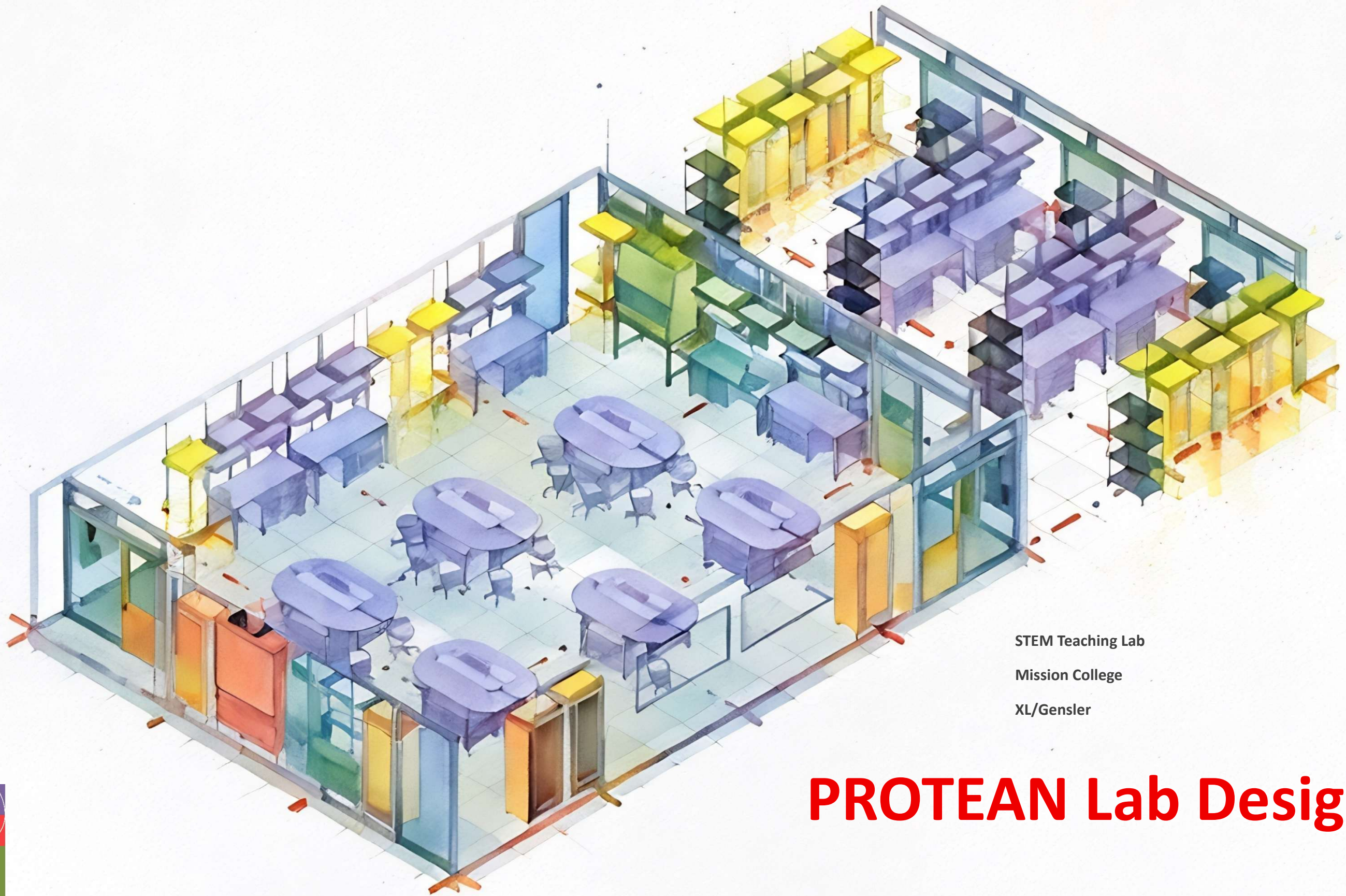


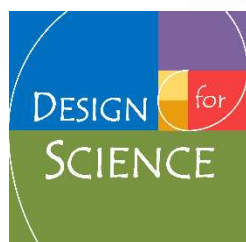


STEM Teaching Lab

Mission College

XL/Gensler

PROTEAN Lab Design





Word of the Day: **PROTEAN**

Protean (adj) – readily changing shape or form; highly variable or mutable; versatile and adaptable (proh-tee-uhn)

In Greek mythology, Proteus is an early prophetic sea god or god of rivers and oceanic bodies of water, one of several deities whom Homer calls the “Old Man of the Sea”. Some who ascribe a specific domain to Proteus call him the god of “elusive sea change”, which suggests the changeable nature of the sea or the liquid quality of water. He can foretell the future, but, in a mytheme familiar to several cultures, will change his shape to avoid doing so. From this feature of Proteus comes the adjective **PROTEAN**, meaning “versatile”, “mutable”, or “capable of assuming many forms”. “Protean” has positive connotations of flexibility, versatility, and adaptability.

PROTEAN = Adaptable/Flexible/Versatile

Source: Wikipedia; Roots2Words





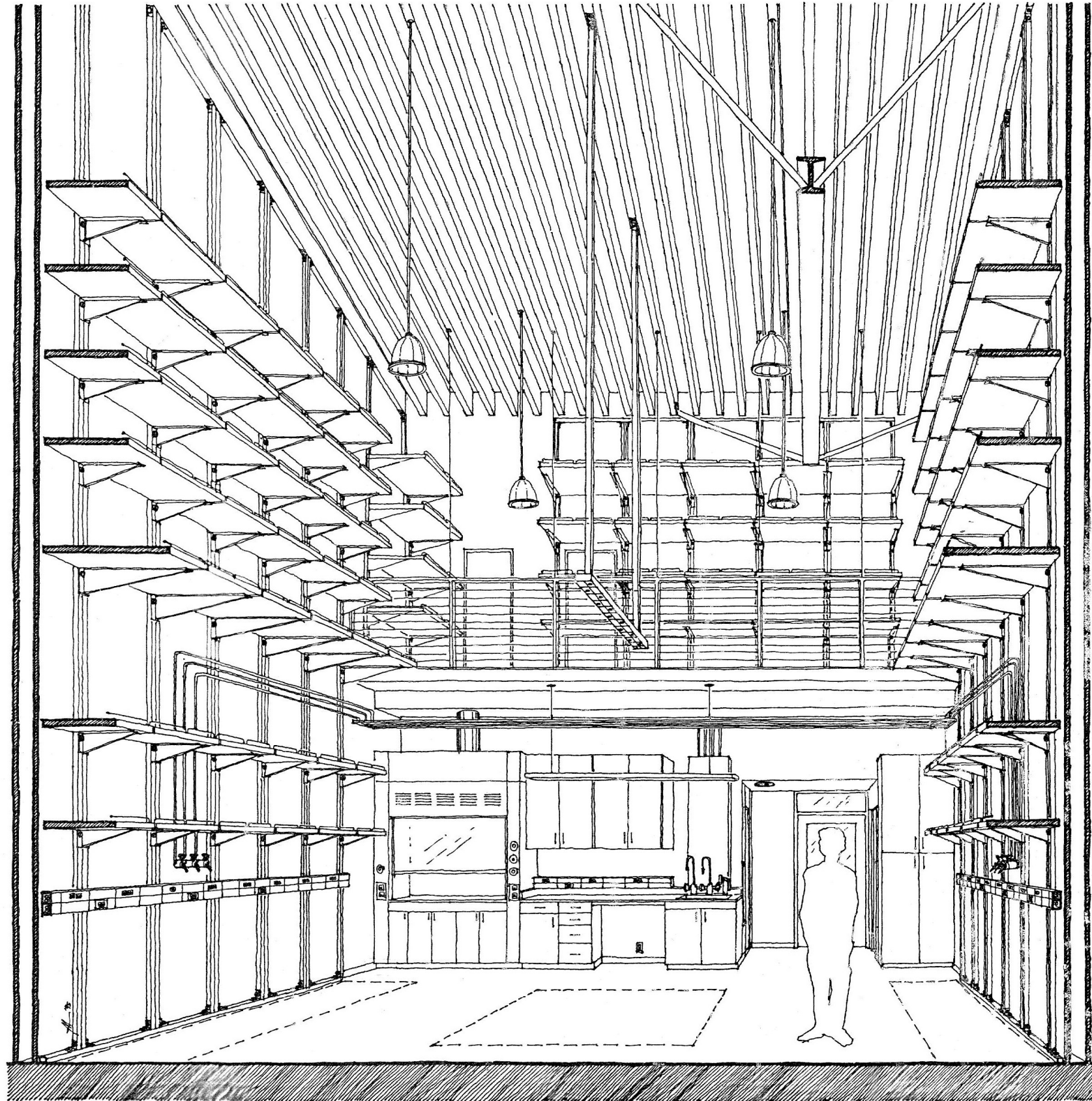
College of Pharmacy-Idaho State University
Hummel Architects
Lab Design by Gensler/Glen Berry, FAIA

Since 2000, Glen Berry, FAIA has been developing and refining the PROTEAN Lab System. PROTEAN is not a brand. PROTEAN is not proprietary. PROTEAN is a concept, an idea, a philosophy. It is based on 25 years of user feedback.

There are 5 elements of **PROTEAN** Lab Design-

1. **Analyze**- PROTEAN Lab Bench
2. **Contain**- PROTEAN Fume Hood or BSC
3. **Equip**- PROTEAN Equipment Space
4. **Store**- PROTEAN Storage Units
5. **Wash**- PROTEAN Sink Station





Engineering Laboratory - Ocean Atmosphere Research Building Scripps Institution of Oceanography San Diego, CA

The birth of PROTEAN....

1995

Scripps Institution of Oceanography
La Jolla, California

Direction from the Dean-

“Oceanography labs are not your typical science labs- they are more like a garage- they need to be flexible. We need labs that look and feel like a garage”

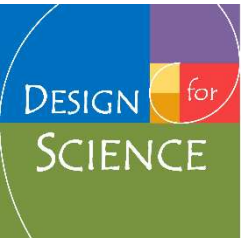
“Garage” connotes discovery, innovation, flexibility.

Google, Apple, Amazon, Microsoft, Hewlett Packard, The Walt Disney Company, Harley-Davidson, Virgin, Mattel, were all started in a garage.





The “Garage” Lab



Alta Sea Marine Science Research Lab
Long Beach, California
Architect- Gensler



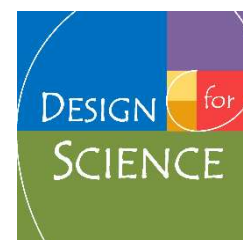
The “Garage” Lab



Bioengineering Research Lab
UC Santa Barbara
Architect- Moore Ruble Yudell



The “Garage” Lab

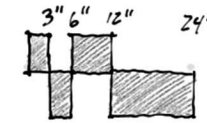
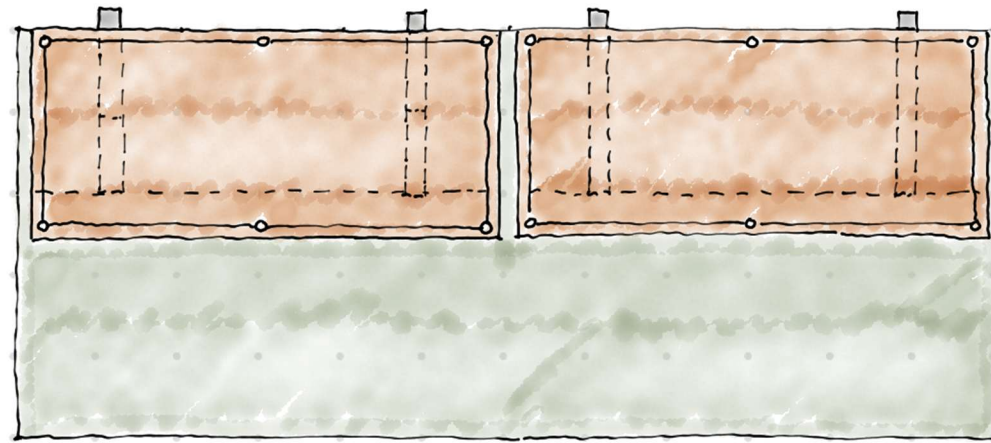


Ecology Research Lab
California Academy of Sciences
Architect- Renzo Piano Building Workshop/Stantec

PROTEAN Element #1- Analyze- PROTEAN Lab Bench

PROTEAN lab benches are mobile, with heavy duty lockable casters; adjustable height work surfaces with manual hydraulic adjustment mechanism; Lab bench may or may not have integral shelves above. Power and/or plumbing are segregated from the bench design, and provided in separate service modules, thus increasing the flexible/adjustable nature of the bench.

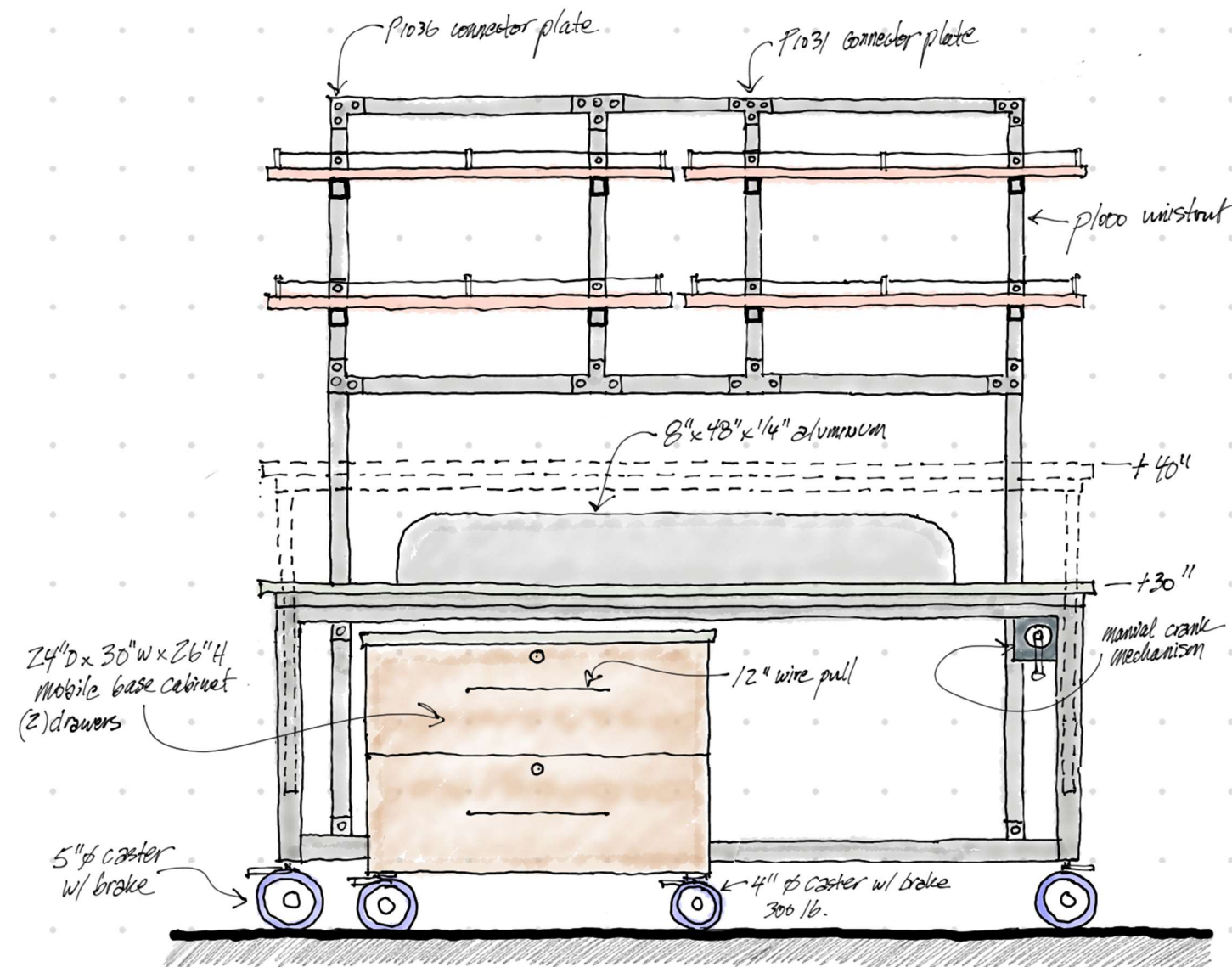




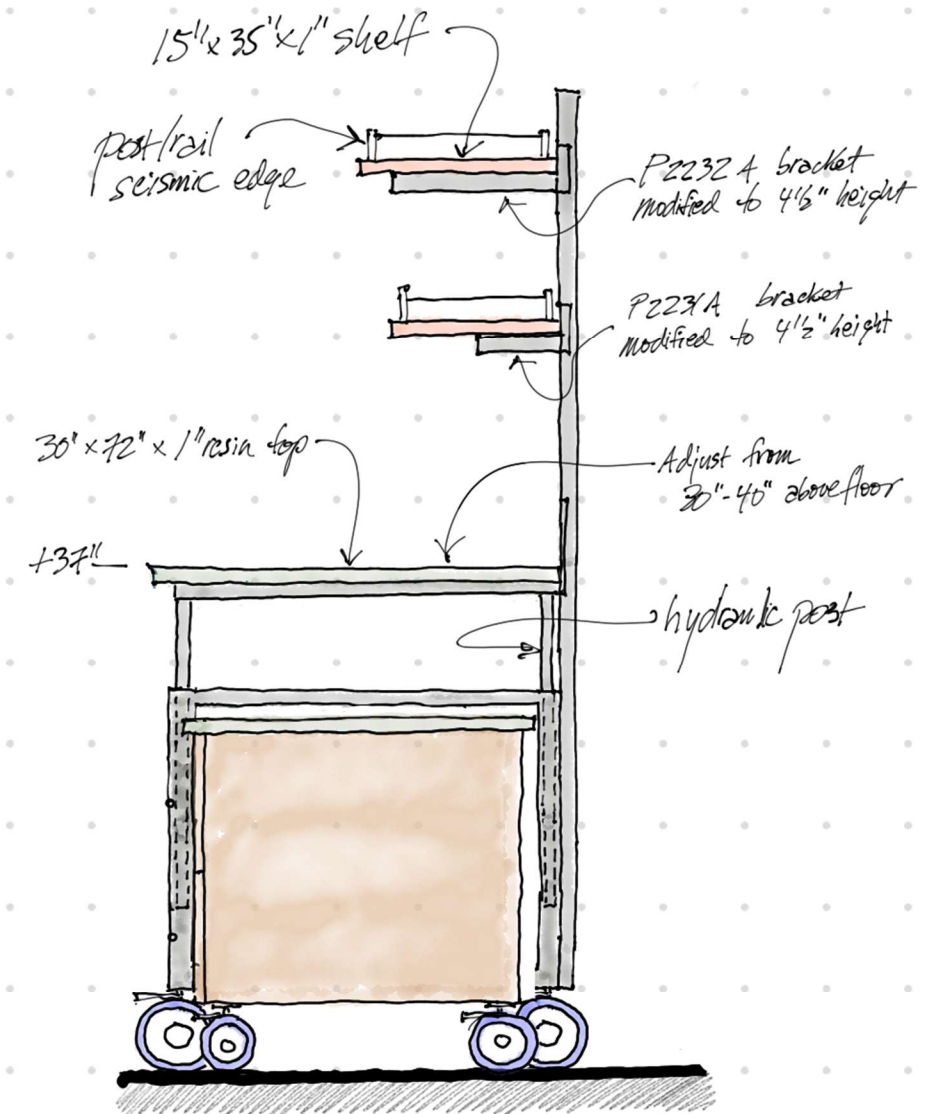
PROTEAN
LAB BENCH
w/ MOBILE BASE CABINET

