Virtual Meeting of the Intelligent Transportation Systems Committee
Thursday, April 9, 2020, 1:30 p.m.

The County Center and Plan Hillsborough offices are closed to the public in response to the COVID-19 pandemic. Helpful hints for participating remotely are attached. For technical support during the meeting, please contact Lionel Fuentes at (813) 273-3774 X326.

To view presentations and participate from your computer, tablet or smartphone, go to https://attendee.gotowebinar.com/register/6810703083021625868

Live captioning: https://2020archive.1capapp.com/event/hillsborough


Agenda packet, presentations, and supplemental materials posted here.

I. Call to Order Public Comment - 3 minutes per speaker, please

   Public comments are welcome, and may be given in person at this teleconference meeting, by logging into the website above and clicking the “raise hand” button.

   Comments may also be provided up to one hour before the meeting:
   • by leaving a voice message at (813) 273-3774 ext. 369.
   • by e-mail to mpo@plancom.org

   Written comments will be read into the record if brief & provided in full to the members.

II. Approval of Minutes – January 9, 2020

III. Action Items
   A. FY21 & 22 Unified Planning Work Program (Allison Yeh, MPO Staff)

IV. Status Reports
   A. Capability Maturity Model Assessment (Eric Hill, MetroPlan Orlando)
   B. Hillsborough County Air Quality Update (Jeff Sims, EPC)
   C. Vision Zero Speed Management Study (Gena Torres, MPO Staff)

V. Old Business & New Business
   A. Next meeting July 9th
   B. Super Bowl MoT Evaluation Study

VI. Adjournment

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

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Persons needing interpreter services or accommodations for a disability in order to participate in this meeting, free of charge, are encouraged to contact Johnny Wong, 813-273-3774 x370 or wongj@plancom.org, three business days in advance of the meeting. Also, if you are only able to speak Spanish, please call the Spanish helpline at (813) 273-3774, ext. 211.

Si necesita servicios de traducción, el MPO ofrece por gratis. Para registrarse por estos servicios, por favor llame a Johnny Wong directamente al (813) 273-3774, ext. 370 con tres días antes, o wongj@plancom.org de cerro electronico. También, si sólo se puede hablar en español, por favor llame a la línea de ayuda en español al (813) 273-3774, ext. 211.

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If a person decides to appeal any decision made by the board, he or she will need a record of the proceedings, and for such purpose may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.
I. CALL TO ORDER:

Chairman, Mr. Brandon Campbell called the meeting to order at 1:35 p.m. and a quorum was present. The meeting was held in the 15th Floor Conference Room.

MEMBERS PRESENT:

- Brian Gentry .................... Hillsborough County Public Works
- Brandon Campbell .......... City of Tampa
- Vinny Corazza ............ City of Temple Terrace
- Anna Quiñones .......... Tampa/Hillsborough Co. Expressway Authority
- Justin Willits .......... HART
- Fred Baxter .......... City of Plant City
- Jeff Sims .................. Environmental Protection Commission of Hillsborough County
- Margaret Kubilins ......... FDOT Non-Voting Advisor
- Achilleas Kourtellis ....... CUTR

OTHERS PRESENT:

Johnny Wong and Cheryl Wilkening, Hillsborough MPO.

II. PUBLIC COMMENTS: There were no public comments.

III. APPROVAL OF MINUTES:

Brian Gentry made a motion to approve the ITS meeting minutes and the October 10, 2019 Minutes. The motion was seconded by Vinny Corazza and carried unanimously.

Vinny Corazza requested that acronyms on future minutes to be defined when first introduced.

IV. ACTION ITEMS

A. 2019 Attendance Review & Declaration of Vacant Seats

Johnny Wong, MPO Staff, reviewed the attendance policy and stated that the MPO Bylaws require that “at a minimum, committee member attendance will be reviewed annually.” The MPO may review and consider rescinding, the appointment of any member of any committee who fails to attend three consecutive meetings. Plant City had three consecutive absences in 2019 but they were excused.

There was no action on attendance.

B. 2020 Election of Officers

Johnny Wong, MPO Staff, reviewed the current officers for 2019 which are Vik Bhide for Chair, Brian Gentry for Vice Chair and Vinny Corazza for Officer at Large and then requested nominations for the officers. The MPO Bylaws require that officers are to be elected at the first meeting of each year. There are no term limits for officers, therefore, they can be re-elected and serve indefinitely. Jeff Sims inquired if Vik Bhide was still interested in being Chair. Brandon Campbell explained that due to Vik Bhide’s
schedule he will not be able to attend most meetings. Brian Gentry then nominated Brandon Campbell for Chair. Voted unanimously. Brandon Campbell nominated Brian Gentry for Vice Chair. Voted unanimously. Vinny Corazza nominated Jeff Sims as Officer at Large. Voted unanimously. 2020 Officers will be Brandon Campbell for Chair, Brian Gentry for Vice Chair and Jeff Sims for Officer at Large.

V. STATUS REPORTS

Training Session for ClearGuide Data & Analytics Platform
Anita Vandervalk-Ostrander with Iteris introduced the staff involved in ClearGuide. Johnny Wong reviewed the background behind the idea for data platform was introduced in 2016. Hillsborough MPO was selected to participate in a pilot project lead by federal highway administration. The idea was to create a data business plan creating a road map on how to govern, manage and implement a data portal. After working with Anita Vandervalk-Ostrander and staff on this plan they have successful transitioned into the implementation of that plan. Our goals for the data analytics and platform are to have a shared data source for all the transportation agencies across the county. We wanted the platform to be rapidly deployed and available to the ITS members and then to the public. We have been under contract with ClearGuide for about 10 weeks. The ITS members will be delegates for their respective agency.

Anita Vandervalk-Ostrander reviewed the Phases of ClearGuide. In November, Phase 1A was implemented and this was basically turning on the ClearGuide Data Platform. This phase involves getting it up to speed with respect to the capability. It is powered by third party data service development. We are in Phase 1B which is data discovery for augmenting the data platform. Phase 1C is requirements for definition for Phases 2, 3 and 4 which will occur January – April 2020. Phase 2 will be integration of incident, crash, volume and milepost data. Phase 3 will add additional data features and Phase 4 will be the integration of predictive data.

Masoud Hamedi from Iteris gave a high-level view of what ClearGuide does and how to use it.

VI. OLD & NEW BUSINESS

A. ITS Master Plan Update
There is a tentative date for kickoff which is the end of February or beginning of March. We have decided to expand the scope it from an ITS Master Plan to a Smart Cities Update. We’ve asked consultants to adjust the scope. We will be in touch with ITS Committee members individually for ideas.

B. Next ITS Meeting April 9th

VII. ADJOURNMENT
There was no further business, the meeting adjourned at 3:32 p.m.

VIII. ADDENDUM

A. MPO 2020 Calendar
B. CCC Regional Priorities
Hillsborough MPO
Data Platform for Performance Monitoring and Project Evaluation

ITS Committee Data Discovery Meeting – January 9, 2020

Meeting Notes

In Attendance:

Hillsborough MPO: Johnny Wong, Beth Alden
FDOT: Margaret Kubilins,
Hillsborough County: Brian Gentry, Rafael DeDios, William Johnson
Thea: Anna Quinones
City of Tampa: Nick An, Brandon Campbell
Plant City: Fred Baxter
CUTR: Achilleas Kourtellis
Ceve: Kris Milster, David Aylesworth
Arcadis: Randy Whiticker, Sridhar Basetty
Lucent Group: Carlton Urban
Iteris: Masoud Hamedi, Pete Yauch, Pete Costello, Anita Vandervalk

Iteris, Inc. presented ClearGuide to the ITS Committee. The following discussion took place:

- Hillsborough County needs ClearGuide approvals for Brian Gentry, Rafael DeDios and William;
  City approval for Brandon
- Brian G. wants to attach data in Description as part of “speed advisory”
- Getting incident feed:
  - Waze
  - FHP
  - HCSO
  - City of Tampa Police
- Data available back to January 1, 2018
- Can the historical average be adjusted? Month to month. 2 years ago
- Can we create routes by shapefile?
- Bottlenecks will be added to ClearGuide shortly
- Extend the coverage boundary 1 mile
- Do we have volumes? No, part of the data discovery process
  - When volumes are added, then the User Delay feature will be available in ClearGuide as per Masoud
- Additional data
  - Bus routes
  - Bus on time arrival
  - School bus routes
    - County has a PDF of the routes
- Can we upload bus routes by uploading the map
  - City special events
  - Alarms
    - Route alerts are in productization now as per Masoud
    - Email or text? Email. Text would be preferred by the County
  - Crashes
    - Signal Four
      - Not geo accurate
    - CDMS
      - Available 3-4 weeks later
    - Both of the above
      - Can access detailed police reports? Yes
    - Central Office
      - Long delay
    - Accuracy is more important than latency, so go with CDMS

**ACTIONS:**

1. All to use and test ClearGuide and think of additional data to be added
2. All – Be consistent in using the data, use tags
3. All – Tell Johnny if you don’t yet have access to CG
4. Johnny to work with delegates to review access periodically to see if expired
5. Iteris to send out “rules” for creating corridors along with instructions on creating routes
6. The County will send us a pdf of bus routes
7. MPO and Iteris to hold a “Power User” session in February to review
8. Johnny will let Iteris know which general domains (city, county, etc.) will have CG access
9. Iteris will prepare quote for integrating CDMS crash data
10. Iteris will prepare a quote for expanding boundaries (to include more corridors, remainder of bridges, etc.)
The MPO's transportation planning functions are supported primarily by federal and state grants. These functions must be identified in advance for two fiscal years and encompass the federally funded surface transportation planning efforts to be undertaken by FDOT, HART, local jurisdictions, and other agencies. These activities, products and budgeted funds are documented in the Unified Planning Work Program (UPWP). The new UPWP for fiscal years 2020/21 and 2021/22 will be effective July 1, 2020 through June 30, 2022.

In February, staff solicited planning project suggestions from partner agencies and MPO committees for consideration in the new UPWP. A draft FY21-FY22 UPWP was then submitted to FDOT on March 13th for a 30-day review period. FDOT comments will be addressed in the final draft when they are available.

There are no major changes to the structure of the new FY21-FY22 UPWP except some expected annual adjustments to budget calculations including the reimbursement rate for indirect expenses. Also, the planning budgets for Task 1-6 and the budget summary tables have been consolidated into one section. The final draft UPWP is being presented for approval to MPO Committees in April and to the MPO Board on May 13th, 2020.

The currently adopted UPWP for FY19-FY20 and draft FY21-22 UPWP are available on the MPO website: [http://www.planhillsborough.org/unified-planning-work-program/](http://www.planhillsborough.org/unified-planning-work-program/)

**Recommended Action**
Approve the FY21-22 UPWP document

**Prepared By**
Allison Yeh, AICP, LEED GA

**Attachments**
- Link to Draft FY21-22 UPWP Document
Board & Committee Agenda Item

Agenda Item
Transportation Systems Management & Operations (TSM&O) Capability Maturity Model (CMM) Assessment

Presenter
Eric Hill, MetroPlan Orlando

Summary
The TSM&O CMM is a guidance framework developed by the Federal Highway Administration to help transportation agencies improve the effectiveness of their TSM&O activities.

This framework is adapted from a concept developed in the information technology (IT) industry called the "Capability Maturity Model," which has been tailored to the transportation community. The assessment serves as a self-evaluation of processes and institutional capabilities required from a transportation agency (or group of agencies) to achieve effective TSM&O.

The CMM assesses six critical dimensions of process and institutional capability that directly relate to improving TSM&O program effectiveness:

1. Business processes (e.g., planning, budgeting);
2. Standardization/documentation of systems and technology;
3. Utilization of performance measures;
4. Cultural understanding, acceptance, and championship of TSM&O relevance;
5. Organizational structure and staff development; and,
6. Effective external collaboration and partnerships.

Recommended Action
None. For information only.

