# Designing and Building Age Friendly Homes

Live Info Session

July 15, 2021

RL Mace Universal Design Institute



# Age Friendly Oxford



Oxford Seniors, Inc.

Miami University Scripps Gerontology Center



#### Problems

- Many older adults are living in homes that have or will cease to be places where they can live safely and independently.
- No planning
- New construction options are limited.
- Advance remodeling is infrequent



















# Today's Topics

- Age Friendly homes
- Entries, bathrooms, kitchens, internal stairs, floor surfaces, storage, lighting
- Marketing
- Resources



#### Household Goals

- Maintaining our meaningful activities
- Engagement with family and community life
- Safety and Inter-dependence



# Poll Question #1







## Participant Goals

Increase awareness of issues/options

- Do a better job
- Increase market share



## Housing Types/Features

- Accessible Homes
- Visitable Homes
- Universal Homes
- Age Friendly Homes



### Target Areas

- Entrance
- Interior circulation
- Bedroom
- Bathroom
- Kitchen
- Laundry
- Storage
- Controls
- Lighting



# Poll Question #2



#### Accessible Homes

- Fully accessible
- Home maker who uses a wheelchair
- Custom features
- No broad marketability



### Target Areas

- Entrance
- Interior circulation
- Bedroom
- Bathroom
- Kitchen
- Laundry
- Storage
- Controls
- Lighting



# Typical Ramp













# Rolling Carts





# Custom

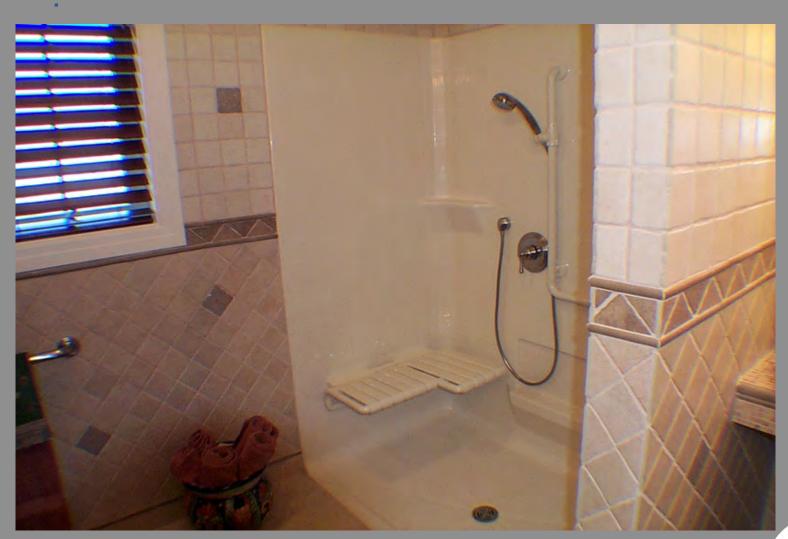








# Curbless Showers





# Nicer Bars







#### Visitable Homes

- Step-free entrance
- All main floor interior passage doors with 32 inches clear passage space.
- At least a half bathroom on the main floor, with some maneuvering space (at toilet).
- No mandate for broad marketability
- Mainly visitors

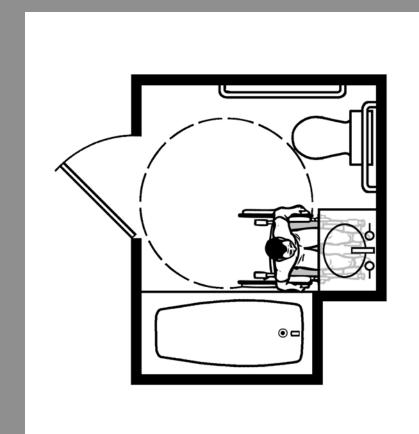


# Target Areas

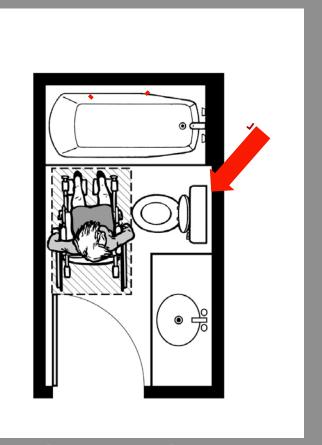
- Entrance
- Interior circulation
- Bedroom
- Bathroom
- Kitchen
- •<del>---Laundry</del>
- Storage
- Controls
- Lighting



## Comparison



Accessible Bathroom



Visitable Bathroom

#### **Universal Homes**

- High Function
- Highly Marketable looks good/works well
- For everyone (not fully accessible)
- Low cost customizations
- Livability



### Target Areas

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## Universal Design Features

- Step free entrance no ramp
- Key Function areas
  - Usable bathroom can be adaptable
  - ■Bedroom can be adaptable room
  - Laundry can include rough-in
  - Kitchen work surfaces, reachable storage
- Hallway and doorways







### Covered Entrance



Louis Tenenbaum





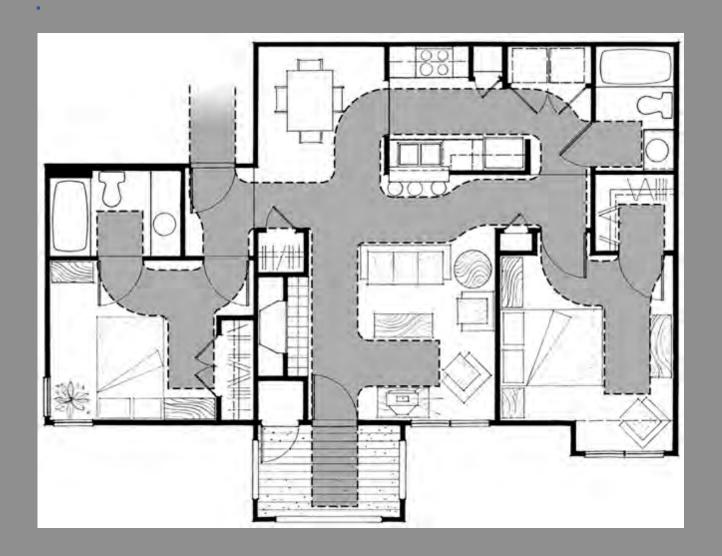


## **Closed Risers**





# Circulation





# Storage at all reach ranges







# Pantry Style Storage









# Control Reach



Offset mix valve



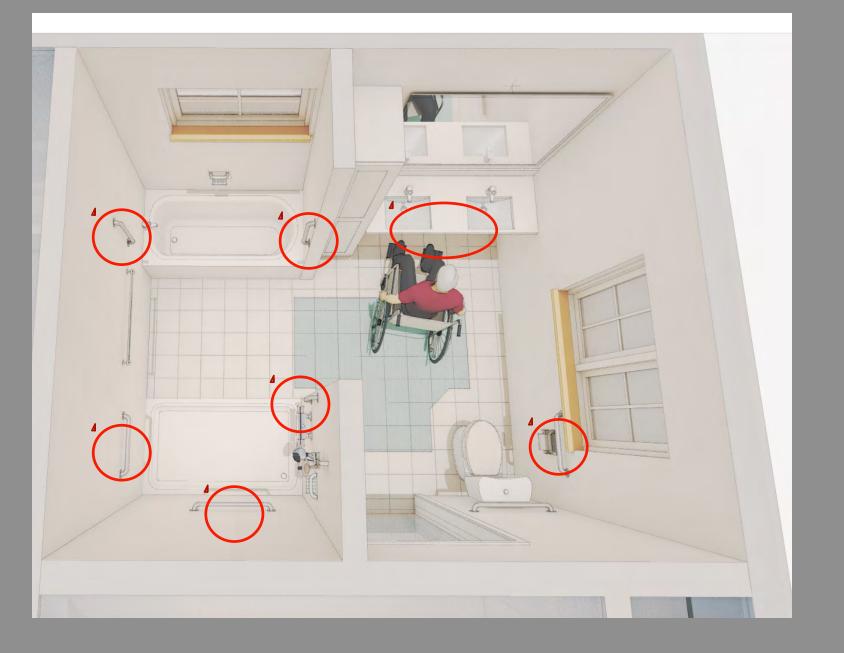
# Integrated Towel Bar/Hand Hold







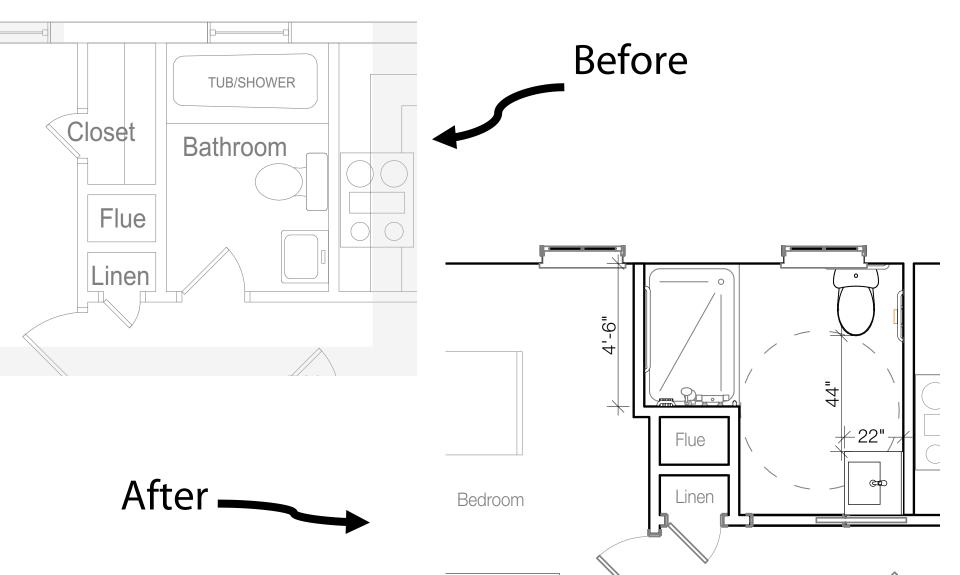
















## Better Living Design



### **Essential Level Criteria**

for Better Living Design Approval

A successful BLD home will have a mainstream appearance inside and outside.

All features must be integrated into the overall design intent of the subdivision, neighborhood and home.

### Exterior/Entrance

- Step-free route of travel to one stepfree entrance
- Exterior paths of travel are slip resistant, firm and smooth
- Exterior paths, walks, stairs and entrances are well lit
- · Illuminated doorbell if provided
- Half or full sidelight at door or view window in door

### Interior Circulation

- 42" wide minimum clear width in hallways
- · Key function areas are on entry level
- All entry-level passage doors, 32" wide minimum clear opening
- · No interior thresholds

### Bathroom

- A half bath on entry level must be designed for conversion to fully usable bath, or
- Full bath on entry level must be usable
- Convenience outlets with in reachable range
- · Slip-resistant flooring
- Continuous wall reinforcing at toilet and bathing fixture
- · Easy-to-use controls in tub/shower/sink

### Kitchen

- Maneuverable kitchen layout 42" between cabinet door faces
- · Layered lighting
- Full-extension drawers
- Pull-out shelves on base cabinets with
  doors.
- Easy-to-use controls at plumbing
   faucate
- Outlets and switches within reach

### Laundry

- In single story home without basement laundry is located on entry level
- In single story home with basement, at least rough-in for laundry on entry level
- In multi story home at least plumbing rough-in on entry level

### **Power and Home Technology**

Audible and visible smoke/fire/CO alarms

### Interior Environmental Quality

- Attached garage: passive ventilation and follow best practices for garage/ house common wall
- Improve general artificial lighting levels

