APPENDIX E. SCAFFOLDING SAFETY PROGRAM SEPTEMBER 2022

Purpose
VSC Fire & Security, Inc. (hereinafter "VSC) has established a consistent set of guidelines to help protect employees while working on or around scaffolding. The Program focuses on educating VSC employees on the safety requirements to be followed when using scaffolding.

As a rule, VSC does not erect, modify or dismantle scaffolding of any kind. This task is either completed by the host or contracted to a qualified scaffolding vendor. In the unlikely event that VSC employees may be called upon to erect, disassemble, move, operate, repair, maintain, or inspect a scaffold, this Program includes the process to be followed by the employee(s).

Regulatory Scope
This procedure addresses regulatory requirements under 29 CFR 1926 Subpart L (1926.450-54) and 1910.28 as applicable.

Working On or Around Scaffold(s)

General Requirements
VSC employees and managers will ensure that the scaffold to be used, and its supports, is capable of supporting the load they are designed to carry with a safety factor of four.

Hazard Control
VSC will require that all necessary engineering and administrative controls are put into place to ensure the health and safety of its employees when using or working around a scaffold. Each District Office is responsible to conduct a Job Hazard Analysis (JHA) prior to working around or on a scaffold and identify the following Engineering and Administrative controls.

Engineering Controls can include, but are not limited to:

- Proper construction of elevated work locations.
- Use of top-rails, mid-rails, and toe boards where required.
- Proper design of fixed ladders & stairs.
- Adequate lighting in all work areas.

Administrative Controls can include, but are not limited to:

- Training for all employees who work at elevated locations.
- Routine inspection of ladders, stairs, and walking and working surfaces by VSC management via its jobsite safety audit process.
- Enforcement of VSC housekeeping requirements.
- Immediate cleanup of material spills.

Fall Protection for Fabricated Frame Scaffolds (tubular welded frame scaffolds)
Employees working on scaffolds more than 10 feet above a lower level shall be protected from falls. Guardrails or personal fall protection (anchored to a fixed point not attached to the scaffold) is required at all times when working above ten feet. Specific fall protection requirements are addressed in Appendix D. "*Fall Protection Safety Program*" of the VSC Health & Safety Program.

Fall Protection for Mobile Scaffolds

- Employees working on mobile scaffolds 6 feet above a lower level must be protected from falls. Guardrails are required at all times when working above 6 feet.
- Mobile Scaffolds must be braced by cross, horizontal, or diagonal braces, or a combination thereof, to prevent racking or collapse of the scaffold and to secure vertical members together laterally so as to automatically square and align

the vertical members. Scaffolds must be plumb, level, and squared with all brace connections secured.

- Scaffold casters and wheels are to be locked to prevent movement of the scaffold while the scaffold is used in a stationary manner.
- The scaffold must be stabilized to prevent tipping during movement. Employees are not allowed to "ride" while scaffold is being moved horizontally.

Falling Object Protection

Employees working on scaffolds shall be provided with protection from falling hand tools, debris, and other small objects by wearing a Hard Hat, and through the installation of one of the following that is designed to contain or deflect the falling object:

- Toe-boards.
- Screens.
- Debris Nets.
- Guardrail Systems.
- Catch Platforms.
- Canopy Structures.

In the event that the falling objects are too large or heavy to be contained or deflected in this manner, such objects will be placed away from the edge of the surface, from which they may fall, and be secured as necessary to eliminate their falling. If the objects are not VSC's material or equipment, VSC employee(s) will communicate this need to the owner or General Contractor and ensure their compliance before proceeding to work on or around the scaffold.

Inspection Criteria

Prior to employee use, VSC will ensure that a competent person inspects all scaffolding and scaffolding components for visible defects and after any occurrence that could affect the scaffold's structural integrity. VSC will ensure that daily inspections are performed by trained individuals before allowing employees onto the scaffold. Documentation will be maintained by the assigned VSC Field Superintendent.

Any damaged or weakened parts of the scaffolding must be reported immediately to VSC's Risk & Safety Department (hereinafter "Risk-Safety) or the assigned Field Superintendent for repair or replacement. The Field Superintendent will report all damaged staging and scaffolding to the host facility and the competent person will immediately tag the scaffold "Out of Service", to warn users of the inoperable and unsafe condition. VSC employees will be prohibited from using and/or working around the scaffold until such time that it is deemed safe to use and/or work around by a competent person.

Access to Scaffolding

- Climbing Cross-braces is Prohibited!
- Scaffold platforms located more than 2 feet above or below a point of access shall be provided with a means of access (i.e. Portable ladders, Hook-on ladders, Attachable ladders, Stair towers).
- Portable, Hook-on and Attachable ladders shall comply with the following:
    - Placed so that the scaffold will not tip.
    - Positioned so that their bottom rung is not more than 24 inches above the scaffolding support.
    - Provided with rest platforms at 35 foot maximum vertical intervals when used on a supported scaffold more than 35 feet high.
    - Designed for use with the specific type of scaffold.
    - Designed with a minimum rung length of 11 ½ inches.
    - Equipped with uniformly spaced rungs. Maximum spacing between rungs shall be 16 ¾ inches.
- Stair-way type ladders shall comply with the following:
    - Positioned so that their bottom step is not more than 24 inches above the scaffold supporting level.
    - Provided with rest platforms at 12 foot maximum vertical intervals.
    - Provided with a minimum step width of 16 inches.
    - Provided with slip resistant treads.
- Stair towers shall comply with the following:
    - Positioned so that their bottom step is not more than 24 inches above the scaffold supporting level.
    - Provided with a top-rail and a mid-rail on each side of each scaffold stairway.
    - Designed so that the top-rail serves as a hand-rail.
    - Surfaced to prevent injury from punctures or lacerations or snagging of clothing.

