



Campus Physical Plant Division

Planning, Design and Construction Services (PDCS)



Contractor Handbook



Table of Contents

Abatement	6
Access to Construction Sites	6
Accident Reporting	6
Alcohol, Drugs, and Other Prohibited Articles	6
Chemical Spills	7
Cleanliness of Project Areas	7
Commencement and Special Events Requirement	8
Conduct and Appearance	8
Construction Plans and Specifications	8
Construction Project Issues	8
Contractor Reporting of Safe Work Practices	9
Contractor Training and Safety Requirements	9
Coring and Saw Cutting Scans	9
Emergency Phone Numbers	9
Equipment Add-Delete Modification Log	10
Equipment Usage	10
Erosion Control	10
Escalated Notice of Noncompliance	10
Extension Cords	11
Exterior Outlets	11
Fire Alarms	12
Fire Alarm System Acceptance	12
Fire Sprinklers	12
Gifts and Gratuities	13
Hazard Notice	13
Hot Work	13
Identification and Badging of Workers	13

Planning, Design and Construction Services – Contractor Handbook

Injuries, Incidents, Equipment Damage	14
Inspections and Testing	14
Job Site Binder	14
Large Vehicle Deliveries	14
Liability for Non Approved Work in Place (SUBMITTALS)	15
Locks and Keys (UK Key Shop)	15
Material Safety Data Sheets (MSDS)	15
Observations /Inspections	14
Operations and Maintenance Manuals	16
Outages (Utility)	16
Parking	16
Path of Egress & Traffic Control	16
Personal Protective Equipment (PPE) Requirements	17
Pressure Washing	17
Pressure Testing	18
Project and Safety Signage	18
Roof Safety	19
Safety Observations & Inspections	19
Sanitary Facilities	20
Site Control	20
Security	21
Site Health and Safety Plan	21
Storage & Use of Paint and Sealants	21
Site Storm Water Requirements	21
Temporary Fire Protection	22
Training & Qualifications	22
Unsafe Activities or Conditions	22
UK After Hours Work	22
UK Normal Work Hours	22

Planning, Design and Construction Services – Contractor Handbook

UK Communications (CNS)	22
Waste Disposal	22
Safety Observations Correct Behaviors List	23 -30
<ul style="list-style-type: none">• Head• Eyes / Face• Ears• Hands• Feet• Clothing• Harness• Respirator• Safety Vest• Site Control• Traffic Control• Environmental• Signage• Climbing• Ladders / Stairways• Walkways• Housekeeping• Scaffold• Tools• Guarding• Lock – Out / Tag-Out (LOTO)• Hand Position• Body Mechanics / Position• Physical Lifting• Pinch Points• Tag Lines• Rigging• Hand Signals• Storage	
UK Emergency Numbers:	30

Planning, Design and Construction Services – Contractor Handbook

Purpose

The University of Kentucky (UK) recognizes that many hazards are inherent in construction and other contract work. Compliance with safety regulations can prevent virtually all serious injuries. This guide serves as notification of campus safety requirements to contractors, including subcontractors, who perform work at UK and any other facilities operated by the University. Contractors should not assume that this guide covers all applicable safety and health laws as it does not. Instead, it provides contractors with site specific safety, health and environmental rules and policies which the University expects will be followed on all University property. The rules, regulations and guidance contained herein represent program areas that have been problematic in the past or require special care and consideration due to the nature of the working environment at the University. Additionally, contractors are required to follow applicable federal, state, and local safety and health regulations.

General Note: No work should proceed without a Purchase Order or a Letter of Intent of Contract from UK Central Purchasing.

Noise

The contractor shall endeavor to keep the work area as quiet as possible when the work is in proximity to buildings with classrooms. If powder activated tools, screw guns, or other such devices must be used to accomplish the work, the contractor shall notify the UK – P, D & C Project Manager and advise him of the type of equipment to be used and the duration of the work. At times it will become necessary for the contractor to stop work immediately when advised by the UK – P, D & C Project Manager or UK Environmental Health and Safety that the work is adversely affecting classrooms activities.

GLOSSARY OF TERMS

ACRONYMS

ACM Asbestos-Containing Material—any material containing more than 1 percent asbestos

ANSI American National Standards Institute

ASTM American Society for Testing and Materials

EH&S UK Department of Environmental Health & Safety

EPA United States Environmental Protection Agency

FDA United States Food and Drug Administration

HASP Health and Safety Plan

MSDS Material Safety Data Sheet

NFPA National Fire Protection Association

NEC National Electrical Code (NFPA 70)

UK EHS - FM UK Office of Fire Marshall

OSHA Occupational Safety and Health Administration

NIOSH National Institutes of Occupational Safety and Health

PACM Presumed Asbestos-Containing Material

PCBs Polychlorinated biphenyls

PPE Personal Protective Equipment

PRCS Permit-Required Confined Space

UKPD UK Police Department

Planning, Design and Construction Services – Contractor Handbook

Abatement

The UK - P, D & C Project Manager will request a survey to determine whether any asbestos or lead is present in any materials that are scheduled to be removed from the project prior to the issuance of the Notice to Proceed. The Contractor will refer to the contract to determine abatement responsibilities. The Contractor will contact the Project Manager if there are any questions. If the Contractor discovers an area that is stained and appears to be moldy (usually on drywall surfaces), The Contractor WILL NOT disturb the area and will contact the Project Manager or Construction Coordinator to schedule an assessment of the area by the UK Environmental Health and Safety Department. The Contractor is always responsible for the proper removal and disposal of any materials identified as contaminated if abatement is in their contract scope pursuant to State and Federal laws.

Access to Construction Sites

The PDCS Project Manager and Contractor will define who is authorized to enter the construction site. Except for emergencies, other personnel desiring access to a construction area must do the following:

1. Obtain approval to enter the construction premises from the Contractor's Superintendent, the PDCS Project Manager or emergency personnel.
2. Obey all safety regulations and posted sign requirements, wear appropriate Personal Protective Equipment (PPE) comparable to the PPE requirements for workers on the project, and follow special instructions.

Accident Reporting

In the event of any injury, incident, near miss or accident that involve any individual, equipment, property or bystander on or near the work, the contractor shall notify the PDCS Project Manager and Project Safety Coordinator immediately and follow up the verbal report with the Contractors First Report of Injury and/or the required PDCS Incident Reporting and Investigation form within twenty-four (24) hours of the event.

Alcohol, Drugs, and Other Prohibited Articles

The University of Kentucky Facilities Services and PDCS prohibit the possession, use, distribution, or sale of alcoholic beverages, intoxicants, drugs, or any drug related paraphernalia on the project premises, facilities, or any work places. The University of Kentucky is a Tobacco Free Campus – CAMPUS WIDE.

