

ARCHITECTURE PORTFOLIO

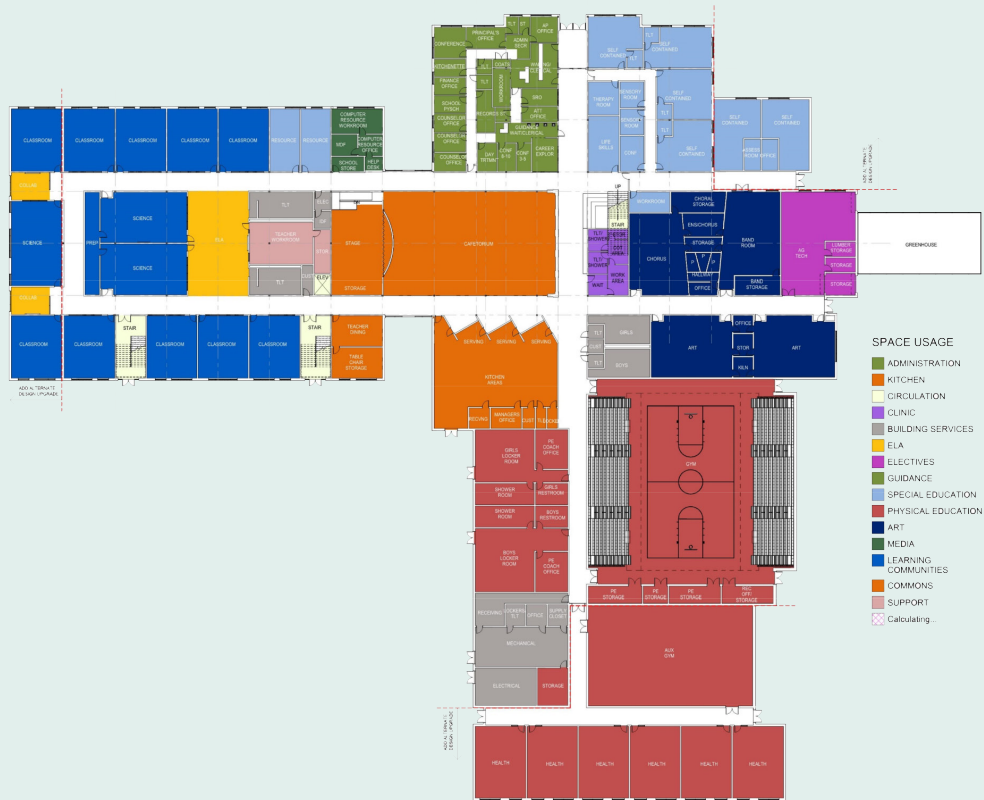
JUSTIN CREESE

RUSTBURG MIDDLE SCHOOL MODERNIZATION

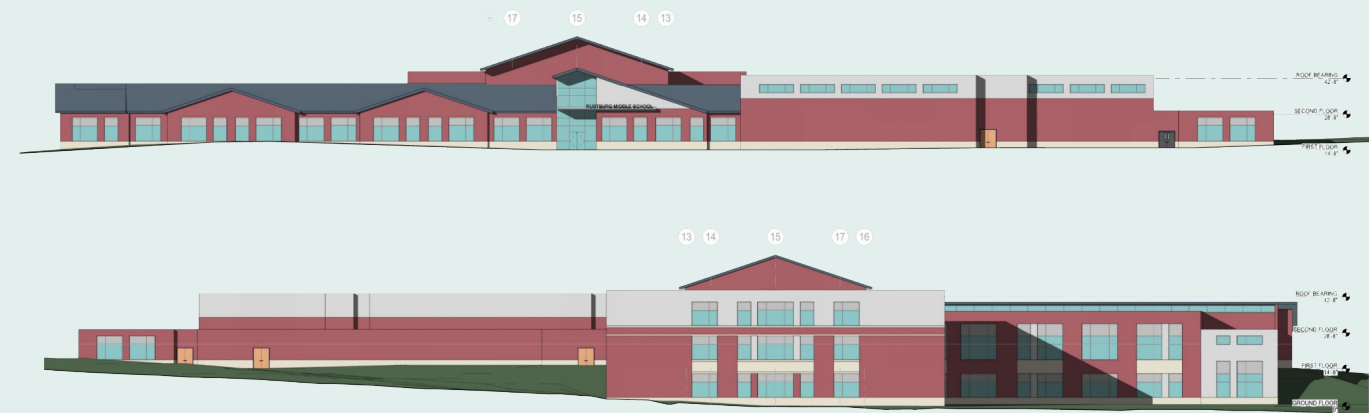
YEAR: FALL 2020
LOCATION: RUSTBURG VIRGINIA
PROJECT TYPE: EDUCATION



EXTERIOR RENDER



FIRST FLOOR PLAN



NORTH AND SOUTH ELEVATIONS



LEARNING COMMUNITIES

CHESTERFIELD COUNTY AIRPORT TERMINAL RENOVATION

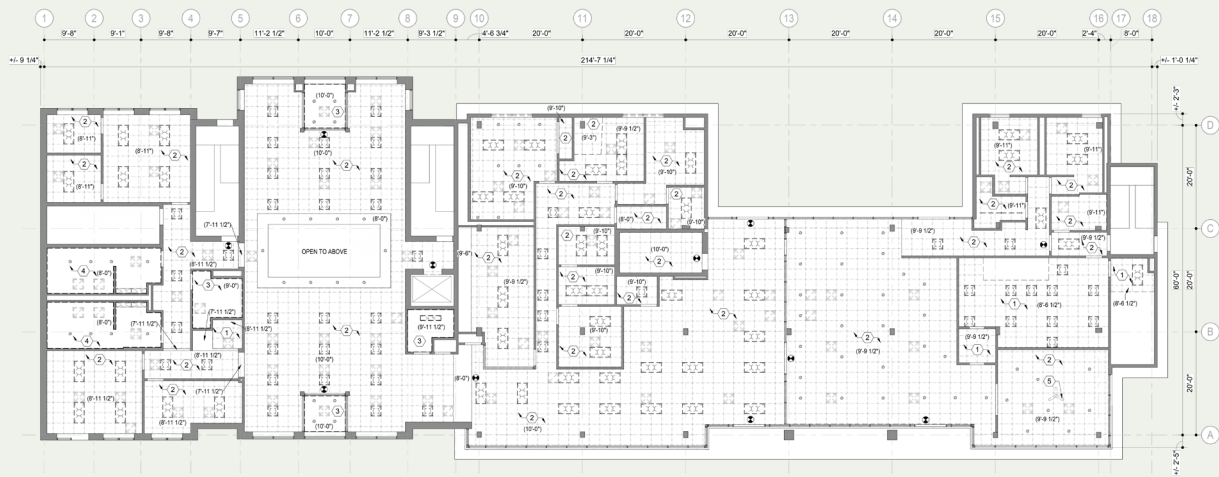
YEAR: SUMMER 2020
LOCATION: CHESTERFIELD VIRGINIA
PROJECT TYPE: AVIATION

THE COUNTY OF CHESTERFIELD HAS A LOCAL AIRPORT TERMINAL WITH A HVAC SYSTEM DESPERATELY NEEDING A REPLACEMENT. OUT FIRM WAS TASKED WITH DRAFTING CONTRACT DOCUMENTS THAT SHOW THE CEILING GRIDS WHERE NEW DUCTS ARE TO BE INSTALLED TO BE REMOVED, AND THE DEMOLITION AND REPLACEMENT OF THE STOREFRONT SYSTEM WHERE THE OLD AIR CONDITIONING UNITS ARE BEING REMOVED.

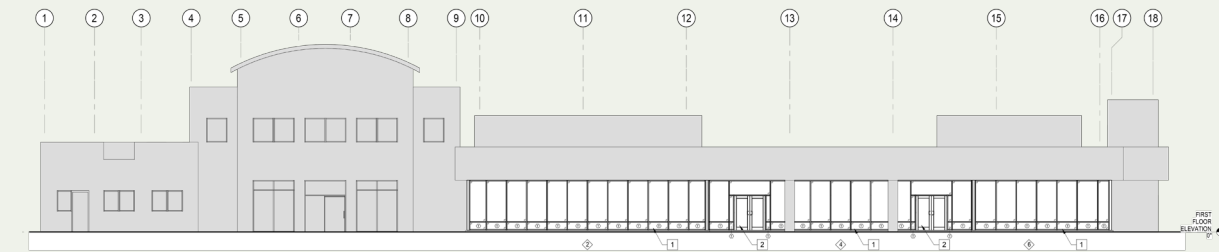
MY TASK ON THIS PROJECT WAS TO FIELD MEASURE THE ENTIRE BUILDING FOR MODELING, AND DRAFT IN REVIT THE ENTIRE CONTRACT DOCUMENT SET. FROM THE DEMOLITION AND NEW WORK PLANS, ELEVATIONS, AND DETAILS.



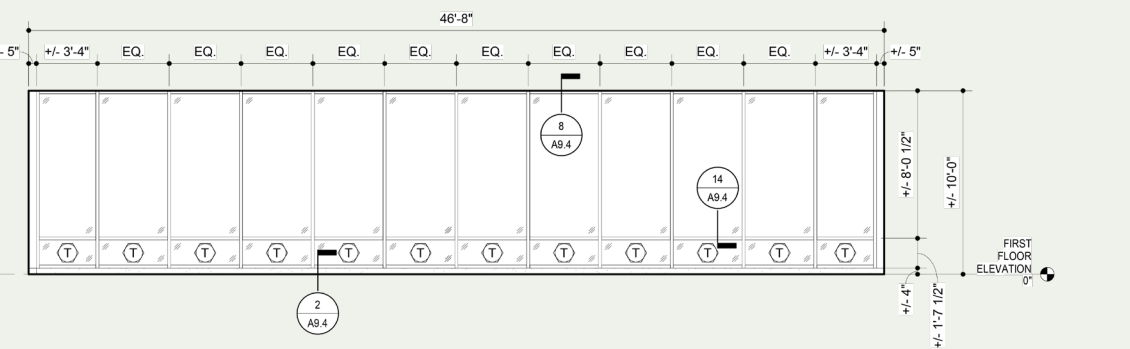
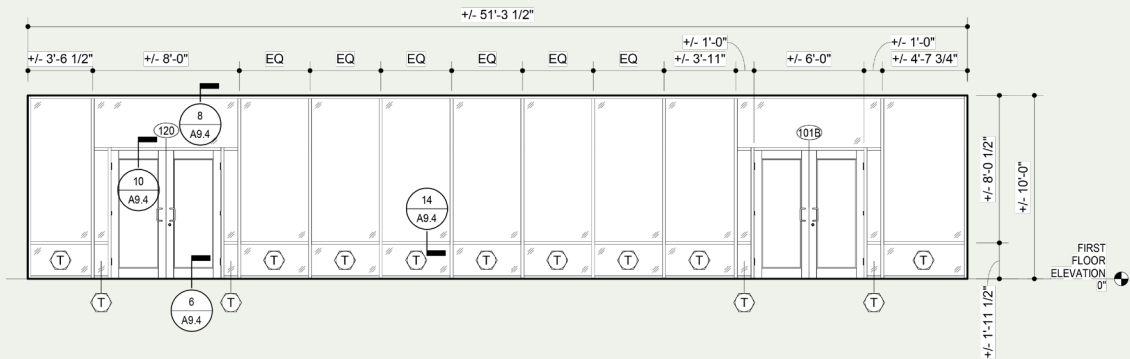
FIRST FLOOR PLAN - DEMOLITION



