

CONTRACTOR SAFETY PLAN

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE shall be required for all persons in construction areas. The following items shall be furnished, inspected, and maintained by the employer:

Hard Hats shall be ANSI stamped (Z89.1-1997, Type I, Class E, G and C). Hard Hats shall be worn 100% of the time in construction areas when work is being done overhead, with the brim forward (or as allowed by the manufacturer). "Cowboy" style hard hats shall not be allowed (even if ANSI stamped). Hard hats with noticeable wear or damage shall be replaced.

Eye Protection (Safety Glasses) shall be stamped ANSI Z87. If a worker wears prescription glasses (plastic lens only) that are not marked Z87, the employer shall furnish goggles or safety glasses that are designed to fit over another pair of glasses. Eye Protection (Safety Glasses) shall be worn 100% of the time in construction areas. Additional eye and face protection shall be provided by employers for any employee when work operations create an exposure to airborne particles, chips, sparks, radiation, etc. The additional eye protection must be designed to prevent any airborne material from penetrating the opening between the protection and the eyes.

High visibility vests or high visibility upper body clothing (equivalent to ANSI Class 2 or greater as applicable) shall be worn when the worker's primary work activities are subject to vehicle traffic and/or heavy equipment movement in the construction area. Primary work activities such as traffic control, excavations, rigging from ground level, exterior work at ground level or sub-ground level, earth moving operations will adhere to this requirement.

Hearing Conservation and Protection shall meet or exceed OSHA requirements. Except for suppression of sound energy level, no devices or equipment shall be placed in or over the ears. Portable radios, cell phones or any other electronic devices shall not be used by the general work force for any reason while in the construction areas. Use by supervision, project management, and safety persons is allowed for work related and emergency communications only. Music devices with or without earpieces are strictly prohibited by anyone while in the construction areas.

Hand Protection that is designed to counter the potential for injury exposure shall be furnished to all workers who must handle materials or equipment with sharp edges, slick surfaces, chemically reactive components or extreme temperatures.

Respiratory Protection shall meet or exceed OSHA requirements.

Foot Protection (work shoes) must have soles with a resistance to punctures, uppers that cover the entire foot and ankle and resist scrapes and cuts. Sandals, open-toed shoes, dress loafers, high-heels, and all athletic style shoes (including those with ANSI markings) are prohibited. Additional protection such as metatarsal guards over work shoes (including steel toe boots) shall be provided when work operations create impact exposures.

Other OSHA required PPE shall be furnished as appropriate for specific tasks.

Other clothing:

Shirts shall not have noticeable holes and shall be free of profane, inflammatory, sexually explicit or discriminatory messages. Sleeve length shall cover the ball of the shoulder and shirt length shall reach waist of pants. Shirts shall not provide snag points.

Pants shall be full length. Holes must not be large enough to provide snag points or offer measurable amounts of exposed skin.

FIRST AID/CPR

A minimum of two (2) Contractor employees, with current certifications for First Aid /CPR and for use of the AED, shall be at the Project whenever work is being performed.

WORKER TRAINING

All workers shall be trained to perform their specific task(s). Formal documentation to support claimed training must be provided if asked for. Acceptable documentation for all certifications and training claimed shall contain organization, name, and title of the trainer(s), date of training, material covered with time spent on each topic, and evaluation process used to determine worker understanding of training.

Cranes shall be operated only by persons who possess certification from an organization that carries nationally recognized accreditation. Industrial Trucks (forklifts) shall only be operated by persons who have been certified by their employer.

For every position that is required to assist with crane and motor driven equipment operations (flaggers, signal persons, riggers, spotters, etc.), the using company shall transmit to the UT Tyler a list of employees who are trained and authorized to perform these functions.

Daily Job Hazard / Safety Analysis (JH/SA) Training

Prior to start of the work, the foreman shall discuss the JSA with all members of the work crew to explain how the work steps for the shift are to be accomplished. Explanation shall include a discussion of all the work activities that will be performed in the vicinity as well as the work that the crew is expected to accomplish. Explanation shall address all the recognized risks associated with the task and the hazard controls to be installed or actions to be taken to eliminate or minimize the exposures. Actions to be taken in the event of an emergency shall also be included and documented.

