

**Civil Engineering Status
Report for CMS Worksite**

John Osborne

TS Workshop 5 May 2004



T053 / ST / LHC

Contractor

S066 / ST

Design and Supervision



Point 5 - Concreting of SX5 base slab - Grids 13 to 11 - June 15, 1999 - CERN ST-CE



Point 5 - SX5 gantry crane installation - September 17, 1999 - CERN ST-CE



Point 5 - General view of SX building - April 10, 2000 - CERN ST-CE

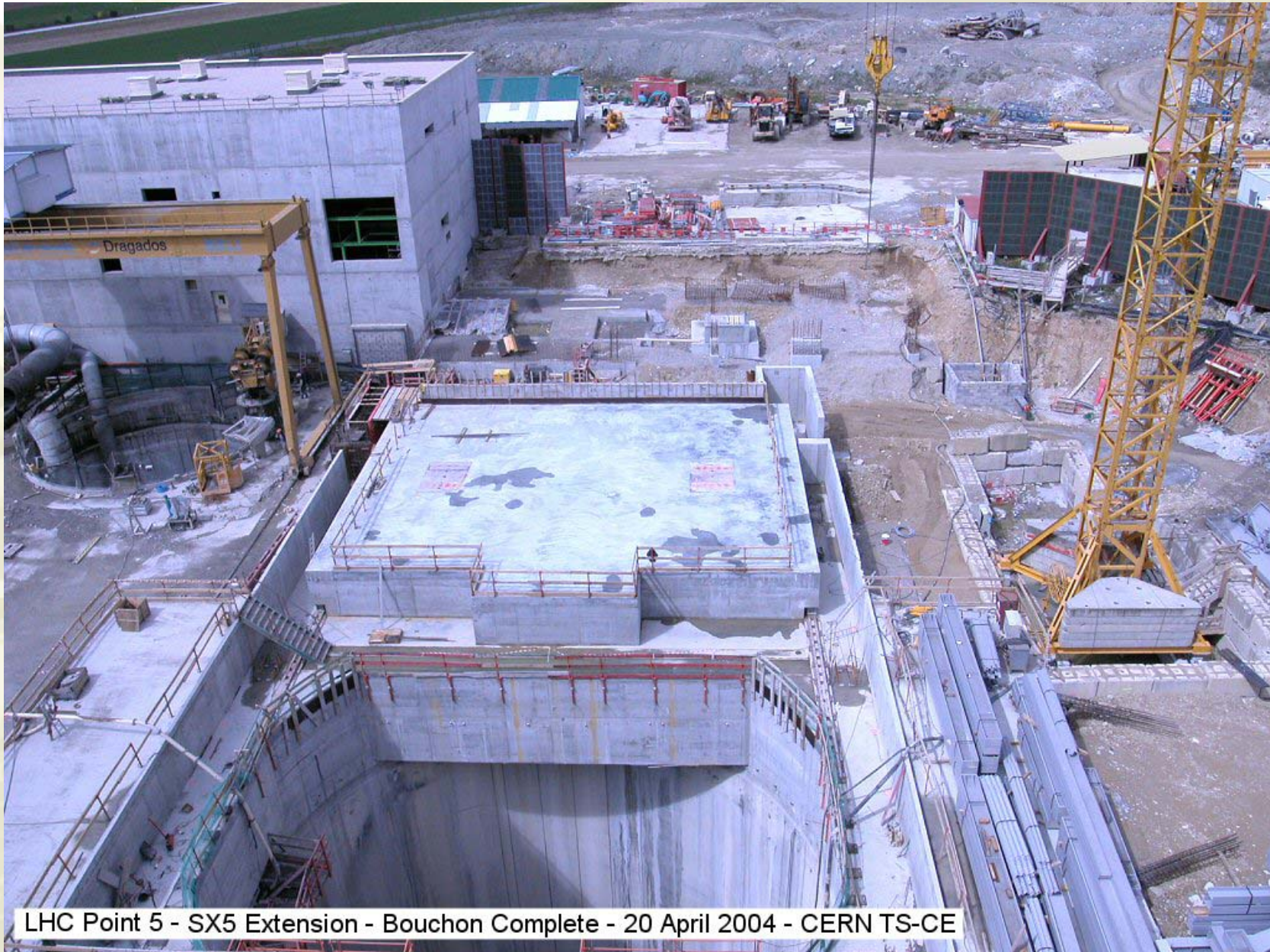


