



SOUTH STADIUM ROWHOUSES: Design-Build from Macro to Micro

SOUTH STADIUM SITE:

UNIVERSITY

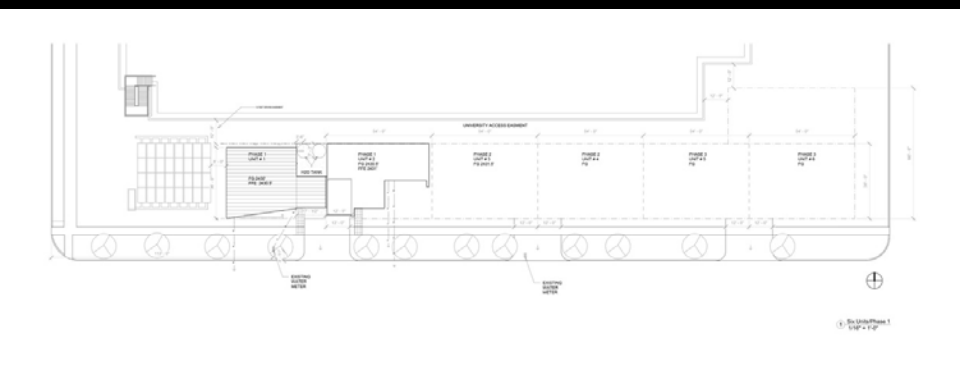
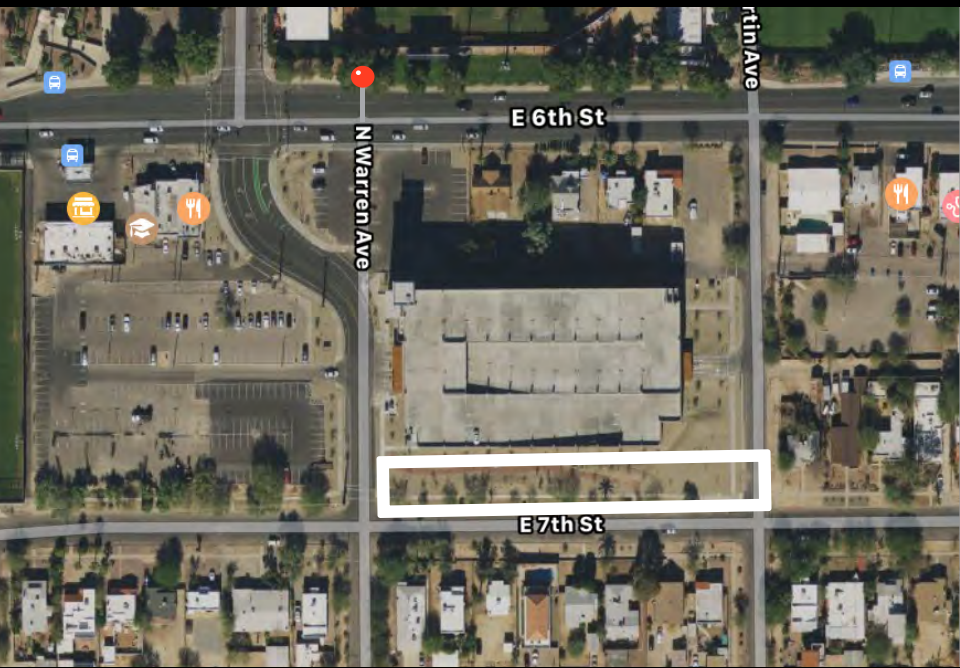
VS

NEIGHBORHOOD
ASSOCIATION



A decade-long design-build project necessitates an organizational strategy that allows design of an entire project while also creating subcomponents that facilitate new design opportunities and a sense of authorship by each generation of students involved.

Context: a new Master Plan for the University in 2009 resulted in heated conflict between the University and an adjacent residential neighborhood over projects in the expansion zone. Besides the removal of existing housing stock, a new parking garage would be much larger in scale than the residences at the expansion boundary. Eventually, the University and neighborhood association reached an MOU that included a “visual buffer” between the parking structure and the neighborhood.



