New E’s for 21st Century Street Design

Transportation Bonanza 11
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Ciara Schlichting, AICP
The Three E’s

Engineering. Education. Enforcement.
WINNING the WAR on

TRAFFIC ACCIDENTS

By Paul C. Hoffman
President, The Automobile Safety Foundation

WHILE vast strides have been made toward reducing the rate of highway accidents, this lowered rate must be even further reduced, while more people ride more miles each year. Here is a paradox challenging the automotive industry today.

Competition such as that in street at left can be eliminated by education, enforcement and engineering. Above, traffic educators try to show the dangers

In other words, we must go on saving lives and, in building America back to normal prosperity, we will actually expose more lives to the danger of highway accidents.

In 1935 the accident rate was approximately eighteen per 100,000,000 vehicle-miles. In 1936 it was reduced to sixteen and four-tenths. In 1937 it was fifteen and eight-tenths and in 1938 it reached the remarkable low level of twelve per 100,000,000 miles. These were 5,000 fewer fatalities last year and, assuming a proportionate reduction in injuries and property damage, a saving of approximately 200,000 injuries and 230,000,000 in cash loss.

This work was accomplished by a careful and well-administered program of Education, Enforcement and Engineering, the now famous three E's of safety. Engineering concerns the work of providing better mechanisms for automobiles and better machinery for the roads on which these automobiles operate.

Many learned American minds are deep in the work of improving our highway system. From the national capitol to the most obscure prairie county, highway directors are devoting broader, safer, more useful roads and streets and these roads are being built as swiftly as money and machinery will allow. It will take several years to achieve the perfect national highway system, but it is on the way.

In 1939 there were registered in the United States approximately 100,000 motor vehicles.

During that year they accounted for approxi-...
“Vast strides have been made towards reducing the rate of highway accidents . . . This work was accomplished by a careful and well-administered program of Education, Enforcement and Engineering, the now famous 3 E’s of safety.”

Paul Hoffman, President of the Automobile Safety Foundation
(also the President of Studebaker)
First edition of the MUTCD 1935
The conventional approach of relying on engineering, education, and enforcement is no longer enough to ensure that our streets meet the needs of the 21st century.
The New E’s

Ethics. Equity. Empathy.
ETHICS

“Hold paramount the safety, health and welfare of the public.”

- Engineer’s Code of Ethics
Is it ethical...

For a transportation consultant to bribe a client to win work?

- Yes
- No
- It depends
Is it ethical to...

To prioritize a faster travel time for one person over the safety of another person?

- Yes
- No
- It depends
Is it ethical…

To put a bus stop on a 4 lane road with 16,000 vehicles per day, but not create a safe way for people to access it?

- Yes
- No
- It depends
On the other side of Sears...
Is it ethical to put a bus stop on a 4-lane road with 16,000 vehicles per day, but not create a safe way for people to access it?

- Yes
- No
- It depends
From redlining to urban renewal to Jim Crow laws, many communities have faced unfair burdens because they were different from those in power. Those historical inequities still impact those communities today. Our work must actively seek to reverse those inequities and invest in these places in a way that does not displace them.
My best idea for making our streets safer is...

**Put more stop lights**

Turn on the 8:00 p.m. street lights again!

My best idea for making my street safer is...

**Curb extensions, zebra crosswalks, and ped lights at intersections between traffic lights**
(IN)EQUITY

TOOLE DESIGN
Historic Neighborhood
Access to Jobs & River

Dowling Ave
36th Ave
35th Ave
34th Ave
33rd Ave
Lowry Ave
I-94 Removes Access to Jobs and River
I-94 Removes Access to Jobs and the River
Engage with the public on their terms
**Equity conversation guide**

Do the *external* work!

- Know the history and understand the existing conditions
- Develop plan recommendations that promote equity
  - Demand analysis
  - Performance metrics
  - Project prioritization
- Make equitable teaming arrangements

[Visit the website](https://tooledesign.com/equity/)
Equity conversation guide

Do the internal work!

- Leadership/Initiatives/Task Forces
- Trainings
- Hiring and retention
- The power of the dollar

https://tooledesign.com/equity/
Empathy

“Empathy—listening to others openly and with compassion—allows us to truly understand people’s needs and set aside our own biases. Empathy is essential to accomplish our work in a way that’s centered on the people who use our transportation systems each day. And that’s the point, right?”
Empathy is **not** Sympathy

- Empathy is feeling another person’s pain
- Empathy fuels connection
- Empathy builds trust

- Sympathy is feeling sorry for someone’s pain
- Sympathy drives disconnection
- Sympathy leads to pity and lack of understand of someone’s situation
Human-centered Design requires Empathy

“I can’t come up with any new ideas if all I do is exist in my own life.”

Emi Kolawole, *The Field Guide to Human-Centered Design*

Empathy is…

- Capacity to step into other people’s shoes
- Understand their lives
- Solve problems from their perspective
- Leaving behind preconceived ideas and old ways of thinking
JUNE 11, 2019 | BY BEN PALMER

COUNTY COUNCIL MEMBERS UNDERTAKE TRANSIT CHALLENGE

Five members of the County Council are participating in public transportation like the Ride On, Metro, or carpool. Albomoz, Evan Glass, Will Jawando, and Hans Riemer participating.

The council members are sharing their public transit exp and joining them.
Engaging people with vision impairments
Engaging people with vision impairments

Small Group Discussion - Intersections

What are the pros and cons of the bikeway bending in or out at intersections? Does your group have a preference?

- Round robin discussion in small groups
- Design team consultant will record your discussion on a worksheet
- Share out

Graphics: Toole Design Group
Engaging people with vision impairments

Design Options Needing Input

- Separation between sidewalk and bikeway at the bus stop
  - Cobblestones or tactile directional indicators
- Elevation of pedestrian crossing of bikeway
  - Flush sidewalk level crossing or roadway level crossing
Engaging people with vision impairments
Think about your values

Ciara Schlichting, AICP

Resources on the 3 New E’s:
• Blogposts
• Podcasts
• Conversation guides

www.tooleddesign.com