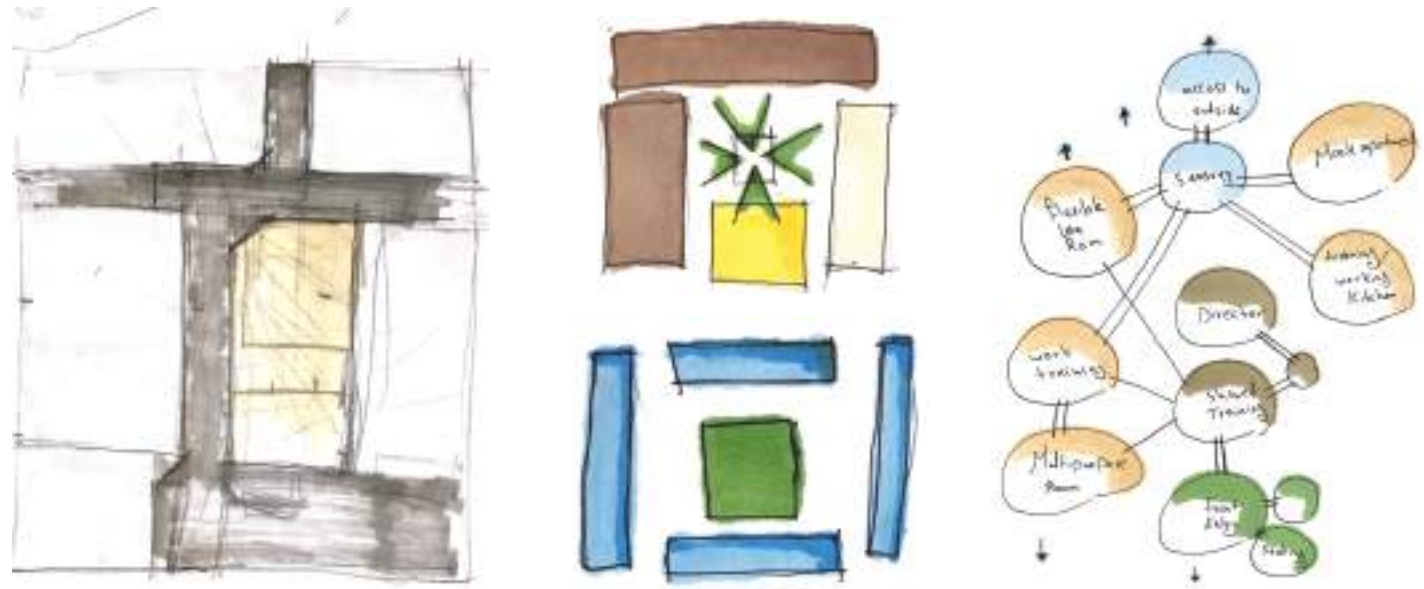


TODAY celebrates all individuals and meets them where they are TODAY. TODAY training center is a place that focuses on providing vital life and job skills to individuals with Autism Spectrum Disorders and other cognitive disabilities. TODAY focuses on the day by day progression of our clients and takes each individual’s sensory environment needs into serious consideration. We believe in the power of partnership, represented by the two triangles in our branding that our clients are never alone as they work toward their self-defined goals and look forward to tomorrow.



Concepts for TODAY



low-stimulus high-stimulus

sensory areas client training staff & utility circulation

SENSORY ZONING

Low-stimulus zones are clustered in the back of the facility to create a portion of the building where clients can take a break from the high-stimulus training and circulation areas. Clustering sensory zones is recommended by Mostafa (2014).

ZONING DIAGRAM

The sensory areas were strategically placed near one of the facility's back exits to give easy access to the garden, which has also been designed as a sensory area. Staff facilities are centrally located for easy access to all areas of the training center.



TODAY training center

TODAY’S design considerations

The goals for TODAY training center are centered on 5 “S”’s of ASD design, adapted from Mostafa’s (2014) ASPECTSS matrix.

SOUND

Auditory stimulation can take energy away from learning in the classroom; background noise should be kept to 35 DB maximum. Floor heating, sound-absorbing flooring, and fluorescent lighting alternatives are innovative solutions to this problem.

