2023 AIA|DC Washingtonian Awards

Project Title: **ADU Crestwood**

Location: **Washington DC**

Date of Completion: **2021**

Project Statement:
Our clients asked for an addition that functioned variously as legal Accessory Dwelling Unit, suite for aging parents, and guest wing for the existing house. It also couldn't invade the ample back yard of this close-in Washington, DC community, known for diversity, trees and adjacency to Rock Creek Park.

Zoning and program dictated a glazed bridge/gallery connection to the house, lifted to protect roots of a mature tree. Pushing this to one side and toward the back of the yard allowed space for family activities and privacy for the in-laws. The ground floor can be entered from either a rear alley or the house. A second floor guest room with its own interior stair can function on its own, as part of the house, or with the In-law suite.

Throughout, careful detailing, simple surfaces and ample views create spaces that live larger than they actually are.

Design Narrative: How does this project address Design for Integration, Wellbeing, and Discovery?

integration
· The project is designed to first be used by a retired couple relocating to live with their daughter's family of five, allowing them to age-in-place in an urban environment, nearby but independent.

Well-being
· Because of the modest size of the space, having a varied spatial experience and rich palette of materials is essential to keeping the space feeling fresh and stimulating.
· Open kitchen/living/dining plan makes the space feel larger than it is
· Bedrooms have high ceilings and large windows
· Multiple operating windows and sliding doors allow for natural ventilation and visual access to the site
· Multiple direct physical access to outdoor space

Discovery
· Multiple siding types and colors, accent color interior walls, different tile textures in the bathrooms, and variations in the coursing of the primary floor tile challenge residents to discover these subtle nuances and make for a more varied sensual experience.

Community Engagement: How does this project address Design for Equitable Communities and Economy? And Change. . . .

Design for equitable communities

· An accessory apartment, especially on an urban site, allows multi-generational families to age-in-place with reasonable access to urban amenities, instead of resorting to expensive assisted-living facilities or isolation.

Design for economy
· The addition is conservatively sized at 1,650 SF.
· The 1st floor accessory apartment itself is only 712 SF, which is about half of what is allowed, and demonstrates that human beings do not actually need an excessive amount of space to live their daily lives.

Design for change
· Flexible arrangement of spaces allows different uses for both current and future tenants.
· Accessory apartment and 2nd floor bedroom suite can be used independently or together; each is able to be fully closed off for privacy
· The roof is designed to support a future array of solar panels.

Sustainability and Resilience: How does this project address Design for Ecosystems, Water, Energy, Resources?

Design for ecosystems
· The 30' bridge connection was designed to protect roots of a 40" oak.
· Ample windows and sliding doors open to all orientations allow variety of views and access of the site

Design for water
· Dual-flush toilets
· Continuous re-circulating air-to-water heat pump

Design for energy
· Exterior walls — layer of continuous insulation along entire building envelope, spray-foamed to attain R-values greater than required.
· Mechanical system — no anthropogenic carbon source in its operation.
· All cooking appliances are electric
· Heating/cooling provided by high-efficiency air-to-water heat pump and in-slab radiant floor system
· A full-house dehumidifier, coupled with two Energy Recovery Ventilators, recapture conditioned air and keep inside air fresh.

Design for resources
· Cement-based siding, installed in a rainscreen application, resists weathering, rot, pests.
· High-resilient aluminum-clad exterior window system
· Water based low-VOC paints
· Synthetic decking rather than increasingly scarce hardwoods.

ADU Crestwood
Washington DC

When is an Accessory Dwelling Unit also an in-law suite and a guest wing? This project designed to work as all three.

Our clients asked us to design an addition that could function as a suite for aging parents, an ADU for a future owner, and a possible guest room for the existing house.

They also asked that it not invade an unusually ample back yard in this close-in Washington, DC community, known for its diversity, trees and adjacency to Rock Creek Park. That is, "First, do no harm."

Pushing the long, thin mass of the addition to one side and toward the back of the yard allowed both plenty of space for family activities and sufficient privacy for the in-laws. Due to both zoning regulations and program, it is connected to the house by a glazed bridge/gallery, lifted off the ground to protect the roots of a mature oak tree.

The ground floor of the addition can be accessed from both a rear alley and the existing house, each with separate entries. A second floor guest room with its own door and interior stair can function either on its own, as part of the house for guests, or for the In-law suite should a caregiver be necessary.

