

# IDEA STUDENT DESIGN: FAMILY-CENTERED PATIENT ROOM

## CONCEPT

This design seeks to create a clean, soothing pediatric recovery environment that promotes healing by maximizing natural light and elements. The layout provides multi-functional spaces that support patient-centeredness and family involvement without wasting square footage. Separation of family, patient, and care zones prevents congestion and user overlap without sacrificing efficiency of patient's care. Additionally, the integration of technology allows patient health information to be easily shared and discussed between the provider, patient, and family in order to ensure the best care is provided. Finally, warm, durable materials and an energizing color scheme create a safe, yet comforting, environment that appears more like a hospitality than a hospital setting. Sustainability will be kept in mind by using materials with recycled content, energy efficient light sources, and furniture pieces from ethical-practicing companies.

- As a constant in the life of a child, the family should be encouraged to actively participate in the care and decision-making regarding his/her recovery or treatment. Patient- and family- centered care is "an innovative approach to planning delivery and evaluation of health care grounded in mutually beneficial partnerships among health care providers, patients, and families" (Abraham, 44).
- Recent healthcare trends "focus on improving the patient experience through the provision of amenities and attention to patient concerns and comfort" (Bromley, 1057). This trend includes creating a homey environment with plenty of space and hotel-like services.
- The division of "on-stage" and "off-stage", or what the patient experiences versus the machinery and infrastructure that make care possible, creates a "Disneyland theme park" ambiance that generates a fantasy world experience within the hospital (Bromley, 1060).
- Single-bed rooms provide the benefits of better communication with staff, fewer medical errors, decreased infection rates, and comfortable inclusion of family with patients (Schweitzer).
- Natural light benefits overall health, regulates circadian rhythms, and can lessen depression and length of stay in a hospital. Although natural light is preferred to artificial lighting, incorporation of both is crucial to prevent inadequate lighting levels, which lead to a chaotic environment, errors, and stress (Anjali).
- Views of nature and the incorporation of natural characteristics and visual features are not only preferred by patients, but also associated with less stress and shorter hospital stay (Schweitzer).

