

JUAN CARLOS RUALES

RESIDENTIAL DESIGN PORTFOLIO



Juan Carlos Ruales

<https://heyzine.com/flip-book/98f10c301f.html>

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ABOUT ME

I am an Architectural Designer with 7 years of experience specializing in architectural drafting, 3D modeling, and sustainable design for residential, commercial, and healthcare projects. I am proficient in Revit, AutoCAD, and SketchUp, producing accurate architectural drawings, SD, DD, and CD documentation, and high-quality visual presentations. I am adaptable, a strong team player, and an effective communicator, particularly with clients. I excel at translating complex architectural concepts into clear diagrams, technical plans, and compelling visual narratives that support design development and decision-making.

EDUCATION

Universidad Central del Ecuador
(UCE)
Bachelor of Architecture
(2011 - 2017)

Universidad Nacional de la Plata,
Argentina
(UNLP)
Master Degree in Architecture and
sustainable Habitat
(2021-Present)

LANGUAGES

Spanish
English

Native
Intermediate B1

PERSONAL SKILLS

Clear Communicator and Adaptable
Good team player
Curious, proactive and easy going

PROFESSIONAL SKILLS

Experience in multidisciplinary
collaboration.
Knowledge of sustainable design strategies.
Proficiency in architectural drawings in SD,-
DD,CD, 3D modeling, rendering, and design
presentations.

SOFTWARE SKILLS

Revit
AutoCAD
SketchUp
Lumion
BlueBeam
Microsoft Office
Adobe Creative Suite
(Photoshop, InDesign, Illustrator).