A JH/SA shall be produced to document this meeting. It shall contain names and initials of all attendees, name of supervisor/foreman, a project specific daily statement of task(s), and any special safety measures or actions that are required to assure elimination or minimization of risk. The supervisor's and workers' signatures on the JH/SA shall be understood to also mean a thorough communication of all anticipated hazards and controls has been provided to all workers. The JH/SA shall be modified as work activities change, warranting additional review and communications to the affected workers throughout the shift.

Project Weekly Site Safety (“Toolbox Talk”) Meeting

All workers on the project site, including site Project Management team members, shall attend a weekly safety Toolbox Talk, which shall be presented in English and all other languages that are natively spoken at the Project.

Initial and Annual Inspection of all Cranes and Motor Driven Equipment

The supervisor/foreman shall ensure manufacturer required safety inspections and written certifications for all hoists, cranes, mobile equipment, motorized scissors and aerial lift platforms, motorized stage platforms, generators, and compressors are maintained on the Project.

The supervisor/foreman shall ensure that all equipment inspections are consistent with the manufacturer’s requirements. An initial inspection and certification of proper condition shall be transmitted to supervisor/foreman before a piece of equipment is allowed to commence operations on the Project.

The supervisor/foreman shall ensure all equipment is inspected annually and certified as required prior to initial use. Any equipment that leaves the Project and returns will require re-certification before it shall be allowed to resume operation at the Project.

Mobile Equipment (boom or scissor lifts, forklift) and Crane Operator Records

A record of training must be available if asked for. The minimum amount of detail for each inspection as applicable for the specific piece of equipment shall include the following:

Pre-start up inspection, travel path issues, and location/set up procedure;

Start up, operation, intended use, and shut down (normal and emergency);

Equipment Operations Manual, Limit Chart(s), Motor Plate information, equipment capacities and limitations, alarm features, safety stops, seat belts, roll over protection and preventive maintenance;

Any additional operational topics as indicated by the equipment manufacturer.

CONSTRUCTION OPERATIONS

The following requirements are either in addition to or in the absence of Federal and State regulations. Where conflicts exist, the most stringent directives shall apply.

BURNING, WELDING, AND FLAME OPERATIONS

“Hot-Work” permit forms shall be issued by the UT Tyler EH&S. Permits shall identify fire watcher.

CONFINED SPACE

All confined spaces are permit required until proven otherwise [in writing] by the contractor/subcontractor's competent person. All confined spaces, regardless of classification, shall have continuous multi-gas/4-gas air monitoring while the space is occupied by tradespersons. Trained attendants must be positioned outside of the confined space area and are responsible for communicating hazards, summoning rescue and emergency services or performing non-entry rescue.

CRANES

Tower cranes (including affiliated transformers and power supply equipment) shall be surrounded by at least a sixteen-foot (16') high, 5/8-inch plywood enclosure with a lock-controlled entrance.

Operators of cranes shall be trained in the specific make and model of crane and possess certification from a nationally accredited certifying organization.

Every crane and piece of hoisting equipment shall be equipped with an anti-two blocking sensor above each lifting block.

Unless the crane is equipped with sensors that inform the operator of the weight of the load on the hook and the current wind speed, these measurements shall be determined by other means before commencement of each lift.

When outriggers are used on cranes, they shall be fully extended. Float pads shall be landed onto leveled and properly designed and sized slabs or cribbing. Where steel plate is used for cribbing, welded or bolted cleats shall be attached to upper surface to prevent float pads from moving horizontally.

Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.

Cranes of up to and including 35-ton capacities, wooden cribbing shall be a minimum of four inches (4") in thickness. For cranes over 35-ton capacities and up to 150-ton capacities, cribbing shall be a minimum of eight inches (8") in thickness. For all cranes up to 150-ton capacity, the minimum size of the surface ("footprint") of the cribbing assembly shall be determined by the following formula: the capacity of the crane (in tons) divided by 5 equals the minimum square footage required. Properly sized circular crib pads are acceptable. Side dimensions for rectangular crib pads shall be equal or differ by no more than one foot. For cranes larger than 150-ton capacities, a qualified person shall design the cribbing. "Sandwich" units of cribbing are allowed as long as the plywood on bottom and on top is at least one inch in thickness.

