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Designing the Future of Education

Columbus, OH | November 5-7, 2025

Deaf Education Design:

How Programming Improves Learning

Wed, Nov. 5, 2025, 8:00 AM – 9:00 AM

Speakers List

- Robert Nichols, M.Arch in Urban Design, UDCP
- World Deaf Architecture, Inc./AIA

  Washington, DC

What is UDCP?

Universal Design Certificate Professional

- Universal design applications used in residential remodeling (and perhaps educational facilities)
- Construction techniques used to implement universal design to a remodeling or new project
- Plumbing, electrical and acoustical systems unique to universal design
- Differences between model building codes and ones described in the Americans with Disabilities Act (ADA)

What is ADA?

Is ADA perfect for the Deaf?

- ADA was a landmark law passed 35 years ago. What else was 35 years ago?
- Rehabilitation Act of 1973 established the Access Board. What else was 52 years ago?
- We the “Deaf” people seeks huge milestones.
- Differences between ”Deaf Education Design”, Universal Design “The Principles”, DeafDesign Space and Americans with Disabilities Act (ADA)

Course / Learning Objectives

TEXT AND IMAGES WITH LOW COLOR CONTRAST.

1. Present an overview of the latest opinions and priorities on programming and site evaluation, taken from expert deaf or hard-of-hearing architects, interior designers, planners and engineers, in the field.

2. Should deaf school students be taught in the same classroom setting with non-school for the deaf students?

Course / Learning Objectives

TEXT AND IMAGES WITH LOW COLOR CONTRAST.

3. What strategies and methods should be considered when teaching students at the school for the deaf?

4. What innovative and efficient space typologies should be implemented to meet them. Current and future needs of deaf school students and educators?

In General:

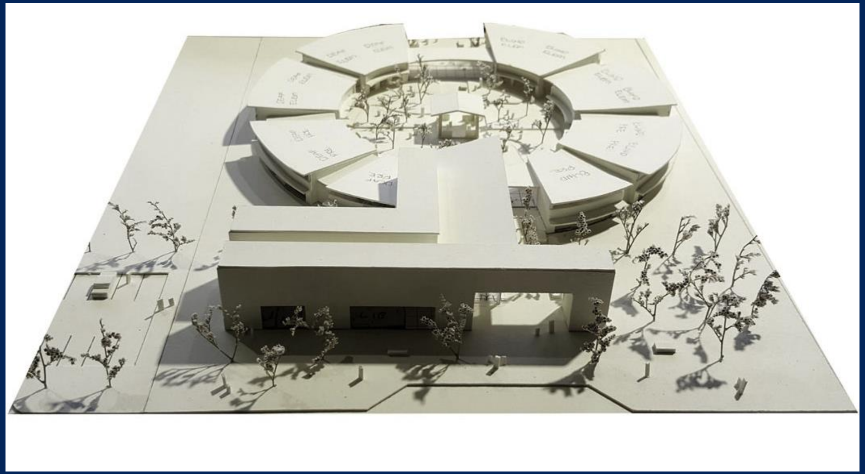
What if…

- Meet clients during a site visit and programming.
- Allow adequate time to prepare for tasks and take in new information.
- In communications: check for understanding and give feedback
- Minimize background noises and lights to support concentration e.g. while completing a task or communicating
- Provide structure and clear instructions in education and environments
- Use ASL communication (whenever deaf design consultant is hired.)

Environmental Improvements

- Provide new “state of the art” communication access device
- Reduce ambient noise and flick
- Make it easy to find rooms by “sensory reach” and/or “proxemical spaces”
- Design routes that are simple and intuitive
- Provide “notification” communication for dining, media, hallways, etc.
- Wayfinding should be simple with tactile, graphic, audible or architectural cues that are easy to follow
- A weight lift train is highly recommended for physical education

How Deaf Education Design works?



Step 1: Programming & Site Evaluation

What Clients Needs Assessment?

Step 1: Programming & Site Evaluation

- Key components of a client interview
- Professional client interview
- Gain an understanding of the impact of “Deaf” environmental design
- Who is “Deaf” and perhaps blind environmental advisors

Step 1: Programming & Site Evaluation

Who is the state education, superintendent or stakeholders ?

Step 1: Programming & Site Evaluation

Is the state or local education the **one** that is paying the bill, or superintendent who the space is designed for?

How Deaf Education Design works?

What **stage** of education are they need and how **improvement** do they intend to live and learn?

How Deaf Education Design works?

Will broadened they **need** to be considered for the new design?

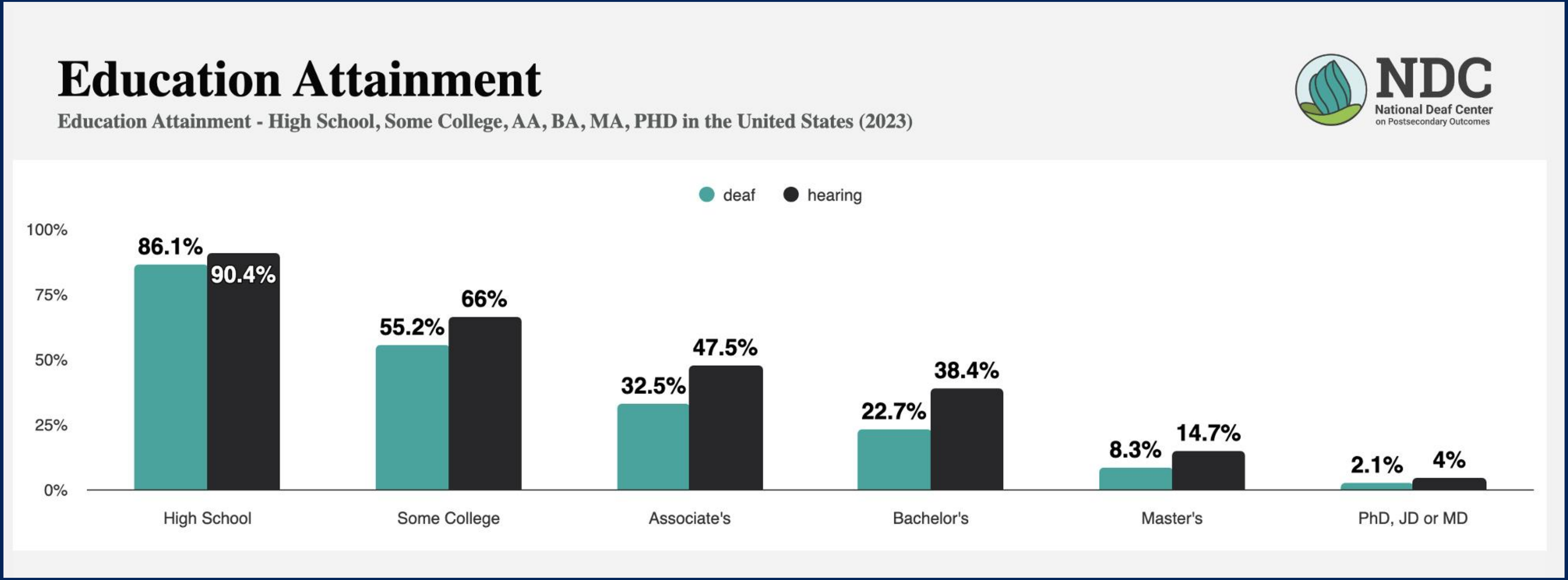
How Deaf Education Design works?

Are there any other professionals the **Architect** should be consulting with, i.e., superintendent, stakeholders, parents, etc.?

How Deaf Education Design works?

