

DESIGNING INCLUSIVELY:

INNOVATIVE DESIGN STRATEGIES FOR INCLUSIVE ACCESSIBILITY IN
THE BUILT ENVIRONMENT FOR THE BLIND AND/OR DEAF

CAMILLE BECKER



"BLINDNESS CUTS
US OFF FROM
THINGS, BUT
DEAFNESS CUTS US
OFF FROM PEOPLE"

-Helen Keller



HISTORY

Timeline

Accessibility

Health



"INJUSTICE ANYWHERE IS A THREAT
TO JUSTICE EVERYWHERE."
Martin Luther King, Jr.

DISABLED HISTORY

The Civil Rights Act was signed into law. President Lyndon B. Johnson signed this Act into law, however, did not directly address disabilities

1960

1964

The Rehabilitation Act was signed into law. Section 504 banned discrimination on the basis of disability for organizations that received Federal funds

The Congressional Task Force on the Rights and Empowerment of Americans with Disabilities was created to educate Congress and the public on discrimination against those with disabilities

1988

1990

The historic "Capital Crawl" took place in Washington, D.C. on the Capital Steps to pressure Congress to pass the Americans with Disabilities Act

The Americans with Disabilities Act was signed into law by President George H.W. Bush

JULY 1990



ACCESSIBILITY

- ADA codes are not a design priority
- Navigating surroundings
- Connection with others



0

A Gates 1-25 ↗

Business Air
Air Canada
Southwest
United







HEALTH

"I remember feeling alone, even when around a lot of people, because of communication barriers... I knew that most people were not malicious and that communication barriers exist only because of limited exposure to deaf people and a lack of understanding"

-Ben Soukup

"Adults with disabilities are more likely to have obesity, heart disease, stroke, diabetes, or cancer than adults without disabilities"

-Centers for Disease Control and Prevention



NARRATIVE

American Council of the Blind

TARGET USERS

Blind: unable to see because of injury, disease, or a congenital condition

Visually Impaired: a person whose eyesight cannot be corrected to a "normal" level

Deaf: lacking the power of hearing or having impaired hearing

Hard of Hearing: not able to hear well



How can we design a building whose organization and function makes inherent sense to the blind and/or deaf? In addition, how can the found strategies be applied within architecture to create a sense of community and safety?

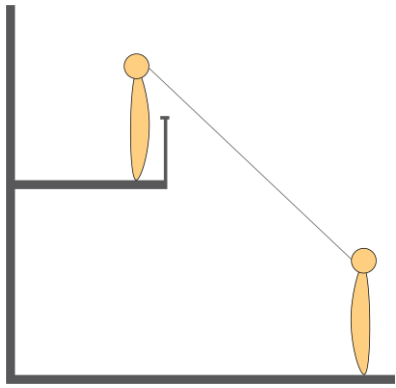




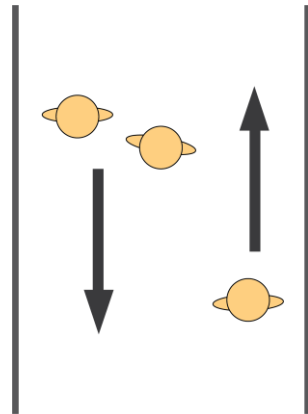
DESIGN STRATEGIES

DEAFSPACE CONCEPTS

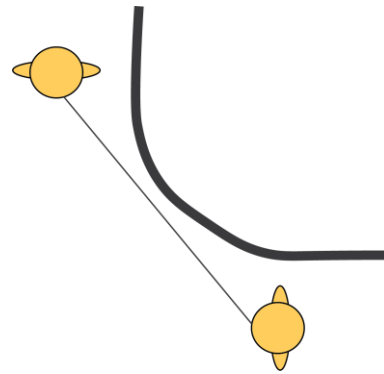
SENSORY REACH



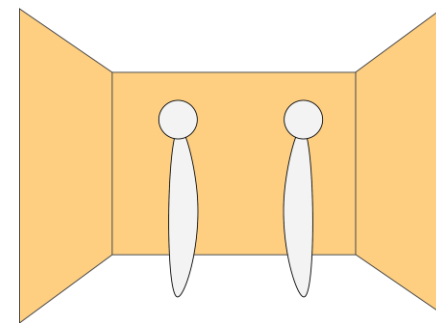
SPACE AND PROXIMITY



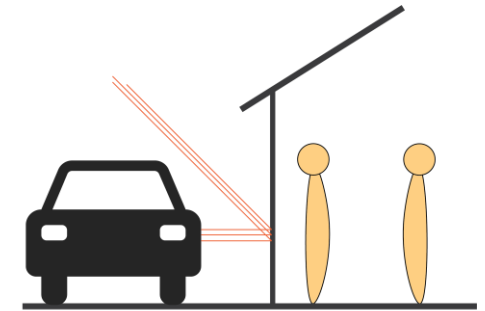
MOBILITY AND PROXIMITY



LIGHT AND COLOR



ACOUSTICS



BLIND DESIGN STRATEGIES

Light & Color

About 90% of visually impaired people have slight vision which can be hindered when high glare and illumination is present. This design problem is avoided by using soft lighting and low brightness.

Acoustics

Without the proper acoustics, excess noise can distract the blind. This hinders their ability to hear their surroundings. This can be reduced by using materials with sound absorption and minimizing the amount of background noise created.

