CASE STUDY 2.0
REBUILDING LOS ANGELES

A Visionary Catalog for Resilent and Sustainable Homes

LA.LLAND | R. SHILLANDER | OPPENHEIM ARCHITECTURE | CREST REAL ESTATE | PLUS DEVELOPMENT

DELIVERALBES

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INTRODUCTION

RACHEL SHILLANDER, R.A

By Ye Rin Mok, 2020

Rachel Shillander, known for her 2020 Disco Chair and art practice LA.LLand, is an eponymous architecture and studio practice that is focused on using the elements to sculpt spaces and objects that explore materiality, perception, and the passage of time, creating environments that engage with their surroundings in dynamic and intentional ways. We view architecture as more than a static entity; it is a living, evolving entity shaped by it's environment and use.

Our work not only blurs the boundary between the California cliche of interior and exterior, but also blurs the boundaries between structure and experience, crafting timeless homes that are deeply attuned to the context of where they are built and the individuals who inhabit them, from fire-resistant case study homes designed in response to the recent Los Angeles fires to monolithic furnishings clad in mirror and native stone. Each project is a dialogue between material, emotion, and personal narrative, ensuring that every space is not only a reflection of place but also of the people who call it home. We embrace efficiency without sacrificing imagination, employing both traditional and high-performance materials to craft spaces that feel both natural and otherworldly.

Our practice is deeply influenced by the context, layered histories, migrations, and cultural landscapes of the places where we design. Whether in Los Angeles, or beyond, we engage with the vernacular traditions, material innovations, and ephemeral qualities unique to each region. Architecture is an ongoing conversation between past and future, shaped by the forces of memory, technology, and cultural evolution. We design with an awareness that spaces are not static—they transform through time and experience, shaped by the lives of the people who inhabit them, both physically and metaphorically. Our approach embraces this narrative, crafting designs that honor history while remaining adaptable to the ever-changing needs of domestic space.

THE WATERPLACE

The plan draws from the mission typology of the region, with a central courtyard acting as the primary separation between public and private spaces. As an infill lot, surrounded by adjacent housing on 3 sides, its focus is inward, acting as a Presidio, serving as a fortress against the elements, with thick masonry walls providing thermal mass, durability, and protection. The Waterplace, a vertical masonry element, stands as a testament to resilience, like the fireplaces that remained standing after the fires.

Inspired by Frank Lloyd Wright's Usonian houses, the design embraces simplicity, efficiency, and a connection to nature. The hearth, represented here by the Waterplace, serves as the focal point of the home, echoing Wright's emphasis on the hearth as the heart of the house. This element not only symbolizes warmth and gathering but also integrates fire protection and daily utility into the fabric of the home.

The floor plan and volumes are compact and efficient, with no wasted space. It is designed as a single-level home to accommodate aging in place, ensuring accessibility without level changes. At 2,000 square feet with three bedrooms and two bathrooms, and a 400 square foot garage, the home references the post–World War II working-class bungalow, reinterpreted with enduring materials and a focus on elemental experience. The spatial clarity reflects an economy of form—each volume is purposeful, and each space contributes to a holistic experience of light, shadow, and water.

Water serves a dual role—a protective element against fire and a daily, immersive presence. The Waterplace, a recirculating water feature, is not simply a fire suppression system; it is an integrated architectural feature meant to be used, experienced, and enjoyed every day, not just activated in an emergency. This approach ensures that resources are allocated toward something that enhances daily life rather than spending money on a system that is only valuable in moments of crisis. In a region where water is scarce, its presence within the architecture serves as both a reminder of its necessity and a poetic counterpoint to the arid landscape.

The experience of water in the home is both natural and theatrical, integrating the nostalgia of Southern California's film, television, and amusement park roots. It draws from the Tiki Room at Disneyland, where rain is staged as performance, transforming water into an immersive spectacle, much like the fake rain used on movie sets. This house, however, engages with real water—not as artifice but as an architectural and elemental presence. The way light hits the Waterplaces reflecting ponds and reservoirs projecting ripples of light inside the space, the way rain activates the courtyard, and the way reflections shift throughout the day all contribute to a heightened awareness of water as both an aesthetic and functional force. Additionally, reflecting ponds and surge tanks are integrated into the design as ponds and pools, enhancing the visual and sensory experience of the home while also serving practical functions. These elements further emphasize the seamless blend of functionality and aesthetics.

Light is equally integral, moving through the home in a way that marks seasonal and daily cycles. Shadows and illumination shift dynamically, defining space and reinforcing the home's dialogue with time. Bedrooms have north facing fenestrations while public spaces have south facing fenestrations, taking advantage of natural daylighting. While oriented on an East/West access to allow the interior courtyard changing sunrise and sunset light shows throughout the year, east and west facing windows are limited for heat gain efficiency. The structure is built primarily from concrete masonry units (CMU), chosen for their durability, efficiency, and ability to act as both a finish and structural material. Exterior finishes are meant to age and patina over time, allowing aesthetic space for wear. Spans are limited, achieved by open steel web joists, echoing the near by Case Study 8. Mechanical and plumbing chases are provided in a simple drop ceiling structure that seamlessly aligns with the structural bays of the house.

This home is not a static object; it is an evolving experience. It is a structure that responds—to the seasons, to fire, to water, to time. An expression of lightness and weight, permanence and change, reflecting both the historical and light hearted ethos of West Coast architecture while grounding itself in an understanding of elemental, essential living.

PARCEL INFO & DIAGRAMS

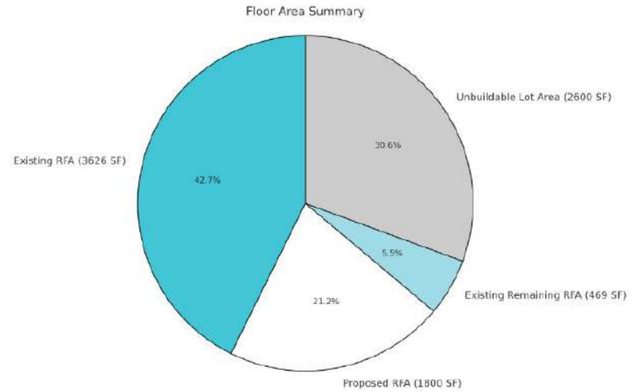
ADDRESS: 1037 N ILLIFF STREET

BUILDING AREAS

RESIDENTIAL FLOOR AREA

ZONE	R1-V1
MAX. RFA PER ZONE	4,095 SF
MAX. RFA PER HOA	3,900 SF
PROJECT FLOOR AREA	
MAIN	1800 SF
GARAGE	400SF
TOTAL	1800SF

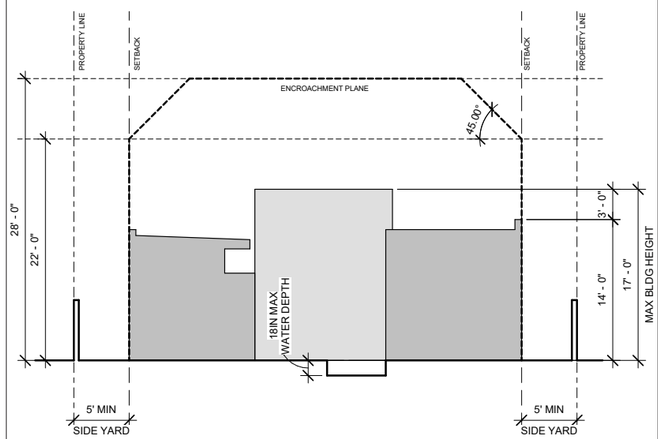
FLOOR AREA SUMMARY



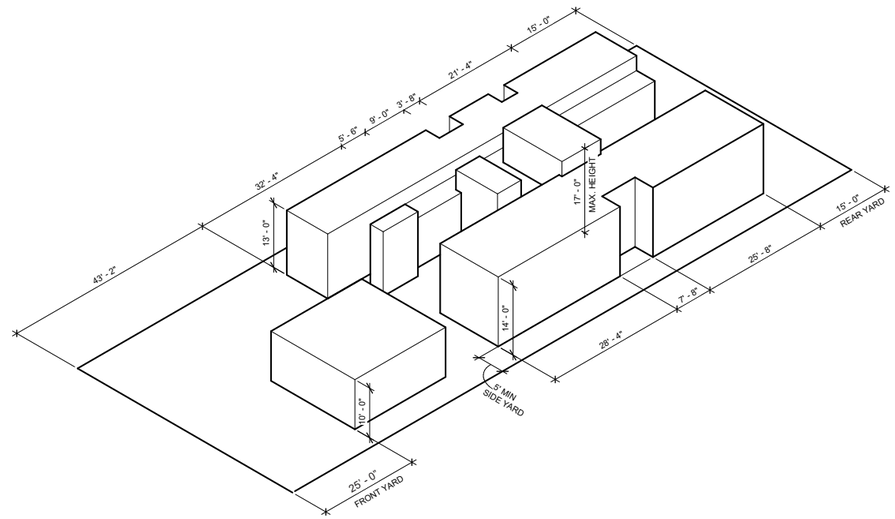
PROJECT DATA

SITE ADDRESS	1037 N. ILLIFF
LOT AREA	6,500SF
ZONE	R1-V1
MAX. ENVELOPE HEIGHT (LAMC)	33’-0” MAX. ABOVE GRADE 28’-0” (FLAT ROOF)
MAX. ENVELOPE HEIGHT	28’-0” MAX. ABOVE GRADE 24’-0” (FLAT ROOF)
SET BACK REQUIREMENTS	
FRONT	25’-0”
REAR	15’-0”
SIDE	5’-0”
PARKING REQUIREMENTS	2 COVERED SPACES
LOT COVERAGE	30% (48% MAX. ALLOWED)
PROPOSED BUILDING AREA	**1800 SF**
GARAGE	400SF

BUILDING HEIGHT DIAGRAM



BUILDING ENVELOPE AND SETBACK DIAGRAM



DESIGN FEATURES

FIRE RESISTANCE

The Waterplace House is designed from the ground up for wildfire resilience. Non-combustible materials, solid masonry walls, and carefully recessed openings minimize vulnerability to flames and embers. Every exterior surface is engineered to resist ignition, creating a home that acts as its own shield. Fire resistance isn't an added feature here — it's embedded in the architecture itself.

