

Making the Case for Healthy Planning & Initiatives

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Counties Served:

Alexander, Cabarrus, Catawba, Cleveland,
Gaston, Lincoln, Iredell, Mecklenburg,
Rowan, Stanly & Union



A North Carolina Safe Routes to School Project



A PARTNERSHIP BETWEEN NC DEPARTMENT OF TRANSPORTATION AND NC DIVISION OF PUBLIC HEALTH

What is Safe Routes to School?



“Safe Routes to School (SRTS) is a national and international movement that is changing communities and making children healthier by getting children to use their own power to get to and from school.” *(ChangeLab Solutions)*



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NC's Safe Routes to School Program

- Started in 2005 using USDOT transportation funding
- Housed at NCDOT Bicycle & Pedestrian Division
- NCDOT State Coordinator (Ed Johnson)
- Funds infrastructure and non-infrastructure grants
- Focuses on grades K-8 and projects within 2 miles of schools



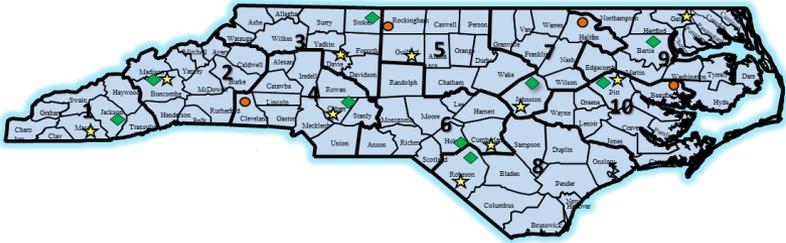
NCDOT's Division of Bicycle and Pedestrian Transportation (DBPT) is one of the oldest programs of its kind in the nation, established in 1973. DBPT seeks to integrate bicycle and pedestrian safety, mobility and accessibility into the overall transportation program through engineering, planning, education and training.

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NC Active Routes to School Project



- Grant funded from 2013 - 2019
- A project of the NC Safe Routes to School Program
- Unique partnership between [NC Department of Transportation](#) and [NC Division of Public Health](#)
- 10 Regional Coordinators
- Aligns with local initiatives, collaborates directly with many partners
- Focused on non-infrastructure strategies



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Active Routes to School Goals

- Increase the number of elementary and middle school students who safely walk and/or bike to school
- Promote and encourage physical activity at school when it's too far to walk or bike
- Increase amount of public use of facilities for physical activity



Active Routes to School Activities

We work with partners in our communities to increase:

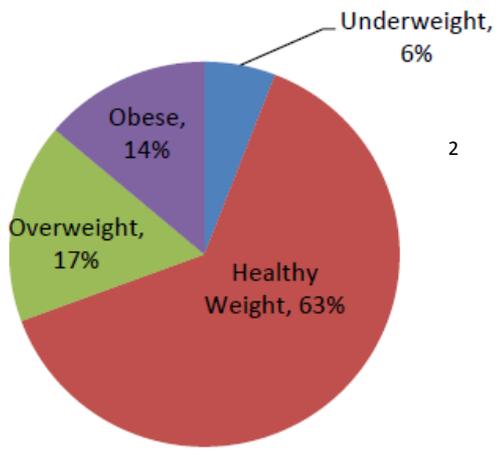
- 1) **awareness** about the importance of having Safe Routes to School
- 2) the number of **programs** that encourage walking and biking to school and at-school
- 3) **trainings** on walking and cycling safety
- 4) Encouragement on **implementing** Safe Routes to School events and activities
- 5) the number of **policies** that encourage safe walking and biking by students
- 6) the number of **safety features** near schools, like sidewalks, crosswalks and bike lanes.



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Healthy Planning = Cultural Shifting

North Carolina Children ages 10-17, by Weight Status ⁵



Weight status based on BMI-for-age percentile

NC Child Health Statistics

- **Childhood obesity is putting today's youth on a course to potentially be the first generation to live shorter, less healthy lives than their parents.**
- North Carolina has the **23rd highest** childhood obesity rate in the nation.¹
- **Nearly one out of three (31%) children ages 10-17 in North Carolina is overweight or obese.**²
- Nearly **one out of three (32%)** children ages 2-4 who participate in the Supplemental Nutrition Program for Women, Infants and Children (WIC) in North Carolina is overweight or obese.³
- **Childhood asthma, increased & earlier onset diabetes, and heart disease all continue to rise**



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Why Safe Routes to School? It's Healthy



Image: David Boraks, DavidsonNews.net

- Helps children get more daily physical activity, which:
 - Helps build strong bones, muscles & joints
 - Decreases risk of obesity, Type 2 diabetes, heart disease, cancer and stroke
 - Reduces incidence of childhood asthma
 - Reduces feelings of depression, anxiety and promotes psychological well-being
- Gets kids in the habit of getting regular exercise
- Good for parents, too!

