I HAVE A SAFE ROUTES TO SCHOOL PLAN, NOW WHAT? IMPLEMENTATION.

Brad Strader, AICP, PTP

LSL Planning, Inc.

Schools in Michigan:
An Historical Perspective

Then…

- Elementary schools integrated into neighborhoods
- Most children walked to school

% Walking to School:

- 1969: 42% walked
- 2001: 16% walked

Schools in Michigan:
An Historical Perspective

And now…

- Declining enrollment and building conditions = closure of many neighborhood schools
- Trend toward larger schools often in outlying areas
- Fewer students within walking distance
- Schools designed for bus and parent drop-offs, pedestrians and bikes are secondary
- Sidewalk systems often lacking or incomplete
- Common perception that walking to school is unsafe
- Students living within 1 mile:
  - 1969: 87% walked
  - 2001: 63% walked

Results:
Psychological Barriers to Walking

Perception

Why parents don't allow their children to walk:

- Long distances 62%
- Traffic danger 30%
- Adverse weather 19%
- Fear of crime 12%

Reality

Each year…

- 115 children are kidnapped
- 250,000 killed in auto accidents

Sources: *CDC, 2005; Federal Government*
Note: Sum of % is more than 100% because respondents could identify more than one barrier.

Strategies for SRTS Implementation

- Build enthusiasm, changing attitudes
- Build partnerships
- Audit the physical situation
- Know the “rules” for design, signs and signals
- Set priorities

Changing Attitudes

- Parents driving children to school contributes 20%-25% of morning traffic

  Source: NHTSA 2003; Dept. of Environment
- Driving is hazardous
- Environmental [air quality] benefits
- Student health
- St. Thomas Aquinas "Cool Kids Walk"

Commutes: A Michigan School Trip

Walking v. drop-off:

Driving Path

Walking Path

School Site Design

Things to consider…

- Less pavement = more playspace
- Priority for:
  1. Disabled
  2. Pedestrians
  3. Bikes
  4. Buses
  5. Parent drop-offs

School Review Limitations

- Elementary and Middle Schools: Superintendent of public instruction has *sole and exclusive* jurisdiction
- High Schools: Local advisory review for new schools in Townships only

Schools have no obligation to comply with local zoning requirements.

SRTS – 5 Steps to Implementation

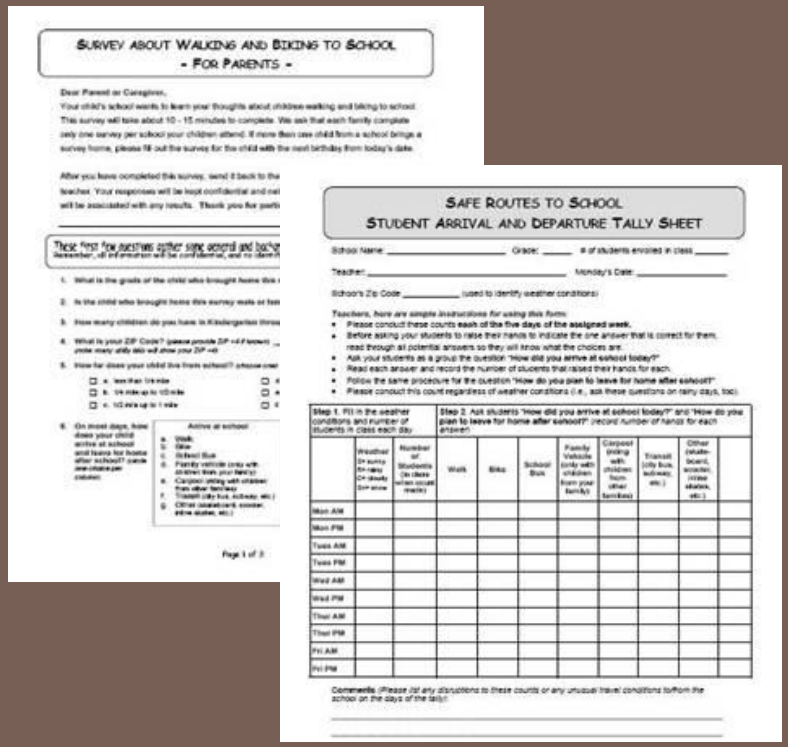
1. Raise awareness within school "family", but also community and municipal staff
2. Check municipal plans
   - Master plan
   - Non-motorized plan
   - Capital Improvement plan
   - Complete Streets policies
3. Audit existing conditions
4. Mobilize stakeholders into action
5. Set Priorities
   - Low and Higher cost
   - Immediate and Phased changes
   - Process to monitor results

MOBILIZE: Engage Stakeholders

- Student promotion (contests, prizes)
- National Walk to School Day, or one day per week
- Public forums & focus groups (parents, neighbors, teachers, school/church administration)
- AARP/seniors and those walking for exercise
- Hospitals and Health Care organizations
- Walking/biking tours
- Presentations to neighborhood associations and elected officials

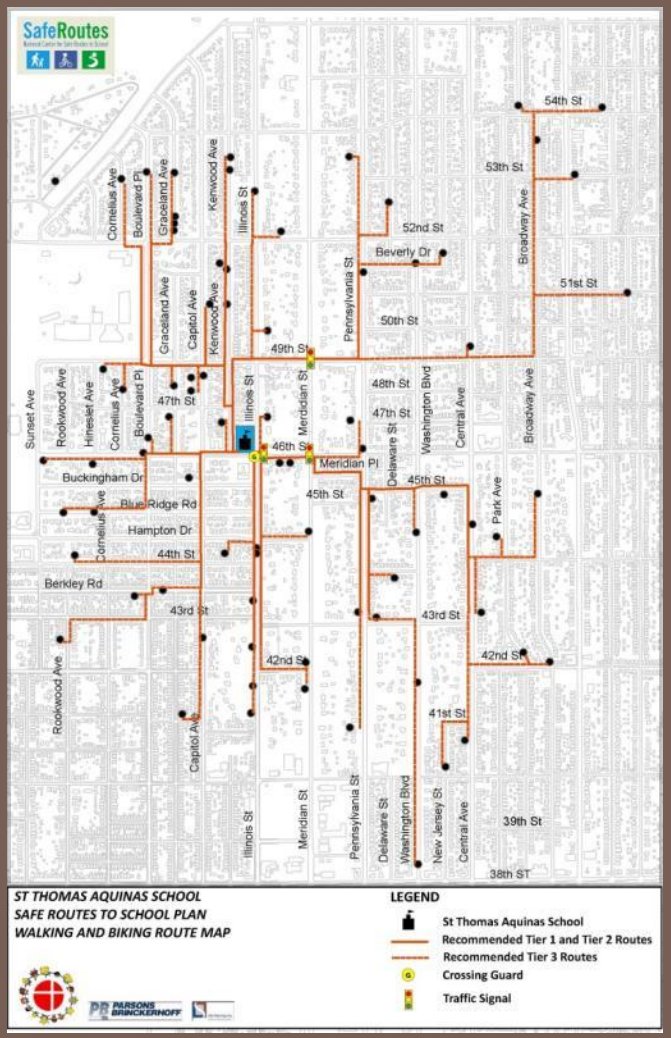
AUDIT

- Inventory existing systems
- Identify road agency
- Conduct walkability/bikeability audits