ROOFFING

The roof is a seamless, fire-rated membrane over a solid substrate, reducing vulnerabilities common in traditional roofing systems. Its low-profile design minimizes ember catchment, while its durability ensures long-term protection. Integrated drainage systems help manage water both during storms and as part of fire defense. The roof acts as both shelter and safeguard, designed to meet the extreme demands of the California environment.

BUILDING SIDING

Exterior walls are constructed from concrete masonry units and mineral plasters, materials chosen for their fire resistance, thermal mass, and aging beauty. Rather than cladding or ornamentation, the structure itself is expressed as the finish. This monolithic approach strengthens the home's resilience while grounding it visually in the landscape. Over time, the siding will weather gracefully, gaining character without compromising protection.

WINDOWS & DOORS

Fire-rated, high-performance windows and doors are deeply set within thick masonry openings, offering both ember resistance and thermal performance. Operable units allow for cross-ventilation and frame curated views inward toward the courtyard and the recirculating water feature. Sized for economy, the system uses single-operation doors and windows to avoid oversized spans while maintaining openness. Integrated headers and sills simplify detailing and support efficient, cost-effective construction.

DEFENSIBLE SPACE INTEGRATION

The recirculating water feature creates a 5ft plus boundary around the homes perimeter fenestrations. The surrounding landscape is designed as an active extension of the home's fire defense strategy. Layered planting zones with native, low-fuel vegetation create natural firebreaks without sacrificing beauty. Graveled courts and paved paths further slow fire spread while enhancing the living environment. Defensible space is not just a perimeter — it is a living, integrated system that supports the architecture.

VENTS

All vents are fire-rated and fitted with ember-resistant screens, carefully sized and located to limit exposure while ensuring healthy interior airflow. Mechanical systems are designed to reduce the need for exterior venting wherever possible. In critical areas, venting is minimized or concealed within protected architectural features. This thoughtful detailing eliminates common vulnerabilities without disrupting the clean visual language of the house.

EMBER-RESITANT FEATURES

Every seam, junction, and edge is detailed to resist ember intrusion — from sealed soffits and parapets to concealed roof-to-wall transitions. Openings are minimized, screened, or shielded, turning potential weak points into moments of strength. The architecture itself is a continuous barrier against airborne threats. Fire defense is not an accessory — it is designed into every material joint and construction move.

SUSTAINABILITY

The Waterplace House is conceived as a long-term shelter that respects both land and climate. Passive strategies for cooling, heating, and water management reduce energy dependence year-round. Durable materials extend the building's life span, while solar integration and water features highlight the importance of natural resources. Sustainability here is not performative — it is the architecture's operating principle.

DESIGN QUALITIES

The house is elemental, balancing mass and void, shelter and exposure. Water, light, and concrete define the experience, rooting it in a timeless dialogue with nature. Spaces unfold gradually, moving from protected interiors to open-air courtyards that reveal the changing sky. It is architecture designed to be lived in, weathered, and remembered.

CONSTRUCTION METHODOLOGY

The home is built using efficient, repeatable methods that honor traditional masonry craftsmanship while embracing modern building science. CMU walls act as both structure and finish, eliminating layers and materials that add cost and complexity. Prefabrication and modular design elements reduce waste and accelerate construction timelines. Simplicity and resilience are the core strategies — building less, but better.

EFFICENCY

From orientation to mechanical systems, every aspect of the house is optimized for energy and resource efficiency. Passive solar gain, thermal mass, and cross-ventilation are prioritized before mechanical intervention. Water use is minimized through reclamation features and drought-tolerant landscaping. Efficiency isn't just measured in numbers — it's felt in the daily comfort and ease of living.

STYLE FEATURES

The style of the Waterplace House is defined by simplicity, solidity, and a reverence for natural forces. Earth-toned masonry walls, shaded portals, and still water features create a quiet monumentality. Forms are kept pure, materials are left honest, and ornament is achieved through light, shadow, and time. The house feels at once ancient and new — a contemporary expression rooted in California's oldest traditions.

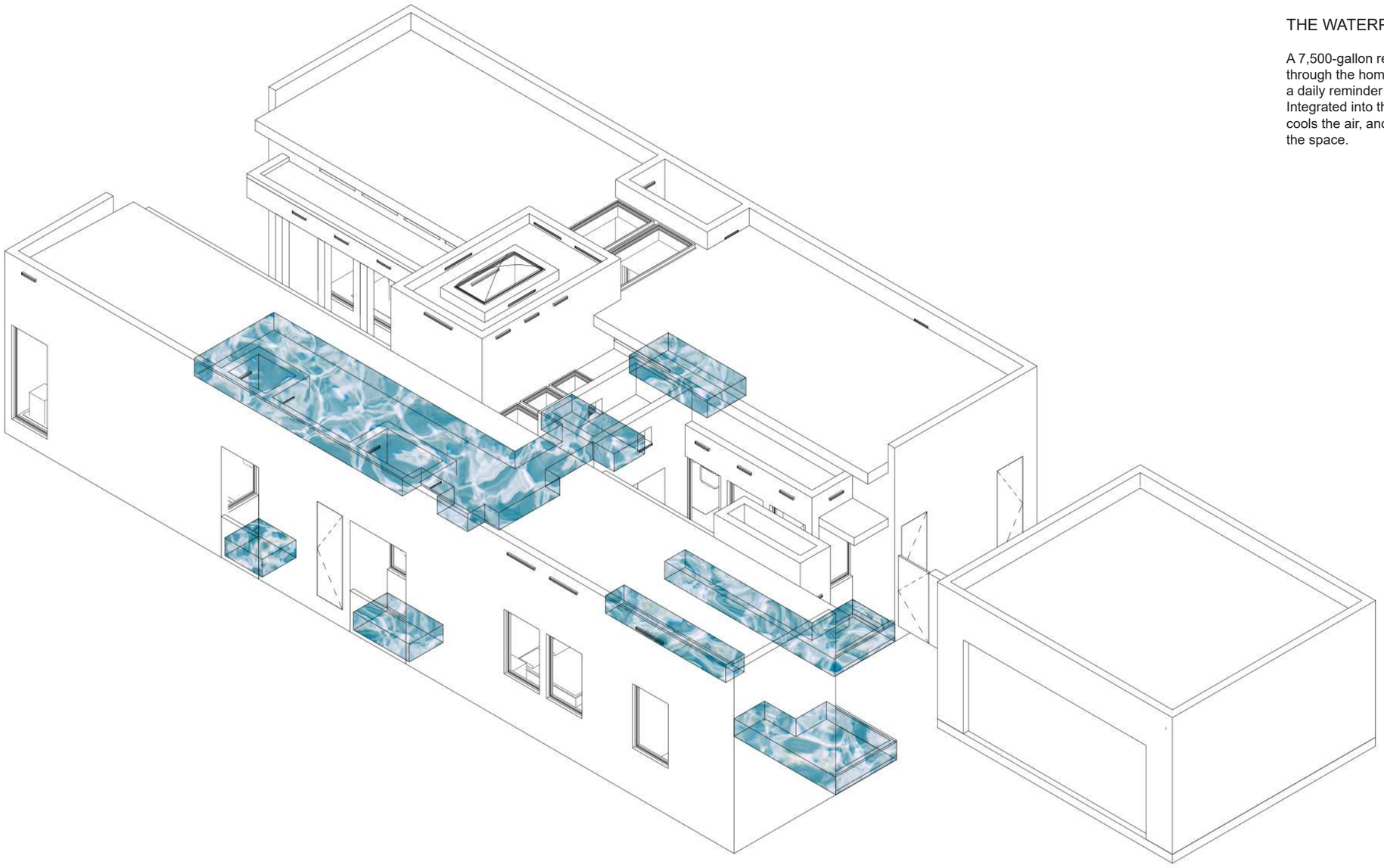
ADDITIONAL SPECIAL FEATURES

An internal waterway threads through the heart of the home, cooling the courtyard and offering an ever-changing sensory experience. Rainfall is collected, stored, and expressed as part of the architecture's life cycle. Seasonal changes are celebrated through shifting light patterns and open-air moments. Water is not just a resource — it is a living material, woven into the home's spirit.

CUSTOMIZATION POTENTIAL

Though conceptually rigorous, the Waterplace House allows for thoughtful customization. Interior layouts can be adapted for evolving family needs, workspaces, or guest accommodations. Material palettes and water feature configurations can be tailored to individual desires. The home is designed not as a static object, but as a living framework ready to grow with its inhabitants. Custom interior and exterior materials to accomodate different styles, two story option for additional bedrooms, water resevoirs can be replaced with French Drains for economy and additional hardscaping

CONCEPT DIAGRAM



THE WATERPLACE

A 7,500-gallon reservoir and water feature runs through the home, acting as both fire protection and a daily reminder of water’s value in Los Angeles. Integrated into the architecture, it connects rooms, cools the air, and brings movement and reflection into the space.