Circulation & Proximity

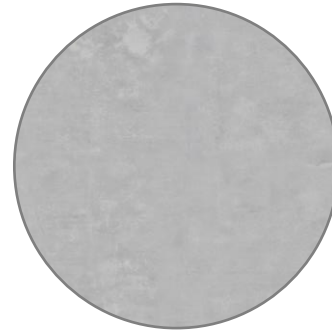
Three-way intersections are easier to navigate without losing sense of direction. They allow the blind continue following the edge of the wall rather than finding the other side of the intersection.

Creating a hierarchy of spaces allows large rooms to divide into smaller spaces, which is easier to navigate. This can also be done with strategic furniture organization.

MATERIAL & TEXTURE



WOOD



POLISHED
CONCRETE



TILE



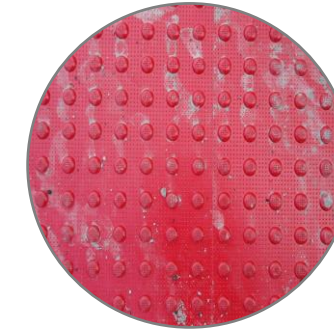
STONE



SMOOTH



ROUGH



BUMPY



SOFT



HOW DO WE EFFECTIVELY APPLY THESE
CONCEPTS AND STRATEGIES WITHIN
ARCHITECTURE SO WE MAY SHARE A COMMON
EXPERIENCE?





