

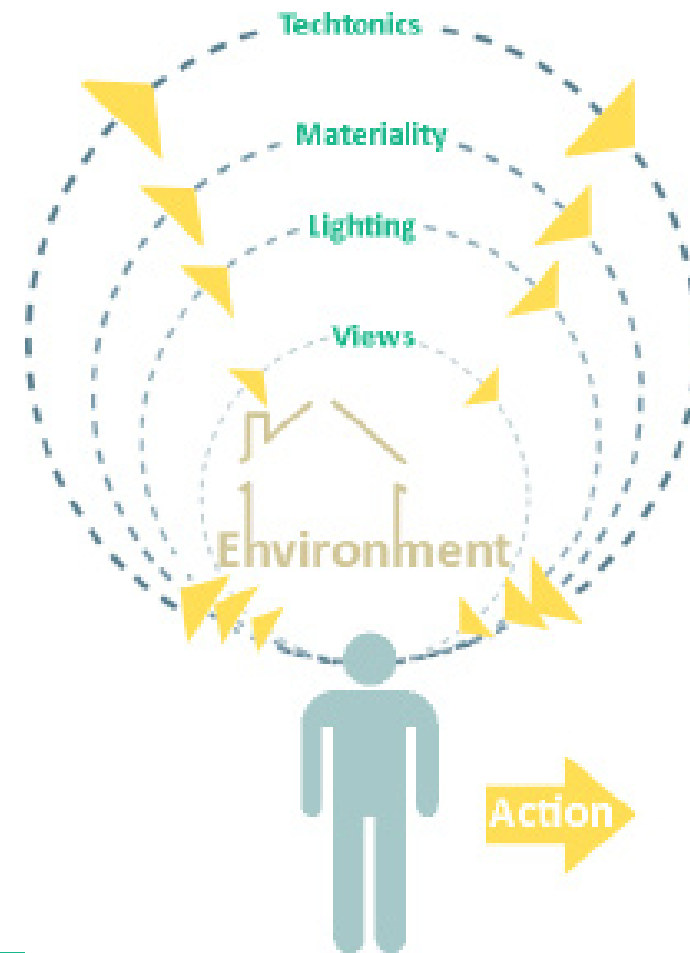


**RC<sup>2</sup>**

**Rapid City Rehabilitation Clinic**

**How can architecture provide an experience that fosters wellbeing**





## Fundamental Concept

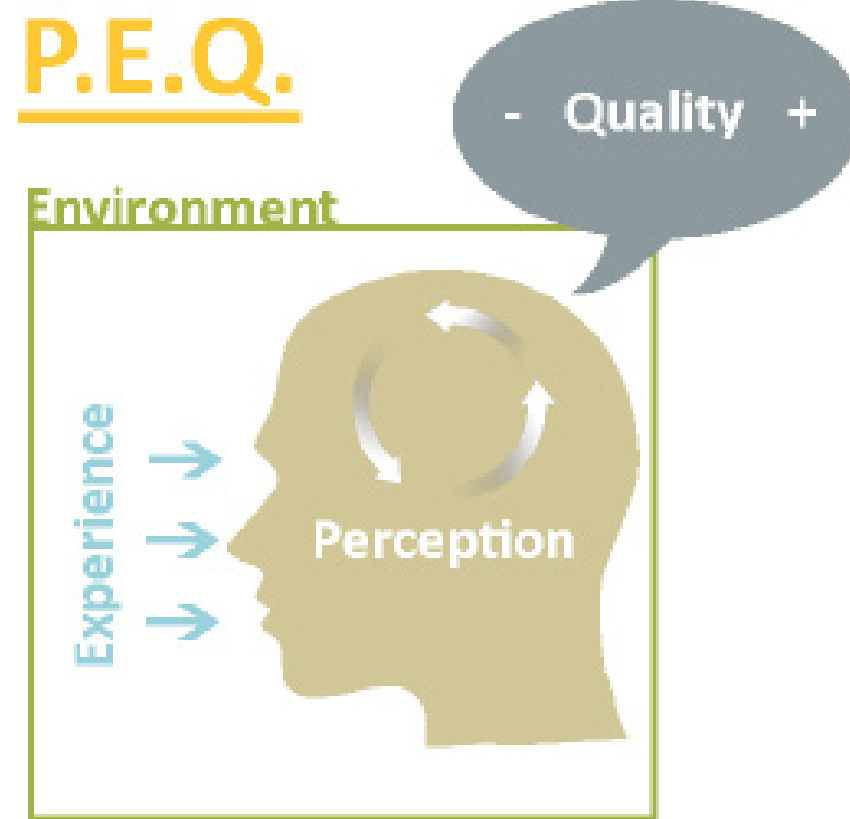
1.

Natural

Our environment is influential on how we feel and act.