For areas located within Fayette County, Kentucky, the use of all tobacco products is prohibited on all property that is owned, operated, leased, occupied, or controlled by the University. "Property" for purposes of this paragraph includes buildings and structures, grounds, parking structures, enclosed bridges and walkways, sidewalks, parking lots, and vehicles, as well as personal vehicles in these areas. To view the Lexington campus boundaries:

<http://www.uky.edu/TobaccoFree/files/map.pdf>.

General Contractor employees violating this prohibition will be subject to dismissal from the Project.

Planning, Design and Construction Services – Contractor Handbook

Chemical Spills

In the event of a spill of environmentally damaging materials, immediate response is required. All construction personnel shall observe and follow the standard precautions for handling potentially hazardous materials as outlined on the Manufacturer's Material Safety Data Sheets (MSDS), including the use of proper personal protective equipment.

Emergency responders are available from Environmental Health and Safety (EHS) - Environmental Management and/or Radiation Safety when a biological, chemical, or radioactive spill occurs. Responders are also available for other hazardous incidents such as indoor air quality issues and drinking water concerns.

The University Environmental Health and Safety Department (Environmental Management) should be notified immediately in the event of:

1. Any spill that threatens to enter a storm sewer or watercourse.
2. All petroleum spills, e.g. hydraulic fluid, transmission fluid, diesel, gasoline, etc.
3. Any hazardous or unknown material spill, e.g. many solvents, cleaners, etc.
4. Any discharge from the site which is suspected to be in violation of LFUGC Codes, Commonwealth of Kentucky regulations, or any other applicable laws and regulations, e.g. discharges which are cloudy, foul smelling, colored, contain chemicals, or heavy sediment loads.

Notification can be accomplished by calling UK Environmental Management at (859) 323-6280. After Hours and Weekends call (859) 257-8573 UKPD. Always call 911 for emergencies! (Have your name, number, location, and any other pertinent information available at the time of the call. It is important to inform the Safety Office and UKPD if anyone has been injured or if there has been any personal exposure to the hazardous material.

See UK Environmental Health and Safety's web site for additional information: <http://ehs.uky.edu/>

University of Kentucky Environmental Health & Safety 252 East Maxwell Street Lexington, KY 40506-0314
Phone: (859) 257-3845 Fax: (859) 257-8787

Cleanliness of Project Areas

The construction site, work areas, and all premises occupied by the Contractor and his subcontractors must be maintained in a clean, healthy, and sanitary condition. Work areas, passageways, and stairs in and around building and structures must be kept clear of debris and trip hazards. Construction materials must be stored in an orderly manner. Site storage areas and walkways shall be kept free of dangerous depressions, obstructions, and debris. Construction equipment shall be stored in an orderly manner in a pre-approved location. Good housekeeping on the job site is mandatory and all construction personnel must do their part to daily minimize dust and keep the work area safe and clean. The use of dust partitions, HEPA vacuums, negative pressure, when practical, and Walk-Off mats may be required to keep dirt, dust, smoke and/or fumes from being tracked or migrating into areas outside the workspace.

Planning, Design and Construction Services – Contractor Handbook

The Contractor must protect all areas adjacent to the construction site from excess noise, dust, debris, trash or damage resulting from the construction work. The Contractor will be held responsible for the immediate cleanup of any adjacent areas should the work infringe into unauthorized areas of construction.

Commencement and Special Events Requirements

The PDCS Project Manager should discuss all special event and commencement activities with the Contractor during the Pre- Construction Meeting since these ceremonies can significantly impact the renovation project schedule. The Contractor should be prepared to move all vehicles, dumpsters, and fencing from the project area for college convocations and commencement ceremonies. Be prepared to stop working in buildings located near the special event or activity.

Conduct and Appearance

All Contractor employees and subcontractors must maintain appropriate appearance while working on campus. Proper dress for the job sites means no shorts, open toed shoes, sandals, tennis shoes, tank tops or tee shirts with prints or writing that could be deemed offensive to others.

All members of the contracting staff must maintain proper conduct in regard to personal actions and contact with students or staff members while on University property. Any employee of the contractor or subcontractor found engaging in improper conduct will be permanently removed from the campus.

Construction Plans and Specifications

A set of “approved for construction” plans and specifications, including addenda and approved Change Orders, must be maintained on the job site throughout construction. For exterior projects, the Contractor may keep the approved plans and specifications in his/her work vehicle close to the site or in a job box on site.

Construction Project Issues

Radios or portable stereos are not allowed on construction projects. Ear buds or headsets connected to a portable music device are discouraged. The Contractor shall discuss any potential noisy activity with the Construction Coordinator so that the work can be scheduled around classes, special events, and final exams.

Elevator cabs and floors must be protected if the Contractor intends to use them to transport materials into or out of the project. Contact the PDCS Project Manager if the elevator is to be used for this purpose.

When coring or drilling into a concrete floor, the Contractor should always check for reinforcing steel and electrical conduits preventing an unplanned electrical outage. If at any time energized electrical conduits cannot be identified, OSHA requires the coring operator to wear electrically rated and tested rubber gloves with leather protectors.

Planning, Design and Construction Services – Contractor Handbook

Reminder: If the coring process creates dust, it is required that the Contractor request a smoke alarm outage. Smoke alarms are triggered when the dust rises! If using water to control dust during coring or saw cutting, it shall be contained and not allowed to run off or be dumped down sanitary or storm sewers.

The Contractor shall never operate gas powered equipment inside a building.

Contractor Reporting of Safe Work Practices

Each industry recognized shift that work is accomplished by the Prime Contractor, the prime will be responsible for having site observations of each trade accomplished by one of the following personnel in their employment: their Project Manager, Project Superintendent or Certified Safety Professional.

PDCS will provide a form for this purpose and the report must be submitted once a week for work accomplished the following week. Copies of the reports must be distributed via electronic mail to the PDCS Project Manager, UK Safety Coordinator and the Construction Services Manager for PDCS.

Each time the Contractor performs work that requires locking out any energized system (i.e. electrical plumbing, or mechanical), the contractor must take a date and time stamped photo of their Lock Out/Tag Out outage and submit these photos to the same PDCS personnel identified for weekly safety reports.

Contractor Training and Safety Requirements

Contractors are responsible for the safety of their workers, their subcontractors, job site visitors and for meeting all requirements of the contract.

The Contractor shall assure that all workers on the site are qualified and competent (as defined by OSHA) to perform the duties of the job as assigned.