A parent of the clients, as the initial occupant of the ADU and a retired mechanical engineer, worked with the architects in the design of a state-of-the-art mechanical system. This includes radiant floor heat and a high-efficiency air-to-water heat pump system with energy-recovery ventilators operate within a highly insulated and sealed thermal envelope to minimize energy use and maximize thermal comfort without the use of carbon sources.
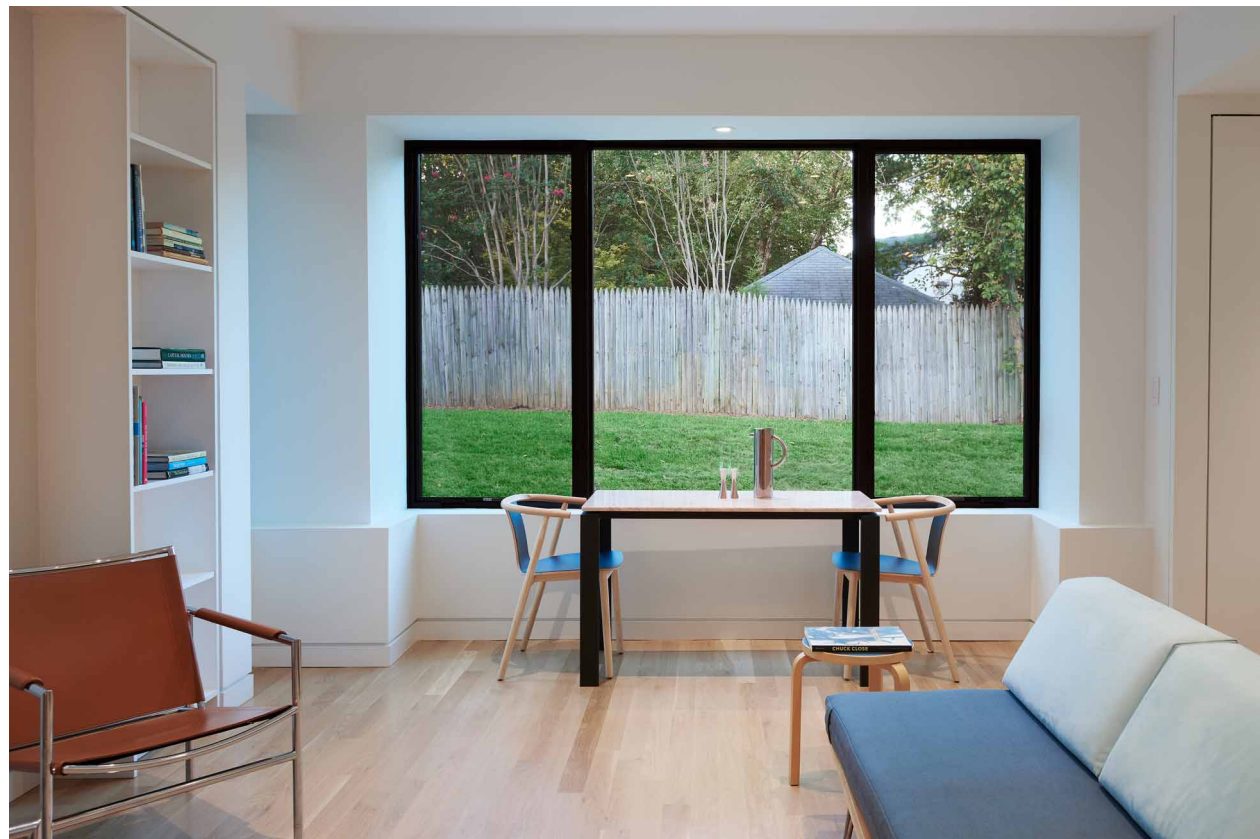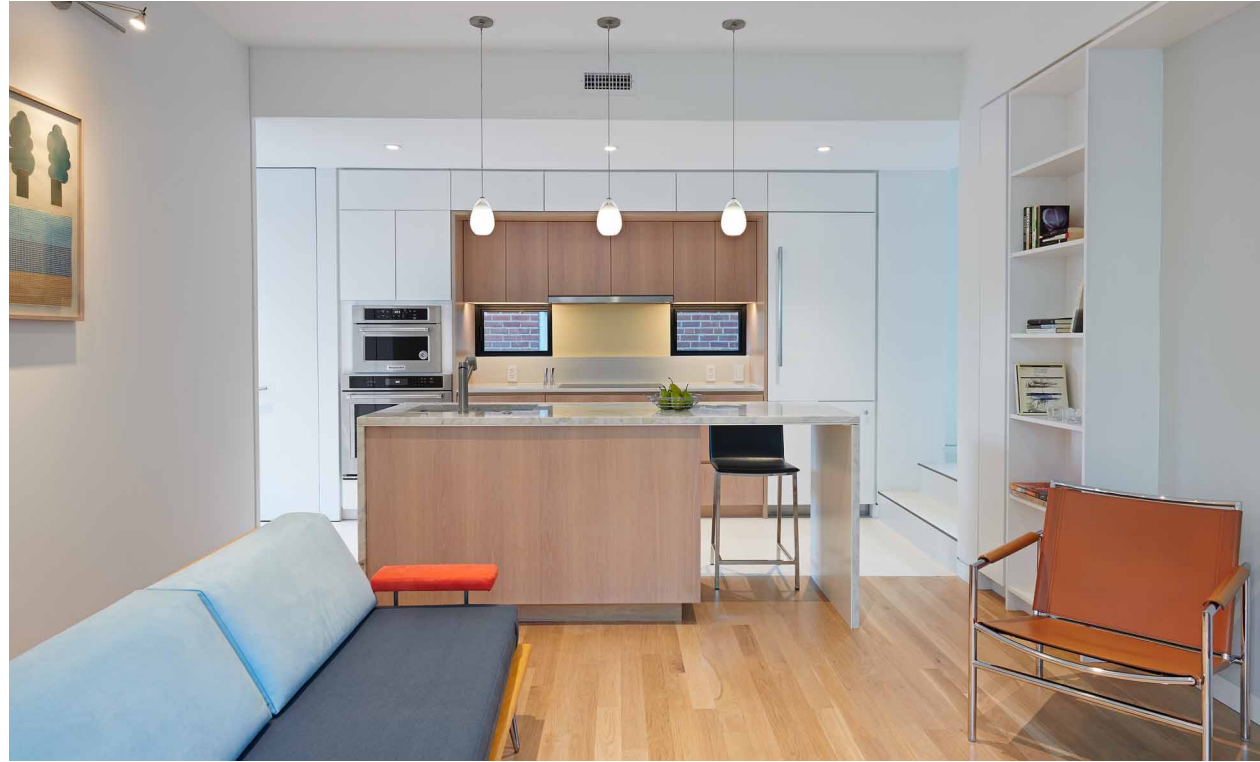
A single-pitched roof both refers, and defers, to the existing house and is designed to support a future array of solar panels.

