



Livable Communities

A student competition sponsored by AARP
and the American Institute of Architecture
Students (AIAS)



Spring/ Summer 2009

dedicated

*to my patient wife
Diana*

*to my most influential Professor
John Sandell*



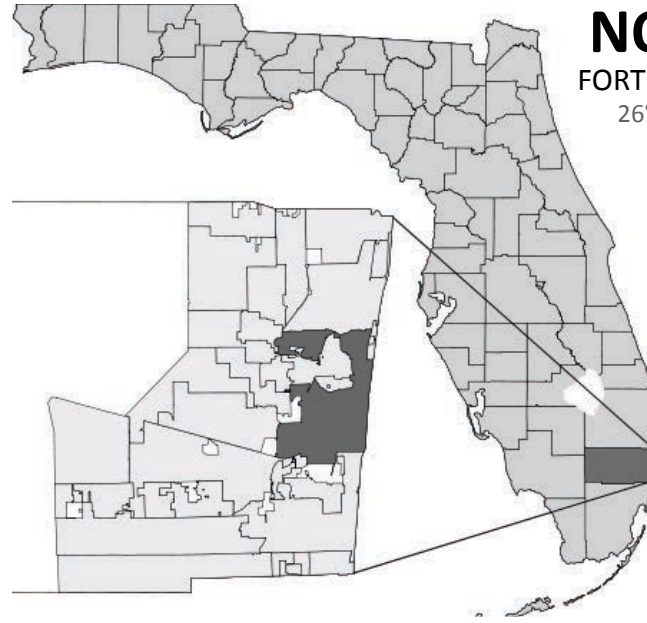
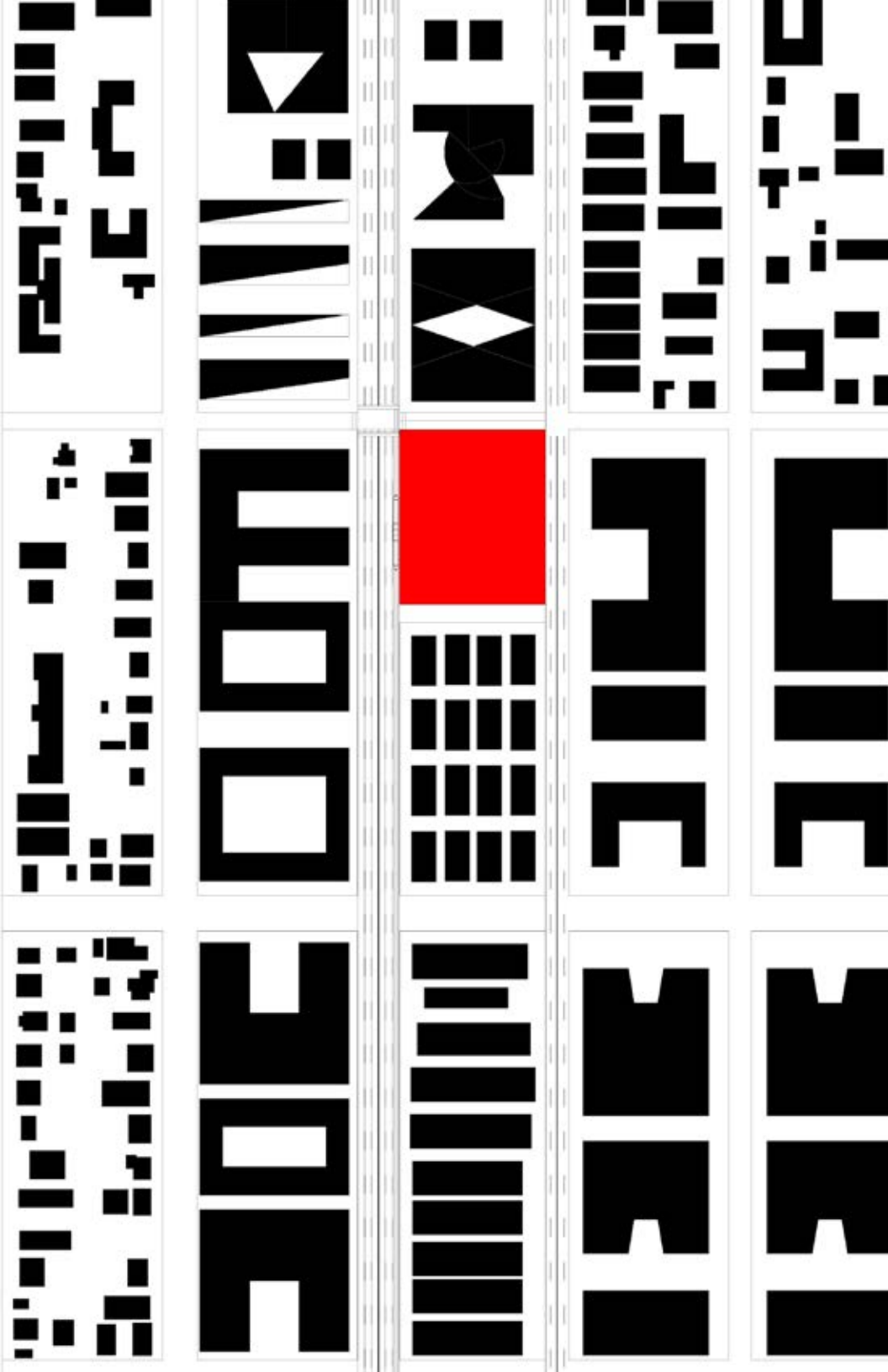
Florida Atlantic University
College of Architecture Urban and Public Affairs
School of Architecture

Assistant Professor: John Sandell, AIA Associate
Student: Alberto Gonzalez, LEED AP, AIAS



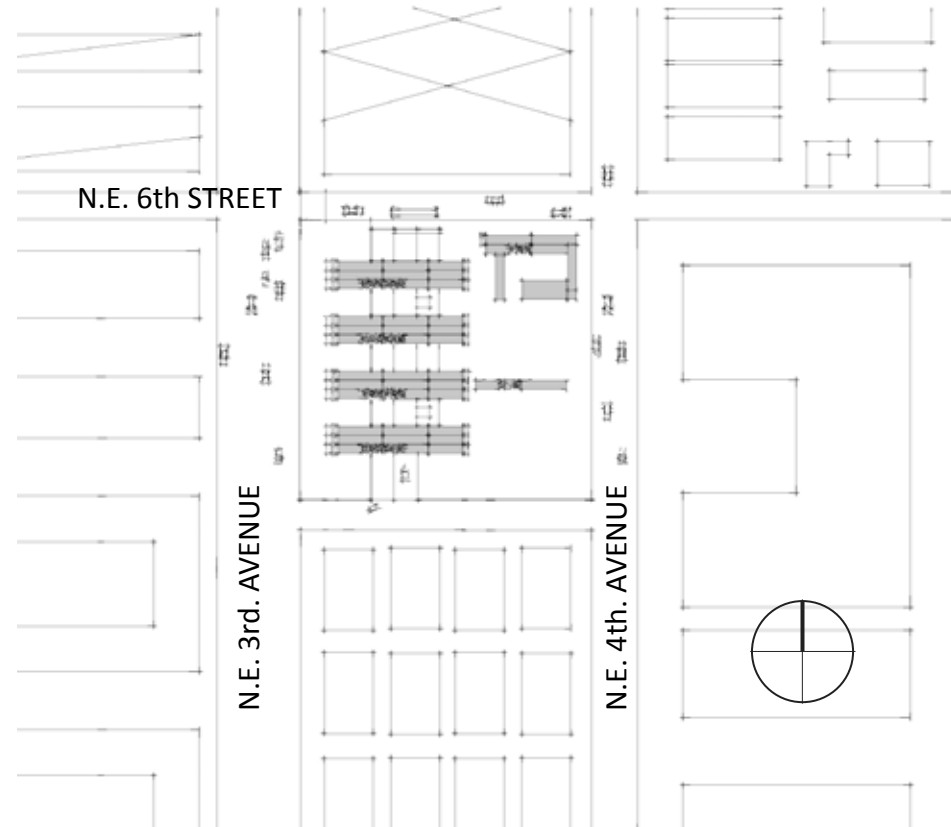
Communities of all sizes across the United States are applying the concept of livability to holistically address a range of challenges, such as a growing population of older residents, rising housing costs, and limited transportation alternatives. AARP has defined a Livable Community to be “one that has affordable and appropriate housing, supportive community features and adequate services”.

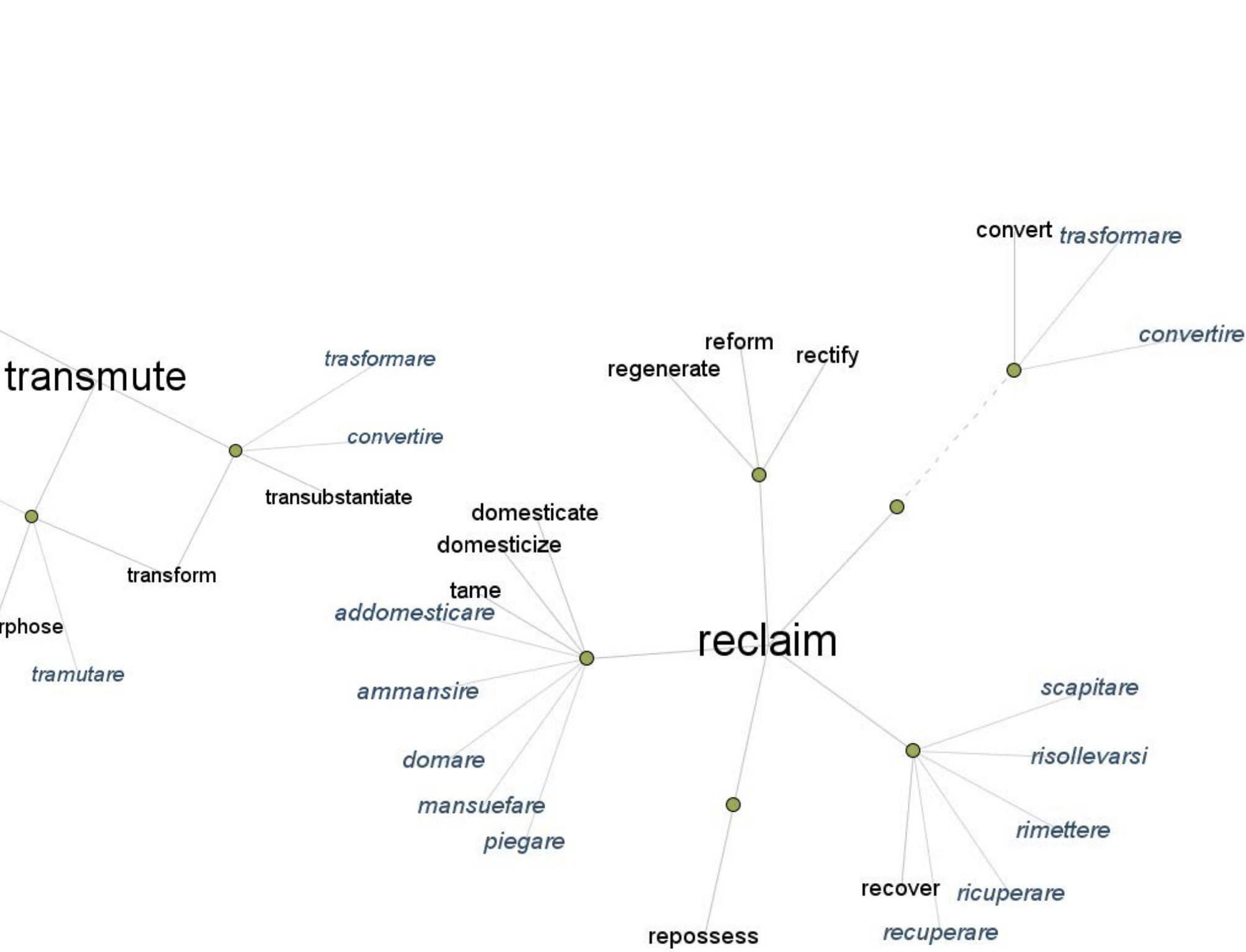




NOLI MAP
FORT LAUDERDALE, FL.
26° 8' 9" N, 80° 8' 31" W

PRELIMINARY MASSING





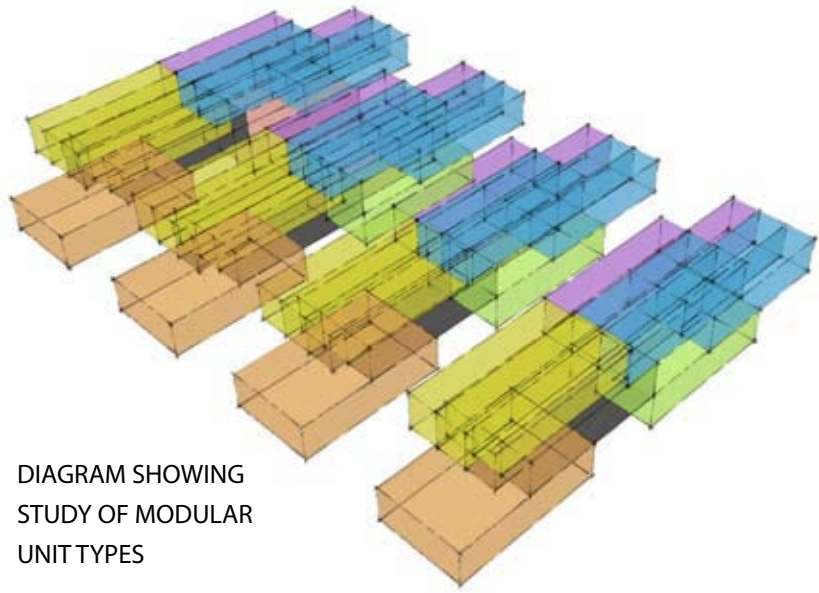


DIAGRAM SHOWING
STUDY OF MODULAR
UNIT TYPES

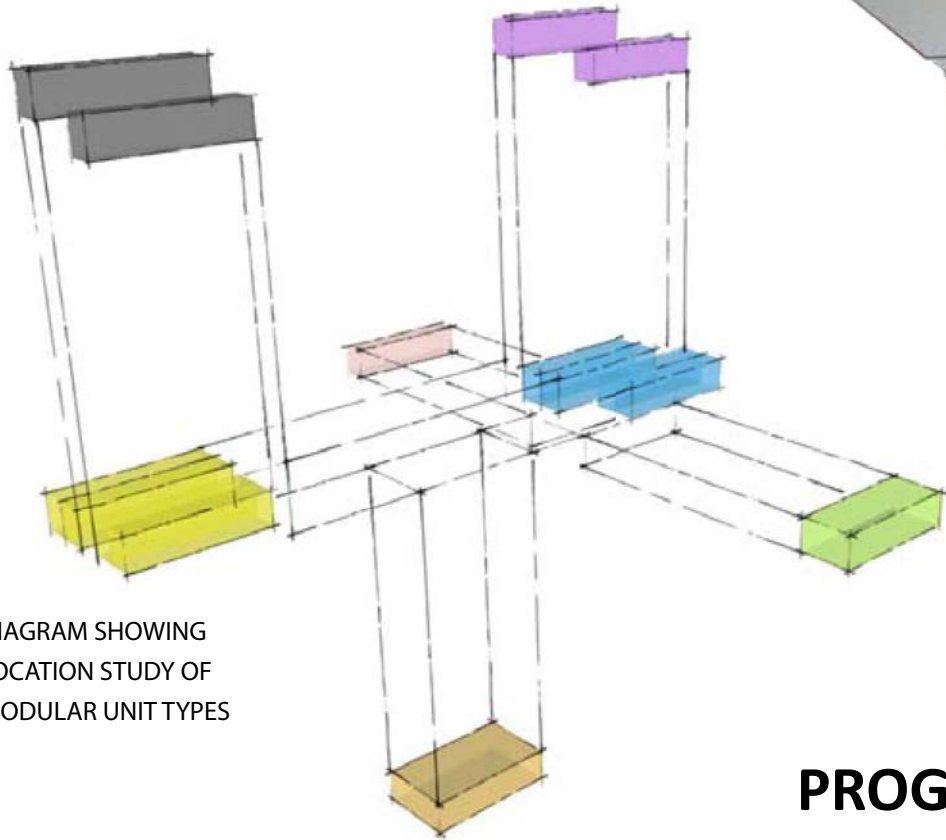
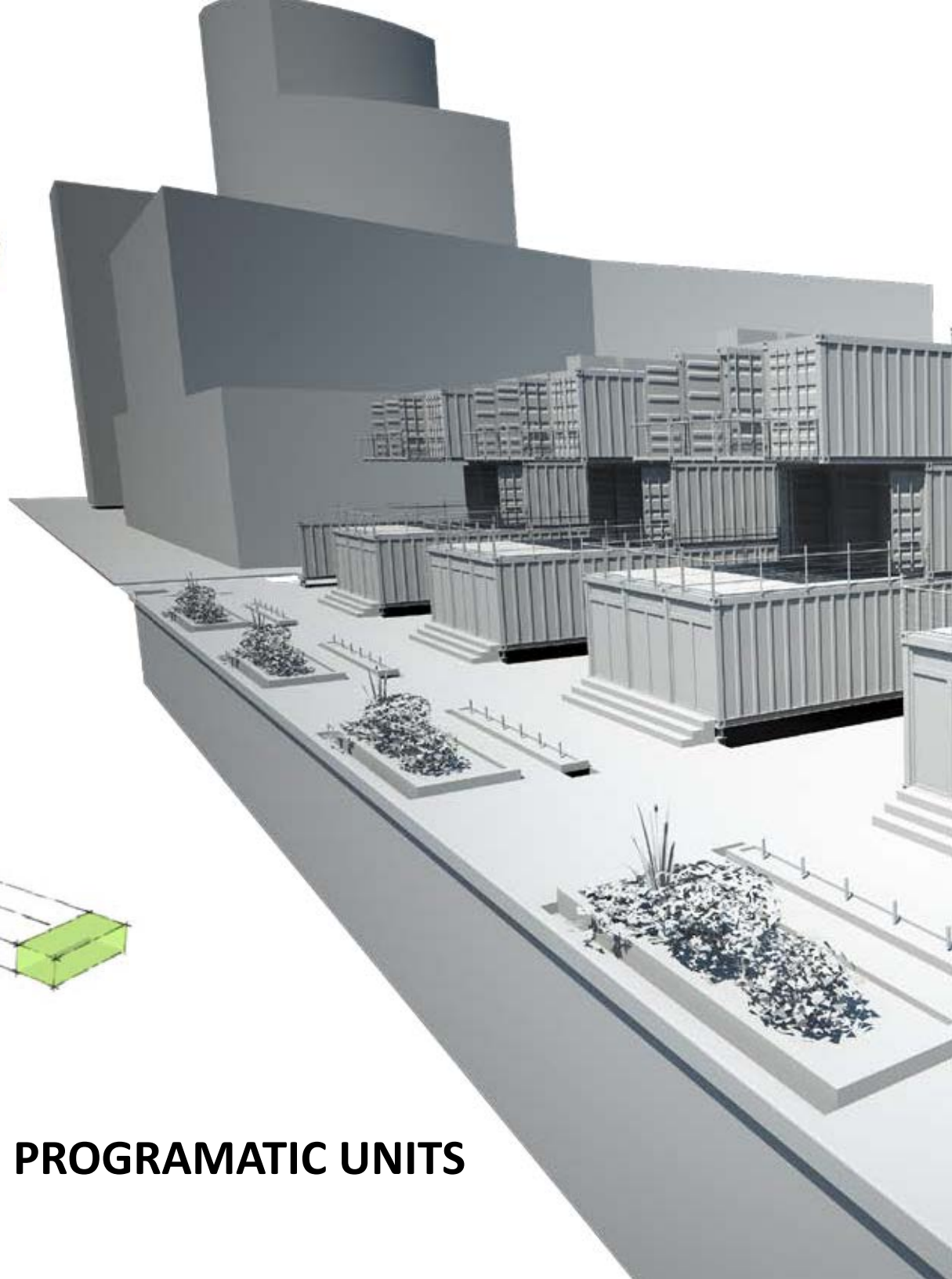
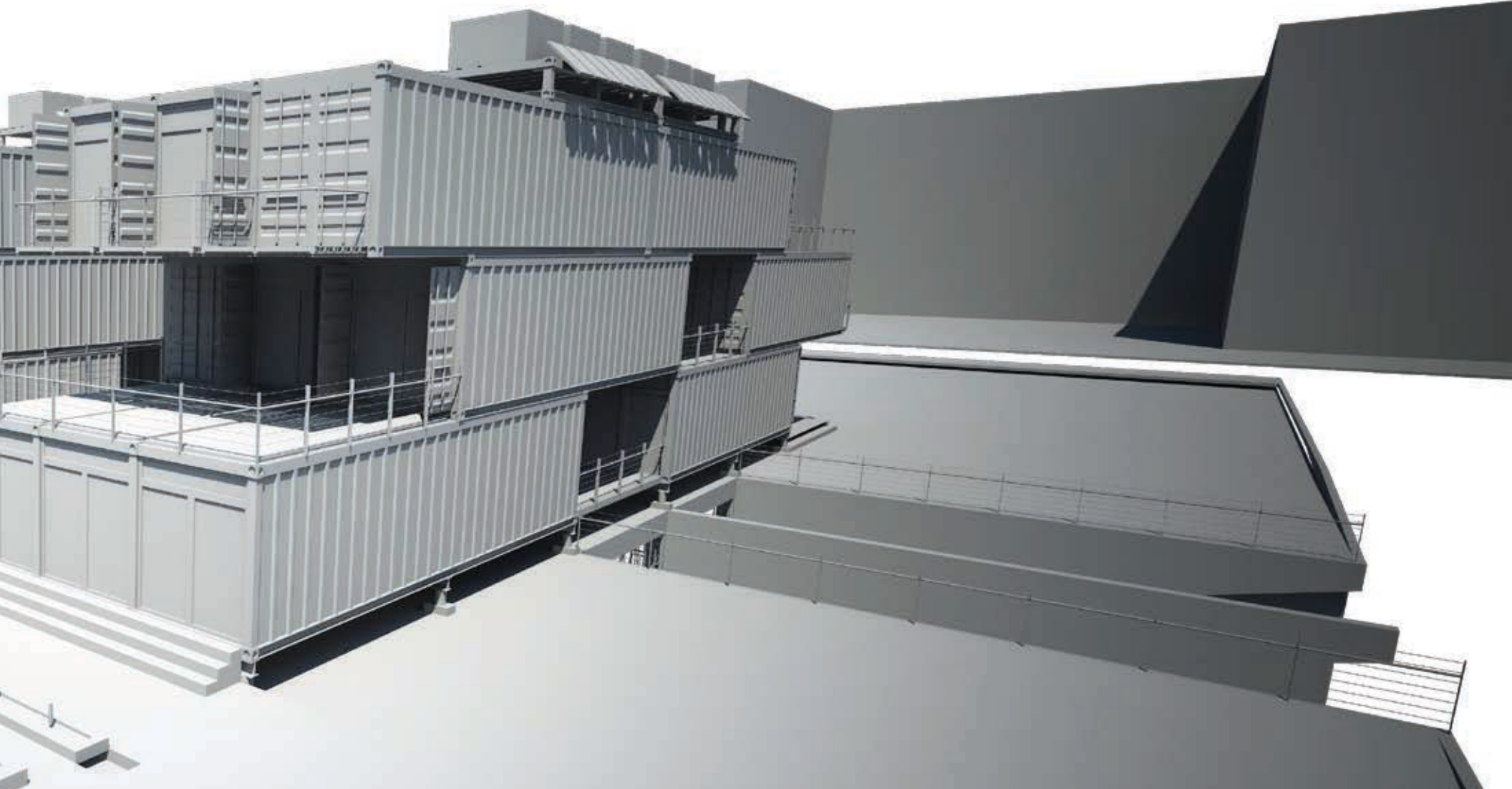