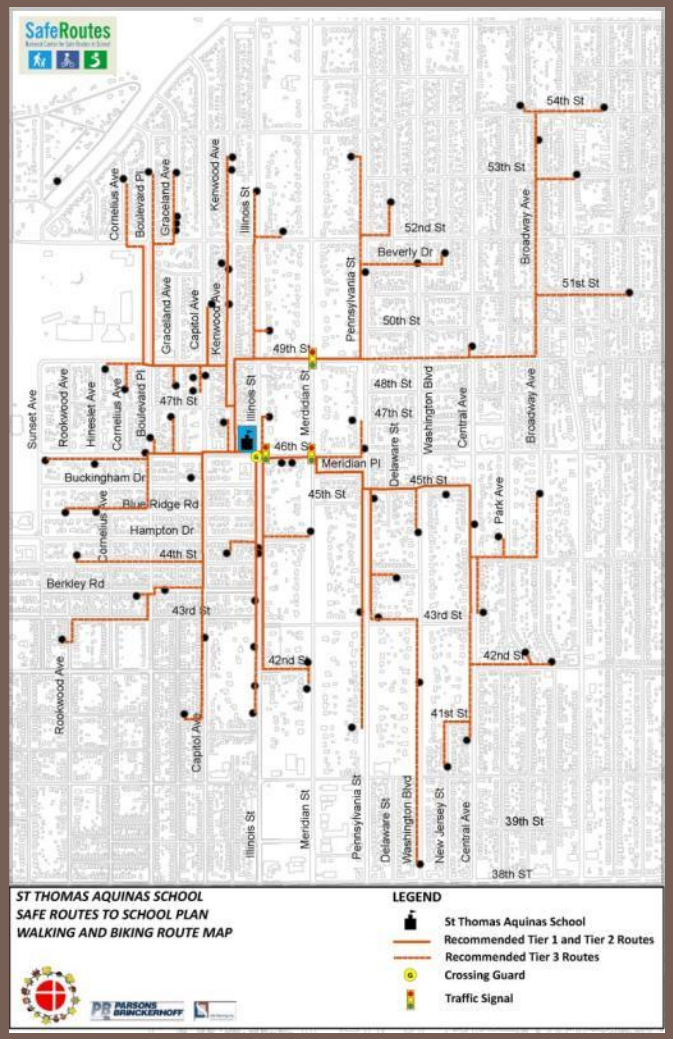
SURVEY ABOUT WALKING AND BIKING TO SCHOOL
- FOR PARENTS -

SAFE ROUTES TO SCHOOL
STUDENT ARRIVAL AND DEPARTURE TALLY SHEET



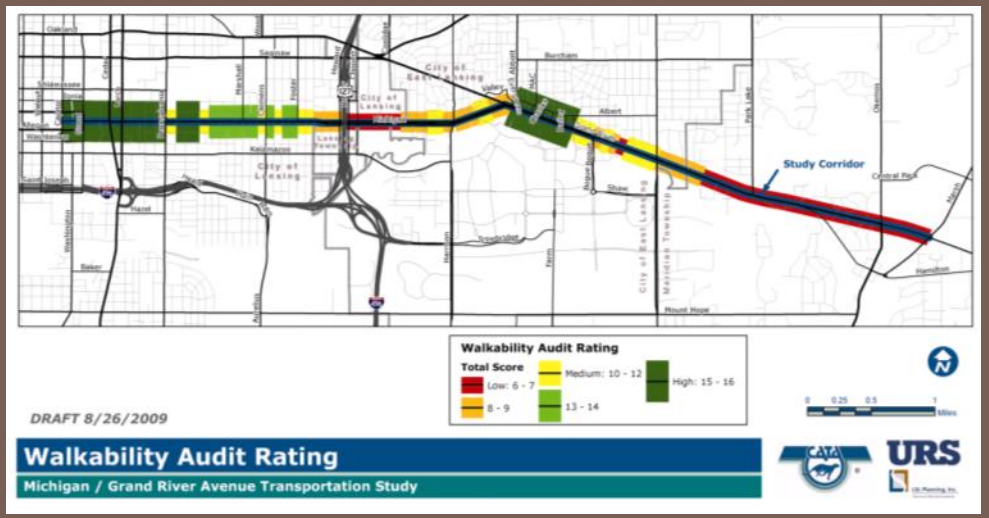
Walk and Bike-ability Audits:
What to include

- Identify residential locations
- Walk zones within ¼ to ½ mile of school
- Bike zones
- Identify main walking and bike routes
- Inventory sidewalk width & conditions
- Main crossing points, gaps and breaks