The Contractor's Project Managers and Superintendents shall have completed the OSHA 30 hour training and submit evidence of the training to PDCS prior to the issuance of a Notice to Proceed

Coring and Saw Cutting Scans

Prior to any coring or saw cutting of any concrete or masonry surface, the area to be penetrated must be scanned with GPR (Ground Penetrating Radar) and all embeds shall be clearly marked unless other requirements are stated in the plans and specifications by the Engineer of Record.

Approval from PDCS is required prior to coring or saw cutting activities.

Emergency Phone Numbers

Emergency contact information must be posted at the project area in a conspicuous place.

Planning, Design and Construction Services – Contractor Handbook

Equipment Add-Delete Modification Log

The Contractor must ensure that all major equipment that is added or deleted as part of the construction project is logged on an Equipment Add/Delete Log which will be provided by the PDCS Project Manager for the Contractor's use. The Contractor is required to update and maintain the Equipment Add/Delete Log with all required information throughout the construction project. The Contractor shall submit the "Equipment Add/Delete Modification Log" when the Substantial Completion inspection is requested.

Equipment Usage

Contractors shall:

- Ensure the safety of their equipment by implementing an equipment inspection scheme.
- Shall not use shop made or special tools and equipment unless supplied by a drawing that is stamped or signed by a Professional Engineer.
- Shall not use or alter tools and equipment beyond the manufacturer's recommendations unless approved by the manufacturer or a PE.

Erosion Control Measures (Exterior Projects)

Proper erosion and sedimentation controls must be in place to prevent sediment or silt run-off. Sediment (including concrete spoils) should never be rinsed off at the site: instead, sediment must be cleaned in a manner that does not allow it to reach a storm drain. Equipment tires must be rinsed before leaving the site if necessary to avoid tracking sediment into the roadway or off the site. Silt fencing must be used per the approved plans or as EHS determines necessary to protect the site and the balance of the campus from runoff. Other methods of runoff protection such as tri-dikes and sand bags should be used to keep construction debris and silt from entering the storm drains.

Escalated Notice of Noncompliance

A defined process for the Escalation of Notice of Noncompliance will be implemented to ensure performance based compliance with safety provisions and to reduce the frequency of safety violations and accidents. PDCS expects that every effort will be made to resolve safety and contractual issues on-the-spot or in accordance with planning agreed to by the Project Manager.

Repeated safety or health violations will become a matter of record and will be part of the evaluation of the Contractor's bids on future awards.

Planning, Design and Construction Services – Contractor Handbook

Extension Cords

Extension cords used with portable electric tools and appliances shall be UL rated, 12 AWG, heavy duty (S, SO, STO, SJ SJO SJTO) and of the three wire grounding type. The cords shall conform to the type and configuration required by OSHA standards. The cords shall be used with GFCI adapters or outlets.

Exterior Outlets

Do not plug any extension cords into exterior outlets where an electric cart is plugged in. These carts require a dedicated circuit and multiple outlet usage will risk damaging the electric gel battery.

Evacuation Plan / Fire Response

<http://ehs.uky.edu/fire/ukfire1.html>

It is imperative that contractors/vendors and University maintenance/construction personnel react immediately should a fire condition be discovered within the work area or should the fire alarm be activated outside the work area. The following are standard University procedures that are required and must be implemented. All contractors/vendors and University maintenance/construction employees are to be trained in these procedures. Directors of the Campus Physical Plant and the Medical Center Physical Plant are further referenced to the UNIVERSITY EMERGENCY RESPONSE PLAN (issued February 1994) that is to be implemented for fire emergencies.

❖ Person Discovering a Fire

- **ACTIVATE THE FIRE ALARM.** Without endangering yourself, rescue and/or assist anyone in immediate danger. Close the doors in the fire area.
- **PROCEED TO A SAFE LOCATION AND CALL 911** to report the fire. Give the building's name, room number, and any special conditions.
- **MEET THE EMERGENCY RESPONDERS** (firemen/U.K. Police) and upon their arrival, advise them of the conditions as you know they exist.
- **DO NOT RE-ENTER THE BUILDING** unless requested by and accompanied by the firemen to the scene.

❖ When the Fire Alarm Sounds

- **IMMEDIATELY EVACUATE** the building. Treat all alarms as a real emergency. Close the door as you leave the room. Always use the exit stairs. Never use an elevator.
- **FEEL THE DOOR.** A "too hot to touch door" means the fire is outside the door.
- **CRAWL** should you get caught in smoke. If necessary, go to the window and signal for help.
- **ASSIST A PHYSICALLY IMPAIRED PERSON TO THE CLOSEST EXIT STAIRWELL** and advise emergency personnel of this condition.
- **UPON EVACUATION**, go to a safe location outside. If possible, account for everyone in your work group.
- **NEVER RE-ENTER THE BUILDING** until fire officials give the approval.
- **REPORT** anyone causing a false alarm to the emergency responding personnel

It is to be noted that the above procedures do not require an employee to use a fire extinguisher. Should an employee decide to use an extinguisher, she/he must be properly trained and must do so without endangering themselves or others. It is strongly emphasized that priority must be given to activating the fire alarm system before utilizing a fire extinguisher.

Fire Alarms

Planning, Design and Construction Services – Contractor Handbook

Fire Alarms are a very sensitive item at UK. The Contractor shall speak with the Construction Coordinator at least 48 hours in advance to schedule the disabling of smoke detectors, fire alarm devices (audio/visual), or pull stations.

Demolition activities (including cutting, coring and sanding) will cause dust which can set off smoke detectors. It is never permissible to cover any smoke detector. Smoke detectors must be disabled by the UK – PPD Electronics personnel.

Only a licensed fire alarm contractor can perform work on UK fire alarm systems. This work would include removal of smoke detectors, fire alarm devices (audio/visual), and pull stations. The Contractor shall make sure that the fire alarm contractor is certified to work on the project fire alarm system. If the Contractor is unsure, he/she shall call the Construction Coordinator who will research this information.

The Contractor shall verify whether or not the fire alarm panel is under warranty. If it is under warranty, only the company who installed the system can perform any work on the system. All alarm panel warranties can be verified by the Construction Coordinator.

Fire Alarm System Acceptance

The Contractor must not take instructions directly from any stakeholder including UK personnel. Questions or concerns should be routed via RFI to the PDCS Project Manager and the Professional Service Provider of record.

