



APPLIED RESEARCH BUILDING

DATE: 11/08/21-11/12/21

PHASE: **Project Overview**



Facing North View



Facing South View



McCarthy + SmithGroup
ARB Design Build Team

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PHASE: TV Chamber Delivery and Hoist



Hoisting Thermal Vacuum Chamber



Vibration Isolation and Temporary Protection for the TV Chamber

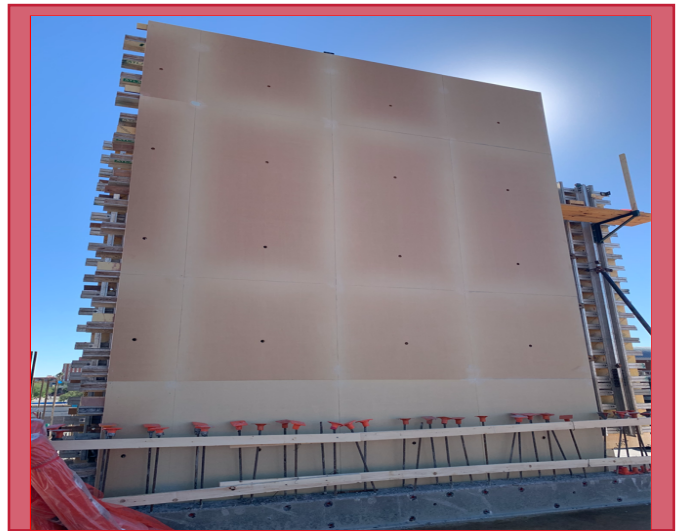
Fun Fact:

The Thermal Vacuum Chamber can fit a Chevrolet Suburban inside its shell. IT IS THE BIGGEST TV CHAMBER AT ANY UNIVERSITY IN THE COUNTRY!!!

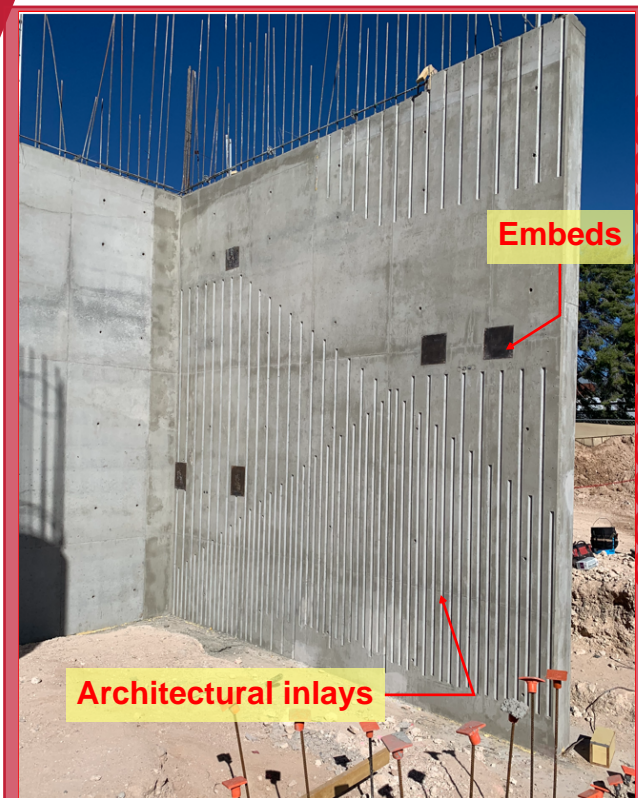
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PHASE: Structural Concrete



L2 Core Wall 1 Wall Form



Core Wall 3 - Architectural Features

Fun Fact:

Core Wall-3 is located at the main entrance of the building. Since the concrete will be exposed in a high-visibility area, the construction team worked diligently to ensure that no structural components will interfere with the appearance of the wall.

The Metal Plate Embeds will support the steel stairway, which along with the lighted Architectural Inlays, will provide a beautiful feature from the building exterior.

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PHASE: **Structural Decking**



Level 2 Deck Sheeting



Level 2 Deck Shoring

Fun Fact:

Level 2 Slab is approximately 20,000 square feet.
The slab will be poured in 2 major concrete
pours, each is about 10,000 square feet of area.

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PHASE: Structural - Post Tension and Rebar



Post Tension Cables Installed



Level 2 Deck Top Mat Of Reinforcing

Fun Fact:

Post tension cables allow a longer span of cantilevered deck, which eliminates the need of vertical support below (i.e columns).

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PHASE: Mechanical Electrical and Plumbing



Electrical Floor Boxes On Level 2



Mechanical and Plumbing Rough Blockouts and Sleeves

Fun Fact:

Prior to concrete pours, the various trades (electrical, mechanical, etc.) coordinate and block out certain size openings in the slab to run their pipes and duct through. The wooden boxes are blockouts and the red pipes are the sleeves. The area in the picture on the left will be a restroom which requires multiple openings to run drain and water lines to it.





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PHASE: **What's next?!?**



- Level 2 Deck Forming and Reinforcing.
- Level 2 Deck Plumbing and Mechanical Rough-In.
- Level 2 Deck Electrical Rough-In.
- Level 2 Deck Concrete Pours.
- Level 2 Vertical Structural Pours.
- Thermal Vacuum Chamber Protection Build-out.
- SOG Initial Grind and Protection.
- Structural Steel Stair Erection.
- Architectural Building Mock up.
- Interior and Exterior Priority Wall Framing.



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