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WINTER 2024

What are they and what are the risks?

By Edgar Boord – Risk Control Consultant

If you are not familiar with disc golf, it is a sport similar to golf that uses a frisbeelike disc and a metal basket as the "hole" or "target." The object is to throw from a tee and get your disc in the basket in as few strokes as possible. Disc golf courses, both permanent and temporary, are beginning to pop up at schools all over as part of physical education programs, and just to offer another activity for people to enjoy. Dating back to the 1970s, disc golf has become much more popular in recent years. This is because it offers a chance to go outdoors, get some exercise, and have fun while doing it. Seems like a low-risk activity, right?

When planning and designing a course, eliminating or minimizing risk should be a primary focus, right alongside having a fun and enjoyable course. This is due to a variety of risk factors that can cause injury/liability issues, property damage and environmental/erosion issues. In this article we will explore those risks and safety considerations that should be accounted for prior to, and even after, a course is designed and installed.

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Risks

Injuries – Disc golf can be played on a wide variety of terrain, ranging from wide open fields to heavily wooded areas and rocky mountainsides. Potential for slip, trip and fall injuries can exist in any of these areas due to issues such as animal burrows/holes, mud and loose rocks or other debris. Also, let's not forget the struck-by hazard of players throwing a projectile through the air at speeds nearing 75 miles per hour. Lastly, environmental issues can also play a role, such as falling trees/branches or insect bites/stings (i.e., bees, ticks). This can present a variety of liability issues, especially if the course is open to the public.

Property Damage & Other Issues – Improperly located baskets and tee areas, as well as poorly designed fairways, can bring a multitude of issues into play. This may include damage to vehicles, buildings and other property. Improper design can lead to damage to the disc golf equipment, such as a falling tree striking a basket. Ground erosion from precipitation and foot traffic patterns may also change drainage flow, impact the soil/vegetation, and damage the constructed tee pads/boxes.

Safety Considerations

Use experienced/professional course designer(s) – It may seem simple enough to find a nice spot to install a tee and basket to create fun shots for players; however, for the reasons mentioned above, this can lead to potential issues during and after installation. Experienced designers will evaluate the landscape and other environmental factors to identify potential issues as well as controls that should be considered.

• Obtain certificates of insurance from all vendors, and contracts should be reviewed by your school's legal counsel before work commences.

Avoid crossover with other activities and pedestrian areas – As with any sport or physical activity, you would not want overlap that can increase risk to facility users. For instance, a fairway that throws over or adjacent to a walking path leaves pedestrians at risk of being struck by a disc. Additionally, crossover between the disc golf fairways can lead to potential injuries to players. Fairways should never cross each other and should always have a safety buffer between tee areas and baskets, as well as between fairways.

Always consider placement – Avoid placing baskets, tees and fairways in areas prone to flooding/water issues, under large trees with branches that may fall, or next to parking lots, roads and buildings.

Signage – Installing signs with warnings such as "Caution: Disc Golf Course Nearby" is a great way to warn others in the area to remain aware of their surroundings. Other cautionary signs that alert players of potential hazards on or near the course should be used wherever necessary. Navigational signage for players can also prevent individuals from wandering into hazardous or unauthorized areas.

A kiosk or sign with course information, rules and safety precautions is recommended to inform players of potential risks.

- Restrict use of the course by the public when school is in session or school sanctioned activities are occurring on school grounds (i.e., events, athletics).
- Prohibit use of course between dusk to dawn. Security personnel should conduct periodic patrols of the area.
- Assumption of risk signage advises users the property owner is not responsible for injuries or damages and the user assumes liability.

Disc golf courses have become more common on school properties around the United States as they can be a great activity to include in a school's physical education program; however, a variety of risks, some of which may not be very apparent, should be considered prior to moving forward with a disc golf course project.



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Safety Glazine Vired Glass

By Jake Ruziecki – Risk Control Consultant

We have all seen action movies where a Tom Cruise-esque protagonist jumps effortlessly through the window of a 30-floor skyscraper, only to walk away without so much as a scratch. Luckily for all of us on the other side of the film camera, safety standards for impact-resistant glass windows and doors have been in place since 1977. Unfortunately, this does not mean injuries associated with glass windows and doors still do not occur. In fact, injury data from the Consumer Product Safety Commission (CPSC) indicated that in a one-year period, 2,554 glass door injuries occurred in schools alone. Further studies of this data estimated that approximately 90% of these injuries involved glass embedded with metal wire, otherwise known as wired glass, which is prevalent through many school buildings.