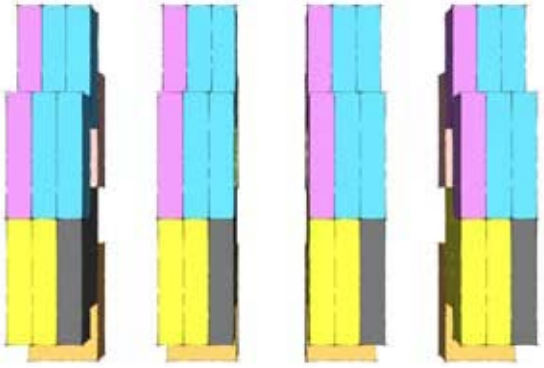
DIAGRAM SHOWING
LOCATION STUDY OF
MODULAR UNIT TYPES



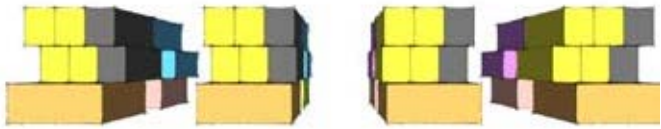
PROGRAMMATIC UNITS



ISOMETRIC MASSING



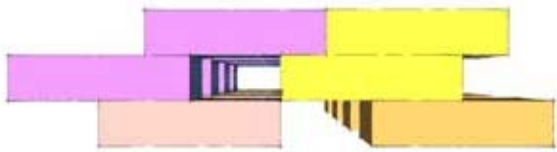
TOP VIEW



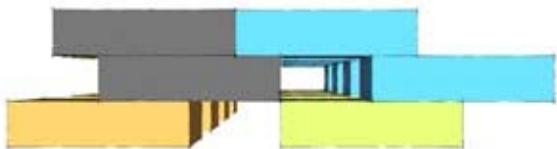
WEST VIEW



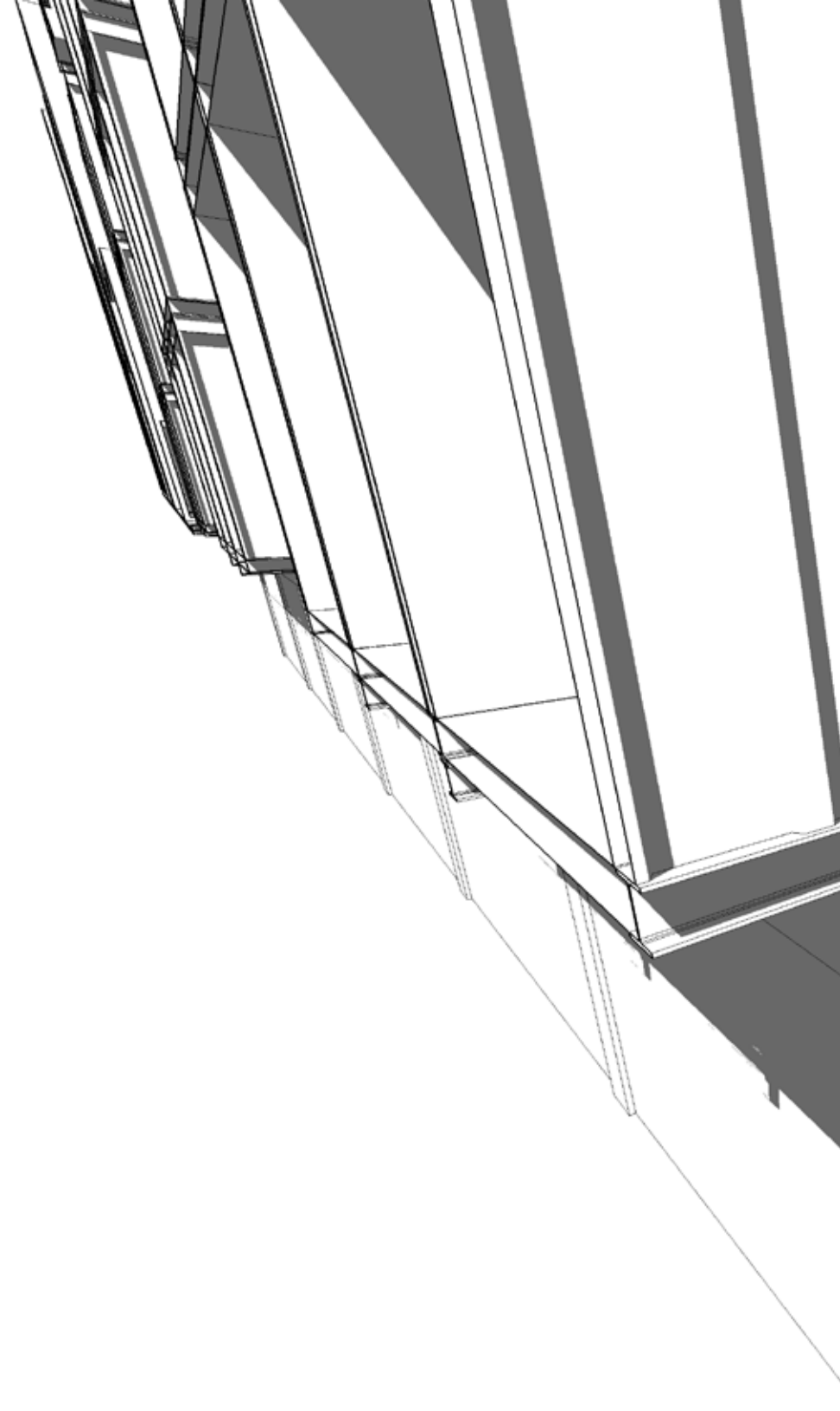
EAST VIEW

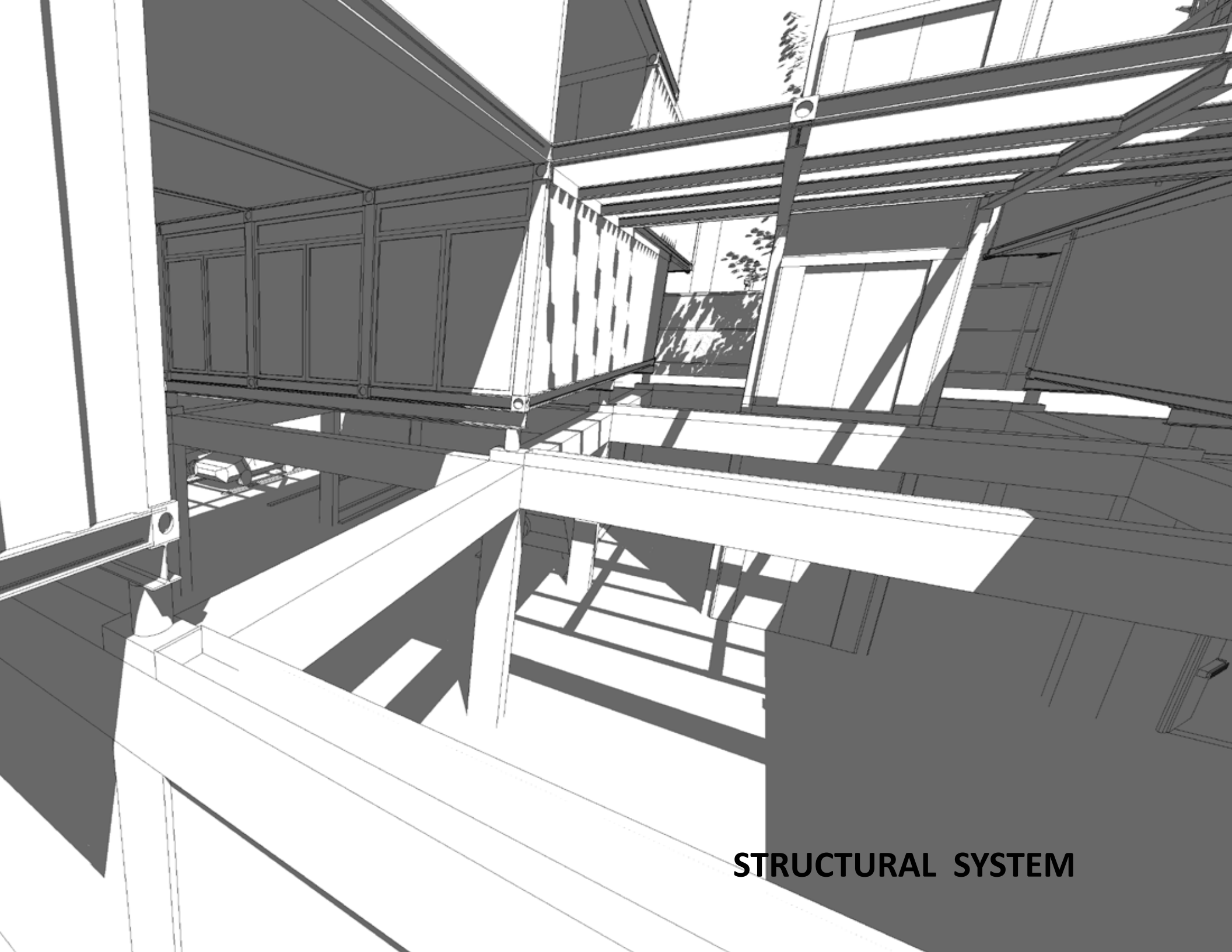


NORTH VIEW

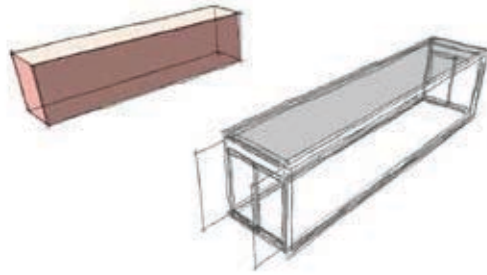


SOUTH VIEW

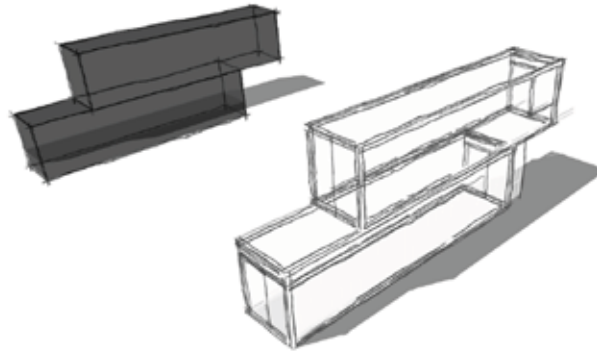




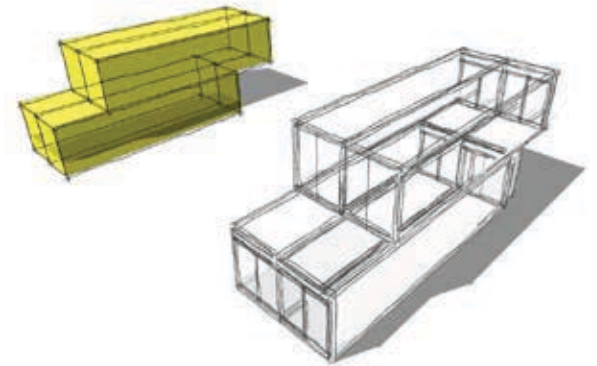
STRUCTURAL SYSTEM



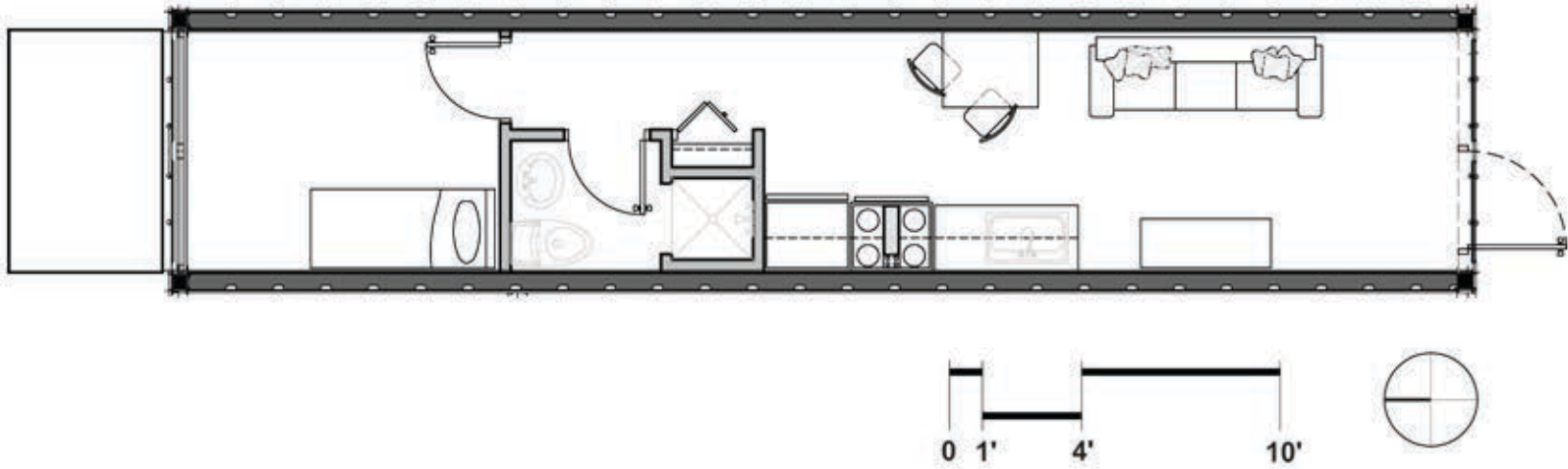
320 SQ.FT. MODULAR PROTOTYPE
FOR 1 BEDROOM OCCUPANCY



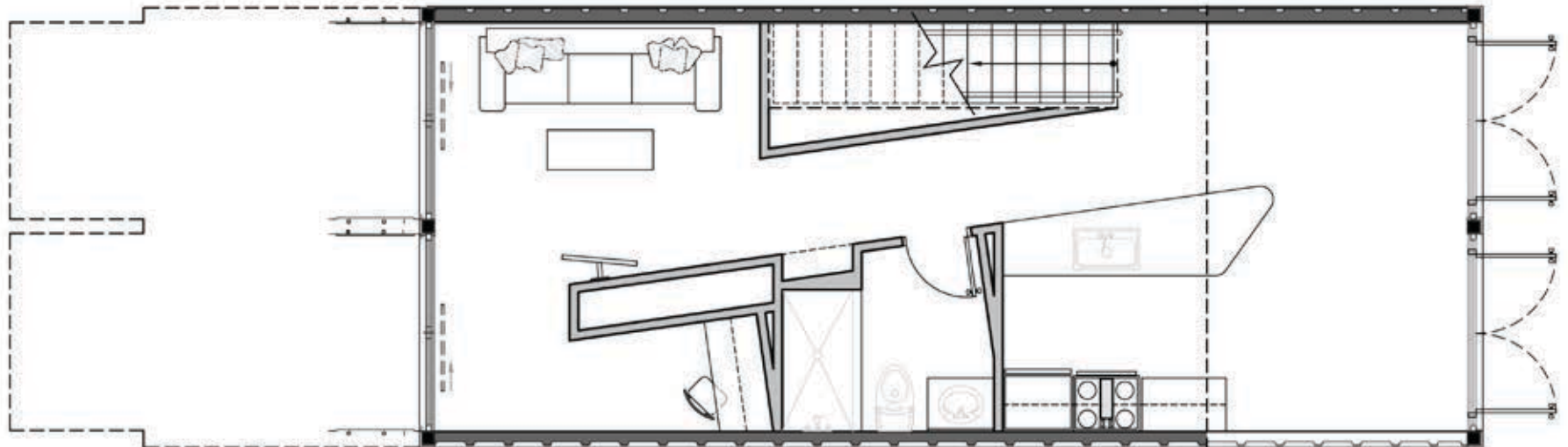
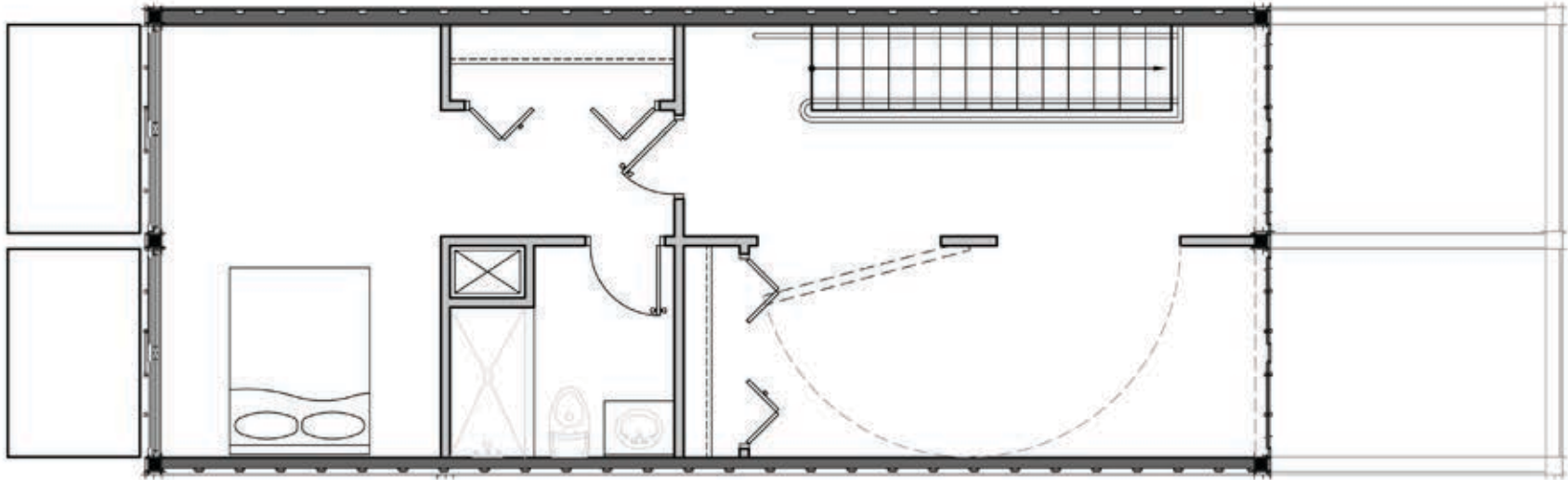
640 SQ.FT. MODULAR PROTOTYPE
FOR 2 BEDROOM OCCUPANCY



