ANSI ES1.40 – 2023
Event Safety - Event Security

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The ESTA Technical Standards Program was created to serve the ESTA membership and the entertainment industry in technical standards related matters. The goal of the program is to take a leading role regarding technology and safety within the entertainment industry by creating recommended practices and standards, monitoring standards issues around the world on benefit of our members, and improving communications and safety within the industry. ESTA works closely with the technical standards efforts of other organizations within our industry including ESA, CITT, USITT and VPLT as well as representing the interests of ESTA members to ANSI, UL, ASCE, ICC, and the NFPA. The Technical Standards Program is accredited by the American National Standards Institute.

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The Event Safety Working Group, which authored this Standard, consists of a cross section of entertainment industry professionals representing a diversity of interests related to event production, insurance and legal matters, rigging and stage machinery for theatrical events. ESTA is committed to developing consensus-based standards and recommended practices in an open setting. Future Event Safety Working Group projects will include updating this publication as changes in technology and experience warrant, as well as developing new standards and recommended practices for the benefit of the entertainment industry.

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Interest category codes

DE = Designer of Events	DR = Equipment Dealer or Rental Company
EQP =Equipment Producer	EVP = Event Producer
EW = Event Worker	G = General interest
INS = Event Insurance Company	PA = Performing Artist

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Foreword

The Event Safety Guide was first published by the Event Safety Alliance ("ESA") in 2014 as a treatise which identified and explained various reasonable practices regarding special event safety. With permission from the UK Health and Safety Executive, ESA's *Guide* was modeled after, and extensively borrowed from HSG195, *The Event Safety Guide (Second edition), A guide to health, safety and welfare at music and similar events,* often referred to as "The Purple Guide."

In 2016, the Event Safety Working Group (ESWG) was established within ESTA's Technical Standards Program in order to convert certain *Event Safety Guide* chapters into formally recognized, consensus- based standards that could be universally referenced across special events organizers, producers, enforcement agencies and user-groups. This document is one of those standards, intended to be used in conjunction with each other, which are used to identify reasonable care and safety at live events. Because events and their risks evolve, so too will this collection of standards.

This standard is expressly intended to be a companion piece to ANSI ES1.9-2020, *Crowd Management*, in that event security is an essential component of crowd management, and some of the reasonably foreseeable risks and risk mitigation strategies will overlap.

It is assumed in this Event Security standard that the design and implementation of processes described here are entrusted to reasonably qualified and experienced people who are knowledgeable about the circumstances of their particular event.

In addition to guiding the decisions and actions of event security providers, this standard may also help public safety authorities understand the duty of care applicable to a given security circumstance. Compliance with this standard, however, does not itself satisfy legal obligations or confer immunity from legal consequences in any specific situation.

Introduction

I Context of this Standard

This standard focuses on what professional event security providers must do, should do, or may do, under various reasonably foreseeable circumstances. This guidance fits within the broader context of event management. That context is generally comprised of the following elements.

   a) Risk Assessment. It is valuable, especially for events that involve larger or more active crowds or more complicated events or venues, for event organizers to conduct a security risk assessment. From this risk assessment, the people overseeing security measures and staff – in conjunction with event organizers, venue operators, artist representatives, and public safety officials, among others – can identify security risks and plan to mitigate the risks that are most likely to occur or most likely to significantly impact event attendees.

   b) Emergency Action Plan. Once a risk assessment is done, one can plan how to respond to reasonably foreseeable security risks for a given event. This plan should identify operational duties and responsibilities, ideally during both normal operations and foreseeable emergencies during an event.

   c) Training. Once there is a plan for event security, including the number of security personnel and their proposed deployment, the person with supervisory responsibility for security can ensure that security guards are trained to carry out their responsibilities consistent with that plan.

   d) Supervision. Because even the most well-trained, conscientious people are fallible, supervision is a final layer of assurance of safe practices consistent with this standard and the security plan. If everyone performs consistent with their training, then a supervisor can encourage and reward continued excellence; if someone is falling behind, an attentive supervisor can detect and correct non-compliant or unsafe behavior; if someone leaves their post unattended, a supervisor can spot the issue and address it before significant problems result.

II What Are the Security Issues at Live Events?

A list of issues to be considered during security planning and implementation can be as long as one's imagination allows. The variety of security threats across every size and style of event space and crowd demographic underscores that it is both pointless and inaccurate to demonize any type of event as more inherently dangerous than others. There is some element of risk in every circumstance where people gather.

The most significant security threats at live events have changed over time. As of this writing, the two most deadly mass shootings in United States history – at the 2017 Route 91 Harvest Festival in Las Vegas and Pulse nightclub in Orlando, Florida in 2016 – both happened at live events. Although security techniques such as bag checks, pat downs, and magnetometers mitigate some risk, the number and notoriety of gun incidents have contributed to a secondary security issue, frightened crowd movement in response to sounds interpreted as gunfire.

This standard addresses typical security issues occurring at live events, including ways to prioritize security risks based on one's event, venue, crowd, or other relevant characteristics. It is important to state that plans help planners think through foreseeable situations in advance, but plans are not handcuffs. This standard is intended to help event organizers and security and public safety personnel assess and mitigate the security risks they can reasonably foresee, and also help them think logically through unforeseen risks that must also be addressed.

III Duty to Have a Reasonable Event Security Plan

As with any broad subject, one should not get lost in the details of this standard. The number or names of factors to be considered is less important than the user identifying and considering the reasonably foreseeable security risks for their event and developing reasonable risk mitigation plans to address them.

The root of a plan that is "reasonable" is that one has a reason for one's actions – ideally a good reason. People in charge of event security must think through the circumstances of their event, take seriously open-ended questions such as "What could go wrong?" and "What new problems might a proposed solution create?" then either (a) accept the most reasonably foreseeable risks as is, or allocate resources to (b) eliminate them entirely, (c) mitigate them as much as possible, or (d) transfer them to someone else (e.g., through contractual indemnification or insurance).

Event organizers can mitigate security risks by working with all relevant security stakeholders during the planning process, collectively assess the risks for that event at that time for that crowd and document the reasons for those decisions in a manner that will survive the event and help explain the decision-making process long after memories have faded and staff have moved to new jobs.

