

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 1 of 9
Prepared by: Mike Terzo	

I. PURPOSE

This policy establishes the minimum criteria of mobile crane use on UR properties or UR leased properties.

II. PERSONNEL AFFECTED

This policy applies to mobile crane usage on UR properties and UR leased properties and it is the responsibility of the vendor/contractor to ensure that all UR and Local/State and Federal requirements are followed.

The assigned UR Project Manager (Facilities Management, Planning, Design & Construction (PDC) or other group) will be responsible for ensuring all applicable Crane Safety requirements are followed and to ensure applicable Crane Safety documentation is available and provided to EH&S.

III. DEFINITIONS

Critical Lift - A critical lift has one or more of the following conditions:

- Load is over 75% of the crane's rated capacity for current configuration.
- Lift requires the use of two (2) or more cranes.
- Any lift in which a significant risk of personnel injury or equipment damage is possible.

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.

IV. RESPONSIBILITIES

UR Project Management:

- Request crane lift plans and documentation required by this policy from the appropriate contractors.
- Maintain documentation of all documents associated with each crane lift.
- Submit crane lift plans and documentation to UR EH&S & Fire Safety for review and comment.

UR EH&S:

- Review all crane lift plans submitted by the UR Project Management.
- Provide input as needed back to UR Project Management.
- Review and audit compliance with this policy.
- Attend necessary meetings and lifts as described in this policy.

Contractor:

- Draft a Crane lift plan and provide to UR Project Management.
- The contractor shall comply with all federal, FAA, state, and local laws and regulations regarding the inspections, maintenance, and operation of the cranes within their fleet.

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 2 of 9
Prepared by: Mike Terzo	

V. PROCEDURES

The following procedures apply when a mobile crane is utilized:

1. The UR Project Manager is responsible for submitting the following documents at least 7 business days prior to commencement of crane operations to EH&S:
 - a. Completed Crane Lift Checklist.
 - b. Crane Lift Plan (crane weight limits, planned lift weights, engineering calculation's, crane setup area, lift swing radius, diagrams, operation location, rigging lifting capacities).
 - (1) A lift plan is necessary for every lift being completed for the specific duration of the crane on-site (each day).
 - (2) If a crane is used for clean-up or small tool placement purposes, then a plan shall be submitted for the maximum amount and/or maximum height and angle to be lifted for the duration of the project.
 - c. Crane Specifications (Type of crane, max height, max reach, load chart & range diagram showing relevant obstructions, total weight & weight at point of max lift, length/width with outriggers extended).
 - d. Traffic Control Plan (if applicable).
 - e. Plan for weather conditions and how it may affect the lift on the day of (Weather forecast of the day of the lift).
 - f. Copy of the FAA obstruction evaluation from the contractor.
 - (1) Determine other airspace impacts such as roof top and ground helipads owned privately which will not be considered in the FFA study.
 - (2) Contact entities effected by the crane and establish approach procedures for each helipad.
 - g. Annual crane inspection documentation.
 - h. Previous three months of monthly crane inspections.
 - i. Copy of the crane operators license/certification.
 - j. Copy of the crane operator's evaluation/training on the specific crane being use for the lift.
 - k. Copy of the signal person(s) evaluation/training on the type of signals used.
 - l. Copy of the rigger(s) evaluation/training.
 - m. Copy of the flagger(s) evaluation/training (if applicable).
 - n. Signature of the contractors project manager and safety manager.
2. Once submittal is received by EH&S, EH&S will review the submittal. Submittal will either be "accepted" or a request for additional information will be requested and sent back to requestor.