Prepared By
Johnny Wong, PhD, MPO Staff

Attachments
Presentation Slides.
Transportation Systems Management and Operations (TSMO)
Hillsborough County MPO

based on

FHWA Capability Maturity Model Workshops
Transportation Systems Management and Operations (TSMO)

Strategies that use information, communication and technology to optimize the performance and operations of a transportation system.
Bottlenecks, 40%

Poor Signal Timing, 5%

Special Events, 5%

Inclement Weather, 15%

Work Zones, 10%

Incidents, 25%

Source: 2015 Urban Mobility Scorecard
TSMO Strategies

• Traveler Information Systems
• Incident Management Systems
• Smart Work Zones
• Managed Lanes
• Traffic Signal Timing
Regional Transportation Management Center

Closed Circuit Television Cameras

Road Weather Info System

Traffic Signal Controller

Dynamic Message Sign

511

Blue TOAD Sensor

Vehicle Detection Sensor

Road Ranger
Transportation - 21st Century

<table>
<thead>
<tr>
<th>System Management</th>
<th>Current State</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Tools and Functions</td>
<td>Separated</td>
<td>Integrated</td>
</tr>
<tr>
<td>Data &amp; Information</td>
<td>Historical</td>
<td>Real-Time</td>
</tr>
<tr>
<td>Decision &amp; Business Process</td>
<td>Reactive</td>
<td>Proactive/Predictive</td>
</tr>
<tr>
<td>Resources</td>
<td>Static Assignment</td>
<td>Dynamic Assignment</td>
</tr>
</tbody>
</table>
Program Overview

Florida Department of Transportation, District Five
Connected Automated Vehicle (CAV)

The fully-automated, self-driving vehicle of the future that may not have a steering wheel or pedals for braking and accelerating – it will combine CV and AV capabilities.
Traffic Signal Retiming

- Improve traffic flow
- Account for changes in traffic patterns
- Reduce driver delay, vehicle emissions, and fuel consumption

2018-2019

- 29 corridors
- 92 miles
Mobility as a Service (MaaS)
Capability Maturity Model (CMM)

- Transportation Research Board (TRB); Strategic Highway Research Program (SHRP 2 L06)
- To improve the effectiveness of their TSMO activities.
- Self-evaluation of the key process and institutional capabilities
- Adapted from IT industry
Dimensions of Capability Maturity Model

- Business Processes
- Systems and Technology
- Performance Measurement
- Culture
- Organization and Staffing
- Collaboration
The focus is on continuous improvement - in effect, a roadmap for “getting better at getting better.”
## CMM – FDOT D5

### Capability Level Self Evaluation Structure

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>Level/Score (Out of 4)</th>
<th>Agency/Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2017</td>
</tr>
<tr>
<td>Business Processes</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Systems &amp; Technology</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Performance Measurement</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Culture</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Organization/Workforce</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>1.0/2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Collaboration</td>
<td>2.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Within the District, there are five (5) MPOs/TPOs, representing nine (9) counties.
## Capability Level Self Evaluation Structure

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>LEVEL 1 PERFORMED</th>
<th>LEVEL 2 MANAGED</th>
<th>LEVEL 3 INTEGRATED</th>
<th>LEVEL 4 OPTIMIZING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Processes</td>
<td>D5</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systems &amp; Technology</td>
<td></td>
<td>X</td>
<td></td>
<td>D5</td>
</tr>
<tr>
<td>Performance Measurement</td>
<td></td>
<td>X</td>
<td></td>
<td>D5</td>
</tr>
<tr>
<td>Culture</td>
<td></td>
<td>D5</td>
<td></td>
<td></td>
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<tr>
<td>Organization/Workforce</td>
<td>D5</td>
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<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td></td>
<td>D5</td>
</tr>
</tbody>
</table>

CMM – Hillsborough MPO
## Business Process

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiyear statewide TSM&amp;O plan and program with deficiencies, evaluation, and strategies (L2)</td>
<td>Programming, budgeting, and project development processes for TSM&amp;O standardized and documented (L3)</td>
</tr>
<tr>
<td>Developing multiyear TSM&amp;O plan and related process improvements</td>
<td></td>
</tr>
</tbody>
</table>

### Key Sub-dimensions
- Planning Process
- Programming/Budgeting
- Project Development/Procurement

### Responsibility/Relationship
- Working group
- Liaison with FDOT
- Project Development/Procurement
Performance Measures