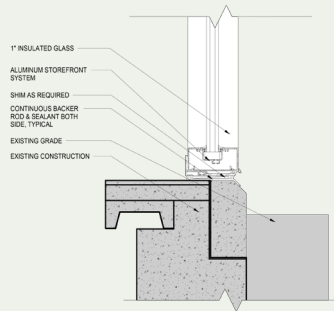
FIRST FLOOR REFLECTED CEILING PLAN - DEMOLITION



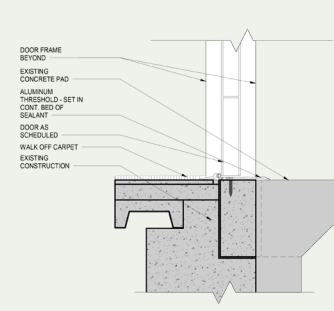
SOUTHWEST ELEVATION - NEW WORK



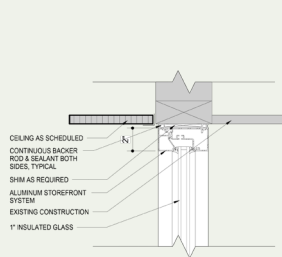
STOREFRONT ELEVATIONS - NEW WORK



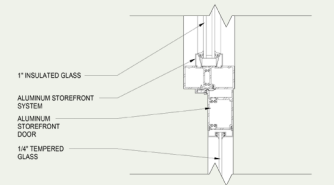
DETAIL (2) - NEW SILL



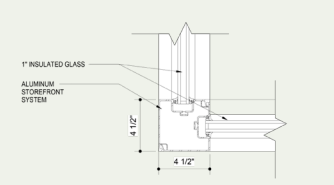
DETAIL (6) - NEW SILL



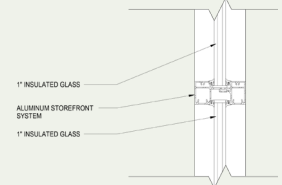
DETAIL (8) - NEW HEAD



DETAIL (10) - NEW WORK HEAD



DETAIL (12) - NEW CORNER DETAIL



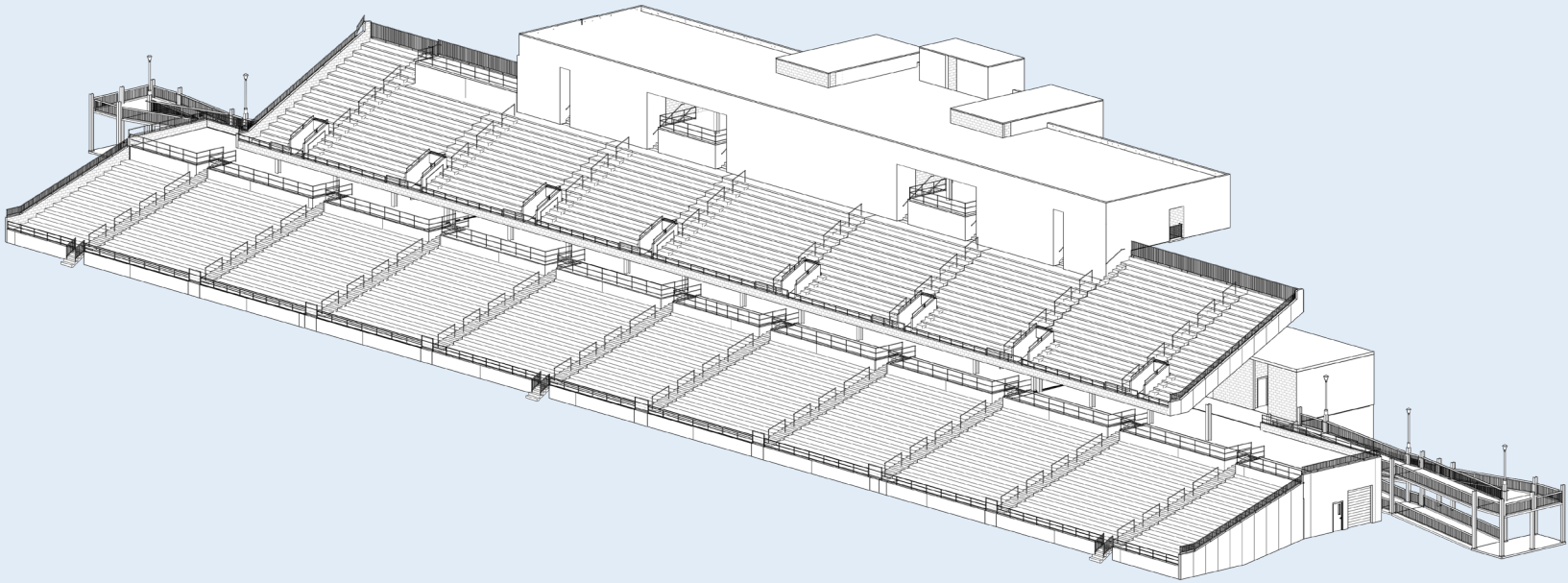
DETAIL (14) - NEW MULLION

VIRGINIA BEACH SPORTSPLEX STRUCTURAL REPAIRS

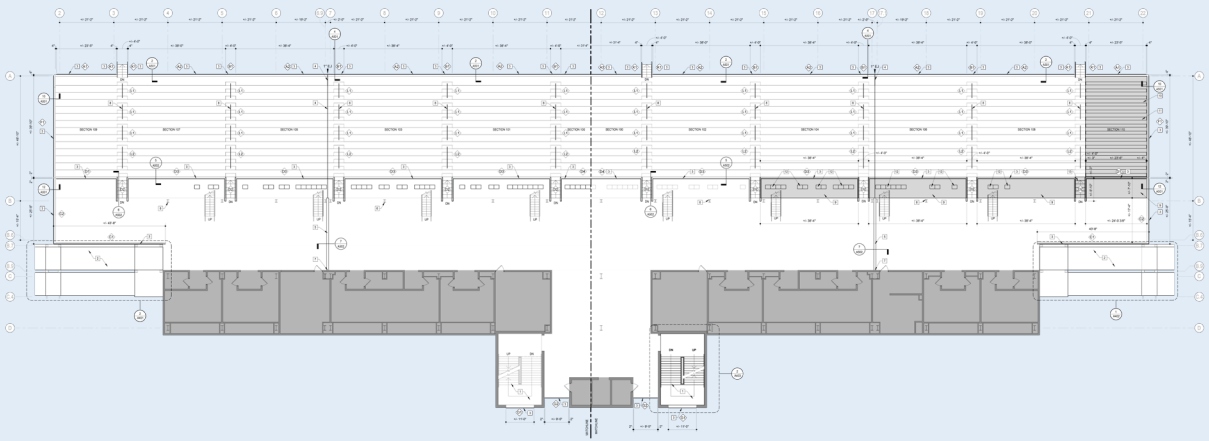
YEAR: SUMMER 2020
LOCATION: VIRGINIA BEACH VIRGINIA
PROJECT TYPE: COMMERCIAL

THE CITY OF VIRGINIA BEACH HAS A SPORTSPLEX CENTER WITH A MASSIVE CONCRETE BLEACHER LOOMING OVER THE FOOTBALL FIELD. OVER TIME THE RAILING FOR THE SPORTSPLEX HAD RECIEVED WATER DAMAGE AND CRACKED THE CONCRETE ENCASING THE SYSTEM. OUR FIRM WAS TASKED WITH DRAFTING CONTRACT DOCUMENTS SHOWING THE REMOVAL AND DEMOLITION OF THE RUSTED RAILING SYSTEM AND REPLACING IT WITH NEW RAILS THAT WOULD MOUNT ON THE OUTSIDE WALLS, RATHER THAN INSTALLING NEW ONES IN THE PREVIOUS CRACKING HOLES.

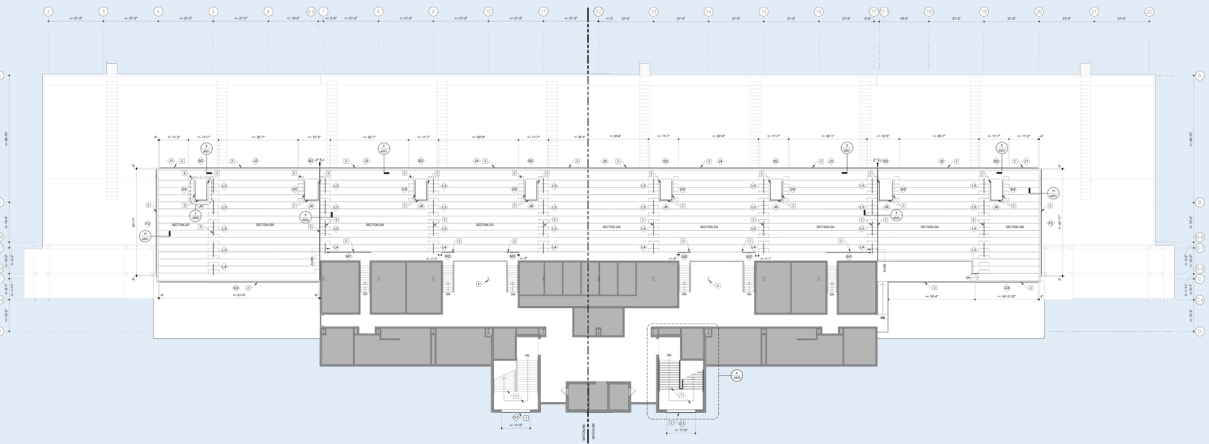
MY TASK ON THIS PROJECT WAS TO FIELD MEASURE FOR MODELING, AND DRAFT IN REVIT THE ENTIRE CONTRACT DOCUMENT SET. FROM THE DEMOLITION AND NEW WORK PLANS, ELEVATIONS, AND DETAILS.



