PLASTIC BARRICADES:
RENT OR BUY?

OTW SAFETY

THE TRUE COST OF RENTING VS. BUYING (PLASTIC) TRAFFIC CONTROL AND CONSTRUCTION BARRICADES

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Abstract (Executive Summary)

The choice between buying and renting safety equipment – specifically, plastic barricades – is one that many face when beginning the process of procuring necessary equipment for construction sites or other locations.

While the final decision is often situational, several factors can help determine whether buying or renting plastic barricades is the best solution, including budget, location, storage, maintenance, timeline, and return-on-investment (ROI).

Other considerations, such as federal compliance, are equally important, as unregulated or untested barricades could compromise the overall safety of a site. For all of the above reasons, it's essential to partner with a barricade company that takes safety seriously – one that goes above and beyond to design, manufacture, and provide the best plastic barricades on the market. Whether buying, renting, or a combination of both, OTW Safety has the expertise and products to help ensure every construction site is as safe as possible.

About OTW Safety

OTW Safety has been a leader in the safety industry for over 30 years, with expertise in designing and manufacturing safe and federally compliant safety barricades, production services, contract manufacturing, and more.

Our advanced in-house manufacturing techniques enable us to work closely with every customer to create customized solutions tailored to their specific needs. This ensures high-quality products, quick turnaround, and cost savings that we pass on directly to our clients.

Our mission at OTW Safety?

To enhance and strengthen public safety by providing the most innovative safety equipment on the market.

We believe that quality, safety, design, and beauty are not mutually exclusive, so we continue to expand the frontiers of manufacturing in safety and strive every day to create products that are durable, reliable, and aesthetically pleasing.

We don't compromise on any detail to bring the best, and we continue to look to the future with new products designed every year.

Introduction

It has long been debated whether buying or renting is the superior choice in several spaces, including the housing market, heavy construction equipment, and audio + video engineering, to name a few.

One more sector where the pros and cons of renting versus buying are often compared is the safety industry, specifically concerning barricades. For general contractors, project managers, facility directors, or event planners (and others), several considerations must be taken into account when determining whether it is in the best interest of the site to rent or purchase the necessary safety equipment to maintain a safe environment.

In this paper, we will discuss the benefits of buying versus renting traffic control and construction barricades, and why the true cost of either might not always be as cut and dry as it appears. Different scenarios call for different solutions, and we will lay out the benefits of both options and discuss where one might be the better choice for specific applications or circumstances.

This paper may help guide those deciding between renting and purchasing traffic control and construction barricades for their next project. Sustainability, portability, compliance with regulations, budget, timeline, and more all factor into determining whether buying or renting is the best choice.

Industry Context and Background

The US construction market is a massive sector, with its value coming in at nearly $2 billion as of 2023. With projected growth, the market is expected to reach nearly $2.25 billion by 2027. The industry employs over 8 million employees and its output reaches nearly $2.1 trillion in structures each year. Such a large industry calls for strict regulations, and barricades play an essential part in ensuring that construction sites, work crews, and passersby are kept as safe as possible.

Work zone fatality statistics and economic impact

Work zones, especially those in high-speed areas, are dangerous at best and fatal at worst. In 2023, there were one hundred and one thousand estimated work zone crashes, with an approximate thirty-nine thousand injuries and 899 fatalities1. FARS (Fatality Reporting Analysis System) data consistently report that work site crashes and fatalities continue to remain near the same level year after year, despite initiatives and awareness weeks to combat them.

Organizations like National Work Zone Awareness Week, the US Department of Transportation (DOT), the National Highway Traffic Safety Administration (NHTSA), and more work hard every year to begin and support initiatives that will eventually bring the number of work-zone related fatalities down to zero.

In addition to the tragic loss of life, work zone accidents also have an impact on the economy, as well as on the timeline and bottom line of the site in question. According to the NHTSA, the "overall economic costs of all motor vehicle crashes in the US in 2019 totaled $339.8 billion in 2019. Note that the lifetime direct economic cost to society for each fatality is $1.6 million. Over 90 percent of this amount is attributable to lost workplace and household productivity and legal costs. Meanwhile, overall comprehensive crash costs nationally, representing both economic impacts and valuation for lost quality-of-life, were $1.37 trillion in 2019." Work zone crashes account for a significant percentage of these, both in terms of economic impact and loss of life. Barricades have helped decrease the number of instances where accidents occur, but the numbers remain relatively constant year after year.

