Goal 2: THE FUTURE WILL NOT BE LIKE THE PAST

SPEED MANAGEMENT & SAFETY

Presented by
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GPI

for
Hillsborough County Metropolitan Planning Organization

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WHY IS THIS IMPORTANT?

SPEED LIMITS

WHAT IS SPEED MANAGEMENT?

DEVELOPING AN ACTION PLAN
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
Racing blamed in deadly Bayshore crash

WHY IS IT IMPORTANT?
On average, one person is dying on Hillsborough streets every day!
SAFE STREETS NOW

VISION ZERO

ONE TRAFFIC DEATH IS TOO MANY
TRAFFIC DEATHS

Traffic Deaths per 100,000 Residents

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<th>US</th>
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<th>Hillsborough</th>
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LaMour Welch, 29
Ernest Kelly, 12
Eugene Fischer, 65
Emily Lopez, 17
WHAT DOES THE DATA TELL US?

For every 1 fatal crash... 8 incapacitating injury crashes occur.

Image Source: Tampa Bay Online
WHAT DOES THE DATA TELL US?

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
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
“...incremental progress is no longer acceptable given the increasingly rapid advances in technology and the wealth of knowledge about how to prevent crashes...

with the right *policies, technologies, and strategy*, we could *prevent all roadway deaths*”

USDOT, National Safety Council
• 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*
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

20 MPH

30 MPH

40 MPH

CONES OF VISION

Source: FHWA Achieving Multimodal Networks
SPEED MATTERS MOST

As traffic deaths soar, #VisionZero cities pursue lower speed limits & new road design. Learn why Portland leads the movement in our upcoming webinar: bit.ly/2yNeq0B

FOR A SAFER NYC
SPEED LIMIT 25
VISION ZERO
WHY IS THIS IMPORTANT?

SPEED LIMITS

WHAT IS SPEED MANAGEMENT?

DEVELOPING AN ACTION PLAN
SPEED LIMITS

- Speed limit review
- Classify roads by function and activity
- Road rules, legislative, and regulatory settings
- Speed enforcement methods and penalties
Speed limits inform motorists of appropriate safe driving speeds under favorable conditions.

Setting speed limits that are safe, consistent, and reasonable is the first step in speed management in order to protect all road users.
TYPES OF SPEED LIMITS

STATUTORY

POSTED

SCHOOL ZONE

WORKZONE

VARIABLE

ADVISORY
US METHOD OF SETTING SPEED LIMITS

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

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**What is the 85th percentile speed?**

Speed at which 85 percent of free-flowing traffic is traveling at or below.
2017 National Traffic Safety Board Study

...leads to unintended consequences of higher operating speeds

and

...an undesirable cycle of speed escalation and reduced safety!
Topic of National Discussion - Speed Setting

- Insurance Institute for Highway Safety (IIHS)
- Governors Highway Safety Association (GHSA)
- US Department of Transportation (USDOT)
- Federal Highway Administration (FHWA)
- National Highway Traffic Safety Administration (NHTSA)
- National Transportation Safety Board (NTSB)
- Institute of Transportation Engineers (ITE)
- Texas A&M Transportation Institute (TA&M)
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

Other Cities
- Boston
- Portland
- Cambridge, MA
TARGET SPEED

C1-Natural
Lands preserved in a natural or wilderness condition, including lands unsuitable for settlement due to natural conditions.

C2-Rural
Sparsely settled lands; may include agricultural land, grassland, woodland, and wetlands.

C2T-Rural Town
Small concentrations of developed areas immediately surrounded by rural and natural areas; includes many historic towns.

C3R-Suburban Residential
Mostly residential uses within large blocks and a disconnected or sparse roadway network.

C3C-Suburban Commercial
Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

C4-Urban General
Mix of uses set within small blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods immediately along the corridor or behind the uses fronting the roadway.

C5-Urban Center
Mix of uses set within small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town, or city.

C6-Urban Core
Areas with the highest densities and building heights, and within P+CT classified Large Urbanized Areas (population >1,000,000). Many are regional centers and destinations. Buildings have mixed uses; are built up to the roadway, and are within a well-connected roadway network.
WHY IS THIS IMPORTANT?

SPEED LIMITS

WHAT IS SPEED MANAGEMENT?

DEVELOPING AN ACTION PLAN
What is Speed Management?

Speed management is not just about reducing speed, but to a considerable extent about planning and designing the road and network in a way that an appropriate speed is obtained.
GOAL
• Improve public health and safety by reducing speeding-related fatalities and injuries.

DESIRED OUTCOMES
• Reduction in speeding-related fatalities and injuries
• Improved safety experience for all road users - motorists, pedestrians, and bicyclists.
WHAT IS SPEED MANAGEMENT?

SPEED MANAGEMENT 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
WHAT IS SPEED MANAGEMENT?

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

Source: USDOT, SPEED MANAGEMENT PROGRAM
Intelligent Transportation Systems to Manage Speed

- Driver feedback signs
- Install signals to maintain an orderly progression
- Time signals for target speed
- Leading Pedestrian Intervals (LPIs)
- Rest in Red signals
- Excessive speeds trigger red signal indication
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
**BENEFITS OF SPEED MANAGEMENT?**

- Reduction in fatal crashes
- Reduction in crash severity
- Reduction in societal costs
  - Emergency services
  - Lost time at work
  - Medical costs
  - Property damage costs
  - Insurance costs
- Eases congestion related to crash delays
- Encourages non-motorized transportation
- Resulting in safer and healthier communities
WHY IS THIS IMPORTANT?

SPEED LIMITS

WHAT IS SPEED MANAGEMENT?

DEVELOPING AN ACTION PLAN
• Partners and Stakeholders
• Existing Speed Management Practices
• Industry Best Practices
• Establish Speed Management Practices
• Measuring Success
• Pilot Project
Partners & Stakeholders

- Hillsborough County MPO
- Hillsborough County
- City of Tampa
- City of Temple Terrace
- Hillsborough County School District
- Law Enforcement
- FDOT
- FHWA
- Hillsborough Health Department
- Advocacy Organizations
- Other
SPEED MANAGEMENT ACTION PLAN

- Existing Speed Management Practices
- Industry Best Practices
  - Statewide Best Practices
  - National Best Practices

Educational icon | Engineering icon | Enforcement icon | Equity icon | Evaluation icon
Establish Enhanced Speed Management Practices

- In Conjunction with the Steering Committee
- Select Existing Speed Management Practices to Retain
- Select Statewide and National Best Practices to Adopt
- Generate Enhance Speed Management Practices
Establish Goals:
- Reduce Crash Fatalities
- Reduce Crash Severity
- Reduce Pedestrians/Bicyclist Crashes
- Reduce Average Operating Speed

Performance Measures:
- Establish Key Performance Indices
- Establish Data Requirements
- Establish Dashboards on Status
Goal 2: THE FUTURE WILL NOT BE LIKE THE PAST

THANK YOU!

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