

Port of Kennewick Commission Chambers will be open to the public during Commission Meetings.
However, the Port will continue to use GoToMeeting to provide remote access,
and Commissioners and the Port team will attend remotely.

To participate and make public comments remotely, please call in at: 1-877-309-2073, Access Code: 956-742-285

Or, join on-line at the following link: <https://meet.goto.com/956742285>

AGENDA

***Port of Kennewick
Regular Commission Business Meeting
Port of Kennewick Commission Chambers (via GoToMeeting)
350 Clover Island Drive, Suite 200, Kennewick Washington***

January 24, 2023
2:00 p.m.

- I. CALL TO ORDER**
- II. ANNOUNCEMENTS AND ROLL CALL**
- III. PLEDGE OF ALLEGIANCE**
- IV. PUBLIC COMMENT** *(Please state your name and address for the public record)*
- V. CONSENT AGENDA**
 - A. Approval of Direct Deposit and ePayments January 17, 2023
 - B. Approval of Warrant Register Dated January 24, 2023
 - C. Approval of Regular Commission Meeting Minutes January 10, 2023
- VI. REPORTS, COMMENTS AND DISCUSSION ITEMS**
 - A. Vista Field Update
 - 1. Parcel Update (**AMBER**)
 - 2. Missing Middle Housing (**LARRY**)
 - B. City of Kennewick Draft Memorandum of Understanding (**TIM**)
 - C. Commission Meetings (formal and informal meetings with groups or individuals)
 - D. Non-Scheduled Items
(**LISA/BRIDGETTE/TANA/NICK/LARRY/AMBER/MIKE/CAROLYN/TIM/KEN/TOM/SKIP**)
- VII. PUBLIC COMMENT** *(Please state your name and address for the public record)*
- VIII. ADJOURNMENT**

PLEASE SILENCE ALL NOISE MAKING DEVICES



PORT OF KENNEWICK REGULAR COMMISSION MEETING

DRAFT

JANUARY 10, 2023 MINUTES

Commission Meeting recordings, with agenda items linked to corresponding audio, can be found on the Port's website at: <https://www.portofkennewick.org/commission-meetings-audio/>

Commission President Skip Novakovich called the Regular Commission Meeting to order at 2:00 p.m. via GoToMeeting Teleconference.

ANNOUNCEMENTS AND ROLL CALL

The following were present:

Board Members: Skip Novakovich, President (via telephone)
Kenneth Hohenberg, Vice President (via telephone)
Thomas Moak, Secretary (via telephone)

Staff Members: Tim Arntzen, Chief Executive Officer (via telephone)
Tana Bader Inglima, Deputy Chief Executive Officer (via telephone)
Larry Peterson, Director of Planning
Amber Hanchette, Director of Real Estate and Operations (via telephone)
Nick Kooiker, Chief Finance Officer (via telephone)
Mike Boehnke, Director of Operations (via telephone)
Lisa Schumacher, Special Projects Coordinator
Carolyn Lake, Port Counsel (via telephone)

PLEDGE OF ALLEGIANCE

Larry Peterson led the Pledge of Allegiance.

PUBLIC COMMENT

No comments were made.

CONSENT AGENDA

- A. *Approval of Direct Deposit and E-Payments Dated December 16, 2022***
Direct Deposit and E-Payments totaling \$71,220.44
- B. *Approval of Direct Deposit and E-Payments Dated December 30, 2022***
Direct Deposit and E-Payments totaling \$98,592.23
- C. *Approval of Warrant Register Dated December 30, 2022***
Expense Fund Voucher Number 104365 through 104398 for a grand total of \$162,113.93
- D. *Approval of Warrant Register Dated January 10, 2023***
Expense Fund Voucher Number 104399 through 104418 for a grand total of \$124,852.63
- E. *Approval of Regular Commission Meeting Minutes December 13, 2022***

MOTION: *Commissioner Hohenberg moved to approve the Consent Agenda as presented; Commissioner Moak seconded. With no further discussion, motion carried unanimously. All in favor 3:0.*

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REPORTS, COMMENTS AND DISCUSSION ITEMS

A. *Personnel Update*

Mr. Arntzen reported that he has split the Real Estate and Operations department into two separate departments. Ms. Hanchette will continue to be the Director of Real Estate and Mr. Boehnke will take on the Director of Operations department. This will allow Ms. Hanchette to focus on real estate projects and Vista Field.

Mr. Boehnke is excited about the opportunity and reported that the Port hired Ryan Bailey as a new maintenance technician.

Mr. Arntzen would like to organize some walking tours with the Maintenance team and each Commissioner.

Commissioner Moak would like to do it as an Open Public Meeting with all three Commissioners present. He believes it would enhance the walking tour for everyone to see the same vision and receive the same information.

Commissioner Novakovich asked Mr. Arntzen to confer with Ms. Scott on scheduling and the logistics of a Meeting.

Mr. Arntzen will discuss scheduling a Meeting and report back to the Commission.

B. *Clover Island*

1. *Yacht Club Marina Update*

Ms. Hanchette updated the Commission on the Yacht Club fire in December 2022. The Department of Ecology has taken a lead role and the Port has taken on a support role. The Department of Ecology would like to continue to boom the boathouse area until the remaining boat can be removed from the water. They have given the Port the green light to open the harbor up, which was boomed from A Dock to the Levy. Additionally, they have given instruction to Clean Harbors to work with Port staff to remove the booms. Once that has been completed, the Port will be able to open the boat launch.

The Commission thanked the Operations team for their quick response and support to the assisting agencies.

2. *Stage Concepts*

Mr. Arntzen stated the stage project at Clover Island is addressed in the 2023-2024 Work Plan and Budget and the 2023-2024 CEO Goals and Objectives. The Clover Island Inn has hosted a summer concert series for over a decade, which brings 100's of people to the island weekly and has been quite successful. Mr. Arntzen has been working with Clover Island Inn and on January 17, 2023, staff will be meeting with Bill Lampson and members of the Clover Island Inn team and a local architecture firm to discuss possible stage location and elements. This will give staff a better direction of where we are going. Mr. Arntzen hopes to have a conceptual drawing, possible cost and funding scenarios by late spring for Commission review.

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Commissioner Hohenberg shared his excitement at the time frame and stated the amenities on the island make it a first-class destination.

Commissioner Novakovich stated the Port has discussed a stage at the east end of the island and would like to see it come to fruition.

C. *Vista Field Amenities*

Ms. Bader Inglima stated over the last few decades the Commission has made catalyst investments to Port properties, such as the Clover Island Lighthouse. At Vista Field, we have created a unique linear water feature and promenade, but nothing visual from a distance. Ms. Bader Inglima shared several project ideas from the community master planning process:

- The late Doug Gast's family shared a the concept of a "Quaking Aspen trees" art installation with glass and engraved metal leaves in tribute to the late WSU professor and local artist;
- The Silas Project, whereby a series of art installations would be placed in complement to the solar system with a Mars artwork possibly located at Vista Field—because Mars pathway travels very close to what we have identified as the Daybreak Commons area;
- The City of Kennewick is interested in having the Port help them locate a series of metal salmon that were removed during Canal Drive improvements and perhaps place them in the stream at Vista Field;
- Creating a mural on the side of the Hangar at Deschutes and Crosswind Boulevard showcasing a tie to the aviation history of Vista Field;
- Covering the utility boxes with artistic wraps;
- Mark Showalter presented the aviation history of Vista Field to Commission, there was interest expressed in perhaps installing a warbird type plane on a pole or other structure to showcase Vista Field's use as a former airfield and its ties to WWII aviation training.

Mr. Arntzen referenced Mr. Showalter's report and PowerPoint from last year on the history of Vista Field during World War II. Mr. Arntzen located two Avengers in the Midwest and believes we could work with the owner to create a static display, should the Commission pursue the idea of adding a warplane to Vista Field.

Commissioner Novakovich is in full support of adding an iconic element such as the Avenger and stated we need to preserve the history of Vista Field.

Commissioner Moak thinks is a great idea at some point but believes there are variety of items that need to be completed before considering this project, such as: the hangar remodel, selling properties, creating vibrancy, and the parking structure/lots. This project is not in the 2023-2024 Work Plan and Budget or the CEO Goals, and Commissioner Moak believes it could take a lot of time and effort away from the priorities established as a Commission. Commissioner Moak likes the ideas that Ms. Bader Inglima presented, which are not big items that could disrupt the things we need to complete and he is not in favor of moving forward today.

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Commissioner Hohenberg believes Vista Field represents the servicemen in training who helped defend this country; and the Port has a responsibility to capture the history and enhance Vista Field. Mr. Arntzen is only requesting to explore the idea at this point and Commissioner Hohenberg is fully supportive of this.

Commissioner Novakovich stated we need to take advantage of opportunities and believes it would be a setback if we let this go. The majority is to move forward and explore further without sacrificing items in Work Plan.

D. CEO Update

1. Port Related Travel

Mr. Arntzen stated Port staff have not traveled the past few years due to COVID and only allowed to travel on a case-by-case basis. Mr. Arntzen is considering modifying the travel procedures to allow for travel by car for Port related business. In the past Port staff and a Commissioner have traveled to view projects that offer valuable insight into Port operations and Mr. Arntzen is considering authorizing some regional trips.

The Commission supports this and believes it is important to see communities that are doing similar things or use as springboard for ideas.

Ms. Lake suggested Mr. Arntzen add the Port of Camas-Washougal to the list of communities to visit.

2. 2023 Forecast

Mr. Arntzen presented a memo (*Exhibit A*) that looks back at what the Port has accomplished and a look ahead at what future projects lie ahead.

3. Succession Planning

Mr. Arntzen stated it is important to address succession planning early for retiring CEO and directors. The Commission has the sole discretion to decide whom to hire to replace the retiring CEO; and that can either be done from within the organization, or through a consultant. Mr. Arntzen would like to provide the opportunity for directors to learn the CEO role with the goal of future executive leadership.

Commissioner Moak supports succession planning for directors, as they are key players in a small organization and possibly cross training. Commissioner Moak believes working with a consultant would be good.

Commissioner Hohenberg agrees with Commissioner Moak's comments; however, he would like to work from within the organization.

Commissioner Novakovich approves of the plan and believes Mr. Arntzen would be a great mentor.

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4. *Local Delegated Authority Under Resolution 2020-06*

Mr. Arntzen reported that a Port employee may have been exposed to a person with COVID, therefore he modified the procedure for employee protocol and the auto policy to permit the employee to park a Port owned vehicle at his house and work remotely until this issue is resolved.

E. *Water Rights Update*

Mr. Peterson reported when the Port sold the West Richland Racetrack property and Oak Street property, we retained the water rights. In 2019 the Port discussed possibly transferring some of the water rights to Benton County for the fairgrounds and Vista Field. The Port has been working with a water rights specialist and found that the West Richland water rights are very complex. The Port found the Oak Street water rights, which are geographically closer to the fairgrounds and Vista Field, are far less complex. Staff will continue to work with the specialist to assess the water rights we actually have, and Mr. Peterson anticipates presenting a report for direction related to water rights to the Commission at a later date. Mr. Peterson stated the former agreement with Benton County expired, therefore, the Commission may consider entering into a new transfer agreement outlining all the specific terms related to the fairground water transfer. Once the Oak Street water rights are completed, the specialist will go back and review the West Richland Racetrack property to assess what the Port has and what can be done with those water rights.

Commission discussion commenced regarding water rights.

F. *State of the Ports Luncheon*

Ms. Bader Inglima reported the Tri City Chamber of Commerce State of the Port Luncheon will not be held this February. The Chamber would like to hold the Luncheon at the Three Rivers Convention Center and is searching for a date.

G. *Commissioner Meetings (formal and informal meetings with groups or individuals)*

Commissioners reported on their respective committee meetings.

H. *Non-Scheduled Items*

Ms. Bader Inglima reported that a peregrine falcon has been spotted on Clover Island. The falcon is the world's fastest animal and has created quite a stir in our community because it is typically not seen in this area.

Mr. Arntzen shared that Port staff has been working diligently with the Yacht Club and other agencies regarding the boathouse fire. This was a significant event that will have long lasting impacts and Mr. Arntzen tried to emphasize to the Yacht club members that the Port will be as helpful as humanly possible. Mr. Arntzen stated in the past, the Commission has been helpful allowing new boathouses to be constructed on the shoreline and indicated that two boathouses will need to be rebuilt.

Commissioner Novakovich reported that Summer Yates, Kandy Yates' daughter, is one of the top draft picks for the National Women's Soccer League that will occur this Thursday. Ms. Yates was

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featured on National Women's Soccer League website, stating “the forward earned her fourth-straight honor as she was selected to the All-Pac-12 First Team and led the team in scoring. En route to pursuing a professional career, Yates also set a Huskies all-time record in the appearances category as her 93 games played also saw her reach third all-time in points.” Please congratulate Summer on her accomplishments and the draft will be airing on CBS Sports Network, Paramount+ and CBS Sports HQ, beginning at 3:00 p.m. on Thursday, January 12, 2023.

PUBLIC COMMENTS

Cal Coie, Kennewick. Mr. Coie thanked Mr. Arntzen for his comments regarding the Yacht Club and thanked those that are looking forward to possibly placing an airplane at Vista Field. Mr. Coie thinks it is an excellent idea and stated he has been to the Pima Air and Space Museum in Tucson twice, and it is fantastic. Plus, those of us that are old enough to remember and be part of World War II, need to educate the younger generation of the great circumstances that happened during the War.

Mark Showalter, Richland. Mr. Showalter congratulated Mr. Arntzen on locating two Avengers and stated only 9,839 were manufactured during War by Ramen and General Motors. It is a rare plane and Mr. Showalter estimated there are only 75-100 remaining. If the Commission were to bring an Avenger to Vista Field, it would be a rarity. If the Avenger is on the ground at Vista Field one day, it has a wingspan of 54 feet and is 41 feet long and would be an impressive sight if the Port can make it happen.

COMMISSION COMMENTS

No comments were made.

ADJOURNMENT

With no further business to bring before the Board; the meeting was adjourned 3:53 p.m.

APPROVED:

**PORT of KENNEWICK
BOARD of COMMISSIONERS**

Skip Novakovich, President

Kenneth Hohenberg, Vice President

Thomas Moak, Secretary

Memorandum

To: Commission

From: Tim Arntzen

Date: January 10, 2023

Re: A Look Back; A Look Ahead

The primary purpose of this memo is to share my personal work-related vision for the new year. While the intent of this memo is to function as a guide for future actions, it is also helpful to briefly look back—to look at significant accomplishments from last year. *Remembering what we have accomplished as a unified team will help push us forward.*

The Past. First and foremost, we *onboarded a new commissioner*. This has made a huge difference. Below is a concise list of some of the port’s accomplishments from 2022:

- A Vista Field “grand opening,” featuring six hundred attendees with rave reviews by the media, the public, and investment partners.
- Completion of the Vista Field Hangar Analysis for the hangars and the southern gateway, with a grant application forwarded to the Benton County commission.
- Collaborated with USACE to implement the Clover Island shoreline restoration project.
- Successfully brought resolution to the challenging “Governance Audit.”
- Managed successful resolution to the Kiwanis playground project proposed for Columbia Gardens.
- Oversaw design and bidding of the Columbia Gardens Wayfinding Signage project.
- Produced a report investigating options for a new maintenance facility.
- Completed the first private sector land sale at Columbia Gardens.
- Researched the implications of and evaluated community feedback related to Clover Island Inn “micro” housing proposal.
- Managed overall operations, ensuring smooth and efficient operations, a continuation of meeting customer needs and completing projects during COVID remote work restrictions.
- Managed the port as a highly productive, successful, fiscally-sound organization—ensuring transparent public engagement via virtual meetings.
- Adopted the biennial work plan and budget which met statutory deadlines for annual levy certification and tax capacity.
- Coordinated a *redistricting process* using an independent consultant to evaluate and propose revised commission district boundaries, with no complaints filed.

- Held successful “vine cutting” event to celebrate investment partners and highlight parcels for sale at Columbia Gardens.
- Managed expanded contract with vibrancy consultant for Columbia Gardens to work with food trucks and wineries and coordination of four “Summer Saturday Markets,” generating substantial exposure for the wine & artisan village.
- Adopted amended delegation of authority documents.

The Future. We will be busy in 2023. While preparing and working on items on my list, I will remain focused on the adopted work plan and the Goals and Objectives established by the commission. And while some items I identify below are, in fact, included in those documents, some are not. Here is what I think I will need to focus on in 2023:

1. Assist team members with follow up on letters of intent for land purchases at Vista Field.
2. Assist with the separation of the operations department from the real estate department. This will include playing a supporting role for each director as they learn and administer the nuances of their respective (new) departments.

3. Continue to interface with the commission:

This includes establishing and maintaining a regular dialog with me sharing my observations with the commissioners and the commission as a whole. This also includes me listening to the commissioners, which enables me to get a sense of what things each individual commissioner feels are important. Interfacing with the commission also includes me acting as the conduit between the employees and the commission, and the sharing of ideas in both directions.

This also includes acting as a liaison with our many economic development partners including the Cities, County, CTUIR, federal, state and local regulators, TRIDEC, membership associations, and grant agencies. This includes regular communications, relationship-building, and visioning as necessary to “scan the horizon” and bring information to Commission related to how these many organizations and port interests might align.

4. Working with employees and the commission to welcome and onboard new staff (whether that is one or more). As well as researching and transitioning staff in the “return to office” including strengthening camaraderie, sustaining employee morale, and ensuring the port’s ethical, transparent, productive, public-service culture remains strong.
5. Keeping the commission’s Goals and Objectives at the top of my list at all times, guiding the institution toward goal attainment, yet not allowing “other” matters to fade from view.

6. Avoid “potholes”. There are some matters that needlessly soak up a lot of port time and resources. Some matters simply do not need to be addressed, either by the commission or staff. Some matters need addressing, but only minimally so. Other matters look small at the outset but can blossom into something big and ugly if not addressed early. I hope to have the wisdom to differentiate amongst these situations and avoid allocating resources where they could be better used elsewhere.

7. Assist in providing leadership opportunities to deputy director(s). This will help in formulating a succession plan, which is something I will be working on this summer. It is my goal to evaluate and provide the commission with at least one internal candidate for Commission consideration as potential successor CEO when that time comes.

8. Assist employees with the myriad logistical details related to the remodel of the Vista Hangars (if funded by RCCF); and potentially the Vista Field satellite maintenance shop.

9. Assist in moving forward the concept of a Clover Island stage.

Thank you for this opportunity to share my thoughts.

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Memorandum

To: Port Commission
From: Tim Arntzen, POK CEO
Date: January 10, 2023
Re: Succession Planning

At the WPPA Small Ports Conference, there was a presentation related to CEO succession planning that captured the interest of commissioners. Building upon this topic, I would like to share with the commission that I have been informally working on this type of employment planning as we have been expanding our staff and adjusting internal roles and responsibilities.

However, since the Commission has expressed an interest in CEO succession planning, I am considering a more formal approach and working to understand how that process might relate to our port in all positions. If the Commission concurs, I will likely associate with a professional to assist our port in taking a deeper look into this topic. In the meantime, I would like to share with the Commission a few thoughts:

1. Succession planning should be discussed early. A good plan can be in place well in advance of, and to help mitigate for, any transition in employment whether that be from a staff person leaving the company, internal promotion, death, or retirement.
2. A succession plan needs to be more than about the CEO. It should address other positions that may experience retirement or transition in the near future (3-5 years).
3. It is within the sole discretion of the Commission as to whom it hires to replace a retiring CEO. And it is up to the CEO to hire staff to fill positions when they become vacant including anticipating future retirements.
4. Recognizing the above, the Commission has two choices when hiring a successor CEO. It could undertake a search for a candidate outside of the organization; or it could look within the organization for a candidate.
5. A successful CEO, operating in a successful organization, should be working to mentor, mature, coach, and cultivate employee skills so as to be able to recommend at least one internal candidate for the Commission to consider as a successor CEO.
6. For several years now, I have discussed this concept with the directors. I have provided a number of employees with opportunities to learn my role. And I have discussed my approach to interfacing with the Commission and have shared my rationale for decision making.



Right: Missing Middle housing types have historically been integrated into neighborhoods side-by-side with single-family homes.

Smaller, well-designed units

One of the most common mistakes by architects or builders new to the urban housing market is trying to force suburban unit types and sizes into urban contexts and housing types. The starting point for Missing Middle Housing needs to be smaller-unit sizes; the challenge is to create small spaces that are well designed, comfortable, and usable. As an added benefit, smaller-unit sizes can help developers keep their costs down, improving the pro-forma performance of a project, while keeping the housing available to a larger group of buyers or renters at a lower price point.

Off-street parking does not drive the site plan

The other non-starter for Missing Middle Housing is trying to provide too much parking on site. This ties back directly to the fact that these units are being built in a walkable urban context. The buildings become very inefficient from a development potential or yield standpoint and shifts neighborhoods below the 16 du/acre density threshold, as discussed above, if large parking areas are provided or required. As a starting point, these units should provide no more than one off-street parking space per unit. A good example of this is newly constructed mansion apartments in the new East Beach neighborhood in Norfolk, VA. To enable these lower off-street parking requirements to work, on-street parking must be available adjacent to the units. Housing design that forces too much parking on a site also compromises the occupant's experience of entering the building or "coming home" and the relationship with its context, especially in an infill condition, which can greatly impact marketability.

Simple construction

The days of easily financing and building complicated, expensive Type I or II buildings with podium parking are behind us, and an alternative for providing walkable urban housing with more of a simple, cost-effective construction type is necessary in many locations. *What's Next* states, "Affordability—always a key element in housing markets—is taking on a whole new meaning as developers reach for ways to make attractive homes within the means of financially constrained buyers." Because of their simple forms, smaller size, and Type V construction, Missing Middle building types can help developers maximize affordability and returns without compromising quality by providing housing types that are simple and affordable to build.

Creating community

Missing Middle Housing creates community through the integration of shared community spaces within the types, as is the case for courtyard housing or bungalow courts, or simply from the proximity they provide to the community within a building and/or the neighborhood. This is an important aspect, in particular within the growing market of single-person households (which is at nearly 30% of all households) that want to be part of a community. This has been especially true for single women who have proven to be a strong market for these Missing Middle housing types, in particular bungalow courts and courtyard housing.

Marketability

The final and maybe the most important characteristic in terms of market viability is that these housing types are very close in scale and provide a similar user experience (such as entering from a front porch facing the street versus walking down a long, dark corridor to get to your unit) to single-family homes, thus making the mental shift for potential buyers and renters much less drastic than them making a shift to live in a large mid-rise or high-rise project. This combined with the fact that many baby boomers likely grew up in similar housing types in urban areas or had relatives that did, enables them to easily relate to these housing types.

This is a call for architects, planners, and developers to think outside the box and to begin to create immediate, viable solutions to address the mismatch between the housing stock and what the market is demanding—vibrant, diverse, sustainable, walkable urban places. Missing Middle housing types are an important part of this solution and should be integrated into comprehensive and regional planning, zoning code updates, TOD strategies, and the business models for developers and builders who want to be at the forefront of this paradigm shift.

The market is waiting. Will you respond?

Dan Parolek is principal of Opticos Design, Inc. an architecture and urban design firm with a passion for vibrant, sustainable, walkable urban places. This article originally appeared on Logos Opticos: Composing Vibrant Urban Places.

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MISSING MIDDLE Housing

By Daniel Parolek

Responding to the Demand for Walkable Urban Living

The mismatch between current US housing stock and shifting demographics, combined with the growing demand for walkable urban living, has been poignantly defined by recent research and publications by the likes of Christopher Nelson and Chris Leinberger, and most recently by the Urban Land Institute's publication, *What's Next: Real Estate in the New Economy*. Now it is time to stop talking about the problem and start generating immediate solutions! Are you ready to be part of the solution?

Unfortunately, the solution is not as simple as adding more multifamily housing stock using the dated models/types of housing that we have been building. Rather, we need a complete paradigm shift in the way that we design, locate, regulate, and develop homes. As *What's Next* states, "It's a time to rethink and evolve, reinvent and renew." Missing Middle housing types, such as duplexes, fourplexes, bungalow courts, mansion apartments,

Above: Missing Middle Housing types like these stacked duplexes in Habersham, SC, achieve medium-density yields and are easily integrated into existing single-family neighborhoods (Photo: Bob Taylor).

MissingMiddleHousing.com is a new online resource for planners and developers seeking to implement Missing Middle projects. Discover examples and analysis, as well as information on how to integrate these types into existing neighborhoods, how to regulate them, and the market demographic that demands them.



Responding to the Demand for Walkable Urban Living

and live-work units, are a critical part of the solution and should be a part of every architect's, planner's, real estate agent's, and developer's arsenal.

Well-designed, simple Missing Middle housing types achieve medium-density yields and provide high-quality, marketable options between the scales of single-family homes and mid-rise flats for walkable urban living. They are designed to meet the specific needs of shifting demographics and the new market demand, and are a key component to a diverse neighborhood. They are classified as "missing" because very few of these housing types have been built since the early 1940s due to regulatory constraints, the shift to auto-dependent patterns of development, and the incentivization of single-family home ownership.

Characteristics of
Missing Middle Housing

A walkable context

Probably the most important characteristic of these types of housing is that they need to be built within an existing or newly created walkable urban context. Buyers or renters of these housing types are choosing to trade larger suburban housing for less space, no yard to maintain, and proximity to services and amenities such as restaurants, bars, markets, and often work. Linda Pruitt of the Cottage Company, who is building creative bungalow courts in the Seattle area, says the first thing her potential customers ask is, "What can I walk to?" So this criteria becomes very important in her selection of lots and project areas, as is it for all Missing Middle Housing.

Medium density but lower perceived densities

As a starting point, these building types typically range in density from 16 dwelling units per acre (du/acre) to up to 35 du/acre, depending on the building type and lot size. It is important not to get too caught up in the density numbers when thinking about these types. Due to the small footprint of the building types and the fact that they are usually mixed with a variety of building types, even on an individual block, the perceived density is usually quite lower—they do not look like dense buildings.

A combination of these types gets a neighborhood to a minimum average of 16 du/acre. This is important because this is generally used as a threshold at which an environment becomes transit-supportive and main streets with neighborhood-serving, walkable retail and services become viable.

Small footprint and blended densities

As mentioned above, a common characteristic of these housing types are small- to medium-sized building footprints. The largest of these types, the mansion apartment or side-by-side duplex, may have a typical main body width of about 40 to 50 feet, which is very comparable to a large estate home. This makes them ideal for urban infill, even in older neighborhoods that were originally developed as single-family but have been designated to evolve with slightly higher intensities. As a good example, a courtyard housing project in the Westside Guadalupe Historic District of Santa Fe, NM, sensitively incorporates six units and a shared community-room building onto a quarter-acre lot. In this project, the buildings are designed to be one room deep to maximize cross ventilation/passive cooling and to enable the multiple smaller structures to relate well to the existing single-family context.



Clockwise from top left: A live/work unit designed by Opticos in Buena Vista, CO; a bungalow court opposite single-family homes in Alameda, CA; a key characteristic of Missing Middle Housing is smaller, well-designed units (Photo: Courtesy of The Cottage Company).

This diagram of Missing Middle Housing shows the spectrum of building types between single-family homes and mid-rise buildings important for meeting current housing and market demands.





Discovering and Developing Missing Middle Housing



TOWNHOUSE



DUPLEX



MANSION APARTMENT

- What it is
- Where it went
- And why it's a needed housing option for people of *all* ages

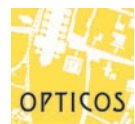


ACCESSORY DWELLING UNIT



COTTAGE COURT

SEE MORE HOME TYPES INSIDE!





AARP is the nation’s largest nonprofit, nonpartisan organization dedicated to empowering people 50 or older to choose how they live as they age. With nearly 38 million members and offices in every state, the District of Columbia, Puerto Rico and the U.S. Virgin Islands, AARP strengthens communities and advocates for what matters most to families, with a focus on health security, financial stability and personal fulfillment.

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AARP Livable Communities

The AARP Livable Communities initiative supports the efforts of local leaders and residents throughout the nation to make their communities more livable and age-friendly. Among the initiative’s programs are the AARP Community Challenge, an annual grant-funding effort to support projects that build momentum for local change, and the AARP Network of Age-Friendly States and Communities.

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Opticos Design

Founded in 2000 on the belief that walkable places are critical for healthy, resilient and equitable communities, Opticos is a team of urban designers, architects and strategists focused on finding new solutions to the most challenging housing and community issues of our time. Opticos introduced the concept of Missing Middle Housing and is a leader in the development of form-based coding, a mixed-use and walkability-supportive type of zoning. As a founding B Corporation, Opticos is committed to operating with a focus on social, environmental and economic responsibility.

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What Is Missing Middle Housing — and Where Did It Go?

Across the United States, there is a mismatch between the available housing stock and what the market wants and needs.

As a nation, we need a shift in how homes are designed and developed. So-called Missing Middle Housing is a critical part of the solution.

Architect and urban designer Daniel Parolek is the founder of Opticos Design and a frequent contributor to AARP. He coined the term “Missing Middle” to describe a set of residential building types that exist in the middle of the continuum between detached single-family houses and large apartment buildings.

Such midsized, often moderately priced homes are referred to as

missing because very few have been built in the U.S. since the early 1940s. The shortage is largely due to zoning constraints, the shift to car-centric patterns of development, and the challenges of financing multiunit dwellings.

That’s a problem, because the benefits of this largely missing housing type abound:

- Missing Middle homes provide the size and affordability options that people of all ages — including older adults — very much need but often can’t find.
- Since Missing Middle dwellings are house-scale, the design and size of the buildings fit comfortably among detached single-family houses.

- When a classic but too-large historic home is converted into a multiunit Missing Middle-style residence, the housing type can help preserve existing houses as well as an area’s look and feel.
- The housing type can enable family members to live with or near one another while having their own space or residence. (Find more benefits on page 4.)

Discovering and Developing Missing Middle Housing provides local leaders, building and planning professionals, and involved community members with information about what Missing Middle Housing is — and why it’s time to return this versatile residence type to America’s housing portfolio. ■

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▼ Turn the page to learn about this Missing Middle streetscape.

The Characteristics of Missing Middle Housing

Because Missing Middle homes are house-scale, they typically look like and are the size of a single-family dwelling. But inside, the house contains multiple homes. Among the Missing Middle home type's other characteristics and qualities:

- The buildings fit seamlessly into neighborhoods, either because similar housing types already exist in the community or because the homes are designed and constructed to preserve or complement the streetscape's appearance and character.
- The house-sized, multiunit structures can provide a neighborhood or community with a wider range of housing options, at various price points.
- The housing types fit within — and help to generate — walkable, place-based neighborhoods with community amenities that become an extension of people's homes and serve as shared spaces where neighbors can safely get out and about and gather.
- The homes can accommodate people of all ages, physical abilities and life stages.



Residential development since the mid-20th century has focused on the creation of detached single-family homes or large apartment buildings. The hard-to-find housing options in between are the “Missing Middle.”

The AARP Home and Community Survey consistently finds that most Americans, including older adults, prefer to live in neighborhoods that offer a mix of housing and transportation options and are close to jobs, schools, shopping, entertainment and green spaces.

These preferences — coupled with the rapid aging of the U.S. population overall, the decrease in households with children and the national housing shortage — will likely boost the demand for smaller homes and affordable, quality rental housing in amenity-rich locations.

A neighborhood that includes Missing Middle Housing is well-positioned to respond. ■

An important point: Walkability is key to the benefits provided by Missing Middle Housing. With stores, services and eateries within walking distance of where people live, local businesses can thrive and car ownership by residents can be optional, thus reducing the need for a community or developer to provide parking. That, in turn, helps reduce the costs for all involved. (Learn more on pages 4 and 26.)



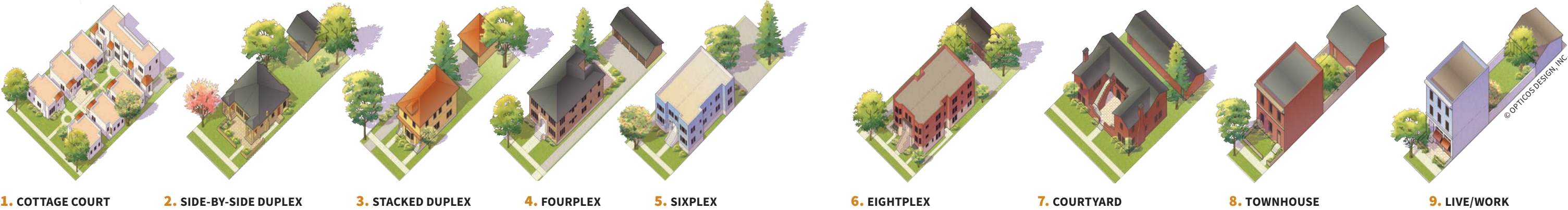
PHOTOS: OPTICOS DESIGN (2)

Up until the 1940s, small, multiunit buildings (such as the Alameda, California, fourplex pictured here) were commonly built on standard lots within neighborhoods to provide housing for moderate-income individuals and families.



Historic Missing Middle Housing examples (like this side-by-side duplex home in New Orleans, Louisiana) often have the same level of architectural refinement as single-family houses from the same era.

A Missing Middle Housing Sampler



Benefits of Missing Middle Housing

The word “middle” as used in the term “Missing Middle Housing” principally refers to the midsized housing types that exist between single-family homes and large (often high-rise) apartment or condominium buildings. But “middle” also relates to the home type’s level of affordability.

Because Missing Middle residences have historically delivered attainable housing choices for people earning 60 percent or more of an area’s median income, they are a practical and needed middle income and workforce housing option. The size and cost of Missing Middle units also benefit older adults, including empty nesters looking to downsize.

A caveat: The affordability or even attainability of Missing Middle Housing — for developers and buyers — is only possible where land and real estate prices haven’t become so inflated that building or purchasing a home is financially prohibitive.

BENEFIT: Affordability by Design

Missing Middle Housing increases supply and supports walkable living by using land efficiently; providing small yet spacious residences; employing simple, lower-cost-but-still-quality construction

methods; reducing the reliance on car ownership; and, often, providing income opportunities for owners.

All these factors result in a housing choice that is more attainable for buyers and renters than most detached single-family houses.

BENEFIT: Reduced Transportation Costs

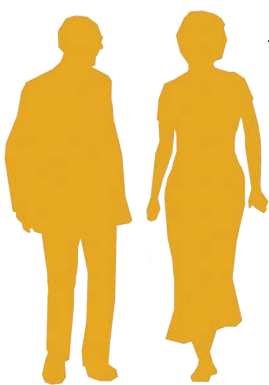
Parking is expensive.

“It costs thousands of dollars per stall to build. It occupies valuable real estate. It is ubiquitous, accompanying nearly every building built across the United States,” says *ReinventingParking.org*. “Yet at nearly every destination, drivers don’t directly pay for the parking they use. Instead, the cost is hidden, bundled into the grocery bill, benefits package, and rent of every shopper, employee, and tenant.”¹

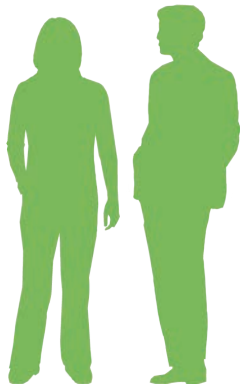
For an apartment dweller, a parking spot adds an average cost of \$225 per month.² According to *HomeAdvisor.com*, the cost to pave a parking lot can range from \$10,000 for a 10-car space to \$700,000 for a 300-car area.³ The cost to build a parking garage ranges from \$7 million to \$12 million, reports *Fixr.com*.⁴



I live alone. I feel safe in my neighborhood, which is active and walkable. I'm close to my gym, a small grocery store and a great coffee shop. My office is an easy bike ride away. My studio apartment is perfect for me and lets me save for my future.



We are retirees. We're so glad we can remain in our longtime neighborhood after downsizing from the large home where we raised our children.



We're a couple. We share a one-bedroom apartment in a lively neighborhood where we can walk to shops, restaurants and even our jobs!

I'm a single father. I appreciate living in a neighborhood where my child can play at a local park — and I don't need to care for a big house and yard on top of solo parenting.



Added to the costs shouldered by residents is the expense of owning and operating a car in the United States, which according to AAA is nearly \$10,000 a year.⁵ Since Missing Middle Housing is inextricably tied to walkable places — and, often, public transit options — the need for a car and parking can be reduced or outright eliminated. (See page 26 for more.)

BENEFIT: Shared Land Costs

When a multiunit residence or development is placed on the same-sized lot as a single-family home, land costs can be divided among multiple households. As a result, it's often less expensive to purchase the individual unit than a single-family home of the same overall size and quality of construction.

BENEFIT: Smart Land Use

Since Missing Middle homes vary in size and can be quite small, they are able to fit on small plots of land and can more easily work around a location's trees and natural topography. The home type is especially useful for infill lots, which are undeveloped or now-vacant plots of land in otherwise developed locations.

Filling infill and other small lots with Missing Middle Housing achieves big change through small contributions. The incremental creation of such

homes can add significant numbers of affordable, locally owned housing units. Because small residential lots can provide business opportunities for local, smaller-scale builders and developers, they empower residents and small businesses to build equity and benefit from improvements to a neighborhood and the broader community.

BENEFIT: Income, Equity and Empowerment

High housing costs and decades of discriminatory practices (such as restrictive ordinances and mortgage redlining against minority groups) have denied home ownership to many Americans.

Because the entry-level purchase cost is less than a single-family home, Missing Middle Housing types can provide people of various incomes and experiences the opportunity to live in quality housing and build equity while doing so.

Since federal home loans can be used to finance buildings with up to four units, buyers can qualify to purchase a Missing Middle building that contains their own unit and up to three other apartments. The rental income can help pay the loan and the owners' own housing costs. Alternatively, a smaller residence can enable an individual or family to buy a starter unit, build equity, and then potentially sell the property to purchase a larger home. ■



▲ Original Missing Middle-style homes from the mid-20th century and earlier still exist in older cities and towns. The quality runs the gamut from historically rich and renovated residences to those in need of repair and modernization. In existing walkable neighborhoods there are opportunities to convert single-family homes into multiple units. In this case, a house in Portland, Oregon, was refurbished and converted into a stacked fourplex. While the pictured project was financed with private funding, affordable housing subsidies and historic preservation funds can be available for these types of projects.



FOR ENDNOTE CITATIONS SEE PAGE 31 | PHOTOS: GARLYNN WOODSONG (2)

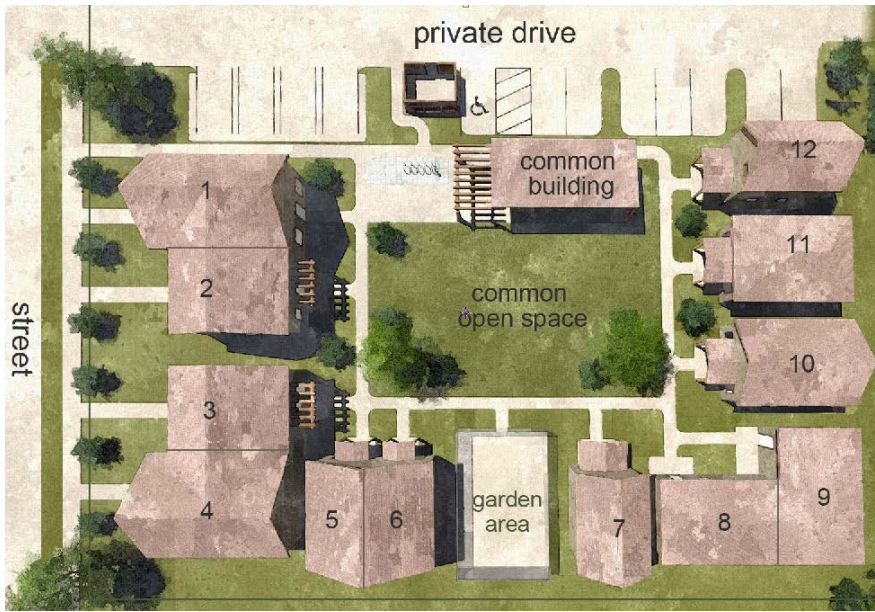
Missing Middle Housing Types

The COTTAGE COURT

Single-unit, cottage court houses are typically 1 to 1½ stories tall and are oriented around a courtyard that serves as an outdoor community space in lieu of rear yards.

Cottage (or bungalow) communities typically have shared parking areas. Many include a common building that can be used for community gatherings or reserved for private parties. Since the homes are small, the developments sometimes offer shared laundry facilities, storage spaces and secondary housing units that can accommodate guests.

This Missing Middle home-type is very compatible with houses in single-family zones. ■



▲ In 2017, the city of Ashland, Oregon, approved an ordinance to allow developments with a minimum of three and a maximum of 12 cottages. Most of the homes must be 800 square-feet or smaller. Allowing one cottage per 2,500 square-feet of lot area, the overall lot size is, at its largest, about one-third of an acre. At least 20 percent of the land must be preserved as common open space.



▲ Located on a 1.37-acre lot in Healdsburg, California, eight detached, two-bedroom homes surround a shared community space.



▲ An attached, side-yard ADU (left, with the red door) and an attached rear-yard ADU (above) in historic Cape May, New Jersey.



▲ An above-garage, backyard ADU in Brevard, North Carolina.



▲ A combination garage-and-interior ADU in Portland, Oregon.

The ACCESSORY DWELLING UNIT

As small houses or apartments on the same property as a single-family residence, accessory dwelling units — commonly referred to as ADUs — play a major role in addressing the national need for smaller homes and affordable, quality rental housing. A traditional home type, ADUs are reemerging as an affordable and flexible housing option that meets the needs of older adults and young families alike.

An ADU can occupy space within the main residence or be built as an addition or freestanding structure. A garage with an ADU is often known as a carriage house, a term once used for a building that housed horse-drawn carriages and stable hands at grander homes. Other names for an ADU include “guest house,” “in-law suite” or “backyard bungalow.”

Unlike the cottage or bungalow court (opposite page), or the other housing types in this publication, an ADU cannot be independently bought or sold. The unit is always part of the property it’s on. However, the accessory (or secondary) dwelling can be used as a separate living space for relatives, guests or rent-paying tenants.

Since ADUs make use of the existing infrastructure and already-developed land, their environmental impact is low. Since they are created out of existing housing, they easily fit a neighborhood’s look.

Many states and local jurisdictions have amended their zoning codes to allow ADUs. Doing so helps increase the supply and diversity of housing in neighborhoods with larger lots. Another benefit of ADUs is that they provide a softer introduction to Missing Middle Housing in areas that have been resistant to anything but single-family homes. ■

See page 10 for more Missing Middle Housing types.

AARP
The ABCs of ADUs
A guide to
Accessory Dwelling Units
and how they expand housing options
for people of all ages



AARP.org/ADUs

Find articles and resources about ADUs, including model legislation, a design guide and *The ABCs of ADUs*, a free, photo-filled, 24-page primer that’s available in print and as a PDF download.

TOP: CITY OF ASHLAND, OREGON, CONCEPTUAL SITE PLAN BY ARKITEK; DESIGN & ARCHITECTURE
BOTTOM: COURTESY CRAFT DEVELOPMENT/PHOTO BY KIM CARROLL, CARROLL CREATIVE

MELISSA STANTON, AARP (4)

Missing Middle Housing and Thriving, Walkable Neighborhoods

A key attraction of Missing Middle Housing is that the properties incorporate features that draw people to neighborhoods with detached single-family homes.

Due to their limited height and small footprint — and the fact that they are usually mixed among a variety of other building types — Missing Middle Housing residences challenge the image normally associated with multifamily housing.

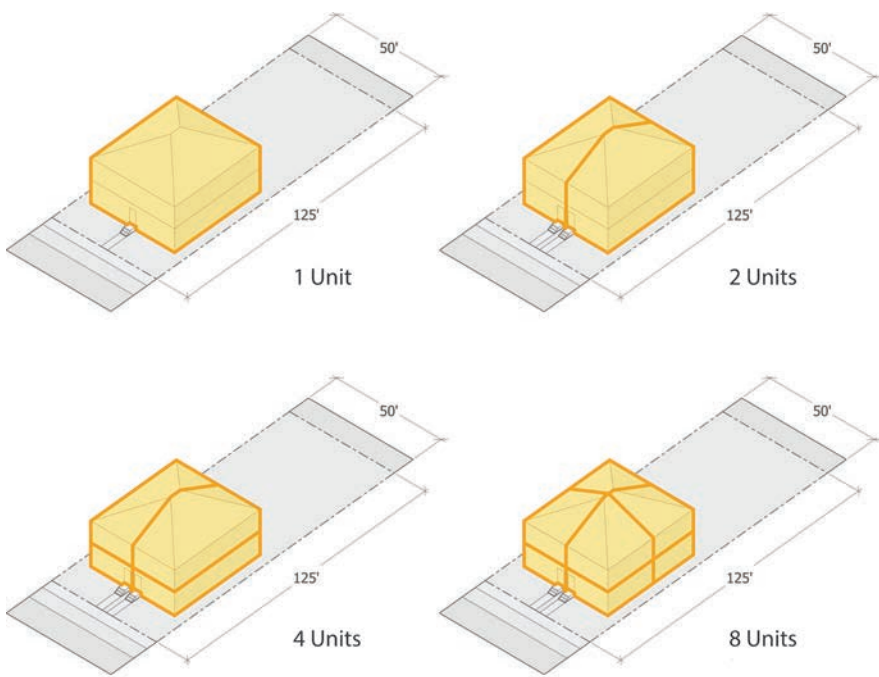
Debunking Density

Conversations can quickly go sour when a discussion turns to the topic of increasing an area’s density.

This response is partly due to associating the term “high density” with large buildings that house dozens, hundreds or even thousands of people. Yet zoning that has a low-density goal is not immune to negative results.

In planning and zoning, the term “density” defines only the *number* of units, not their size. As a result, low-density zoning often leads developers to build the largest houses the market will tolerate in order to maximize their gains. Put another way, there’s more profit in building and selling an oversized \$1 million house than a two-bedroom bungalow.

Regulating by density ignores the fact that many single-family homes are so large that it’s easy to fill the same-sized building with multiple residences that are small, affordable and useful. Another benefit is that,



▲ The diagram shows how a differing number of housing units can fit within a residential building without changing the dwelling’s overall size or placement on a 6,250-square-foot lot.



◀ In this site plan, five cottage-style homes (of about 650 square-feet each) fit on a 14,976-square-foot (or .34 acre) lot.

when more people are housed, a community’s tax base expands, which helps fund public services (parks, police, libraries, schools). The residents also add to the customer base needed to support the types of thriving, commercially successful Main Streets and downtowns that

people of all ages, life stages and income levels desire.

Enabling housing that modestly increases density, rather than regulating or restricting higher density, is essential to meeting the pent-up desire for safe and economical walkable living.

Rethinking Zoning

Many of the neighborhoods that are home to Missing Middle Housing types were built prior to the advent of zoning in the early 1900s. The creation of new Missing Middle residences largely ended in the 1940s.

“Euclidean” zoning, the most common type in the United States, was designed to separate different land uses and housing types, such as single-family and multifamily homes.

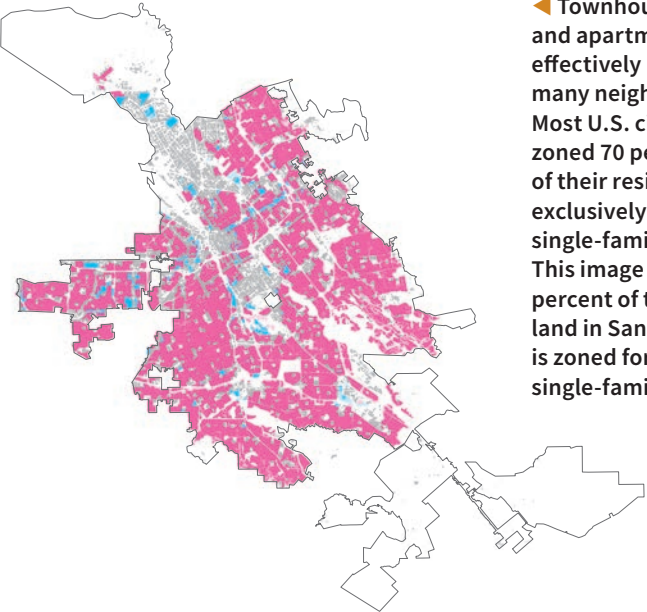
American cities also tend to regulate land use by residential density, which results in communities where residents can’t walk to stores and where people can’t downsize or even upsize into another home without leaving the community.

Zoning regulations and specifics vary by state and municipality, but few zoning codes effectively enable Missing Middle Housing.

Many state and local legislators have been pursuing much-needed changes to remove the planning and zoning barriers that prevent the creation of Missing Middle Housing.

The cities of Memphis, Tennessee, and Minneapolis, Minnesota — and the states of Nebraska, California and Oregon — are among the places that have adopted regulations more favorable to Missing Middle Housing, such as allowing three to four units on any lot, including those zoned for single-family.

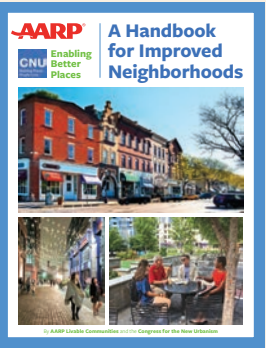
(See page 21 for more about the Nebraska efforts. See page 33 to learn about the AARP guide *Re-Legalizing Middle Housing: A Model Act and Guide to Statewide Legislation*.) ■



◀ Townhouses, duplexes and apartments are effectively banned in many neighborhoods. Most U.S. cities have zoned 70 percent or more of their residential land exclusively for detached single-family houses. This image shows that 94 percent of the residential land in San Jose, California, is zoned for detached single-family housing.

Barriers for MMH in Greenville County						
Barriers to MMH	Imagine Greenville Comp Plan	Berea Plan	Brandon Plan	Conestee Plan	Monaghan Mill Plan	Cherrydale Plan
Max. Density Allowed: Too Low	●	●	?	?	●	●
Min. Lot Area: Too High	●	●	●	●	●	●
MMH Types Identified	●	2	2	2	2	2
Content is Supportive of MMH	●	●	●	●	●	●
Key:	● Barrier	?	Unclear	●	Not a Barrier	

▲ Unless planning efforts are undertaken with Missing Middle Housing in mind, the building types can be hindered by standards that make more sense for car-centric suburban apartment complexes than for walkable neighborhoods. The chart depicts an assessment of several small area plans in Greenville, South Carolina.



AARP.org/Zoning

Order or download *Enabling Better Places: A Handbook for Improved Communities*, by AARP and the Congress for New Urbanism, to learn how small and incremental zoning and land use code changes can help achieve community-desired results.

Missing Middle Housing Types

The DUPLEX

A duplex residence consists of two units within a building that is of similar size and scale to a single-family house. In some duplexes, the units are side-by-side, sharing a common wall down the middle; in others, one unit is stacked atop the other. In either case, the entries to both units face the street.

Duplex homes benefit from many of the same advantages as single-family residences do, such as favorable financing options and zoning codes.

Since the cost of building or purchasing a duplex is on par with that of a similarly sized single-family house, while being divided among two households instead of one, the housing type offers genuine affordability advantages. ■



▲ A duplex (such as this one in Detroit, Michigan) can be so similar in form to a single-family house that sometimes the only clue is the presence of two entrances.



◀ A close look at the three front doors on this home reveals four unit numbers. (The center door leads to the two upstairs apartments.)

An Accessible Answer



◀ Few older homes meet accepted accessibility standards. In fact, historic examples of Missing Middle Housing frequently feature a raised first floor. This 5,000-square-foot building in Saratoga Springs, New York, with a zero-step entrance is an exception. Built in 1930 as office space for Skidmore College, the property is now a five-unit residence with three apartments downstairs and two up top, including two studios, two one-bedroom units and one two-bedroom unit.

Contemporary Missing Middle Housing equivalents can be built with inclusive design (also called “universal design” or UD) features that help make a home safe and livable for residents of all ages and abilities. Unlike many home-

safety products or add-ons of the past, such design elements are useful, unassuming and attractive. These can include a zero-step entry (pictured), assist or grab bars in bathrooms, and handrails on both sides of a staircase. Given

the rapid aging of the U.S. population, and the number of people who have mobility impairments on either a permanent or temporary basis, housing with well-designed accessibility features are a present and future must-have. ■

The FOURPLEX

The classic version of this housing type consists of two side-by-side units on the ground floor, with two more units stacked directly above.

Although the structure itself could otherwise be classified as a small multiplex, the fourplex residence occupies a special place in the discussion of Missing Middle Housing.

- At two stories in height and 40 to 50 feet in width, a fourplex’s dimensions are comparable to those of single-family homes in countless neighborhoods across the United States.
- The ground-floor, single-story apartments contained inside offer living options for older adults or people with mobility challenges who need housing without stairs.
- Financing is relatively easy, as a conventional mortgage can be used for a building containing up to four units.
- The fourplex can fit on a smaller lot, including on infill lots (described on page 5) which often exist in locations that are supported by transit and locally serving businesses.

▼ Parking for fourplexes must be strategically handled. Ideally, no more than one off-street parking space per unit is required. This housing type works well on lots with a rear alley, which can provide direct access to side-by-side residences at the back of the parcel. Corner lots, which offer a greater supply of potential on-street parking, are also good candidates.



Yet very few fourplexes have been built in recent decades. Contemporary zoning and building codes can be obstacles to the classic fourplex type. As a result, developers favor building multistory townhouses. (Learn more on page 15.) ■

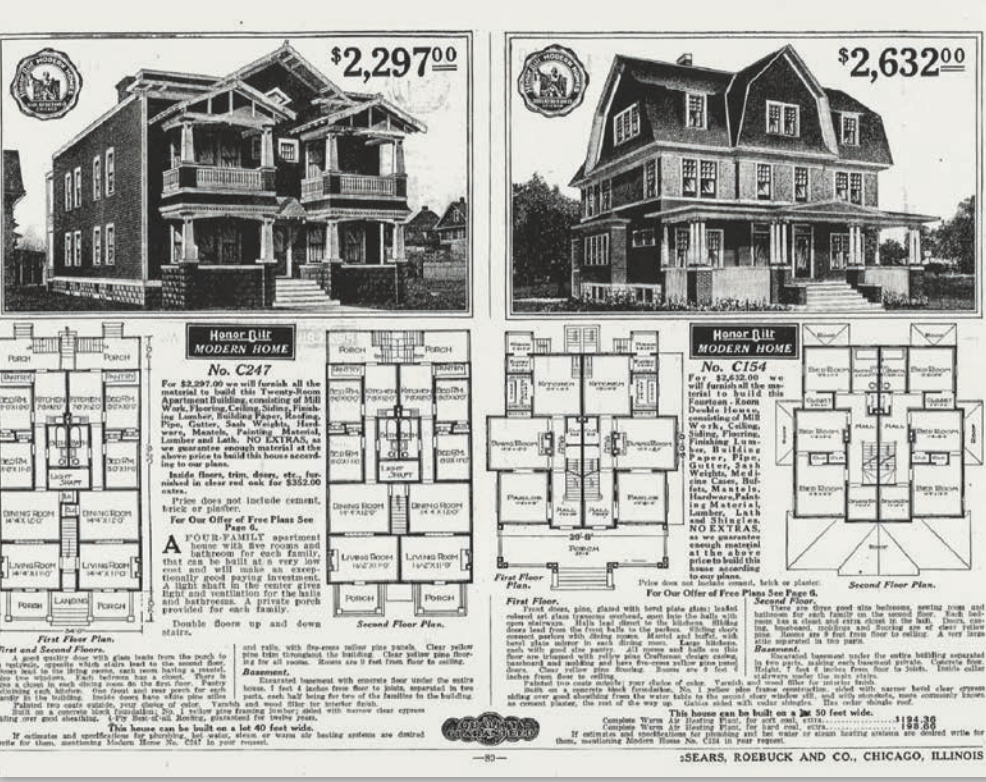
See page 14 for more Missing Middle Housing types.

Finding Missing Middle Housing

Most U.S. cities with pre–World War II housing have plentiful examples of Missing Middle Housing types in their historic neighborhoods. Surviving examples of Missing Middle Housing usually date to the 1940s or earlier.

Before the widespread use of automobiles, many of these neighborhoods were within walking distance of the urban core or were served by streetcar networks linking housing to jobs, shops and services.

Because contemporary zoning codes usually do not allow for the creation of any (or just a few) Missing Middle Housing types in lower density zones, motivated planners and developers are forced to pursue alternative approaches, such as seeking a variance or participating in a demonstration project in order to test the building type in single-family residential areas. ■



▲ In the early to mid-1900s, Sears, Roebuck and Co., sold house plans and home-building kits, some of which were Missing Middle Housing types. Home No. C247 (above left) was a four-family “apartment house” featuring five rooms plus a bathroom and porch for each family. The house could be built on a 40-foot wide lot. The slightly larger house No. C154, a 14 room “double house” (or side-by-side duplex), needed a 50-foot lot.

Looking Locally

Because Missing Middle Housing types typically have a footprint no larger than a large, detached house, it is easy to integrate them into existing neighborhoods — and sometimes hard to find them!

- Online tools such as Google Maps can be useful for locating neighborhoods with Missing Middle Housing types. (See page 29 to learn about using online mapping and data resources.)
- Compact street networks with house-like buildings, possibly near historic centers or neighborhood Main Streets, are good places to look — as are locations where a neighborhood is transitioning to a higher-density, more walkable context.
- Signs of multiple units within a building include multiple front doors or pathways to doors or more than one mailbox, doorbell, gas meter or address number.

Because Missing Middle Housing can integrate with and complement single-family zoning, the two housing types are easily able to coexist.

There are several ways to place Missing Middle–style homes

Distributed Throughout a Block

Missing Middle Housing types can exist along a street, standing side by side and intermingling with detached single-family homes. The blended pattern of detached single-family residences and Missing Middle Housing works well because these types are comparable in form and scale.



On the End of a Block

The streets that intersect the end of a block is often a busier corridor than the streets occupied by detached single-family homes. Placing Missing Middle Housing types on the “end grain” of a block allows for the use of slightly larger buildings because the structure isn’t sitting directly next to detached single-family homes. In this placement type, the alley to the rear of the Missing Middle structure also allows for a good transition in scale to the single-family lots.



As a Commercial Corridor Transition

When a Missing Middle residence is located in an area that’s adjacent to a neighborhood Main Street, the building itself provides a gradual transition point between residential and commercial or mixed-used properties. The nearness of residents provides a customer base for local businesses and services. By serving as a type of buffer, a Missing Middle–type structure can actually keep a single-family home in a walkable area from being located directly next to, say, a restaurant or bar (or a store or office building) and the parking lots needed by the businesses’ customers and employees.



As a Transition to Higher-Density Housing

Another transition benefit of Missing Middle Housing is achieved by placing small to mid-sized multiunit housing on a few of the lots that transition from a residential side street to a more populated corridor, thus providing a transition in scale to the larger buildings on the end grain of the block along the primary street.



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Missing Middle Housing Types

The MANSION APARTMENT

Missing Middle Housing types are, by definition, house scale. But all houses are not the same size.

In locations with historic mansions or large manor houses, it can be very easy to adapt existing, oversized single-family houses or create new



▲ From the outside, these houses appear to be mansions. A closer look reveals that each house actually contains several residences. The Norfolk, Virginia, examples (top and bottom) contain apartments. The Baltimore, Maryland, property (center) hosts five townhouse-like side-by-side units.

multiunit buildings that will seamlessly blend within the context of the street or neighborhood.

A mansion apartment maintains the form and scale of a large estate house, while accommodating multiple units, typically exceeding the quantity found in fourplexes. (Such a building might also be referred to as a sixplex, eightplex, and so on.)

These buildings tend to be much larger than other Missing Middle Housing types and are composed of sunlight-filled wings rather than being deep buildings with internal corridors, as in a traditional high-rise apartment building or a dormitory or hotel.

The mansion or estate appearance is reinforced through a single, architecturally celebrated main entrance that faces the street and may be shared among several units.

Because numerous historic mansions in desirable neighborhoods have already been divided into multiple units, it can sometimes be difficult to tell where the conversions exist. A key to discovering them is to pay close attention to mailboxes, address signage and other exterior features. (See page 29 for more about these clues.) If the house contains multiples of any — such as several doorbells rather than one — the home has likely been converted into apartments.

Unlike a multiplex residential building, however, a mansion apartment building requires that the owner or developer be mindful of the structure’s architectural features and possibly older mechanical systems and construction methods and materials. Details matter, especially as applied to the main entrance, windows, siding and roof.

A mansion conversion is not a utilitarian building. Many of these buildings are not wheelchair accessible, at least not without significant renovations and the installation of an elevator.

But when the subdivisions and renovations are done well, former mansions provide a generous (and grand!) living experience. ■



▼ Townhouses are a common residence type throughout the United States that can adapt to a wide range of contexts. However, when such developments are oversized and disconnected from needed shops and services, they contribute to sprawl and the need for more or expanded roadways and parking lots. Missing Middle Housing-type townhouses (pictured in Wheeling Heights, West Virginia, left, and Longmont Colorado, below) are efficient and attractive options for infill lots in new and existing walkable locations.

The TOWNHOUSE

Townhouses — sometimes called townhomes, rowhouses or rowhomes — can be found throughout the world and make up an important part of the original urban fabric in historic East Coast cities as well as in locations such as Chicago, Illinois; Cincinnati, Ohio; and San Francisco, California.

Townhouses represent a fast growing percentage of new housing, in fact the fastest from 2011 to 2017, far outpacing other Missing Middle types. This is largely because townhouses can be sold as “fee simple” units — meaning that, unlike ownership in an apartment building, the buyer owns both the building and the land beneath it. That makes the construction, sale and maintenance of the property less complex than it would be for a building of stacked units.

In contrast to freestanding detached houses, townhouses are connected to adjacent buildings on one or two sides via shared walls. Each townhouse has an entry that faces a street or courtyard. The homes typically include a small rear yard.

Because of their small footprints and shared walls, townhouses make efficient use of land, which means they can be constructed and sold at a lower price than a new detached house. Since townhouses are not stacked, it alleviates the concerns by some residents about noise from upstairs neighbors. A downside is that townhouses don’t typically offer the same diversity of unit mix (such as one- or two-bedroom units) or an option for one-story living.

The overall dimensions and unit makeup of townhouses vary. In neighborhoods of detached,



house-scale buildings, each run of townhouses might be limited to two or three units, with their height not exceeding two stories. In a more urban environment, a row of townhouses can occupy an entire block. In historic areas of Boston, Massachusetts, and the borough of Brooklyn in New York City, three- and four-story townhouses have been converted into apartments (and back again) as the housing market has shifted over time.

The way townhouses handle parking can make or break them in terms of their contribution to a walkable streetscape. Walking along a street lined by townhouses can be a delightful experience — but if the front setbacks are merely driveways and the ground floor facades are dominated by garage doors, the experience is much less inviting. In the best examples, parking is accessed at the rear and does not (as shown on page 26) occupy the majority of the ground floor. ■

See page 18 for more Missing Middle Housing types.

Developing Missing Middle Housing

As noted on page 9, several local governments and states are adjusting zoning codes and other regulations to allow for Missing Middle neighborhoods and residences. Here are a few examples.



▲ Lincoln Street in Prairie Queen, a Missing Middle neighborhood in Papillion, Nebraska, features live/work-style dwellings where the upper floors are residential and the street-level units are “flex” spaces that can be used as housing or for a business.

With older adults retiring and downsizing their homes, and a high percentage of adults living alone or as couples without children, **Nebraska** — like many other states — is experiencing an acute lack of housing choice and affordability.

In an effort to address both, in 2020 the state enacted the Municipal Density and Missing Middle Housing Act. The law requires Nebraska’s 11 largest cities to assess and report on the existing zoning and housing stock and then develop an action plan for implementing solutions, including Missing Middle Housing.

For cities that fail to adopt a housing action plan, the

law requires Missing Middle Housing to be allowed in any area zoned for single-family housing. AARP Nebraska worked with the targeted communities to provide information about Missing Middle Housing. Opticos founder Daniel Parolek, who was raised in Nebraska, shared a Nebraska-focused Missing Middle Housing presentation for local leaders and residents.

To provide Nebraskans with local examples of Missing Middle-style housing, the Opticos team created two self-guided walking tours: one in the historic Dundee neighborhood in **Omaha** (see page 28), the other in **Papillion**, in a new development called Prairie Queen (see page 21). ■



◀ In 2020, the city of **Memphis, Tennessee**, began implementing its Memphis 3.0 Comprehensive Plan by creating seven small area plans for priority neighborhoods, including Hollywood–Hyde Park, Highland Heights, Klondike and South City. Each plan has a strong Missing Middle Housing component featuring a range of Missing Middle types on typically sized existing lots. ■



◀ **Iowa City, Iowa**, has a long history of limiting sprawling development at its edges. In a recent comprehensive plan, the city identified 900 acres at its southern border, which it calls the South District, and created an area of targeted growth to deliver a range of Missing Middle Housing choices in a compact, walkable neighborhood. ■



▲ As an area dominated by pricey vacation homes and ski season rentals, housing options in **Teton County** and the town of **Jackson, Wyoming**, are beyond the reach of low- and moderate-income households. Because of that, workers in the tourism-rich region endure long, costly commutes. A 225-acre site that abuts the town provides an

opportunity to add much-needed attainable (or “workforce”) housing. Opticos was hired in 2020 to engage the community, propose solutions, create a detailed vision plan, and write a set of development standards to help create a mix of 1,200 for-sale and rental units of Missing Middle Housing in a new walkable neighborhood. ■

“Housing stock known as middle housing, while prominent in the early 1900s, has been largely missing in the construction of new housing in the United States since the mid-1940s.... Examining and updating municipal zoning codes and ordinances to permit varied types of housing stock will provide greater availability of affordable housing, increase residential density, promote more efficient and effective land use, and create conditions for successful mass transit, bikeability, walkability, and affordability in residential neighborhoods.”

— Nebraska State Legislature, LB866

Missing Middle Housing Types



◀▲ Live/work buildings (like those in Norfolk, Virginia’s East Beach, left, and the mixed-use Serenbe development in Chattahoochee Hills, Georgia, above) help make a town or neighborhood a vibrant and interesting place to live, work and visit.

The LIVE/WORK PROPERTY

A live/work building combines a conventional dwelling unit, usually located upstairs, with a ground-floor flex space that can accommodate a range of nonresidential uses. This apartment-style Missing Middle Housing type is well suited for a street-level retail shop, office or business.

Live/work buildings are typically clustered together, on or near a neighborhood Main Street. They work best as a transition type between residences and commercial locations and are rarely successful when located within a strictly residential block.

The work portion of the live/work property has its own frontage and street-facing entrance — often expressed as a storefront — but it also includes direct interior access to the residential portion that’s located on the same floor or directly above on the second and sometimes third floor.

The ground floor ceilings of the live/work space are usually at least 10 feet high, which can properly serve nonresidential uses. While building codes generally specify the requirements for different uses, live/work units are often addressed as a special case in order to align with the housing styles nearby. ■



▲ Live/work units in Orlando, Florida’s Baldwin Park



▲ The top two floors of this live/work building in Buena Vista, Colorado, contain a 1,400-square-foot residence. The ground floor can house a shop, office or apartment.



The COURTYARD BUILDING

A courtyard building is a medium-sized structure that consists of multiple side-by-side and/or stacked dwelling units oriented around a courtyard or series of courtyards. Often, each unit has its own exterior entrance, although up to four units may share a common stoop, staircase or entryway.

The courtyard-accessed entries — and the views into the courtyard from upper-story living spaces — are important because the shared open space is key to delivering the quality of life and sense of community that are the housing type’s signature benefits. (A similarly sized building with apartments accessed from a common internal corridor does not meet the intent of this type.)

The building itself is composed of wings that define the courtyard. Because the wings are no deeper than an individual house, a courtyard building can appear to be house-scale despite typically occupying a larger lot than what’s needed for a single-family home.

The wings surrounding the courtyard (or courtyards) can take various configurations: L-shaped, C-shaped, and O-shaped courtyard buildings are all common. Open-air passages through the wings can provide access into the courtyard or between courtyards.

The courtyard dimensions vary by climate but are typically about 20 to 30 feet across. Narrow courtyards are favored in hot climates for shading, while larger courtyards are suited to cooler or temperate climates to allow for both sun and shade. The height can vary in different parts of the building. ■

◀ Many courtyard buildings are inspired by the Spanish tradition, which features the type prominently.



▲ The courtyard is an ideal environment for landscaping to complement the adjacent homes.



▲ Direct access to the courtyard from the surrounding units is a key feature of this building type.



▲ The layout of courtyard housing can help build connections among neighbors.

See page 22 for more Missing Middle Housing types.

A Little Bit of Land Can Host a Lot of Missing Middle Housing

Plots of land from two to five acres are a sweet spot for smaller-scale developers constructing Missing Middle Housing. Lots within that range allow for a variety of housing types and building layouts without the need to design an entire neighborhood, which can have significant (and costly) implications for public infrastructure.

When working with a small plot of land, the challenge can be to create a strong sense of place while also generating value for home sales or rentals. This is particularly important if the site is in a context that would not otherwise generate strong interest. Good site planning is key to achieving Missing Middle objectives.

Hamilton Square: Novato, California | 2.7 acres

Located across the street from an elementary school, and a five-minute walk to the SMART commuter train, Hamilton Square is a mix of for-sale and rental units, as well as fee simple (see page 15) versus stacked units. Proposed designs for the property inspired community discussions about the amount of open space to provide; the ratio of and relationship between the for-sale and rental options; the viability of live/work units; and the trade-offs between the number of units and the desire for shared amenities and placemaking features. ■

▼ Developed on the site of a former gas station, Hamilton Square is an example of how contaminated land can be remediated (by removing polluted soil), restored (with clean soil) and revitalized for a new use. The site plan options show the variety of ways the space could be developed.



Prairie Queen: Papillion, Nebraska | 40 acres

After acquiring an undeveloped site in Papillion, a city at the edge of the Omaha public transit system, Urban Village Development, a company that successfully renovated a collection of small, historic, multiunit brick buildings in Midtown Omaha, approached Opticos to design a neighborhood-scale apartment community of Missing Middle Housing.

Unlike a conventional suburban apartment project, the site plan features a series of blocks and tree-lined streets framed by diverse building types that will ultimately accommodate 500 to 600 units.

As of November 2020, 132 units were completed and leased. Monthly rents range from \$1,000 for a one-bedroom apartment to \$3,000 for a three-bedroom townhouse. Despite their differing prices, the units are all within the same block, which is a rarity for an apartment community. The arrangement provides economic diversity and mobility within the neighborhood.

A budget-saving innovation is that there are no large parking lots. Rather, each unit has one off-street parking space, either in a garage or off a rear alley. On-street parking is allowed for guests as well as residents who have more than one car.

Prairie Queen includes a mix of Missing Middle Housing types, from duplexes to mansion apartments. The architecture reflects styles drawn from Omaha’s historic neighborhoods, but done in a simplified way that is economically feasible.

At its entrance, the neighborhood incorporates one block of live/work units. (See the photo on page 16.) The properties contribute to the area’s walkability by housing the types of amenities that residents seek, such as a



▲ Although this photo shows a clear weather day, freezing temperatures and snow are common in Papillion, Nebraska, where Prairie Queen, a walkable, suburban development is located. The residents are fine about having just one off-street parking space per unit and first-come, first-served guest and overflow parking along the streets.

coffee shop and a shared coworking space. If the commercial uses do not materialize, the flex spaces can be rented as one-bedroom apartments. A greenway connects the site to a lake, capturing valuable views and enabling residents to interact as they walk to and from the water.

To launch the project, Urban Village employed a mixed-use development agreement that challenged many city standards, including for alley design, utility hookups, parking minimums and minimum street widths.

The city of Papillion considers the Prairie Queen development to be a success. In fact, the mayor was so pleased with the project that it is used as a case study for city departments, encouraging them to reconsider engineering standards and development regulations so Missing Middle-style developments can be built more easily in the future. ■



▲▼ Although many of the buildings look like single-family homes, they are in fact multiplex structures containing two to eight residential units. Visit opticosdesign.com (and search for “Prairie Queen”) to watch a video and learn more about the community.



Missing Middle Housing Types

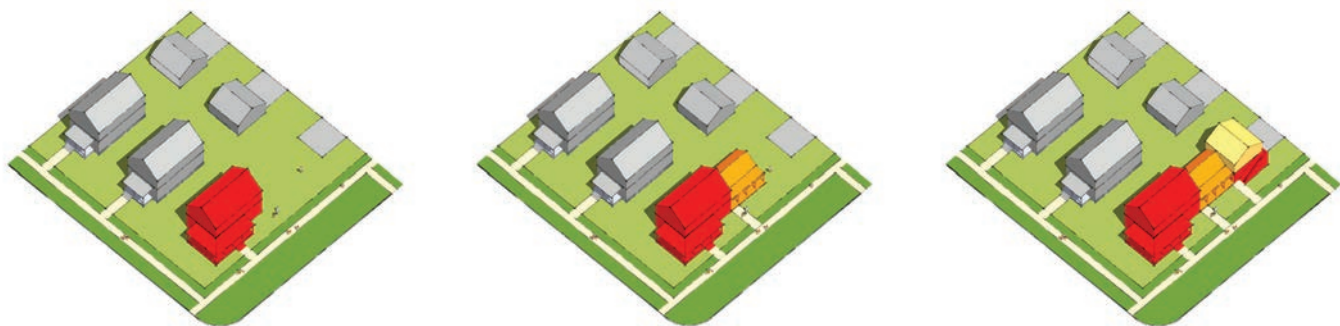
The MULTIGENERATIONAL HOUSE

All too often, buildings are treated as static objects. Yet the people inhabiting and using them are anything but static.

What if homes were designed to accommodate the full life cycle of the people living in them? The multigenerational house is an example of a home in which different types of units serve the needs of people at different ages and life stages. Missing

Middle Housing has the added benefit of allowing incremental development and rental income opportunities, which can make it easier to finance and more affordable to build over time.

The following scenario describes just one possibility, but it illustrates a broader concept that can be tailored to the unique circumstances of individual households.



PHASE 1: The Single-Family House

The story begins with an ordinary house on an ordinary lot. A couple with young children move into a new home that has downstairs living spaces and bedrooms upstairs with one or more full bathrooms.

“Grandfamily-ing,” family caregiving for older relatives, and adult children living at home are significant trends.

— 2021 AARP Home and Community Survey

PHASE 2: The ‘Wing Unit’ Addition

The owners add a first-floor suite featuring a bedroom, living area, kitchenette and a full bathroom so a pair of grandparents can move in to help with the children while also receiving help with their own needs.

The property now contains two dwellings. A door between the two can remain open or closed and locked as needed. (A laundry room can be shared, or each unit can have its own.)

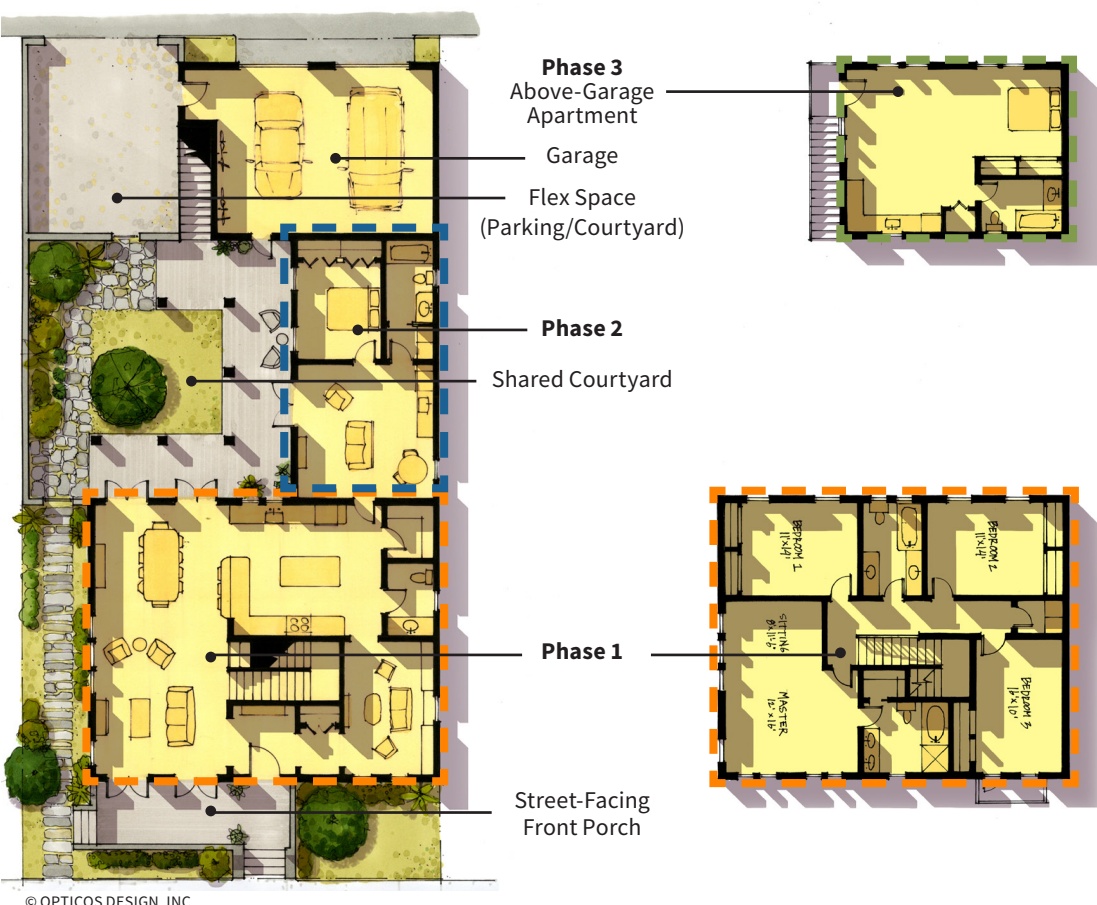
Because the wing unit is all on one level and has been designed to be fully accessible, it’s suitable for aging in place.

PHASE 3: The ADU Addition

As time goes on, the homeowners move into the wing unit so an adult child with a family can reside in the main house.

As the property owners reach retirement, they build a new garage (or update an existing one) to include a second-story living space.

This “carriage house” style accessory dwelling unit is rented out to pay down the construction costs and provide retirement income. The apartment can someday house an adult grandchild who needs a place to live while building savings, or to enable a hired caregiver to reside on-site. ■



◀ In the scenario for the multigenerational house, the main unit is Phase 1. The Phase 2 unit is added when the family needs more space. The Phase 3 above-garage-ADU is created to generate rental income or accommodate family members.

▼ The illustration below shows the home with both additions.



◀ In this photo, the main house is on the right. The carriage house (or above-garage accessory dwelling unit) is at left.



We are a multigenerational household.
We have room for three generations to live together. Our children are growing up with their grandparents — who have moved into the attached, single-story apartment — while we live in the main house with the kids.

See page 1 for a list of all the Missing Middle Housing types featured in this guide.

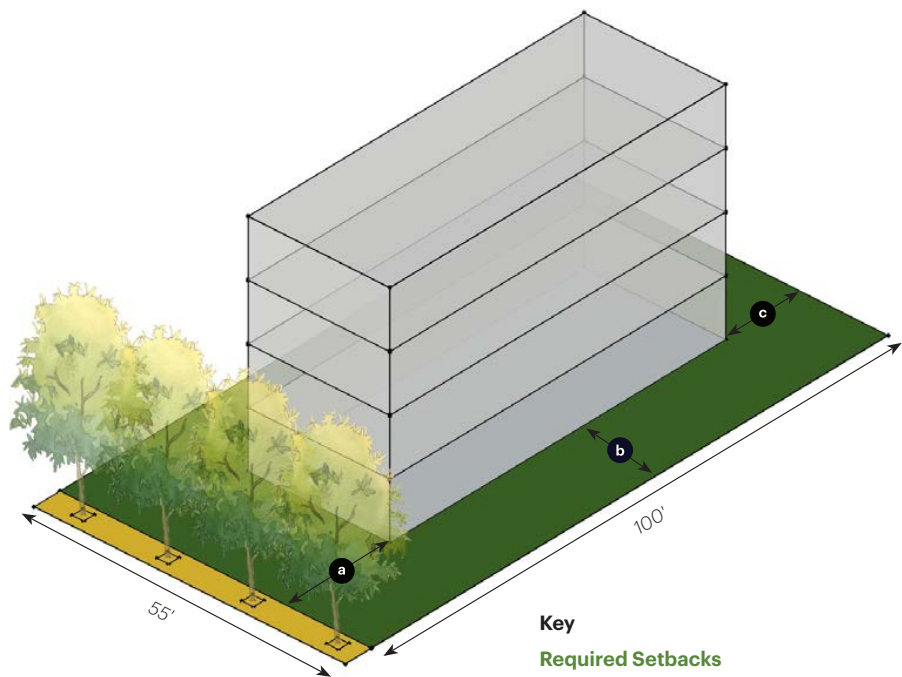
Understanding the Barriers to Missing Middle Housing

As noted on page 9, the majority of the residential land in just about every community in the United States is mapped for single-family zoning. As a result, the current codes in very few places effectively enable Missing Middle Housing.

In fact, in many cities, zoning designations jump directly from single-family (which may allow duplexes) to those permitting buildings much taller and larger than Missing Middle Housing. Few allow

multifamily or medium-density zones that can deliver small-scale buildings with multiple units on small-to-medium-sized lots. As explained earlier, “multiunit” does not need to mean big buildings on big lots.

The dominance of single-family zoning isn’t the only obstacle to Missing Middle Housing. Following are some others, including (on the next spread) the perceptions and realities about parking.



RM-2 Zone, 40' x 120' Lot Size Max. Envelope per Existing Standards	
Building Form	
Lot Area of Tested Lot	4,800 sf
Min. Required Lot Area	none
Max. Height	40'
Max. Lot Coverage	40%
Parking	
Min. Parking Spaces	2 per unit for single family; 1.5 per unit for multifamily
Density	
Max. Allowed Density	20 du/ acre

Key

Required Setbacks

a Front = 20'

b Side = 5' (min. 15' for multifamily)

c Rear = 15'

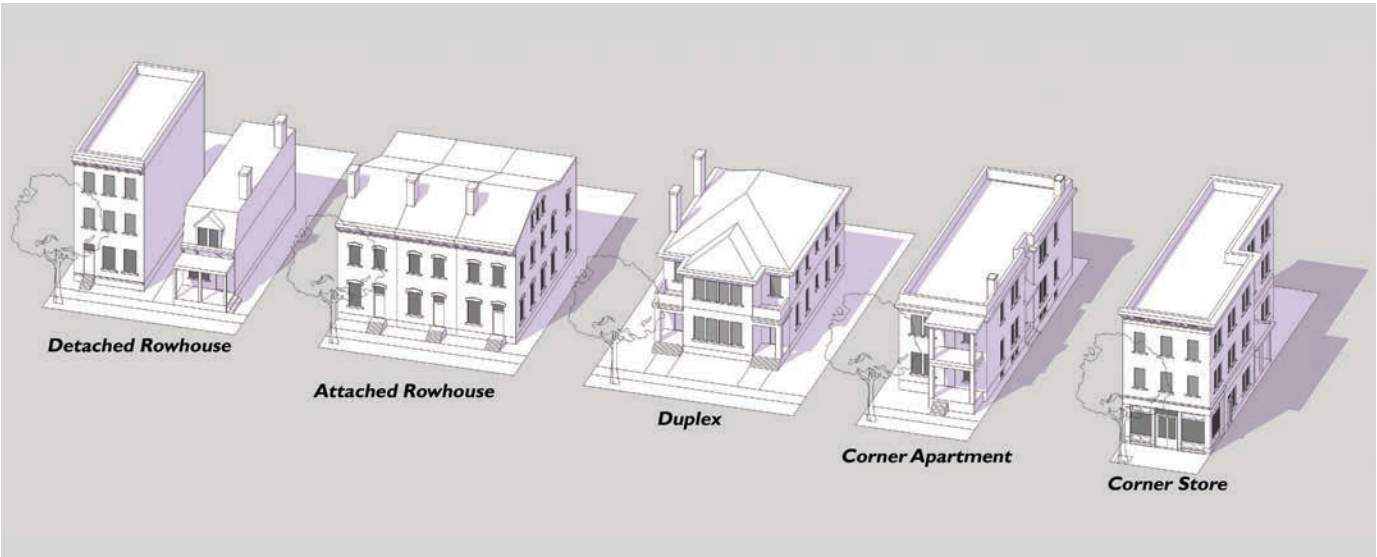
▲ A Missing Middle assessment for the city and county of Greenville, South Carolina, revealed that the deep setbacks required for multifamily buildings were a major obstacle to building Missing Middle homes on infill lots.

Developer Fees and Incentives:

Local governments charge real estate developers impact fees to cover the cost of new or expanded public facilities and services. The fee charged per unit is typically the same regardless of the structure’s size. That means it can be more affordable, impact-fee-wise, for a developer to build one large, single-family residence rather than a similarly sized or smaller building that includes multiple dwelling units.

Lack of Missing Middle Housing Builders:

There are currently (as of 2022) few or no mass-production large-scale residential builders focused on delivering Missing Middle Housing. This is likely because it’s been decades since Missing Middle residences were allowed under most community zoning codes. Building professionals and industry organizations will need to adapt to focus on Missing Middle Housing and deliver more efficiencies at this scale, much as they did for vertical mixed-use projects in the early 2000s.



▲ Few, if any, residential builders are currently set up to produce Missing Middle Housing at the same scale as they are for neighborhoods of single-family houses.

Larger Buildings Have Cost Efficiencies:

Constructing larger buildings, such as a 125- to 150-unit apartment or condominium development, provides easier-to-identify and often larger cost efficiencies (translating to a higher return on investment) than a three-, four-, eight- or even 16-unit building or series of them.

Change Is Challenging:

Current residents often don't welcome an increase in housing units. The concerns can range from fears that, with a rental, an absentee landlord won't maintain the property, to a belief that the added or smaller housing will negatively impact real estate values. Even the threat of community opposition can keep developers and public officials from considering multiunit buildings in places where the local code requires a public meeting or negotiated process for a use permit or a rezoning variance. Discussions and policies that recognize the interests of all stakeholders can help address or calm concerns. (See page 33 for information about the AARP publication *Re-Legalizing Middle Housing: A Model Act and Guide to Statewide Legislation*, which provides policy and regulation recommendations.)

Minimum Parking Requirements:

Mandates for providing one, two or more off-street parking spots are often unattainable or unnecessary in urban settings, where the space just might not exist or where creating them wastes valuable space that could be used for housing. (Turn the page for more about parking.) ■

Because housing and parking are frequently debated topics, local leaders often have to weigh whether it’s worse to have an actual affordable housing problem or a perceived parking problem.

Proposing Less Parking

Since the mid-20th century, communities nationwide have done a better job of delivering parking than housing.

The result is that, in many places, parking is now so oversupplied that people can't even fathom having to pay for it. Meanwhile, the scarcity of housing has led to an affordability crisis that becomes worse with each passing year.

In the tug-of-war between parking and housing, parking has been on the winning end. A better balance is needed to ensure that both needs are met so the intended beneficiaries can all "win."

When shops, schools, services and other community amenities have enough people within a safe walking and cycling distance to support their operations, fewer off-street parking spaces are needed for businesses and homes. Reduced parking requirements are a necessary step for delivering Missing Middle Housing. Without it, the residences either won't be built — or won't be built at attainable prices. ■

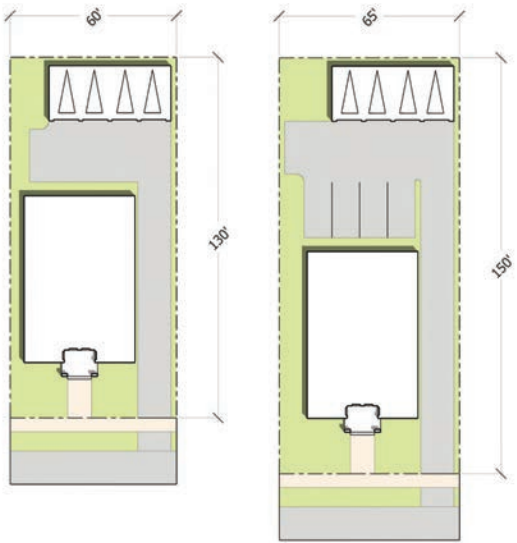


▲ Accommodating cars by adding a garage for apartment residents often lifts a building an additional story, which precludes having active, community-focused spaces on the ground floor.

OPTICOS DESIGN

OPTICOS DESIGN

► Off-street parking takes up a lot of space, which makes many housing types inherently impossible to design and build on small lots. In the image, a 40-foot by 60-foot fourplex is feasible, assuming a parking standard of one space per unit (as seen in the near-right site plan, with each triangle indicating a covered parking spot). If the parking is increased to two spaces per unit, as shown on the far right, the lot would need to be significantly larger (9,750 versus 7,800 square feet) to accommodate eight parking spots for the same sized building.



The land and construction costs for parking increases the price tag of development. These costs are typically passed along to renters and homebuyers.

Prioritizing Housing Over Parking

The wait list for a senior housing unit to open up in Cutler Bay, Florida, is about three years.

To incentivize developers to create affordable, accessible housing for older adults, in 2019 the town council reduced from two to one the number of required parking spaces per unit when building senior housing. The town had noticed that many older residents owned only one car or used public transit.

“Since a single parking space can cost as much as \$20,000 to acquire and build, we’ve reduced the cost of the project for developers,” the town manager told AARP.

Removing the Barrier of Parking Minimums

In most places, reductions in parking requirements are necessary to enable Missing Middle Housing. Such proposals often run into opposition. Following are some of the common concerns and potential responses to them.

“People in my community don’t want to live without a car. I don’t want to live without a car.”

Reducing parking mandates is about providing more housing and lifestyle choices, not forcing anyone to live without a car. But according to the 2019 AARP Home and Communities Survey:

- About 6 in 10 adults ages 18 to 49, and 4 in 10 adults age 50 or older, walk or cycle to get where they need or want to go.
- More than 9 in 10 adults say it is important for their community’s streets to be safe for all users, including pedestrians, bicyclists and motorists.
- At least 3 in 4 adults say it’s important for a community to have affordable public transit options and special transportation services for older adults and those with disabilities.

Developers will still provide parking, but the elimination or reduction of residential parking requirements can enable the creation of housing that’s more affordable for all residents, including the growing number of households that don’t drive, want to live “car-light,” or don’t want to or can’t take on the expense of owning a car.

“We don’t have public transit in my community, so we can’t reduce parking. Also how is parking reduction even possible in communities without safe and reliable public transit?”

Eliminating or reducing parking requirements does not mean that everyone is going to have to live without a car or need access to public transit. For instance, the recently constructed Missing Middle-style Prairie Queen development in Nebraska (page 21) is functioning very well with one off-street parking space per unit.

In addition to there already being a lot of parking in most parts of the nation, demographic changes make it possible to alter the parking formulas that have been used by municipalities for decades. For instance:

- Approximately 1 in 3 households in the United States consists of a single adult, meaning that roughly 30 percent of the nation’s housing units only need parking for one car.
- More people, and especially young people, are choosing not to drive. According to the U.S. Department of Transportation, as of 2020, only about 80 percent of Americans age 20 to 24 had a driver’s license. That figure is down from 87 percent in 1995.
- When streets have proper sidewalks and crosswalks, and needed shops and services nearby, people can safely walk to where they need and want to go.
- The nation’s population is rapidly aging, and many older adults no longer can, or choose not to, drive.

- By 2030, 1 out of every 5 people in the United States will be age 65 or older. By 2050, that number will increase to 1 out of every 4 people. Many older people will need smaller homes and alternative mobility choices.
- People in most parts of the country have more mobility alternatives at their fingertips than ever before. These include ride share services such as Uber and Lyft, car-sharing programs, and on-demand bicycle and scooter share services.
- Where dedicated bike lanes and other safe cycling pathways exist, bike riding can be easier for people of all ages and levels of athleticism by use of motorized, electric-assist “e-bikes,” which help riders travel longer distances, even across hilly terrains.
- In many communities, shuttle vans and on-demand ride services are available for little or no cost to older residents and people with disabilities or mobility differences. ■

Visit the [Parking Reform Network](https://www.parkingreform.org) at [ParkingReform.org](https://www.parkingreform.org) for a map of where parking mandates have been reduced or eliminated.

The Missing Middle Housing Walking Tour

An effective way for local leaders and interested community members to advocate for Missing Middle Housing is to show neighbors, business owners, real estate professionals and other influencers what Missing Middle Housing is. Taking

people on an in-person or virtual tour through a vibrant neighborhood can demonstrate the range of Missing Middle Housing types that already exist. The participants might just become informed advocates for (and resources about) Missing Middle Housing.



◀ In Saratoga Springs, New York, the mailboxes at the entrance of a 19th century mansion are a clue that the residence now contains multiple apartments. Missing Middle-applicable fact: A plaque on the historic home explains that its original owner, a merchant and entrepreneur named John Benedict, “assisted many mechanics and laboring men to ‘obtain homes for themselves on easy terms, payable in work.’”



▲ Opticos founder Daniel Parolek (far left) leading a Missing Middle Housing tour in Portland, Oregon.



▲ A walking tour map created for an outing hosted by AARP and Opticos.
◀ The presence of multiple utility meters is an indication of multiple apartments.

How to Find and Identify Missing Middle Housing

Neighborhoods that are likely to include Missing Middle Housing are usually historic areas with homes built before World War II.

Local planning departments and historical societies may be able to suggest suitable neighborhoods. State or local chapters of the American Institute of Architects (AIA.org) might also be able to assist.

Geographic Information System Mapping data, also known as GIS, is often publicly accessible through the local government’s

planning department website and may include information about lot sizes and number of units.

If GIS information is not available, an urban planner in the community may have access to Urban Footprint, which is a software program and technical tool used by planners. And, yes, Google Maps can also be a good tool for this research.

Well-designed Missing Middle Housing can require a little sleuthing to identify, as the buildings are often so similar to single-family homes.

Look for the following clues:

- Multiple mailboxes and addresses on a building
- Multiple entries
- Multiple utility meters
- Multiple trash and recycling receptacles
- Multiple parking spots, likely behind the building, possibly with numbers indicating which spot can be used by which unit

Continued on page 30 ►

Picture This



When photographing Missing Middle Housing types, showing a structure from several perspectives can help explain the buildings’ usefulness and attractiveness.

1. Take front (also called facade or elevation) photos to show how tall and wide the building is.
2. Take 45-degree angle photos to show how deep the building is.
3. Take photos that include the neighboring buildings to show how the Missing Middle home fits into the streetscape.
4. Take photos of the streetscape to show how the building (and its front yard, entry and outdoor spaces) relates to the street. If doable without trespassing, take photos of the building’s sides and rear exterior.
5. Take photos of the surrounding neighborhood, including any special or desirable features, such as shared green spaces, street trees, landscaping, lighting and outdoor furnishings.



Plan, Prep and Lead a Walking Tour

If examples of Missing Middle Housing do exist in or near the community, a field trip is the best way to make the case.

Suggested steps and to-dos:

1.

Based on the locations and building types found, determine a walking route. A one- to two-mile tour takes about 90 minutes to two hours. The tour need not stop and start in the same location, but consider people’s transportation needs at the end.
2.

Consider including both good and bad examples of multiunit buildings so participants can learn by contrasting the two.
3.

Try to build in a rest stop or a tour conclusion location at a nearby coffee shop. This will give people a chance to grab a snack or drink, use the restroom and/or discuss what they’ve observed. Stopping at a local eatery also demonstrates Missing Middle Housing’s walkability to shops and services.
4.

Determine a tour date (and perhaps a bad weather date).
5.

Decide how the tour will be promoted, by whom and to whom. For instance, will a website page be created so people can learn more and register? Will the tour be an invitation-only event?

Even if the tour will be open to the general public, send invitations to the people you or your organization would most like to join the walk. Such “influencers” can include:

- Local officials (from the mayor or city manager’s office; city, town or county council members; planning and zoning review board commissioners)
- Neighborhood groups
- Housing advocates
- Architects, developers and builders
- Local historians
- Involved residents

Look and Learn

During a Missing Middle walking tour (or an online or meeting room presentation) ask questions of the participants.

When viewing a Missing Middle example, ask them to identify, among other features:

- The building type (duplex, fourplex, etc.)
- Characteristics that help the multifamily property blend in with the surrounding single-family homes
- Number of floors and entries
- Parking locations
- Shared spaces
- Setback distances
- Lot sizes
- The frontage type (porch, stoop, zero-step entry, etc.)



▲ Missing Middle–type residences in (clockwise from top) Charlotte, North Carolina; Pittsburgh, Pennsylvania; Providence, Rhode Island; and Saratoga Springs, New York



▲ Examples of Missing Middle Housing discovered while walking in (clockwise from top) Habersham, South Carolina; Annapolis, Maryland; Hudson, New York (where a house built in 1898 is now a fourplex next to a restaurant and hotel) and Providence, Rhode Island (where a Missing Middle–style apartment building stands next to, and is just a smidge taller than, a single-family home).

6.

If promoting the tour to the public, create and distribute outreach materials, such as printed flyers, news releases and social media posts.
7.

Prepare a walking tour schedule and handout with a map that shows the route. The handout can include pages for notes or sketches, as well as information and links.
8.

As participants RSVP, send them a confirmation and information such as contact numbers for the organizer(s); a list of what to bring (and not bring); instructions for where and when to meet; how to get to the meeting spot and where to park, etc.
9.

If the response to the invitation or promotional efforts is large, organize the attendees into walking tour teams, with 5 to 15 participants per tour guide. (If needed, recruit additional guides or helpers.)
10.

Before setting out on the tour, inform the participants about the safety protocols and etiquette. Encourage people to ask questions during the tour, share their observations and take photographs — but remind them that the homes on the tour are occupied, so any pictures taken and shared should not invade the residents’ privacy.
11.

As a tour guide or organizer, be attentive to the audience. Go slowly and take breaks as needed.
12.

At or after the tour’s conclusion, ask the participants to complete a survey about the experience and Missing Middle Housing. Ask whether they would like to help the community generate more housing options and encourage walkability.

If an area has more Missing Middle Housing examples than can be seen during one outing, plan additional walks! ■

Turn the page for more ways to take action. ►

Take Action

Encourage the Creation of Missing Middle Housing

Local leaders, community members and housing advocates can help spread the word about what **Missing Middle Housing** is — and why it’s so important for people of all ages, life stages and incomes



▲ To maximize the presence of natural light on two deep, oddly-sized lots in South Jordan, Utah, the conventional townhouse is flipped on its side by orienting the longer facade along the walkway. Each two-story “mews home” (a mews is a rambling, pedestrian-only path) has its own outdoor space and direct access parking.

• **Organize a ‘Missing Middle Walking Tour’**

The value of such an in-person or online show-and-tell is discussed on page 28. Such an activity can be planned and led by an individual or a group, with each member taking on a different task for the event.

• **Identify Community Partners**

Missing Middle Housing benefits many stakeholders, from renters to homebuyers to landowners to builders. Community groups, professional associations and nonprofit organizations representing different populations can work together for the benefit of all involved.

• **Seek a Change to the Zoning Code**

Members of a city or county council, a planning board, or even a state legislature can be asked to pursue this option — and to do so by making specific, incremental changes rather than taking on a revamp of an entire zoning code. Learn more by reading the AARP guide *Re-Legalizing Middle Housing* (opposite), so named because although this “middle” housing type is now largely missing, it once existed and can be a common housing option again.

• **Promote Pilot Projects**

City-, county- or town-owned parcels, particularly in older neighborhoods, can be ideal sites to test, or pilot, Missing Middle Housing development. The results of these studies can inform needed changes to development standards and encourage private developers and lenders to pursue similar projects.

• **Talk About the Need for Housing Options**

As a smaller-scale home type, Missing Middle Housing is one of many housing options needed by communities and people of all ages. Point out how Missing Middle homes are especially useful for young adults entering the housing market, as well as single adults, empty nesters and retirees who don’t need the space provided by (or the upkeep responsibilities of) a large single-family home.

• **Spread the Word**

Share this guide and other Missing Middle Housing resources (see opposite page) with local influencers, such as elected officials and real estate professionals. If you share materials via social media, please use the hashtag **#MissingMiddleHousing**.

Learn More

WEBSITE: MissingMiddleHousing.com

Information and resources, including *Missing Middle Housing: Thinking Big and Building Small to Respond to Today’s Housing Crisis*, a book by Opticos founder Daniel Parolek, published by Island Press.

WEBSITE: AARP.org/MissingMiddleHousing

Information and resources, including, *Re-Legalizing Middle Housing: A Model Act and Guide to Statewide Legislation*, a free, downloadable resource from AARP Government Affairs.

FREE HOUSING AND ZONING PUBLICATIONS FROM AARP: AARP.org/LivableLibrary

The ABCs of ADUs: A Guide to Accessory Dwelling Units and How They Expand Housing Options for People of All Ages

A primer for elected officials, policymakers, local leaders, homeowners, consumers and others, *The ABCs of ADUs* is an award-winning, 24-page introductory and best-practices guide for how towns, cities, counties and states can include ADUs in their mix of housing options.

Accessory Dwelling Units: A Step-by-Step Guide to Design and Development

Featuring ADU policies and projects from Austin, Texas; Denver, Colorado; Oakland, California; and Washington, D.C., this 113-page design catalog contains information about financing and budgeting for an ADU project as well as visuals that show how ADUs can be easily designed to serve people of differing ages and abilities.

Accessory Dwelling Units: Model State Act and Local Ordinance

This 56-page downloadable guide can be used by state and local elected officials in support of policies and legislation to allow ADUs.

Enabling Better Places: A Handbook for Improved Neighborhoods

By AARP and the Congress for the New Urbanism

Small-scale land use and zoning changes can help communities revitalize and thrive. Learn how in this publication for local leaders and community advocates.

AARP HomeFit Guide

Learn how to make a house or apartment safe, comfortable and a great fit — for people of all ages. Available in English, Spanish, Chinese, Korean and Vietnamese.

Making Room: Housing for a Changing America

Filled with infographics, ideas, solutions, photographs and floor plans from the National Building Museum exhibition of the same name, this 88-page publication is a rallying cry for a wider menu of housing options.

Discovering and Developing Missing Middle Housing

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ENDNOTES: 1. <https://www.reinventingparking.org> | 2. <https://www.reinventingparking.org/2015/06/how-much-does-one-parking-spot-add-to.html> | 3. <https://www.homeadvisor.com/cost/outdoor-living/pave-a-parking-lot/> | 4. <https://www.fixr.com/costs/build-parking-garage> | 5. <https://www.nerdwallet.com/article/loans/auto-loans/total-cost-owning-car> | 6. <https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html>

AARON SHAW, ENDEAVOUR ARCHITECTURAL PHOTOGRAPHY



What Is Missing Middle Housing — and Where Did It Go?

Across the United States, there is a mismatch between the available housing stock and what the market wants and needs.

The nation is mostly missing (and needs) a set of residential building types that exist in the middle of the continuum from detached single-family houses to large apartment buildings.

So-called Missing Middle Housing is a critical part of the solution.

Created by AARP Livable Communities and Opticos Design, ***Discovering and Developing Missing Middle Housing*** provides local leaders, building and planning professionals, and involved community members with information about what Missing Middle Housing is, where it still exists, and why it's time for communities nationwide to return this versatile residence type to America's housing portfolio.



FOURPLEX



COURTYARD BUILDING



LIVE/WORK

Find this publication and more at
[AARP.org/MissingMiddleHousing](https://www.aarp.org/MissingMiddleHousing)

See the cover and inside pages for more examples of Missing Middle Housing.