PLAN

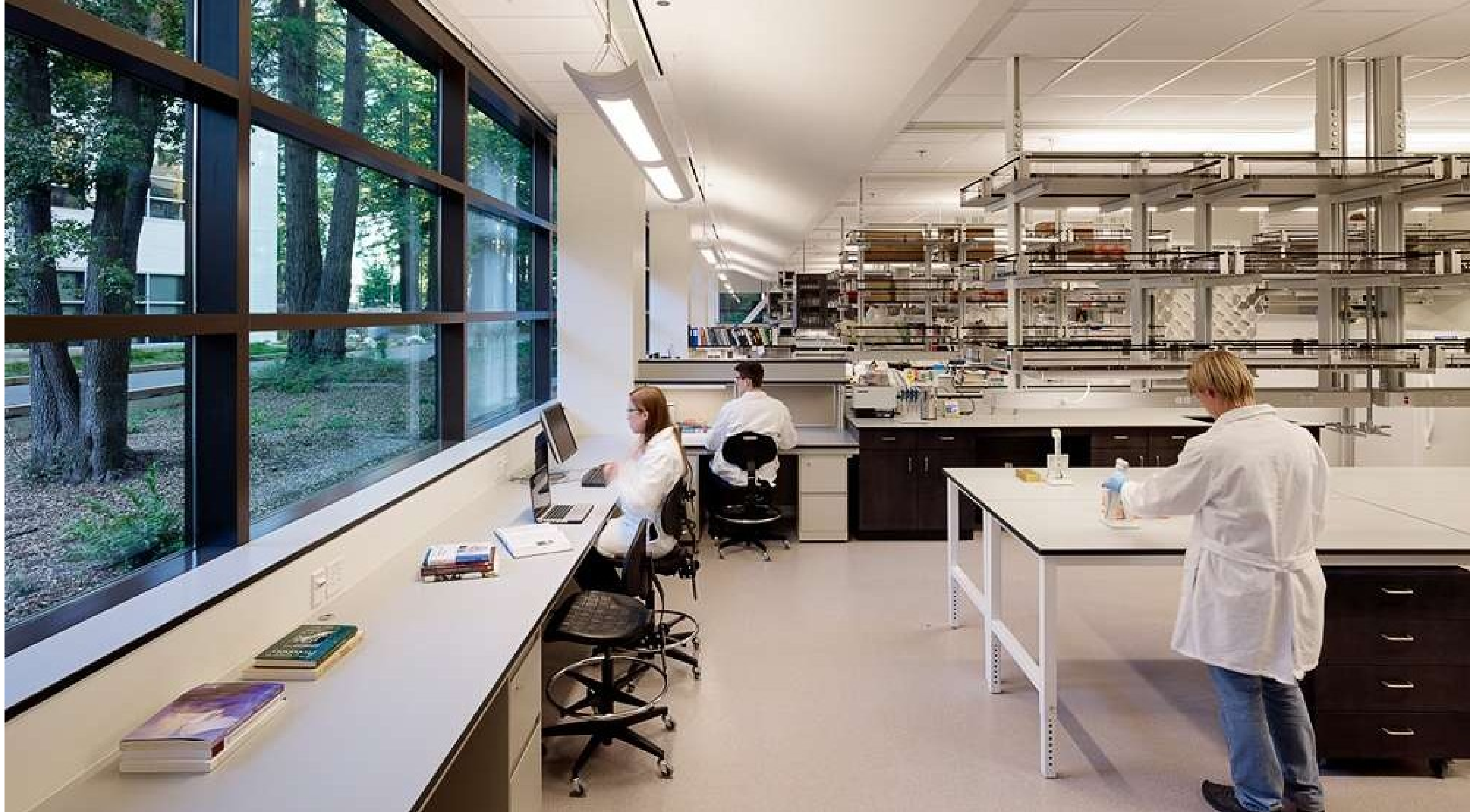
The idea begins with a sketch



ELEVATION



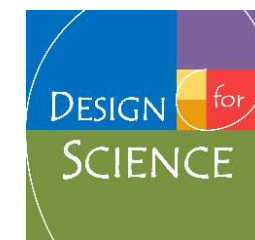
SECTION





PROTEAN Lab Bench

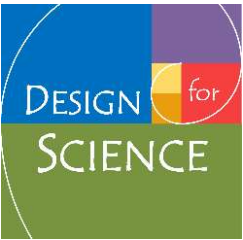
Pharmacy Research Lab
Chapman Univ
Irvine, CA
Architect- Aday Architects







PROTEAN Lab Bench

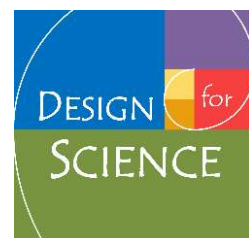


**Life Science Research Lab
Thermo Fisher Scientific
Architect- Gensler**



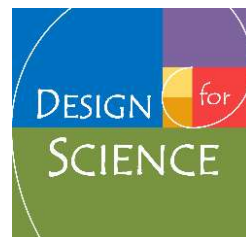
PROTEAN Lab Bench

Ecology Research Lab
Global Ecology Center
Stanford
Architect- EHDD



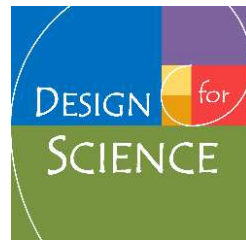
PROTEAN Lab Bench

Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel



PROTEAN Lab Bench

Vivarium Research Lab
Chapman Univ
Architect- Aday Architects



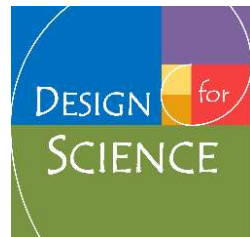
PROTEAN Lab Bench

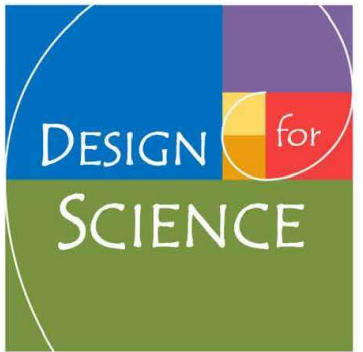
Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel



PROTEAN Lab Bench

Engineering Research Lab
Qatar Univ
Architect- Mimar Group





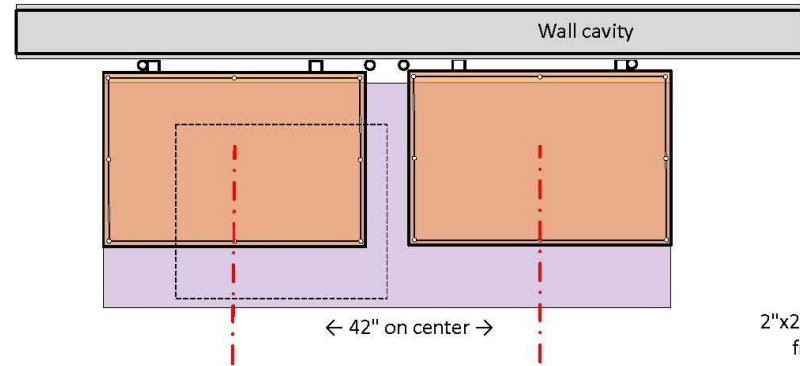
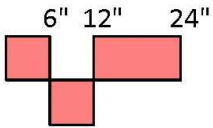
PROTEAN
“Green” Lab
Bench
Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mission Bell; Mott

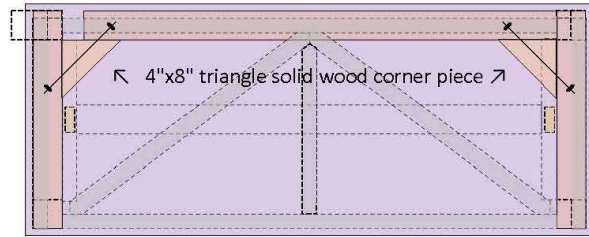
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

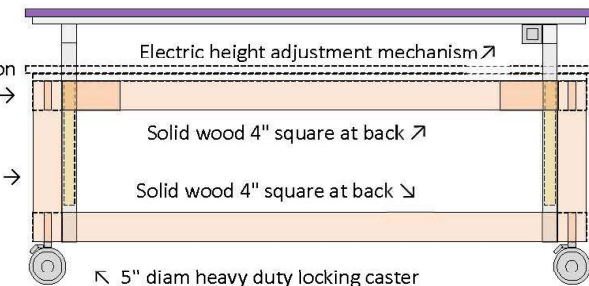
2026 Jul 30



Plan

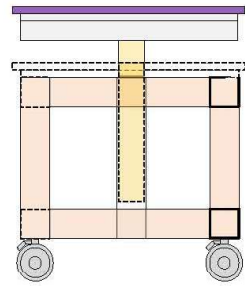


Bench Plan

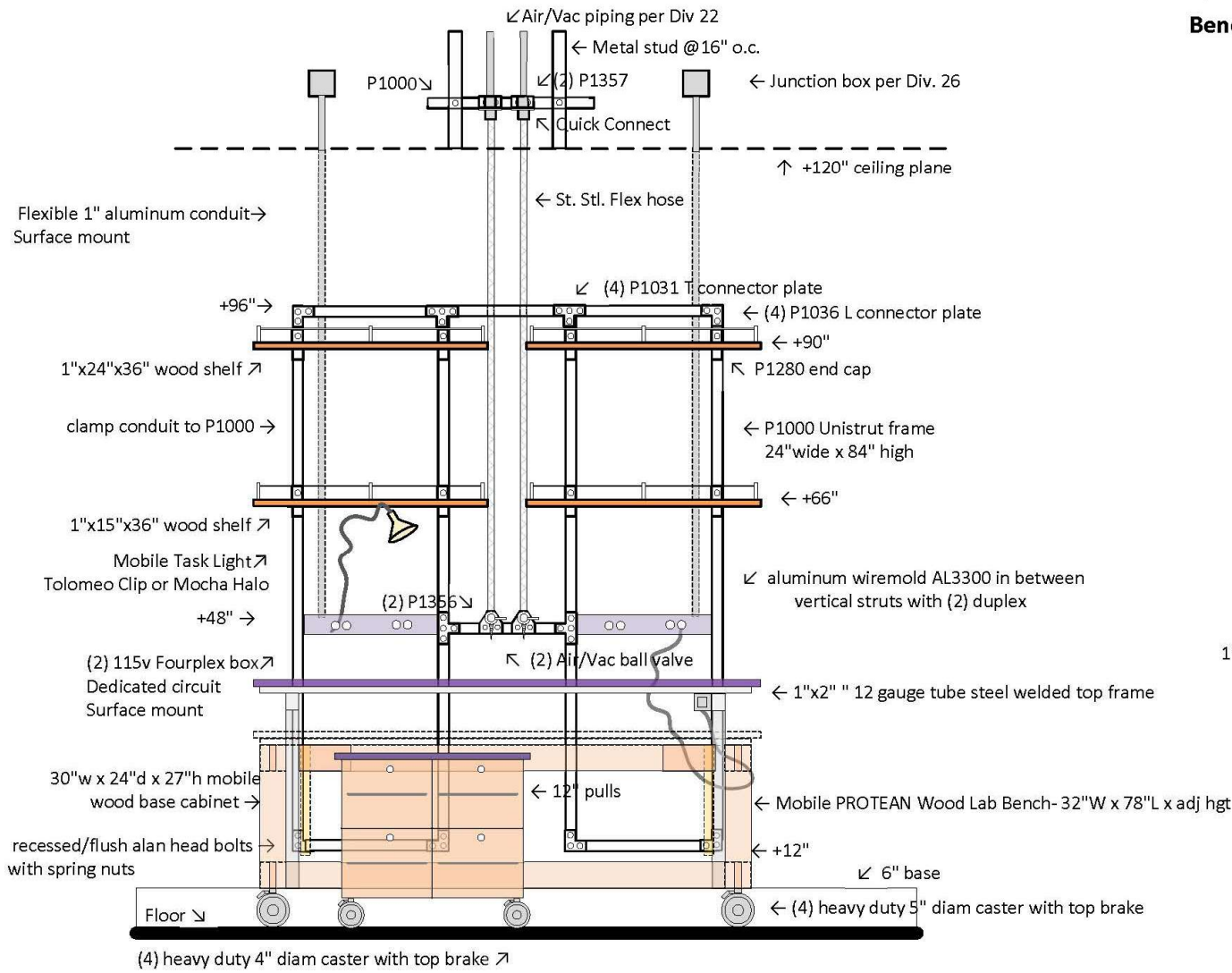


Bench Elevation

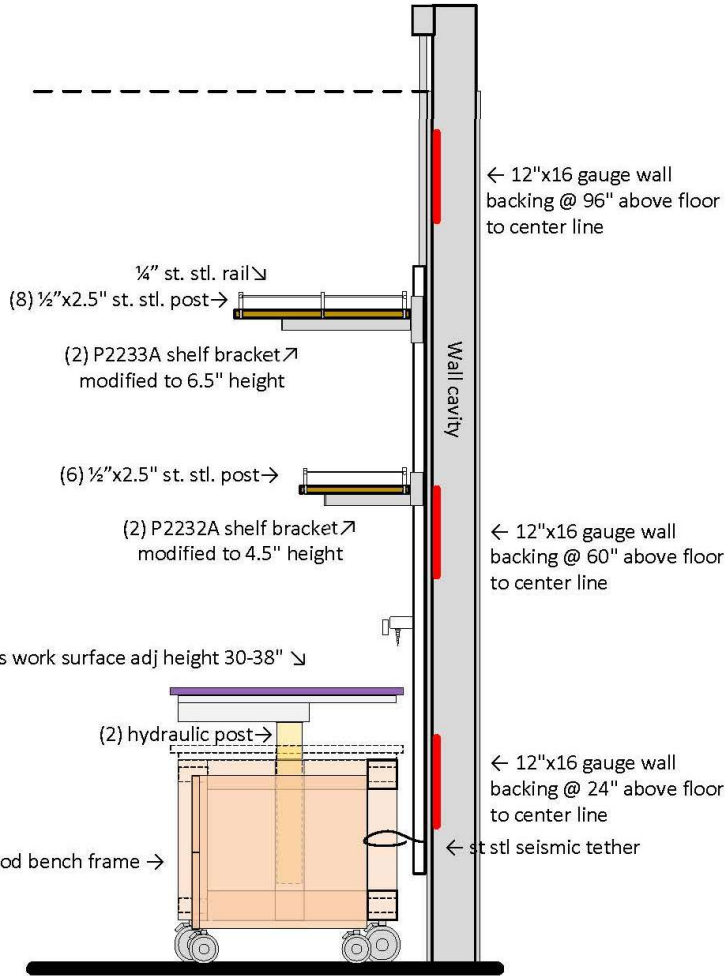
1"x32"x78" tempered glass top
Adj height 30" to 38"



Bench Section



Elevation



Section



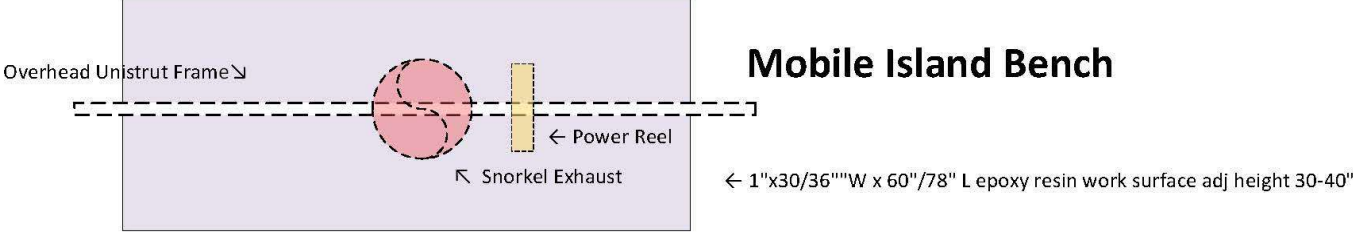
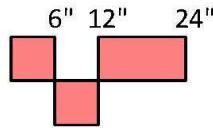
PROTEAN
Island Mobile
Bench Unit
Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mission Bell; Mott