When the Contractor has completed installation of the new devices or system, the Contractor must perform a pre-test. Pre-test requirements are as follows:

- Testing 100 % of the new installation and all new devices as well as 10% of all other devices on the same circuit
- Testing must be scheduled Monday through Friday early in the morning and prior to the start of classes. The Building Management must approve the dates and times of testing prior to initiating the pre-tests.
- All audible and visual devices inclusive in the installation must be individually tested and a log of each device must be maintained as proof that all individual components were tested.
- Prior to Final Testing: At least 72 hours prior to scheduling the final testing, the Contractor must submit to the Project Manager all As-Built progress drawings on a CD in Auto Cad format, system calculations, and all other documents required by the specifications.

Fire Sprinklers

Before any work is performed on fire sprinkler systems by a certified Sprinkler Contractor, the lines must be drained. The Contractor shall notify the PDCS Project Manager at least 2 weeks in advance to schedule the drain down of the fire sprinkler system. Before the fire sprinkler contractor starts work; the Contractor is required to call UK DELTA ROOM to notify of system shut down. The fire sprinkler contractor is required to contact the UK- Physical Plant Division plumbing staff on call once they have completed work so that the system can be filled.

During the time the fire sprinkler system is drained, one person is required to act as a full time fire watch with no other duties. This person must be on site full time while the system is drained.

Planning, Design and Construction Services – Contractor Handbook

Gifts and Gratuities

<http://www.uky.edu/Legal/ethicscode.htm>

Please reference this link to the UK office of Legal Counsel for the requirements concerning UK's Ethical Principles and Code of Conduct requirements and restrictions for UK Staff and Personnel.

Hazard Notice

Asbestos, Lead, Biological, X-Ray, Laser, Mercury, Nuclear, Radiological, Physical and Hazardous Materials may be present at the job site. The Contractor shall work closely with PDCS to assure that proper preparation and surveys have been conducted prior to starting any demolition work. Environmental Health and Safety departments will notify PDCS staff (and post notices – if applicable) when laboratory spaces, etc. have been cleared for demolition and construction operations.

Hot Work and Authorization to Work

Hot Work is defined as any type of open flame welding, cutting, or soldering that takes place on a project. Smoke detectors must be disabled by UK – PPD Electronics personnel prior to the start of any hot work. Additionally, fire extinguishers, fire blankets and Fire Watch are required in the hot work area.

Permits to work in Confined Space, performing Hot Work, Lock Out/ Tag Out of energized systems or welding/cutting requires the Contractor to issue their work specific permit and to post it visibly on the project site.

These work tasks must be discussed prior to scheduling as part of the project weekly meeting to verify proper University of Kentucky approval has been secured through all applicable UK services and UK P, D&C Project Manager.

Permits must clearly note the Date, PDCS Project Number, Specific Location and Floor including applicable room numbers, Description of work being performed, the name of the person/company performing the work, and the signature of the Prime Contractor.

The permit must have a start date and time and an expiration date and time.

Identification and Badging of Workers

All job site personnel or visitors shall openly display photo identification or Contractor issued ID badge on the upper torso unless working activity would prohibit.

Injuries, Incidents, Equipment Damage

Planning, Design and Construction Services – Contractor Handbook

In the event of all injuries, incidents, or accidents that involve any individual, equipment, property or bystander on or near the Work, the Contractor shall notify the PDCS Project Manager and the Safety Coordinator immediately and follow-up the verbal report with the written Contractors First Report of Injury and the PDCS required Incident Reporting and Investigation form within twenty-four (24) hours of the event.

Inspections and Testing

The Contractor shall schedule any inspections that are needed (architectural, plumbing, mechanical, electrical, or special systems) at least 7 working days prior to the inspection. Discussing inspections at construction progress meetings and noting inspections on the schedule can aid in obtaining timely inspections and tests.

Job Site Binder

For projects ranging from \$100,000 to \$600,000 - Safety related documentation for construction work shall be retained in a Job Site Binder. The Binder shall include and not be limited to the following documents:

- The Contractor Safety Manual & Site Safety Plan
- Excavation/Trenching Plans (if exterior work is performed)
- Incidental, Medium, Heavy and Critical Lift Plans (As required)
- Safety/Daily Inspection Logs (completed by Contractor)
- Contractor training records
- Project Roster, Contractor and Subcontractor Emergency Contact Information
- Material Safety Data Sheets

Large Vehicle Deliveries

The Contractor shall schedule any large vehicle deliveries (large equipment, cranes, concrete and concrete pump trucks, or large furniture deliveries) with the Construction Coordinator. The Construction Coordinator must inform UK Parking and Transportation Services (7) seven working days in advance of the delivery as these vehicles may adversely impact the normal operations on campus. The Contractor is urged to schedule project deliveries prior to 7:00 am whenever feasible to avoid student traffic.

Liability for Non Approved Work in Place (SUBMITTALS)

Planning, Design and Construction Services – Contractor Handbook

The Contractor shall not commence with any work requiring a submittal until that submittal has been approved by PDCS Project Manager. The Contractor shall not substitute items unless they have submitted a request for substitution and that request has been approved by PDCS.

Locks and Keys (UK Key Shop)

The Contractor shall request all keys that will allow access to any rooms within the project area. This request shall be made to the PDCS Project Manager prior to the Notice to Proceed being issued. The Project Manager will complete a Key Request form which is submitted to UK Keys Shop. UK Key Shop will call the Contractor to pick up the keys usually within 72 hours. <http://www.uky.edu/AuxServ/keyshop/index.html>

Some UK buildings will require special access (use of an access code or a special ID). The Contractor shall consult with the Project Manager to get this type of access prior to the Notice to Proceed.

Material Safety Data Sheets (MSDS)

All chemicals and hazardous substances, (e.g., fuels, solvents, adhesives, paints, caulks, etc.) used by the Contractor must have a Material Safety Data Sheet (MSDS) included in the submittals. The MSDS shall be used to assist in selection of PPE and emergency response protocols. Copies of the MSDS sheets shall be maintained at the job site in the Job Site Binder.

Observations / Inspections

Throughout all phases of construction, PDCS personnel assigned to oversee the work being performed by the Contractors and their subcontractors will monitor field activities on a regular basis to ensure that work is being conducted in a safe manner.

Observations by UK EHS and UK Fire Marshal may take place at any time to ensure compliance with applicable codes, standards, and regulations.

The PDCS Project Manager will formally notify the Contractor of any deficiencies and verify that appropriate corrections are made. A Nonconformance, Preventative, and Corrective Action reporting and tracking procedure will be implemented.

Planning, Design and Construction Services – Contractor Handbook

Operations and Maintenance Manuals (O & M)

The University requires a minimum of 1 bound sets of final installation, training, operation, maintenance, and repair manuals to be turned over to the owners' representative and approved for content by the University prior to the acceptance of substantial completion.