Prior to Use Requirements:

1. The UR Project Manager and Crane Contractor will predetermine the crane operation location.

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 3 of 9
Prepared by: Mike Terzo	

2. Entry and exit path to and from project site will be evaluated and predetermined to ensure most appropriate and safest route. Alternate access routes may be necessary depending on the size and tonnage of the crane used.
3. Evaluate fire lanes, fire department access, building exit paths with UR Fire Marshal office.
4. As necessary (depending on crane weight and area to be driven on/across), the contractor shall determine whether soil/ground conditions are suitable for the crane location. The UR Project Manager will work with the appropriate UR personnel and contractor to identify any subsurface vaults, underground storage tanks, duct-banks, storm water sewers, etc. and ensure soil and mats under crane are of sufficient bearing capacity.
5. During crane lift operations, building occupants and other personnel may be required to evacuate areas (Generally one floor/story below) under the lift and swing radius. If evacuation of building occupants is not feasible (e.g. lifesaving purposes), it is necessary to document why relocation/evacuation is not feasible and reviewed/approved by UR EH&S and management.

General Crane Safety Requirements:

1. During crane lift operations, the entire swing radius is required to be barricaded using, at a minimum, safety cones, barrier tape. When any of the swing radius will affect the flow of traffic, a Traffic Control Plan needs to be developed and reviewed with UR Parking and Transportation prior to the lift (as necessary).
2. During crane lift operations, the immediate area will be kept clear of all vehicles and equipment at all times. Only trucks that are supplying equipment to be lifted may be located in the immediate area.
3. Pedestrians will not be allowed to walk under the load at any time.
4. All personnel working in the lift area will wear hard hats, safety shoes, safety glasses, and ANSI safety vests.
5. Contractors are responsible for ensuring sub-contractors working adjacent to crane activities have been notified of the crane operation and discuss any precautions needed during the crane operation.
6. When the crane or load encroaches upon streets, and barricades and warning signs cannot control moving traffic, the crane operation will use appropriately trained flaggers.
7. Contractors will be responsible for supplying their own flaggers to assist with any lifts of material.
8. All rigging materials shall be designed, rated for the load and inspected prior to the lift.
9. The contractor shall ensure the regulations for energized/electrical equipment (29 CFR 1926.1411) are followed.
10. Any crane that will be assembled/erected shall be done in accordance with the manufacturers requirements/all local/state/federal requirements.
 - a. Documentation of the post assembly inspection shall be submitted to UR EH&S on the day of the inspection.

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 4 of 9
Prepared by: Mike Terzo	

- b. Documentation shall be posted or readily available for review for the duration of the crane on-site.
- 11. A pre-lift review shall take place between all contractors/sub-contractors/crane operator/riggers/signal persons on the site where the lift will occur, reviewing all the elements of the crane plan.
 - a. A copy of the crane plan shall be available on site and readily available for review for the duration of the crane operations.
 - b. The contractor in charge shall maintain documentation of the review and shall be available to be provided to UR for the duration of the project.
- 12. Weather shall be reviewed prior to the crane lift by the contractor in charge and crane operator. A re-assessment shall be made if winds are in excess of 20 mph. When lightning occurs within 10 miles' operations to stop and not resume until 30 minutes after last strike. Winter weather conditions shall be reviewed prior to the lift and the effect on the cranes ability to conduct the lift. If any of these factors contribute to a stop lift, UR Project Management shall be notified immediately. UR Project Management shall notify UR EH&S upon receiving of information.
- 13. Cranes that will be operated within a helicopter approach to the helipad shall implement following communications protocol:
 - a. Notification to DPS and ED communications with notification of the date(s) of the crane operations.
 - b. Portable Radio issued to the crane operator that has direct contact with DPS.
 - c. Contact information exchange between the crane operator, ED communications and DPS.
 - d. Crane operator shall radio DPS and call ED communications prior to the start of crane operations on each day to confirm operations will be starting. The crane operator will notify both DPS and ED communications at the conclusion of the operation each day.
 - e. If an inbound helicopter is approaching, the following communications shall be made:
 - (1) DPS will radio the crane operator of the incoming helicopter and instruct to pause operation. The crane operator will acknowledge DPS and ensure the crane boom and load is out of the approach path.
 - (2) ED communications will notify the crane via phone of the incoming helicopter and instruct to pause operation. The crane operator will acknowledge DPS and ensure the crane boom and load is out of the approach path.
 - (3) After the helicopter has departed, the crane operator will make contact with DPS and ED communications to receive authorization to resume work.
 - f. If a helicopter is spotted without any notifications, the crane operator will immediately stop the crane and notification shall be made to DPS via radio, ED communications, Project Management, UR EH&S, and UR Project

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 5 of 9
Prepared by: Mike Terzo	

Management immediately. An investigation will be initiated and work will resume after the investigation is completed.

