

Sun Baths

SECTION 2 Project Details

2a. Design Concept

Sun Baths is proposed as a new, 2 story, 12,306 square foot community bath. Lots at 319 and 323 North Main will be combined into one property. The existing residential structures have been deconstructed and some of the materials will be reincorporated into the new building and others salvaged for reuse elsewhere.

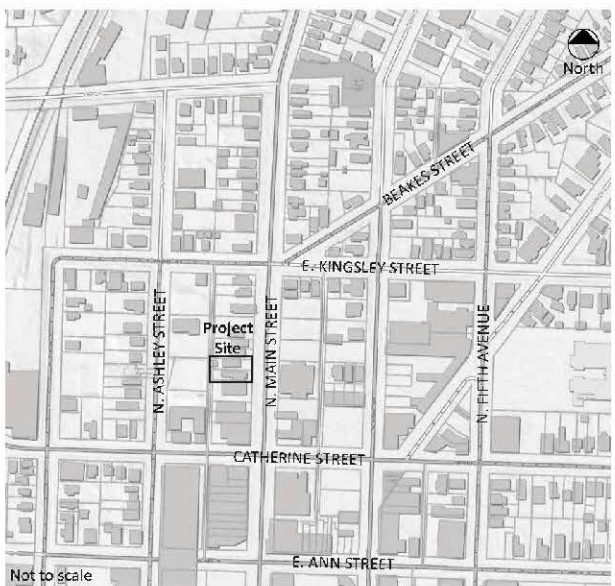
People of all backgrounds are drawn to water, be it a leisurely warm water soak on a frigid winter day or a cool dip in a clear stream on a hot summer day. In thousands of years of human culture, baths have acted as a site of community integration. People are happier, healthier, more productive, and more creative when they are relaxed. As our technology improves it also tends to make us more distracted and scattered. However, the watery surroundings of a bath make us break from the digital world and can more fully connect with ourselves and the people around us.

Breaking with the current trend in spas, our goal is to help humanity to invent new ways to heal ourselves, connect with each other, and improve our environment in a sustainable way.

Sun Baths is registered with the Living Building Challenge for Petal Recognition. The project plans to achieve at least the Energy, Equity and Beauty Petals and Net Zero Energy Building Certification. The project's LEED-certification goal is platinum. One hundred percent of the building's energy needs on a net annual basis will be supplied by on-site renewable energy (without combustion systems or green power purchases). Our annual energy budget is ~ 100,000 kWh to be provided by rooftop mounted photovoltaic panels.

2b. Development Program

As a community bath house, the building will have a mixture of common bath and sauna areas and smaller private bath spaces. The Main Waters area is designed to accommodate 50 bathers as they rotate through hot, cold and rest. Three private spas provide options for 1-6 people. Areas supporting the bathing functions include reception, locker rooms, office, staff break room, meeting, laundry, housekeeping and storage.

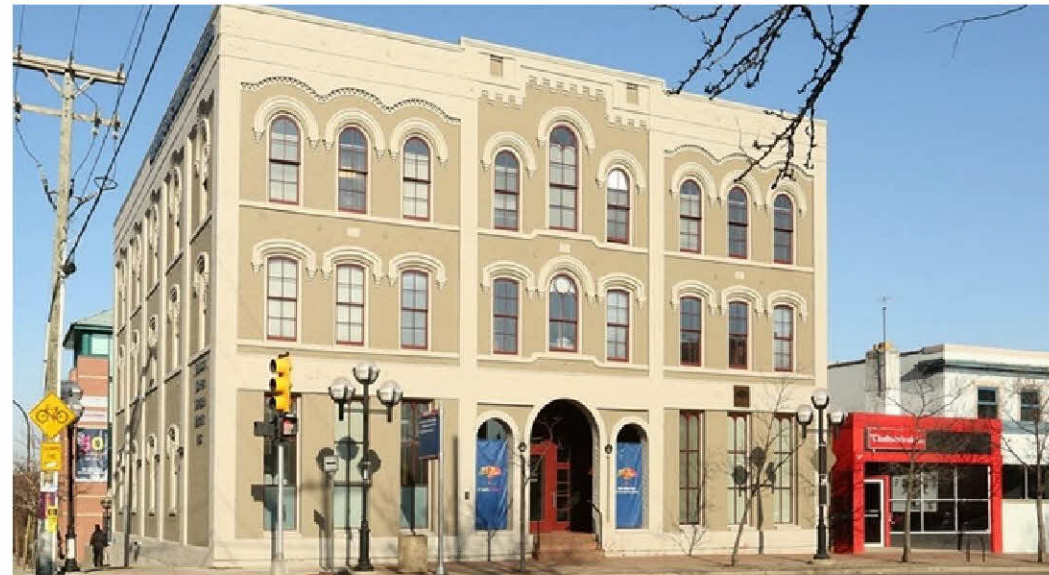


Location Map



Perspective from the Southeast

Existing commercial buildings



301 North Main



320 North Main

SECTION 3: Project Design

3a. Site Context

The project is located in the vibrant Kerrytown Character District. Kerrytown, home to restaurants, markets, shops, and entertainment venues, is a popular destination for residents and tourists. Kerrytown is located on the northern edge of Ann Arbor's downtown and serves as a transitional zone between commercial areas and residential areas of the city. It is also the automobile gateway from the north into the downtown from Main Street and US 23. Kerrytown's activity is anchored by a mix of bars and restaurants, and a strong retail presence, including the Ann Arbor Farmers Market. Wayfinding and interpretive signage is prevalent through the core area, as well as ample lighting at night. The area is busy with automobile, bus, and pedestrian activity. The area is walkable and public transit is easily accessible.