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>No regular performance measurement related to TSMO (L1)</td>
<td>TSMO strategies measurement largely via outputs, with limited after-action analyses (L2)</td>
</tr>
<tr>
<td>By</td>
<td>Identifying output and outcome performance measures for the selected operations activities</td>
</tr>
</tbody>
</table>

**Key Sub-dimensions**
- Measures Definition
- Data Acquisition
- Measures Utilization

**Responsibility/Relationship**
- Working group; FDOT; FHWA
- Staff; GPC
- Association of MPOs
## System and Technology

**Level 2 To Level 3**

<table>
<thead>
<tr>
<th>From</th>
<th>Systems engineering employed and consistently used for ConOps, architecture and systems development (L2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To</td>
<td>Systems and technology standardized, documented and trained statewide, and new technology incorporated (L3)</td>
</tr>
<tr>
<td>By</td>
<td>Developing tools, procedures and training to support standardized systems engineering process</td>
</tr>
</tbody>
</table>

### Key Sub-dimensions
- Regional Architecture
- Systems Engineering*
- Standards/Interoperability

*Validation and Testing

### Responsibility/Relationship
- Architecture Review Committee
- FDOT TSMO Staff
- Senior/Middle Management
Resource

https://transportationops.org/

Office Location
National Operations Center of Excellence
444 North Capitol Street NW, Suite 226
Washington, DC 20001

Contact Information
Patrick Son
Managing Director
pson@transportationops.org
Ph: 202-624-5478

https://operationsacademy.org/

Kathleen Frankle, Program Manager
Center for Advanced Transportation Technology
University of Maryland
phone: 301-405-8271
e-mail: kfrankle@umd.edu
Next Steps
Board & Committee Agenda Item

Agenda Item
Hillsborough Air Quality Update

Presenter
Jeff Sims, Environmental Protection Commission of Hillsborough County

Summary
Air quality in Hillsborough County continues to meet the national health-based standards for principal pollutants from the transportation sector: ozone, nitrogen dioxides, and fine particulates. Concentrations of pollutants from motor vehicles are measured at the EPC’s near-road monitoring station, which is located next to the busiest segment of I-275. It provides informative data regarding the air quality along the most heavily traveled interstate system in the county. With the continued growth in population and the dry weather experienced from late-spring to early-fall, it is increasingly challenging to maintain compliance with the more stringent standard of 70 parts per billion for ozone.

This presentation will include an overview of air quality in Hillsborough County.

Recommended Action
None. For information only.

Prepared By
Johnny Wong, PhD, MPO Staff

Attachments
None.
Board & Committee Agenda Item

Agenda Item
Speed Management Study Update

Presenter
Gena Torres, MPO Staff or Paula Flores, GPI

Summary
With the concerning numbers of people hurt and killed on roadways in Hillsborough County, several approaches will be needed to see a reduction in injuries and deaths. Through Vision Zero, there is an acknowledgement that speed plays a significant role in avoiding a crash altogether or at least surviving one. One of the strategies outlined in the MPO’s Vision Zero Action Plan specifically calls for looking at setting target speeds suitable to the surrounding context of land uses.

The MPO Board agreed to sponsor a study of speed management and safety, focusing on severe crash corridors in Hillsborough County. Stakeholder meetings have been held to help guide how to prioritize and treat roads where excessive speed was a factor in the crash history. An update will be given on the methodology used, the identification of corridors that would benefit from speed reduction, and recommended treatments to reduce a driver’s tendency to speed.

Recommended Action
None. For information only.

Prepared By
Gena Torres

Attachments
None.
MANAGING SPEED on Hillsborough’s High Injury Network

MPO Board Meeting
February 12, 2020

Presented by:
Paula C. Flores, FITE
Transportation Planning Practice Leader
Greenman-Pedersen, Inc.
pflores@gpinet.com
@Paula_CFlores
SAFE STREETS NOW
VISION ZERO
ONE TRAFFIC DEATH IS TOO MANY
THE FUTURE WILL NOT BE LIKE THE PAST

Goal 1: Update polices, standards and procedures to foster a culture of safety in planning and design of the transportation system.

