

# Model Specific Simulator Configuration & Procedures

## General Comments:

The Rappel Simulator is intended to be reconfigurable to represent many different helicopter models. It will therefore never be able to provide the exact cabin dimensions of any one particular aircraft. The designated anchor points (& rings) in the simulator used to attach rappelling ropes, cargo let-down ropes, and tether lines are rated for 5,000 pounds ultimate. The number and placement of anchor points and rings varies depending upon the model aircraft being simulated. Under no circumstances can more than one individual be attached to one of these points if a fall arrest situation is possible. The seats and benches may be moved about the cabin and held with J-bolts.

## Bell Mediums:

### *Simulator Configuration*

- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install all tether points shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 3. Configuration assumes use of hell hole and absence of Spotters seat. Reconfigure if needed.
- Install skids and full length flight step.

### *Procedures*

- Spotter ensures that exist doors are closed and secure.
- Spotter motions for new rappeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seat and attach tether strap. If base has chosen to install non-structural seat belts to enhance simulation these would need to be put on then.
- Spotter closes and secures simulator entrance gate
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter and/or Rappellers slide open and lock simulator exit doors.
- Since all Rappellers have tethers it is not necessary to close the simulator exit doors between each set of rappellers.
- Once the last set of Rappellers has exited the simulator and the Spotter has dropped the ropes the Spotter will close and secure the simulator exit doors – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

Figure 1. Emergency Rescue Anchor Rings

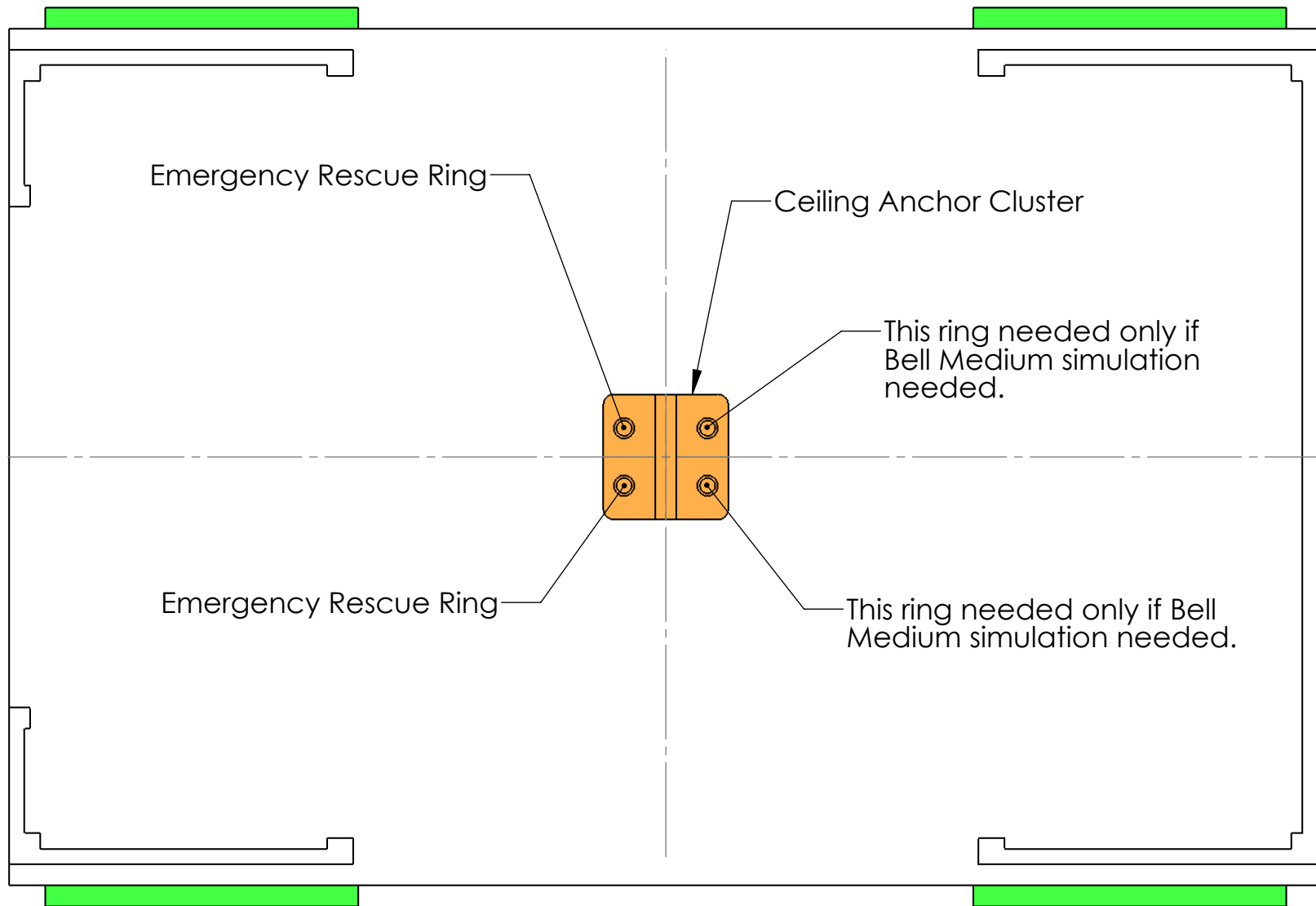
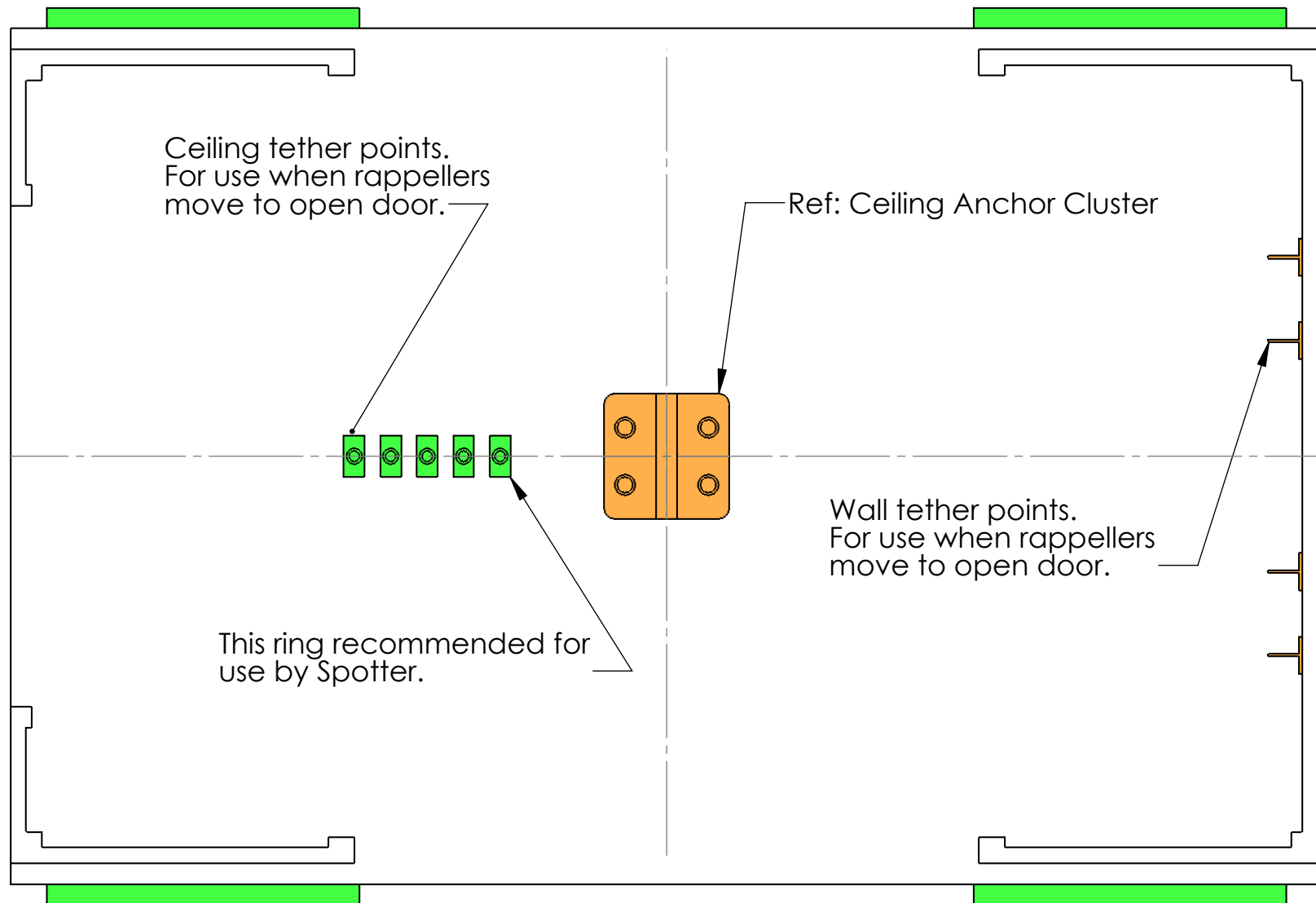