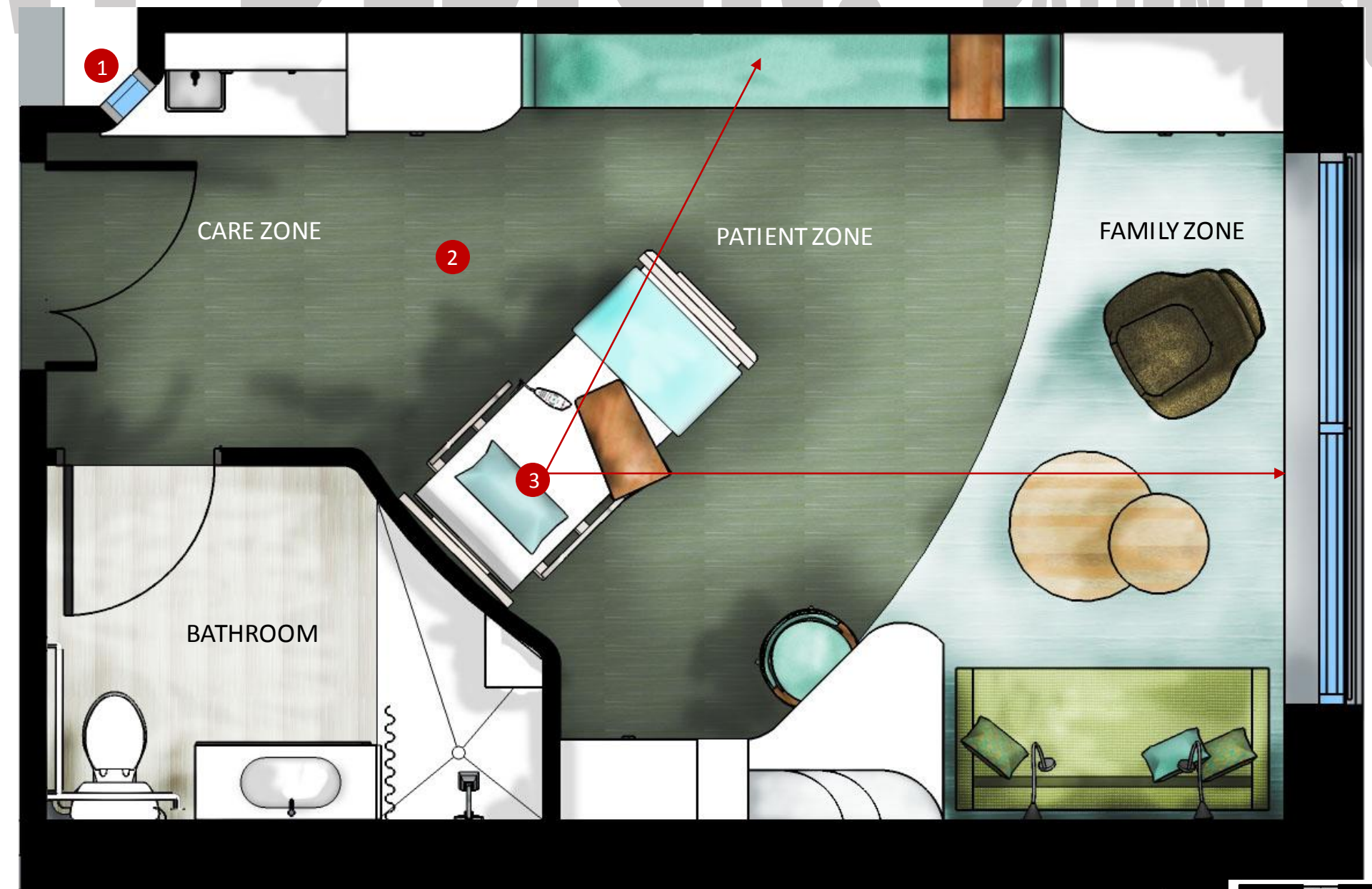
## RESEARCH

Abraham, Marie and Juile Ginn Moretz. "Implementing Patient- and Family-Centered Care: Part I- Understanding the Challenges." *Pediatric Nursing* 38 (2012): 44-47.

Anjali, Joseph. "Impact of Light on Outcomes in Healthcare Setting." *The Center for Health Design* 2 (2006): 1-12. Web.

Bromley, Elizabeth. "Building patient-centeredness: Hospital Design as an Interpretive Act." *Social Science & Medicine* 75 (2012): 1057-1066.

Schweitzer, Marc, M. Arch, Laura Gilpin, M.F.A. and R.N., and Susan Frampton, Ph.D. "Healing Spaces: Elements of Environment Design That Make an Impact of Health." *Journal of Alternative and Complementary Health* 10.2 (2004): 71-83.



**TOTAL SQUARE FOOTAGE:**  
385 SQFT

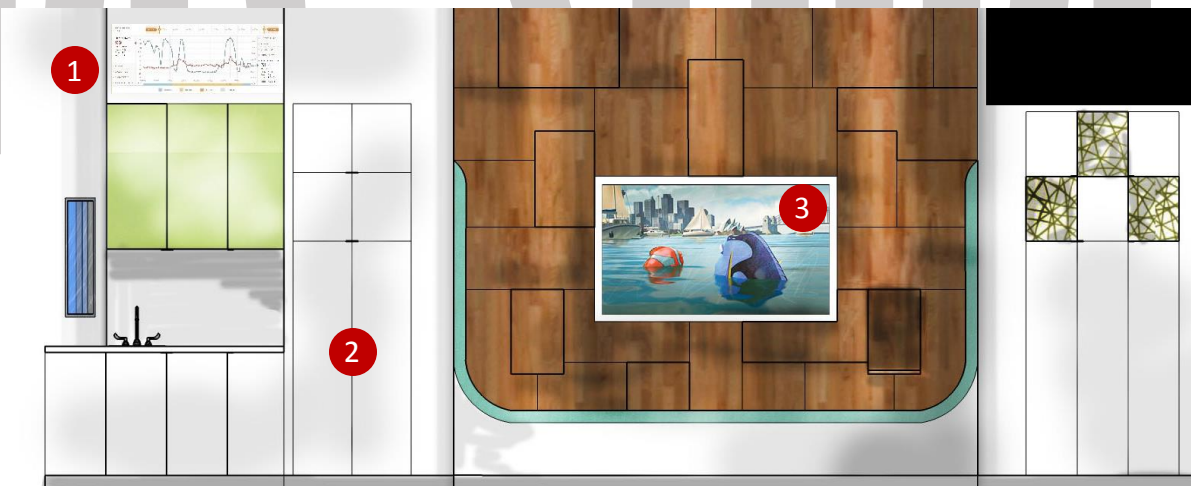
FURNITURE PLAN | SCALE 3/8"=1'-0"

1. Clear visuals to patient bed from hallway allows staff to quickly check on patient without disrupting the room.
2. Clear separation of zones (care, patient, and family) provides plenty of space for each party to resume their own activities without the interruption, inconvenience, or congestion of others.
3. The diagonal headwall focuses the patient away from medical equipment to a source of entertainment, their family, and nature.

*Prototype plan is situated in the south-eastern corner of the building, denoted by the turquoise box (right). Shown with adjacent room to depict staff "observation" counter from the hallway. All rooms given generous windows to maximize natural light in space.*

## GOALS

- Create a healing environment through a strong connection of nature including outside views, natural materials, and chosen colors of blues and greens.
- Provide touchdown spaces that support multiple activities to encourage normal day-to-day tasks.
- Visual separation of care center from patient's bed to focus patient away from medical equipment and constant reminder of "being sick" without sacrificing the efficiency of patient care.
- Provide elements within the space that allow it to transition from day to night.
- Overall safety of patient, family, and care provider is considered by incorporating rounded edges, easily disinfected finishes, and generous circulation space.