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Safety glazing refers to the manufactured processes or alternative materials used to reduce the likelihood of glass breaking, which could cause subsequent injury. Typically, we only think about these products in the form of hurricane windows or safety and security film to delay attempted intrusion; however, there are many other areas within buildings to take into consideration that could be hazardous if an individual were to fall into the glass. Some of these hazardous locations include:

- Glass in swinging or sliding doors.
- Glass in proximity to wet locations such as pools.
- Glass in barriers, railings and stairwells.
- Glass in gymnasiums, weight rooms and other athletics areas, including playgrounds.
- Glass in high foot traffic areas.
- Glass embedded with wire.

To reduce the risks associated with glass in your buildings, schools should:

• Perform a safety audit to identify windows that do not have safety glazing in hazardous locations. This can be identified by etching on the glass that indicates if the glass has been lab tested for impact resistance according to



Photo Credit: Jake Ruziecki

ANSI Z97 Category I or II. Be sure to include windows in potential impact zones. As mentioned above, this includes glass windows and doors in areas with high traffic, athletic activities, or any moving door.

- Use or replace damaged windows with tempered or laminated glass, which holds together when shattered or breaks into small blunt pieces, reducing the risk of lacerations.
- Remove plexiglass and acrylic sheets. Over the last few years, plexiglass and other clear acrylic sheet alternatives have become a rising trend in barrier protection; however, these products can also have sharp edges that could cause lacerations and should not be used as a replacement for damaged glass.
- Install safety and security film to existing glass in impact areas. These films, when tested and rated for such areas, help hold glass together in the event of breakage, reducing the risk of injury. These products can also provide other benefits such as improving security, and thermal and sound efficiency.
- Evaluate areas with wired glass. While wired glass is fire resistant, it can be hazardous in the event of human impact and is no longer an acceptable building material anywhere in school buildings as of 2006, unless appropriately tested. Discuss planning the replacement of wired glass doors and windows or install protective film until they can be replaced.



By taking these proactive steps, schools can significantly reduce the risks associated with glass windows, doors and other barriers within their buildings, creating a safer environment for their staff, students and community.

Sources:

CPSC – Public Comments on ANSI Z97 file:///C:/Users/cm012308/Downloads/CPSC-2012-0049-0016_attachment_1.pdf https://www.ecfr.gov/current/title-16/chapter-II/subchapter-B/part-1201

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How aware are you of GROUND HAZARDS at your

By Mark Nease – Senior Risk Control Consultant

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A ground hazard is simply a condition that exists outside and can cause injury if a person falls onto it with force. Ground hazards are common in parking lots, playgrounds, sidewalks and courtyards. Staff often perceive ground hazards as an acceptable condition and therefore overlook their dangers until someone gets hurt. Then, people suddenly realize just how dangerous that condition really was and that it should have been reported.

Consider the following potential ground hazards at your school.

Impalement hazards.

Impalement is an injury where a sharp-ended object pierces a person's flesh, which could cause serious internal injuries or death. Common



impalement hazards could include exposed electrical grounding bars, metal property line markers and rebar used to anchor an object.

Playground hazards. Incorrectly installed play equipment, particularly support posts anchored with concrete that is exposed on the surface, is a ground hazard. Exposed tree roots around play equipment is also a common ground hazard that needs to be addressed.



A hole in the ground is also a hazard worthy of attention, as a person can unexpectedly step into the hole and "jolt" their back or twist an ankle.

Best Practices

See something, say something: Make a conscious effort to identify potential ground hazards. Identifying the potential hazard is a great accomplishment. Now, notify your building principal, facilities staff or a School Resource Officer of the condition.

Elimination Controls: The most effective remediation control is to eliminate the hazard altogether. Avoid the use of metal rods/spikes as makeshift anchoring devices. If you're located in a climate subjected to freeze/thaw cycles, which leads to rebar periodically uprooting from the parking blocks, consider alternatives to parking blocks. Perhaps you can use parking lot bollards or guideposts. In fact, bollards and guideposts are typically high enough for the driver to see when entering the parking space.

Engineering Controls: When installing playground equipment, have the manufacturer or their designee install it.

Inspections: In addition to situational awareness, a formal hazard inspection with the use of a checklist can help jog your memory to look for ground hazards. Perform a site-specific inspection at common outside surfaces, such as playgrounds, parking lots, courtyards and sidewalks.

The expression "Don't run with scissors" references the hidden dangers in plain sight that we should consider, especially the scenario of falling and striking those scissor blades. As you navigate your school grounds looking for ground hazards, ask yourself, "Are we (our students, coworkers and visitors) running with scissors?" Take a second look at your school's grounds to reconsider if there are in fact hidden dangers in plain sight that could result in injury should someone fall and strike them.



Learn more about grounds safety at **cmregent.com/blog/**.

Swing Set Use Zones

By Derek Neubauer - Senior Risk Control Consultant

A swing set use zone should be kept clear of obstacles and be provided with adequate surfacing material to reduce the risk of injury. This zone around the swing set accounts for the maximum arc of the swings, where children are most likely to fall or be struck by a moving swing.

