According to the National Autism Spectrum Disorder Surveillance System, autism is estimated to be seen in 1 in every 66 children in Canada (What is Autism 2018). Autism Spectrum Disorder comes in all different shapes, forms, and sizes, and is therefore referred to as a spectrum, as each individual experiences it differently. Living with ASD is a "journey of learning and growing" (Roberts, 2014). It is a lifelong endeavor full of intelligence and unique perspective. Therefore, careful design considerations and planning must be made with extensive research on this complex neurobehavioral condition to develop a space that both facilitates these young individuals on learning to live independently, while also ensuring the built environment around them is safe and comfortable.

When designing an environment inhabited by those living on the spectrum, the main consideration is their difficulty processing sensory information and minimizing the risk of a sensory overload. While we can acknowledge that sensory processing is a strong characteristic, as mentioned above each individual will experience autism differently. This means that individuals can either be hypo-sensitive or hyper-sensitive to some sensory information and the challenge lies between maintaining that balance that considers both sensitivities.

Over or under stimulation in the built environment can come from lighting, sounds, textures, colours, and even smells. Harsh, fluorescent lighting can be aggravating to someone with ASD, and it is extremely important when choosing lighting to ensure there is no flicker and very minimal sound emitted as this can also cause a sensory disturbance (Steele 2016). Reducing HVAC noise will also make a significant improvement in sensory processing, as even a minor hum can be over-stimulating. Controlling acoustics and sound distribution between spaces is beneficial as it can prevent a sensory-overload, as well as provide a clear transition between each area with minimal disturbance from adjacent rooms. Acoustics is extremely important when creating a sensory room, as some individuals may enjoy loud music or creating loud noises as a way of release (Autism West Midlands 2016).

Considerations must also be taken when designing for the aesthetics of the space as well. It is common for someone with ASD to have a very keen eye for detail, and can see patterns or colours that individuals without autism cannot (What is Autism? 2016). Autism sees details rather than a collective; "individuals with autism tend to see the trees not the forest" (Rapp 2018). While this can be beneficial, many patterns or variance in colours and textures can be distracting for someone with ASD in areas where high levels of focus is required.

Lastly, a key factor in designing for autism is navigation. In a 2018 study that explored the spatial needs and navigation skills of young adults on the spectrum, their findings showed that when they are maneuvering through a route, even one taken every day, they rely on specific objects and/or landmarks as checkpoints to help them understand where they are in relation to the space around them. They lack the ability to make the connections to a physical path, and instead create a method of wayfinding to help them to navigate themselves through the space. The study showed even minor changes like a landmark being blocked from view can disrupt their route. "[They] learn to match the representation of the path they have ‘in their head’ to the connections to a physical path, and instead create a method of wayfinding to help them to navigate through a route, even one taken every day" (Rapp 2018), and find relief from anxiety in repetitive routines.

All this information can be strongly utilized by designers when planning the circulation in a space. Wayfinding, and creating visual checkpoints that distinguish each area is crucial to creating a memorable route. Colours and materials can be used to help with creating a clear transition between each area, and design can be simplified by minimizing patterns and strong textures. To provide an environment for optimal learning and comfort, white noise from lighting and HVAC can be omitted or reduced to a minimum. 

**Concept**

The sunflower is known for being bright and cheery. Its vivid yellow petals can lift spirits and radiate happiness, and as it grows to face the sun, sunflowers are a symbol of nourishment and positivity. Sunflowers, while in fields are unified and orderly and can be seen as a community, but each is one unique and represents a journey of growth and prosperity.

As a child, many of the challenges those with ASD face, can be aided with extra support and guidance. But as those on the spectrum develop from adolescence to young adults, they are faced with many new challenges, often alone. Sunrise Centre for Independence (SCI) is the support hub for young adults living on the spectrum who are transitioning from a co-dependent to an independent lifestyle. The Sunflower symbolically embodies everything that Sunrise aims to provide; it seeks out strength and personal growth, through nourishment and positivity.

The goal of Sunrise Centre for Independence is not to shape the individual with adaptations for living in the real world, but instead how the individual can learn shape their environment around them to create a more comfortable and desirable lifestyle. In many ways SCI is like the sun; it radiates positive energy and provides the sunflower with an opportunity to grow. 

**Space Planning**

For a more comfortable and desirable life. In many ways SCI is like the sun; it radiates positive energy and provides the sunflower with an opportunity to grow.
When one enters the Sunrise Centre of Independence they are immediately placed in the centre of the space allowing the user to have a clear view and path to each room. Reception is located directly on the east side of the building, which is furnished to accommodate for wheelchair access to the front desk. The director’s & facility trainer’s offices are located on the west end, where the corridor will also lead to the adjacent not-for-profit organization offices. As the user proceeds to each facility room, the curved walls will naturally lead the user from one area to the next, and navigating through the space will be easier as this reduces the amount of hidden doorways. This will also create a seamless and memorable route through the building, as the user could travel in one direction, and end where he or she first began.

1. Entry opens up to clear view of the space and directly opens to main circulation route, allows user to easily navigate from space to space.
2. Wheelchair accessible reception desk.
3. Exit to not-for-profit organization offices.
4. Circular path of circulation allows user to follow one direction and end their journey through the space in the same spot in which he or she began.
5. Unisex universally accessible washroom.
6. Entrance & exit doors into sensory room allows for user to enter in one direction and leave in another feeling more relaxed and ready to learn, and have direct access to outdoor space.
7. Fixed circular cushions at varying levels allow for sensory stimulation as the user can experience the comfort of cushions and tactile element of the organic shapes.
8. Coloured lighting and acoustic paneling throughout allows for sensory stimulation.
9. Vestibular swing chairs
10. Wall art acts as wayfinding tool for each room.
11. Built in recessed seating. Suggests movement breaks while also providing sense of isolation and security
12. Exit to outdoor meditation courtyard.
13. Exercise bar for improvement on balance and stability.
14. Weight and balance training.
15. Collaborative craft tables.
16. Mirrored kitchen for familiarity and demos with 4 x 36 work prep. tables.
17. Multipurpose room computer stations for developing computer skills.
18. Height adjustable, semi-fixed tables.
19. Interactive smartboards.
20. Folding door between Multipurpose Room & Work Training room.
21. Cash handling & POS skill training.
22. Office computer skill training.
23. Pet care station for development on caring for pets.
24. Herman Miller Swoop
25. Herman Miller Tuxedo Sofa
26. Beanbag Chair
27. Knoll Rockwell Unscripted
28. Haworth Window Seat
29. Steelcase Ripple Bench

When one enters the Sunrise Centre of Independence they are immediately placed in the centre of the space allowing the user to have a clear view and path to each room. Reception is located directly on the east side of the building, which is furnished to accommodate for wheelchair access to the front desk. The director’s & facility trainer’s offices are located on the west end, where the corridor will also lead to the adjacent not-for-profit organization offices. As the user proceeds to each facility room, the curved walls will naturally lead the user from one area to the next, and navigating through the space will be easier as this reduces the amount of hidden doorways. This will also create a seamless and memorable route through the building, as the user could travel in one direction, and end where he or she first began.

The sensory room is located in the centre of the facility, with all other rooms arrayed around. Separate entrance & exit doors into sensory room allows for user to enter in one direction and leave in another feeling more relaxed and ready to learn, and have direct access to outdoor space. All other rooms in the facility have been grouped into low, medium and high sensory categories, so the user can have a smooth transition from each and not feel overwhelmed and avoid sensory-overload. The corridor continues to the exit to the outdoor space, where built-in seating pods align the walls to promote movement breaks and provide the user with a sense of subtle isolation.