

Opportunities:
• Decrease turn radii
• Good amount of right-of-way and separation of sidewalk
• Connects Greco Softball Complex
  • Additional coordination with the City of Tampa
• Connects to Temple Terrace Family Recreation

Challenges:
• Buffer decreases between sidewalk and roadway at Holland Ave
• Large turn radii

Traffic Counts:
AM Peak Hour 9:00 AM
• Eastbound: 139
• Westbound: 150
PM Peak Hour 7:30 PM
• Eastbound: 148
• Westbound: 89

Constraints:
• None
Whiteway Drive at 56th Street

Traffic Counts:
- AM Peak Hour 9:00 AM
  - Eastbound: 139
  - Westbound: 150
- PM Peak Hour 7:30 PM
  - Eastbound: 148
  - Westbound: 89

Crash Data (2014 – 2018)
- Total: 83
- Bike/Pedestrian: 5
- Angle: 34
- Rear End: 26
- Left Turn: 6

Crossing Distance
- Crosswalk measures about 144 feet on 56th Street
- 4 thru lanes & 2 turn lanes in each direction on 56th Street

Main Crash Types for Intersection
- Angle
- Rear End
- Left-Turn
- Pedestrian
- Bike

*Crashes not shown are located outside of picture boundary
AM Peak Hour exceeds 200 vehicles per hour
Golf Cart crossings not permitted at “T” intersections
Crossing exceeds more than 5 lanes of traffic

Opportunities:
• Close to several commercial options at E Fowler Ave & 56th Street
• Potential to decrease posted speed
• Good connection to Linwood Park
  • Address missing sidewalks
• Mix golf carts with traffic (on Raintree Blvd)
  • Bicycle lane/shoulder along Raintree Blvd
  • 62nd Street – narrow sidewalks & West side gaps

Challenges:
• Discuss with FDOT ability to run golf carts on sidewalks for approximately 120’
  • Wider multi-use path to accommodate
• No crossings on west side
• AM Peak Hour exceeds 200 vehicles per hour
• Golf Cart crossings not permitted at “T” intersections
• Crossing exceeds more than 5 lanes of traffic
Main Crash Types for Intersection

- Angle
- Rear End
- Bike
- Sideswipe

*Crashes not shown are located outside of picture boundary

Raintree Blvd and East Fowler Ave

Traffic Counts:
- AM Peak Hour 7:00 AM
  - Southbound: 256
- PM Peak Hour 4:30 PM
  - Southbound: 137

Crossing Distance
- Crosswalk measures about 137 feet across E Fowler Ave
- 4 lanes East and 5 lanes West on E Fowler Ave

Crash Data (2014 – 2018)
- Total: 67
- Bike/Pedestrian: 1
- Rear End: 39
- Sideswipe: 6
- Angle: 7
Gillette Ave and East Fowler Ave

Opportunities:
• Consider wide sidewalks on both sides of Gillette
• Potential to decrease posted speed
• Wider crossings along Fowler
  • Extend nose on eastern side of intersection

Challenges:
• Have to cross a 6 lane state roadway
• Southbound traffic does not have exclusive left turn lane
• Crossing exceeds more than 5 lanes of traffic
• Sidewalks don’t meet the 8 foot minimum FDOT requirement
  • Narrow on the west side with columns (3’2’’)
  • Slight buffer between the street and sidewalk (3’6’’)

LOOKING NORTH
Main Crash Types for Intersection

- Angle
- Rear End
- Hit Fixed Object
- Pedestrian
- Left-Turn

*Crashes not shown are located outside of picture boundary

**Gillette Ave and East Fowler Ave**

**Traffic Counts:**

- **AM Peak Hour 7:00 AM**
  - Northbound: 192
  - Southbound: 36

- **PM Peak Hour 5:00 PM**
  - Northbound: 142
  - Southbound: 30

**Crash Data (2014 – 2018)**

- Total: 51
- Rear End: 35
- Angle: 5

**Crossing Distance**

- Crosswalk measures about 118 feet across E Fowler Ave
- 4 lanes East and 4 lanes West on E Fowler Ave

**DRAFT**
Hillsborough River at Fowler Avenue

**Opportunities:**
- Connection to 114th Avenue
- Connection to Riverhills Drive
- Potential to decrease posted speed
- Potential underpass underneath Fowler
  - No crossings needed
  - No intersection AADT requirement

**Traffic Counts:**
- AM Peak Hour 7:00 AM
  - Northbound: 455
  - Southbound: 388
- PM Peak Hour 5:00 PM
  - Northbound: 584
  - Southbound: 353

**Challenges:**
- Coordination with the County
- Running golf carts on Gail Drive
- Riverhills Drive Connection
- Northbound and southbound AM/PM Peak Hour traffic counts exceed 200 vehicles per hour.
- Analyze feasibility of path underneath bridge
  - Grade to the south of the bridge
April FDOT Meeting Recap

**Overall Comments:**
- Review additional demand data
- City responsibility for all intersection improvements
- All registered golf carts must have a turn signal
- Hillsborough County will need to change its ordinances to allow golf carts on County Roads
- ‘After’ safety study takes place 1 year after installation of improvements.

**56th Street Overall Comments:**
- FDOT to review signal timing plans
- Will need standard golf cart crossing signs on the side streets only
- Propose 1 recommended 56th street crossing proposal be sent to FDOT

**Fowler Avenue Overall Comments:**
- More challenging to cross intersection with golf carts
- Reference the Traffic Engineering Manual for all location crossings
- FDOT would prefer a different crossing location than Raintree Boulevard
## Crossing Matrix

### Golf Cart Crossing and Operation on State Highways

<table>
<thead>
<tr>
<th>Full Signalized Intersection</th>
<th>Warrant A</th>
<th>Warrant B</th>
<th>Warrant C</th>
<th>Warrant D</th>
<th>Warrant E</th>
<th>Warrant G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temple Heights Rd. at 56th Street</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
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<td>Mission Hills Dr. at 56th Street</td>
<td>✓</td>
<td>✓</td>
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<td>Whiteway Dr. at 56th Street</td>
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<td>Raintree Blvd. at E. Fowler Ave.</td>
<td>X</td>
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<td>Gillette Ave. at E. Fowler Ave.</td>
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<tr>
<td>Hillsborough River at E. Fowler Ave.</td>
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<td>X</td>
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**Note:** Warrants H and I are considered in design phase and implementation.

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**Full Signalized Intersections Criteria**

To be considered for a golf cart crossing at a roadway intersection with full signal control, the location along any state road shall meet the following criteria:

(A) Side street maximum vehicular volume 1,500 ADT and AM/PM Peak Hour not to exceed 200 vehicles per hour single direction.