CONCEPT RENDER

PLANS

SITE PLAN


130' - 0"
25' - 8"
7' - 8"
28' - 4"
5' MIN SIDE YARD
25' - 0"
FRONT YARD
42IN FENCE
72IN SITE WALL
TRADITIONAL SPLIT RAIL
BLOCK WALL
PEDESTRIAN ENTRANCE
ENCLOSED SIDE YARD
MECH.
2 CAR GARAGE
1037 ILLIF
1800 SF SINGLE STORY SFR
ENTRY
MOTORCOURT
MOTOR GATE
POOL
50' - 0"
15' - 0"
REAR YARD
5' MIN SIDE YARD
1037 N. ILLIFF

GROUND LEVEL

C B A

25' - 0" DOG RUN 11' - 0" 10' - 6" 7' - 0" 12' - 6"

13' - 6"

MECH. (10 SF)

TV

RESEVOIR

CABINET DESK

GARAGE (360 SF)

CL (10 SF)

LIVING (320 SF)

DINING (170 SF)

KITCHEN (190 SF)

REF.

PANTRY (20 SF)

TRASH/MECH

"WATERPLACE"

MECH (20 SF)

POOL EQUIPMENT

COVERED BREEZEWAY

BAR

RESEVOIR

POOL / RESEVOIR

COURTYARD (290 SF)

"WATERPLACE"

ENTRY (50 SF)

10' - 0"

1

1

RESEVOIR

LINEN LINEN

HALL (140 SF)

RESEVOIR

10' - 0"

13' - 6"

PRIMARY (210 SF)

TV

BATH (60 SF)

CL (40 SF)

LAN. (10 SF)

BATH (50 SF)

BED 1 (90 SF)

CL CL

BED 2 (90 SF)

9' - 6"

RESEVOIR

MECH (10 SF)

RESEVOIR

12' - 6" 9' - 0" 7' - 6" 24' - 6"

