DUPLEX x DESIGN

Winning designs from the design competition for age-accessible, affordable duplex homes.

omaha by design

AARP®

udi The RL Mace UNIVERSAL DESIGN INSTITUTE

INTRODUCTION

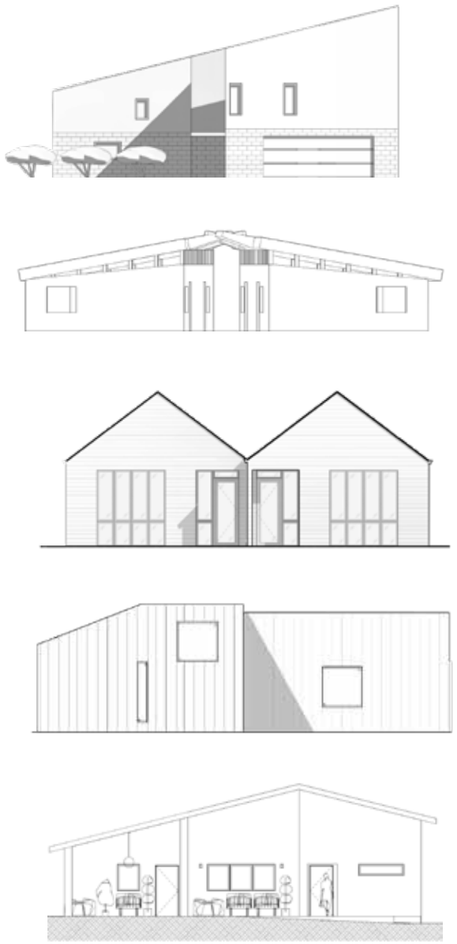
Like many communities, the Omaha metro area is experiencing an affordable housing crisis. And due to rapid increases in housing prices, rent, and property tax, many older residents are stuck in homes that were not designed for aging in place. Omaha needs more housing options designed with the needs of all residents in mind.

To help respond to these challenges, Omaha by Design launched the **Duplex by Design** Competition in the summer of 2024, with financial support from an AARP Community Challenge Grant, and facilitation assistance from the RL Mace Universal Design Institute. Duplex by Design challenged local designers to envision age-accessible duplex designs that could be built affordably.

Duplexes are an ideal starting point for creating more housing in existing neighborhoods. Duplexes are allowed in a wide range of residential zones, can be built under residential code standards, and have the same permit submission requirements as single-family homes. They also can provide older adults with the opportunity to live independently in close proximity to family or friends.

Duplex by Design is a companion to Omaha by Design's Affordable by Design program, which leverages design innovation to create affordability. Affordable by Design has produced two full Playbooks of freely-available home designs: one focusing on single-family homes, and the other on flexible Missing Middle typologies. The results of Duplex by Design are another chapter in this growing body of local design knowledge.

Abram Lueders
Director of Urban Design, Omaha by Design



Unranked competition entries, from top to bottom: ***do.plex*** *by Alvin Okereke,* ***Bridging the Gap*** *by William Roarty,* ***Modern Shotgun*** *by Ross Miller,* ***Pocket Dwelling*** *by Nico Forte, and* ***Twin Terrace*** *by Stacey Groshong.*

PROJECT SPONSOR:

AARP®

Duplex by Design was made possible by a **Community Challenge Grant** from AARP.

The AARP Community Challenge Grant program is part of the nationwide AARP Livable Communities initiative that helps communities become great places to live for residents of all ages. The program is intended to help communities make immediate improvements and jump-start long-term progress in support of residents of all ages.

Since the program's debut in 2017, AARP has awarded $16.4 million through 1,370 grants across 900 communities reaching 100 million people. The projects have been completed across all 50 states, Washington, D.C., Puerto Rico and the U.S. Virgin Islands.

aarp.org/livable-communities

COMPETITION CRITERIA

To ensure consistency and adherence to the goals of competition, the competition jury rated each the submission based on the following criteria:

AGING-IN-PLACE | 50% OF SCORE

- **Age-Friendly.** Design for aging-in-place by incorporating age-friendly features.
- **Diverse family and household types.** Accommodate the needs of a diverse group of users and support the goal of allowing aging adults to stay in their communities if they wish.

AFFORDABILITY & CONSTRUCTABILITY | 30% OF SCORE

- **Affordability.** Encourage designs that are lower cost to construct and maintain, making them financially accessible to households with a wide range of incomes.
- **Innovative construction methods.** Incorporate new construction and delivery methods, such as panelized, modular, or prefab homes.
- **Green building.** Incorporate green building features, like stormwater management, passive heating and cooling, and sustainable materials.

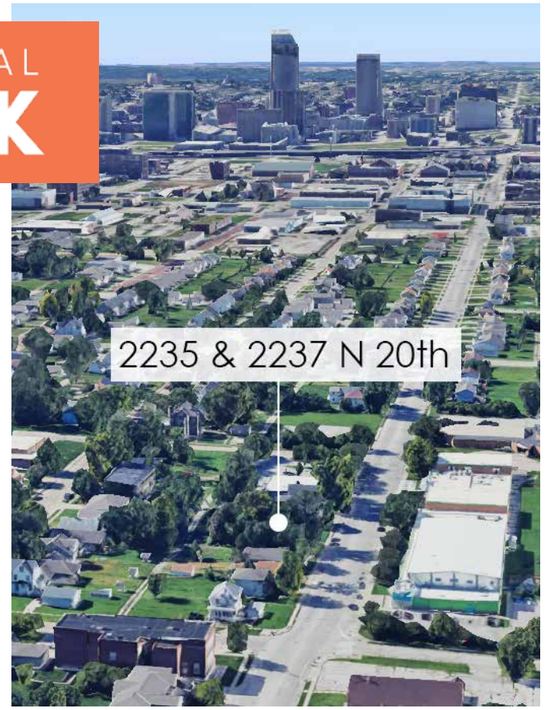
CONTEXT | 20% OF SCORE

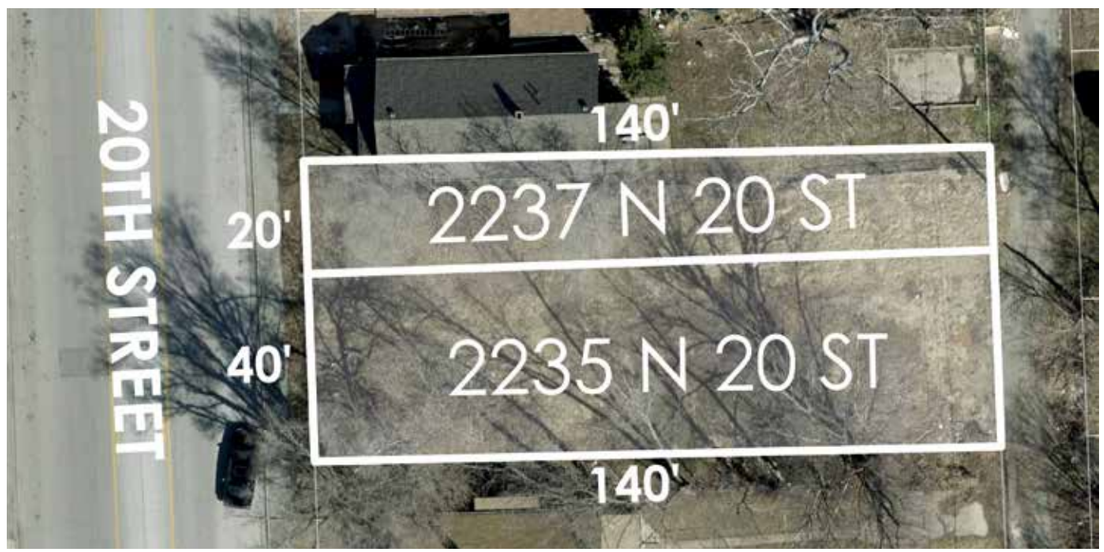
- **Architectural variety and existing context.** Consider compatibility with the existing development patterns and architectural context of the selected project site.
- **Broad applicability.** Provide a design that could also work on other typical infill lots in Omaha neighborhoods and can be adapted for various lot conditions.
- **Privacy.** Consider the relationship of the main house and neighboring lots through design, configuration, profile, and window placement.

SUBJECT PROPERTY

OMAHA MUNICIPAL LAND BANK

To help center the designs around a specific neighborhood context, 2235 and 2237 N 20th St, two adjacent lots owned by the **Omaha Municipal Land Bank**, were selected as the subject properties for the submitted designs. Designers were asked to treat both lots as a single combined lot for the sake of the project. The site is located less than two miles north of downtown, across the street from the Schenzel Community Center.





COMPETITION JURY

Lewis Culliver

Born and raised in Omaha, Lewis received his bachelor's degree in interior design and his Master of Architecture from the University of Nebraska-Lincoln. He works as an architectural designer with DLR Group and has experience in residential and commercial design. He is a founding member of NOMA NE, the Nebraska chapter of the National Organization of Minority Architects and sits on the Housing Affordability Action Plan Committee for the City of Omaha.

Scott Dobbe

Scott is Executive Director of Omaha by Design, and an architect and advocate for people-centered design. A native of Kearney, Nebraska, Scott began his architectural career in Chicago with industry vanguards Perkins&Will and HOK. Returning to his home state in 2011, he grew professionally with DLR Group, emerging as the firm's youngest Regional Design Leader. In 2018, Scott left architectural practice to focus on guiding his home city's urban growth and development as Executive Director of the nonprofit Omaha by Design.

Karna Lowenstein

Karna is the former Coordinator of Heartland 2050 for the Metropolitan Area Planning Agency of Omaha/Council Bluffs (MAPA). The Heartland 2050 Affordable Housing Committee, active since 2015, brings members of the housing community together to address the crisis in our metro and seek potential solutions. Since her retirement, Karna remains active in the housing community and is a committed advocate for affordable housing options such as missing middle housing and accessory dwelling units.

Jed Moulton

Jed Moulton is the Manager of Urban Design and Historic Preservation for the City of Omaha. His current activities include implementation of the Urban Design Element of the Omaha Master Plan, urban design compliance review, administration of the Landmarks Heritage Preservation Commission and special area planning to promote well-designed, walkable mixed-use neighborhoods. Jed worked as a private practice architect for 17 years in various national markets before joining the City in 2007.

Brad Dexter

Brad Dexter, PT, DPT is an assistant professor in the physical therapy program at UNMC. Prior to his faculty role, he was practicing at QLI in Omaha for the past 13 years. During this time, he had the privilege of supporting patients and their families through recovery from neurological conditions in an inpatient setting. In recognition of his professional leadership, Dr. Dexter received the TLC Excellence Award from the Academy of Spinal Cord Injury Professionals in 2023, and the James P. O'Donnell Demonstrated Excellence Award from QLI in 2015. He is a recognized expert in neurologic and telehealth-based physical therapy, with contributions to presentations, publications, and clinical instruction.

Elizabeth Fichter

Elizabeth Fichter, AIA, NCARB, is an architect based out of RDG's Omaha, Nebraska office. She brings a passion for design to her work within the firm's Senior Living Market. Driven by an interest in the intersection of art, history and community service, her decision to enter the field of architecture reflects a desire to combine these passions to positively impact the places where people live, work and play. Elizabeth is motivated by the challenge of designing spaces that enhance people's well-being and foster connections and recognizes the significant role that thoughtful design can play in everyday life.

Leslie Smith

Leslie Smith serves as the Executive Director for the Omaha Municipal Land Bank, where she strives to lead the organization's efforts to transform problem properties into vibrant opportunities in partnership with the community. Before joining the OMLB team, she worked for Truist Bank's Strategic Growth team, where she worked to develop strategies that drive Mortgage inclusive lending activities to support generational wealth-building and work towards closing the racial wealth gap throughout the bank's digital footprint. With a passion for improving all residents' quality of life regardless of the zip code, Smith looks to bring her national network, cross-sector expertise, and collective experience to drive momentum within addressing vacant and abandoned properties at the root.

Davielle Phillips

Davielle Phillips is a professional with a passion for giving back and creating the future. In 2019, he graduated with a Master of Business Administration (MBA) and Master of Architecture from The University of Nebraska-Lincoln. Since graduating, he has won several awards, including Omaha Chamber of Commerce – Changemaker and Civic Engagement Champion, and Midlands Business Journal - 40 Under 40. As a young man from the Southside of Chicago, he dreamed of seeing the world and being the change he wants to see. Now, he is committed to using his skills to better our environment, using architecture, education, and business strategy to improve the lives of others and our communities.

WINNING DESIGNS

Mod_RAD
Holland Basham Architects

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Duplex+
Actual Architecture Co.

P. 30 - 51

Access Homes
Oscar Avila

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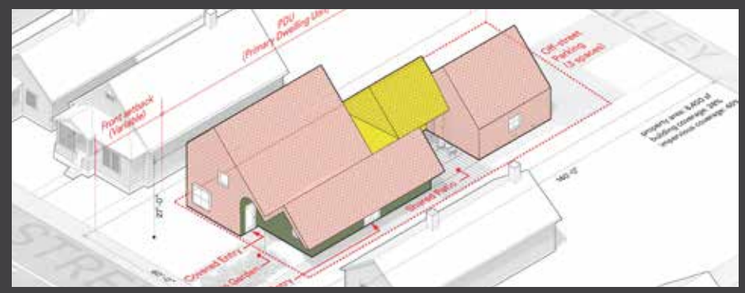
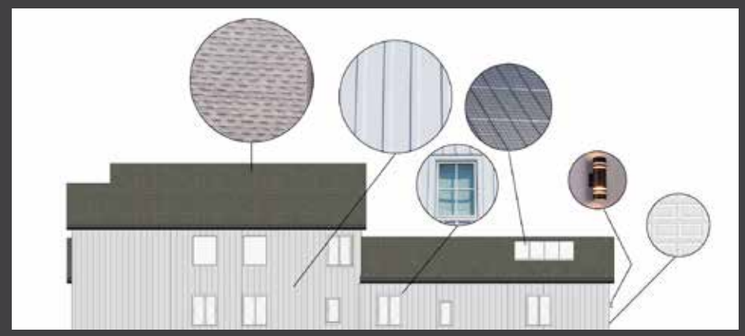




1st Mod_RAD
Holland Basham Architects

PROJECT TEAM

Joah Bussert, Kevin Meyer, Rihanna Esfandiari, Zachary Lin

CONCEPT SUMMARY

Mod_RAD is a kit of parts designed to create high-quality living spaces for rapid infill within urban cores. Each housing unit is organized into two functional modules: a living module and a sleeping module, both optimized for efficiency. A “connective tisssue” module containing HVAC systems, stairs, and additional bathrooms links the two core modules.

These modules can be combined to create duplexes (the design option featured in this entry), but can also be scaled up into multifamily buildings with three or more units. This makes Mod_RAD well-suited for a range of projects on Omaha’s vacant urban lots.

Holland Basham Architects

ABOUT THE DESIGNER
Holland Basham Architects

Established in Omaha in 1989, Holland Basham Architects (HBA) has been planning and designing dynamic environments that support the community, enhance culture, and maximize real estate value ever since. The company has grown to over 70 employees in three office locations and is celebrating 35 years in 2024.

Some recent significant housing projects around Omaha include The Mill in Benson, Swivel at 72nd and Dodge, Clove Apartments at 78th and Dodge, and The Arthur, currently under construction at 48th and Dodge. HBA’s cross-disciplinary experience with market-rate multi-family housing opens up an array of design solutions to think outside the box and maximize units while offering the appropriate amenities.

HBA is dedicated to hiring remarkable talent, producing extraordinary work — and putting the vision and goals of our clients first. HBA pairs talent, expertise, and industry experience with the unique vision of each client, resulting in a superior design that works and lasts.

CONTACT:

hollandbasham.com/contact/

119 S 49th Ave
Omaha, NE 68132

(402) - 551 - 0800

CONESTOGA **COMMUNITY**

North Omaha, NE

Conestoga Community, one of Omaha's oldest neighborhoods, is the historic heart of the city's Black community and offers a vibrant blend of businesses, homes, churches, and organizations. Located just north of downtown, it provides easy access to major attractions like the College World Series and the Riverfront. Known for its historic charm and tight-knit community, the neighborhood fosters a sense of belonging, with active associations and family-friendly amenities, making it a welcoming place to live.

Architecturally, the area features a mix of traditional and contemporary home designs, reflecting a variety of styles that cater to diverse tastes. The neighborhood is characterized by well-maintained landscapes, Elm tree-lined streets, and communal spaces that encourage outdoor activities.