IV "Best" Practices

There is no single "best" practice for the provision of event security. Once one meets the minimum legal requirements embodied in applicable statutes and regulations, there may be many reasonable ways to provide security at a mass gathering. Those choices might be different for a different event, or the same event with different weather, or where the crowd is foreseeably more or less active or made up of differing age groups. Users of this standard should find that liberating and empowering. This thought process is part of what makes event security interesting and important every day.

1 Using this Event Security Standard

1.1 Scope and Terminology

Security planning should be organized by the three phases of any event in which a crowd must be managed: ingress, circulation, and egress. *See* ANSI ES1.9-2020, *Crowd Managemen*t, Section 3.2.

Geographically, event security considerations may begin beyond the walls of a brick-and-mortar venue or the perimeter of an outdoor event space, instead starting at public transit stations near the venue, rideshare drop-off points, parking areas, public sidewalks, or other means of pedestrian access.

Chronologically, security work begins with crowd management planning. Ideally, representatives from the security provider are included in operational planning discussions. Security duties ramp up as people arrive at and circulate through the event space, and they conclude only after all guests have left the event, incident reports have been written, and any debriefing has been conducted.

Substantively, event security occupies a middle ground in the spectrum of crowd management activity between guest services and crowd control.

The **guest services** side of this equation includes ushers, ticket-takers or ticket scanners, people who provide information, and anyone else who helps guests safely navigate the venue. Staff who provide guest services, regardless of their title or whose shirt they wear, can help provide a positive guest experience and diffuse potential conflicts. In the traditional view, security guards protect people and property, language that still appears in some U.S. state security guard licensing materials. Functionally, the job of security guards is sometimes described as "observe and report," as distinguished from law enforcement officers authorized to use force, detain, or arrest.

This standard adopts a modern perspective regarding event security work and the people who perform it. Throughout this document, the term "event security" is intended to encompass all the crowd management functions of guest services, plus the more physical work of restricting unauthorized access on an event site, maintaining public order, enforcing event rules regarding prohibited items and activities, and being the first professionals to respond to guests who engage in unreasonable or prohibited conduct. Some of this work is accomplished by being obviously ready to respond, which provides a visual deterrent to guest misconduct – some of it is accomplished by actually responding, which addresses the immediate problem and reinforces that rules will be enforced for everyone.

Crowd control occupies the far end of the crowd management spectrum. As defined in Section 2.4, crowd control is what law enforcement tries to regain when the crowd is out of control. Security providers may be asked to support law enforcement officers exercising their legal authority to restore order.

Providers of security services at live events are known by different names in different places. Sometimes this is a function of regional custom or language or local law. This standard refers to "security guards" and their "security supervisors" collectively as "security personnel," rather than "security officers." This is not mere semantics. We mean to underscore the distinction between privately retained or volunteer security providers versus public safety officials such as police, sheriffs, constables, or firefighters who perform crowd control.

This standard excludes "industrial security," which generally involves the protection of buildings, such as the people who sit at the front desk of commercial office towers, night watch staff, and roving security patrols on a private campus or residential community. It also does not cover "tour security," who travel with an artist or entertainer, or "close protection" who provide security for VIPs.

Patterns of reasonably foreseeable behavior exist from one event to the next, and the history of similar events is a clue what may happen next time. But event security is an interesting and challenging job precisely because every event presents different risks to be identified, assessed, and mitigated.

1.2 Purpose

The purpose of this standard is to help reduce the risk of harm to people and their property while they attend music, sports, cultural, corporate, and other events and mass gatherings.

1.3 Equivalency

The provisions of this standard are not intended to prevent the use of any materials or prohibit any design or method not specifically described in this standard, provided that any such alternative design or method complies with the intent of these provisions. The quality and effectiveness of one's methods of work should be at least equivalent to those described here. This standard is not intended to replace any applicable laws, regulations, codes, or other guidance – it supplements those authorities with the goal of improving safety.

1.4 Application

This document is part of a collection of standards relating to event safety. Users should consider the requirements of the complete collection in relation to the application of this standard.

1.5 Normative References

The following documents contain requirements relating to the scope of this standard. They are provided for guidance only, unless stated otherwise in this standard. Where a specific version of a document is not given, the version applicable to the event's state, local, or municipal jurisdiction should be used.

➢ ANSI ES1.9-2020, *Crowd Management*
➢ NFPA 101, *Life Safety Code®*, 2021 edition (the "*Code*")
➢ IFC 403.11 (generally) and 403.11.3 (specifically, for crowd managers), 2021 edition
➢ The Events Industry Forum, *The Purple Guide to Health, Safety and Welfare at Music and Other Events*, 2022 edition
➢ Sports Grounds Safety Authority, *Guide to Safety at Sports Grounds* (the "Green Guide"), 2018 edition
➢ SGSA *Alternative Uses of Sports Grounds*
➢ Event Safety Alliance, *The Event Safety Guide*, 2014

Additional reference material appears in **Section 4** at the end of this standard.

2 Definitions

2.1 accessibility. The design of devices, services, or environments to be usable by people with physical and mental disabilities or challenges, and to improve their ability to participate in the event.

2.2 authority having jurisdiction ("AHJ"). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. See NFPA 101, *Life Safety Code®*, 2021 edition, 3.2.2.

2.3 crowd. In the context of managing crowds at live events, "crowd" refers to a group of people gathered for a common event or purpose, whose presence in that area can impact each other's movements.

2.4 crowd control. The physical and coercive measures that may be required once a crowd has reached the limits of safe behavior and urgent action is needed to restore order or prevent crime or injury, particularly when the crowd management plan has been unsuccessful.

2.5 crowd management. All measures taken in the normal process of facilitating the intended movement of people within, around, and near an event's boundaries to maximize the likelihood of a safe and successful event and minimize the need for crowd control.

2.6 egress. (noun) A continuous and unobstructed path of travel from within an event space – whether contained in a "brick and mortar" building or a "green field" outdoor space with either natural or man-made physical boundaries – to the outside or a place of safety. (verb) The process of moving people from the event space to its perimeter and beyond, including dispersing the crowd to avoid bottlenecks at public transportation, management of ride- share lines and parking lots, and separating pedestrians from vehicular traffic.

2.7 evacuation. Rapid egress out of some or all of an event space in response to an unexpected situation that threatens the health or safety of guests which will require a greater degree of crowd management than a controlled and scheduled egress.

2.8 event. For the purpose of this standard, an event means any assembly, public or private, indoor or outdoor, which is presented to a live audience, and which therefore requires crowd management and security which is reasonable under the circumstances of that gathering.

