The Hive : Living and Learning Community

Thesis | Fall 2018
Professor | Dr. Laura Cole
Software | Revit, Photoshop

Backstory | My sister has a rare form of mutation on the Grin2B gene which causes autistic-like symptoms. She also has the mental acuity of a five year old so she will never be able to live by herself. My parents are concerned that when they pass away, she could be surrendered to the state and placed somewhere far away from her friends and without the routine she has come to know. This living and learning community was created for her and her friends, so that they will never have to move away from their routines and each other.

Objective | The closest autistic living facility from Belleville, IL is four hours away. Autistic people need a consistent routine, when they are forced to deviate, it unbalances them and causes them to stress out. The solution is to create assisted living spaces where they can live out the duration of their lives.

Concept | The Hive Living and Learning Community provides the comforts of home while giving parents and guardians peace of mind. Residents on the Autism Spectrum will come together to live, work, and play in harmony. The design is inspired by bees and how they interact together to create communities. At The Hive, residents have opportunities to develop their social and life skills while interacting with the surrounding community.
The Site

Belleville, Illinois

Shot of the exterior

Shot of the exterior

Aerial View of the Site

Rendered View of the site

Site Plan

Boundary of fenced in property

Athletic Field

Basketball Court

Courtyard

Parking

Google view of the building
Private Entrance and Lobby

Reception Desk

Private Entrance
Floor Plan

**Living Wing**
1. One Bedroom
2. Two Bedroom
3. Air Handler
4. Mechanical
5. Sanctuary
6. Bathroom
7. Laundry

**Learning Wing**
8. Gym
9. Kitchen
10. Cold Storage
11. Pantry
12. Multipurpose
13. Workout Gym
14. Snoezelen Multisensory Space
15. Classroom
16. Library
17. Computer Room
18. First Aid

**Shared Space**
19. Common Room
20. Cafe
21. Caretaker Apartment
22. Conference Room
23. Records
24. Therapist Office
25. Movie Room
26. Reception
Snoezelen Rooms are placed around the building to provide a calming space should *stimming* occur. By providing a place to step back and focus, the resident reduces the potential for harm to themselves or others.

* Representation of Snoezelen Room

**Stim:** “Stereotyped or repetitive speech, motor movements, or use of objects...symptoms together limit and impair everyday functioning.” - DSM-5

The colored concrete in the cafe floor creates visual interest by mimicking bee communication. Bees dance to communicate love, new food sources, and excitement.
Shared Space

The furniture in the common room provides areas for various activities.

The MDF Wall (blue) is a favorite of the patients at the Thompson Center for Autism. They use it to stay calm while in a stressful environment.
The cafe acts as a meeting point between the residents and the surrounding community. The residents are able to improve several learning and developmental skills by working here and the community is reminded of the fact that the residents are people who have a unique view of the world.
Autistic people have a different perception of space than most people. What you or I could consider large, a person with autism might see as small.

The colored strips in the ceiling are a wayfinding technique and were inspired by the pheromone trails of bees. The different colors lead to certain areas of the building: **yellow** - apartment wing, **green** - learning wing, and **yellow green** - further shared spaces.
Millwork

The shelves have a variety of different uses. They were primarily designed to hold books and knickknacks.
Living Wing

The maximum amount of bedrooms per apartment is two. This allows each resident to get as much light as possible.

There is a small sanctuary space provided that creates a sense of being “apart” which is something that was mentioned in a case study about how autistic people wanted to live.

When certain autistic people stim*, they have the propensity to lope*. To prevent this, the design incorporates large benches that act as barriers.

