



2026 STUDENT DESIGN COMPETITION

MULTI-GENERATIONAL HOME



Welcome!

*AIA Dayton Annual Student Design
Competition's 43rd Year*



Dayton



This competition is a doorway into a myriad of design professions with a focus on art and architecture. Students may explore structural, engineering, biological, sociological, or historical elements in their design.

9 counties
40+ cities,
townships, or
villages



Agenda

First Session

- 11:00am **Check-in/Registration** *Jane Treiber*
- 11:10am **Introduction** *Lauren McCarroll*
- 11:15am **Deep Dive into Project Brief** *Lauren McCarroll*
- 11:25am **Virtual Site/Neighborhood Tour** *Lynn Krodel*
- 12:00pm **Universal Design House Tour** *Rosie Miller*

Break & Lunch

Second Session

- 1:10pm **Universal Design Basics** *Maggie Beecroft*
- 1:30pm **Multi-Generational Brainstorm Activity** *Katie McCall*
- 1:40pm **Board Requirements + Presenting Your Work** *Layah Brown*
- 1:55pm **Final Announcements**



2026 STUDENT DESIGN COMPETITION

MULTI-GENERATIONAL HOME



Program Requirements

- Include elements of Universal Design that accommodates all residents regardless of their age, ability, mobility, or life stage.
- Consider the surrounding historic context of the Huffman neighborhood
- Design should house between 3-8 people, of 3 different generations.
- Design must be a stand-alone structure(s)
 - Can be one family under one roof, or your design can have up to two structures if you prefer a primary house and in-law suite
- Design may be 1-3 stories above ground and may include a basement if desired.



Program Requirements

- Accessible Entry
- Sleeping Spaces
 - Accommodate 3-8 people
- 2-4 Full Bathrooms
 - At least one ADA Accessible Restroom
- Kitchen Spaces
 - Accessible counters and clear paths for mobility
- Dining Space
- Laundry Room/Closet
- Landscape Site Design
- Parking (Optional)
 - Recommended 1 parking spot per 4 people in household



Wildcard: Outdoor (choose 1 of the following)

- Greenhouse
- Roof Terrace
- Outdoor Gathering
(Living/Dining)



Wildcard: Indoor (choose 1 of the following)

- Playroom
- Home Office
- Home Gym



Sleeping Spaces

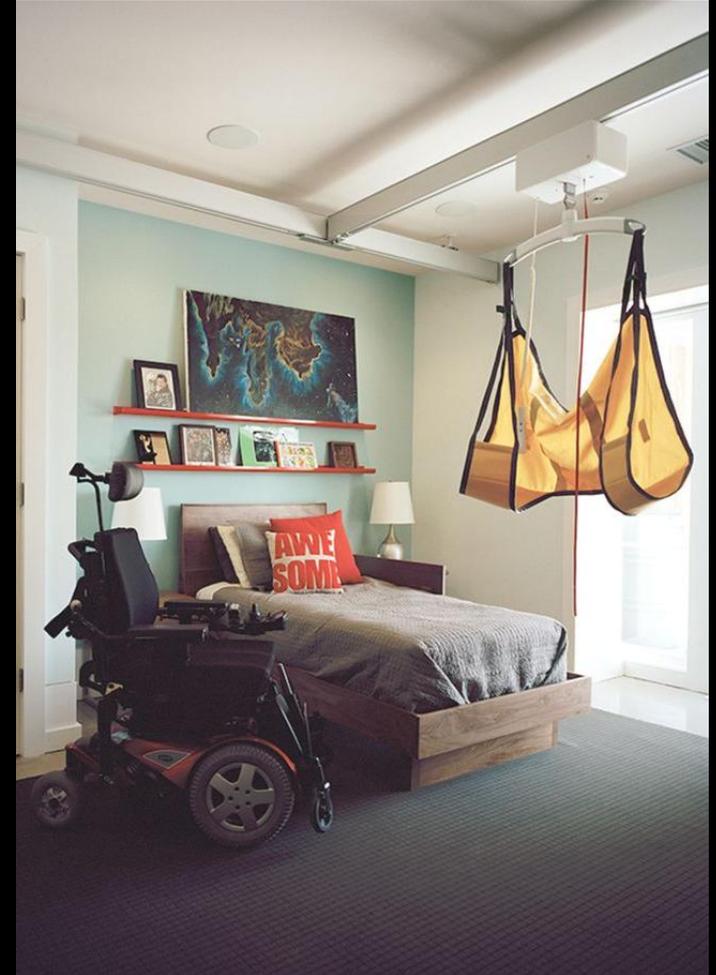
120SF-300 SF each



Primary Bedroom



In-Law Suite Studio



Accessible Bedroom

Sleeping Spaces

120SF-300 SF each



Kids Shared Bedrooms



@vanessarachor.arquitetura

Closet Space



Accessible Closet



Connection to Bedroom



Connection to Bathroom

Bathrooms

60SF-150SF each



Living Areas

180SF-350SF



Collective Family Room



Kid-Friendly Family Room



Living Areas

180SF-350SF



In-Law Suite/Studio Style Living Spaces

Kitchen Space

120SF-300SF



Dining Space

100SF-200SF



Kitchen Bar Dining



Breakfast Nook



Dining Space

100SF-200SF



Formal Dining



Laundry Room/Closet

40SF-80SF each



Alcove/Closet



Mudroom Combo



Dedicated Room



Wildcard: Greenhouse

Variable



Attached



Detached



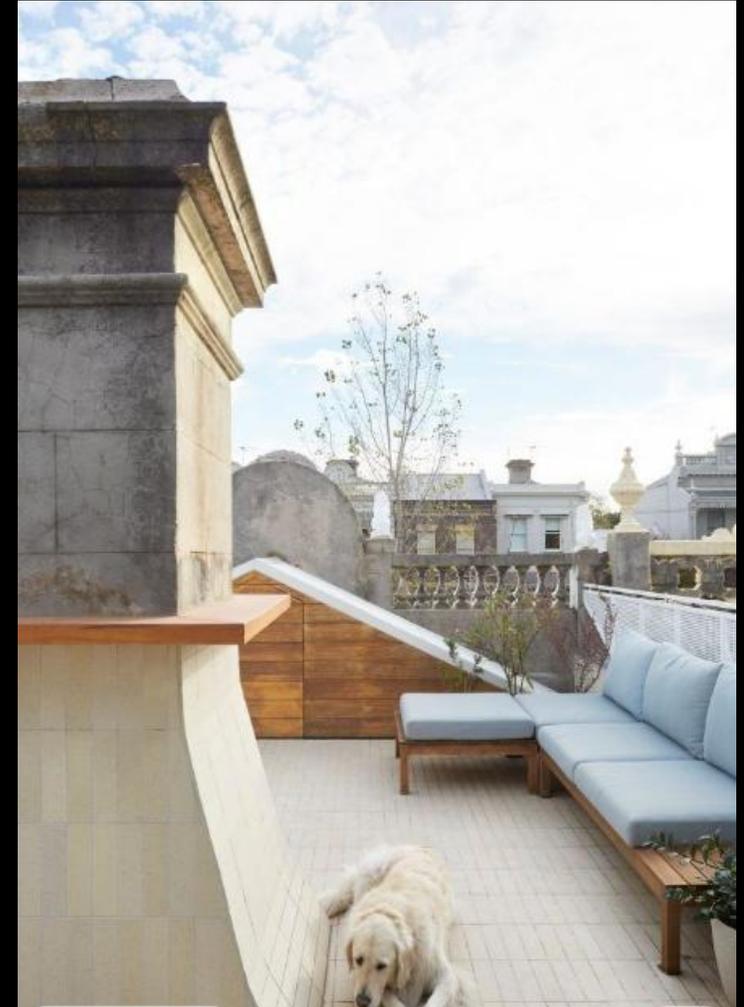
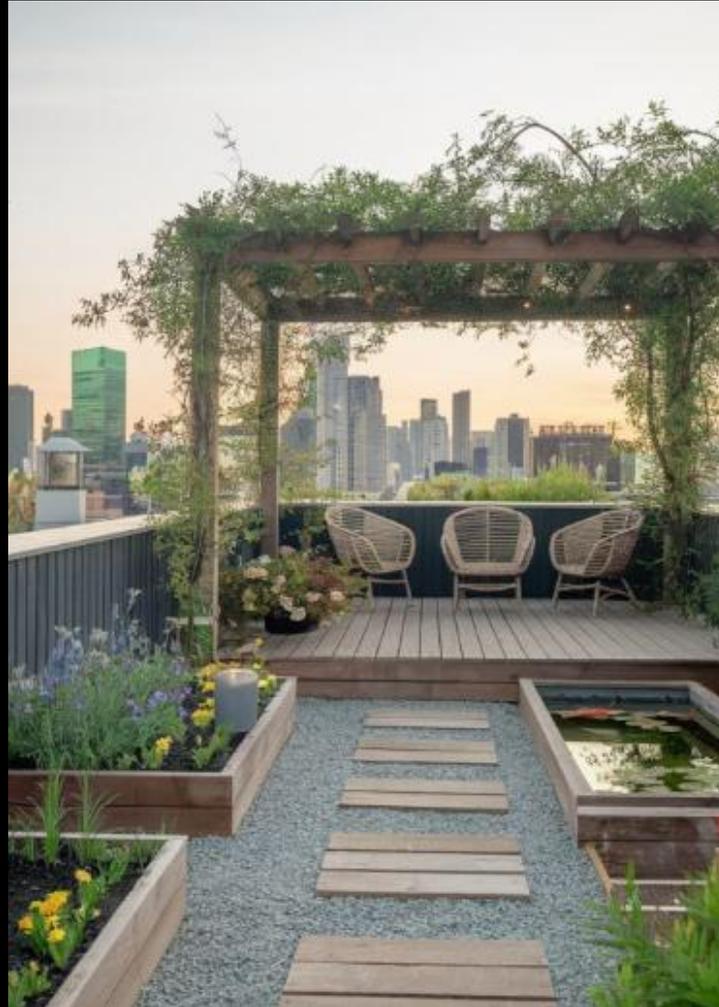
Wildcard: Roof Terrace

Variable



Wildcard: Roof Terrace

Variable



Wildcard: Outdoor Gathering

Variable



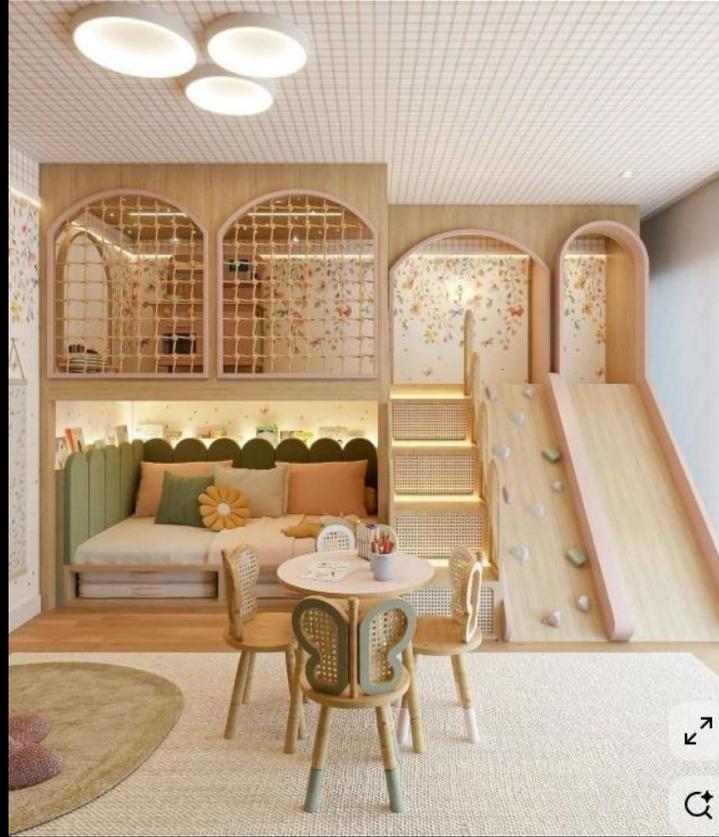
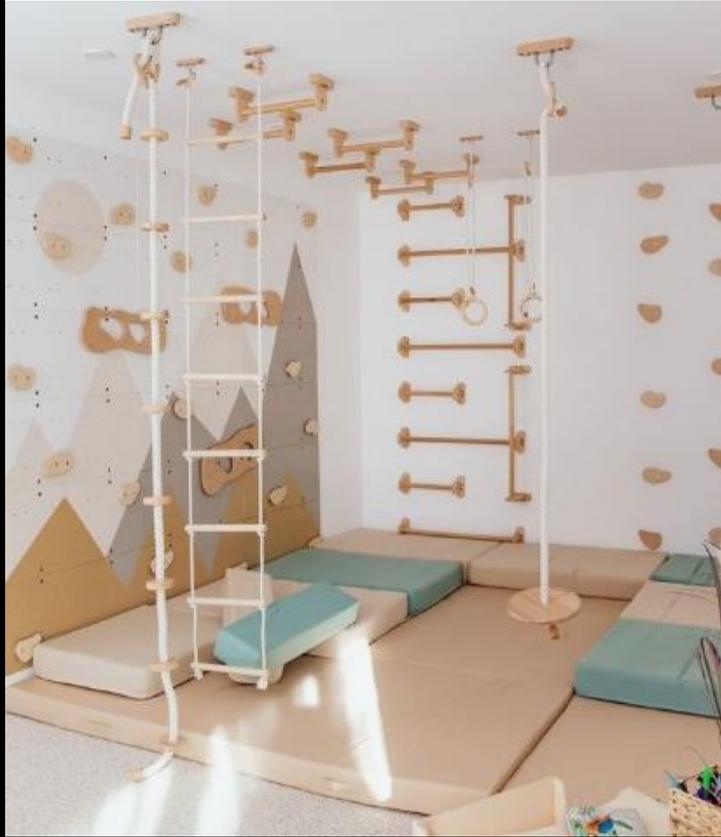
Wildcard: Outdoor Gathering