TYOLOGY

Wellness Center

PROGRAMMING



Beep Ball



Goal Ball



VI Tennis



SITE

900 4Th Ave N, Minneapolis, MN

SITE INFORMATION



LAND AREA:
3.89



CLIMATE:
hot-summer
humid continental



LOCATION:
Minneapolis, MN



WALK SCORE:
76



POPULATION:
2,967,000



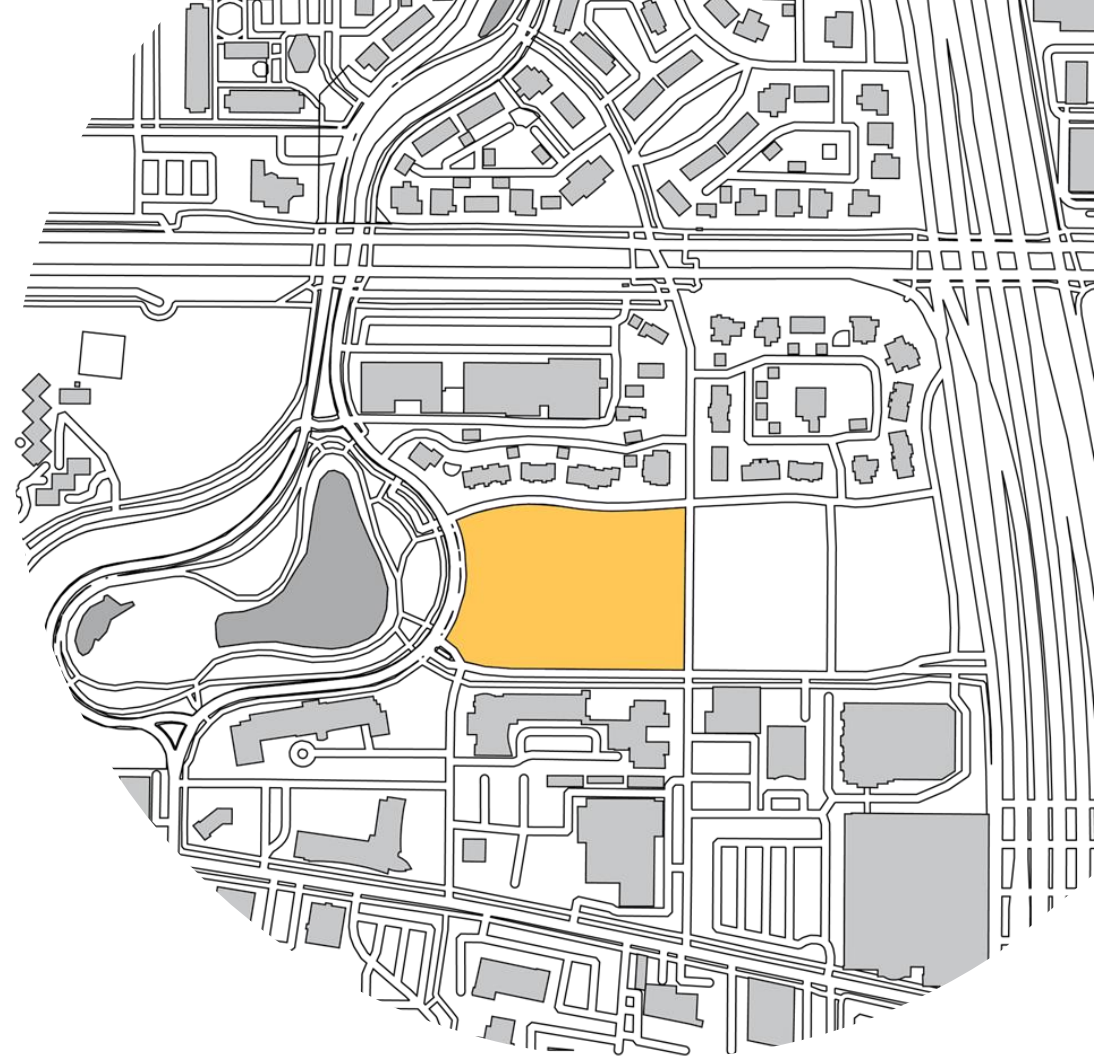
TRANSIT SCORE:
61



COORDINATES:
44.982339,
-93.292339



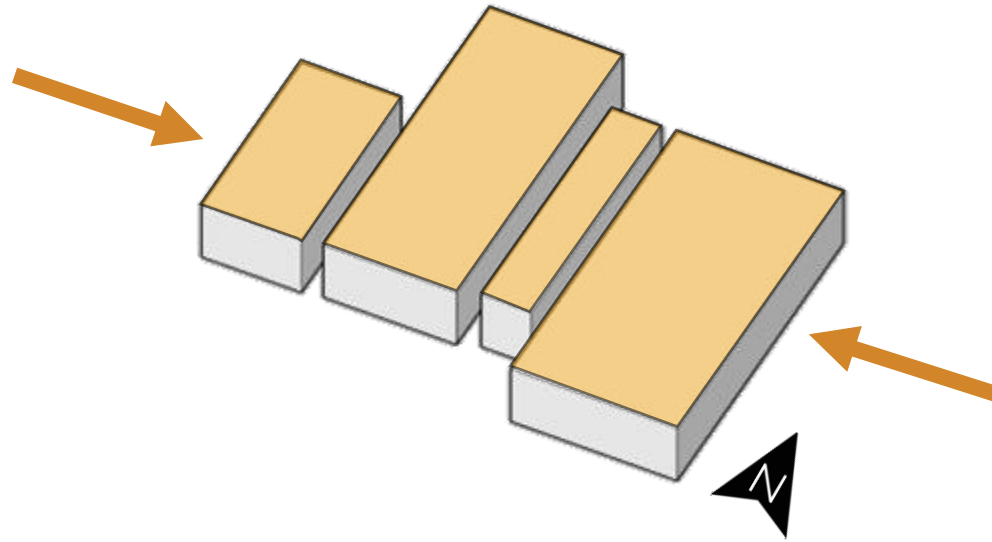
BIKE SCORE:
95