Critical Lifts:

1. The contractor shall take all the necessary measures to not have a critical lift.
2. The UR Project Manager shall not make the decision to have a critical lift if other options to lift are available (bigger crane, alternative date, etc.).
3. If a critical lift is necessary, the contractor shall explain in writing to the UR Project Manager and UR EH&S reasoning for the critical lift and why alternative options are not feasible. UR EH&S reserves the right, to provide feedback to the contractor and not approve a critical lift.
4. Procedure for critical lifts:
 - a. The building where the lift occurs shall be fully evacuated. If any other buildings are within the swing radius of the lift, they shall be evacuated as well. UR Project Management shall coordinate with the appropriate management the evacuation of the building. If the building must remain occupied (for lifesaving purposes) then EH&S and management shall make this determination.
 - b. No critical lift shall occur if winds exceed 20 mph. The weather shall be reviewed at the pre-critical lift planning meeting and prior to the critical lift.
 - c. Pre-Critical Lift Planning Meeting:
 - (1) General Contractor, UR EH&S, UR Project Manager, crane company representatives (when applicable), Subcontractors, shall attend the pre-lift planning meeting to plan the lift. This meeting is required for all critical lift crane activities on projects. UR Project Manager will take attendance and document meeting minutes of the meeting.
 - (2) The following information shall be reviewed at the meeting:
 - (a) Crane Lift Plan (crane weight limits, planned lift weights, engineering calculation's, crane setup area, lift swing radius, diagrams, operation location, rigging lifting capacities).
 - (b) Crane's most recent annual certification will be required the date of the crane's arrival on-site.
 - (c) Maintenance and inspection records (most recent month/daily inspection).
 - (d) Crane's complete load chart for boom length, counterweight, and configuration of the planned lift.
 - (e) Certificate of insurance for the crane.
 - (f) Crane operator's experience and special certification (i.e. CCO designation, long boom license, etc.)
 - (g) Communications plan (signalperson, radios)
 - (h) Designate personnel to lifting roles (operator, signalperson, rigger, safety, supervisor, accountability of personnel) and ensure each designated person has the appropriate training for their roles.

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 6 of 9
Prepared by: Mike Terzo	

- (i) Accountability of personnel plan. The lead contractor shall provide a plan for accounting for personnel names and locations shall be documented in case an emergency occurs.
- (j) On-site pre-lift review (time, location, personnel involved).
- (3) Prior to the critical lift at the lifting location, all contractors and affected personnel shall have a pre-lift review. The meeting shall be led by the contractor in charge of the project. The full critical lift plan shall be reviewed in full detail with all affected personnel. Documentation of the pre-lift meeting shall be submitted to the UR Project Management.

VI. REFERENCES

OSHA 1926 Subpart CC – Cranes and Derricks in Construction

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 7 of 9
Prepared by: Mike Terzo	

