

Campus Mobile Crane Program

Plan Statement

It is the <u>policy of The University of Texas at Austin</u> ("UT Austin") to provide a safe educational, living, and working environment for its students, employees, affiliates and visitors. The University recognizes the use of mobile cranes on University property may threaten the safety of the University community, and disturb the educational goals of the University.

Reason for Plan

To establish a safe environment on campus when a mobile crane is used, and to prevent incidents associated with this equipment.

Scope and Audience

Anyone (including but not limited to contractors, students, faculty, and staff) utilizing a mobile crane including any attachments to complete work on all UT Austin campuses. This excludes any fixed, gantry, or overhead cranes attached to UT Austin structures.

Related UT Austin Documents

UT Austin Campus Mobile Crane Procedure

UT Austin Handbook of Operating Procedures – Environmental Health and Safety Policy

Definitions

Term	Definition
CPC	Capital Planning and Construction
Mobile Crane	A lifting device incorporating a cable suspended latticed boom or hydraulic telescopic boom designed to be moved between operating locations by transport over the road. This excludes equipment designed to raise and lower humans.
EHS	Environmental Health and Safety
FPS	Fire Prevention Services
FS	Facilities Services
JHA	Job Hazard Analysis

Term	Definition
Lift Plan	A plan developed every time a heavy load is being lifted. The purpose is to have control and establish safety precautions. It is an important planning process that will identify all hazardous situations that might be encountered during lifting.
ADA Compliance	The University's ADA Coordinators help ensure the University's compliance with all applicable civil rights legislation (including ADA).
OSHA	Occupational Safety and Health Administration
PMCS	Project Management & Construction Services
PTS	Parking and Transportation Services
UHD	University Housing and Dining
UEM	Utilities and Energy Management
UT Austin	University of Texas at Austin

Responsibilities

The following program responsibilities are identified by program roles:

Individual hiring or contracting a mobile crane:

- Follow the UT Austin Campus Mobile Crane Procedure.
- Stop work when an unsafe condition is observed during crane operations. Resume crane operations only when unsafe condition is corrected.
- Keep all pre-work documentation identified in the <u>UT Austin Campus Mobile Crane</u>
 <u>Procedure</u> for 30 days after project completion.
- Respond to lift plan approver as identified in <u>UT Austin Campus Mobile Crane Procedure</u> and make required changes when requested.
- Respond to questions from UEM, PTS, Landscape Services, and OIE when contacted and make requested changes when contacted.
- Be on site or ensure representation during crane operations.
- Coordinate site visit(s) to planned crane lift locations when requested.

Department Safety Representative or EHS:

- Review pre-work documents submitted by individual hiring or contracting a mobile crane and approve or request changes to lift plan to enable approval.
- Ensure individual hiring or contracting a mobile crane has informed PTS, Landscape Services, building managers (directly adjacent to lift) and the University's ADA Coordinators a minimum of 5 days prior to crane operations.
- Stop work when an unsafe condition is observed during crane operations. Resume crane operations only when unsafe condition is corrected.

UEM:

Respond to crane placement requests in writing to requestor.

Crane Operations on Campus

The individual hiring or contracting a mobile crane must utilize and complete the <u>UT Austin Campus</u> <u>Mobile Crane Procedure</u> as part of this program.

Frequently Asked Questions

How do I know a crane license/certification/qualification is valid?

A crane operator, rigger, or signal person license/certification/qualification is a wallet size card with the licensed/certified/qualified person's photo, name, expiration date, company name who provided the training/certification, and type(s) of equipment the licensed/certified/qualified person is approved to operate.

What do I do if there a discrepancy between what is happening on site and what was written in the lift plan?

Stop work and immediately contact the designated departmental UEM/FS/UHD/PMCS/CPC safety representative or UT Austin EHS.

Do I have to provide a pedestrian traffic guard for every lift?

Yes, physical barricades are not adequate in preventing pedestrian and occupied vehicle traffic from entering the exclusion zone.

Who do I contact about this policy or related procedure?