Throughout, careful detailing, simple surfaces and ample views create interior spaces that live larger than they actually are.

2nd floor bedroom / guest room
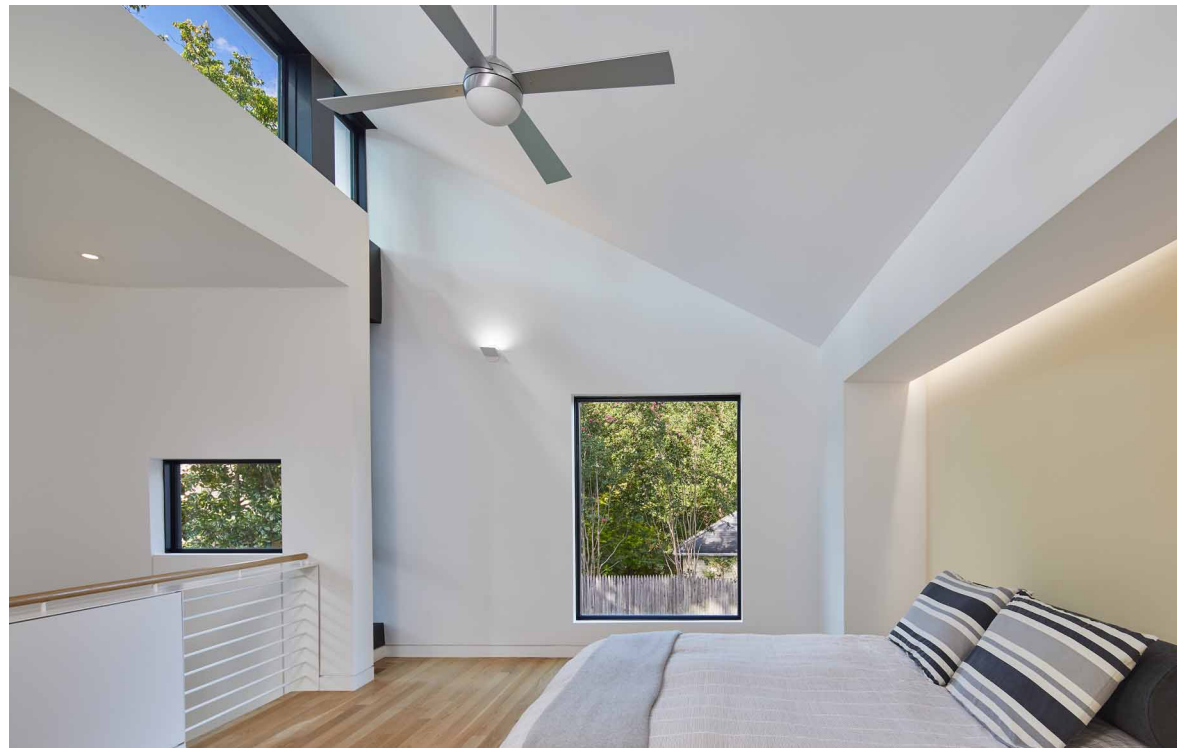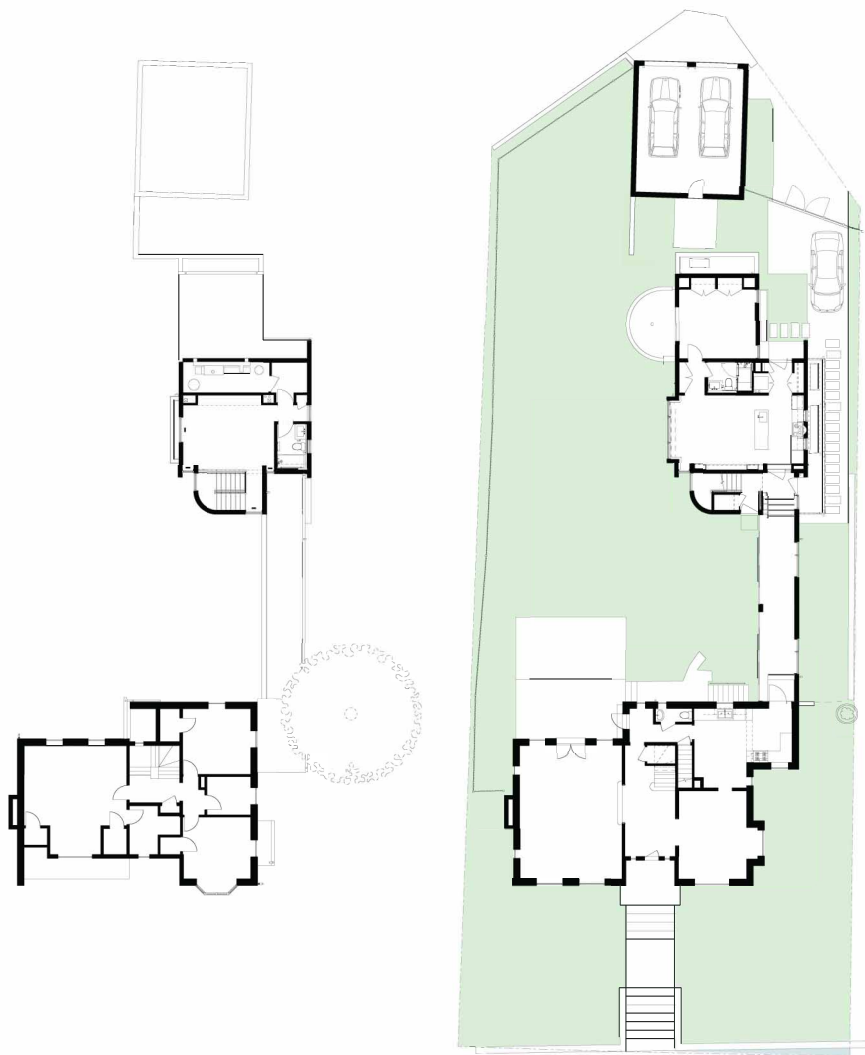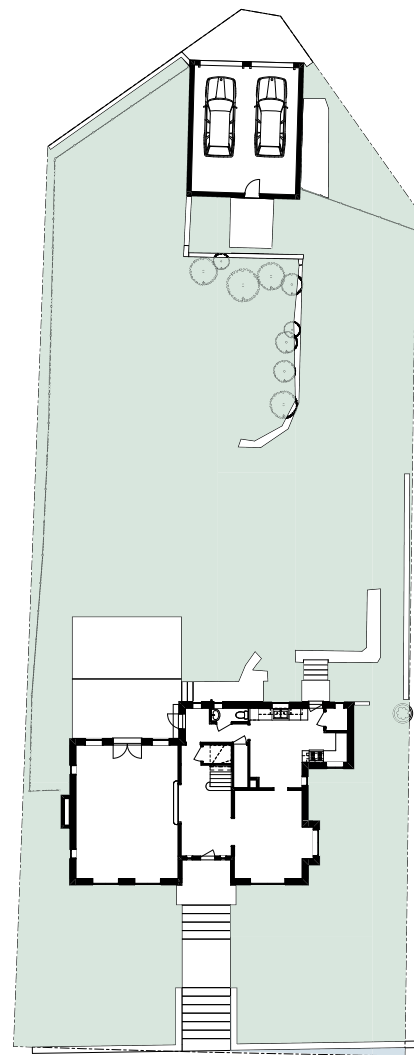
Entry from alley

after 2   after 1   before 1   before