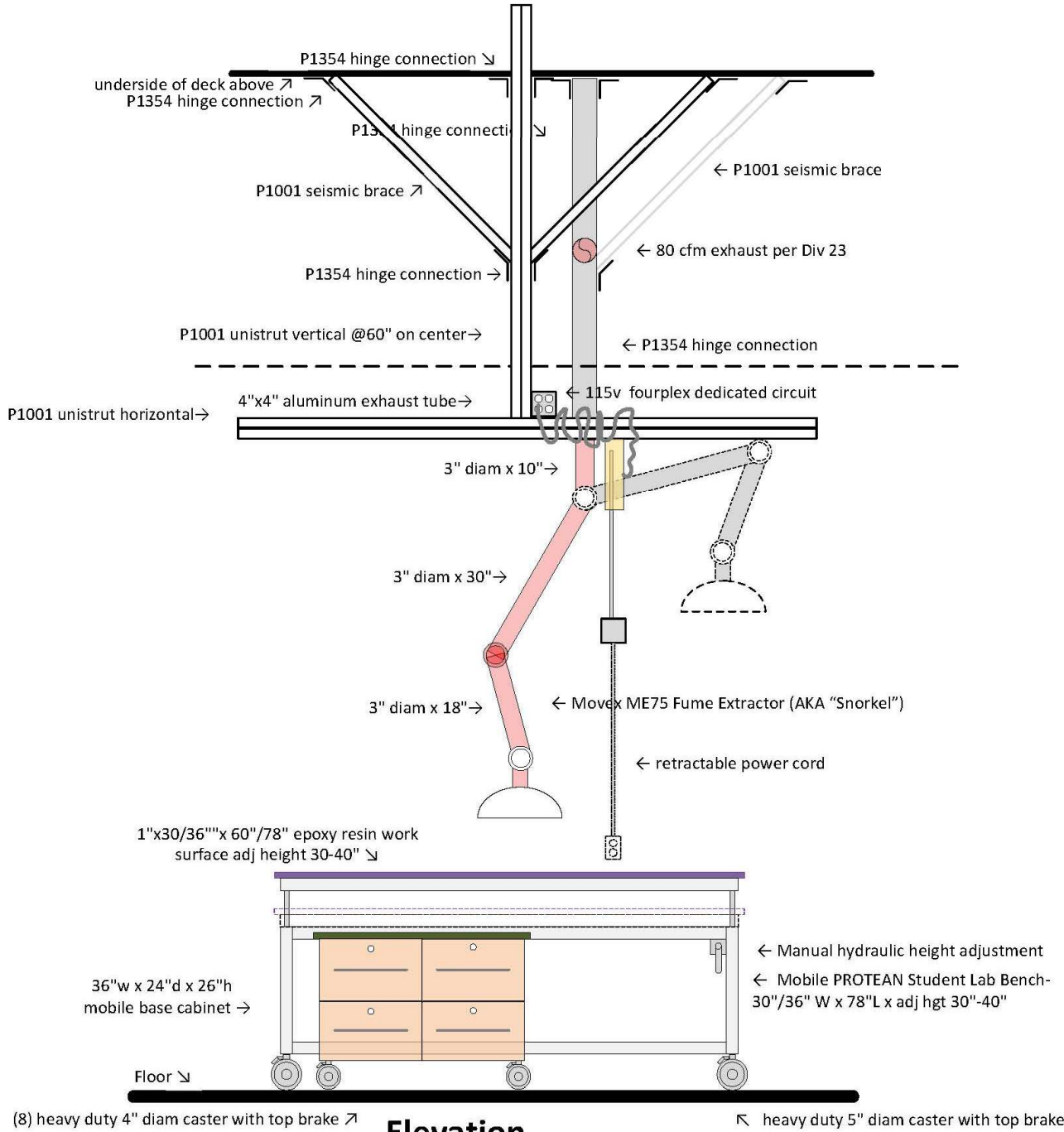
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

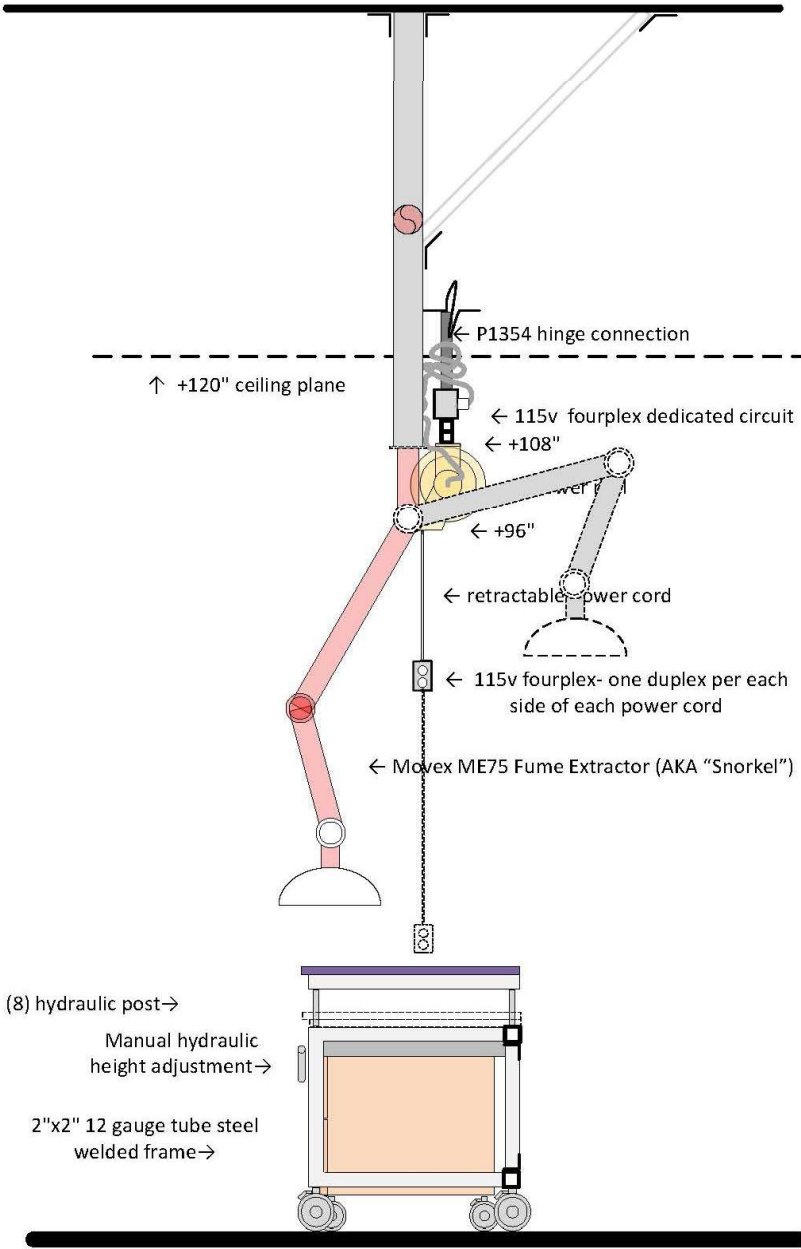
2026 Jul 30



Plan



Elevation



Section



STEM Building-
Mt. San Jacinto College
LPA
Lab Design by HERA/Glen Berry, FAIA

PROTEAN Element #2-

Contain- PROTEAN Fume Hood or BSC

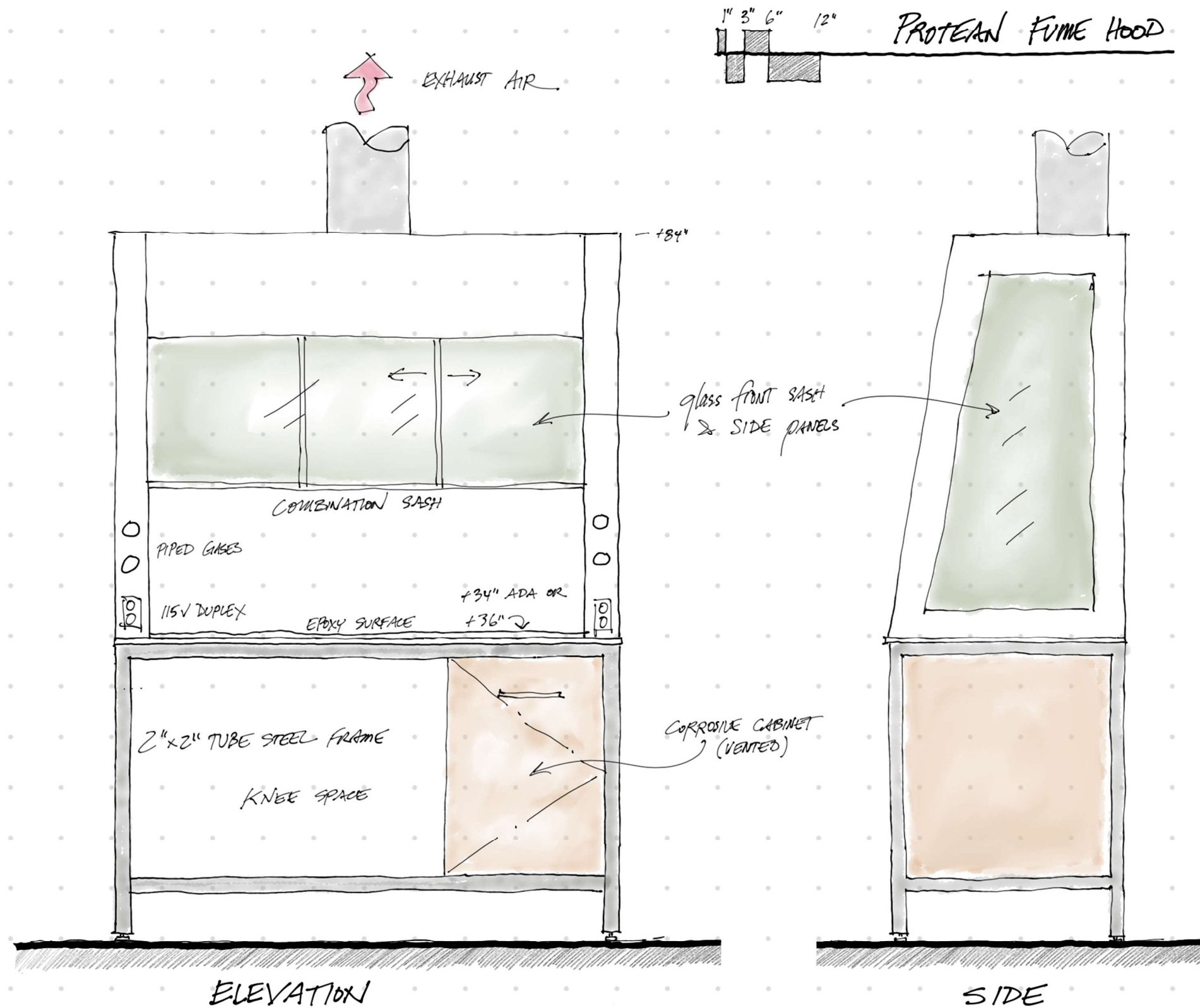
A chemical fume hood provides capture and containment of volatile chemical fumes. A biological safety cabinets (BSC) provides capture and containment of biological hazards.

PROTEAN fume hoods are variable air volume (VAV) type and have side glass panels to improve visibility, illumination, and safety.

Chemical fume hoods and BSCs can be supported by tube steel base frames or fixed base cabinets.

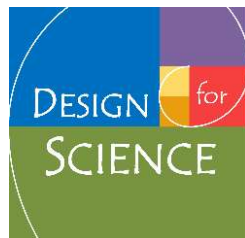


Pharmacy Research Lab
Idaho State Univ
Hummel Architects/Gensler



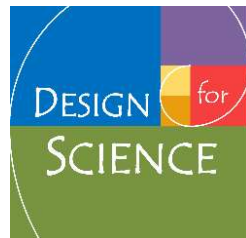
PROTEAN Fume Hood

Biology Research Lab
Clairemont Colleges
Architect- Carrier Johnson+Culture



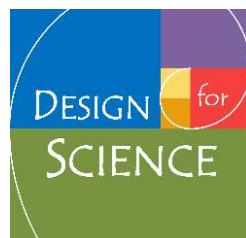
PROTEAN Fume Hood

Life Science Research Lab
Washington State Univ
Architect- Gensler



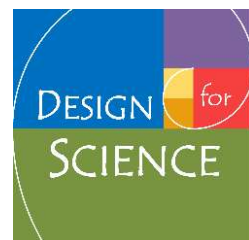
PROTEAN Fume Hood

Chemistry Teaching Lab
Mt. San Jacinto College
Architect- LPA



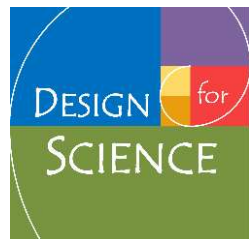
PROTEAN Fume Hood

Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel



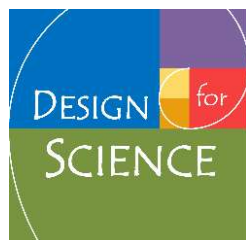
PROTEAN Fume Hood

Chemistry Teaching Lab
Southwest Comm College
National City, CA
Architect- Johnson Favaro



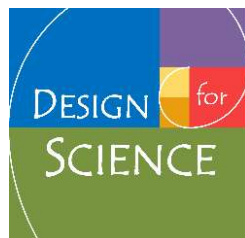
PROTEAN Fume Hood

Chemistry Research Lab
Idaho State Univ
Architect- Hummel



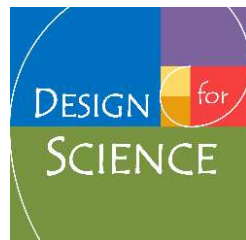
PROTEAN Fume Hood

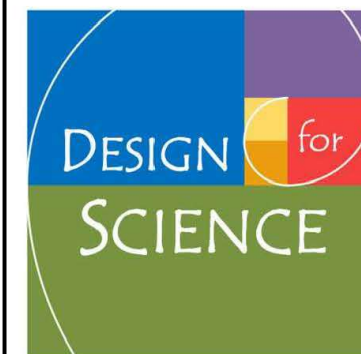
Chemistry Teaching Lab
College of the Desert
Architect- Gensler



PROTEAN Fume Hood

Chemistry Teaching Lab
American River College
Architect- LPA





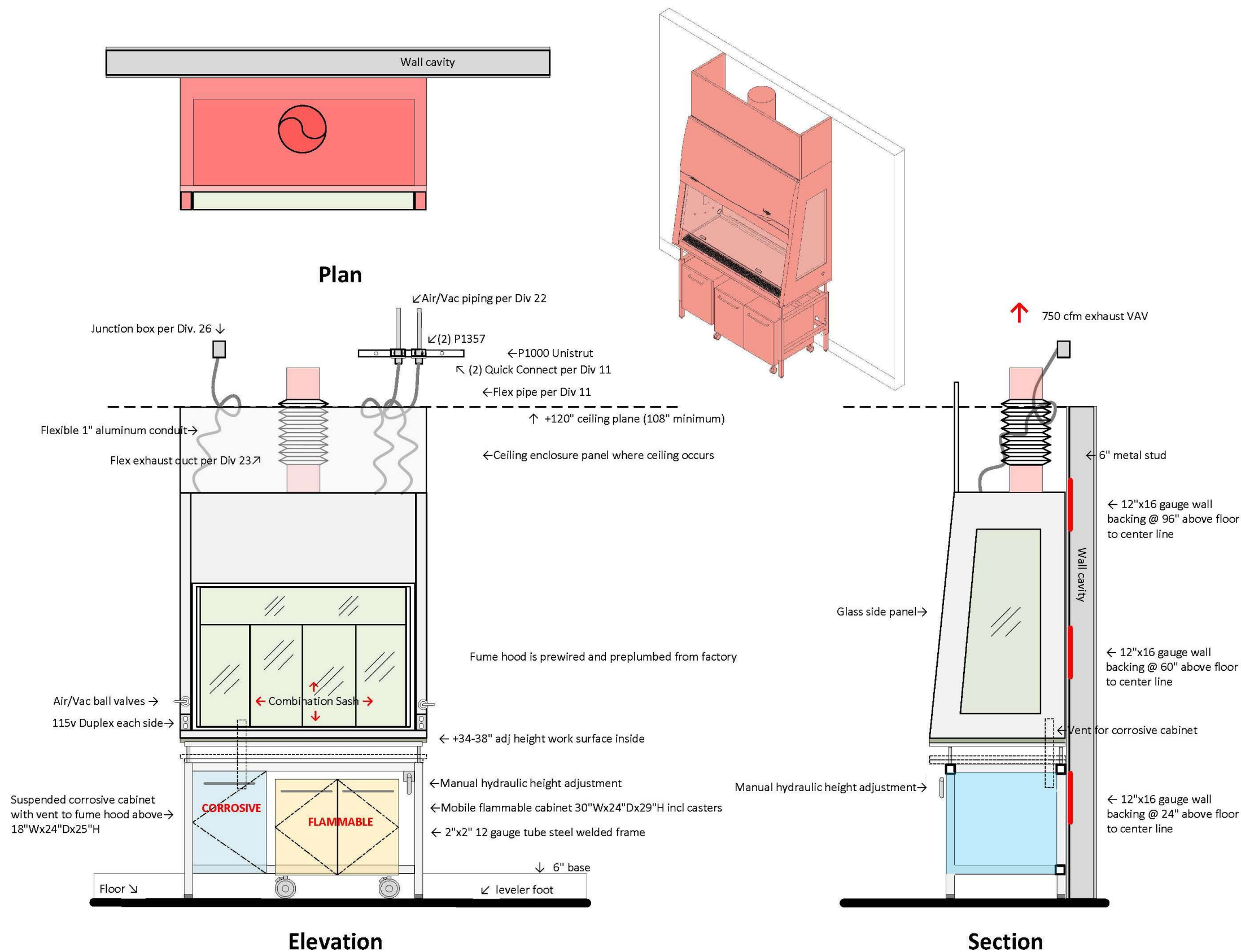
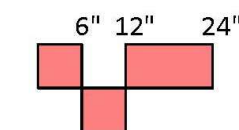
PROTEAN 5' ADA Chemical Fume Hood Cut Sheet

Acceptable
Manufacturers:
Labconco;
Kewaunee; Mott

Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

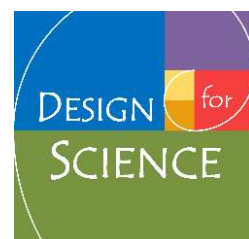
2026 Aug 12

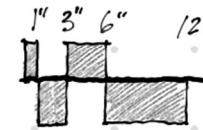


PROTEAN Element #3- Equip- **PROTEAN** Equipment Space and Shelf Unit

Adequate space for owner furnished lab equipment is essential for a flexible lab design. The **PROTEAN** equipment space provides floor space for equipment, and takes advantage of upper wall space for supplies storage.