2.9 event security. The provision of security services at an event.

2.10 ingress. The process of guest arrival to, and assembly before an event, and the ways people enter an event space, including site design, queuing arrangements, timing of door-opening, ticket-taking or scanning a credential, bag checks, pat-downs, and use of magnetometers.

2.11 may. Denotes an action that this standard recommends that a user consider, depending on how reasonable it is under the circumstances of a given event.

2.12 must. Denotes a mandatory requirement, which is used here only when referring to a standard, code, or other requirement that carries the force of law.

2.13 risk assessment. A systematic analysis of reasonably foreseeable threats to determine the risk for each issue identified in the hazard identification process, including the frequency, likelihood of occurrence, and the potential severity of outcome. See Appendix A.

2.14 security. Most broadly, security is the protection of people or property from harm. In jurisdictions that require security personnel to be licensed, security is defined as the provision of services for which a security guard license ("guard card") is required.

2.15 should. Denotes a recommendation, as opposed to a requirement that one must perform.

2.16 wayfinding. The process of individuals taking cues from their environment to find their way as they move from an origin to a destination. Wayfinding aids may be natural, such as a particular tree or hill, or manufactured, such as signs, maps, high-visibility tape on floors or walls, and illuminated exits.

3 Event Security Issues

3.1 Core Event Security Functions.
Subject to the caveat that each event will have its own security issues, these are core security functions common to many events.

   a) <u>Provide access control</u> through the creation and/or protection of a perimeter around the event site using security personnel and tools such as barricades, fencing, magnetometers, and signage.

   b) <u>Deter security incidents</u> from occurring by posting uniformed security personnel and public safety officers where they will serve as a visual deterrent to misbehavior. Note that the deterrent effect of uniformed security will be a function of the totality of all visible security measures, including security interaction with guests, signage, communication, security cameras, and other forms of interaction that event attendees can readily observe.

   c) <u>Detect security incidents</u> in progress by training security to recognize the reasonably foreseeable security risks for that event, using technology to enhance security providers' awareness of activities occurring throughout the event site, and creating communication links between security, event operations, and public safety officials to maximize responsiveness.

   d) <u>Respond to security incidents</u> in a reasonable manner based on available information and resources. Application of some variation on the Incident Command System may help convey information about a situation from on-scene observers up to a designated decision-maker (the "Incident Commander"), who then coordinates actions in response.

   e) <u>Delay security incidents from causing harm</u> by quickly responding with security resources tailored to the situation using information conveyed by people with personal knowledge.

   f) <u>Document security incidents</u> by having security create incident reports. Retain video footage from the venue's security cameras, recorded radio communications, and any incident reporting software or other records that will assist in creating a timeline of incidents and responses.

3.2 Event Security Plan.
The planning of events of any size should include consideration of security for the people and property associated with that event. The level of specificity and formality of a security plan can vary greatly from a small local event to a rivalry game in a stadium or a multi-day camping festival. For example, certain codes require that a Life Safety Evaluation be performed where the number of attendees exceeds 6,000. Here are the issues to be assessed in a life safety evaluation, which include many issues that are potentially relevant to security for any size event.

   (1)   Nature of the events and the participants and attendees

   (2)   Access and egress movement, including crowd density problems

(3)   Medical emergencies

(4)   Fire hazards

(5)   Permanent and temporary structural systems

(6)   Severe weather conditions

(7)   Earthquakes

(8)   Civil and other disturbances

(9)   Hazardous materials incidents within and near the facility

(10)   Relationships among facility management, event participants, emergency response agencies, and others having a role in the events accommodated in the facility.

There is no one format in which one must write a security plan for every event, and there is no requirement that one's plan even be written. In many instances, however, a written plan will make it easier to work from "the same page." Whatever format one uses, the plan must be usable by relevant stakeholders.

3.3 Resources to Help Implement an Event Security Plan.
In addition to identifying the reasonably foreseeable security risks arising from one's event, the event organizer should consider the measures available to mitigate those risks. The following list of security resources is intended to be scalable. The quantity of fixed assets reasonable for a particular event, and the budget available to spend on them, will depend on the event size and frequency, as well as other factors the event organizer can evaluate.

a) <u>Barriers</u>. Physical barriers can be important to establish a security perimeter around an event that is restricted only to ticketholders or other invitees. Barriers within an event space are also important to divide separate attractions, to manage crowd movement, and to provide a safe area for security to oversee them. Barriers for crowd management should help security see into the crowd and minimize lateral crowd sway that can lead to crowd crush injuries.

Many types of barriers are available. Chain link fence or snow fencing can be used in perimeter locations where the risk of intrusion is considered relatively low. Barriers against vehicular intrusions such as bollards can be permanently added to a purpose-built venue, while heavy public works trucks may provide an easily relocated measure of protection so long as the driver is stationed in or near their truck to make way for emergency vehicles. Water-filled barriers are an easy-to-transport alternative to concrete jersey barriers to separate pedestrians from motorists at temporary events. Organizers must plan where the water will come from, how to ensure the water level remains sufficient, and where used water will be discarded after the event.

b) <u>CCTV</u>. In larger venues, strategically located closed-circuit television cameras can provide a view of otherwise hard-to-access areas. There is no universally applicable number or ratio of cameras for a given event site, nor is there a requirement that an event deploy pan-tilt-zoom or infrared cameras under particular circumstances. Rather, this standard recommends that event organizers evaluate whether CCTV, or other electronic security measures such as biometric (facial recognition) technology, should be part of their event security plan, and if so, how they can maximize its usefulness while respecting attendees' reasonable expectations of privacy.

c) <u>Communication systems</u>. At many mass gatherings, security personnel nearest to guests have a relatively limited perspective. Their view over or around people may be obstructed and the venue may be dark or loud, all of which can make it difficult to distinguish cheers of joy from cries of distress. For these reasons, it is important that as many front-line security personnel as possible have radios or other means of timely communication with supervisors, public safety, or others with more or broader information about conditions affecting guest safety.

d) <u>Drones</u>. Unmanned aerial vehicles, or drones, are another means of observing a crowded space from above, another view to supplement the information provided by security rovers and workers standing post. Drone operators must always comply with applicable user safety rules and local flight regulations, which are rapidly evolving in many jurisdictions.