Why Safe Routes to School? It Leads to a Cleaner Environment

Reduces Air Pollution (particularly around schools)

- Fewer car trips
- Fewer buses on the road
- Less pollutants
 - Ground-level ozone
 - Nitrogen oxide
 - Particulate matter (dust, soot, smoke, dirt)



Why Safe Routes to School? It Improves Safety

Through Safe Routes to School activities:

- children & adults learn safe walking & bicycling skills
- crime—and the perception of a lack of safety—can be decreased
- drivers around schools pay better attention, and slow down
- accessibility barriers & other physical hazards can be reduced



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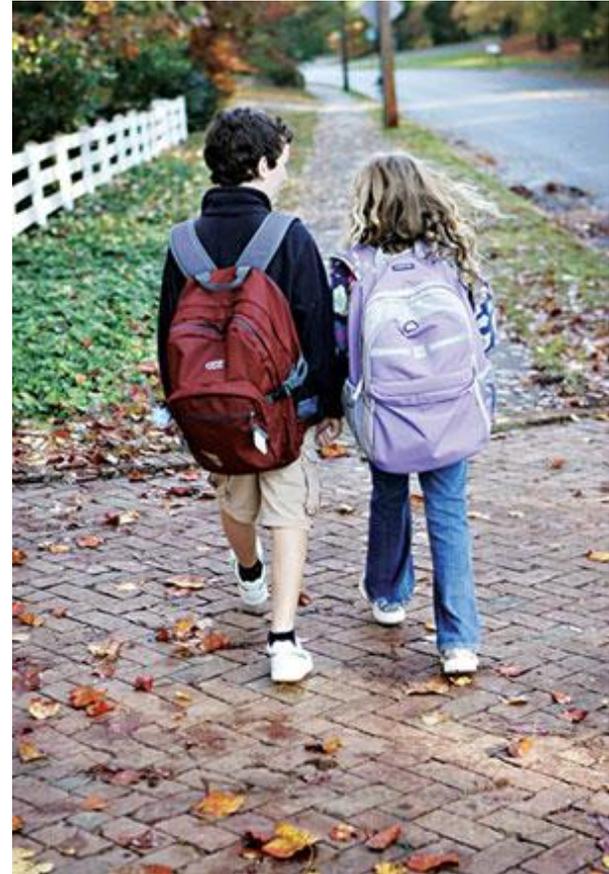
Why Safe Routes to School? It Benefits the Entire Community



- Less Traffic Congestion near schools
- Stronger Sense of Community
- Safer Streets
- Lower Costs
- Improved Accessibility
- Economic Gains

Why Safe Routes to School? It's Fun!

- Establishes a sense of independence & adventure
- Children (and parents) connect with the neighborhood, nature, their community
- Social time without the usual distractions



Elements of Safe Routes to School

The 5 E's + 1:

- Education
- Encouragement
- Enforcement
- Engineering
- Evaluation
- *E*quity



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ARTS Resources



1. Programmatic expertise, guidance & literature
2. State and national teamwork
3. Technical assistance MOUs for training, planning & curriculum development
4. School event & program incentives



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Let's Go NC! is endorsed by the
NC Department of Public
Instruction.



Appendix E Standards of Learning



The following NC Standards of Learning are addressed by the core lesson content, skills-based education activities, and balanced curriculum options that are given in *Let's Go NC!*

Essential Standards

Physical Education

Motor Skills

- E.K.MS.1.1: Execute recognizable forms of the basic locomotor skills
- PE.1.MS.1.1: Execute recognizable forms of all eight basic locomotor skills in different pathways, levels, or directions.
- PE.2.MS.1.1: Execute combinations of locomotor skills in different pathways, levels, or directions.
- PE.3.MS.1.2: Apply basic manipulative skills while moving/traveling.
- PE.3.MS.1.3: Execute mature form when combining locomotor skills with changes in direction.

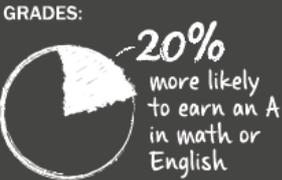
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Why is active transportation to and from school important?

active kids learn better

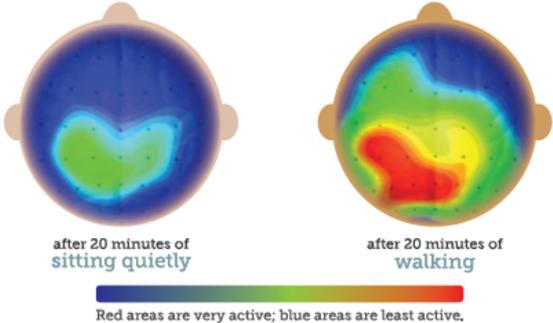


physical activity at school is a win-win for students and teachers



physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:



MORE RESULTS:

after 20 minutes of physical activity:
students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months:
memory tasks improved 16%



SOURCES: Donnelly J.E. and Lambourne K. (2011). Classroom-based physical activity, cognition, and academic achievement. *Prev Med*, 52(Suppl 1):S36-S42. Hillman C.H., et al. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*, 159(3):1044-1054. Kamijo K, et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. *Dev Sci*, 14(5):1046-1058. Kibbe D.L, et al. (2011). Ten years of TAKE 10!: Integrating physical activity with academic concepts in elementary school classrooms. *Prev Med*, 52(Suppl 1):S43-S50. Nelson M.C, and Gordon-Larsen P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. *Pediatrics*, 117(4): 1281-1290.