Figure 2. Ceiling and Wall Tether Anchor Installation Sites  
- only install the ones you need -

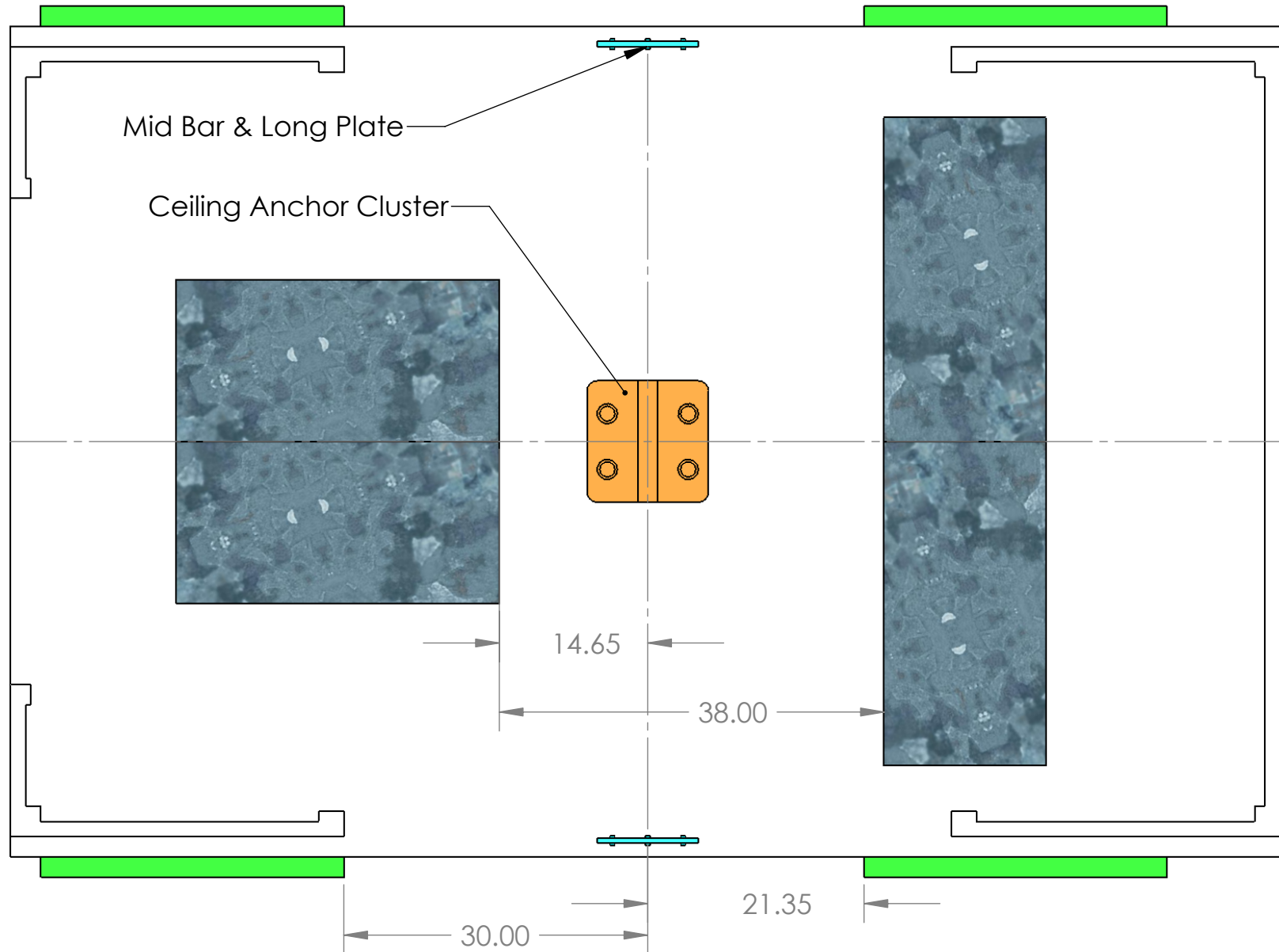
Plan view - Ceiling Anchor Cluster Included as a Reference.



## Figure 3. Bell Medium Simulator Configuration

Note: Install emergency rings and ceiling and wall tether anchor points as needed.

Note: Spotter tether attaches to closest ceiling ring but not to any ring on the ceiling anchor cluster.



**Bell 407:**

***Simulator Configuration***

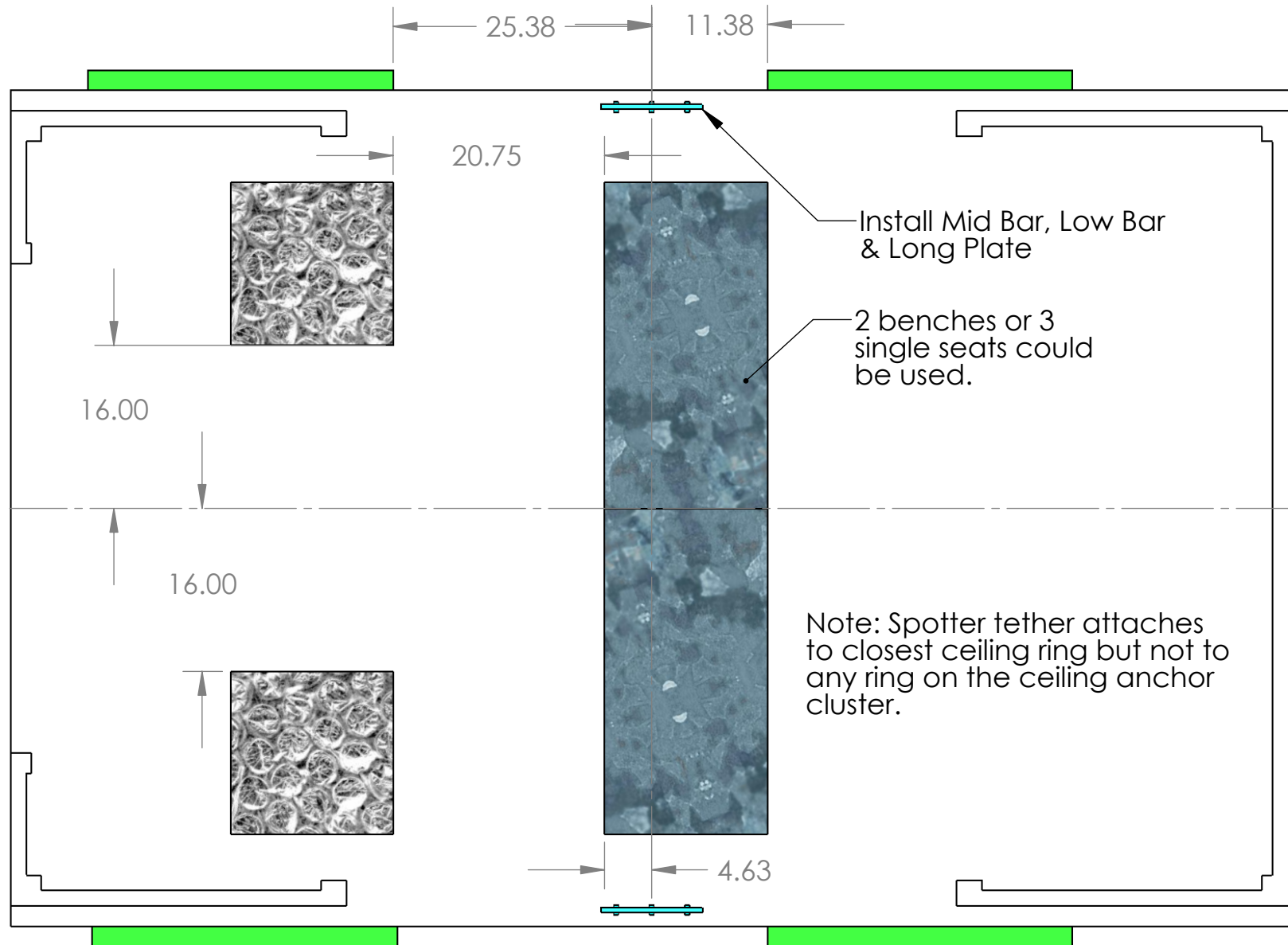
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 4. Center console has been removed to allow rappellers to get to their seats quicker.
- Install skids and full length flight step.

