Engineering Tips for Ceiling Lift Installation & Maintenance

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Engineering Considerations

- **Items to include in the procurement request and/or process.**
  - Structural review of the facility rooms for attachment of ceiling lift.
  - Fire Safety review of the facility rooms for clearances and sprinkler concerns.
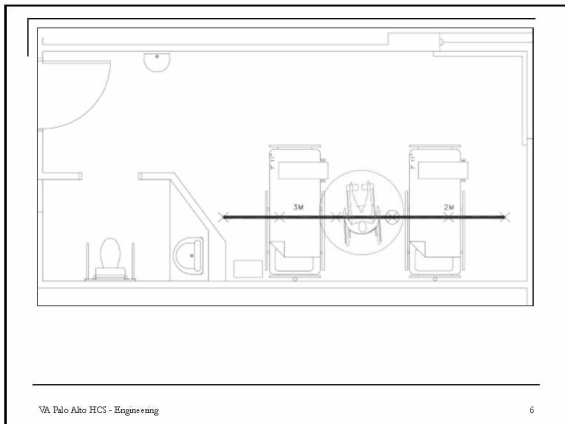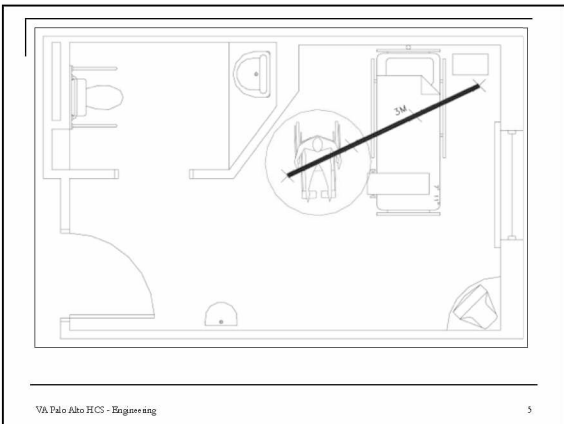 - Electrical review of the facility rooms for cables and their routing.
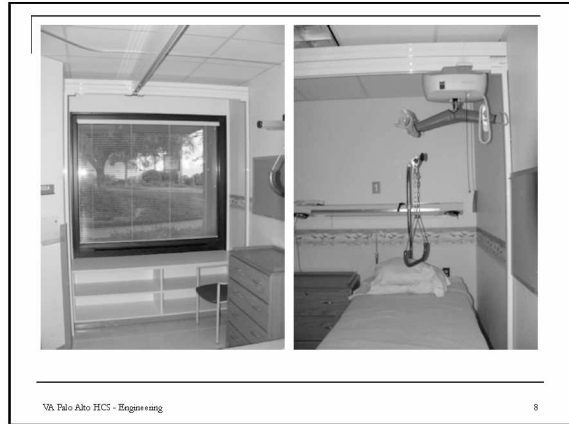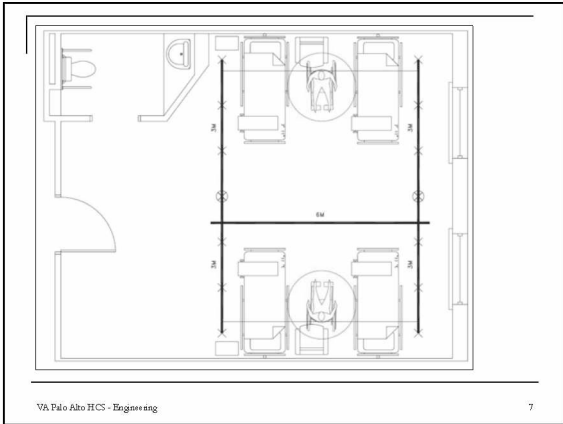
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Structures

- **Plan for a Structural Engineer to review the existing ceiling/roof structure to determine if it can support the additional load for the lift.**
- **If okay for ceiling attachment, have estimate performed for any non-lift work which must be performed. Include mechanical and electrical.**
- **Have independent Structural Engineer review submissions from lift vendor as part of submittal process. Don't forget seismic considerations.**
- **Remember, structural is only part of the full installation package.**

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Fire and Life Safety

- Vendor should provide a summary of fire sprinkler head issues, including blockage and clearance issues. Recommend PE certification.
- Vendor should address the parking location for lift drive unit and clearances required around the patient bed(s).
- Recommend lift rail systems not extend beyond the patient room due to interface at doorways.
- Remember bed curtains, IV poles, TVs, and how they will need to be relocated after installation.

Electrical

- Have an electrical engineer review submittals for compliance with NEC and NFPA 99.
- Have all power provided by a service receptacle which is part of the patient bedside circuit (either normal or emergency circuit).
- Have all metal parts located within the patient vicinity bonded and ground to the patient area ground point.
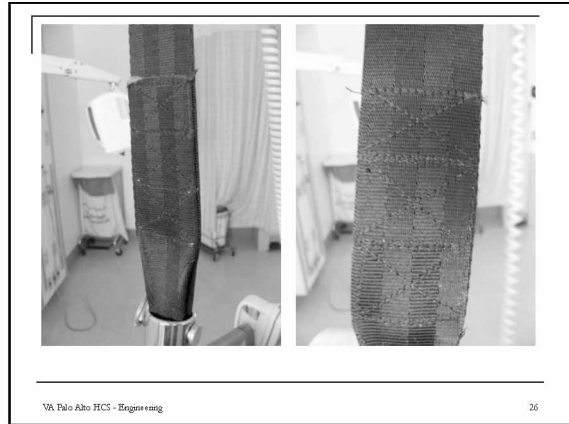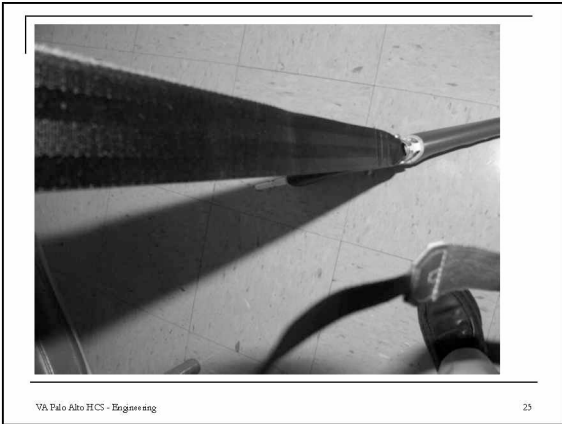- Make sure the installation does not interfere with maintenance of lighting and HVAC systems.

Maintenance Items

- ALWAYS follow manufacturers inspection requirements AS A MINIMUM.
- Inspect structural above ceiling annually.
- Inspect structural below ceiling annually.
- Inspect motor and trolley components annually.
- Inspect electrical cords and connections annually.
- HAVE NURSING inspect the electrical cords, lift web belting, and safety cord BEFORE each use.

For Questions

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