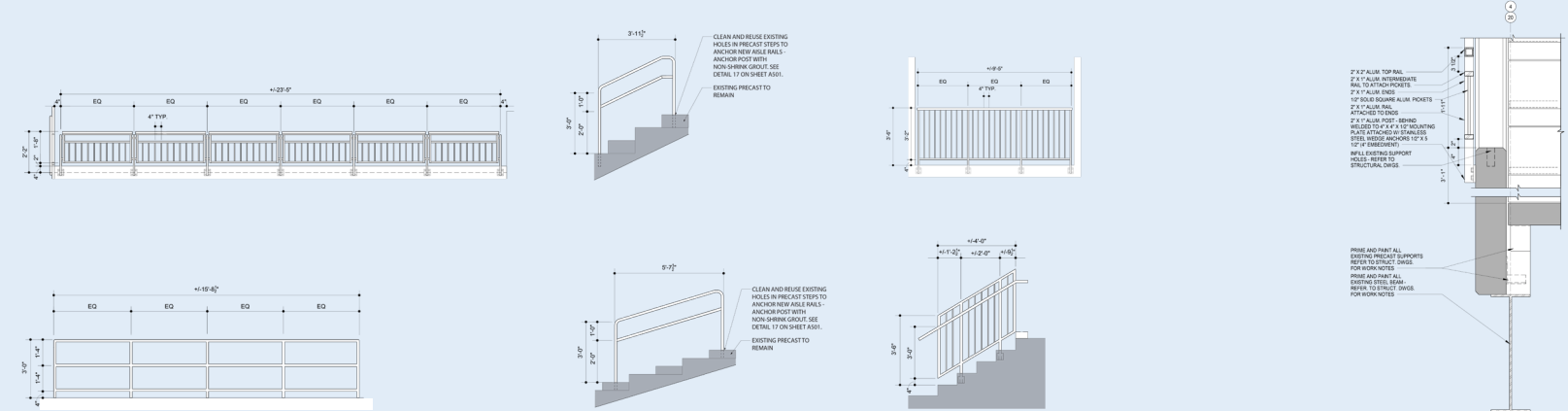
AXONOMETRIC



MAIN CONCOURSE LEVEL PLAN - NEW WORK



CLUB SUITE LEVEL PLAN - NEW WORK



RAILING ELEVATIONS

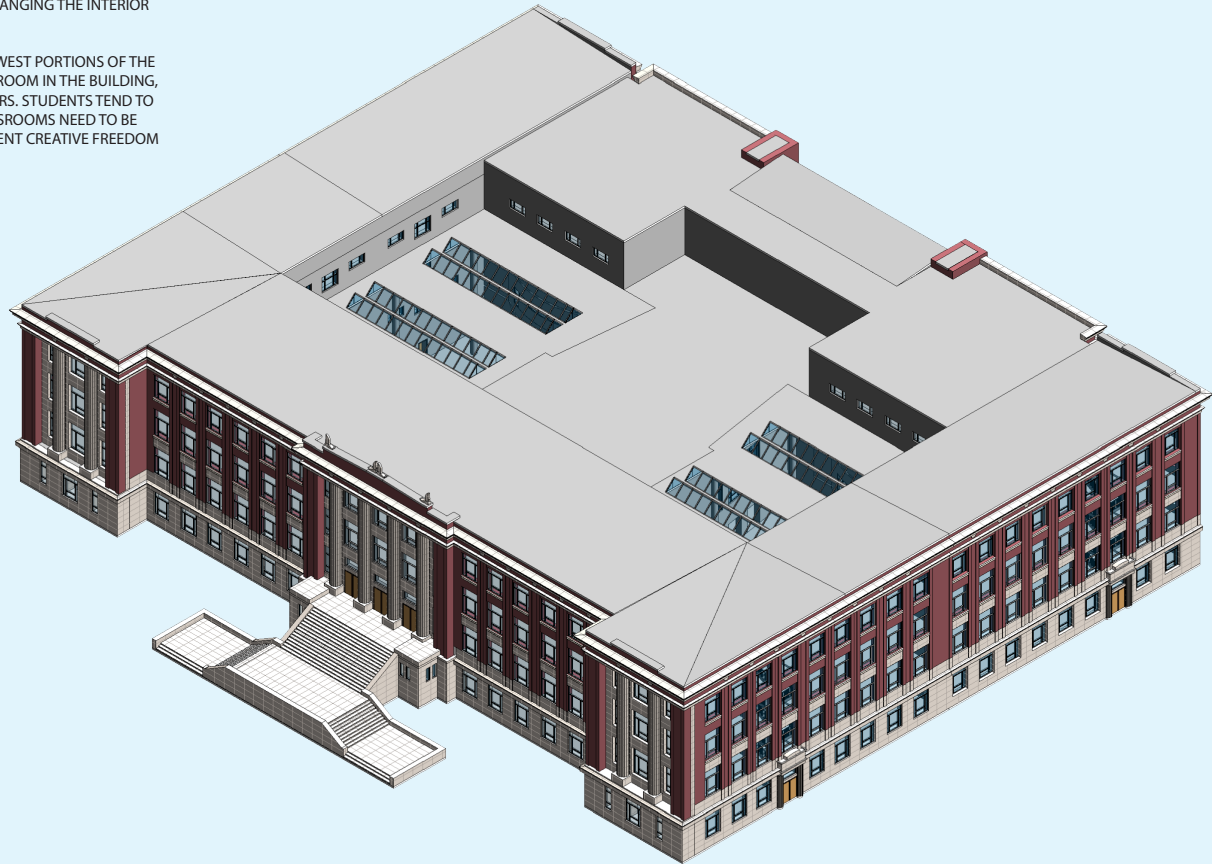
RAILING DETAIL SECTIONS

MAURY HIGH SCHOOL MODERNIZATION

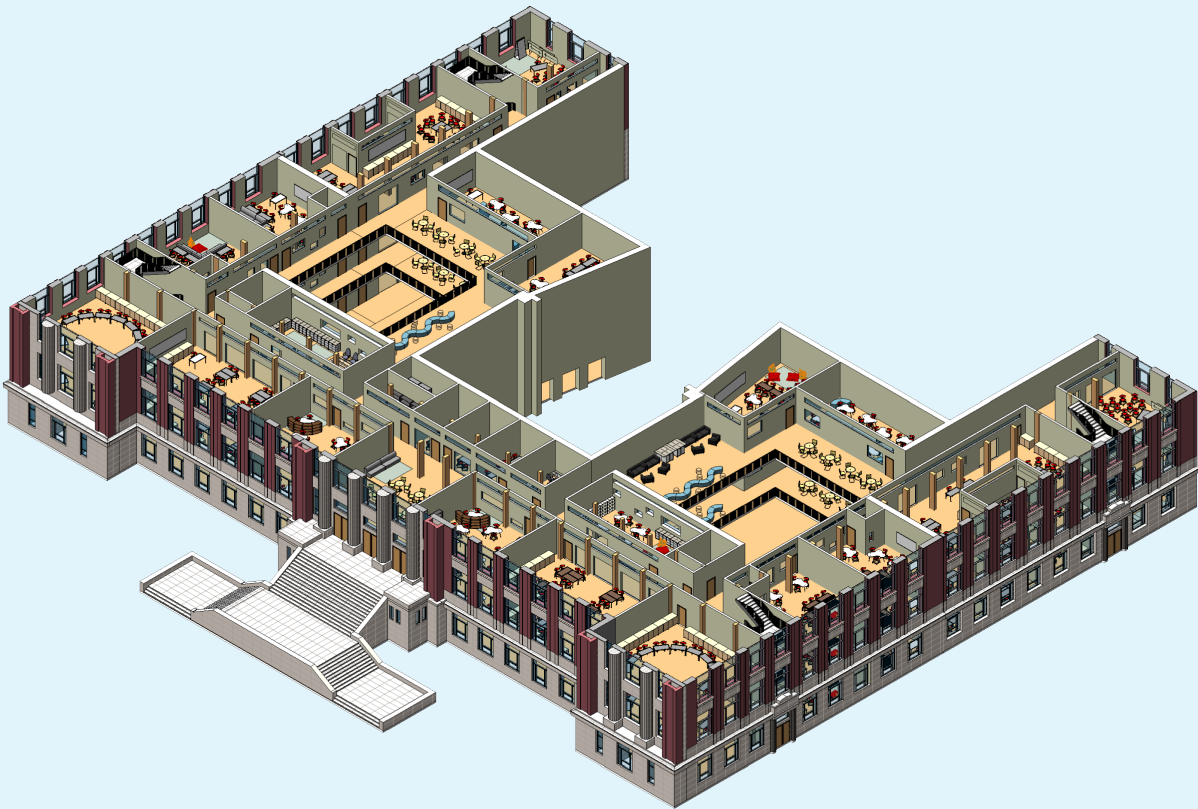
YEAR: FALL 2019
LOCATION: NORFOLK VIRGINIA
PROJECT TYPE: EDUCATION

THE MAURY HIGH SCHOOL IS A BUILDING THAT HAS BEEN AROUND SINCE THE EARLY 1900'S. THE CITY OF NORFOLK REQUESTED A MODERNIZATION OF THIS HISTORIC BUILDING BY KEEPING THE ICONIC EXTERIOR FACADE IN TACT, WHILE CHANGING THE INTERIOR PARTITIONS TO SUIT A MODERN STYLE OF LEARNING.

THE NEW LAYOUT GIVES A LARGE LIGHT WELL ON THE EAST AND WEST PORTIONS OF THE BUILDING. THIS ALLOWS NATURAL LIGHT TO REACH EVERY CLASSROOM IN THE BUILDING, AND PROVIDES PLACES OF SOCIAL CONGREGATION ON ALL FLOORS. STUDENTS TEND TO LEARN BOTH FROM THE TEACHER AND FROM OTHER PEERS. CLASSROOMS NEED TO BE LARGE AND FLEXIBLE, GIVING BOTH THE TEACHER AND THE STUDENT CREATIVE FREEDOM ON THE STRUCTURE OF THE SPACE.



AXONOMETRIC



TYPICAL FLOOR - AXONOMETRIC



CLASSROOM LAYOUT



CLASSROOM LAYOUT



INTERIOR GATHERING SPACE



SCIENCE CLASSROOM

THESIS - MODULAR RESPONSE PARTICIPATORY DESIGN

YEAR: SPRING 2019
LOCATION: PUERTO RICO
PROJECT TYPE: EMERGENCY RESPONSE

MODULAR RESPONSE PARTICIPATORY DESIGN (MRPD) IS A TEMPORARY HOUSING PROJECT ASSISTING THOSE NEEDING IMMEDIATE SHELTER AFTER A NATURAL DISASTER, WHILE ADAPTING AND CHANGING TO THE ARCHITECTURAL OBLIGATIONS OF THE COMMUNITY OVER TIME. THE THESIS OF THE DESIGN IS TO CREATE ARCHITECTURE THAT DOES NOT GO TO WASTE, BUT INSTEAD BENDS TO THE WILL OF PEOPLE WHO NEED IT.

THE SYSTEM IS ERECTED BY THOSE WHO HAVE GONE THROUGH DISASTERS SUCH AS A HURRICANE OR EARTHQUAKE. THEREFORE MRPD NEEDS TO BE INTUITIVE AND QUICK ENOUGH TO ASSEMBLE WITHIN A DAY BY NO MORE THAN A FEW PEOPLE. THERE ARE FIVE DIFFERENT KINDS OF PODS THAT ARE CONSTRUCTED BY A FEW PEOPLE UNFOLDING THE INSULATED PANELS AND INSTALLING THE SUPPORT RODS FOR STRUCTURE. THESE PODS ARE DESIGNED TO BE FLEXIBLE. MRPD CAN STACK ON TOP/AROUND ONE ANOTHER FOR THE FLEXIBILITY ON WHATEVER SITE THEY ARE ON, AND IF NECESSARY THEY HAVE A SECONDARY TRIPOD SYSTEM FOR GROUNDS THAT HAVE BEEN DESTROYED AND ARE UNEVEN.

ONCE THE REBUILDING PROCESS BEGINS FOR THE COMMUNITY THE PANELS CAN UNFOLD AND EITHER HELP PATCH OLD DAMAGED BUILDINGS OR DISASSEMBLE AND COMBINE INTO THEIR VERY OWN ARCHITECTURE. HOW PEOPLE WISH TO REBUILD WITH THESE PANELS IS ENTIRELY UP TO WHAT NEEDS TO BE REPAIRED AND WHAT NEW BUILDINGS ARE REQUIRED.



