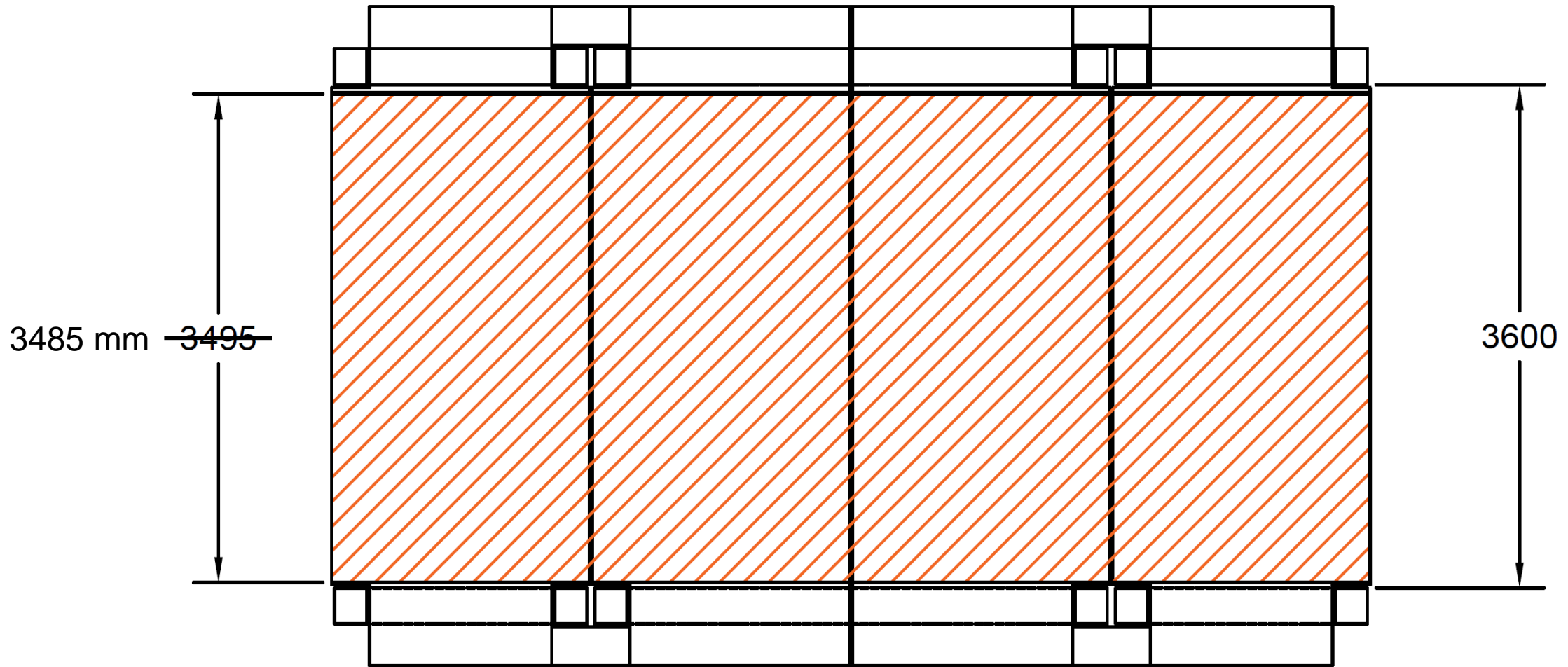

Cable Extraction Design

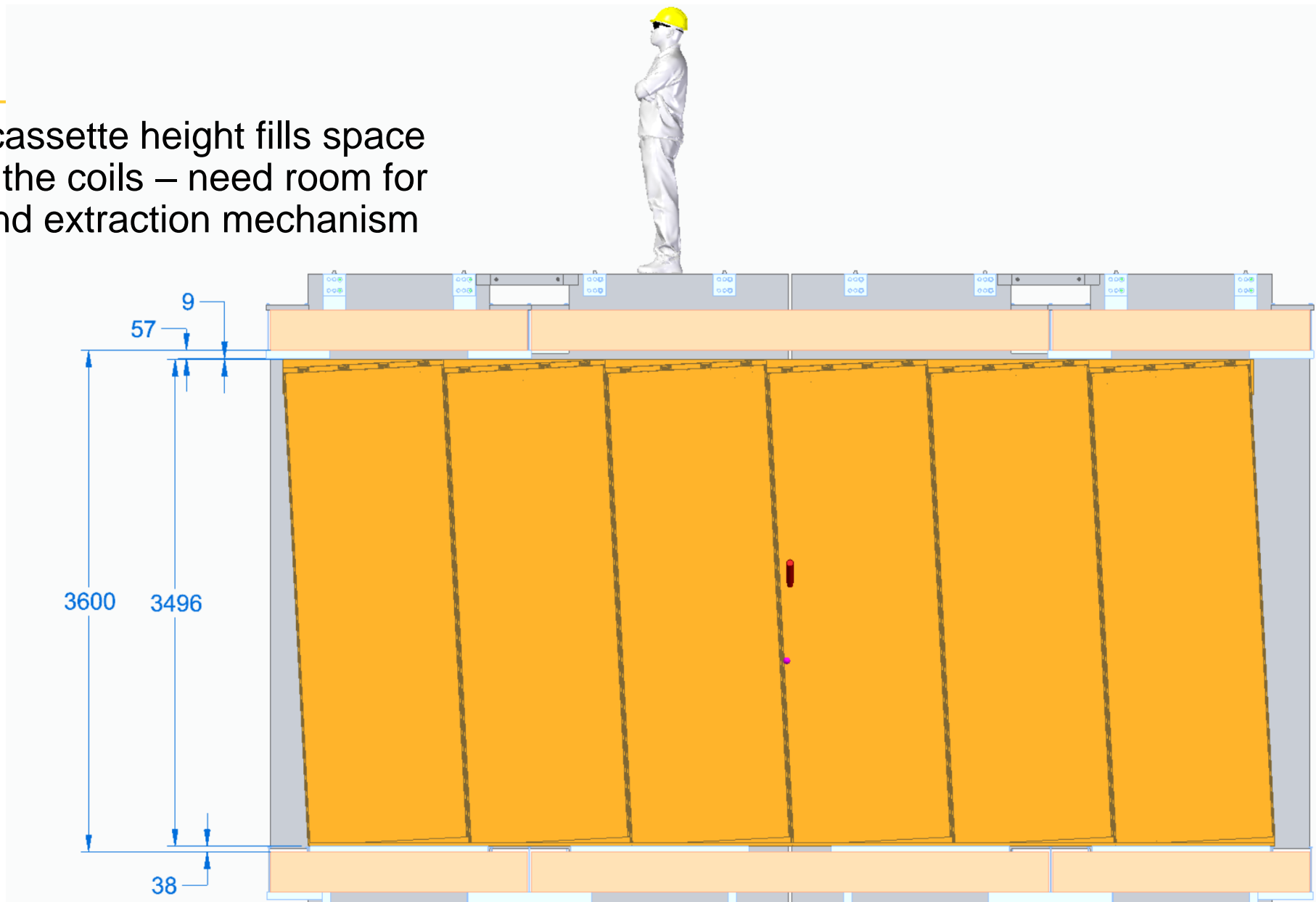
Julianna Abel, Andy Furmanski, Rucha Pansare
12/20/24



Cassette Envelope Overlayed with the Steel & Coils

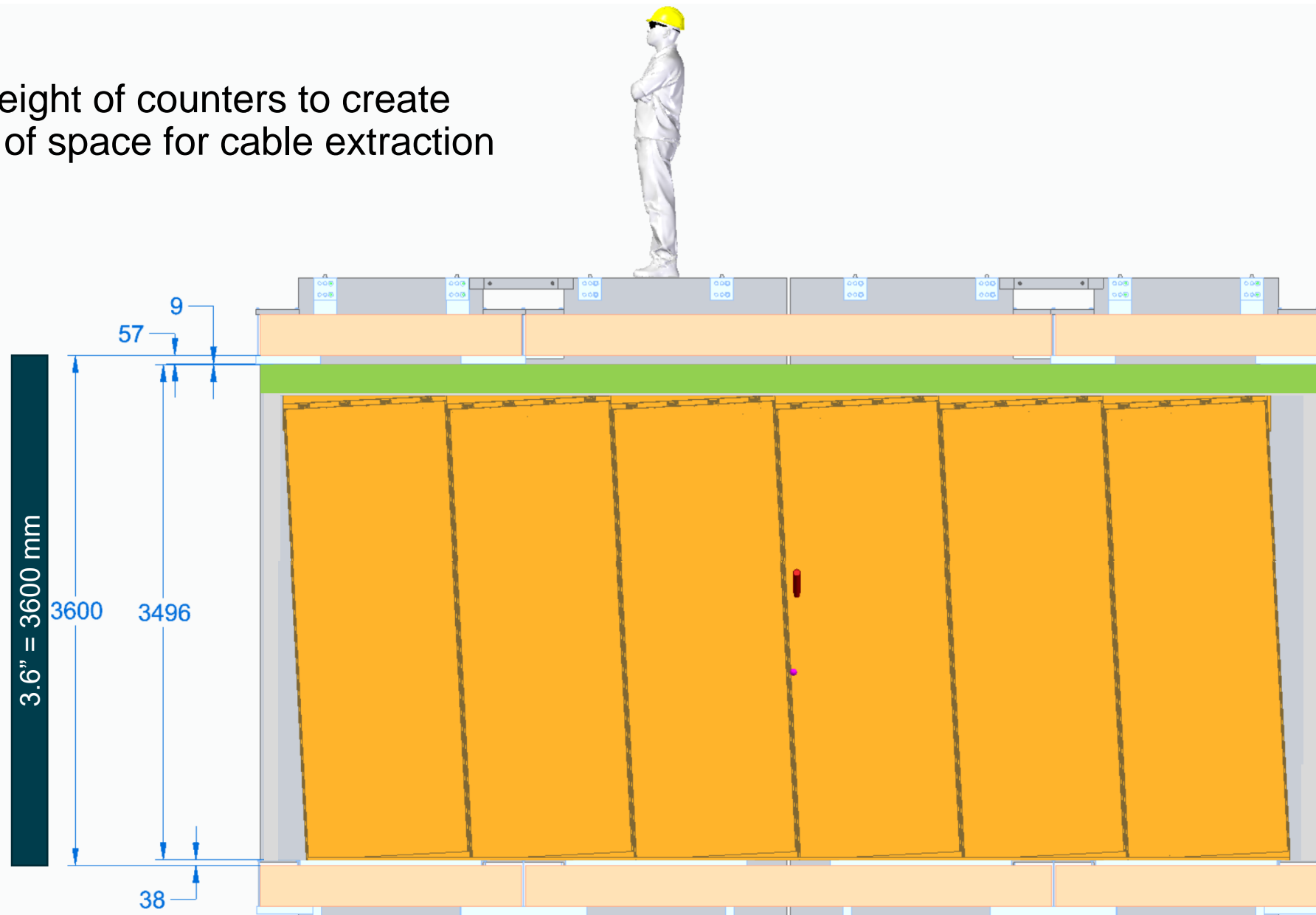


Current cassette height fills space between the coils – need room for cables and extraction mechanism



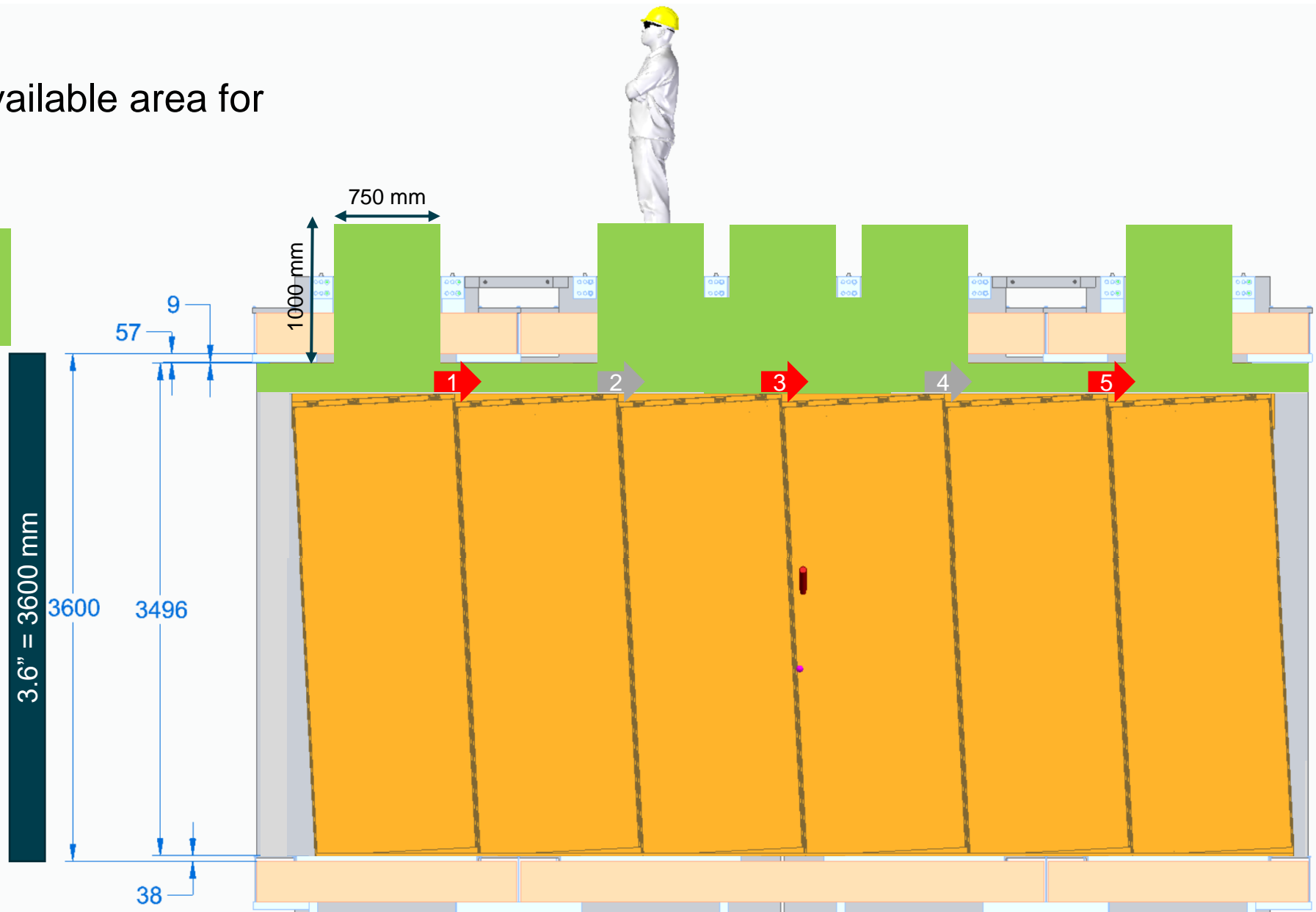
Reduce height of counters to create
~150 mm of space for cable extraction

Available
Space



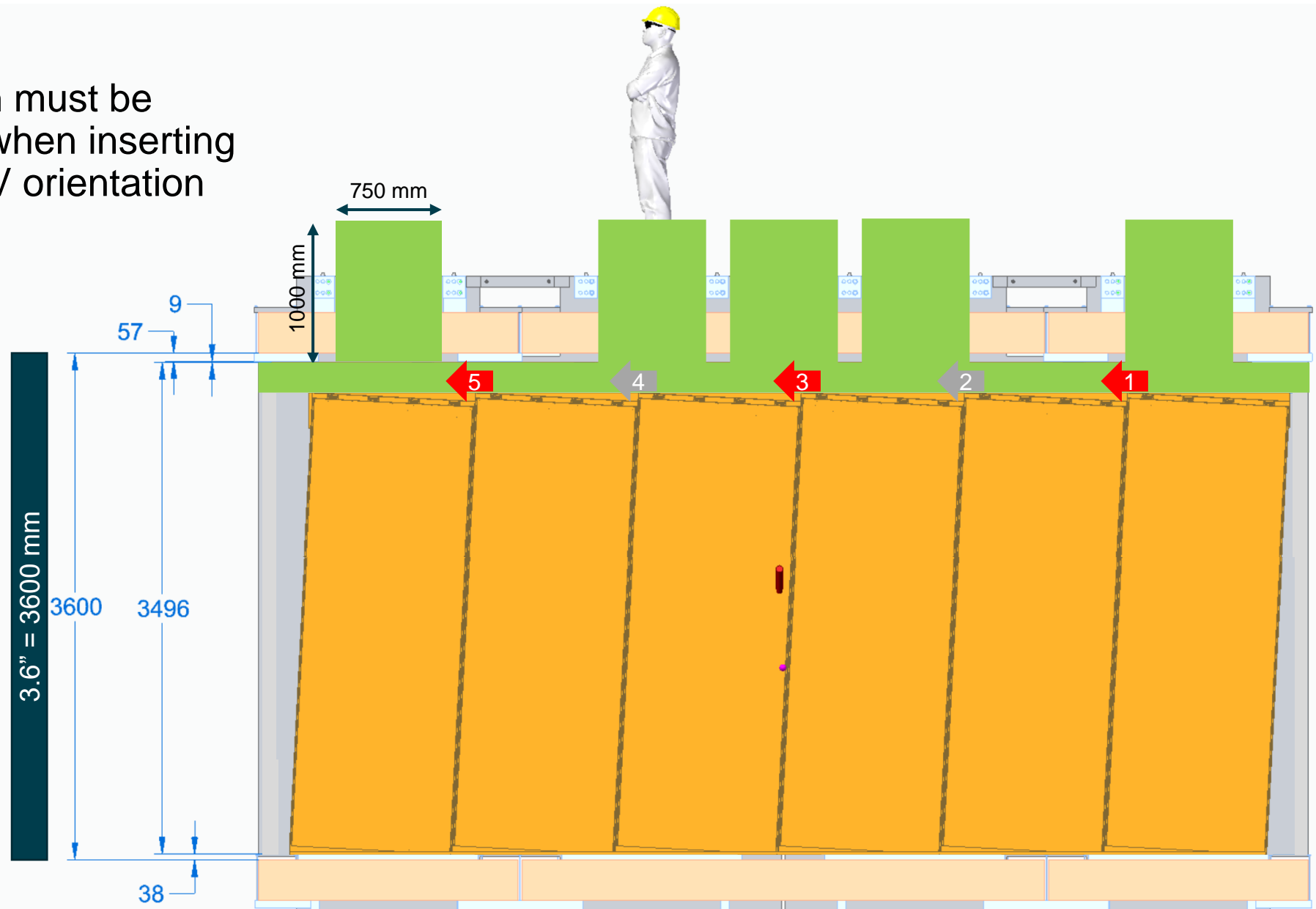
Identify available area for extraction

Available Space

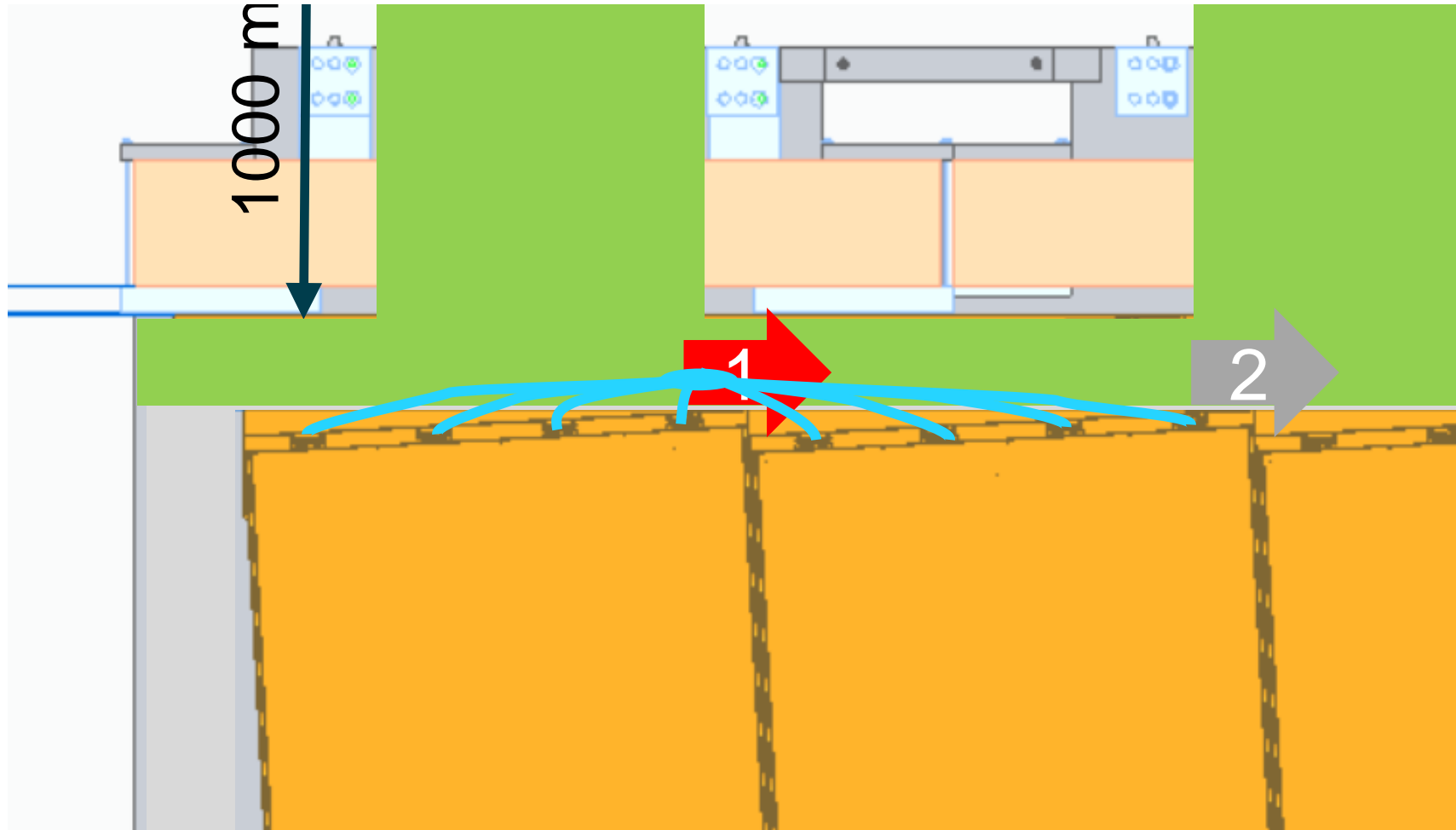


Extraction must be possible when inserting in U and V orientation

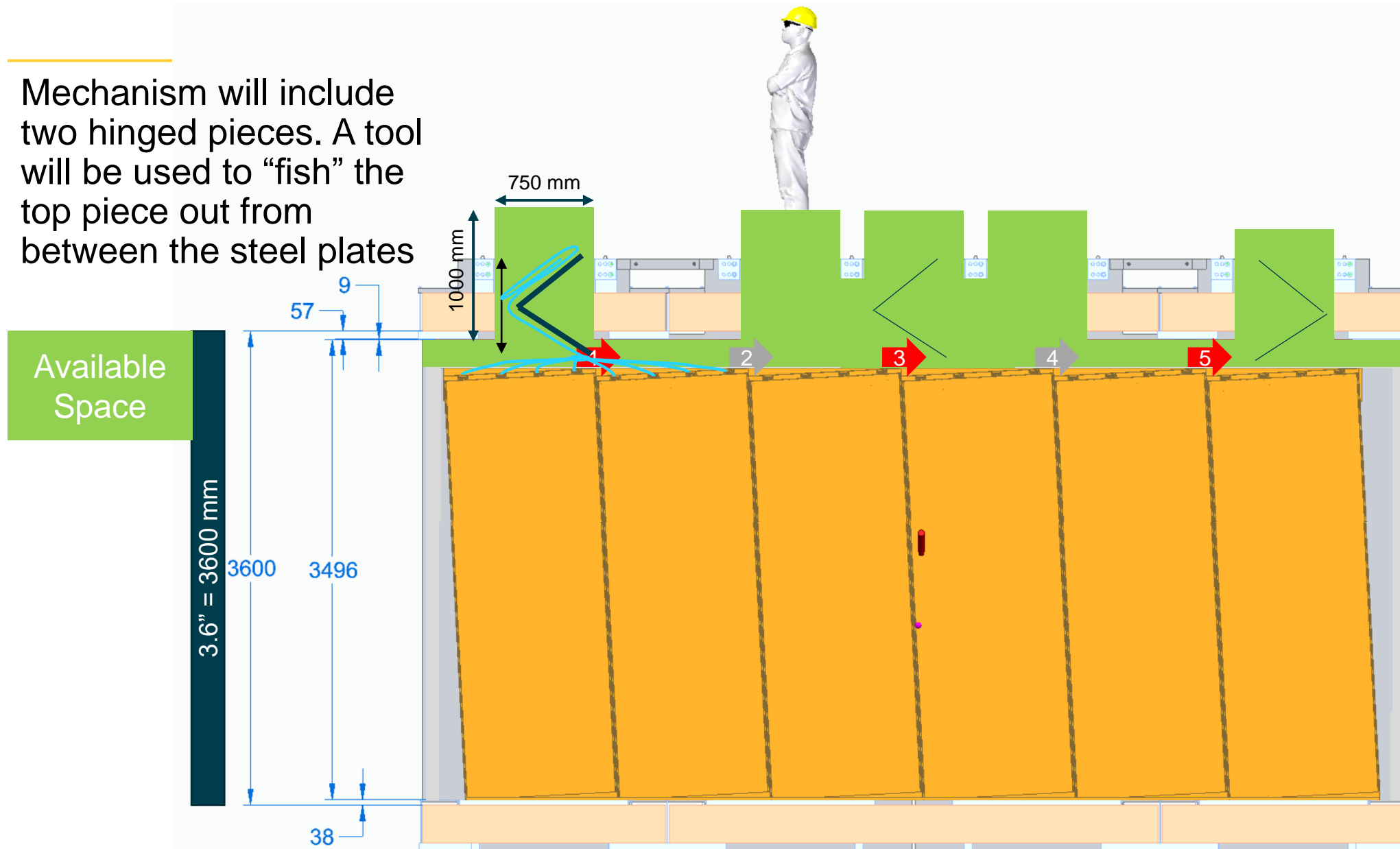
Available Space



Gather cables near the interface of two modules



Mechanism will include two hinged pieces. A tool will be used to “fish” the top piece out from between the steel plates



Cannot block area for extraction

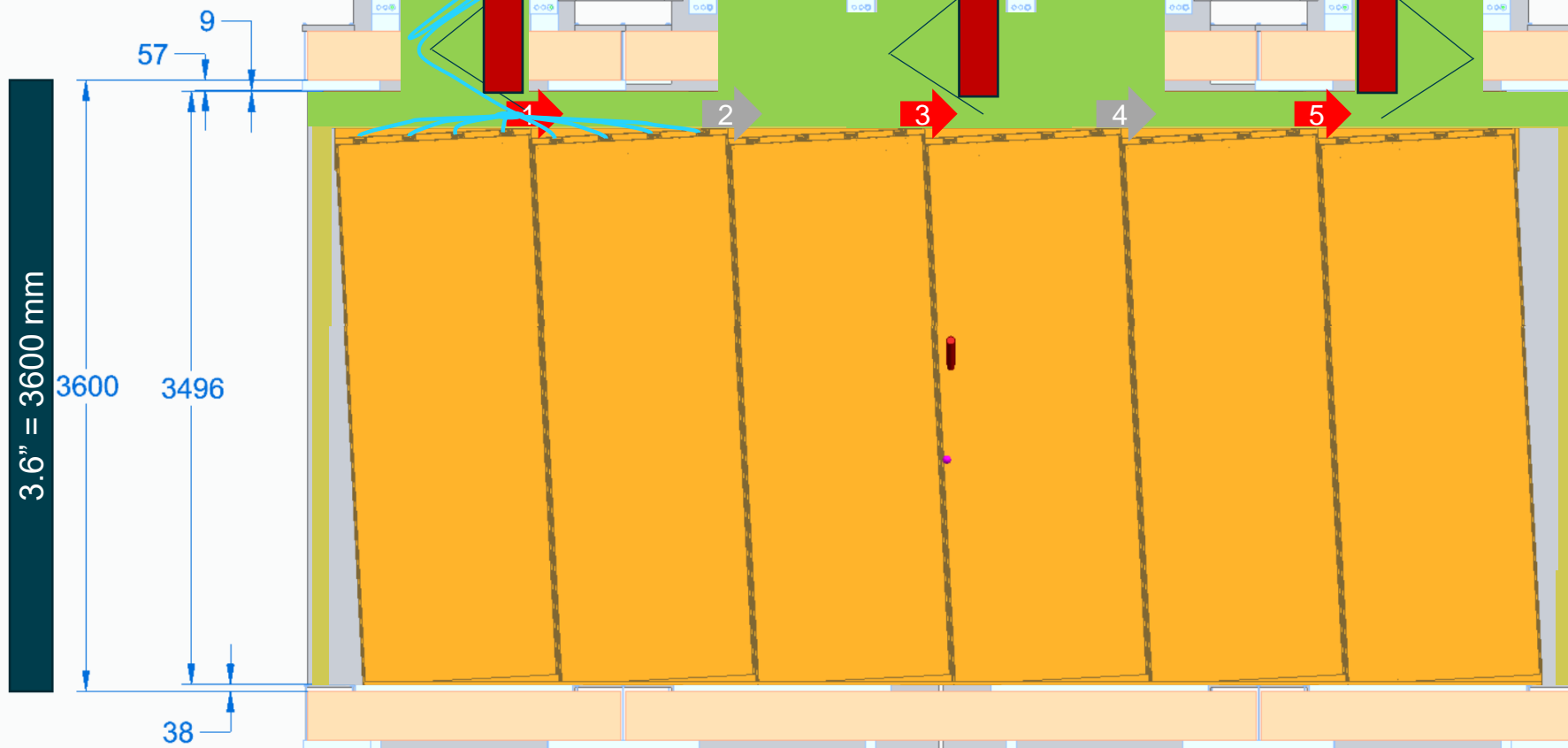
Place electrical boxes in minimal fringe field areas

Available Space

Must Remain open for Extraction

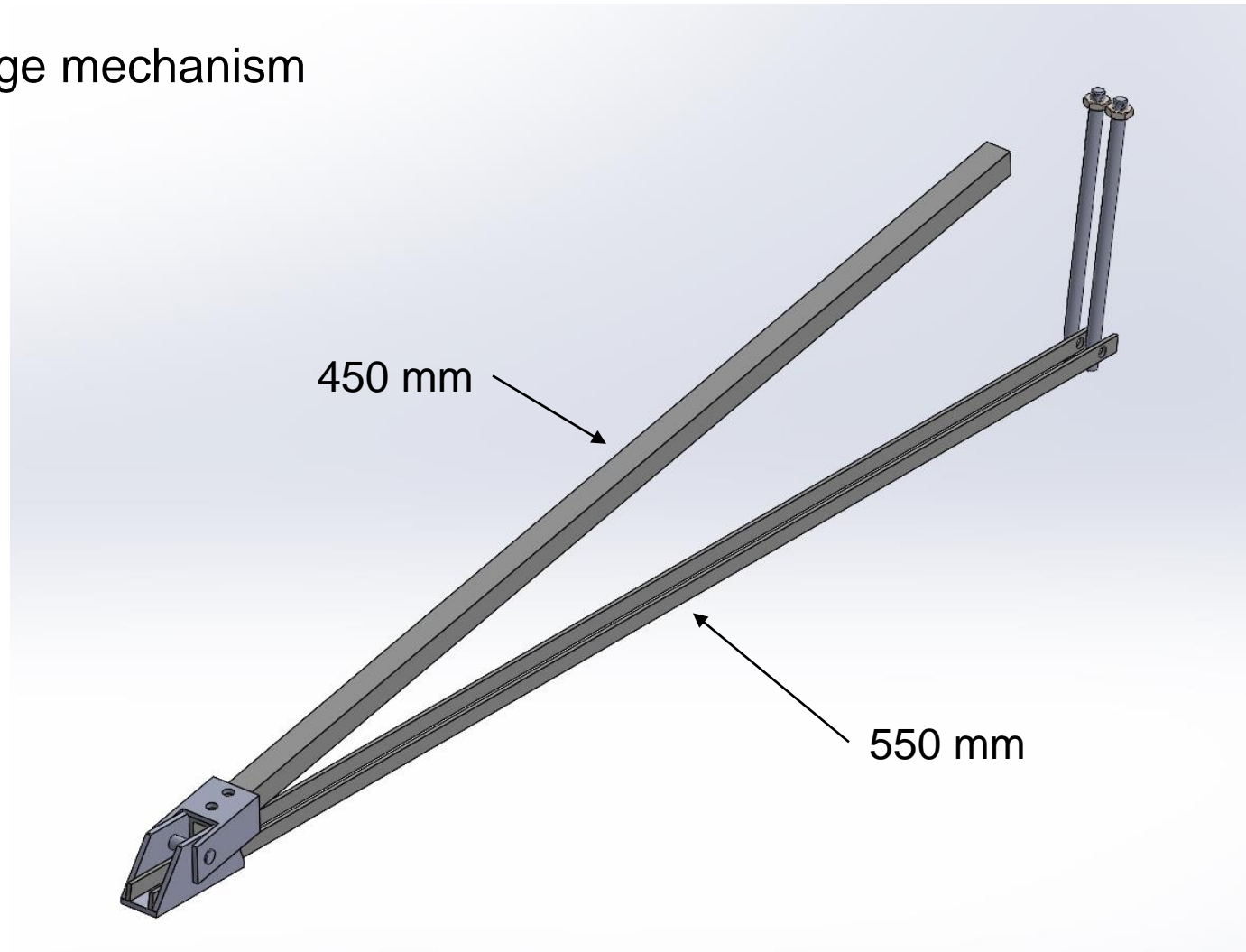
Electrical Boxes

3.6" = 3600 mm

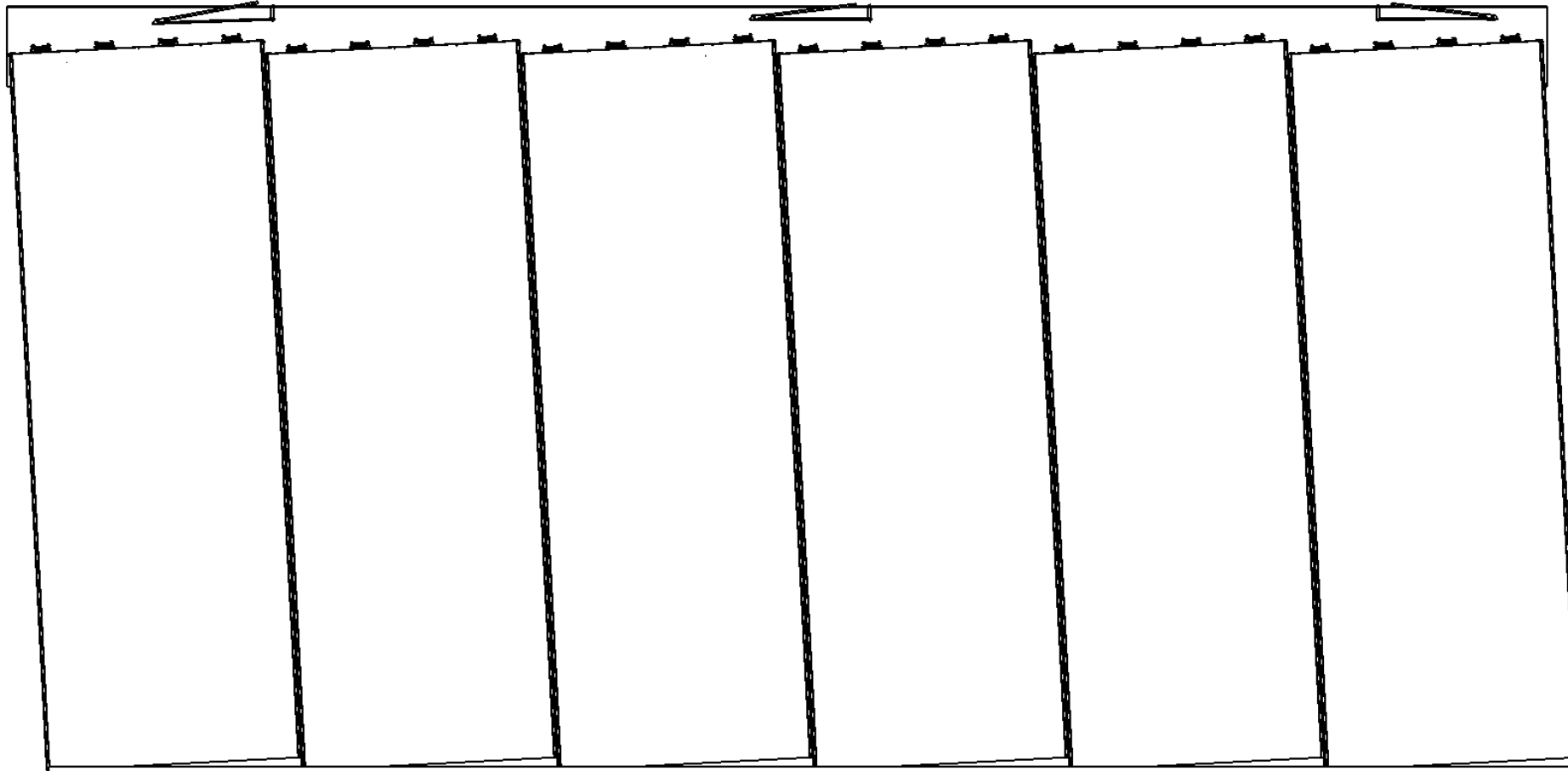


Extraction Mechanism

3-bar 3 DOF linkage mechanism



Extraction Mechanism in Cassette

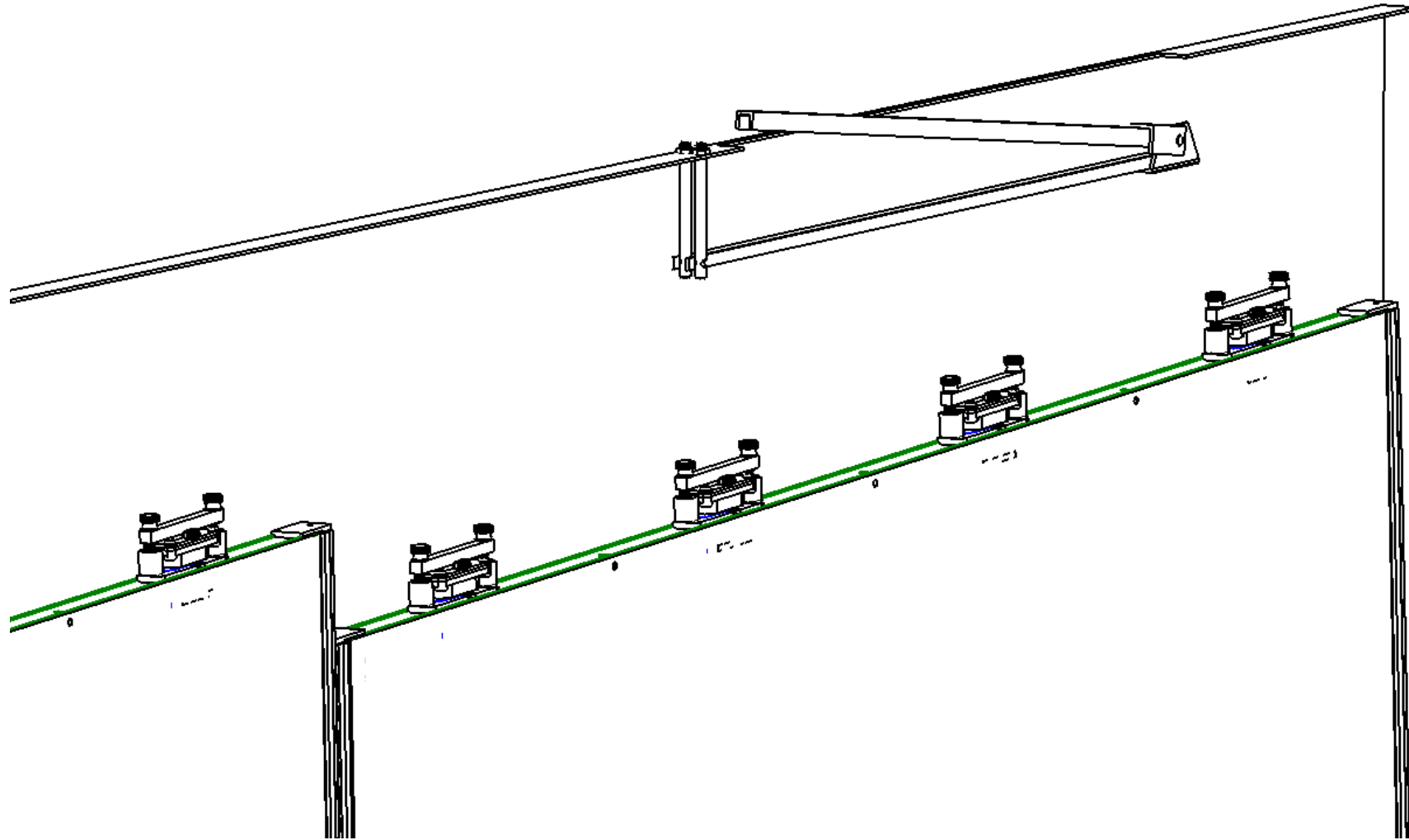


Current Cassette Height (UV): 3461mm

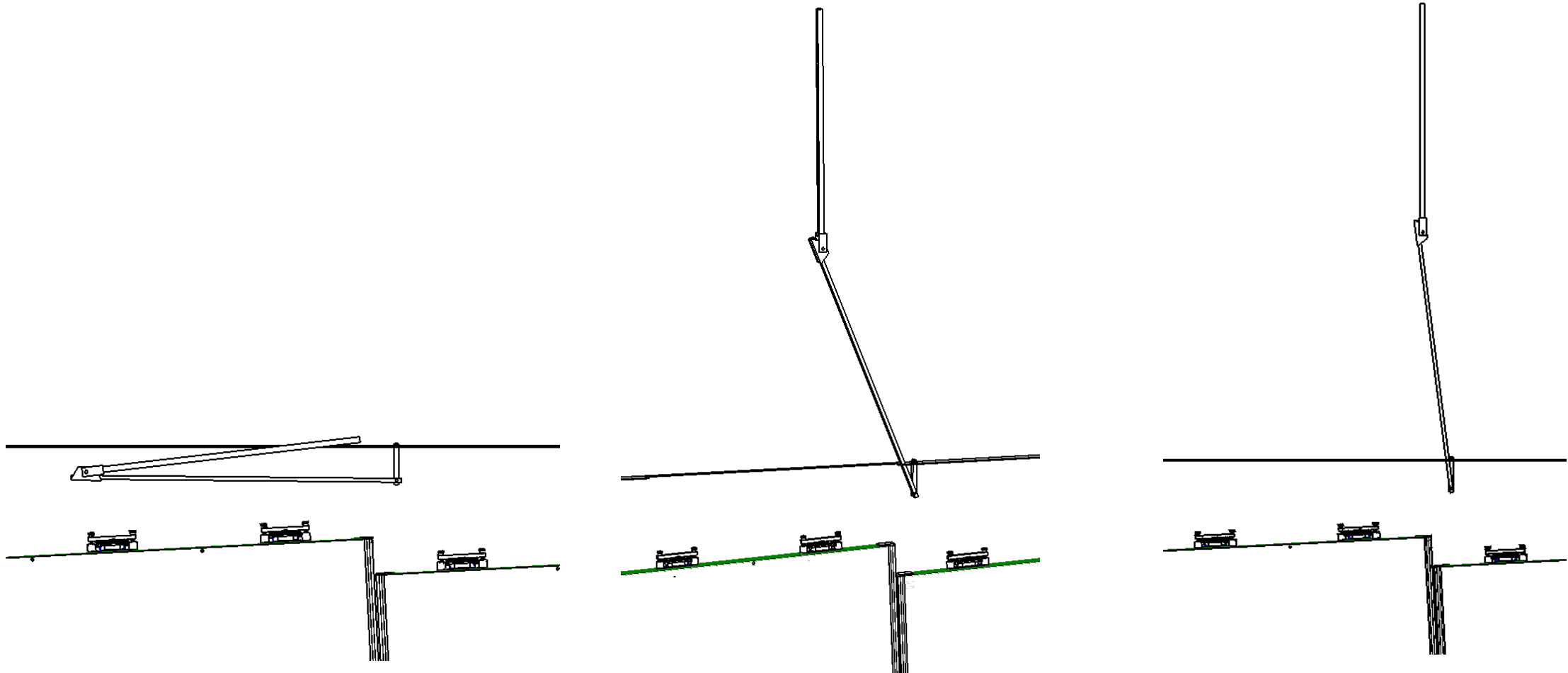
Counter length: 3150mm

Extraction (outside Cassette): 880mm

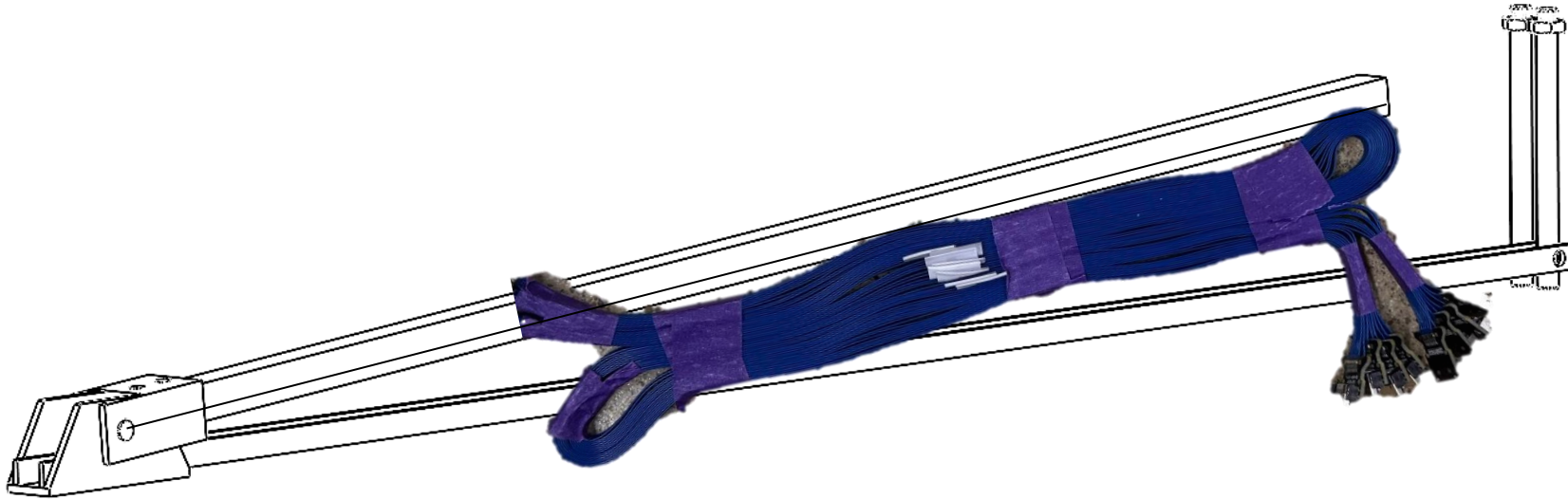
Zoom in on extraction mechanism on cassette



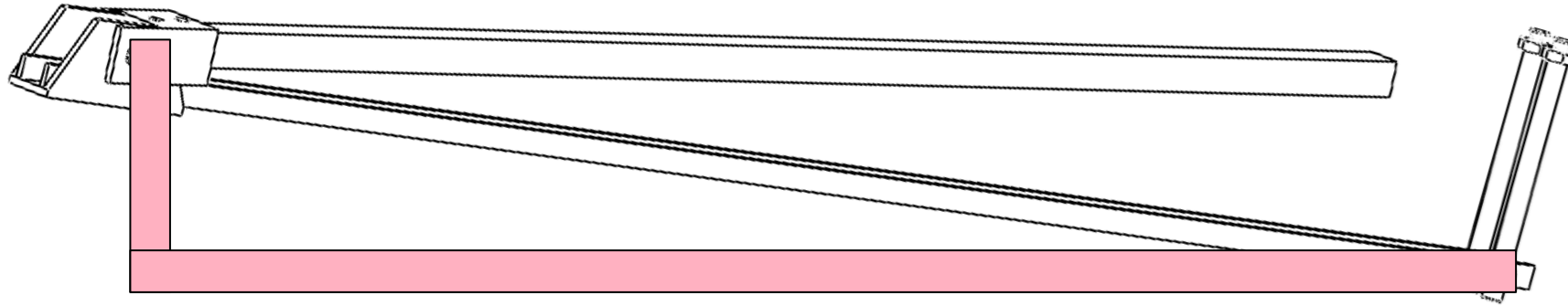
Opening Operation



Cable Packaging



Bottom Link Modification



Bottom Link Modification

