

U.S. DEPARTMENT OF TRANSPORTATION FACTS & STATISTICS

- 1. Fatality Causes: Primary cause of worker fatalities in recent years were:
 - A. Runovers/backovers often by dump trucks (48%).
 - B. Caught in Between/Struck by Construction Equipment and Objects (14%).
- 2. Runovers/Backovers: Nearly 50% of worker fatalities are caused by vehicles or mobile equipment.
 - A. More workers are struck & killed by construction equipment (38%) than by cars vans, tractor-trailers (33%).
- 3. Increased congestion adjacent to construction sights and expanded night work result in the need for increased worker safety considerations.

ACCORDING TO THE U.S. BUREAU OF LABOR STATISTICS

- 1. 48% of road construction site fatalities were caused by vehicles or mobile construction equipment (2003-2007).
- 2. More workers are struck & killed by construction equipment (38%) than by cars, vans & tractor trailers (33%).
- 3. Work zone "runovers" & "backovers" are clearly the greatest hazard to roadway construction workers.
- 4. Use of high visibility clothing is one important strategy in reducing the number of "struck-by" deaths on road construction deaths.



CLEARLY THERE IS A NEED FOR ADDITIONAL PRODUCTS THAT ELEVATE THE VISIBILITY LEVEL OF CONSTRUCTION WORKERS! THE QUESTION IS HOW IS THIS BEST ACHIEVED?



ACCORDING TO NEWSWEEK (TECH & SCIENCE) ARTICLE: "STAYING SAFE AS DAYS DARKEN"

- 1. There are ways to make us safer in any light by understanding the science of visual perception.
- 2. The reason most high-visibility clothing is yellow or green-and that fewer fire trucks come in red these days is that those colors are easier to see than others. (Janet Sparrow, professor of ophthalmology and pathology at Columbia University.)
- 3. The rod cells of our eye are supersensitive and are best at picking up light with a wavelength around 500 nanometers, better known to the layperson as **GREEN**.
- 4. Due to the rod cell super sensitivity, **GREEN** colors not only stand out in daytime hours but continue to stand out in the low light dusk & dawn hours of the day.
- 5. According to Alfred Owens, professor of psychology at Franklin & Marshall College, "if you are looking for a better solution for getting the attention of moving vehicle drivers" consider adding "retroreflective tape" to areas of the product that are constantly moving.
- 6. In the 1970's Swedish scientist Gunnar Johansson made the startling discovery that biomotion (the constant movement of light) is particularly well suited for use in pedestrian safety, says Professor Owens.
- 7. In numerous studies conducted by Professor Owens and others, drivers spotted pedestrians with strips of retroreflective tape attached to points known to invoke the perception of biomotion significantly better than pedestrians using any other approach to increasing visibility.
- 8. According to Professor Owens, if retroreflective tape is stationary, it is meaningless, but as soon as it begins to move the visibility of the object it is on is enhanced.



IF YOUR GOAL IS TO PROVIDE A CONSTRUCTION TOOL THAT ENHANCES WORKER VISIBILITY & PROMOTES WORKER SAFETY THEN FOLLOW THE ADVISE OF EXPERTS:

- 1. Make your tools **SAFETY GREEN.**
- 2. Position strips of *retroreflective tape* in areas that have constant motion.











HIGH VISIBILITY TOOLS FOR **HEAVY & HIGHWAY CONSTRUCTION WORKFORCE SAFETY!**

Our new Structron® Safety line is an excellent addition to any construction crew looking to increase worker visibility & safety during daylight & nighttime hours. Like high visibility safety clothing, Structron® Safety tools are safety green and utilize (2) 3M[®] Series 3300 tape accents made of highly retroreflective microprismatic markings, designed to enhance visibility and detection, and exceed the reflectivity values of ASTM Type III.





YDIS204 - 13" x 24" Structron Safety Steel Mini-Max display



Structron Safety Steel Rolling display

PICT#	SMW#	PRODUCT DESCRIPTIONS	
1	49750	LHRP Shovel, 48" Fiberglass Handle w/PowerCore™ solid fiberglass reinforcing rod, Pro Grip™ Comfort Grip, Black 14 gauge #2 Head w/forward turned step, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	
2	49751	LHSP Shovel , 48" Fiberglass Handle w/PowerCore™ solid fiberglass reinforcing rod, Pro Grip™ Comfort Grip, Black 14 gauge #2 Head w/forward turned step, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	
3	49752	Poly D-grip 16" Drain Spade, 29" Fiberglass Handle w/PowerCore™ solid fiberglass reinforcing rod, Black 14 gauge #2 Head w/forward turned step, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	
4	49753	Hercules Post Hole Digger, 48" Fiberglass handle w/Pro Grip™ Comfort Grip, 6.25" point spread & .112" thick, <i>SAFETY GREEN COLOR WITH 3M</i> ® <i>RETROREFLECTIVE TAPE</i>	
5	49754	Bow Rake, 60" Fiberglass Handle, Pro Grip™ Comfort Grip, 16" Forged Head w/16 tines, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	
6	49756	Scraper, 51" Fiberglass handle w/Pro Grip™ Comfort Grip, Forged 7" Black Head, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	
7	49755	Scoop Shovel, 29" Fiberglass Handle w/Poly D-Grip, #12 Aluminum Head, SAFETY GREEN COLOR WITH 3M® RETROREFLECTIVE TAPE	