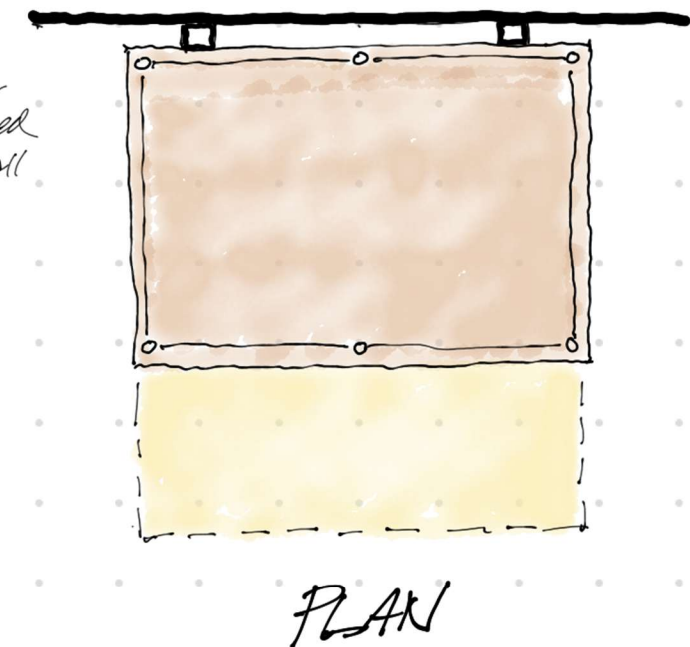
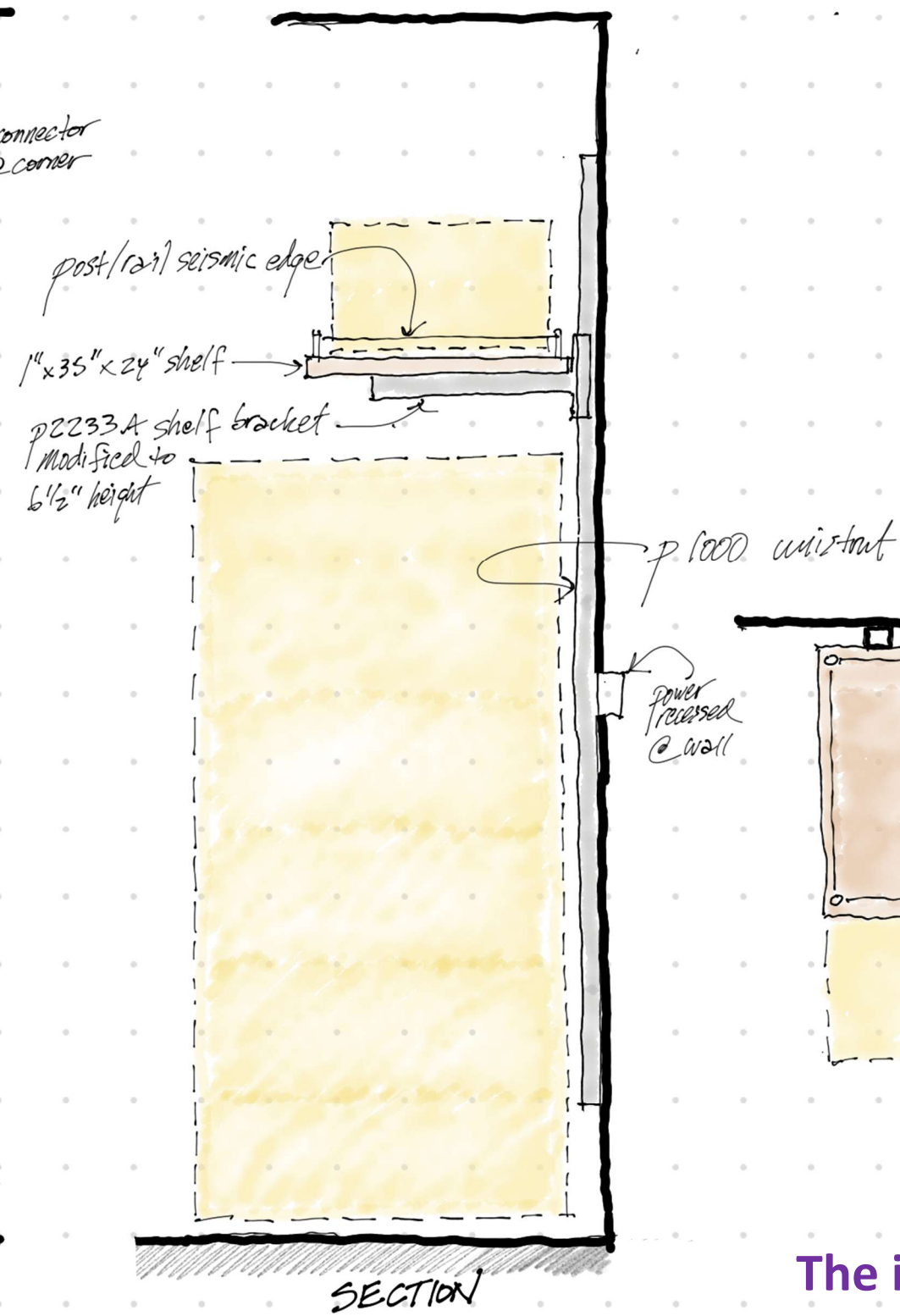
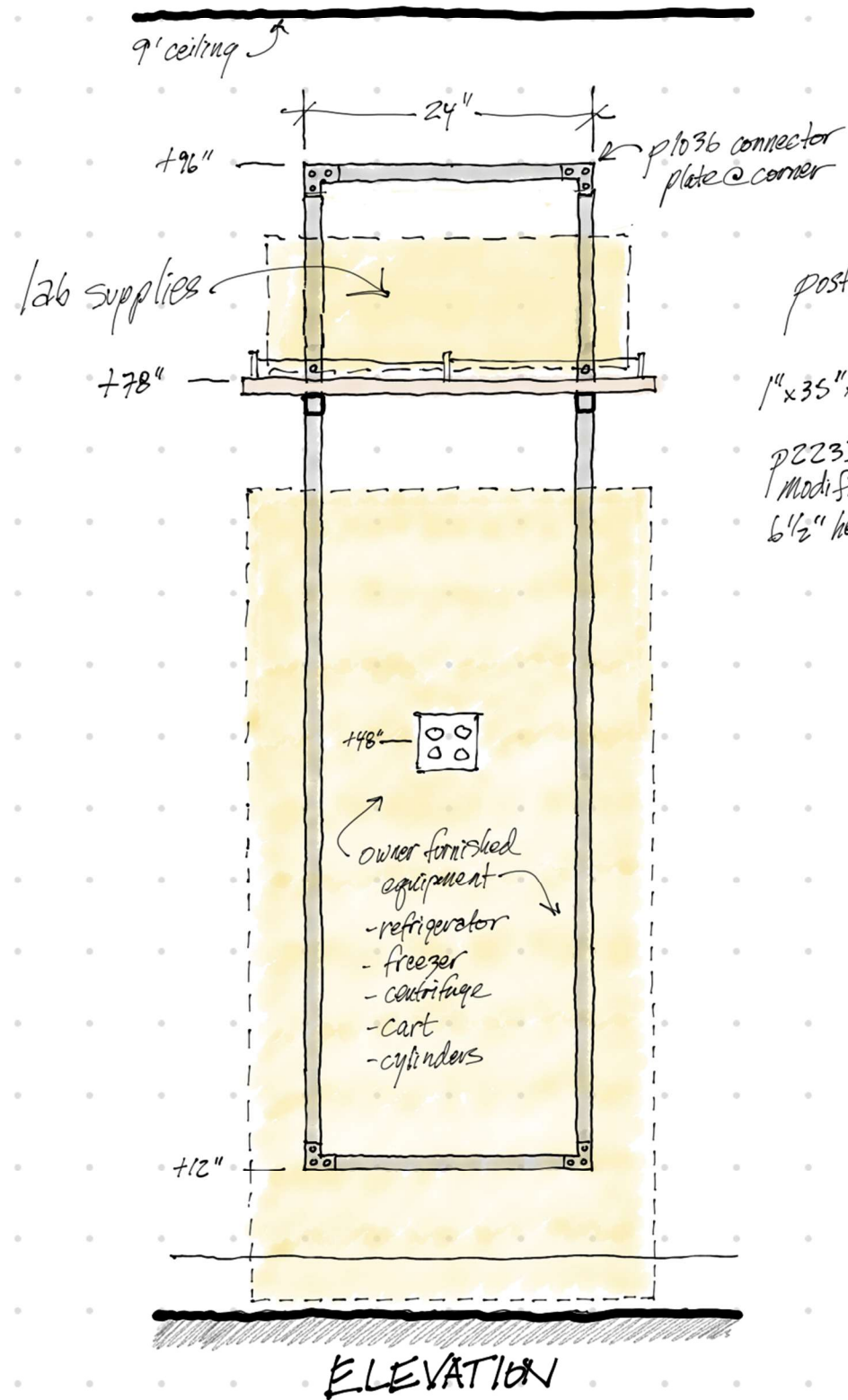
Dual function is an important part of the **PROTEAN** philosophy.





PROTEAN EQUIPMENT SPACE

2021 MAR 02

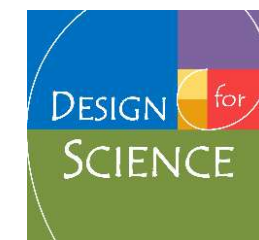


The idea begins with a sketch



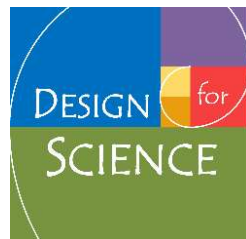
PROTEAN Equipment

Vivarium Research Lab
Chapman Univ
Architect- Aday Architects



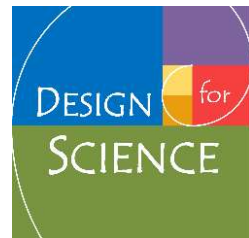
PROTEAN Equipment

Prep Lab
Paradise Valley Comm College
Architect- Marlene Imirzian, FAIA



PROTEAN Equipment

Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel



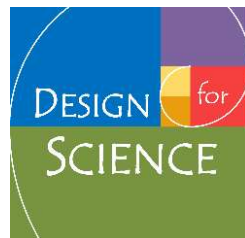
PROTEAN Equipment

Life Science Research Lab
Carlsbad, California
Architect- Gensler



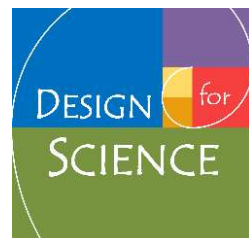
PROTEAN Equipment

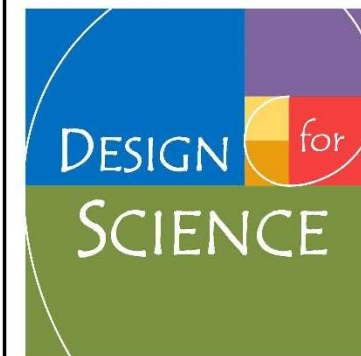
Life Science Research Lab
Univ of Hawaii
Architect- G70



PROTEAN Equipment

Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel





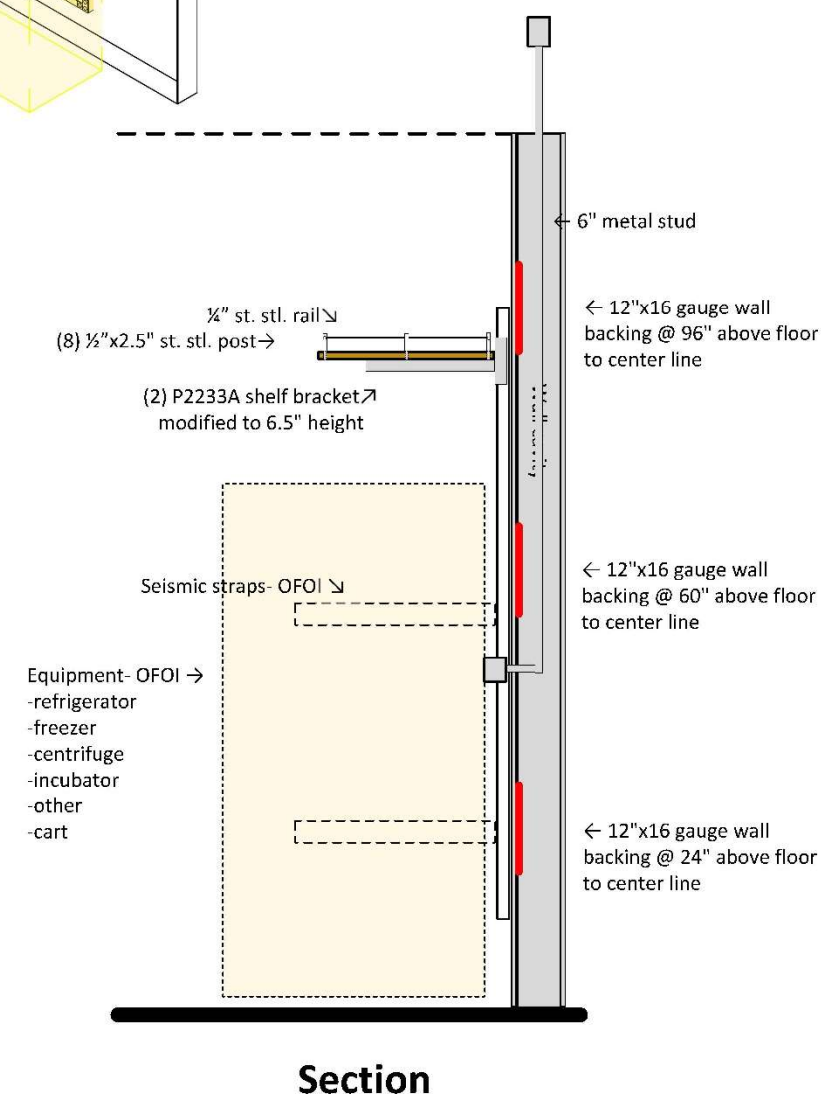
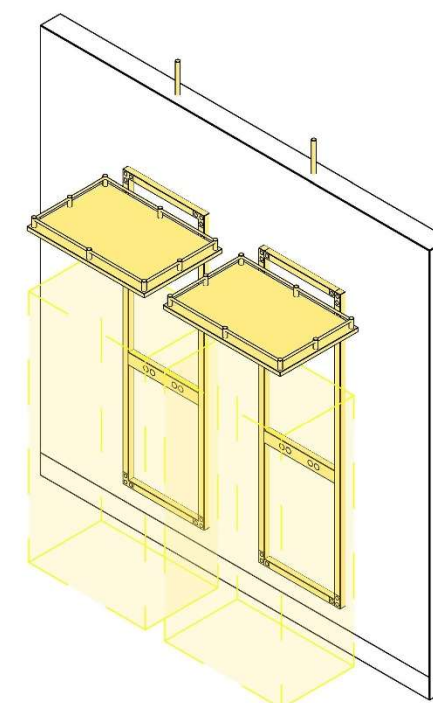
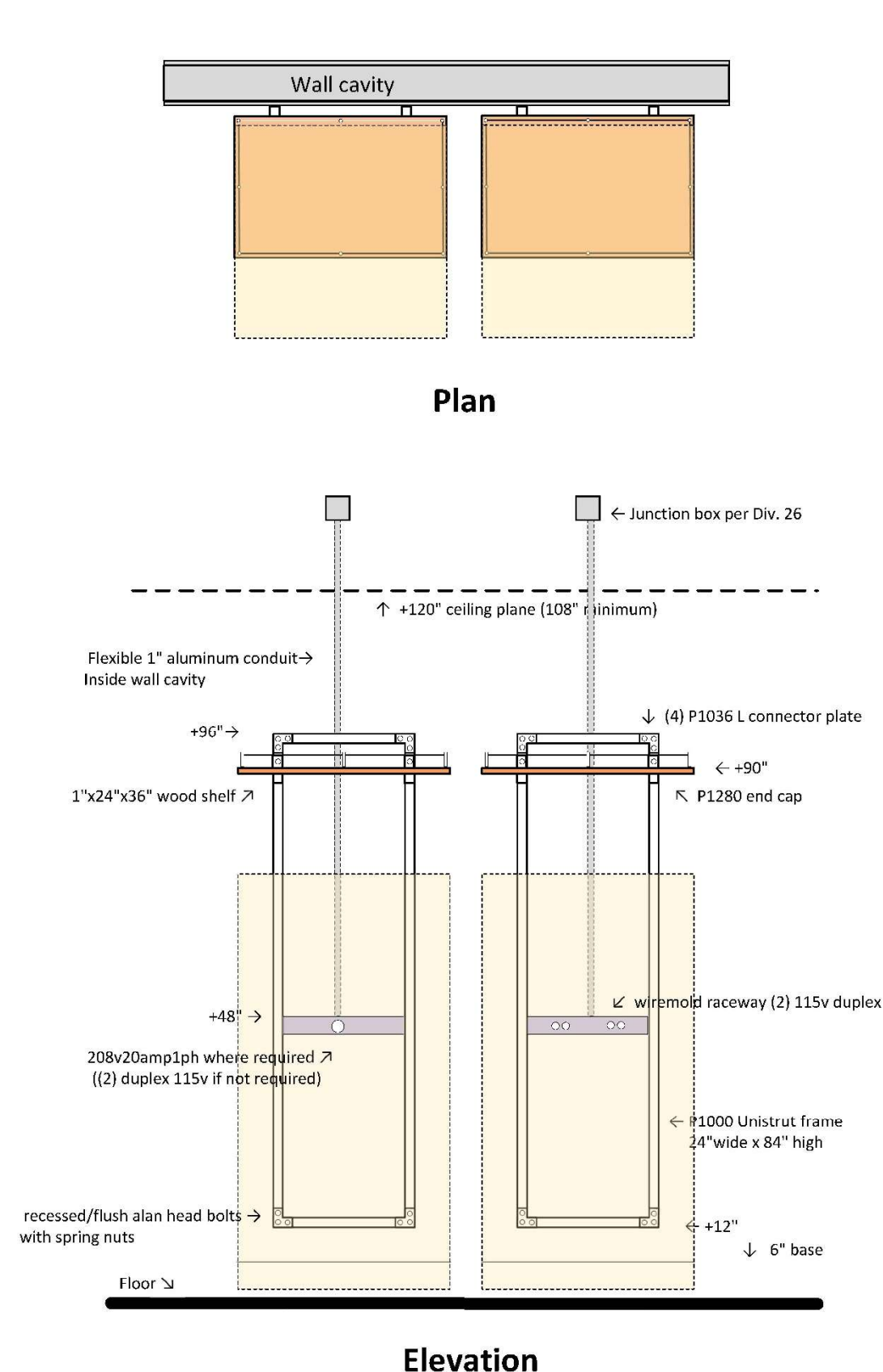
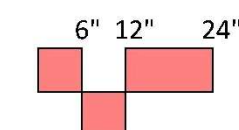
PROTEAN Equipment/ Shelf Unit w/ Wiremold Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mission Bell, Mott

Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

2026 Aug 12





PROTEAN Element #4-

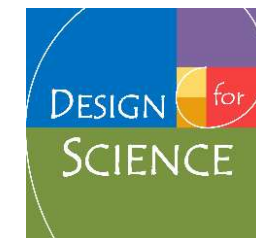
Store- PROTEAN Storage

PROTEAN storage cabinets are flexible!
Mounted on heavy-duty lockable casters
and seismically restrained to the
PROTEAN equipment shelf unit on the
wall behind the cabinet.

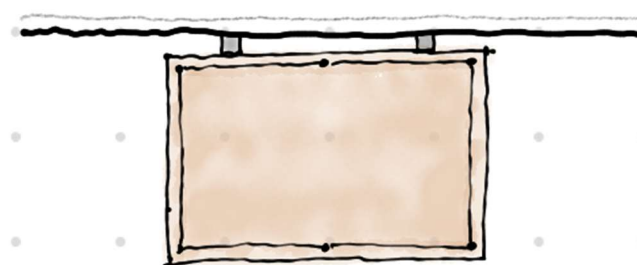
PROTEAN bench, equipment, and
storage units are interchangeable!

Remember-

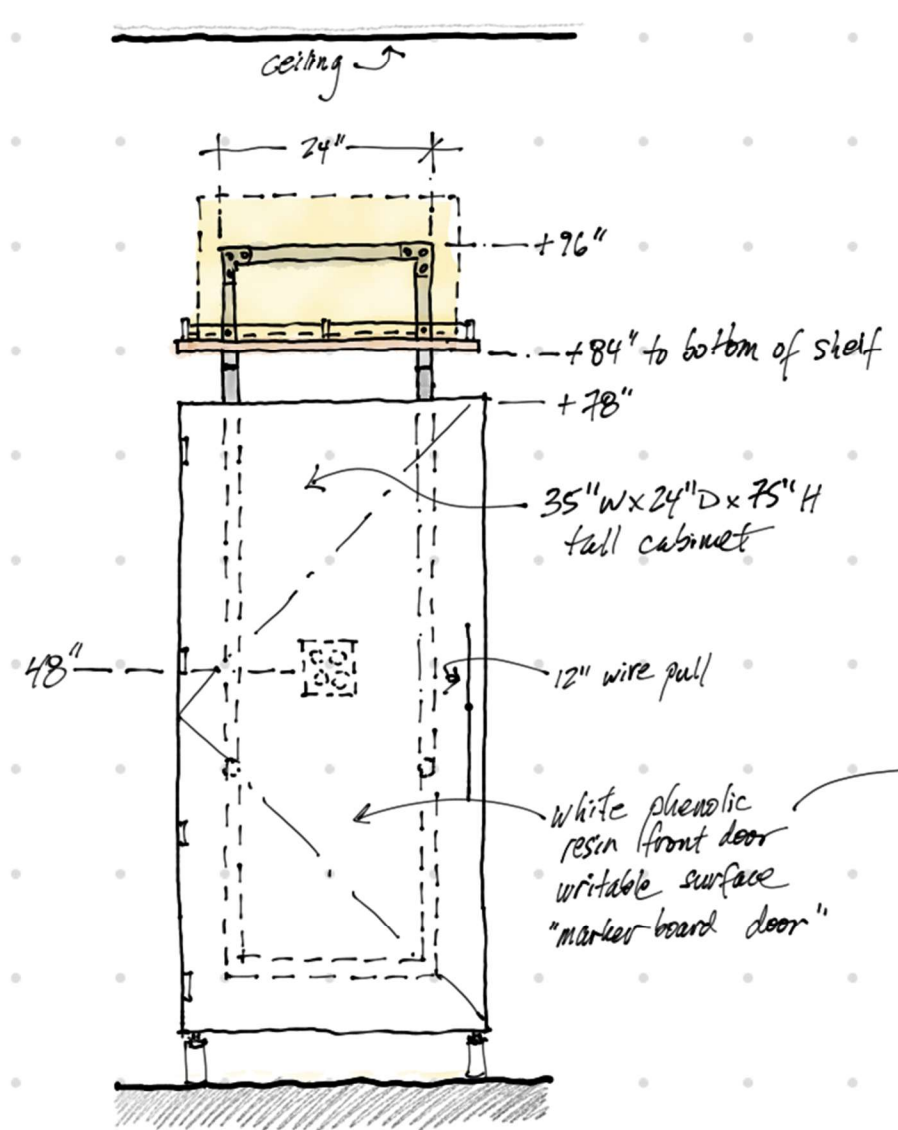
PROTEAN = adaptable/flexible/versatile!



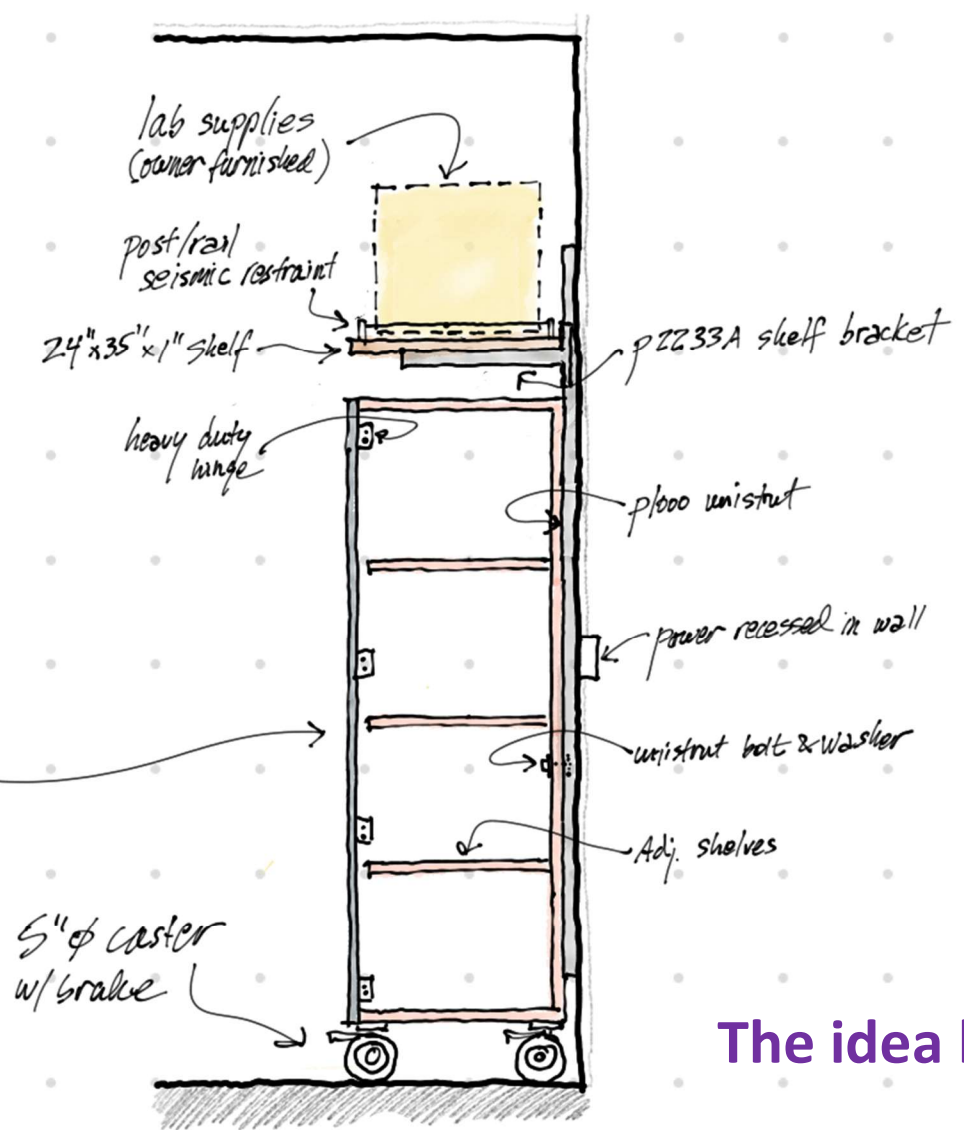
Concrete Construction Building-
Middle Tennessee State University
Grace Architects
Lab Design by HERA/Glen Berry, FAIA



PLAN



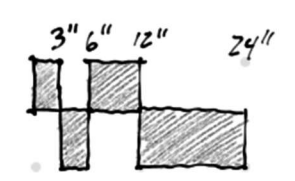
ELEVATION



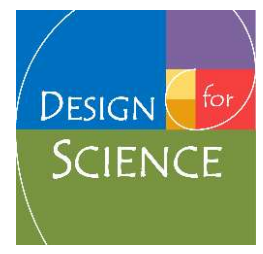
SECTION

PROTEAN TALL CABINET

2021 MAR 01

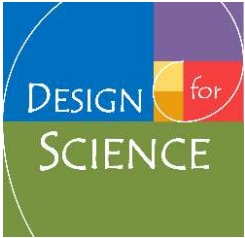


The idea begins with a sketch



PROTEAN Storage

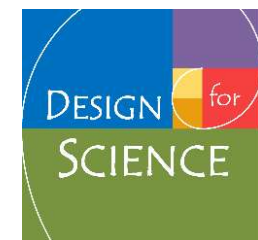
Engineering Teaching Lab
Middle Tennessee State Univ
Architect- Grace





PROTEAN Storage

Ag Sci Research Lab
Nampa, Idaho
Architect- Hummel





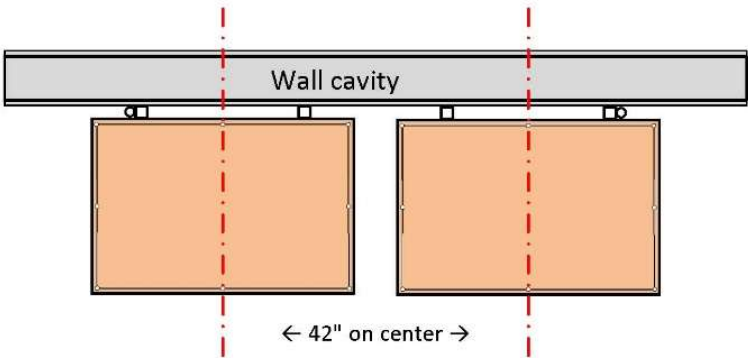
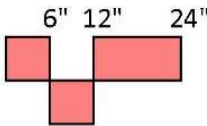
PROTEAN
Tall Storage
Cabinet/Shelf
Unit
Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mott

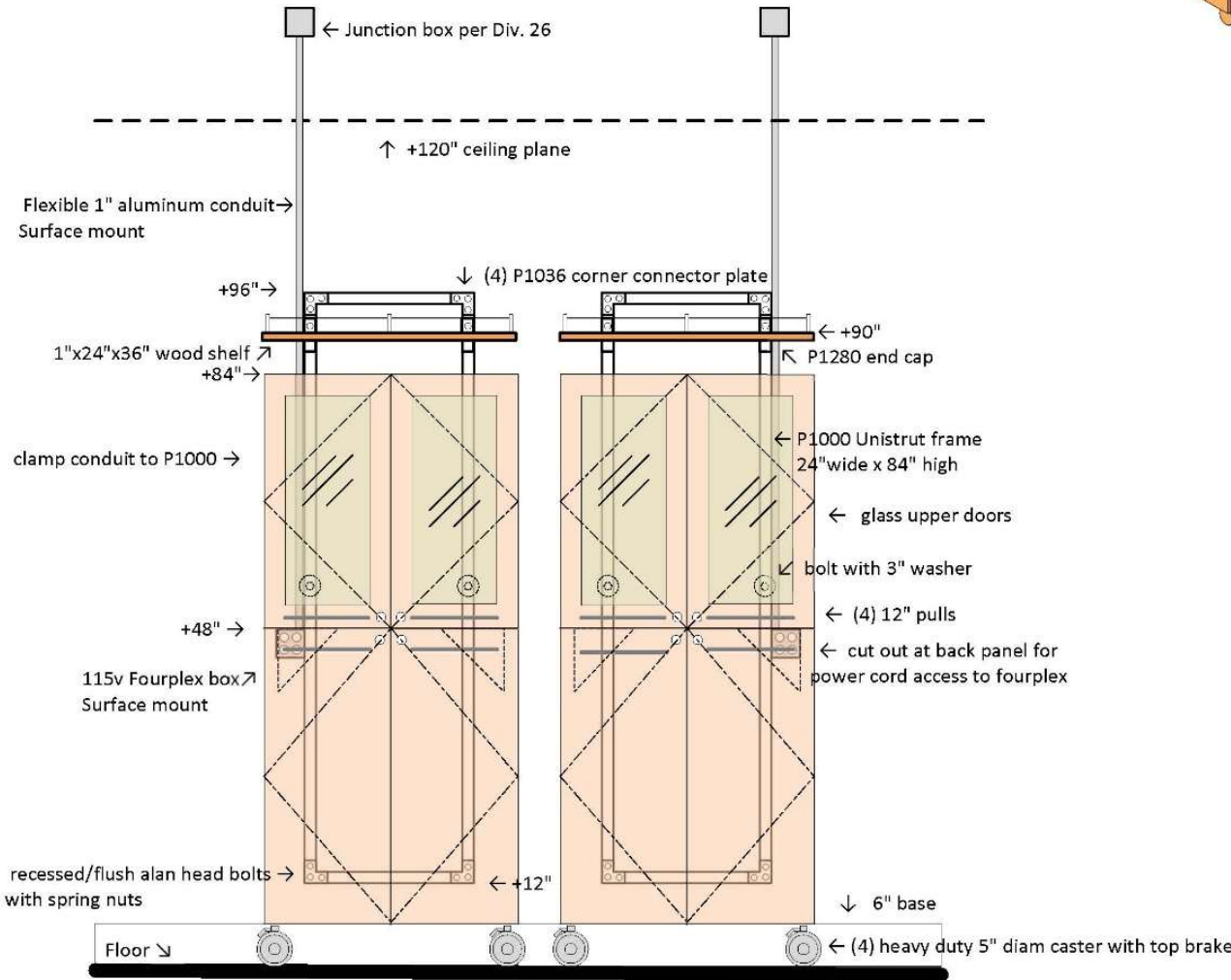
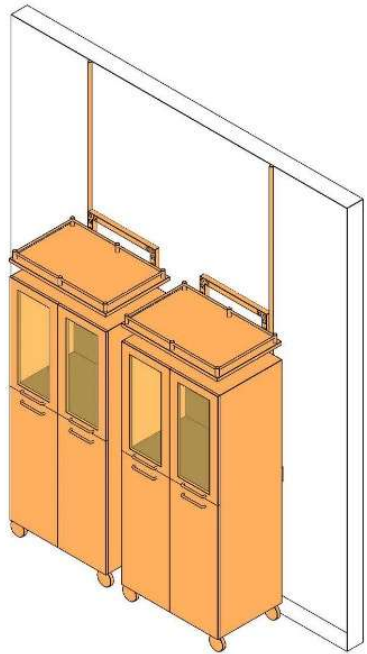
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