(Kanakri, Shepley, Tassinari, Varri, & Fawaz, 2017; Gaudion, Lowe, McGinley, & Kew, 2014; Brown, 2016; "Designing for Autism," 2011)

SPATIAL SEQUENCING

Many individuals with autism have thoughts rooted in sequencing and organization; making sure that the environment is established in a logical order is important. A few ways to ensure organization are to create group arrangements with flexible furniture, to add sensory zoning, and to simplify wayfinding for clients in the center.

(Gaines, Curry, Shroyer, Amor, & Lock, 2014; Mostafa, 2014; dEntremont, 2013)

SPACE

Escape spaces are specifically designed to give clients the specific amount of stimulation in a given situation and are built to meet a wide variety of sensory needs. The sensory needs that should be addressed in escape spaces include scent, lighting, access to nature, comfortable seating, and controllable music.

(Kinnaer, Baumanns, & Heylighen, 2016; Gaines, Curry, Shroyer, Amor, & Lock, 2014; Ryan, Browning, Clancy, Andrews, & Kallianpurkar, 2014; Hrdlicka et al., 2011; ("Sensory Room Design | Hirstwood Training," n.d.)

SENSORY ENVIRONMENT

The sensory environment should be centered around balance. Using partitions to divide rooms into distinct purposes and incorporating various organization tools into work-centered spaces are just two ways to create a predictable sensory environment and give control over the space.

(Gaines, Curry, Shroyer, Amor, & Lock, 2014; Mostafa, 2008; "DesignShare: Classroom Design for Living and Learning with Autism," n.d.; Organising, sequencing, prioritising - National Autistic Society," n.d.)

SAFETY

Incorporating contrasting colors between the floor and wall, using flooring with thresholds flush to floors, providing windows within the building to enhance visibility, and providing non-verbal signage are all ways to easily make the space safer for all. Ensuring that there is adequate space for approach and use, that information is known by all, that there is a low physical effort needed to use any item in the center, and that all objects have a high tolerance for error are just a few ways to ensure safety.

(Medcalf, 2016; Gaudion, Lowe, McGinley, & Kew, 2014; "Autism Informed the Entire Design of This Revolutionary Boarding School | Architectural Digest," n.d.; "Principles of Universal Design," n.d.)