MODEL - 1 DAY AFTER DISASTER



MODEL - 1 MONTH AFTER DISASTER



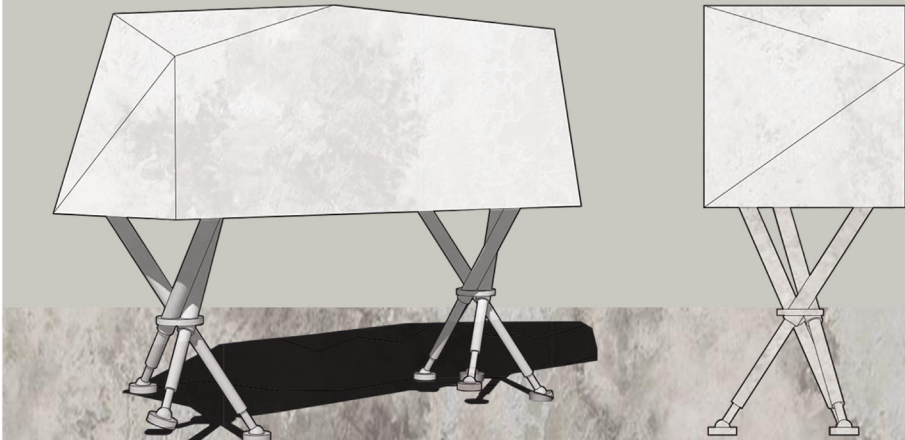
MODEL - 10 YEARS AFTER DISASTER



RENDER - IMMEDIATE SET UP AFTER DISASTER

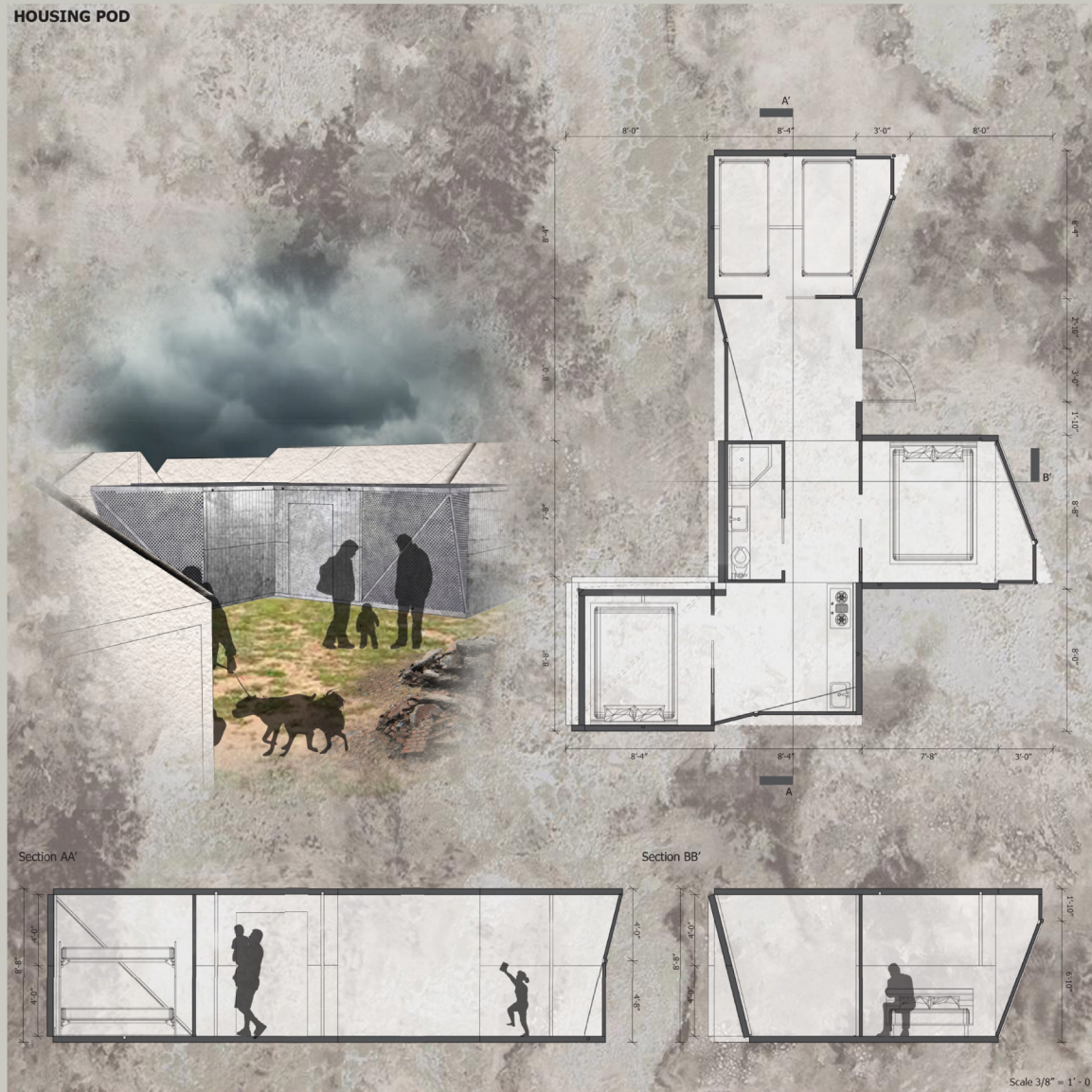


RENDER - NEW ARCHITECTURE POST CONSTRUCTION



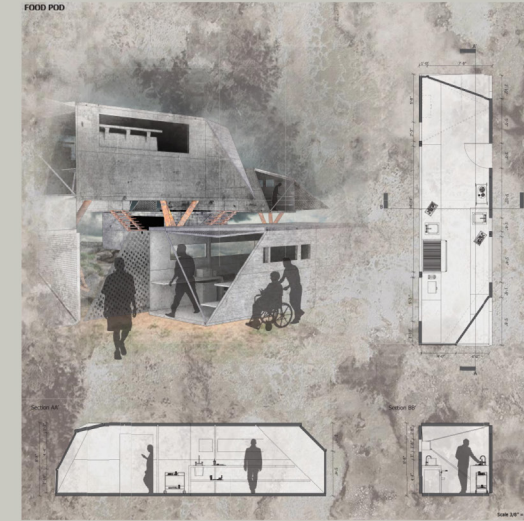
HOUSING POD ON STILTS

HOUSING POD



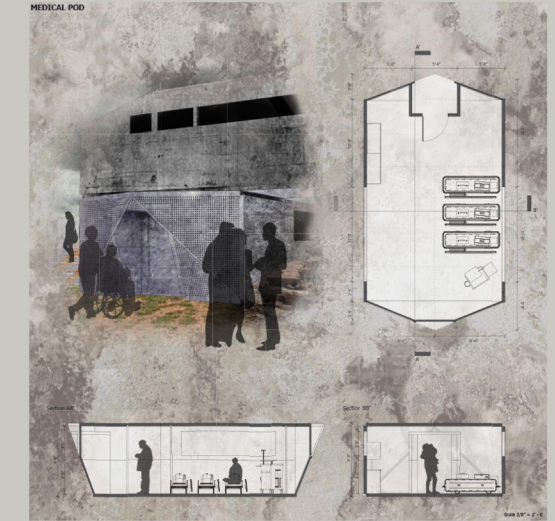
HOUSING POD PLAN AND SECTIONS

FOOD POD



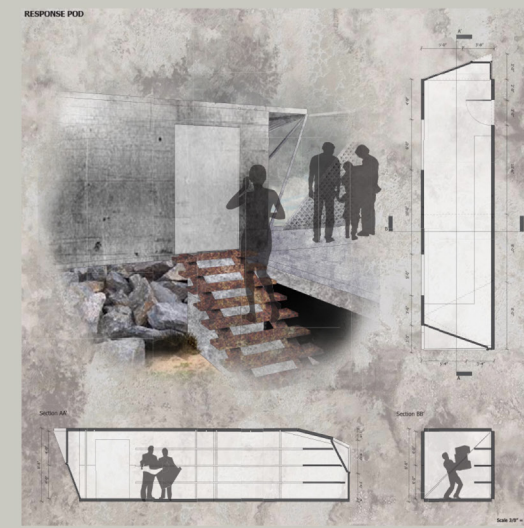
FOOD POD PLAN AND SECTIONS

MEDICAL POD



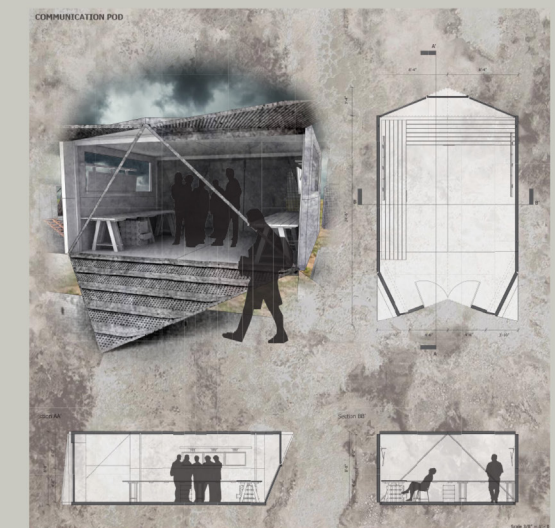
MEDICAL POD PLAN AND SECTIONS

RESPONSE POD

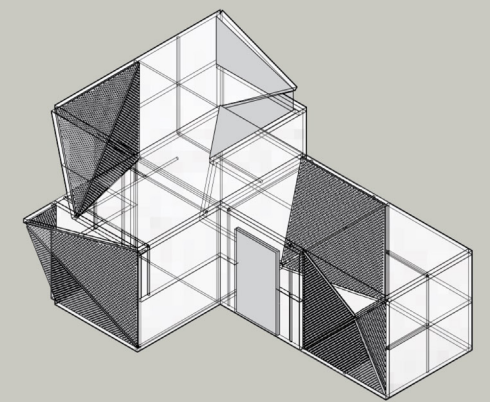
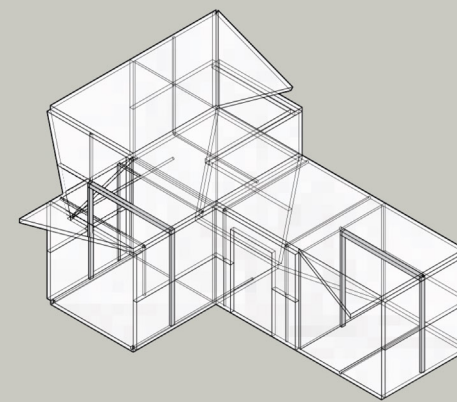
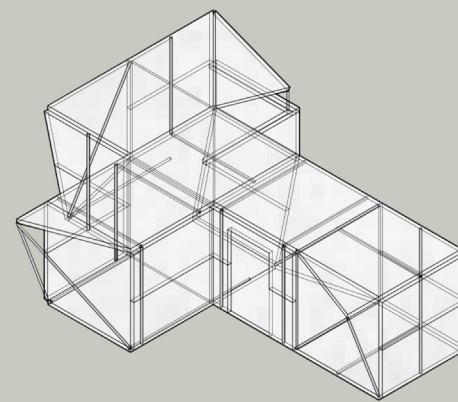
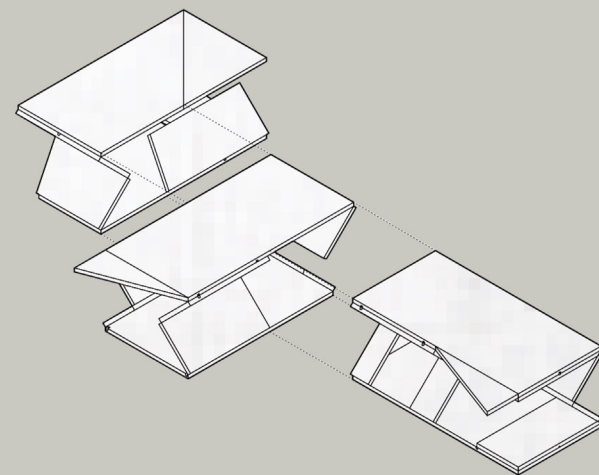
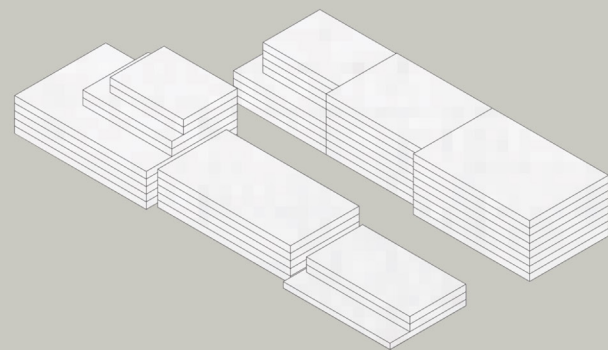