Kannapolis City Schools Partnership

Kannapolis City Schools

- 5,500 students
- 9 schools (1 HS; 1 MS; 1 IS; 5 ES; 1 HS)
- 83% graduation rate
- \$8,700 per pupil expenditure
- 41% Caucasian; 28% A-A; 24% Hispanic; 5% Multi-Racial



Racial and Ethnic Approaches to Community Health (REACH) Safe Routes to School Initiative

Safe Routes to School (SRTS) program creates an opportunity for schools to make walking and bicycling to and from school safer and more accessible. SRTS has been known to enhance overall well-being, ease traffic congestion near the school and car rider lines, as well as improve community members' overall quality of life. With acknowledgement that each district or school is different, SRTS specifically addresses each locations' needs and starting points in order to determine an action plan.

Action Plans help provide persuasive evidence of the need for projects, programs and policies to enhance the safety and health of students walking or biking. Recommendations are not restricted to routes to and from school, rather they are comprised of a set of at-school and to-school strategies aimed at enhancing the entire community's ability to safely walk and bike.

Since each Safe Routes to School Action Plan is distinct to the particular community and school, the most successful programs use the expertise of a school-based task force or leadership team to create a set of implementation recommendations for each school and community. The action plans address the 5 E's of the program:

1. **Engineering:** Creating operational and physical improvements to the infrastructure surrounding schools that reduce speeds and potential conflicts with motor vehicle traffic, and establish safer and fully accessible crossings, walkways, trails and bikeways.
2. **Education:** Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills and launching driver safety campaigns in the vicinity of schools.
3. **Evaluation:** Monitor and document the outcomes, attitudes and trends through the collection of data



cycling and to generate enthusiasm for walking and bicycling. The program is obeyed in the vicinity of schools and student safety patrols. The program is designed to offer four different types of interventions: Don Kostelec, one of the REACH project coordinators in Cabarrus County,



City of Kannapolis 'Discover A Healthy Life'

City of Kannapolis (Cabarrus)

- 44,000+ population
- 20th largest city in NC
- 31.94 sq. miles
- 2,450+ businesses
- \$39,275 median income (lower than NC avg.)
- 79% HS graduate/17.5 college degree
- 68% Caucasian; 20% A-A; 12% Hispanic/Latino; 1% Asian



JOIN THE CABARRUS HEALTH ALLIANCE & CITY OF KANNAPOLIS AT THE BALLPARK!

Get Healthy Kannapolis
NIGHTS AT THE BALLPARK

Fred L. Wilson Elementary School

The Ridges Apartments are just west of the school but there are no pedestrian connections from this high density area to the school due to a narrow road and bridge/culvert over Irish Buffalo Creek. This area is within the Parent Transport Zone and appears to be an area that would benefit with more direct access to the school via a pedestrian access route. The street is a rural cross section, which makes a conventional curb gutter and sidewalk improvement more costly.

Current Conditions. The unmarked crosswalk link the sidewalks on either side of the westernmost egress point from the school are situated so that motorists encroach on the pedestrian route. Pine Street is a two-lane road fronting the school and to the west there is a soft shoulder between the edge of pavement and a guardrail over the culvert.

Post-Recommendations Conditions: The recommended improvements include a shoulder and extruded curb treatment along the south side of Pine Street to the entrances to the housing complex west of the creek. This includes a short connection from the existing sidewalk west of the school entrance to this pathway.

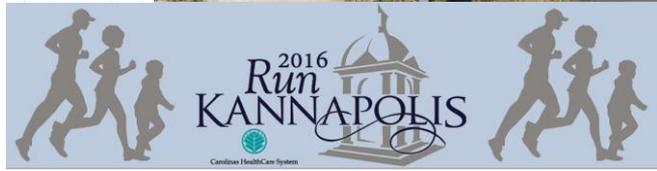
Parent transport zone shown in dark green) around Fred L. Wilson Elementary. The area west of the school is the focus of recommended improvements.



Looking west from School Entrance



Looking west at Tiffany Drive



International Walk To School Day



Davidson Green School & Davidson Elementary School



National Bike To School Day



Grand Oak Elementary School





Thank you!

George A. Berger, AICP

Active Routes to School Coordinator, Region 4

Cabarrus REACH Safe Routes to School Coordinator

**2016 Walk to School Day is
October 5th!!**

**2017 Bike to School Day is
May 10th!**



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