1. Autism Informed the Entire Design of This Revolutionary Boarding School | Architectural Digest. (n.d.). Retrieved October 20, 2018, from <https://www.architecturaldigest.com/story/shrub-oak-international-school>
2. Autism rates continue to climb, and experts don't exactly know why. (n.d.). Retrieved October 20, 2018, from <https://www.usatoday.com/story/news/nation/2018/04/26/autism-rates-climb-experts-dont-know-why/554247002/>
3. Brown, J. (2016). Bill and Virginia Leflen Center for Autism. Behavioral Healthcare, Cleveland, 36(1), 44-46-47.
4. Crisis - National Autistic Society. (n.d.). Retrieved October 24, 2018, from <https://www.autism.org.uk/about/adult-life/stories/crisis-point.aspx>
5. dEntremont, L. (2013, March 4). Teaching Organizational Skills to Individuals with Autism: Executive Functioning Part 1. Retrieved October 24, 2018, from <https://kidscompanions.com/teaching-organizational-skills-to-individuals-with-autism-executive-functioning-part-1/>
6. Designing for Autism: Lighting. (2011, October 19). Retrieved October 20, 2018, from <http://www.archdaily.com/117295/designing-for-autism-lighting/>
7. DesignShare: Classroom Design for Living and Learning with Autism. (n.d.). Retrieved October 20, 2018, from http://www.designshare.com/index.php/articles/classroom_autism/
8. Fage, C. (2015). An Emotion Regulation App for School Inclusion of children with ASD: Design Principles and Preliminary Results for its Evaluation. (112), 8.
9. Gaines, K. S., Curry, Z., Shroyer, J., Amor, C., & Lock, R. H. (2014). The Perceived Effects of Visual Design and Features on Students with Autism Spectrum Disorder. Journal of Architectural and Planning Research, 31(4), 282-298.
10. Gaudion, K., Lowe, C., McGinley, C., & Kew, A. (2014). Designing living environments with adults with autism. Tizard Learning Disability Review, 19(2), 65-72. <https://doi.org/10.1080/TLDR-01-2015-0002>
11. Gaudion, K., Hall, J., Myerson, J., & Pelligrano, L. (2015). A designer's approach: how can autistic adults with learning disabilities be involved in the design process? Co-Design, 11(1), 49-69. <https://doi.org/10.1080/15710802.2014.997029>
12. Hrdlicka, M., Vodiccka, J., Havlovicova, M., Urbanek, T., Blatny, M., & Dudova, I. (2011). Brief Report: Significant Differences in Perceived Odor Pleasantness Found in Children with ASD. Journal of Autism and Developmental Disorders, 41(4), 524-527. <https://doi.org/10.1007/s10803-010-1084-x>
13. ILRU Directory of Centers for Independent Living (CILs) and Associations - 2017 (Vol. 39) | Independent Living Research Utilization. (n.d.). Retrieved October 20, 2018, from <http://www.ilru.org/projects/cil-net/cil-center-and-association-directory>
14. Kanakri, S. M., Shepley, M., Tassinari, L. G., Varni, J. W., & Fawaz, H. M. (2017). An Observational Study of Classroom Acoustical Design and Repetitive Behaviors in Children With Autism. Environment and Behavior, 49(8), 847-875. <https://doi.org/10.1177/0013916516669589>
15. Kanakri, S. M., Shepley, M., Varni, J. W., & Tassinari, L. G. (2017). Noise and autism spectrum disorder in children: An exploratory survey. Research in Developmental Disabilities, 65, 85-94. <https://doi.org/10.1016/j.ridd.2017.02.004>
16. Khare, R., & Mullick, A. (2009). Incorporating the Behavioral Dimension in Designing Inclusive Learning Environment for Autism. ArchNet-IJAR, 3(5), 45-64.
17. Kinnaer, M., Baumanns, S., & Heylighen, A. (2016). Autism-friendly architecture from the outside in and the inside out: an explorative study based on autobiographies of autistic people. Journal of Housing and the Built Environment, 31(2), 179-195. <https://doi.org/10.1007/s10901-015-9451-8>
18. Medcalf, L. (2016, November 16). 8 Things to Consider When Designing a Sensory Room. Retrieved October 20, 2018, from <https://www.easternsealtech.com/2016/11/16/8-things-to-consider-when-designing-a-sensory-room/>
19. Moss Designs. (2017, October 21). Retrieved November 4, 2018, from <https://www.thefatplantsociety.com/moss-designs/>
20. Mostafa, M. (2008). An Architecture for Autism: Concepts of Design Intervention for the Autistic User, 2(1), 23.
21. Mostafa, M. (2014). Architecture for Autism: Autism ASPECTSS™ in School Design. International Journal of Architectural Research: ArchNet-IJAR, 8(1), 145. <https://doi.org/10.26687/archnet-ijar.v8i1.514>
22. Organising, sequencing, prioritising - National Autistic Society. (n.d.). Retrieved October 24, 2018, from <https://www.autism.org.uk/about/behaviour/organising-sequencing-prioritising.aspx>
23. Principles of Universal Design. (n.d.). Retrieved October 20, 2018, from <http://idea.ap.buffalo.edu/udny/section3.htm>
24. Ryan, C. O., Browning, W. D., Clancy, J. O., Andrews, S. L., & Kallianpurkar, N. B. (2014). Biophilic Design Patterns: Emerging Nature-Based Parameters for Health and Well-Being in the Built Environment. International Journal of Architectural Research: ArchNet-IJAR, 8(2), 62-76. <https://doi.org/10.26687/archnet-ijar.v8i2.436>
25. Sensory Room Design | Hirstwood Training. (n.d.). Retrieved October 20, 2018, from <https://www.hirstwood.com/course-notes/sensory-room-environments-course-notes/sensory-room-design/>