Walk and Bike-ability Audits:
Evaluation

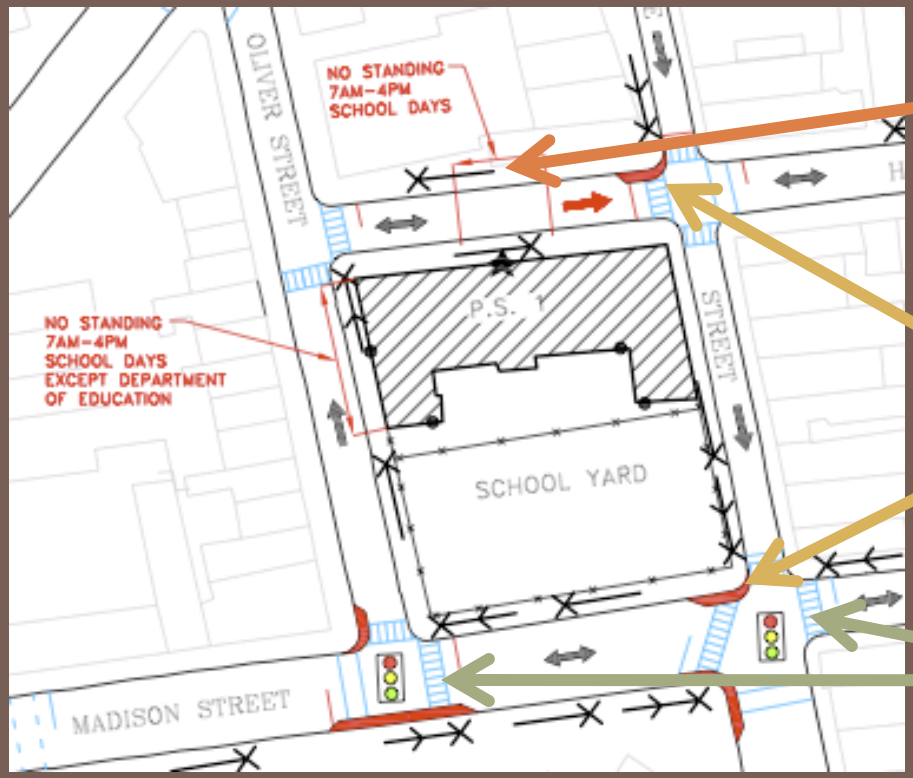
- Reveals most walkable and bikeable routes
  - Where landscaping should be trimmed
  - Gaps to fill
  - Sidewalk segments to replace/repair
  - Locations to provide or improve crosswalks



Site Plan (Re)-Design Guidelines

- Discuss school plans with school officials early in the design process
- Pedestrian connectivity – esp. between school & neighborhood
- Safe circulation:
  - Connection/easements to neighborhoods
  - Separate pedestrian traffic from drop-off & bus traffic
  - Improve road crossings at key locations
  - Drop-off areas should be well marked & organized
  - Use appropriate “traffic calming”

On-site Design:
Example



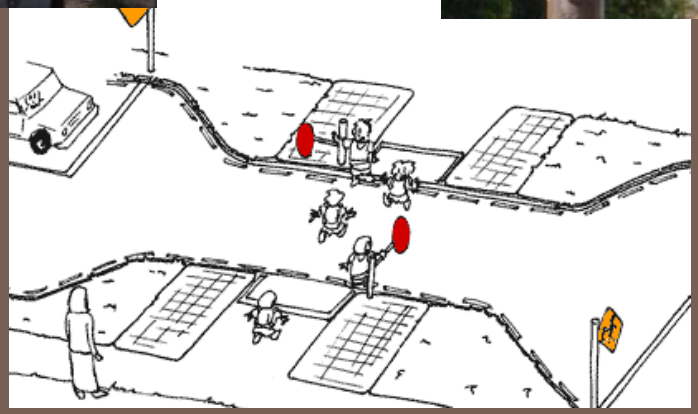
No standing zones

Curb bump-outs

Crosswalk delineation

Engineering Standards

- “Complete Streets”
- Require minimum 5’ wide sidewalks, wider closer to school
- Be aware of design standards and warrants



QUESTIONS OR COMMENTS

thank you!

