

## Mark O’Neill, LLC Awarded Competitive Grant from the U.S. National Science Foundation

R&D funding accelerates the translation of results to impact

[Fort Worth, Texas], October 24, 2024 – Mark O’Neill, LLC has been awarded a U.S. National Science Foundation (NSF) Small Business Innovation Research (SBIR) grant for \$274,524 to conduct research and development (R&D) work on an ultra-bright traffic stripe to reduce nighttime traffic crash deaths and injuries on American highways.

The new traffic stripe has been shown in independent certified testing to be 968 times brighter than the latest traffic stripe standard from the Federal Highway Administration (FHWA). Most current traffic stripes use a century-old technology employing glass beads dropped into white paint to provide a modest level of retroreflectivity to return a small amount of light from approaching headlights to the driver and sensors in the vehicle. The new technology employs microscopic prisms molded into a thin polymer film to return a much larger amount of light from approaching headlights to the driver and sensors in the vehicle, thereby minimizing lane departure crashes on dark nights, even during heavy rainstorms.

“NSF accelerates the translation of emerging technologies into transformative new products and services,” said Erwin Gianchandani, NSF Assistant Director for Technology, Innovation and Partnerships. “We take great pride in funding deep-technology startups and small businesses that will shape science and engineering results into meaningful solutions for today and tomorrow.”

Mark O’Neill, the principal investigator for the small business, explained: “When fully developed and moved forward from the laboratory to the Nation’s highways, this new stripe can dramatically reduce the number of nighttime run-off-road crashes and the resultant fatalities and injuries. In recent years, traffic crashes have killed about 40,000 Americans each year. We hope to significantly reduce this number using modern technology which is a spinoff from our work for NASA.”

All proposals submitted to the NSF SBIR/STTR program, also known as America’s Seed Fund powered by NSF, undergo a rigorous merit-based review process. Once a small business is awarded a Phase I grant, it becomes eligible to apply for Phase II funding and additional supplements totaling up to \$2 million. To get started, startups or entrepreneurs submit a written Project Pitch to see if their technology idea could be a good fit for the program. To learn more about America’s Seed Fund powered by NSF, visit: <https://seedfund.nsf.gov/>

NSF has several programs that help accelerate the translation of research results to practice and provide pathways for researchers, startups, and aspiring entrepreneurs to move their ideas from the laboratory to the market and society. To learn more about how NSF helps unlock future technologies for national and societal impact, visit: <https://beta.nsf.gov/tip/latest>.

About the U.S. National Science Foundation's Small Business Programs: America’s Seed Fund powered by NSF awards more than \$200 million annually to startups and small businesses,

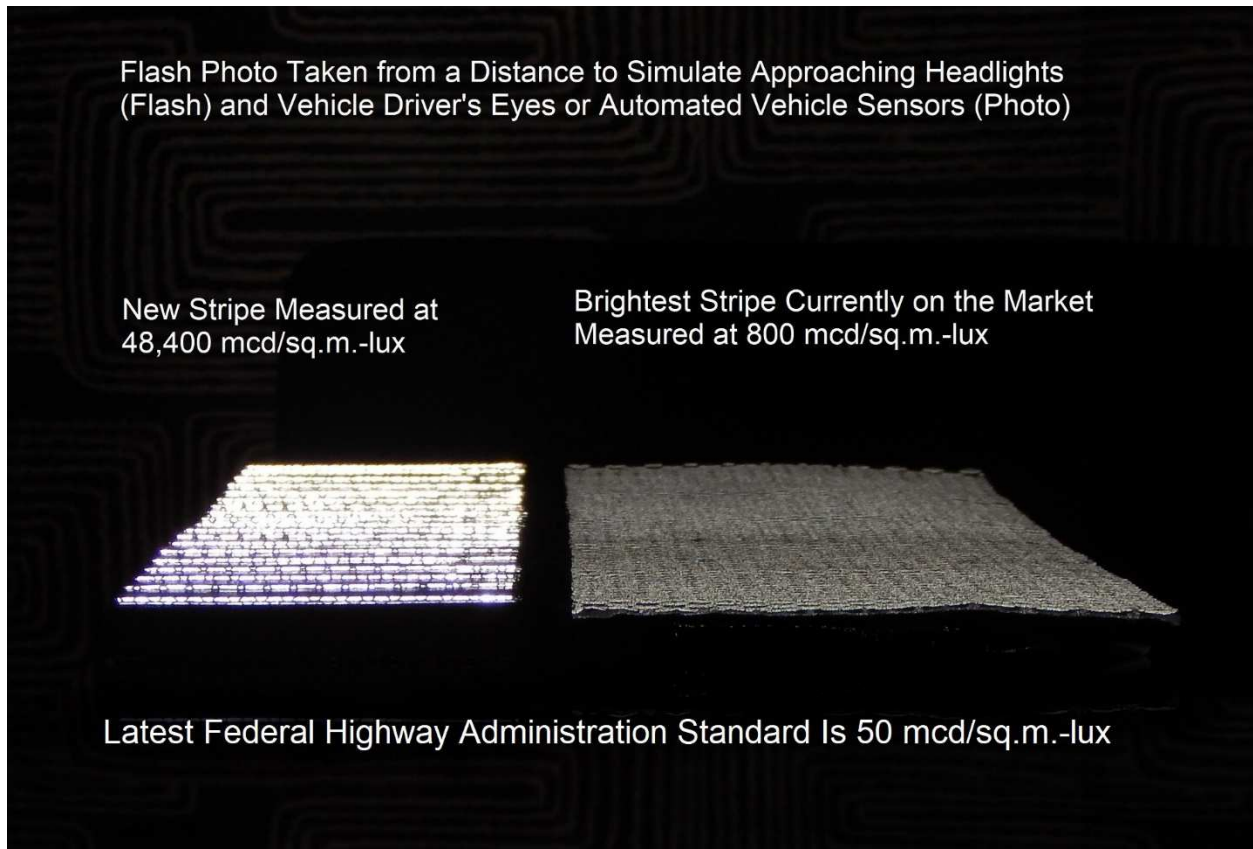
transforming scientific discovery into products and services with commercial and societal impact. Startups working across almost all areas of science and technology can receive up to \$2 million to support research and development, helping de-risk technology for commercial success. America's Seed Fund is congressionally mandated through the Small Business Innovation Research program. The NSF is an independent federal agency with a budget of about \$9.5 billion that supports fundamental research and education across all fields of science and engineering.

About Mark O'Neill, LLC: This 13-year-old small business in Fort Worth, Texas develops innovative technology for space applications and spinoffs for ground applications. The firm has had multiple successful contracts with NASA and leading aerospace firms. The ultra-bright traffic stripe is a spin-off from its work with NASA. Initial development of the new traffic stripe was funded by the Transportation Research Board (a part of the National Academies of Sciences, Engineering, and Medicine) in 2021-2022. This new NSF SBIR contract will enable the small business to move the new stripe forward toward mass production and on-the-road qualification. Four U.S. patents have been issued to the small business for different versions of the new traffic stripe. More information is available at [www.markoneill.com](http://www.markoneill.com).

A high resolution photo comparing the brightness of the new stripe to the brightest stripe currently on the market is available for download at the web address shown below:

[www.markoneill.com/Photo-for-press-release.jpg](http://www.markoneill.com/Photo-for-press-release.jpg)

A lower resolution version of the photo is pasted below.



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