1280 SQ.FT. MODULAR PROTOTYPE
FOR 2-3 BEDROOM OCCUPANCY

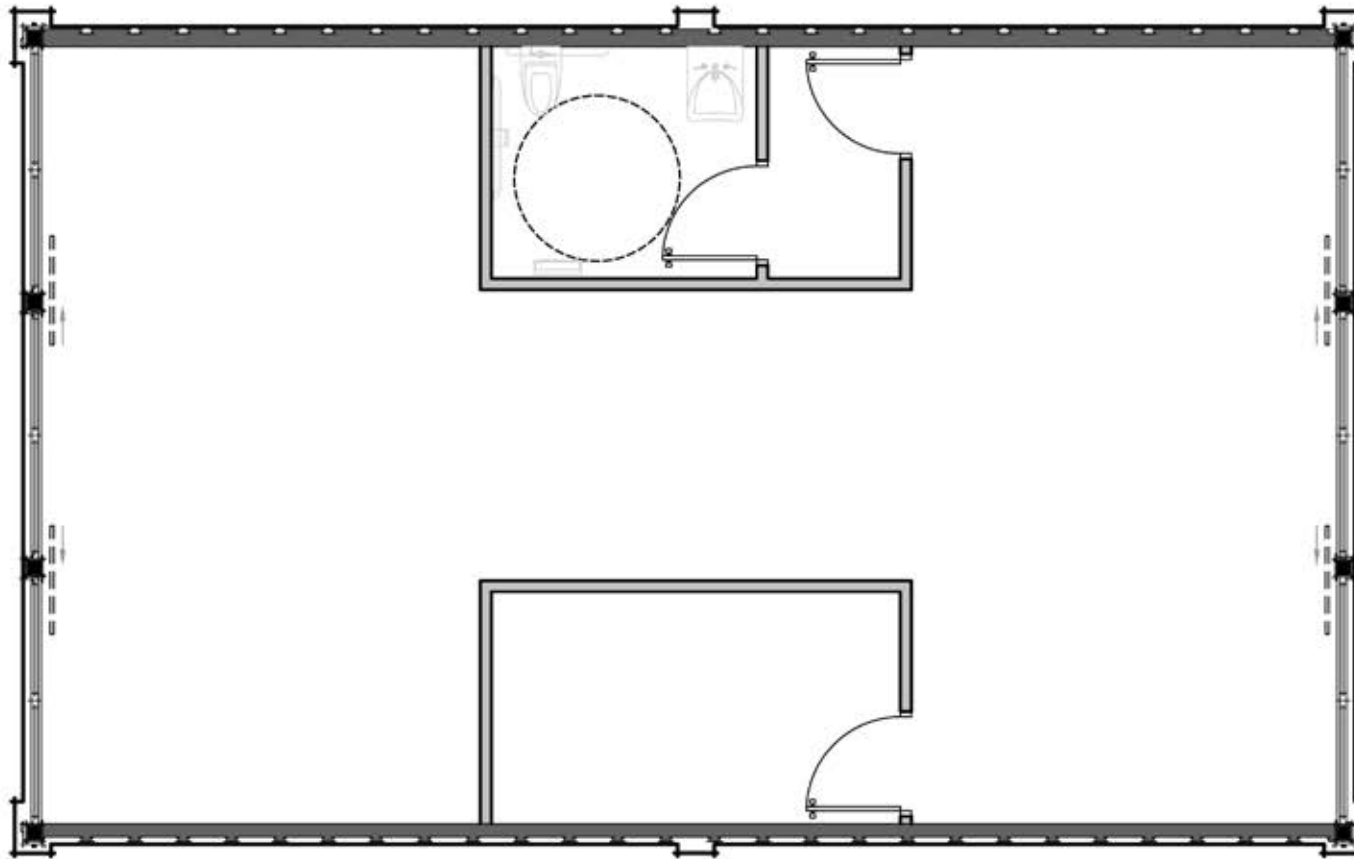


1 BEDROOM OCCUPANCY

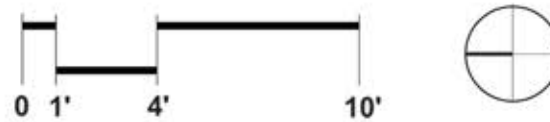


2-3 BEDROOM OCCUPANCY





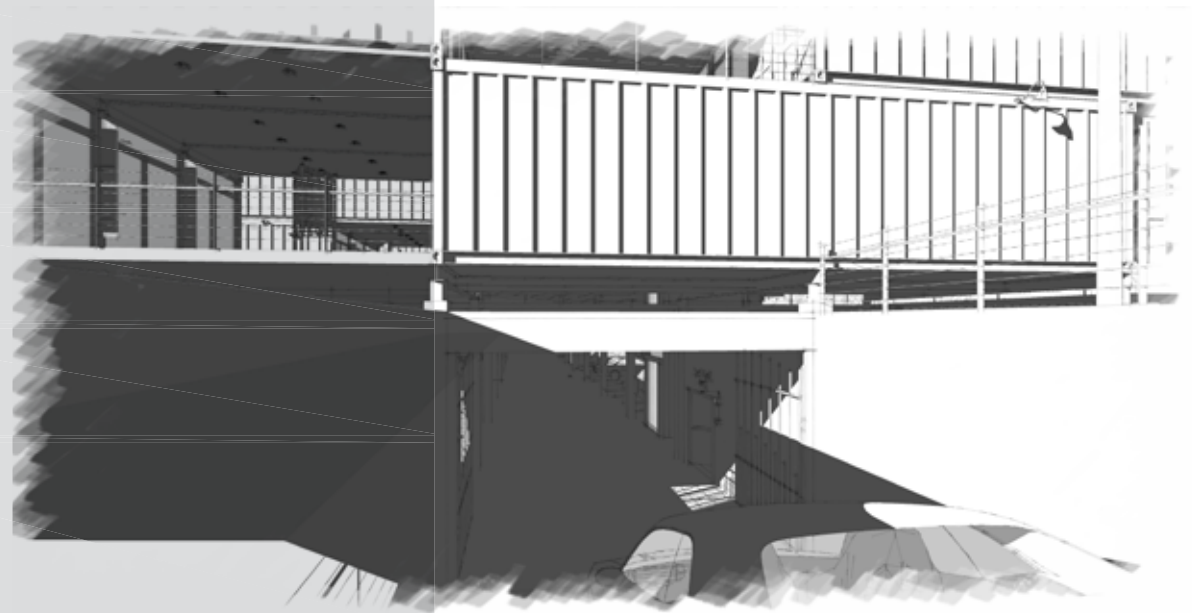
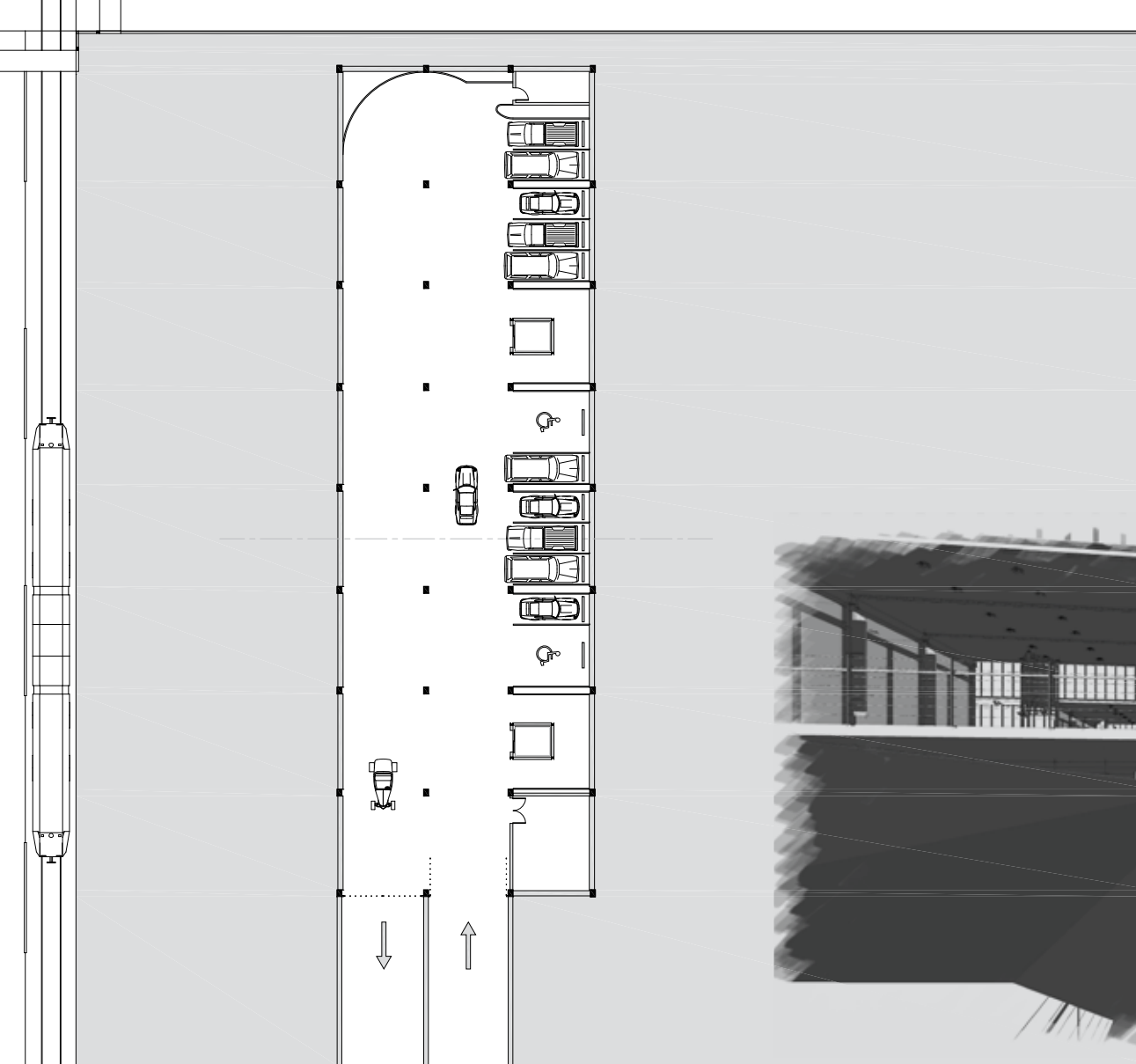
960 SQ.FT. MODULAR PROTOTYPE



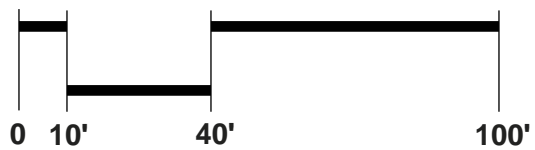
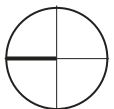
TYPICAL STOREFRONT MODULE