DEMOGRAPHICS

TOTAL POPULATION	~875
POPULATION DENSITY	9 PPL/ACRE
MEDIAN AGE	37
POPULATION OVER 65	13%
POPULATION UNDER 18	13%

INCOME

MEDIAN HOUSEHOLD INCOME	$30,952
AVERAGE HOUSEHOLD INCOME	$37,868

HOME OWNERSHIP

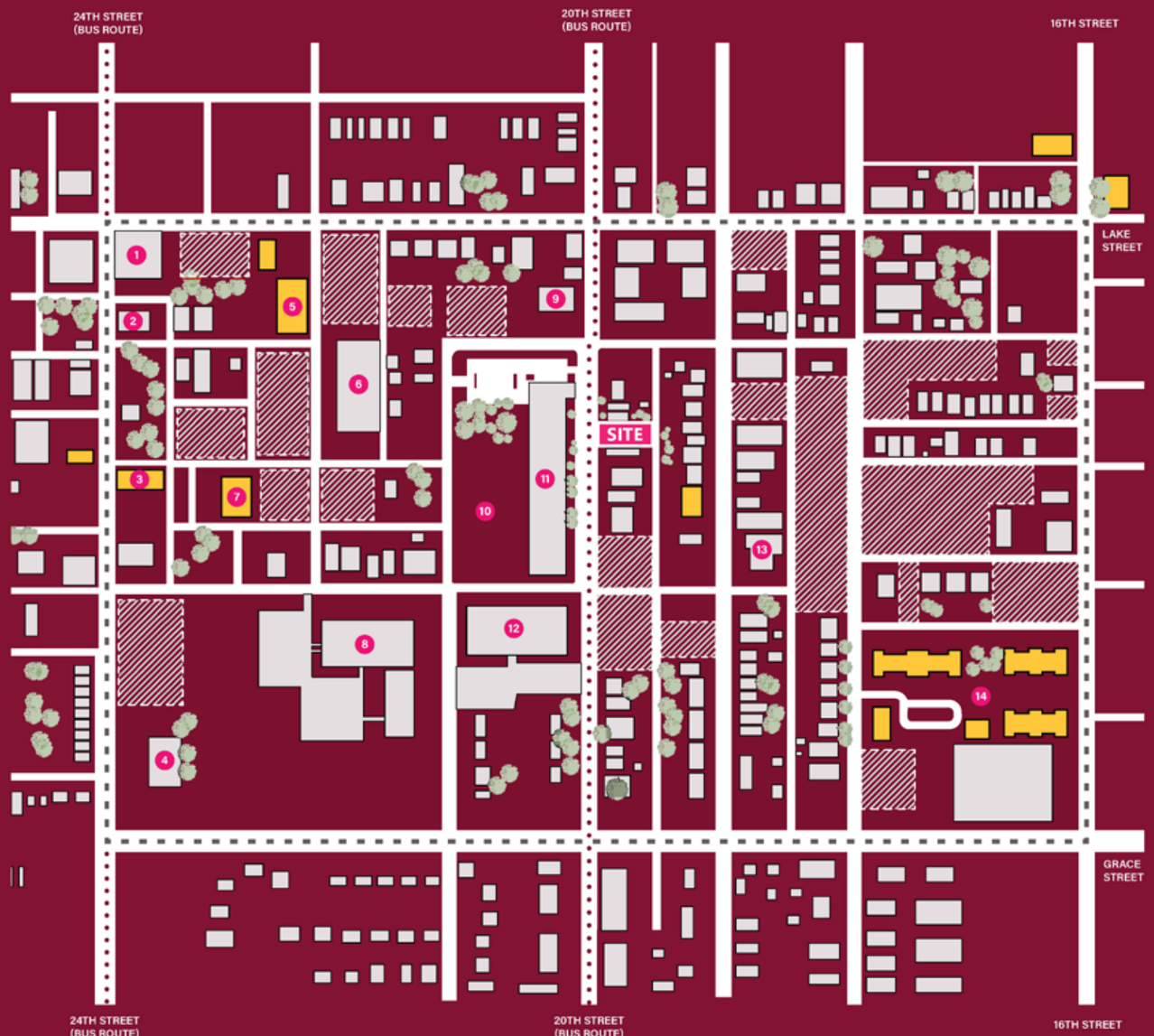
RENTER	78%
OWNER	22%
NUMBER OF HOMES	128
MEDIAN HOME PRICE	$146,250
AVERAGE HOME SIZE	1,340 SF
AVERAGE TOWNHOME SIZE	1,809 SF

*STATISTICS SOURCED FROM HOMES.COM

INFILL **POTENTIAL**

North Omaha, has a significant number of empty lots, a reflection of the area's historical challenges with disinvestment and urban decline. Many of these lots are remnants of homes and businesses lost to demolition over the years, often due to economic hardship, poor policy decisions, and shifting population dynamics. While these vacant spaces can detract from the visual appeal of certain neighborhoods, they also represent opportunities for growth and revitalization. Community leaders, developers, and local organizations are increasingly focusing on redeveloping these lots for new housing, community spaces, and businesses to help restore vitality to the area and support long-term economic development.

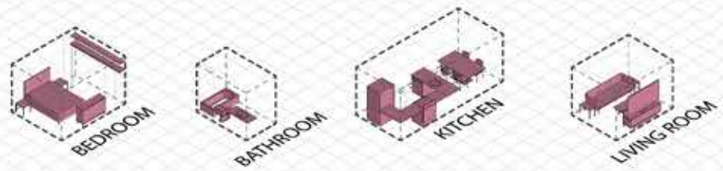
Conestoga Community alone has over 650,000 sf of empty lots within its boundaries.



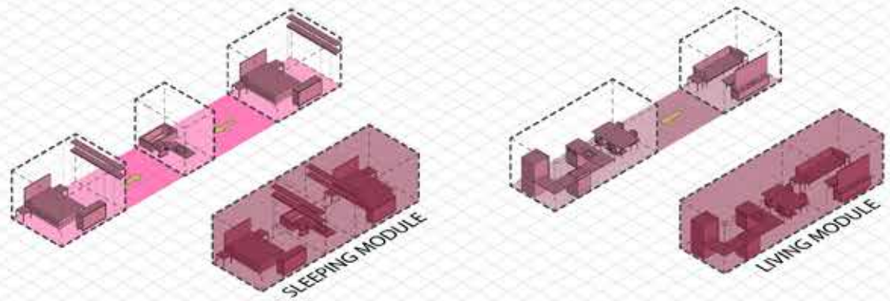
COMMUNITY **ASSETS**

1 - THE UNION FOR CONTEMPORARY ART
2 - THE SHIRLEY TYREE THEATER
3 - GREAT PLAINS BLACK HISTORY MUSEUM
4 - CHURCH OF GOD
5 - ST JOHN AME CHURCH
6 - JESUIT ACADEMY
7 - ZION BAPTIST CHURCH
8 - CONESTOGA ELEMENTARY SCHOOL
9 - NEW BEGINNINGS APOSTOLIC CHURCH
10 - BURDETTE PARK
11 - THE HOPE CENTER FOR KIDS OMAHA
12 - MORNING STAR BAPTIST CHURCH
13 - OMAHA FIRE STATION #5
14 - KELLOM GREENBELT PARK
INDICATES HISTORIC BUILDING

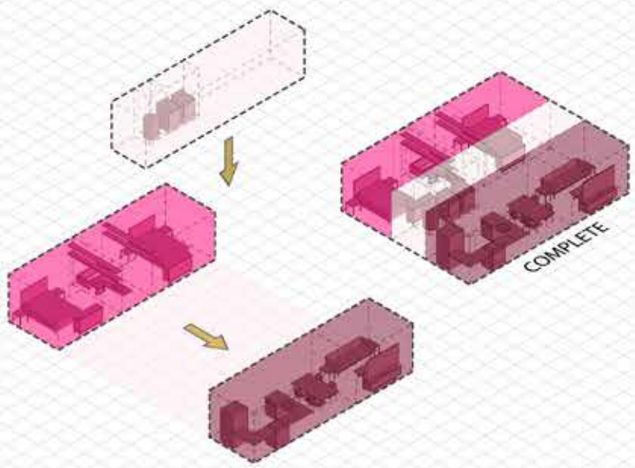
STEP 1: GATHER THE ESSENTIAL PARTS OF A HOME



STEP 2: ASSEMBLE THE LIVING AND SLEEPING MODULES



STEP 4: INSERT THE "CONNECTIVE TISSUE" TO COMPLETE THE DWELLING UNIT



DESIGN FOR **MOD_RAD**

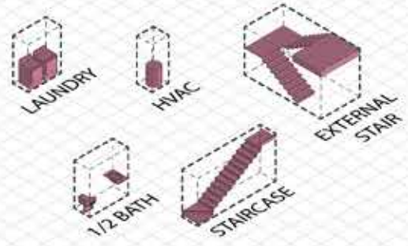
Mod_RAD (Modular Rapid Affordable Dwellings) is a kit of parts designed to create efficient, high-quality living spaces for rapid infill within urban cores.

Using data from residents, developers, contractors, nonprofits, and city officials, we identified the most desired features for new residential units inside and outside the home, along with target sale prices.

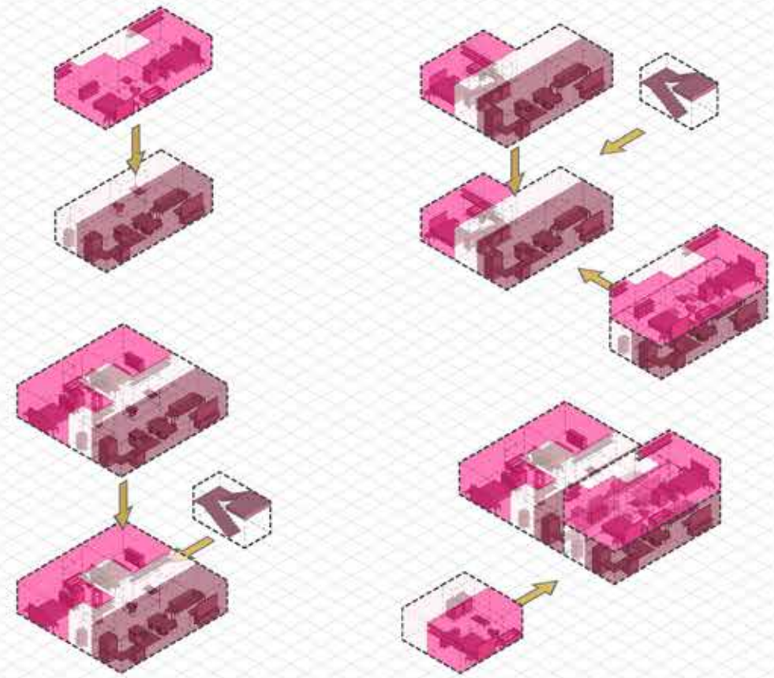
To meet an affordable price goal, we determined that a square footage range of 1,000-1,200 GSF per unit would be ideal, with base room sizes set using HUD's Choice Neighborhood guidelines. These spaces are organized into two main functional modules: a living module and a sleeping module, both optimized for efficiency. A "connective tissue" links these modules, housing HVAC systems, storage, stairs, and additional bathrooms, offering flexibility in design for single-story or two-story configurations.

These modules can be stacked or combined to create housing types ranging from duplexes to small apartment buildings, making them ideal for Omaha's vacant urban lots, which are suited to both duplex and higher-density formats.

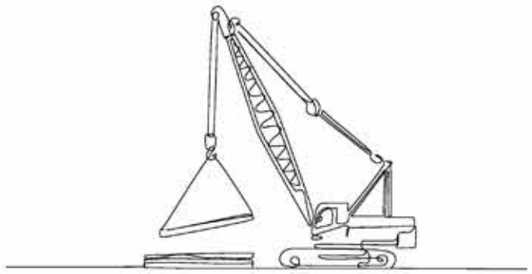
STEP 3: FORM THE "CONNECTIVE TISSUE"



STEP 5: COMBINE IN VARIATIONS TO CREATE ROWHOMES, DUPLEXES, TRIPLEXES AND MORE



DESIGN FOR **AFFORDABILITY**

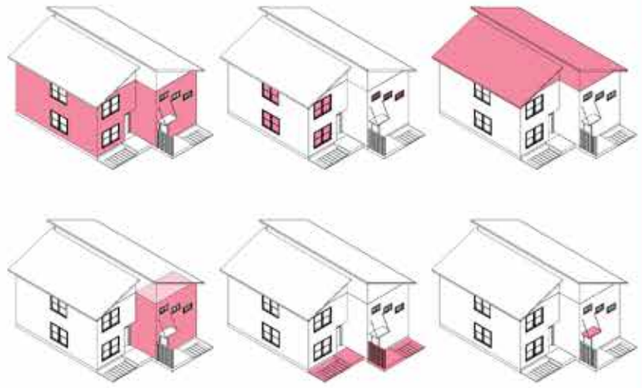


PANELIZED MODULAR BUILDING SYSTEMS

We believe one of the keys to solving the affordable housing crises is by leveraging economies of scale. Mass-produced wood frame housing can create large amounts of affordable housing by utilizing innovative and efficient construction methods with cost-effective materials. Prefabrication allows for quick assembly and lower labor costs, which significantly reduce the overall cost of construction. Additionally, wood framing is adaptable to various modular designs, enabling flexibility in creating functional, appealing living spaces without inflating costs.

We envision these modules being fabricated at existing panelization facilites that already exist in Nebraska and shipped to construction sites around the city. These homes can be easily replicated in diverse neighborhoods, from small infill projects to larger developments, providing scalable solutions for our city's housing shortage. The combination of speed, reduced costs, and sustainable practices makes mass-produced wood frame housing a powerful tool in addressing affordable housing needs.

MIX & MATCH OPTIONS

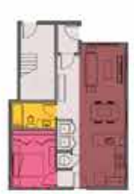


Exterior skin materials, window styles, and roof forms are all variable to create a multitude of designs. Add-on features like front porches, exterior stairs, privacy screens, and garages further customize the units, providing architectural character and expanded functionality.

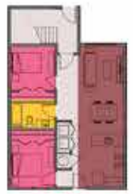
DESIGN FOR **FAMILY**

For this variation of Mod_RAD, our team envisioned a family scenario to guide the design of a new prototype dwelling; a young couple that could purchase a duplex with a spacious unit for their growing family and a smaller rental unit for extra income. Over the years, they build deep roots in their community, raising their children surrounded by neighbors who become like family. As they grow older into their 50s, they want to stay in their beloved neighborhood but need a more manageable living space.

The duplex provides a perfect solution: move into the smaller unit while the eldest child and their family move into the larger side. The smaller unit, with its single-story layout and accessibility features, allow the couple to comfortably age in place while staying close to their children and grandchildren. This multi-generational arrangement strengthens the family's connection to both each other and their community.



MOD_ONE
1 BED / 1 BATH
736 SF

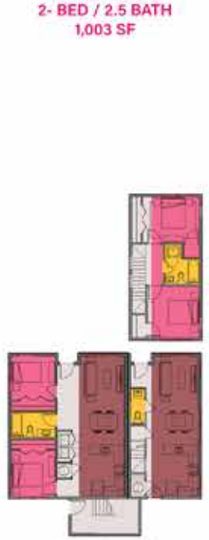


MOD_TWO
2 BED / 1 BATH
833 SF

MOD_TWO(+)
2- BED / 2.5 BATH
1,003 SF

MOD_ROW
2 BED / 1.5 BATH
1,031 SF

MOD_ROW(+)
3 BED / 1.5 BATH
1,551 SF



MOD_PLEX(3)
6 BED / 3.5 BATH
2,997 SF

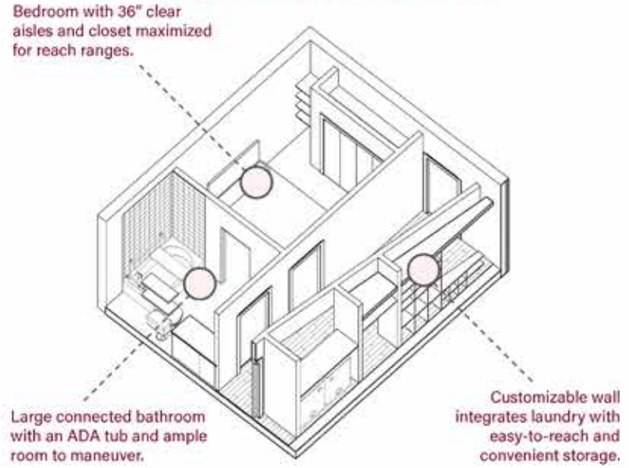
Mod_RAD elements provide a versatile approach to creating a variety of homes that accommodate the needs of diverse family and household types. By utilizing our kit of parts, infill housing can be tailored to various neighborhoods and users types, from multi-generational families to single parents and aging adults.

A series of prototype homes have already been created that range from small 1 bed, 1 bath stacked duplexes to larger 2 bed, 2.5 bath row homes and triplexes.

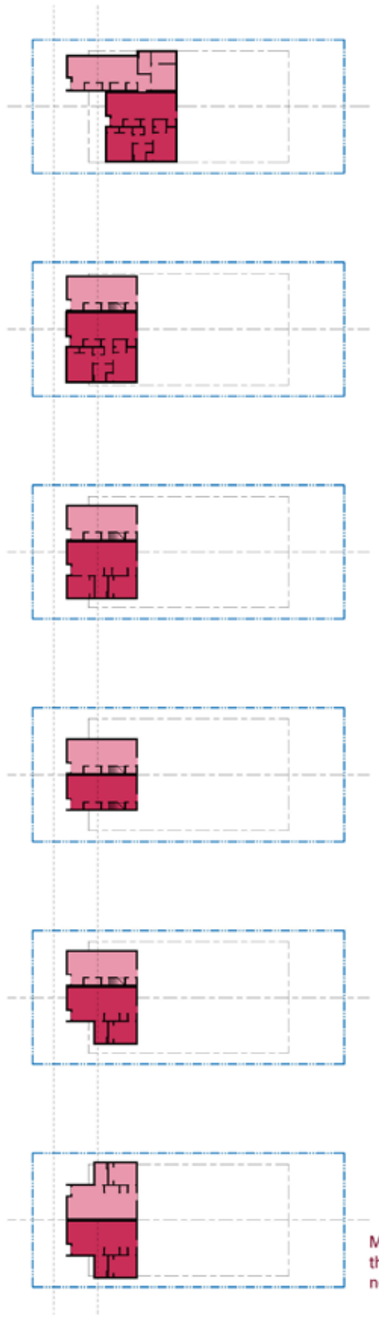
DESIGN FOR **AGING-IN-PLACE**

We tailored our dwelling modules to better support aging adults who wish to remain in their community. Room sizes were adjusted as needed and more accessible kitchen and bathroom layouts were designed. We created a new add-on option for the Mod_ ROW unit that provides a primary living suite on the ground floor. This new add-on gives greater adaptability to the Mod_RAD kit of parts to better serve changing family dynamics and allowing residents to age in place comfortably in any unit type, while staying connected to their communities and loved ones.