New residential developments



212 Kinsley West under construction



414 North Main

The project is located mid-way down the block of Main Street between East Kingsley and Catherine/Miller, on the west side of the street in the downtown zoning district D2. The site is surrounded by a mix of older housing stock to the north (some of which are still residential, but many are now small businesses), as well as larger commercial buildings across the street, south on Main Street and west on Miller. It shares an alley that serves Ann St. and Kingsley, as well as a large private surface parking lot immediately to the west. New residential development has been completed immediately across the street, as well as another residential development under construction around the corner west on Kingsley.

3b. Conceptual Design Theme

Sun Baths represents an effort to create a community bath house that is restorative with respect to: 1) people (its occupants) and 2) place (its environment), while making the least possible demand on resources.

Water and flow are expressed by the site, building systems and occupants. Light, energy, people, plants and water weave and flow through the building and site.

The design process has reflected a transparent, collaborative, and interdisciplinary approach.

3c. Response to the Character District

Like the Kerrytown District itself, the 300 block of North Main transitions from residential to converted residential structures to commercial building types as you move north to south from Kingsley to Miller.

Rather than constructing to the property line, the proposed development maintains green space between buildings. The scale of the proposed structure fits within the transitioning scale of the block while increasing site density.

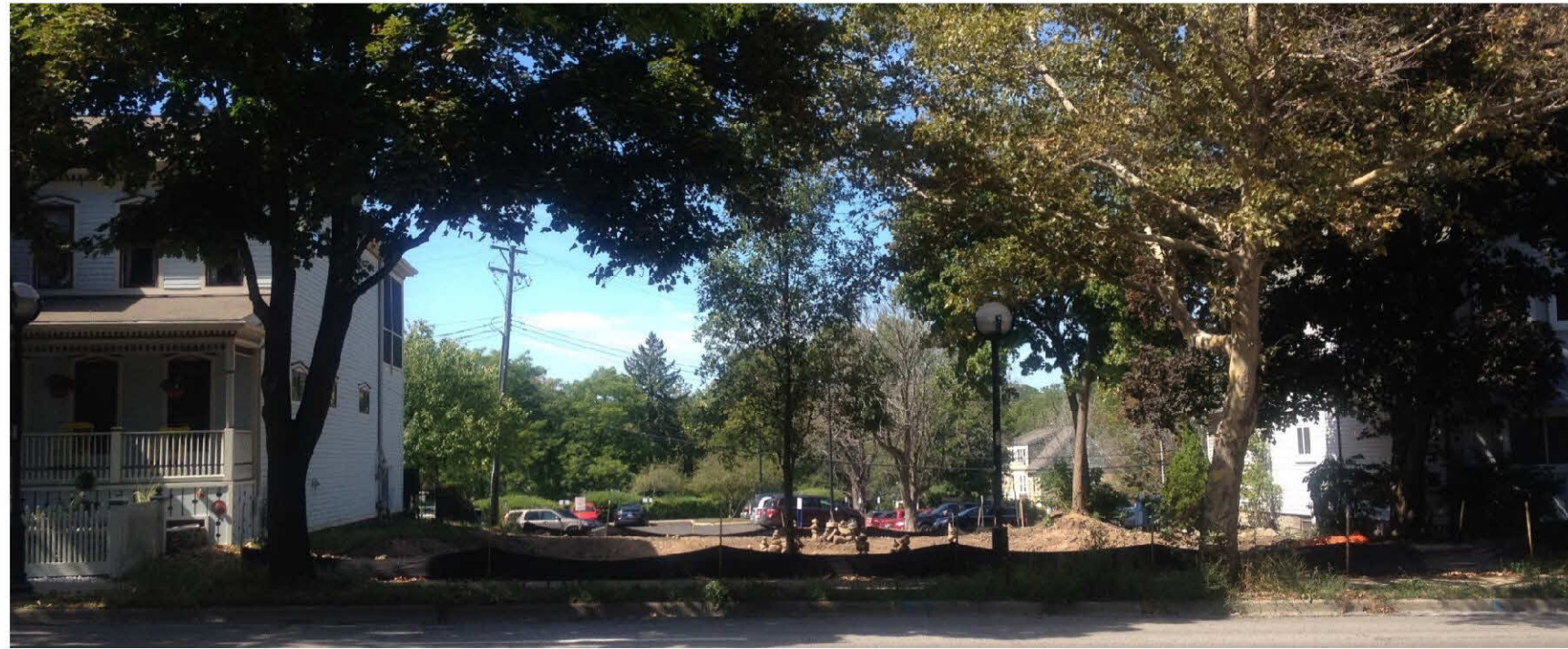
The building shape incorporates a blend of contemporary residential patterns and commercial storefront entry. However, its mass and shape are defined by its energy and programmatic goals.

Naturalized open space provides for the flow of water through the site.

The building extends the creative vitality of downtown closer to Ann Arbor's northerly gateway and reinforces the unique, local uses and building types that make the Kerrytown District a destination.



Perspective from the Northeast



Project Site from Main Street

3d. Design guidelines for Context and Site Planning

A.1 Urban Pattern and Form

The two sites (which will be combined for this project) each had an older home (see tan houses in center of photo) which were in various states of serviceability and decay, were recently taken down. The site is bounded by commercial buildings to the south towards Catherine/Miller (ballet studio, office buildings which have a commercial form) and a business as an immediate neighbor to the south which added a highly detailed porch and cupola many years ago.

To the north, there are old houses built in the late 19th and early 20th centuries, some of which are occupied by residents, and some by businesses that have converted them for commercial/office use.

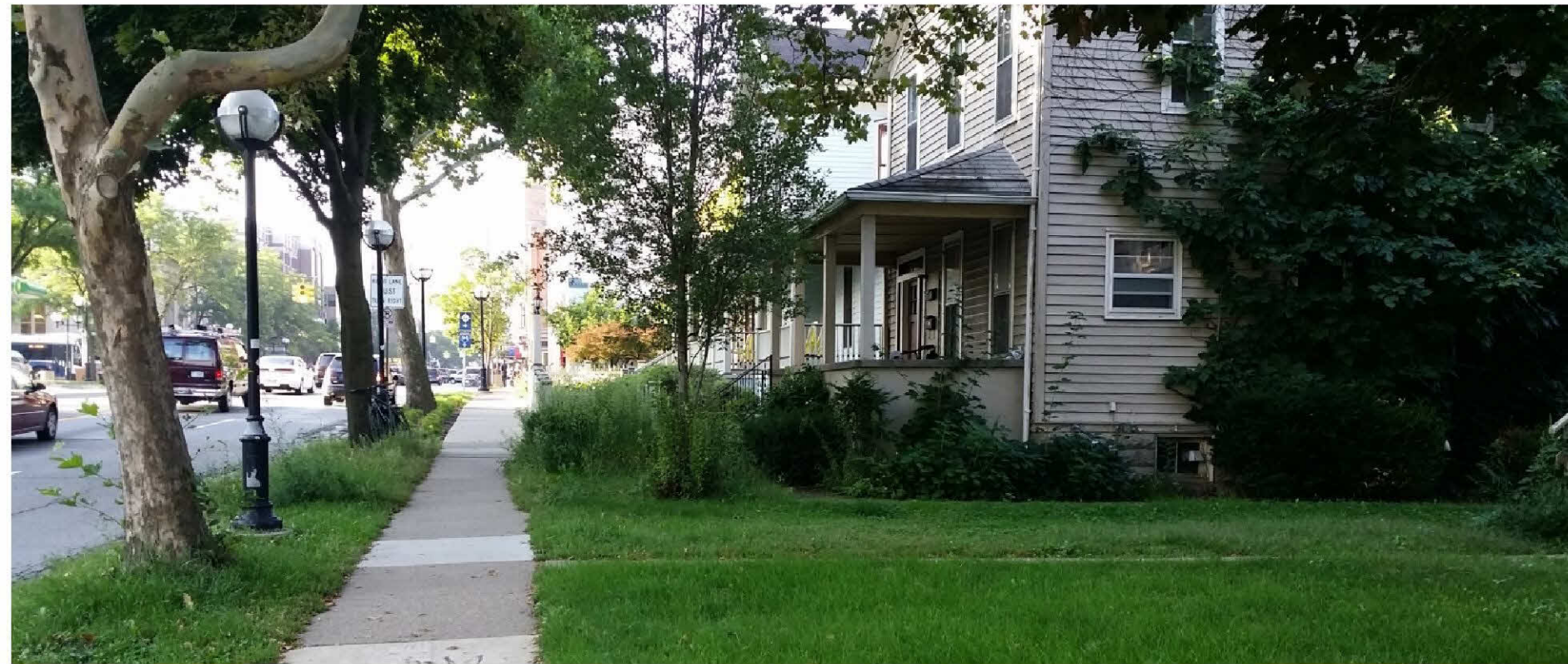
Across the street, there is the large McKinley building built several decades ago, a drycleaners, and the new residential condominium development, 414 Main is just finishing construction. The project site is in a transition area: flanked by both commercial form and older residential housing stock.

Though the intent and form of the building has been shaped by the need to maximize solar energy production and the building program, there are several ways that the building responds to the urban form of its context. The 2 story height fits with the scale of the neighborhood (D-2 zoning allows for 60 feet height and the building is significantly under), especially with the commercial buildings and new residential condominiums across the street.

There is a rain garden in the front setback as well as trees, which will create a lush, green foreground to the building and a beautiful verdant space for users arriving from Main Street. The project also maintains green side yards between the adjacent structures. The pedestrian scale entry, marked with stone elements passes over the rain garden.



Project site from the Southeast (prior to site deconstruction)



Walking South along Main Street

A.2 Site Planning and Natural Systems

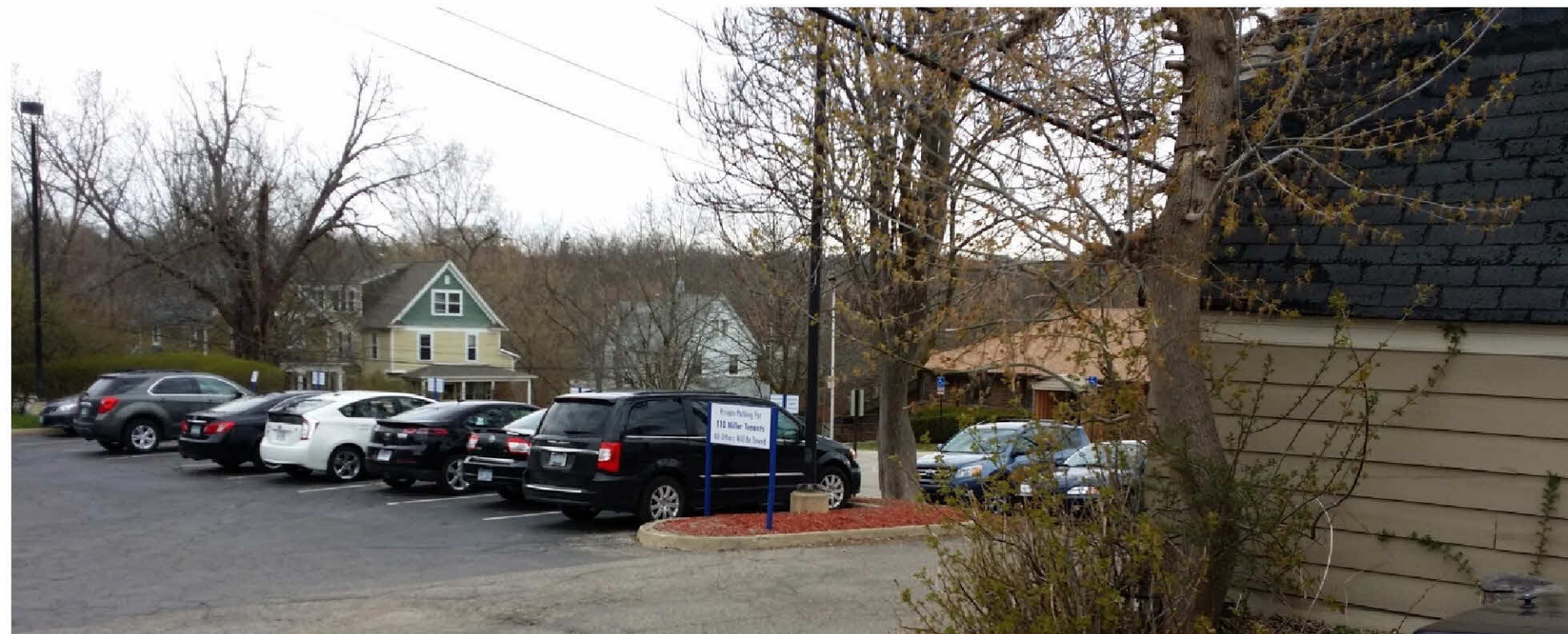
There are existing large street trees out in front of the site, which will remain. An aging apple tree in poor condition and some weedy box elder were taken down as part of the site demolition. The site is highest in the southeast corner and falls to the northwest, towards the buried Allen Creek.

The project will collect rainwater for treatment and use as permitted by code, but any water that falls on the site will take rainwater into an infiltration-based series of rain gardens that will be designed to hold and infiltrate the first one inch of rainfall that work with the topography of the site. Plants native to southeastern Michigan will be used throughout this green infrastructure system.

Where possible, deciduous trees will be planted to soften the building, as long as it does not interfere with solar gain. Due to the spa use, privacy is at a premium and the majority of the glazing is translucent.

The building is located and massed to maximize its solar access while still allowing summer sun to reach the building to the north.

Both neighbors have been contacted and the project will be collaborating with the on the landscape plan for the space between the buildings.



View to the alley from the project site

A.3 Open Space

As discussed previously, site access will be available from the alley and Main Street. The site is primarily used for rain water infiltration, circulation, service and small zones of intense planting.

A.4 Parking, Driveways and Service Areas

Parking will not be provided on site (not a requirement in D-2), but will be available in the public parking structure bordered by Ann St., Ashley and Catherine which is a half block away. There is street metered parking available throughout Kerrytown and its surrounding neighborhoods as well as the surface lot at Kerrytown on non-market days. The alley side will allow access for temporary drop-off of materials for events, but does not have a dedicated spot for users.

A.5 Pedestrian Connections

The rain garden will provide a lush green oasis for those entering from Main Street, as well as pedestrians walking by. The entry is subtle, yet will express the water and relaxation to be found inside. The front louver elements add color and a sense of movement as you pass by.

A.6 Cycling and Transit

Designers anticipate that biking will likely be an important form of transportation during the moderate months. The project proposes to have 8 spaces in the right-of-way of Main Street. Main Street is on a AATA bus route as well, with the stop a half a block away near the corner of Kingsley and Main Street.