Project Overview: in 2014, an Architecture professor proposed to the University and neighborhood association that students design and construct a row of small houses to mitigate views of the parking garage, transition the street edge back to a residential scale, and help stabilize the residential boundary. A 2015 studio produced and presented multiple masterplan proposals to joint meetings of the neighborhood association and the University's planning committee. With unanimous support from the stakeholders, the South Stadium Rowhouses became an official University project.

Project Components: after completion of the parking structure, the masterplan proposals were handed off to new generations of students in 2018, who would design the individual housing units, produce construction drawings, and build the rowhouses. Depending upon their year level in the Architecture programs, students could be involved in one, two or three semesters of the sequence. They might, for example, design and draw construction documents, then build for one semester. Or, they might come in during building semesters and inherit many design decisions already in place. The accompanying presentation illustrates how deeper and more focused design projects each semester gave students the opportunity for full engagement and authorship of the projects as they were realized.

COURTYARD CULTIVATION



GENERATION 1: Master Plan designs produced for south stadium site by 2015 studio illustrate density and scale.

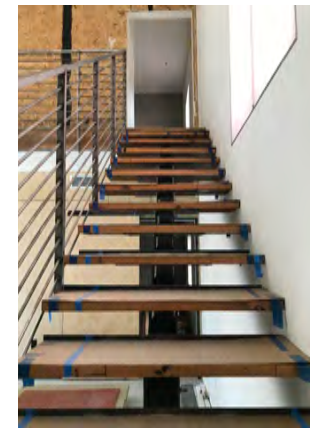
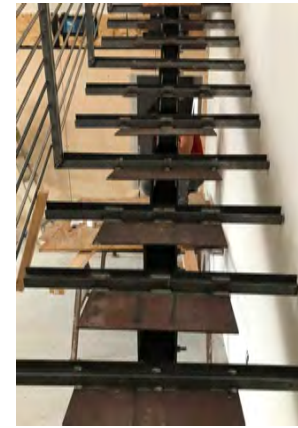
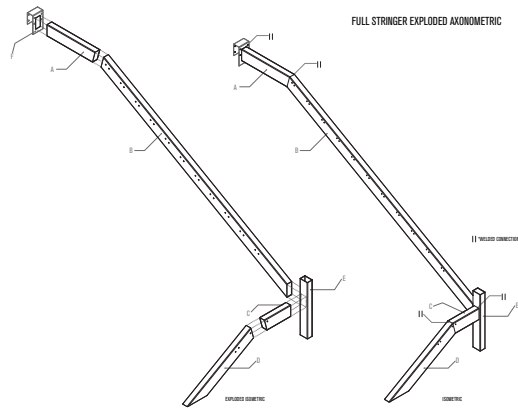
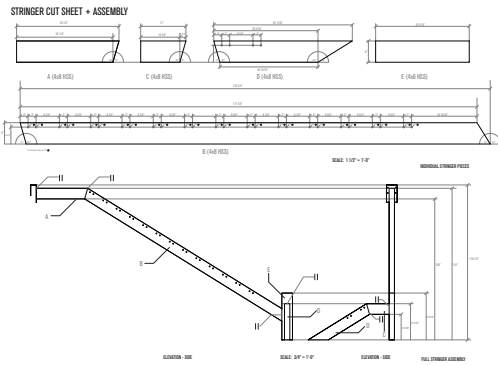


SOUTH STADIUM ROWHOUSE 1

Fall 2018 – Fall 2019



GENERATION 3: Construction of Rowhouse 1 by Architecture Students - Spring and Fall 2019

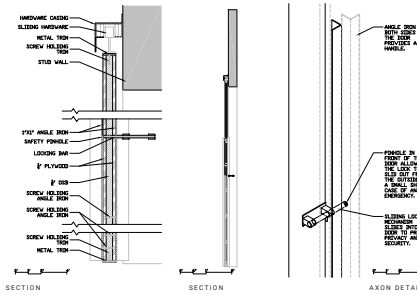


Design development of staircase; stringers, treads, and railings

Treads attached to metal brackets, cement in cardboard to protect them during the open house. View of the completed full railings from below.