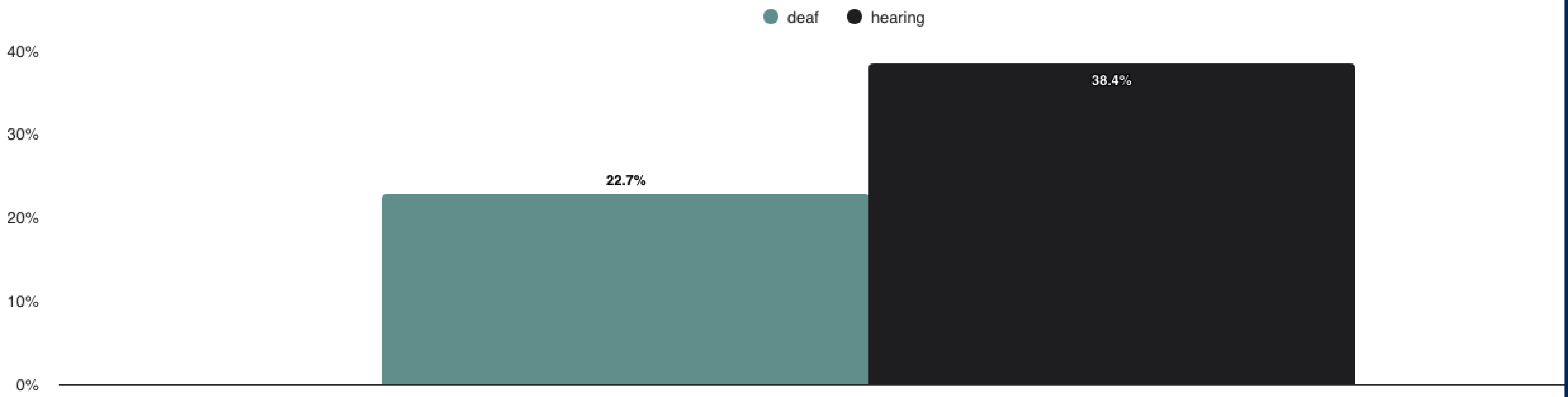
Who is the ***responsibility*** to ask questions and listen to the Owner – just like any other project, the same rules apply.

Demographic



Demographic

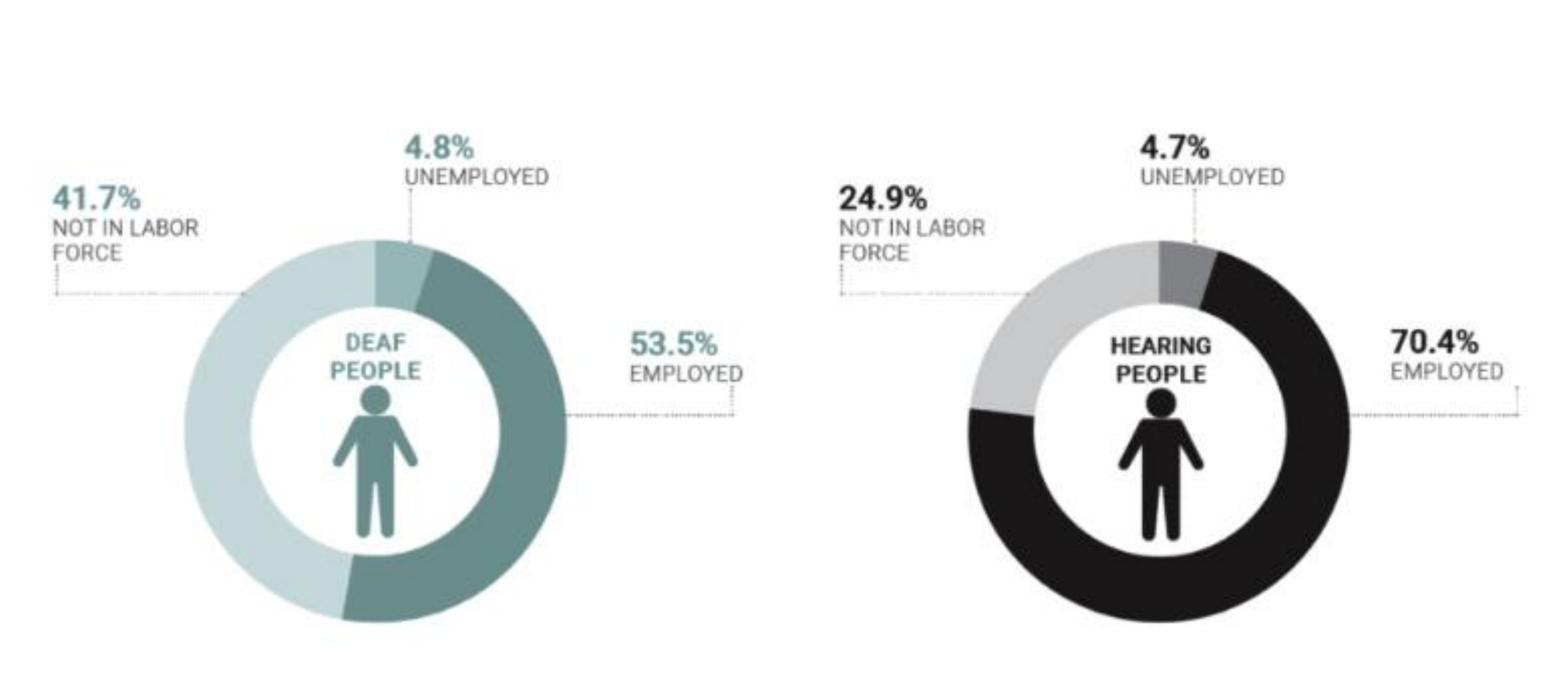
BACHELOR'S DEGREE ATTAINMENT OR HIGHER: UNITED STATES



In the United States, among people aged 25-64, an estimated 22.7% of deaf people have completed a bachelor's degree or higher, compared to 38.4% of hearing people.

In this chart, estimates are based on a sample size of 9,321 deaf people and 649,234 hearing people in the United States who participated in the 2023 American Community Survey. The margin of errors are 0.49% for deaf people and 0.18% for hearing people.

Demographic



How does “Deaf Education Design” work?

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- Who is the ***responsibility*** of Deaf Education Design?
- What is ***role*** for Deaf Education Design if selected by design team?
- How the “starting point” meeting receives input from the client and
  1) Space Programming input
  2) Listen to hear (or by eyes) in general what they say
  3) Kick-off point opportunity for the design team

Designing for Deaf (perhaps deaf-blind)

- *What materials you create are communication access installation for all learners.*

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  4) *?*

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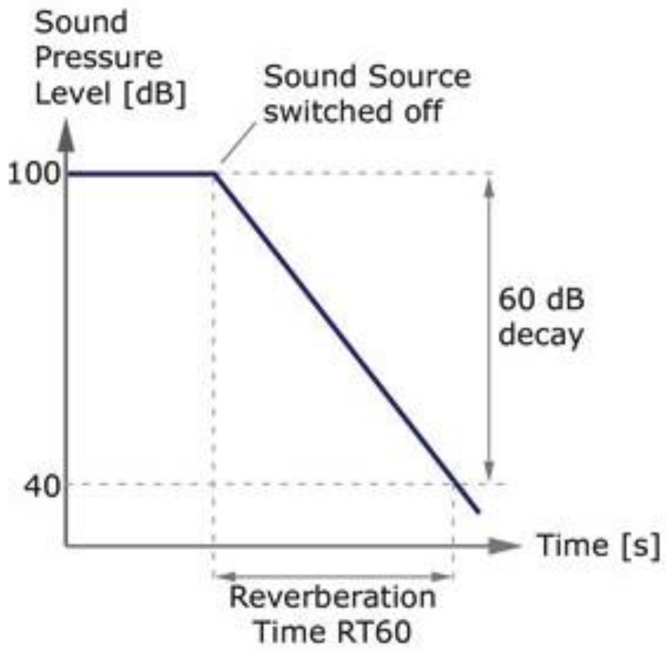
  2) *Operable*
  3) *Understandable*
  4) *Robust*

Reverberation time



Visualization of the basic principle of a Reverberation Time Measurement.