C B A

ROOF

C

B

A

WATER DISTRIBUTION

DOG RUN

OPEN

SOLAR ARRAY

SHED ROOF SLOPE

SKYLIGHT

SKYLIGHT

SHED ROOF SLOPE

SOLAR ARRAY

MECHANICAL GARDEN

SHEET FLOW

SHEET FLOW

PARAPET ROOF BELOW

PARAPET ROOF BELOW

POOL RESEVOIR

SKYLIGHT

SKYLIGHT

SKYLIGHT

SKYLIGHT

PARAPET

RESEVOIR

1

1

PARAPET ROOF BELOW

PARAPET ROOF BELOW

RESEVOIR

RESEVOIR

SHEET FLOW

SOLAR ARRAY

SHED ROOF SLOPE

SOLAR ARRAY

OPEN

OPEN

WATER DISTRIBUTION

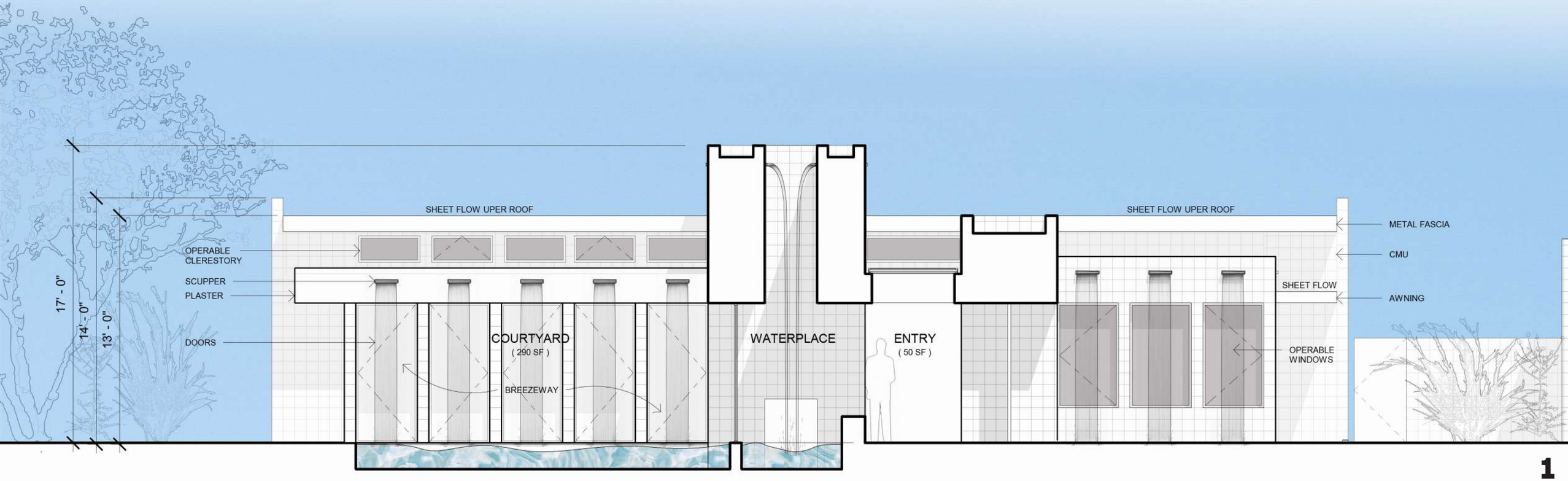