WHO TO INVOLVE AND ENGINEERING IMPLEMENTATION

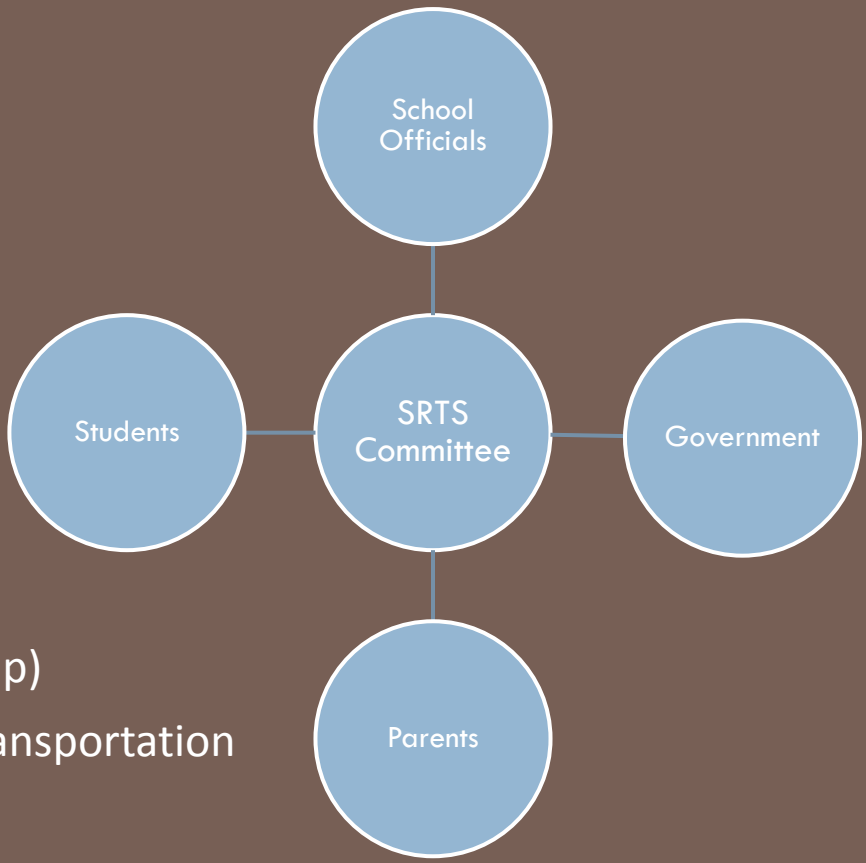
Sarah Binkowski, PE, PTOE

Parsons Brinckerhoff

Reassemble your Stakeholder Group

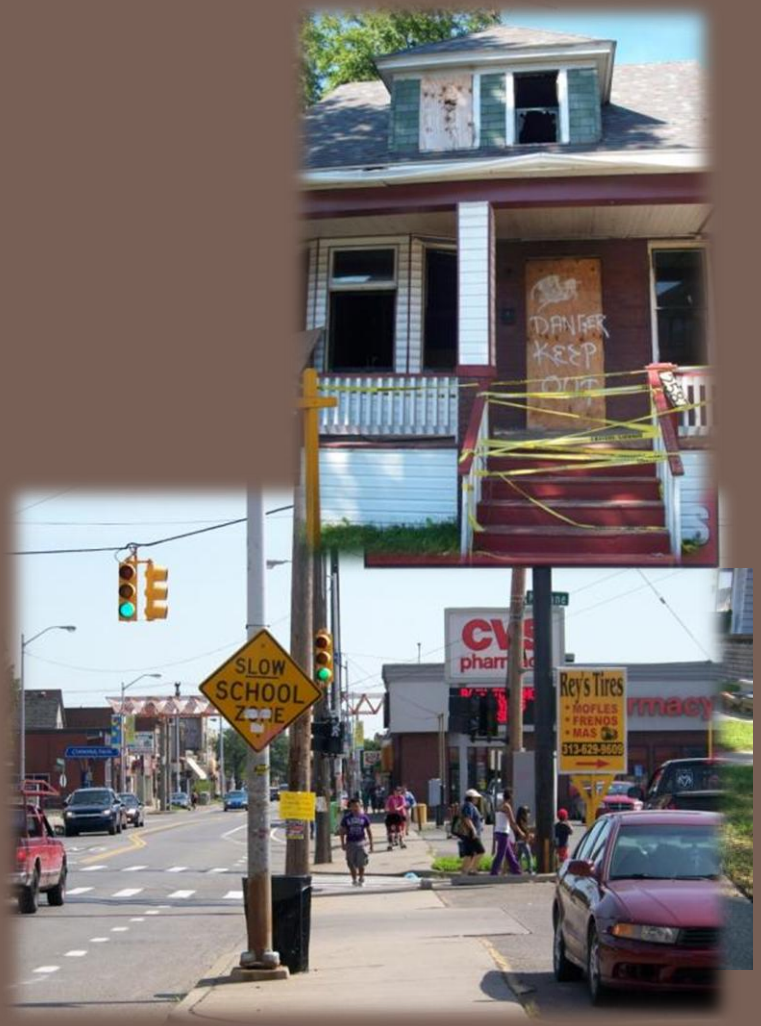
Should include…

- School officials
- Parents
- Students
- Police
- Government
  - City / Village
  - Road Commission (Township)
  - Michigan Department of Transportation
- Others?

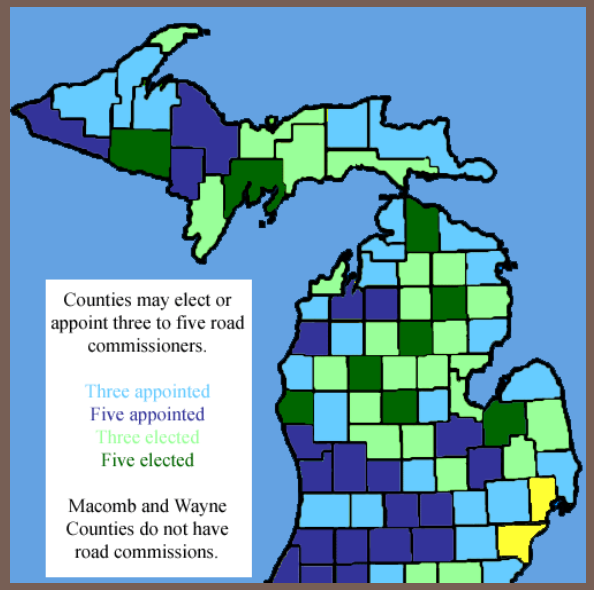


Assign Stakeholder Responsibilities

- School officials – Education, Encouragement, Enforcement and Evaluation
- Parents - Encouragement
- Students - Encouragement
- Police – Education, Encouragement and Enforcement
- Government - Engineering
  - City / Village
  - Road Commission (Township)
  - Michigan Department of Transportation
- Others?



Local / County / State Government

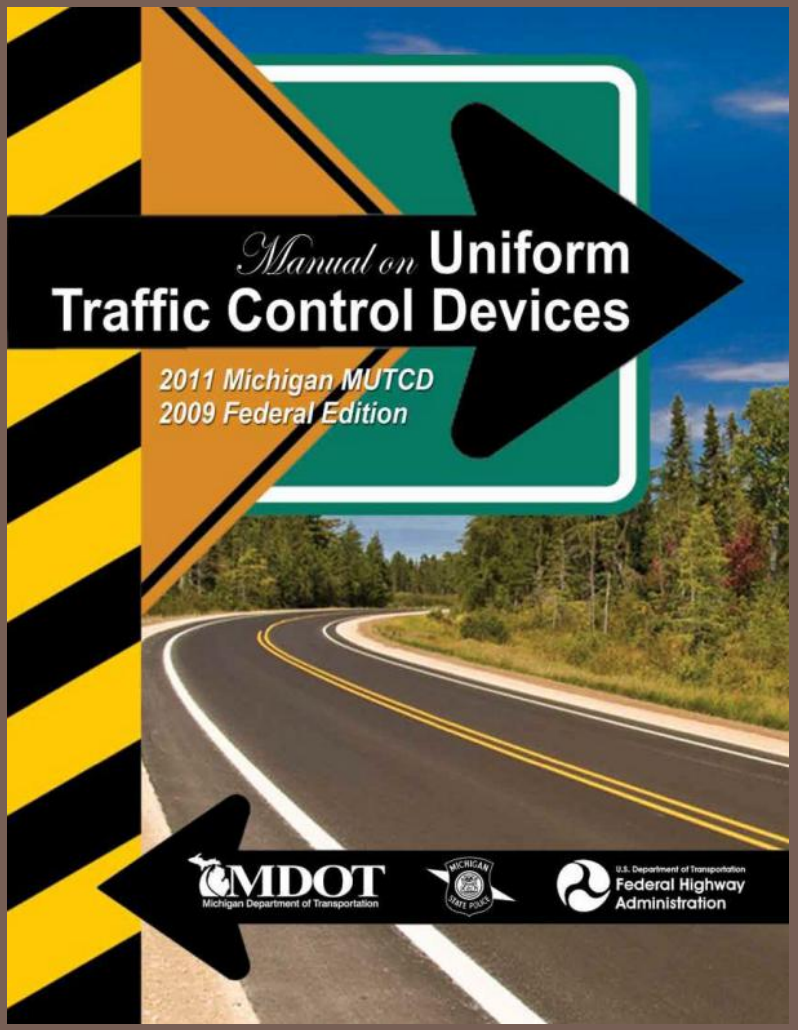


- Get them involved early in the process, why?
  - May have plans in place
  - Describe processes that are needed
  - Provide information on funding
  - Provide information on Ordinances / Regulations
  - Will know jurisdiction and who to involve
  - Help you get information you may need
    - Traffic Counts
    - Speed Studies
  - Advice on Permits, inclusion in TIP / STIP
  - Take over part of the implementation…