CONTENT



1

ANDEAN HOUSE

Type: Residential design

Location: Sangolquí
Santa Rosa de Lima
Ecuador



2

307207 BUILDING

Type: Mixed Use Design

Location: El Condado
Quito
Ecuador



3

LA MERCED HOUSE

Type: Residential design

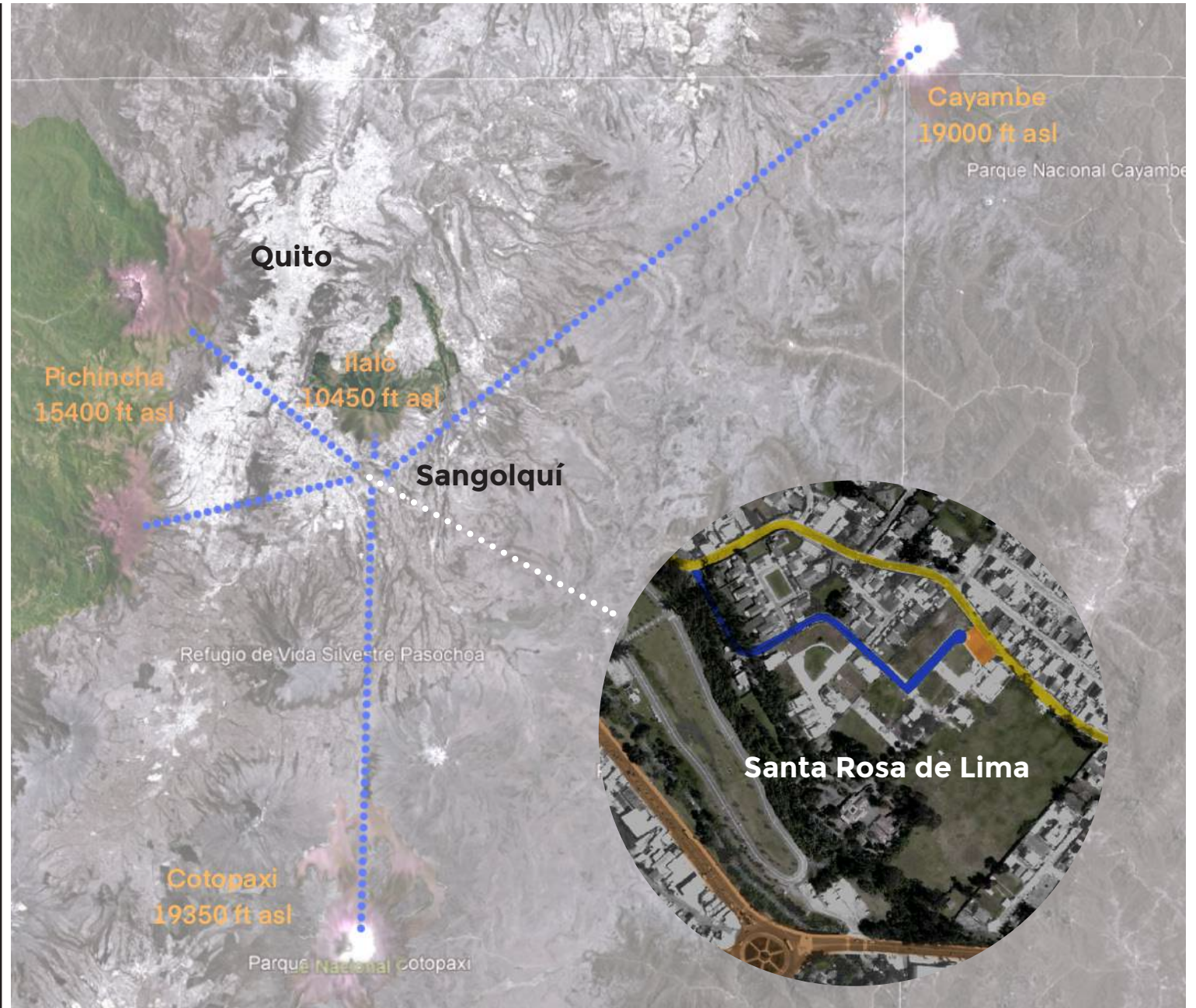
Location: La Merced
Quito
Ecuador

1

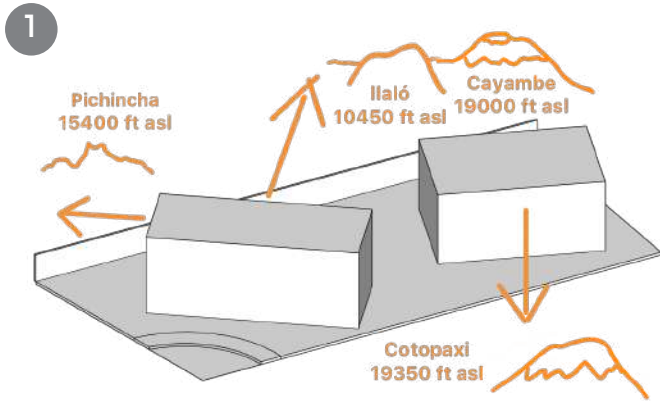
ANDEAN HOUSE

GENERAL INFORMATION

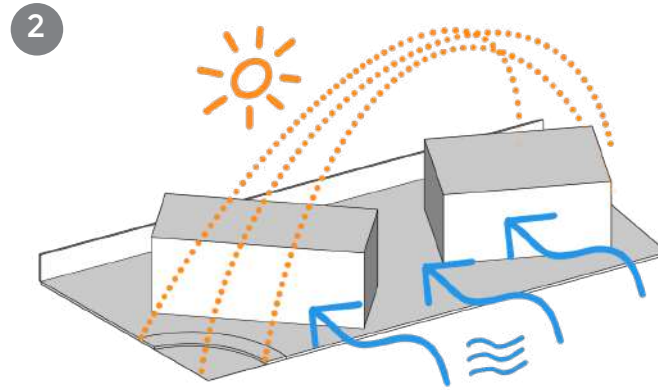
Type: Residential design
Location: Sangolquí
Santa Rosa de Lima
Ecuador
Area: 2500 sqft
Phases: SD, DD, CD
Software: Revit, SketchUp
Lumion, Photoshop
Indesign



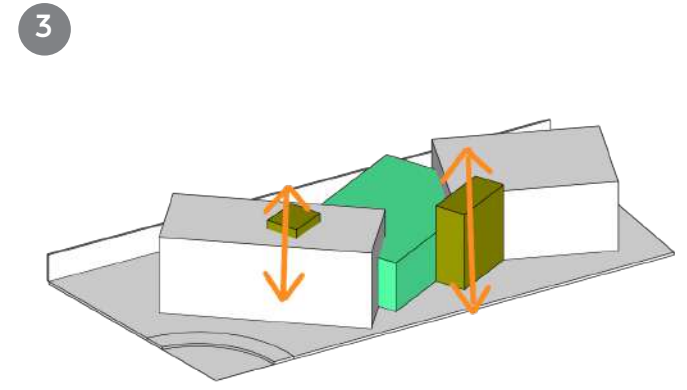
Andean House Location



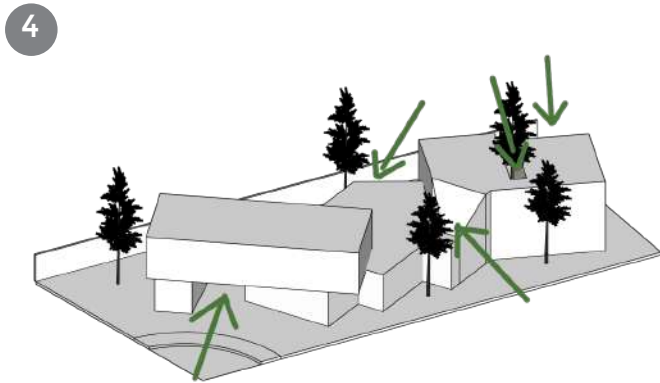
Andean Landscape Views



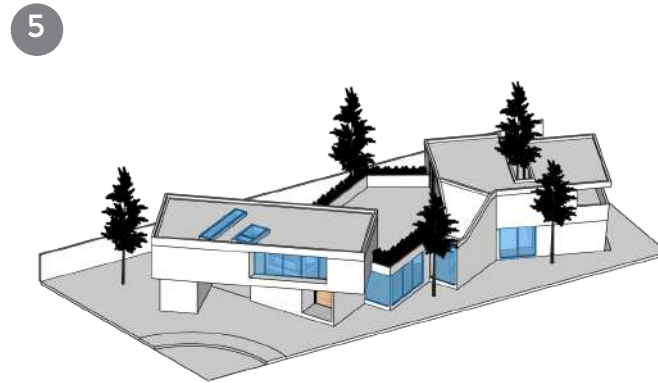
Sun Path and Prevailing Winds



Vertical Circulation and Spatial Connectivity



Planting and Aesthetic Adjustments



Window Placement Oriented Toward Andean Views



Outdoor Spaces and Material Specifications

Conceptual Design

This residential project in Ecuador was designed for a family of four, delivering a highly customized, context-driven home. Guided by bioclimatic principles and framed views of the Andean mountains, the design optimizes orientation, natural daylight, cross-ventilation, and year-round thermal comfort. The two-story residence features outdoor living spaces including a swimming pool, BBQ area, and landscaped green zones that support family interaction and leisure. A private home office oriented toward panoramic Andean views enhances productivity and well-being while strengthening the connection between interior spaces and the surrounding landscape. The project is fully completed, balancing contemporary architectural expression with local climate conditions.