For "Pick and Move" operations, the pick shall be made directly in front of the crane with the boom as near vertical as possible. Move at walking speed with a "spotter" in front of the load and another behind the crane. Guy wire cables that secure the load to the body (to prevent lateral force loading of the boom) of the crane shall be required if the grade slope is more than three (3) degrees or the terrain is uneven. Only rubber-tired cranes shall be allowed to perform this operation without a "critical lift" plan and the load must be under fifty percent (50%) of the "on rubber" chart limit.

Critical Lifts shall include, but not be limited to: (1) Tandem Lifts, (2) Lifts greater than seventy-five (75%) percent of Load Chart, (3) Crane Suspended Personnel Hoists, (4) Non-Conventional Outrigger placements and (5) "Blind" picks and/or placements. All of these events shall require submittal of custom designed plans by qualified persons. The PM is responsible for review and acceptance prior to planned lifts.

Multiple lift operations ("Christmas Treeing") shall not be permitted.

Only the designated rigger and/or signal persons shall issue lift instructions to the operator. The only exception shall be an emergency stop signal, which may be delivered by anyone on the Project who knows how to alert the operator.

All loads lifted more than six feet (6') above ground elevation shall have a tag line attached that is long enough to allow control of load spin without placing any part of the body directly below the load. When "shake out" hooks are used, the load must never be elevated above five feet (5') over the surrounding surface and workers must stay at least five feet (5') horizontally away from the suspended load.

For any load that may be elevated, and the travel path may impact any worker, a means for worker notification must be in place. The crane operator may perform this notification by horn if the load can always be seen. If the crane operator may lose sight of the load at any time, notification must be made by a designated individual who can maintain sight of the load. Notification must be accomplished by some means that attracts the attention of all workers.

Any assembly or disassembly of a tower crane will only be done while activities are monitored by a crane consultant provided by the crane company. Prior to any operation, the tower crane assembly/disassembly contractor shall provide a detailed plan for the work. Submission of this plan in no way relieves the Contractor from ensuring all documentation is provided, reviewed for accuracy based on the planned task(s), ensuring that the work is pre-planned and communicated to all affected workers, all workers are properly trained to perform their tasks, and that all work is done according to the agreed to plan.

DEMOLITION

Always maintain clearly marked and well-illuminated egress paths.

Maintain barricades and signage that isolates impacted areas to prevent entry by other trades and members of the public.

Removal of materials and trash from elevated locations must be controlled.

Materials, scraps or waste shall never be allowed to free-fall from a height greater than ten feet (10'). Items that may be caught by wind and carried horizontally shall never be allowed to drop freely from any distance. If items are allowed to be dropped freely (unless as indicated previously), a person shall be stationed at the landing elevation at a safe distance to warn others away from the operation, and the landing area shall be surrounded by fence type barricade placed at least six feet (6') outside of the expected landing area. Wall openings that may be located vertically between the material drop point and the expected landing area shall be securely covered and marked from inside. Anything that is to move downward at a distance greater than ten feet (10') or is capable of sailing horizontally shall be contained within a chute or controlled by hoist.

Unless the Contract documents clearly call for it, the use of explosives for demolition is prohibited.

ELECTRICAL POWER

Ground Fault Circuit Interruption (arc flash electrical testing) shall be the primary protection from exposure to electrical current for all workers on the Project. Only exit lighting and medium-high (greater than 240) voltage service will not be GFCI protected.

All receptacles and switches shall have trim plates installed before they are energized.

All power distribution panels shall have full covers installed before primary power is brought into the panel. When energized panels are located in open areas, covers shall be locked except when an authorized electrician is working in the immediate area. When panels are located inside separate rooms or closets, automatic closers and automatically locking hardware shall be installed on doors as soon as equipment is energized, and only authorized persons shall be provided a key. Doors shall not be wedged to stay open. Warning signs shall be placed in conspicuous locations. Locked electrical room or panel doors will not be considered to meet the requirements of a Lock Out / Tag Out program. The Lock Out / Tag Out program in use must ensure that any affected worker has the ability to confirm equipment being worked on has been de-energized, made safe, and has individual control of the locking device and tag used to control inadvertent startup of the equipment.

