SRTS + FHWA = PED Safety

Chelsea Carter
Safe Routes to School Georgia Resource Center

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FHWA Office of Safety
Safe Routes to School: 
School Road Safety Audits

Jack Anninos
GDOT Bicycle and Pedestrian Engineer
Presented by
Chelsea Carter
Safe Routes to School
Georgia

GDOT is committed to Safe Routes to School

• SRTS seen as valuable
• safety assessments
• relaying information
• aiding creation of lifelong behaviors
Defining “Road Safety Audit”

A formal safety performance examination of an existing or future road or intersection by an interdisciplinary team of transportation professionals.
<table>
<thead>
<tr>
<th>Road Safety Audit</th>
<th>Traditional Safety Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performed by team independent of the project</td>
<td>Review team is usually not completely independent of the design team</td>
</tr>
<tr>
<td>Performed by a multi-disciplinary team</td>
<td>Typically performed by a team with only design and/or safety expertise</td>
</tr>
<tr>
<td>Considers all potential road users</td>
<td>Often concentrates on motorized traffic</td>
</tr>
<tr>
<td>Accounting for road user capabilities and limitations is an essential element</td>
<td>Safety Reviews do not normally consider human factor issues</td>
</tr>
<tr>
<td>Generates a formal response report</td>
<td>Often does not generate a formal response report</td>
</tr>
</tbody>
</table>
As stated by the GDOT Pedestrian Safety Action Plan:

“A Road Safety Audit (RSA) is a formal safety performance examination of a specific road by a multidisciplinary team. Teams consists of a range of stakeholders, including technical experts and community leaders. RSAs identify potential road safety issues and identifies opportunities for improvements in safety for all road users.”
Road Safety Audits around schools

Are they the right tool?

- 2017 - GDOT began using RSAs to find engineering improvements around schools
- Walk Audit + Connectivity = Natural Fit
- School RSA needs to focus on multiple pedestrian paths
- Both have long and short term recommendations
Typical RSA Study Area
Linear in Shape

School RSA Study Area
Branching Shape
RSA Process

- Data prioritization and research
- Pre-audit presentation
- Walk Audit
- Post walk discussion
- Highly valuable and different perspectives
- Raises awareness among the team and community
Reporting

Provides suggested responsible parties along with a timeframe for recommendations

Enable stakeholders to envision realistic improvements
Moving Forward

- 8 completed reports
- 5 in the process
- Recent focus on pedestrian safety nationwide provides momentum
Decisions, Decisions . . .
A Data-based Prioritization Process for Safe Routes to School Georgia School Road Safety Audits

Elizabeth Yarnall, MCRP
Transportation Planner, AECOM
Georgia SRTS 2018 Goal:

Identify recommendations for safer routes for schools
What factors are important for choosing a school for a School RSA?
## Five Prioritization Lenses

<table>
<thead>
<tr>
<th>Lens</th>
<th>Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Geographic</td>
<td>Focus on locations where schools are grouped</td>
</tr>
<tr>
<td>2. Area Character</td>
<td>Schools located near areas where a higher proportion of the population are children will be more appropriate for walking &amp; bicycling</td>
</tr>
<tr>
<td>3. Exposure</td>
<td>Schools near high traffic volumes are more likely to experience unsafe conditions</td>
</tr>
<tr>
<td>4. Equity</td>
<td>Explicitly recognizing historic and current systems of inequities (e.g. racism, geographic segregation, income inequality)</td>
</tr>
<tr>
<td>5. Engagement</td>
<td>Currently active/engaged schools which are known to SRTS Outreach Coordinators will be more willing to engage with SRSA process</td>
</tr>
</tbody>
</table>
1. Geographic

- Schools within \( \frac{1}{2} \) mile of one another
2. Area Character

- Schools near to where children live
3. Exposure

- Number of Crashes (2014 – 2016)
4. Equity

- Percent of Students likely to walk to school were identified through socioeconomic factors
Value Score was computed for each School which fit the Geographic Criteria.

Value Score

- Traffic Volumes
- Socio-economic Factors
- Crashes by Types
5. Engagement

The top 20-30 schools from each region by Value Score were provided to the Georgia SRTS School Outreach Coordinator of that region for feedback on local policies and receptivity to a School RSA.
Final Examination of Physical Location

School Grouping with high RSA score but poor physical location for School RSA

School Grouping with high RSA score and good physical location for School RSA
Prioritized 35 schools in 15 different locations across Georgia.

Starting point for School RSA Coordination.
Nine (9) locations chosen for School RSA in 2018.