ZONING

- ① Office
- ② Living room
- ③ Kitchen
- ④ Restroom
- ⑤ Bedroom 1
- ⑥ Bedroom 2
- ⑦ Pool
- ⑧ Bbq
- ⑨ Boulder Wall
- ⑩ Parking
- ⑪ Master Bedroom
- ⑫ Library
- ⑬ Outdoor space
- ⑭ Tv room and gym
- ⑮ Equipment storage

Ground Floor



View from the Master Bedroom toward Ilaló Mountain



View from the Master Bedroom toward Pichincha Volcano



View from the Library toward Cotopaxi Volcano



Upper Floor

Office and Entryway



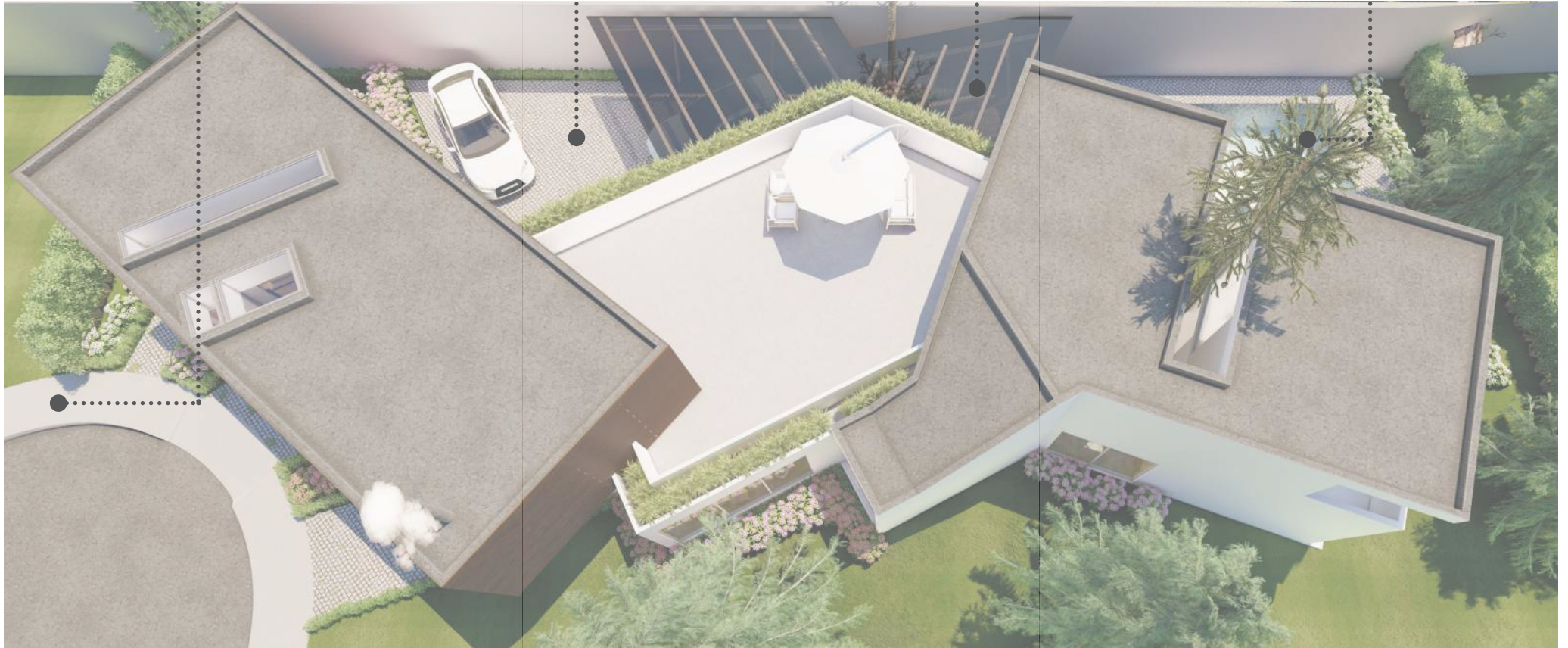
Parking and Master Bedroom



Tv room, gym and Bbq



Pool and boulder wall



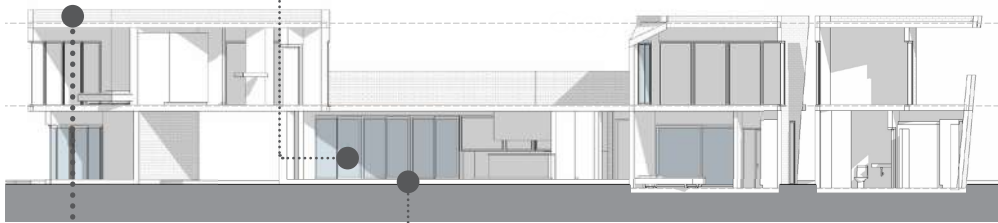
Exterior views



12 in. x 12 in. x 1.5 in. Ecological Pewter Square Concrete Step Stone



Clear Low-E Argon Glass



Essential Cement Silver 24 in. x 24 in. Matte Porcelain Floor and Wall Tile



Thermally-Treated Premium Ash 1 in. x 5 in. x 6 ft. Random Length Brown Wood T and C Siding