e) <u>Lighting</u>. Lights on an event site, in conjunction with wayfinding signage, can be configured to point the way to important health and safety areas such as restrooms, medical care, and exits. Consistent with the principles of crime prevention through environmental design (CPTED, pronounced SEP-ted), event organizers consulting with security and public safety can design temporary event sites to illuminate dark corners and other areas whose relative invisibility makes them dangerous for vulnerable guests and attractive to people with bad intent.

f) <u>Plans</u>. Event security plans should be scalable, meaning that small events with few foreseeable risks can have simple plans, while complex events may need multi-faceted safety plans created with the input of numerous stakeholders. Depending on the size of an event and the jurisdiction in which it will occur, the event organizer may apply NFPA 101, *Life Safety Code®*, 12.4.2, Life Safety Evaluation, to create an event medical plan, emergency evacuation plan, or even a mass casualty plan. Few events will conform exactly to any plan. The more realistic a safety plan is from a security standpoint, the more likely it is that the inevitable event-day decisions will be feasible for the security personnel who are on-site, rather than the personnel organizers wish were working their event.

g) <u>Pre-event research</u>. The history of security incidents at previous similar events does not guarantee that the same issues will arise in the future. Nonetheless, past conduct provides some information about what is reasonably foreseeable. Event organizers can call their colleagues for intelligence about an upcoming event and supplement that by monitoring social media chatter and consulting with local law enforcement. By gathering more information from open sources, larger events may be able to tailor their security plan or deployment to mitigate risks whose likelihood may be clearer if one knows where to look.

h) <u>Public safety liaison</u>. The challenge for public safety officials who serve as Authorities Having Jurisdiction (AHJ) is that they may have little involvement with an event until they are presented with a plan to approve, or they arrive on site. To help AHJs integrate their professional judgment and experience into safety and security plans, particularly at larger events that use the Incident Command System or local equivalent, it may be useful for that event's Incident Commander to designate a liaison to communicate directly with the AHJ for that event.

i) <u>Security guards</u>. Experienced and well-trained security guards can provide a visual deterrent to would-be wrongdoers, they can use their heightened awareness to intervene with guests before problems escalate, and they can apply information provided from others who have a broader view of the event space to address situations that may be difficult to perceive from up close during an event. NFPA 101, *Life Safety Code®*, 12.7.6, as well as Section 403 .11.3 of the International Fire Code set forth similar, but not identical, requirements for a security guard to qualify as a "trained crowd manager." The applicability of either standard may depend on the jurisdiction in which the event will take place. A persistent challenge for security guards at many large events is that they may have little involvement in creating or giving input into the event security plan. Ideally, event organizers will include their security provider and public safety officials in their safety planning process early enough to apply their training and experience.

j) <u>Signage and Messaging</u>. Many event organizers post a list of prohibited items and/or a guest code of conduct. Signage and messaging are useful to manage attendee expectations. They are most effective if they use consistent language and appearance from the point of sale to the event website, social media posts, and physical signage on property. Signage can take the form of signs or maps affixed to posts, fences, or buildings; electronic message boards; words or logos printed on illuminated balloons; handheld lollipop signs; and nearly anything else. Only one's imagination limits on the number of different ways to communicate safety and security information. Safety signage standards promulgated by the U.S. Occupational Safety and Health Administration (OSHA), the International Standards Organization (ISO), the National Fire Protection Association (NFPA), and the American National Standards Institute (ANSI) can help inform decisions about effective signage for different environments and crowd demographics.

3.4 Security Personnel Qualifications.

Like most operational considerations regarding live events, the level of experience and training of reasonably qualified security personnel will vary with the circumstances of that event. In addition to the subjects NFPA and the International Code Council consider necessary for a "trained crowd manager," these criteria generally apply

for security personnel at any event:

    a) Be at least eighteen (18) years old

    b) Have no other duties that materially interfere with their ability to provide security services

    c) Be easily identifiable as event security by their uniform, visible credential, and behavior

    d) Carry and know how to operate relevant security and personal protective equipment

    e) Have experience or training to perform applicable security tasks for that event, which may include any of the following:

        (i) Provide wayfinding through the event site

        (ii) Assist with emergency response or mass evacuation by directing guests to exits

        (iii) Manage crowded spaces and mitigate the risks of overcrowding

        (iv) Deal with intoxicated or otherwise impaired guests

        (v) Respond to hostile threats such as terrorism or active shooter

        (vi) Provide first aid or other emergency medical support

        (vii) Perform any specifically designated role in an emergency

        (viii) Communicate exigent circumstances to supervisors or AHJs, as appropriate

        (ix) De-escalate conflicts where feasible

        (x) Use force where necessary

        (xi) Assist law enforcement to eject non-compliant guests out of the event.

3.5 Security Personnel Health and Safety.

Event security plans should include provisions for the health and safety of security personnel. For example, because most security posts require standing, events lasting longer than four (4) hours should include rest areas and sanitary and dining facilities that are separated from publicly accessible areas. Event plans should specify the intervals at which security personnel are given breaks, which may be set by local regulation, and the security deployment should designate personnel to fill in during relief periods to ensure full coverage at all times. Plans should also specify options for security guards' nutrition, hydration, and shelter from the elements.

3.6 Security Personnel Training and Credentialing.

Everyone who works an event should be trained to address the consequences of the reasonably foreseeable risks that fall within their area of responsibility. This underscores the importance of the event organizer conducting some form of risk assessment and confirming that security personnel are aware of and prepared to mitigate the reasonably foreseeable security risks associated with a given event. The specific training and credentialing requirements in most U.S. states vary by employment status. Proprietary security guards – employed directly by a corporate entity for which they provide security services – may be exempt from most regulatory requirements. Security personnel employed by a company that provides security services to other entities as a subcontractor may have to comply with national or local training and licensing requirements. Given the varying age, experience, and training requirements to hold a security guard license, generally referred to as a "guard card," users of this standard are advised to check the requirements where they intend to work.

3.7 Number of Security Personnel.

There is no one correct number of security personnel for any event. This is an issue for which the term "*best* practice" is especially misleading. Both the NFPA *Life Safety Code* and the International Fire Code generally specify a 1:250 ratio of trained crowd managers to occupants in any assembly occupancy. The challenge for people creating an event safety plan is to reasonably evaluate the situations that would require a security response, and to engage enough security personnel in critical locations to mitigate reasonably foreseeable risks and hazards, who are also sufficiently experienced, trained, and flexible to address other security issues that were not foreseen.