RESPONSE POD PLAN AND SECTIONS

COMMUNICATION POD



COMMUNICATION POD PLAN AND SECTIONS



HOUSING POD PLAN AND SECTIONS

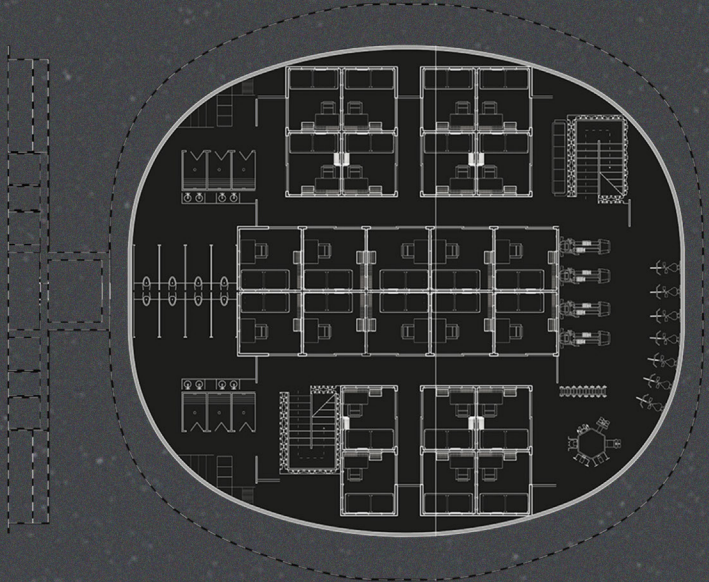
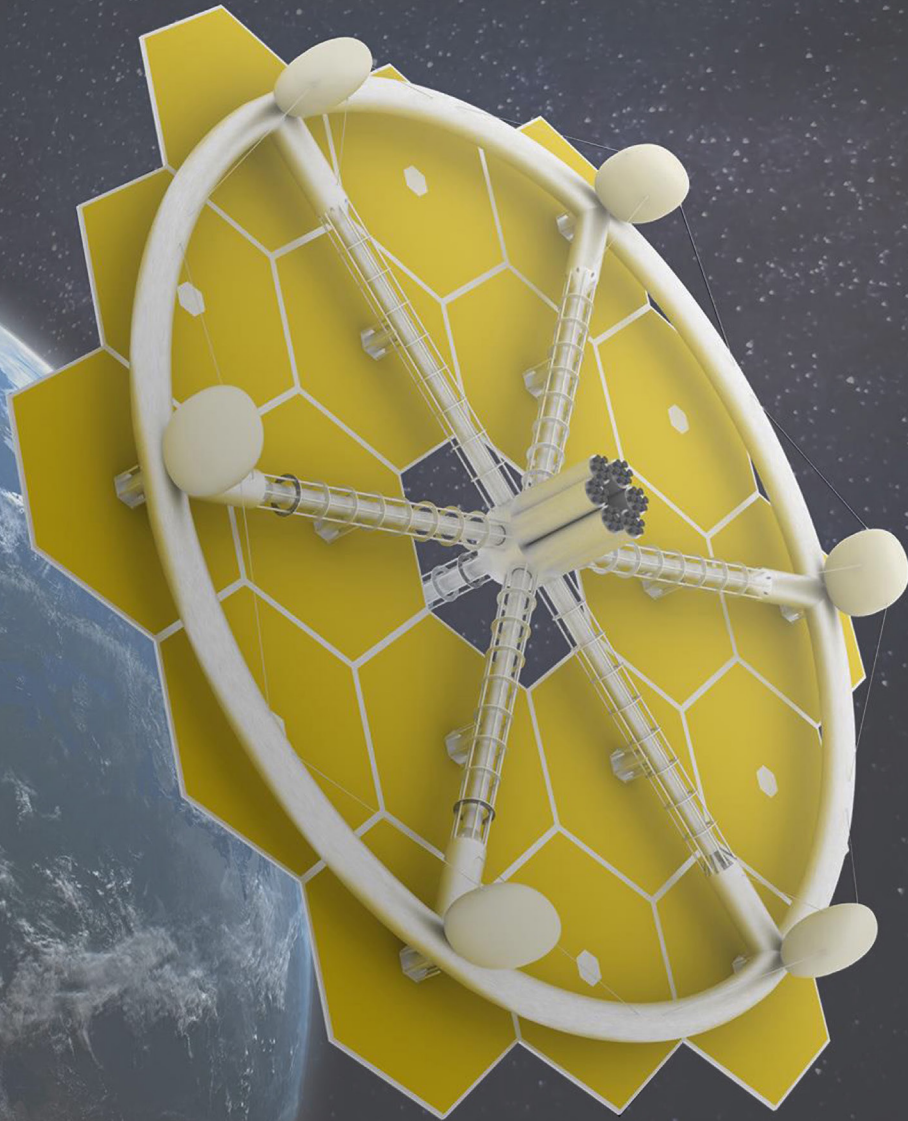
NASA - EDEN SPACECRAFT

YEAR: SPRING 2019
LOCATION: OUTER SPACE
PROJECT TYPE: GOVERNMENT

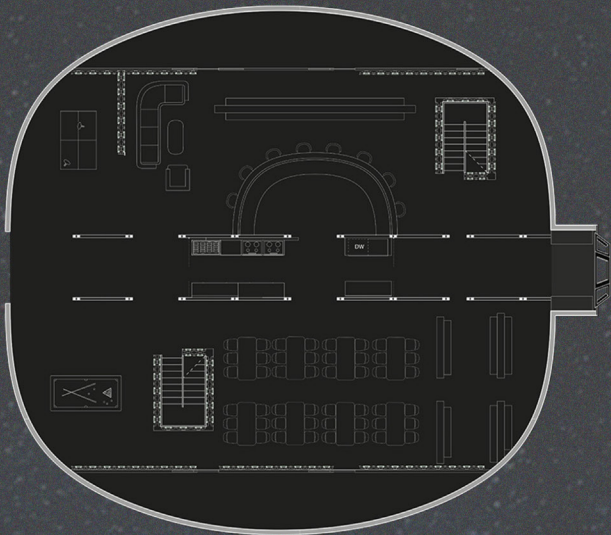
NASA HAD GIVEN OUR GROUP THE TASK TO DESIGN A SPACECRAFT THAT WOULD TRANSPORT PEOPLE FROM EARTH TO MARS FOR EARLY COLONIZATION. HOW THE CRAFT WOULD LAUNCH INTO SPACE, THE MENTAL WELLNESS OF THE CREW, ARTIFICIAL GRAVITY, AND TRANSPORTABILITY OF GOODS AND SERVICES WERE ALL CONSIDERED THROUGHOUT THE DESIGN PROCESS.

EDEN WAS THE SOLUTION TO THESE CRITERIA. TO KEEP AN ASTRONAUT'S MIND ENTERTAINED AND ALERT, A NATURAL ENVIRONMENT MIMICKING EARTH WAS CREATED. THE HOUSING POD HAD CIRCADIAN LIGHTING TO RECREATE THE SUN PATTERNS ON EARTH, WHILE THE RIM OF THE SHIP CONTAINS GREEN GARDENS AND COMMUNAL SPACES. EDEN ALLOWS A SIMILAR GRAVITY OF EARTH BY CONSTANTLY SPINNING WITH CENTRIFUGAL FORCE.

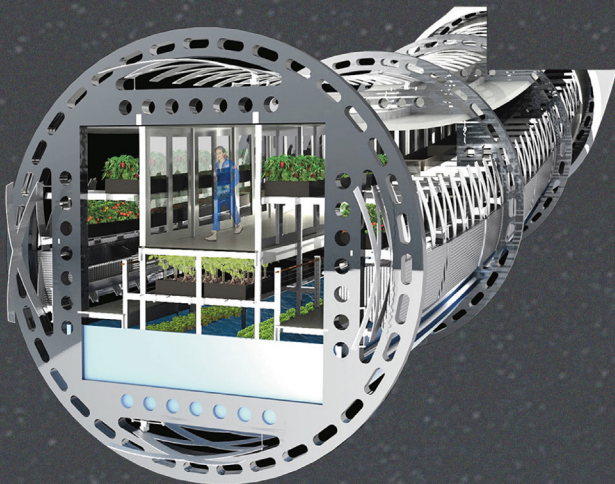
DUE TO ITS MASSIVE SIZE, EDEN'S ASSEMBLY IS CONSTRUCTED AS INDIVIDUAL COMPONENTS FLAT PACKED ON EARTH. ONCE THESE PARTS ARE LAUNCHED INTO ORBIT THE INDIVIDUAL PIECES CAN QUICKLY EXPAND AND REASSEMBLED AS A WHOLE VEHICLE.