The best hearing and seeing technology for the Deaf and hard of hearing students

The best hearing and seeing technology for the Deaf and hard of hearing students

- *Individual Hearing aids*

  1) Behind the ear (BTE) hearing aids

The best hearing and seeing technology for the Deaf and hard of hearing students

- Individual Hearing aids
  1) Behind the ear (BTE) hearing aids
  2) Bone conduction hearing aids

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  3) Cochlear Implant (CI)

The best hearing and seeing technology for the Deaf and hard of hearing students

- *Individual Hearing aids*
  1) Behind the ear (BTE) hearing aids
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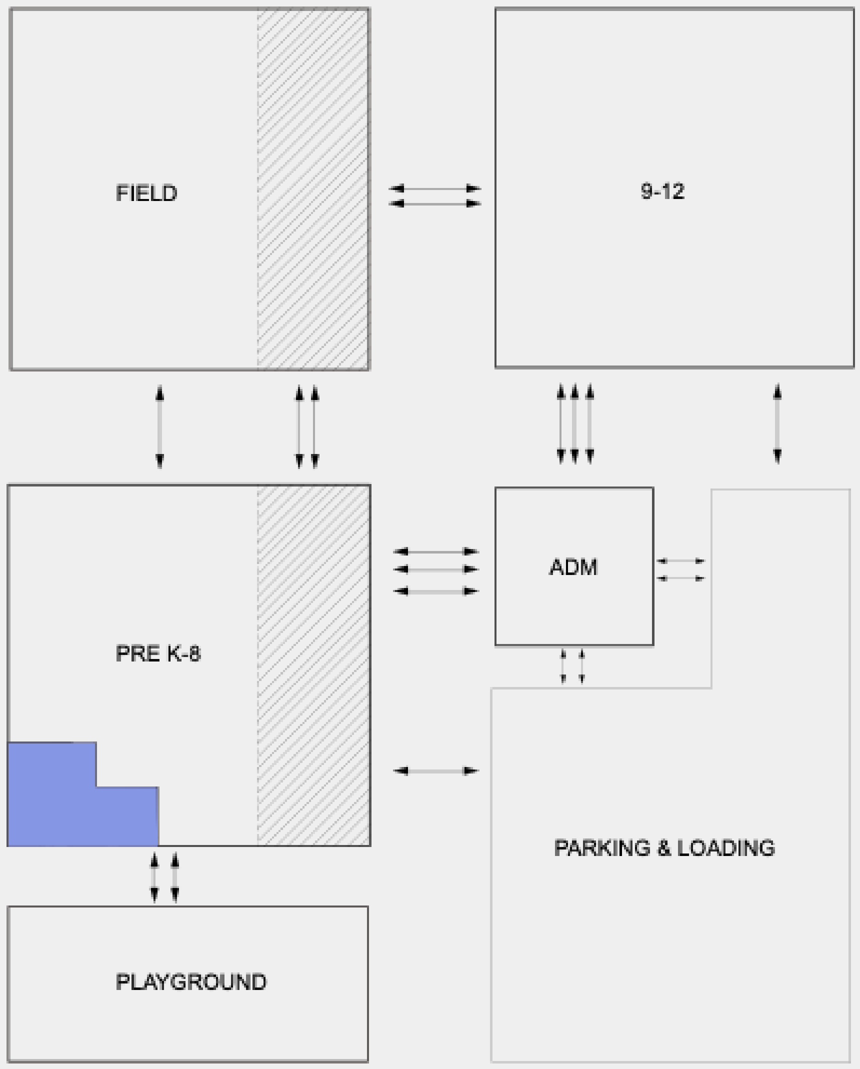
  3) Cochlear Implant (CI)
  4) ?

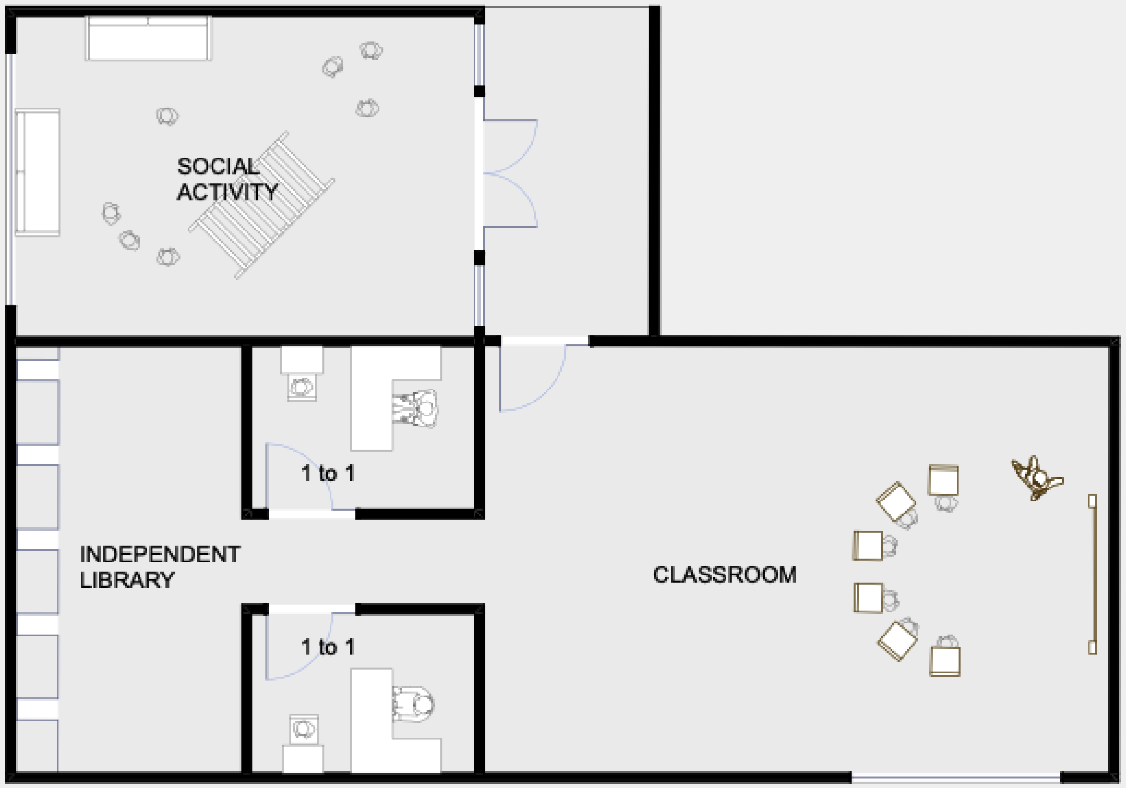
The best hearing and seeing technology for the Deaf and hard of hearing students