When assessing the number and type of security personnel required for an event, several foundational issues should be considered.

a) Physical Event Space. Most permanent venues such as stadiums, arenas, and convention centers host a variety of sports, music, corporate, and other types of events. Despite each event having its own layout, a fixed venue's physical infrastructure and basic operation remains the same. By contrast, temporary event spaces can be created almost anywhere the necessary infrastructure can be transported, built, and operated. Whether an event is held in a permanent or temporary venue, the goals of every security deployment should be to protect health and safety and support crowd management, meaning that there should be enough security to keep people safe, help them navigate the event site efficiently, and if necessary, evacuate them out of harm's way. The venue's assessment of the risks associated with all its basic functions can help set minimum security staffing for any event held on premises.

b) Crowd demographics. Each event has its own risk profile based on the type of event and foreseeable crowd demographic. The risk assessment for an event must account for these differences when establishing security staffing levels and post orders beyond those necessary for basic event and venue operations.

c) Security supervisors. The number and placement of security supervisors, like security guards, will vary with the event risk profile. Some events or deployments may be so small or have few enough foreseeable risks that no supervisor is needed. Locations on an event site without obvious safety hazards or a history of incidents can be more lightly staffed to cover a larger area without impacting guest safety. By contrast, extra supervisors may be needed in foreseeably active areas like a pit or barricade to quickly respond to potentially volatile crowd conditions.

The total number of security personnel can be less than the number of posts or areas to be covered by using two common means of maximizing the efficiency and coverage they provide: repositioning and rovers.

d) Repositioning. It is a common and reasonable practice to reposition security personnel and guest services as the concentration of guests shifts from points of ingress to the area where the event takes place, and then again towards the end of the event when guests foreseeably begin to leave. Essentially, security should go where the guests are. This maximizes coverage while deploying personnel where they are most needed.

e) Rovers. Likewise, areas determined to have a low likelihood of security incidents can be staffed by rovers rather than guards standing at fixed posts. As long as they have ready access to either a supervisor or other security personnel or law enforcement to help if needed, rovers can help provide a safe environment at a reasonable cost to event organizers.

3.8 Security Dot Maps and Post Orders.
The next several sections address the process of identifying a number of security personnel based on the needs of a given venue during a particular event. From a safety and risk mitigation standpoint, this is far preferable to starting with a fixed security budget and then figuring out how many supervisors and guards that will buy.
The event organizer should document the locations that require security personnel to mitigate risks identified in the risk assessment. A logical way to determine the number of supervisors and guards for an event is to begin

with a map of the venue where it will take place, identify the locations that would benefit from security at or near that location, and then decide how many personnel would mitigate the reasonably foreseeable risks at each location. Essentially, each location on the event map requires its own risk assessment to determine how many personnel will mitigate the foreseeable security risks.

During the event planning and budgeting process, the locations determined to require security staffing can be marked on a venue map with a dot. Multiple guards at one busy location, such as an ingress gate, may be shown by adding a number inside the dot. For large events using multiple security companies, dots may correspond to the shirt color worn by each company. A map of the entire venue with all its security posts marked is referred to as a "dot map" because it is literally a map of the entire event space covered with dots at specific locations, with a corresponding legend explaining their meaning. The legend shows the number of guards and supervisors and their respective duties or areas of coverage during the event. This may be its own spreadsheet depending on the size and duration of event. The combination of map and legend is called the security "post order." A dot map, such as the one on the next page and at Appendix B, is a graphic representation of a post order. A portion of a festival post order is attached at Appendix C.

As with most aspects of event security planning, the value and necessity of detailed dot maps and post orders depends on the size and complexity of the event. For smaller or routine events, a simple deployment sheet showing an event's security roster and locations may be sufficient. The point is that there should be a risk assessment which forms the basis of the security plan, which in turn should place security where it is most needed.

A dot map and post order are useful for communicating security plans and resources between venue operators, event organizers or promoters, public safety officials, and other stakeholders. As with all plans, this is a starting place. Live events require both carefully created plans and skilled professionals to implement them, because it is the exceptional event at which everything goes exactly as planned. More often, some decision or occurrence will require a change from even the most thoughtful plan. At that point, the value of a plan shifts from being a roadmap to serving as a north star, helping event organizers manage a situation, then return to normal operations if and when it is safe to do so.
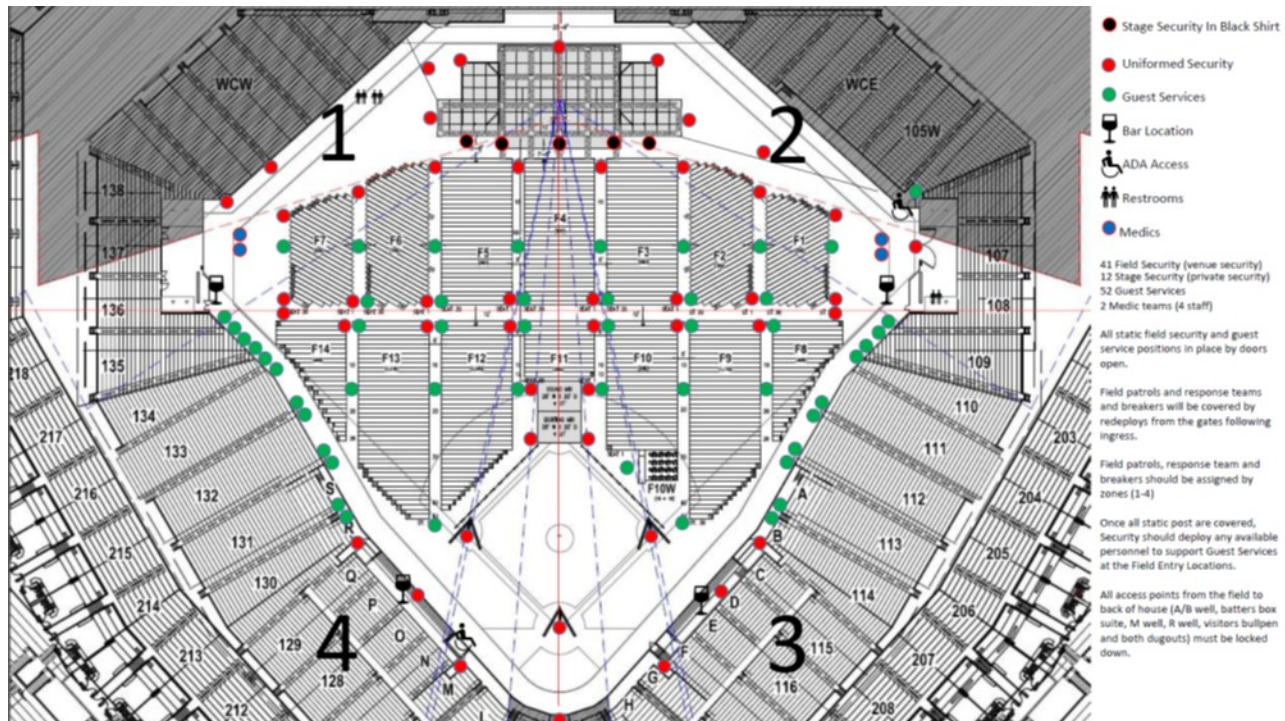