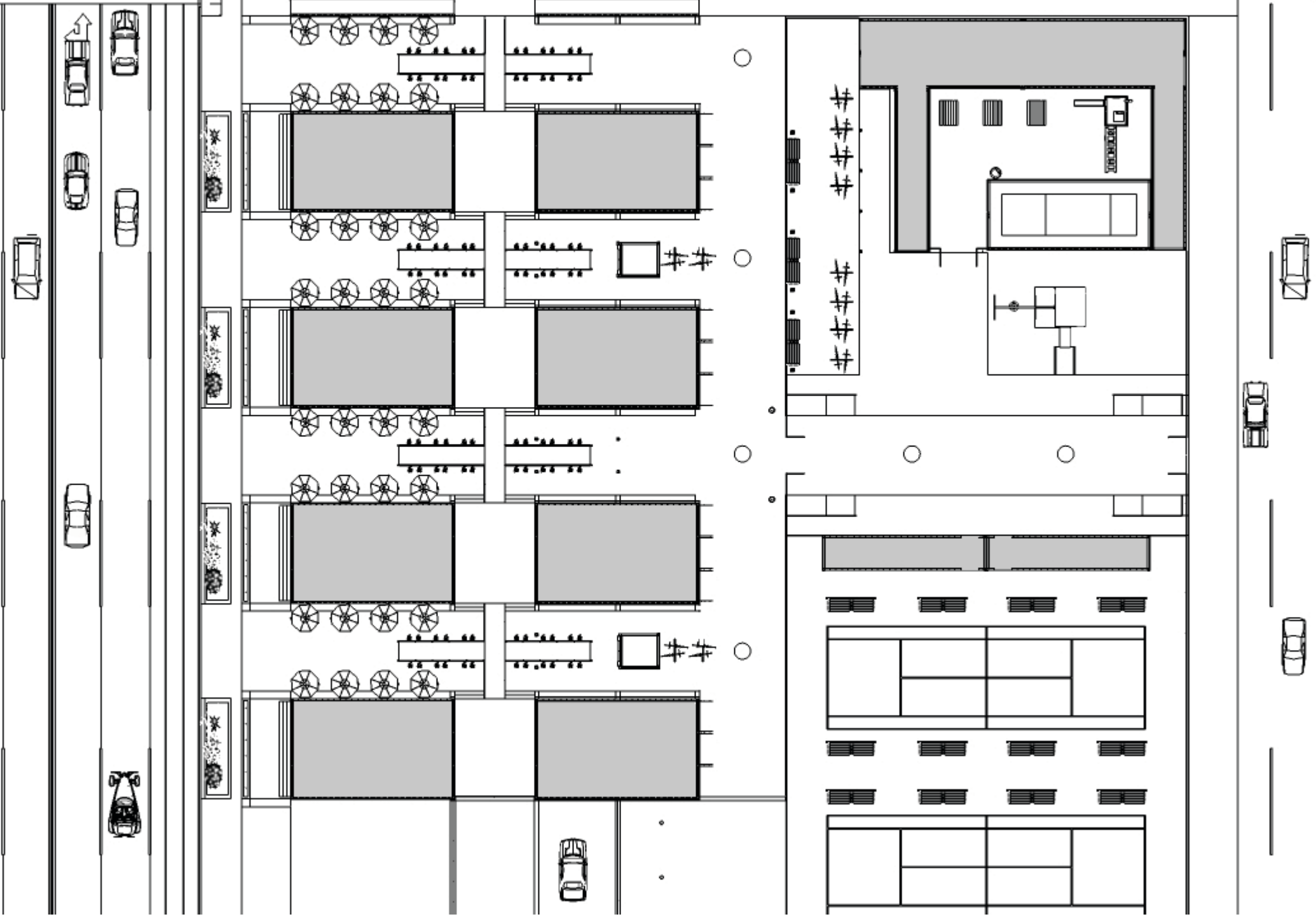
GARAGE LEVEL

- 12 UNDERGROUND PARKING SPACES
- 2 HANDICAP SPACES
- 2 ELEVATORS
- MEP ROOM & STORAGE

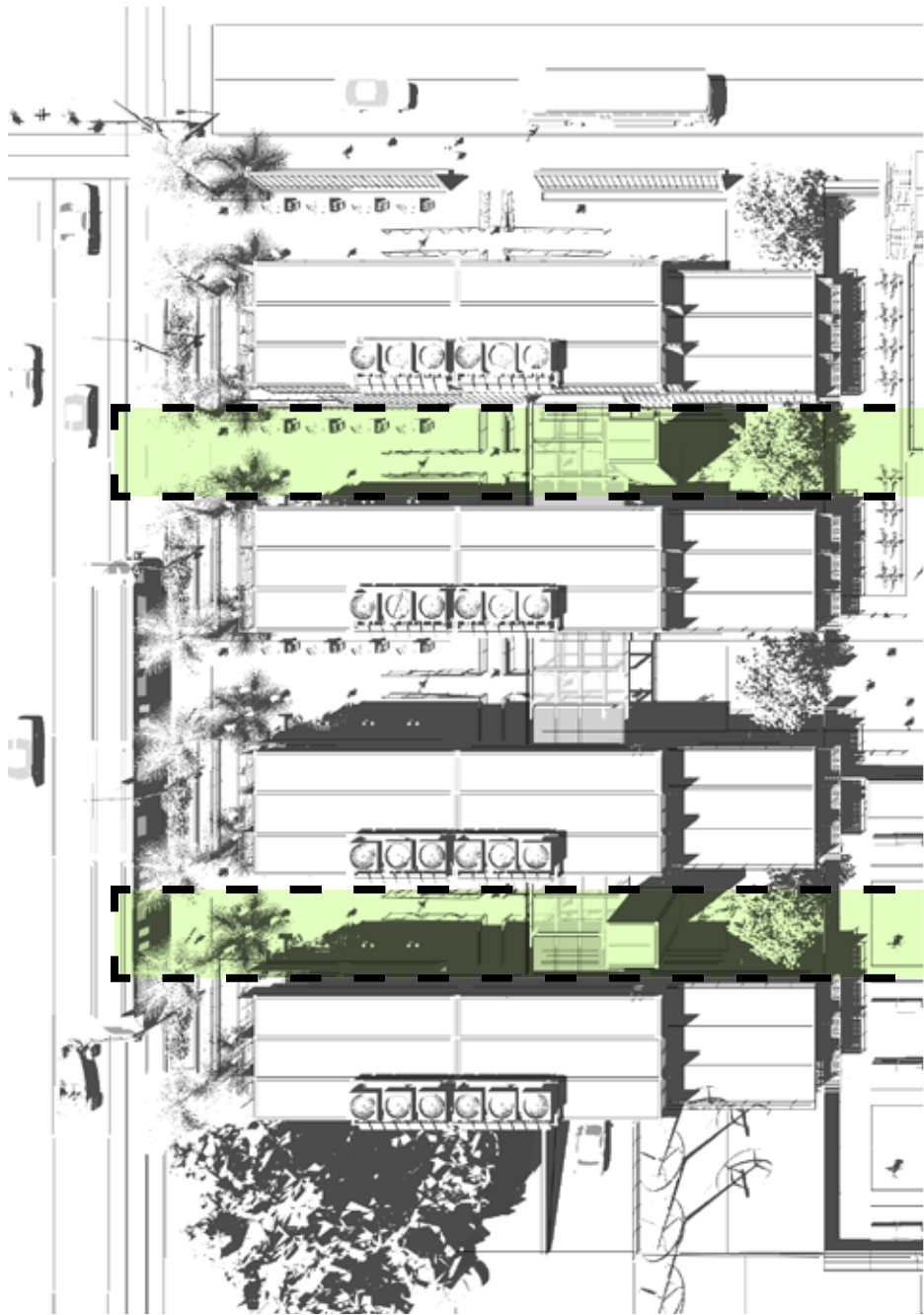


VIEW OF GARAGE ENTRY





GROUND FLOOR USEABLE SPACE

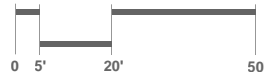


- VERTICAL CIRCULATION
- COURTYARD CIRCULATION
- RESIDENT CIRCULATION
- STOREFRONT CIRCULATION
- BICYCLE CIRCULATION

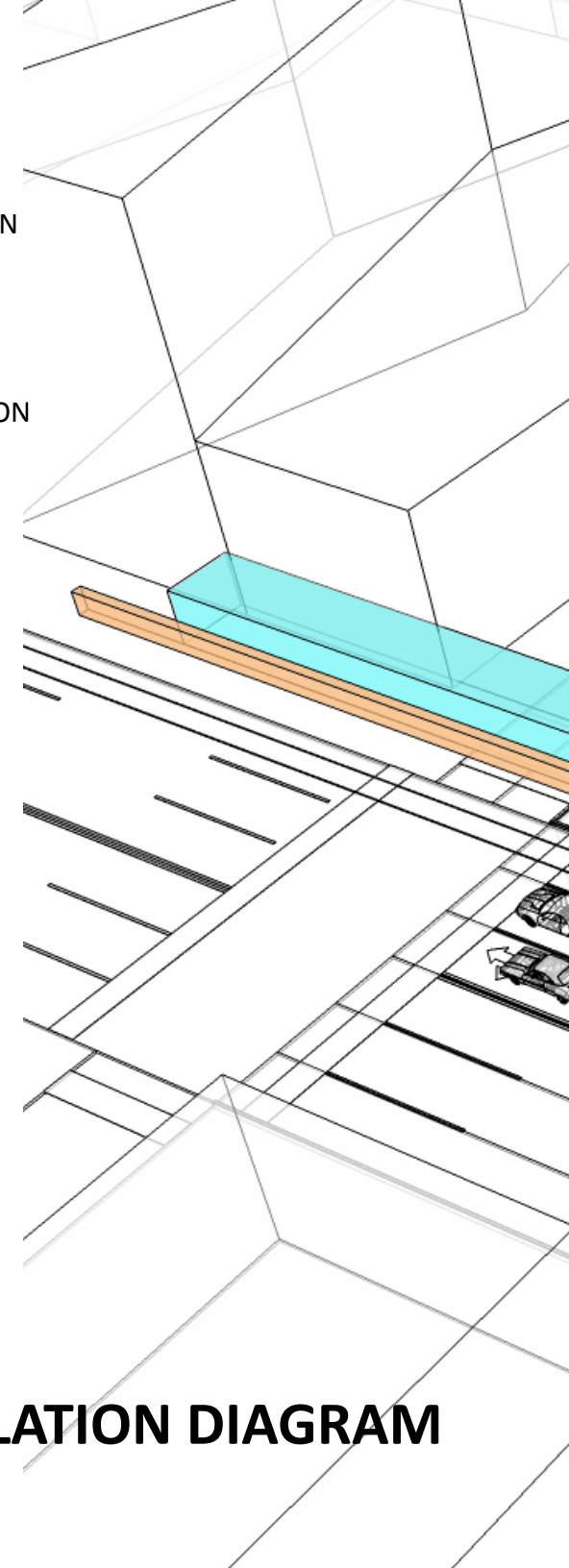
ELEVATOR ACCESS

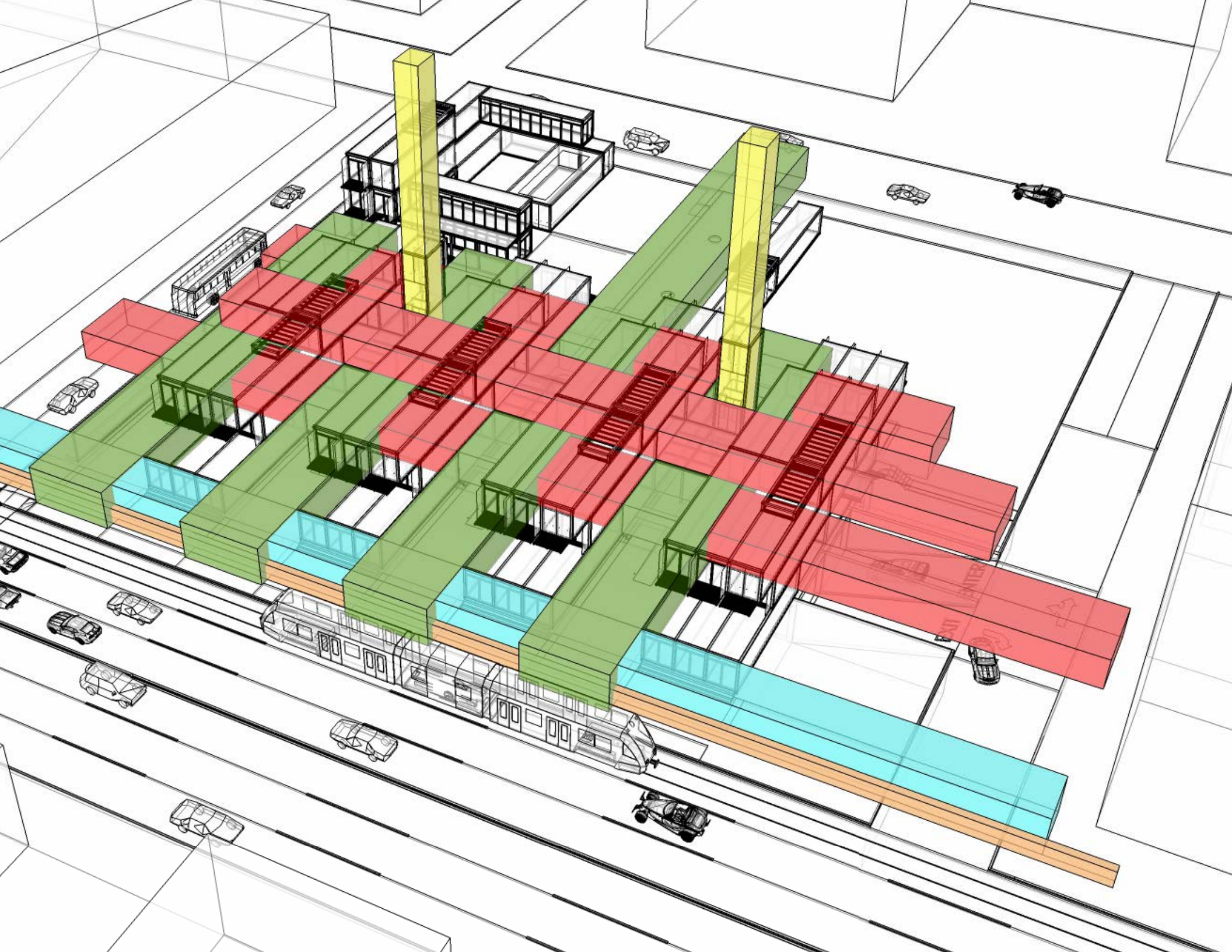


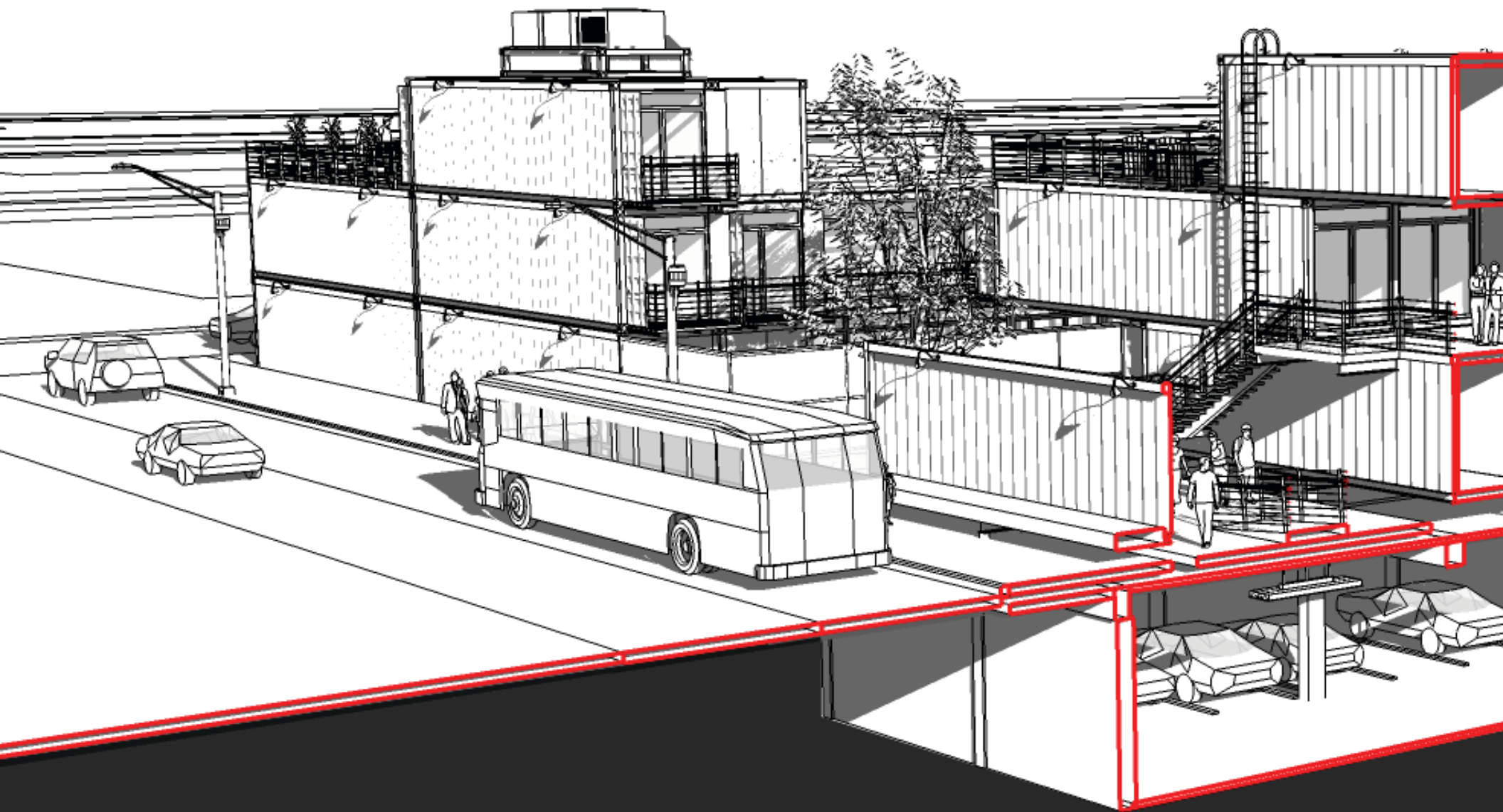
Site Plan

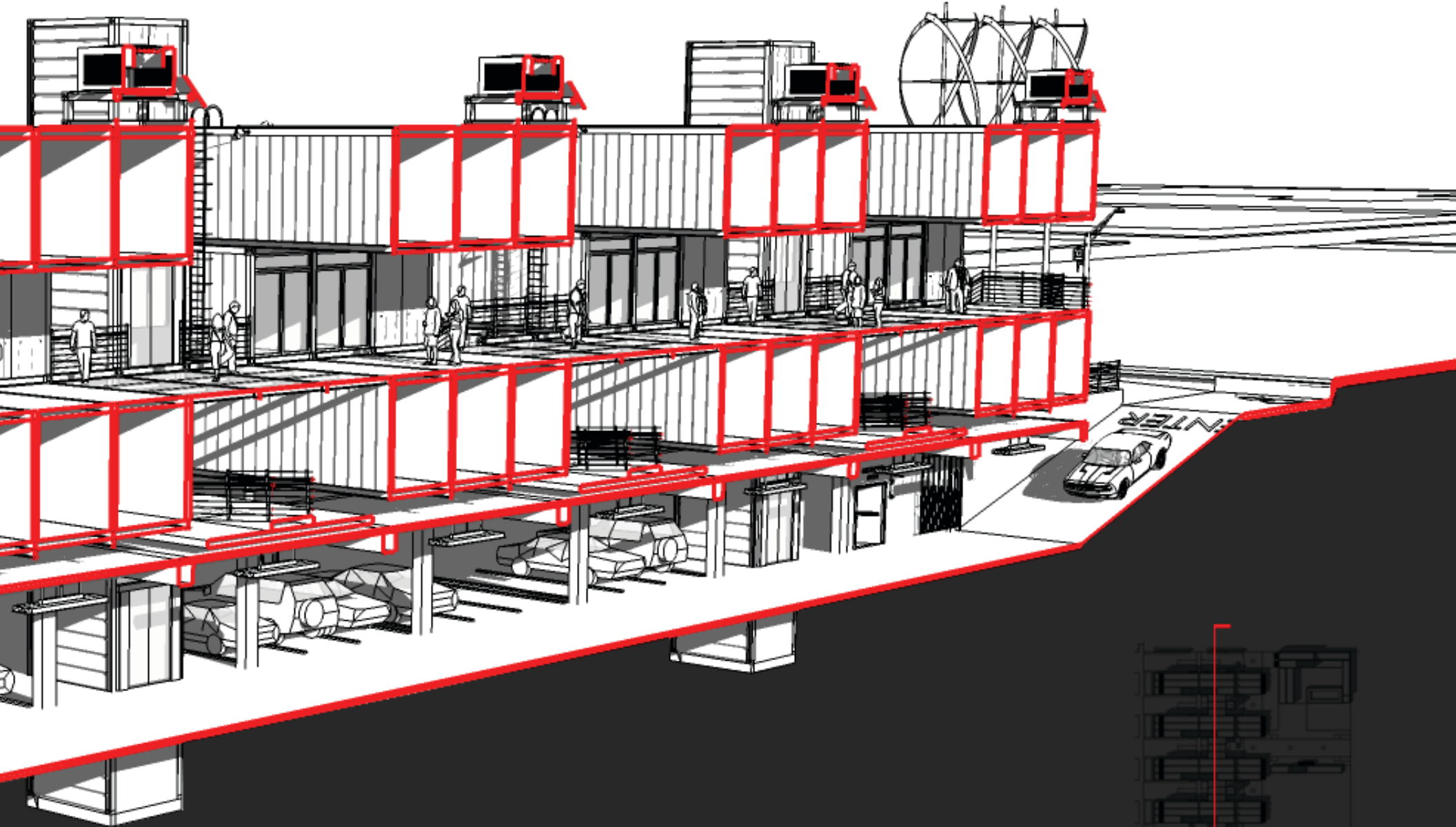


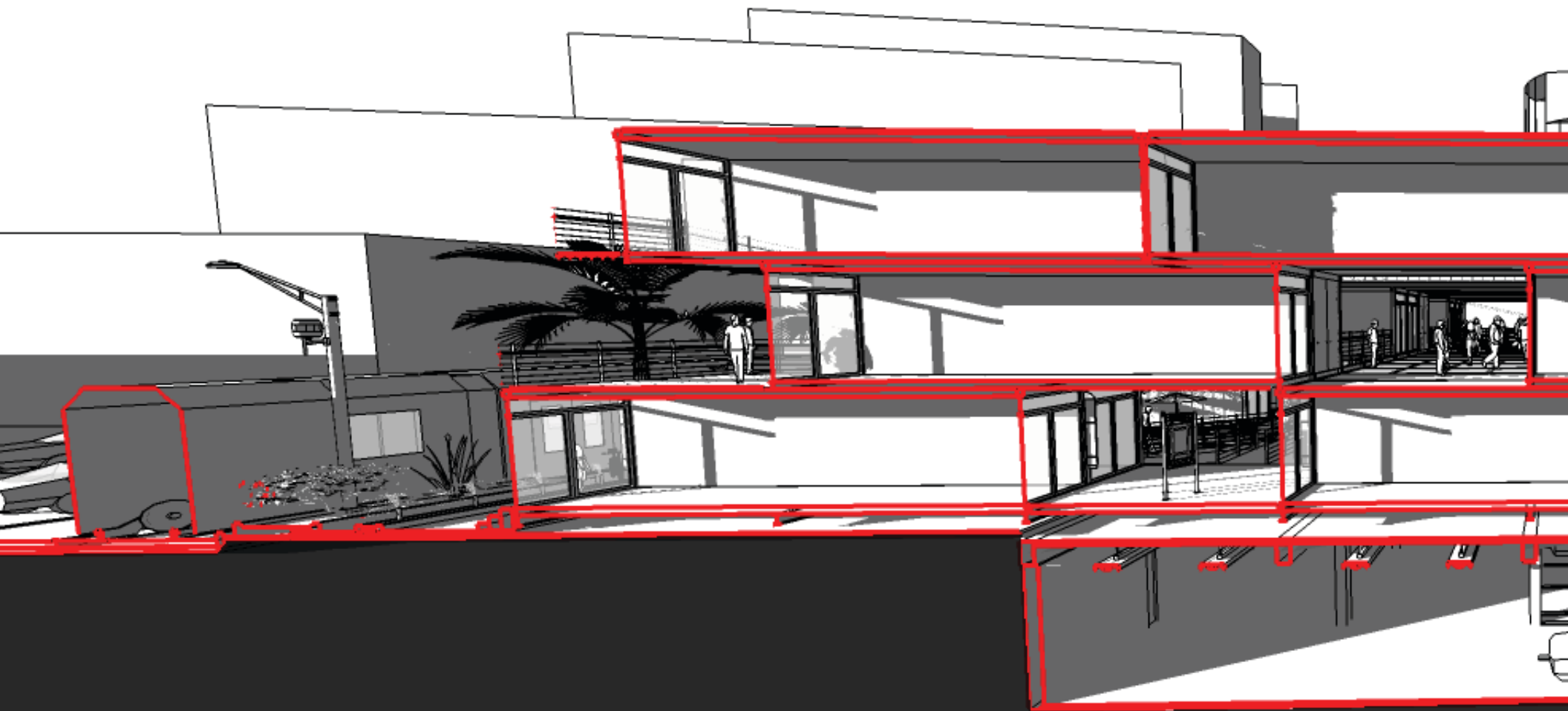
CIRCULATION DIAGRAM



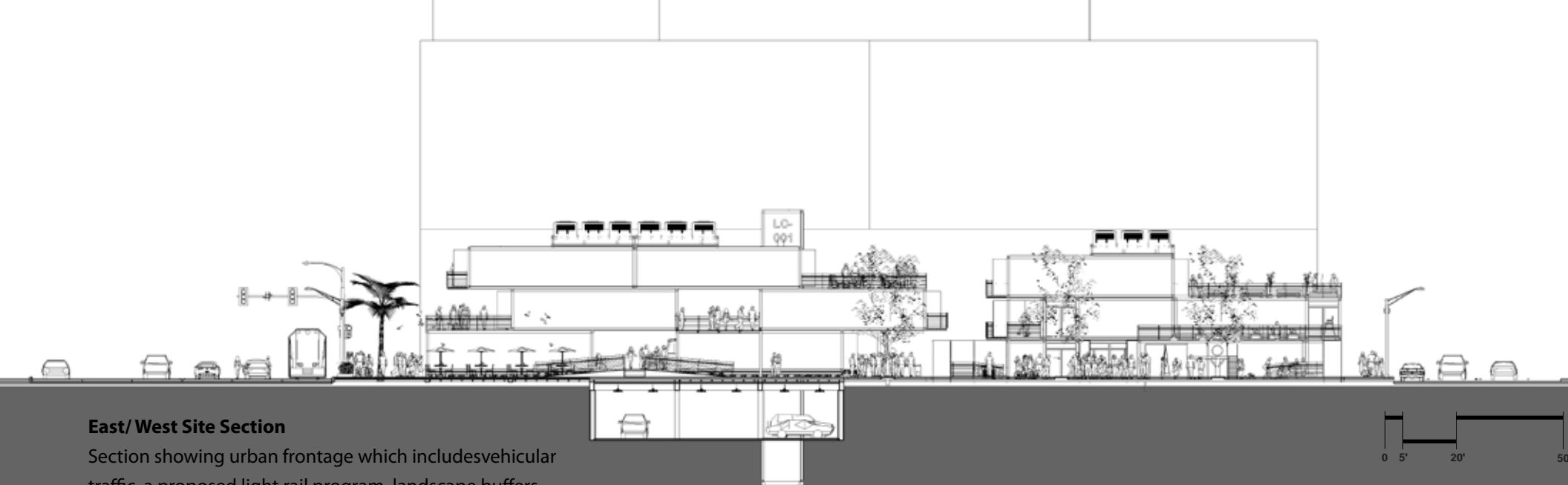