### Maintenance

· Hard-surface flooring or low-pile carpet

### Switches, Controls, Hardware

- · High-visibility thermostat
- Reachable electrical panel positioned 25-54" above finished floor



# Age Friendly Homes

- Universal
- Accessible
- Blended



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# **Family Focus**



AARP



### **Bowl Mounted Bars**









# LED Lighting



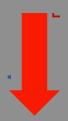




# Minimum Light Levels

Area of Home	Footcandles
Stairway	10-20
Hallway	5-10
Kitchen	50-100
Bathroom	10-20
Home Office	30-50
Laundry	50-100





# Focus Groups

Users	Described Challenge as a Major Impediment
55%	Getting in/out of tub
55%	Getting on/off toilet
44%	Climbing stairs
44%	Lifting, carrying heavy items
44%	Reaching in closets
44%	Standing from a seated position
33%	Using appliances/ cabinets/ fixtures in kitchen
33%	Turning knobs
11%	Seeing small objects in low light conditions
11%	Hearing conversations/TV
0%	General navigation in the home





.' Users	Caregivers	Described Challenge as a Major Impediment
55%	90%	Getting in/out of tub
55%	80%	Getting on/off toilet
44%	90%	Climbing stairs
44%	90%	Lifting, carrying heavy items
44%	70%	Reaching in closets
44%	70%	Standing from a seated position
33%	70%	Using appliances/ cabinets/ fixtures in kitchen
33%	40%	Turning knobs
11%	30%	Seeing small objects in low light conditions
11%	20%	Hearing conversations/TV
0%	10%	General navigation in the home



### Older Customers

- Don't
  - Infirmity
  - III health
  - Disability
- With Care
  - Ramps
  - Grab bars
  - Open knee space



## Marketing

- Best customer
  - Renovating for other reasons
  - Heard about AF/UD a lot
- On website examples, past projects
- With advance info/queries



## Presenting Universal Homes

- Works well
- Looks good
- Lifestyle
- Flexibility
- Customization
- Resale value

- Family and friends
- Ease of use
- Comfort and convenience
- Market appeal
- Delay moves



### Older Customers

- OA's don't know what to ask for
- Appearance matters
  - UD Baths
  - UD Kitchens
    - Pantry
    - Lighting
    - Cooking options
- Aspirations
- Meaningful activities
- Resale value/Save money

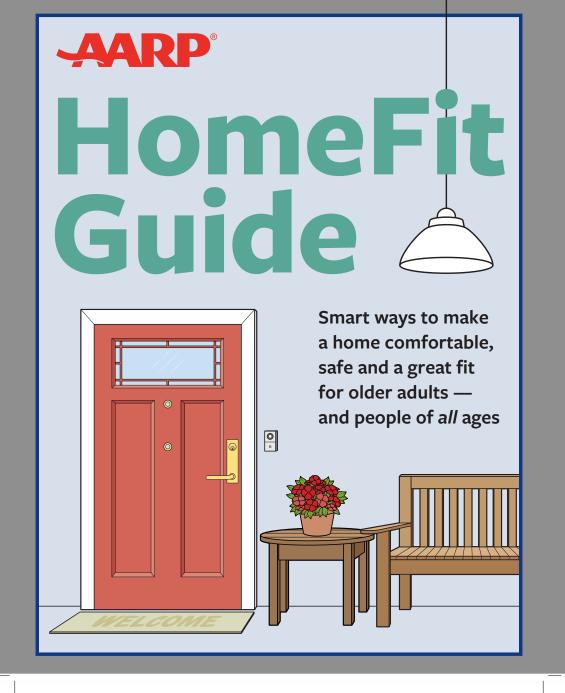


### Resources

AARP's HomeFit Guide 
 https://www.aarp.org/livable communities/housing/info-2020/homefit-guide.html