(B) Side street posted speed limit or 85th percentile intersection approach speed is 35 miles per hour or less.

(C) Maximum crossing distance equal to five (5) lanes or less not including any right turn lanes, bike lanes and crosswalks.

(D) Side street approaches should have at least one (1) exclusive left turn lane and at least one (1) exclusive through or shared through-right turn lane.

Other lane approach configurations will be considered on case-by-case basis.

(E) Side street intersection alignment shall be a 90 degrees (not more than 105 degrees) angle to the mainline tangent. Skewed or offset intersections are not recommended for golf cart crossings.

(F) Golf carts shall not use pedestrian crosswalks or sidewalk ramps for the purpose of crossing the mainline state road.

(G) Golf cart crossings are not permitted at “T” intersections.

(H) For existing signalized “T” intersections, a proposed forth leg approach and receiving lane for the exclusive use of golf cart crossing shall not be permitted.

(I) Approach traffic control signs and pavement markings shall be in accordance to MUTCD and Department’s Standard Plans, Index No. 711-001.
Next Steps

- Origin/destination survey
- Prepare a proposal/concept for 1 crossing on 56th Street
- Coordinate with Hillsborough County on an Ordinance change to allow golf cart crossings
- Coordinate with FDOT on additional required City funded facilities
May 23, 2019

Beth Alden
Executive Director
Plan Hillsborough
601 E Kennedy Blvd
18th Floor
Tampa, FL 33602

Re: Parking Violations Involving Sidewalks or Bicycle Lanes

Dear Ms. Alden,

Tampa Police Chief Brian Dugan has asked me to respond on his behalf to your letter directed to him dated May 8, 2019. Through May 14th of this year, the Tampa Police Department has responded to, or initiated, 1,715 incidents involving illegal parking. Of these, 112 involved vehicles parked on sidewalks and 14 involved parked vehicles obstructing bicycle lanes. Our present Records Management System does not retain data reflecting how many of these events resulted in citations being issued. Nor does the system record how many, if any, of the events involved repeat offenders.

We recognize that illegal parking can contribute to the hazards facing pedestrians and bicyclists and confirm our commitment to doing everything reasonably possible to minimize these hazards. We recently have applied for and received a grant to help pay for increased enforcement efforts related to pedestrian and bicycle safety.

I feel certain you understand that virtually all law enforcement agencies face resource limitations and seemingly limitless demands for service. I am aware of no location in the City where parking on sidewalks or the obstruction of bicycle lanes is a constant problem. The temporary nature of the typical violation underscores the need for citizens to be the eyes of the Police Department. We strongly encourage citizens to call the TPD Non-Emergency report line to advise of violations they encounter. That telephone number is (813) 231-6130.
In Tampa, the Police Department does not create, install or maintain street signs. Depending on location that responsibility lies with Transportation and Stormwater Services. They can be contacted at (813) 274-3101.

We greatly appreciate your concern and your efforts to maximize pedestrian and bicycle safety in the Tampa Bay area.

Sincerely,

Kirby C. Rainsberger
Police Legal Advisor
Committee Reports

Meeting of the Citizens Advisory Committee (CAC) on May 15

Under public comment, five citizens commented on the TIP, urging the MPO not to prioritize improvements to the downtown interchange or the section of I-275 north of Downtown Tampa.

Under action items, the CAC voted to:

✓ Recommend by an 11 – 2 vote an amendment of the Imagine 2040 Long Range Transportation Plan for FAST Act Consistency, and eliminating express toll lanes on I-275 Section 7 north of downtown Tampa; however,
  • The CAC did not concur with the PD&E preferred alternative of adding two general use lanes in place of the express toll lanes;
✓ Unanimously recommend approval of a Transportation Improvement Program (TIP) amendment for a Pedestrian Crosswalk at Florida and Idlewild;
✓ Recommend the FY20–FY24 TIP, by a vote of 11–1, with the following revisions to the draft priority list:
  • By a vote of 9–3, to strike priorities #40 (Big Bend Rd ext.) and #44 (widening Balm Rd) due to concern about promoting sprawl development;
  • By a vote of 10–2, to strike priorities #27 (I-275 from north of MLK to Bearss Ave) and #28 (safety and operational improvements to the downtown interchange) because the surrounding community has spoken against further capacity expansion;
  • Members also expressed concern about making revisions to the draft list of TIP priorities after the draft is distributed to the committee for review.

The CAC also received a status report on the Needs Assessment for the 2045 update of the Long Range Transportation Plan.

Under new business, the CAC voted to recommend that the MPO consider the following rules for public comments for tonight’s TIP Hearing:

✓ Speakers should be allowed more time if they represent groups of not more than four people who have signed up to speak;
✓ Allow not more than 15 minutes per group;
✓ Allow not less than 2 minutes per individual speaker.
✓ You do not have to be present to donate time as long as a signature is there indicated that the time was donated.
Meeting of the Technical Advisory Committee (TAC) on May 20

The committee approved and forwarded to the MPO Board:

✓ Imagine 2040 Plan Amendment for Tampa Bay Next Section 7 PD&E and FAST Act Consistency: the TAC chose to take two actions, with the FAST Act Consistency amendment passing unanimously, and the Section 7 PDE amendment passing 11-1 with a concern by one member that no additional lanes should be built;
✓ TIP Amendment for Pedestrian Crosswalk on Florida Ave at Idlewild;
✓ FY20-24 Transportation Improvement Program and Priorities: was approved 11-1, with one member requesting that Line #27 be struck from the TIP.

The TAC members were engaged and interested in the status reports presented:

- 2045 Needs Assessment: members asked for a workshop – perhaps in July, instead of recessing – to review the major projects moving forward.
- THEA Connected Vehicle Pilot Phase III;
- MPO Shared Data and Analytics Platform project.

Meeting of the Policy Committee on May 21

The committee approved and forwarded to the MPO Board:

✓ TIP Amendment for Pedestrian Crosswalk on Florida Ave at Idlewild.

The committee held a follow-up, deeper-dive discussion on the 2045 Needs Assessment for Major Projects presentation heard by the board on May 8. Members discussed the importance of street network connectivity; evaluating road improvements systemically rather than in isolation; and considering how land use decisions might affect the need (or lack of need) for specific projects.

The MPO Speed Management Study kick-off was announced, and there was brief discussion of next steps on the board’s motion to study the I-275 boulevard conversion concept.

Meeting of the Bicycle/Pedestrian Advisory Committee (BPAC) on May 8

The committee approved and forwarded to the MPO Board:

✓ Reappointment of BPAC Chair Jonathan Forbes to a Citizen-at-Large seat on the Committee;
✓ FY20-24 Transportation Improvement Program and Priorities: was approved 13-3, with concerns that infrastructure for bicycles and pedestrians makes up only 1.4% of TIP funding.