Fig. 1. Stadium dot map for concept illustration only.

Emergency evacuations during an event, for example, can be planned to some extent. Security personnel can be trained to reposition themselves to open exit gates, or to lead mobility impaired guests from the seating area to a protected location within the venue.

The reasonableness of a security dot map will depend on the security provider's understanding of the event site and how it is likely to be used during the event, from load-in through load-out. Following is a non-exclusive list of common issues a reasonable event organizer or security provider should consider when determining fixed security posts or areas within a rover's attention. The list is divided into the three phases of any event: ingress, circulation, and egress.

3.8.1 Post Order Considerations – Guest Ingress Before the Event.
As discussed in greater detail in ANSI ES1.9-2020, *Crowd Management*, "ingress" refers to the time and location a guest arrives at the event site and becomes part of the crowd requiring management and – for the purpose of this standard – security.

> a) Foreseeable crowd demographic, including gender, age, fitness (mobility and agility), likelihood of compliance with authorities, group loyalties to a team or performer that may require separating groups, foreseeable consumption of controlled substances

> b) Signage and messaging for attendees arriving by vehicle, public transit, or on foot, including wayfinding signage, notice of prohibited items, guest "Code of Conduct"

> c) Traffic control staff, whether law enforcement or private security

> d) Ingress accessibility, including pathways from parking and public transportation, doorway width, lighting and visibility, terrain, railings, trip hazards, weather exposure

> e) Ingress security measures, including bag search, wands or walk-through magnetometers, pat-downs, ticket scanning, and the order of and space available for these activities

> f) Perimeter security, including fencing, lighting, history of breaches during previous similar events

> g) Promotional activities such as giveaways that may affect ingress timing and crowd flow

> h) Closed-circuit television (CCTV) camera coverage into dark or otherwise hidden areas

> i) Trash receptacle placement to keep pathways clear of debris

> j) Other events or issues in the same area at the same time, such as construction, closed sidewalks, multiple events in nearby venues, and their effect on wayfinding, parking, security

> k) Foreseeable activity outside the venue that raises security issues, such as tailgating, unlicensed merchandise sales, ticket scalping, harassment of rivals, protests, or demonstrations.

3.8.1.1 Pat Downs and Bag Searches.
Pat downs and bag searches should be considered for people entering both the front of house areas as event guests, as well as back of house areas for event production or operations workers, artists, or their guests. The determination whether to conduct pat downs or bag checks should depend on the item(s) one is trying to preclude, and how and where those items are generally carried. For example, pat downs may be better at detecting weapons because they are usually worn on one's body, whereas contraband alcohol is generally carried in bags or other packages.

In the United States, the Department of Homeland Security's *Public Venue Bag Search Procedures Guide and Public Venue Security Screening Guide* both provide valuable guidance, and the British Security Industry Association has a *Code of Practice for Security Searchers*. There is also U.S. Department of Homeland Security program regarding *Vehicle-Borne Improvised Explosive Device Detection* which may have value for security professionals conducting event-related vehicle searches for prohibited items. Following are several further considerations.

> a) Front of House**. The likelihood that an event guest would carry a weapon or other device that threatens health or safety should determine whether the ingress process would benefit from conducting pat downs and bag searches. As well, since visible displays of security can have a deterrent effect, the event security plan should evaluate the consequences of spot-checking versus checking every guest

as they enter. For example, spot-checking means that someone carrying a dangerous object might not get checked, but if the only area where guests queue up to enter would expose them to motor vehicles or severe weather, a slow-moving ingress line might pose a greater hazard under those circumstances.

b) <u>Back of House</u>. There have been instances where people were hurt by weapons brought into a venue by workers, artists, or their associates. For these reasons, the event security plan should evaluate whether the likelihood of weapons entering the venue from a backstage area warrants adding a security checkpoint.

c) <u>Universal Considerations.</u> Every search has limitations. Pat downs and bag searches are tiring, especially if the areas are exposed to the elements, so security providers performing these tasks should be rotated often enough to reduce fatigue, maintain effective screening, and keep the line moving efficiently. Where possible, pat downs should be conducted by a member of the same sex to avoid inappropriate touching. A security supervisor or member of law enforcement posted near each security checkpoint can quickly intervene if anyone raises an issue or if a person tries to enter with a prohibited item.

3.8.2 Post Order Considerations – Guest Circulation During the Event.
The security issues that could arise when guests are circulating through an event space – after ingress and before egress – may vary widely depending on the type of event, foreseeable crowd, crowd density and movement through the venue, and countless other factors. The following non-exclusive list incorporates the issues raised in 3.8.1 and adds to them.

a) <u>Hazardous activities or circumstances</u> such as moshing, crowd surfing, stage diving, field intrusions, or excessive crowd density

b) <u>Performer behavior</u> that affects event security, such as artists entering the crowd, inviting guests onstage, or calling on them to engage in potentially dangerous activity

c) <u>History of security issues</u> where an artist or team is involved

d) <u>Venue layout and design</u>, including reserved seating or general admission, barrier configuration, wayfinding signage, lighting, pathways for security, medical, and law enforcement to reach guests in distress, number and location of restrooms, line control at points of sale for food, beverage, and merchandise, existence of designated walkways in general admission areas to mitigate trip hazards

e) <u>Crowd flow monitoring</u> through the venue in order to relieve excessive crowd density, bottlenecks, or other potential crowd crush conditions

f) <u>Event duration</u> which can affect the number and timing of breaks for security and the number of breakers needed to relieve them

g) <u>Local ordinances</u> or union requirements which may affect security plans.