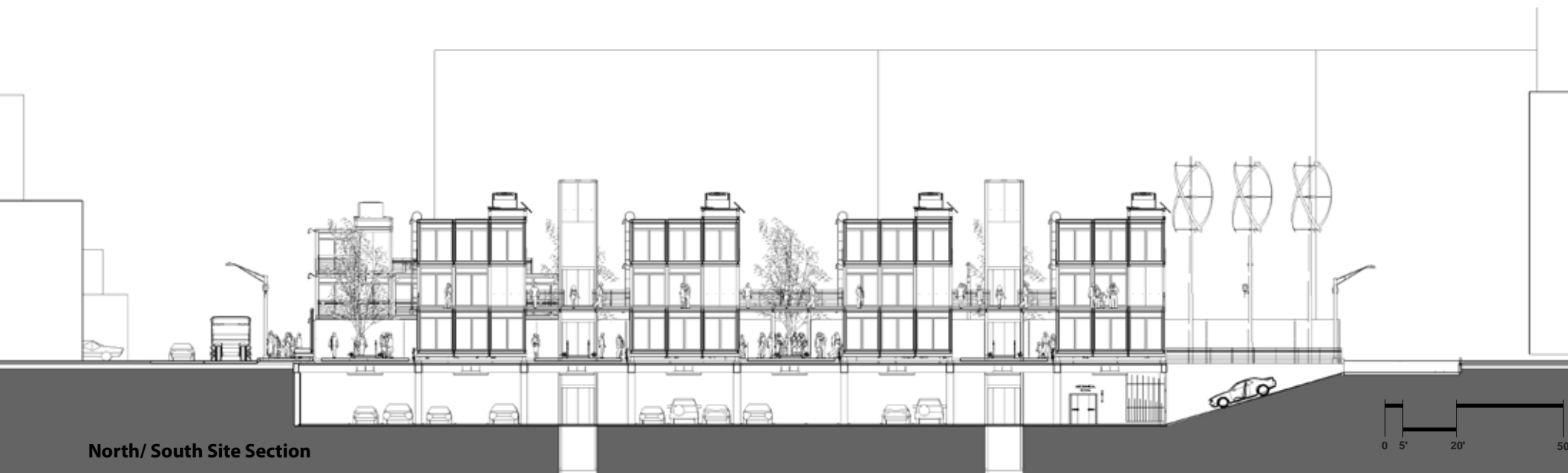






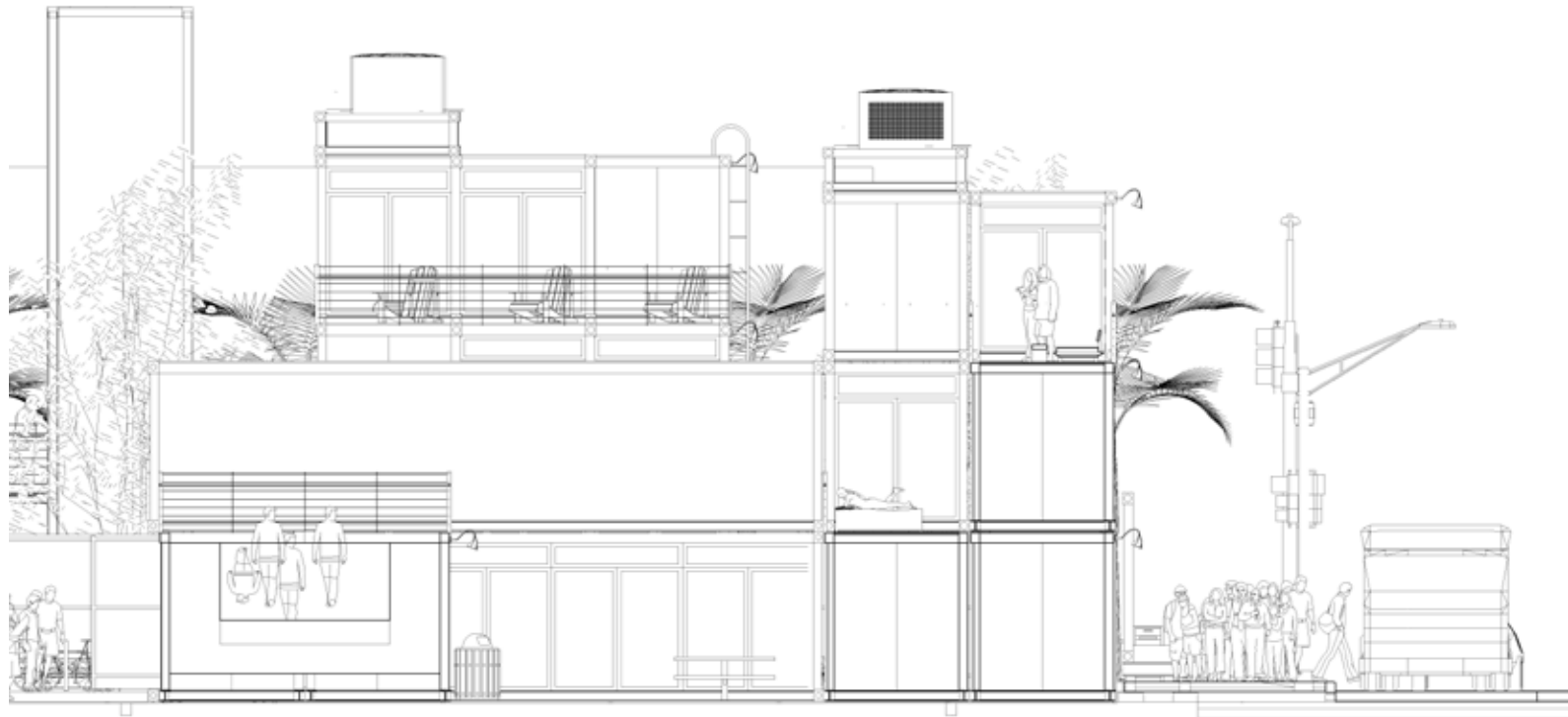
East/ West Site Section

Section showing urban frontage which includes vehicular traffic, a proposed light rail program, landscape buffers, bicycle lane and 12 feet of sidewalk.

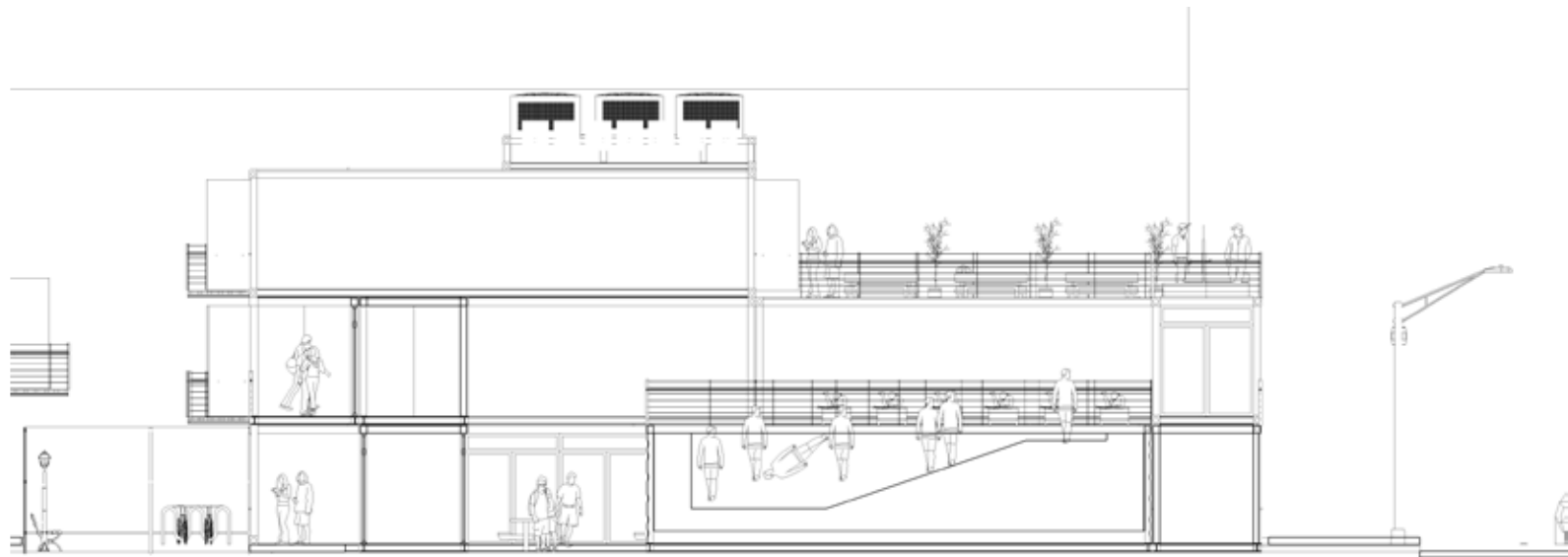


North/ South Site Section

Section showing all vehicular parking to be located underground. Location of container elevators allow accessibility to all levels.



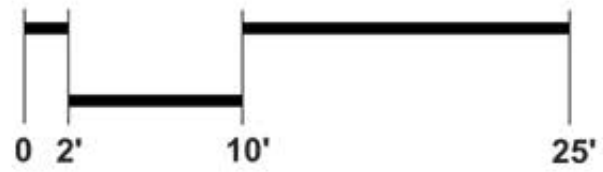
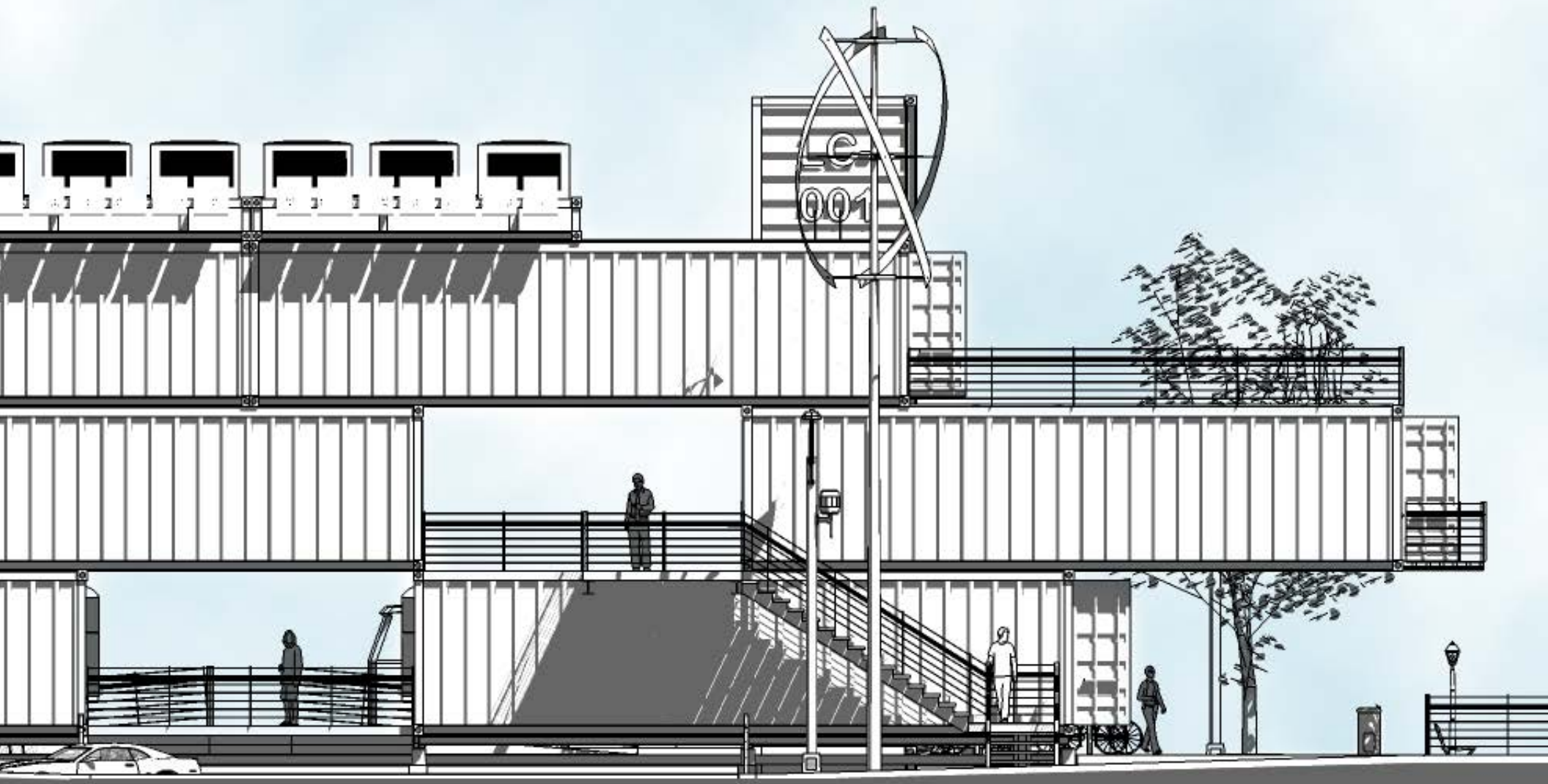
SECTION THRU COMMUNITY CENTER

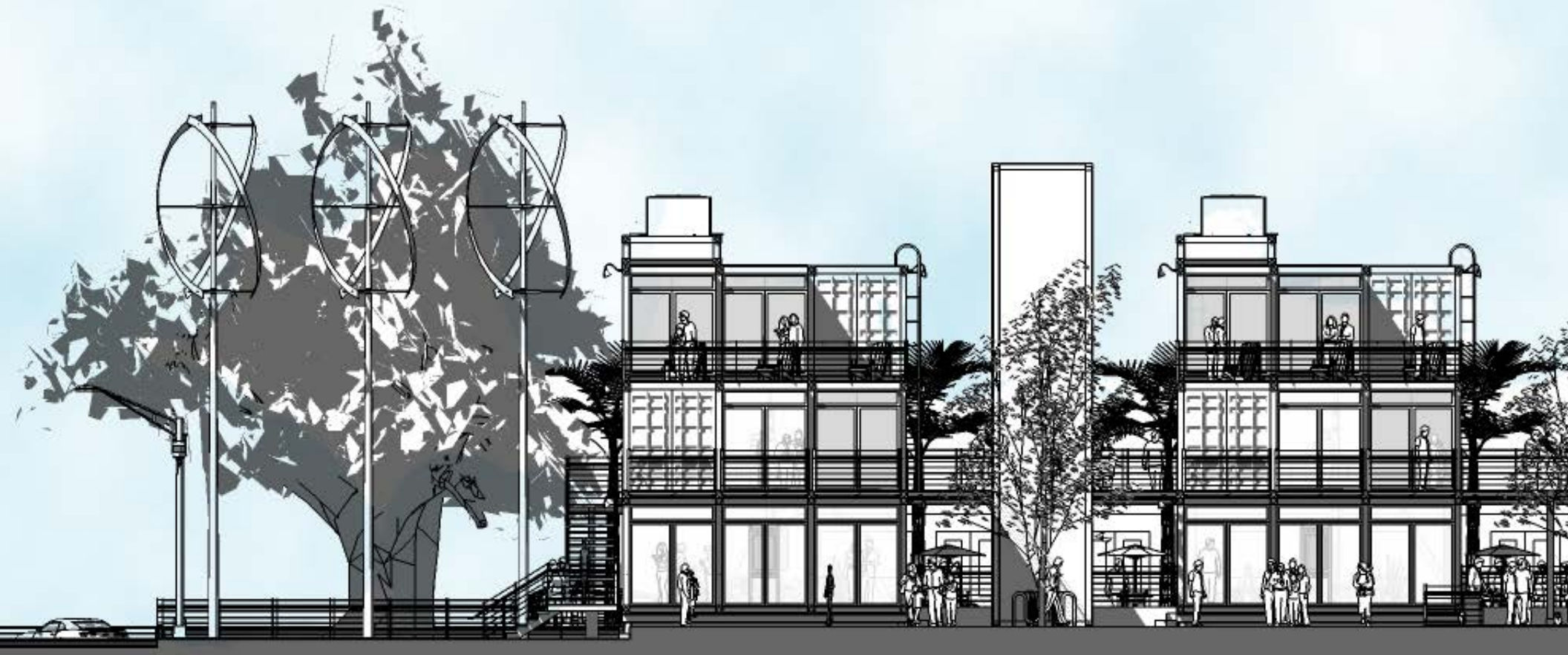


SECTION THRU COMMUNITY CENTER

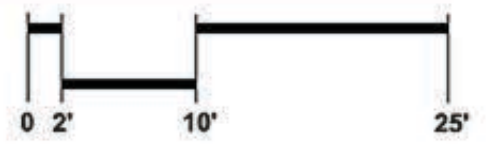
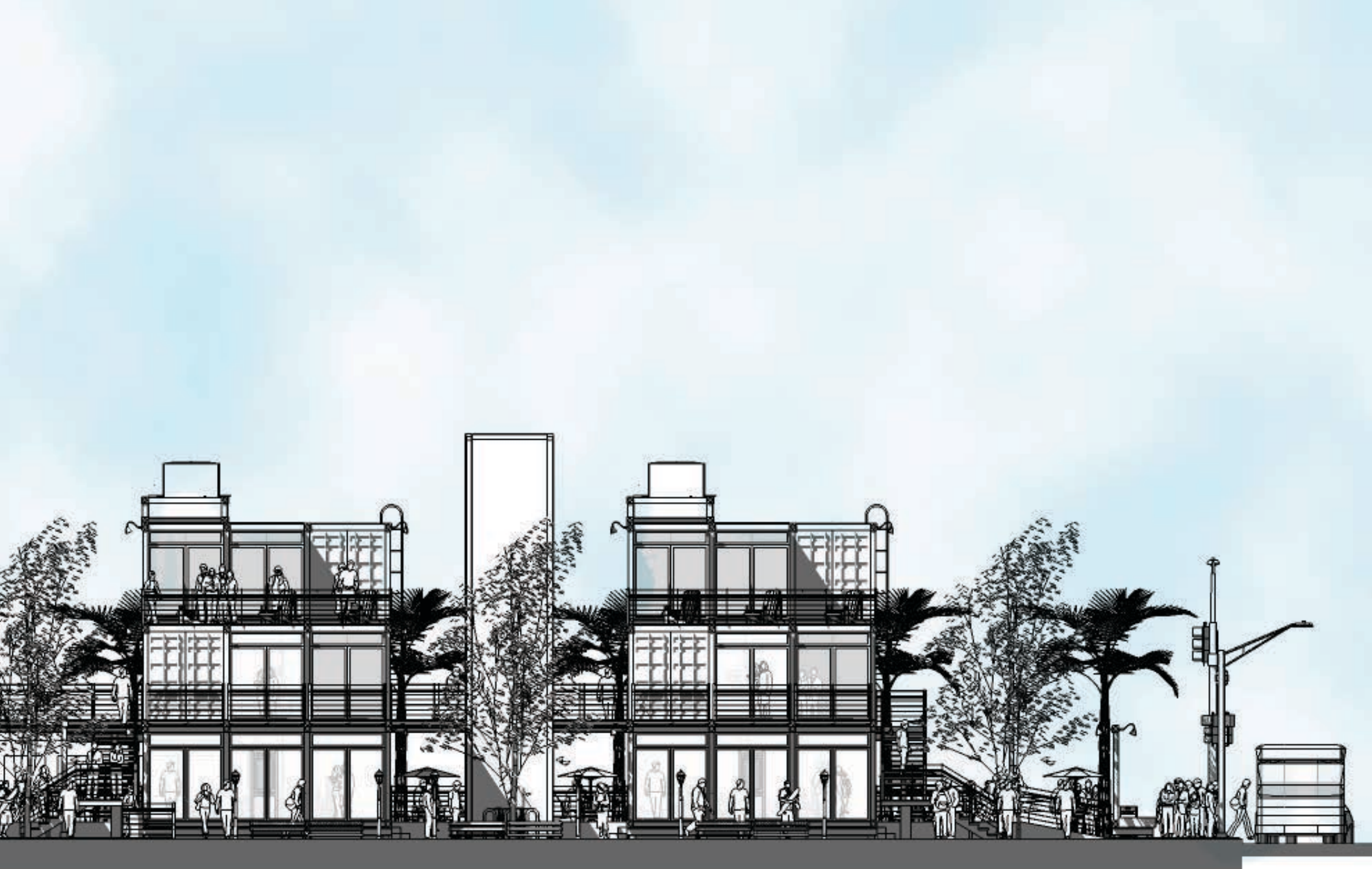