Outages (Utility)

Outages must be scheduled in advance. UK requires at least 7 working days' notice (2 weeks for full building outages). The Contractor shall discuss any possible hot and cold water, gas, chilled water, electrical, fire system or other outage with the Construction Coordinator as soon as possible. For large scale or outages that affect multiple parties, an outage coordination meeting shall be convened to discuss and physically address the outage and control points and requires a minimum of two weeks' (10 business days minimum) notice. Any Utility work requiring demolition of roads & sidewalks must also be scheduled by an outage request - See the Path of Egress & Traffic Control section below.

Parking

Parking on the UK Campus is always limited. The Construction Coordinator will submit a request to UK Parking & Transportation Services for the project during the bidding phase.

If parking/staging has been approved for the project, the Contractor shall erect a temporary fence / barrier to enclose the parking and dumpster spaces. Dumpsters and surrounding area within the gated enclosure must be maintained and cleaned at all times. Dumpsters shall be covered with a tarp at the end of each work day .The Contractor must display the parking permits provided by UK Parking and Transportation Services (PTS) on the dashboard of all company vehicles. UK PTS only recognizes original permits (not copies) as issued by their office. The Contractor must have the required project and safety signage on the fence (see project and safety signage section for requirements).

PDCS is not authorized to dismiss parking tickets. If the Contractor believes that he has received a citation in error, then the ticketed party may submit an appeal through UK Parking and Transportation.

<http://www.uky.edu/pts/>

Path of Egress & Traffic Control

The Contractor shall take necessary action to protect and maintain public use of sidewalks, building entrances, lobbies, corridors, aisles, doors, exits, and vehicular roadways unless deemed unfeasible based on the scope of the project. Closure or rerouting of ADA access shall be arranged 5 business days in advance by contacting the Construction Coordinator.

Planning, Design and Construction Services – Contractor Handbook

The Contractor must alert and protect the public through the use of proper signage, barricades including sidewalk sheds, canopies, catch platforms, fences, guardrails, shields, etc., ensuring adequate protection as required by law and or per the approved construction plans.

There are three threshold considerations in planning for pedestrian safety in temporary traffic control zones on highways and streets:

- 1) Pedestrians should not be led into direct conflicts with work site vehicles, equipment, or operations.
- 2) Pedestrians should not be led into direct conflicts with mainline traffic moving through or around the work site.
- 3) Pedestrians should be provided with a safe, convenient travel path that replicates as nearly as possible the most desirable characteristics of sidewalks or footpaths.

Personal Protective Equipment (PPE) Requirements

It is the Contractor's responsibility to ensure protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, be provided, used, and maintained in a sanitary condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, biological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in function of any part of the body through absorption, inhalation, or physical contact to his or her employees.

PDCS requires the following PPE to be worn by all parties entering a construction site at all times: Hard hat (if overhead work is being performed or required per the contractors' safety program), appropriately tinted safety glasses (clear for indoors and tinted/or clear for outdoors) specifically for grinding or cutting where flying debris may be present, closed toe or steel toe safety shoes, appropriate clothing, and an identification badge. The Contractor is responsible for enforcing these requirements at all times.

The minimum requirements for parties entering a construction site are the following:

- Non Skid Safety shoes and/or Safety-toe shoes (ASTM F2412-2005 and F2413- 2005)
- Work shirt (long or short sleeve and work pants (long). Garments must be free of writing that could be construed as offensive or inappropriate.
- Other PPE requirements apply based on the Contractor's hazard assessment of the project and work areas. PPE requirements will be documented and posted at the job site using OSHA approved signs and symbols.

Pressure Washing

Discharges from pressure washing must not be allowed to enter a storm sewer. The Contractor may consider vacuuming up the water or containing the process water and allowing it to evaporate. If the rinsate only contains water, dirt or

Planning, Design and Construction Services – Contractor Handbook

sediment, it may be spread on the ground with prior approval from PDCS as long as the rinsate will not enter the storm drain. The Contractor will discuss this issue with the Project Manager prior to scheduling pressure washing.

Pressure Testing

Pressure testing for water, sanitary, gas and air lines must have pre-authorization with the Engineer of Record; the PDCS Project Manager prior to scheduling.

Once authorized, the contractor shall put up signage as follows:

“TESTING IN PROGRESS ENTRY BY AUTHORIZED PERSONNEL ONLY”

Project and Safety Signage

All construction projects at UK shall include the following signage and tags as a minimum:

Project and safety signs shall be placed at each project entrance, in hallways/corridors, mechanical rooms, electrical rooms, fenced parking and storage areas that includes: the contractors company name/logo, building/project number, project description (include job site location (floor, room number, etc.), Contractor’s point of contact, after hours/emergency numbers, and UK Police Department emergency contact numbers. Interior project information signs shall be a minimum of 11” X 17”. Exterior project information signs shall be a minimum of 24” X 24” and of a waterproof material.

Company Name/Logo

Building/Project No: 807001XXXXXX

Project Description:

Start Date:

Finish Date:

Architect:

Contractor PM/Super.: XXX-XXX-XXXX

PDCS Contact No.: Name and phone # 859.257.XXXX

Emergency No.: UK Police Dept.: 859.257.XXXX

Emergency After Hours: 859.257.XXXX

In addition to the above, the following signage shall be posted along with other special notifications and PPE requirements that the Contractor has determined to be required from their OSHA required hazard analysis and PPE

Planning, Design and Construction Services – Contractor Handbook

assessments. Note: All safety signs shall be OSHA approved formats and color schemes. To be posted at the entrances of the site and every 50 feet around the fenced perimeter. To be posted at the site entrance. To be posted any time personnel are working aloft and placed on barricades, ladders, doorways, etc., to provide notice to pedestrians.

Roof Safety

If roof operations are performed, it is required that a minimum of two (2) employees be within sight and hearing of each other. Employees who work within six (6) feet of the unprotected edge of a roof shall wear a safety harness and lifeline, or other OSHA approved fall protection system. This protection is not required if the roof has a permanent or portable railing system meeting OSHA height and strength requirements. When lifting or swinging heavy material over roofs, the area under the roof must be unoccupied or properly barricaded to prevent entrance by unauthorized persons. Safety for ground personnel shall include a barricaded hazard zone with men working above signage to keep students, staff, faculty, and patron's safe.