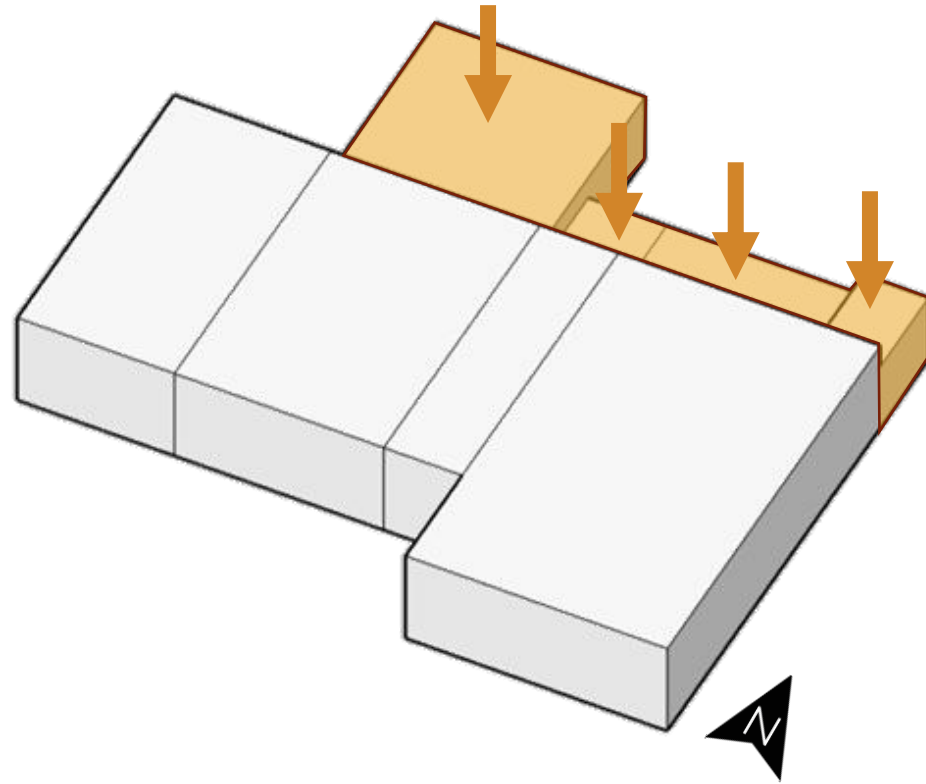
DESIGN

Form

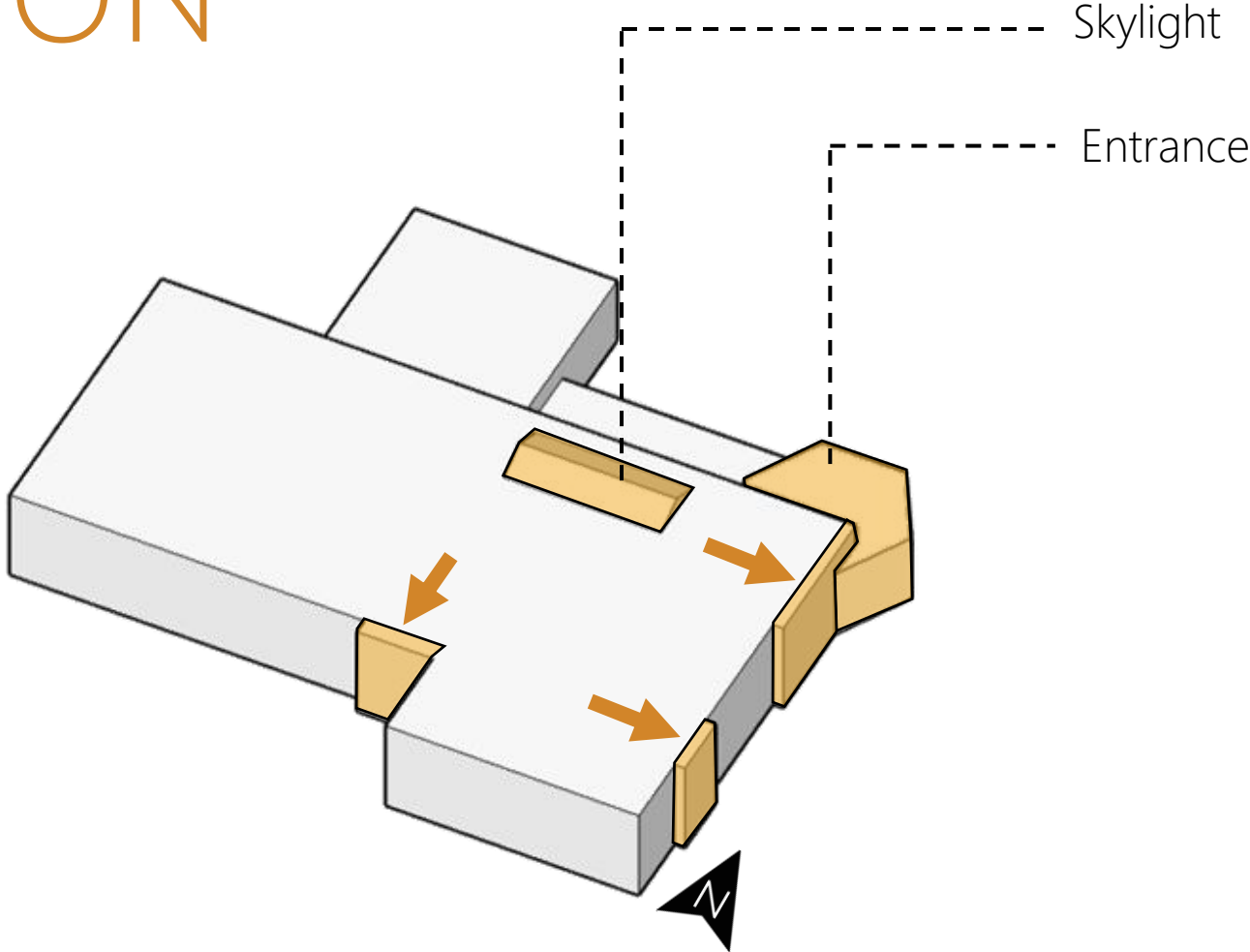
SHAPE



HIERARCHY



DISTINCTION



Building Entrance | Northeast

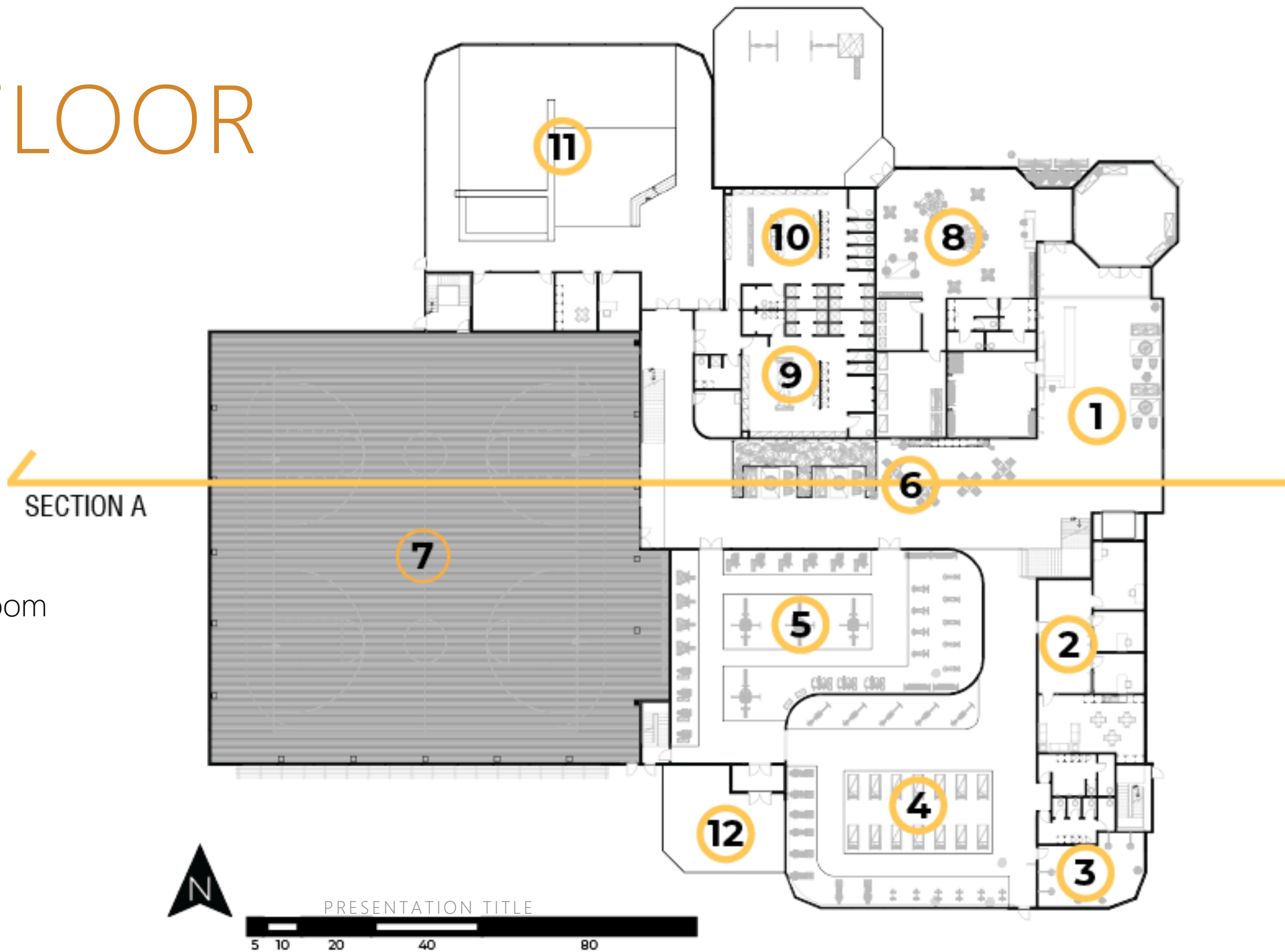


The background of the slide features a close-up, high-angle view of several rolled-up architectural blueprints. The blueprints are white with black lines and text, showing various technical drawings, including floor plans and sections. The rolls are arranged in a slightly overlapping, diagonal pattern. The lighting is soft, creating subtle shadows and highlights on the paper. The overall aesthetic is professional and technical.

DESIGN: Organization & Circulation

FIRST FLOOR

- 1. Lobby
- 2. Administration
- 3. Boxing Room
- 4. Cardio Room
- 5. Weight Room
- 6. Atrium
- 7. Courts
- 8. Childcare
- 9. Men's Locker Room
- 10. Women's Locker Room
- 11. Aquatics
- 12. Dog Relief Station