Variable



Wildcard: Playroom

150SF-300SF



Wildcard: Home Office

100SF-200SF



Alcove



Dedicated Room



Closet

Wildcard: Home Gym

100SF-200SF



Access to Outdoors/Natural Light



Basement

Columbus St

Linden Ave

116

103

109

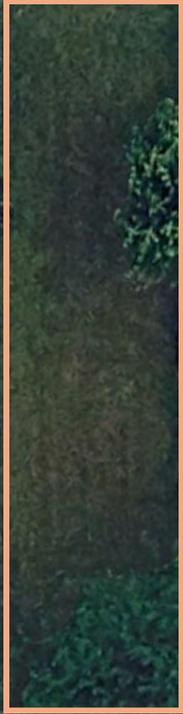
113

13

Centre St

Centre St

Centre St



116

103

109

113

**Full Lot:
33'x133'**

Centre St

Centre St



116

103

109

113

Primary
Buildable
Footprint
27'x93'

Centre St

Centre St



*Accessory structures include carports, garages, sheds, and ADU's or in-law suites

*Accessory
Buildable
Footprint
27'x30'

116

103

109

113

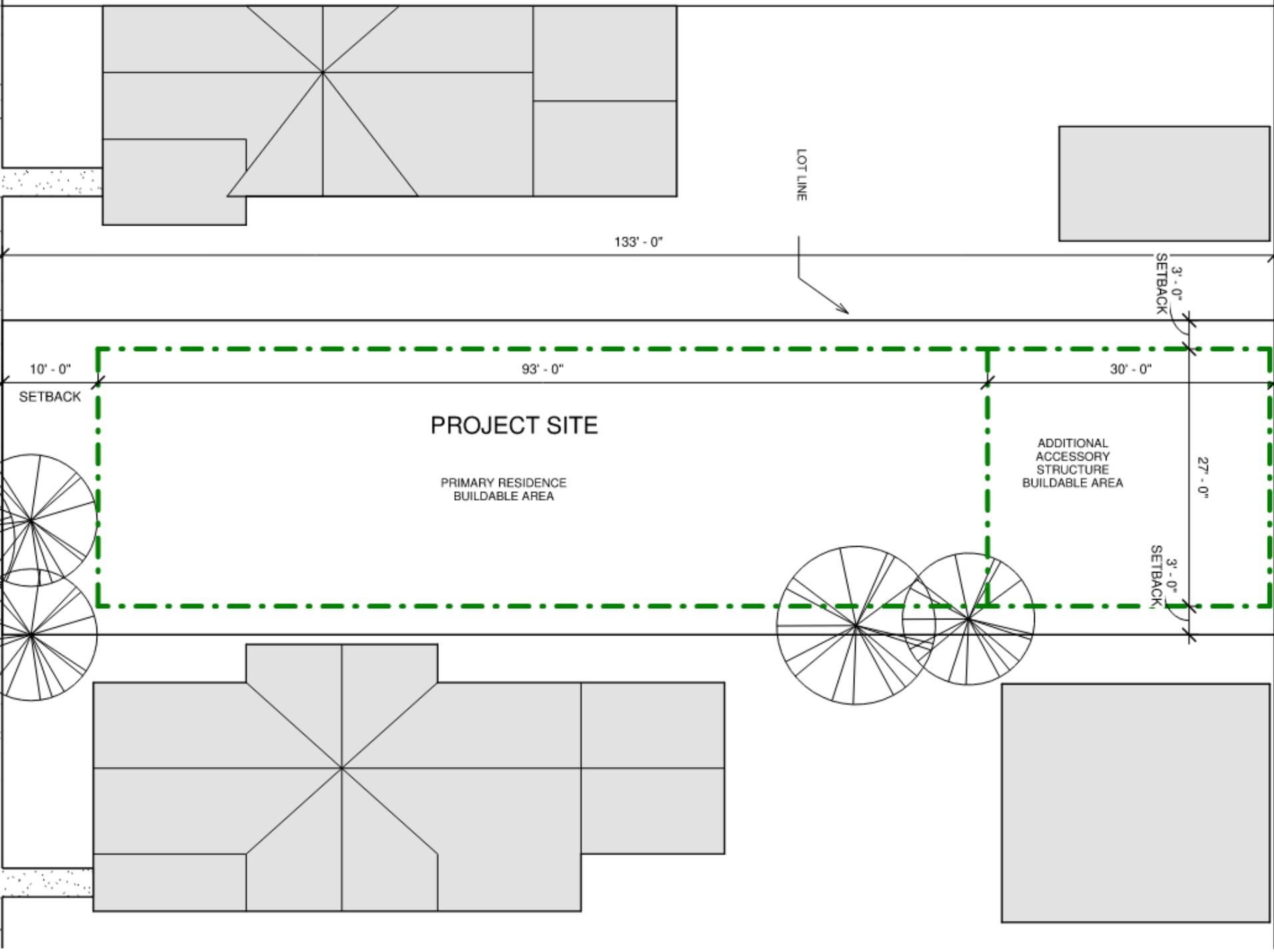
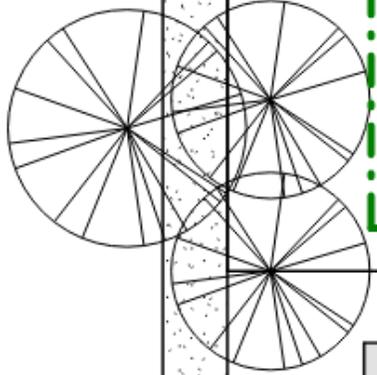
Centre St

Centre St





CENTRE STREET



133' - 0"

LOT LINE

33' - 0"

3' - 0"
SETBACK

10' - 0"
SETBACK

93' - 0"

30' - 0"

PROJECT SITE

PRIMARY RESIDENCE
BUILDABLE AREA

ADDITIONAL
ACCESSORY
STRUCTURE
BUILDABLE AREA

27' - 0"

ALLEY

33' - 0"

3' - 0"
SETBACK



Site + Neighborhood Tour

Walking Tour Guide:

<https://www.preservationdayton.com/huffman.html>

A dimly lit living room with a woman sitting in a wicker chair on the left, a child playing a piano on the right, and a pink motorized wheelchair in the center. The room features wooden shelves with various decorative items and a large potted plant on the far left. The text "Accessible Design 101" is overlaid in the center in a white, italicized font, with a white horizontal line underneath it.

Accessible Design 101

Quick Question

Have you ever been in a place that was hard to use?

Stairs with a broken leg

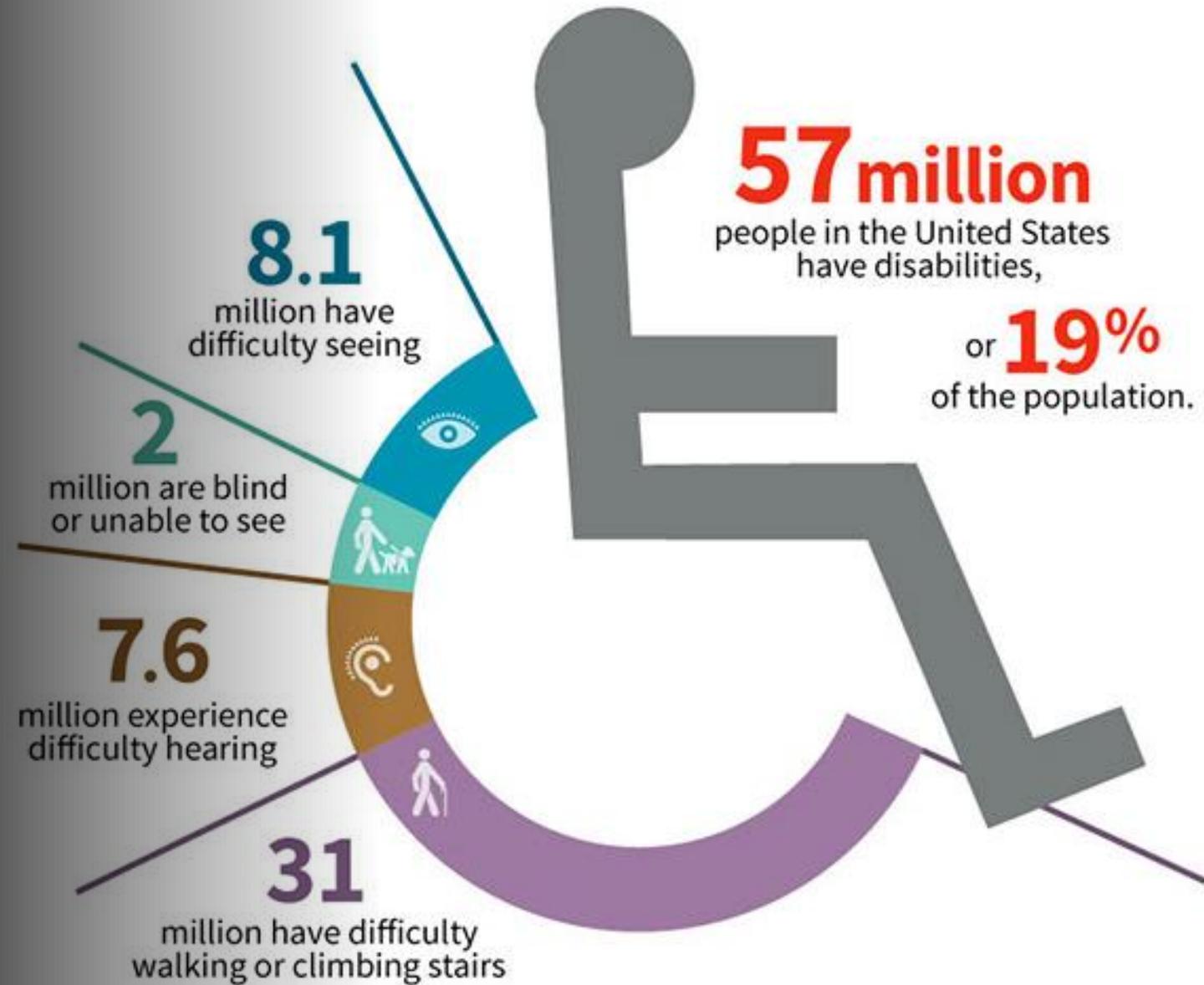
Heavy doors

Tiny bathrooms

American Disabilities

What Is a Disability?

- Mobility limitations
- Vision or hearing loss
- Cognitive or sensory differences
- Temporary injuries



What Is the ADA?

- Americans with Disabilities Act (1990)
 - U.S. civil rights law
 - Protects people with disabilities
 - Focuses on access and fairness



What Does the ADA Cover?