25

36 Finishing Touches



Door Budget: \$50 Each



20" = \$16.44 at IMS

Need 4 = \$70



Need 8 = \$224

or

Plywood 4x8 Sheets \$50

Each at HD, Lowe's, or Home Depot

Need 8 = \$400



1/4" Chinese Birch Plywood 4x8 Sheets \$28 Each at HD

Need 8 = \$224

or

Plywood 4x8 Sheets \$50

Each at HD, Lowe's, or Home Depot

Need 8 = \$400



1/2" OSB 4x8 Sheets \$12 Each at Lowe's

Need 4 = \$48

Total cost per door = \$88

or

Plywood 4x8 Sheets \$50

Need 2 = \$100

Hardware Budget: \$60 Each



72" = \$50

Need 4 = \$200

Airbrush paint = \$20

1"x1"x1/8" angle iron 20' bar = \$20 at IMS

Need 2 = \$50

Total cost per door = \$117

Need 2 = \$50

Total cost per door = \$6750

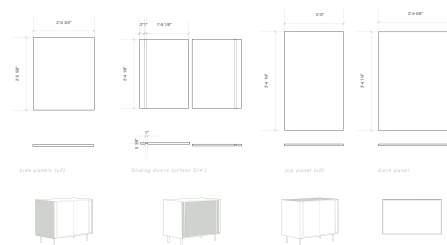
Design development of plywood bedroom and bath core

Initial Renders



Design development of bathroom cabinets, fixtures, and finishes

Panel Dimensions



not budgeted

Item	price	#	budget	+ / -
32.5 in. x 78 in. Frameless Fixed Shower Door	\$286.98	1	N/A	N/A
2 1/2 in. W Frameless silver Fixed Shower Door	\$230.09	1	N/A	N/A
72" wall-mounted curved curtain rod (chrome and matte black)	\$32.99	2	N/A	N/A
wall-mount toilet paper holder (chrome and matte black)	\$15.00	2	N/A	N/A
wall-mount towel rack	\$5.99	4	N/A	N/A

Examples of Focused Design Projects by Rowhouse 1 Construction Team (Generation 3)



RH1 Kitchen



Living Room and Stairs to Loft



Loft Study Area

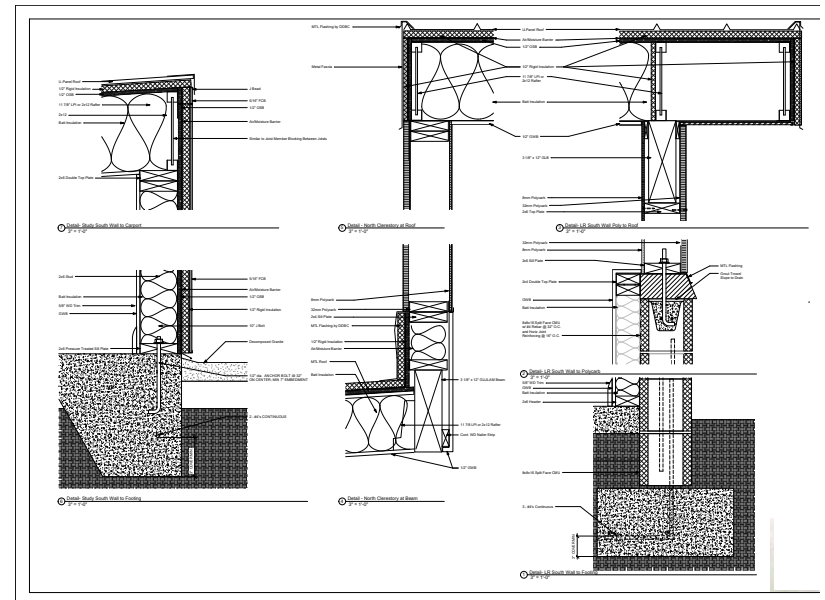
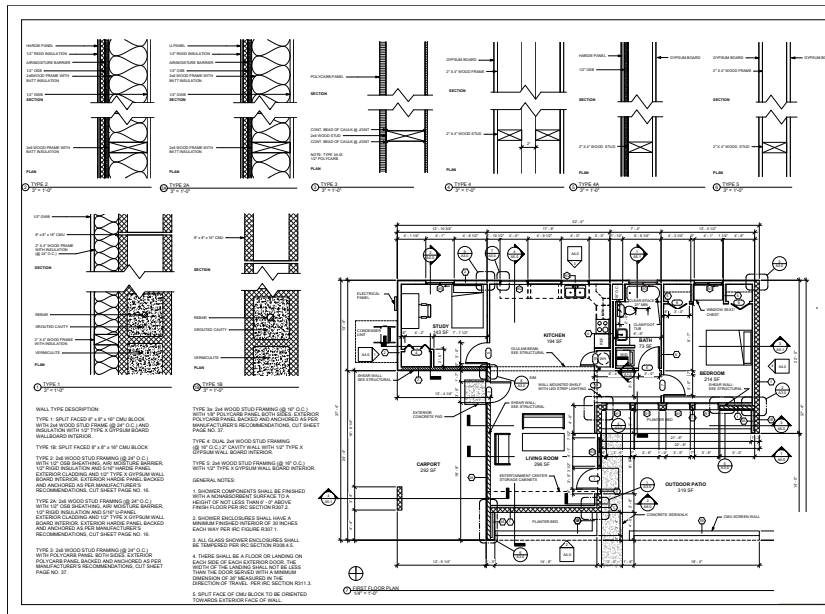