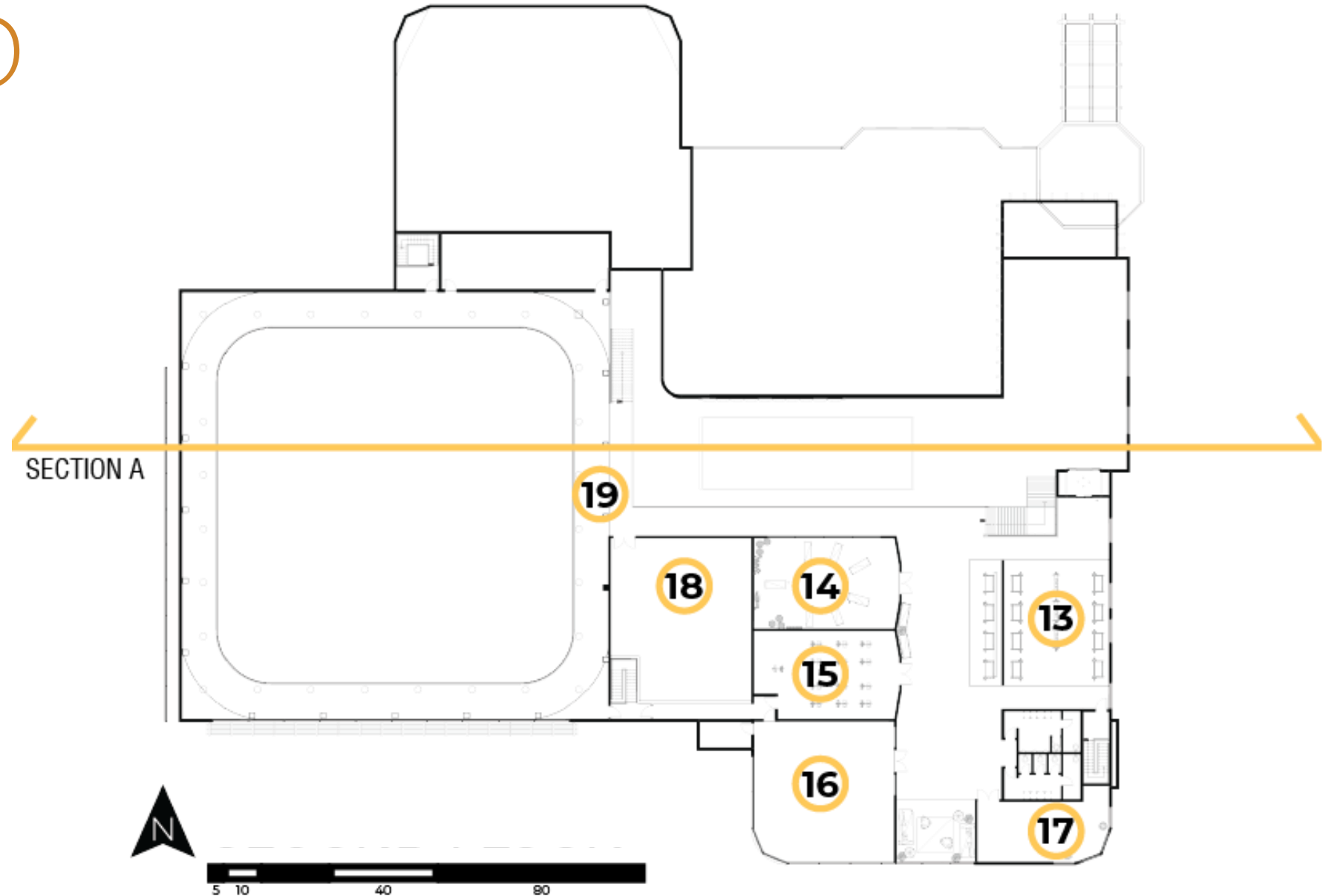


PRESENTATION TITLE

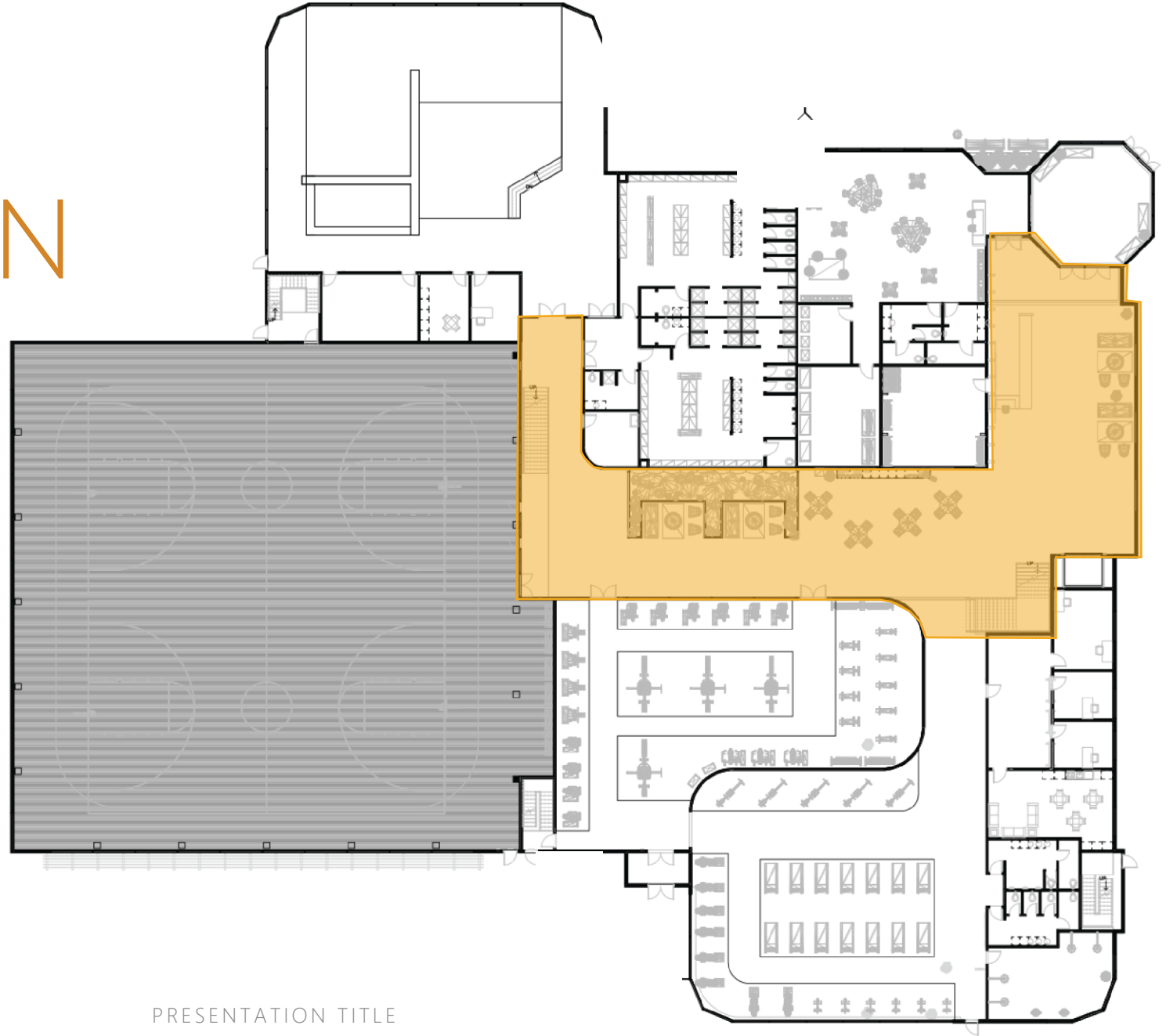


SECOND FLOOR

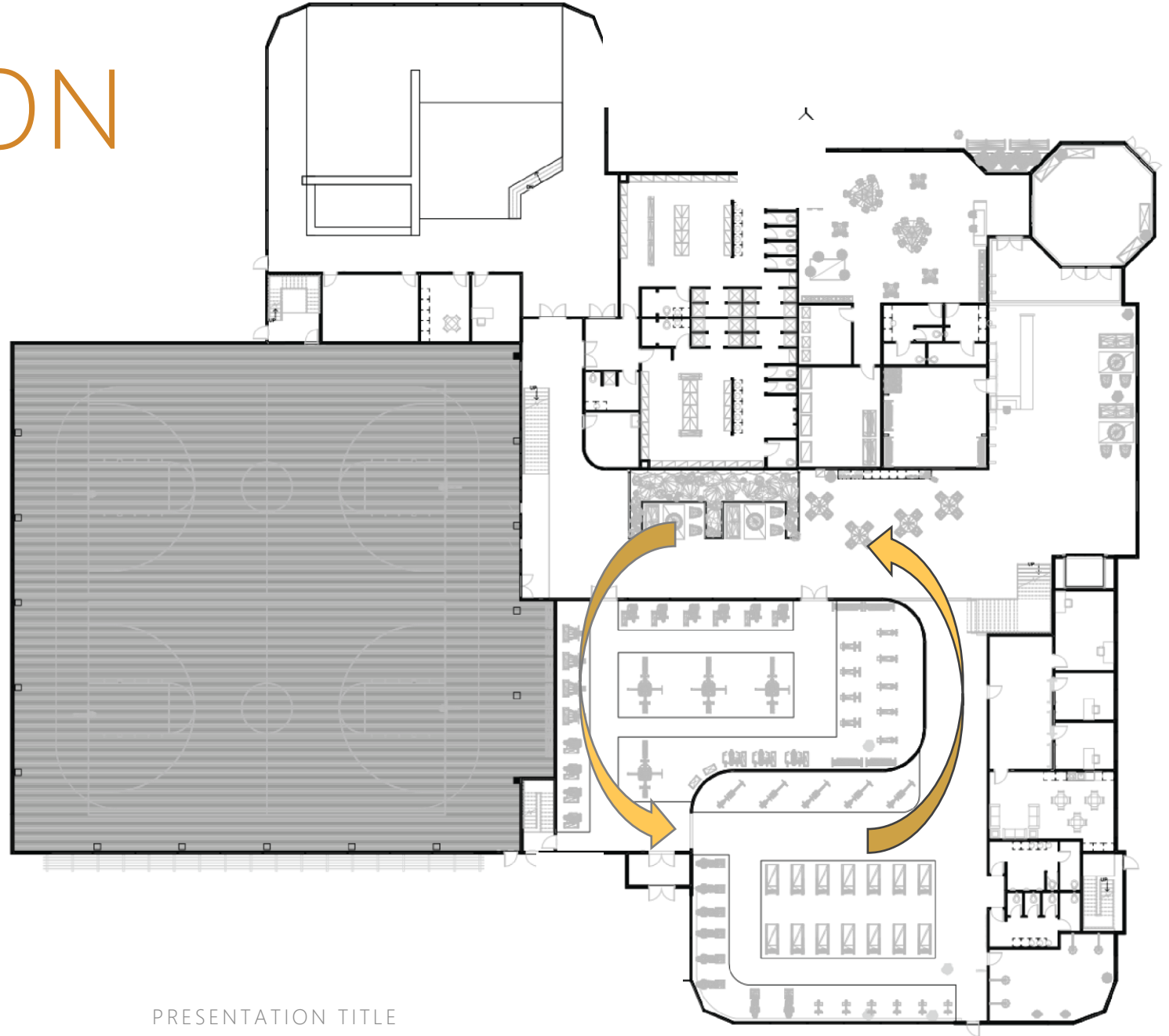
- 13. Lifting Space
- 14. Studio A
- 15. Cycling Room
- 16. Studio B
- 17. Studio C
- 18. Mechanical Room
- 19. Track



CENTRAL NAVIGATION

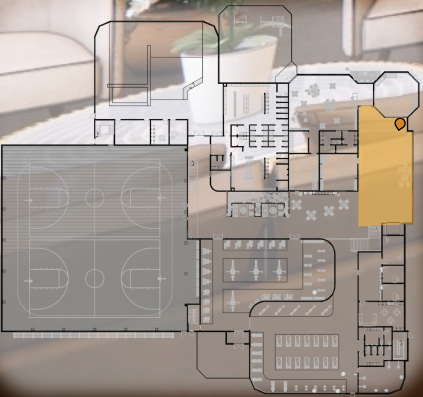


CIRCULATION

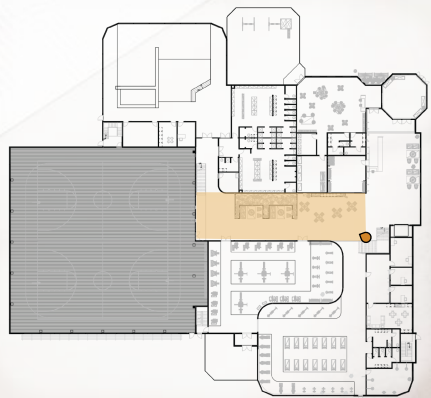




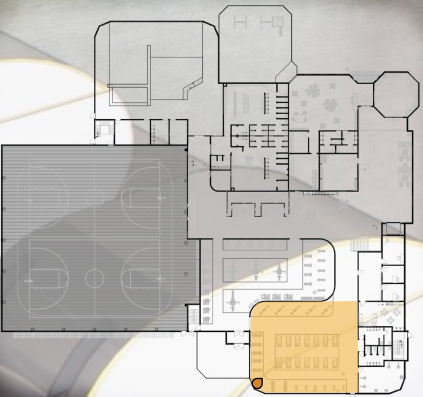
THE WELLNESS
STUDIO



LOBBY



ATRIUM



CARDIO



COURTS & TRACK

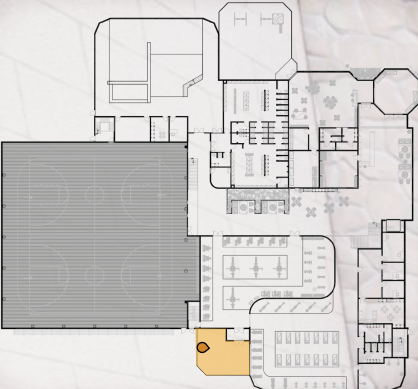


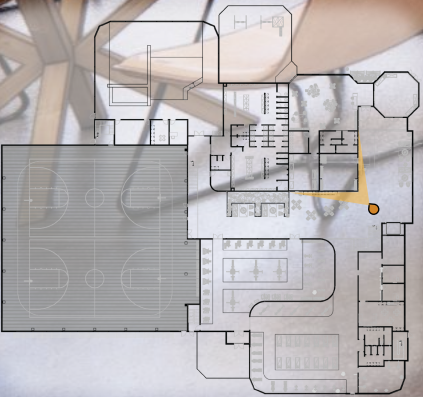
LIFTING AREA

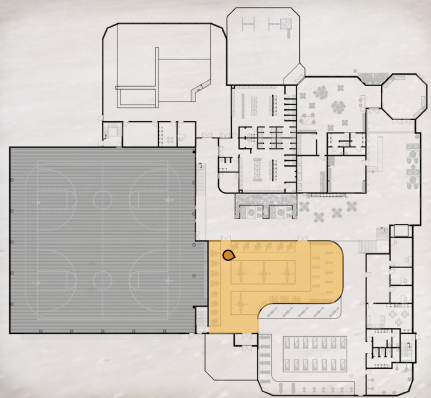


STUDIO A

DOG RELIEF AREA

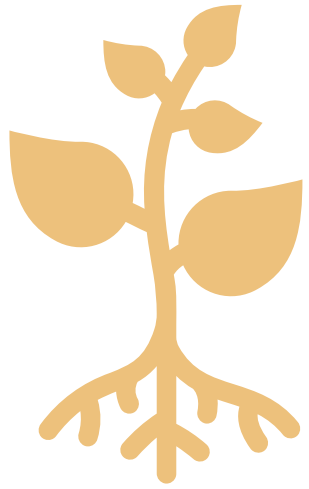






WEIGHT ROOM.

SENSES



Smell



Sound



Touch

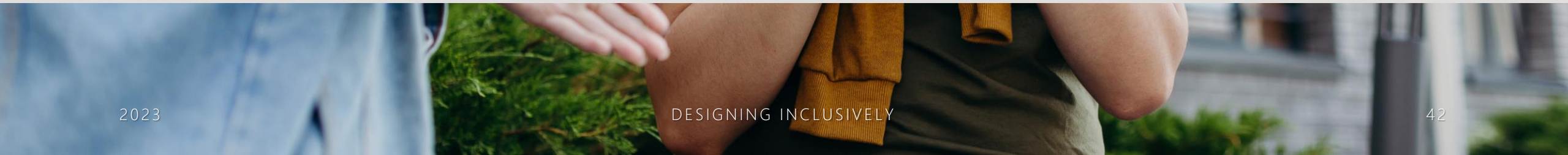


Sight



SUMMARY

Integrating these blind and deaf design strategies within architecture will better assist the blind and/or deaf navigate their surroundings and bridge the disabled education gap between people. Architects can be leaders in designing well-rounded buildings. By setting these groups of people up for success they can thrive more as individuals to gain a sense of community and safety in any building they visit.





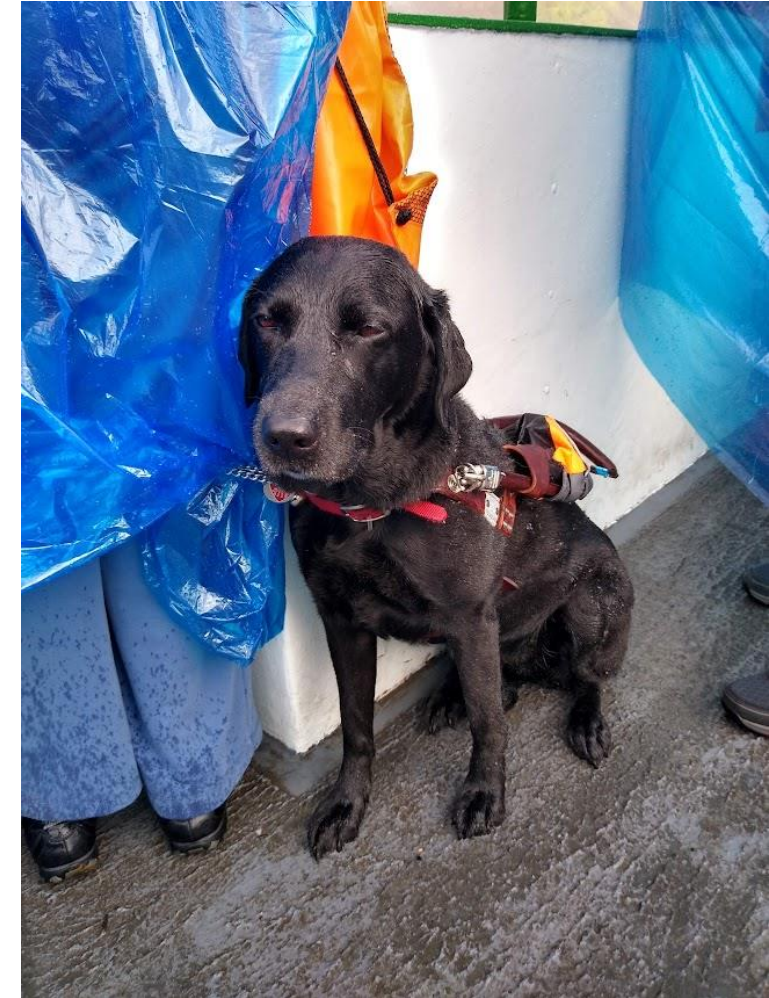
THE WELLNESS
STUDIO

EMPOWER
TRANSFORM
THRIVE



Guiding the visually impaired and blind;
often called a train

THANK YOU!



Guide dog after boat ride through
Niagara Falls