4) ASL (American Sign Language) communication and/or interpreter

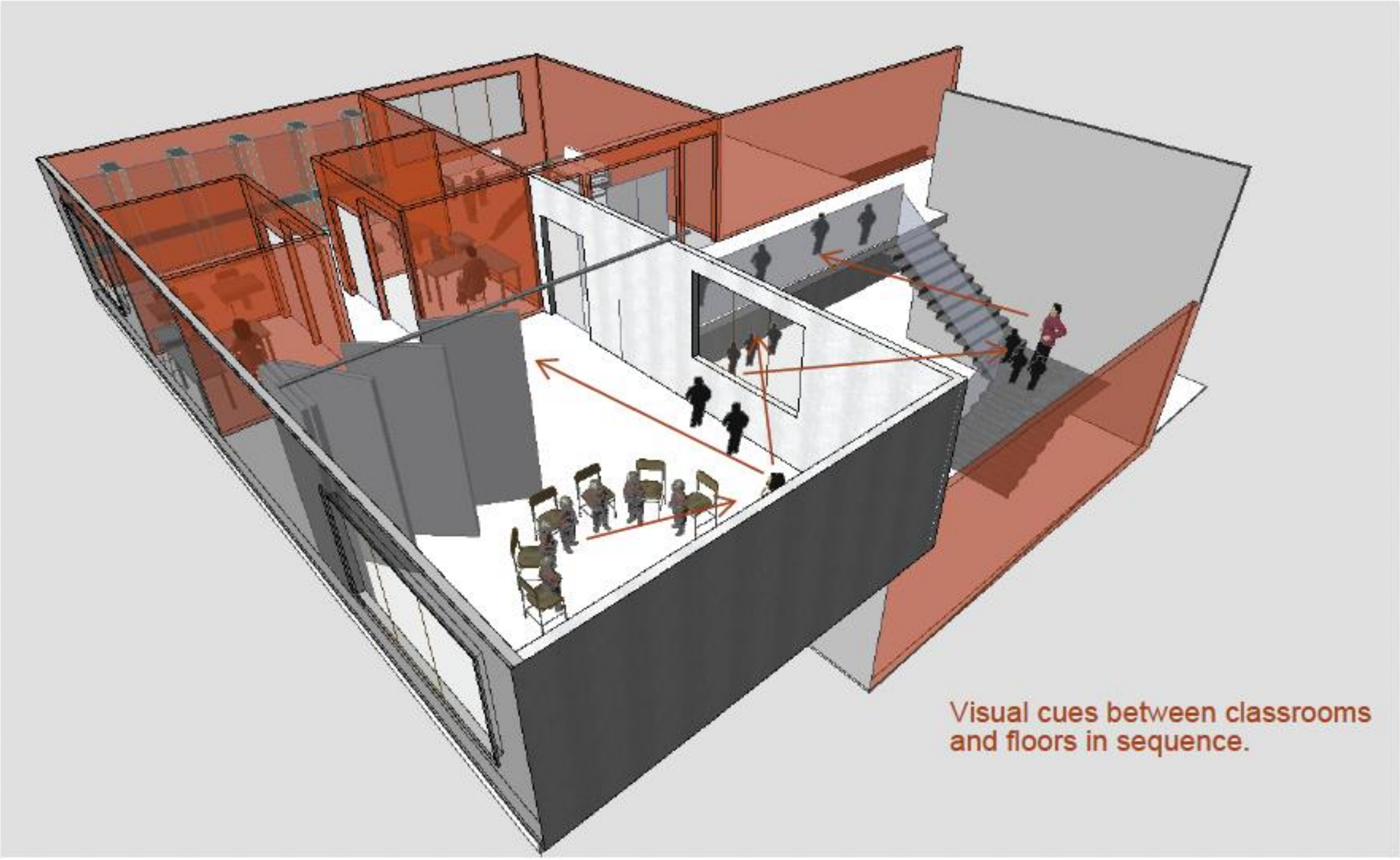
An entirely new approach…



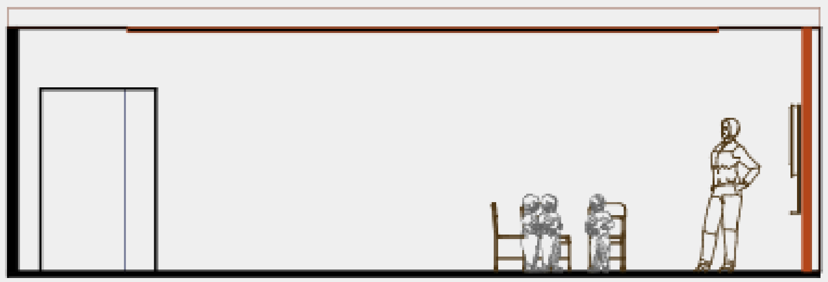
PROGRAMMING & SITE EVALUATION



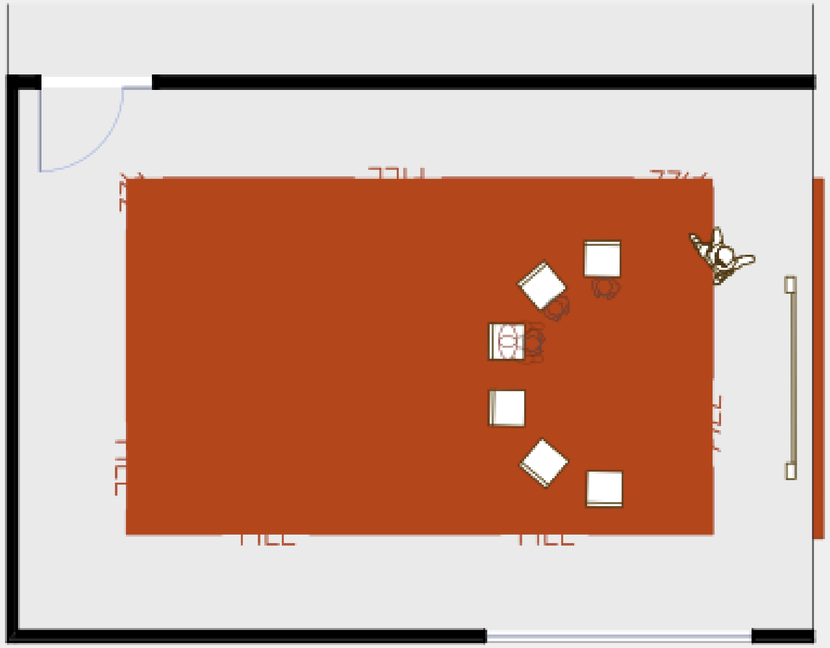
SPECIAL CLASSROOM (GRADE K-6)



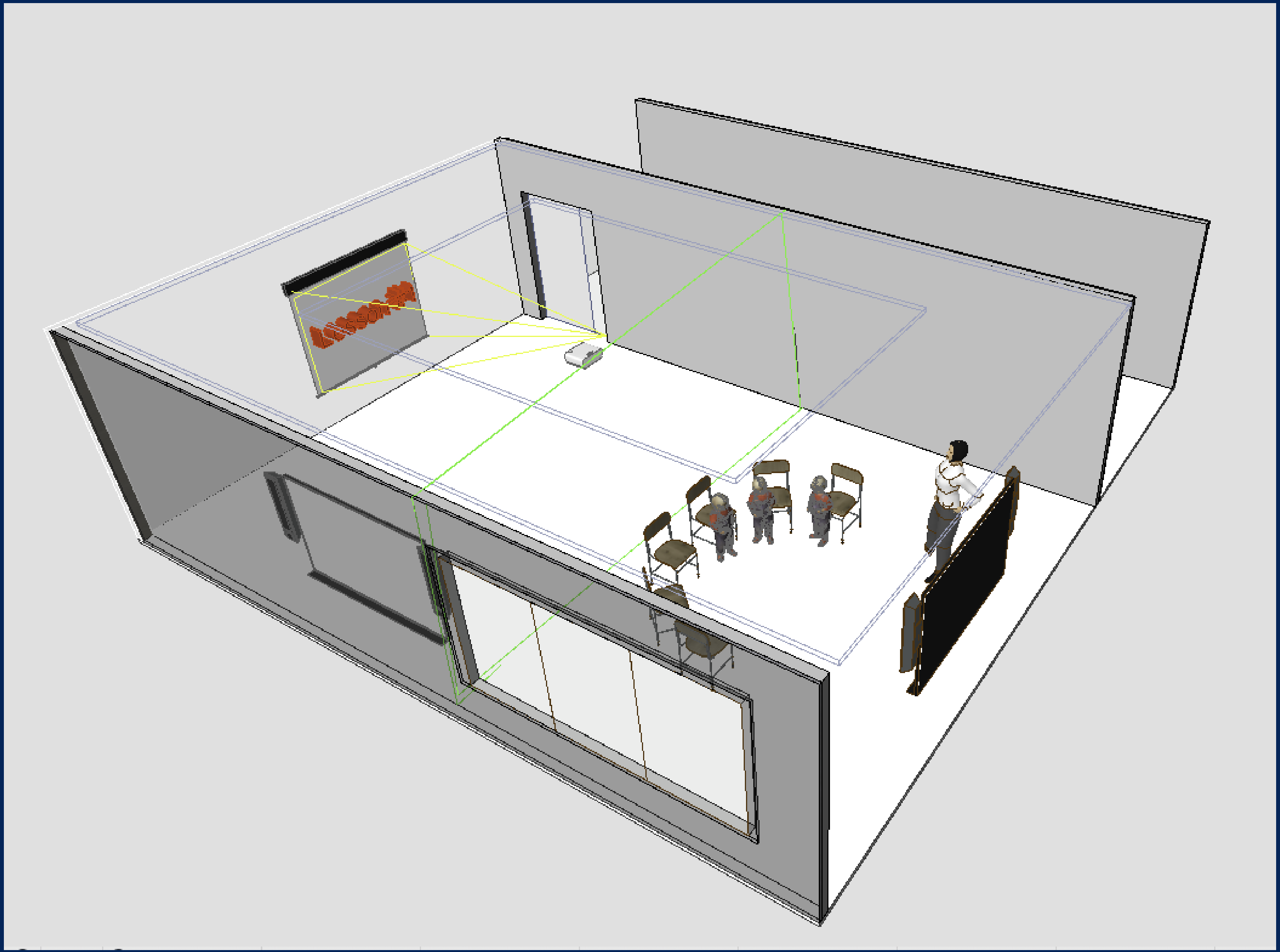
Visual cues between classrooms and floors in sequence.