Extension cords used must be a minimum of 12 gauge.

FALL PROTECTION AND PREVENTION

Any walking/working surface that is equal to or greater than six feet (6') above the surrounding area shall present an unacceptable fall exposure unless it has all edges (side and ends) protected by an attached guardrail system, fall arrest equipment, fall restraint equipment, fall capture netting, or is blocked off by an adjacent wall. An adjacent wall shall be continuous, structurally sound, and at least thirty-nine (39) vertical inches above the walking/working surface, and within eight (8) horizontal inches from the open edge.

Covers placed over pier holes, and roof or floor openings shall be physically secured and clearly marked with warning message "HOLE COVER - DO NOT REMOVE." Any cover that is too small for legible wording shall be bright orange or red.

Equipment and work operations of any description shall not be permitted to be performed directly above a worker unless adequate overhead protection is provided prior to commencement of the operation.

FIRE PROTECTION

All fire extinguishers that are task specific shall be inspected and furnished in advance by the employer that will be conducting the work requiring such firefighting provisions. The fire extinguisher shall be situated within sight of and less than twenty-five feet (25') from the perimeter of the task operation. All work that includes burning or welding of any type shall be defined as "hot work" and shall require the presence of a fire extinguisher, at least one fire watcher, and a Hot Work Permit.

No more than twenty-five (25) gallons per floor, of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet.

HOUSEKEEPING

All construction waste, trash, and debris shall be placed in designated receptacles. Glass bottles shall not be permitted on the Project site.

Place all hoses, cords, cables and wires in locations that prevent them from being damaged by equipment, sharp edges or pinch points and from creating tripping hazards.

Secure and effectively cover all materials on roofs or elevated levels that may be displaced by wind or damaged by driving rain or standing water.

Restore all signs, barricades, fire extinguishers, guardrails, gates, etc. to proper locations and sound condition.

Properly store and secure all flammable and combustible liquids and gases.

Collect and place all cut-off or waste pieces of rolling stock, as they are created, into waste or scrap containers.

LADDERS

Until such time that usable stairways are in place, every elevated platform (slab, deck or work surface) shall have at least two (2) remote means of access/egress when the platform is populated by more than three (3) persons. A double-cleated ladder may only serve as one (1) independent means of access/egress.

Portable aluminum ladders shall be prohibited.

Extension ladders, straight ladders and job-built ladders shall be secured from movement at the top and the bottom.

Work from portable step ladders can occur as long as a "three point" contact is maintained, the ladder is properly positioned, secured from movement, the worker's center of gravity remains between the rails and in front of the feet, and the worker's waist does not extend above the top of the ladder. The height of the worker's feet is limited to twelve feet (12') above the supporting work surface for this exemption/exception.

Work from an extension or straight ladder is allowed if the ladder is properly positioned, secured from movement, "three point" contact is maintained, the worker's center of gravity remains between the rails and in front of the feet, and the worker's waist does not extend above the top of the ladder. The height of the worker's feet is limited to twelve feet (12') above the supporting work surface for this exemption/exception.

Physical barricade offsets that force at least one change in walking path direction shall be constructed within a six-foot (6') radius around the upper access points for any ladder's step off landing area.

All elevated landings shall include a rope hoist (manual or motorized) near the ladder's upper-most access point.

Minimum acceptable manufactured step or extension ladder that can be used is an ANSI heavy-duty rating Type IA. All ladders must be inspected daily for condition and set up. All manufacturer installed

labels must be maintained in legible condition on all ladders. All ladders must be marked in such a way as to identify the owner.

OXYGEN/FUEL GAS CYLINDERS

Oxygen and fuel gas cylinders shall not be stored together, including on bottle carts, but shall be separated by at least twenty (20) feet and properly secured from movement. At the end of any cutting operation and/or any shift, bottles must be removed from carts. Hoses and gauges shall be removed, and caps restored onto cylinders.