UT Austin Environmental Health and Safety (EHS), Campus Occupational and Laboratory Safety Section, 512-471-3511

Related Information:

Link to OSHA Crames & Derricks Standard 1926.1400
Link to OSHA Crawler Locomotive & Truck Cranes 1910.180
https://www.osha.gov/dcsp/alliances/cranes.html

Revision History:

Revision Date	Material Changed	Changed by:
12/3/2018	Document created and	Suzanne Kilpatrick, Daniel Stine, Andrea
	approved	McNair, Kent Williams
6/13/2019	Updated Attachment Two	Suzanne Kilpatrick



Campus Mobile Crane Procedure

Procedure

The individual hiring or contracting must ensure the following steps are complete:

- Step 1: Communicate the requirements within this procedure to project personnel or contractor;
- Step 2: Prior to 5 days before crane operations, obtain documentation required in this procedure (see Section 1.1);
- Step 3: Minimum of 5 days before lift, submit documentation to appropriate approvers (see Section 1.2) and obtain approval prior to crane operations on campus; and
- Step 4: Ensure program requirements are being met for the crane or hoist operation on campus. Complete Sections 2 and 3.

Section 1: Pre-Work Documentation

- 1.1 The below items must be satisfied prior to contract execution and is best placed within contract language. At a minimum, the following documents must be submitted to identified personnel in Section 1.2 five (5) days prior to crane operations:
 - 1.1.1 Statement in contract or purchasing language requiring all applicable OSHA standards are followed;
 - 1.1.2 Vendor insurance certificate with a minimum \$1 million general liability and valid expiration date;
 - 1.1.3 Crane operator medical clearance with valid expiration date;
 - 1.1.4 Crane operator license or certification with valid expiration date and equipment type;
 - 1.1.5 Rigger/signal person qualification with valid expiration date;
 - 1.1.6 Annual crane inspection certificate with valid expiration date;
 - 1.1.7 Notify Dig Safe of crane operation with location and dates. Obtain Dig Safe email confirmation marking utilities; and
 - 1.1.8 Written lift plan with the following:
 - a. UT hiring individual name and contact information;
 - b. Crane operator name and contact information;
 - c. Rigger/signal person name and contact information;
 - d. Dig Safe written approval;
 - e. Pedestrian traffic guard name and contact information;
 - f. Job Hazard Analysis (see example provided in Attachment One); and
 - g. Site map (equipment, exclusion zone, staging area, and swing radius).

- 1.2 At least five days prior to commencing work, required documentation identified within this procedure must be submitted to and approved by:
 - 1.2.1 UEM/FS/UHD/PMCS/CPC employees hiring/contracting must submit documentation to the designated departmental UEM/FS/UHD/PMCS/CPC safety representative; or
 - 1.2.2 All other UT Austin employees or students who are not identified above must submit documentation to UT Austin EHS.

Section 2: Notification to Surrounding Effected Populations/Areas

Provide a group email notification to lift plan approver, PTS, Landscape Services, FPS, UEM, the University's ADA Coordinators and building managers (directly adjacent to planned crane operation) with date and time of crane operation, site map (identified in 1.1.8.g) and contact information during crane operation.

Section 3: Verification

Prior to use of the crane, verify the information listed on the checklist provided in Attachment Two. Any last minute changes to a previously approved lift plan must be reviewed and accepted by the lift plan approver prior to commencing lift activities.

Section 4: Requirements during Work

The individual hiring or contracting a mobile crane shall ensure the following rules and requirements are satisfied for the duration of the work:

- 4.1 Ensure OSHA compliance and monitor the contractor's work to ensure they do not create an unsafe environment, which includes overhead hazards for pedestrians and occupied vehicles.
 OSHA does not specify rules ensuring the safety of pedestrians, however UT Austin EHS requires pedestrian and occupied vehicle protection for all overhead activities.
- 4.2 UT Austin EHS requires physical channelizing devices/horizontal barricades and a dedicated pedestrian traffic guard on duty during all overhead activities. The horizontal barricades must be placed sufficiently far away from the work area to prevent falling objects/workers from striking pedestrians and occupied vehicles. The pedestrian traffic guard must stand at the barricade and prevent pedestrians from entering the exclusion zone.
- 4.3 Crane operator, rigger/signal person, and pedestrian traffic guard must be completed by three different people. Multiple roles cannot be assigned to one person.
- 4.4 Notify contractor that UT Austin safety professionals can stop work at any time if unsafe conditions are observed.
- 4.5 Onsite anemometer readings are required.