Schools



Stores and
restaurants



Transportation



Workplaces



Some housing
situations

Where ADA Usually Does NOT Apply



Single-family homes



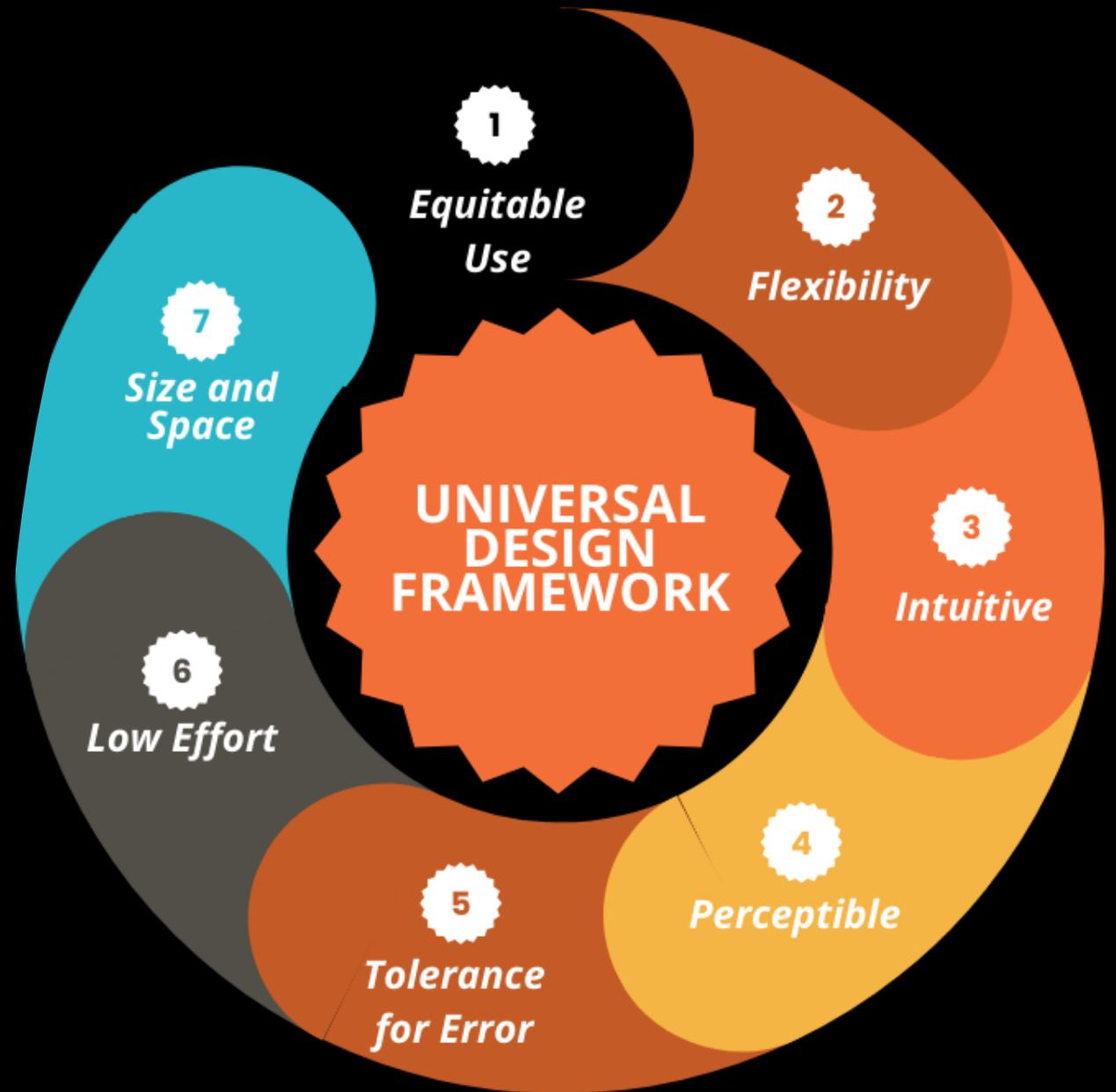
Inside private
apartments



Other laws still apply
(FHA, local codes)

Universal Design

- Design for all people from the start
- Goes beyond minimum requirements
- Equitable, flexible, simple, low effort



Big Design Idea

- Good design plans for changing needs
- Homes last a long time
- Inclusive design helps more people



When Do Homes Need Accommodations?