***Procedures***

- Spotter ensures that exist doors are closed and secure.
- Spotter motions for new rappeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seat.
- Spotter closes and secures simulator entrance gate.
- Rappellers hand the end of their rappel rope to the Spotter for attachment to the simulator anchor.
- The Spotter then hands the rigged Sky Genie back to the Rappeller who attaches it to their harness. If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Spotter attaches snub stap.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter and/or Rappellers slide open and lock simulator exit doors.
- Once the Rappellers have exited the simulator and the Spotter has dropped the ropes the Spotter will close and secure the simulator exit doors – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

## Figure 4. Bell 407 Simulator Configuration

Note: Install emergency rings and ceiling and wall tether anchor points as needed.



## **Bell 206L-4:**

### ***Simulator Configuration***

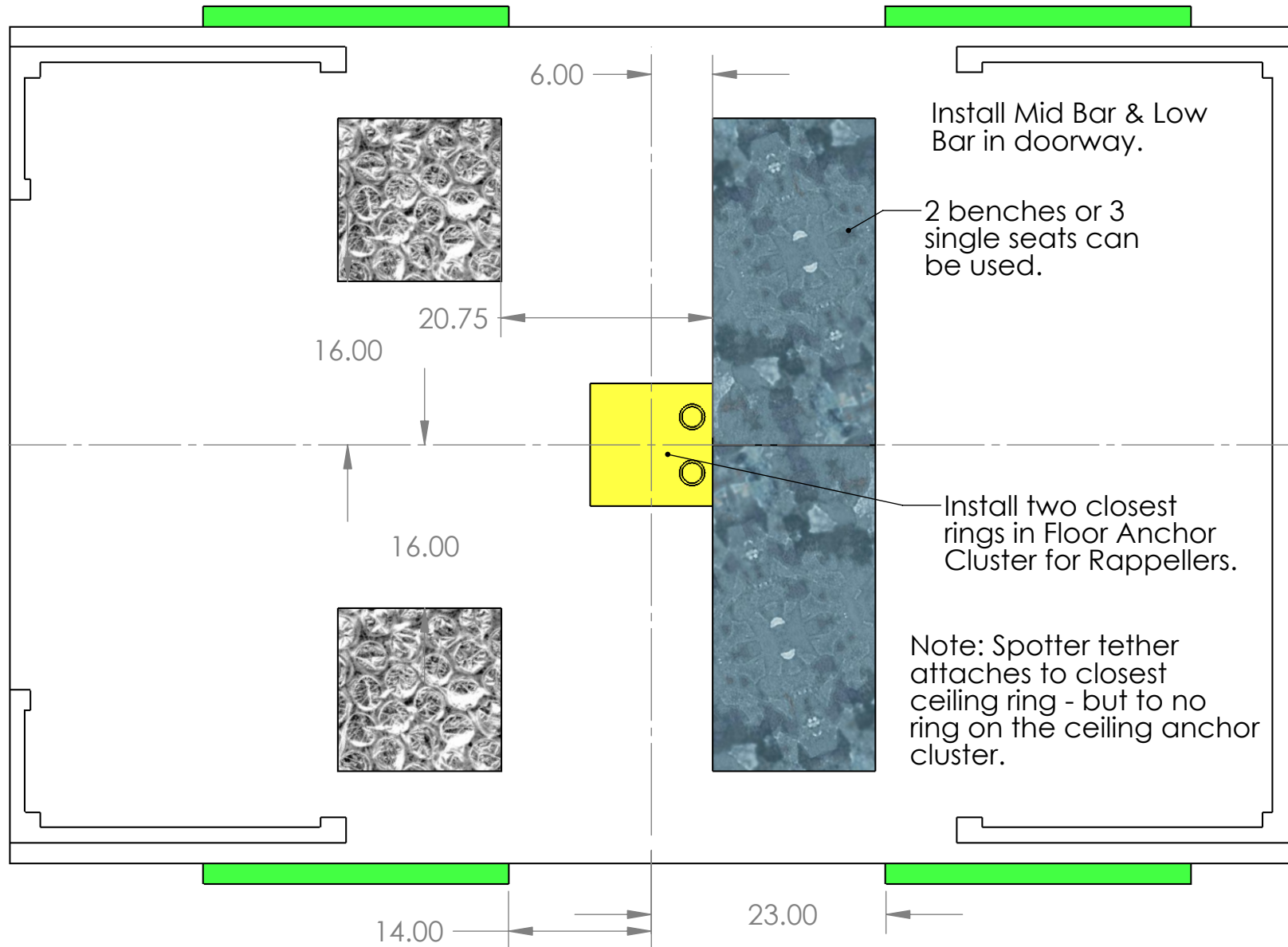
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 5. Center console has been removed to allow rappellers to get to their seats quicker.
- Install skids and J-step.