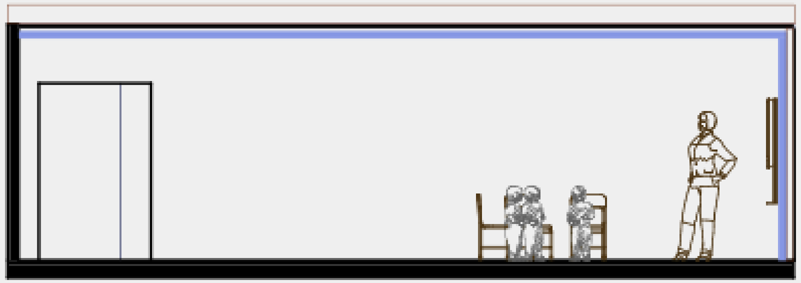


SIDE VIEW



CEILING VIEW





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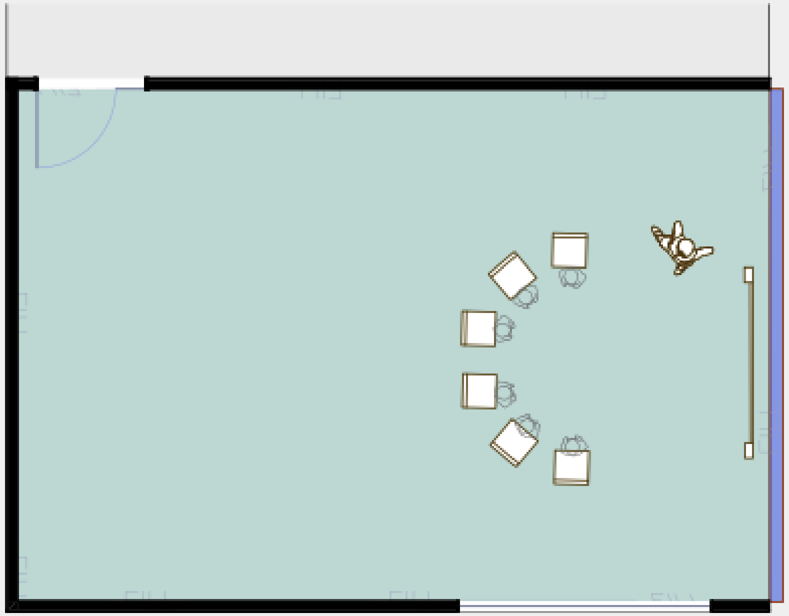

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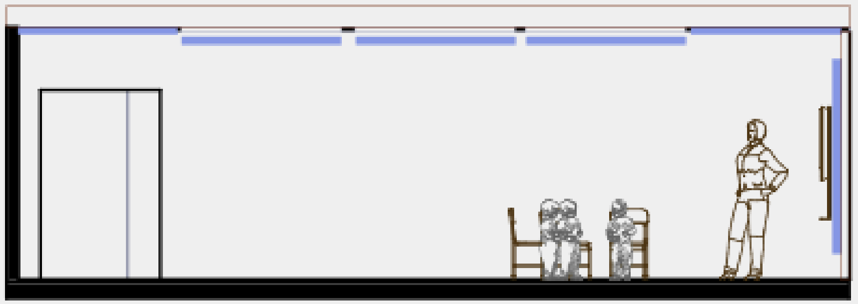

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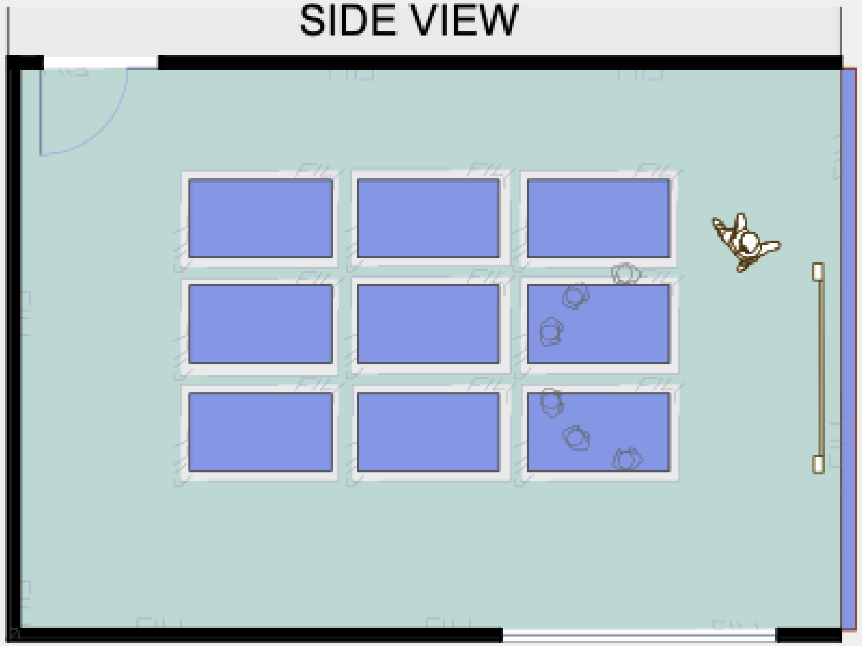

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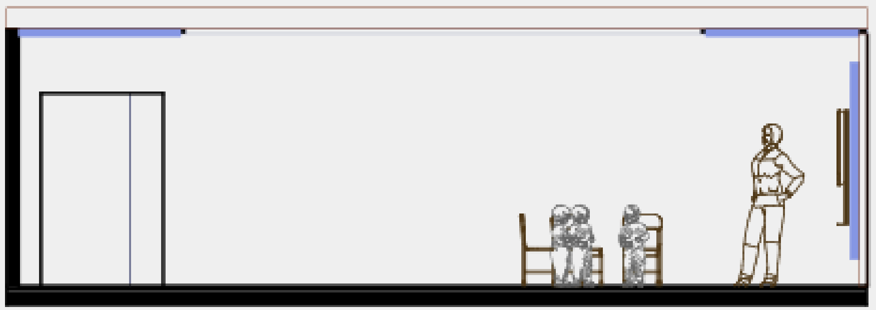