2

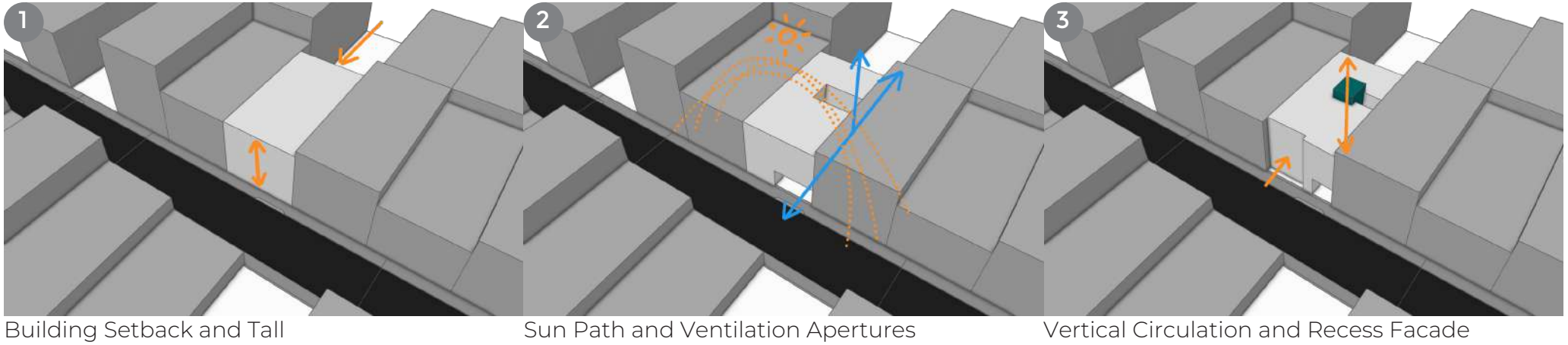
307207 BUILDING

GENERAL INFORMATION

Type: Mixed Use Design
Location: El Condado
Quito
Ecuador
Area: 5100 sqft
Phases: SD, DD, CD
Software: AutoCad, SketchUp
Lumion, Photoshop
Indesign