Here are some key risks associated with the use zone:

Impact with Objects or People – If the use zone isn't clear, children may collide with nearby objects (like trees, fences or playground equipment) or other people, leading to injuries.

Falls – Children can fall from swings, especially when they are moving at high speeds. A hard surface within the use zone increases the risk of serious injury. It's important to have impact-absorbing materials like wood chips, rubber mulch or sand.

Entrapment – Objects or structures within the use zone could pose entrapment risks, where clothing, limbs or other body parts could get caught, leading to injuries. **Tripping Hazards** – Objects left within the use zone, like toys, can create tripping hazards, leading to falls and injuries.

To ensure safety around a swing set, it's crucial to follow best practices for the use zone. These practices help minimize the risk of injury and create a safe environment for children to play. Here are some key best practices:

ADEQUATE CLEARANCE

Front and Back Clearance – The use zone should extend a minimum of twice the height of the swing set's top bar (where the swings are attached) both in front of and behind the swing.

Side Clearance – Ensure at least 6 feet of clearance on either side of the swing set.

IMPACT-ABSORBING SURFACE

Surfacing Material – Use impact-absorbing materials such as wood chips, rubber mulch, sand, poured in place, or pea gravel. These materials should be at least 6 – 12 inches deep, depending on the type of material used, to cushion falls.

REGULAR INSPECTION AND MAINTENANCE

Maintain Surface Depth & Use Zones – Routinely check the depth of the surfacing material and replenish it as needed, especially in high-traffic areas where it may become compacted. Also, check that the depth is kept throughout the entire use zone. If there are no borders, grass may encroach to reduce use zones.

SUPERVISION AND EDUCATION

Adult Supervision – Always supervise children while they are using the swing set to intervene if unsafe behavior occurs.

Teach Safe Use – Educate children on safe swing set use, such as sitting down while swinging, holding onto the chains with both hands, not running or playing in the use zone area, and never jumping off while the swing is in motion.

AVOID HAZARDS IN THE USE ZONE

Remove Obstacles – Keep the use zone free of toys, bikes or other objects that could create tripping hazards.

Avoid Hard Edges – Ensure there are no hard surfaces like concrete, tree roots or playground borders within the use zone.

Following these best practices helps create a safer environment, reducing the likelihood of accidents and injuries while children enjoy the swing set.



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Winter Weather PREPAREDNESS

By Patrick Rucinski – Risk Control Consultant

As winter approaches, the importance of being adequately prepared for severe weather conditions cannot be overstated. The risks associated with inadequate preparation not only affect the safety and well-being of students and staff but also have the potential to expose schools to substantial liability. Schools must take proactive measures to mitigate the impact of harsh winter weather. Failure to do so can lead to significant disruptions, hazards and long-term consequences for the school community

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RISK MANAGER

Winter is an unpredictable season, with the potential to create numerous hazards caused by rapidly changing weather conditions. From frozen pipes and structural damage to slippery walkways and power outages, the consequences of neglecting winter readiness can be both costly and dangerous. Consider these scenarios that illustrate winter weather risks schools may encounter:

- A section of sidewalk leading into the building is not properly cleared off after a snowstorm. This creates the potential for a parent, student or staff member to slip and fall. These types of incidents can lead to injuries such as concussions, fractures/breaks or even exacerbate previously existing conditions.
- Transportation vehicles may not have been maintained during the warmer months. During the first large snowstorm of the year, multiple buses experience catastrophic mechanical failure. Without proper backup vehicles or planning in place, students awaiting transportation may be exposed to extreme cold, potentially leading to frostbite or hypothermia.
- During a power outage, the emergency generators on-site fail to provide power. The building's heating and air handling systems that rely on the generators for power will not function. The pipes in the building then have the potential to freeze and burst, causing substantial damage to the property.
- Due to a string of mild winters, operations may have reduced the amount of sand, salt, shovels and other snow removal equipment. Failure to stock up on supplies like this can hamper the school's ability to respond effectively to winter weather conditions.

Effective winter weather preparedness hinges on clear communication, adequate supplies, and continuous evaluation and improvement to ensure a safe environment for all. Here are some best practices you can put into action at your schools.

• Maintenance: Conduct preventative maintenance on building systems such as the heating, ventilation, emergency power and transportation vehicles. These systems and equipment should be inspected regularly by competent individuals and repaired or serviced if needed. Keeping up to date on maintenance and repair schedules will help minimize the potential for mechanical failure during the winter.