LHC Point 5 - Concreting of PX56 Bouchon - 30-03-2004 - CERN TS-CE

FIDIC Contract Clause 51:
Variations



LHC Point 5 - SX5 Building extension - Bouchon Bogies - 27-02-2004 - CERN TS/CE



LHC Point 5 - SX5 Extension - Bouchon Complete - 20 April 2004 - CERN TS-CE



Point 5 -Excavation commencement of PM54 shaft - July 09, 1999 - CERN ST-CE



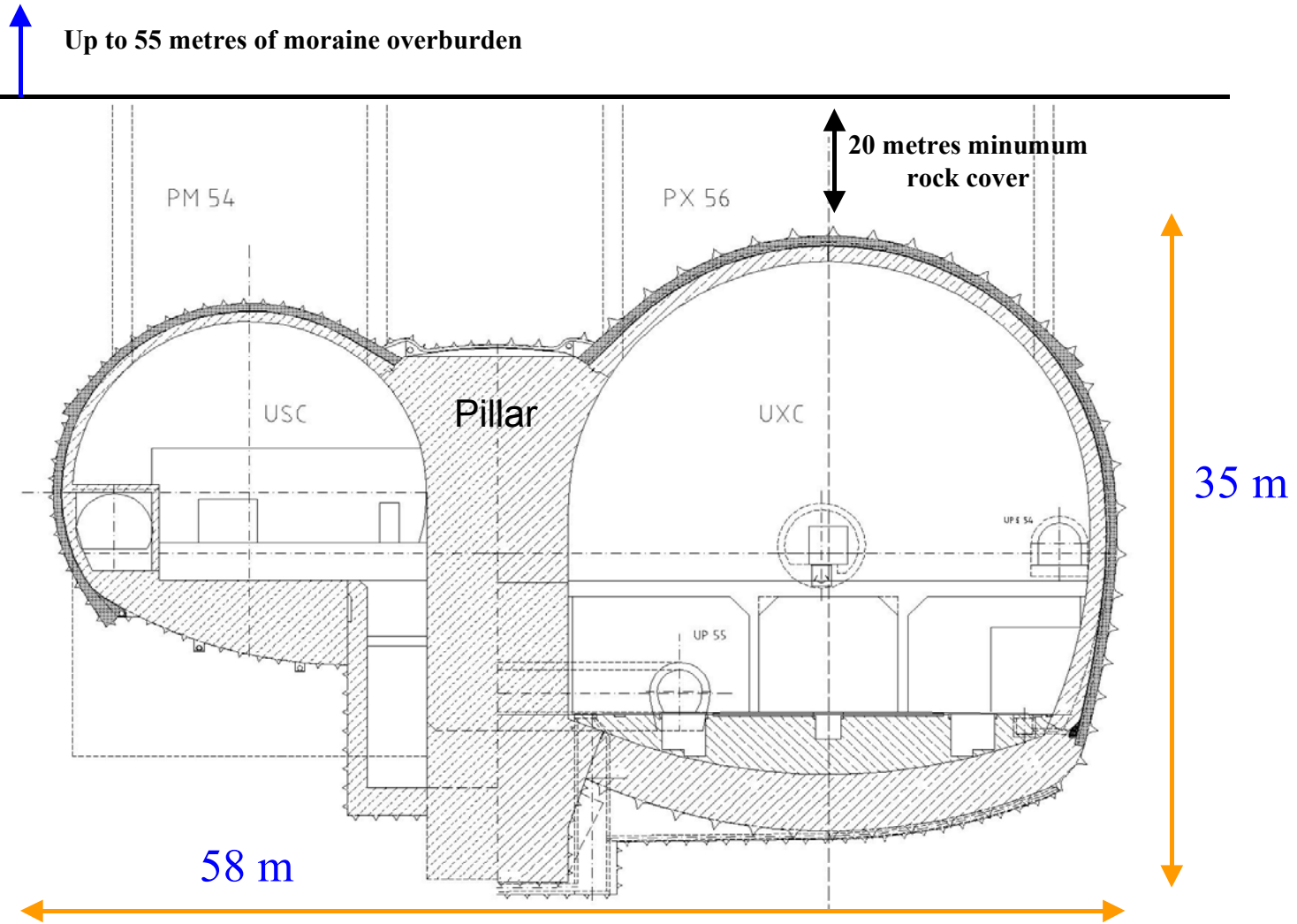
Point 5 - Lowering of 45t excavator into PX56 shaft - April 12, 2000 - CERN ST-CE

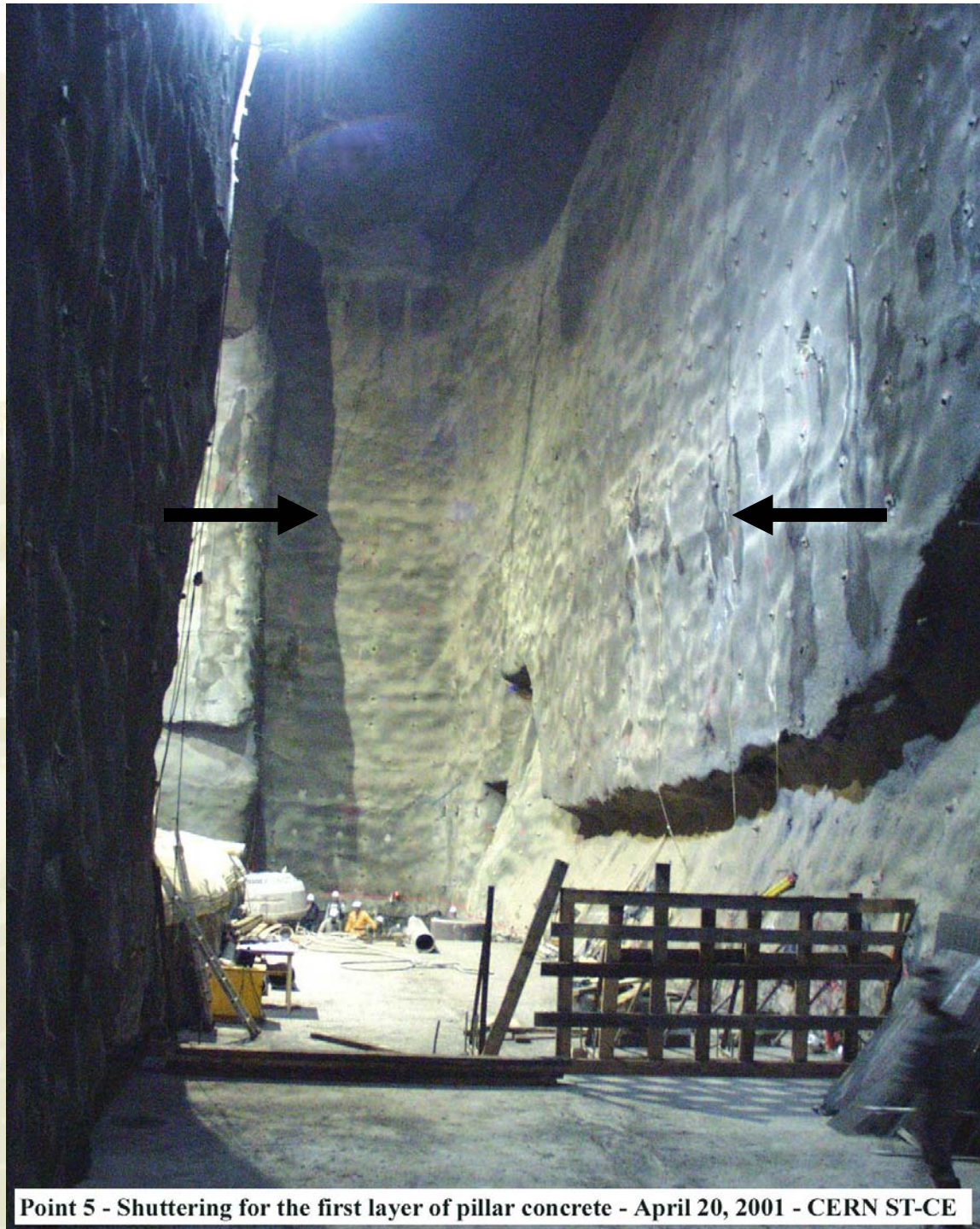
Adjudication No.1
for Ground
Freezing Delays

Dispute Resolution Procedure

- Panel of 5 Adjudicators nominated in Contract
- Contractor Submits Notice of Dispute to the Panel
- CERN has 14 days to submit response
- Adjudicators decision in 35 days
- At the end of the works either party may refer dispute to Arbitration

Section through cavern complex at point 5





Adjudication No.2:
Excessive Horizontal
Displacements.

Point 5 - Shuttering for the first layer of pillar concrete - April 20, 2001 - CERN ST-CE



Point 5 - USC55 cavern invert excavation (looking toward point 4) - June 20, 2002 - CERN ST-CE



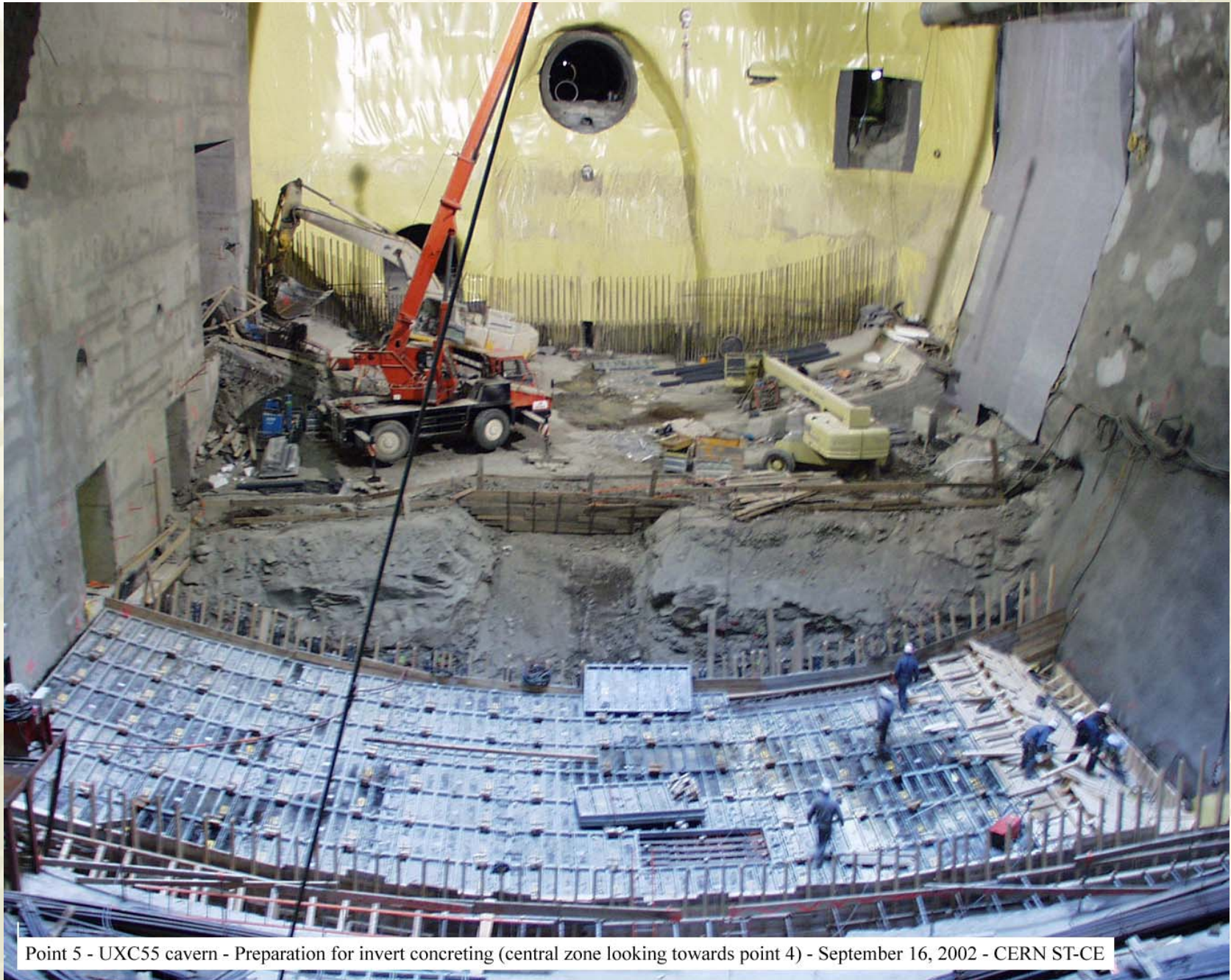
USC55: Formwork for crown concreting



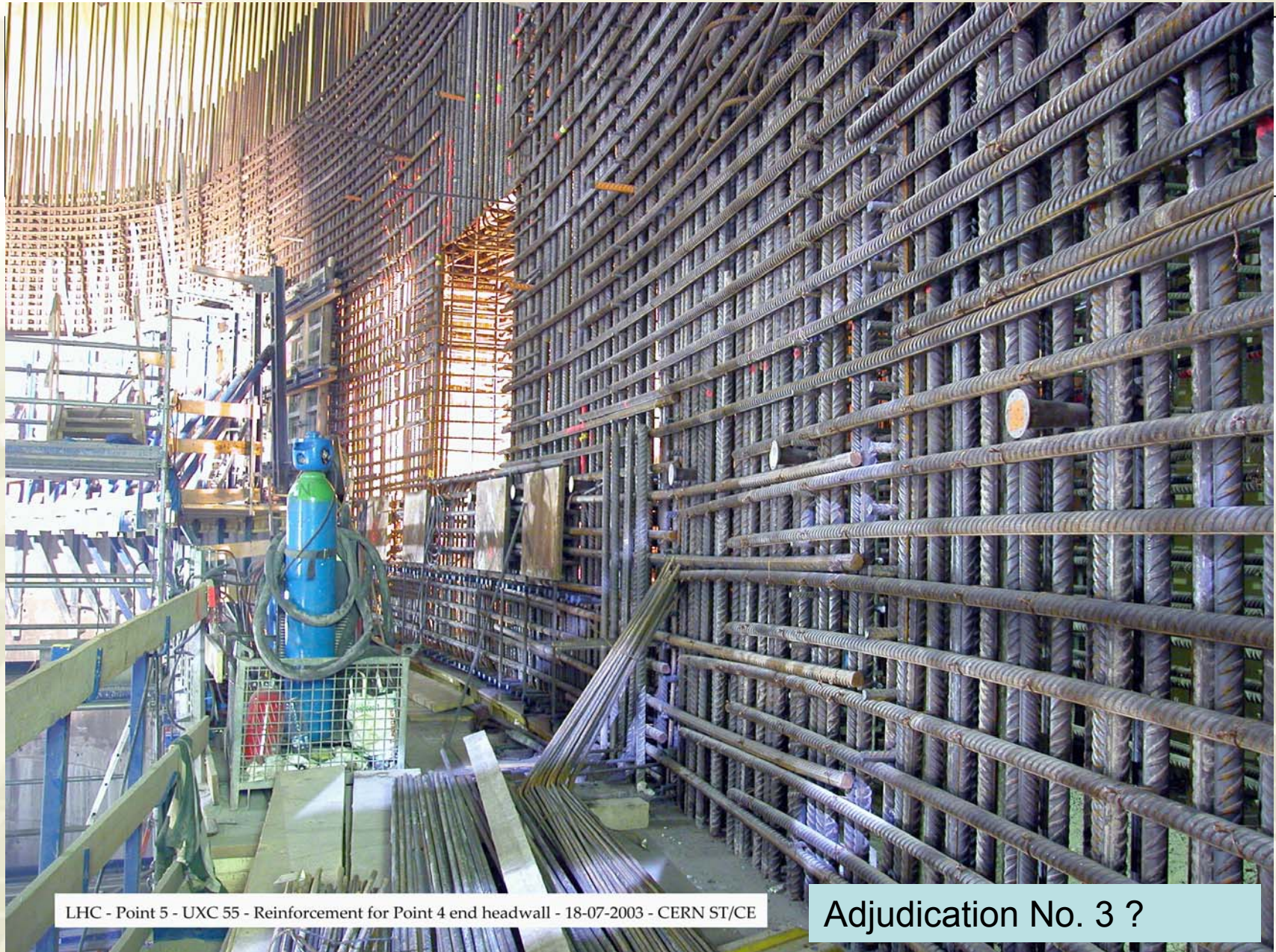
13 April 2004 – USC55 Cavern



Point 5 - UXC55 cavern excavation - LEP demolition - January 23, 2002 - CERN ST-CE



Point 5 - UXC55 cavern - Preparation for invert concreting (central zone looking towards point 4) - September 16, 2002 - CERN ST-CE



LHC - Point 5 - UXC 55 - Reinforcement for Point 4 end headwall - 18-07-2003 - CERN ST/CE

