

Ascent



Patient Bed Perspective

Research Summary

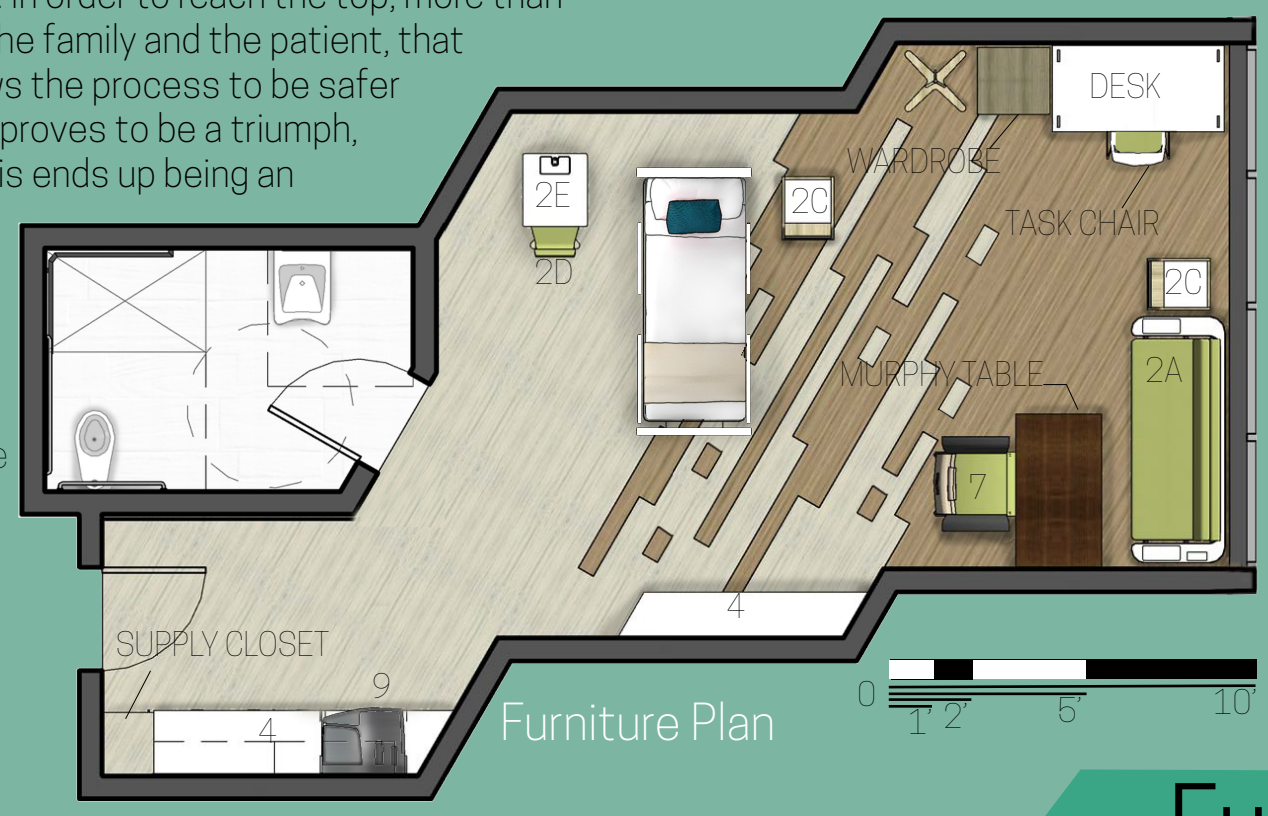
Healthcare facilities are meant to be a place for patients to safely recover. In order to create safe, healing environments, many factors must be taken into consideration. Such factors include environmental toxins, patient and staff stress levels, and patient comfort. Environmental toxins are becoming a growing concern in the healthcare industry. The constant use of harmful chemicals is aggravating disease and making it harder for patients to recover. Many antimicrobial materials use harmful pesticides and biocides in order to obtain their antimicrobial properties ("Healthcare: Cure for a Crisis" 5-7). Unfortunately, these harsh chemicals are not making healthcare environments a safe place for recovery. Many manufacturers are encouraging the use of naturally antimicrobial products that can achieve the same effect as their synthetic counterparts without introducing harmful chemicals into the environment. Stress has always been a common roadblock to patient recovery because of its negative impact on the efficiency of the immune system. The negative effects of stress make it crucial to mitigate stress whenever possible. Incorporating nature into the built environment has proven successful at reducing stress levels and reducing pain, in turn quickening the healing process. Studies have shown that viewing scenes of nature cause the brain to release endorphins, which are known for reducing pain and encouraging positive emotions ("Healing Spaces" 25-52). Not only can views of nature reduce stress and pain, but it can also evoke positive feelings such as calmness and relaxation ("A review of the Research Literature on Evidence-Based Healthcare Design" 22-37). Another effective way to reduce patient stress and promote healing is by creating a space where the patient family can be a part of the collaborative healing process. According to the White Paper Series, the support of family members can reduce stress, anxiety, and depression ("A review of the Research Literature on Evidence-Based Healthcare Design" 42-45).