Safety Observations & Inspections

First and foremost, the contractor is responsible for their employees/Subcontractors/vendors etc. actions on site. However, The University reserves the right to order the contractor to stop work at any time the following conditions exist:

- The Contractor's personnel are working in a manner that poses an immediate danger to life or health of their employees or the campus population.
- Work is being conducted in a manner that is exposing non-contractor individuals to an unsafe situation.
- Environmental requirements or regulations are not being met.

Observations by UK EHS and Fire Marshal may take place at any time to ensure compliance with applicable codes, standards, and regulations.

The PDCS Project Manager or Safety Coordinator will formally notify the Contractor of any deficiencies and verify that appropriate corrections are made. A Nonconformance, Preventative, and Corrective Action reporting and tracking procedure will be implemented.

Safety Inspections: The OSHA standards require the Contractor to perform daily inspections of activities, equipment and the work site, to ensure that the Contractor and their subcontractor employees are:

- Working within identified controls and have effectively controlled immediate hazards; and,
- Are wearing appropriate PPE.

The Contractor will be required to submit the results of their daily inspections to the Project Manager each week via electronic mail.

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The Contractor's competent person shall conduct regular inspections of the work place and maintain a documented system certifying compliance with contractor defined safe work practices and their safety manual. For example, the scaffolding inspection entries section on contractor-supplied scaffold tags should include evidence of daily inspections and/or configuration change approvals. Other areas of inspection may include rigging inspections, fall protection equipment, Lock-out/Tag-out, confined space, permits-to-work, forklifts, heavy equipment, equipment and tools.

Contractors shall provide emergency response/egress planning; properly inspected first-aid kits, and assures that fire extinguishers are available for their work teams within the designated OSHA distances.

When hazards are identified and when immediate corrective action is not possible:

- The affected workers must be notified,
- Warning signs must be posted, and
- Interim control measures must be established to guard against the hazards.

All inspections, findings, and corrective measures must be documented and kept onsite for review. The Contractor shall be prepared to brief the number of inspections, findings, incidents, Job Briefings, etc. at progress meetings.

Sanitary Facilities

In most cases, there are sanitary facilities available for the Contractor's use. The Construction Coordinator will assist in identifying which facilities the Contractor will be allowed to use. This privilege will be revoked if the facilities are not left in a clean condition at all times.

Site Control

The Project Manager and Contractor will define who is authorized to enter the construction site. Other personnel desiring access to a construction area must do the following:

Except for emergencies, obtain approval to enter the construction premises from the Contractor's Superintendent, the PDCS Project Manager, Construction Coordinator or emergency personnel.

Obey all safety regulations and special instruction signs, and wear appropriate Personal Protective Equipment (PPE) comparable to the PPE requirements for workers on the project before entering the site.

Access to construction sites shall remain locked at all times unless workers are present. Locks shall not be rendered inoperable to prevent locking. The Construction Coordinator will provide a lock to be used in conjunction with the Contractor lock and chain that will allow UK personnel access into the construction area during an emergency.

Planning, Design and Construction Services – Contractor Handbook

Security

Standard working hours are determined on a project by project basis. If there is any work conducted from 6 PM to 6 AM on a normal weekday or any time on a holiday or on a weekend, the Contractor must inform the Construction Coordinator 24 hours in advance of any afterhours work. The Construction Coordinator will inform the UK Police by sending them an After Hours Report. The Construction Coordinator must have contact information (name and phone number) and the hours of work 24 hours in advance for any afterhours work.

The Contractor shall make sure that all project workers secure their tools and that the project area is locked when no one is on site to avoid potential thefts. Any thefts should be reported to UKPD and the Construction Coordinator.

Some UK offices have “panic buttons” attached to furniture which are used to alert the UK Police Department of problem situations within the office. Contact the Construction Coordinator if an item needs to be removed that has a panic button.

Site Health and Safety Plan

If requested by the PDCS Project Manager, a Site Health and Safety Plan specific to the project shall be submitted 15 days prior to starting any work activity.

Storage & Use of Paint and Sealants

All flammable and combustible materials shall be stored, stacked, and handled with respect to their fire potential characteristics and potential environmental hazards. The Contractor shall check with the Construction Coordinator as many of these items are not authorized to be left on campus when not in immediate use. Many will require additional ventilation so read the MSDS completely prior to use on campus.

No volatile liquids are to be used for cleaning agents or as fuels for motorized equipment or tools within the building without coordination with the PDCS Project Manager and the written consent of Fire Marshal. Bulk storage of volatile liquids is not permitted within a building at any time. The Contractor may be required to implement HEPA and/or negative pressure systems to remove, Volatile Organic Compounds, smoke, fumes, dusts, etc., to prevent exposure to occupants.

Site Storm Water Requirements

Storm Water controls are mandatory if the project involves any exterior work. Concrete trucks are not allowed to wash out their chutes on site unless all of the water is collected and hauled off the jobsite. Painters are not allowed to wash drywall tools or paint brushes in UK sinks or landscape areas.

Absolutely no discharge of any construction related substance(s) will be allowed to flow into the sanitary or storm sewer system.

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Temporary Fire Protection

The Contractor shall review fire prevention and protection needs with the Construction and Safety Coordinators and establish procedures to be followed in the event of fire. The Contractor will instruct personnel in procedures and post warnings and information, maintain unobstructed access to fire extinguishers, temporary fire protection facilities, stairways and other access routes, prohibit smoking in hazardous areas, and provide supervision of welding operations, combustion type temporary heating units, and similar sources of ignition.

The Contractor shall be responsible for providing all equipment and labor necessary to protect students, staff, faculty, and the general public from dangers associated with the contract. This includes providing fire watch and fire extinguishers on the job site.

Unsafe Activities or Conditions

PDCS management has granted authority to its staff to stop an unsafe activity or condition and redirect the Contractor to work in a nonhazardous area until such time as the Contractor abates the hazard. Hazards must be abated as soon as possible after they have been identified. Imminent-hazard activities must be stopped and corrected immediately.

UK After Hours Work

Any work occurring after 6 PM and before 6 AM, Monday through Friday and anytime during weekends. (See Security Requirements)

UK Normal Work Hours

UK's normal working hours are 6 AM to 6 PM Monday through Friday.

UK CNS

Before the Contractor starts demolition activities on the project, he/she will consult with the Construction Coordinator about the removal of any telecommunication ports (usually a white or ivory receptacle), wireless antennas, projectors, or projection screens. The Contractor will not remove any of these items unless directed to do so by UK.

Usually UK CNS will be scheduled to remove these items.