History of barricades

Barricades have a long history, starting overseas in places like France. Not including the barricades made up of large furniture and other items found during the French Revolution, pedestrian barricades originated as a means to cordon off roads in the late 1700s. Primarily made of metal until a few decades ago, the pedestrian barricade has largely remained the same in stature and design, and is now often referred to as the "bike rack barricade".
Jersey barricades, as we know them, were created in New Jersey to be used along a winding, steep stretch of coastal highway. Initially used to define the median between lanes, concrete jersey barricades stood at a mere 18" tall and helped ensure that cars stayed on their side of the road around the steep turns. Over the years, the barricade grew taller and bulkier, remaining in use as channelizing devices both during major road construction and permanently.

Regulatory factors

Safety regulations have long played a part in the way that barricades are created and used. Federal institutions like the FAA, OSHA, and the FWHA, among others, all have standards that every safety product must align with when used on highways, construction sites, and airport construction sites.
To use barricades as longitudinal channelizing devices (LCDs) on federal property, the Manual on Uniform Traffic Control Devices must be adhered to, and the devices approved as LCDs. Per the FAA's Advisory Circular AC 150/5370-2G, safety barricades around construction sites must be bright safety orange for visibility, made of materials that are easily collapsible in case of collision, and sturdy enough to withstand jet blast and prop wash. Per OSHA, specifications such as barricade height, material, visibility, and sturdiness are required for hazard indicators.

Market need

While concrete and metal barricades are generally sufficient for basic blockading, we identified a need for a unique type of barricade in safety spaces and sought to address it. We aimed to develop products that were durable, reliable, portable, easily recyclable, and, above all, safe. We sought a more environmentally friendly alternative to the most common barricade materials. We found that high-density polyethylene (HDPE), medium-density polyethylene (MDPE), and linear low-density polyethylene (LLDPE) fit the bill. Using plastic as our material of choice ensures that we can provide premium safety products at affordable prices – barricades that increase the safety of any site they reside at.

Why plastic barricades?

Plastic barricades have a plethora of benefits that can transform the way safety is approached in various industries. Quality plastic barricades, including those at OTW Safety, are manufactured out of high-density polyethylene (HDPE) plastic, along with medium-density (MDPE) and linear low-density (LLDPE).

These barriers are safe for handling but sturdy enough to withstand even the rowdiest crowds and dirtiest construction sites. They are durable, and many are designed to last for years with proper care. They are built tough and versatile: plastic barricades handle temperature and impact with ease, ensuring your peace of mind at any site they are used. Plastic barricades also have a superior strength-to-weight ratio (compared to steel), and many can be interlocked to form a consistent, safe perimeter that will keep out unauthorized persons.

Next? They are sustainable. HDPE and LLDPE plastics are some of the most easily recyclable types, allowing plastic barricades to be turned into a plethora of durable goods after their time as barricades is done. Generally manufactured in bright colors, plastic barricades are also highly visible, thus increasing the chance they will be seen by those passing by, in a vehicle, or on foot.

With their lightweight profile, barricades made from plastic store as well as they guard: extremely well. Jersey barricades can easily be stacked, and pedestrian barricades can lie flat for storage.

Lastly, plastic barricades can save both money and time. Whether renting or buying, plastic is generally far more affordable than its counterparts. The ease of setup and teardown also contributes to time and money saved – less time spent on setup or strike means more time spent on completing essential work.

Sustainability and recyclability

Every item used in day-to-day life has an impact on the environment. From coffee filters to hard hats to shampoo bottles to barricades, each choice made leaves an imprint on the world around us. Many things end their lives in the landfill, but sustainable, recyclable choices help lessen the amount of discarded containers, refuse, and more.

All types of barricades are recyclable in different ways, with varying levels of risk involved in each recycling process. Concrete can be broken down and separated by aggregate size; the reused materials are often used as fill material for road repairs, as a component of new concrete mixes, or in landscaping as erosion control or decorative features. The process can be hazardous, however, due to the heavy machinery required to break the concrete down, as well as the risk of inhaling respirable crystalline silica (RCS) dust.

Metal is generally considered easy to recycle, as pieces can be repurposed or melted down and formed into new products or materials for construction after refinement, but the process is considered somewhat dangerous. Heavy machinery, risk of inhaling hazardous fumes, and risk of bodily harm, including, but not limited to, crush injuries, fall risk, musculoskeletal pain, and more, make metal recycling a somewhat dangerous profession. With proper precautions and PPE, however, the risks can be mitigated to a degree.