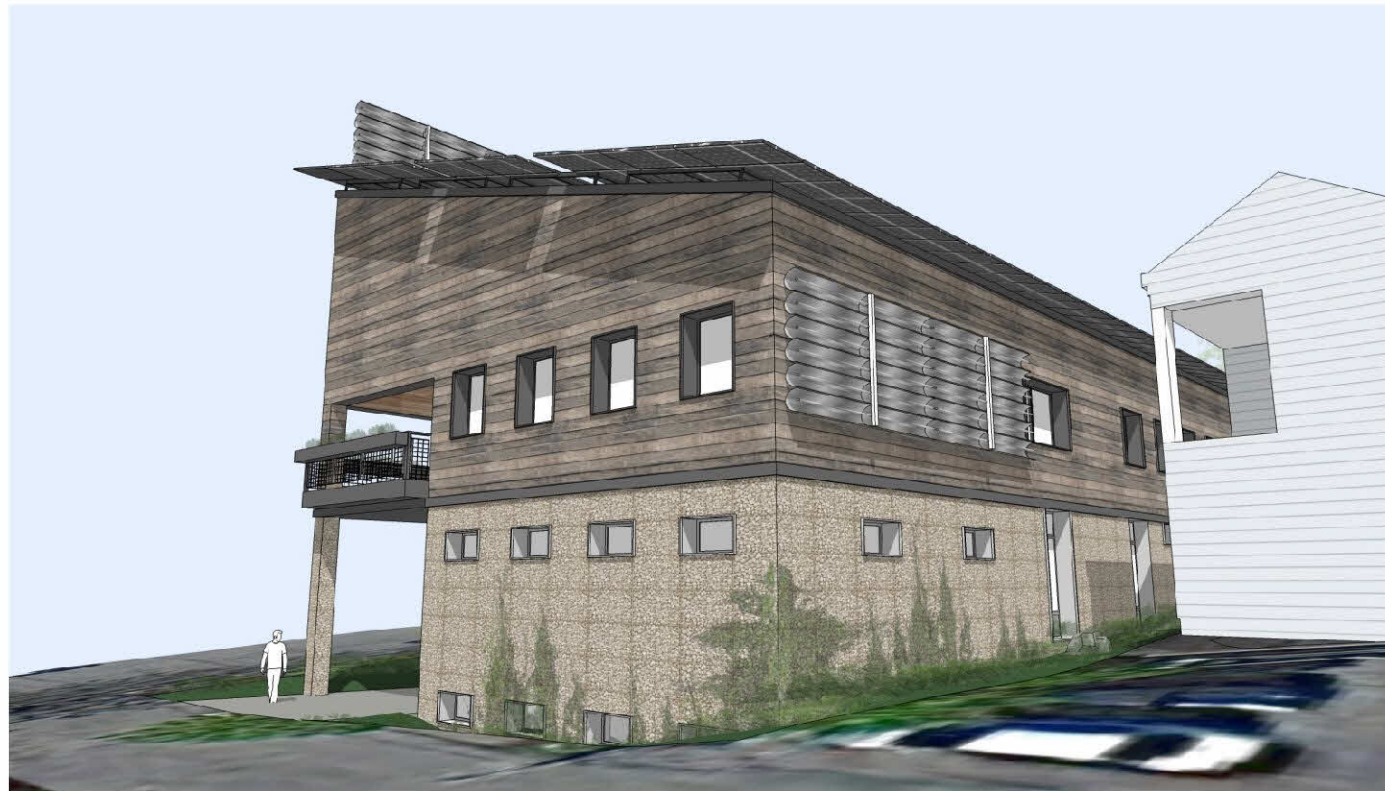


321 N. MAIN
September 2015

INSITE
design studio, inc.
landscape architects
Site Plan



Perspective from the East



Perspective from the Southwest

3e. Design Guidelines for Buildings

The height, size and shape of the building meet the requirements of the D2 Zoning District.

B.1 Building Massing

The building mass fits comfortably between the larger scale commercial buildings and residential scale buildings on the block.

A change in materials defines the building base, entries and the upper section

The distinct roof form follows the dominant solar array. A light well, not visible from the street, brings light into the center of the main waters area.

The tallest building element is a section of solar concentrators used to heat water to the higher temperatures needed for the saunas.

3f. Design Guidelines for Building Elements

C.1 Street Edge

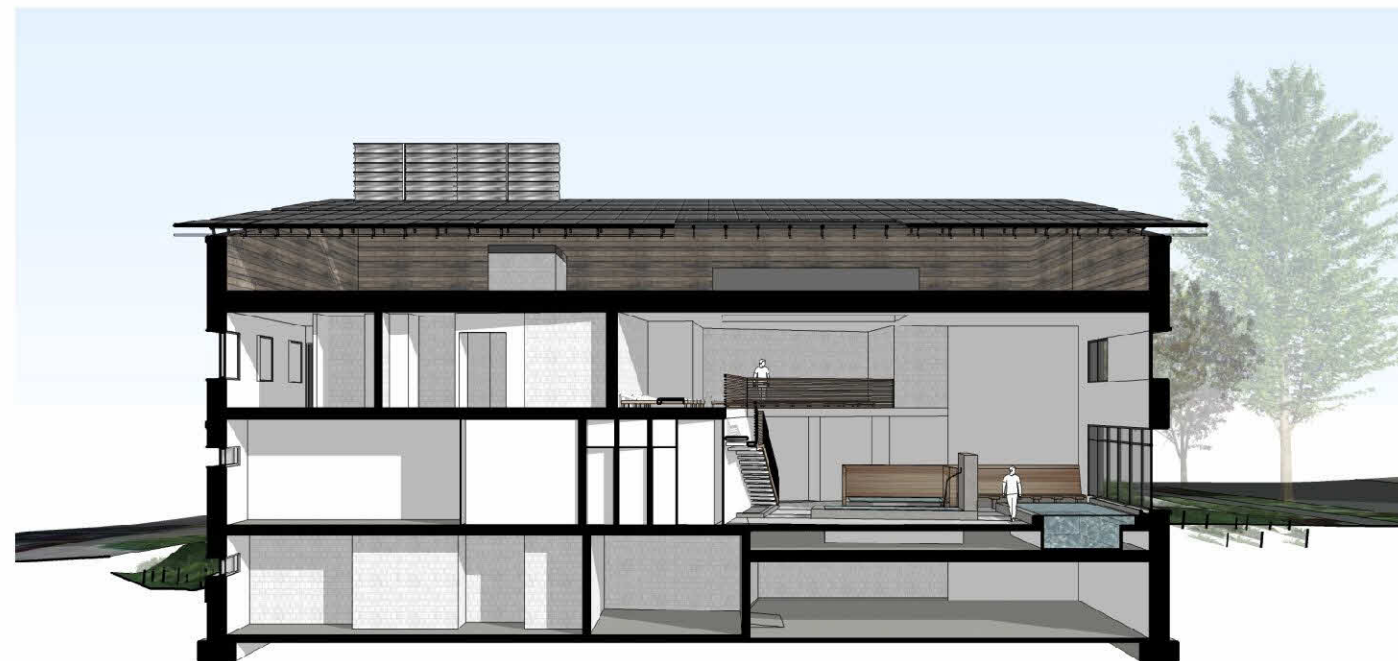
The street edge is designed specifically to attract pedestrian activity while maintaining privacy required for a community bath. A vegetated front setback functions as a rain garden. Wood and stone materials are similar in scale to adjacent building materials and changeable, vertical panels add color and movement.