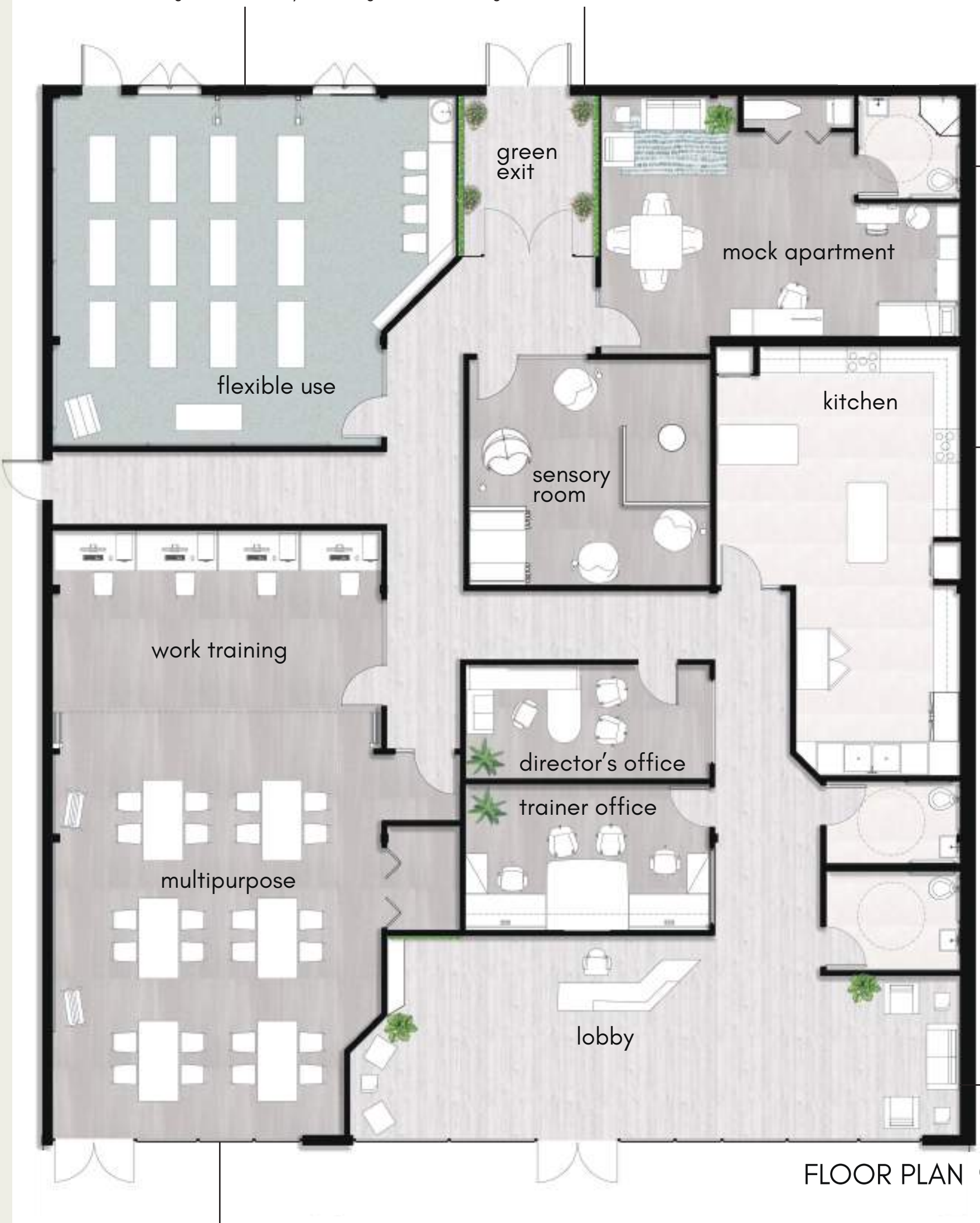
flexible use room

- Exercise space to encourage physical activity and to cater to clients who need lots of stimulation
- Desk area for creating crafts to encourage creativity and provide stimulation
- Access to outside green space directly from room to provide immediate sensory relief
- Rubber flooring to ensure safety according to universal design

green exit

- Live moss wall
 - o Noise dampening qualities to reduce auditory stimulation
 - o Includes air cleaning properties
- Access to meditation and contemplation courtyard outside
- Designed using biophilic principles
- Acts as an alternate sensory integration space

material and furniture selections



mock apartment

- Vanity and ADA bathroom to teach makeup and hygiene skills
- Closet with ironing board and washer and dryer to reduce visual clutter
- Carpet tile throughout shared spaces to reduce acoustical stimulation
- Zero threshold between flooring types to ensure mobility

kitchen

- Commercial-grade kitchen equipment to teach skills needed to work in a professional kitchen setting
- Work tables with adjustable heights to ensure ADA accessibility for universal design
- Two large integrated storage closets to reduce visual clutter