Goal 2: Create a safe multimodal transportation system through good design, lighting, and connected facilities.
Florida - most dangerous state for pedestrians and bicyclists in recent history

- Nations Top 10 metro areas with highest pedestrian fatalities
  - Cape Coral
  - Palm Bay
  - Orlando
  - Jacksonville
  - Daytona Beach
  - Lakeland
  - Tampa/St. Petersburg
  - Sarasota/Bradenton
On average, a person is dying on Hillsborough streets every other day!
FATAL CRASHES
- 75% occur on roads with *posted speeds +40 mph*
- 75% of fatal & serious injury crashes occur on *one-third of our roads*
- 33% of fatal crashes involve *aggressive driving*
- Pedestrian crashes - one-third result in death or incapacitation
1/3 OF ROADS ACCOUNT FOR 3/4 ...of severe crashes

TOP 20 CORRIDORS
- 63 miles of roadway
- Comprise 4% of our roads
- 19% severe crashes in five years
- 36% of crashes - Aggressive driving
- 15% of crashes - Ped/Bike crashes
• Speeding kills more than 10,000/year
• On par with drunk driving
• Doesn’t carry the same social consequences
• 30% of all fatal crashes nationwide
• Societal cost = $40 Billion annually
• National problem, effective solutions must be applied locally

Source: USDOT, NHTSA 2016 Traffic Safety Facts
SPEED TAKES THE BACK SEAT

- Pedestrian Fatality & Serious Injury Risk

18%  50%  77%

- 20 MPH  30 MPH  40 MPH +

Source: FHWA Achieving Multimodal Networks
SPEED TAKES THE BACK SEAT

CONNECTIONS

CONNECTIONS

Source: FHWA Achieving Multimodal Networks
GOAL

• Improve public health and safety by reducing road fatalities and serious injuries.

DESIRE OUTCOMES

• *Improved safety experience* for all road users - pedestrians, bicyclists, and motorists.
• *Increase awareness* of the dangers of speeding.
• *Institutionalize good practices* in road design, traffic operations, engagement, enforcement and safety.
• Identify *supportive policies, programs and infrastructure* improvements to meet safety goal.
• Obtain *cooperation and support* of stakeholders.
SPEED MANAGEMENT ACTION PLAN - Study Scope

- Task 1 - Stakeholder Involvement
- Task 2 - Speed Management Practices
- Task 3 - Corridor Prioritization
- Task 4 – Next30 High Injury Corridors
- Task 5 - Speed Management Action Plan
Introduction & Background

Why, What & How

Study Status

Next30 High Injury Corridors

Next Steps
Partners & Stakeholders

- Hillsborough County MPO
- Hillsborough County
- Hillsborough County School District
- City of Tampa
- City of Temple Terrace
- Plant City
- Law Enforcement
- FDOT
- HART
- THEA
- Florida Health Department

Task 1 - STAKEHOLDER ENGAGEMENT

Engagement Rules

- Be engaged
- Be respectful of others
- Be creative, innovative
- Be positive
- Be a problem solver
- Be a motivator for change
- Be a Safety Warrior!

... people are dying, and we can make a difference!
TASK 2 - SPEED MANAGEMENT PRACTICES

- Existing Speed Management Practices
- Industry Best Practices
  - Statewide & National
WHAT IS SPEED MANAGEMENT?

SPEED MANAGEMENT PLAN ATTRIBUTES:
• Data-driven - crash, roadway, user, landuse data
• Applying road design, traffic operations, & safety measures
• Setting “appropriate/rational/desirable/safe” speed limits
• Institutionalize good practices
• Supportive enforcement efforts
• Effective outreach & public engagement
• Cooperation by traffic safety stakeholders
SPEED MATTERS MOST
2017 National Traffic Safety Board Study

...leads to unintended consequences of higher operating speeds

and

...an undesirable cycle of speed escalation and reduced safety!
Base speed predicated on:

- 85th percentile speed
  - Based on collective judgement of majority of drivers
  - Posted limits usually set about 5mph lower
  - Method not supported by evidence

- USLIMITS2
  - Considers road, traffic, crash data, access, density, ped/bike activity
  - Median or 50th percentile speed used to set speed limits