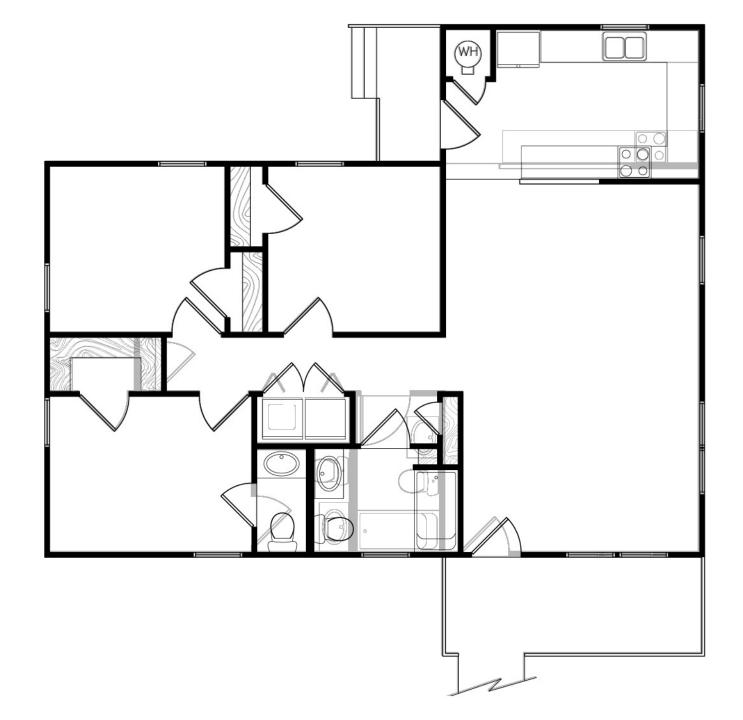
- AARP AR App
  - IOS Only, App Store



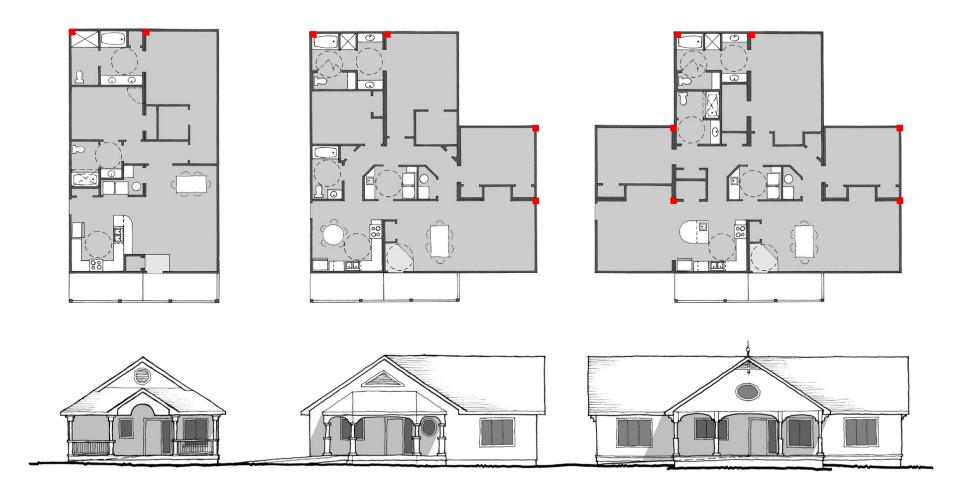












### R-Anell Universal Home Series





# Aging In Community







### Resources

- https://www.udinstitute.org/housing
  - Multifamily
  - Accessory Dwellings
  - New Homes
  - Adapting Homes
  - Older Adults
  - Accessible Housing



### Resources

- Age Friendly Oxford
  - https://www.agefriendlyoxford.org/



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### Services We Provide

- Design assistance and design development
- Research
- ADA and Fair Housing
- New design solutions
- Develops and distributes educational publications and instructional materials
- Conducts training
- Better Living Design Institute



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