NEW ADD-ON FEATURE "GROW"



NEW PROTOTYPE ASSEMBLAGE



DESIGN FOR **PLACE**

1. SEC 55-782 OF THE OMAHA ZONING CODE ALLOWS FOR BUILDINGS TO RESPOND TO EXISTING NEIGHBORHOOD CONTEXT BY BUILDING OVER ALLOWED FRONT YARD SETBACKS IN LINE WITH COMMON FRONTAGES.

2. THE MOD_TWO(+) UNIT WAS PUSHED BACK TO NOT ONLY BREAK UP THE MASSING AND PROVIDE A MORE EFFICIENT ROOF FRAMING STRATEGY, BUT TO ALSO ALLOW FOR A SMALL SHARED PARKING AREA OFF THE STREET AND NEAR PRIMARY ENTRANCES.

3. EACH UNIT HAS BEEN GIVEN A PRIMARY OUTDOOR LIVING AREA. THE MOD_ROW UNIT HAS FRONT YARD "EYES ON THE STREET" WHILE THE MOD_TWO(+) UNIT HAS A LARGER BACK YARD DECK TO ENJOY.

4. PERMEABLE PAVERS CAN PROVIDE SITE DRAINAGE WHILE ALSO GIVING SPACE TO MANEUVER IN AND OUT OF VEHICLES. ACCESS WAS STUDIED THROUGHOUT THE SITE.

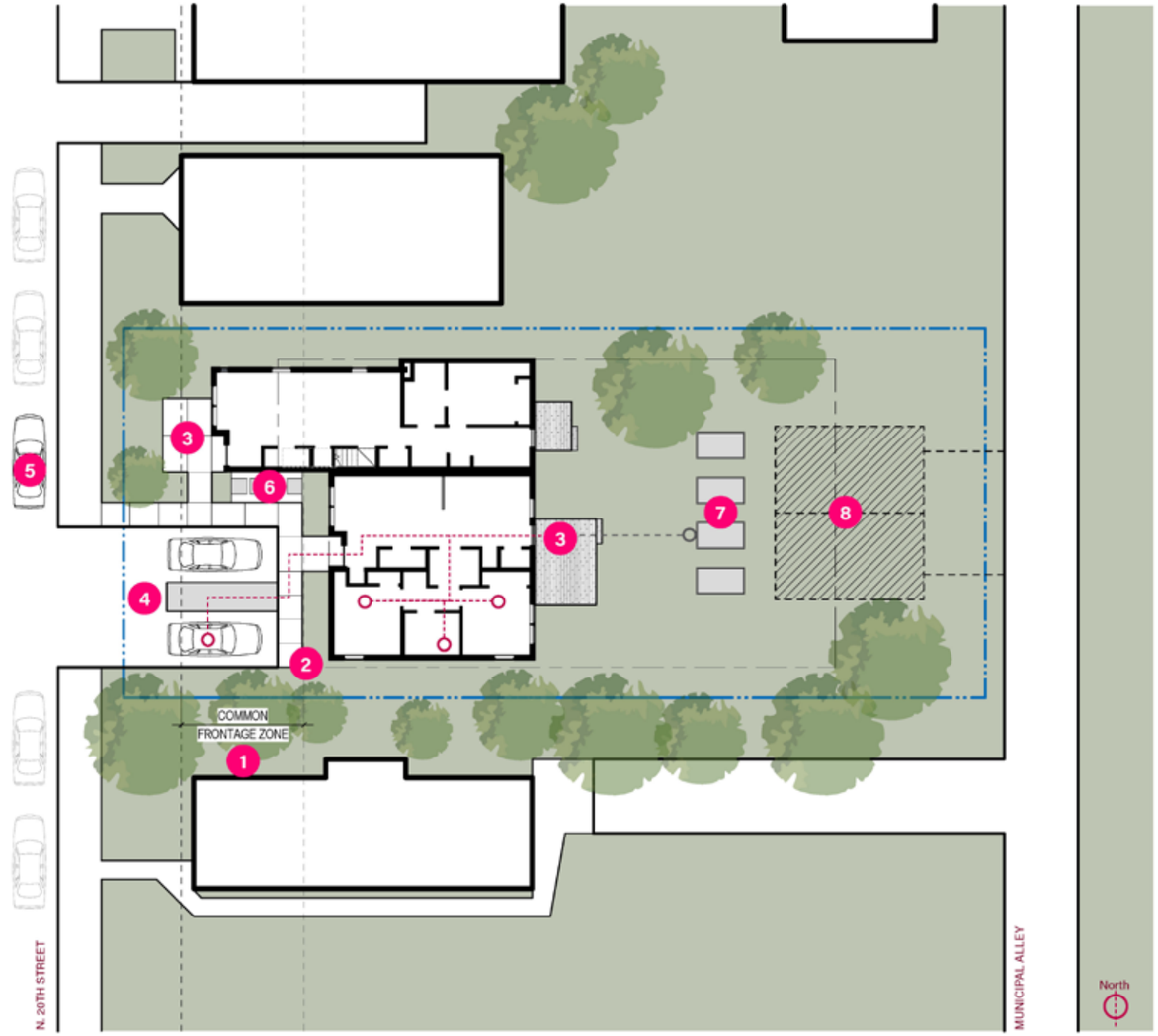
5. TO LIMIT EXTENTS AND COST OF PAVING, WE ARE USING ONE STREET STALL TO MEET THE PARKING REQUEST.

6. TRASH BIN STORAGE IS PROVIDED WITH EASY ACCESS TO AND FROM THE STREET. BINS COULD BE SHIELDED FROM VIEW WITH SCREENING OR VEGETATION.

7. BUILDING COVERAGE IS 23% AND IMPERVIOUS COVERAGE IS 33%.

   THE BACK YARD REMAINS SPACIOUS ENOUGH FOR RESIDENTS TO ADD QUALITY OF LIFE FEATURES SUCH AS RAISED VEGETABLE GARDEN BEDS.

8. GARAGE CONSTRUCTION CAN RANGE FROM $25,000-$30,000 PER STRUCTURE. WE ELECTED TO NOT INCLUDE THIS TO MANAGE PROJECT FIRST COSTS. THE EXISTING ALLEY ALLOWS FOR FUTURE CONSTRUCTION, ESPECIALLY AFTER PUBLIC IMPROVEMENTS TO THE ROAD CONDITION.



Module combinations and prototypes were tested on the site to evaluate and balance factors of density, neighborhood scale, form, access and parking.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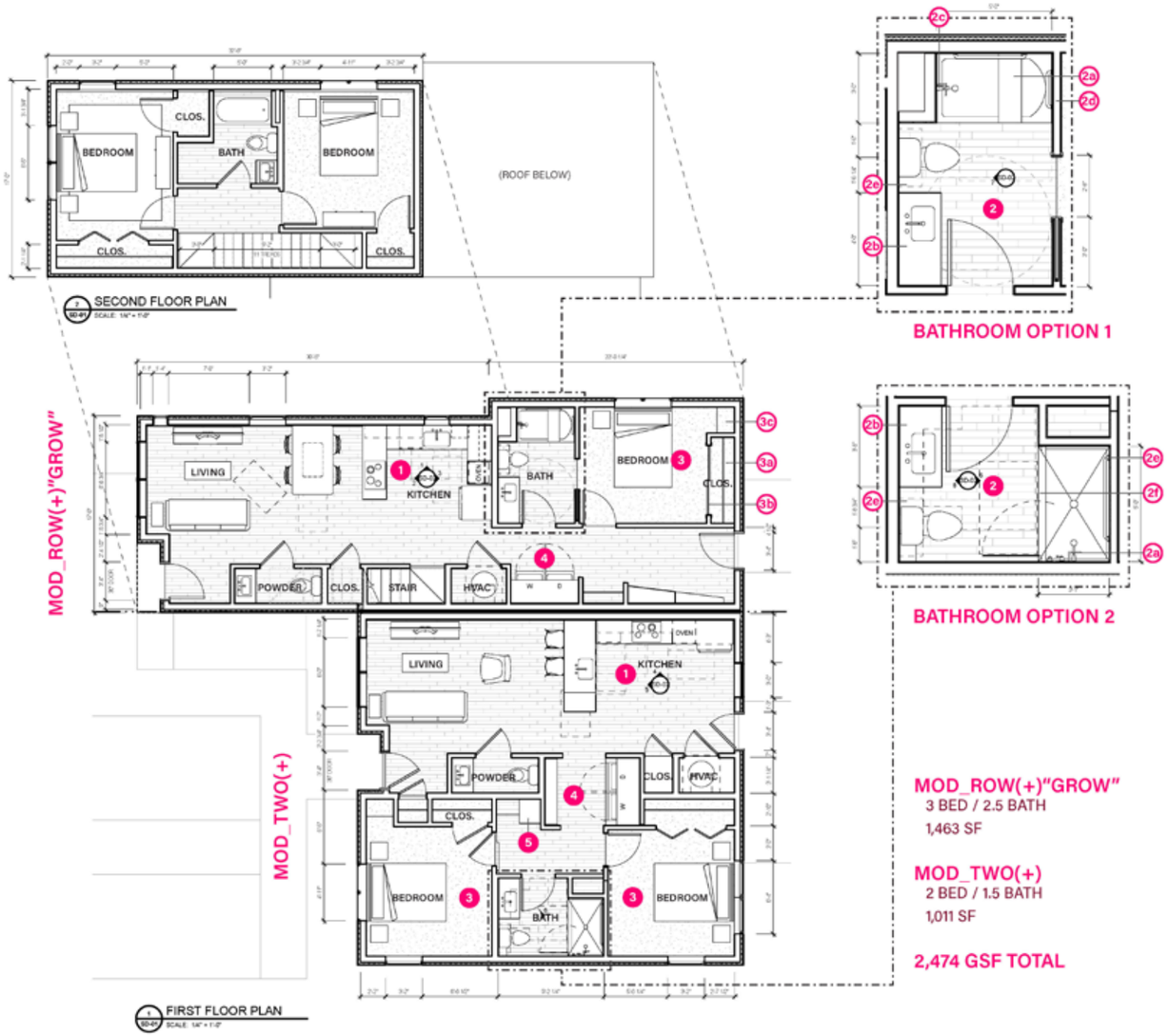
2235

FLOOR PLANS



MOD_ROW(+)"GROW"
3 BED / 2.5 BATH
1,463 SF

MOD_TWO(+)
2 BED / 1.5 BATH
1,011 SF

2,474 GSF TOTAL

HVAC, ELECTRICAL AND PLUMBING:

An all-electric system reduces reliance on fossil fuels and lends itself to other sustainable integrations like Photo-Voltaic (solar) panels.
Heating and cooling would be achieved via all-electric residential split system, outside air-to-air heat pump and indoor fan coil unit with electric supplemental heat.
Outside air would be pulled from the roof or a sidewall into a return air duct to the HVAC indoor unit in order to provide fresh air ventilation in the dwelling unit.
The code-updated building envelope design and energy-efficient window selection will reduce HVAC system size and utility cost.

DESIGN FOR **BETTER LIVING**

$ AFFORDABILITY NOTE:

Additional economy can be achieved through procurement at scale--replicating bathroom and kitchen types, standardized to typical manufacturing dimensions and modularity--to be installed in both units and/or multiple units across the neighborhood.

In THIS instance, the design team has opted to show options for kitchen and bath types to show that there is more than one right answer to universal design, which aims at meeting different individuals' varying needs and abilities.

AGING-IN-PLACE NOTE:

This project has been designed beyond Omaha's current accessibility code requirements--adhering to the latest version of The Accessibility Code, 2017 (A117.1, 2017) guidelines. While Omaha currently only requires adherence to the 2009 version and has not officially adopted the 2017 guidelines, 19 states and 8 jurisdictions have adopted it*.

FAMILY NOTE:

Dining, kitchen and communal living spaces have been designed within each unit accordingly, encouraging inter-generational interaction and accommodation of visitors of all ages and abilities for increased social well-being.

1 KITCHEN FEATURES:

UNIVERSALLY-DESIGNED CLEAR SPACE AT APPLIANCES (30X52)
PULL OUT STEP FOR UPPER CABINET ACCESS
WALL OVEN IN 18"-54" RANGE, IN LIEU OF FLOOR-MOUNTED
ELECTRIC COOKTOP FOR SAFETY AND ENERGY EFFICIENCY
BUILT-IN MICROWAVE SHELF AT 24"H
SIDE-BY-SIDE REFRIGERATOR/FREEZER WITHIN REACH RANGE
6"SHALLOW SINK BASIN FOR EASY REACH AND KNEE SPACE
SINGLE-LEVER MIXING VALVE AT SINK FAUCET

2 BATHROOM FEATURES:

2a WHEELCHAIR MANEUVERABILITY
2b ACCESSIBLE TRANSFER SHOWER SEAT
2c ROLL-UNDER VANITY
2d HAND-HELD ADJUSTABLE HEIGHT SHOWERHEAD FOR USE WHILE SEATED
2e IN-WALL BLOCKING FOR GRAB BAR MOUNTING
2f LOW THRESHOLD SHOWER FOR ROLL-IN OR TRANSFER

3 PRIMARY BEDROOM FEATURES:

36" MANEUVERING CLEARANCE AROUND BED (QUEEN)
3a AMPLE CLOSET STORAGE AT 18"-54"
3b SWINGING OR SLIDING CLOSET DOOR FOR EASE OF GRASP AND MANEUVERABILITY
3c SHELVING STORAGE AT 18"-54" RANGE, REMOVABLE FOR STAND-ALONE COMMODE OPTION

4

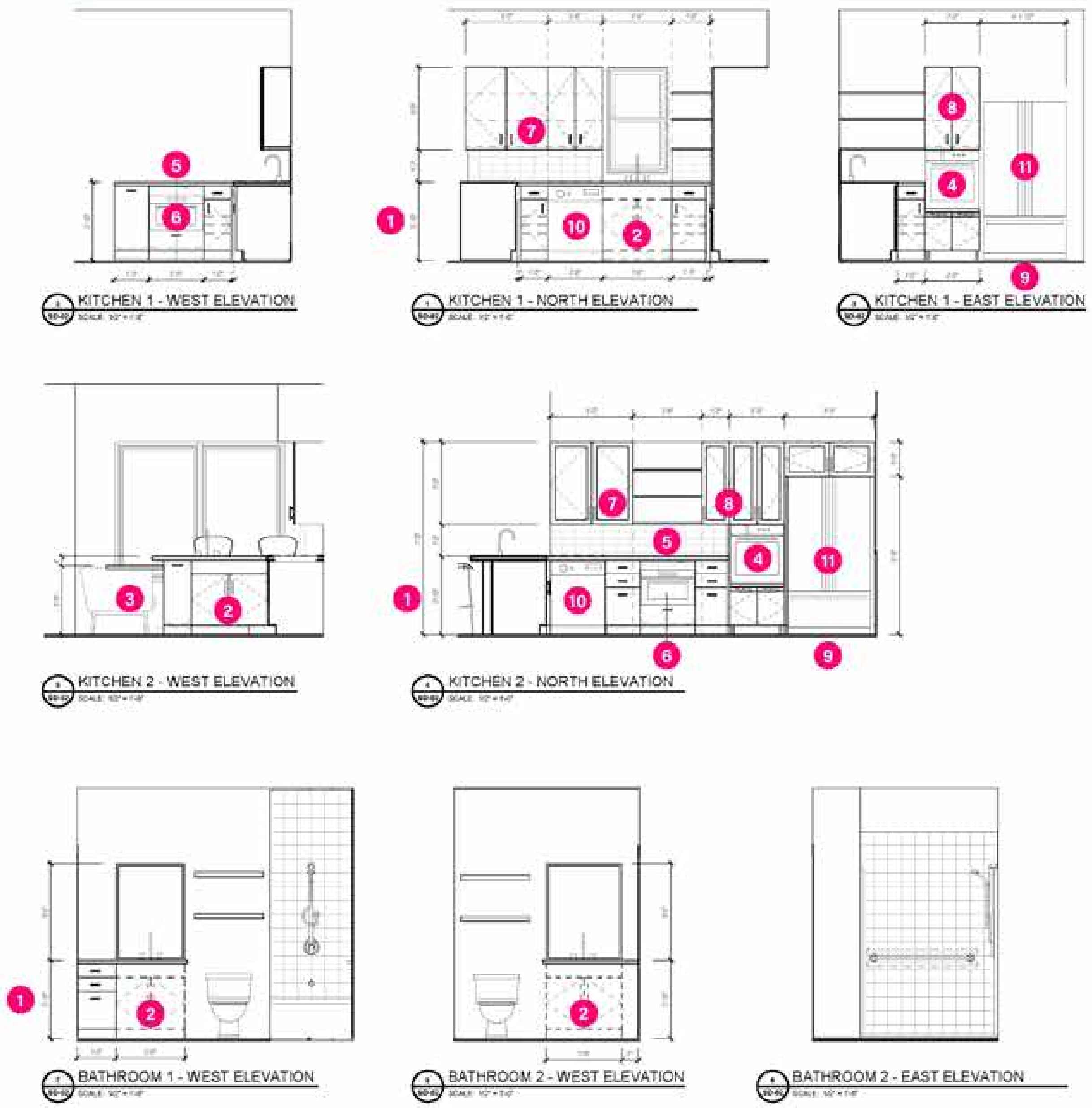
SIDE-BY-SIDE WASHER AND DRYER WITH CONTROLS WITHIN REACH RANGE. DEDICATED ROLL-UNDER COUNTER SPACE FOR SORTING AND FOLDING LAUNDRY

5

CLEAR FLOOR SPACE FOR HANDRAIL WEIGH SCALE AND EQUIPMENT STORAGE

*The Accessibility Code, 2017 (A1171, 2017) is a code produced by the International Code Council (ICC). Adopting jurisdictions include Alaska, Arkansas, Colorado, Denver, Connecticut, Delaware, Hawaii, Illinois, DuPage County, Montana, New Jersey, New Mexico, North Dakota, Ohio, Oregon, Portland, South Carolina, Sioux Falls, Nashville and Davidson County, Austin, Dallas, Fort Worth, Utah, Virginia, Washington, West Virginia, and Wyoming.

ELEVATIONS



1. COUNTER HEIGHTS SET AT 2'-10" ABOVE FINISH FLOOR.
2. REMOVABLE UNDER-SINK BASE CABINETS AND CONTINUOUS FLOOR FINISH FOR WHEELCHAIR ROLL-UNDER ACCESS.
3. LOWER HEIGHT ROLL-UNDER WORK SURFACE FOR FOOD PREP.
4. BUILT-IN WALL OVEN WITH LARGE INTUITIVE CONTROLS LOCATED WITHIN 18"-54" REACH RANGE.
5. INDUCTION COOKTOP TO REDUCE THE RISK OF BURNS AS THEY ONLY HEAT POTS AND PANS AND NOT THE SURFACE ITSELF. STAGGERED BURNERS REDUCE THE NEED FOR REACHING OVER HOT SURFACES.
6. BUILT-IN MICROWAVE WITH LARGE INTUITIVE CONTROLS LOCATED WITHIN 18"-54" REACH RANGE.
7. LOWEST UPPER SHELF IN CABINETS AT 48" ABOVE FINISH FLOOR.
8. OPTION FOR PULL DOWN SHELVES IN UPPER CABINETS.
9. APPLIANCES WITH LEVER-STYLE HANDLES OR D-SHAPED PULLS (RATHER THAN ROUND KNOBS) ON REFRIGERATORS, OVENS, AND DISHWASHERS ARE EASIER TO GRIP AND OPEN.
10. DISHWASHER WITH PULL-OUT DRAWERS FOR EASIER LOADING AND UNLOADING WITHOUT THE NEED TO BEND.
11. SIDE-BY-SIDE REFRIGERATOR WITH BOTTOM-DRAWER FREEZER WHICH ALLOW EASY ACCESS TO BOTH THE FRIDGE AND FREEZER FOR PEOPLE WHO MAY HAVE DIFFICULTY BENDING OR REACHING HIGH SHELVES.

DESIGN FOR FLEXIBILITY

(OCCUPATIONAL, SOCIAL AND PHYSICAL)

A built-in pull-out step adds functionality by providing access to upper cabinets. It can also double as a step stool for grand-children helping out in the kitchen.

Eat-in kitchen and bar seating, designed to the proper height, can be an efficient casual dining space, but also provide stable support for occupational therapy and storage for meal-time medication.

DESIGN FOR INTERIOR OPTIONS

OPTION 01

OPTION 02

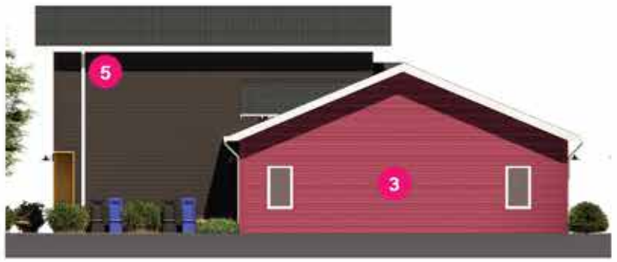
General Finish Options		
	Option 1	Option 2
Exterior Doors	Flat panel w/ peep hole	Paneled doors w/ peep hole
Interior Doors	Flat panel	2-panel interior doors
Trim	1x4 MDF field painted (to match wall) base & trim @ doors and windows as needed	1x4 MDF pre-finished base & trim @ doors and windows as needed
Lighting (Circulation)	Thin surface-mounted puck lighting	Thin surface-mounted puck lighting, all switches dimmable
Lighting (Living Room)	Switched outlets (no overhead lighting)	Thin surface-mounted puck lighting, all switches dimmable
Lighting (Bathrooms)	Thin surface-mounted puck lighting	Thin surface-mounted puck lighting & vanity wall light
Lighting (Bedrooms)	Ceiling mounted light	Ceiling fan/light combo
Lighting (Kitchen)	Thin surface-mounted puck lighting	Thin surface-mounted puck lighting w/ accent pendant over
Appliances	(Stainless Steel) • Refrigerator • Range • Over the range microwave • Washer & dryer	(Black) • Refrigerator • Range • Over the range microwave • Washer & dryer
Window Coverings	1" aluminum blinds	2" wood blinds (painted or wood finish)
Door & Cabinet Hardware	Standard brushed satin nickel finishes; Keyed & deadbolt entry locks	Standard brushed stainless steel/satin nickel finishes; Keyed & deadbolt entry locks
Paint	1 color wall paint throughout, walls & trim	Primary wall paint color, secondary base/trim paint color
Storage	White wire shelving & rods @ closets	White wire shelving & rods @ closets

Flooring Finish Options		
	Option 1	Option 2
Bedrooms	Residential Carpet	Residential Carpet
Living Room, Common Spaces	LVT	LVT
Bathrooms	LVT	Ceramic or Porcelain Tile
Kitchen	LVT	LVT

Kitchen Finish Options		
	Option 1	Option 2
Sink	Single basin stainless steel sink, fixed dual or single handle chrome faucet	Double basin stainless steel sink, detachable gooseneck faucet, brushed stainless steel/satin
Cabinets	Prefabricated plywood box cabinets, wood stained; 12" deep upper cabinets; 24" deep base cabinets	Prefabricated upgraded box cabinets, painted finish; 12" deep upper cabinets; 24" deep base cabinets
Countertops	Solid surface countertops w/ 4" backsplash	Quartz or granite countertops w/ 4" backsplash

Bathroom Finish Options		
	Option 1	Option 2
Countertops	Solid surface countertop w/ undermount sink & 4" backsplash	Quartz or granite countertop w/ undermount sink & 4" backsplash
Cabinets	Prefabricated plywood box cabinets, wood stained finish; 21" base cabinets	Prefabricated upgraded box cabinets, painted finish; 21" base cabinets
Tub & Shower	Prefabricated tub & shower insert w/ curtain rod	Prefabricated tub & shower insert w/ glass door system
Toilet	Standard toilet	Dual flush toilet
Toilet accessories	1 - 24" towel bar; 1 - towel ring @ sink; 1 - shower curtain rod; 1 - free standing toilet paper holder; 1 - plate glass mirror	1 - 24" towel bar; 1 - towel ring @ sink; 1 - shower curtain rod; 1 - cantilevered mounted toilet paper holder; 1 - decorative mirror

SOUTH ELEVATION



EAST ELEVATION

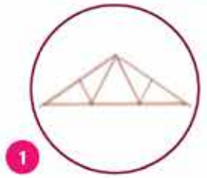
NORTH ELEVATION

WEST ELEVATION

DESIGN FOR **MATERIALITY**

Careful thought went into the selection and placement of exterior materials. Our experience, combined with close collaboration with local contractors, has taught us valuable lessons in achieving truly affordable designs.

By using well-established construction methods and materials that are readily available, we can significantly reduce costs without compromising quality. Thoughtful design can still thrive, ensuring that the architecture integrates seamlessly into the existing community fabric while staying affordable.



1

$ PITCHED ROOF
$$$ FLAT ROOF

PITCHED ROOFS ARE EASY TO CONSTRUCT USING PREFABRICATED RAFTERS AND TRUSSES. THIS CAN REDUCE LABOR COSTS AND CONSTRUCTION SCHEDULES. PITCHED ROOFS ALSO PROVIDE BETTER VENTILATION AND ALLOW FOR MORE INSULATION, REDUCING ENERGY COSTS.

2

$ ASPHALT SHINGLE
$$ STANDING SEAM METAL
$$$ RUBBER MEMBRANE

ALONGSIDE SELECTING EFFICIENT ROOF FORMS, WE ARE USING ASPHALT SHINGLES, A COMMON AND COST-EFFECTIVE MATERIAL THAT IS READILY AVAILABLE AND QUICK TO INSTALL.

3

$ FIBER CEMENT --------- $ LAP SIDING
$$ STUCCO $$ LARGE FORMAT PANEL SIDING
$$$ MASONRY $$$ BOARD & BATTEN SIDING

TRADITIONAL LAP SIDING IS AN APPROACHABLE EXTERIOR SIDING MATERIAL THAT IS DURABLE, EASY TO INSTALL, AND ATTRACTIVE.

4

$ SINGLE HUNG OR FIXED
$$ SLIDER OR DOUBLE HUNG
$$$ CASEMENT

THE COST DIFFERENCE BETWEEN WINDOW STYLES IS NOMINAL SO WE CHOSE CASEMENT WINDOWS FOR AESTHETIC REASONS. WINDOW SIZES ARE SELECTED FROM STANDARD CATALOG OFFERINGS TO BE COST EFFECTIVE.

5 PREFINISHED METAL GUTTERS AND DOWNSPOUTS CAN EASILY BE SOURCED FROM LOCAL RETAILERS.

6 EXTERIOR LIGHTING PROVIDES WARMTH AS WELL AS SAFETY TO RESIDENTIAL ENTRIES. SHIELDED FIXTURES REDUCE LIGHT POLLUTION AND CAN EASILY BE SOURCED FROM LOCAL RETAILERS.

7 ENTRY DOORS ARE INSET TO PROVIDE A SENSE OF SHELTER AND VISUAL INTEREST. SMALL AREAS LIKE THIS CAN AFFORD TO USE SLIGHTLY MORE EXPENSIVE MATERIALS AND BOLD COLORS.

8 THE TALLER PORTION OF THE DUPLEX IS POSITIONED NEXT TO THE TALLER NEIGHBORING HOMES TO SEAMLESSLY BLEND INTO THE OVERALL STREET CONTEXT.

DESIGN FOR **INFILL HOUSING**

Conestoga Community

We have estimated that the Conestoga Community contains roughly 650,000 square feet of vacant land, equating to 15 acres, or about 17% of the total land area. This significant amount of underutilized space presents a prime opportunity for thoughtful, community-centered development.

The Mod_RAD housing model could be replicated in various forms and configurations across these open lots, allowing for flexible housing options tailored to the community's needs. By distributing construction costs across multiple units, this approach would significantly reduce overall expenses, making true affordable housing a reality for an area that stands to benefit from such an intervention.

Based on our experience with infill housing, we typically achieve around 17 units per acre. Applying this metric to the available land in Conestoga, there is the potential to add approximately 255 new units, dramatically increasing the neighborhood's housing supply without compromising on quality or design.

We recognize that realizing this vision would require substantial coordination and effort, but the passion and commitment of the Conestoga community offer a strong foundation for success. With the right partnerships and collaboration, this plan could provide a transformative solution to housing challenges, bringing renewed vibrancy and opportunity to the area.

OPEN LAND

TOTAL SQUARE FEET	650,000
TOTAL ACRES	15

INFILL POTENTIAL

AVG UNITS PER ACRE	17
NEW UNITS CONSTRUCTED	**255**

DENSITY GROWTH

AVG HOUSEHOLD SIZE IN NORTH OMAHA	2.3
POPULATION INCREASE	586 RESIDENTS
TOTAL POPULATION POTENTIAL	1,461 RESIDENTS

2nd DUPLEX +
Actual Architecture Co.

PROJECT TEAM

Jeffrey Day, Ashley Byars, Dennis Krymuza, Ethan Boerner

CONCEPT SUMMARY

Duplex + responds to the need for aging-ready housing for diverse family types in existing neighborhoods. The prototype includes a 2-story, 3-bedroom family dwelling with a full basement, a 2-story, 1-bedroom home designed for aging in place, and a Flex Room that may be attached to either of the two dwellings.

The concept supports aging adults living adjacent to an adult child or caretaker, to live in a multi-generational complex, or to provide a supplemental source of income that makes it easier to remain in a home neighborhood as property values rise.

Actual

ABOUT THE DESIGNER
Actual Architecture Co.

Actual Architecture Co. is an internationally recognized architecture and design firm based in Omaha, Nebraska, and operating around the world with an expansive vision. By maximizing the potential of academic and professional practices, and with an open mind to creative collaboration, Actual Architecture Co. draws on backgrounds in architecture, landscape, and art to provide informed, highly considered design for a wide range of clients, sites, and projects – from individuals to art institutions, urban to rural settings, and furniture to large buildings.

We tell our clients' stories through the design of compelling buildings, environments, and objects. Our creations are playful, resulting from collisions of circumstance and idea, and driven by straightforward pragmatism laced with risky experimentation.

CONTACT:

actual.ac/contact/

1105 Howard Street #102
Omaha, NE 68102

(402) - 551 - 0306

WEST ELEVATION PERSPECTIVE

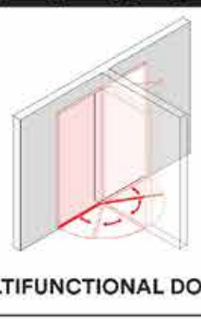
Actual
Architecture Co.

DUPLEX + DUPLEX x DESIGN
AGE-FRIENDLY HOUSING COMPETITION 2024

NOT FOR CONSTRUCTION

DUPLEX +

DUCHAMP



MULTIFUNCTIONAL DOOR

INTRODUCTION

Duplex+ responds to the need for aging-ready housing for diverse family types in existing neighborhoods. The concept supports a wide variety of household types and transforms over time as families grow, evolve, and age with changing needs at all stages.

Duplex+ will accelerate the adoption of Missing Middle housing types in Omaha due to its inherent flexibility and high-quality design that complements the character of Omaha's neighborhoods. Duplex+ challenges the repeated, "cookie cutter" facade appearance of the typical duplex to foreground difference and specificity.

The concept provides solitude and security where needed without allowing privacy to compete against opportunities for community within the development. Duplex+ helps aging adults stay in their neighborhoods where they can maintain deep connections and contributions to place and contribute to the building of community.

The prototype includes a 2-story, 3-bedroom family dwelling with a full basement (with the option for a bedroom with egress window well), a 1-story, 1-bedroom home designed for aging in place, and a Flex Room that may be attached to either of the two dwellings, or to both. The Flex Room and its adjacent patio are central to the adaptability of Duplex+.

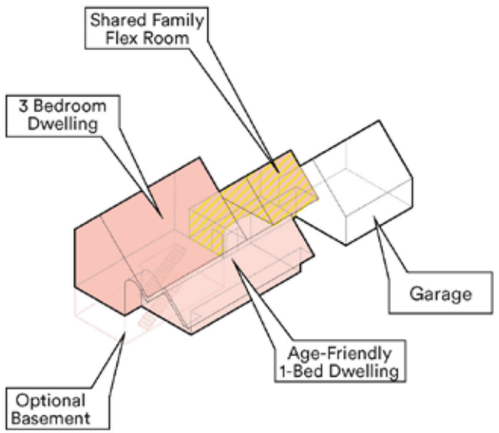
With a multifunctional door connecting it to both dwellings, the Flex Room may serve as an additional bedroom with accessible bathroom for either primary unit, a fully-functional apartment for a caretaker, a shared family room serving an extended family occupying both units, or an attached ADU for an unrelated renter.
The Flex Room supports all forms of the modern family.

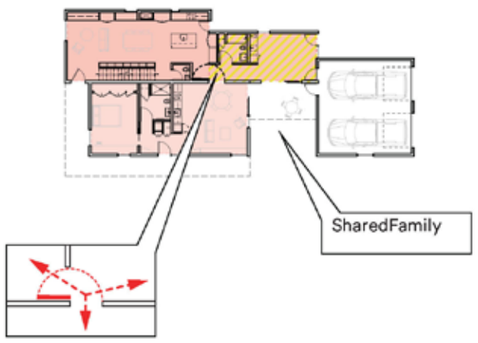
The concept supports the aging adults to live adjacent to an adult child or caretaker, to live in a multi-generational complex, or to provide a supplemental source of income that makes it easier to remain in a home neighborhood as property values rise. An owner could downsize without moving, or an emerging developer could implement an adaptable design that responds to the specific demographics of the places they wish to enhance. While the Duplex+ supports a wide range of blended families, it also works as a typical duplex with separate, unrelated owners or renters.

1 = 10

DUPLEX + multigenerational family

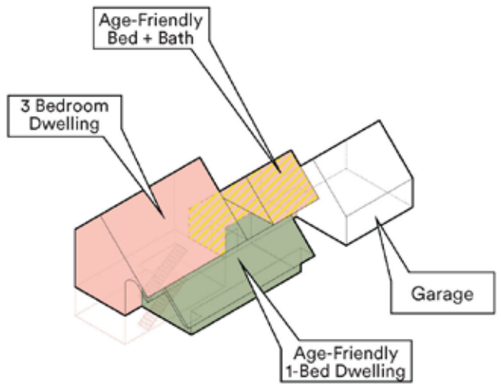
multigenerational dwelling: 2,360 gsf

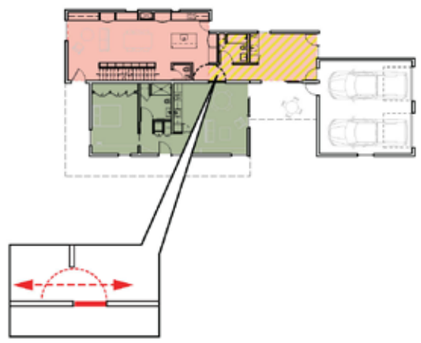




DUPLEX + age-friendly x2

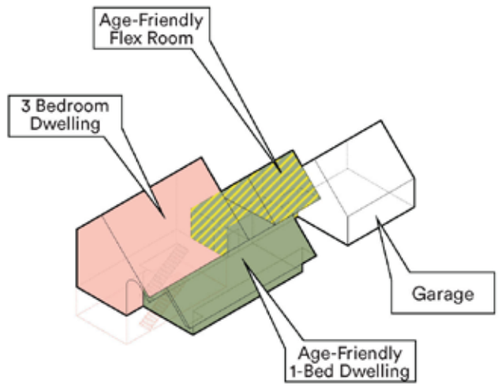
3 bedroom Dwelling: 1630gsf / 1 bedroom dwelling: 730 gsf

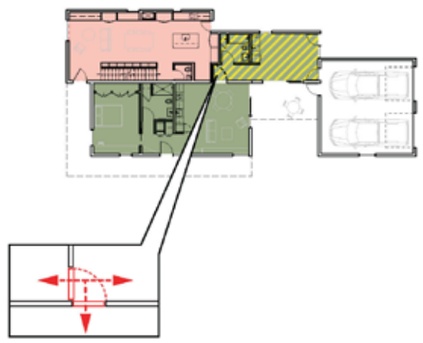




DUPLEX + the caretaker

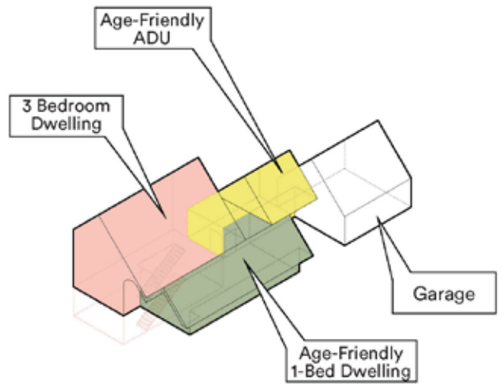
3 bedroom Dwelling: 1,300gsf / caretaker dwelling: 1,060 gsf

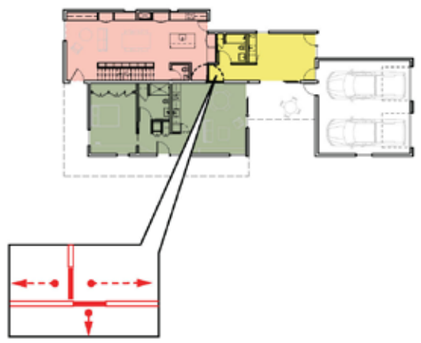




DUPLEX + integrated ADU

3 bedroom Dwelling: 1,300gsf / 1 bedroom dwelling: 730 gsf / ADU: 330 gsf





DUPLEX + DUPLEX x DESIGN AGE-FRIENDLY HOUSING COMPETITION 2024

NOT FOR CONSTRUCTION

AGING-IN-PLACE: AT THE CENTER

Aging-ready residential design begins with smooth, accessible movement throughout the property: from the parking area to the entrance of the home itself, and from there to frequently used outdoor areas in the front and back. Duplex+ accommodates 1.5 parking spaces per dwelling with 2-car garage (including a 4 ft. aisle for ease of access). For the **Duplex+**, the shared patio is the key for outdoor living. Front and rear yard areas may also be shared, or occupied separately by the two primary dwellings and the Flex Room. All exterior pathways are sloped less than 1:20 and landings are "flat" with drainage slopes no greater than 2%.

All dwelling units including the Flex Room have step-free entrances. Where necessary, these entrances are protected by flush trench drains to resist moisture infiltration. The 1-bedroom unit has a primary bedroom on the ground level with a dedicated full bathroom with ample maneuvering room. Should the Flex Room be connected to the 2-story dwelling, it would provide an aging-ready bedroom with ensuite bathroom for that home in addition to the separate 1-bedroom unit.

The kitchen in the 1-bedroom unit and the kitchenette in the Flex Room are designed following Age-Friendly Criteria. They are spacious enough to accommodate two people and those who work with mobility devices. Kitchen cabinets are designed for transformation for example, doors under the sink easily removed with a continuous floor and protection around the drain line. Countertop outlets are designed for accessibility, and include a pop-up countertop outlet at difficult to reach corners. Upper cabinets are provided, but could be abandoned or removed for those who can not access them – there is ample opportunity for storage at an accessible height.

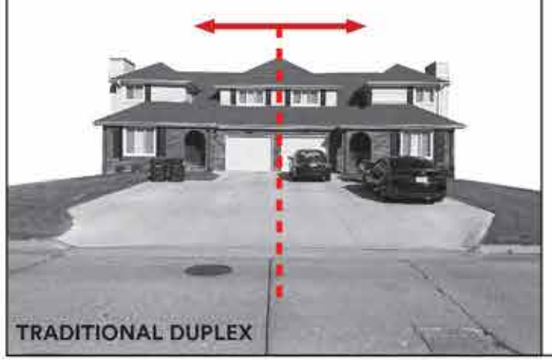
2 OF 10 SHEETS

STREETSCAPE PERSPECTIVE

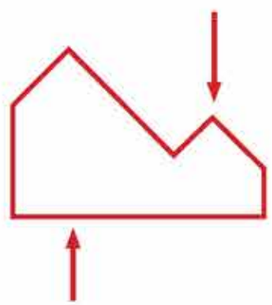
DUPLEX + DUPLEX x DESIGN

AGE-FRIENDLY HOUSING COMPETITION 2024

NOT FOR CONSTRUCTION



TRADITIONAL DUPLEX



DUPLEX+

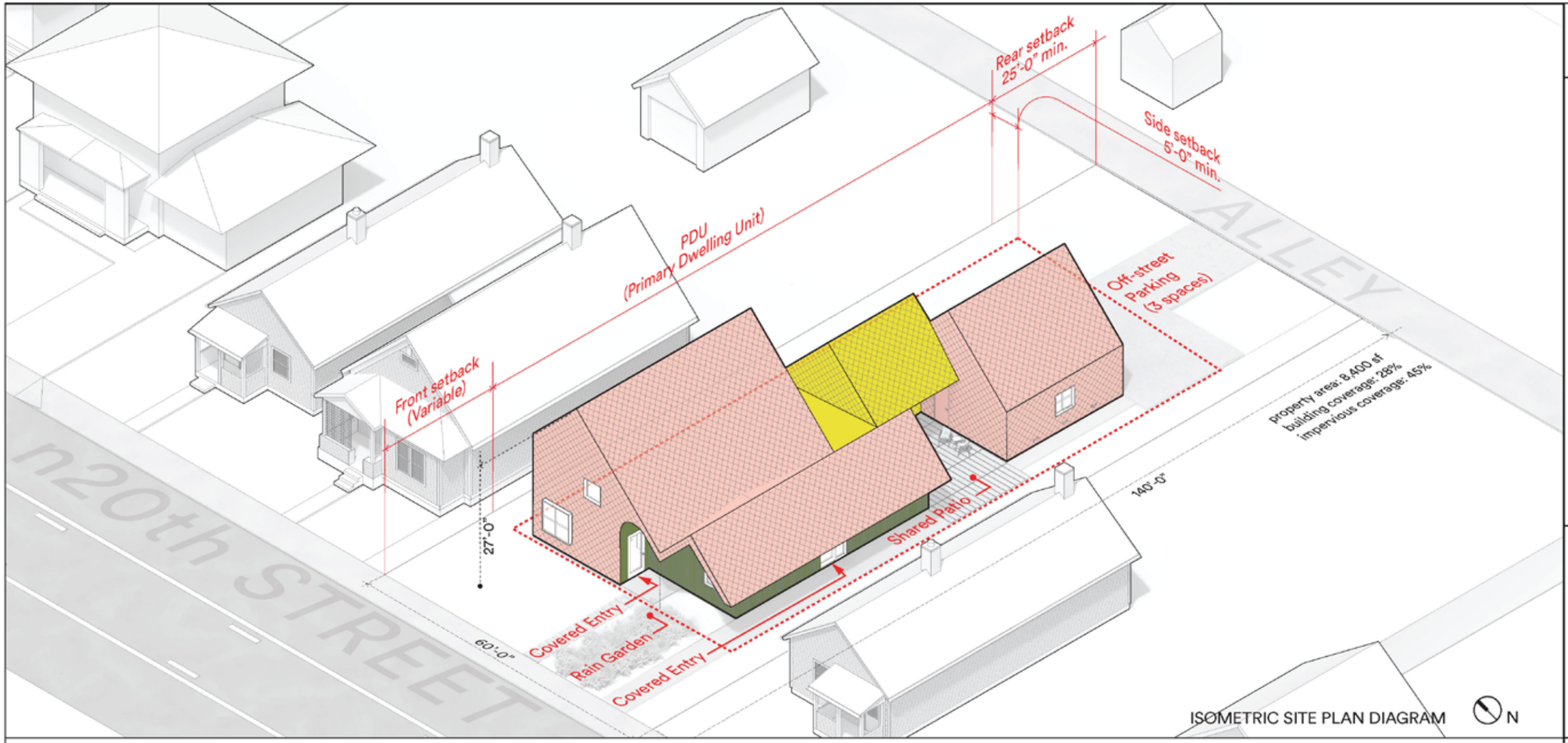
CONTEXT: IT MATTERS

Where the typical duplex appears as a mirrored pair of identical dwellings residing uncomfortably next to one another, and standing out from the neighborhood fabric, Duplex + projects the multiplicity of its supported dwellings. This visual heterogeneity combats the negative community perception of duplexes and other "Missing Middle" housing types.

Duplex+ fits into and enhances the character of established neighborhoods. The design is compatible with a variety of lot types with different modes of access.

The prototype presented here takes advantage of the rear alley for access to concealed parking, but the relatively narrow building allows for driveway access from the primary street where required (the garage can be rotated 90 degrees for access from the side).

Pedestrian entrances are separated by a rain garden to maintain the privacy of the two primary dwellings. The Flex Room has a private entrance with a dedicated parking stall that benefits its potential use as an ADU or private dwelling for a caretaker.



DUPLEX + | DUPLEX x DESIGN AGE-FRIENDLY HOUSING COMPETITION 2024

NOT FOR CONSTRUCTION

AFFORDABILITY / CONSTRUCTABILITY

Duplex+ is geared towards a market of 120% of Omaha's AMI and approaches affordability through efficient, flexible design and innovative construction. Using prefabrication to reduce on-site construction time will dramatically reduce construction costs while building in efficiency and

The project exemplifies green building values in the short term by emphasizing sustainable materials and zero waste methods to reduce embodied carbon to a minimum. In the long term, the project employs passive and active systems with a goal of energy efficiency (reduced operational carbon).

The dwellings will be superinsulated using Structural Insulated Panels (SIPs) for walls and ceilings. Plumbing is run through interior walls so the insulating integrity of the SIPs is not compromised. Construction intensive elements including the SIPs are fabricated off site and installed rapidly on site.

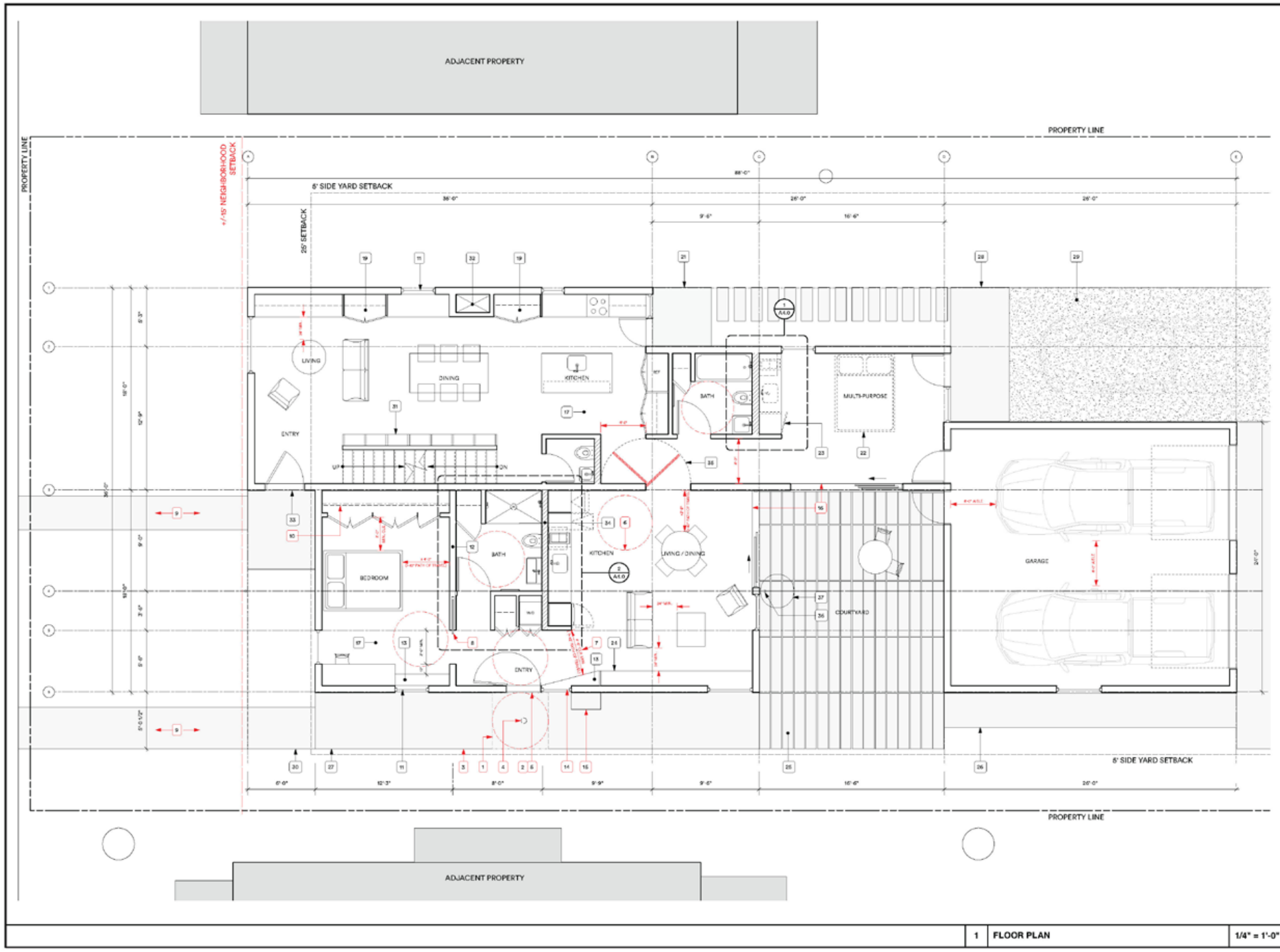
Additional prefabrication occurs with the shared bathroom & kitchen wet walls. The wet wall itself as well as any associated electrical, plumbing, built-in cabinetry, and wall finishes would all be built in the controlled environment of a local shop to reduce labor on site.

Material selection emphasizes affordability and reduced long-term maintenance cost. The siding and roofing for most of the structure is a factory finished metal shingle making a visual reference to local history but with a contemporary styling and bringing the scale of the house down to that of the individual. Prefinished fiber cement vertical siding provides a contrasting complementary material in the entry recess and south side of the 1-bedroom unit.

The dwellings feature advanced heat-pump HVAC with a ducted system in the 3-bedroom unit (equipment in the basement) and multi-zone minisplit systems in the 1-bedroom unit and Flex Room. Air to air heat recovery ventilation systems maintain air quality in the super insulated dwellings.

Site development features stormwater collection in barrels and gardens for on-site irrigation, pervious paving, while providing ample outdoor access for those who may require mobility assistance. (note: impervious lot coverage is <50%) A chain drain at the front of the building feeds a rain garden that filters water and affords slow infiltration. This decorative feature separates entrances to the two dwellings.

4 OF 10 SHEETS



PLAN NOTES

1. 5' X 5' CLR. MIN. SPACE @ FRONT DOOR (STRUCTURAL STOOP TO ENCOMPASS THIS AREA, MIN.)
2. STEP FREE ROUTE TO ENTRANCE, MIN 42" WIDE (MAX 1/2" STEP @ THRESHOLD)
3. ROOF OVERHANG OVER FRONT DOOR, MIN. 40"X3'-8" REQUIRED, SEE A3.0 FOR ELEVATION
4. OVERHEAD LIGHT @ FRONT DOOR
5. FRONT DOOR 36" CLR. MIN. W/ LOW PROFILE THRESHOLD (1/2" RISE MAX), NFRC TESTED U-VALUE OF 0.20 OR LESS
6. 5' WHEELCHAIR TURNING RADIUS IN ALL ROOMS, TYP.
7. 42" WIDE PATH OF TRAVEL IN ALL ROOMS, TYP.
8. POCKET DOORS EXTEND 2" MIN. FROM JAMB WHEN CLOSED W/ OPEN LOOP HANDLES, TYP.
9. MAX 1:20 SLOPE IN DIRECTION OF TRAVEL, EXTEND TO STREET, PARKING, OR POU
10. ADJUSTABLE ROD & SHELF, MAJORITY OF STORAGE BELOW 84" AFF
11. EGRESS WINDOW
12. ACOUSTIC BATTS IN ALL BATHROOM WALLS, TYP.
13. BUILT-IN BENCH W/ OPTIONAL UPHOLSTERED CUSHION
14. WINDOW W/ VIEW OF ENTRY EXTERIOR
15. PACKAGE BENCH, CANTILEVERED/D FROM WALLS, PT'D.
16. LOW PROFILE THRESHOLD
17. 4" SEALED REINFORCED CONCRETE SLAB ON GRADE W/ HONED FINISH (NOT GLOSSY), ALTERNATE = HYDRONIC RADIANT HEAT INTEGRAL TO SLAB
18. 24" PREFABRICATED CABINETS, TYP.; 3/4" MDF CONSTRUCTION, PT'D; FLUSH OVERLAY DOORS (FROM 1 3/8" SC WD. DOOR PT'D; INTERIOR CONFIGURATIONS VARY (ADJ. SHELVES, FIXED SHELVES W/ HANGING ROD, PULL OUT DRAWERS, PANTRY INSERT, ETC.)
19. STORAGE CABINET OR BOOKCASE AT THIS LOCATION
20. HVAC CONDENSER ON CONC. PAD AS REQ'D FOR SELECTED SYSTEM
21. 5'x6' LANDING
22. OPTIONAL BED OR MURPHY BED (DASHED)
23. OPTIONAL KITCHEN (DASHED)
24. 36" CABINET TOP
25. PRECAST PAVERS W/ TIGHT JOINTS
26. 4' CONC. PATH
27. 5' CONC. PATH
28. 6'x5' LANDING
29. PARKING ON PERVIOUS SURFACE, TO MEET 1.5 UNITS/DWELLING UNIT REQUIREMENT
30. 42" CLR. MIN. PATH
31. BUILT-IN BOOKCASE ALONG WALL
32. MECHANICAL CHASE
33. ENTRY DOOR WITH CLEAR GLASS LITE
34. PREFABRICATED PLUMBING WALLS
35. MULTI-FUNCTIONAL, DOUBLE DOOR TO ALLOW FOR VARIOUS DWELLING UNIT CONFIGURATIONS, SEE PROJECT NARRATIVE
36. CHAIN DRAIN FROM CONCEALED SCUPPER BEHIND FASCIA
37. RAIN BARREL

GROSS SQUARE FEET = 2,360

1 FLOOR PLAN 1/4" = 1'-0"

PROJECT NORTH / TRUE NORTH

DUPLEX + DUPLEX x DESIGN
AGE-FRIENDLY HOUSING COMPETITION 2024

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DATE 10/15/24
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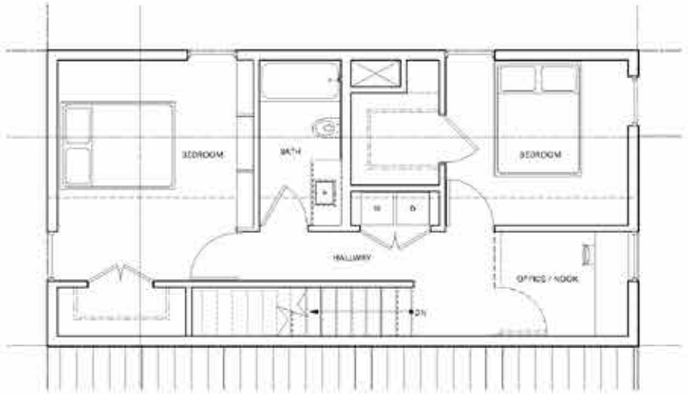
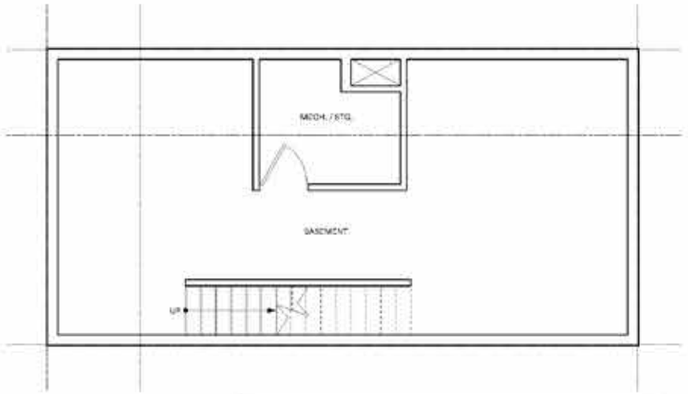
SHEET

5 OF 10 SHEETS



SCHEMATIC SECOND FLOOR PLAN
650 sqft



OPTIONAL BASEMENT FLOOR PLAN
650 sqft

WEST SECTION PERSPECTIVE

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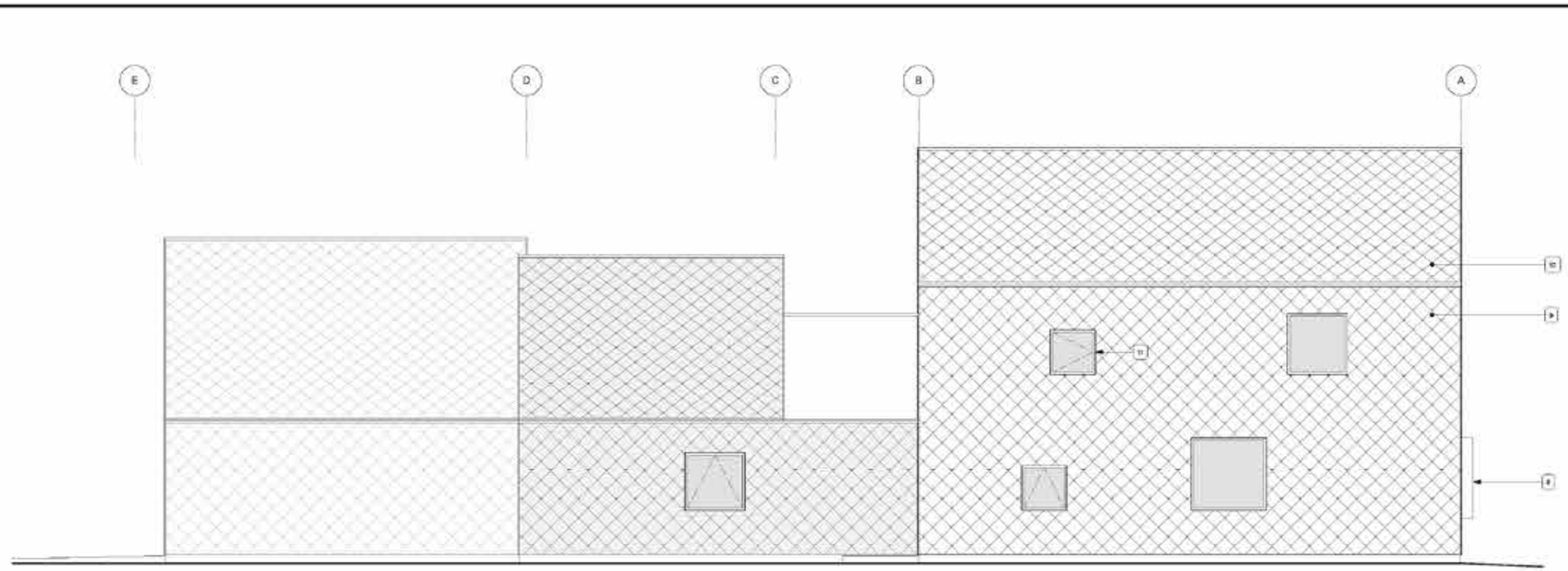
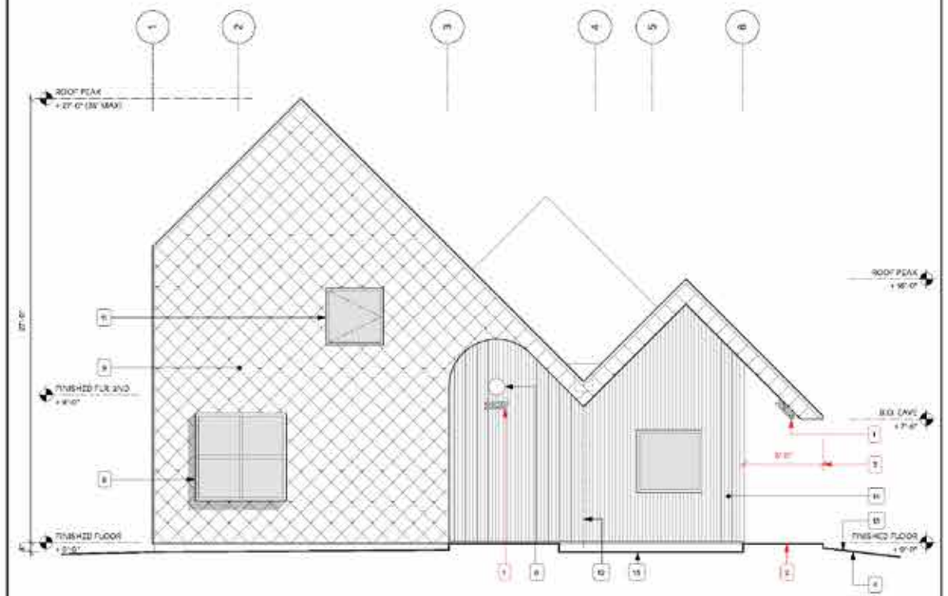
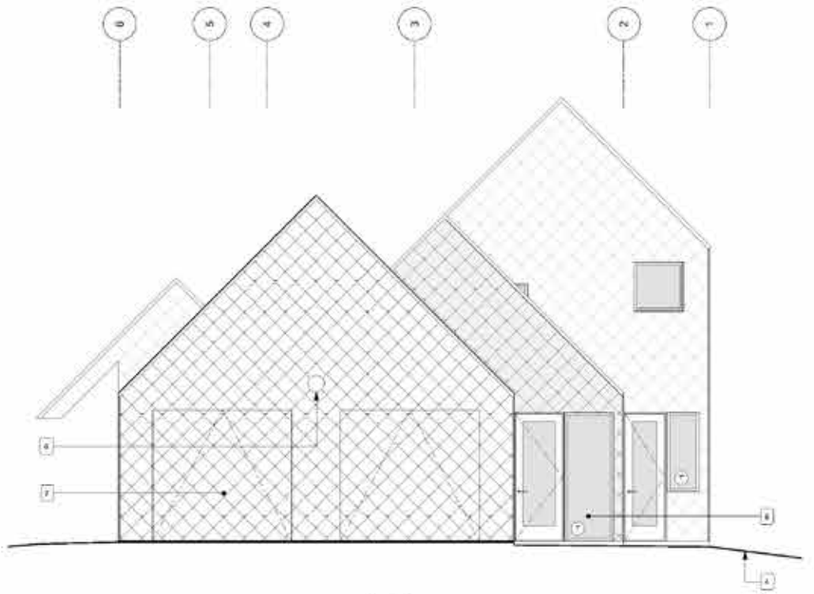


3 NORTH ELEVATION 1/4" = 1'-0"



1 WEST ELEVATION 1/4" = 1'-0"



1 EAST ELEVATION 1/4" = 1'-0"

PLAN NOTES

1. PRIMARY HOUSE ACCESS NUMBER FACING STREET APPROACH
2. PATH: 5:00 MAX SLOPE, 1:48 MAX CROSS SLOPE AT COVERED FRONT AREA
3. 6'-0" COVERED ENTRY AND WALKWAY
4. SLOPE 6" MIN. 2 IN 10' FROM HOUSE W/ MECHANICALLY TAMPED BACK FILL, TYP.
5. TEMPERED GLASS AS REQ'D
6. EXTERIOR LIGHT
7. METAL SHINGLE CLAD GARAGE DOOR, TO MATCH SIDING
8. PROJECTED WINDOW
9. METAL SHINGLE SIDING, TYP.
10. METAL SHINGLE ROOF TO MATCH SIDING, TYP.
11. EGRESS WINDOW
12. CHAIN DRAIN FROM CONCEALED SCUPPER BEHIND FASCIA
13. RAIN GARDEN
14. FIBER CEMENT SIDING

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PLAN NOTES
3. PROMINENT HOUSE ADDRESS NUMBER
4. SLIDING PATIO DOOR, WITH LOW PROFILE THRESHOLD
6. TEMPERED GLASS AS REQ'D
7. LINE OF INTERIOR WALL/CEILING, TYP.
8. EXTERIOR PATH LIGHT
9. EXTERIOR LIGHT
10. FIBER CEMENT SIDING
11. METAL SHINGLE SIDING, TYP.
12. METAL SHINGLE ROOF TO MATCH SIDING, TYP.
13. GARAGE ROOF STRUCTURE TO SUPPORT OPTIONAL PV PANEL ARRAY ON SOUTH SIDE
14. EGRESS WINDOW
1 SOUTH ELEVATION 1/4" = 1'-0"
DUPLEX +
DUPLEX x DESIGN
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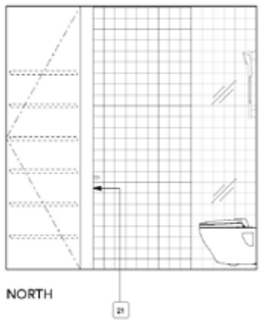
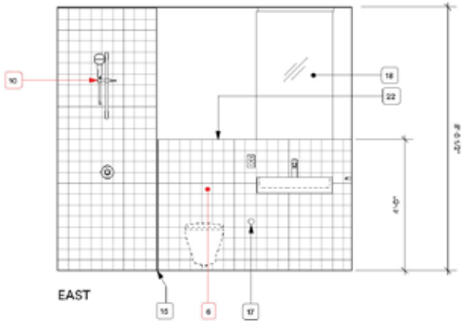
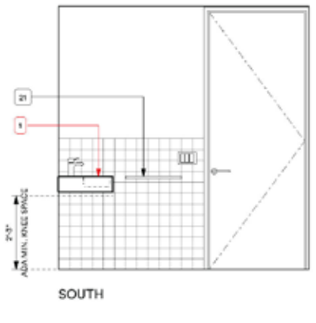
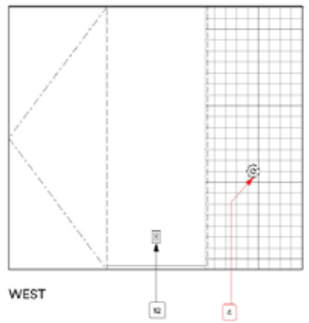
SOUTH ELEVATION COURTYARD PERSPECTIVE

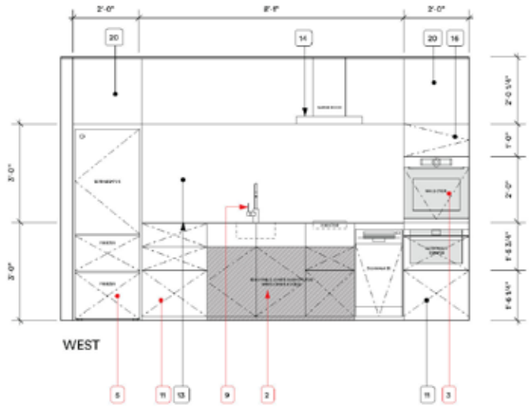




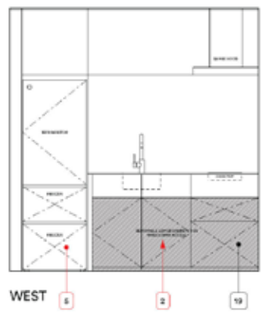




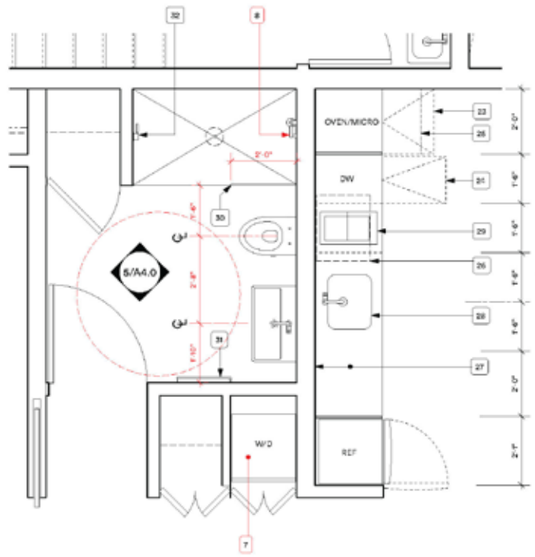
5 | INTERIOR ELEVATION BATHROOM | 1/2" = 1'-0"



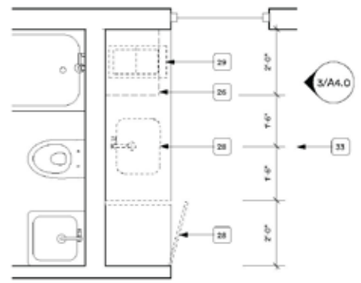
4 | ELEVATION KITCHEN | 1/2" = 1'-0"



3 | EAST ELEVATION - KITCHENETTE | 1/2" = 1'-0"



2 | ENLARGED KITCHEN PLAN | 1/2" = 1'-0"



1 | ENLARGED KITCHEN PLAN | 1/2" = 1'-0"

PLAN NOTES

1. WALL MTD. SINK W/ ADA KNEE SPACE CLEARANCE
2. REMOVABLE LOWER CABINETS FOR WHEELCHAIR-ACCESSIBLE SINK AND COOKTOP
3. WALL MOUNTED OVEN W/ CONTROLS UNDER 44" AFF
4. OPTIONAL CONTROLS LOCATED ON OPPOSITE WALL FROM SHOWER HEAD
5. ALL APPLIANCES MUST BE ENERGY STAR RATED AND LISTED ON ENERGY STAR WEBSITE, TYP.
6. CONTINOUS BLOCKING FOR POTENTIAL FUTURE GRAB BARS
7. RAISED FRONT LOADING WASHER / DRYER WITH FRONT FACING CONTROLS. CONTROLS +/- 54" AFF
8. WALL MTD. CONTROLS & SHOWER SPRAY PER ADA
9. SINGLE-LEVER WATER CONTROLS AT ALL PLUMBING FIXTURES, TYP.
10. ADJUSTABLE HEIGHT, MOVABLE HAND-HELD SHOWER HEAD OR 60" FLEXIBLE HOSE
11. FULL EXTENSION PULL-OUT DRAWER IN BASE CABINET, TYP.
12. ELECTRICAL OUTLET @ 18-24" AFF, TYP. (SEE ELEC FOR OTHER LOCATIONS) ALIGN W/ ADJACENT FINISHES
13. BACK AND SIDE SPLASH TO MATCH COUNTERTOP
14. RANGE HOOD ENTEGRATED W/IN UPPER CABINETS WHERE OCCURS)
15. 3/8" MIN. LAM. GLASS SHOWER DIVIDER, FRAMELESS
16. CABINET DOOR
17. TP HOLDER
18. WALL MTD. MIRROR FLUSH W/ ADJACENT GWB
19. PULL-OUT DRAWER
20. OPTIONAL CABINET DOOR FOR DEEP STORAGE
21. WALL MTD. TOWEL BAR FASTENED TO SOLID BLOCKING
22. GWB FLUSH W/ TILE BELOW (USE SECOND LAYER OF GWB TO ACHIEVE FLUSH WALL)
23. OVEN DOOR FULLY LOWERED
24. DISHWASHER DOOR FULLY LOWERED
25. MICROWAVE DRAWER FULLY EXTENDED
26. RANGE HOOD ABOVE
27. COUNTERTOP & SPLASH
28. S.S. SINK, UNDERMOUNT OR INTEGRAL W/ COUNTERTOP
29. DROP-IN ELECTRIC / INDUCTION COOKTOP, S.S. FINISH
30. 3/8" MIN. FRAMELESS LAM. GLASS (FLOOR TO CLG.)
31. TOWEL BAR MTD. TO SOLID BLOCKING IN WALL
32. OPTIONAL SHOWER CONTROL LOCATION
33. OPTIONAL KITCHEN LAYOUT (DASHED)

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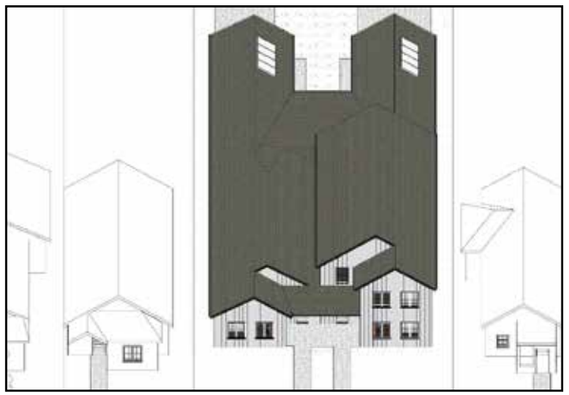
COURTYARD + FLEX ROOM SECTION PERSPECTIVE

3rd ACCESS HOMES
Oscar Avila

CONCEPT SUMMARY

Access Homes is designed with flexibility in mind, focusing on ease of movement, comfort, and adaptability. This universal design duplex aims to create an inclusive, sustainable, adaptable living environment that sets a new standard for residential architecture in the region. Accessible features include zero-step entrances, wide hallways, and accessible bathrooms, kitchens, and laundry rooms designed for residents with a variety of mobility needs.

The form of the duplex is simple and modern, with clean lines and a modest footprint. The massing ensures privacy between the two units while creating shared communal areas. Materials were chosen for durability and sustainability, with low-maintenance finishes that reduce long-term upkeep for aging residents.



ABOUT THE DESIGNER
Oscar Avila

Oscar Avila is an architecture student at the University of Nebraska–Lincoln, currently pursuing his Bachelor of Architecture degree. He is actively involved in the American Institute of Architecture Students (AIAS) and the National Organization of Minority Architecture Students (NOMAS). His commitment to academic and professional excellence has been recognized through the BVH Norman Ochsner Design Excellence Award, highlighting his work and dedication to architectural design.

Oscar aims to create meaningful design that addresses social and environmental challenges. His work reflects a dedication to creating architecture that not only meets functional needs but also fosters stronger, more inclusive communities. As an advocate for equitable and sustainable housing, he believes that well-designed living environments should be accessible to everyone.

CONTACT:

linkedin.com/in/oscaravilaaa/

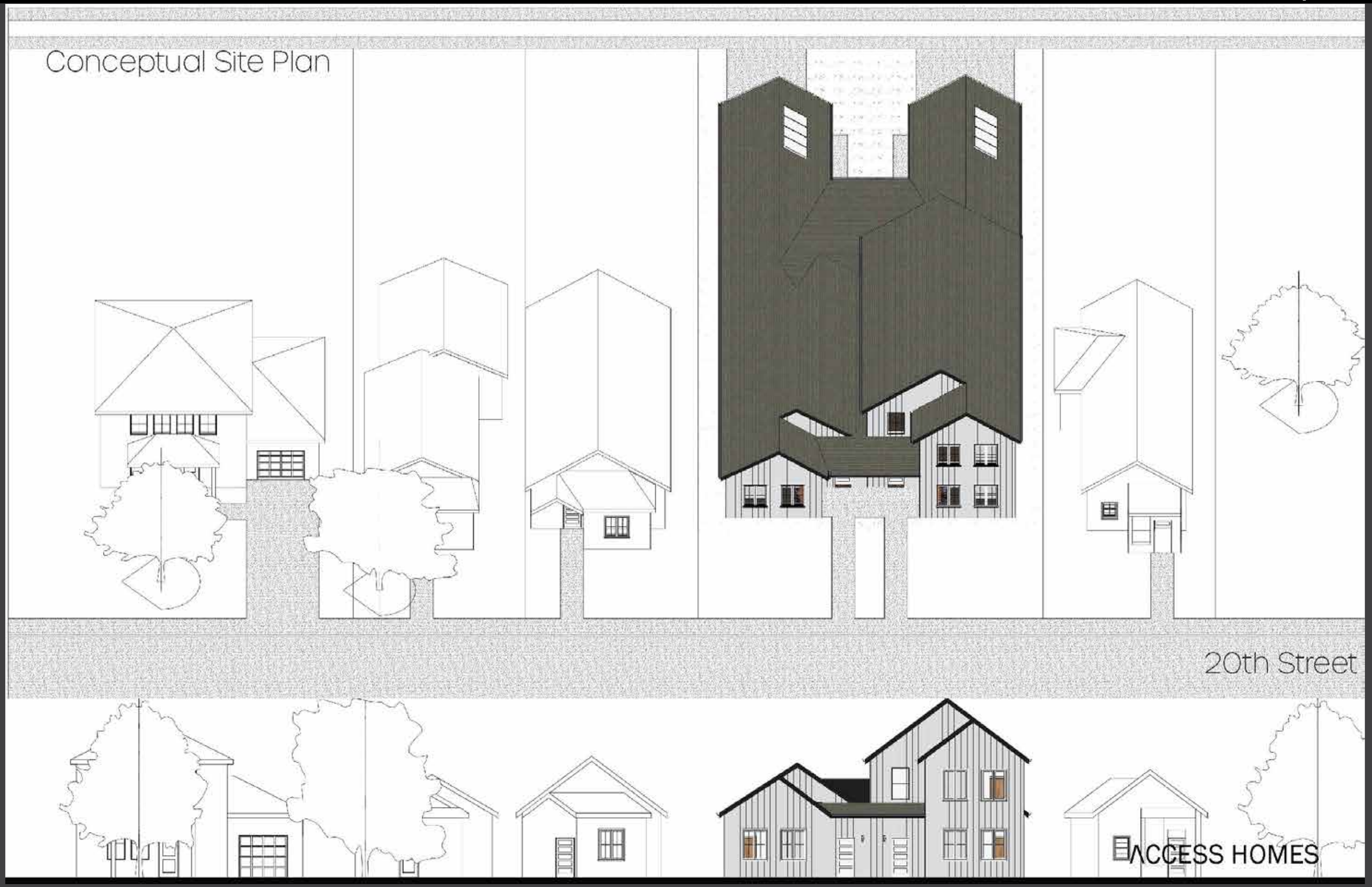
oscaravilaaa477@gmail.com

The duplex is designed with flexibility in mind, focusing on ease of movement, comfort, and adaptability. Each unit features wide hallways, zero-step entrances, and accessible bathrooms, kitchens, and laundry rooms to accommodate residents with varying mobility needs. Spaces are organized to allow aging individuals to maintain independence while fostering interaction between neighbors.

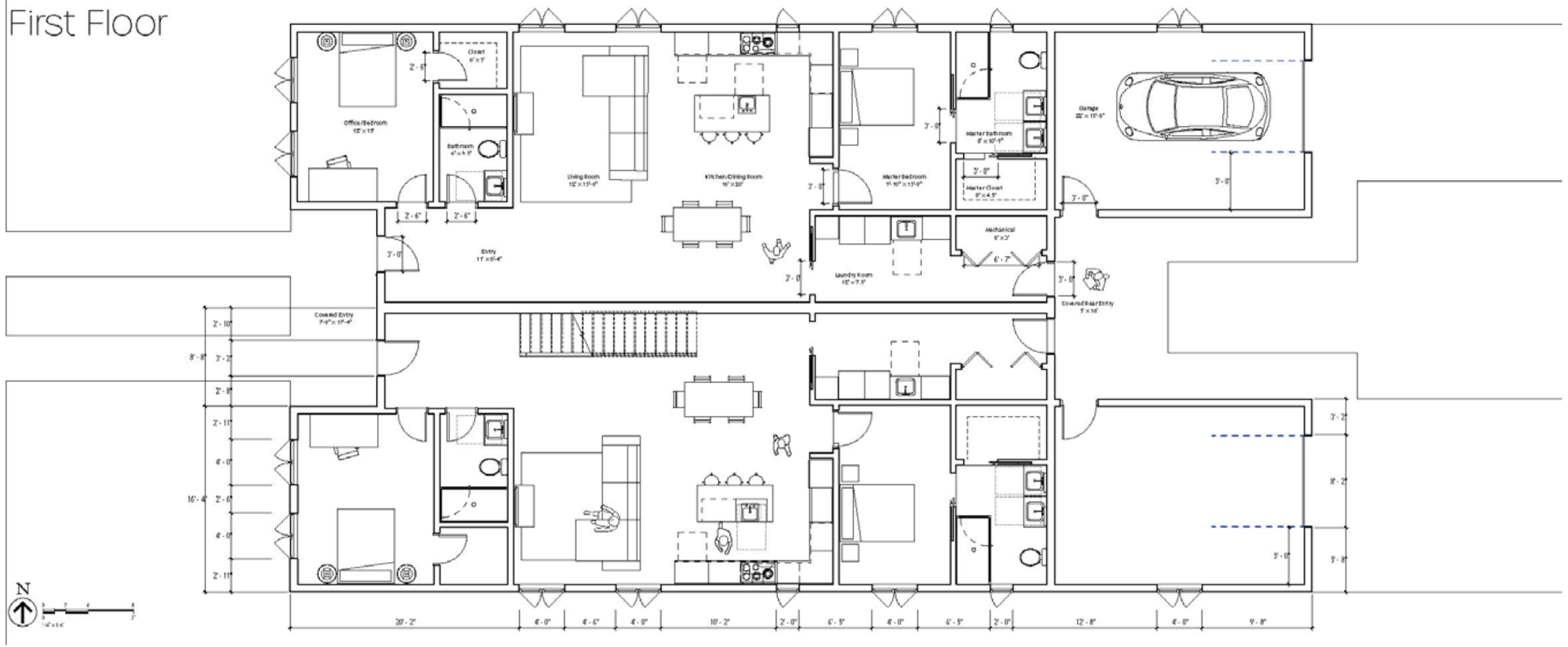
The form of the duplex is simple and modern, with clean lines and a modest footprint. The massing ensures privacy between the two units while creating shared communal areas, reflecting the importance of community and connection. The duplex is designed to be adaptable, allowing for modifications as residents' needs change over time. Materials are chosen for durability and sustainability, with low-maintenance finishes that reduce upkeep for aging residents.

This universal design duplex serves as a prototype for Omaha's future housing, reflecting shifts in demographics and the housing market. It aims to create an inclusive, sustainable, and adaptable living environment that sets a new standard for residential architecture in the region. Its design supports long-term independence, encouraging residents to remain in their homes while promoting social interaction and community resilience.

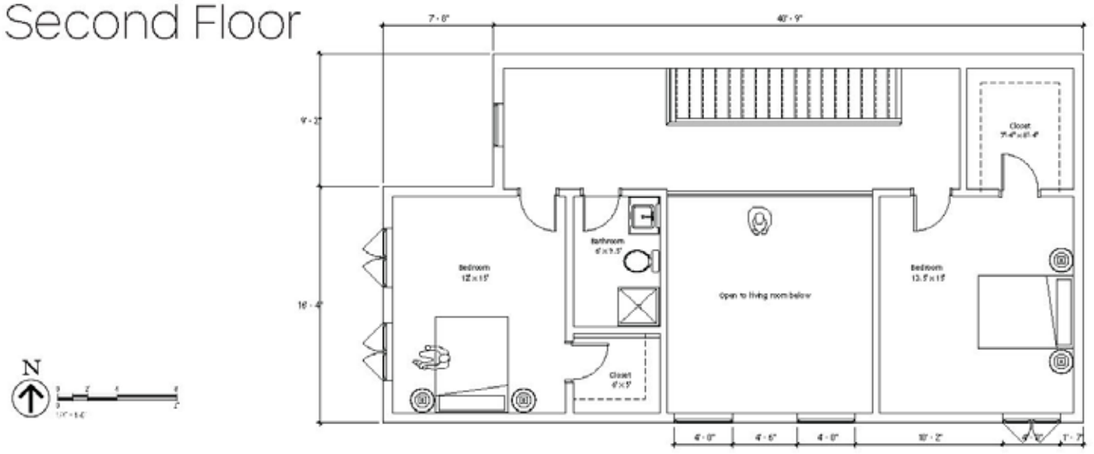
ACCESS HOMES


Conceptual Site Plan
20th Street
ACCESS HOMES

First Floor



Second Floor



This duplex was originally designed as slab-on-grade but is versatile enough to accommodate a basement. The northern unit features 2 bedrooms and 2 bathrooms, with approximately 1,812 SF of living space. Although it's a single-story unit, it can be upgraded with a vaulted ceiling in the living room to create a more spacious, open feel.

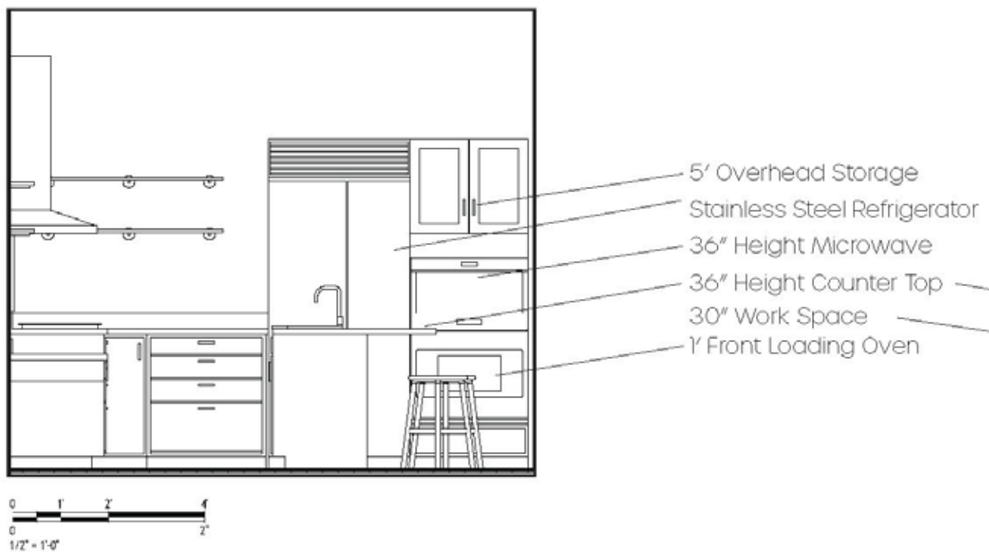
The southern unit offers 4 bedrooms and 3 bathrooms, totaling around 2,615 SF across two stories. It can also include a basement and features a double-height living room. Both units offer the option of a single or double car garage, providing flexibility in layout and specifications.

This duplex exemplifies the versatility of its layout. The design prioritizes adaptability and resilience, ensuring that people from any walk of life, regardless of age, income, or ability, can comfortably inhabit either unit. It is also built to withstand shifts in the housing market, both now and in the future. The units cater to a wide range of needs: downsizing and aging in place, providing off-campus housing, or supporting families who want to raise children while keeping elderly parents close by with a sense of independence. These are just a few examples of its flexible appeal.