UT Austin Contacts

Utilities and Energy Management (UEM), Underground Utilities Locating UTDigSafe@austin.utexas.edu or 512-232-7373

Parking and Transportation Services (PTS) parking@utexas.edu

ADA Compliance <u>- ada@austin.utexas.edu</u>

Landscape Services - Jim Carse, 512-475-7756 or Jim.Carse@austin.utexas.edu

Environmental Health and Safety (EHS), Campus Occupational and Laboratory Safety Section, 512-471-3511

Fire Prevention Services (FPS) Josh Lambert 512-471-7132 or joshua.lambert@austin.utexas.edu

Forms and Tools

Attachment One: Job Hazard Analysis
Attachment Two: Crane Pre-Lift Checklist

Related UT Austin Documents

UT Austin Campus Mobile Crane Program

UT Austin Handbook of Operating Procedures – Environmental Health and Safety Policy

Revision History:

Revision Date	Material Changed	Changed by:
11/12/2018	Document created and	Suzanne Kilpatrick, Daniel Stine, Andrea
	approved	McNair, Kent Williams
7/17/2019	Added to Procedures Section	Suzanne Kilpatrick
	3 & Pre-Mobilization	
	Checklist	
12/2/2019	Added 4.5 to Procedures	Suzanne Kilpatrick
	Section 4	



Company/Contractor Name:	
Project Description:	
Project No:	

Job Hazard Analysis (Refer to OSHA Publication 3701)

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JOB HAZARD ANALYSIS (JHA)	1. WORK ACTIVITY or TASK:			2. LOCATION		3. SUBCONTRACTOR(s)
Note: The instructions are on the last page which is also used for perfroming the Job Briefing and obtaining work crew signatures.						
Shelling and obtaining not cool signatures.	4. FORM COMPLETED BY			5. JOB TITLE		6. DATE PREPARED
7. TASKS/PR	OCEDURES	8. HAZA	RDS	9 Engineering Controls	. ABATEMENT ACTION: * Substitution * Adminis	S trative Controls * PPE
10. CONTRACTOR REPRESENT	TATIVE APPROVAL SIGNATURE		1	1. TITLE		12. DATE
			(over)			

JHA Instructions

The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of the appropriate Contractor's Representative approving the JHA. The Contractor's Representative acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

- Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.
- Block 7: Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).
- Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in Block 7. For example:
 - a. Research past accidents/incidents.
 - Research the OSHA 1910, 1926 and Industry Standards (NEC, NFPA, ASTM, ANSI, etc.
 - c. Discuss the work project/activity with participants.
 - d. Observe the work project/activity.
 - e. A combination of the above.
- Block 9: Identify appropriate actions to reduce or eliminate the hazards identified in Block 8. Abatement measures listed below are in the order of the preferred abatement method:
 - a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture.
 - b. Substitution. For example, switching to high flash point, non-toxic solvents.
 - c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.
 - d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, and portable water pumps).
 - e. A combination of the above.
- Block 10: The JHA must be reviewed and approved by a Contractor's Representative.
- Blocks 11 and 12: Self-explanatory.
- Block 13: Crew leader/Superintendent to perfrom a job briefingwith the work crew and obtain their signatures before starting the work activity/task.

Block 13. JHA Job Briefing and Emergency Evacuation Instructions

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

- a. Nature of the accident or injury (avoid using victim's name).
- b. Type of assistance needed, if any (ground, air, or water evacuation).
- Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
- d. Radio frequencies.
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temperature).
- h. Topography.
- i. Number of individuals to be transported.
- j. Estimated weight of individuals for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

JHA and Emergency Evacuation Procedures Acknowledgment

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

SIGNATURE	DATE	SIGNA	TURE	DATE	



UT Austin Crane Pre-Lift Checklist

This form is to be filled out by the crane operator, rigger, supervisor, and UT hiring individual prior to any lift.

Crane Model & Description

Crane Company

Date	Lift Location		cation	Load Description			
Lift Description							
Pre-Lift Checklist							
Task	Yes	No		Notes			
Matting Acceptable							
Outriggers Fully Extended							
Barricades in Place							
Crane in Good Condition							
Swing Clearance Checked							
Head Room Checked							
Max Counterweight Used							
Tag Line Used							
Experienced Operator							
Experienced Signal Person							
Experienced Rigger							
Load Chart in Crane							
Load Weight Verified							
Load Dimensions Verified							
Lift Configuration/Plan Verified							
Pre-Lift Briefing							
Notes, comments, or corrective act	ions:						
Crane Operator:							
Rigger:							
Supervisor:							

UT Hiring Individual: