

UPDATE ON PROTOTYPE 2

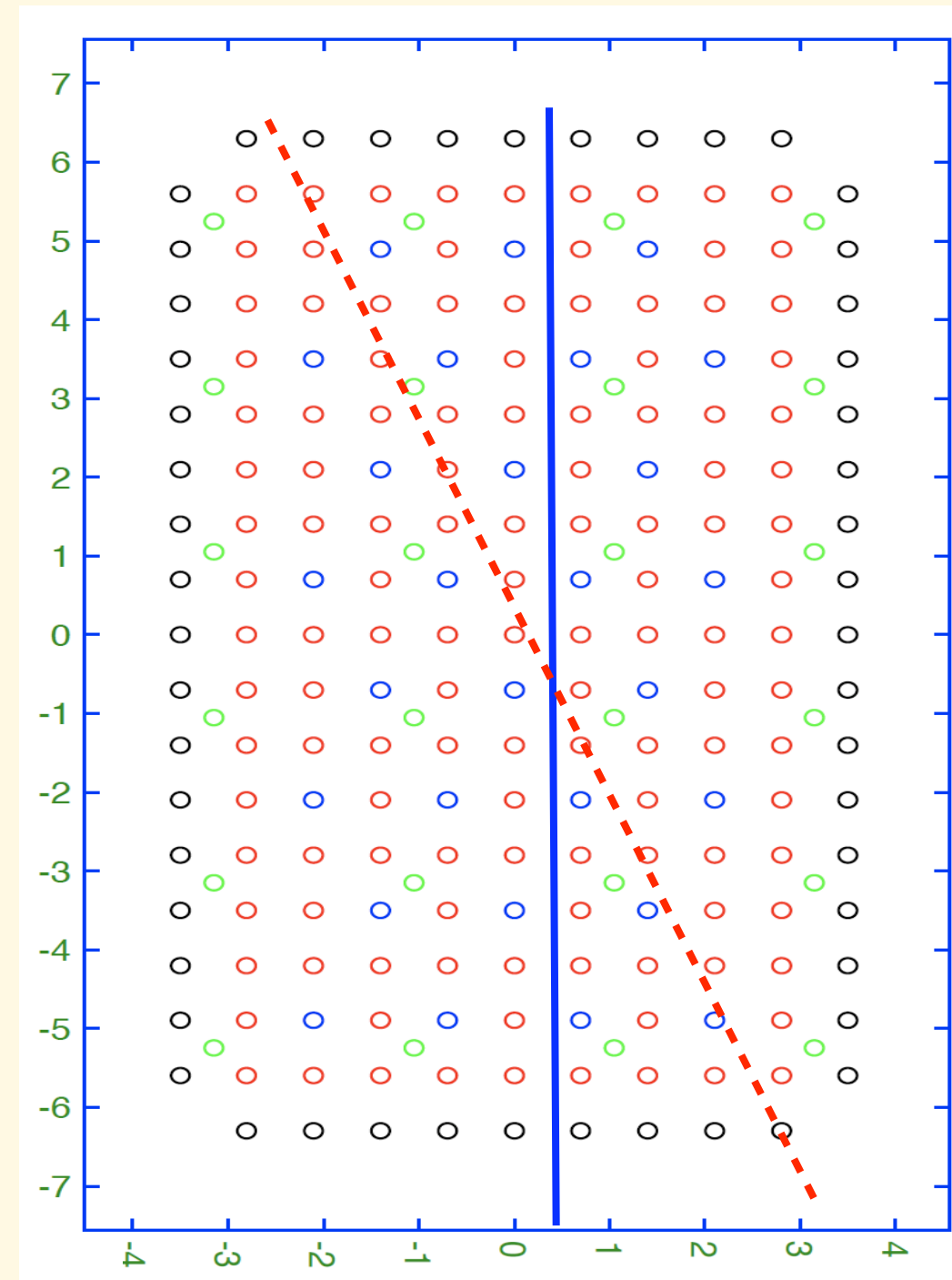
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PROTOTYPE 2 - GENERALITIES

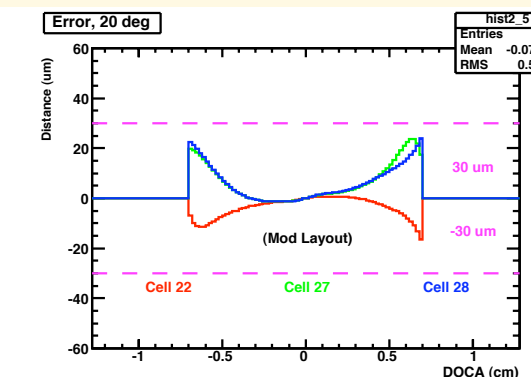
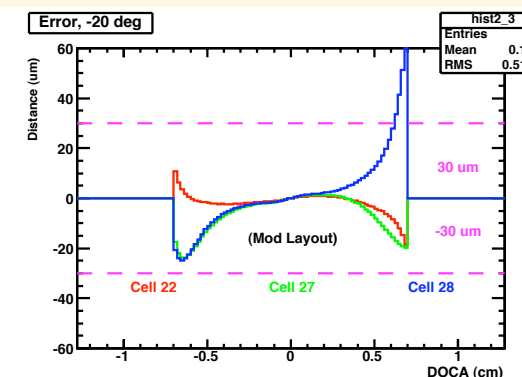
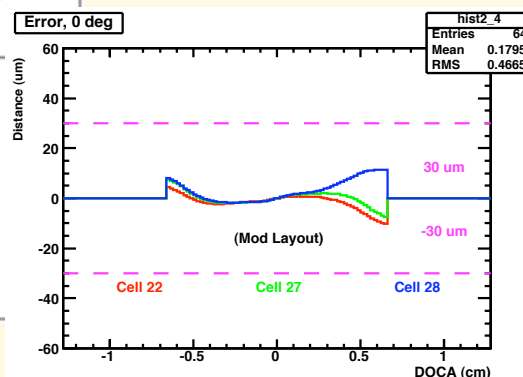
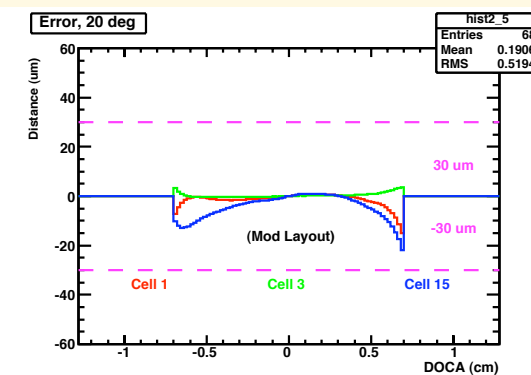
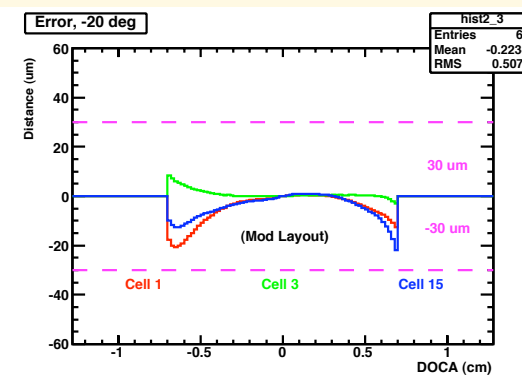
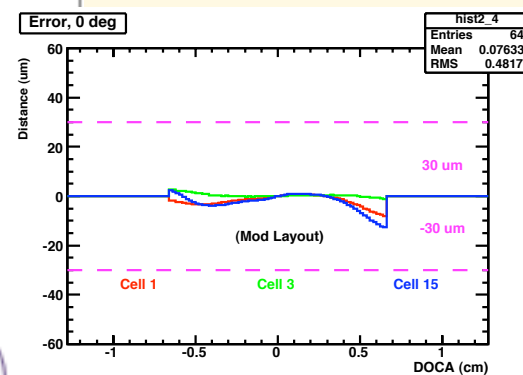
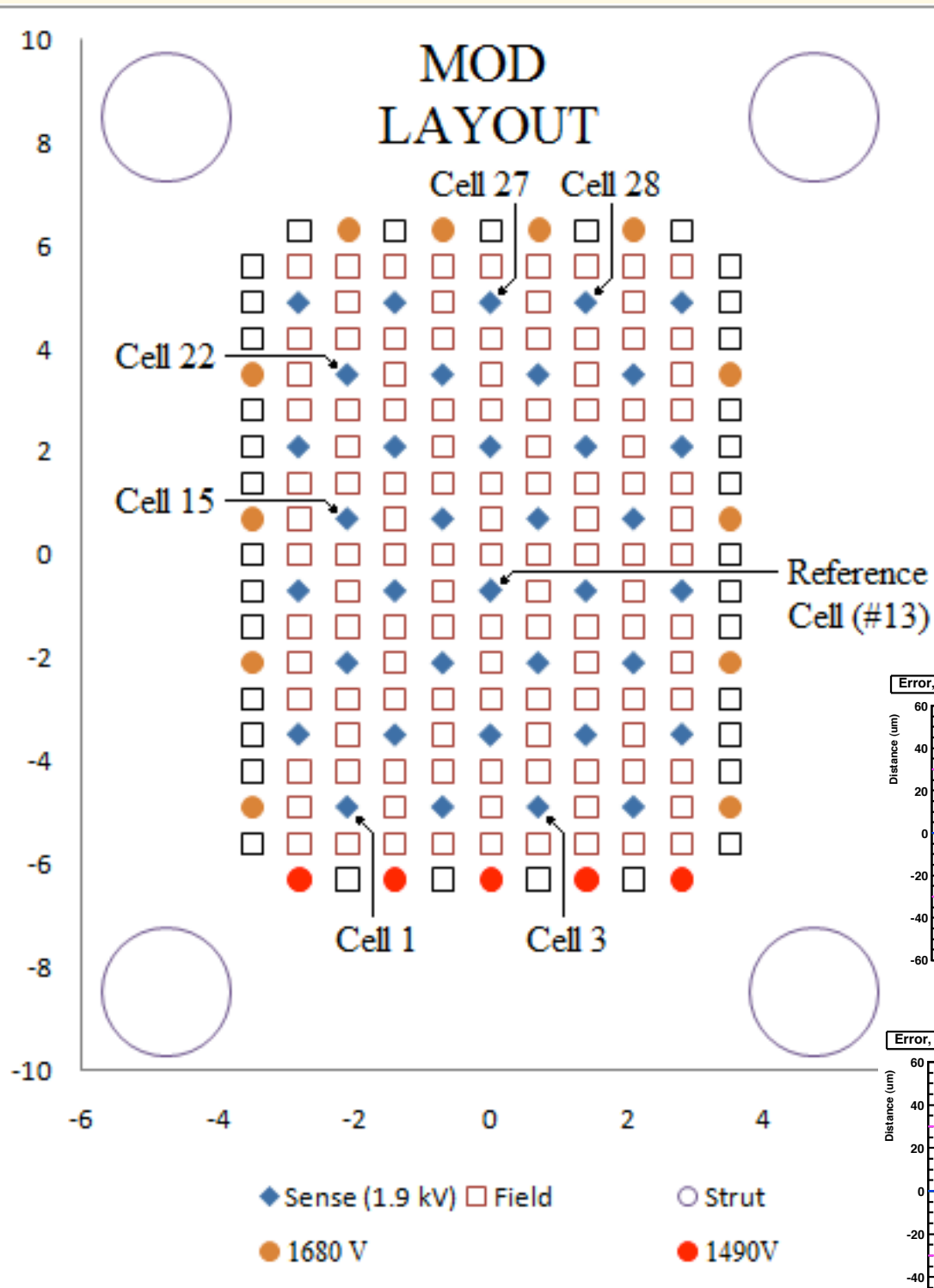
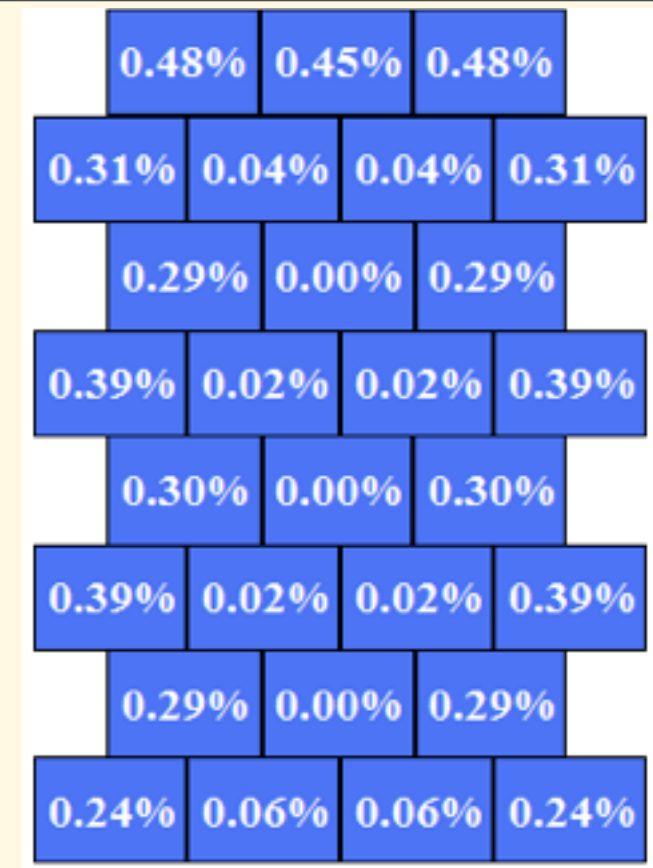
- ① **2.5M LONG, SQUARE-CELL PROTOTYPE TO STUDY DCH RESPONSE FROM SINGLE CLUSTERS IN A REALISTIC ENVIRONMENT, AND SERVE AS A TEST BENCH FOR THE FINAL FEE**
- ① **ENOUGH CELLS PER LAYER TO ALLOW $\pm 20^\circ$ TRACKS**
- ① **KEEP DIMENSIONS LIMITED, TO MAXIMIZE USE OF OFF-THE-SHELF PARTS**
- ① **8 LAYERS OF SQUARE CELLS, 14MM SIDE (28 CELLS TOTAL)**

PROTOTYPE 2 - CELL LAYOUT

- **BLUE CIRCLES: 28 SENSE WIRES
ARRANGED IN 8 LAYERS
(3-4-3-4-3-4-3-4)**
- **RED CIRCLES: FIELD WIRES**
- **BLACK CIRCLES: EXTERNAL LAYER OF
GUARD WIRES TO MAKE CELL
RESPONSE HOMOGENEOUS**
- ✓ **OPTIMIZATION OF WIRE POSITIONS
AND HV BY PHILIP LU (NEXT SLIDE)**
- **GREEN CIRCLES: BLIND THREADED
HOLES FOR SUPPORT OF FEE BOARDS**



GUARD WIRE LAYOUT IS NOW FROZEN



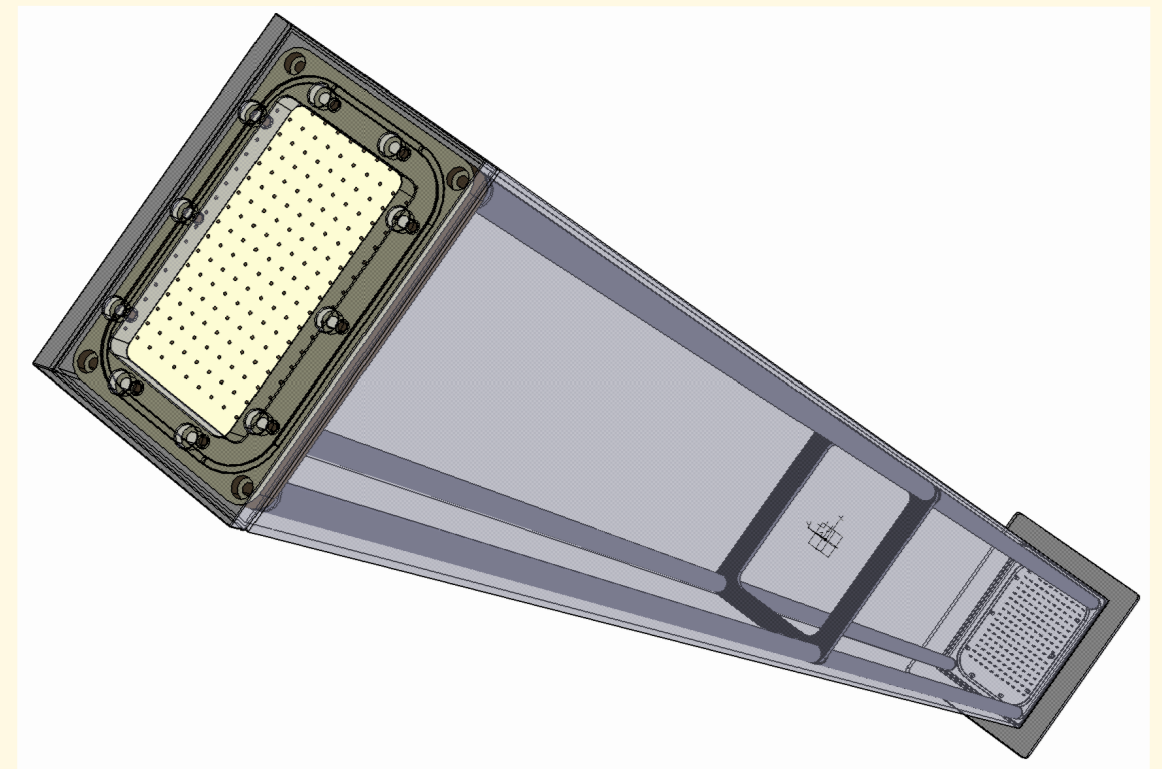
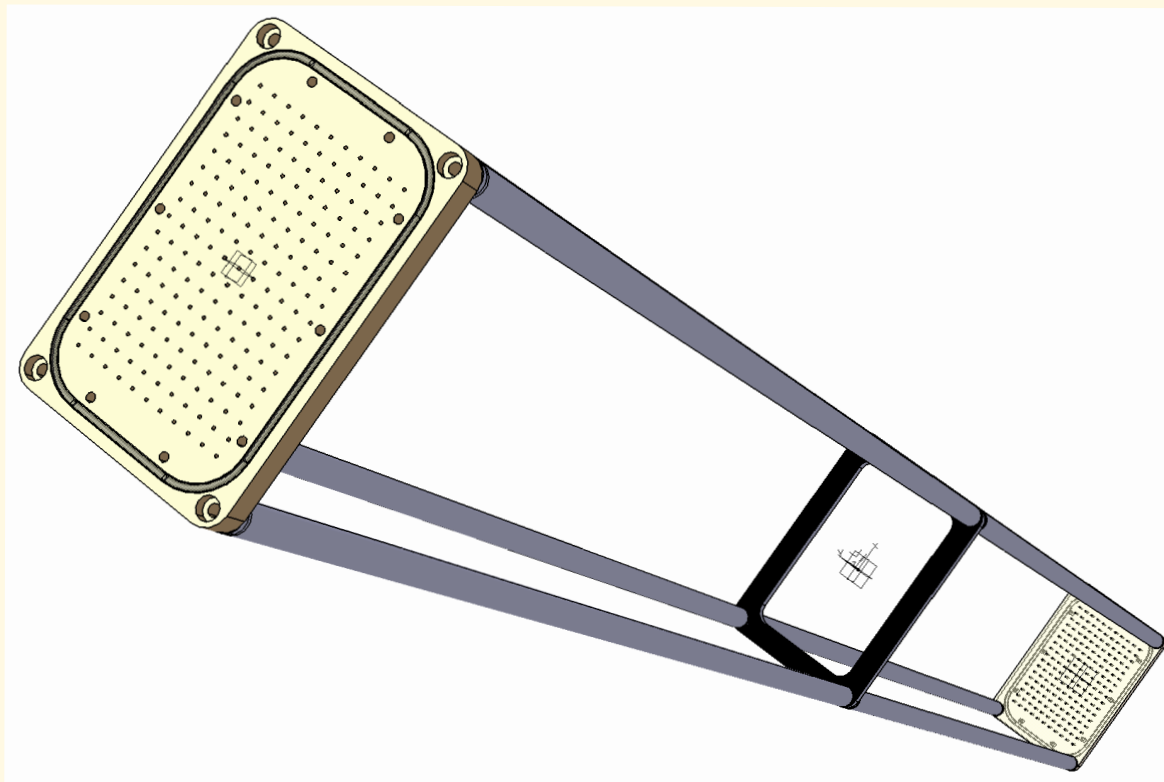
G. Finocchiaro - LNF

TECHNICAL DESIGN

E. CAPITOLO
A. CECCHETTI
LNF

✓ 2.5M LONG, LIGHT STRUCTURE WITH ENDPLATE FRAMES SEPARATED BY 4 ALUMINUM ROD STRUTS

✓ (IN THE FINAL DESIGN THE ROD STRUTS ARE SEPARATED BY 2 CROSSPIECES)



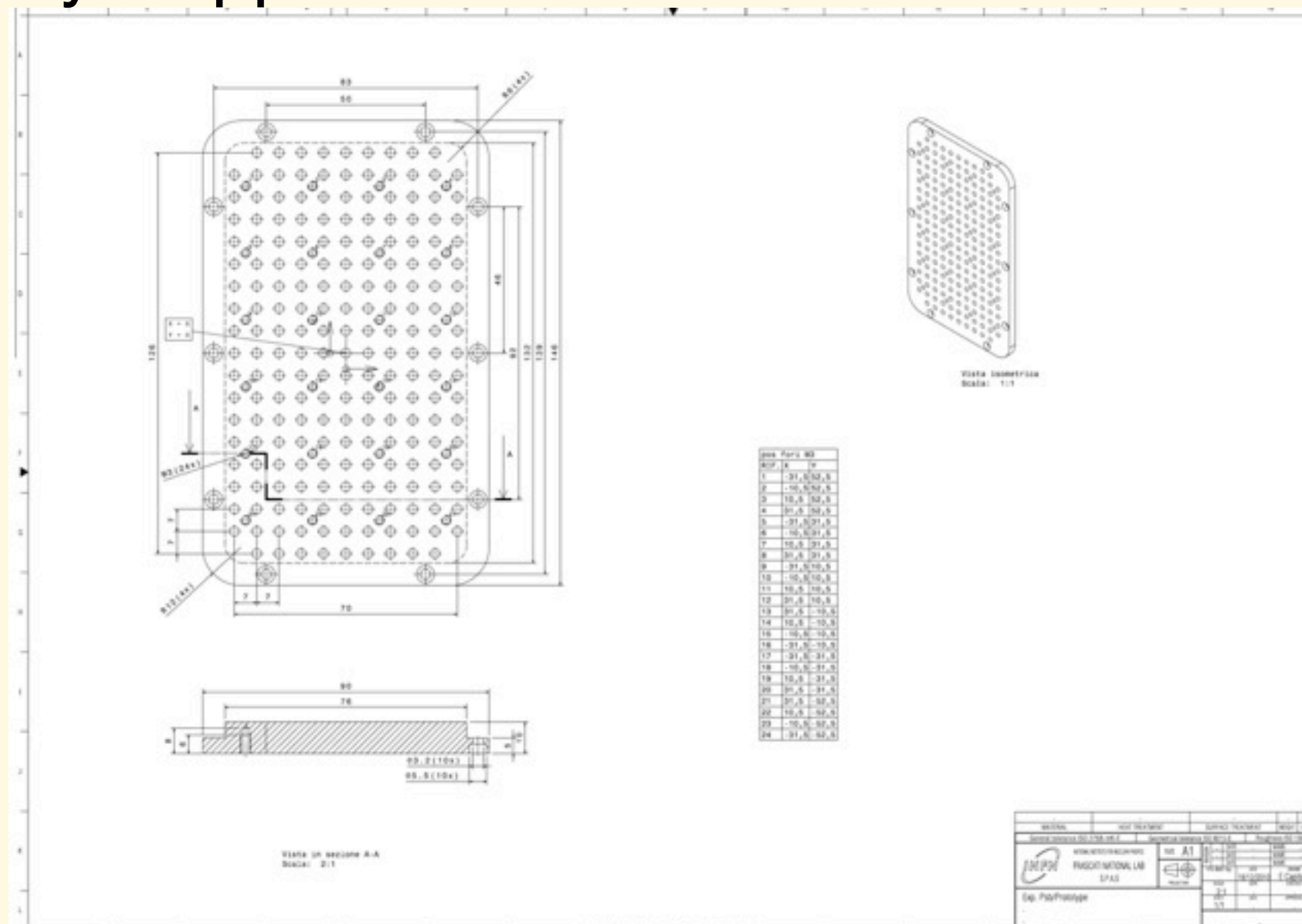
✓ AFTER STRINGING, STRUCTURE SLID INTO 3 MM THICK METAL CASE FOR GAS TIGHTNESS

- EXTERNAL CASE WILL BE BUILT OUT OF A FOLDED ALUMINUM FOIL, SOLDERED ALONG ONE EDGE
- ALUMINIZED MYLAR WINDOWS TO MINIMIZE MATERIAL SEEN BY TRACKS AT VARIOUS LONGITUDINAL POSITIONS

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PROTO2 -

- Permaglass endplates machined last week, already shipped to LNF



- Luma Metal just received the PO: will ship the Gold-plated Molybdenum wire this week

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