Let's look at four common situations



Multifamily Housing



Aging in Place

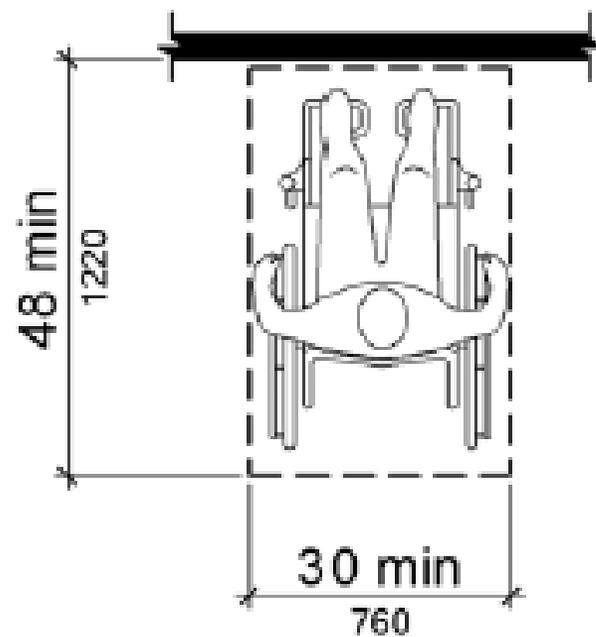


Temporary Needs

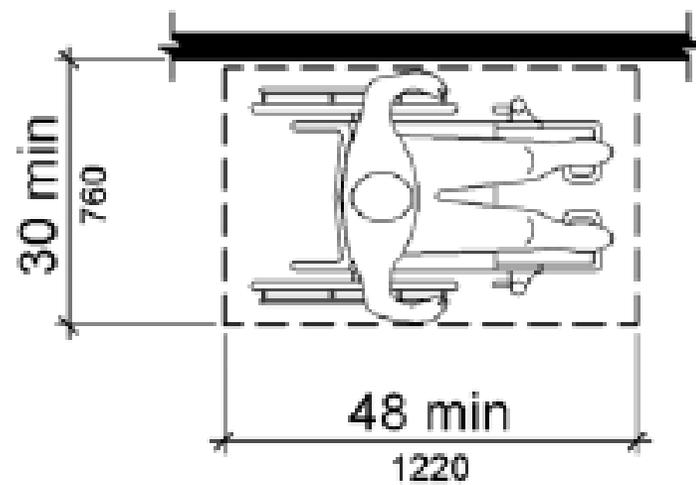


Visitors and Guest

Building Blocks



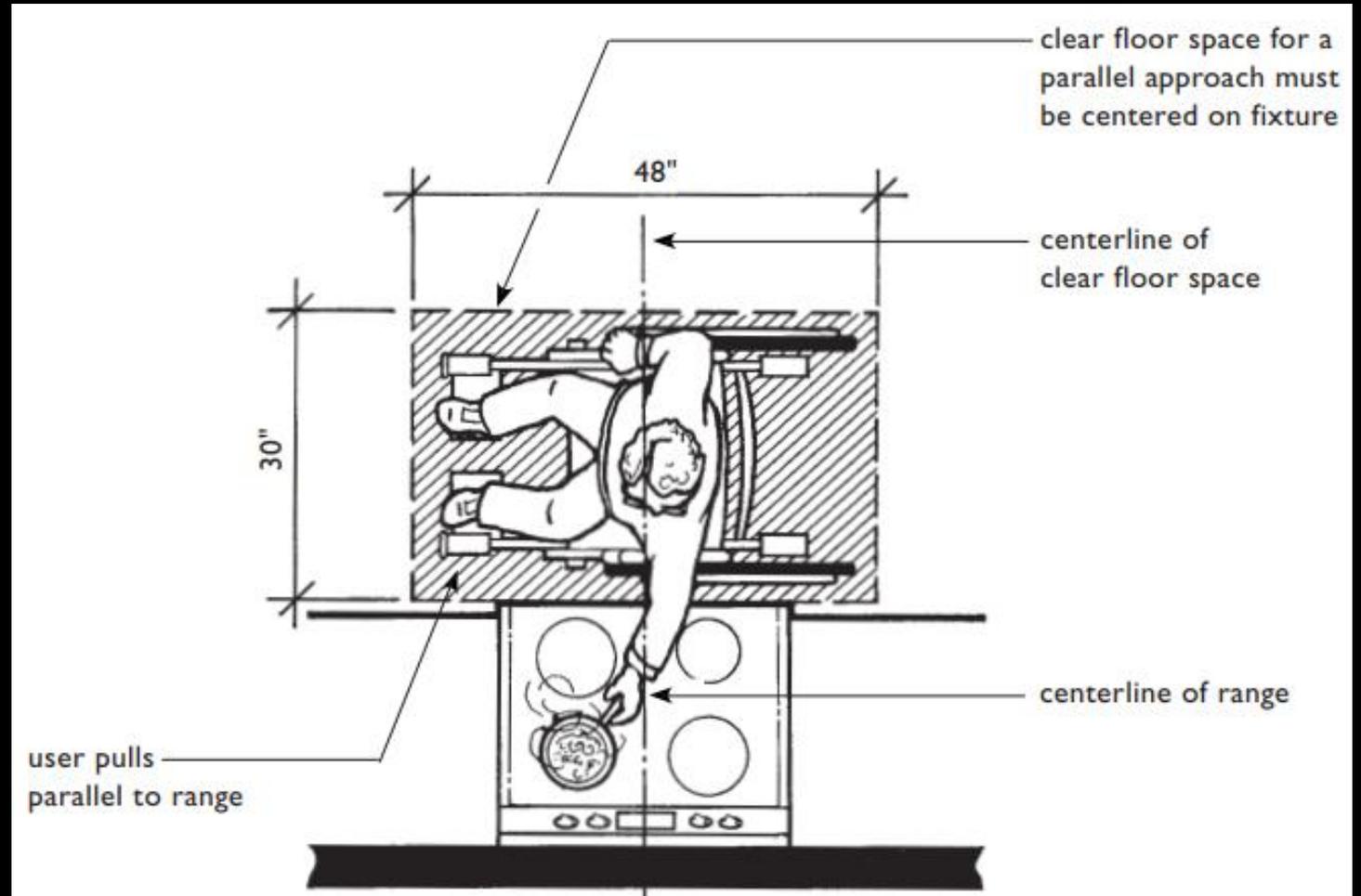
(a)
forward



(b)
parallel

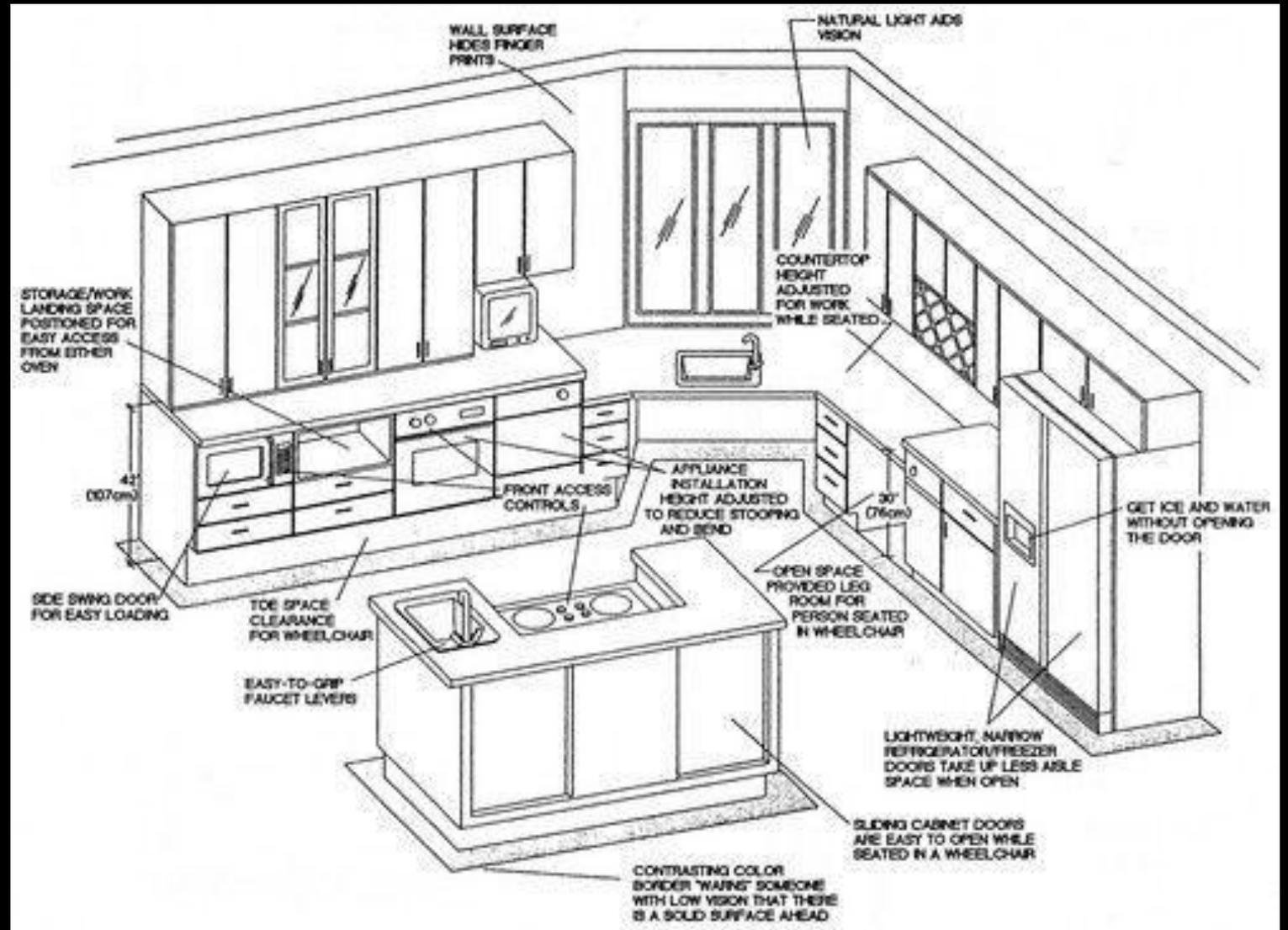
Real Design Examples

Kitchens



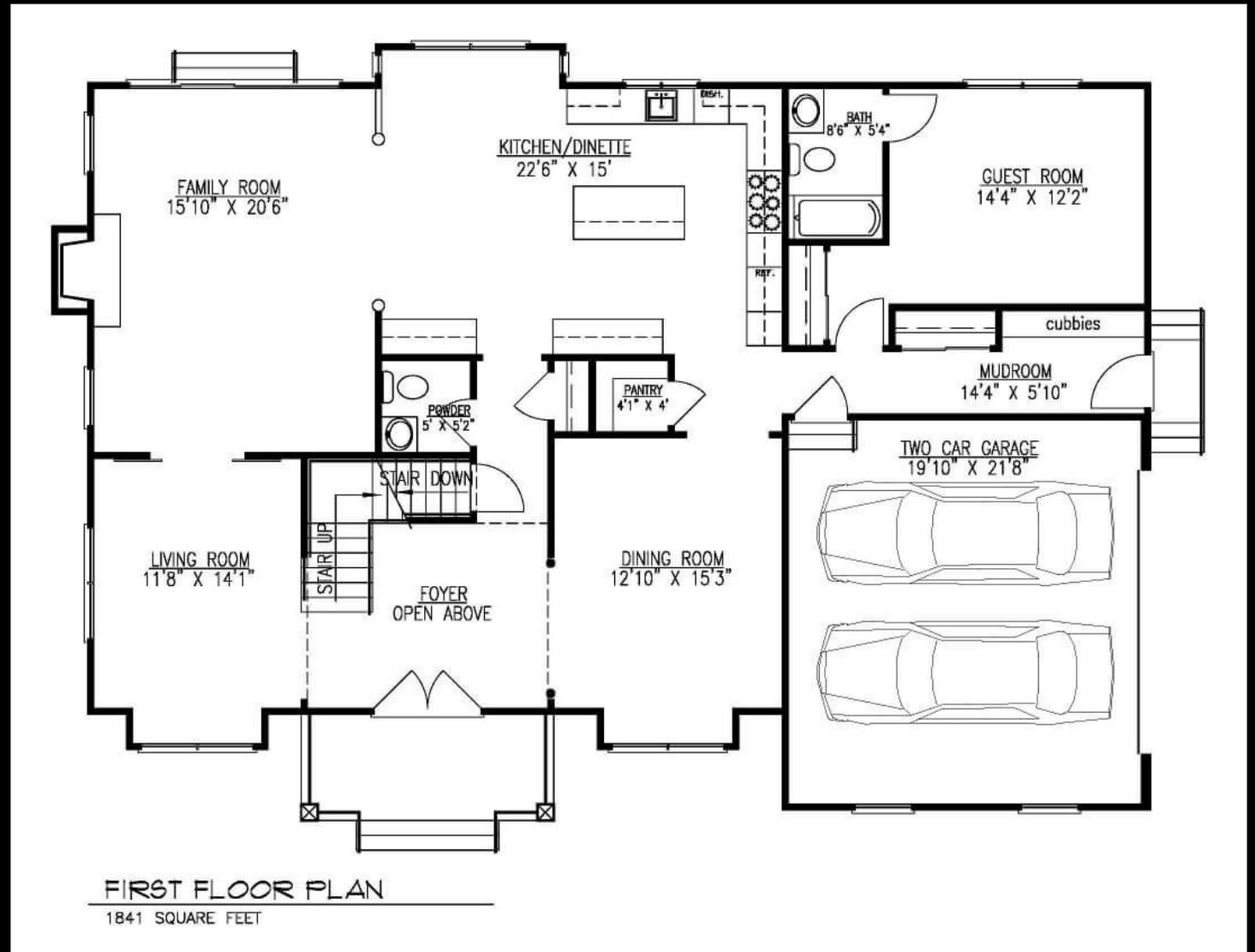
Real Design Examples

Kitchens



Quick Activity

- Groups of 2-3
- Identify Barriers



Wrap-Up: Key Takeaways

- ADA = access and fairness
- Residential design still needs accessibility
- Designing for accommodations helps everyone

*Multi-Generational
Brainstorming*

Program Exercise *Ideas*

Family #1

This household includes two working grandparents in their late 50's. One works a factory job and the other is a teacher. The household also includes 2 parents in their mid-30's. One is a stay-at-home mom and the other is an accountant. They have 3 home schooled children: a toddler, a 5-year-old, and a wheel-chair bound 7-year-old.

Family #2

This household includes a single grandparent that is a retired veteran, 2 parents in their mid-40's who own a restaurant together and have one college-aged child that commutes to university from home.

Family #3

This household includes a single home-bound, aging grandparent in their 80's, 2 retired parents that are now full-time caregivers, and a single adult child in their early 40's who works as an author from home.

What optional programs would benefit your given family the most for their lifestage? Why?

Do you think your multi-
generational family values
collective spaces or individual
spaces more? Why?

What elements of universal design might your multi-generational family benefit from?

Presenting Your Work

ADU Design Challenge

CONCEPT STATEMENT
ADU FOR ACCESS

AIA
Dayton
Site Plan
Concept Statement
Renders

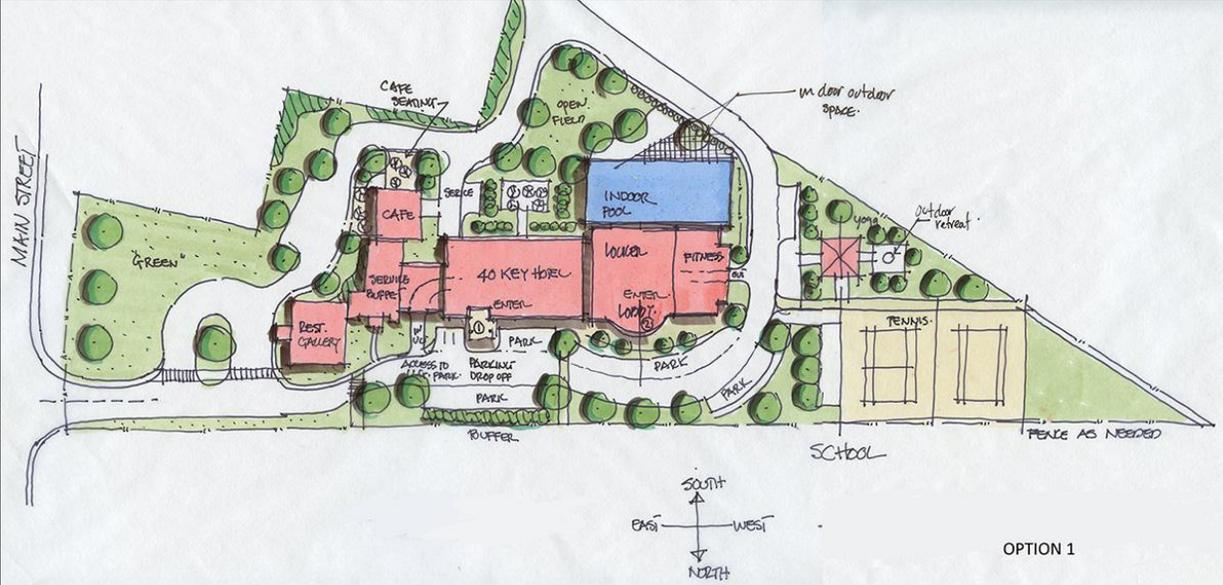
THE COZY COTTAGE

CONCEPT STATEMENT



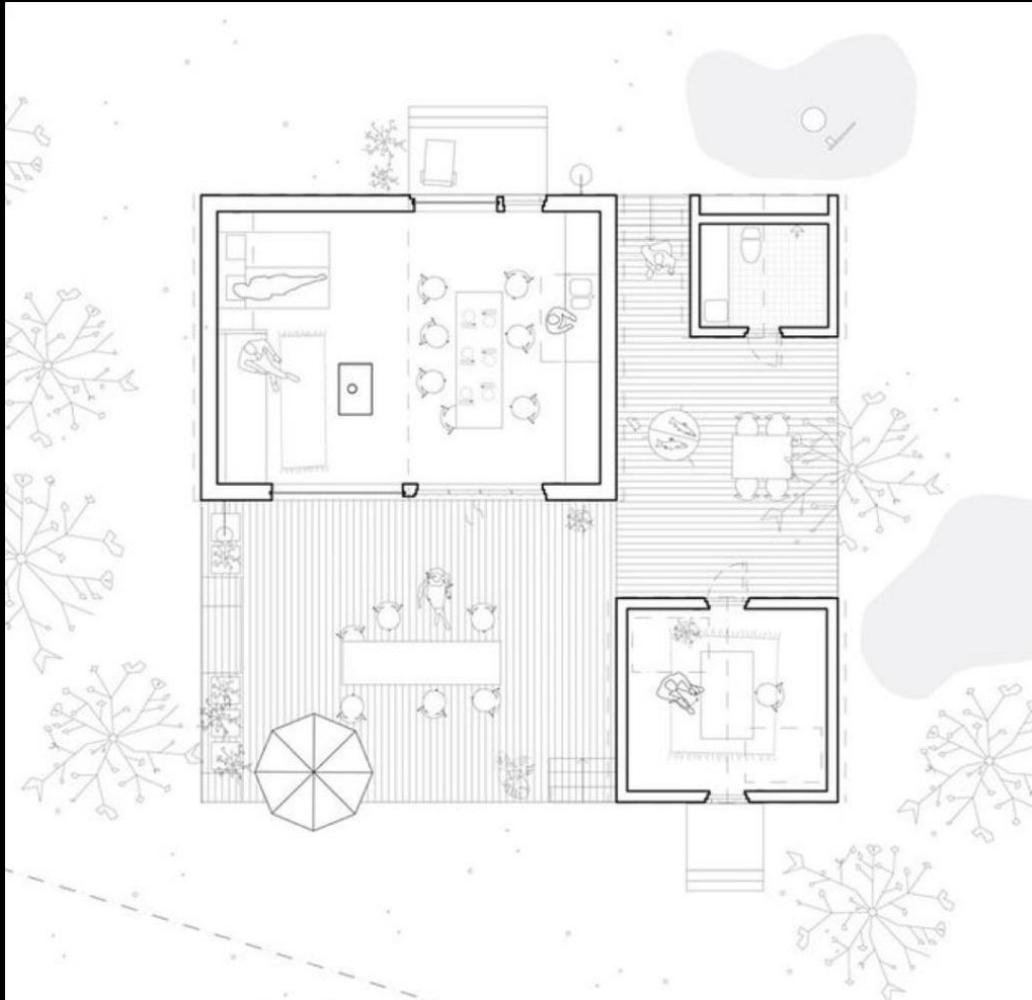
Site Plan

Scale: 1/16"=1' (recommended)