The BPAC also heard status reports on:

- The 2045 Long Range Transportation Program needs assessment: with comments that urban sprawl needs to be addressed, and questions about parking requirements, traffic modeling, and specific corridors;
- Center for Urban Transportation Research (CUTR) Sustainable Transportation Course projects: members appreciated the students’ out of the box ideas and proposals for different corridors in Tampa’s urban core.

The BPAC also heard a public comment from Well Bikes about their program to build bicycles for those in need.
Meeting of the Livable Roadways Advisory Committee (LRC) on May 22

The committee received three public comments asking for removal of Items #27 and #28 from the TIP Priority List. Later motions regarding both were not seconded during Action Item discussion.

The committee approved and forwarded to the MPO Board:

✓ FY20-24 Transportation Improvement Program and Priorities, with a recommendation that the MPO work with FDOT on a comprehensive review of the I-4 interchange revisions from I-275 to 22nd Avenue, and how these changes impact the land use and adjacent areas of 14th and 15th Street, and 21st and 22nd Avenues.

✓ A request that the MPO Board establish a performance measure that is the percent of non-single occupancy vehicles (non-SOV) travel, and set an ambitious target for growing non-SOV trips; by doing so, they are making progress towards the other performance measure targets under congestion management, bridge wear and tear, and safety.

The LRC also heard status reports on:

- 2045 Needs Assessment
- THEA Connected Vehicle Pilot Phase III
MPO Board Meeting of Wednesday, May 8, 2019

CALL TO ORDER, PLEDGE OF ALLEGIANCE & INVOCATION

The MPO Chairman, Commissioner Les Miller, called the meeting to order at 9:01 a.m., led the pledge of allegiance and gave the invocation. The regular monthly meeting was held at the County Center in the 2nd Floor Boardroom.

The following members were present:

Trent Green, Commissioner Ken Hagan, Mayor Mel Jurado, Commissioner Pat Kemp, Charles Klug for Paul Anderson, Councilman Guido Maniscalco, David Mechanik, Commissioner Les Miller, Commissioner Kimberly Overman, Janet Scherberger for Joe Lopano, Commissioner Mariella Smith, Councilman Luis Viera, and Joe Waggoner.

The following members were absent:

Mayor Rick Lott and Cindy Stuart.

APPROVAL OF MINUTES – April 2, 2019

A motion was made by Commissioner Overman to approve the minutes of April 2, 2019. The motion was seconded by Councilman Maniscalco and carried unanimously.

PUBLIC COMMENT

Mr. Doug Jessup commented on the Tampa Bay Next Update agenda item.

Mr. Rick Fernandez commented on Tampa Bay Next and the Boulevard Tampa Project and the MPO’s Citizen Advisory Committee (CAC) motion to further study the Boulevard Project. He requested removal of Sections 6 and 7 from the Transportation Improvement Program (TIP).

Mr. Chris Vela provided comments regarding the Boulevard Project and line 29 of the TIP. He would like to see the merger study removed from documentation of the Annual Joint Certification of the Hillsborough MPO.

Ms. Connie Burton thought the BOCC was meeting and came to thank them for the 5.2 million dollars that was set aside for a housing initiative. Ms. Burton commented on the 40th Street business district and the possible shutdown of the Floribraska exit. She expressed concerns about the economic impacts on well needed communities.

Mr. Ron Weaver expressed concerns regarding congestion relief for I-275 North.
Chairman Miller introduced Bill Roberts, CAC Chair, who was in attendance to satisfy the request from Board members to have CAC committee reports presented in person by the CAC Chair or a designated member. Commissioner Miller informed the group that he had an opportunity to attend and have a discussion with the CAC at their first informal evening workshop, which was a request from the CAC members.

Mr. Roberts thanked the Board for the opportunity to present CAC reports in person. His report was included in the Board folders. The committee approved TIP amendments and an amendment to the Unified Planning Work Program (UPWP). In addition, the committee had a robust discussion on the Boulevard concept, which resulted in a motion to the Board to approve further study of the project.

Following Mr. Robert’s update, Commissioner Overman suggested that board members attend a CAC meeting if they have not. She thanked the entire committee and staff that supports the committee for their work. Commissioner Kemp thanked the CAC for their expertise and stated she is looking forward to the monthly in-person reports from the committee. Mr. Robert’s stated that he will relay comments to the committee.

Ms. Gena Torres, Executive Planner, provided a summary of committee reports, emails and Facebook comments received from citizens.

The Technical Advisory Committee (TAC) approved Action Items on the MPO Board agenda.

The Bicycle – Pedestrian Advisory Committee (BPAC) passed a motion supporting the CAC’s motion on the Boulevard Concept and asked that impacts on pedestrians and cyclists be included as part of the study. The committee also approved and forwarded items that appear on the MPO Board’s Consent Agenda, as well as, a letter requesting the Tampa Police Department to speak to the committee regarding their policies on car parking on sidewalks and in bicycle lanes. Wanda Vinson was appointed to the committee as a Member At Large.

The committees received presentations on the Tampa Bay Next update and the Transportation Sales Surtax. The committee offered to act as a sounding board at any time needed during the Independent Oversight Committee process.

The Intelligent Transportation Systems (ITS) Committee discussed the data and analytics platform and is forming a working group to get into details to develop a scope.

The Transportation Disadvantaged Coordinating Board (TDCB) re-approved the 2019/2020 rates per trip for Sunshine Line. Overall rates per trip, effective July 1, 2019, will increase one dollar over the current fiscal year and customer co-pays will not be affected. The TDCB also approved its Grievance Procedures, noting that there have been no complaints in the last 10 years regarding Sunshine Line’s services.

The MPO Chairs Coordinating Committee discussed the Regional Chapter of the upcoming Long Range Transportation Plans (LRTP). Members expressed interest in creating a stand-alone regional LRTP next year. The regional document will include the tri-county vision created by Hillsborough, Pinellas and Pasco MPOs, and the relationship between the tri-county area and the adjacent MPOs to the north, south, and east. There was discussion of the evolving relationship between TBARTA and the MPOs. TBARTA is focusing on its Regional Transit Development Plan. The next meeting of the MPO Chairs will be held on July 19, 2019 at the Florida Hospital Ice Center in Pasco County. There will be a briefing on Pasco’s Connected City Project and a welcome from Commissioner Kathryn Starkey.
The following email remarks, in full, were provided to board members with their meeting material:

Ms. Michele Cookson shared a Facebook post requesting that the CAC recommendations be included for the Boulevard Study and removal of item 29 from the TIP. In addition, she opposed a merger of the MPOs.