### ***Procedures***

- Spotter ensures that exist doors are closed and secure.
- Spotter motions for new rapeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seats.
- Spotter closes and secures simulator entrance gate.
- Rappellers hand the end of their rappel rope to the Spotter for attachment to the simulator anchor.
- The Spotter then hands the rigged Sky Genie back to the Rappeller who attaches it to their harness.
- If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Spotter attaches snub strap.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter and/or Rappellers slide open and lock simulator exit doors.
- Once all Rappellers have exited the simulator and the Spotter has dropped the ropes the Spotter will close and secure the simulator exit doors – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

## Figure 5. Bell 206L-4 Simulator Configuration

Note: Install emergency rings and ceiling and wall tether anchor points as needed.



## **ASTAR – Floor Mounted Anchor:**

### ***Simulator Configuration***

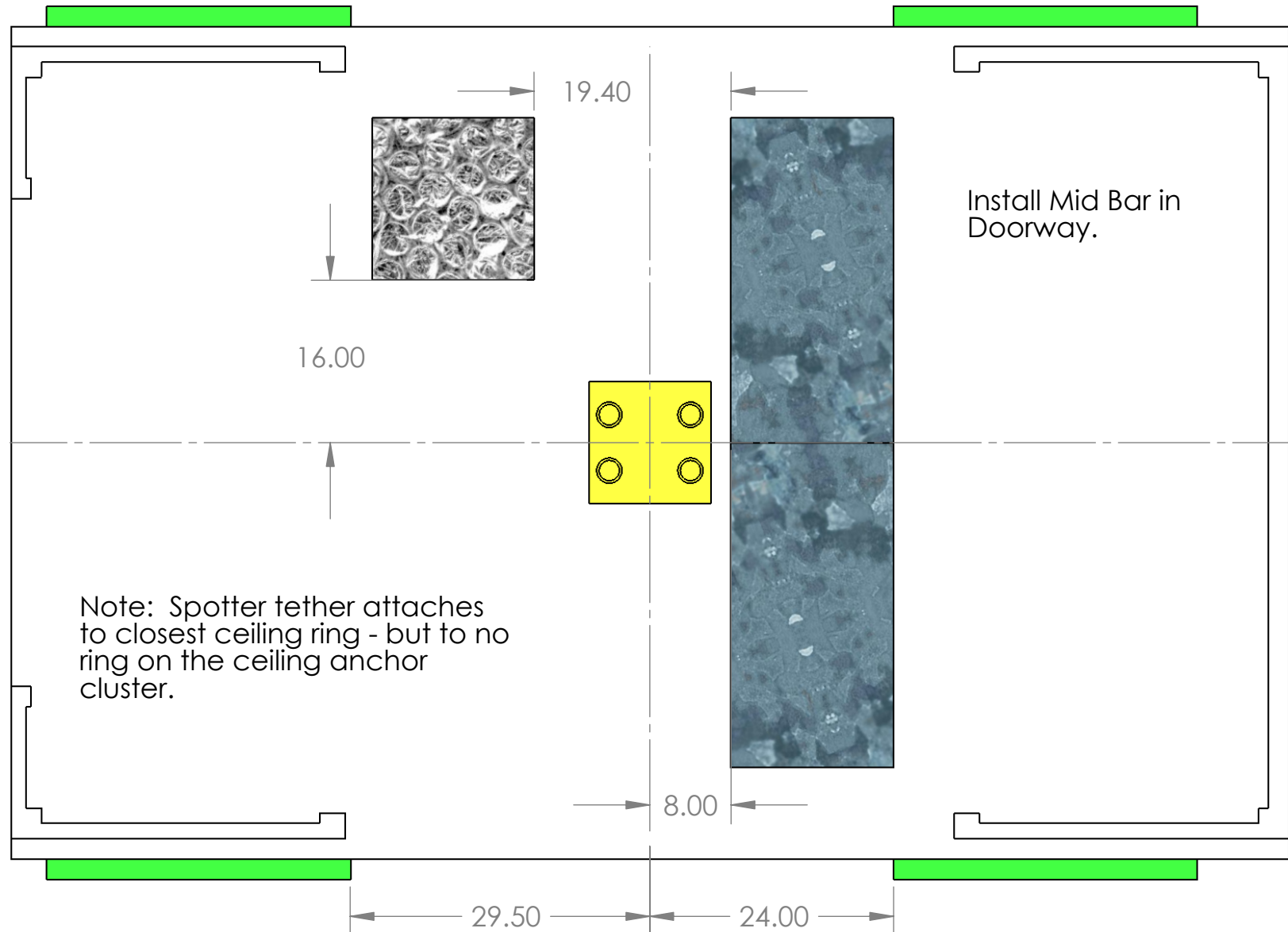
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 6. The co-pilot seat has been removed to allow rappellers to get to their seats quicker and because it is not present during the rappel operation..
- Install skids and full length flight step.