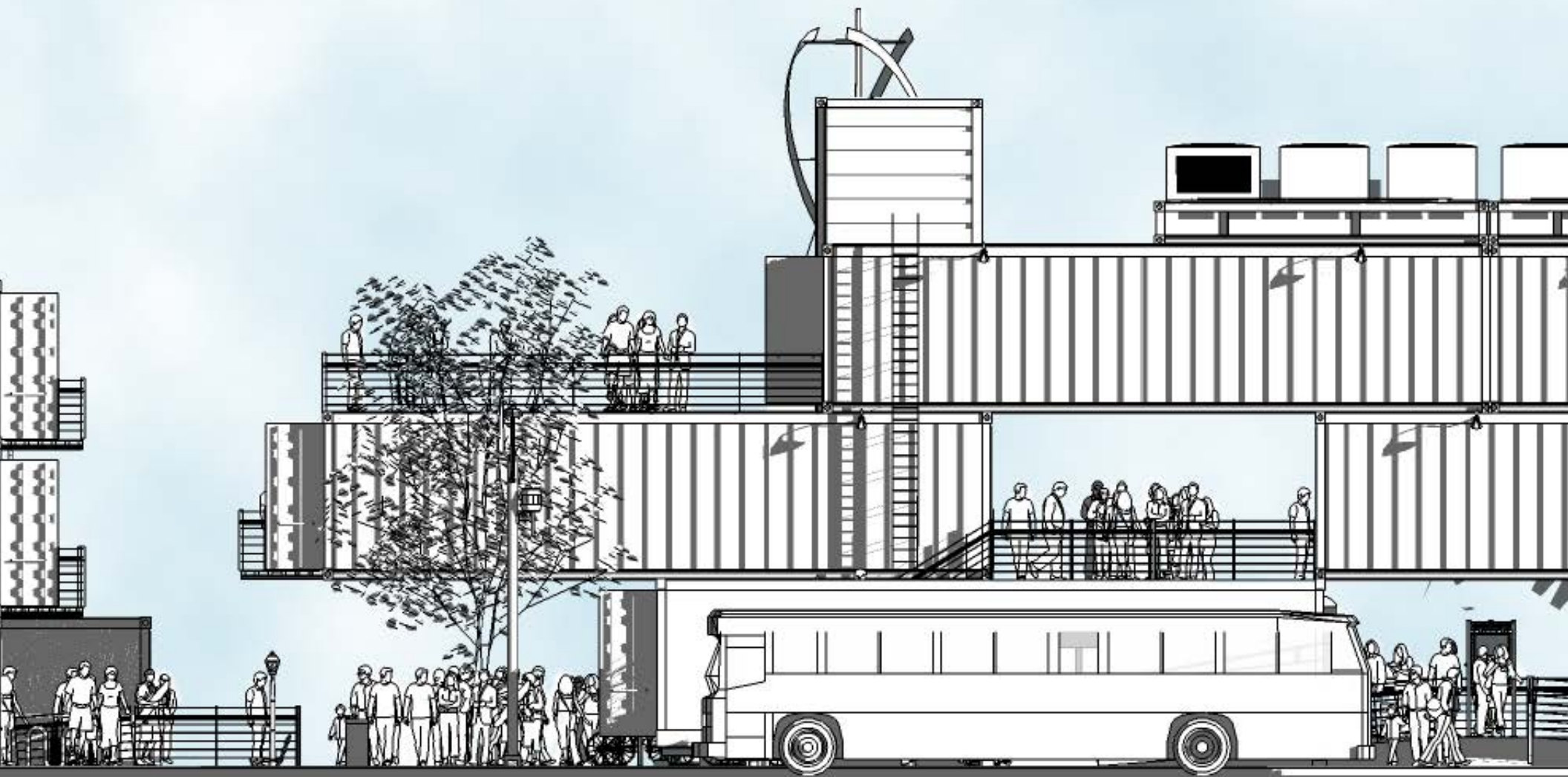
SOUTH ELEVATION



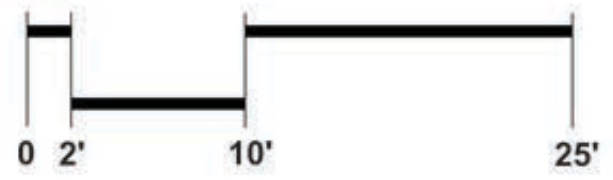


EAST ELEVATION



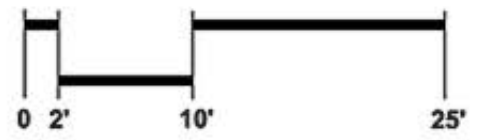


NORTH ELEVATION



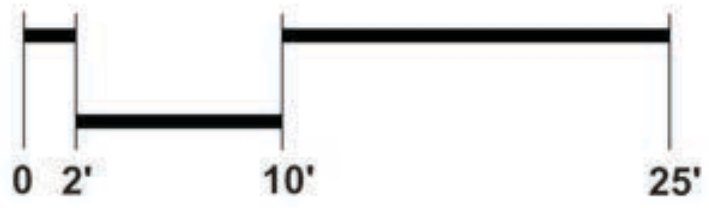
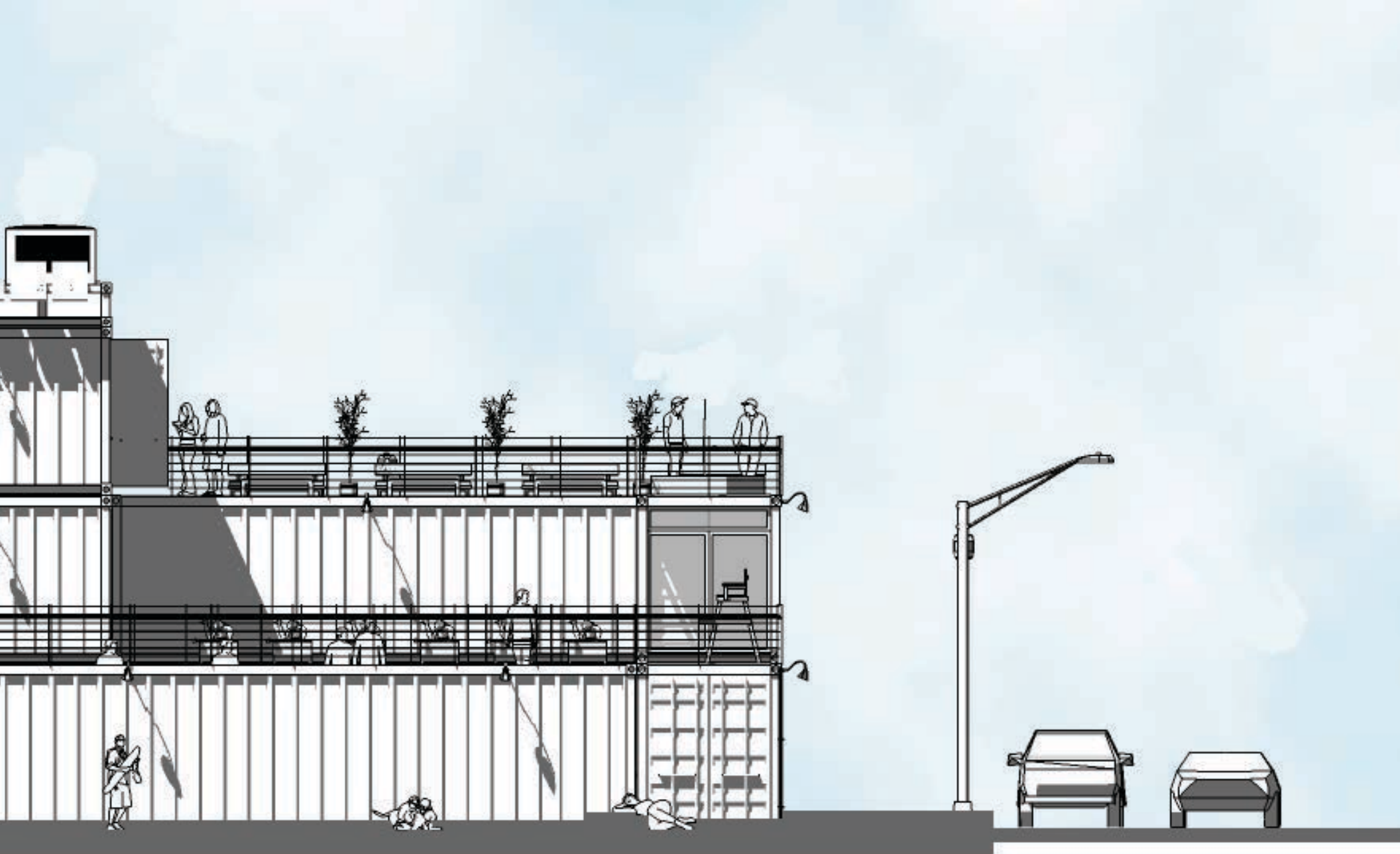


WEST ELEVATION



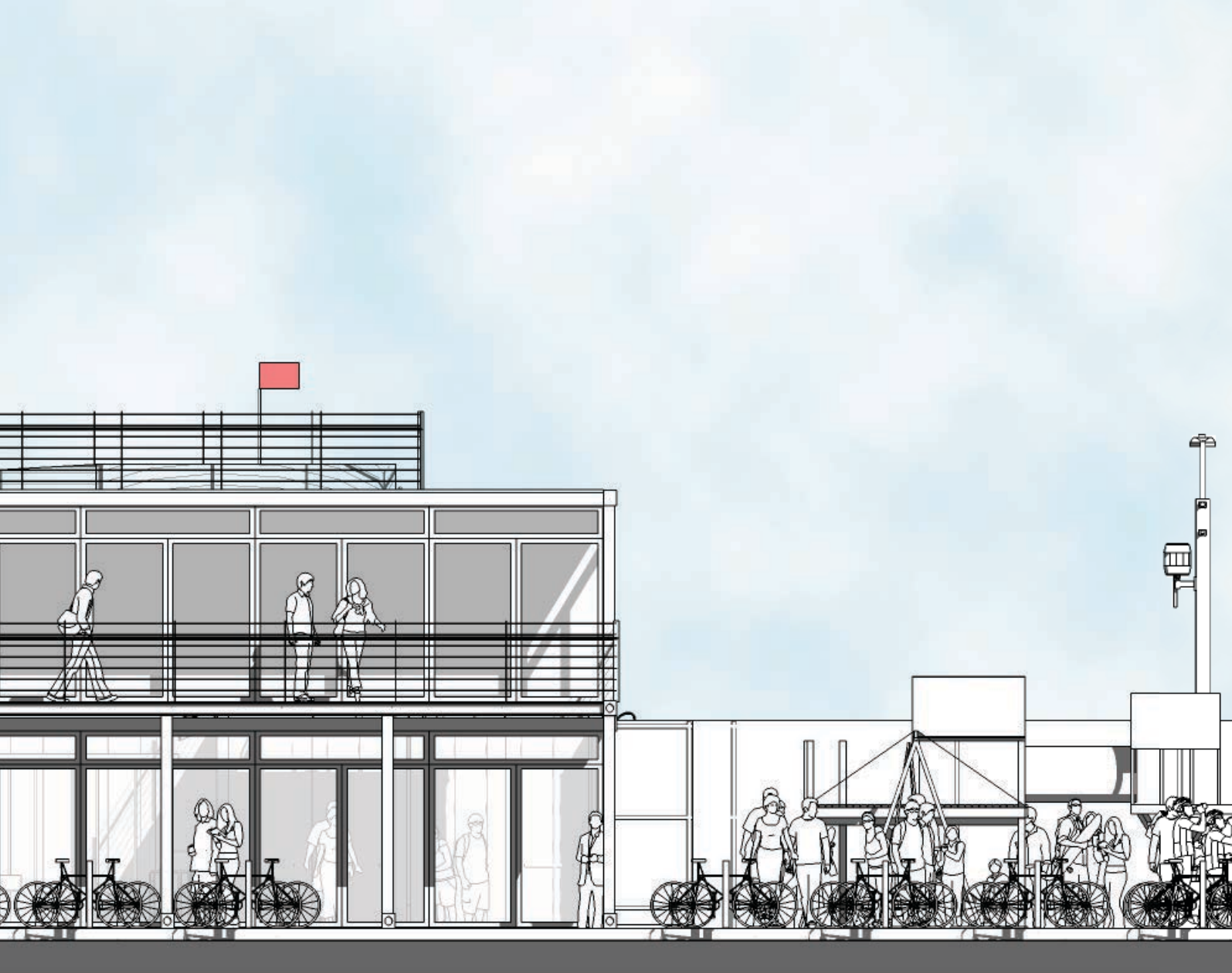


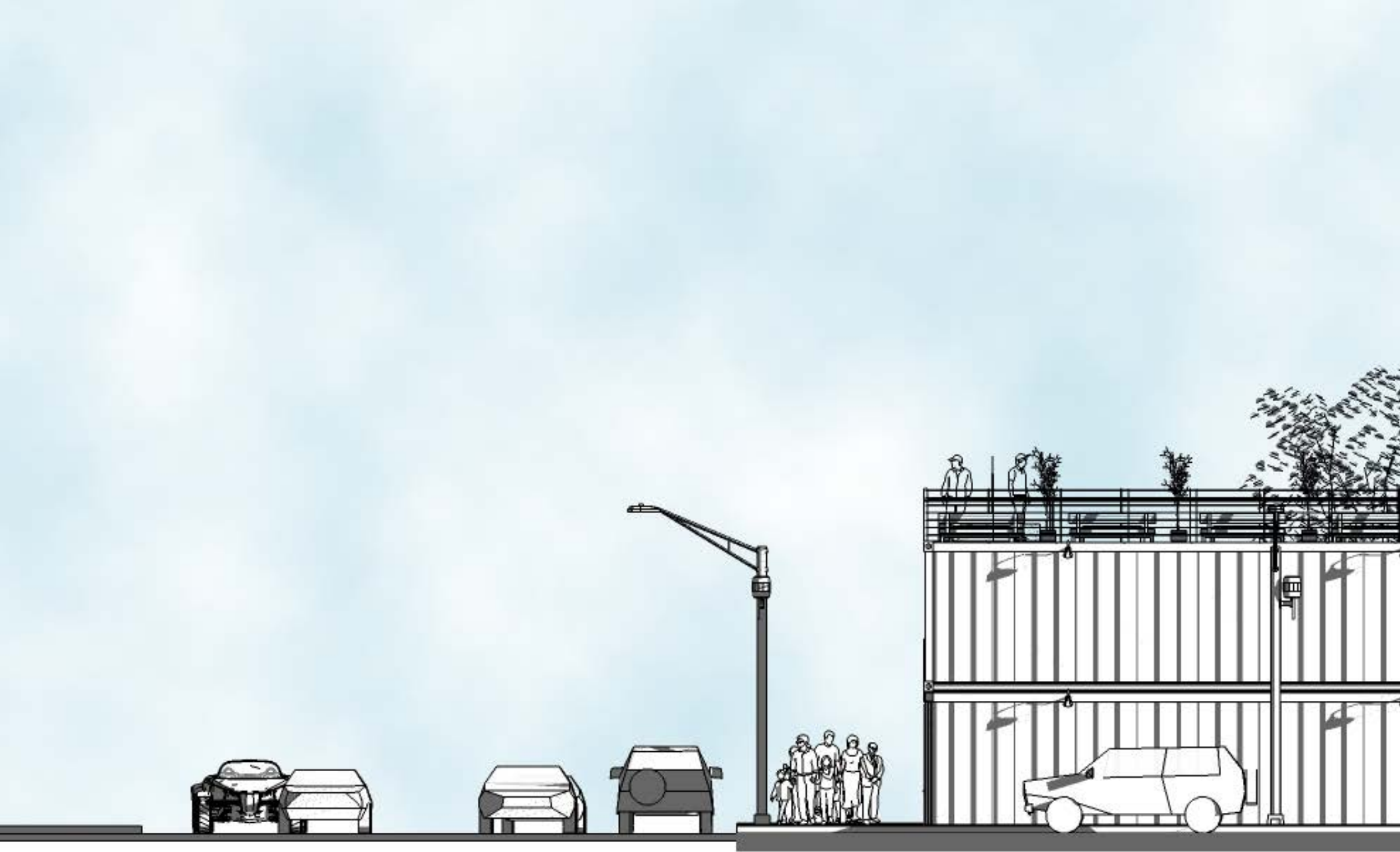
SOUTH ELEVATION (COMMUNITY CENTER)



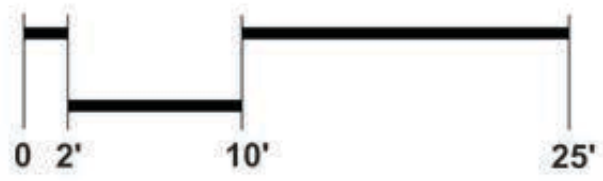
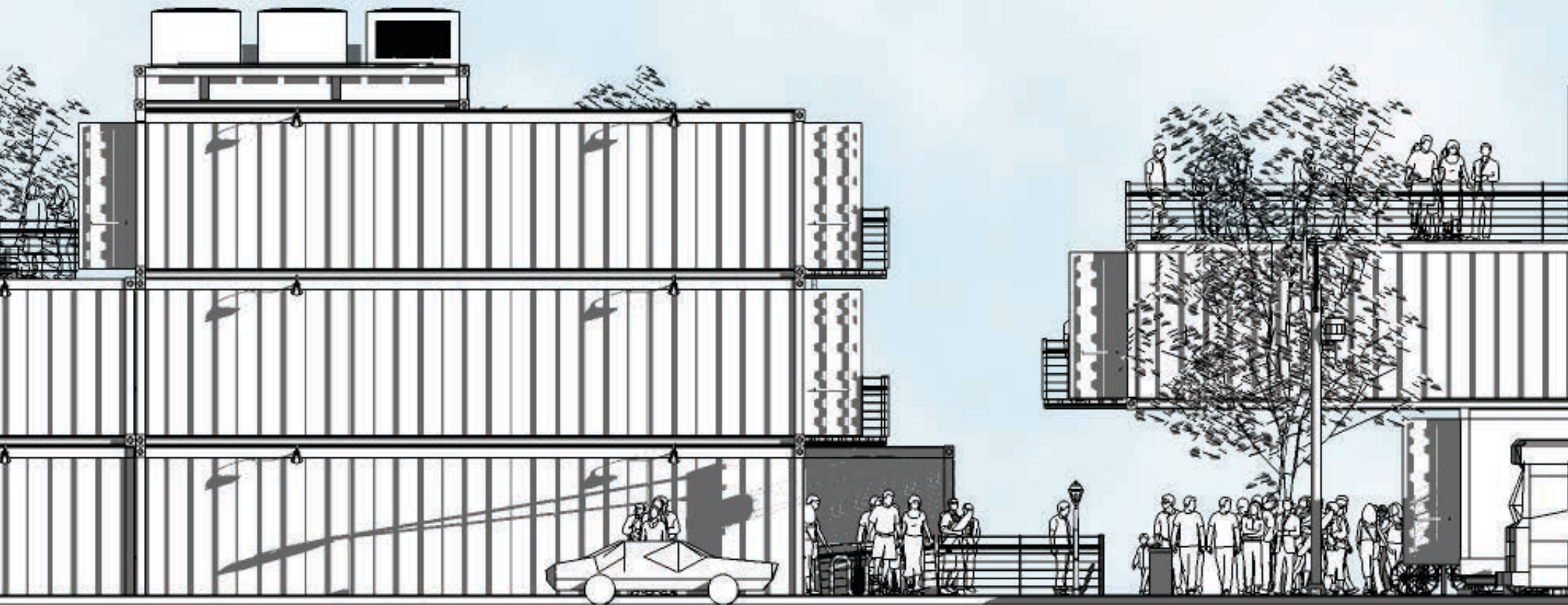


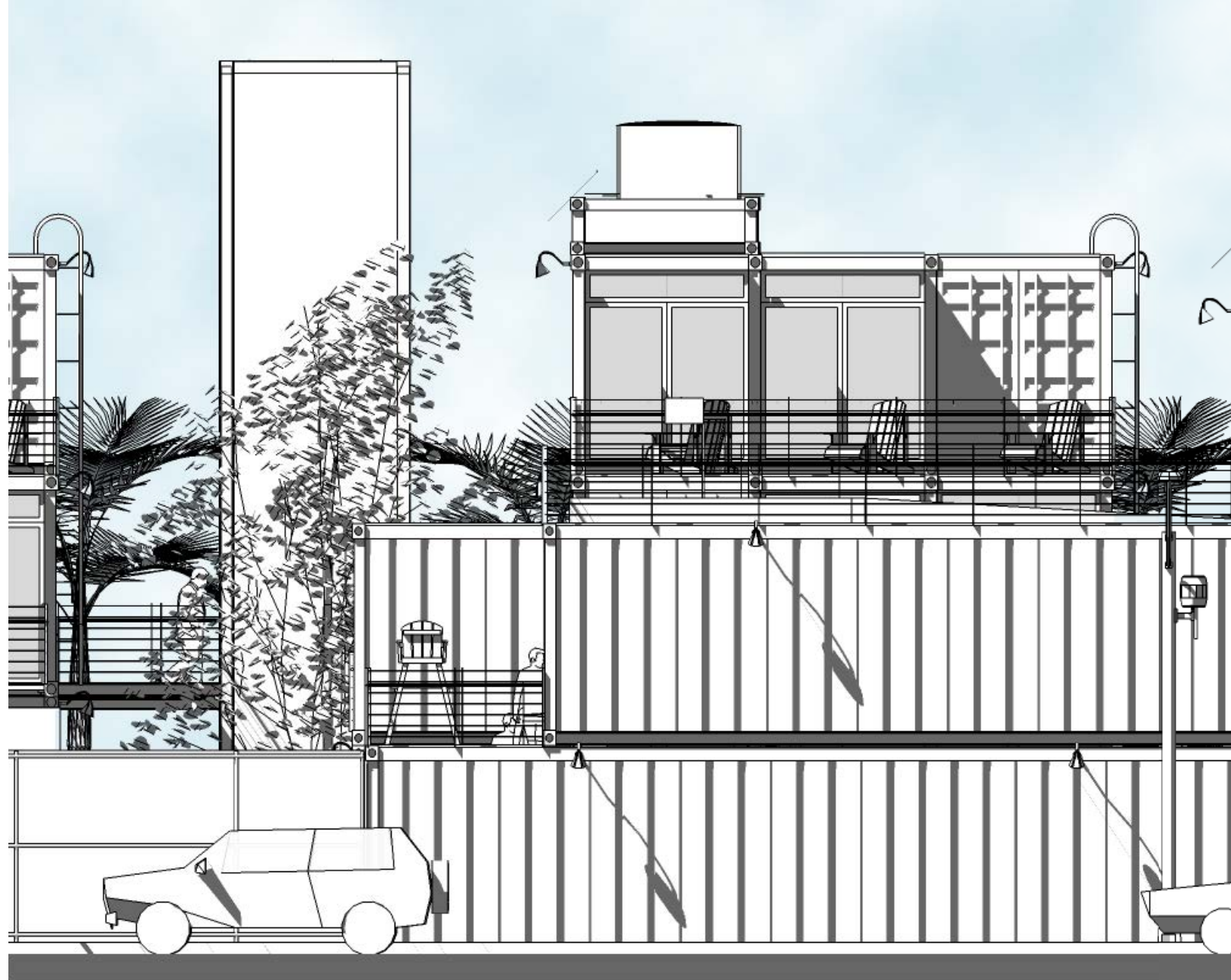
WEST ELEVATION (COMMUNITY CENTER)