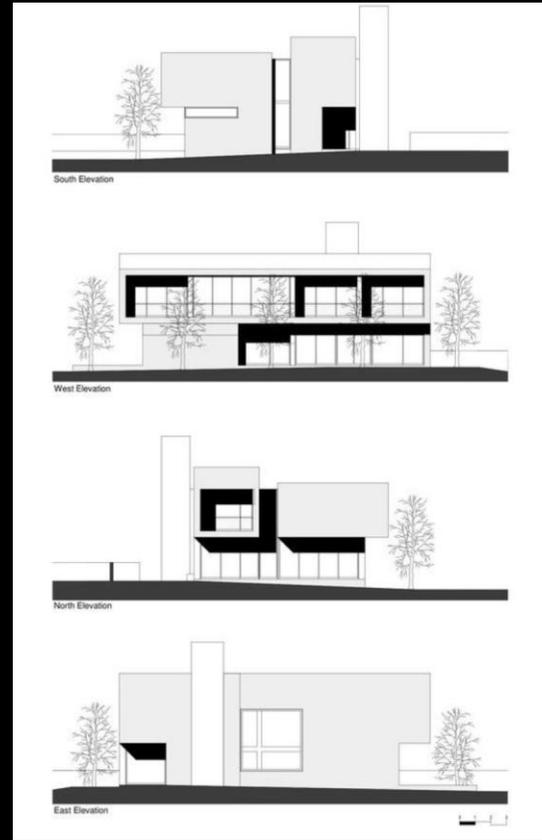
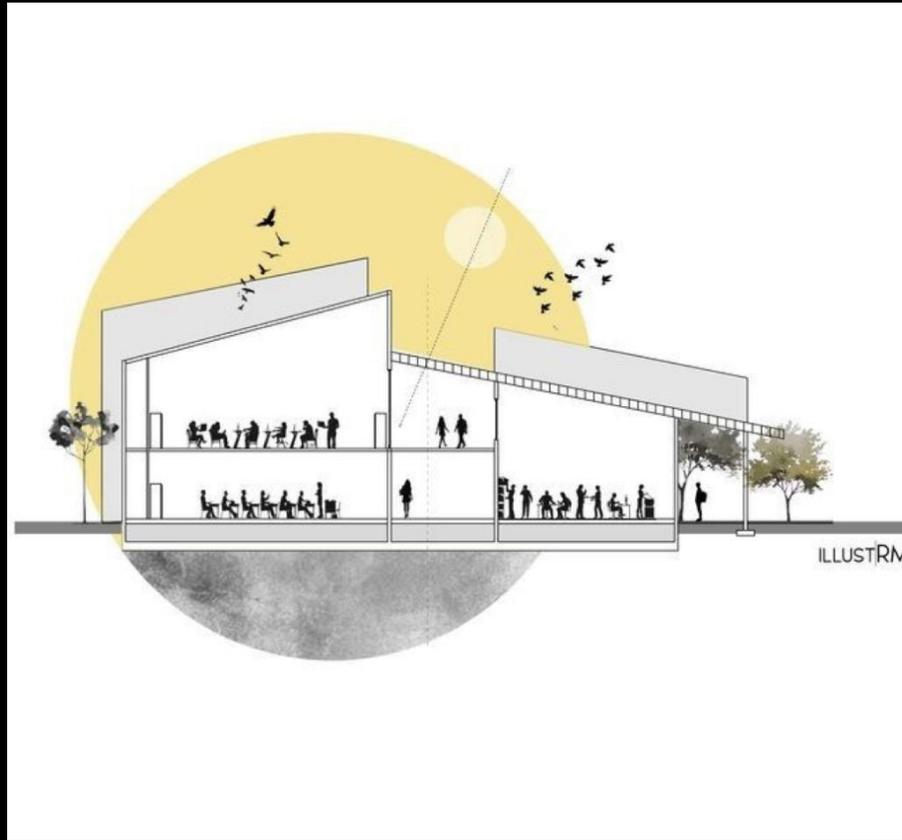
Floor Plan

Scale: $1/4''$ or $1/8''=1'$



Elevations + Sections

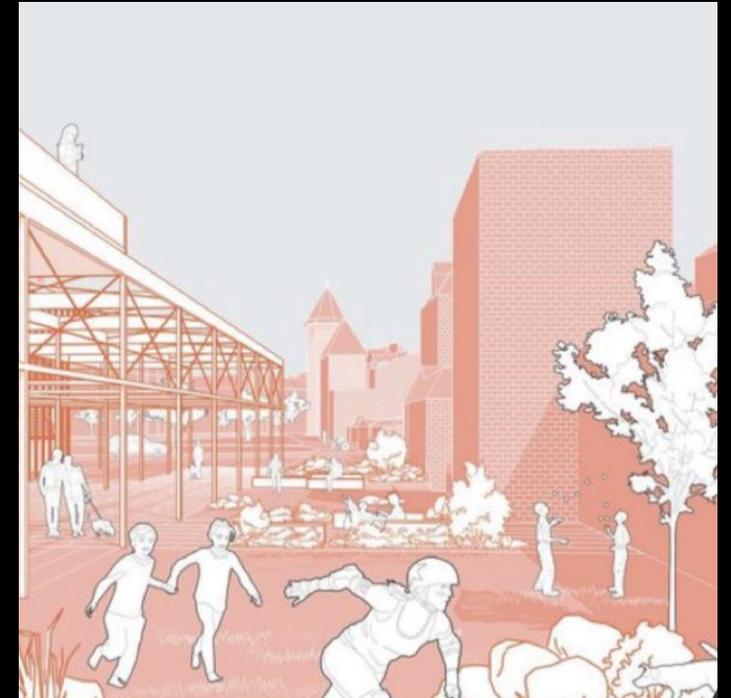
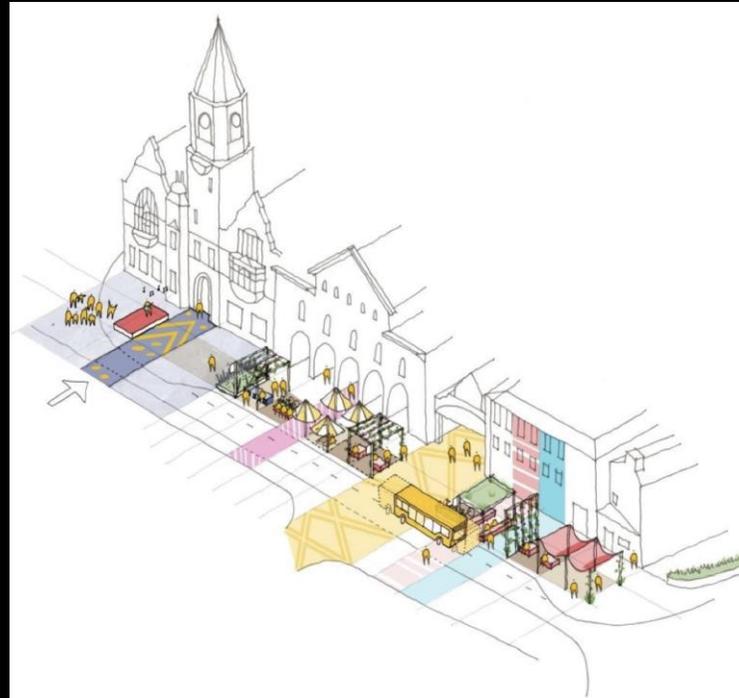
Scale: 1/4" or 1/8"=1'



3D Views

Perspectives, axons, etc.

Could be digital renderings, collages, drawings—use your creativity!



Physical Model Scale: 1/4" = 1'



Section Models

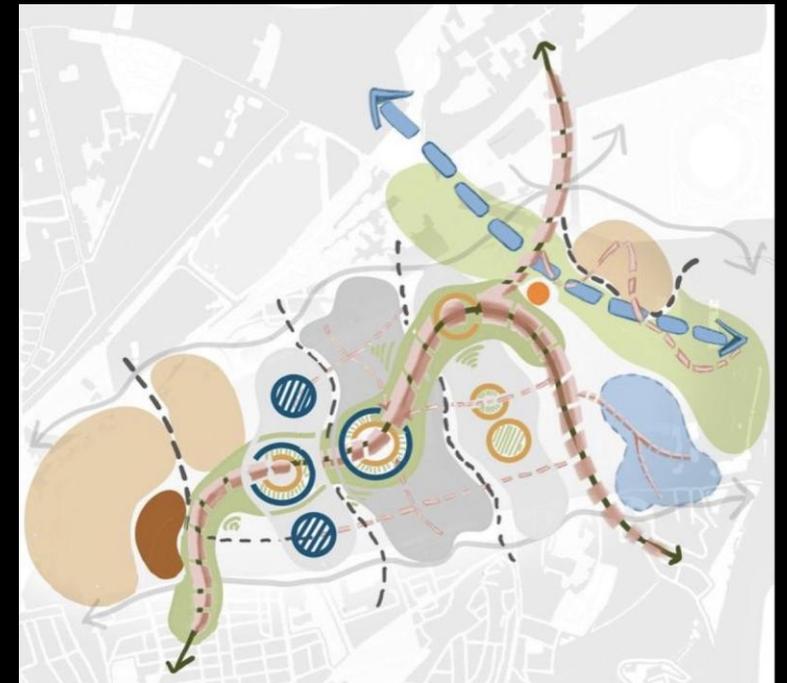
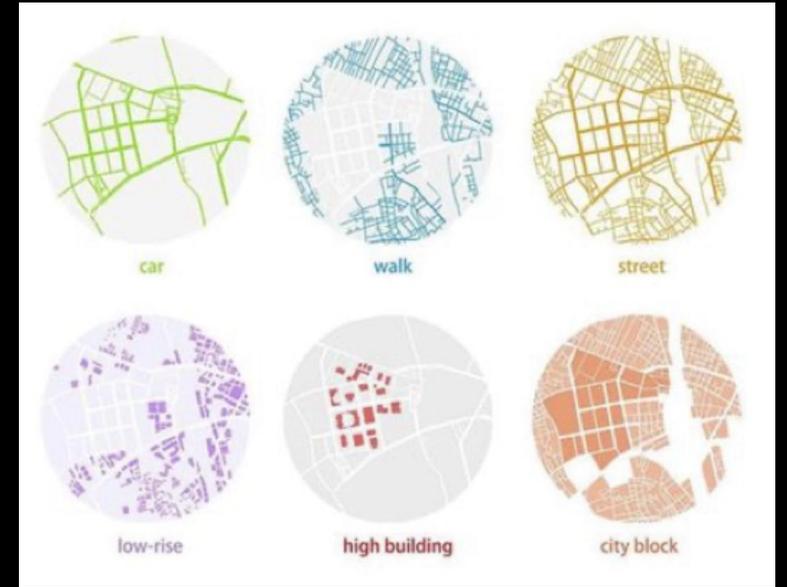
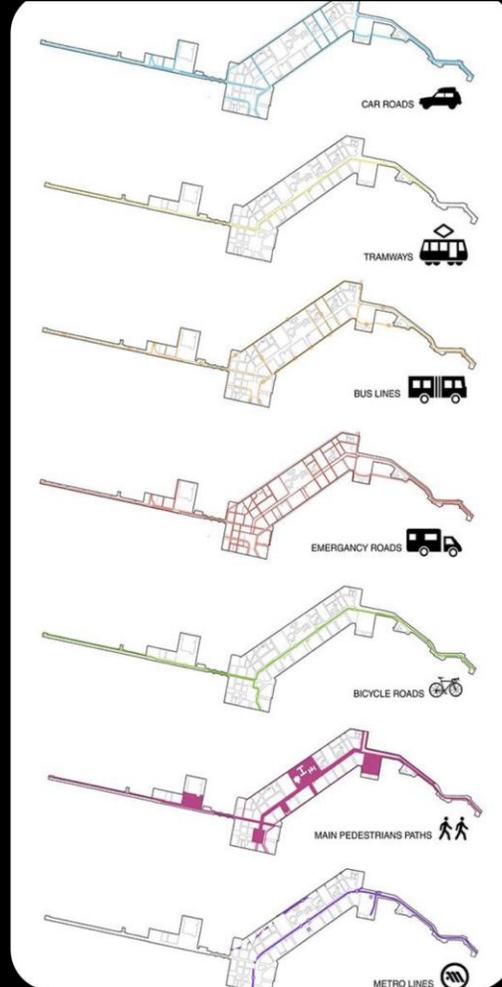
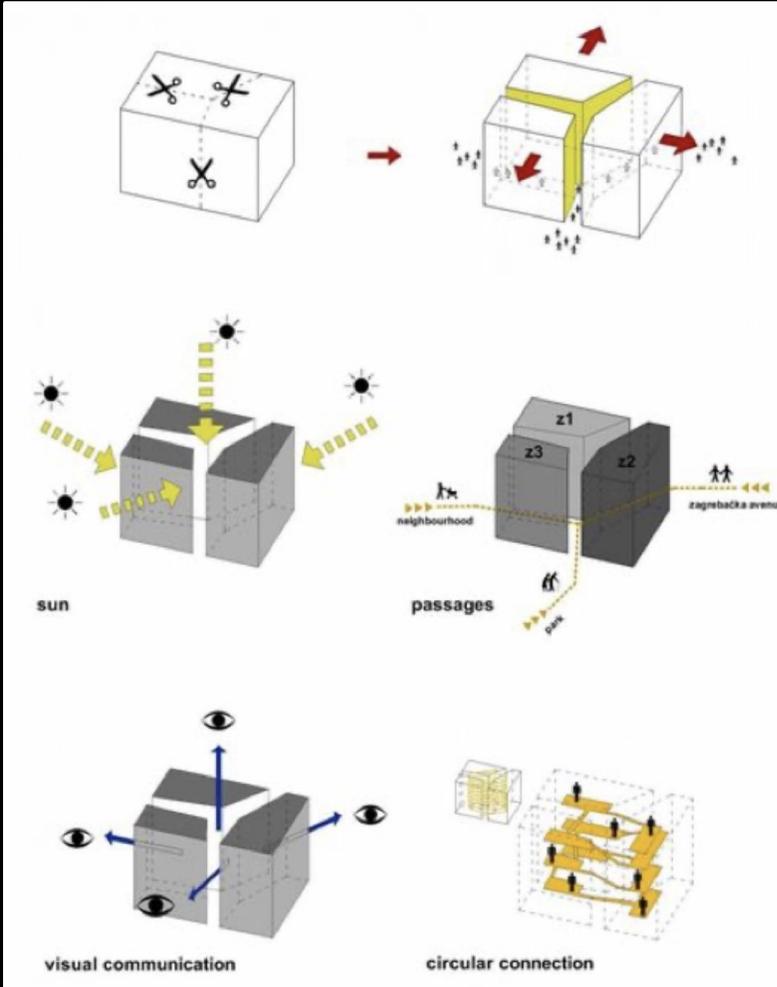
Physical Model Scale: 1/4"=1'



Materiality

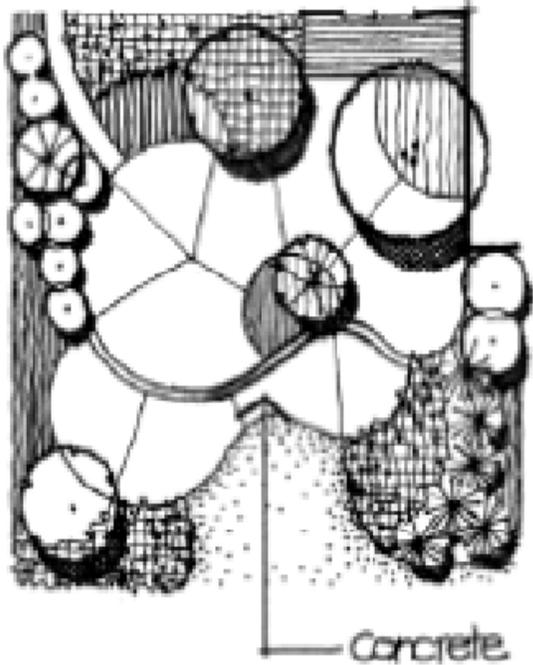
Optional: Diagrams

tell the “why” of your project in a concise, visual manner

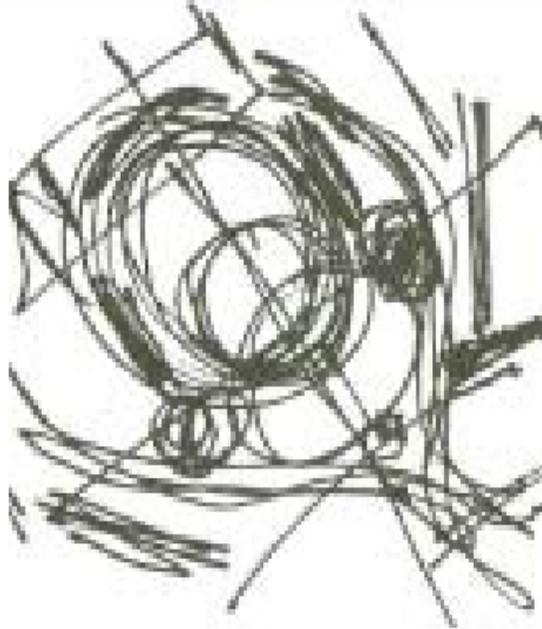


Optional: Concept/Process Sketches

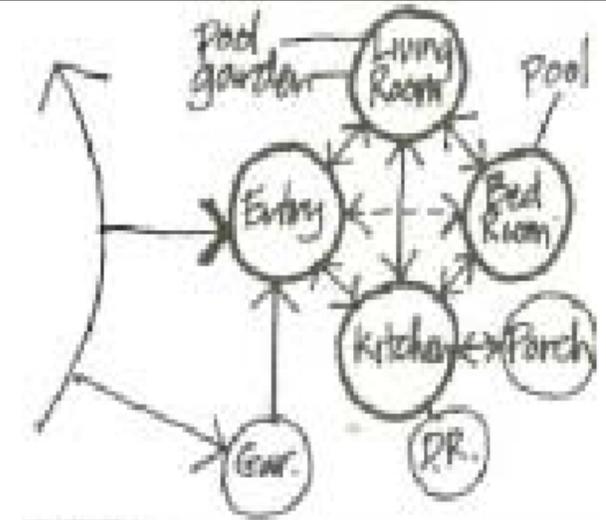
show where your ideas started!



Final Sketch



Conceptual Sketch



A Bubble Diagram

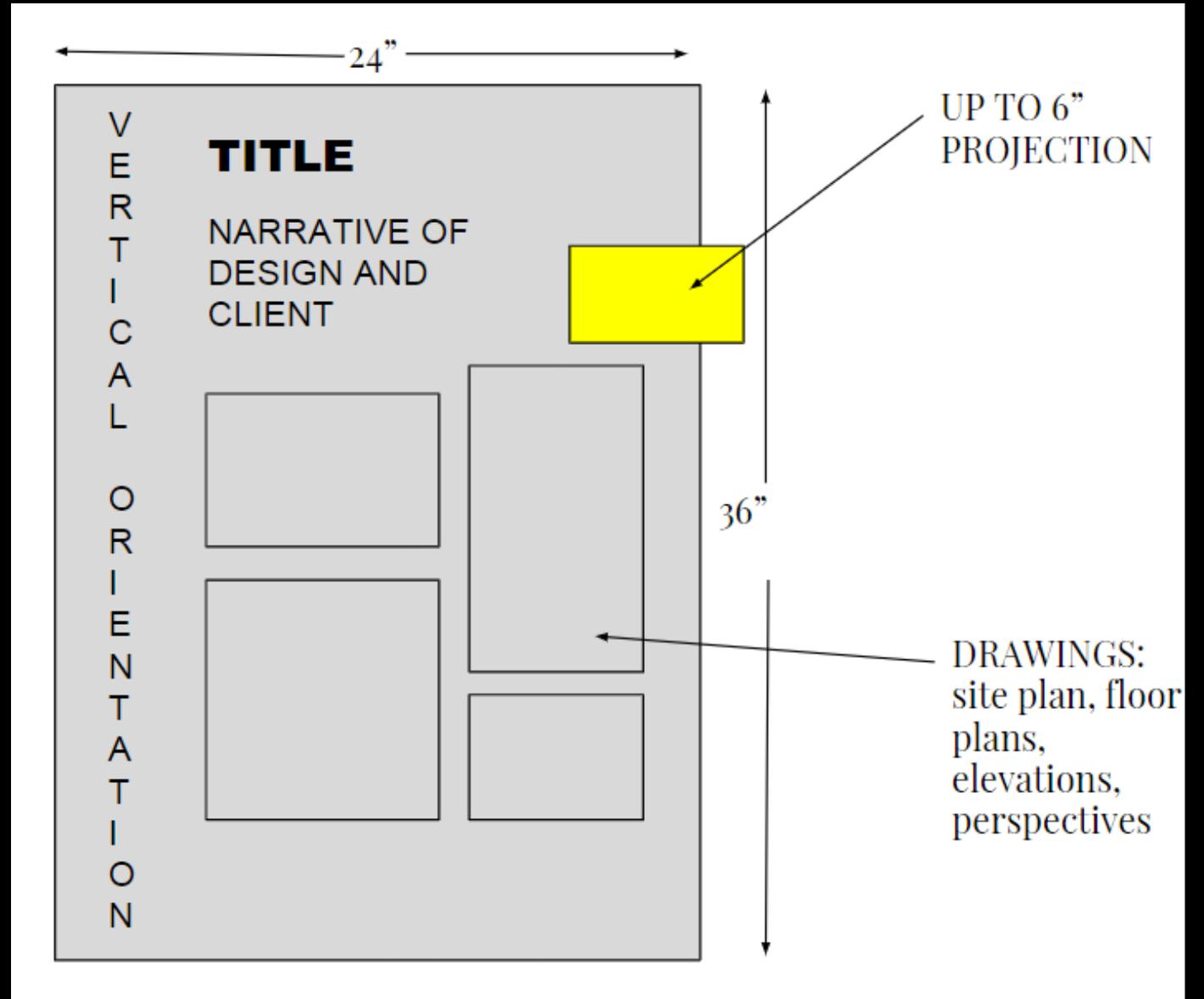
Other Supplemental Materials

Extras to Include:

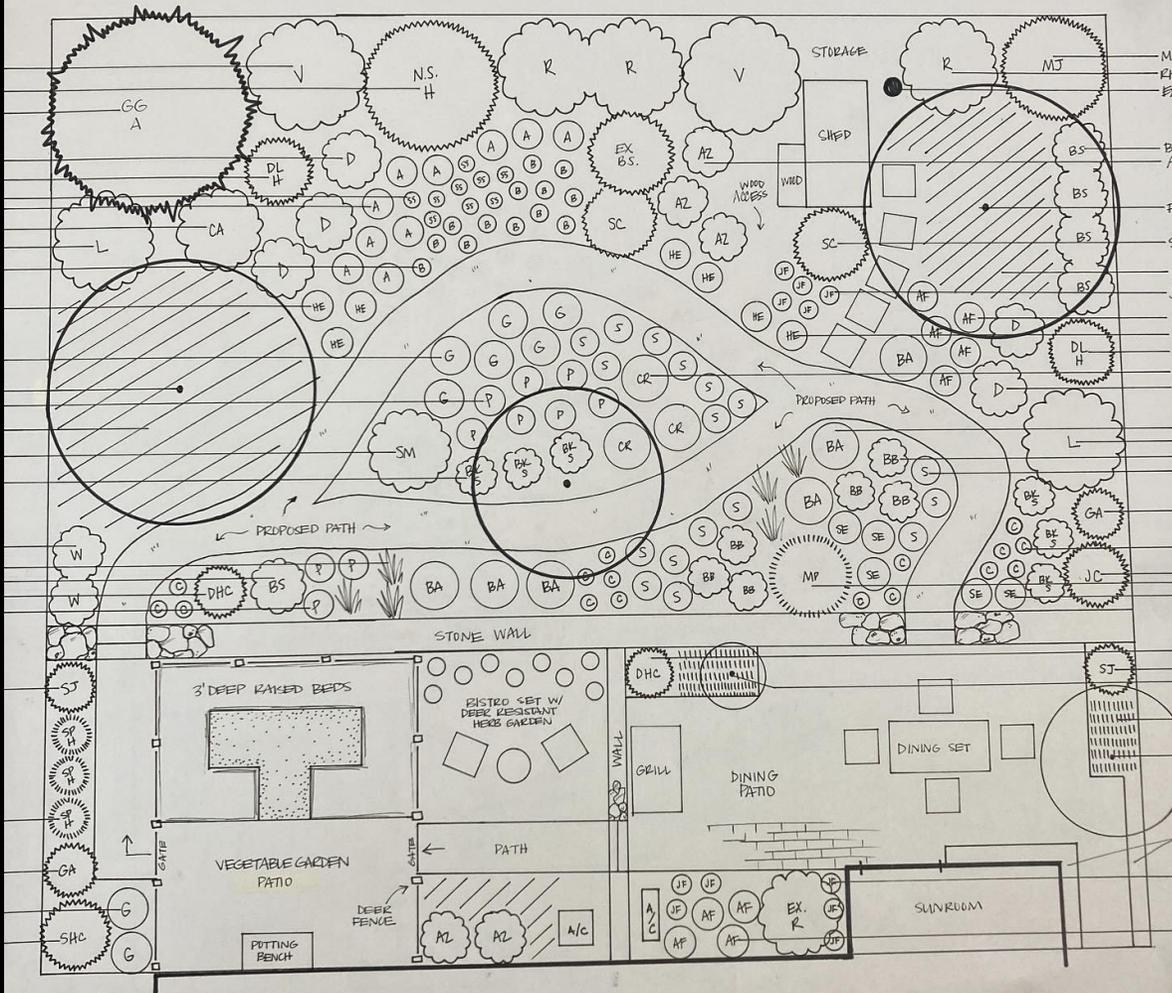
- QR Code
- Stacked Paper (flip-through)
- Inspiration Images
- Material Samples/Textures