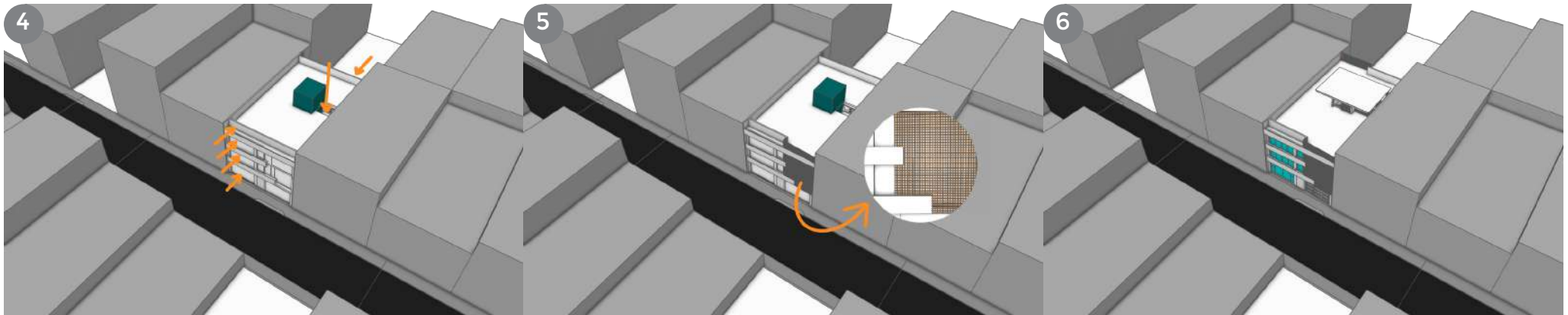
Andean House Location



1 Building Setback and Tall

2 Sun Path and Ventilation Apertures

3 Vertical Circulation and Recess Facade



4 Planting and Aesthetic Adjustments

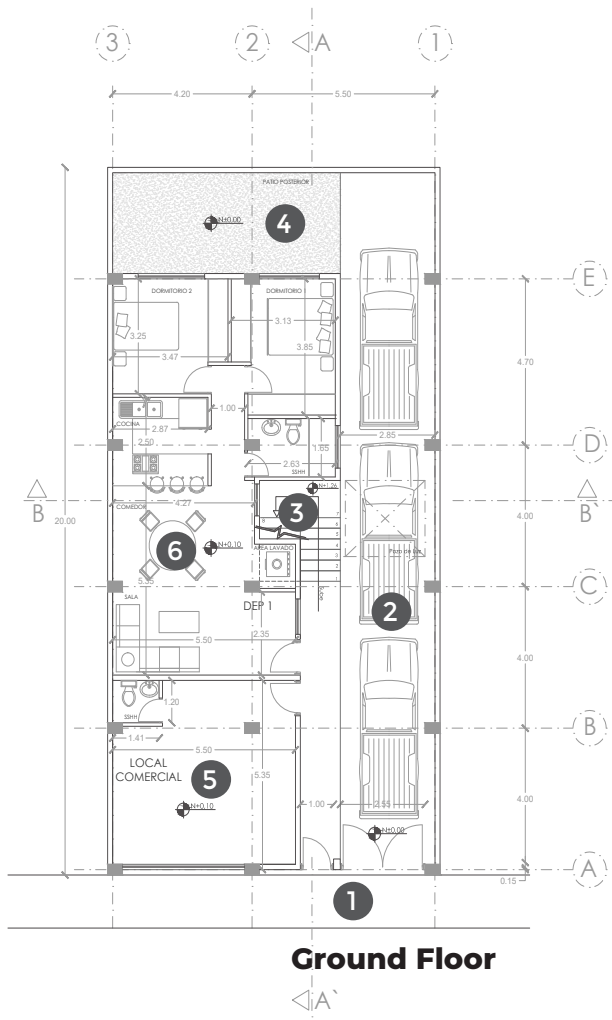
5 Permeable Brick Facade for privacy

6 Final Design

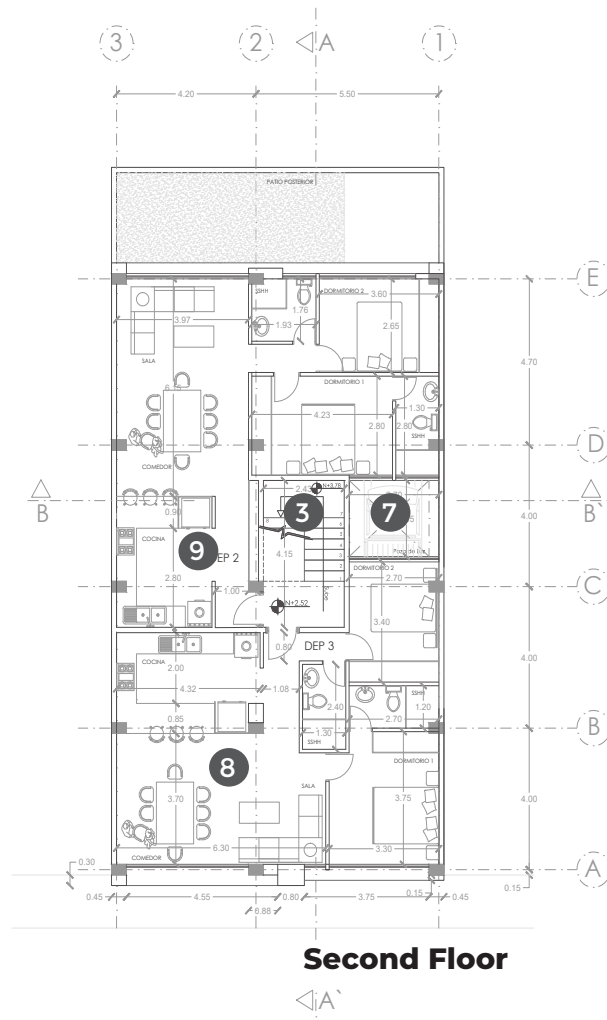
Conceptual Design

Designed to ensure user comfort, this mixed-use building combines commercial and residential functions within a compact urban footprint. The ground floor features a retail space, while the upper levels include a studio apartment, two two-bedroom units, and a three-bedroom unit. A central void acts as the main axis for natural ventilation and daylight, enhancing the building's environmental performance. The facade integrates solar-shading materials and presents a contemporary urban identity through its composition and materiality.

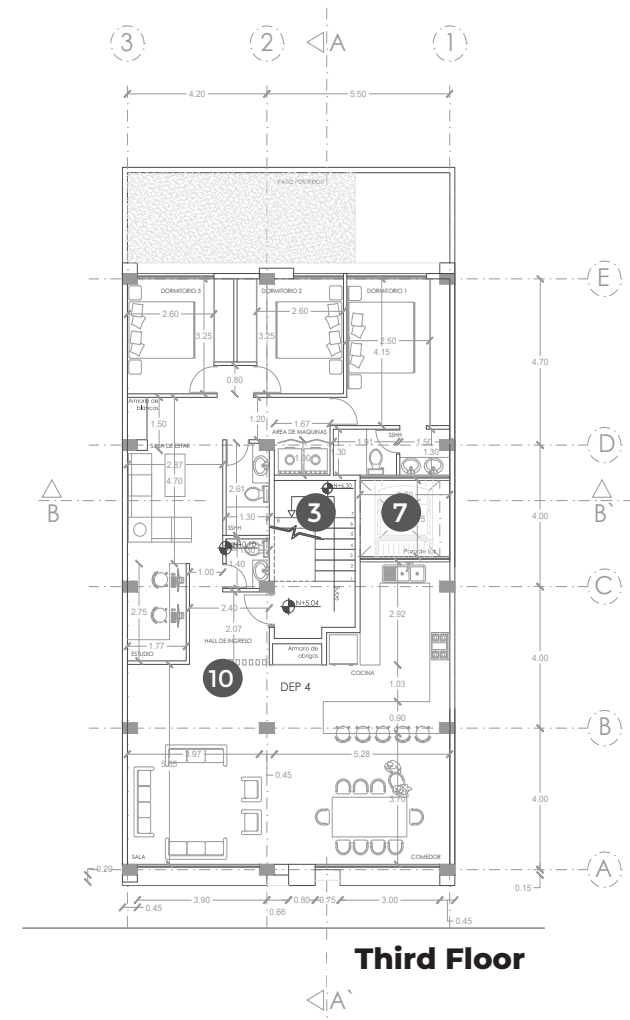
During the development phase, structural, electrical, and plumbing plans were coordinated with specialized engineers to ensure full technical integration and deliver a comprehensive construction-ready project package.