Four (4) locations chosen for School RSA in 2019.
Questions?

Write them down please.
GEORGIA SAFE ROUTES TO SCHOOL

Outreach and School RSAs

Chelsea Carter
The Georgia Safe Routes to School Resource Center

- Began in 2009
- Originally Funded by SAFETEA-LU, now GDOT
- Four territories
- Over 500 school partners
Reporting

- 24 completed travel plans
- Walk audits
- Began RSAs in 2017
SOC Responsibilities

• School identification
• Communication with administration and community
• Scheduling
• Gathering information
Wynnton Arts Academy

• Multi-school group
• April 2019
• Construction created hazards
Before: entrance of school, just to the side where students can enter the building
Resolutions

- New concrete for entrance as well as the bus drive
- No left turn
- Less confusion for vehicles makes it safer for pedestrians
QUESTIONS?
I can’t wait to answer them at the end!

Safe Routes to School
Georgia
GEORGIA DEPARTMENT OF TRANSPORTATION
Using RSAs to Improve SRTS One STEP at a Time

SRTS National Conference
November 2019

U.S. Department of Transportation
Federal Highway Administration
Photo Sources: FHWA
6,227

Using RSAs to Improve SRTS
One STEP at a Time

Photo Source: North Carolina Vision Zero, ncvisionzero.org
The RSA Process

Responsibilities

1. Identify project
2. Select RSA team
3. Conduct start-up meeting
4. Perform field reviews
5. Conduct analysis and prepare report
6. Present findings to Project Owner
7. Prepare formal response
8. Incorporate findings

Photo Sources: FHWA
“Every Day Counts” (EDC)

State-based model to identify and rapidly deploy proven, but underutilized innovations

- shorten the project delivery process
- **enhance roadway safety**
- reduce congestion
- improve environmental sustainability

Initiating 5th Round (2019-2020) - 10 innovations

STEP
Safe Transportation for Every Pedestrian
State Goals for STEP
The Spectacular Seven
STEP
Safe Transportation for Every Pedestrian
Rectangular Rapid Flashing Beacon

47% Reduction in Pedestrian Crashes
Leading Pedestrian Interval

59% Reduction in Pedestrian Crashes
Crosswalk Visibility Enhancements

23 - 48% Reduction in Pedestrian Crashes
Raised Crosswalks

45% Reduction in Pedestrian Crashes
Pedestrian Refuge Islands

32% Reduction in Pedestrian Crashes
Pedestrian Hybrid Beacons (PHB)

55% Reduction in Pedestrian Crashes
Road Diet: Before
Road Diet: After

19 - 47% Reduction in Total Crashes
How do I Select Countermeasures?

Table 1. Application of pedestrian crash countermeasures by roadway feature.

<table>
<thead>
<tr>
<th>Roadway Configuration</th>
<th>Posted Speed Limit and AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicle AADT &lt;9,000</td>
</tr>
<tr>
<td></td>
<td>&lt;30 mph</td>
</tr>
<tr>
<td>2 lanes (1 lane in each direction)</td>
<td>4</td>
</tr>
<tr>
<td>3 lanes with raised median (1 lane in each direction)</td>
<td>1</td>
</tr>
<tr>
<td>3 lanes w/o raised median (1 lane in each direction with a two-way left turn lane)</td>
<td>2</td>
</tr>
<tr>
<td>4+ lanes with raised median (2 or more lanes in each direction)</td>
<td>1</td>
</tr>
</tbody>
</table>

1. High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
2. Raised crosswalk
3. Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4. In-Street Pedestrian Crossing sign
5. Curb extension
6. Pedestrian refuge island
7. Rectangular Rapid-Flash Beacon (RRFB)**
8. Road Diet
9. Pedestrian Hybrid Beacon (PHB)**
Technical Assistance

STEP Workshops/Training

Scan Tours

Peer Exchange

STEP Action Plans

Systemic Safety

Road Safety Audits/Assessments

Arkansas – Tennessee Scan Tour
Source: FHWA
EDC-5 Funding Opportunities:

- **State Transportation Innovation Council (STIC) Incentive**
  - Up to $100,000 per STIC per year to standardize an innovation
  - [https://www.fhwa.dot.gov/innovation/stic/](https://www.fhwa.dot.gov/innovation/stic/)

- **Accelerated Innovation Deployment (AID) Demonstration**
  - Up to $1 million available per year to deploy an innovation not routinely used
  - [https://www.fhwa.dot.gov/innovation/grants/](https://www.fhwa.dot.gov/innovation/grants/)
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Questions?

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