Highway Safety Improvement Program
Welcome

Mario Dipola, P.E., MBA, FCCM
District Safety Engineer
Agenda

- Highway Safety Improvement Program (HSIP) Overview
- Off-System HSIP Projects
- Application Process
- Local Agency Safety Team (LAST)
- Safe Routes to School (SRTS)
- Recently Funded SRTS Projects
HSIP Overview

- Goal: *To achieve a significant reduction in traffic fatalities and serious injuries*
- Data driven strategic approach
- Strategic Highway Safety Plan (SHSP)
  - Vision, Mission and Goals
  - Transportation Safety Needs
  - Safety Strategies
  - Performance Measures
  - Development, Implementation, and Update
Florida SHSP Key Emphasis Areas

- Lane Departures
- Intersections
- Vulnerable Road Users
Off-System HSIP
Off-System HSIP

- Local Roads – 40 percent of all fatalities across Florida
- Average of 7 off-system projects funded per year
- Primary Project Types
  - Lane Departure
  - Pedestrian & Bicycle
  - Intersection
Requirements & Restrictions

Data-driven and evidence based forecasted safety improvements

Projects intended **not** to address:

- Capacity enhancement
- Economic development
- Railroad quiet zone
- Maintenance (Annual)
- Beautification
- Drainage
- Bridge needs
Off-System HSIP

- Potential Projects
  - Lane departure
    - Internally Illuminated Raised Pavement Markers
    - Enhanced signing & pavement marking
    - Shoulder width
    - Safety edge
Off-System HSIP

- Potential Projects
  - Intersection
    - Intersection Conflict Warning System
    - Enhanced signing & pavement markings
    - Modified intersection traffic control
Off-System HSIP

- Potential Projects
  - Pedestrian & Bicycle
    - Enhanced signing & pavement markings
    - Implementation of midblock crossings
    - Leading pedestrian intervals
    - Modified traffic control
    - Cycle tracks
    - Enhanced lighting
Projects Summary

<table>
<thead>
<tr>
<th>Year</th>
<th>Cycle</th>
<th>Applications</th>
<th>Shortlisted</th>
<th>Advanced for funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/2017</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>2017/2018</td>
<td>3</td>
<td>14</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

- Signing & Pavement Marking
- Paved shoulders
- Intersection Conflict Warning System
- High-visibility crosswalks
- Leading pedestrian intervals
Best Practices

- Requests must be accurate, detailed, data driven and complete.
- Provide any and all available right of way information
- Focus on known safety problems.
- All projects need to be constructible, feasible and cost effective.
- Coordination with the Local Agency Safety Team (LAST) is needed for each application.
Application Process

www.nfltrafficsafety.com
<table>
<thead>
<tr>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Coordination &amp; Pre-Application</td>
<td>• Local agency discusses preliminary project information with LAST &amp; submits Pre-Application</td>
</tr>
<tr>
<td>Safety Study</td>
<td>• Local Agency Conducts Safety Study of Advanced Locations from Pre-Application</td>
</tr>
<tr>
<td>Application and Study Submittal</td>
<td>• Application and Signed/Sealed Study Completed by Local Agency</td>
</tr>
<tr>
<td>Submittal Review</td>
<td>• Feasibility/Constructability Review completed by LAST - Shortlisting</td>
</tr>
<tr>
<td>District Review and Selection</td>
<td>• Identification and requesting for funding of candidate projects by Department</td>
</tr>
<tr>
<td>Central Office Review</td>
<td>• Approval and funding of projects</td>
</tr>
</tbody>
</table>
Safety Study

Recommended Format

- Executive Summary
- Location Map
- Qualitative Summary
- Crash Analysis
- Planned Improvements
- Concept Plan
- Cost Estimate, Benefit Cost Analysis and Net Present Value
- Appendices

Study completed by local agency must be signed and sealed by a professional engineer.
Crash Analysis

- Five years of crash data (2012 – 2016)
  - List of possible causes and countermeasures (site specific)

- Use Signal Four Analytics
  https://s4.geoplan.ufl.edu/analytics/
  - If you do not have an account, you can register online.
  - If you use an alternate data source, you will need to provide the data with the study.
Financial Analysis

- Include a detailed preliminary cost estimate
  - Include PE, CEI, contingencies, and R/W if available
  - Inflation may be considered in the estimate if selected

- Conduct Benefit-Cost (B/C) Analysis
  - B/C > 2.0
    - A B/C is over 2.0 does not mean the project is an appropriate use of safety funds
    - Does this address severe injury and fatal crashes?
  - Use B/C tool provided at www.nfltrafficsafety.com
  - Use Crash Modification Factors from FHWA CMF Clearinghouse www.cmfclearinghouse.org
Timeline

- Pre-application submittal and coordination completed as soon as possible!
  - By December 3
- Draft applications submitted
  - By December 28
  - Department & Local Agency Safety Team (LAST) complete initial review and provide review comments to Agency
- Final applications submitted
  - By January 11
Local Agency Safety Team
Responsibilities and Duties

- The LAST does not replace an agency’s existing engineering staff or consultant on contract.