Adjudication No. 3 ?

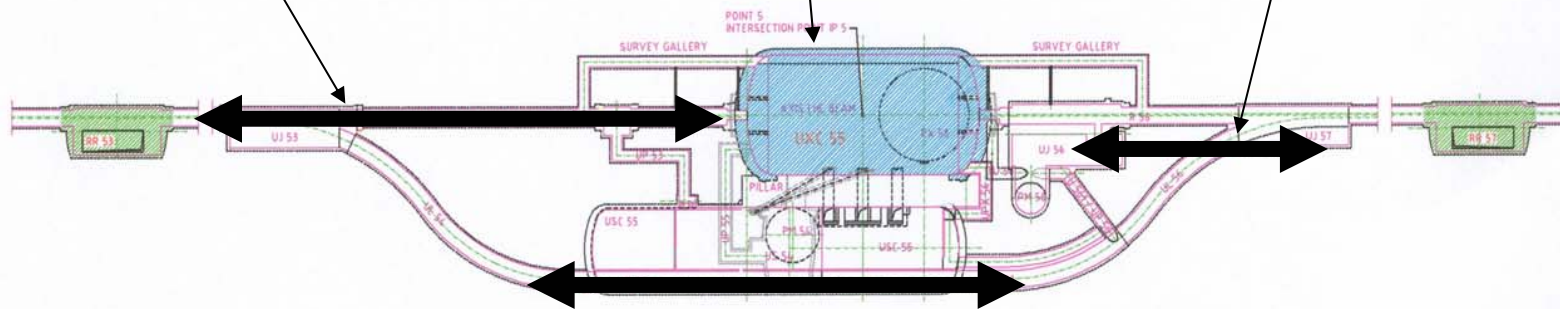


LHC Point 5 - UXC55 Point 4 End Crown Falsework - 29-03-2004 - CERN TS-CE

17 May 2004 for
UJ53, RZ54 &
UPS54 connection

UXC55 with SX5
End of October 04

Mid June 04 for
UJ57, UJ56
extension,
UPS56
connection



USC55 1 June 04

Conclusion & Lessons Learnt

1. Adjudication Procedure essential
2. Contract must be flexible to allow changes
3. Design Responsibility could be better defined
4. Sharing of overall Profit / Loss