Ground Floor



Second Floor



Third Floor

ZONING

- 1 Main Entrance
- 2 Parking
- 3 Vertical Circulation Stairs
- 4 Setback garden
- 5 Retail space
- 6 Studio apartment
- 7 Central Lightwell
- 8 two-bedroom apartment
- 9 two-bedroom apartment
- 10 three-bedroom apartment

Living room and kitchen



Kitchen with breakfast nook



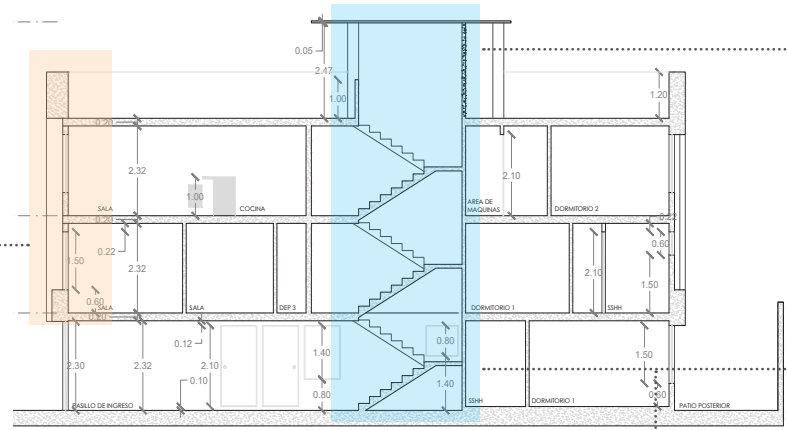
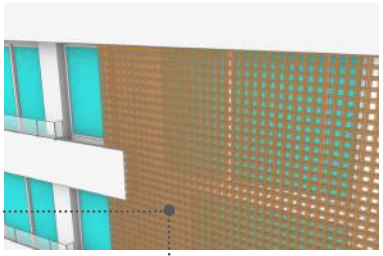
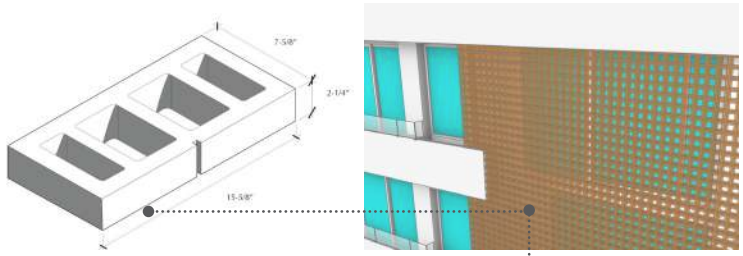
Bedroom with solar-shading from brick facade



Main Entrance



Exterior and Interior Views

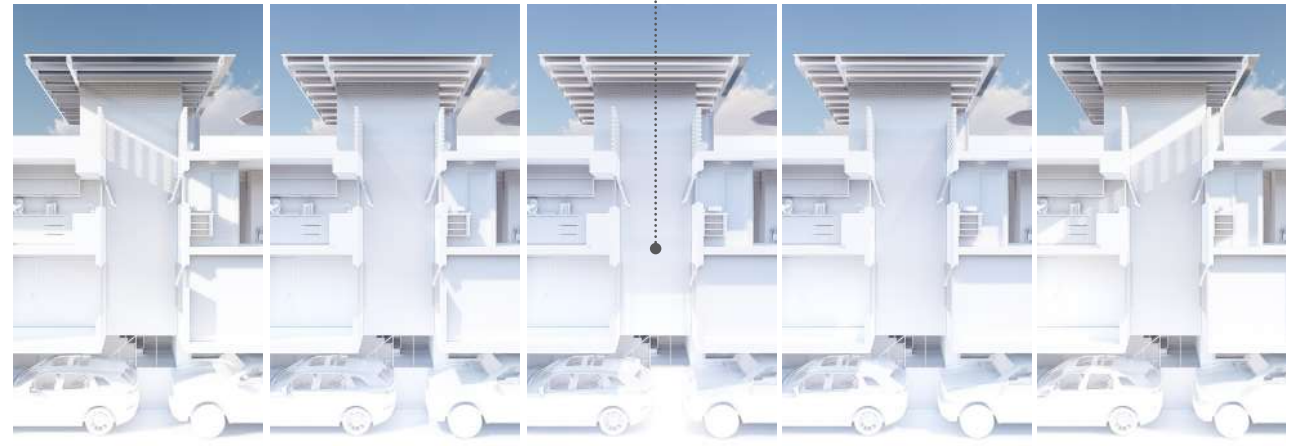


- Brick Facade Assembly**
- Hollow Clay Brick 8x 2¼ x 16
 - Waterproof Protective Coating on Brickwork
 - Internal Steel Support Structure
 - Low-Emissivity Double Vacuum Glazing with Aluminum Window Framing System

Central lightwell enhancing natural ventilation and daylighting in the kitchen and bathrooms