*Stim: “Stereotyped or repetitive speech, motor movements, or use of objects. Symptoms together limit and impair everyday functioning”
- DSM 5

*Lope: “run or move with a long bounding stride.”
In the living wing, the residents make their own design choices to reflect their personalities.
Learning Wing

Learning Wing
14 Snoezelen Multisensory Space
15 Classroom
16 Library
17 Computer Room
18 First Aid

Classroom

Learning Wing Hallway
An article indicated that therapy ball chairs are marginally helpful in **autistic concentration**. Because therapy ball chairs do not fit in with the design aesthetic, Steelcase Buoy stools take their place; solving the same problem.
Cafe:

CEILING: Armstrong Woodworks Channel NVMW7 Maple
PAINT: Sherwin Williams Harmony - go17 Sunny Veranda
Sherwin Williams Harmony - 6788 Overt Green
Sherwin Williams Harmony - 9070 Acrer

TEXTILES: Anzea Textile - Twinkle Sky 722541 Earth Shadow (200,000DR, 100% PVC)
Momentum Eon - Spring (600,000DR, 100% Polyurethane, Anti-microbial, Anti-bacterial)
Momentum - Uplift Sprite (75,000DR, 67% Solution dyed Recycled Polyolefin, Soil and Stain resistant, Greenguard Gold Certified)
Momentum - Beeeline EPU Sundance (900,000DR, 100% EPU Polyurethane Greenguard Gold Certified, PVC Free)

FLOORING: Hexatile Porcelain Tile - STFEQ8HMN Nero Wall and Floor: 7"x8" Crossville Buenos Aires Mood - VS016 Pilar - Used as a representation of polished Concrete
OTHER: 3x12" Ceramic Tile - Yellow (Made in Spain)

Common Room:

CEILING: Armstrong Woodworks Channel NVMW7 Maple
PAINT: Sherwin Williams Harmony 6903 Cheerful
Sherwin Williams Harmony - 9017 Sunny Veranda
Sherwin Williams Harmony - 6788 Overt Green
Sherwin Williams Harmony - 7019 Gauntlet Gray

TEXTILES: Momentum Cycle - Iron (Ecoworx tile, Herringbone orientation)
Design Tex Theory - 3014-512 - Green Apple (55,000DR, 100% polyurethane, Anti-microbial, Anti-bacterial, Greenguard Certified)
Design Tex Mod 3913-201 - Daffodil (30,000DR, 100% Sunbrella Solution Dyed Acrylic Stain Repellant)

FLOORING: Shaw Contract Depth Tile 57211 - Shadow (100,000, 74% postconsumer recycled)
OTHER: Soelberg MDF Wall: Onda 1 Concrete
Apartment Wing

**Ceiling:** Geiger 6K1 Rift Oak Matte Sheen

**Paint:**
- Sherwin Williams Harmony Paint 9077 Sunny Veranda Main Color
- Sherwin Williams Harmony Paint 6922 Acier
- Sherwin Williams Harmony Paint 6923 Cheerful

**Textiles:**
- Luna Textiles Motif MTF-5333 - Wolf (100,000DR, 61% recycled polyester, 39% nylon Soil/stain resistance)
- Design Tex Gamut 3468-202 - Mango (100,000DR, 100% recycled polyester Soil resistant)
- Maharam Tek-Wall 1000 300801 - Cornsilk (100% Polyolefin)
- Knoll Venue 10558-12 - Noir (60,000DR, 88% Polyester, 12% recycled polyester Soil/Stain Repellent)

**Flooring:**
- Shaw Flooring Cashmere Classic I CCS68 - Armory

**Other:**
- Corian Tabletops Blizzard
- MSI Akoya Random Tile

Learning Wing

**Ceiling:** Armstrong Woodworks Channel NVMW7 Maple

**Paint:**
- Sherwin Williams Harmony 6920 Acier
- Sherwin Williams Harmony 6317 Dill
- Sherwin Williams Harmony 6333 Greensfeld

**Textiles:**
- Design Tex Pen & Ink 3450-503 - Privet (100,000DR, 54% rayon, 32% nylon, 14% Recycled Polyester)
- Momentum Agora II - Leaf (350,000DR, 100% Polyurethane Anti-microbial, Anti-bacterial)
- Momentum Cover Cloth - Granite (200,000DR, 75% Post-consumer recycled polyester, 25% polyester)

**Flooring:**
- Shaw Contract Surround 0202 - Storm Cloud (Ecosolution, Monolithic Orientation)

**Other:**
- Cantor Takstips Blizzard "just to show the color"
- MSI Akoya Random Tile White
Models and References