- Pre-Application Review

- Application Assistance

- Recommendations for funding considerations

- Coordinate with non-funded project applicants for one (1) year for consideration in the next year cycle.

Matt Weaver, P.E., CPM
(813) 386-2101
MWeaver@elementeg.com

Anthony Chaumont, P.E.
(813) 386-2101
AChaumont@elementeg.com

Resources:
www.cmfclearinghouse.org
https://safety.fhwa.dot.gov/provencountermeasures/
www.nfltrafficssafety.com
Application Completion

- Qualitative assessment/field review
- Constructability/feasibility review
- Update improvement concept
- Update improvement cost estimate using FDOT construction costs.
- Develop project scope
- Update economic analysis (benefit/cost and net present value)
  - B/C > 2.0 and NPV > 0
  - Use Crash Modification Factors from FHWA CMF Clearinghouse [www.cmfclearinghouse.org](http://www.cmfclearinghouse.org)
Lessons Learned

- SRTS Applications must be accurate, detailed, fully completed, and presented on time.

- Surveys and Tallies must be fully completed and entered into the NCSRTS’s database.

- The requested items need to be approved, constructible, feasible and cost effective.

- Need to present proof of Right of Way and supporting crash data.

- Maintenance Agreements
Safe Routes to School (SRTS) Projects
SRTS Overview

- Planning, design & construction of infrastructure-related projects
- Directly support increased safety and convenience for school children in grades K-12
- Additional assistance available through the University of Florida for REDI eligible counties and communities
  - [https://dcp.ufl.edu/saferoutes/](https://dcp.ufl.edu/saferoutes/)
Eligible Projects

- Pedestrian Facilities
  - Sidewalks & Paths
  - Improvements to routes to bus stops
- Bicycle Facilities
  - Shared-use paths on a route to school
- Traffic Control Devices
  - New crosswalks, signs, flashing beacons
Ineligible Projects

- Purchase of right of way
- Sidewalks or paths on school property
- Maintenance
- Stand alone curb ramps
Important Points

- We are here to help!
- Have right of way documentation available (to the best of your ability!)
- Be prepared to provide justification and relevant warrants for proposed traffic control devices
- Call or email to discuss your proposed project early on
- Attend mandatory training workshop every two years
Application Process

Preliminary Project Discussion with District Support Staff → Local Agency Develops & Submits Application

District Reviews & Scores Application → Feasibility & Cost Review For Highest Rated Applications

Request for funding from Central Office → Central Office Review & Approval → Notifications & Project Programming
Lessons Learned

- Need to present as much proof of Right of Way as available early in the process.
- SRTS applications must be fully completed, accurate, detailed, and presented on time.
- The requested items need to be approved, constructible, feasible and cost effective.
- Discuss project intent with District Support Staff early on to get headed in the right direction.
- Have documented support of community, school staff, and supporting agencies.
Recently Funded SRTS Projects
Stephen Foster Elementary School
Alachua County
SRTS Project Application Schedule

- Preliminary discussion with District Support Staff
  - Now!
- Applications completed and submitted to Matt Weaver & Jennifer Graham
  - December 31, 2018
  - Jennifer.Graham@dot.state.fl.us
  - MWeaver@elementeg.com
- Applications are reviewed, ranked, and then submitted for further consideration
- Award notifications in August 2019
Questions?

Support Staff

Matt Weaver, P.E., CPM  
*Off-System HSIP Program*  
*Safe Routes to School*  
*ELEMENT Engineering Group*  
(813) 386-2101  
[mailto:mweaver@elementeg.com](mailto:mweaver@elementeg.com)

Jennifer Graham  
*Safe Routes to School*  
(904) 360-5636  
[mailto:Jennifer.Graham@dot.state.fl.us](mailto:Jennifer.Graham@dot.state.fl.us)

Mario Dipola, P.E., MBA  
District Safety Engineer  
(904) 360-5633  
[mailto:mario.dipola@dot.state.fl.us](mailto:mario.dipola@dot.state.fl.us)