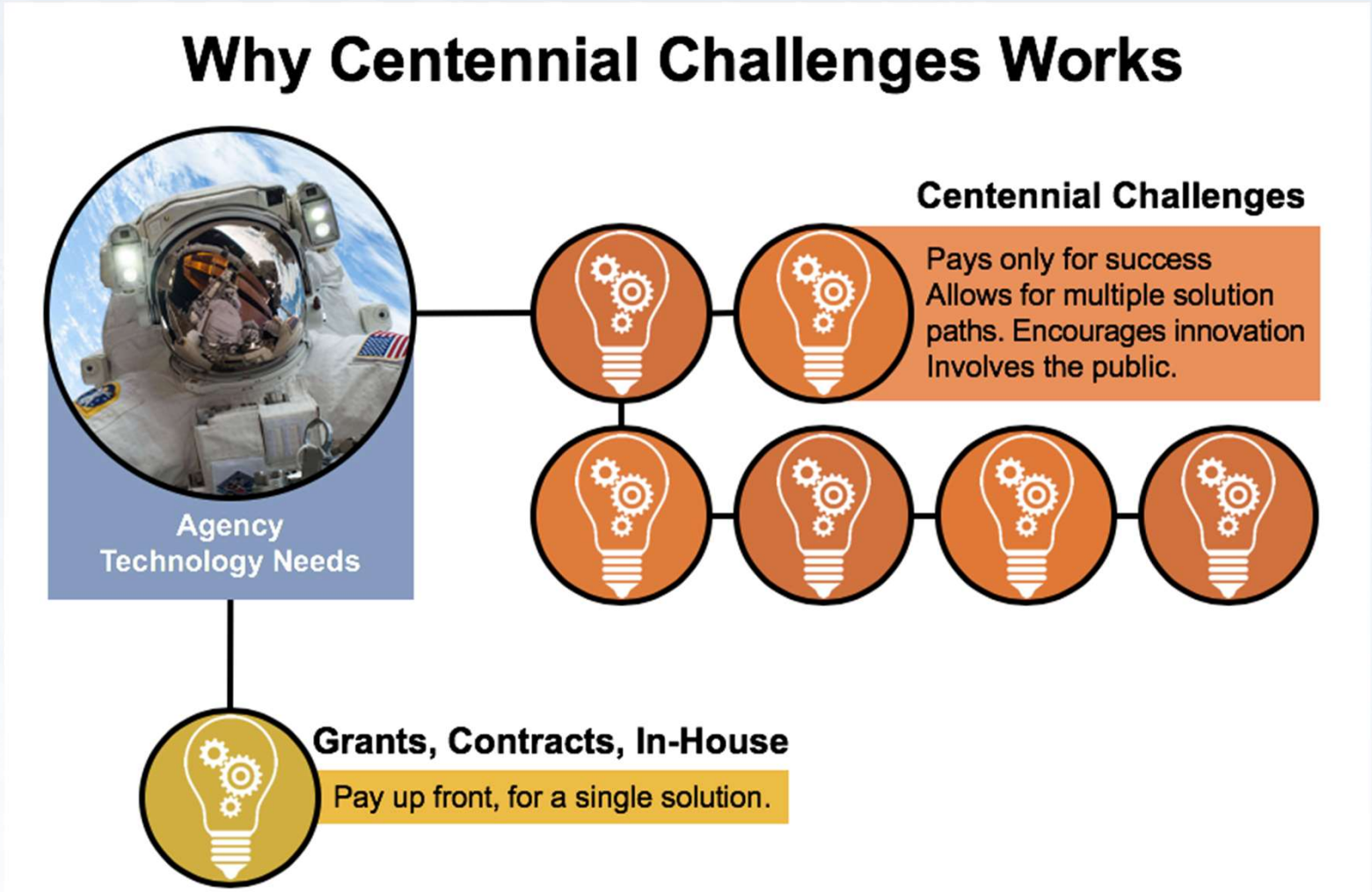
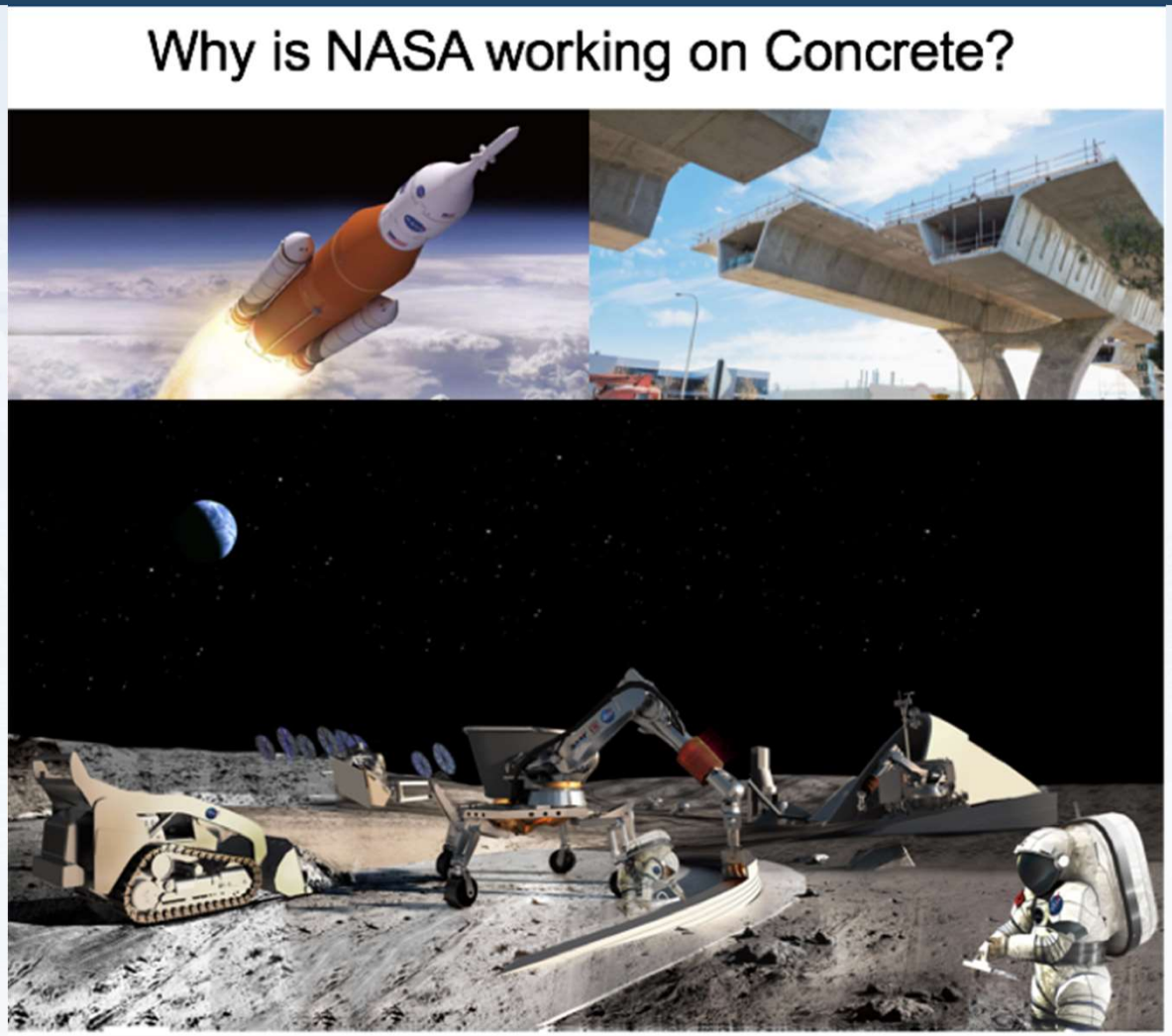
Centennial Challenges Program



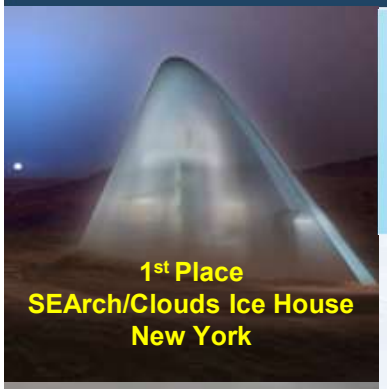
Prizes, Challenges, and Competition



3D-Printed Habitat (3DPH) Challenge



3DPH Challenge: Phase 1 Design







America Makes

Architectural concept and design approach

3D-Print Constructability

Habitability

Innovation

Functionality

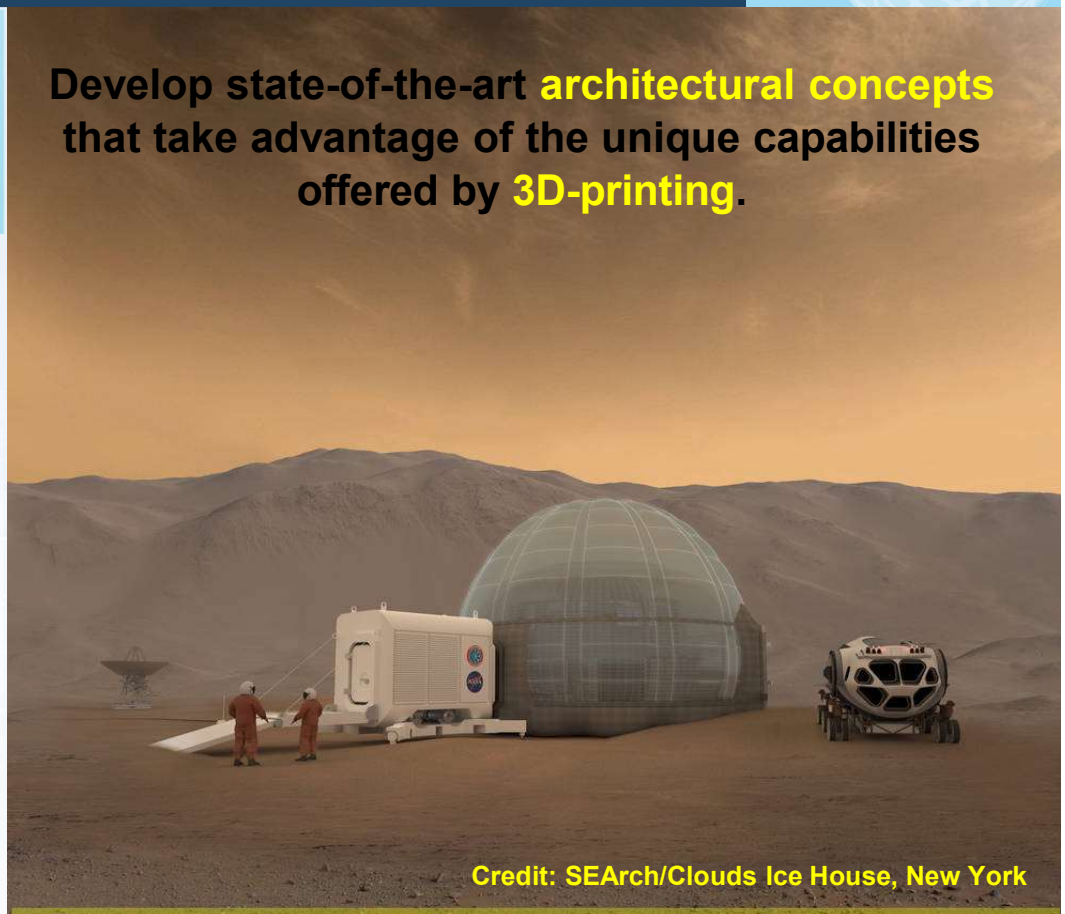
Energy Efficiency

Mars Site Selection

Documentation

Public Appeal

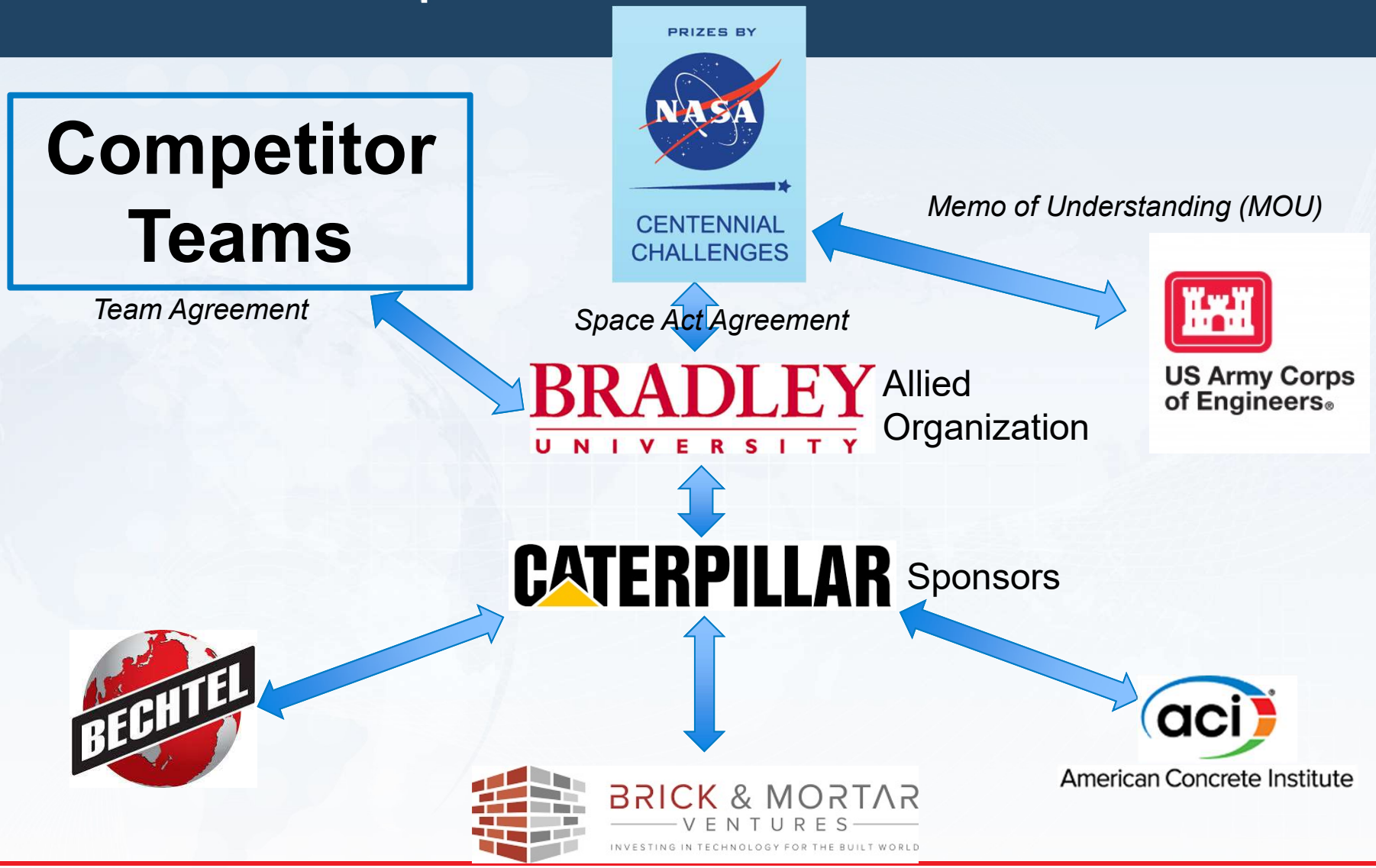
Develop state-of-the-art **architectural concepts** that take advantage of the unique capabilities offered by **3D-printing**.



Started: May 16, 2015

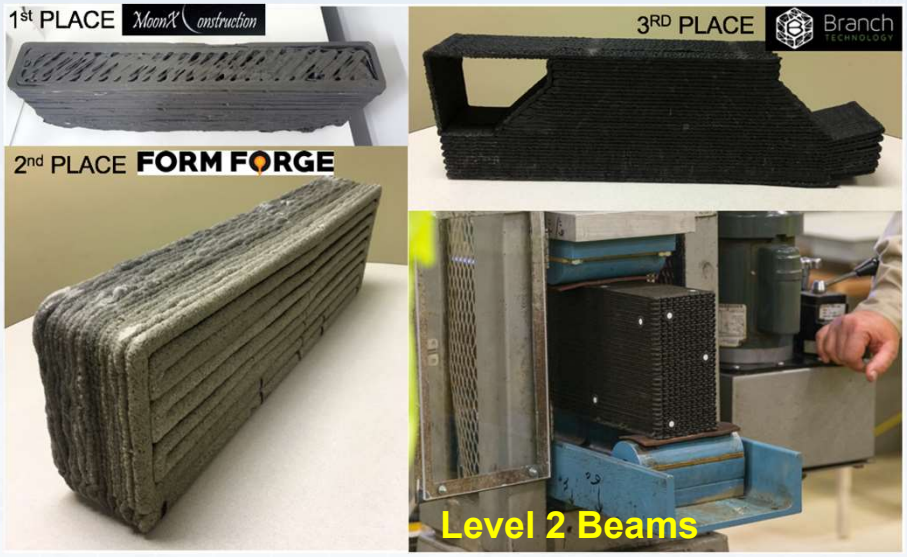
Completed September 27, 2015

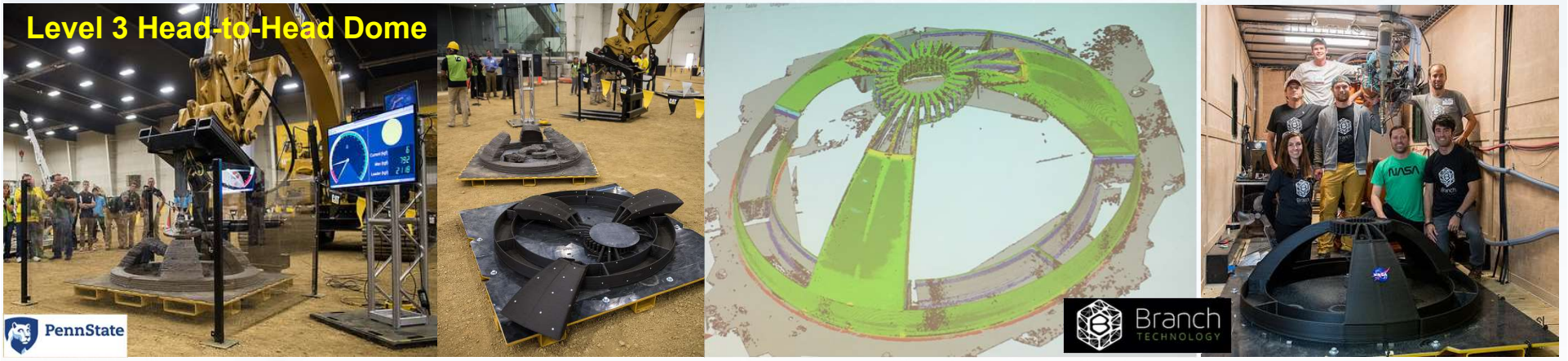
Partners & Sponsors



3DPH Challenge: Phase 2 Structural Member





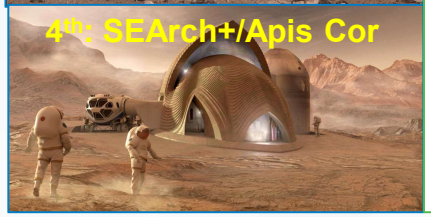


3DPH Challenge: Phase 3 On-Site Habitat

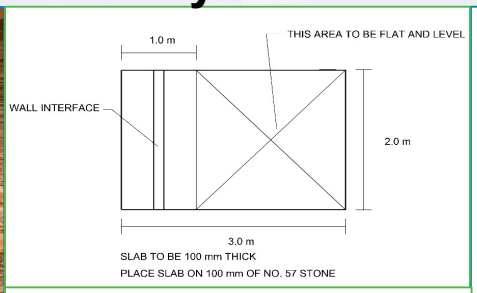
Level 1:
Virtual Design Partial
May 2018

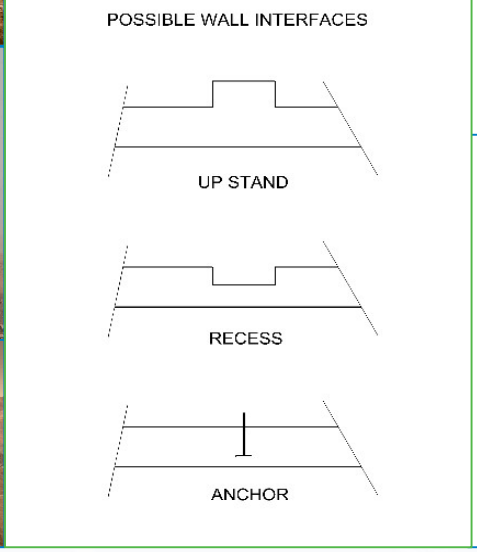




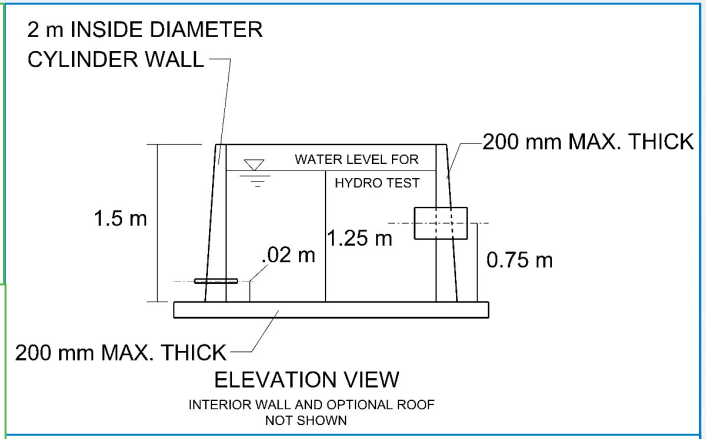


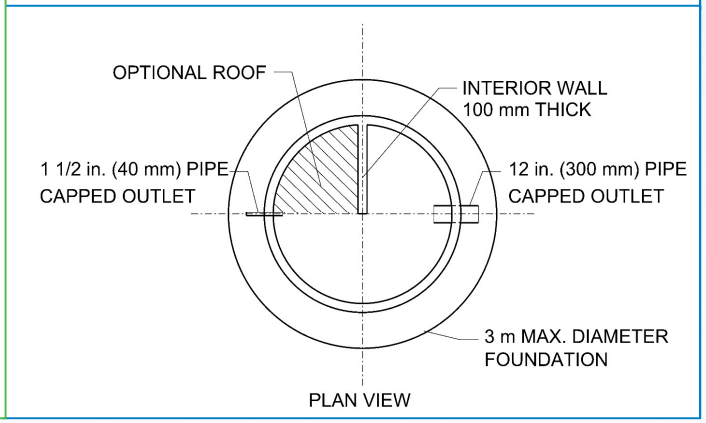
Level 2:
Foundation
July 2018





Level 3:
Sealing Test
Dec. 2018





Level 4:
Virtual Design Complete Jan. 2019

Level 5:
Head-to-Head Subscale Habitat May 2019

Tony Kim

NASA Marshall Space Flight Center
Centennial Challenges Deputy Program Manager



- Past Projects:
  - Nuclear Thermal Propulsion Technology Deputy Project Manager
  - Low Cost Upper Stage Propulsion Project Manager
  - Refabricator Project Manager (Tethers Unlimited Incorporated)
  - Helio-Telescope Project Manager (SUMI, Hi-C, CLASP, etc…)
  - Deep Throttling Engine Technology Development Manager
  - Altus Cumulus Electrification Study Project & Mission Manager
  - ISS Payload Equipment Restraint System Project Manager
  - ISS Facility Payloads Operations Manager
  - Spacelab Mission Operations Controller
- NASA Administrator's Fellowship Program 2003-2005
- Material Science, M.S. from Auburn University, 2001
- Space Systems Architecture, International Space University Summer Session Program, 1997
- Aerospace Engineer, B.S. from University of Illinois,1989