Solar-Shading from Brick facade



6h00 9h00 12h00 15h00 18h00

Solar analysis of the lightwell

8 in. x 4 in. x 2 in. Clay Brick

Sherwin Williams Sw 7562 - Roman Colum

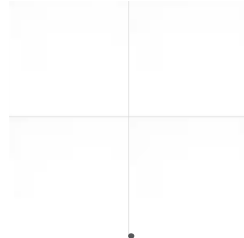
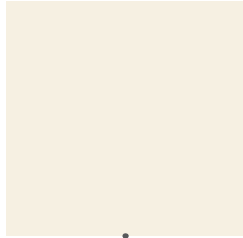
White 24 in. x 24 in. Polished Porcelain Floor

Apple Valley 6 MIL x 6 in. x 36 in. Vinyl Plank Flooring

Wood-look Melamine Wood Shelf

LuxeCraft Daydream 3 in. x 12 in. Glazed Ceramic Wall Tile

White Sliding Low-E Argon Glass Vinyl Fin Window



Materiality

3

LA MERCED HOUSE

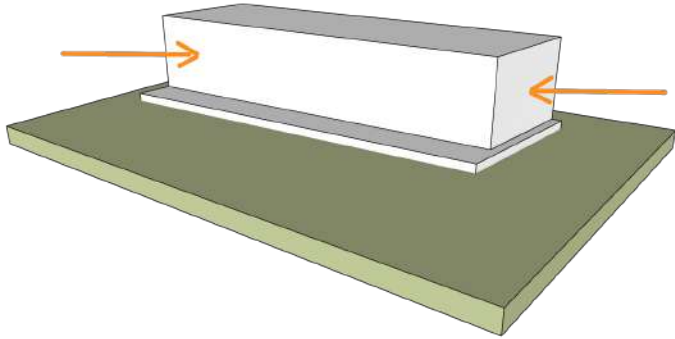
GENERAL INFORMATION

Type:	Residencial Design
Location:	La Merced Quito Ecuador
Area:	1300 sqft
Phases:	SD, DD, CD
Software:	AutoCad, SketchUp Lumion, Photoshop Indesign



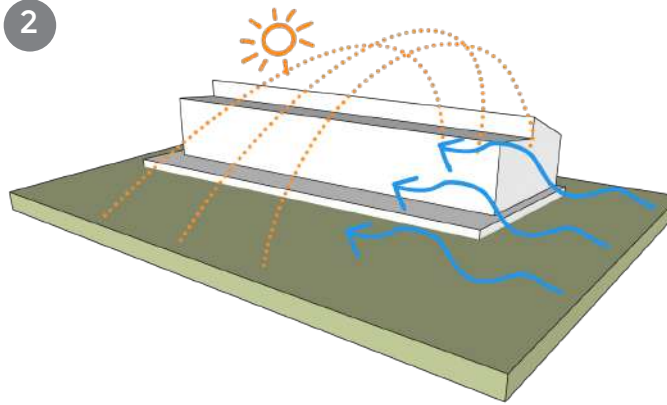
Andean House Location

1



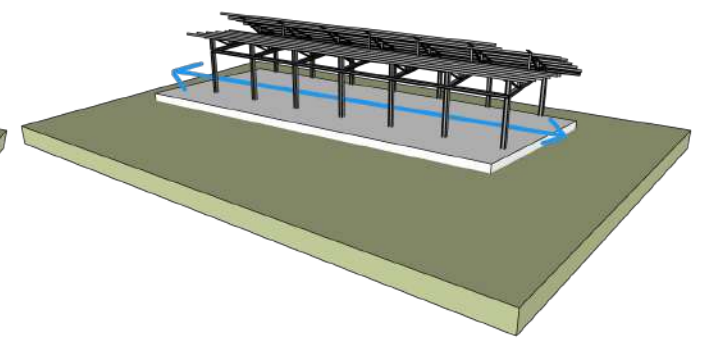
Building Setback and Landscape References

2



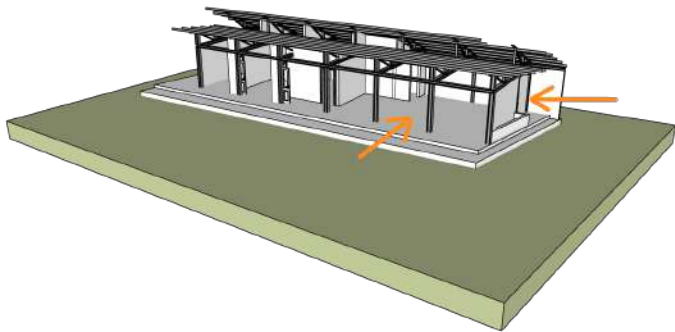
Sun Path and Ventilation Conditions

3



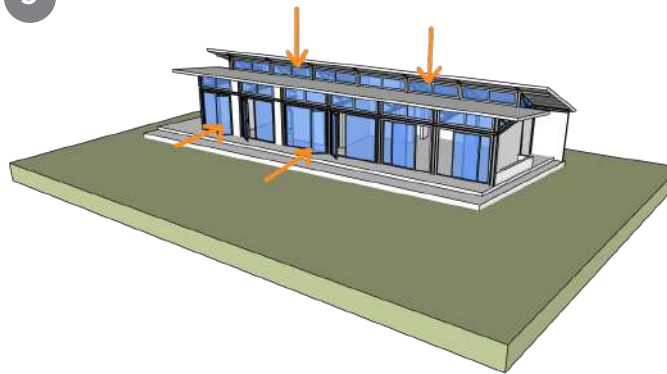
Steel Framework

4



Indoor-outdoor access and connection with the environment.