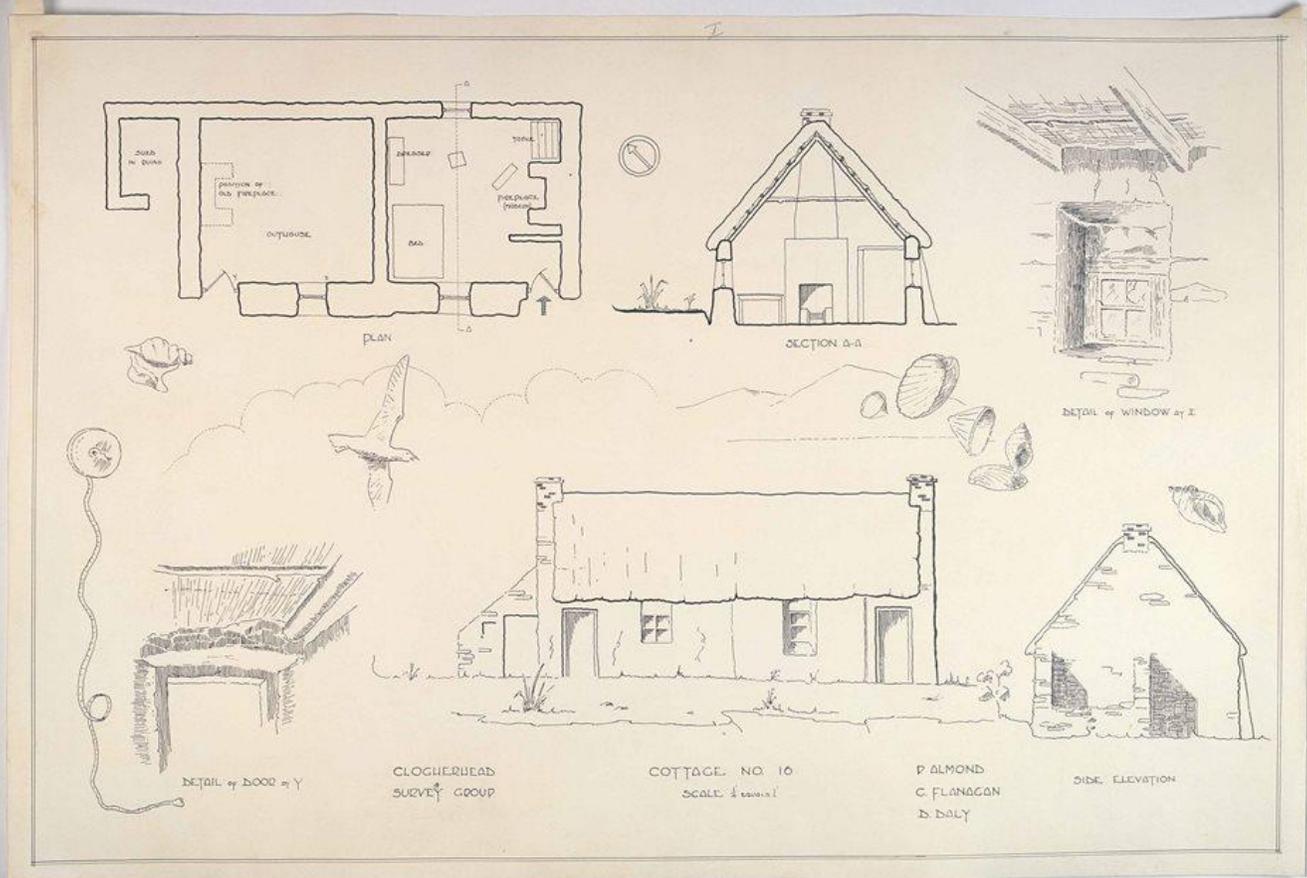
Board Requirements

- 24"x36" foam board (vertical)
- Required Drawings
- **Concept Statement** (explain your family scenario)
- In addition to your drawings, consider:
 - Material palette samples
 - Collages
 - Process sketches
 - Process Diagrams
- DO NOT put your name on your board