VII. APPENDICES/FORMS

Crane Lift Checklist				
I. Instructions				
The use of mobile cranes at the UR can pose a variety of hazards and challenges. Before using this checklist, consider the necessity and feasibility of using a mobile crane, or if alternative options are available. Project Managers must submit all information in this checklist and can direct questions to the UR EH&S Department.				
II. General Requirements for Project Managers			Yes	NA
1	Obtain all required permits and clearance as necessary (Local, State, Federal) Click or tap here to enter text.	☐	☐	
2	Verification that all ground conditions can support operations and no underground hazards are present. Click or tap here to enter text.	☐	☐	
3	If operations will block or partially block, building exits, exits routes, fire lanes or equipment, notify UR Fire Marshal for approval. Click or tap here to enter text.	☐	☐	
4	Notification to building manager and other relevant or affected departments/personnel (Helipad disruption, Emergency Department contacted). Click or tap here to enter text.	☐	☐	
5	Identified interior building spaces below the crane swing radius must be evacuated during operations. Click or tap here to enter text.	☐	☐	
6	Communications Plan implemented for any crane within a helicopter approach to the helipad. (DPS and ED Communications notified and proper Portable Radio issued to the Crane Operator). Click or tap here to enter text.	☐	☐	
III. General Requirements for Contractors				
1	Valid Crane annual inspection report, last three monthly inspections and certification that do not indicate any deficiencies. Click or tap here to enter text.	☐		
2	Valid crane operators license and certification for the type and specific crane being operated. Click or tap here to enter text.	☐		
3	Valid Signalperson(s), rigger(s) and flagger(s) certification(s) Click or tap here to enter text.	☐		
IV. Written Plan (developed by contractors)				
1	Crane operator, rigger, signalperson, spotter, flagger, competent person identified and copy of certifications and training obtained.	☐		

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 8 of 9
Prepared by: Mike Terzo	

	Click or tap here to enter text.		
2	Detailed scope of work, purpose of the crane relative to specific project, date(s) of operation, hours of operation. Click or tap here to enter text.	☐	
3	Description of load(s) to be lifted Click or tap here to enter text.	☐	
4	Verification that landing zones/areas are identified, prepared and can support loads Click or tap here to enter text.		
5	Detailed information of the canes capacity, Loads, weights and engineering calculations determining the lift is what percentage of the cranes rated capacity (less than 75%). Click or tap here to enter text.	☐	
6	Safety measures and procedures that all parties will adhere to during crane operations including electrical/energized hazards addressed. Click or tap here to enter text.	☐	
7	Weather report and crane operations weather shutdown procedures. Click or tap here to enter text.	☐	
8	Method(s) of communication between all parties during crane operations. Click or tap here to enter text.	☐	
9	Description of rigging equipment, methods utilized, inspection/certification and rated for the loads being lifted. Click or tap here to enter text.	☐	
10	Provide a detailed lift plan drawing indicating the following criteria: Crane and equipment positions in relation to nearby structures, streets, walkways, and hazards. Staging, hoisting, and landing zones Crane travel path Identification of overhead or swing radius hazards. Roadway and walkway shutdown locations Barricade and flagger positions for vehicle and pedestrian safety and control. Click or tap here to enter text.	☐	
11	Provide a copy of the FAA obstruction evaluation.	☐	
V. Pre-Operation Checklist – The contractor shall provide a copy of a pre-operation checklist that minimally addresses the following items:			
1	Crane operator, rigger, signalperson, spotter, flagger, competent person identified.	☐	
2	Safety Considerations: Potential crane boom obstructions been identified, mitigated and barricaded? Blocking and/or cribbing available to set the loads on?	☐	

UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Policy No.: OS026	Approved by: Ken Jackson
Title: Mobile Crane Use	Date: 8/18/2025
Revision No.: New	Page 9 of 9
Prepared by: Mike Terzo	

	All anchor bolts, hold-downs, or fasteners have been removed? Attachment points rated to take the load? Shift inspection of the crane completed (copy available upon request from UR)? Review of the load and anything inside/outside the loads that could shift during the lift? All rigging has been inspected by a qualified rigger? Rigging correctly sized for the load and angles? Method of communication identified? All items in the detailed written plan addressed and set up prior to the lift.		
3	A pre-lift review has been conducted prior to the lift and addresses all necessary items	☐	
4	Documentation of the pre-operational checklist, inspections, and proof of a completed review are available to the UR at any time requested.	☐	

VIII. REVISION HISTORY

Date	Revision No.	Description
8/18/2025	New	Initial Issue