Guidelines to be aware of…

2011 Michigan Manual Uniform Traffic Control Devices (MMUTCD)

- Traffic Signals
- Signs
- Pavement Markings
- Located: http://mdotwas1.mdot.state.mi.us/public/tands/plans.cfm



Guidelines to be aware of…

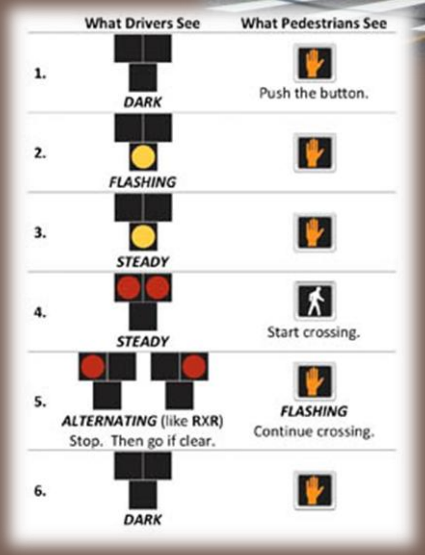
Traffic Signals and 4-Way Stop Signs

- "Warrants" need to be met
- Need to have a minimum amount of traffic
- High number of crashes
- High Pedestrian volumes

Guidelines to be aware of…

HAWK Signals

- Alternative to full traffic signals
- Still need to have a minimum pedestrian volumes



Guidelines to be aware of…

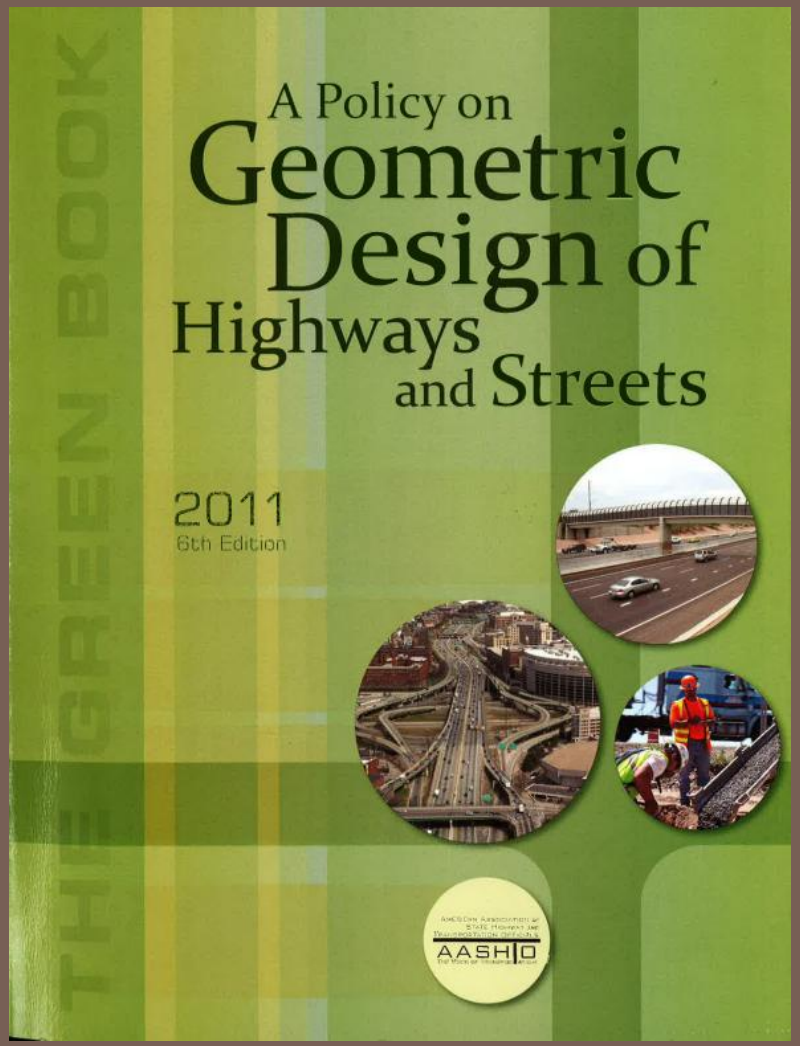
American Association of State Highway and Transportation Officials (AASHTO)

A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011, commonly referred

to as “the Green Book,” contains the current design research and practices for highway and street

geometric design.

https://bookstore.transportation.org/item_details.aspx?id=1919

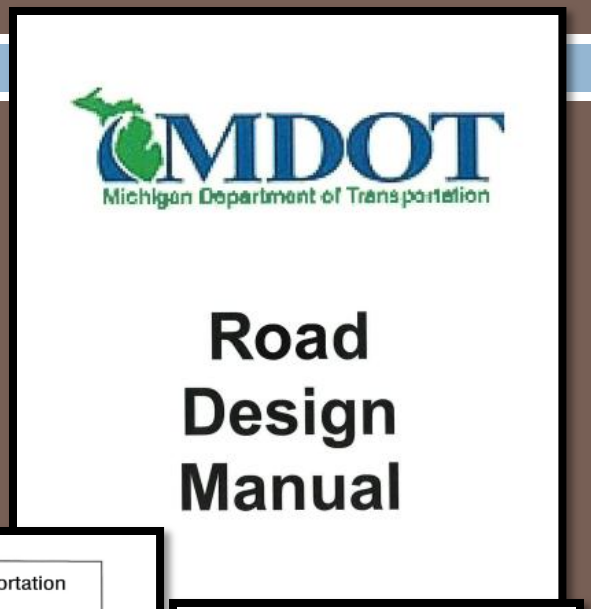


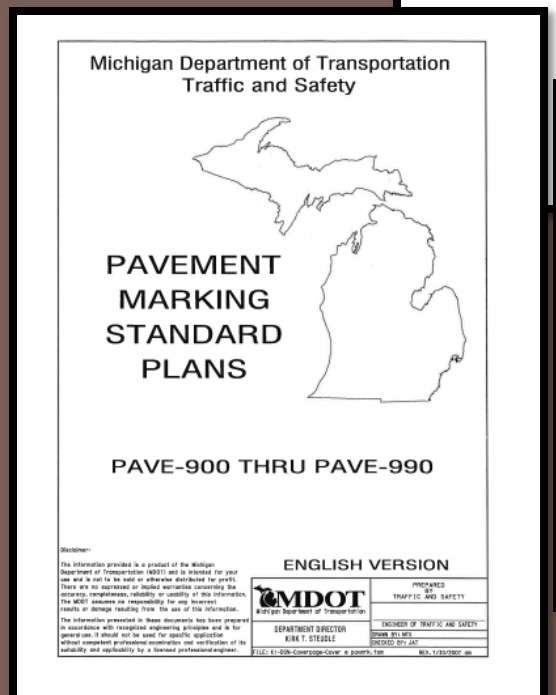
Guidelines to be aware of…

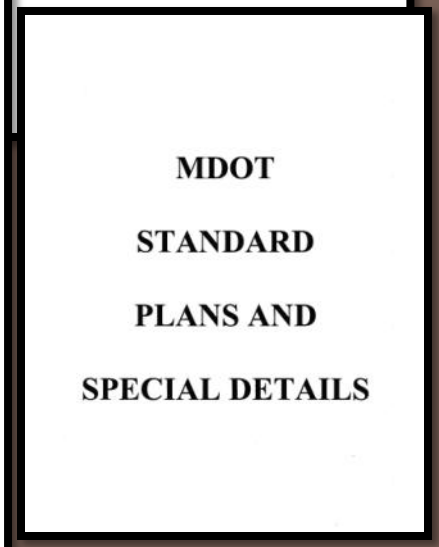
MDOT Design Guidelines

- Provides additional information on intersection, roadway, and freeway design
- Pavement Marking
- Roadway Signs
- High Community Use

http://mdotwas1.mdot.state.mi.us/public/design/englishroadmanual/



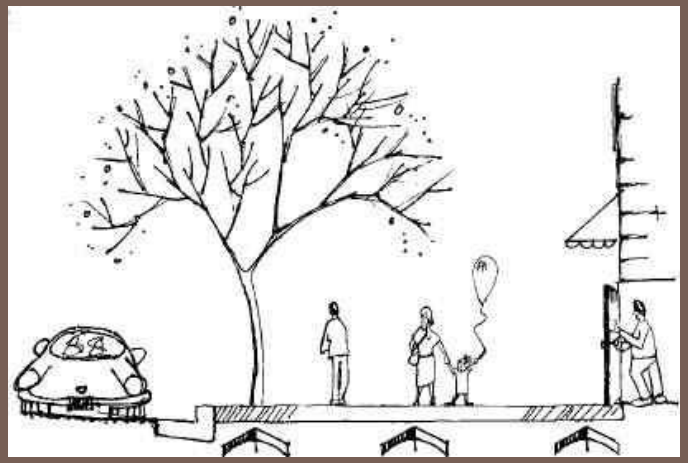


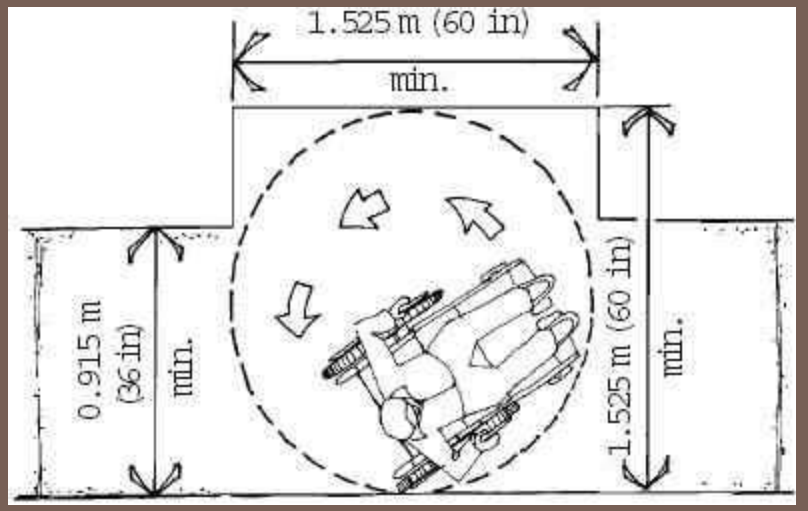


Guidelines to be aware of…

Local Design Guidelines

- Can differ from Federal and State guidelines
- May have wider sidewalk standards
- May have different mid-block crossing standards



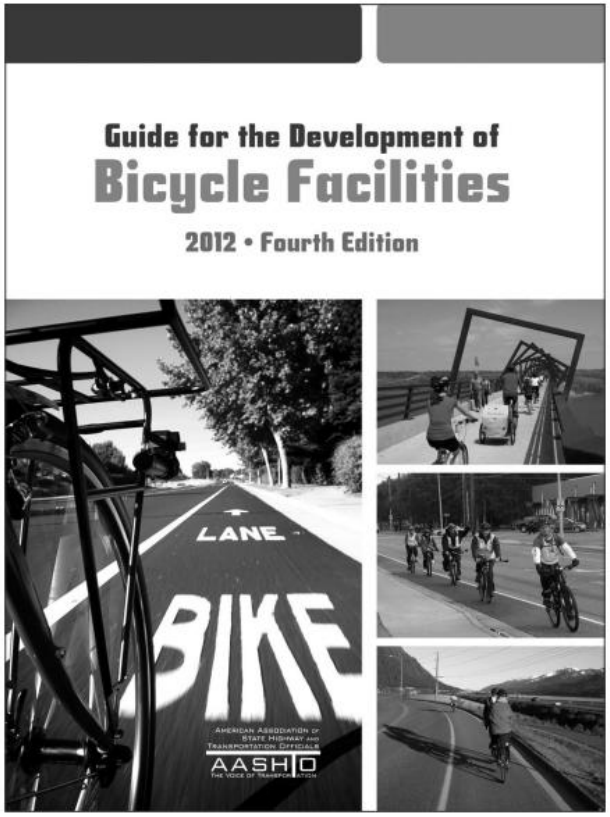


Guidelines to be aware of…

AASHTO Guide for the Development of Bicycle Facilities, 4th Edition (NEW!)

- Presents sound guidelines that result in facilities that meet the needs of bicyclists and other highway users. Sufficient flexibility is permitted to encourage designs that are sensitive to local context and incorporate the needs of bicyclists, pedestrians, and motorists.

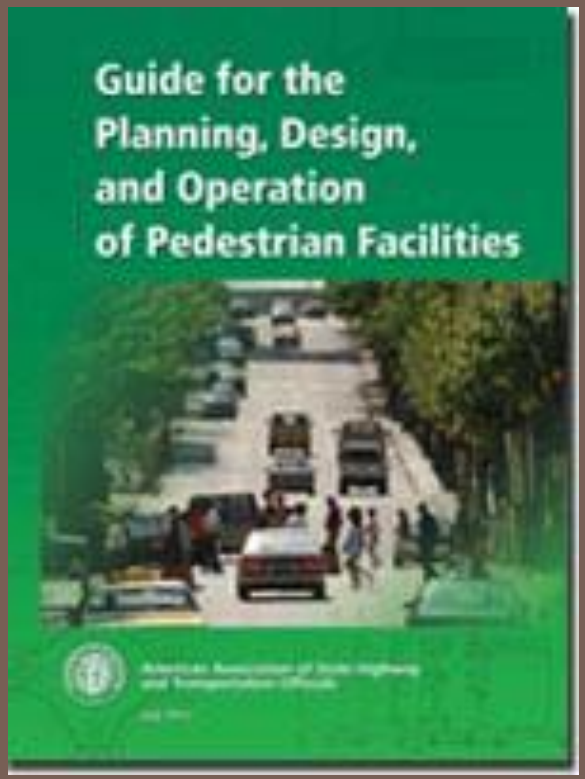
https://bookstore.transportation.org/collection_detail.aspx?ID=116



Guidelines to be aware of…

AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities

- This guide focuses on identifying effective measures for accommodating pedestrians on public rights-of-way. Appropriate methods for accommodating pedestrians, which vary among roadway and facility types, are described in this guide.
- https://bookstore.transportation.org/collection_detail.aspx?ID=39



Traffic Calming

- #1 Complaint received in residential areas are about speeding
- People will drive what they are comfortable driving
- Usually first request is for four-way stop signs
- Traffic calming is a strategy to reduce speeds along a corridor through the three “E”s
  - Engineering
  - Education
  - Enforcement

Traffic Calming – 4-Way Stop? NO!

- 70 Technical Papers on the effects of multi-way stop signs on speed
- *The research found that, overwhelmingly, multi-way stop signs **DO NOT** control speed except under very limited conditions.*
- *Unwarranted Stop signs can actually **INCREASE** speeds due to people making up perceived lost time*
- Safety of pedestrians is **DECREASED** at unwarranted multi-way stops, especially small children.

Traffic Calming – What can be done?

- Street Narrowing
- Traffic Chokers
- Sidewalks and Other Pedestrian Solutions
- Traffic Diverters
- Neighborhood Street Design
- Speed Humps
- On-Street Parking
- Roundabouts
- One Way Streets
- Neighborhood Speed Watch

Some Typical SRTS Engineering Recommendations

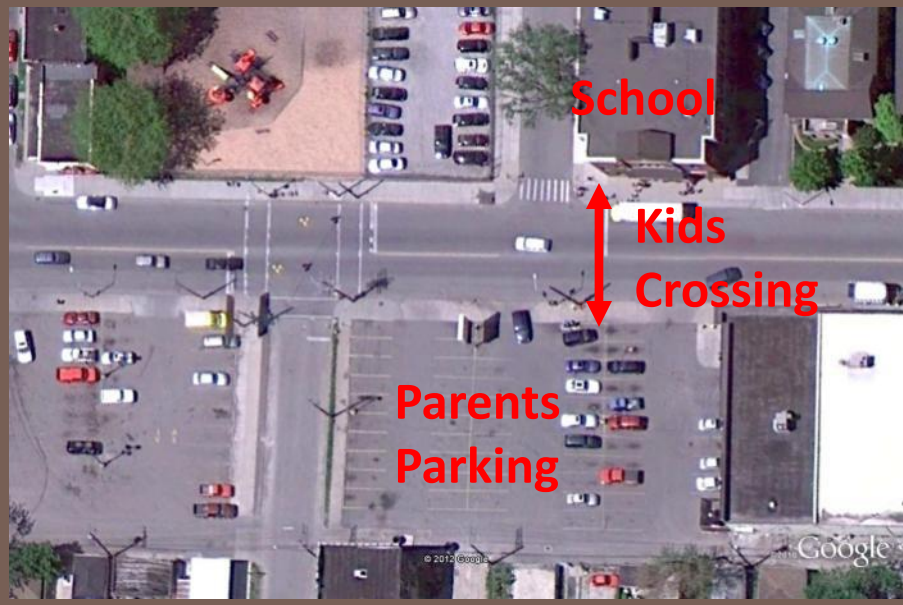
- Complete / Add Sidewalks
  - Things to consider: What is the minimum sidewalk width required? Are you connecting to an intersection? Are there any elevation challenges? Are there any other barriers? Can it be included in the existing right-of-way?
  - What to include when considering: cost of the engineering design, construction and possible right-of-way easement

Some Typical SRTS Engineering Recommendations

- Marked Unsignalized Pedestrian Crosswalks
  - Things to consider: Where are children crossing now? Is it unsafe? Where would you like them to cross? If you put it there, would they cross there?
  - What to include when considering: paint for the crosswalks, ADA ramps on either side of the crosswalk, signs at and possibly before crosswalk
  - What is the law? Pedestrians have right-of-way ONLY in crosswalk, not on the sidewalk

Some Typical SRTS Engineering Recommendations

- New Traffic Signal
  - Things to consider: What are the traffic volumes, crash history, number of pedestrians and bicycles crossing?
  - What to include when considering: cost of the traffic signal, may need to upgrade curb ramps to ADA standards, pedestrian push buttons
  - What about a HAWK Signal?
  - Cost? $100,000



Some Typical SRTS Engineering Recommendations

- Add Countdown Signals to Existing Signal
  - Things to consider: Are there currently pedestrian signal heads? How old is the traffic signal controller? Does the intersection already have ADA ramps?
  - What to include when considering: cost of the pedestrian signal head, may need to upgrade curb ramps to ADA standards
  - Cost? Could be as low as $6,000 if there are existing pedestrian signal heads

Some Typical SRTS Engineering Recommendations

- 4-Way Stop Intersection
  - Things to consider: What are the traffic volumes, crash history, number of pedestrians and bicycles crossing?
  - What to include when considering: cost of the signs and also additional paint for the STOP bars, parking will be limited in front of intersection
  - Cost? Minimal

Questions?

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INCREASING PARTICIPATION AND EXCITEMENT FOR SRTS

Jennifer Pyrz, PE
St. Thomas Aquinas
Parsons Brinckerhoff

Agenda

Tools for increasing participation and excitement

- Inviting Media
- Tracking Progress
- Including the Community
- Getting Creative

Inviting the Media

- Bring in many voices to share the message
  - Media is looking for a fresh message
  - Scale is a media draw
  - More points of view bring fresh perspectives and broader appeal
  - Shared lessons learned

Sharing the Message

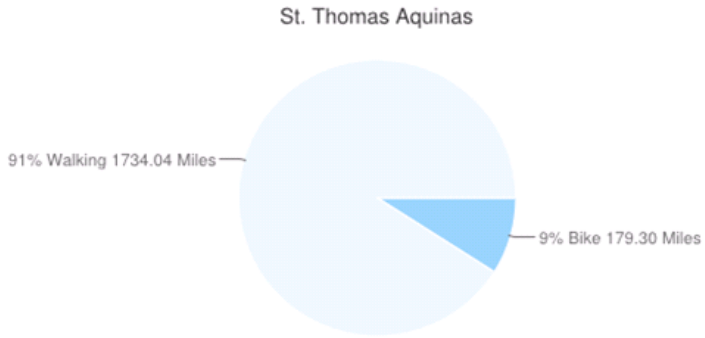
- Not just publicity for publicity's sake but for…
  - Encouraging more schools / communities to participate
  - Encouraging students to walk/bike
  - Bringing skeptics on board
  - Supplementing classroom activities
  - Recruiting volunteers

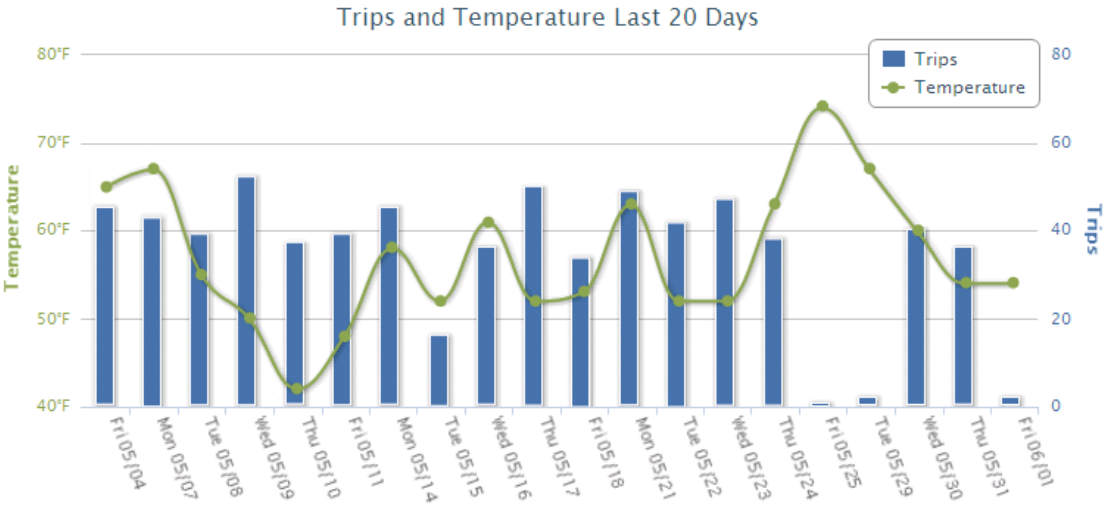
Tracking Progress

STA.Active4.me Home Contact Register Statistics

St. Thomas Aquinas Summary | Teacher | Grade | Students

Trips	#Users	Miles	CO2	Gal	Cal	$ Gas
2426	89	1913.34	1,705 lbs	88.8	76,534	373.03





Tracking Progress

STA.Active4.me Home Contact Register Statistics

32,732 lbs of CO2 Averted

Way to go St Thomas Aquinas Tigers!!

More statistics »

Register Now!

Are you ready to scan? Register now to receive a scan tag and retractable reel for your backpack! Make those miles count. Every time you walk or bike to school your miles will be logged. Track you distance, CO2 and gas savings, and compete against others for fun prizes!

Register »

School Buses are Walking

Walking school buses are in operation on five routes - most operate 5 days a week. Want to walk to school with a group of STA students and a responsible parent or too? Check out www.staindy.org/SRTS for maps, schedules, and more great information!

Be a part of the fun!

Do you love walking and biking too?? We are always looking for Safe Routes to School Committee members, walking school bus 'drivers' and special event help! Contact Jennifer Pyrz at pyrz@pbworld.com to volunteer.

Privacy | Email

Challenges…

Neighborhood Walk to School Challenge!

- Invite other schools to participate and compete for a fun prize
- Joint planning committee to plan the event
- 1 day, 1 month, 1 year – up to you!
- Issue joint press release
- Coordinate involvement from police department, donors, etc

Neighborhood Walk to School Challenge

- Solicit donations for ALL participants
- Make a trophy!
- Find someone exciting to present it.

Including the Community

When and How?

- Special events
- Routine tasks (sidewalk clearance from trash cans, snow)
- Major infrastructure projects

Including the Community

WHO?

- Different schools
- Neighboring or sister cities
- Neighborhood organizations
- Community and public health organizations
- Police Department
- Political appointees

Invite others to become part of the fun

- US Secretary of Transportation
- Our congressman and Mayor
- A bike advocacy group
- Mayor's Office of Sustainability representatives
- Parks Director
- Department of Public Works employees
- League of American Bicyclists president
- Local bike shop owners

Invite others to become part of the fun

- What are the resources in your neighborhood?
- Who are the local celebrities?

For us…

- Local University basketball players and their mascot!
- High School Cheerleaders
- Local businesses
- Local hospital
- Grandparents

Getting Creative

Keep it fun!

Questions?

Jennifer Pyrz, PE

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St. Thomas Aquinas SRTS Coordinator

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