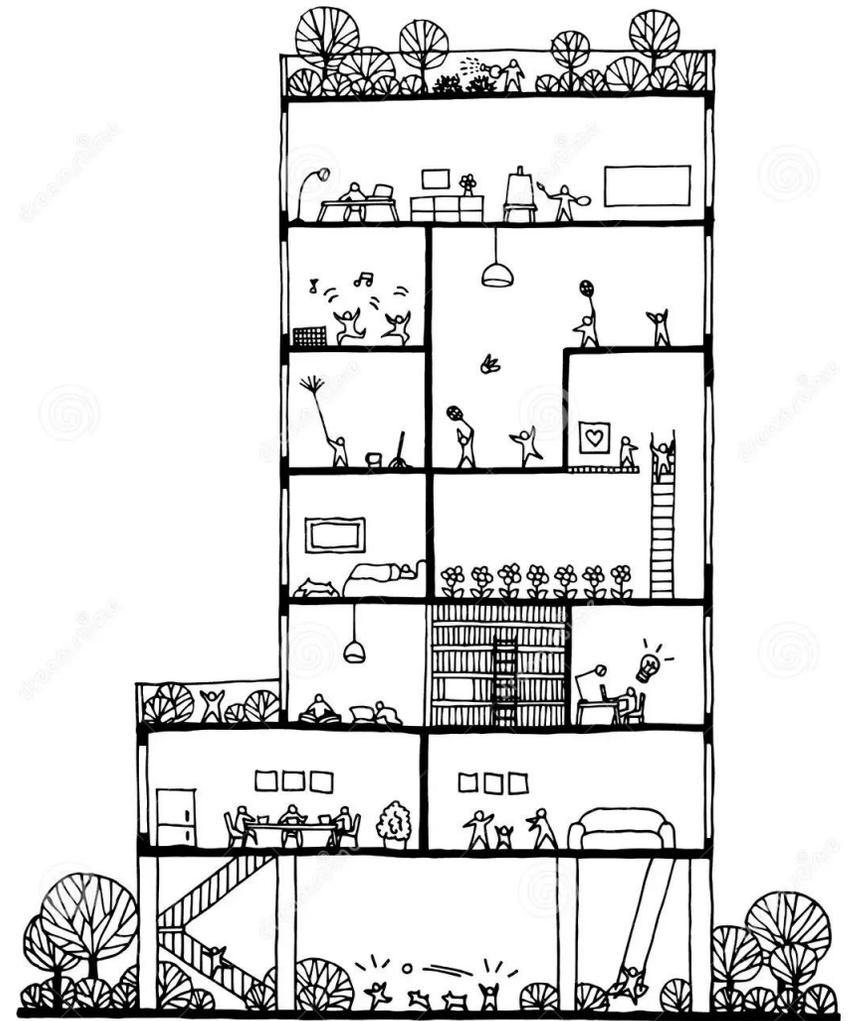


Hand **Drafting**





General Example

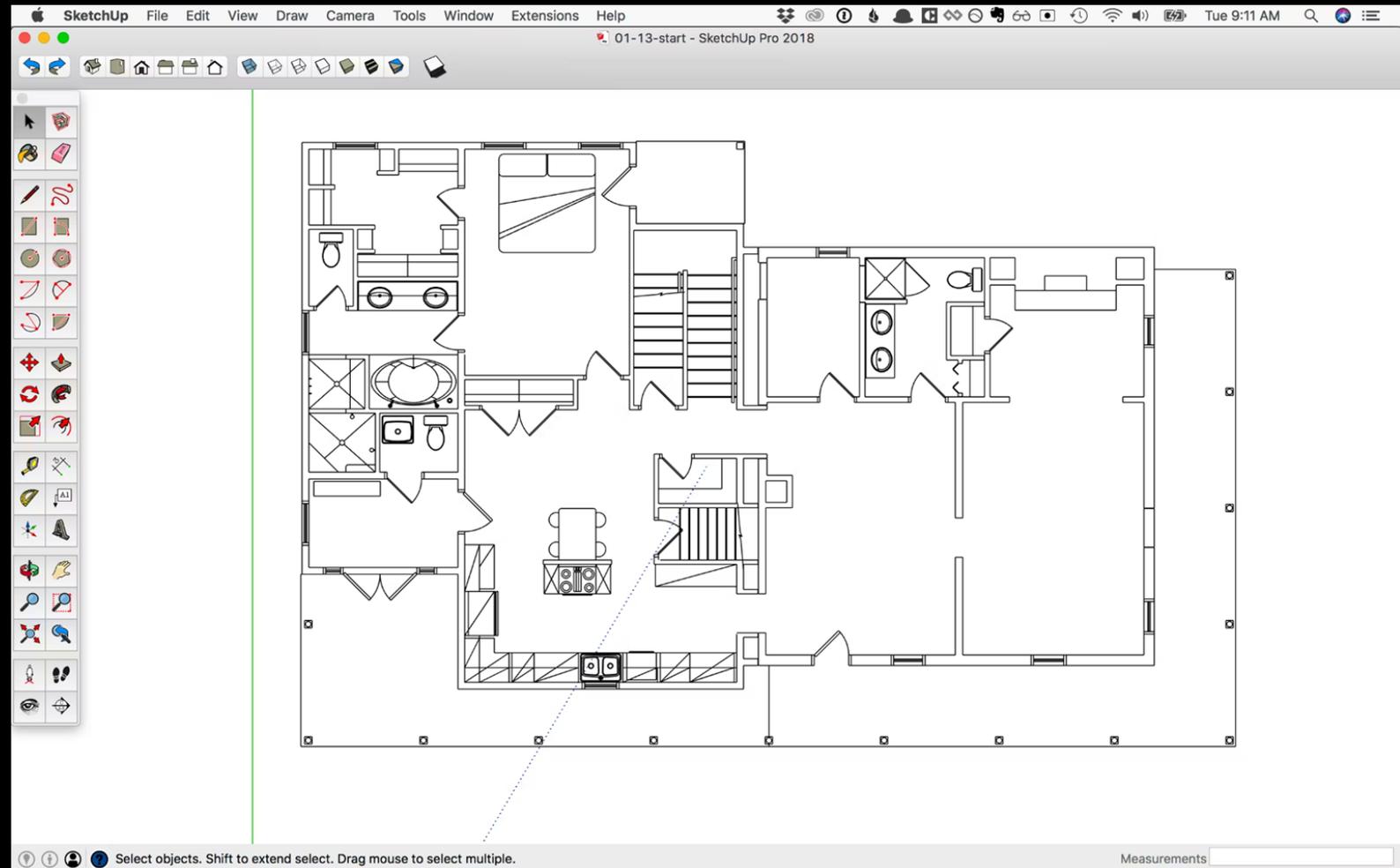


Section Drawing

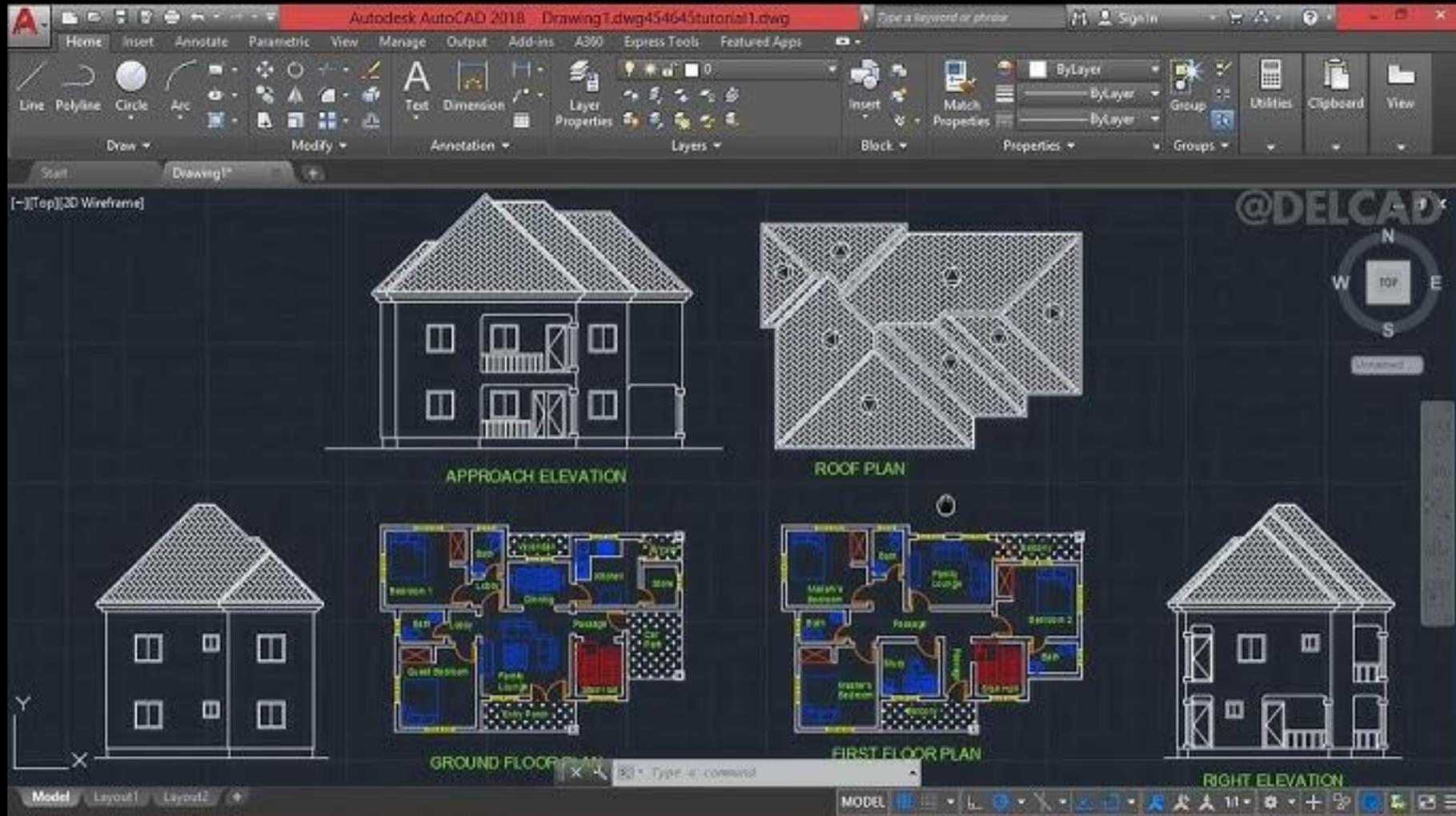
Digital Drawing

- SketchUp (Free)
- AutoCAD
- Revit

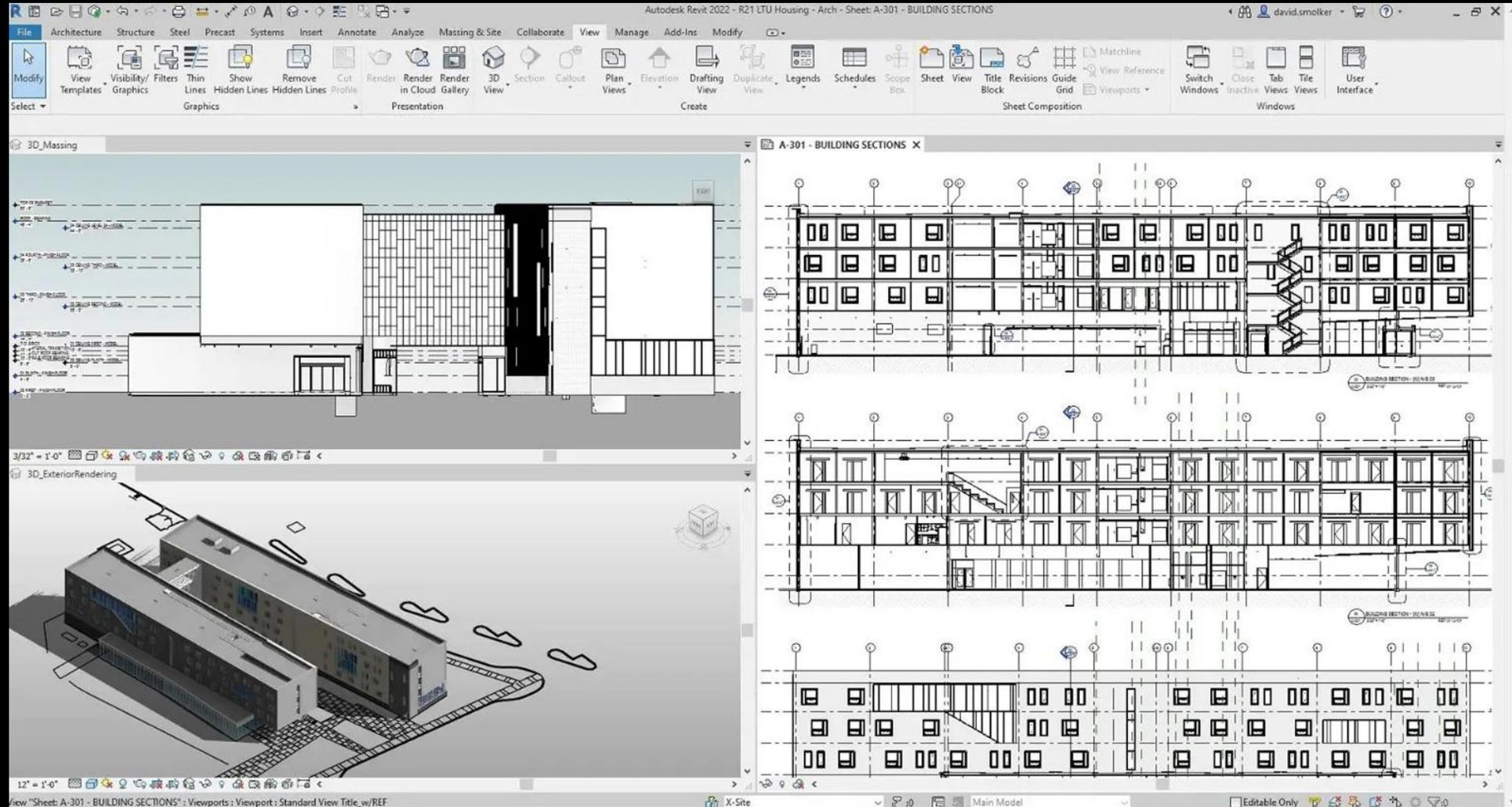
SketchUp



AutoCAD: 2D Drawings



Revit: 3D Modeling





Physical Model

Materials

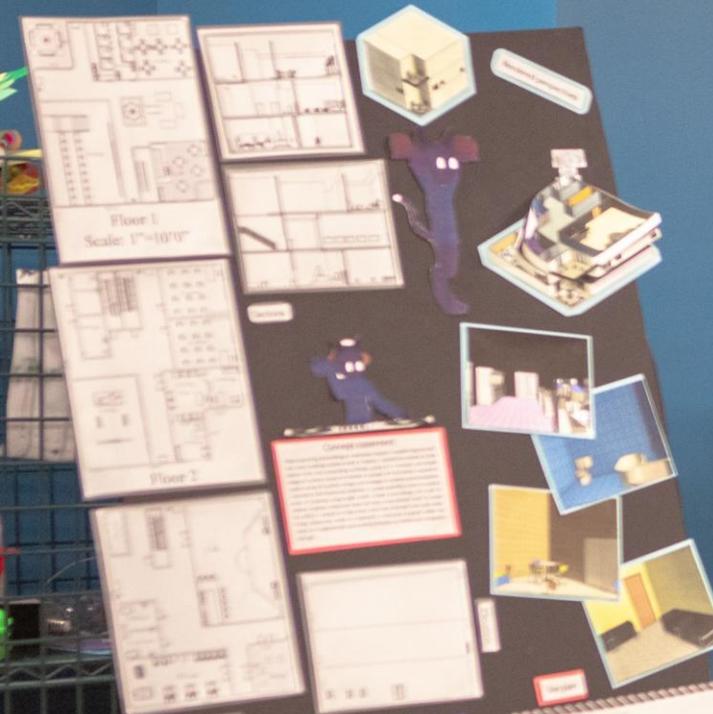
- Foam Board
- Balsa Wood
- Cardboard
- Transparency Paper
- Cardstock
- Foam/Polystyrene
- Site Details
- Vegetation



Floor 1 Scale: 1"=10'0"

Floor 2

Concept statement



ADJACENT TENANTS

PROJECT SITE

ST CLAIR

YOUTH HUB

A THIRD HOME

ABOUT THE CONCEPT

Concepts have always been one of my favorite design elements. They bring a sense of flow and organization to any space, making it feel more unified and cohesive. There's no one specific inspiration for my design, but I think my biggest source of inspiration is the human element. It's something that really resonates with me. It reminds me how powerful people can be when they're united to create something both bold and harmonious. My goal is to bring that same sense of investment and balance into my work, creating spaces that feel both fresh and timeless.

FLIP TO SEE PLAN

LEVEL 1

LEVEL 2

FLIP TO SEE PLAN

FLIP TO SEE ELEVATIONS & SECTION

NORTH ELEVATION

5th Floor

6th Floor

7th Floor

8th Floor

9th Floor



The Third Place



GRACE'S H



WEEKLY DESIGN REVIEW

MONDAYS
3:15 - 5:15 PM

STIVERS SCHOOL
FOR THE ARTS

1313 E 5TH STREET
DAYTON, OH 45402



Hatch
architects.

02/02/2026 Week 1

- Concept Statement
- Concept Sketches
- ADA Requirements

02/09/2026 Week 2

- Necessary Drawings
 - Site Plan
 - Overall Floor Plan
 - Elevation
 - Section
 - 3-D Perspective

02/23/2026 Week 3

- Necessary Drawings
- Model Building
 - Materials

03/02/2026 Week 4

- Necessary Drawings
- Physical Models

03/09/2026 Week 5

- Necessary Drawings
- Physical Models

03/16/2026 Week 6

- Board Layout
- Review Requirements



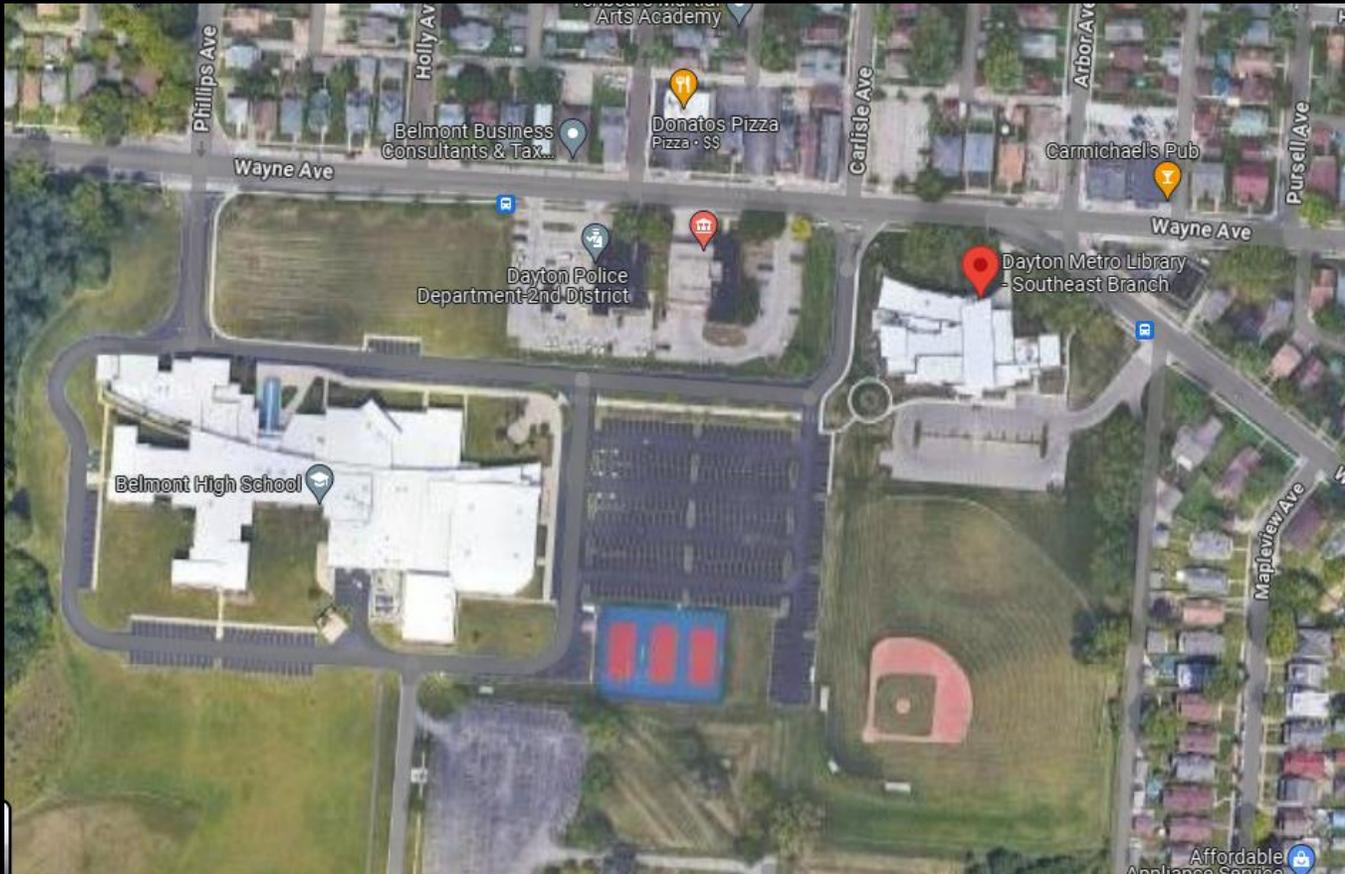
Submission Date:
March 20, 2026 4-6PM

Dayton Metro Library -
Southeast Branch
21 Watervilet Avenue

AIA Dayton

For any questions or material requests
Email: layah919@gmail.com

Project Schedule



Southeast Branch Library:
21 Watervliet Ave. Dayton, Ohio 45420

Project Turn-In

March 20th Submission due between
4pm and 6pm
Southeast Branch Library

Awards Ceremony

April 4th 10am-12pm
Southeast Branch Library

Awards

Honor Award: Monetary Scholarship

Merit Award: SCC Pathways Scholarship

Honorable Mention (2): Architectural book award

Future Architect Award: Awarded for a great concept

Master Craftsperson Award: Awarded for the best model

Most Creative Use of Materials: Awarded for creativity in the use of materials



Thank You!



Dayton