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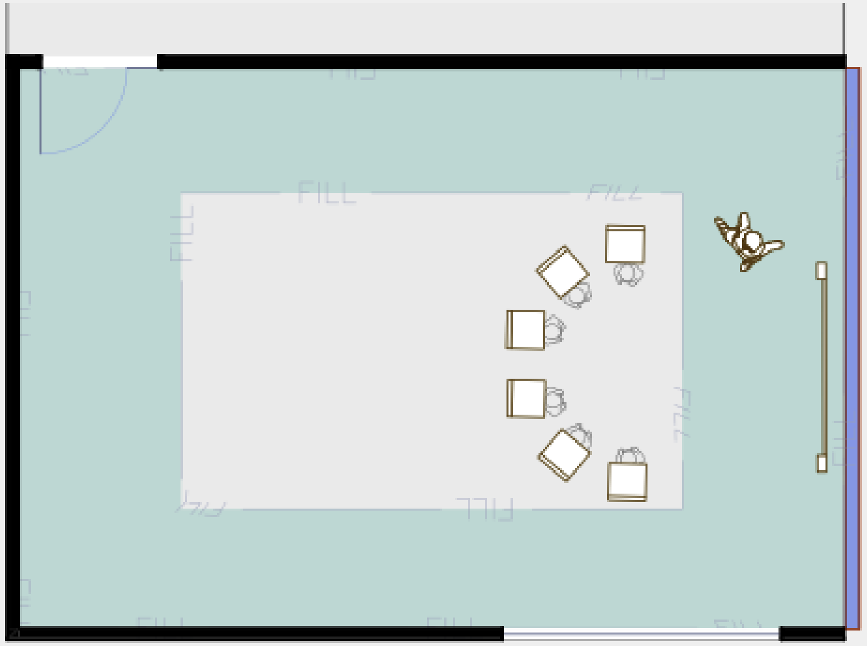

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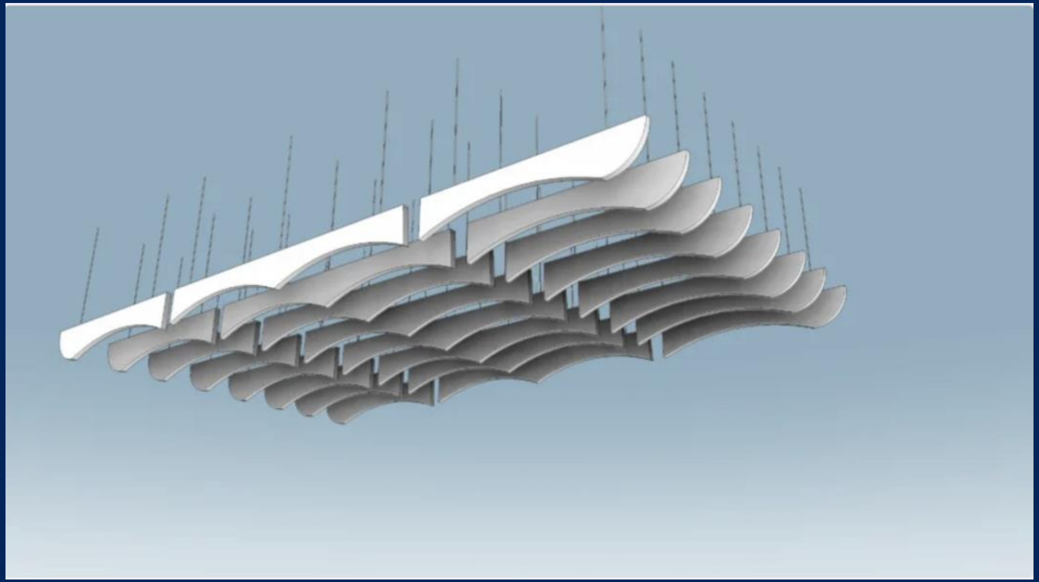