Waste Disposal

All trash and debris must be contained on site and disposed of in a recycling bin or a waste receptacle in accordance with applicable laws and regulations to prevent wind or rain from carrying it off-site into a storm drain. Dumpsters and roll-offs shall be covered during rain events and during non-working hours. Petroleum wastes, such as paint thinner or oil based finishes, must be containerized for recycling or disposal by the Contractor. Never dispose of any type of liquid waste in a dumpster, storm or sanitary sewer

Safety Observations Correct Behaviors List

Head

- Workers shall wear hard hats at all times on the job site if required by the Contractor's safety department

Eyes / Face

- Workers shall wear safety glasses with side shields where designated by signs, site specific or contract requirements.
- Double eye protection shall be worn when grinding, welding, buffing, needle scaling, using a wire wheel, coring, working with hydraulic tools or high pressure hydraulic systems, chop sawing handling chemicals as required by the MSDS.
- Workers shall wear safety glasses and goggles when handling sand bags or working with 3:1 - grit sand, pure sand bags, blowing sand or chemicals as required by MSDS.
- Burning goggles and appropriately tinted welding lenses shall be worn when cutting, burning or welding respectively.
- Welding curtains or shields shall be used to protect other workers and pedestrians.

Ears

- Hearing Protection shall be worn in designated areas.
- Hearing protection shall be worn when chipping, grinding, arc gouging, concrete ramming, operating loud equipment, or any time you cannot hear the normal voice an arm's length away from another person.

Hands

- Leather Gloves or welding gloves shall be worn when performing hot work.
- Leather Glove Protectors shall be worn over electrically rated rubber gloves.
- Leather work gloves shall be worn during demolition of concrete, tile, rubble, etc.
- Leather Gloves shall be worn during shoveling, sledge hammering, pick-axe work, rock bar work or handling wood.
- Puncture and cut resistant gloves shall be used when working with sheet metal, glass and potentially sharp edged materials.
- Vibration reducing gloves shall be worn while jack hammering.
- Chemical resistant gloves shall be worn as directed by the MSDS while exercising caution for compatibility with chemicals.

Planning, Design and Construction Services – Contractor Handbook

- Tear away (Cotton) gloves with leather or protective palms shall be used when working with wire rope and wire rope slings or lifting operations where there is a risk of a glove hanging up on rigging.

Feet

- ANSI rated steel or composite toe footwear shall be worn any time there is a risk of crushing injury to the toes, heavy/bulky material handling, around forklift and heavy equipment usage.
- Closed toe non-skid hard sole safety shoes shall be worn any time there is a risk of cuts, punctures, scrapes, and uneven terrain.
- Leather safety footwear shall be worn any time around welding or cutting.
- Electrically rated overshoes or boots shall be worn any time energized electrical work is being performed while not using insulated grounding mats.
- Compatible rubber overshoes or boots shall be worn when working with bulk chemicals or chemical process areas. (Check MSDS).

Clothing

- Long Pants and short or long sleeve shirts shall be worn during normal working conditions.
- Long sleeve flame retardant shirts shall be worn when welding or cutting. No torn tattered clothing will be allowed when welding or cutting.
- When working around exposed belts pulleys, nip, run-in, pinch points or rotating equipment, shirt shall be tucked and there shall be no loose clothing. Long hair shall be tied back and placed up or under garment.
- Pants shall be over boots when performing welding or cutting.
- No Loose jewelry shall be worn when working.
- No jewelry or metal eyewear frames shall be worn when working around electrical hazards.
- Compatible clothing shall be worn when working with chemicals (See MSDS).
- When working around electrical hazards as a qualified person, fire retardant shirts and pants with cotton undergarments shall be worn.
- When performing electrical hot work or working within the approach distance and prohibited boundaries the posted arc flash protection shall be worn.

Harness

- Workers shall wear a full body harness with double lanyard (100% Tie-Off) when working at 6 feet or higher and not protected by guardrails.
- The lanyard shall be attached to an OSHA rated or equivalent anchor point.

Planning, Design and Construction Services – Contractor Handbook

Respirator

- A respirator shall be worn as directed by the MSDS, when welding or cutting in an enclosed or poorly ventilated area, during spray painting, epoxy flooring, sand blasting, dry grinding/cutting concrete, during lead or asbestos abatement, while processing chemicals as indicated in the MSDS.
- A dust mask shall be worn as directed by the MSDS, worn when sanding, grinding, using consumable cutting disks, installing fiberglass insulation, during demolition work involving insulation dust, sheet rock, and silica, dry cutting tile concrete or stone, and chipping stone during masonry operations in well ventilated areas.

Safety Vest

- A Safety vest shall be worn any time within a traffic control zone or within 18 feet of a shoulder of a roadway or in the roadway.
- During any flagging operations whether in a traffic control zone or within a construction site.

Site Control

- Each construction site or any area affected by a construction site, e.g., Electrical, mechanical rooms, floors above and below the construction site where the construction site has migrated to, shall be secured from unauthorized entry any time that an employee or worker is not on site.
- Positive barriers shall be provided to keep unauthorized Workers out of the construction areas.

Traffic Control

- Traffic control shall follow the Federal / Kentucky manual of uniform traffic control.
- Pedestrian traffic control shall provide clear detour directions for redirection of pedestrian traffic and shall not redirect pedestrians into hazardous situations or roadways. These controls shall be positive and not allow pedestrians to enter traffic control zones.
- Advance notice shall be given for alteration of ADA routes and parking
- Alteration of fire and emergency egress routes require approval from the Fire Marshal.

Environmental

- Storm and sewer drains shall be protected with silt fencing and sand bags during construction activities.
- Silt fencing shall be provided at storm water run-off points for outdoor construction areas when top soil is disturbed or where there is a risk of contamination from leaking equipment.
- Dumpster and roll-off containers shall not leak fluids and shall be covered during rainy weather and at the end of the day or final shift.
- No discharge of any kind is allowed on UK or surrounding property.

Planning, Design and Construction Services – Contractor Handbook

- Equipment wash down is not allowed and must be contained.
- Concrete wash down and spoils are not allowed at any time on campus.
- Pressure washing run-off shall be contained and removed.
- Excessive dust, odors, smoke or fumes may require HEPA filtration, local exhaust or negative pressure systems.

Signage

- The required project, safety signage and tags shall be implemented and displayed as specified.
- Signs shall be placed at all construction area entry points and areas affected by the construction project, i.e., electrical and mechanical rooms or floors above and below the construction site where the construction site has migrated. Portable signage may be used for mobile short duration construction activity.

Climbing

- Workers shall maintain three-point contact at all times when climbing up or down.
- Workers shall not jump from platforms, ladders or scaffold, etc.
- Workers shall not climb on moving parts at any time or unsecured structure without fall protection. The Contractor shall verify that the structure is load rated prior to climbing.