### ***Procedures***

- Spotter ensures that exist doors are closed and secure.
- Spotter motions for new rapeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seats.
- Spotter closes and secures simulator entrance gate.
- Rappellers hand the end of their rappel rope to the Spotter for attachment to the simulator anchor.
- The Spotter then hands the rigged Sky Genie back to the Rappeller who attaches it to their harness.
- If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Spotter attaches snub strap.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter and/or Rappellers slide open and lock simulator exit doors.
- Once all Rappellers have exited the simulator and the Spotter has dropped the ropes the Spotter will close and secure the simulator exit doors – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

# Figure 6. Astar Simulator Configuration - w/ Floor Anchor

Note: Install emergency rings and ceiling and wall tether anchor points as needed.



## **ASTAR – Overhead Mounted Anchor:**

### ***Simulator Configuration***

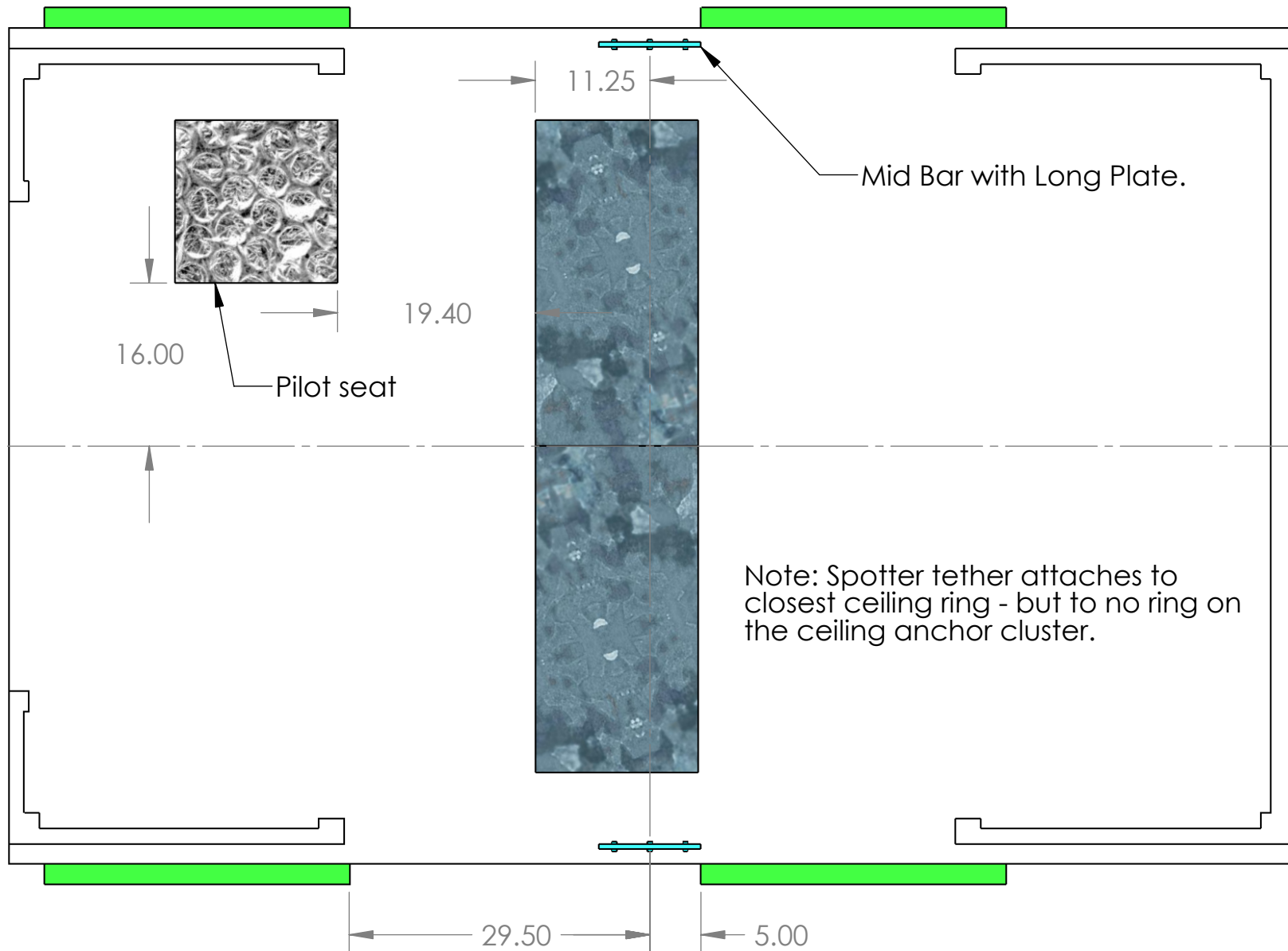
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 7. The co-pilot seat has been removed to allow rappellers to get to their seats quicker and because it is not present during the rappel operation..
- Install skids and full length flight step.

### ***Procedures***

- Spotter ensures that exist doors are closed and secure.
- Spotter motions for new rapeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seats.
- Spotter closes and secures simulator entrance gate.
- Rappellers hand the end of their rappel rope to the Spotter for attachment to the simulator floor anchor points closest to the rappellers.
- The Spotter then hands the rigged Sky Genie back to the Rappeller who attaches it to their harness.
- If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Spotter attaches snub strap.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter and/or Rappellers slide open and lock simulator exit doors.
- Once all Rappellers have exited the simulator and the Spotter has dropped the ropes the Spotter will close and secure the simulator exit doors – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

## Figure 7. Astar Simulator Configuration - w/ Overhead Anchor

Note: Install emergency rings and ceiling and wall tether anchor points as needed.



## SIKORSKY – S58T:

### *Simulator Configuration*

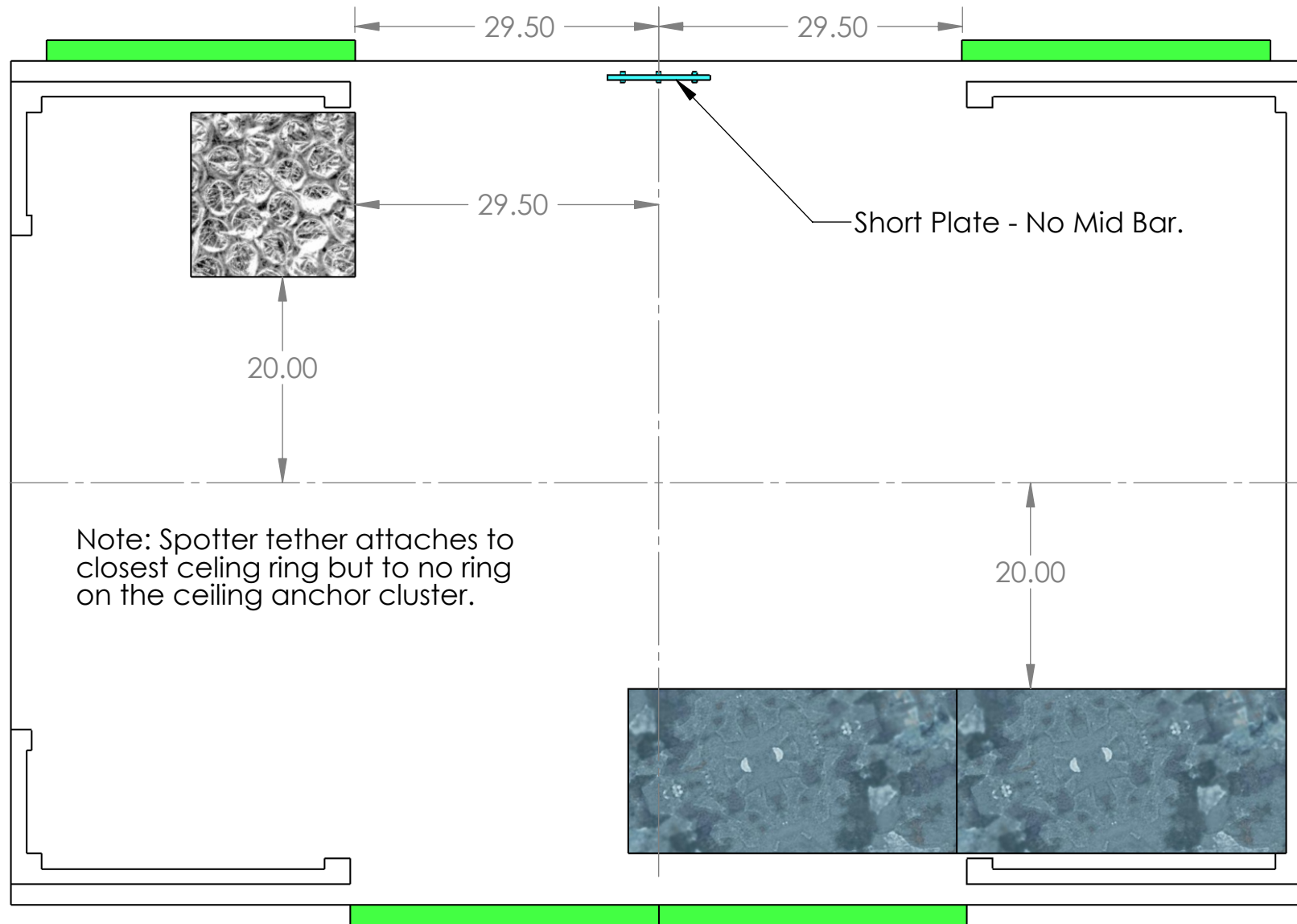
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2 and another one for the Rappeller migrating from their seat to the doorway.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 8.
- Configure skids to best represent what is on the contract ship.
- If the hoist beam is installed this could be used as an alternative anchor to attach the rappel rope if desired.

### *Procedures*

- Spotter ensures that exist door is closed and secure.
- Spotter motions for new rappeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seats.
- Spotter closes and secures simulator entrance gate.
- If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter opens and secures simulator exit door.
- Spotter motions for a Rappeller to come to the door and hook up to one of the Sky Genies.
- Once all Rappellers have exited the simulator the Spotter can drop the rope and rig another one with new Genies and the snub strap for the next round of Rappellers.
- The Spotter will then close and secure the simulator exit door – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

## Figure 8. Sikorsky S58T Simulator Configuration

Note; Install emergency rings and ceiling and wall tether anchor points as needed.



These doors closed and locked

## SIKORSKY – S61T:

### *Simulator Configuration*

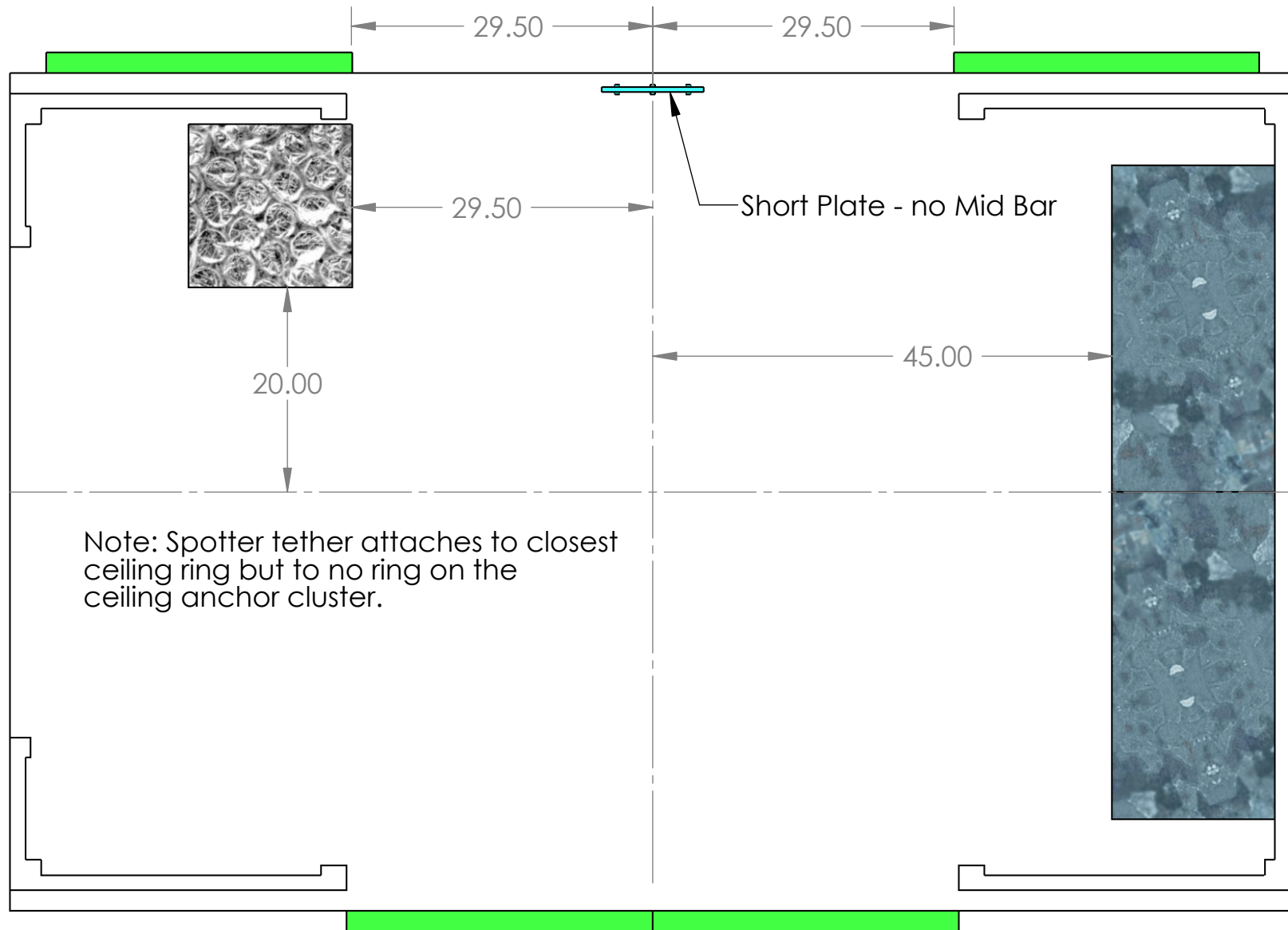
- Insure emergency rescue rings are installed on the Ceiling Anchor Cluster as shown in Figure 1.
- Install at least one ceiling tether ring for the Spotter shown in Figure 2 and another one for the Rappeller migrating from their seat to the doorway.
- Depending on variations of procedures it may be necessary to install additional tether rings shown in Figure 2.
- It is **CRITICAL** that **All** simulator occupants are either attached to an approved tether ring or rappel rope anchor point **WHEN THE DOOR IS OPEN**. The seat belts are not structural so do not provide the protection required by OSHA.
- Install the rest of the cabin items shown in Figure 9.
- Configure skids to best represent what is on the contract ship.
- If the hoist beam is installed this could be used as an alternative anchor to attach the rappel rope if desired.

### *Procedures*

- Spotter ensures that exist door is closed and secure.
- Spotter motions for new rappeller group to open simulator entrance gate and enter simulator.
- Rappellers go to appropriate seats.
- Spotter closes and secures simulator entrance gate.
- If base has chosen to install non-structural seat belts to enhance simulation these would need to be fastened now.
- Each base decides how much of the IHRG Model Specific procedures it wants to incorporate into its training (i.e. buddy checks, simulated spotter/pilot communications, etc.).
- Spotter opens and secures simulator exit door.
- Spotter motions for a Rappeller to come to the door and hook up to one of the Sky Genies.
- Once all Rappellers have exited the simulator the Spotter can drop the rope and rig another one with new Genies and the snub strap for the next round of Rappellers.
- The Spotter will then close and secure the simulator exit door – ready for the next cycle.
- Cargo deployment is optional. A block and tackle rigged to the doorway figure-8 can be used to assist in lifting the cargo.

## Figure 9. Sikorsky S61 Simulator Configuration

Note: Install emergency rings and ceiling and wall tether anchor points as needed.



Note: Spotter tether attaches to closest ceiling ring but to no ring on the ceiling anchor cluster.

These doors closed and locked