Stacked Bedrooms and Bathrooms



SOUTH STADIUM ROWHOUSE 2

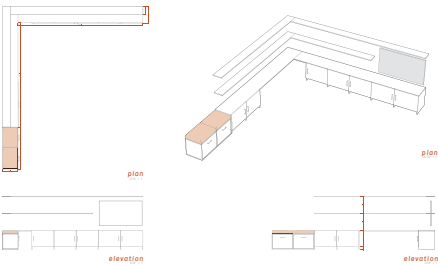
Fall 2018– Fall 2020



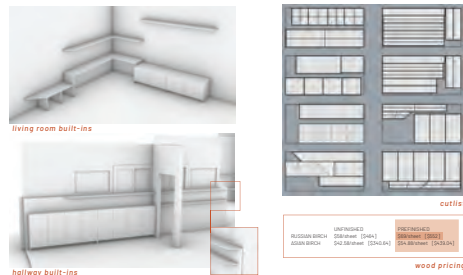


GENERATION 4: Construction of Rowhouse 2 by Architecture Students - Spring and Fall 2020

entertainment center 2



updated plans + costs



material option 1:

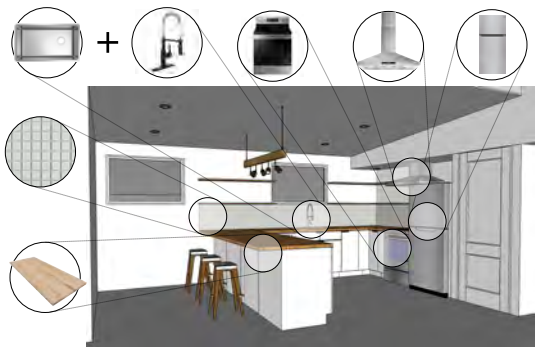


ENTERTAINMENT - DESIGN 1	COST	TOTAL	NEEDED
MATERIAL CHOICE 1			
5" MATT BLACK PULL HANDLE (10 PACK)	\$40.95	\$40.95	1
ALDER PLYWOOD 1/2" x 4'	\$24.88	\$239.43	8
ALDER PLYWOOD 1/2" x 4'	\$29.79	\$239.79	1
95 DEGREE HINGE (25 PACK)	\$24.99	\$24.99	1
BLACK DRESSER FEET 4 PACK	\$14.99	\$14.99	1
TOTAL:	\$366.84		