- Designed so that the stair-rail handrails do not pose a projection hazard.
- Stair-rails shall not be less than 28 inches, or more than 37 inches, from the upper surface of the stair-rail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
- Provided with a landing platform at least 18 inches wide by 18 inches long at each level.
- Each stairway shall be at least 18 inches wide between stair-rails, installed between 40 degrees and 60 degrees from the horizontal.
- Each landing shall be provided with a guardrail.
- Riser height and tread depth shall be a uniform ¼ inch for each flight of stairs.
- Ramps and walkways 6 feet or more above lower levels shall have guardrail systems that comply with requirements outlined in Appendix D. "*Fall Protection Safety Program*".
- Ramps and walkways shall be inclined no more than one vertical to three horizontals.

Training

VSC will ensure that all employees performing work on scaffolding are trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. Any employee who does not comply with this training will be subject to discipline, up to and including termination of employment.

A qualified person will meet the definition as outlined by OSHA: "one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

The VSC District in need of a qualified person will first look within its own organization for a person who is defined as a "qualified person". If the person does not exist, they will contact Risk-Safety for assistance in identifying a qualified person within the VSC organization, or as an external vendor.

The training shall include the following areas, as applicable:

- Nature of electrical hazards, fall hazards and falling object hazards in the work area.
- Correct procedure for dealing with electrical hazards.
- Correct procedure for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used.
- Proper use of the scaffold.
- Proper handling of materials on the scaffold.
- Maximum intended load and the load-carrying capacities of the scaffold being used.
- Any other pertinent requirements outlined in 29 CFR 1926.454.

Recordkeeping

Risk-Safety will maintain training records. Records will include: employee name, training topic-to include course content and level of training (exposed employee or competent person training), date of training, certification (where applicable), and date of future training to maintain certification.

Re-Training

Re-training of the employee regarding the erection, use or dismantling of scaffolds will be conducted when any of the following occur:

- If VSC has reason to believe that the employee lacks the skill or understanding needed to work safely when erecting, using or dismantling scaffolds.
- Where changes at the jobsite present a hazard for which an employee has not been trained.
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard for which an employee has not been previously trained.
- Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

The affected employee is required to complete Re-Training *before* the employee is permitted to work on scaffolding.

Erecting, Disassembling, Moving, Operating, Repairing, Maintaining or Inspecting Scaffold(s)

In the rare situation where a VSC employee(s) will be involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold, the employee(s) will be trained by a competent person to recognize any hazards associated with the work in question. The training will include the following:

- Nature of scaffold hazards.
- Correct procedure for erecting, disassembling, moving, operating, repairing, inspecting and maintaining the subject scaffold.
- Design criteria, maximum intended load-carrying capacity, and intended use of the scaffold.
- Use of fall protection while performing the subject tasks.
- Other pertinent provisions of 29 CFR 1926.450-54.

Design Criteria

- Only trained, qualified, and authorized employees will erect, dismantle, move, operate, repair, inspect or maintain scaffolding.
- Only qualified and competent personnel are allowed to modify scaffolding systems.
- No scaffolding will be used until erection is complete.
- Scaffolding and components will be capable of supporting, without failure, their own weight and at least 4 times the maximum intended load applied or transmitted to it. This includes equipment and personnel.
- The scaffolding frame will be stable with proper footing. Footing will be level, sound, rigid, and capable of supporting the loaded scaffolding without settling or displacement. Scaffolding cannot be built on blocks, barrels, boxes, or other unstable surfaces.
- Supported scaffolding with a height to base width ratio of more than four to one (4:1) will be restrained from tipping by guying, tying, bracing, or equivalent means.
- Tubular scaffolding, which is 26’ high or 30’ long, will be secured to a stationary structure.
- Scaffolding platforms will have guardrails (top and mid-rail) and toe-boards on all open ends and sides.
- Additional rules apply to mobile scaffolds:
    - Wheel locking devices must be in place and in good condition.
    - Before moving the scaffold, secure all tools and materials and ensure that the path is clear of floor and overhead obstructions.
    - No one shall ride on the scaffold when it is to be moved.
    - Additional wheel chocks or securing of scaffold will be utilized if within close proximity of an open edge or stairwell.
- Top-rails will be between 42” and 45” high for shipyards or 36” and 45” high for general industry, with the mid-rail installed approximately midway between the top-rail of the guardrail and the platform surface.
- Toe-boards must be at least 4” in height.

Platforms & Planking

- Planking will be made of lumber that is sound, straight-grained, free from cross grain, shakes, and large, loose, or dead knots. The type of lumber to be used will be spruce, fir, long leaf yellow pine, Oregon pine, or wood of equal strength. The lumber will be free from dry rot, large cracks, wormholes, or other defects that could impair the strength and durability of the wood.
- Planking will not be less than 18-inches in width.
- Planking will extend beyond the supporting member at either end by at least 6 inches, but no more than 12 inches, unless the planks are fastened to the supporting members. For platforms 10’ or less the end shall not overhang more than 12 inches. For platforms > 10’ the end shall not overhang more than 18 inches.

Back-Rails and Toe-Boards

- All scaffolding, runways, or working platforms, which are supported or suspended more than six feet (6’) above a solid surface, or at any distance above the water, will have railings equipped with top and mid-rails.
- Rails will be of 2”x4” lumber, flat bar or pipe, or material of equivalent strength.
- When necessary, to prevent tools and other materials from falling on people below, toe-boards of 1”x4” lumber will be used.

Requirements for Employees Erecting or Dismantling Scaffolds

- Employer shall provide safe means of access.
- Hook-on or Attachable ladders shall be installed as soon as it is safe to do so.
- Cross braces on tubular welded frame scaffolds shall not be used as a means of access or egress.