- Safe Systems Approach = TARGET SPEED
SPEED LIMIT REDUCTION RESULTS

Seattle
- 40% in crashes
- 30% in injury crashes

NYC
- 14% in crashes
- 49% in pedestrian crashes
- 42% in bicyclist crashes

Mexico City
- 18% in crashes

Boston
- 30% in speeds over 35 MPH

Other Cities
- Portland, OR
- Cambridge, MA
- Albuquerque, NM
- Nashville, TN
Overall

- 70% are 5-10MPH over National Practice
- 15% are 15-20MPH over National Practice

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Road Classification</th>
<th>Context Classification</th>
<th>ITE/CNU Class Speed Range*</th>
<th>Posted Speed (MPH)</th>
<th>Conflict Range (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Brandon Blvd from Falkenburg Rd to Dover Rd</td>
<td>Principal Arterial</td>
<td>C3 (35-55)</td>
<td>25-35 Max</td>
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</table>

Sponsored by: FHWA Office of Infrastructure, Office of Planning, Environment and Realty, & Office of Sustainable Communities, US Environmental Protection Agency
Design - Speed Management Countermeasures

- Road Diet
- Speed Humps / Tables
- Roundabouts
- Raised / Refuge islands
- On-Street Parking
- Street Trees
- Narrow Lane widths
- Horizontal/Vertical Curvature
- Short Blocks/ Midblock Crossings
- Pavement markings and Signs
- Leading Pedestrian Intervals
- No Right On Red

WHAT IS SPEED MANAGEMENT?

Source: USDOT, SPEED MANAGEMENT PROGRAM
Intelligent Transportation Systems

- Driver feedback signs
- Install signals to maintain an orderly progression
- Time signals for target speed
- Rest in Red signals
- Excessive speeds trigger red signal indication
- Variable speed limits

WHAT IS SPEED MANAGEMENT?
SUPPORTIVE ENFORCEMENT TECHNIQUES

- Automated Speed Enforcement
- Automated Red Light Cameras
- Targeted enforcement on high crash corridors
- Higher fines on high crash corridors
- Radar and Laser Speed Monitoring
- Aerial enforcement

WHAT IS SPEED MANAGEMENT?
TASK 3 - CORRIDOR PRIORITIZATION

- Evaluate Top 20 HIN Corridors
- Develop Metrics for Prioritization
  - Severity
  - Equity
  - Focus on Pedestrian Crashes
  - Proximity to Schools
  - Ease of Implementation

PROTECT #EVEYSCCHOOL WITH SPEED SAFETY CAMERAS

Education  Engineering  Enforcement  Equity  Evaluation
Prioritization Factors:

- Posted speed vs. context Class
- Regional equity (low income, Commissioner districts)
- Crash history
- Proximity to schools
- Ped/bike injuries
- Absence of lighting
- Ped/Bike level of stress
- Planned projects in Work Program / CIP
- Low hanging fruit - ease of implementation
- Transit service route
- Geometric features (volumes, lanes, intersection spacing)

(Ranked by order of most mentioned in breakout groups)
HIN Crash Statistics (2014-2018)

- Total crashes - Increased by 13%
- Fatalities - Decreased by 4%
- Serious Injuries - Decreased by 30%
- Motorcycle crashes - Decreased by 10%
- Pedestrian Crashes - Increased by 10%
  - Pedestrian Fatalities - Increased by 41%
  - Serious Injuries - Reduced by 22%
- Bicycle Crashes - Reduced by 5%
  - -20%-30% Bicycle Fatalities/SI

Hillsborough County CDMS data
Crash data website: gpi.ninja/hillsborough/
**HIN Crash Statistics (2014-2018)**

- **Frequency by Age**: <35 years old - 67% of Fatal crashes
- **Posted Speeds**: 40MPH+ - 92% of Fatal crashes
- **Non-Intersection**: 59% of Fatal crashes
- **Aggressive Driving/Speeding Related Factors**: 71% of Fatal crashes
  - Erratic, Reckless, Aggravated maneuvers, ran off road, exceeded speed limit, ran red light, careless or negligent
- **Lighting**: 53% of Fatal crashes occurred on “Dark-Lighted” streets
- **Time of Day**: 83% of Fatal crashes occur Non-Peak
- **# of travel Lanes**: 59% of Fatal crashes occur on >4 travel lanes
- **Vehicle Type**: Fatal crashes involved - 43% cars, 24% SUV, 14% Motorcycles

*Crash data website: gpi.ninja/hillsborough/*
Communities of Concern

Which measure more than one standard deviation above the county’s median in two or more characteristics: low income, disability, youth, elderly, limited English proficiency, minorities and carless households.