Concept Introduction

The idea of climbing a mountain symbolizes a patient's recovery. In order to reach the top, more than one party must be involved. It is with the help of medical staff, the family and the patient, that a stay in a patient care room can be successful. Teamwork allows the process to be safer and more effective. Once the top of the mountain is reached, it proves to be a triumph, which is comparable to a patient recovering and going home. This ends up being an accomplishment for everyone in the process.

Goals

- 1. A collaborative healing process**
The patient recovery process should be a partnership between the patient, family, and healthcare providers, with all parties working together to achieve a common goal.
- 2. A safe place for healing**
In order to provide a safe environment, sustainable, chemical free products will be used when possible.
- 3. Patient Control**
Giving the patient as much control as possible will reduce stress, in turn quickening the recovery process.



Furniture & Finishes



- Material Footnotes:**
- Sherwin Williams Harmony Interior Acrylic Latex Paint: zero VOC, improves indoor air quality by reducing VOCs and common indoor odors, antimicrobial and durable
 - A. SW 7007 Ceiling Bright White
 - B. SW 6487 Cloudburst
 - Nemschoffs Palisade Collection is designed to make it easier for the family to be a part of the healing process by creating a comfortable and connected family space.
 - A. Palisade Flipsofa
 - B. Palisade Mobile Table
 - C. Palisade Tote and Coatrack
 - D. Nemschoffs Palisade Stool is designed to put the healthcare provider at eye level with the patient to improve communication and connection
 - E. Nemschoffs Palisade Daystand gives the healthcare provider a place to work without disrupting the patient.
 - Pallas Ground Breaking: 100% biodegradable polyurethane with Silver Ion Antimicrobial Technology, 174, 000 double rubs
 - A. Grass 27.162.145
 - B. Mineral 27.162.031
 - Daltile Porcelain Tile (Color Scheme: Arctic White B900): Certified Porcelain, 60% pre-consumer

- recycled content, antimicrobial, scratch, slip, and stain resistant, and made in the USA
- 5. DuPont Corian Solid Surface (Designer White): Easy to clean, nonporous, durable, GREENGUARD Certified as low VOC, microbial resistant, stain resistant
- 6. Acuity Brand Amber Path Light: Designed to help patients find the bathroom at night without using disruptive lighting. Amber lighting is less disruptive to the circadian rhythm than other forms of lighting.
- 7. Nemschoff Patient Chair
- 8. Forbo Marmoleum with Top Shield 2: Bio-based, non-toxic, naturally antimicrobial, durable and easy to maintain flooring. 97% natural raw materials that are rapidly renewable (linseed oil, rosin, jute, wood flour) or available in abundance (limestone).
 - A. 5217 Withered Prairie
 - B. 3576 Sliding Glacier
- 9. Advocate by Bradley Sink with all-in-one design for convenience, touch free, meets ADA requirements, ANSI, CSA, UL and GreenGuard certifications.
- 10. Red lightswitch panels to indicate easier finding.

References:
 "Healthcare: Cure for a Crisis." Sustain Fall 2013: 1-15. Print.
 Kilmer, Rosemary. Designing Interiors. 2nd ed. Wadsworth, 1992. Print.
 Kopec, David Alan. "Healthcare Environments." Environmental Psychology for Design. 2nd ed. New York: Fairchild, 2006. 257-276. Print.
 Sternberg, Esther. Healing Spaces. Cambridge: Belknap of Harvard UP, 2009. Print.
 Ulrich, Roger, Craig Zimring, Xuemei Zhu, Jennifer DuBose, Hyun-Bo Seo, Young-Seon Choi, Xiaobo Quan, and Anjali Joseph. "A Review of the Research Literature on Evidence-Based Healthcare Design." Healthcare Leadership: White Paper Series (2008). Print.

Collaboration through zoning

Dividing the patient room into zones provides a place for all members of the healing process. This encourages teamwork by making all members feel equal and important in the healing process. Mountains provide an effective layout for space. They are separated into multiple zones by differing ecosystems. Four of these zones are represented in the space.