Anti-flashback arrestors shall be installed at the pressure regulator gauges of all Oxy-Acetylene cutting rigs, even if the torch is equipped with a built-in arrestor.

Fire watches shall be posted at every operation that produces sparks, flames or sufficient heat to create an ignition or to fall onto another person. If multiple activities are no more than twenty (20) feet apart and all activities can always be seen, a single fire watch can be utilized. This allowance must be noted on the Hot Work permit. Watchers shall be trained in the use of extinguishers, shall keep other people from entering exposure areas, and shall not be assigned other duties until the rekindling possibility ("smolder watch") is over. When sparks, slag, or fire cannot be controlled at the source and may fall to a different level, a separate watcher shall monitor each level directly below the work (including exterior locations).

SCAFFOLDING

Each ground-supported scaffold shall bear a shift inspection tag (initialed and dated by the competent person for each company that requires use of the scaffold) to indicate the status of the scaffold (green tag means completely safe and red tag means specific precautions required, or not safe/do not use). For suspended scaffold, inspection tags shall also be placed on the outrigger as well as the work platform. Training with supporting documentation shall be required for all workers on the Project who will climb onto any kind of scaffolding. This requirement shall apply to all scaffolds.

Mudsills and surrounding areas at the base of ground-supported scaffolds shall be maintained in a well-dressed and level condition. Scaffold foot plates (or casters) shall be installed on the legs of all ground level frame sections and shall always be visible for inspection. Diagonal braces shall be included in every scaffold section as is practically possible. Every walking/working level shall be fully planked, and kick-off protection shall be included along open sides and ends. Overhead protection shall be constructed where walk-through passages are allowed. Mudills shall be at least 2"x12" in one-foot lengths with foot plate centered and nailed in two corners.

Brakes on rolling scaffolds shall always be secure, except when the scaffold is being moved. Workers shall not be allowed on the platform when a scaffold is being moved. Rolling scaffolds should be used on solid, unobstructed, and flat floor surfaces only.

Workers in any type of aerial lift including man lift or scissor lift shall be provided with a means to be secured to the lift so that movement is limited to the floor of the lift. No worker shall be allowed to stand on the toe board or rail of the lift. No lift shall be modified to allow the operator to stand above the floor of the lift.

Stilts shall be inspected daily by the equipment user and maintained properly. Surfaces on which stilts will be used must be dry, flat, and free of pits, holes and obstructions such as debris, as well as other slip, trip and fall hazards. When a worker is using stilts in an area where a guardrail system is used for fall protection, the guardrail system must be increased in height by an amount equal to or greater than the height of the stilts being used. A rigid platform at a height equal to or greater than the height of the stilts shall be used for mounting/dismounting stilts. The platform must be wide and deep enough to sit comfortably, be stable, and be secured from movement while in use. The platform must be kept clear and accessible while stilts are in use. Stepladders or makeshift platforms cannot be used for this requirement.

TRENCHING/EXCAVATIONS

It is the contractor's responsibility to call 4-1-1 before beginning any trenching/excavation work.

Any and all trenching operations that are four (4) feet or more in depth or could result in any worker's upper body being positioned below grade level shall adhere to the requirements of this contract. Where applicable, a phone call for utility "locates" shall be completed seventy-two (72) hours in advance. "Potholing" and/or hand digging shall be required within three (3) horizontal feet of "located" centerlines, and in areas where knowledge is lacking.

Any trench or excavation four feet or deeper must have a means of exit. Ladders and/or ramps must be located no more than 25 feet from any employee while he or she is in the excavation.

The "toe" of spoil piles that are less than four feet (4') in height shall be at least two feet (2') from the edge of any excavation. Spoil piles greater than four feet (4') in height shall add one foot (1') of distance from the excavation for every additional foot in height. Spoils shall be managed to prevent airborne dust.

When a trench or excavation cannot be backfilled in the same day as it is created, a highly visible fence type barricade shall be erected at a minimum distance of six feet (6') from all approachable edges. All portable means of access shall be removed at the end of each workday.