5



Window design optimized to maximize natural light

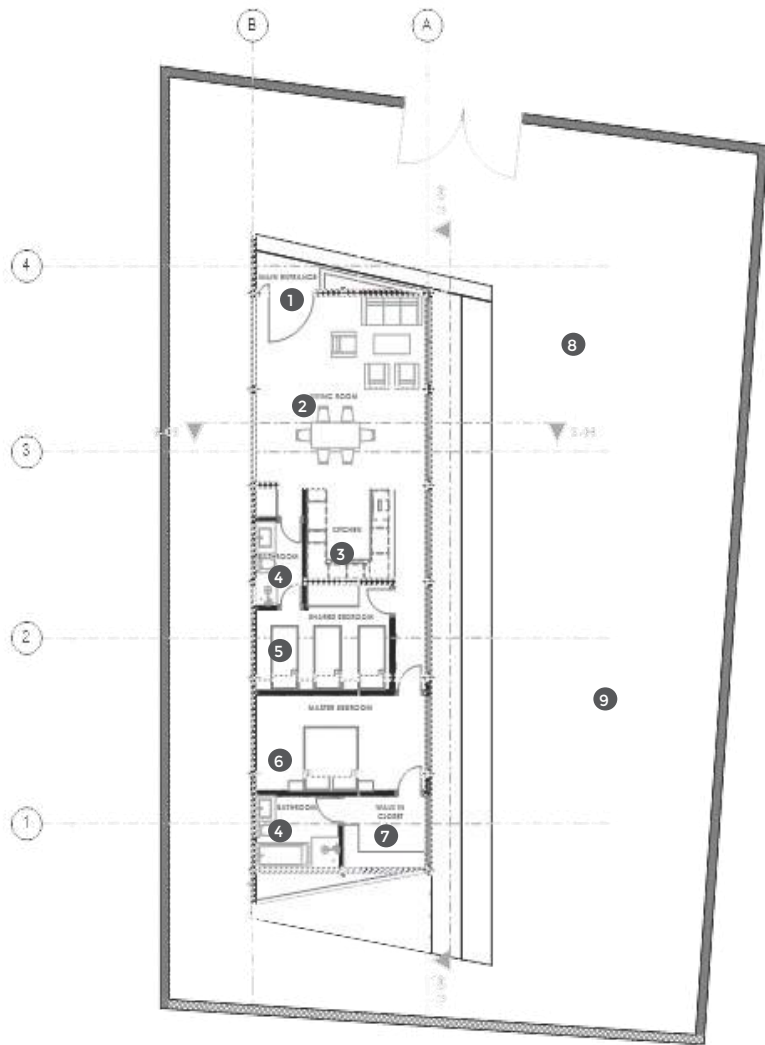
6



Materiality and Planting

Conceptual Design

This weekend vacation home is designed around passive sustainability and a strong indoor-outdoor connection. Oriented to maximize solar exposure, the house captures heat throughout the day, which is stored in its brick walls to maintain thermal comfort well into the night. A wooden roof and thermally controlled windows enhance energy efficiency while ensuring a warm, welcoming interior. Large openings frame views of the surrounding landscape and allow a fluid, accessible transition between interior and exterior spaces. The design prioritizes ease of use and safety, creating a comfortable, family-friendly environment suitable for both adults and children, day and night.



ZONING

- | | |
|------------------|------------------|
| ① Main Entrance | ⑥ Master Bedroom |
| ② Living room | ⑦ Walk In Closet |
| ③ Kitchen | ⑧ Parking |
| ④ Bathroom | ⑨ Garden |
| ⑤ Shared Bedroom | |

Floor plan



Daylight view



Nlght view



6h00



9h00



12h00



15h00



18h00

Sustainable Hourly
Solar Analysis

Roof Assembly

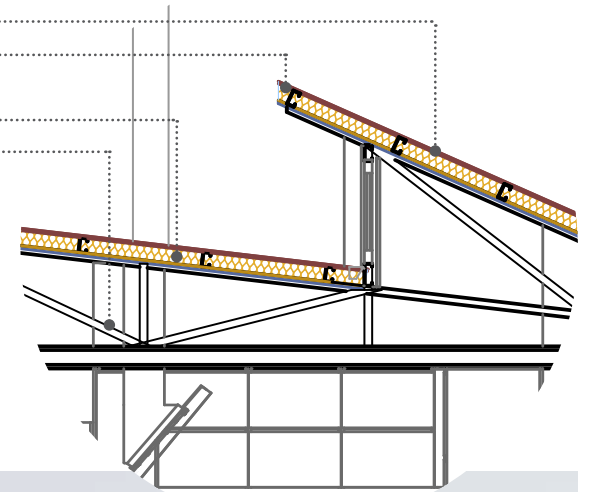
- Corrugated Metal Roofing Sheets
- Vapor Barrier Membrane
- Fiberglass Thermal Insulation
- Interior Glulam Wood Ceiling Finish
- Steel Structural Frame

Wall Assembly

- Exposed Brick Masonry Walls

Window System

- Low-Emissivity Double Vacuum Glazing
- with Aluminum Window Framing System



Sustainable design Materiality

Backyard garden designed to provide visual privacy for the bathroom



Backyard garden designed to provide visual privacy for the bathroom



Upper-level windows designed to maximize daylight and solar heat gain during the day





Exterior View

Thanks you for
exploring my portfolio!