The Nival Zone:
Highest mountain ecosystem, covered with snow, extreme cold, limited to non-existent vegetation

Bathroom:
The bathroom utilizes all white finishes to convey a clean and sterile space. Understanding the worries people have about bathrooms and sickness, this promotes a confidence in the cleanliness of the space.

The Alpine Tundra:
Mountain area just above tree line, harsh winds and cold temperatures, mostly shrubs and forbs, few mammals and many birds

Healthcare Provider Zone:
The space features the casework containing all the supplies a healthcare provider would need access to in a room, as well as access to the head wall. The area would be well maintained, and would confine growth as it is cleaned frequently. The layout provides a clear pathway so the provider can get in and get out, similar to the bird coming and going in the zone.

The Sub-Alpine:
few spruce, fir, and pine trees, variety of plants and shrubs, some mammals and birds

Patient Zone:
While this space does have some life, it is still a calm place with limited activity. This area is mainly for comforting the patient: the graphic nature wall, a monitor featuring desired information/television, and a counter for displaying patient items. Because this zone fuses together home and hospital, the floor pattern blends the two different flooring materials together to symbolize the transition.

The Montane:
Lowest and most active mountain ecosystem, wide variety of trees, shrubs, grass and herbs, home to many mammals and birds, water sources

Family Zone:
Patients need an area to recover that supports a variety of daily life activities, much like the montane ecosystem provides for mountain animals. The family zone provides many of these much needed spaces, including a work area, Murphy table for eating and socializing, and a sofa bed for sleeping. This area promotes interaction between the patient and family, getting that patient out of bed closer to recovery.

Lighting Statement

Giving patients control is an essential part of a comfortable and speedy recovery. One easy way to implement this is with patient controlled lighting at multiple levels. Patients can control lighting from the comfort of their bed to adjust the room for the task at hand. There are various levels of lighting in the patient room. The general lighting, all recessed ceiling lights, are not only operable from the patient bed but also dimmable. The Head wall contains two wall sconces, the work area desk has a lamp, and the family sofa had a built in lamp to give multiple types of task lighting. The room also has an amber OLED night light so that the patient can easily find the bathroom at night without have sleep disruptions from light. The healthcare provider stations at the entrance and the headwall both have lighting for the provider to control. This lighting makes it possible for the provider to work while the patient is sleeping without turning on the general lighting. This design also utilizes Mecho-shades, window treatments that are operable from the bed for another level of patient control and lighting.

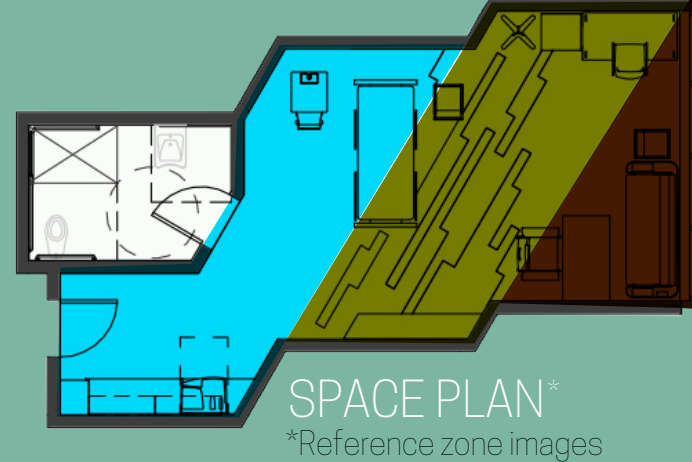
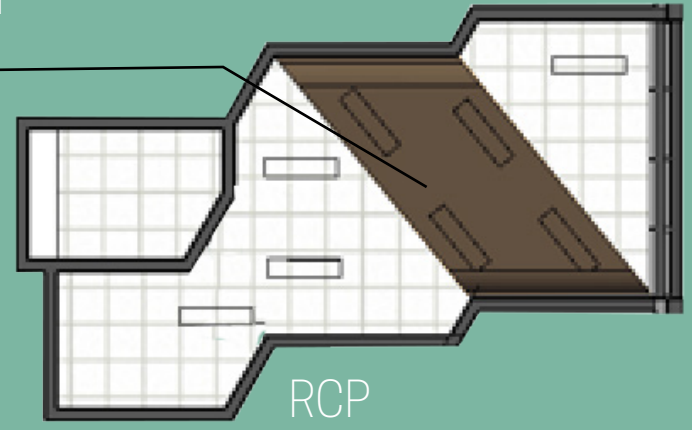


Compiled Elevation

Bulkhead drops to connect headwall to opposing footwall, creating a strong-connection between patient and family zones, encouraging interaction



Work Area Perspective



Entrance Perspective



View from Family Zone