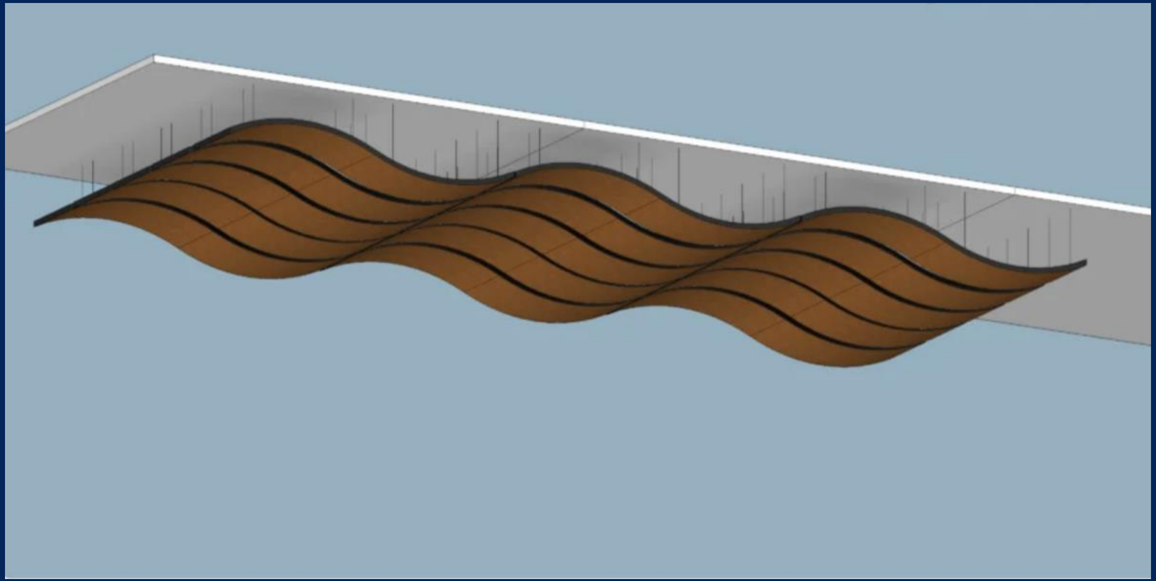
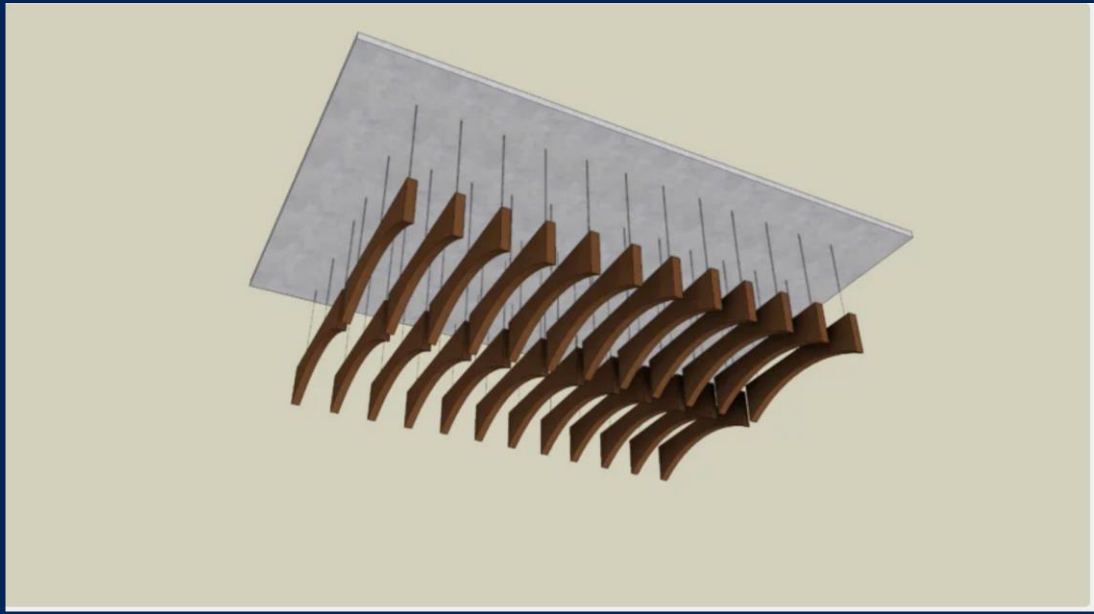
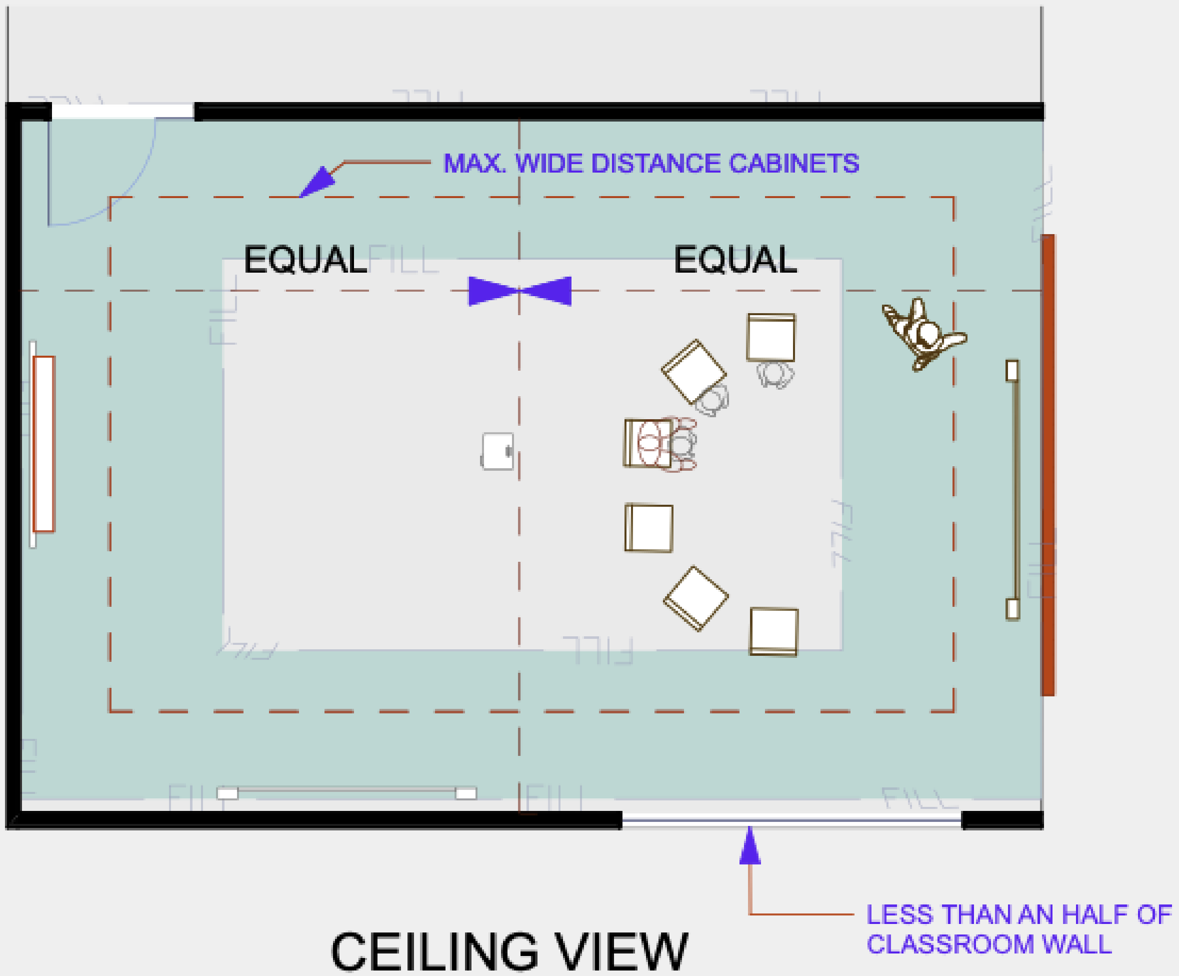
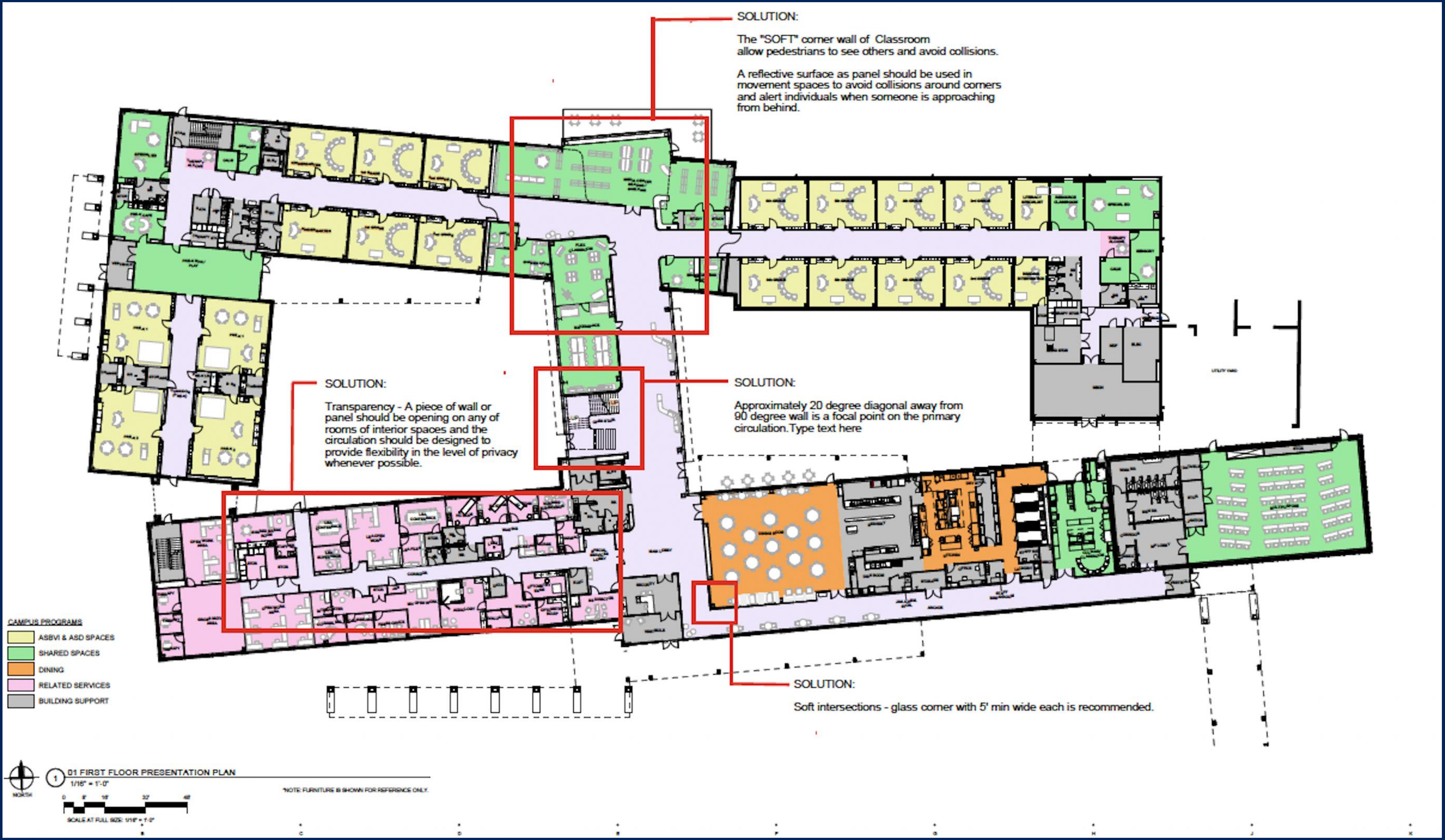