Ms. Ingrid Jacoba’s Facebook comments asked that CSX rail lines be bought to link USF to Downtown. In addition, she does not want Tampa Bay Next funded, would like to see a “No Build” option, and development of the Boulevard concept. She would like to see Vision Zero objectives made a reality.

Mr. Fernandez’s Facebook posts referenced a motion to approve a study of the Boulevard Concept and requested removal of Sections 6 and 7 from the LRTP.

Mr. Mauricio Rosas emailed and shared a video clip regarding a speeding vehicle crashing into a home in Seminole Heights. He also shared a link from Josh Frank’s presentation of the Tampa Heights Civic Association.

Ms. Lena Young Green emailed regarding best complete streets policies.

Ms. Kaitlyn Ranze shared concerns regarding problems on Symmes Road between US41 and Highway 301.

Mr. Joe Bohn thanked Wade Reynolds for a great presentation to USF students.

Mr. Eric Goldstein thanked Beth Alden for taking time to address members of the Westchase Community Association.

There were no questions following the committee reports and online comments.

CONSENT AGENDA

A. Committee Appointments
B. Letter Requested by BPAC on Parking in Bike Lanes

A motion was made by David Mechanik and Councilman Maniscalco to approve the Consent Agenda. The motion was seconded by Commissioner Kemp and carried unanimously.

ACTION ITEMS

A. Transportation Improvement Program Amendment for HART Grants

Sarah McKinley, MPO Staff, presented information on two amendments to the TIP on HART grants that were received. The $1,000,000 resilience grant from FDOT will be used to repair damaged infrastructure. HART’s Transit Oriented Development (TOD) grant will fund a joint study with Plan Hillsborough and the City of Tampa to revise the TOD policies within the City’s Comprehensive Plan. The study will focus on the Florida and Fowler corridors and coordinate with ongoing efforts. $800,000 are funds from Federal Transit Administration (FTA) and $200,000 are local funds.

There was no discussion or questions following the presentation.

A motion was made by David Mechanik to approve the TIP Amendment. The motion was seconded by Commissioner Overman. Upon a roll call vote, the motion carried 14-0.

B. Unified Planning Work Program Amendment: Annual Update & New Surtax Funds for Planning
Allison Yeh, MPO Staff, presented information on amendments to the UPWP. The administrative document outlines the MPO’s major planning tasks and documents federal, state, and local funding between the MPO, HART, and FDOT.

(Commissioner Hagan left @ 9:45 a.m.)

The recommended action was to approve amendment of the following items to FY19 & FY20 UPWP:

1. FY19 and FY20 budget adjustments
2. Update Task 2 – System & Corridor Planning (TD Section)
   - Add $50K National Healthiest Cities & Counties Challenge Grant
   - Add Transportation Equity Scorecard Tool
   - Update FY20 TD Grant Allocation
3. HART Planning Program
4. Hillsborough County Transportation Improvement Surtax Budget for FY20 contingent on resolution of legal challenge

Committee Requests:

2. The BPAC supported the CAC’s request.
3. The TAC supported all proposed changes to the UPWP.

Following the presentation, Commissioner Smith wanted to make sure that the BPAC’s request to include the impacts on pedestrians and cyclists was included in Task 2.

A motion was made by Commissioner Kemp to add committee requested information and approve the amendment to the UPWP. The motion was seconded by Commissioner Overman.

Commissioner Kemp would like to see a Transportation Equity Planner added when the surtax resources come in that would look at transportation equity issues, as well as, transportation disadvantaged, instead of the Community Planner for shared mobility services.

Following brief discussion, the motion carried unanimously.

C. Annual Joint Certification of the MPO

Mr. Rich Clarendon presented information on the MPO/FDOT yearly joint certification. He pointed out the It’s Time Tampa Bay survey; Vision Zero efforts; Resilient Tampa Bay; the School Safety Study; and the Gulf Coast Safe Streets Summit as notable achievements. Recommendations included eliminating duplicate projects and funding from the TIP; establishing a review process for grant invoices; and considering committee effectiveness and time management. In an effort to improve the partnership with FDOT and suggested from the Regional Structure Best Practices, a MPO Co-Chair staff member will assist with the regional travel demand modeling forecast and report monthly to the MPO Directors. No corrective actions were recommended.

A motion was made by Commissioner Kemp to support re-certification of the MPO and authorization for the MPO Chairman to sign a Joint Certification Statement. The motion was seconded by Councilman Maniscalco.
Following the motion, Commissioner Overman referenced the MPO Merger Study information that was included in the report and wanted to make sure that by accepting the report merger of the MPO was not being approved. Ms. Beth Alden clarified that action was not approving a merger and the Merger Study report was sent to the TBARTA Board and the task was closed.

Commissioner Smith requested an explanation on the elimination of duplicate projects and funding from the TIP that was stated in the presentation. Mr. Clarendon provided clarification on the reconciliation process.

Mayor Jurado followed up on Commissioner Smith’s inquiry and wanted to know what staff has identified as an action step to communicate or take a corrective action that allows the Board to know where the duplicate projects exist before decisions are made on funding projects. Mr. Clarendon provided additional information on staff processes which assure accuracy.

Following additional discussion, the motion carried unanimously.

**STATUS REPORTS**

**A. Tampa Bay Next Update**

Secretary David Gwynn, FDOT District 7, provided an update on Tampa Bay Next. The Howard Frankland Bridge is currently in an active procurement process for design-build and plans to award the contract will take place late 2019. Construction will begin in 2020 with an anticipated completion of 2024. The SEIS process, which began in early 2017, along with viable alternatives are being refined through the process. There are two Tampa Interstate Study alternatives workshops being held: (1) May 21 at the Cuban Club from 5:30 – 7:30 p.m. and (2) May 23 at the Tampa Marriott Westshore located at 1001 N. Westshore Boulevard in Tampa. A public hearing is anticipated in early 2020.

*(Councilmen Viera & Maniscalco left @ 9:55 a.m.)*

Following the update, Commissioner Overman commented on the Boulevard Concept and impacts of the Downtown Interchange, the complexity of the SEIS, and communities and tax payer’s dollars. She expressed concerns regarding safety risks of I-275 and MLK and wanted to know if the lane addition will include widening the area between MLK and Sligh. Secretary Gwynn stated the addition will be within the existing right-of-way and there will be more pavement, as well as noise walls. Commissioner Overman also wanted to know if it was too late to include the Boulevard Concept as a priority into the SEIS project. The Secretary stated that the concept would not be part of the SEIS project. He also explained the lengthy process of the concept and working with FHWA. Commissioner Overman stated that she would like to see plans for Westshore moved forward.