- **Communication:** Reliable communication channels should be established to notify staff, students and the community of weather-related changes. Contact information should also be regularly updated to ensure proper services and agencies are available to the school in the event of an emergency.
- Supplies: Materials such as salt, sand and other consumable goods used to combat winter weather may become in short supply, and more costly, once the winter season has begun. Facilities management should focus on having a reasonable surplus of these materials on hand to avoid running out when they are needed.
- Monitoring and Evaluation: Weather conditions should be regularly monitored before, during and after severe weather of any kind. This active weather monitoring should be used in conjunction with open lines of communication to accurately anticipate severe weather conditions and to initiate the proper protocols. After severe winter weather, departments involved should evaluate and adjust their procedures to better handle any pitfalls experienced previously.

Effective winter weather preparedness is a holistic endeavor that connects communication, resource management and continuous improvement. Clear and timely communication ensures students, staff and the community are always informed and prepared for winter weather related changes. Adequate supplies and well-maintained equipment are essential for upholding a culture of safety during these adverse conditions. Finally, using each year's experiences to refine and enhance preparedness plans ensures we are continuously evolving and improving our strategies. By integrating these elements, schools can create a resilient environment that prioritizes safety and minimizes disruptions, ensuring a smooth winter season for all. Resources with more information about winter weather preparedness are: The Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), and the American Red Cross.



Snow Removal Safety: BE PREPARED

By Dennis Kane – Senior Risk Control Consultant

The extreme cold winter temperatures in many parts of the country can make snow and ice removal a risky proposition. Knowing how to properly perform these rigorous tasks can help reduce the risk of injuries.

Snow removal—whether manually with a shovel or mechanically with a snow blower, plow or other means—can result in injuries. It can also cause even more critical health issues, such as cardiac arrest and cold exposure injuries like chilblains, frost bite and hypothermia. Below are some strategies to reduce these risks.

Pre-planning is required to reduce the risk of injuries from snow and ice removal. This preplanning should include:

- Ensuring an adequate supply of ice melt is available.
- Ensuring all mechanical snow removal equipment is operational and adequate fuel is on hand.
 - The correct type and amount of manual (i.e., snow shovels, brooms and scrapers) equipment is available and in working condition.
- A snow removal map should be prepared to map out areas that will be done manually and the areas that will be done with mechanical means, including plowing.
- Procedures that define where, when, how and by whom the snow will be removed should be updated and provided to all parties involved.

From an injury prevention standpoint, every effort should be made to reduce manual shoveling.

• Shoveling is the leading cause of injuries due to ergonomic stress (i.e., strains and sprains) and also the leading cause of fatalities from cardiac arrest. It is labor intensive.

All available mechanical means should be explored prior to committing to shoveling-these include brooms, leaf blowers, mechanical brooms and single- and two-stage snow blowers. However, in certain circumstances, manual shoveling may be required. In these situations, ice melt, a broom, leaf blower or mechanical broom should be tested prior to resorting to shoveling. If a shovel must be used, all staff should be trained in proper use by bending their knees and pivoting to discard the snow rather than bending at the waist and twisting, which increases the risk of back and shoulder injuries. In addition, smaller plastic shovels, or push models, should be considered due to their lighter weight and reduced ergonomic stresses. To further reduce risks from snow shoveling, be sure sufficient manpower is provided, and when possible, provide additional time. Additional manpower and time will reduce risk by spreading out the lifting and bending among multiple people and/or for a longer, less strenuous workload. If school is cancelled due to the weather, it should be communicated that the shoveling task be spread throughout the day.

To reduce the risk of being injured by mechanical snow moving equipment, machine-specific training should be provided. It should focus on the hazards and follow the manufacturers' use instructions. Emphasis should be put on not using equipment unless the operator has been trained in its safe use. When plows are used, working on or around plow blades and vehicle attachment systems should only be permitted by authorized staff and with the plow on the ground and properly blocked and secured to prevent movement, and with the plow vehicle turned off and the keys removed. This training should be completed prior to the winter season, with new employees upon assignment, and then refreshed annually thereafter.

The cold temperatures experienced during snow and ice removal presents an additional risk that must also be addressed. Administration should ensure snow removal staff are wearing adequate clothing, including slip resistant footwear and hats and gloves. In addition, snow removal staff should be encouraged to dress in layers, so perspiration doesn't soak clothing. Wet clothing increases the risk of chilblains and frostbite on the extremities. Chilblains occur when an extremity gets cold and then is rapidly warmed, resulting in painful red swelling. This can be prevented by not allowing the extremity to get cold in the first place or by gradual warming. Frostbite is more severe and begins as a prickling numb feeling in the extremity but then the extremity becomes hard to move and can have a waxy red, white or greyish appearance. If the risk reduction strategies listed above are followed, frostbite should not occur, but if you suspect it, it needs to be treated by a medical professional as soon as possible.

In summary, when possible, reducing the amount of shoveling by administrative means or with mechanical equipment when combined with preparation, training and the use of the proper equipment can reduce the risk of snow removal injuries at your school.



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