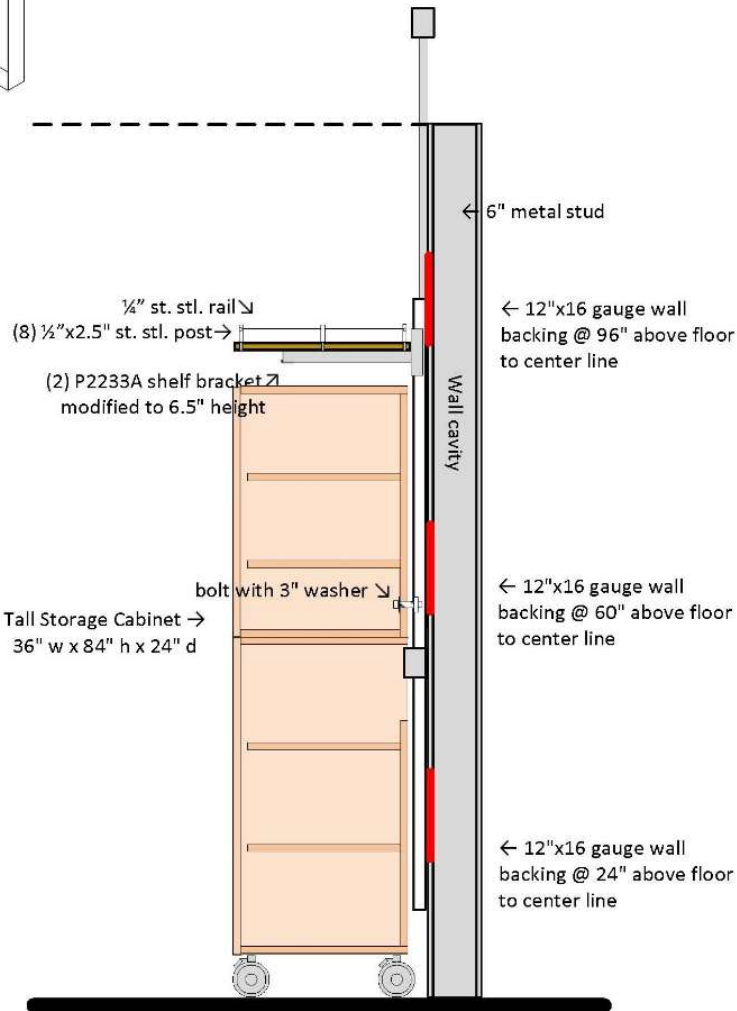
2025 Oct 16



Plan



Elevation



Section

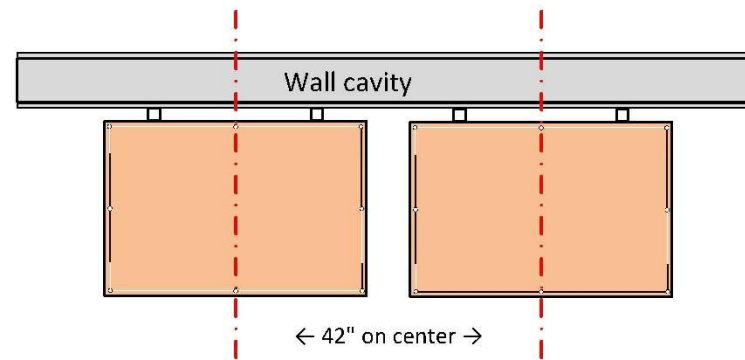
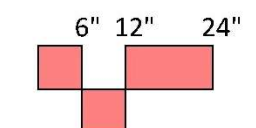
PROTEAN Tall Storage Cabinet – Open Shelves Unit Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mission Bell, Mott

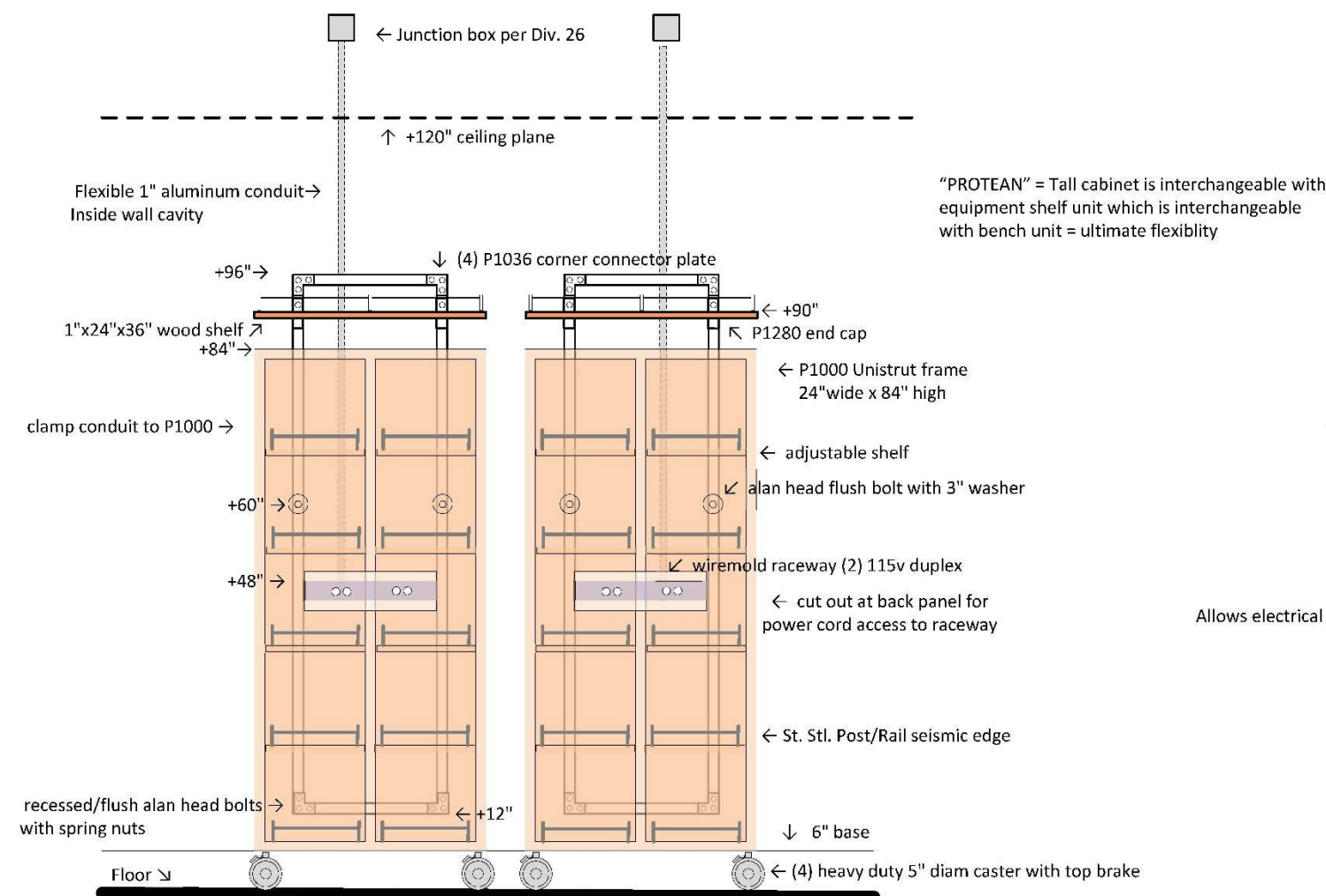
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

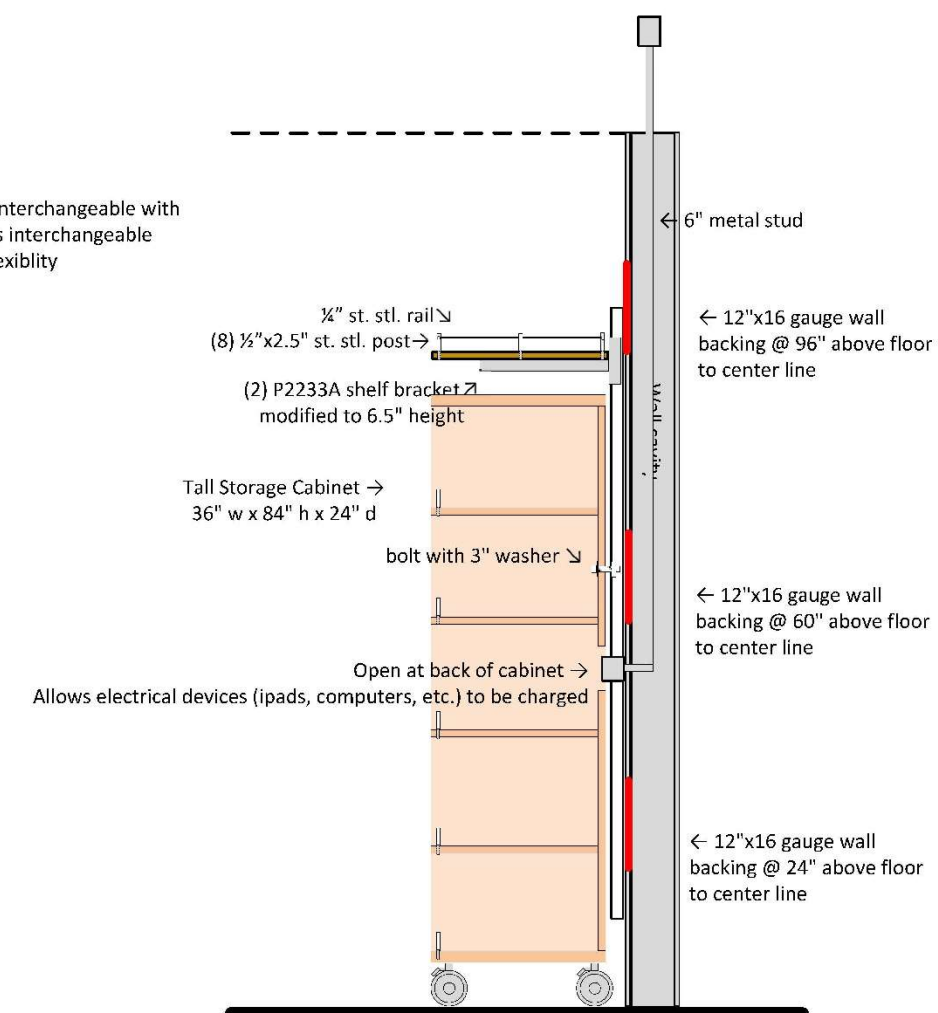
2026 Mar 11



Plan



Elevation



Section



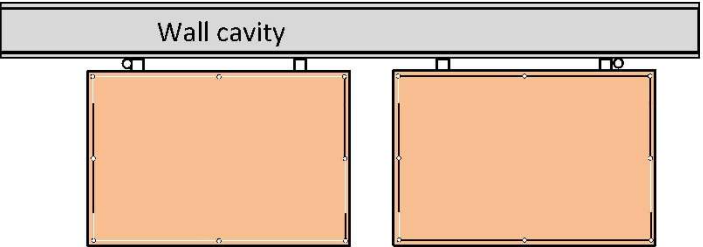
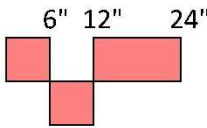
PROTEAN Multi Shelf Unit Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mott

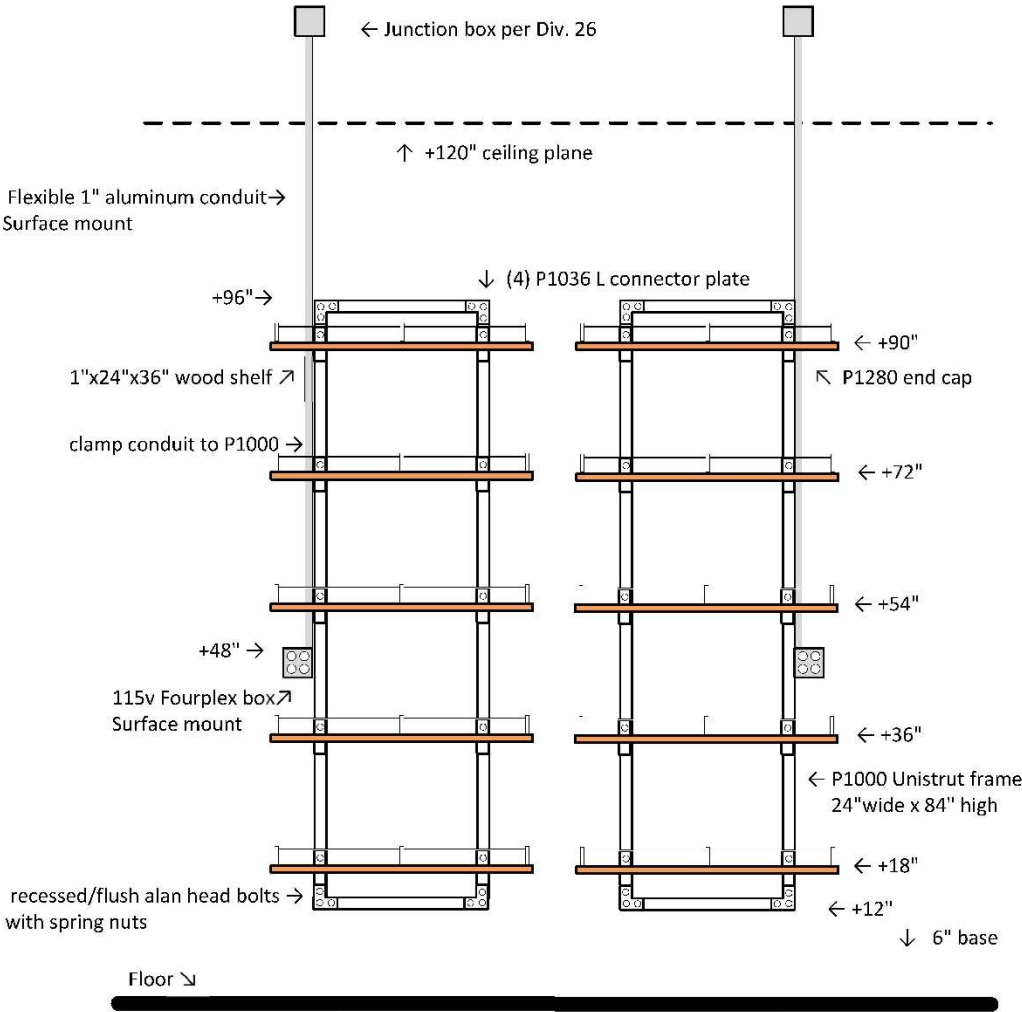
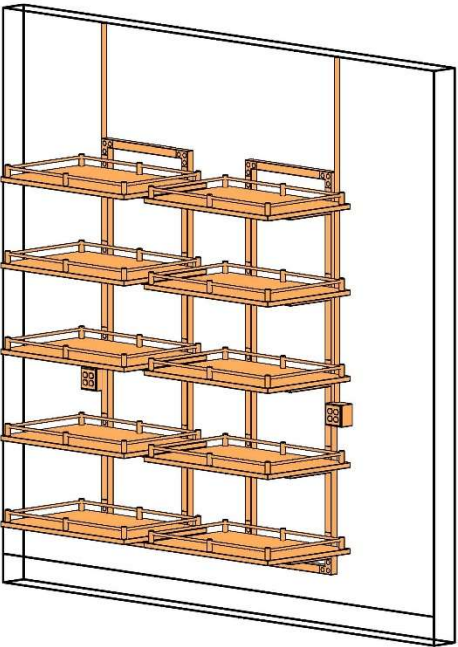
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

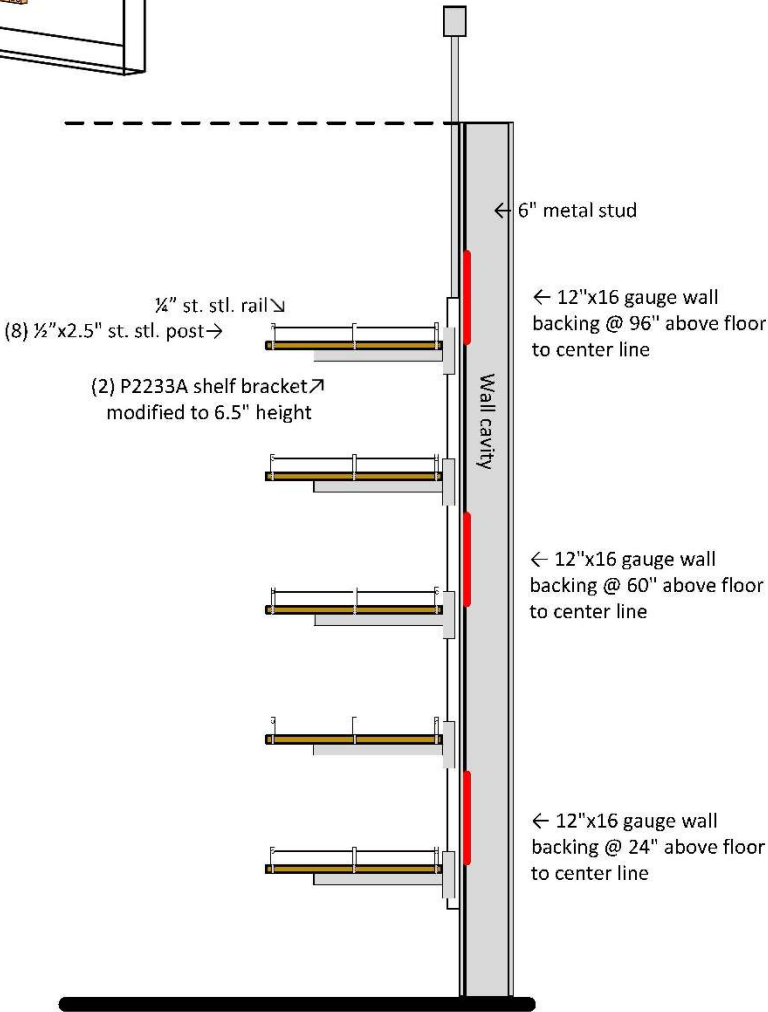
2025 Nov 10



Plan



Elevation



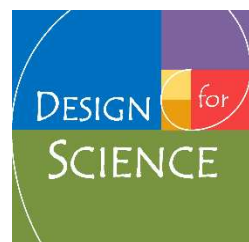
Section

PROTEAN Element #5- Wash- **PROTEAN** Sink Station

PROTEAN sink stations have tube steel frames with suspended base cabinets and wall cabinets or wall shelves above.