Commissioner Kemp commented on I-275 traffic, north of Fletcher, and local traffic and connecting Vision Zero. She pointed out a personal experience of a dangerous crosswalk at Hillsborough and 40th Street and wanted to know if FDOT could point out projects that are being completed on Hillsborough Avenue to see what can be done to make the street safer. Secretary Gwynn stated that FDOT would be glad to put together a presentation and mentioned that there are a lot of lighting and safety projects that are taking place. Commissioner Miller stated that Hillsborough and 40th are not the only problems and referenced Nebraska to 56th Street. He also mentioned other areas in the intercity with safety issues.

Commissioner Smith thanked FDOT for their hard work in the community. Commissioner Smith expressed concerns about case studies that FDOT pulled regarding tolling vs. non-tolled and impacts of environmental justice and social equity. She wanted to know if further studies are being done. Secretary Gwynn stated that he will check on the final study.
B. 2045 Plan Need Assessment for Major Projects

Mr. Wally Blain, Tindale Oliver, MPO Consultant presented information on the 2045 LRTP. The LRTP must be cost-feasible, reflect local priorities, and look at least twenty years into the future (effectively a 25-year horizon). A public hearing for the MPO to adopt its 2045 Plan is scheduled for Tuesday, November 5, 2019 and a draft will be made available 30 days in advance for public review.

Following the presentation, Commissioner Overman commented on the 2045 traffic congestion forecast, fixed guideway, and the desires of the citizens from the It’s Time Tampa Bay survey. Ms. Alden addressed Commissioner Overman’s concerns regarding CSX owned rail corridors in South Hillsborough County and East to the Polk County line.

Commissioner Kemp commented on fixed guideway in terms of Hwy 41 and the Ferry, which was not included. Commissioner Kemp made comments regarding a recent film, *The Last Green Thread*, and would like to see future discussion planned for the wildlife corridor of I-4.

Commissioner Smith would have liked to receive the presentation included in the agenda material prior to the meeting and requested a copy be emailed to the Board. She also commented on the population projections for people in South County and echoed concerns on the wildlife corridor, the Ferry, and congestion on I-275.

EXECUTIVE DIRECTOR’S REPORT

Ms. Alden informed board members of the FY19 – Quarter 3 report that was provided in the board folder, along with a copy of the Executive Summary for the It’s Time Tampa Bay survey that took place last summer for the Long Range Transportation Plan. The summary information is posted on the website for the public to review. A more detailed survey, It’s Time Hillsborough, will take place this summer beginning in June. The next Tampa Bay Transportation Management Area Leadership Group meeting is scheduled on June 7 in Pasco County. The next MPO Board meeting will be held on Tuesday, June 11 and is the Annual Public Hearing for the TIP, in addition to the annual update of the Priority List. An amendment to the LRTP will also be considered at the June meeting.

OLD & NEW BUSINESS

Mayor Jurado thanked Beth Alden, Gena Torres and other MPO staff who provided the City of Temple Terrace the benefits of street painting. The City of Temple Terrace will have their first street painting project on Saturday, May 18 with the goal of calming traffic, safety and beautification.

Under new business, Commissioner Miller mentioned the importance of the meetings, and stated after about an hour and a half the group begins to lose its quorum. He suggested keeping meetings to an hour and a half so that a quorum is present for a vote.

ADJOURNMENT

A quorum was lost during the meeting, and the meeting adjourned at 10:57 a.m.
About the Principles.

These Sidewalk Labs Street Design Principles reflect our belief that cities can leverage new and emerging mobility technologies, such as connected and autonomous vehicles, to make their streets safer, more comfortable, and more efficient — for all modes.

Sidewalk Labs’ mission is to radically improve quality of life in cities. The ability to confidently and comfortably ride a bike or meander down the street is critical to that mission. So is the ability to get where you need to go as efficiently as possible, which often involves traveling in a vehicle. These two needs can often be at odds with each other, but while the vehicle usually wins today, the balance is starting to shift.

Many cities, like Boston and Toronto, have published Complete Streets Guidelines to promote design standards for pedestrians, bicycles, transit, and public space. In 2017, NACTO released its Blueprint for Autonomous Urbanism to “proactively guide the [self-driving vehicle] technology to prioritize people-first design.” Sidewalk Labs aims to build on these ideas by asking: “Instead of teaching new mobility services to operate on today’s streets, can we take advantage of new technologies to fundamentally redesign the street?”

This living document proposes design principles that strive to harness these advances to create safer and more flexible streets. These principles will be updated periodically based on collaboration with city planners, engineers, mobility providers, and technology companies — and by Sidewalk Labs itself, as we test designs in prototype and pilot environments.
Streets Today.

Cities often have the worst of both worlds when it comes to street design: top speeds that create safety risks but average speeds that frustrate everyone. The common solution is often to add lanes and buffers, but that approach can do more harm than good.

Cities design streets to be safe by making them wide, but wide streets cause speeding. Streets today are designed to allow vehicles to move quickly. But this decision requires streets to be designed defensively as well — because speed kills. As a result, engineers design wider lanes to account for drivers who drift or veer, and they design buffer spaces like shoulders, medians, and street-parking areas to try to improve pedestrian and cyclist safety. But they are not safe; more than 6,700 pedestrians and cyclists died on streets in the United States in 2017 due to automobile crashes.1 Neither pavement markings nor bollards are enough to protect vulnerable bicycles and pedestrians — and certainly not enough to make them feel comfortable.

This approach doesn’t help move people, either.

Despite being engineered for speed, today’s streets are often congested — and frustratingly slow. Congestion caused by double-parking and uneven distribution of traffic volume across the day leads to lower average speeds overall. In 2018, nearly every major U.S. city recorded a downtown last-mile travel speed below 20 mph.3 In downtown Toronto, the speed limit is 40 km/h (~25 mph), but most vehicles travel at an average speed of 24 km/h (~15 mph) — and some much, much slower than that.3 As a result, drivers and passengers are still frustrated with long, stop-and-go commutes.

One common solution is to add even more lanes, but this leads to streets that can feel empty, because they’ve been designed for the worst-case traffic scenario.

In an effort to accommodate more vehicles, engineers have defaulted to calculating the space needed to handle peak, rush-hour demand. The result is acres of pavement that are empty most of the time and are neither pleasant to walk around nor conducive to the types of welcoming urban spaces that encourage street life. Part of the reason engineers feel the need to plan for worst-case traffic scenarios is because curbs and pavement markings are set rigidly into place and unable to adapt to changing needs.