3.8.3 Post Order Considerations – Guest Egress from the Event.
Many considerations related to guest egress are similar to the considerations regarding ingress. Egress does, however, raise some additional security issues. Egress may be controlled and planned, as for a normal egress at the end of an event. There may be an emergency egress, which will require prompt redeployment of guards to help guests move quickly and safely away from danger. There is also involuntary egress when a guest's misconduct leads to their ejection from the venue.

3.8.3.1 Emergency Egress.
Like normal egress, security considerations for emergency egress begin at the planning stage, before the first guest enters the venue. Here are measures that will generally enhance safety and security during an emergency evacuation of an event site.

a) Pre-event messaging through the public address system will proactively notify guests of exit locations and procedures in an emergency, so they are more likely to help themselves rather than waiting for instructions

b) Turn up house lights to help guests find everyone in their group, locate exits, and minimize fear

c) Stop the performance to capture guest attention, prepare to receive emergency instructions

d) Repeat safety messaging using venue video, audio, security guards, and guest services

e) Reposition security towards exits to lead guests out of the venue or away from a hazard, particularly if the hazard requires people to leave a different way than they entered

f) Open exit doors and gates to maximize crowd flow and create sightlines outside the venue

g) Remove obstructions that may block exits or impede guests with mobility impairments.

3.8.3.2 Ejection and Use of Force.
Some guest misbehavior is such a serious violation of law, breach of public safety, or breach of the rules of conduct for the venue or event that the guest must be ejected.

h) Warnings and Ejections. Except for significant misbehavior, ejection should generally follow a warning issued by a member of security, law enforcement, or an event supervisor. The decision to eject a guest should be made by someone with the training and authority to decide when ejection is the most reasonable option under those circumstances. The person conducting the ejection should understand conflict de-escalation techniques, as well as the amount of force they can use. See the sample ejection card and script attached at Appendix D.

i) Multiple Party Incidents. Where individuals in an altercation are being ejected, combatants should be separated and escorted out of the venue from physically distant locations, ideally at different times, to minimize the likelihood they will resume hostilities outside, where there may be less security or law enforcement available to intervene.

j) Use of Force. Generally, security providers may use only the minimum force reasonably necessary to stop a threat to the health or safety of people involved in an incident. An escalation process should be developed and reviewed with security providers before an event. For example, it should be clear when force may be used in self-defense versus the defense of others, and when a security guard should get help from a supervisor or law enforcement. Unlike many other aspects of event security, the specific circumstances under which force may be used, and the amount of force permitted in a given situation, may be highly regulated by applicable law. Many jurisdictions have use of force models to guide law enforcement which are equally applicable to private security. Other rules may be different for law enforcement officers than for private security guards, so it is important to know the law where an event will take place.

3.9 Incident Reports.
Many incidents that require a response by event security, including warnings and ejections, should be documented in an incident report. Incident reports can serve many important purposes, including creating a record for future litigation, event planning to help identify problem areas within a venue, or budgeting for future security deployments. Incident reports must cover the "who, what, where, when" of the incident, written from the perspective of the responding security personnel and any eyewitnesses. The method or form of report is less important than its content – electronic reporting or paper reports can both be fine. In any format, the information provided must be based on first-hand knowledge, written in a clear and factual manner, and be retained for the duration of the statute of limitations in that event's jurisdiction. Incident reports should be drafted carefully, providing names, dates, locations, and other proper nouns that will help explain the situation long after memories have faded or staff have moved on. Incident reporting is discussed in ANSI ES1.9-2020, *Crowd Management*, at 4.3.6.

3.10 Post Event Review.
As soon as possible after an event, while details are still fresh, it may be useful to convene a "hot wash" meeting

with relevant parties, including security and law enforcement, to review how well event plans met actual circumstances. Relevant questions may include (a) What went as anticipated? (b) What worked out differently than expected? (c) Where there near misses whose causes should be addressed for future events? A detailed "after action report" to document incidents, observations, and lessons learned can create valuable institutional memory. By documenting notable issues and risk mitigation measures, security personnel will gain valuable institutional knowledge that can help avoid future problems.

3.11 Security Personnel and Guest Experience.
Where possible, security measures should enhance guest experience as well as protecting people and property. For example, walk-through magnetometers not only reduce the likelihood of human error inherent in the use of hand wands at points of ingress, they also allow faster guest entrance. Enhanced screening efficiency solves a security issue – dense crowds at the point of ingress – and addresses a principal guest complaint, long security lines. A guest-focused security plan can lead to happier guests who have more time to find friends, make purchases, or enjoy the event, all of which tends to de-escalate conflicts and enhance event security.

4 References

Code of Practice for Security Searchers, British Security Industry Association, July 2015

Public Venue Bag Search Procedures Guide, U.S. Department of Homeland Security, Commercial Facilities Sector, June 2019

ANSI ES1.9-2020, *Crowd Management*, July 2020.

Public Venue Security Screening Guide, U.S. Cybersecurity and Infrastructure Security Agency, Commercial Facilities Sector, June 2021.

Vehicle-Borne Improvised Explosive Device Detection, U.S. Department of Homeland Security seven-hour training course.

Appendix A

Risk assessment matrix referenced in 2.13.

Risk = Likelihood x Consequences

Consequences

5	15	25
3	9	15
1	3	5

Likelihood

A useful risk assessment formula is Risk = Likelihood x Consequences. Some disciplines, such as emergency management and occupational health and safety, may require creation of a HIRA ("Hazard Identification and Risk Assessment"). A HIRA can help allocate resources to reduce risk to an acceptable level under the circumstances.

Note that while this risk assessment matrix is conceptually useful, it suggests a level of mathematical certainty that can be misleading. For example, trip and fall injuries are among the most common incidents at any mass gathering, meaning they should be assigned a high likelihood number. But the consequences are generally minor, so that number in the matrix should be low. By contrast, an armed assault is unlikely at most events, but the consequences are often catastrophic when one does occur. Does the resulting numerical value on this chart mean that one should devote as many resources to mitigating the risk of improbable occurrences as are used to prevent simpler and far more common incidents? This is the issue event organizers and their security providers should address before adopting the output of a risk matrix as their final answer.