Accessible sink stations have knee space below the sink.

Remember-
PROTEAN = adaptable/flexible/versatile!

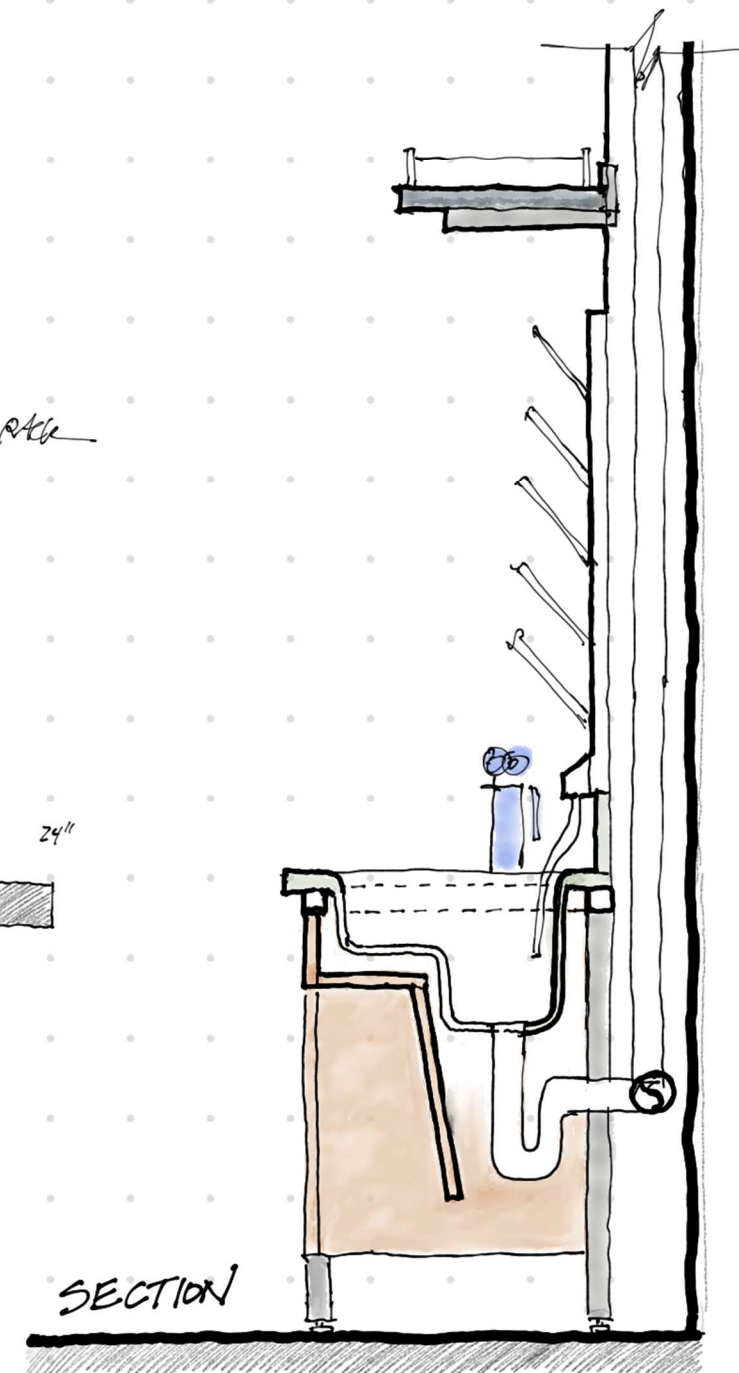
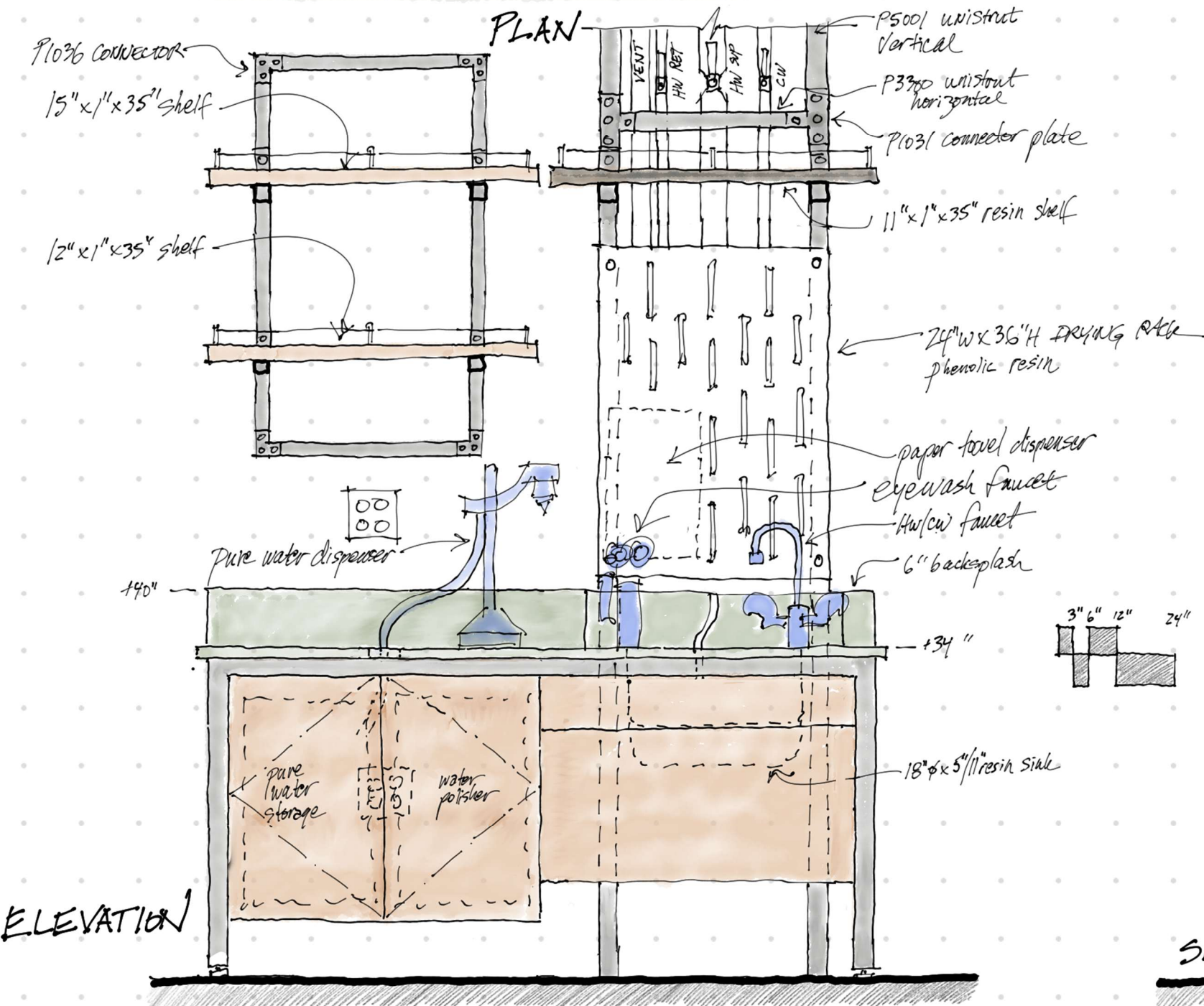
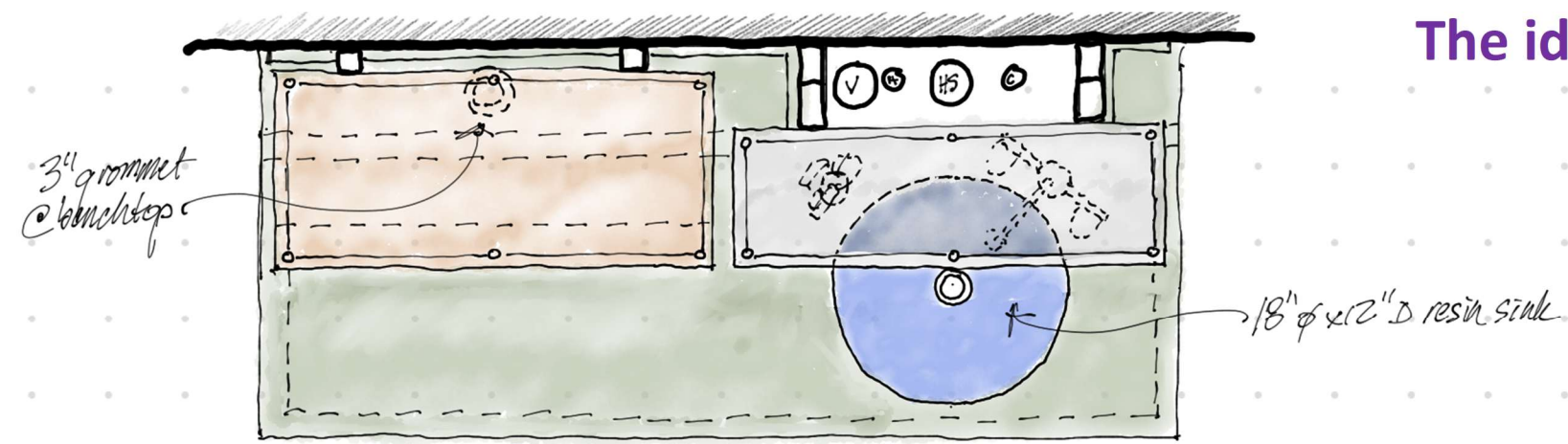


Ag Sci Research Center- Nampa Idaho
Hummel Architects



The idea begins with a sketch

PROTEAN
SINK BENCH
ACCESSIBLE
2021 MAR 01



PROTEAN Sink Station

Chemistry Research Lab
Idaho State Univ
Architect- Hummel



PROTEAN Lab Design
Design for Science 2026 Aug 13



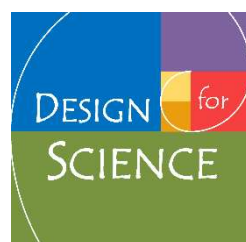
PROTEAN Sink Station

**Ag Sci Research Lab
Idaho State Univ
Architect- Hummel**



PROTEAN Sink Station

Pharmacy Research Lab
Idaho State Univ
Architect- Hummel



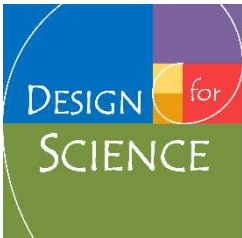
PROTEAN Sink Station

**Vivarium Research Lab
Chapman Univ
Architect- Aday Architects**



PROTEAN Sink Station

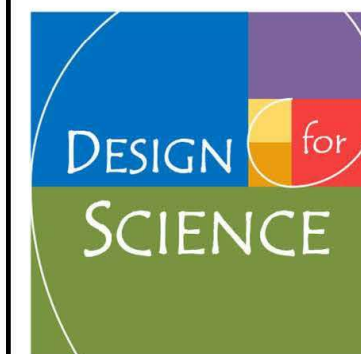
**Ag Sci Research Lab
Nampa,, Idaho
Architect- Hummel**



PROTEAN Sink Station

Life Science Research Lab
Carlsbad, California
Architect- Genlser





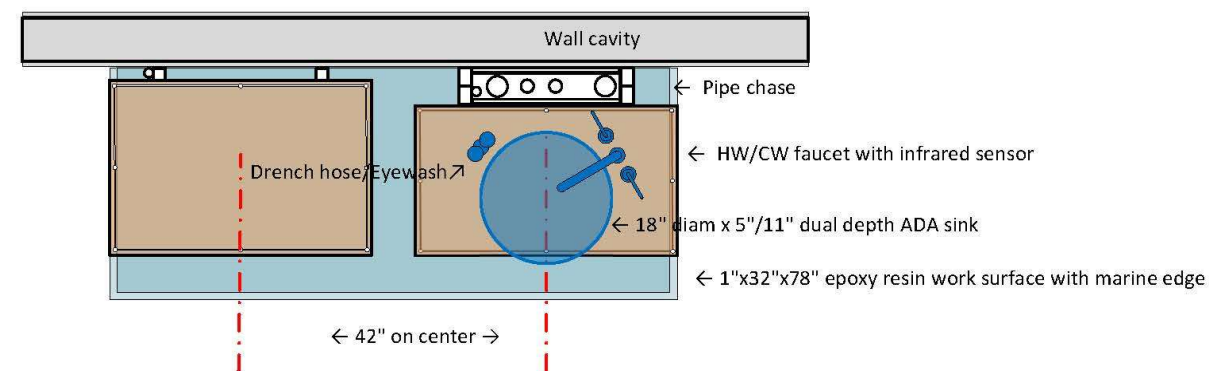
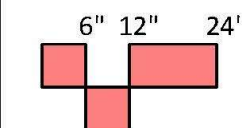
PROTEAN Sink Bench Unit ADA Cut Sheet

Acceptable Casework Manufacturers:
CIF; Kewaunee; Mission Bell; Mott

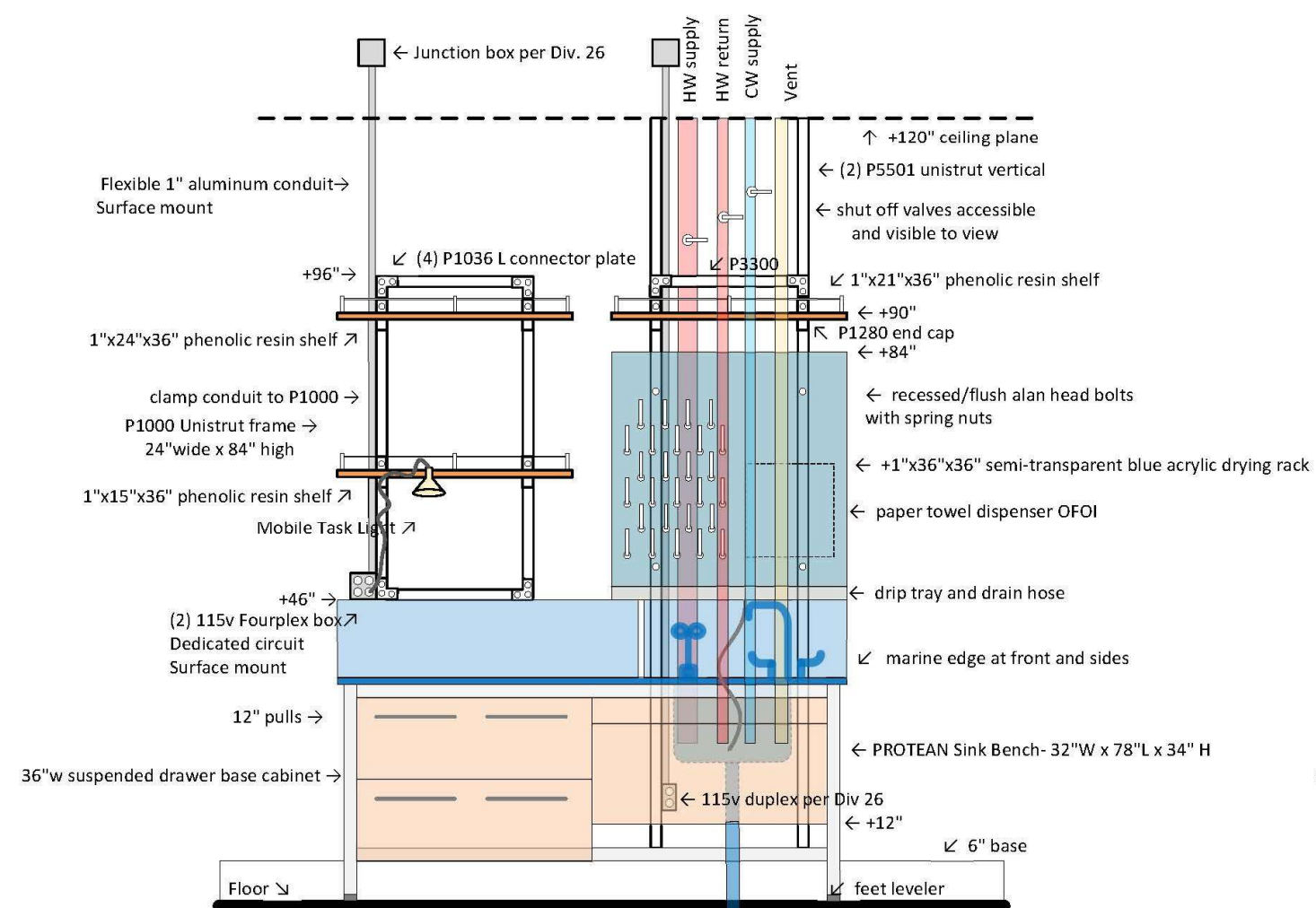
Acceptable Metal Manufacturers:
Karan; Kumar; Valley