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2 INRIX defines inner city last-mile speed as “the speed at which a driver can expect to travel one mile into the central business district during peak hours.” “INRIX 2018 Global Traffic Scorecard,” INRIX, February 2019, http://inrix.com/scorecard/.
The Opportunity.

Technology is not a cure-all solution to mobility challenges. But it offers the chance to fundamentally redesign our street system with narrower, safer streets that still get people where they need to go.

Connected and autonomous vehicles (CAVs) can be required to follow speed limits and can operate in narrow streets where lanes may appear, disappear, or change direction.

Connected vehicles are vehicles driven by people that receive warnings on speed limits, potential conflicts, hazardous conditions, and other detailed information to improve safety. Autonomous or self-driving vehicles are able to ingest this information and have the vehicle itself respond, without a person driving. Together, CAVs can be expected to follow speed limits, stay out of areas that are restricted, and obey rules of interaction with cyclists and pedestrians. These advances also apply to e-bikes and e-scooters that could be programmed to remain in vehicle or bike lanes. Similarly, CAVs could safely travel on narrower streets that are prioritized for transit, bicycles, and pedestrians, including pedestrians using wheelchairs or other assistive devices.

Dynamic (LED-embedded) pavement and moveable street furniture can help adapt the number of lanes, the width of the sidewalk, and even the direction of the street, meaning that a narrower street can serve multiple uses based on demand.

The operation and character of a street can change daily when raised concrete curbs can be removed in favor of dynamic pavement and moveable street furniture. Several companies have started to experiment with dynamic pavement, which embeds LEDs into the surface to change the color and shapes of markings. These design features can be used to create travel lanes, bike lanes, transit lanes, or pick-up/drop-off zones. They can also be used to change a lane’s travel direction, providing more flexibility than a fixed, grade-separated curb ever could.

Such a dynamic allocation of space allows for a potential reduction of vehicle space, creating safer crossing distances for pedestrians; providing a more pleasant walking and cycling environment; improving the travel experience for pedestrians using wheelchairs, or other types of wheels; and naturally slowing down vehicles that are used to wide lanes.

Sensors, digital signage, and integrated navigation apps and fleets can communicate real-time information on speed limits and lane closures.

Spatial occupancy sensors can give cities a better understanding of street conditions by generating real-time feedback like curb space availability or congestion on a given road. That information can be communicated directly to travelers through digital signage or via integration with vehicles and navigation apps.

It can also identify patterns that emerge over time, information that is critical to urban planners and traffic engineers. For example, BriskLUMINA sensor applications have helped planners in Atlanta and Pittsburgh identify intersections with higher than normal risk of pedestrian injury. Other cities have used sensors to help optimize traffic light timing.

Traffic management tools can recommend changes to lanes, speed limits, and pricing to maintain person-throughput or meet policy goals, such as Vision Zero.

Traffic management tools can make the most of roadway space and increase "person throughput," or the total amount of people traveling through an intersection, across all modes (not just vehicles). These tools include low-cost sensors, edge computing capabilities, machine-learning simulation models, and adaptive traffic signals that can adjust green times to optimize flow or prioritize certain modes. Together, these tools can form a mobility management system that can adapt to real-time street conditions by reallocating lanes and adjusting signal timings to keep all modes moving — and safe.

One promising management advance is the bicycle “green wave,” which works with adaptive traffic signals to give cyclists a premium experience. LED indicators embedded at the edge of a bicycle lane can light up in front of cyclists to form a moving green segment. The segment sets the ideal travel speed for cyclists, so they arrive at intersections when the traffic signal is green. Information on speed and green times can be communicated by fleets and navigation apps.
The Principles.

With these new capabilities in mind, Sidewalk Labs developed an overlapping network of streets, each designed to prioritize certain modes, that can improve safety and the public realm without restricting movement.

We used four principles to design four different types of streets. These principles and street types are introduced briefly here and described in greater detail on the pages that follow.

Principle 1. Tailor streets for different modes.
New capabilities make it possible to design streets that prioritize certain modes, instead of aiming to accommodate all uses at all times of day. Laneways prioritize pedestrians while Accessways prioritize cyclists. Transitways give priority to public transit through dedicated lanes and signal priority. Boulevards are intended for all modes but primarily for vehicles.

Principle 2. Separate streets by speed.
CAVs and digital navigation tools enable faster street types to focus on moving people with vehicles and public transit, and slower street types to provide a safe and active environment for cycling and walking. Laneways operate at fast walking speed of 4 mph (8 km/h) while Accessways operate at 14 mph (22 km/h) - a brisk speed for most urban cyclists. Boulevards and Transitways have a speed limit of 25 mph (40 km/h), which evidence shows is the maximum speed consistent with pedestrian safety.

Principle 3. Incorporate flexibility into street space.
Adaptable infrastructure and real-time traffic insight make it easy for lanes to become "dynamic," serving different purposes across the day. Sidewalk Labs is exploring a concept we call the "dynamic curb" which could be reserved for vehicles or converted into public space, depending on priorities. Optimizing this space requires a management system to understand demand and congestion patterns at various times and can vary depending on local policy objectives.

Principle 4. Recapture street space for the public realm, transit, bikes, and pedestrians.
CAVs, adaptable infrastructure like dynamic pavement, and moveable street furniture enable cities to recapture space once devoted to parking and vehicles. This space can be reallocated to the public realm and high person-throughput modes, such as transit, while still enabling all travelers to get where they need to go.

These principles come together in the design of four different street types.

**Laneway**
TAILORED TO PEDESTRIANS
4 MPH / 8 KM/H

**Accessway**
TAILORED TO BICYCLES
14 MPH / 22 KM/H

**Transitway**
TAILORED TO TRANSIT
25 MPH / 40 KM/H

**Boulevard**
TAILORED TO ALL MODES
25 MPH / 40 KM/H
Principle 1.

Tailor streets for different modes.

Because each transportation mode is different in size, top speed, and the vulnerability of the person traveling, we designed four types of streets that each prioritize one particular mode. Streets are narrower overall and tailored to the size and speed of the priority mode that they serve, with the goal of improving safety and comfort. This principle is consistent with “complete streets” principles, as space is provided on each street for every mode except for traditional vehicles driven by people, which are restricted to streets specifically designed for their movement.

For instance, streets designed for pedestrians and cyclists allow them to travel naturally, without being hemmed into “safe zones” — instead, the majority of space on that street is dedicated for their use. Street furniture and landscaping can create changes in width and travel paths that can slow vehicles. In addition, pavement texture, color, and patterns can be used to send tactile, auditory, visual, and other accessibility cues to pedestrians. However, for this approach to reach its full potential, it is critical to ensure that vehicles follow the designated speed limits for a given street — which would require restricting access by vehicles or requiring CAVs, ebikes, and other new mobility modes to limit their speed and behavior based on rules.