ENTERTAINMENT - DESIGN 2	COST	TOTAL	NEEDED
MATERIAL CHOICE 1			
5" MATT BLACK PULL HANDLE (10 PACK)	\$40.95	\$40.95	1
ALDER PLYWOOD 1/2" x 4'	\$24.88	\$206.68	8
95 DEGREE HINGE (25 PACK)	\$24.99	\$24.99	1
2" X 1/8" FLAT BAR ABOUT 10'	\$24.00	\$24.00	1
TOTAL:	\$260.78		

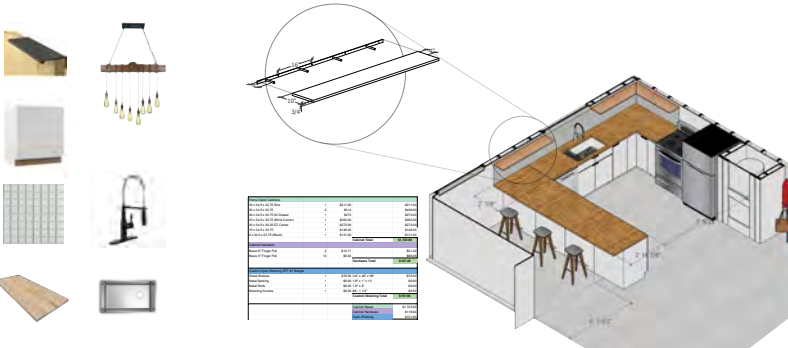
BEDROOM AND HALL STORAGE	COST	TOTAL	NEEDED
MATERIAL CHOICE 1			
5" MATT BLACK PULL HANDLE (10 PACK)	\$40.95	\$40.95	1
ALDER PLYWOOD 1/2" x 4'	\$24.88	\$208.88	8
USE THE PACK OF 8 HINGES	\$5.00	\$5.00	0
2" X 1/8" FLAT BAR ABOUT 10'	\$16.00	\$16.00	1
BLACK DRESSER FEET 4 PACK	\$14.99	\$24.98	2
TOTAL:	\$207.71		

Design development of built-in furniture pieces



Option 3 - (2x8 Open Shelf) Breakfast Bar

Item	Price	Budget	Quantity	Total Cost	Evaluation
Range	\$650	\$700	1	\$650.00	-\$50
Refr	\$204.99	\$400	1	\$204.99	-\$195
Dishwasher	\$619.00	\$600	1	\$619.00	-\$18
Half/Appliance	\$746.00	\$600	1	\$746.00	-\$146
Garbage Disposal - Accessment	\$150.00	\$100	1	\$150.00	-\$50
Water Heater	\$329.00	\$300	1	\$329.00	-\$29
Cabinets (See Cabinet Budget Chart)	\$1,344.00	\$2,700	1	\$1,344.00	\$1,356
Cabinet Misc (Water Heater, Chisel Doors)	\$198.00	\$300	1	\$318.00	-\$102
Backsplash	\$89.70	\$200	3	\$269.40	-\$110
Placemat	\$140.00	\$100	1	\$140.00	-\$40
Countertop	\$2,167.00	\$1,000	1	\$2,167.00	-\$1,167
Sink	\$143.00	\$100	1	\$143.00	-\$43
Recessed Lighting	\$0	\$0	9	\$17.88	-\$181
Countertops Total	\$1,500	\$2,919.40		-\$1,419	
Appliance Total	\$2,700	\$2,919.00		\$219	
Cabinet Total	\$3,170	\$1,944.00		-\$1,226	
Lighting Total	\$0	\$275.00		-\$275	
Grand Total	\$7,070	\$7,259.40		\$189	



Design development of kitchen cabinets, appliances, and finishes



Option 1 - Antiqua



View of N Wall (Wing wall omitted for clarity)



Option 2 - Contemporary



Accessory	Budget/Package Amount	Price
Total	\$30.00	\$330.00
Shower Head	\$90.00	\$90.00
Shower Trim	\$60.00	\$60.00
Shower Diverter	\$60.00	\$60.00
Tub Filler	\$60.00	\$60.00
Hardware Set	\$60.00	\$60.00
Total	\$30.00	\$330.00

