



# SLiDeRule *for Buildings*

A new design tool called “*SLiDeRule*” is now available on-line at [www.constructionsliderule.org](http://www.constructionsliderule.org). *SLiDeRule* (Safety in Design Risk Evaluator) helps building designers assess the construction safety risk associated with their designs. As a building is being designed, architects and engineers can use *SLiDeRule* to:

- determine the level of safety risk associated with an entire building, a specific building system, or each of the many design elements within a building;
- compare prospective designs based on construction safety risk;
- learn about design features that increase and decrease the risk of injury; and
- create building designs that minimize the risk of construction worker injury.

The tool is free to use and intended for use by anyone involved in the design of buildings. By using *SLiDeRule*, hazards can be eliminated, safety risk reduced, and construction worker injuries and fatalities prevented.

## **How it Works**

*SLiDeRule* calculates the construction safety risk associated with up to 141 possible design elements within nine different building systems: foundation, structural frame, exterior enclosure, roof, interiors, fire suppression, plumbing, HVAC, and electrical.

For each design element included within a building’s design, the quantity of the design element is entered into *SLiDeRule* (e.g., the number of square feet of elevated floor slab). *SLiDeRule* then uses the entered quantities to calculate the safety risk associated with each design element, building system, and the entire building.

*SLiDeRule* calculates and reports a numerical risk value. A lower risk value indicates a safer design for construction workers who are constructing the building. The risk value for one design may then be compared to that of another design in order to select the best possible design for preventing construction worker injuries and fatalities.

*SLiDeRule* is based on the frequency of near misses and low, medium, and high severity injuries commonly associated with each design element. *SLiDeRule* also accounts for the amount of worker exposure to the hazards based on building size and design quantities.

## ***SLiDeRule* Development**

*SLiDeRule* was created by researchers in the School of Civil and Construction Engineering at Oregon State University. Research and development were funded in part by a grant from the National Institute for Occupational Safety and Health (NIOSH). For more information about *SLiDeRule*, please contact John Gambatese at [john.gambatese@oregonstate.edu](mailto:john.gambatese@oregonstate.edu).