All streets are designed to accommodate emergency vehicles and disabled access, as necessary.

**Boulevards**

Boulevards are the only street type designed to accommodate traditional vehicles, which require buffer space between other modes for safety. However, Boulevards will be designed to safely accommodate transit vehicles, cyclists, and pedestrians as well.

**Transitways & Boulevards**

On Transitways, priority is given to transit vehicles — through designated lanes and signal priority — to travel at their desired speed. Bike-share and scooter-share stations are co-located with transit stops to enable convenient transfers to other modes. Transit can also travel on Boulevards, but may not be given the highest priority.

**All Streets priority on Accessways**

On Accessways, center-running bike lanes with green waves will allow comfortable cycling.

**All Streets priority on Laneways**

On Laneways, street furniture and greenery will create safe yet lively paths for pedestrians whether they are trying to get somewhere quickly or just want to stroll through the city.

**Connected & Autonomous Vehicles**

CAVs defer to transit, cyclists, and peds when they have proven an ability to follow speed limits and yield to other users, CAVs will be able to use every type of street, maintaining building accessibility for those who need it.
Principle 2.

Separate streets by speed.

Each street type is designed for the preferential speed of its priority mode. For example, the speed limit for every mode on Accessways is the average speed of a bicycle, about 14 mph (22 km/h). Streets become characterized by their speed and overall width for safety and comfort.

This design principle should translate into much greater safety, especially for cyclists and pedestrians. Research has found that collisions at 14 mph (22 km/h) may cause injury but are less likely to be fatal than ones over 30 mph (48 km/h), and a vehicle traveling at 4 mph (6 km/h) doesn’t create discomfort or a safety risk for nearby pedestrians and cyclists.4

We designed Boulevards with barriers and buffer spaces so traditional vehicles can travel at 25 mph (40 km/h) and keep other modes safe, but we restrict all other streets to connected and autonomous vehicles that can adhere to the speed limit and yield to bikes and pedestrians.

Speed limits on each type of street will lead CAVs to naturally select the faster, wider streets for the most efficient trip — as a result, the only vehicles on Laneways and Accessways are likely to be those on the final leg of a door-to-door trip.

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Principle 3.

Incorporate flexibility into street space.

Management tools can help traditional vehicles, CAVs, transit, and bikes flow at consistent travel speeds by reallocating flexible lanes to meet demand throughout the day. This process of optimizing streets requires several capabilities:

1. a real-time and historical understanding of travel demand and supply of road and curb space,
2. analytics to identify allocation of space alongside any pricing or regulation changes, and
3. physical or digital infrastructure to communicate those changes to travelers.

Sidewalk Labs plans to test this ability to manage flexible lanes in real time through its dynamic curb concept, which envisions a curbside lane that can change uses throughout the day, becoming a passenger loading zone at peak times or public space at off-peak times. The hope is to build technical capabilities through the dynamic curb that can ultimately be applied to travel lanes as well.

The dynamic curb integrates several technologies to actively manage passenger pick-up and drop-off space, including availability sensors, digital signs, dynamic pavement indicators, dynamic pricing, vehicle dispatching, and reservations to create quick turnover of spaces when needed.

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Principle 4.

Recapture street space for the public realm, transit, bikes, and pedestrians.

The improved performance of streets based on the first three principles should allow less space overall to be devoted to mobility, especially if cities and planners focus on “person throughput” rather than vehicle throughput as their guiding metric. The safety of vehicles that are self-regulating in terms of speed allows every address to be reached by vehicles without undermining the focus of a given street on pedestrians, cyclists, or transit. The potential to do away with on-street vehicle storage and instead use dynamically-managed drop-off spaces offers width for other uses. As a result, streets can have a much greater amount of space devoted to human uses.
Bringing It Together:

A New Street Network.

Collectively, these principles enable the design of a new street network that can accommodate the same throughput as today’s streets while drastically improving safety and creating a robust public realm.
To ensure accessibility without compromising comfort, Laneways permit self-driving vehicles as long as they travel at walking speeds. CAV usage and pick-up/drop-off is infrequent due to the pedestrian speed limit.

Retractable bollards at the ends of the Laneway can allow only bikes or small CAVs to enter. Bollards can be lowered by emergency vehicles or those who require larger vehicles for accessibility.

Laneways help people get places, but also are places unto themselves, filled with pop-up shops, street fairs, and other types of community gatherings.

Laneways can be closed entirely for a summer block party.

Laneways can still provide easy access for emergency and accessibility vehicles.

Laneways are primarily pedestrian pathways where walking or strolling is pleasant. Cycling or slow vehicle travel is permitted at the designated speed limits to ensure pedestrian priority and discourage Laneway use for long-distance travel.

Person-throughput capacity estimates*  

<table>
<thead>
<tr>
<th>Laneway with CAVs</th>
<th>Locals in a typical downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed limit</td>
<td>4 mph / 8 km/h</td>
</tr>
<tr>
<td>Typical average speed</td>
<td>4 mph / 8 km/h</td>
</tr>
<tr>
<td>In vehicles</td>
<td>~120 persons/hour</td>
</tr>
<tr>
<td>On transit</td>
<td>n/a</td>
</tr>
<tr>
<td>On bikes</td>
<td>~400 persons/hour</td>
</tr>
<tr>
<td>On foot</td>
<td>~2,250 persons/hour</td>
</tr>
<tr>
<td>Total person-throughput</td>
<td>~2,770 persons/hour</td>
</tr>
</tbody>
</table>

Moveable street furniture helps to create a barrier between travel lanes and pedestrian zones.

Accessways are prioritized for public realm on Saturday afternoons in summer.

Accessways move people through bikes and CAVs during rush hour in winter.

To ensure accessibility without compromising comfort for pedestrians and cyclists, Accessways permit self-driving vehicles as long as they travel at cycling speeds.

Accessways are narrower streets that prioritize micromobility modes like bikes and scooters — when connected, Accessways form a bicycle network that rivals the travel time and convenience of transit and vehicles.

Center-running bike lanes use LED green waves, which help cyclists maintain an optimum speed to avoid being stopped at intersections.