- Overlaid HIN corridors
- Estimated distance of frontage of each COC category on the corridor
- Assigned a point system for each COC category on the corridor
- Developed a Risk Performance Level - the higher the deviations, the higher the points, the higher the risk.

Example Assessment - Equity

Extreme Poverty 95 percent or more of households have an annual household income of $37,000 or less.
Example Assessment - Transit Service Routes

- Overlaid HIN corridors
- Identified how many service routes traverse the corridor
- Identified how many routes cross the corridor
- Identified if a transfer center or park and ride lot exists
- Identified what key destinations (grocery, healthcare, schools, etc.) exist with transit access
- Assigned a point system for each category
- Developed a Risk Performance Level - the higher the services provided, the higher the points, the higher the risk.
<table>
<thead>
<tr>
<th>Corridor and Extent</th>
<th>Crash Severity / Mile</th>
<th>Ped/Bike Crash Rate/Mile</th>
<th>Schools / Mile</th>
<th>Equity C&amp;C Coverage</th>
<th>Posted Speed</th>
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TASK 4 - Next Top 30 HIN Corridors

- Identify Next30
- Prioritize Next30
Fatal + Serious Injury Crashes
(Jan 2014-Dec 2018)
Next30 High Injury Corridors

Bloomingdale Ave - US Hwy 301 to Lithia Pinecrest Rd
US Hwy 41 - Gulf City Rd to Riverview Dr
US Hwy 301 - 19th Ave to Bloomingdale Ave
M L King Blvd - Dale Mabry Hwy to Parson Ave
US Hwy 41 - Madison Ave to I4
Big Bend Rd - I75 to Balm Riverview Rd
Busch Blvd - Armenia Ave to 56th Street
SR 674 (Sun City Ctr Blvd) - US Hwy 41 to CR579
I-75 - SR 60 to Fletcher Ave
Hillsborough Ave - Florida Ave to Orient Rd
Waters Ave - Sheldon Road to Dale Mabry Hwy
Fowler Ave - I275 to I75
US Hwy 301 - SR 674 to Lightfoot Rd
I-75 - Big Bend Rd to US Hwy 301
SR 60 /Adamo Dr - Orient Rd to Falkenburg Rd
Causeway Blvd - 78th St to Providence Rd
Waters Ave - Dale Mabry Hwy to Nebraska Ave
Progress Blvd - Falkenburg Rd to US Hwy 301
Hillsborough Ave - Race Track Rd to Longboat Blvd
Memorial Hwy - Hillsborough Ave to Veterans Expwy
Hanley Rd - Woodbridge Blvd to Waters Ave
Dale Mabry Hwy - Interbay Blvd to Gandy Blvd
Howard Ave - Kennedy Blvd to Tampa Bay Blvd
Dale Mabry Hwy - Kennedy Blvd to Hillsborough Ave
US Hwy 92 - Falkenburg Rd to Thonotosassa Rd
Nebraska Ave - Columbus Ave to Hillsborough Ave
US Hwy 301 - Stacy Rd to County Line
Armenia Ave - Tampa Bay Blvd to Waters Ave
MacDill Ave - Kennedy Blvd to Columbus Dr
M L King Blvd - McIntosh Rd to Sammonds Rd

Corridor Classification
- Existing HIN Corridors
- Proposed HIN Corridors
### Next30 High Injury Corridors

#### Priority Matrix

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<th>Corridor and Extent</th>
<th>Crash Severity / Mile</th>
<th>School / Mile</th>
<th>Equity CoC Coverage</th>
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NEXT STEP

Task 5 - Speed Management Action Plan
• Problem Identification
• Strategies and Countermeasures
• Plan Actions and Implementation Strategy
THANK YOU!

Paula C. Flores, FITE
Transportation Planning Practice Leader
Greenman-Pedersen, Inc.
pflores@gpinet.com
@Paula_CFlores