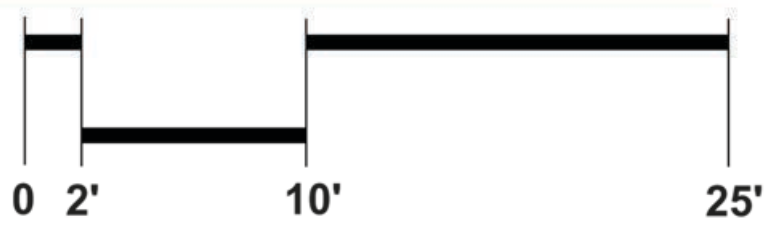
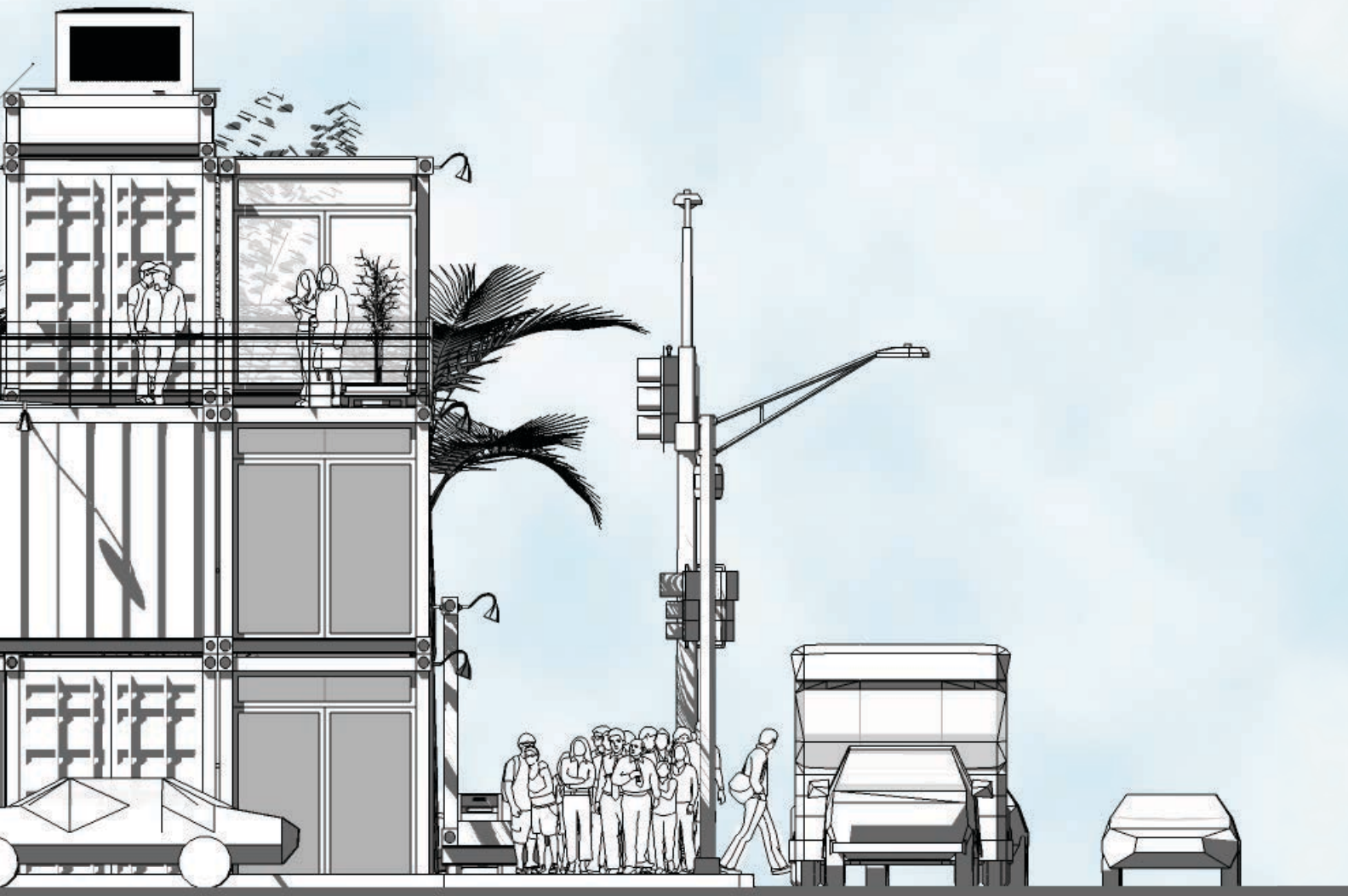


NORTH ELEVATION (COMMUNITY CENTER)





EAST ELEVATION (COMMUNITY CENTER)