C

B

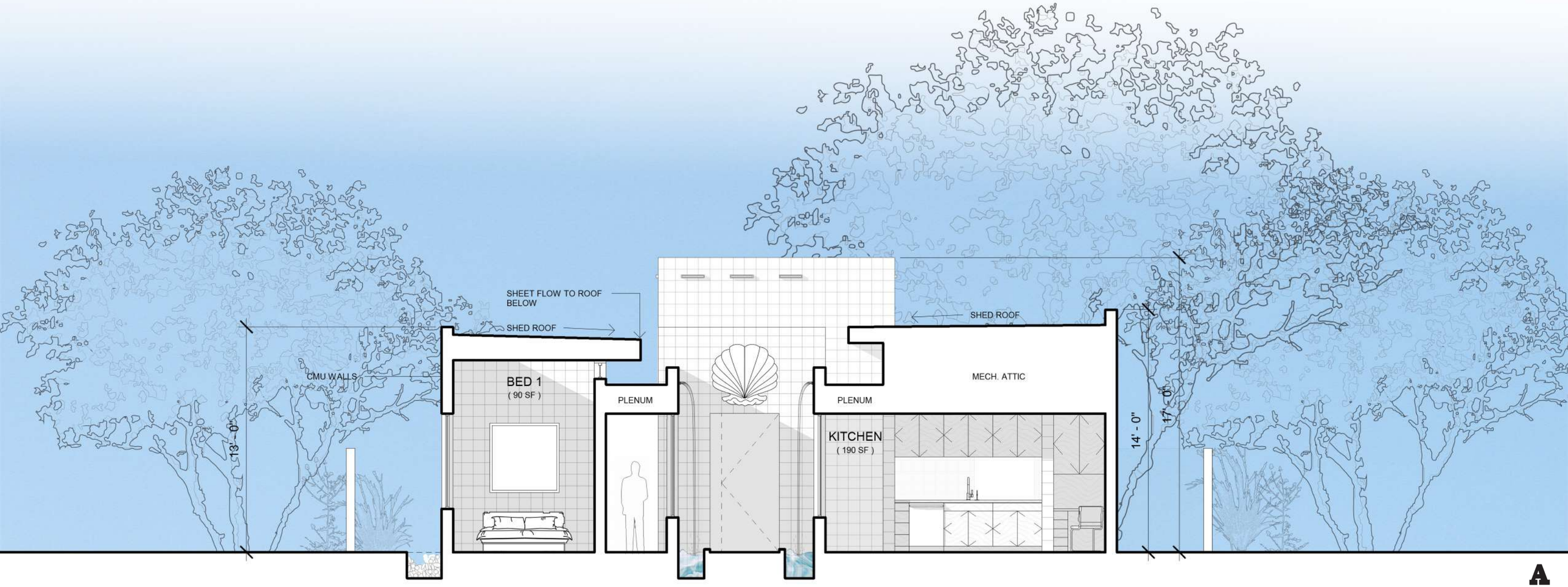
A

SECTIONS

LONGITUDE

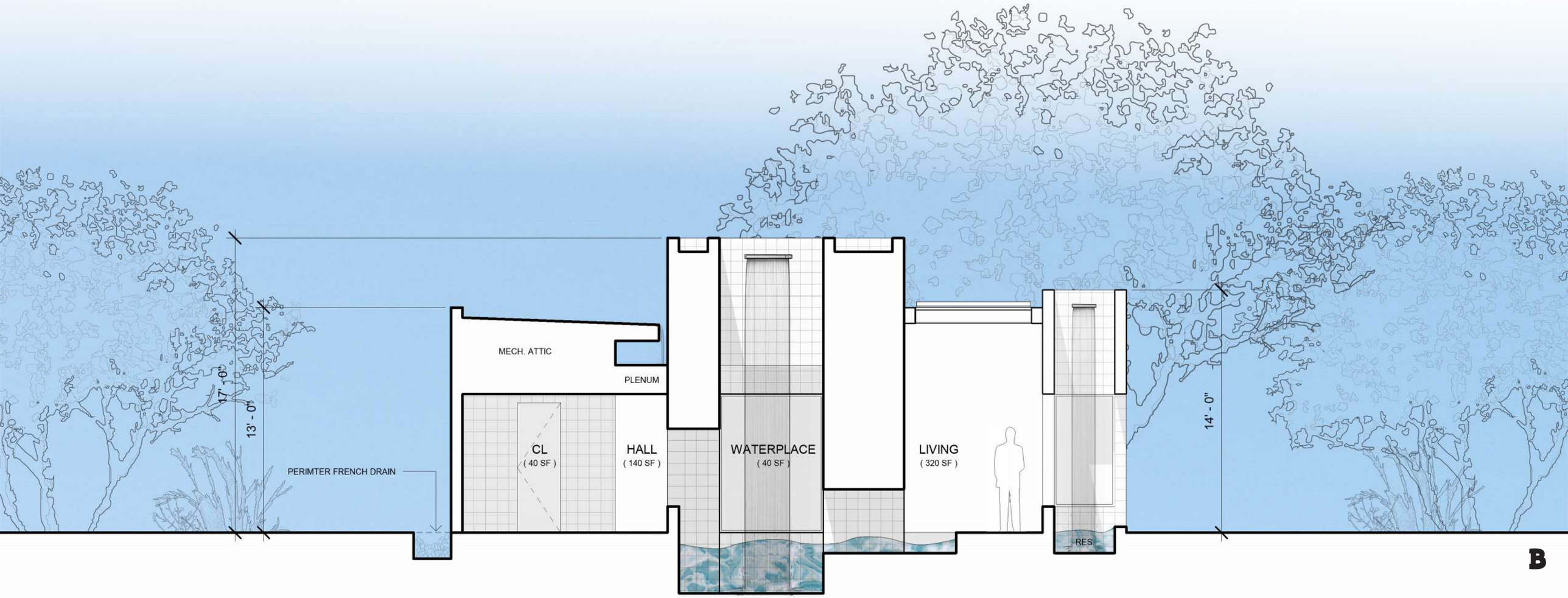

SHEET FLOW UPER ROOF
SHEET FLOW UPER ROOF
METAL FASCIA
CMU
OPERABLE CLERESTORY
SCUPPER
PLASTER
SHEET FLOW
AWNING
DOORS
COURTYARD
(290 SF)
BREEZEWAY
WATERPLACE
ENTRY
(50 SF)
OPERABLE WINDOWS
17' - 0"
14' - 0"
13' - 0"

1


SHEET FLOW TO ROOF BELOW
SHED ROOF
CMU WALLS
13' - 0"
BED 1
(90 SF)
PLENUM
PLENUM
SHED ROOF
MECH. ATTIC
KITCHEN
(190 SF)
14' - 0"
17' - 0"