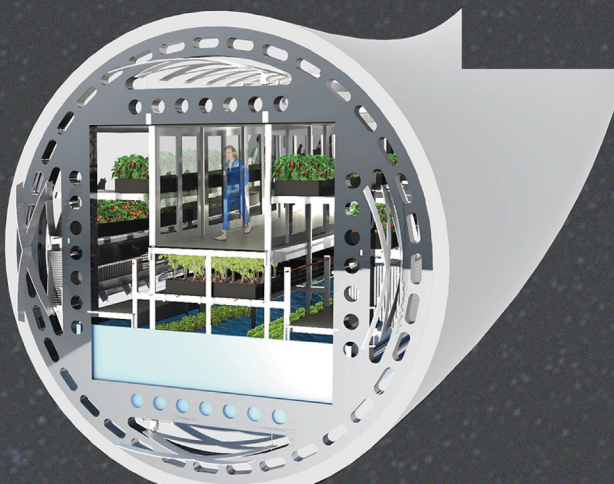
POD - HOUSING AND EXERCISE FLOOR PLAN



POD - KITCHEN AND LOUNGE FLOOR PLAN



AQUAPONICS RENDER

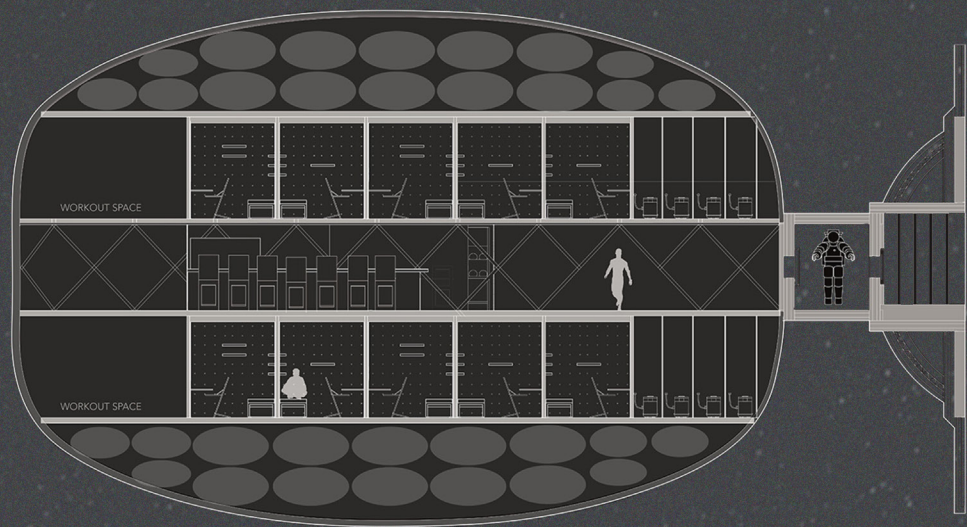


AQUAPONICS RENDER

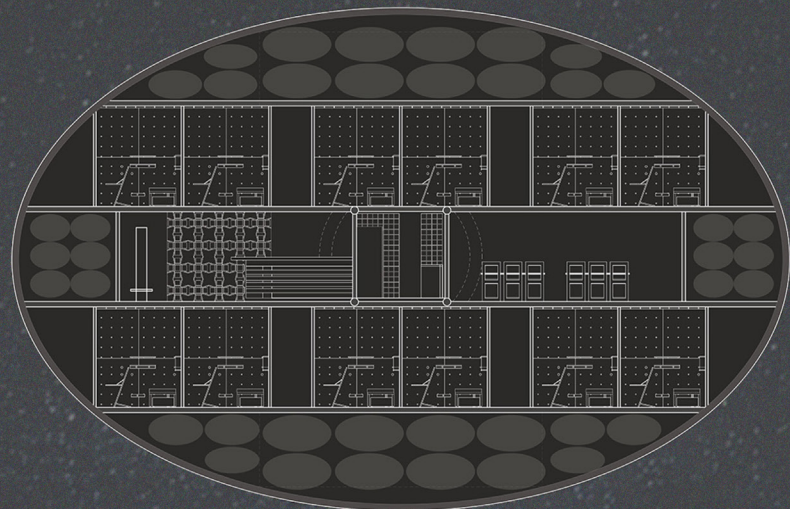


INTERIOR HOUSING PODS RENDERS





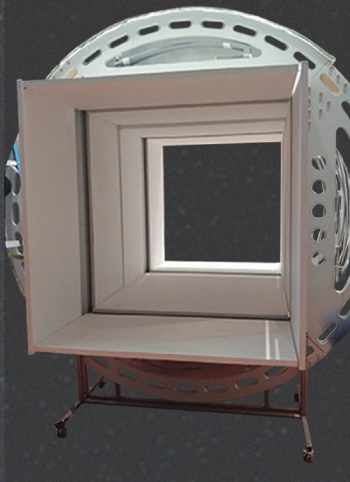
POD - SECTION



POD - SECTION



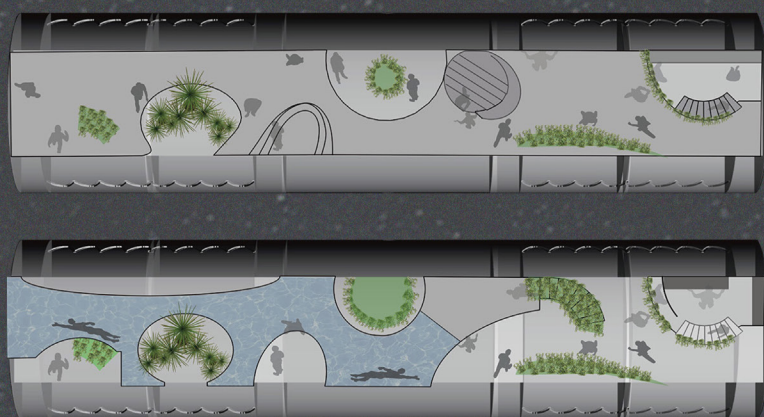
MOCK-UP - COMPRESSED



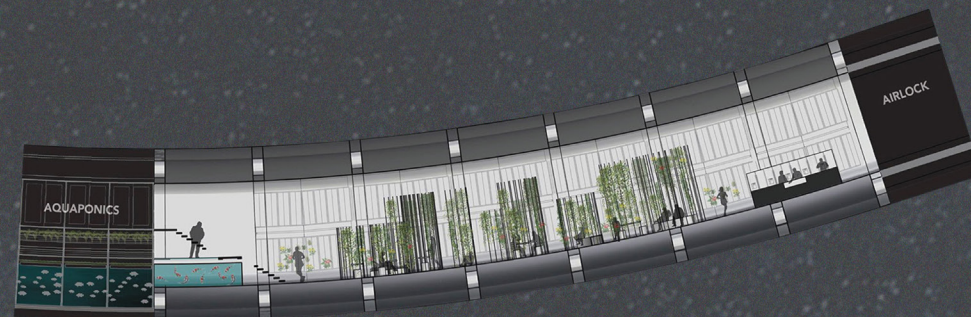
MOCK-UP - CONTRACTED



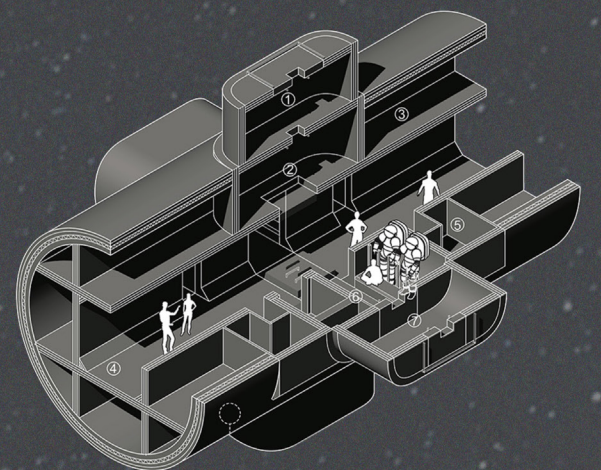
OVERALL MOCK-UP - CONTRACTED



GARDEN - PLANS



GARDEN - SECTION



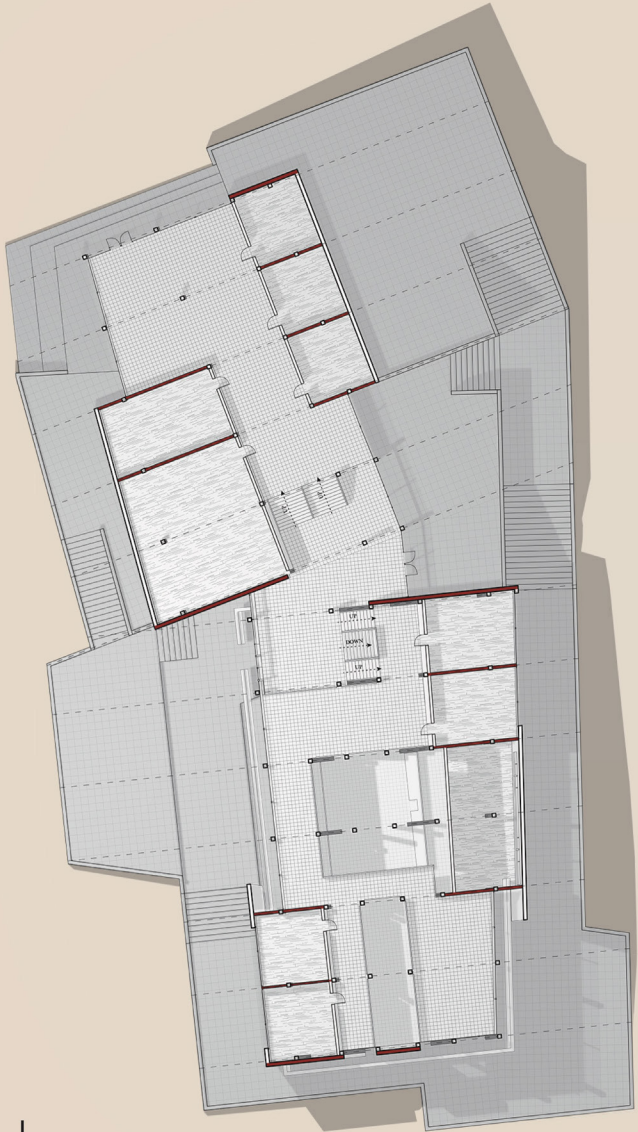
AIRLOCK AXONOMETRIC

EAGLEBROOK ELEMENTARY SCHOOL

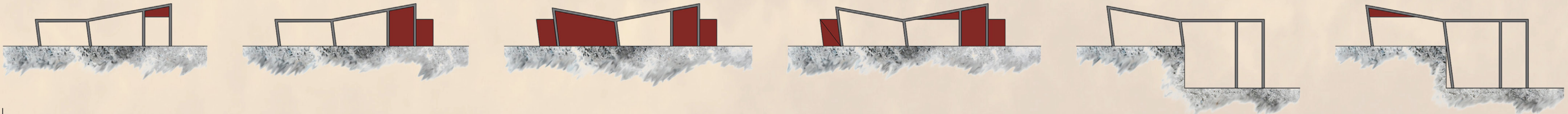
YEAR: FALL 2018
LOCATION: UPSTATE NEW YORK
PROJECT TYPE: EDUCATION

THE PROJECT IS A PRIVATE ELEMENTARY SCHOOL WITH A DESIGN CREATING A STIMULATING LEARNING ENVIRONMENT FOR ITS OCCUPANTS. EAGLEBROOK ELEMENTARY SCHOOL ENCOURAGES EXPLORATORY EDUCATION BY GIVING STUDENTS A VARIETY OF LEARNING COMMUNITIES/GATHERING IN THE INTERIOR, AND CIRCULATION WRAPPING AROUND THE ENVELOPE ON THE EXTERIOR.

THE VARIETY OF INTERIOR PARTITIONS BETWEEN THE SEGMENTED STRUCTURE GENERATES SPACES THAT ACCOMMODATE FOR ALL KINDS OF DIFFERENT PROGRAMS. WHETHER IT BE A DOUBLE HEIGHT SOUND PROOFED MUSIC ROOM, A SECLUDED FLOOR WITH PRIVATE CLASSROOMS FOR VIDEO PRODUCTION, OR A TRIPLE HEIGHT GATHERING AREA WITH CIRCULATION OVERHEAD SNAKING AROUND THE WOODEN BEAMS DIFFERENT PROGRAMS HAVE DIFFERENT NEEDS FROM ARCHITECTURE, THEREFORE THE DESIGN MUST RESPOND TO THOSE REQUIREMENTS.



