

Why Do They Always Say “No”?

Understanding Traffic Engineers


*****This is not an official NCDOT presentation.*****

The Purpose of Traffic Engineering

Getting people where they are going.

Getting them there safely.

Getting them there efficiently.

An orange speech bubble graphic with a white outline, containing the text "My Guiding Principles".

My Guiding
Principles

It's all about conveying
appropriate information.

It's all about gaps.

It's all about saying
“NO”!

Manual on Uniform Traffic Control Devices

for Streets and Highways

2009 Edition



The Manual on Uniform Traffic Control Devices



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The Manual on Uniform Traffic Control Devices

- **2009 Edition Chapter 1A. General**
- **Section 1A.01 Purpose of Traffic Control Devices**
- Support:
 - 01 The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety and efficiency by providing for the orderly movement of all road users on streets, highways, bikeways, and private roads open to public travel throughout the Nation.
 - 02 Traffic control devices notify road users of regulations and provide warning and guidance needed for the uniform and efficient operation of all elements of the traffic stream in a manner intended to minimize the occurrences of crashes.



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Section 1A.02 Principles of Traffic Control Devices

- *Guidance:*
02 To be effective, a traffic control device should meet five basic requirements:
 - A. Fulfill a need;*
 - B. Command attention;*
 - C. Convey a clear, simple meaning;*
 - D. Command respect from road users; and*
 - E. Give adequate time for proper response.*



Speed Limits

- The maximum safe driving speed is not necessarily the appropriate speed limit for a roadway.
- If a road is built for higher speeds, drivers will operate at higher speeds.
- It is difficult to control driver behavior with speed limit signs.





Speed Limits

Unposted Rural Roads
The statutory speed limit
is lesser of:

of 55 MPH

OR

Maximum Safe and
Reasonable Speed

Speed Limits

- **Factors for Determining a Speed Limit**
 - **85th Percentile Speed**
 - **Crash Patterns**
 - **Development Density and Type**





55 MPH Speed Limit



45 MPH Speed Limit



35 MPH Speed Limit



What Speed Limit?

Warning Signs





What's Missing from this Picture?



How about a “Trucks Entering Highway”
Warning Sign?



So, why is it not there?

Directional Signs





Pavement Markings

Pavement Markings



Pavement markings provide guidance.

Daytime and nighttime visibility



Pavement markings provide information.

Colors
Shapes
Words/Symbols



Pavement markings provide instruction.

Line types



Pavement Markings

- Pavement markings are difficult to maintain.
- Pavement markings can be difficult to see in inclement weather.
- Pavement markings are often less visible to drivers than one would think due to the angle between the markings and the drivers' eye.

Crosswalks



Direct pedestrians to appropriate locations to cross roadway.



Alert motorists to the possibility of pedestrians in the roadway.



Crosswalks A Matter of Perspective



Crosswalks A Matter of Perspective

