

SECTION 01 54 16  
TEMPORARY HOISTS AND GATES

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies requirements for access gates, construction hoists, and building egress during construction.

**1.2 ACCESS GATES**

- A. Inspect and repair or replace the electric controls, motor and gear mechanisms for the rolling gate entrance at 25th Street service entrance. Provide a remote control which can be operated by the VAMC Manhattan Security Service at their Control Room. Provide two way intercom between gate and VAMC Manhattan Security Service Control with one-way video camera.
- B. Inspect and repair locking mechanism at personnel gate adjacent to rolling gate. Provide lockset and keys meeting VA Standards and VAMC Manhattan Security Service requirements.
- C. Provide dedicated person(s) to control operation of the gates during times when the Contractor is using the service yard or hoist. At least one operator must be physically present at all times when either of the gates is open. The operator(s) are required to attend a briefing by Det. Grieco of the VAMC Manhattan Security Service and must have approved VA identification documents. The operator is required to check the identity of all persons requesting access to the service yard.

**1.3 CONSTRUCTION HOIST**

- A. Provide construction hoist to the 9th Floor at end of North Wing arranged so that access to building can be gained by removing windows at the end of the corridor on the 9th floor. Provide means to seal opening in case of inclement weather and at all times when the hoist is not in use. Hoist foundation and structure shall be designed to allow the extension of the hoist to the 17th Floor at a later date.
- B. Provide a barrier which will prevent unauthorized access between the Emergency Generator and the northeast corner of the hospital building. Hoist construction and operation shall comply with all applicable OSHA standards.
- C. After installation of the hoist and prior to its regular use, the hoist must be inspected and approved by the VAMC Manhattan Safety Officer.
- D. Comply with requirements of OSHA Standards 29 CFR Part 1926 Safety and Health Regulations for Construction, Subpart N Helicopters, Hoists,

Elevators, and Conveyors, Standard 1926.554 Overhead Hoists and the following requirements:

1. General Requirements. All provisions of the Occupational Safety and Health Administration (OSHA) Crane Standard (1926.550) apply, with the exception of the hoisting of employees.
2. Pre-Shift Inspection of Cranes.
  - a. Cranes used in steel erection activities shall be visually inspected prior to each shift by a Competent Person. The inspection shall include observation for deficiencies during operation. At a minimum this inspection shall include:
    - 1) All control mechanisms for maladjustments.
    - 2) Control and drive mechanisms for excessive wear of components and contamination by lubricants, water or other foreign matter.
    - 3) Safety devices, including but not limited to boom angle indicators, boom stops, boom kick-out devices, anti-two block devices, and load moment indicators, where required.
    - 4) Air, hydraulic, and other pressurized lines for deterioration or leakage, particularly those that flex during normal operation.
    - 5) Hooks and latches for deformation, chemical damage, cracks, or wear.
    - 6) Wire rope reeving for compliance with hoisting equipment manufacturer's specifications.
    - 7) Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt or moisture accumulation.
    - 8) Hydraulic systems for proper fluid level.
    - 9) Tires for proper inflation and condition.
    - 10) Ground conditions around the hoisting equipment for proper support, including ground settling under and around outriggers, ground water accumulation, or similar conditions.
    - 11) Hoisting equipment for level position.
    - 12) Hoisting equipment for level position after each move and setup.
  - b. If any deficiency is identified, an immediate determination shall be made by a Competent Person as to whether the deficiency constitutes a hazard.
  - c. If the deficiency is determined to constitute a hazard, the hoisting equipment shall be removed from service until the deficiency has been corrected.

- d. The operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads until safety has been assured.
  - e. A Qualified Rigger shall inspect the rigging prior to each shift in accordance with 1926.251 (Rigging Standard).
  - f. The headache ball, hook, or load shall not be used to transport personnel, except as provided when a personnel basket is used within the limits of this standard.
  - g. Safety latches on hooks shall not be deactivated or made inoperable except:
    - 1) When a Qualified Rigger has determined that the hoisting and placing of purlins and single joists can be performed more safely by doing so.
    - 2) When equivalent protection is provided in the site-specific erection plan.
    - 3) When a Qualified Rigger has determined that the hoisting and placing of purlins and single joists can be performed more safely by doing so or it is or when equivalent protection is provided in a site-specific erection plan.
2. Working Under Loads
- a. Routes for suspended loads shall be pre-planned to ensure that no employee is required to work directly below a suspended load except for:
    - 1) Employees directly engaged in the initial connection of the steel.
    - 2) Employees necessary for the hooking and unhooking of the load.
  - b. When working under suspended loads, the following criteria shall be met:
    - 1) Materials being hoisted shall be rigged to prevent unintentional displacement.
    - 2) Hooks with self-closing safety latches or their equivalent shall be used to prevent components from slipping out of the hook.
    - 3) All loads shall be rigged by a Qualified Rigger.
3. Multiple Lift Rigging Procedure.
- a. A multiple lift shall only be performed if the following criteria are met:
    - 1) A multiple lift rigging assembly is used.

- 2) A maximum of five members are hoisted per lift.
  - a) Only beams and similar structural members are lifted.
  - b) All employees engaged in the multiple lift shall have been trained in these procedures in accordance with 1926.76(c) (1).
  - c) No crane is permitted to be used for a multiple lift where such use is contrary to the manufacturer's specifications and limitations.
- b. Components of multiple lift rigging assembly shall be specifically designed and assembled with a maximum capacity for total assembly and for each individual attachment point. This capacity, certified by the manufacturer or a Qualified Rigger, shall be based on the manufacturer's specifications with a 5-to-1-safety factor for all components. The requirements of the standard must be followed.
- c. The total load shall not exceed:
  - 1) The rated capacity of the hoisting equipment specified in the equipment load charts.
  - 2) The rigging capacity specified in the rigging rating chart.
- d. The multiple lift rigging assembly shall be rigged with members:
  - 1) Attached at their center of gravity and maintained reasonably level.
  - 2) Rigged from the top down.
  - 3) Rigged at least 7 feet apart.
- e. The members of the multiple lift rigging assembly shall be set from the bottom up.
- f. Controlled lowering shall be used whenever the load is over the connectors.

#### **1.4 BUILDING EGRESS**

- A. Provide overhead protection at the egress from the Ground Level stair. Provide a chain link enclosed route from this egress opening to the upper plaza access stair. This is to prevent persons from exiting the Ground Level and leaving the Campus.

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