GROUND FLOOR PLAN

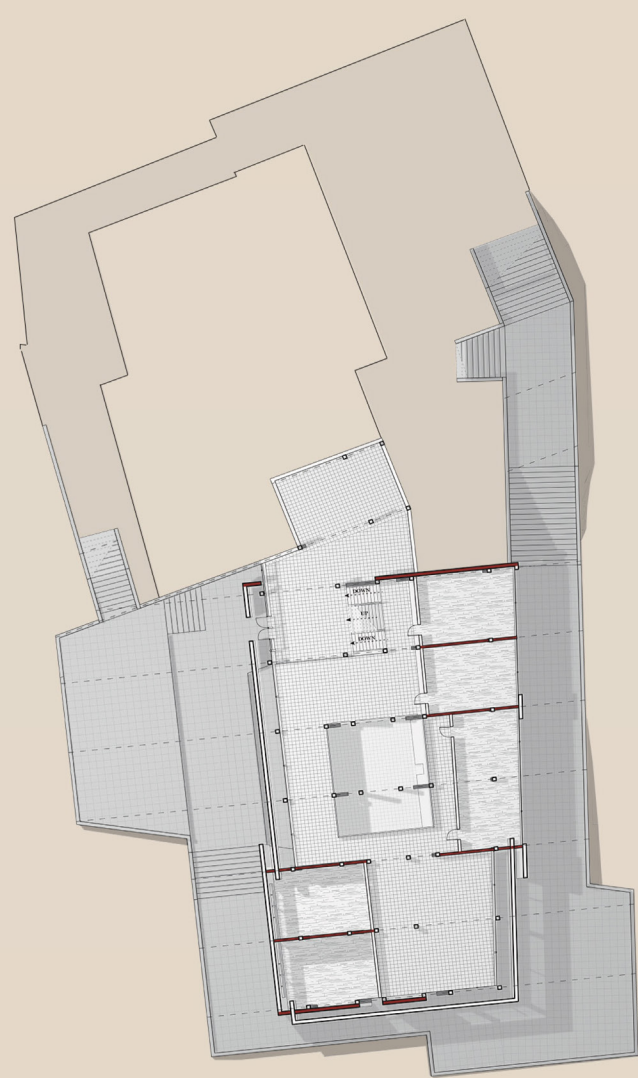


STRUCTURE ELEVATIONS

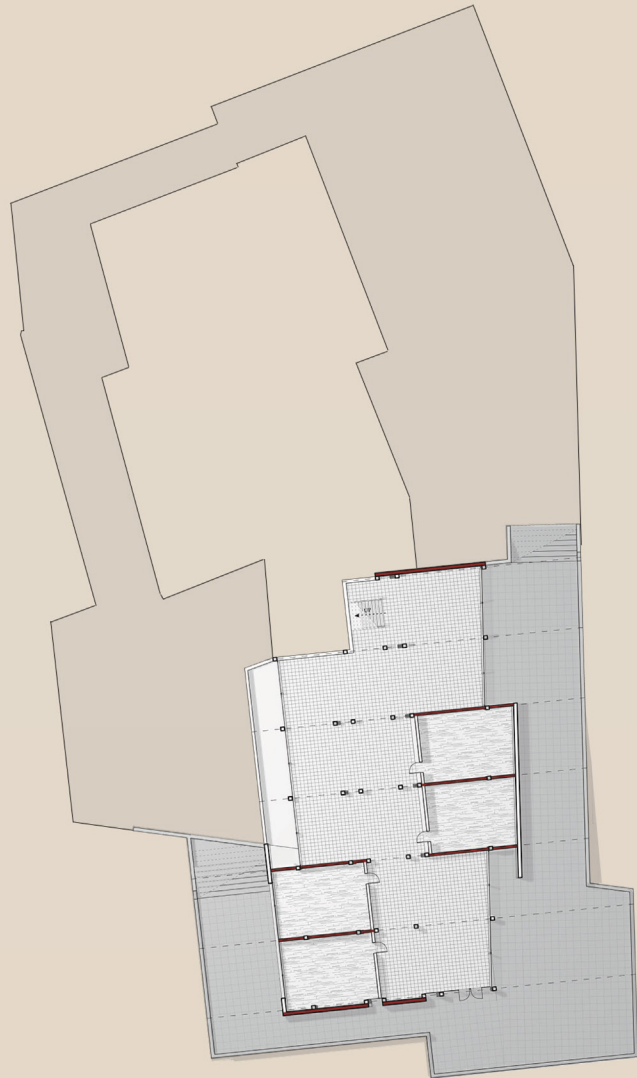


WEST ELEVATION

EAST ELEVATION



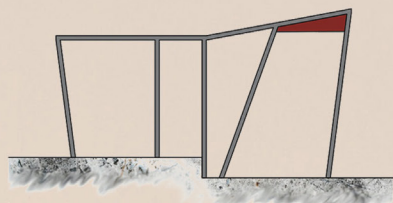
LOWER LEVEL - 1 FLOOR PLAN



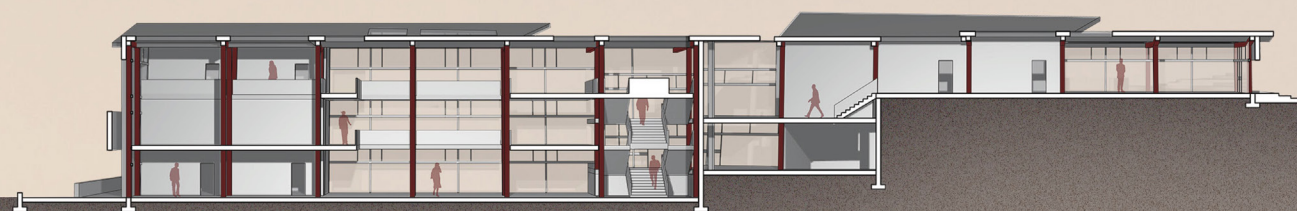
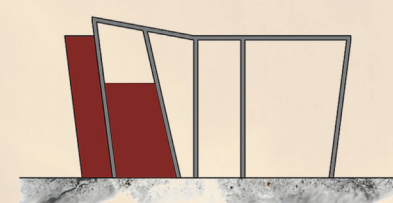
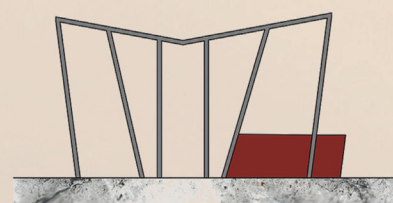
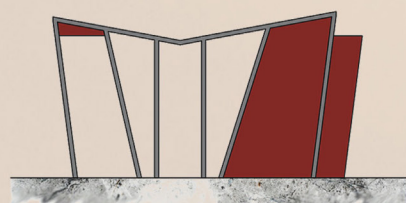
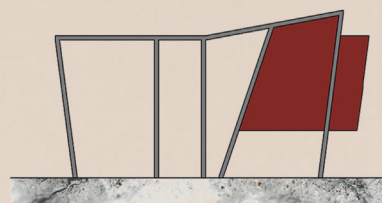
LOWER LEVEL - 2 FLOOR PLAN