CEILING VIEW


CAMPUS PROGRAMS
ASBVI SPACES
ASD SPACES
SHARED SPACES
DINING
RELATED SERVICES
BUILDING SUPPORT
NORTH
01 FIRST FLOOR PRESENTATION PLAN
1/16" = 1'-0"
SCALE AT FULL SIZE: 1/16" = 1'-0"
*NOTE: FURNITURE IS SHOWN FOR REFERENCE ONLY.


SOLUTION:
The "SOFT" corner wall of Classroom allow pedestrians to see others and avoid collisions.
A reflective surface as panel should be used in movement spaces to avoid collisions around corners and alert individuals when someone is approaching from behind.
SOLUTION:
Transparency - A piece of wall or panel should be opening on any of rooms of interior spaces and the circulation should be designed to provide flexibility in the level of privacy whenever possible.
SOLUTION:
Approximately 20 degree diagonal away from 90 degree wall is a focal point on the primary circulation.Type text here
SOLUTION:
Soft intersections - glass corner with 5' min wide each is recommended.
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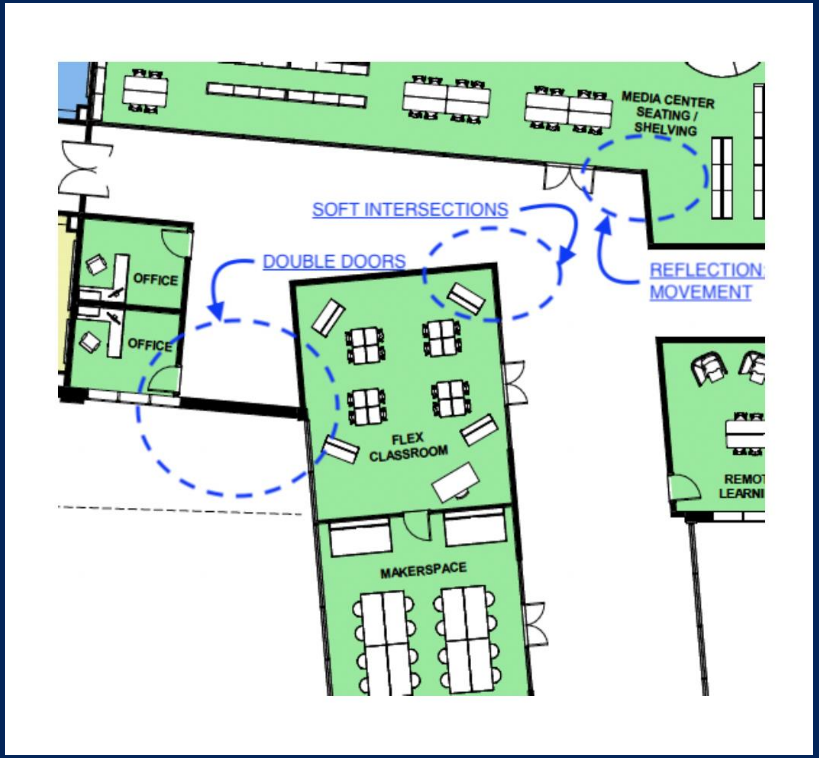
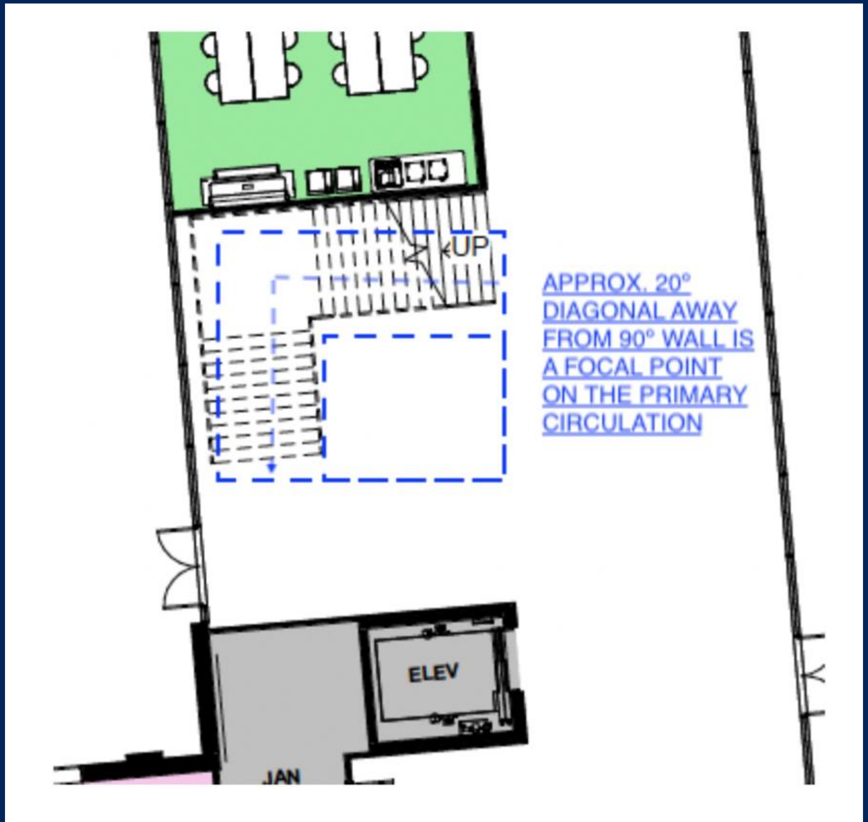
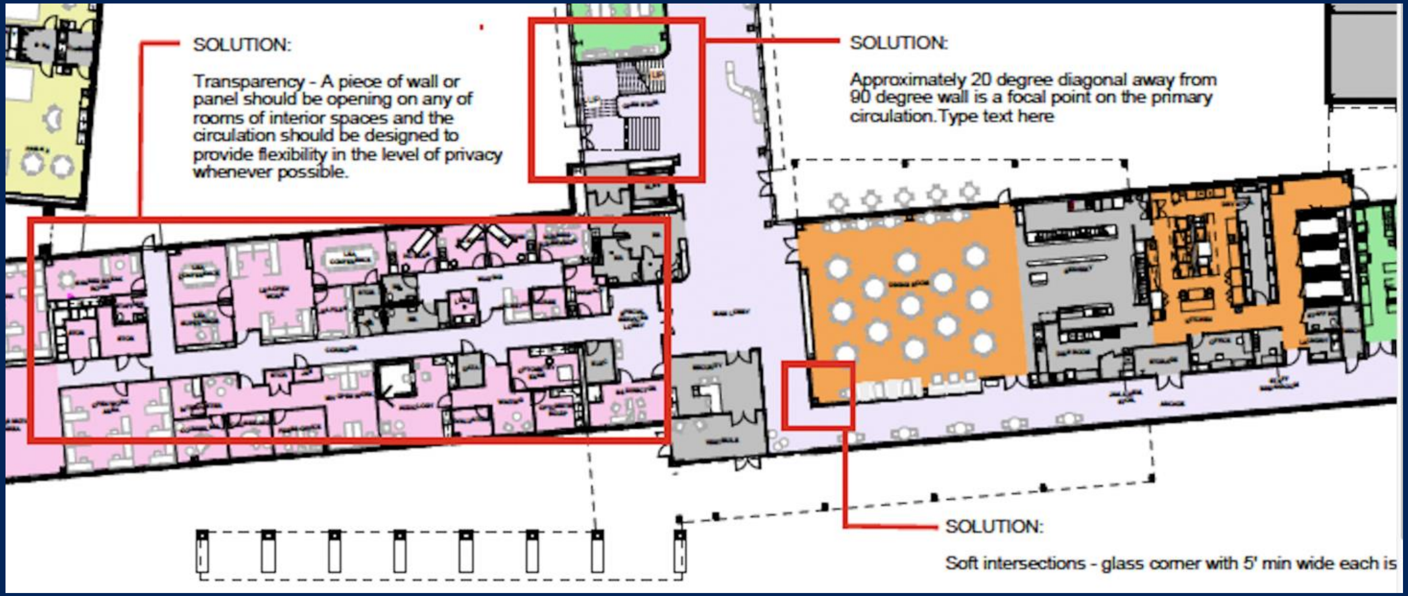

MEDIA CENTER SEATING / SHELVING
SOFT INTERSECTIONS
DOUBLE DOORS
REFLECTION
MOVEMENT
OFFICE
OFFICE
FLEX CLASSROOM
MAKERSPACE



UP
APPROX. 20°
DIAGONAL AWAY
FROM 90° WALL IS
A FOCAL POINT
ON THE PRIMARY
CIRCULATION
ELEV
JAN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BUILDING
REVEAL
JOIN US!
May 22
2:00-3:30 PM

Any Questions?

Contact Information

Robert Nichols, Assoc. AIA, UDCP

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www.worlddeafarchitecture.org
www.nicholsdesignassociates.com

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2. In the left sidebar, tap "Schedule"
3. Locate and select the session you are attending
4. After opening the individual session page, tap the "Session Survey" link to evaluate the session.