Ladders / Stairways

- All ladders must be on a scheduled inspection scheme and inspected prior to use.
- Wooden ladders are not allowed on UK projects.
- Extension ladders shall be tied off or secured to a structure prior to use when not held in place by another worker.
- Workers shall maintain three-point contact at all times when climbing up or down
- Workers shall face the ladder when ascending and descending the ladder.
- The belt buckle shall remain in the frame rails at all times.
- Workers shall not carry tools up or down a ladder and should use a helper or hand-line.
- Ladders used in pedestrian or vehicle traffic areas shall be coned off and barricaded with signs posted in blind areas/other side or doors warning of ladder usage in order to prevent worker from being knocked off or ladder being knocked over.
- Extension ladders shall be set at a 4:1 or 75 degree ladder angle.
- The proper ladder shall be used for the job.

Planning, Design and Construction Services – Contractor Handbook

- Fall protection shall be used greater than 6 feet, if work cannot be performed while facing the ladder or working with buckle within the rails of the ladder.
- Workers shall keep one hand on the handrail when ascending or descending stairs.
- Stairways shall be kept unobstructed.

Walkways

- Walkways shall be designated and free from obstructions, slip and trip hazards. A Trip Hazard is a change in grade of ½" or greater.
- Workers shall walk in designated walkways.
- Extension cords shall cross walkway as few times as possible and shall have ramps, cord protectors or be taped down.
- Plywood, chip board and Masonite protectors shall be secured to prevent warping.
- Trip hazards that cannot be avoided shall be identified with brightly colored paints or flagging tapes.

Housekeeping

- Work areas shall be kept clean and orderly at all times.
- They shall be free from rags, soda cans/bottles, spent containers of mud, paint, caulk, wood, tile, rubble, cardboard, steel, etc. All construction debris shall be promptly removed daily.
- Stair wells and electrical rooms shall not be used for storage.

Scaffold

- Scaffolds shall be OSHA approved, inspected and tagged prior to use.
- Workers shall access scaffold by a designated ladder only.
- All Workers working from the scaffold shall have scaffold awareness training.

Tools

- Use the correct and proper tool for the job.
- GFCI's are required on all extension cords.
- Extension cords shall be 14 gauge heavy duty.
- All high pressure hoses with crow's feet shall be pinned with safety clips or tied with safety wire.
- Check valves and backflow preventers shall be installed on cutting rigs.
- Use tools and equipment in the manner they were designed.

Planning, Design and Construction Services – Contractor Handbook

- Tools and equipment shall be on a scheduled inspection system and shall be kept in good working condition and inspected prior to use.
- No nicked or damaged insulation on extension and power cords or welding leads 10 ft. from electrode holder.
- No leaking equipment.
- No makeshift tools. All shop made tools shall be certified by a registered engineer.

Guarding

- Guards shall remain in place on all tools and equipment while in use.
- Guards shall remain in place and be used for all saws, grinders, belts, pulleys, etc.
- Exposed electrical circuits and energized electrical equipment shall be guarded and tagged to protect unqualified workers.
- All unprotected edges, hatchways, skylights, holes or troughs in floors shall be guarded.

Lock - Out / Tag-Out (LOTO)

- Lock- Out / Tag-Out procedures shall be followed for controlling hazardous sources of energy.
- Breakers rendered inoperable shall be tagged listing the breakers that are inoperable.
- Breakers that are to remain closed shall be tagged and listed as to not open the circuit.
- Electrical hazards shall be tagged as “Electrical Hazard”
- Electrical systems being tested shall be “tagged testing in progress”.

Hand Position

- Hands shall be positioned to stay out of hazard areas, pinch and crush points.
- Hands shall be placed to achieve the best leverage and avoid repetitive stress.
- Hand tools shall be used in an ergonomically neutral position.

Body Mechanics / Position

- Workers shall keep their body square their work and face it if possible, except for throwing electrical switches, adjusting pressure regulators or opening and closing valves, Worker shall stand to the side.
- Keep body parts out of pinch/crush zones.
- Workers shall stand free of the bight of cable, rope, tag lines and never wrap any part of their body in a rope.
- Workers shall stand free from the line of fire from winch lines, tugger lines, blocks, pressure releases or flying debris.

Planning, Design and Construction Services – Contractor Handbook

- Workers shall alternate on strenuous activities with heavy equipment, i.e., jack hammering, etc.

Physical Lifting

- Plan your lift and have a clear path when transferring loads.
- Check weight of the load prior to lift. Do not jerk the load.
- Keep feet shoulder width apart.
- Keep body close to load.
- Keep you back straight when lifting.
- Lift with your legs, not your back.
- Do not twist while lifting, pulling, or carrying a load.
- Consider two-person lifting when possible.

Pinch Points

- Workers shall never pass under an unsupported suspended load.
- Workers shall always have a clear escape route when lifting with cranes.
- Workers shall remain clear of run-in and nip points.

Tag Lines

- Tag Lines shall be used on loads being moved by a crane.
- Tag Lines shall be free from knots.
- Tag lines shall not be wrapped around any part of your body.
- Tag Lines shall be long enough to prevent workers from standing under the load while holding the tag line.

Rigging

- Use the correct load rated slings for the lift. Safe working load limits tags shall be in place on sling.
- All shackle pins shall be pinned with safety pins/wire.
- Slings and knots shall be used according to best practice.
- Slings and rigging shall be on an inspection program and inspected before use.
- Any free leg shall be shackled back to the live leg.
- Any shop made rigging shall be certified by a registered engineer.

Hand Signals

- Only one person shall be designated to give hand signals.
- A hand signal chart shall be located on the crane and job site.
- Crane operator shall always maintain eye contact with signal person.
- Anyone can give the emergency stop signal.

Storage

- All materials, tools and equipment shall be neatly and safely stored.
- Stored materials shall be barricaded, shall not block walkways, stairwells and egress routes and shall not create a fire or egress hazard.
- Stairwells and Electrical rooms shall not be used for any storage.

Emergency Numbers:

- **University Police: dial 911 from any campus phone or
(859)257-UKPD (8573): FREE CELL PHONE CALL: #8573 (#UKPD)**
- **UK Delta Room: (859) 257-2830 or (859) 257-3844**
- **Emergency Management Office: (859) 257-3815**
- **Building Emergency after regular working hours: (859) 257-3844**
- **UK - Planning, Design and Construction Services (PDCS):
(859) 257-2726 Fax (859)323-3287**
- **UK Parking & Transportation Services: (859) 257-5757**