INTERIOR RENDER



STRUCTURE ELEVATIONS



SECTION CUT



SECTION CUT

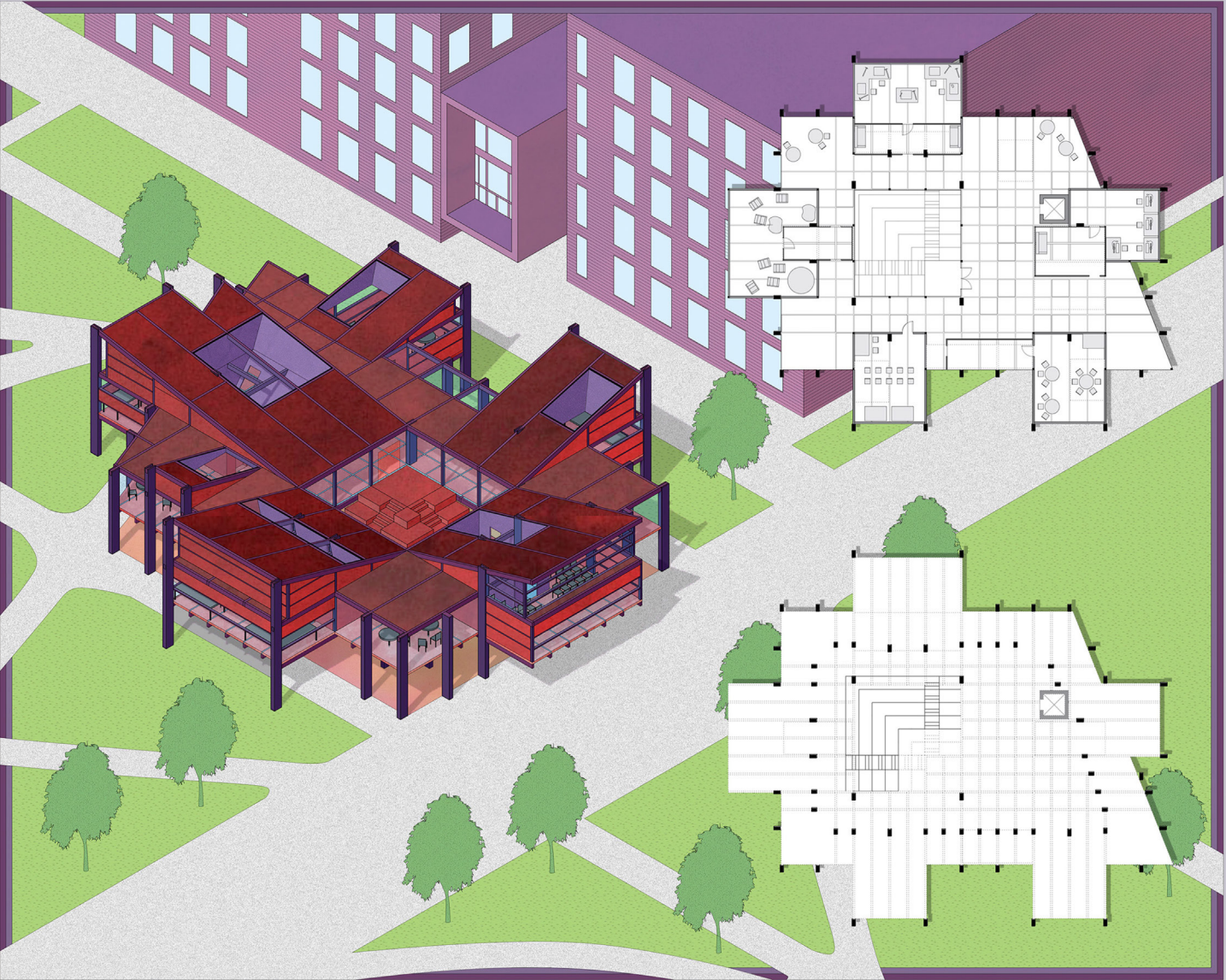
PRATT INSTITUTE STUDENT UNION

YEAR: SPRING 2018
LOCATION: BROOKLYN, NEW YORK
PROJECT TYPE: EDUCATION

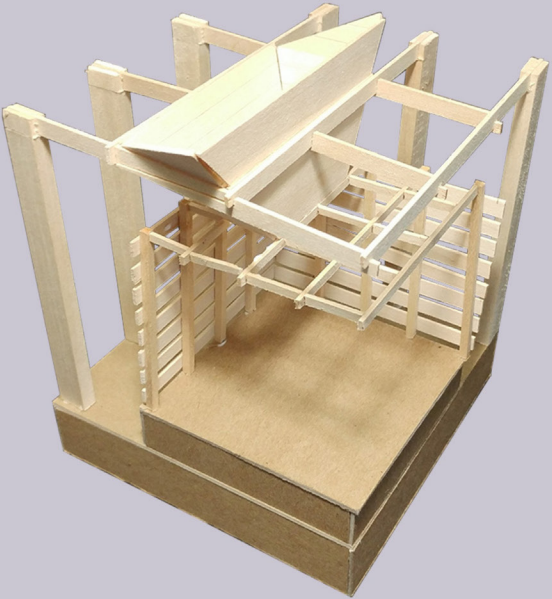
THE PRATT STUDENT UNION'S DESIGN CREATES A LEARNING ENVIRONMENT ENCOURAGING PEOPLE OF DIFFERENT MAJORS TO INTERMINGLE AND SOCIALIZE WITH EACH OTHER. FOR A PERSON TO ENRICH THEIR CRAFT IT IS CRITICAL TO TAKE AND LEARN FROM OTHER PEOPLE'S WORK. THAT INSPIRATION INCLUDES OTHERS WITH DIFFERENT BACKGROUNDS AND CAREER PATHS.

THE GROUND FLOOR IS AN UNCONDITIONED SPACE EXPOSED TO THE COMMON WALKWAYS STUDENTS TAKE GOING TRAVELING FROM CLASS TO CLASS. IN THE MIDDLE RESTS A MASSIVE STEP PYRAMID LEADING UP TO THE COMMUNAL SPACES ON THE SECOND FLOOR. THE ROOF HAS MASSIVE LIGHT WELLS REACHING DOWN TO THE GROUND FLOOR, INVITING PEOPLE TO CONGREGATE AND SOCIALIZE AROUND THESE PILARS OF LIGHT.

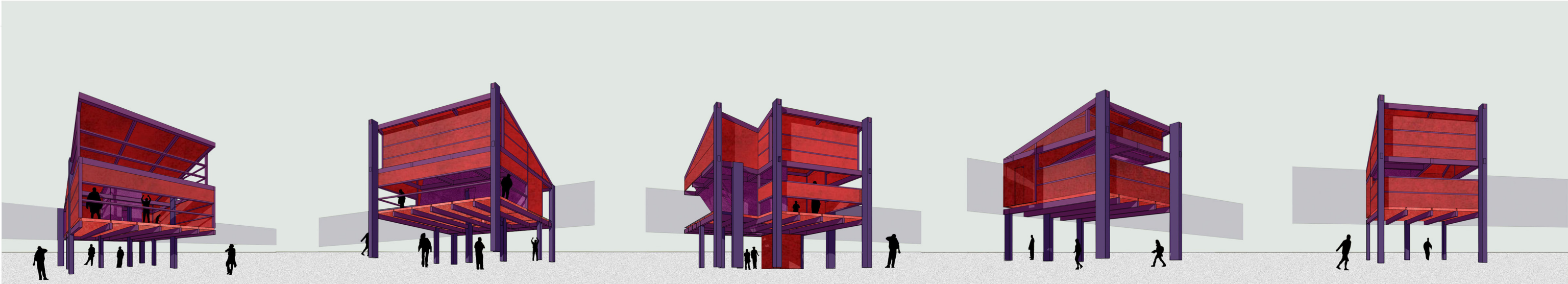
THE SECOND FLOOR CONSISTS OF FIVE DIFFERENT SPACES WHERE STUDENTS CAN EITHER WORK TOGETHER OR MEET FOR SOCIAL GATHERINGS. THESE SPACES ARE ADVERTISED TO THE REST OF CAMPUS THROUGH THE SPACES EXTRUDING FROM THE UNION, SHOWING STUDENTS BOTH IN THE BUILDING AND WALKING AROUND WHAT KIND OF ACTIVITIES ARE HAPPENING. THIS ACTS AS A SOCIAL BULLETIN BOARD WHERE ANYONE CAN VOLUNTARILY INCLUDE THEMSELVES AT ANY TIME.



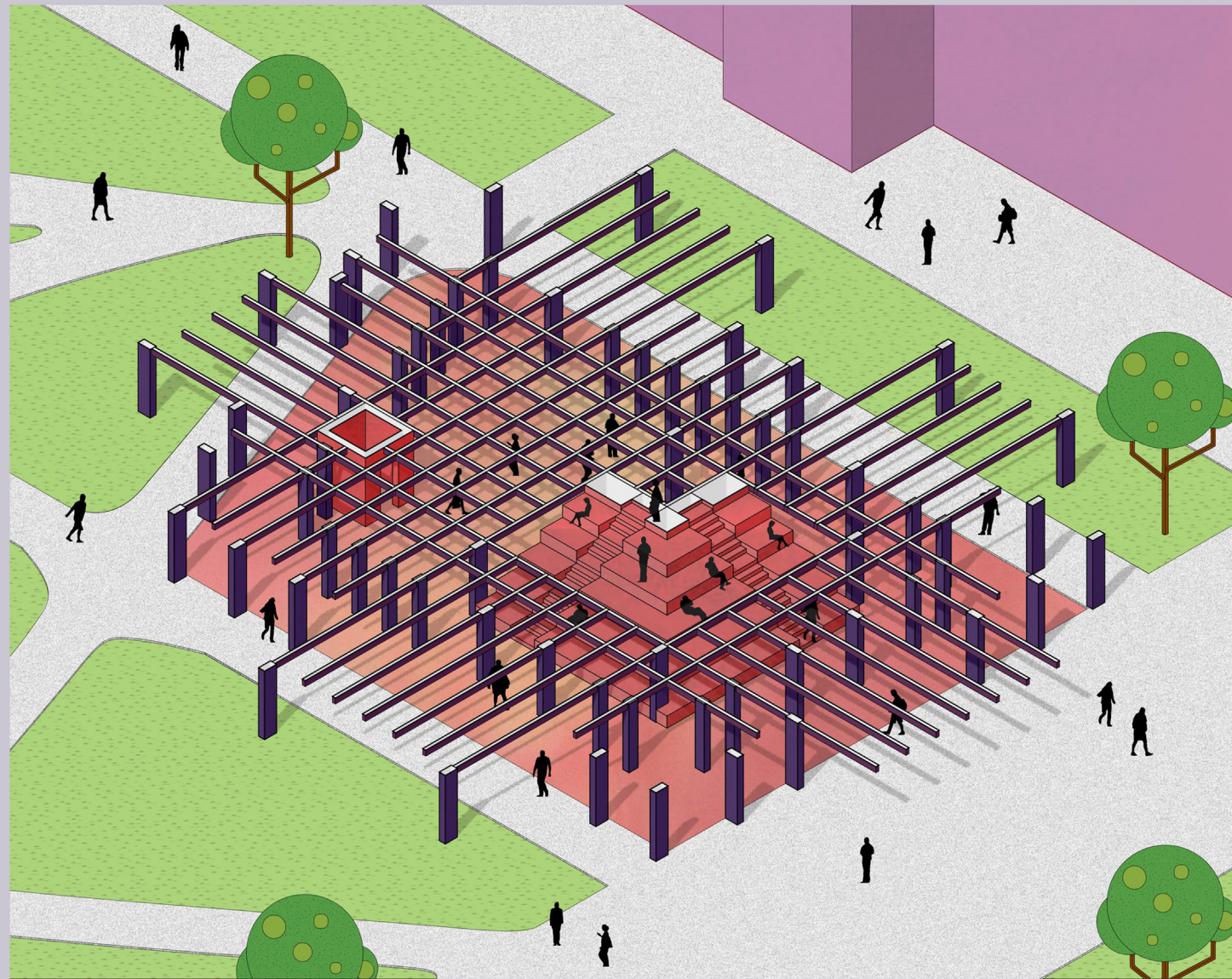
AXONOMETRIC AND FLOOR PLANS



STUDY MODEL



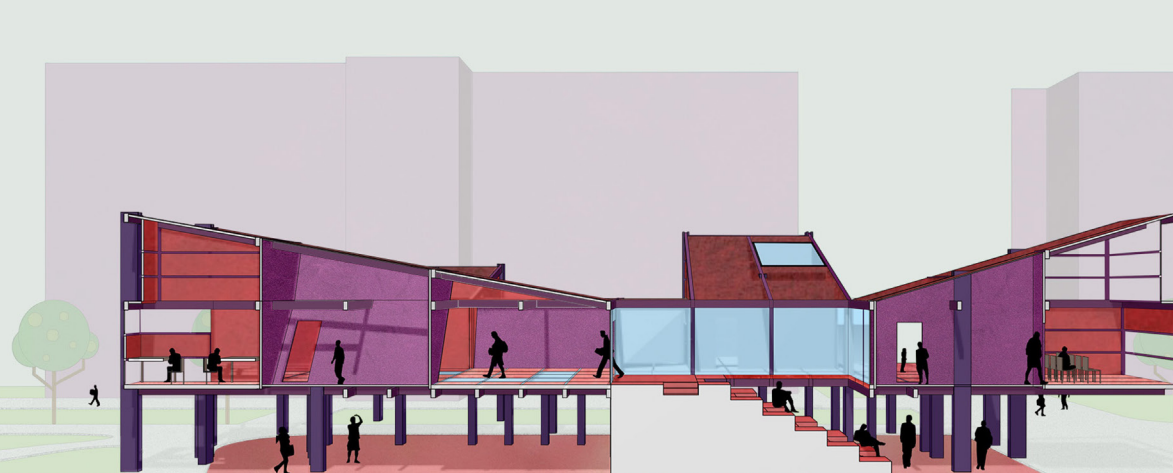
COMMUNITY SPACES



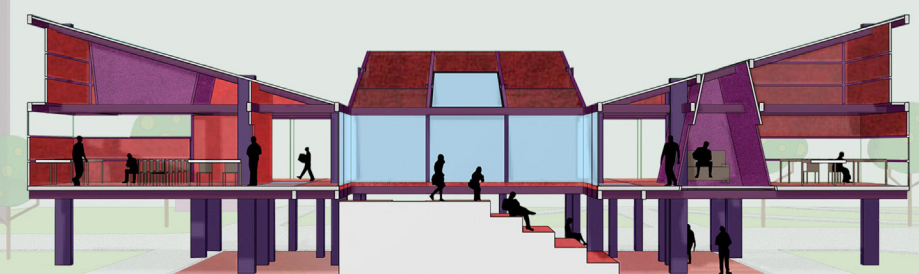
AXONOMETRIC GROUND FLOOR



AXONOMETRIC SECOND FLOOR



SECTION



SECTION