Design by:
Glen Berry, FAIA

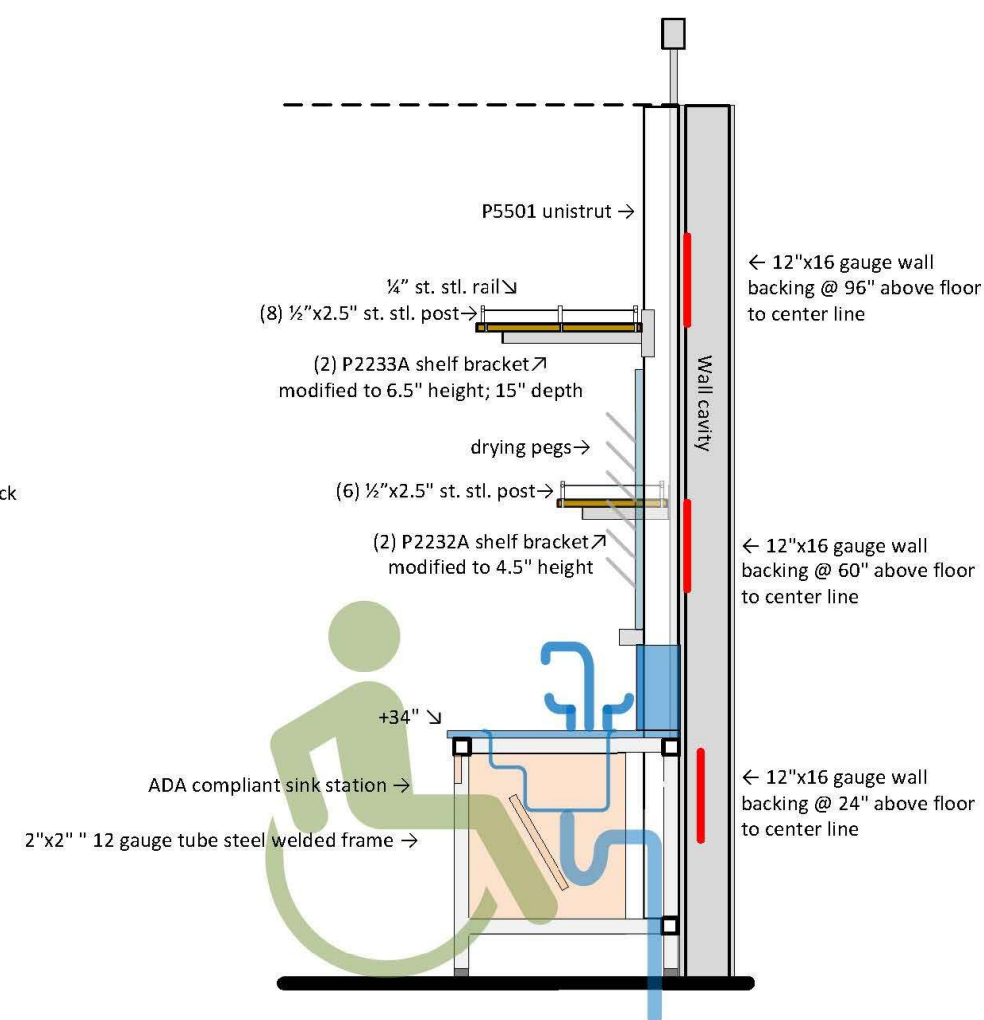
2026 Jun 25



Plan



Elevation



Section



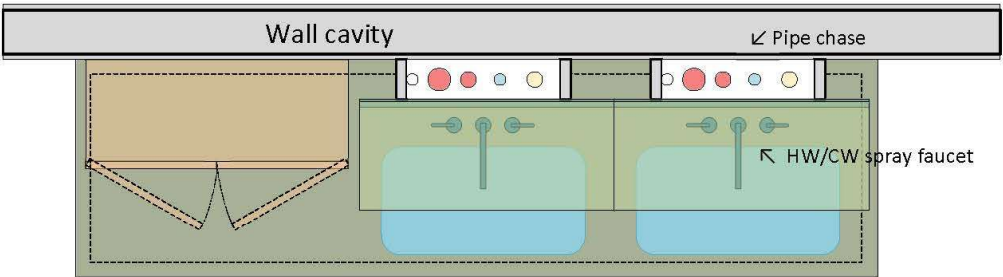
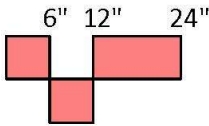
PROTEAN
Fixed Double
Sink Bench
Cut Sheet

Acceptable
Casework
Manufacturers:
CIF; Kewaunee;
Mission Bell; Mott

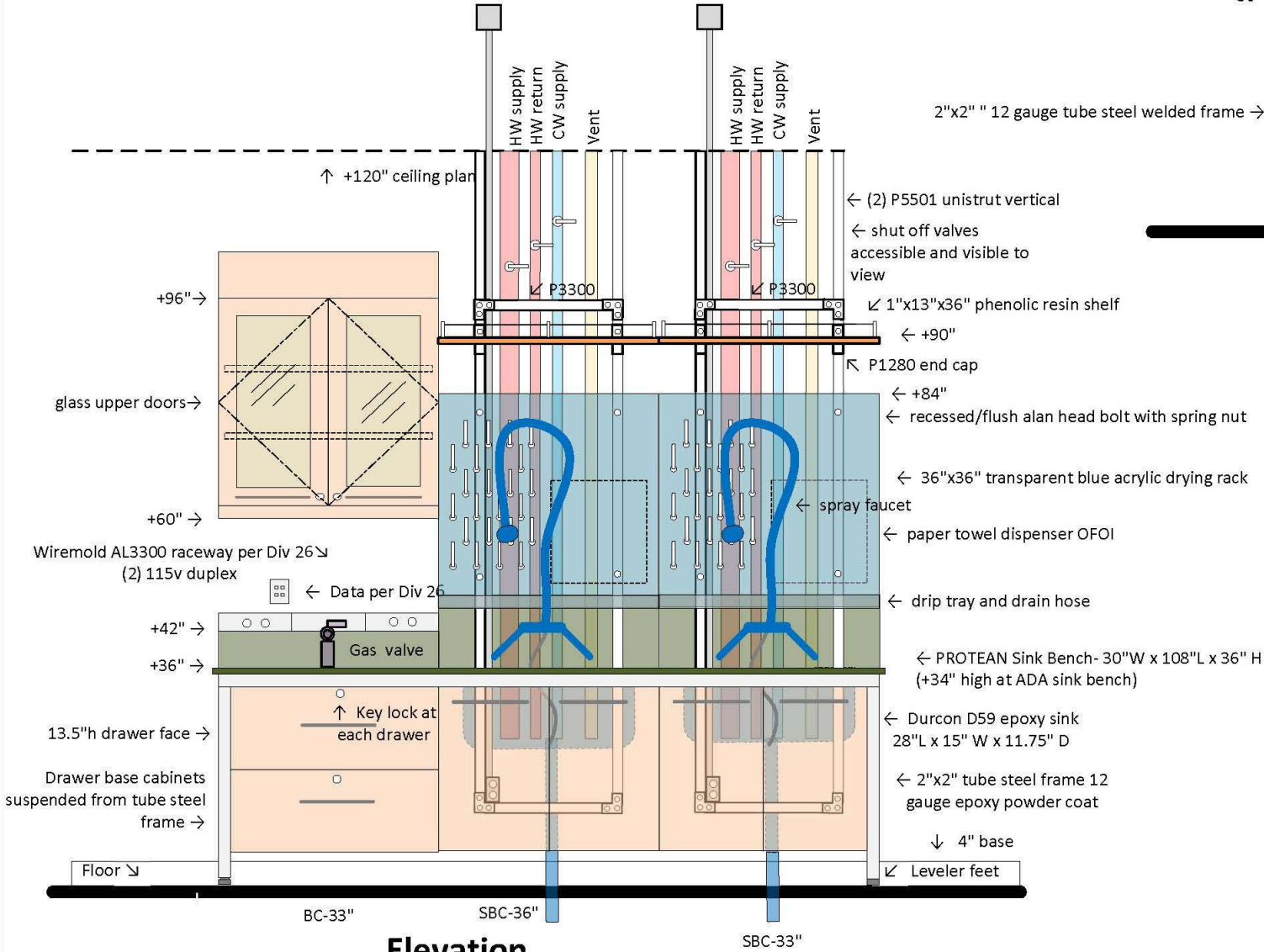
Acceptable Metal
Manufacturers:
Karan; Kumar;
Valley

Design by:
Glen Berry, FAIA

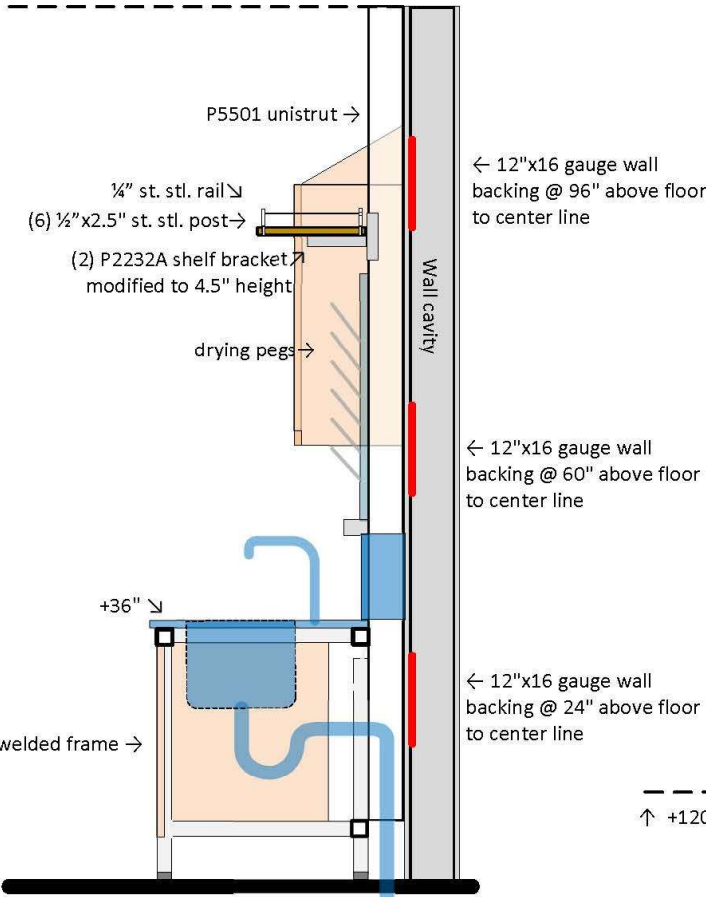
2026 May 21



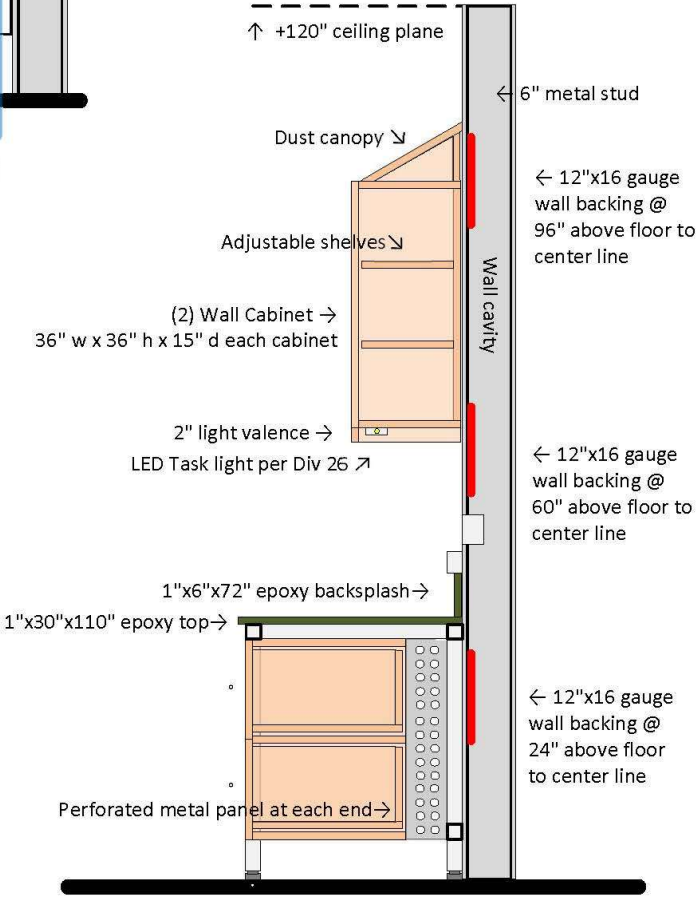
Plan



Elevation



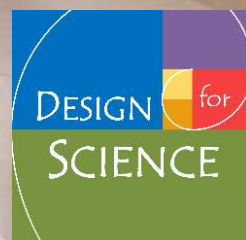
Sink Section



Wall Cabinet Section

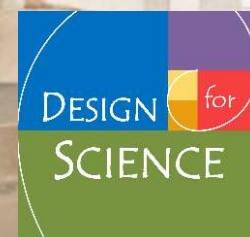


**Flexible PROTEAN
Teaching Lab**



Waipahu High School
Waipahu, Hawaii
Architect: WRNS

Flexible PROTEAN Research Lab



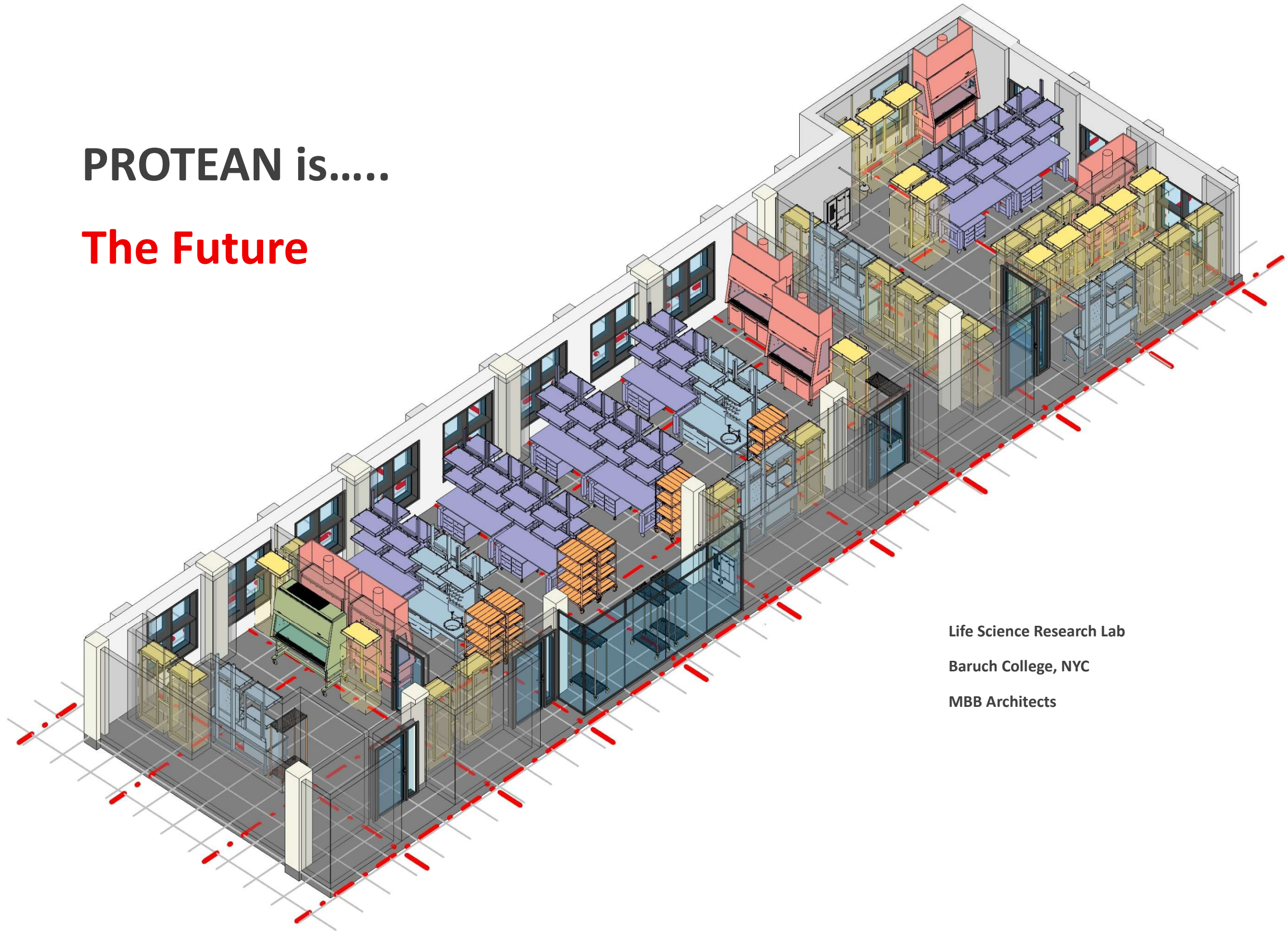
Olin Hall

Harvey Mudd College

Architect: RBB, Inc.

PROTEAN is.....

The Future



Life Science Research Lab

Baruch College, NYC

MBB Architects