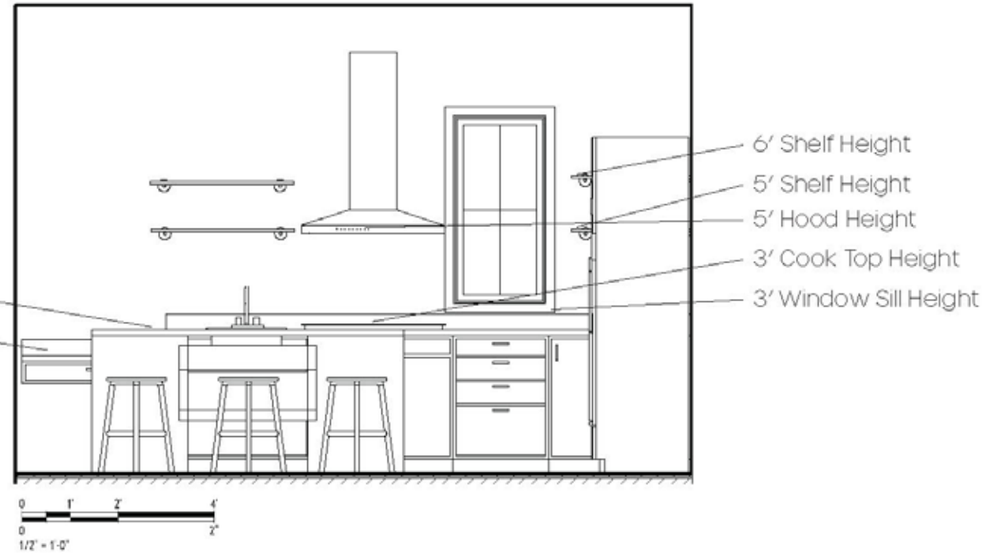
ACCESS HOMES

Interior Elevations

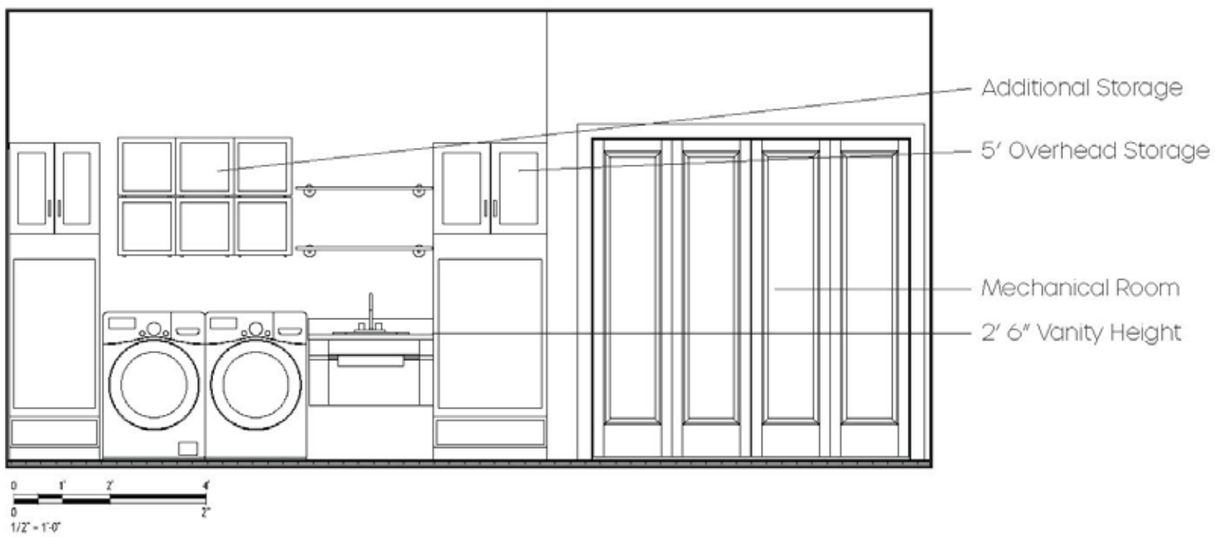
Kitchen West Elevation



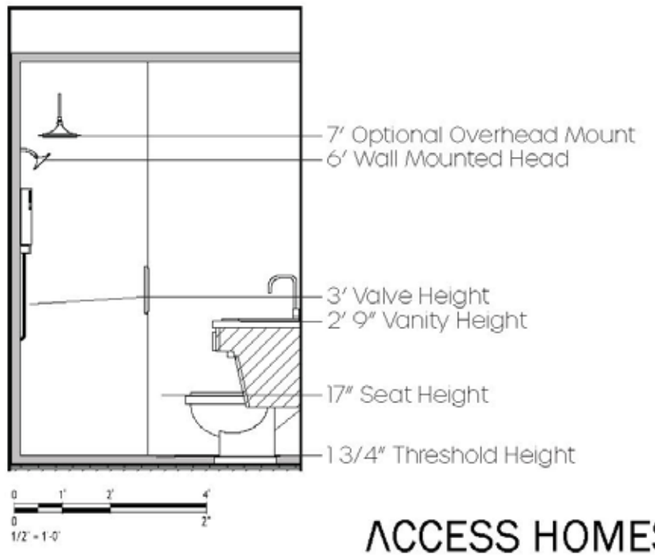
Kitchen South Elevation



Laundry Room South Elevation



Bathroom South Elevation



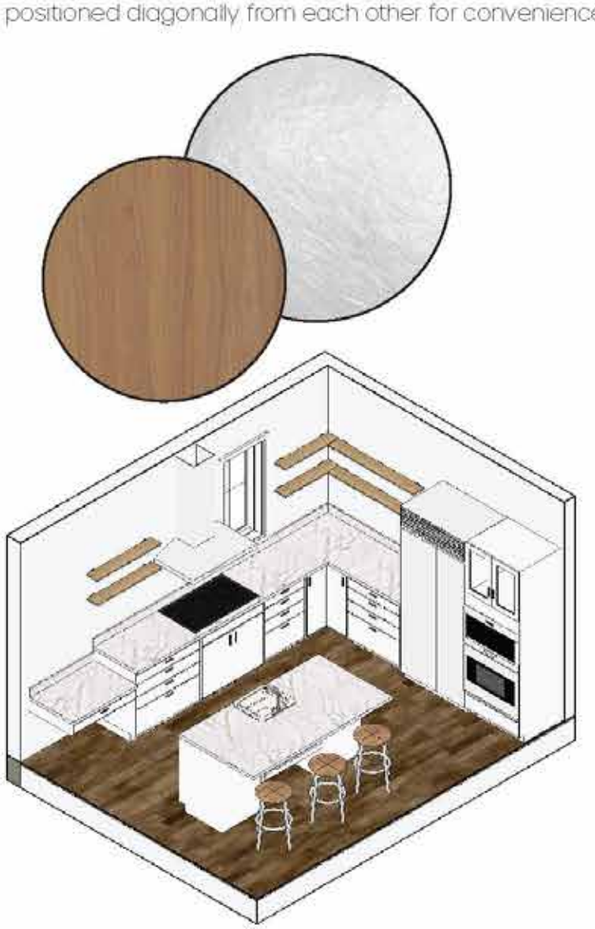
ACCESS HOMES

Interior Finishes | Product Information

The kitchen features an array of appliances and cabinetry, all designed with universal accessibility in mind. To reduce the risk of injuries, the number of overhead cabinets is minimized, while lower cabinets are enhanced with drawers instead of doors, offering easier access and ample storage. The cooktop is electric, with front-facing controls to prevent injuries from reaching over hot surfaces. The microwave is conveniently placed above the oven, both at an accessible height. Additionally, a 30-inch countertop workspace and a wheelchair-accessible sink are positioned diagonally from each other for convenience.

The laundry room provides ample space for easy maneuvering. The front-loading washer and dryer offer convenient access for users. An ADA-compliant, wheelchair-accessible sink, similar to the one in the kitchen, is conveniently located next to the appliances for user needs. Storage is available on both sides of the room, functioning as a mudroom, with additional storage above the appliances and sink. On the right side, bifold doors open to reveal a mechanical closet.

Although not part of the primary suite, this bathroom incorporates several ADA features, some of which are also found in the kitchen and laundry room, such as the accessible sink. The sink is positioned at a suitable height to ensure easy access for all users. The water closet is designed with ample space on both sides for improved accessibility and maneuverability. The shower features a 2-inch threshold, and the controls are placed at an appropriate height for ease of use.

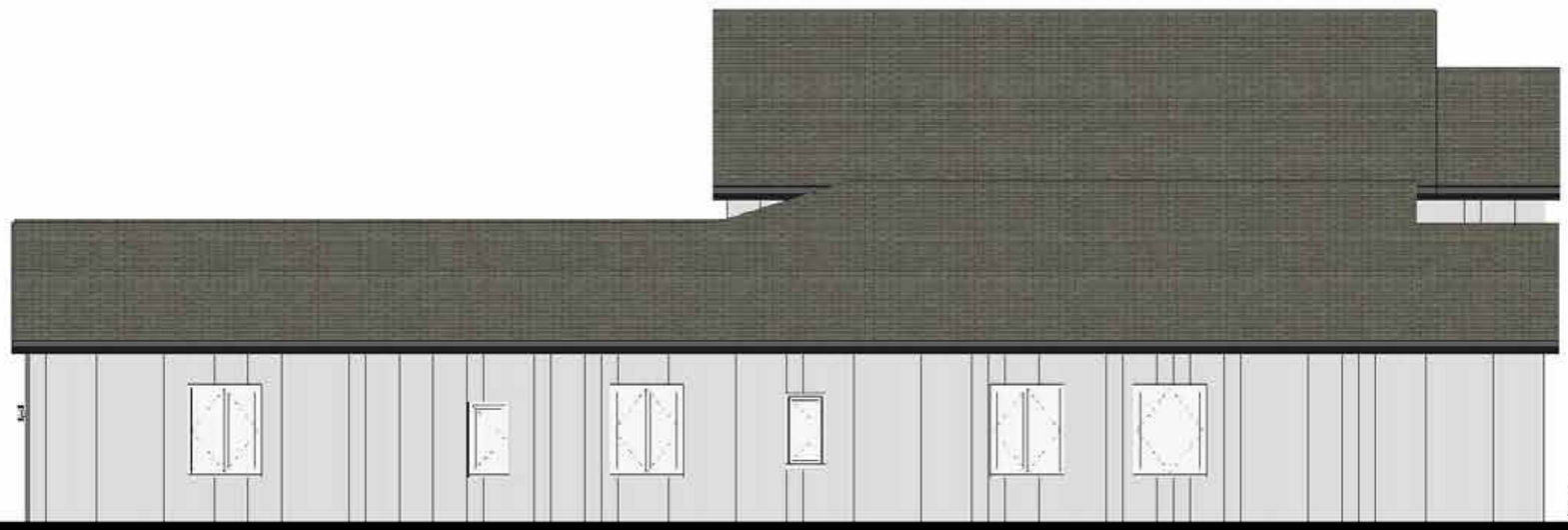


ACCESS HOMES

West Elevation

East Elevation

North Elevation



ACCESS HOMES

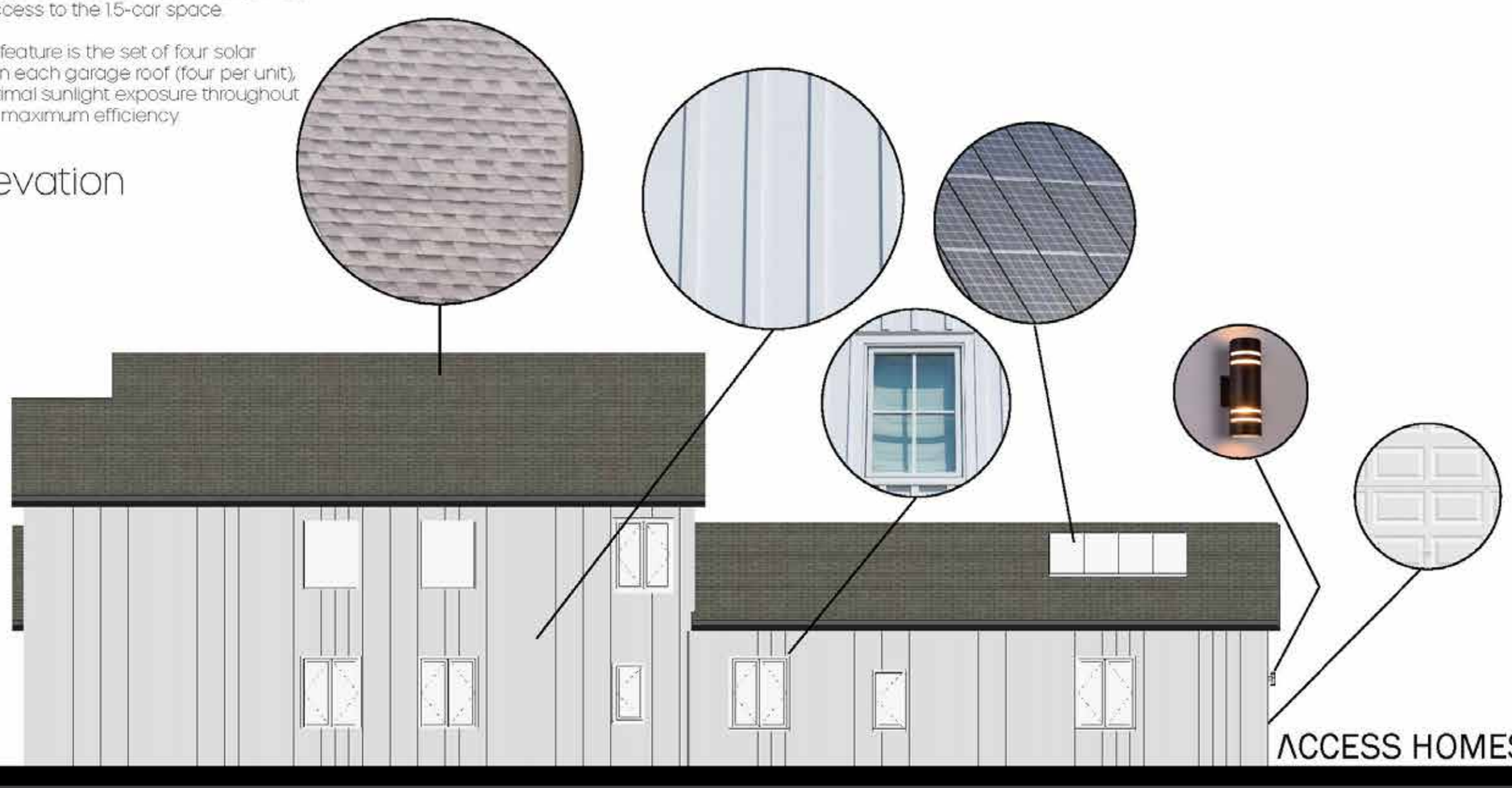
Exterior Finishes

The sleek, simple exterior of the duplex features finishes that, while understated, exude a sense of elegance and familiarity. This creates a familiar and welcoming appearance, allowing the building to blend seamlessly into the fabric of any neighborhood. Notably, the design includes white board-and-batten siding paired with matching white window trim, complemented by a light asphalt shingle roof.

I selected warm sconce lighting fixtures for the exterior, strategically placed to offer the most benefit to users. The garage features a simple white paneled door, providing access to the 1.5-car space.

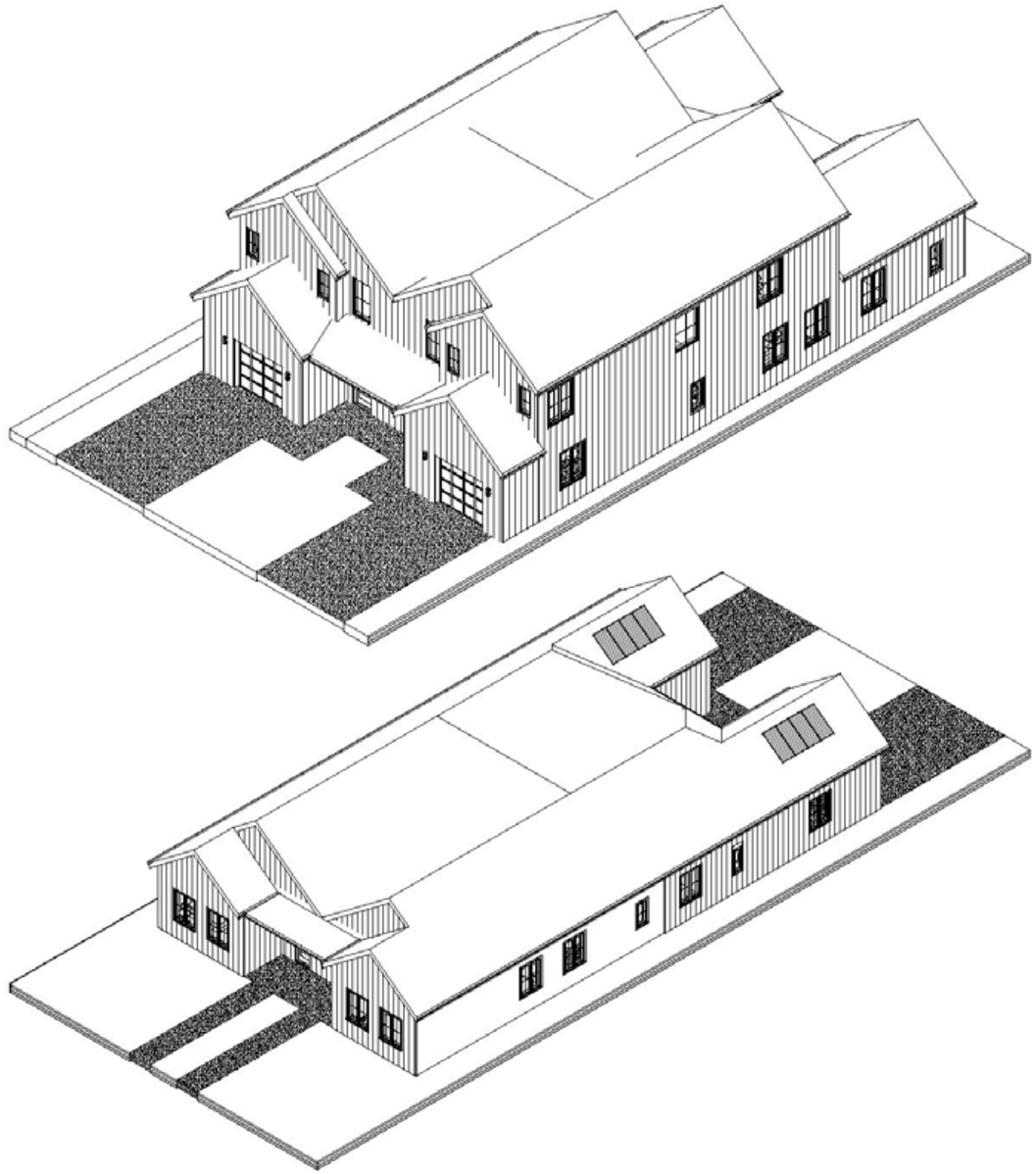
A standout feature is the set of four solar panels installed on each garage roof (four per unit), positioned for optimal sunlight exposure throughout the day, ensuring maximum efficiency.

South Elevation



Adaptation

Here are further examples showcasing how this duplex embraces versatility in its design. From the outset, flexibility was a core goal, and as a result, the duplex can be reconfigured in numerous ways to meet different needs and contexts. Depending on the lot size, surrounding features, and specific preferences, the duplex can easily adapt to include either two-story or single-story units, and it can also offer options for either a single-car garage or a two-car garage. Despite these changes, the essential universal design principles that ensure accessibility and functionality are always maintained. This adaptability responds primarily to builders who might want to alter a design but may not have a clear direction on how to do so. The duplex design acts as a flexible template or guide, offering inspiration and practical solutions for creating diverse housing options that suit a variety of circumstances. By offering this level of customizability, the design enhances the potential for the duplex to meet both current needs and future demands, all while ensuring ease of use and accessibility for residents.

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