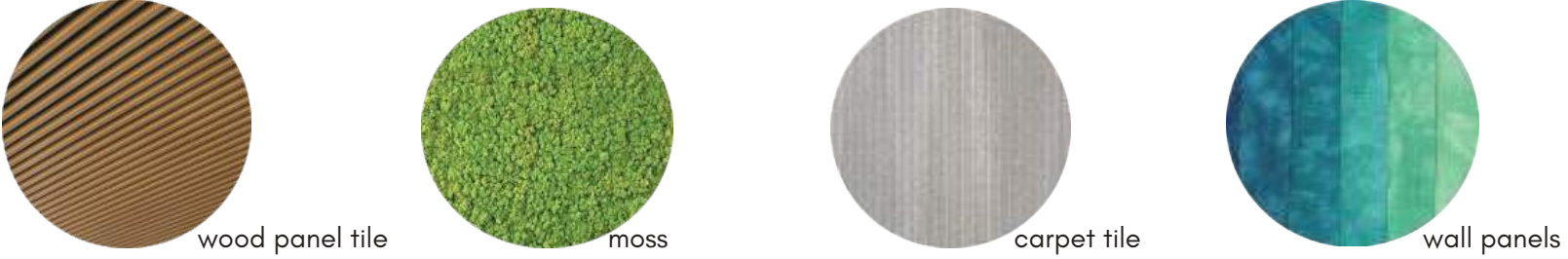
lobby

- Prints of pieces by Stephen Wiltshire, an artist with ASD
- Clerestory windows to let natural light travel throughout the space to reflect daylight to the ceiling
- Suspended acoustical wood panel tile from ceilings to reduce auditory stimulation
- Custom ADA accessible front desk for universal design
- Live moss wall for biophilia, to reduce auditory stimulation, and to cleanse the air
- Vinyl flooring throughout lobby and halls with different colored vinyl outside of offices to assist with wayfinding
- Signage outside of each room features the written name of the space, a photo of the space, and braille for universal wayfinding
- All windows have remote controlled blackout curtains to control the amount of sensory stimulation
- All lighting is LED rather than fluorescent
 - o Lights are fully customizable to control sensory stimulation
 - o LED lights don't hum like traditional fluorescent lights do and are less harsh; the use of LED lights reduces auditory and visual stimulation

work training & multipurpose

- Includes integrated projection and large storage closet for supplies to hide clutter and reduce visual stimulation
- Folding wall separates spaces with different purposes
- White boards to encourage collaboration and communication
- Portable white boards to create smaller and less-stimulating break-out groups
- Flooring is carpet tile to reduce acoustical stimulation
- 4 separate computer stations to increase client concentration
- Each desk equipped with sorting stations to increase productivity and teach work-organization skills

acoustic materials



sensory integration room

- Located away from high-traffic and high-population areas
- Separate air conditioning unit to give client full control over the space
- Integrated sound system with headphones to give client full access over the amount of auditory stimulation desired
- AV system to project fully customizable color and lighting on the wall to provide as much or as little stimulation as desired
- Bean bag chairs feature surrounds to ensure privacy and give the option to block out all sensory stimulation
- Partitioned area with vestibular swing to increase sensory stimulation
- Window coverings can be opened if natural light and view to green exit is desired to feel closer to nature
- Biophilic live moss wall to absorb sound, reduce auditory stimulation, and increase air quality
- Tented area with seating and curtain to ensure privacy and block out sensory stimulation
- Bamboo fabric on furniture because the texture can be soothing to individuals with ASD
- Carpet tile on floor and acoustic panel wall to reduce auditory stimulation