C.2 Entries

The main building entry is a subtle pedestrian scaled recess in the building form. The entry serves as a glimpse into the building and a transition from busy Main Street into the calm of the interior. From the alley, a service entrance, covered by a deck creates a similar recess on the west elevation.



View from the Southwest



East West Building Section at Main Waters

C.3 Windows

Windows are located and sized to provide daylight. Glazing will be high performance and primarily translucent.

C.4 Awnings

Rather than applying awnings to the façade, the first floor translucent windows are accented with vertical panels to create movement, add color and soften the expanse of the glazing.

C.5 Materials

The building materials have been selected for their aesthetics, scale, durability and life cycle cost. The recessed areas will be clad in reclaimed wood that ties in with natural wood used in the interior. The second floor is clad in a contrasting weathered wood rainscreen. Gabion stone veneer provides a base, allowing the grade to drop from east to west along the building.

C.6 Building Operational Systems

Building operational systems have been carefully integrated into the design of the building. HVAC equipment (heat pumps and ERUs) are contained within the building envelope. The building roof line follows the 100,000kWh solar array, providing a distinctive building cap. A 52,000 gallon reservoir in the building stores energy and rainwater.

Waste management is screened from the alley with a wood screen constructed from materials similar to the building.

C.7 Sustainability

Sun Baths is being designed with an integrated design process to minimize its demand on resources, maximize the wellbeing of its occupants, identify synergies between systems, and restore natural elements and systems on the site. The project aims to be socially just and culturally rich in addition to being ecologically restorative.



East West Building Section at Entry



North South Building Section at Entry

The site design aims to restore a healthy coexistence with nature through, native landscaping including a rain garden and maximizing opportunities for infiltration and natural flow.

Materials are being selected with the aim of choosing products and processes that are safe for all species through time. The building will use salvaged materials from the deconstructed houses, regionally manufactured materials and materials with a lower life cycle cost. Materials on the Living Building Challenge red list will be avoided, unless there are no reasonable alternatives.

The building is being designed to be Net Zero Energy Certified and targeting LEED Platinum. It will minimize energy and water consumption and maximize energy production and energy and water storage and reuse. The building will have the capacity to store 52,000 gallons of rainwater plus the required volume for storm water detention. Water will be the building's primary energy storage. Energy from greywater will also be captured and stored for reuse.

The building will have both potable and rainwater plumbing systems. Treated rainwater will be used for flushing toilets and laundry. The project will request a variance from the state to use treated rainwater in the pools. The building will be designed to use rainwater for other potable uses as future codes and practices may allow.

The building maximizes daylighting without compromising the envelope through the use of Solera glazing (R-18). Energy recovery units will temper fresh air intake. Building systems will be monitored and controls tied into the building's schedule. At the same time, occupants will also have access to environmental controls.

Programmatically the bath house will reach out to a diversity of people to engage a range of ages, socio-economic groups and relaxation practices.

It is our intent that Sun Baths will set a new benchmark for environmental stewardship and sustainability. Its design, systems, and performance will be shared publicly, both in the building and online.