ELEVATION OF NORTH WALL | SCALE 1/4"=1'-0"

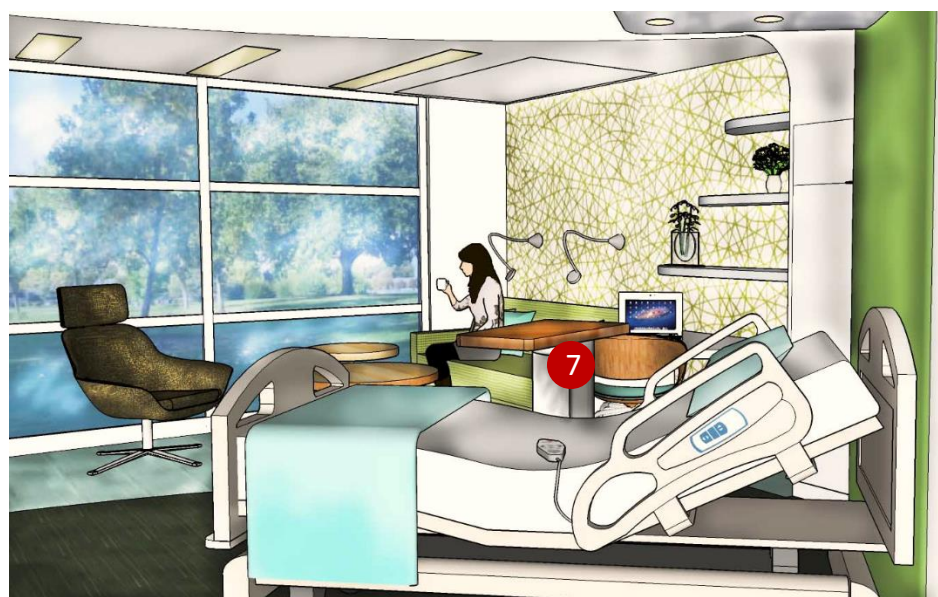


ELEVATION OF SOUTH WALL | SCALE 1/4"=1'-0"

1. A vital monitor ribbon allows for quick and easy patient checks for staff.
2. Hospital equipment and supplies are housed behind closed doors to create "Disneyland Effect" within the room.
3. The large entertainment screen can be controlled from the patient's personal tablet to watch movies, browse the internet, or video chat with friends and family. Connection to the care provider's computer also allows treatment information to be easily shared between all parties.
4. As a main feature of the patient zone, an overhead LED screen allows the patient to customize the landscape setting and time of day displayed. Even if the curtains are closed, the patient is connected to a virtual nature scene that expands the perceived boundary of the room.
5. A built-in bench provides ample seating for visitors or becomes a secondary lounge space for the patient. Drop-down tables are available when needed for eating or working.
6. The family zone includes a daybed, drop-down bunk bed (ladder stored in storage space), working desk, and multiple areas for personal storage and display space to ensure a comfortable stay.
7. A multi-use patient side table serves as a dining/writing surface on one side and an integrated touch screen panel on the other. This tablet gives the patient full control over the lighting and entertainment screen in the space without dealing with multiple items at once.



PATIENT AND CARE ZONES (FROM FAMILY ZONE)



PATIENT AND FAMILY ZONES (FROM ENTRANCE)

# FAMILY-CENTERED PATIENT ROOM

In the patient room, it is important for users to have maximum control over lighting levels by allowing each fixture to be individually dimmed or turned off. Indirect ceiling lights prevent unwanted glare and hotspots throughout the space while adjustable reading lights over the sofa and bench areas provide ample task lighting. Finally, a customizable landscape-scene fixture near the patients bed not only serves as visual relief, but enhances the overall experience of the room. LED fixtures with a warm-neutral color create a comfortable setting and are energy-efficient.

LIGHTING + CONTROL



Fresco Touchscreen Lighting Controller by Acuity Brands "puts the user confidently in control" Not only can one control the brightness of each light source, but also the light color and air temperature. The touch-screen is easy to use and easily cleaned.

- 3FORM: VARIA Ecoresin CONNECTION ENVY
- KI: LARESTA DAY BED
- DESIGNTEX: APPLESEED 26820501 ENDIVE
- COALESSE: BOB LOUNGE
- ARCHITEX: MINERAL MIDNIGHT
- KI: ITOKI DP CHAIR
- DESIGNTEX: AGGREGATE 3429 402 AQUA
- ARMSTRONG: STRIATIONS T3604 MIDNIGHT



- 3FORM: CHROMA LAWN
- CHERRY WOOD LAMINATE
- ARCHITEX: BALCONY SPLASH
- ARMSTRONG: STRIATIONS T3600 AZURE

FINISHES

Materials and finishes were chosen with sustainability and safety in mind. The 3Form Connection Envy is part of its full circle line created by artisans in third-world countries. Flooring products (Armstrong's Striations) are a bio-based, non-PVC tile made with recycled content. Finally, all fabrics are Crypton-treated to prevent bacteria and mold growth.