Option 2 - Contemporary | Budget

Design development of bathroom cabinets and finishes

Examples of Focused Design Projects by Rowhouse 2 Construction Team (Generation 4)



RH2 Living Room



Kitchen / Dining / Living Areas



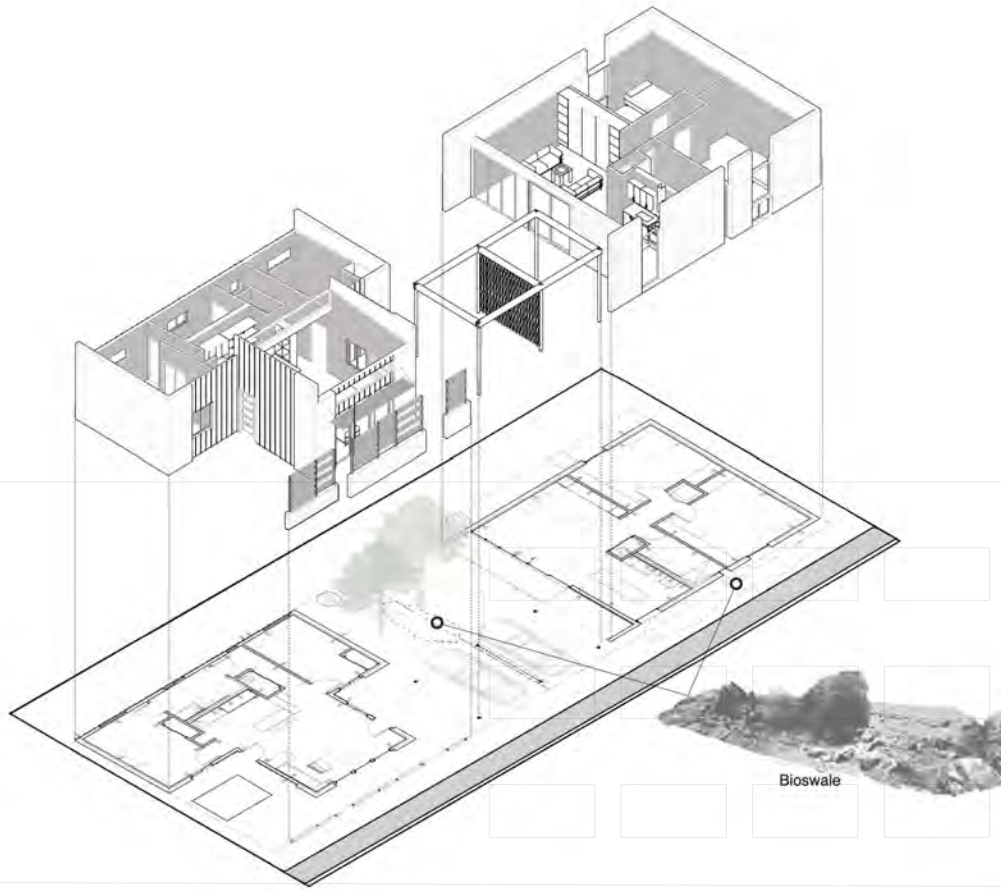
Bathroom / Laundry



Bedroom 1



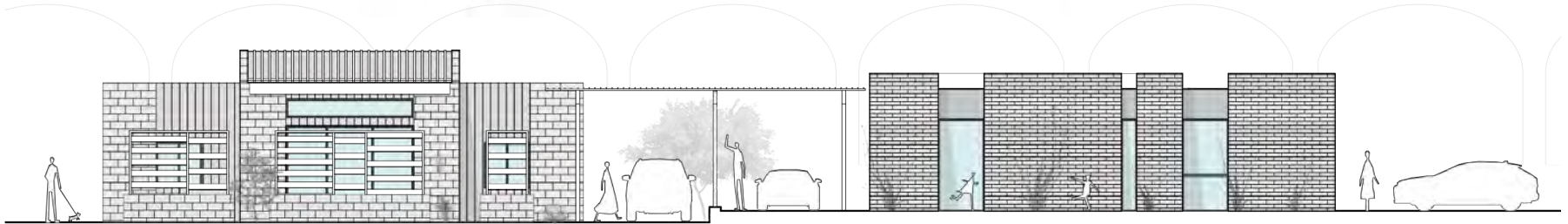
Rowhouses 1 & 2 with adjoining carports: RH1 serves as station house and residence for campus medical students who comprise the EMS team; RH2 is a residence for visiting scholars.