D SOUTH ELEVATION



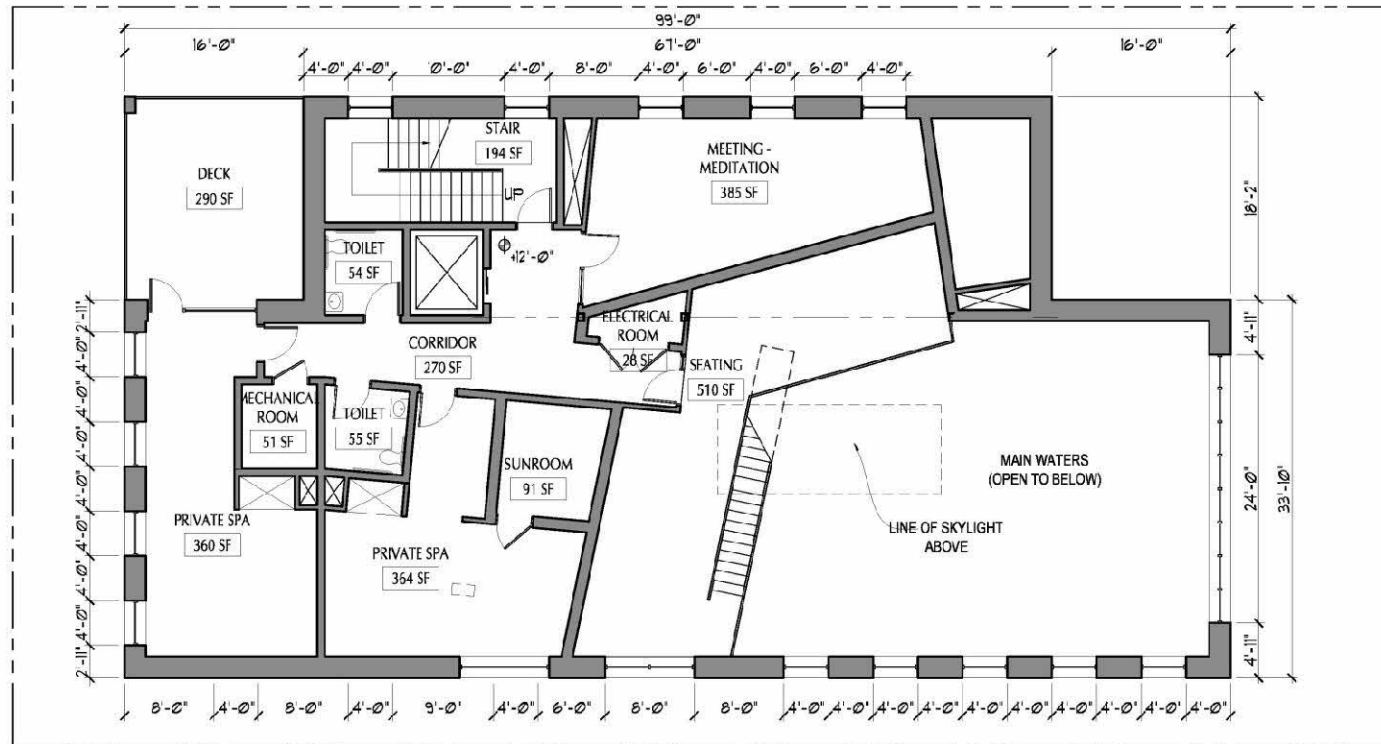
C WEST ELEVATION



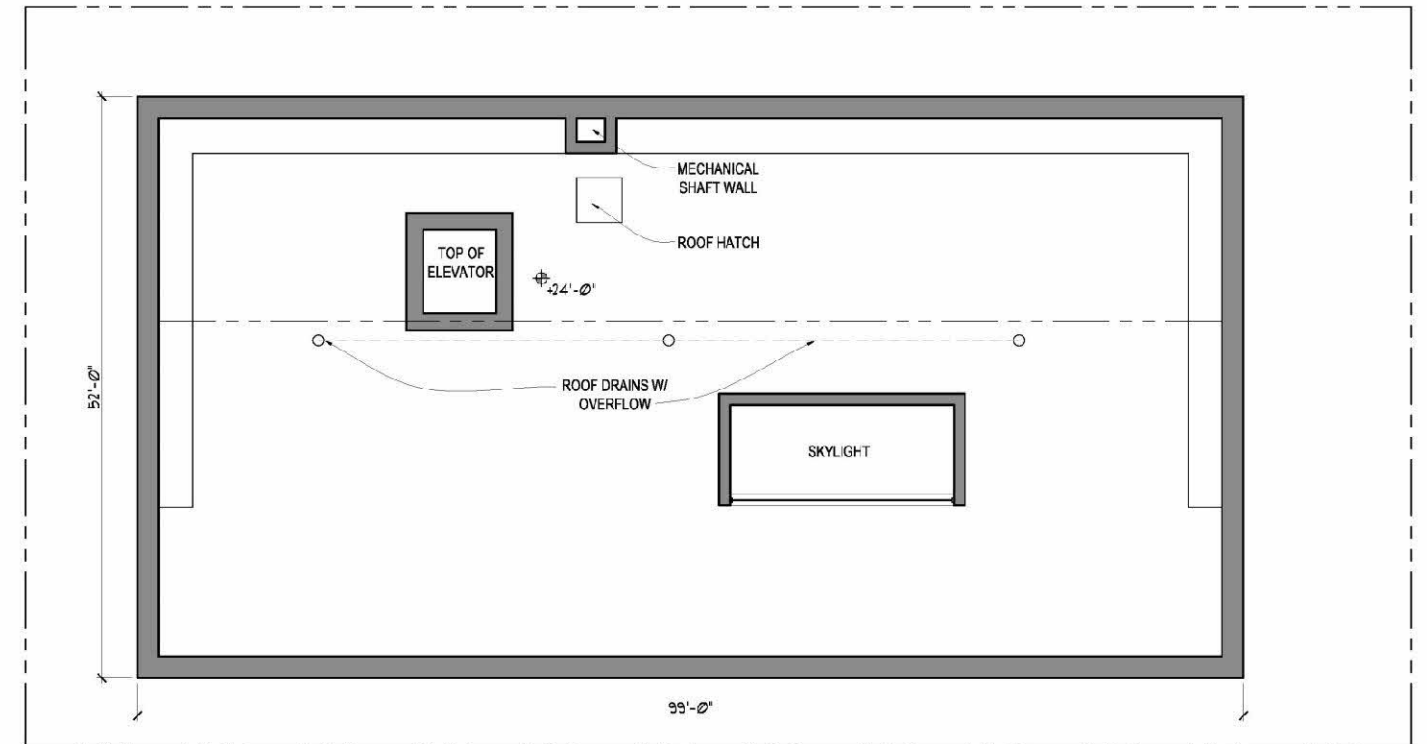
B NORTH ELEVATION



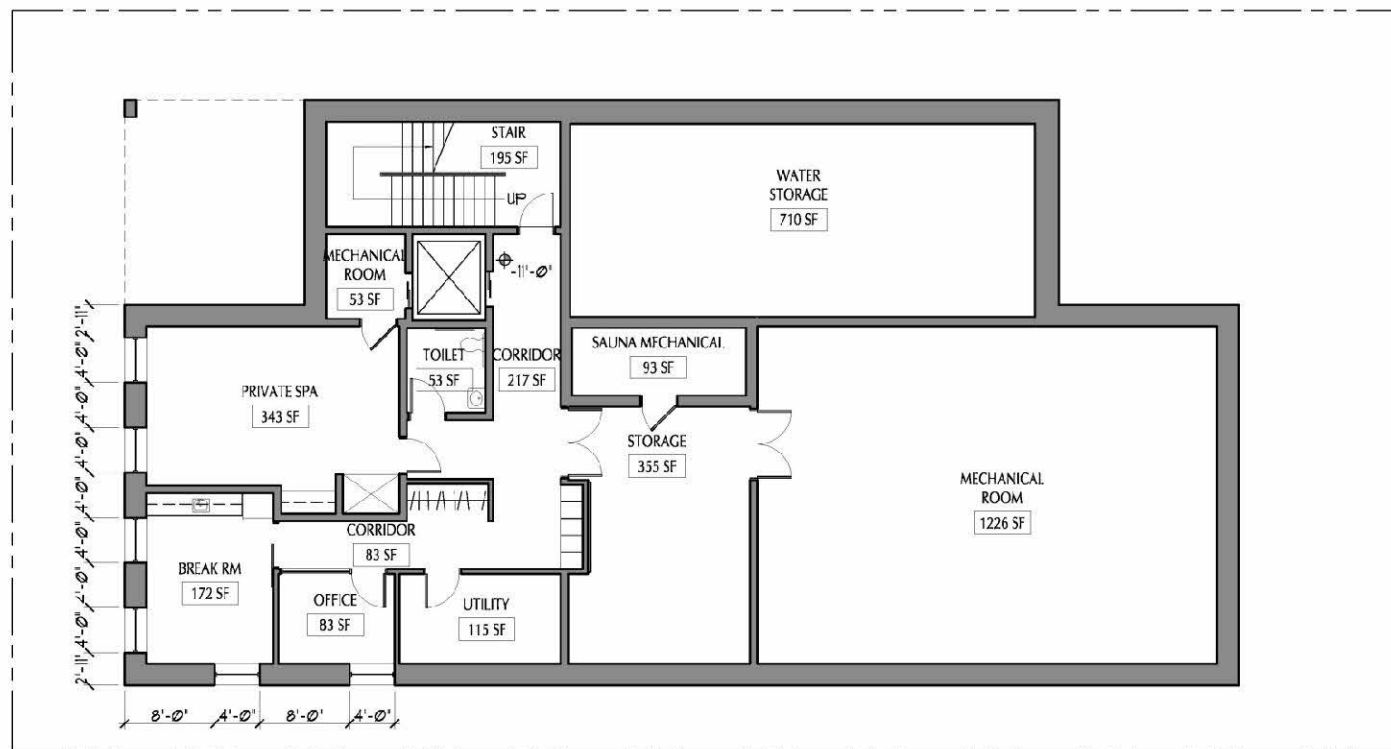