<table>
<thead>
<tr>
<th>Person-throughput capacity estimates*</th>
<th>Accessways with CAVs</th>
<th>Collectors in a typical downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed limit</td>
<td>14 mph / 22 km/h</td>
<td>25-30 mph / 40-50 km/h</td>
</tr>
<tr>
<td>Typical average speed</td>
<td>14 mph / 22 km/h</td>
<td>15 mph / 24 km/h</td>
</tr>
<tr>
<td>In vehicles</td>
<td>~850 persons/hour</td>
<td>~430 persons/hour</td>
</tr>
<tr>
<td>On transit</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>On bikes</td>
<td>~2,600 persons/hour</td>
<td>~700 persons/hour</td>
</tr>
<tr>
<td>On foot</td>
<td>~380 persons/hour</td>
<td>~200 persons/hour</td>
</tr>
<tr>
<td>Total person-throughput</td>
<td>~3,830 persons/hour</td>
<td>~1,330 persons/hour</td>
</tr>
</tbody>
</table>

Transitways

85 FEET / 26 METERS WIDE

Transitways prioritize public transportation over all other modes, with emphasis given to light rail and dedicated bus lanes — linking the neighborhood to the city’s greater transit system.

Transitways feature bike and scooter parking, bike lanes, and safe and pleasant passenger waiting zones for riders.

Transitways provide cyclists with protected bike lanes as well as access to bike-share, e-bikes, scooters, and other low-speed vehicles.

Person-throughput capacity estimates

<table>
<thead>
<tr>
<th></th>
<th>Transitways with CAVs</th>
<th>Minor Arterials in a typical downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed limit</td>
<td>25 mph / 40 km/h</td>
<td>25-50 mph / 40-80 km/h</td>
</tr>
<tr>
<td>Typical average speed</td>
<td>25 mph / 40 km/h</td>
<td>15 mph / 24 km/h</td>
</tr>
<tr>
<td>In vehicles</td>
<td>~1,500 persons/hour</td>
<td>~850 persons/hour</td>
</tr>
<tr>
<td>On transit</td>
<td>~3,000 persons/hour</td>
<td>n/a</td>
</tr>
<tr>
<td>On bikes</td>
<td>~1,400 persons/hour</td>
<td>~700 persons/hour</td>
</tr>
<tr>
<td>On foot</td>
<td>~280 persons/hour</td>
<td>~120 persons/hour</td>
</tr>
<tr>
<td>Total person-throughput</td>
<td>~6,180 persons/hour</td>
<td>~1,670 persons/hour</td>
</tr>
</tbody>
</table>

Though meant for faster traffic, Boulevards still improve safety for all street users by featuring separated bikeways for cyclists and traditional (though curbless) sidewalks for pedestrians.

Boulevards include dynamic curb space that can be used as ride-hail or taxi pick-up/drop-off zones during heavy travel periods.

Boulevards can be optimized for through movement.

Boulevards can be optimized for expanded public realm.

The Boulevard is the only street type designed to accommodate traditional (person-driven) vehicles. Parking facilities for traditional vehicles are accessible via Boulevards.

**Boulevards.**

100 FEET / 31 METERS WIDE

Boulevards accommodate all modes but are geared towards moving people efficiently without sacrificing safety.

These streets are designed to carry the highest vehicle volumes but also to make up a minority of the street network. They are ideally spaced far enough apart to create significant zones of pedestrian and bicycle-only streets. On Boulevards, modes are separated from each other by barriers and buffers, and speeds are restricted to 25 mph (40 km/h).

---

**Person-throughput capacity estimates**

<table>
<thead>
<tr>
<th></th>
<th>Boulevards with CAVs</th>
<th>Major Arterials in a typical downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed limit</td>
<td>25 mph / 40 km/h</td>
<td>25-50 mph / 40-80 km/h</td>
</tr>
<tr>
<td>Typical average speed</td>
<td>25 mph / 40 km/h</td>
<td>15 mph / 24 km/h</td>
</tr>
<tr>
<td>In vehicles</td>
<td>~2,000 persons/hour</td>
<td>~1,300 persons/hour</td>
</tr>
<tr>
<td>On transit</td>
<td>~3,000 persons/hour</td>
<td>~1,100 persons/hour</td>
</tr>
<tr>
<td>On bikes</td>
<td>~1,400 persons/hour</td>
<td>~700 persons/hour</td>
</tr>
<tr>
<td>On foot</td>
<td>~250 persons/hour</td>
<td>~120 persons/hour</td>
</tr>
<tr>
<td><strong>Total person-throughput</strong></td>
<td>~6,650 persons/hour (~3,650 w/o transit)</td>
<td>~2,120 persons/hour</td>
</tr>
</tbody>
</table>

Streets for an Integrated Mobility System.

The Street Design Principles should be considered just one part of an overall mobility strategy. Even the best-designed street network can only realize its full potential as part of an integrated transportation system with many trip options.

Much of Sidewalk Labs’ thinking on streets has been developed in the context of our Sidewalk Toronto project in Toronto, Ontario, which also shows how we believe these street design principles should be applied in the context of overall mobility planning.

At Sidewalk Toronto, our planning is anchored by the extension of a high-capacity light rail transit network — knowing that public transit is by far the most efficient way to connect people and jobs across dense urban areas. It continues with expanded walking and cycling infrastructure to encourage the use of active transportation modes, with bike-share, scooter-share, and other low-speed vehicle options playing an increasing role.

Finally, new mobility options — such as carshare, taxi, and ride-hail services — can help reduce the need for residents or workers to own a car while still facilitating vehicle trips.

Successful mobility management most likely requires that one entity be empowered to manage the mobility tools in concert. In addition to allocating space dynamically, this manager should be empowered to use tools like regulation changes, pricing, and adaptive traffic signal management to achieve the policy goals and performance targets that are set.

The Street Design Principles are the foundation for this integrated mobility system, providing the infrastructure and framework for cities to balance the need to move people with the re-emergence of streets as vital community space.
Next Steps.

In the coming year, we’ll test our principles — and the designs and technologies that enable them — through real-life prototypes, always seeking feedback from experts and communities.

The goal of these prototypes will be to gauge how drivers, pedestrians, and cyclists react to these designs and, in particular, the dynamic elements.

Over the course of 2018, Sidewalk Labs hosted a series of co-design sessions, events, and workshops in order to engage with the accessibility community and co-create our accessibility principles with them. We remain committed to these principles, which will evolve as we receive more feedback, and we will continue to work with the accessibility community to ensure our street designs work for all people with lived experience of disability.

We’ll have a better understanding of how dynamic pavement, bicycle LEDs, and sensor hardware work — and begin to test operational, maintenance, and life-cycle costs.

We’ll bring these elements together in order to test for safety, operability, and throughput.

Most importantly, we’d like to hear from you — the mobility engineers, planners, advocates, providers, disrupters, and enthusiasts. Let us know what you think, and help us drive towards the next version of these designs.

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Acknowledgements.

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