Plastic can be melted down and reintegrated into new products (like barricades!), and is generally considered one of the safer processes, though it does not come without its risks. Those employed at plastic recycling plants must wear proper PPE and follow safety protocol to mitigate hazards like chemical exposure (VOCs), heavy machinery accidents, or exposure to sharp objects and dust when sorting manually.

Though each type of recycling does come with risks, reusing materials has a significant impact on the environment, making it a beneficial undertaking.

Compliance requirements

As mentioned previously, there are multiple federal requirements that safety products – specifically plastic barricades – must meet. The FAA, FWHA, and OSHA oversee safety regulations in their respective industries, upholding federal regulations outlined in documents such as the MUTCD, Advisory Circulars, and NCHRP 350/MASH.
To remain in compliance, manufacturers of safety equipment must meet the standards laid out for their particular industry.

OTW Safety offers barricades suitable for multiple industries, and we strive to ensure that we meet and exceed all relevant federal regulations for each application. Specifically, these products are federally compliant and approved for use:

OTW 42x96 LCD Barricade

Our OTW42 LCD Barricade has been crash-tested and approved by the Federal Highway Administration (FHWA) for use as a longitudinal channelizing barricade.

In 2007, it passed the National Cooperative Highway Research Program (NCHRP) Report 350 test level 3-71 criteria, which evaluates how work zone traffic control devices perform when hit by a passenger car at highway speeds. The FHWA issued an acceptance memo WZ-255 confirming its approval for use on the National Highway System.

The 42” LCD Barricade also meets MUTCD specification 6F.66 for LCD barricades.

OTW 10x96 Low-Profile Airport Barricade

For airport barricades, pertinent regulations include the FAA’s Advisory Circular AC 150/5370-2G, "Operational Safety on Airports During Construction," and the DoD Unified Facilities Criteria (UFC) 3-260-01, “Airfield and Heliport Planning and Design.”
Each has several specifications that make a barricade allowable for use at an airport during construction, and the 10” Low-Profile Barricade meets each one.

The 24” Mid-Profile Barricade also meets all applicable standards of AC 150/5370-2G.

When and why to rent versus buy

Different situations call for different solutions, and the decision to rent or buy barricades for an upcoming (or projected) project is no different. To determine the appropriate choice, many factors in play must be considered, such as:

- Budget and ROI
- Storage
- Permanence
- Portability
- Location
- Timeline

Example 1:

A multi-phase, years-long datacenter project with a large budget, plenty of storage space, and reliable transportation of large equipment; future projects ensure barricades could be reused.

This contractor would likely choose to purchase the necessary construction barricades for their project, as renting them for an extended period would likely be more costly than purchasing them outright. With future planned or hoped-for projects in mind, the contractor would save money in the long run by fronting the cost and gaining usage of necessary construction barricades for the entirety of the project’s duration and beyond.

Example 2:

A temporary parking lot resurfacing with an average budget and reliable transportation for a small number of traffic barricades; locally available rental center, need for future barricade use uncertain but likely.

This contractor would likely choose to rent barricades locally, at least at first. Easily transported and available for pickup, renting barricades for the duration of the days-long project would have a smaller impact on the bottom line initially, and would give the company the chance to evaluate its need for future barricade use (where buying could potentially be the best final choice).

Cost-efficiency over time

While renting can often be the most cost-effective choice for short-term timelines or events, there is something to be said for the benefit of cost-efficiency over time when procuring barricades.

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Given that there is appropriate and available storage space, maintenance capability, and a substantial enough budget, purchasing barricades for use over the years can turn into a better return on investment (ROI) than renting barricades time after time.

Depending on the purpose of said barricades, purchasing can ensure that there are no delays in progress because of a late shipment of safety equipment; having barricades on hand also ensures that hazard indicators are ready to go and walkways are ready to be placed exactly when and where they are needed. Purchasing barricades also gives more grace when a timeline is exceeded – no return deadline to anticipate – and when full control is wanted over equipment.

Renting, on the other hand, is a more convenient solution for those who cannot house large equipment for long periods of time, who want lower upfront costs, or only need quick access for short-term or one-time use.
Maintaining barricades when there is no need for future use could be considered a waste of space and money; thus, renting may make more sense for many.

Real world examples

The examples mentioned above were not just hypothetical – they're real situations that needed a safety solution.