N.E. OVERALL PERSPECTIVE



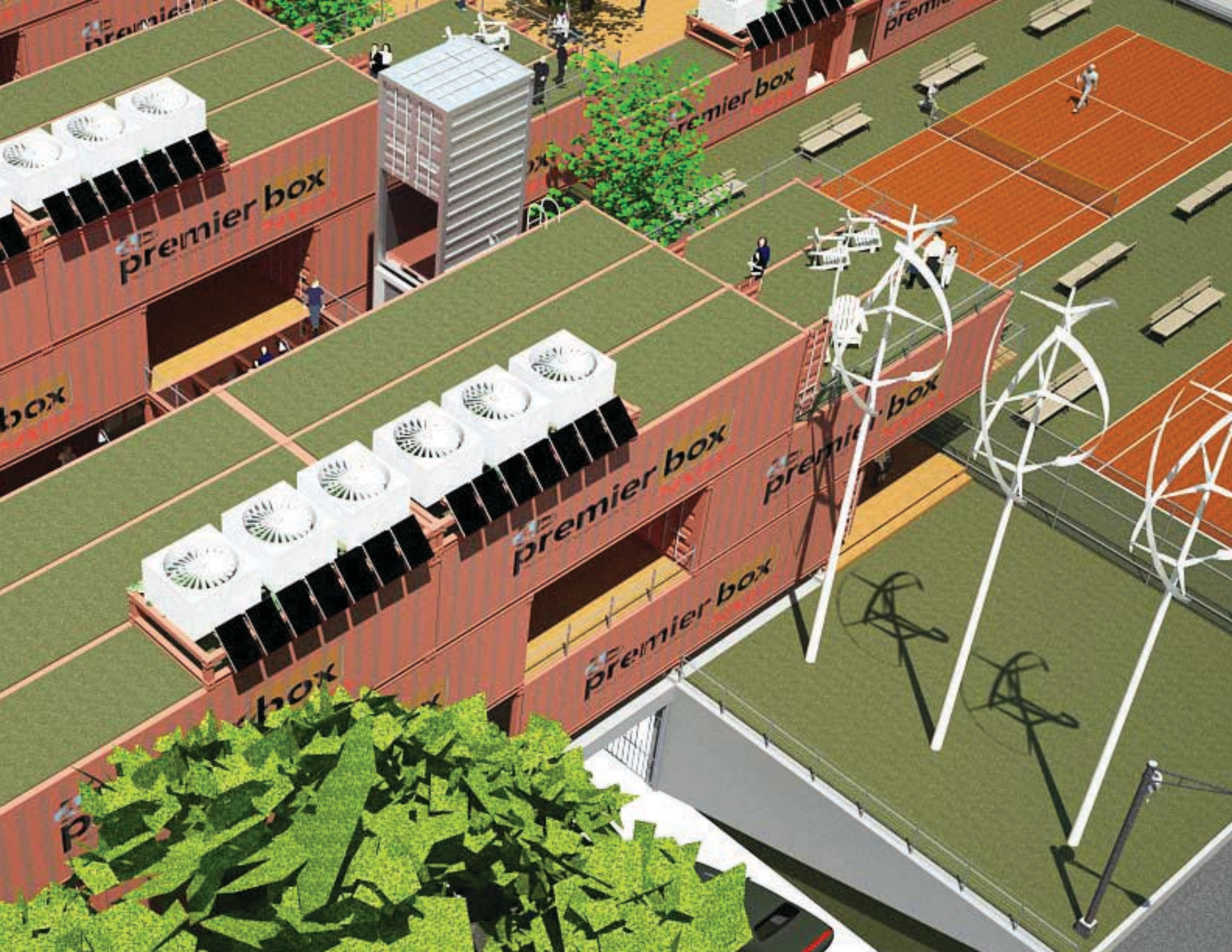


N.W. OVERALL PERSPECTIVE





S.W. OVERALL PERSPECTIVE



premier box

premier box

premier box

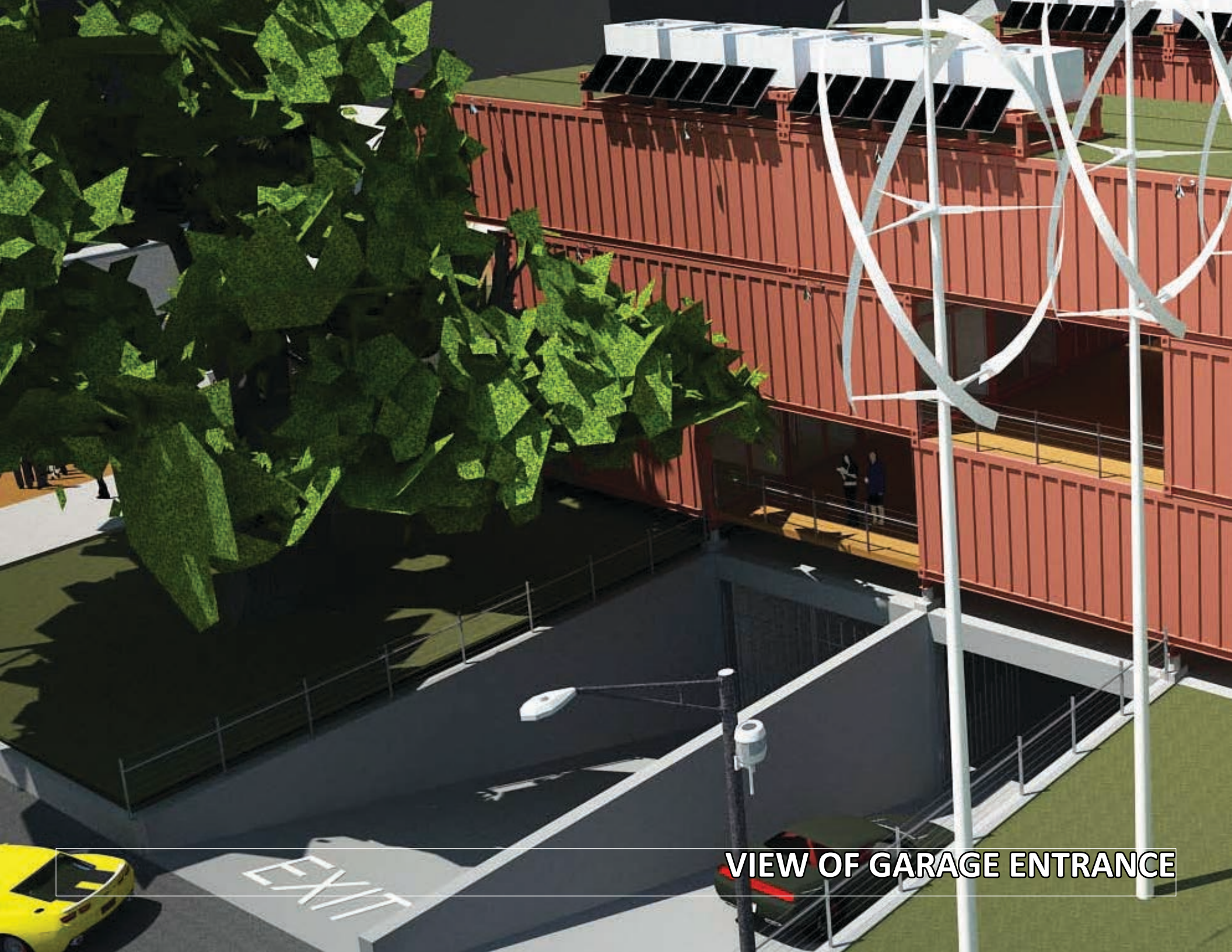
premier box

premier box



S.E. OVERALL PERSPECTIVE





VIEW OF GARAGE ENTRANCE



LC-001



VIEW OF COMMUNITY CENTER





VIEW OF COMMUNITY CENTER POOL





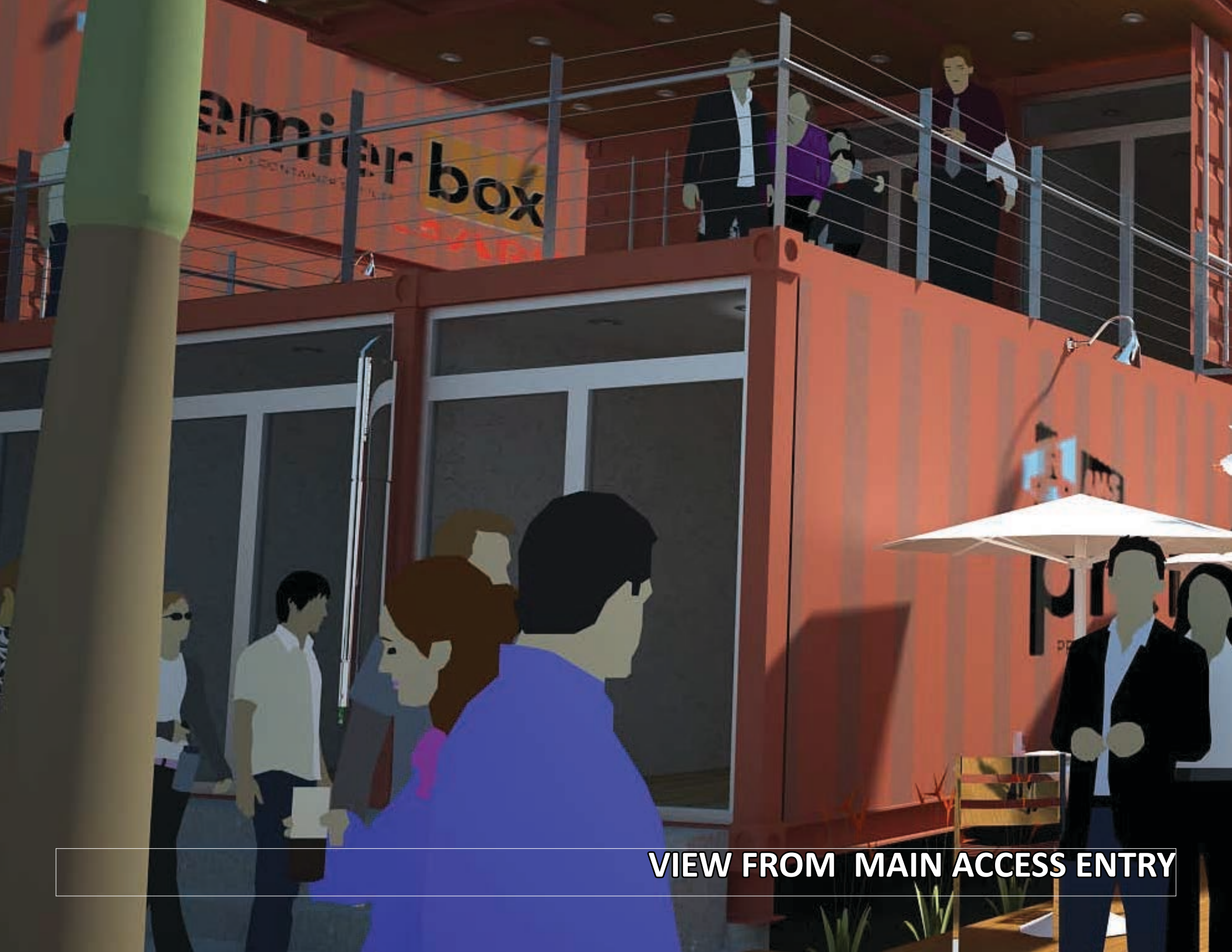
VIEW OF COMMUNITY PARK





VIEW FROM INTERIOR COURTYARD





VIEW FROM MAIN ACCESS ENTRY



premier box

premier box

premier box

premier box



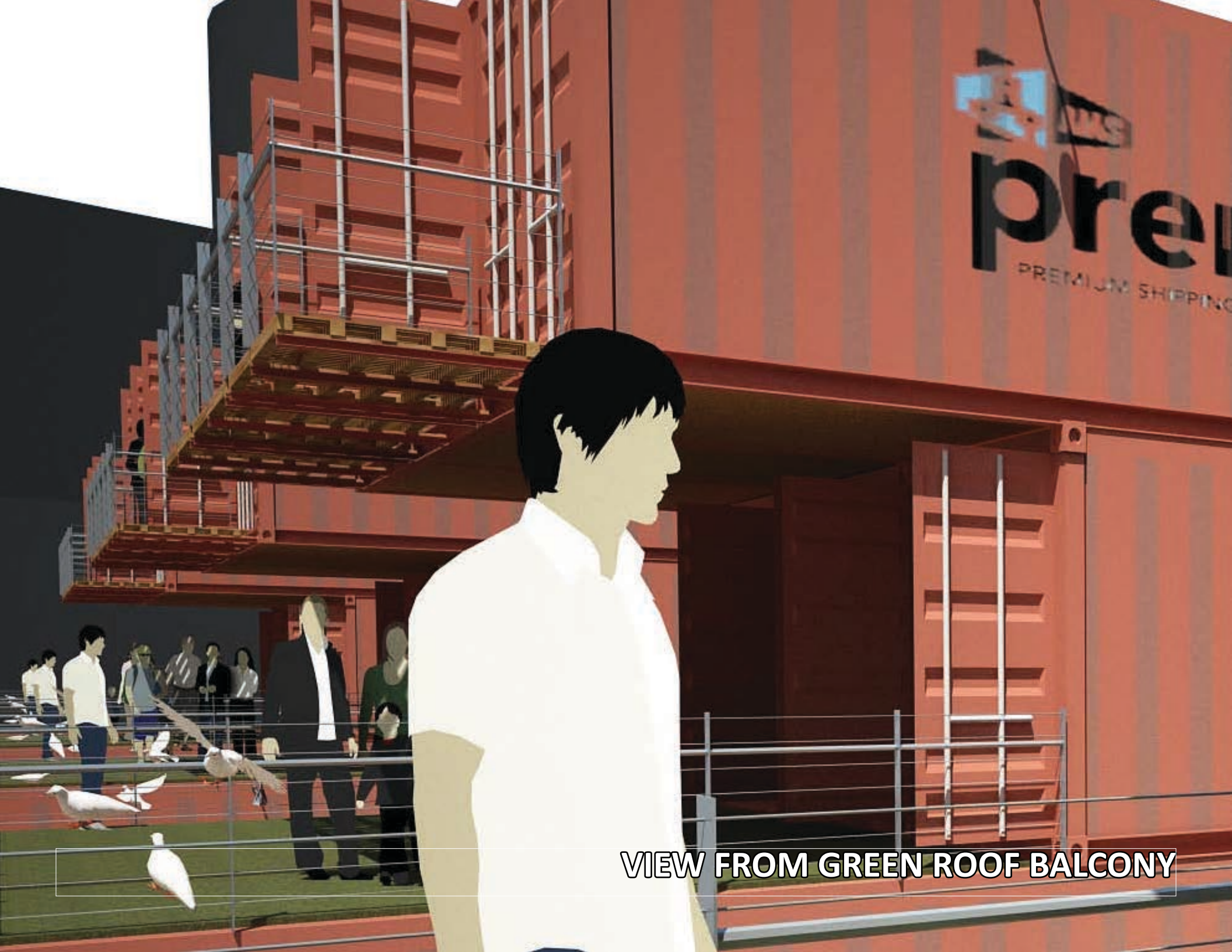
VIEW FROM N.W. INTERSECTION





VIEW OF STOREFRONTS





VIEW FROM GREEN ROOF BALCONY

premier box
PREMIUM SHIPPING CONTAINER SUPPLIER

AVRIP



premier box
PREMIUM SHIPPING CONTAINER SUPPLIER

AVRIP



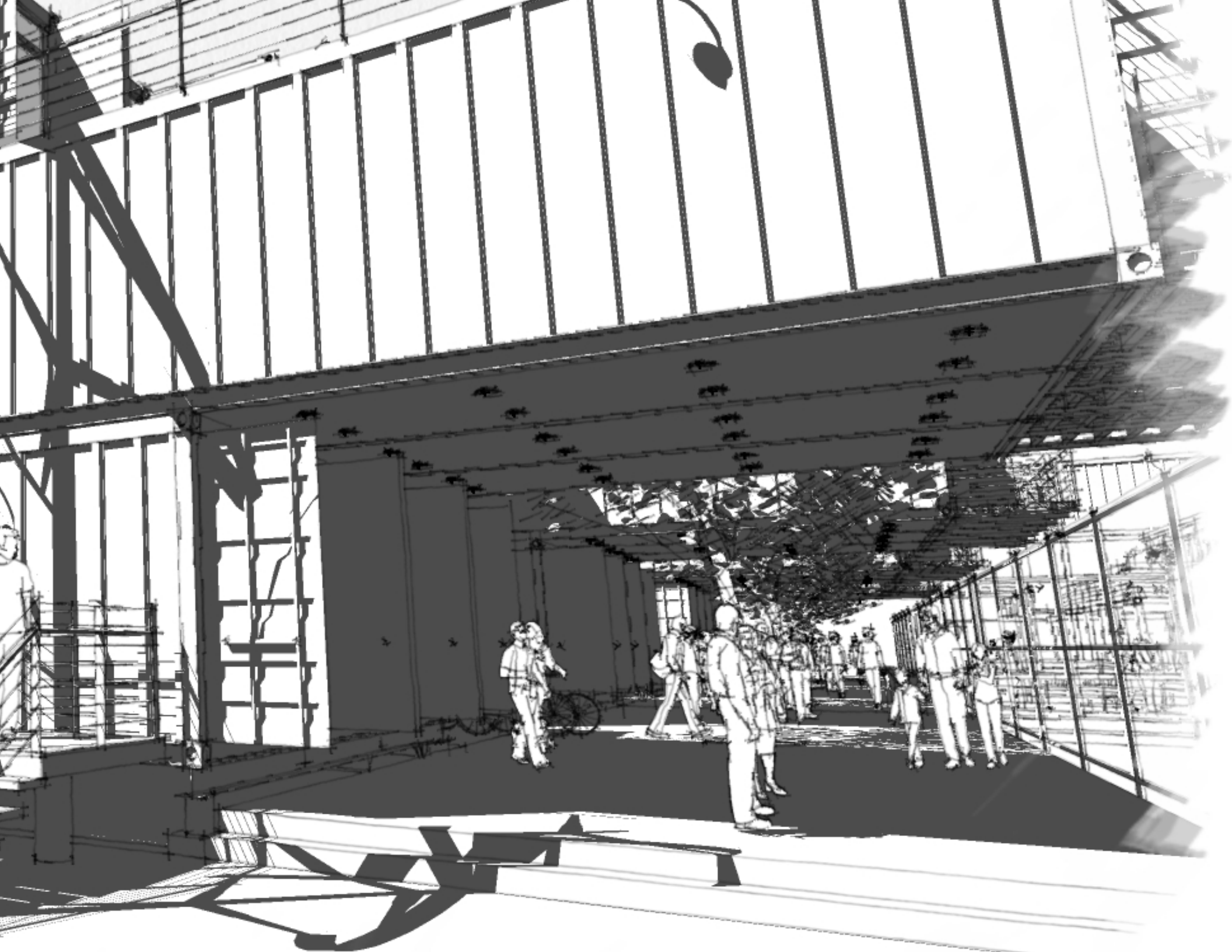


LIGHT RAIL ACCESS POINT



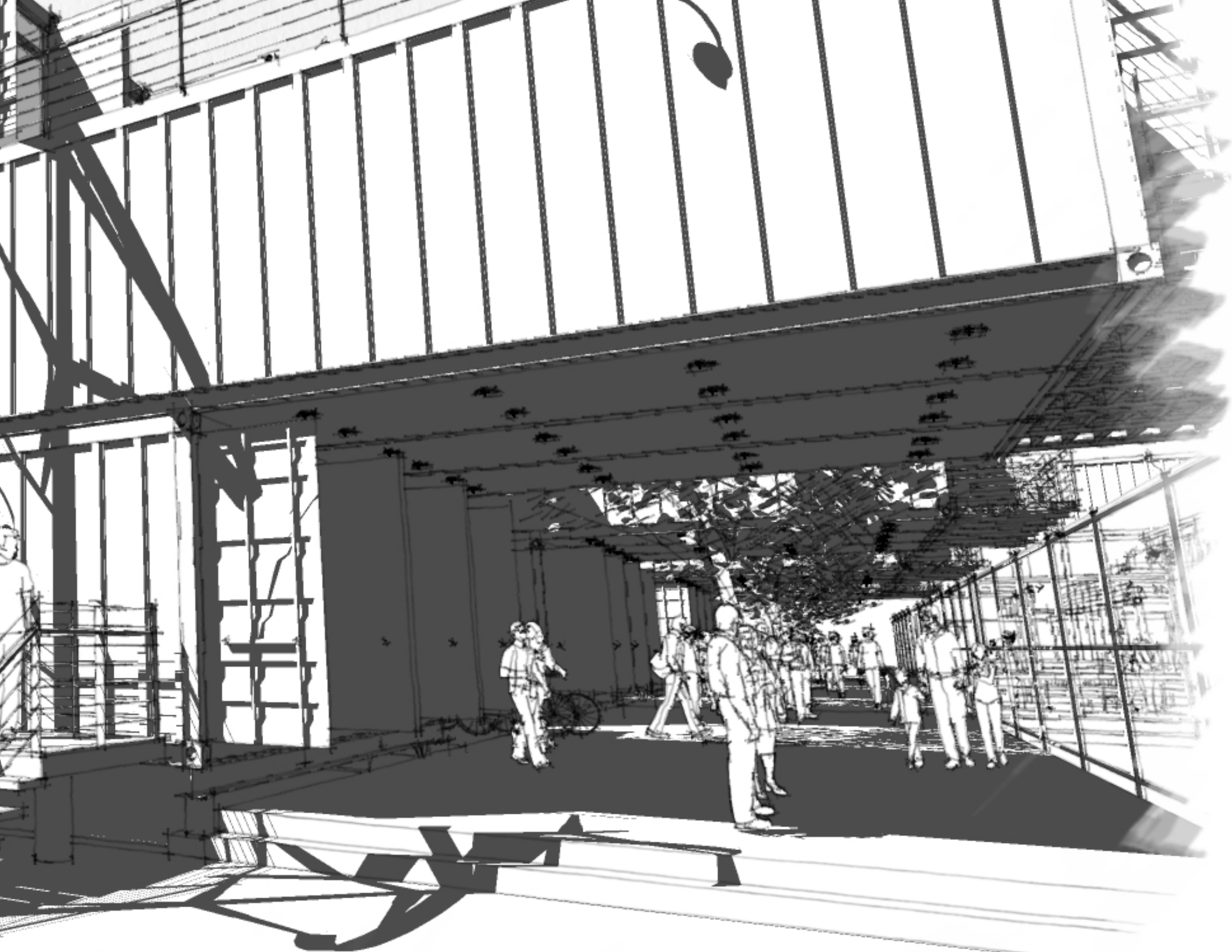


EGRESS STAIRS



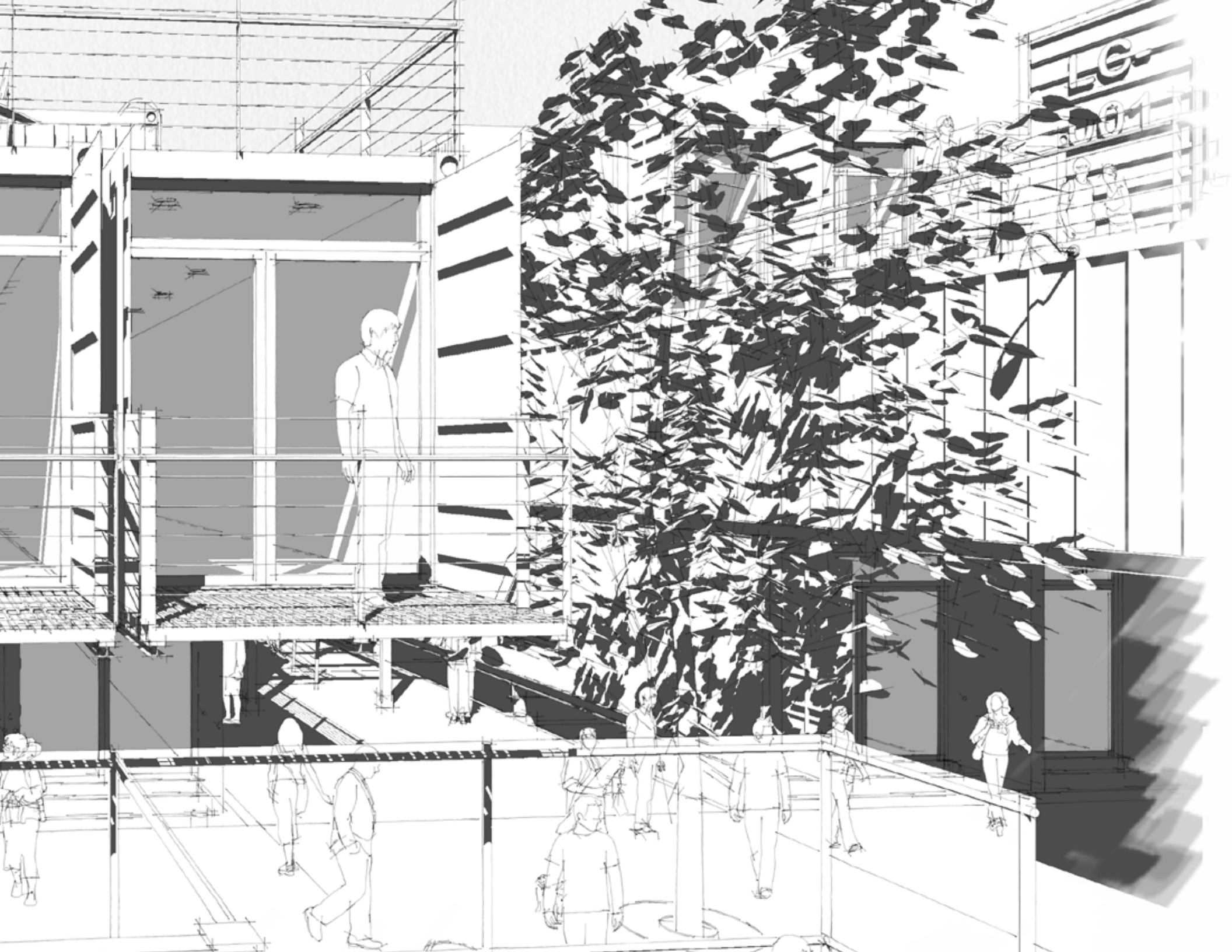


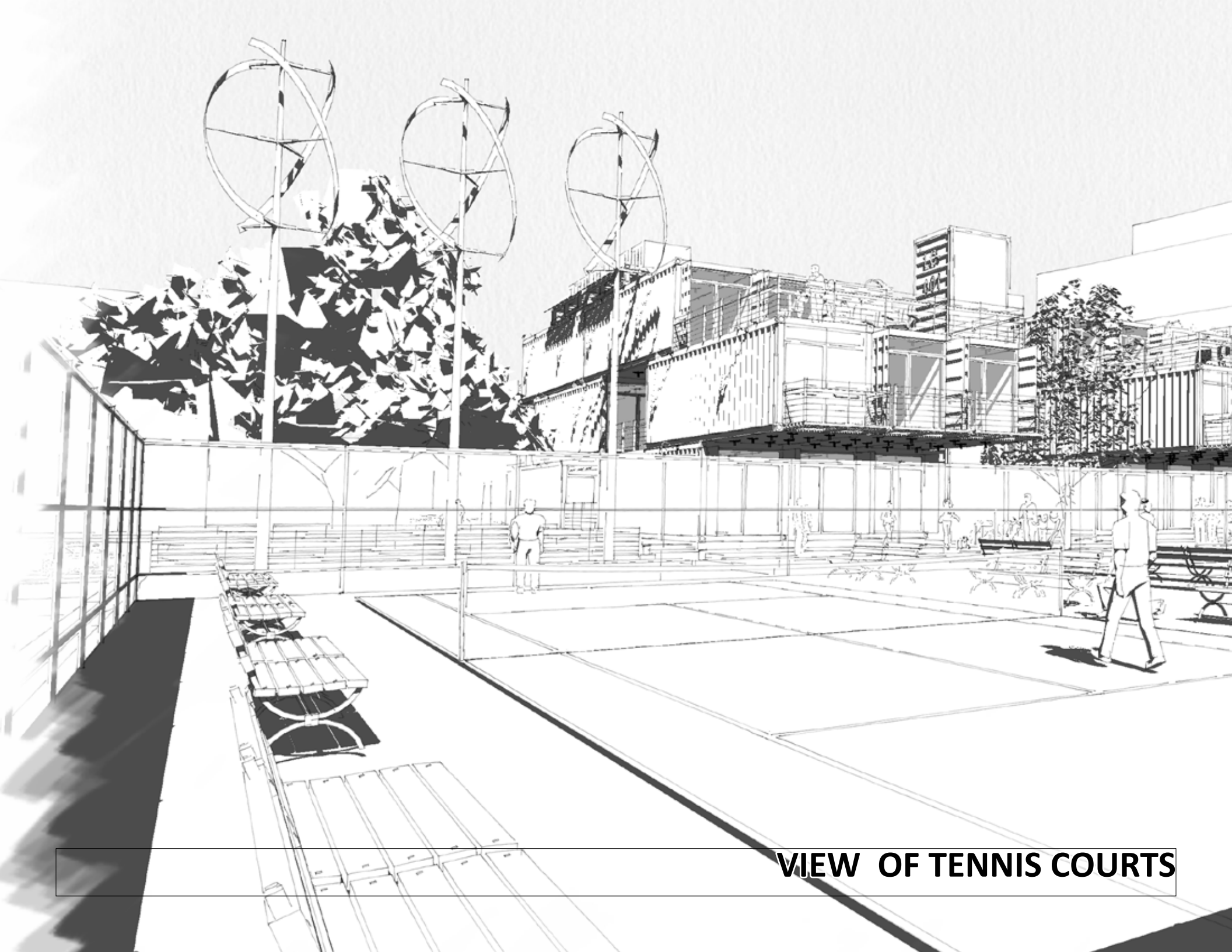
EGRESS STAIRS



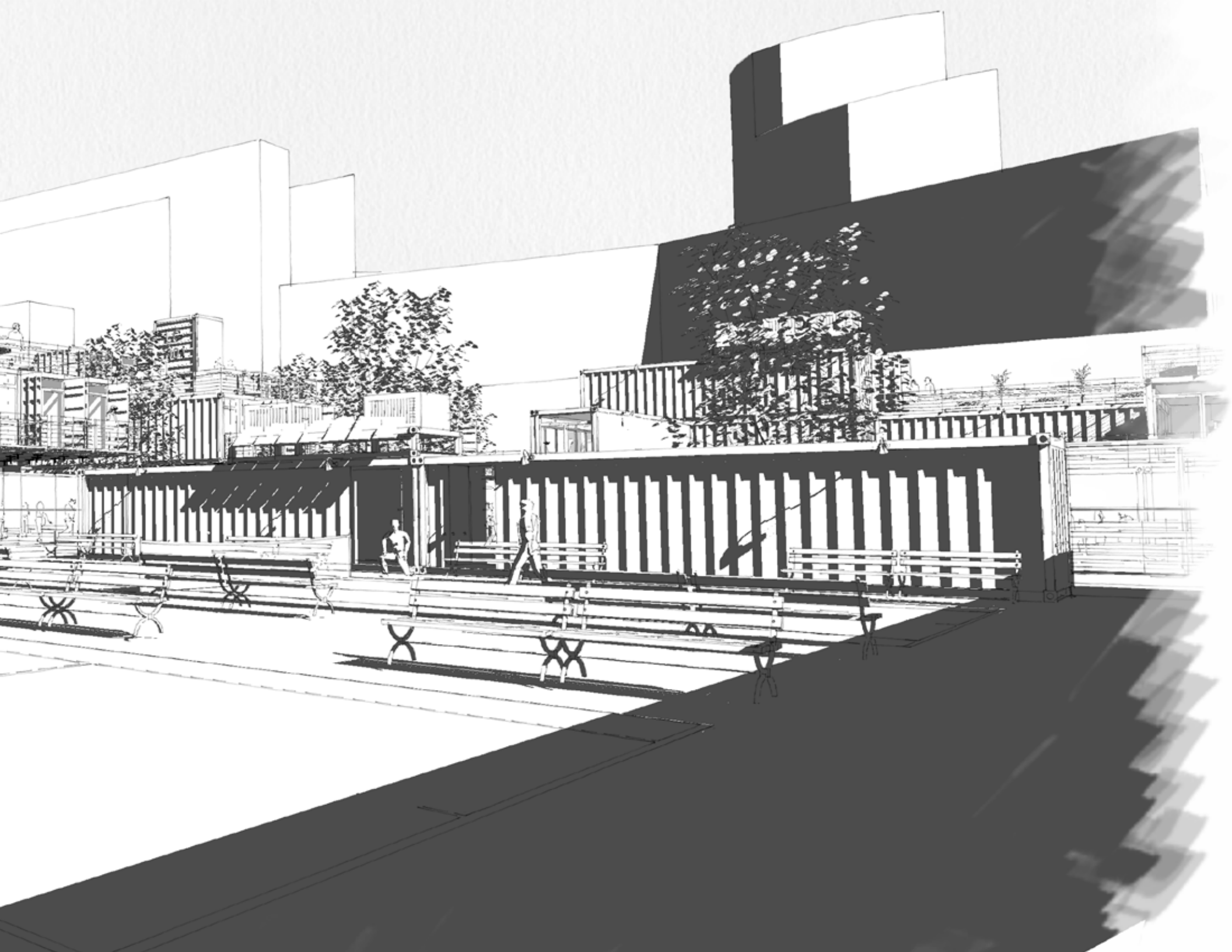


VIEW OF SOUTH BALCONIES





VIEW OF TENNIS COURTS



PROJECT SPECIFICATIONS

MAIN STRUCTURE:

- **ISO dry freight cargo containers modified and reinforced with steel members.**
- **Container connectors (to be welded on site).**

ADDITIONAL STRUCTURAL ELEMENTS:

- **Galvanized steel stair and grating treads**
- **Galvanized stair handrail**
- **Galvanized steel grating catwalk and handrail**
- **Galvanized handrail along edges of interior 2nd. floor opening**
- **Galvanized steel and lumber deck for 2nd. floor terrace**
- **Galvanized steel railing for 2nd, floor terrace**

FUNDATIONS:

- **Shallow spread footing type only included – easy soil conditions**

INTERIOR WALL/CEILINGS:

- **All interior walls along the perimeter of the house and all ceiling built out of cold –formed metal framing, Insulation and gypsum board**

THERMAL/MOISTURE INSULATION:

- **Designed R-19 for wall and floor, R-30 for roof**
- **Formaldehyde-free Fiber-glass batt insulation (Typical)**
- **Interior wall insulation is 3-1/2" un-faced**
- **Caulking at both ceiling-to-wall and floor-to-wall joint lines**

ROOFING SYSTEM:

- **Single-ply reinforced TPO {Thermoplastic Polyolefin} membrane {white/gray for high solar reflectivity} installed over 1/2" CDX exterior grade plywood with adhesive and with pressure bar/drip edge around perimeter.**
**** Sustainable upgrade: green roof**

WINDOWS:

- **All window frames: thermally-broken extruded aluminum framing (clear anodized finish)**
- **All window panes: insulating double glazed**

FINISHES:

- **Container exterior painted with marine grade paint**
- **All interior gypsum board walls finished with one primer coat and one finish coat (white)**
- **All interior exposed corrugated walls finished with one primer coat and one finish coat (white).**
- **All interior container steel beams painted with marine grade paint**
- **All floors: original container marine plywood with original exposed fasteners (plywood is sanded and clear-sealed)**
- **All built-in closet doors and shelves: furniture-grade birch plywood)**

- **All interior doors: hollow-core wood door**

KITCHEN:

- **Rubber**
- **All cabinets: laminated plywood construction**

BATHROOMS:

- **Rubber flooring**
- **Rubber wall covering**
- **All bathroom fixtures low flow**

LIGHTING:

- **Lighting track along exposed beams**
- **Recessed lighting fixtures in bathrooms and kitchen**
- **Switched receptacles for floor/table lamps**

ELECTRICAL SYSTEM:

- **Sustainable upgrade: photovoltaic panels**

PLUMBING SYSTEM:

- **All plumbing fixtures to be low flow**

MECHANICAL SYSTEM:

- **Exhaust fans in bathrooms**
- **Ceiling fans in double height living room**
- **Hot water heater (Insta-hot)**

****Sustainable upgrade: hot water solar panels**

- **A/C System: split system on 1-ton units**
- **Heating:**
 - o **option 1 (temperate climate) – dual A/C system hot/cold air**
 - o **option 2 (cold climate – sustainable) under- flooring hydronic heating system**
 - o **option 3 (cold climate – regular) hydronic baseboard radiator**

Livable Communities