RH3 & RH4

Both row houses have two bedrooms and a restroom with a standing shower. They share a courtyard in the middle attached carport. Within the courtyard, there is a bioswale to retain runoff rainwater which is also vegetated to provide shade. RH4 is elevated one foot higher than RH3.

Bioswale



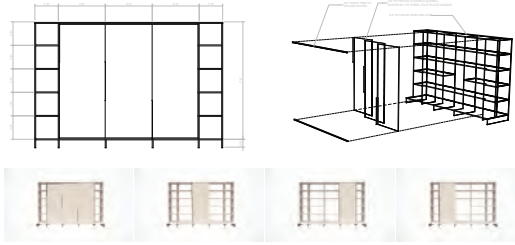


SOUTH STADIUM ROWHOUSE 3 & 4: under construction now
GENERATIONS 5 & 6

Spring 2021 – Fall 2022



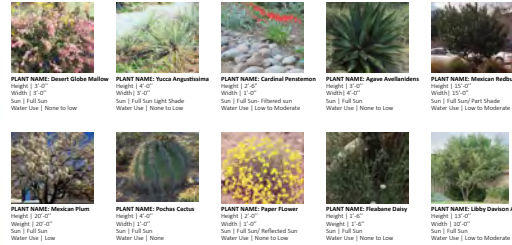
A full height shelving unit is composed of two vertical steel profiles forming a central area of display shelves. The shelves are used to store artifacts to be kept on display while the shelving profile acts as the everyday display and is configurable to fit users needs. A built-in step makes ascending high storage easy and the steel plate handles establish ordering to the layered planes.



Design development of built-in furniture pieces



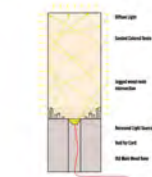
Plant + Tree Selection



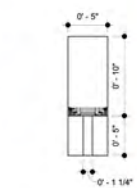
Design development of landscape features



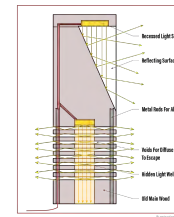
Old Main Lumber Study



Resin Wood Intersection Lamp



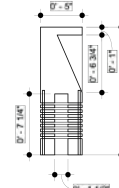
The lamp consists of a structure of a weathered wood intersection to create a framed square light. The resin that is weathered the edge of the wood box we can stain that the light will glow from the inside vertical space to the top and the wood will then seal components on to knock off the weathered grain, creating a high surface to create a glow. The light fixture will be LED to avoid the hazards between the accident and the light fixture and replaced as the resin will be light fixture can be seen.



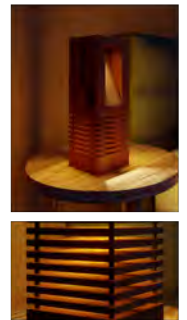
Recessed & Fragmented Light

"Fragment after fragment we make sense of everything. Fragment after fragment we travel our existence. Fragment after fragment we evolve."

(Taharrah Gabbas)



This best side lamp revolves around the notion of fragmentation as the surface would be sliced into equal fragments with a void carved out before being reassembled with guiding boards to that diffuse light could create patterns from a modern interior space. The necessity of directional light resulted in a started face that is illuminated by a hidden recessed light allowing for task lighting as needed.



Design development of light fixtures using salvaged lumber from an historic campus building

Examples of Focused Design Projects by Rowhouse 4 Construction Team (Generations 5 & 6)



GENERATIONS 5 & 6: Construction of Rowhouse 3 & 4 by Architecture Students - Fall 2021 – Fall 2022
GENERATIONS 6 & 7: Rowhouse 5 (final unit) - 2023