Samsung Datacenter

The Samsung Semiconductor plant in Taylor, Texas, is well underway and into its second phase, thanks to the 2022 CHIPS Act ("Creating Helpful Incentives to Produce Semiconductors and Science"). Signed into effect to "revitalize domestic manufacturing, create good-paying American jobs, strengthen American supply chains, and accelerate the industries of the future" (The White House), the CHIPS Act funded many new (and expanded) plants around the country, specifically in warmer states.

With long timelines and constantly moving parts, renting plastic construction barricades wasn't a financially sound decision for the Texas Samsung plant. Over a twelve-month period, the procurement team for construction purchased over six thousand OTW Safety 42" LCD traffic barricades and three and a half thousand pedestrian barricades to help ensure the safety of work crews and the employees of the factory, as it is still in operation while construction is underway. To maintain operations during each phase of construction, work crews created complete walkways and sectioned off parking lots. In the attached video, you can see how each section is carefully defined, where construction supplies are located, and where hazards might be. This intentional delineation is essential to keeping every individual who walks on the grounds as safe as possible during this years-long project, and OTW Safety plastic barricades make it possible.

EverLine SLC

At the Hyatt Place parking lot in Farmington Station Park in Farmington, Utah, EverLine SLC rented OTW Safety barricades to cordon off their work area for lot repainting.
As comprehensive pavement maintenance servicers, EverLine is well-versed in how dangerous parking lots can be – this is where plastic barricades come in.

The eight 32" LCD barricades they rented were essential to blocking off the areas in progress while still allowing other parts of the parking lot to be used. While our traffic and parking barriers are a visual and physical deterrent to keep vehicles from entering a space under maintenance, they are still easy to move out of the way to temporarily allow vehicles or equipment to pass through, if necessary. When a section was completed, EverLine easily relocated the barricades by hand and got to work on the next area.

Their team said working with OTW Safety barricades was a dream. Connor Mclelland, the EverLine SLC Operations Manager, said, “It’s nice to have the customers exit and enter with minimal [disruption]… We’re loving them; they’re easy to move with no water in them and a lot better than our cones flopping over in the wind. In bad weather conditions, they’re certainly prime.”

The next time that EverLine rented barricades from us, they chose the pedestrian barricade, our Billboard Barricade. Renting allowed them to try different barricades and determine which is best suited to their purposes for the future. Once the best solution is determined, EverLine can commit to purchasing their own barricades for years of use, or continue to rent without worrying about storage or maintenance.
A significant upgrade from floppy cones, using OTW plastic barricades drastically increased the safety of every EverLine worker on the job. Taking preemptive safety measures and preventing accidents is essential when working in dangerous locations, and OTW Safety barricades helped do just that.

Conclusion & Recommendations

When it comes to procuring barricades for construction sites, it is clear that plastic barricades are the superior choice in nearly any situation. They are sustainable, recyclable, cost-effective, versatile, durable, and, of course, safe. Plastic barricades help ensure that current and future sites are safe, protected, and compliant.

Renting versus buying, however, might not be so cut and dry. The choice between the two is often situational and is dependent on application and needs, as well as other factors including budget, location, timeline, ROI, and permanence. When making a choice, it’s important to take these considerations into account, as well as projected future use, storage, and maintenance capabilities.

In terms of ROI, purchasing is often the best choice, as barricades are designed to last for years. The initial cost may be higher than renting, but years of use ensure that the investment is well worth it. Purchasing also ensures that there are barricades on hand to handle unexpected changes or hazards, but requires the necessary indoor storage space to properly care for the barricades.

Renting, on the other hand, is worry-free when it comes to storage and maintenance, and gives some flexibility for each site or event. Ordering exactly what is needed for each site means that there are no extras (unless taken into account), but also leaves nothing at the end of the timeline to worry about once the barricades have been returned.

Whether the final decision is to rent or to purchase, the best choice is to find a manufacturer who can do both – this gives plenty of options and ensures that there are experts ready to help find the best solution for your application.

References

1. Fatality Analysis Reporting System (FARS), National Highway Traffic Safety Administration, U.S. Department of Transportation. The 2019-2022 data were taken from the FARS final data files, while the 2023 data were from the FARS 2023 Annual Report File [ARF]. All data were downloaded in April 2025.
2. Crash Report Sampling System (CRSS), National Highway Traffic Safety Administration, U.S. Department of Transportation. All data were downloaded in April 2025.

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