A EAST ELEVATION



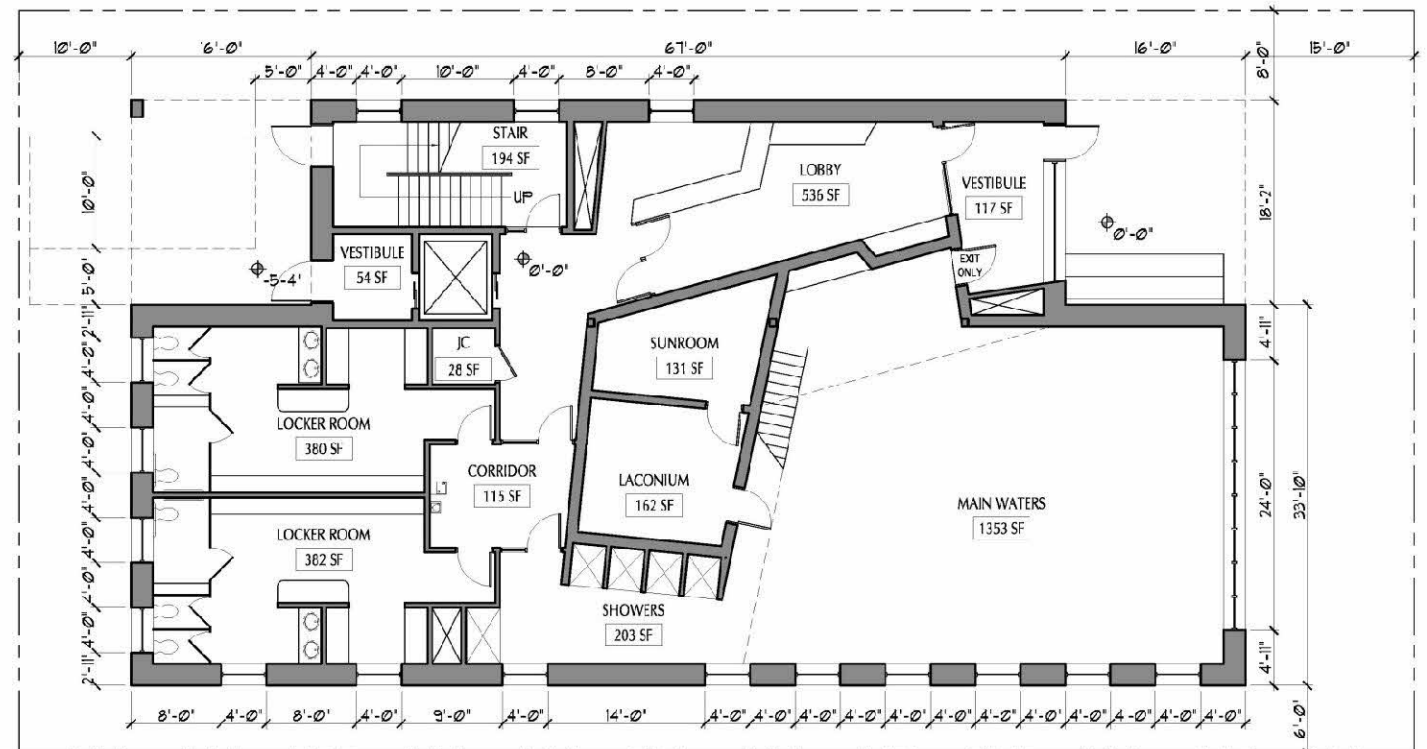
Second Level Floor Plan



Roof Level Floor Plan



Lower Level Floor Plan



Ground Level Floor Plan