Appendix B

Security dot map referenced in 3.8.
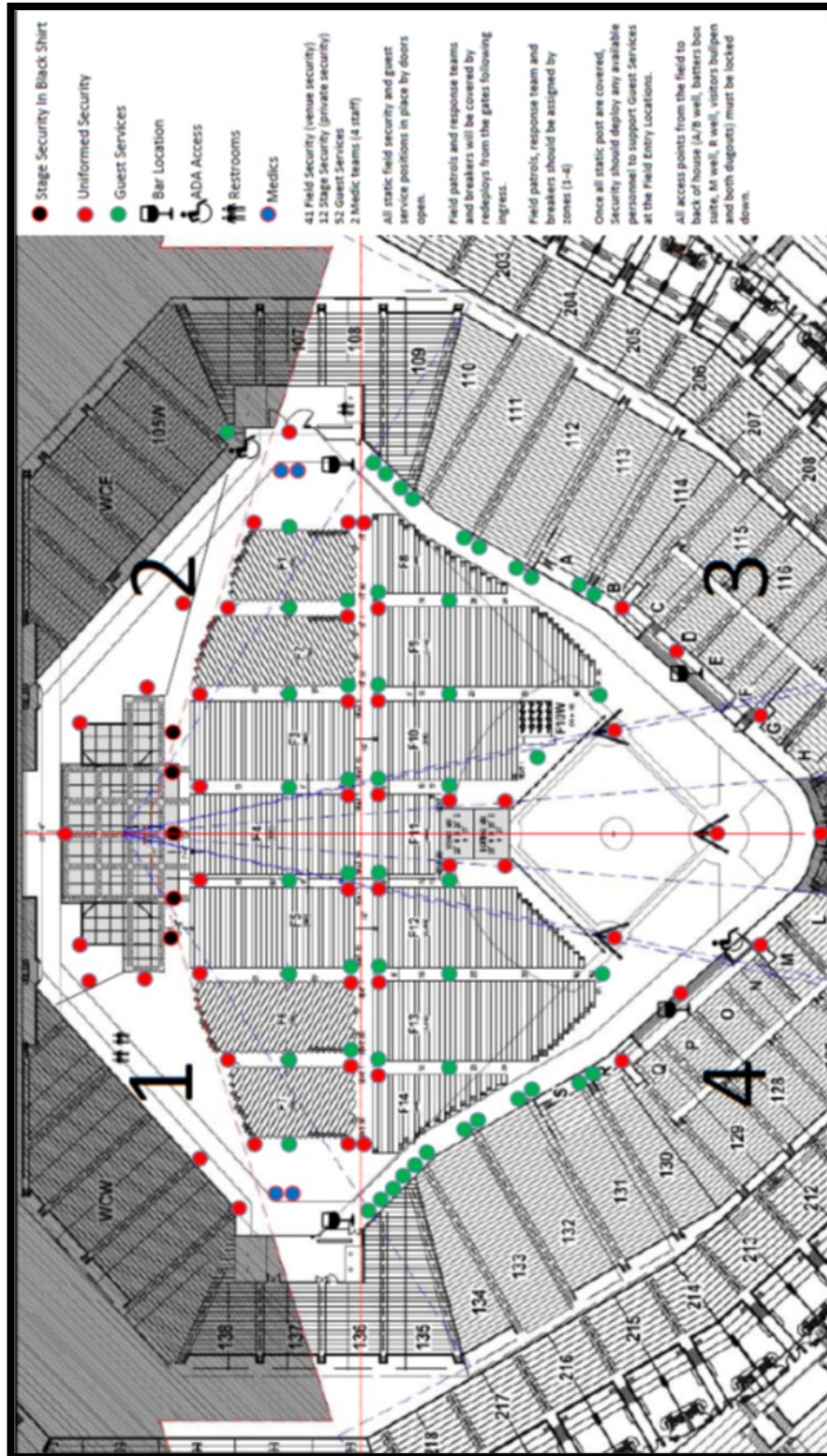
Appendix C

Sample festival post order referenced in 3.8.

DATE	POST AREA	POST #	POST POSITION	STAFF	IN	OUT	TOTAL HRS	NOTES
1/21/2023	Main Stage	1	Gate 1 vehicle gates	2	8:00 AM	8:00 PM	12	
1/21/2023	Main Stage	2	Gate 9 golf cart path	2	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	3	Dressing room compound entrance	2	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	4	Dressing room headliner	2	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	5	FOH	1	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	6	Barricade	5	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	7	Barricade Supplement	7	4:00 PM	12:30 AM	8.5	
1/21/2023	Main Stage	8	Stage area roamers	6	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	9	VIP entrance	2	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	10	VIP exit	1	12:30 PM	2:00 AM	13.5	
1/21/2023	Main Stage	11	Stage supervisor	1	12:00 PM	12:30 AM	12.5	
1/21/2023	Main Stage	12	Barricade supervisor	1	12:00 PM	12:30 AM	12.5	
1/21/2023	Main Stage	13	VIP supervisor	1	12:00 PM	12:30 AM	12.5	
1/21/2023	Main Stage	14	Merch	1	12:30 PM	12:30 AM	12	

Appendix D

Sample guest ejection card and script referenced in 3.8.3.2(a).

EJECTION CHECKLIST

For any ejection, ensure the following have been completed.

- You have read or attempted to read the [venue or event] Ejection Script to the guest(s) being ejected (see back of card).

- You have made reasonable efforts to ensure the guest(s) have a safe ride home.

- As necessary, involve Police or other public safety officers.

- Document all ejections, including that you have read or attempted to read the Ejection Script to the guest(s) being ejected.

SAFE RIDE HOME RESOURCES

- ☐ Taxi: [phone]
- ☐ Rideshare pick up: [location]
- ☐ As necessary, request Police/public safety to assist.

GUEST EJECTION SCRIPT

Read the following script to any guest being ejected from [event or venue].

1. "I am an authorized representative of [venue or event].
2. You are being ejected for violation of our Guest Code of Conduct.
3. Do you have a safe ride home today?
4. Would you like us to call a cab for you today?
5. Can I help you contact a sober friend or relative to drive you home today?
6. Ride share pick up and drop off is located at [location].
7. Please note that vehicles left overnight in area garages [will/will not] be towed."