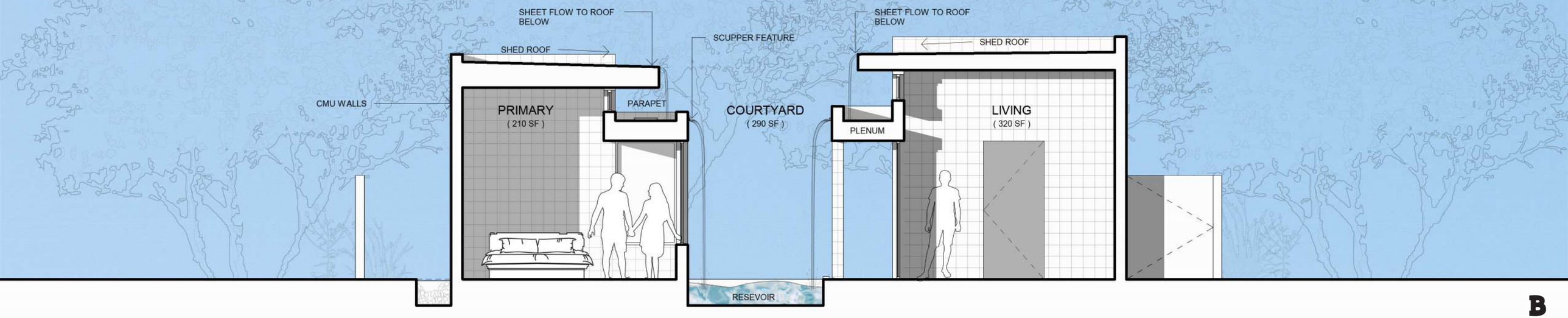
A

WATERPLACE



B

COURTYARD

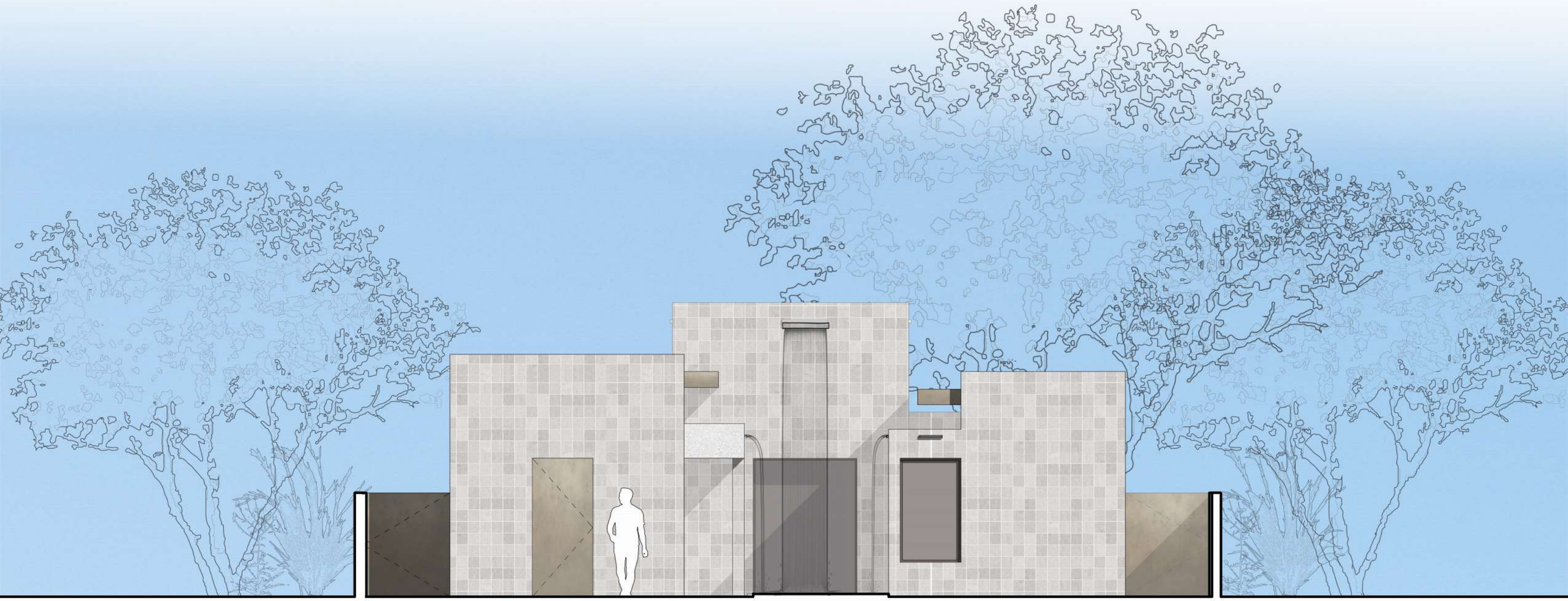

SHEET FLOW TO ROOF BELOW
SHED ROOF
CMU WALLS
PRIMARY
(210 SF)
PARAPET
SCUPPER FEATURE
COURTYARD
(290 SF)
SHEET FLOW TO ROOF BELOW
SHED ROOF
PLENUM
LIVING
(320 SF)
RESEVOIR

B

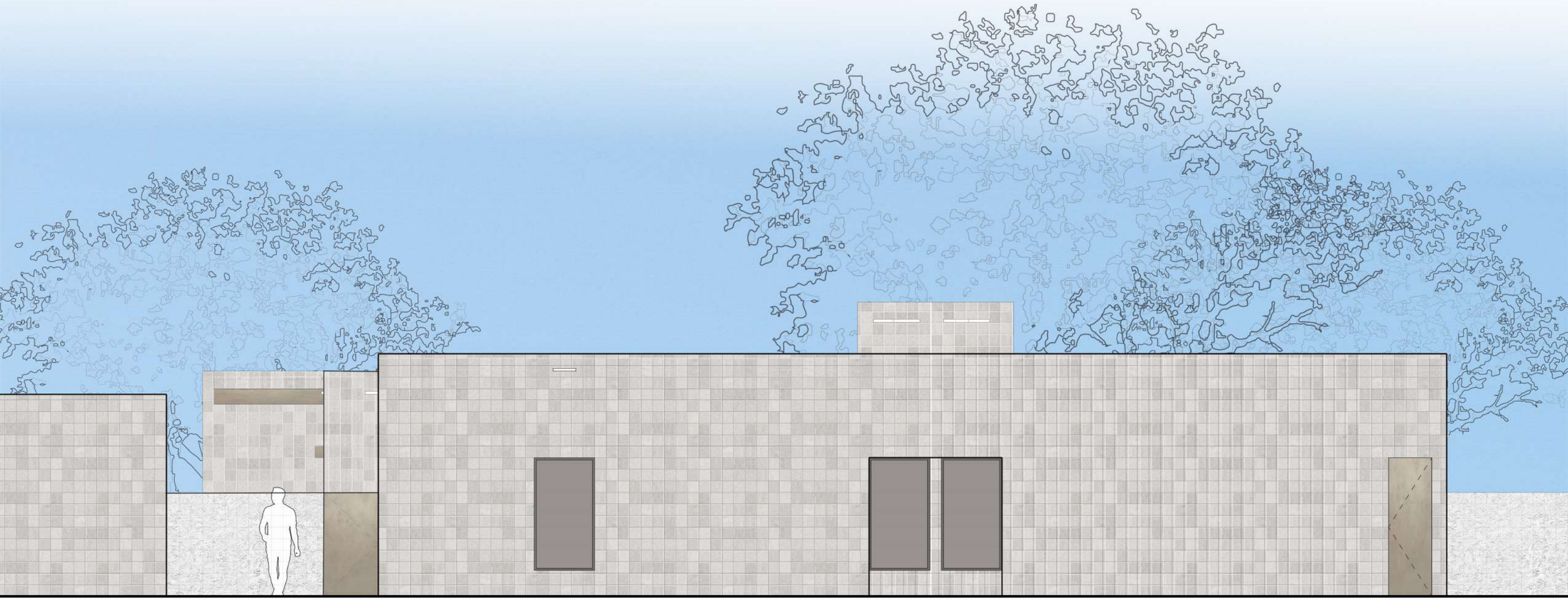
ELEVATIONS

FRONT

BACK



NORTH



RENDERINGS

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