WELCOME TO

ENGINEERING JUDGMENT

AND

TORT LIABILITY ISSUES

Gary J. Holtmeyer, Jr. TEAMS 2025

23 Years at MoDOT Assistant Chief Counsel-Risk Management Gary.Holtmeyer@modot.mo.gov



LENS OF LIABILITY

ENGINEERS ARE GRRRRREAT!



ENGINEERIN' AIN'T EASY

Engineering routinely requires the setting of priorities and selecting the best way forward from multiple options where there is no single right answer.

ENGINEERIN' AIN'T EASY

Often you must balance budget restraints and politics to find the least expensive "reasonably safe" solution



SAFETY AND RISK

Two forces caught in perpetual motion

ENGINEERING JUDGMENT—PARTS



KNOWLEDGE

- Math
- Physics
- Geometry
- Properties of matter

PERSONAL EXPERIENCE• Rules of thumb



The *cultivated* capacity to make particular judgment calls resourcefully and reliably in any situation.



The cultivated capacity to make particular judgment calls *resourcefully* and reliably in any situation.



The cultivated capacity to make particular judgment calls resourcefully and *reliably* in any situation.



The cultivated capacity to make particular *judgment calls* resourcefully and reliably in any situation.

ENGINEERING JUDGMENT—PARTS



KNOWLEDGE

PERSONAL EXPERIENCE

EXPERIENCE OF OTHERS

ENGINEERING JUDGMENT—RESOURCES



ENGINEERING JUDGMENT—RESOURCES



The intent of this policy is to provide guidance to the designer by references to a recommended range of values for critical dimensions

Sufficient flexibility is permitted to encourage independent designs tailored to particular situations

ENGINEERING JUDGMENT—RESOURCES



Guidance—a statement of recommended practice in typical situations, with deviations allowed if engineering judgment or engineering study (see Section 1D.03) indicates the deviation to be appropriate

Option—a statement of practice that is a permissive condition and carries no requirement or recommendation

Support—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition

PUTTING IT ALL TOGETHER



Risk exists

Risk creates the potential for liability

PUTTING IT ALL TOGETHER



Risk and liability can be minimized by exercising engineering judgment, which includes relying upon your knowledge and expertise (your "rules of thumb") and generally accepted industry guidance, which are the "rules of thumb" generated by the knowledge and expertise of other professionals

GOING FURTHER



Create a repeatable process for when you exercise engineering judgment

Follow that process—every time

GOING FURTHER



Document your process Document your decision

Document what information you considered and what information you relied upon and disregarded and why

IF YOU REMEMBER TWO THINGS...



Professionals who exercise discretion in complex situations can disagree, and typically, disagreement does not create liability

IF YOU REMEMBER TWO THINGS...



Liability is likely when an engineer:

- does not have a process
- does not follow the process
- does not follow own guidance, policies, or rules
- does not consider industry guidance, policies, or rules

LIABILITY NEUTRAL LANGUAGE

Choose Each Word Carefully

Use liability neutral language in safety studies, research papers, policies and manuals

The words you use can create unintended liability or responsibility for you and your employer/ client

Better	Hazard	Problem
Clearly	Hot spot	Require
Concern	Imperative	Risky
Dangerous	Inadequate	Shall
Deficient	Insufficient	Should
Ensure	Mandatory	Тгар
Essential	Obstacle	Unsafe
Excessive	Poor	Worse

LIABILITY NEUTRAL LANGUAGE

Use words that give you flexibility

Choose Each Word Carefully

Use liability neutral language in safety studies, research papers, policies and manuals

Can	Application of engineering judgment
Consider	Roadside feature
Could	Object
May	If practicable
Guideline	Contributing factors
Guidance	Factors that may be considered
Normal	Candidates for shielding
Strategy	Pavement edge height differential
Toolbox	If feasible

LIABILITY NEUTRAL LANGUAGE

VS

Where hazards are within the clear zone, guardrail or barrier wall shall be provided at least 6 feet off the traveled way

Where objects are within the clear zone, guardrail or barrier wall should be considered



Thank you!



Gary.Holtmeyer@modot.mo.gov