Built

Space is more or less suited to specific activity. For example, would you be more amped in a library or at the mall? Noise might be the primary concern here, but so many other factors come into play. The goal is to seek how to promote activity by utilizing both the natural and built environment.



## Percieved Expirential Quality

- 2.** **Much of the success or failure attributed to an environment can be traced to its perceived experiential quality (PEQ).**

Concepts such as single patient rooms, distributed or decentralized nurses' stations, acuity-adaptable patient rooms, sound-absorbing surfaces, and visible hand washing locations

The Center for Health Design launched the Pebble Project in 2000. The Pebble Project's goal is to understand how design processes effect behavior and culture. By improving the way healthcare facilities are designed and operated, they hope to create a positive environmental impact.

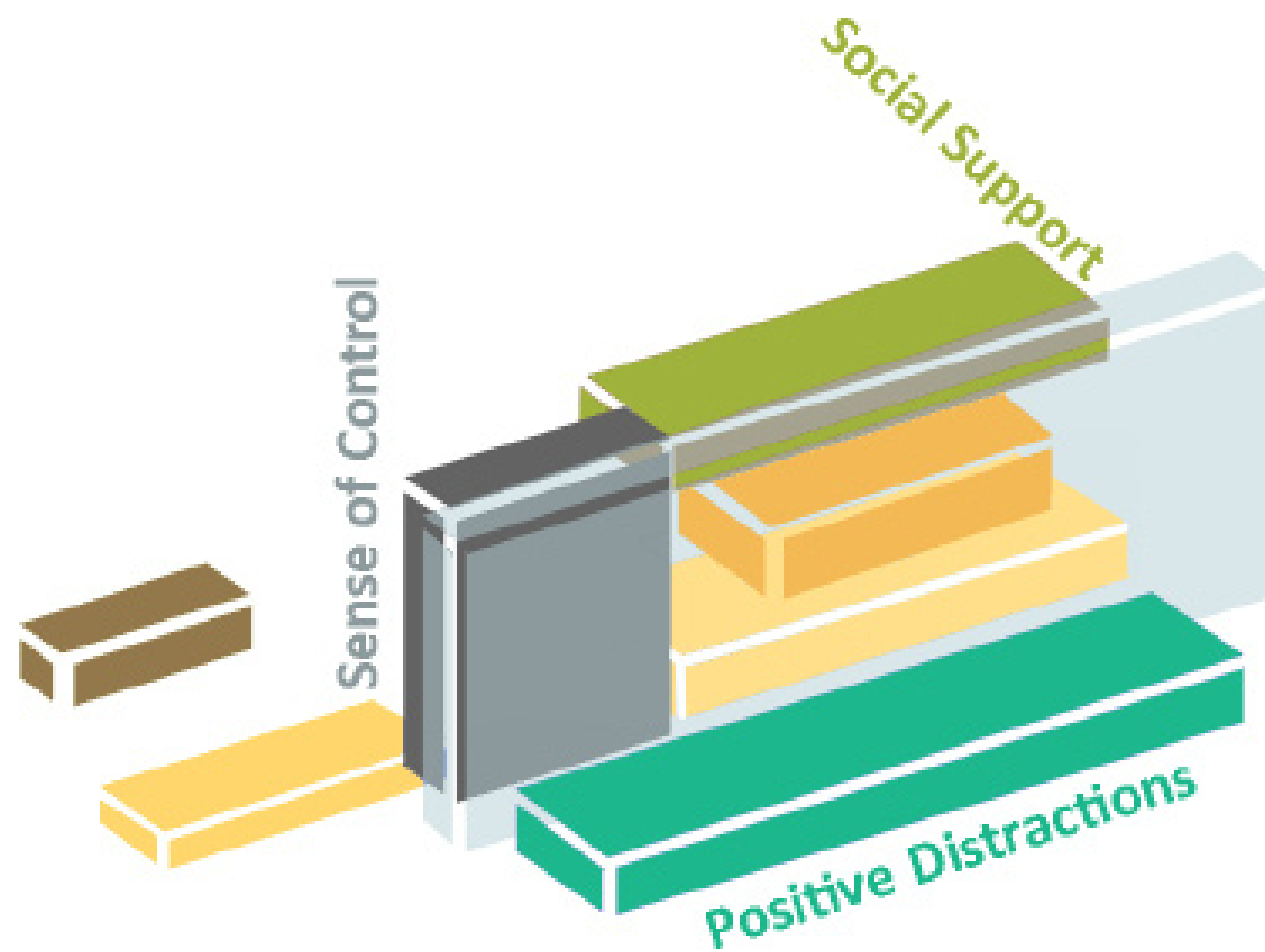




## Holistic Wellness

- 3.** Although one may be designing a Physical Rehabilitation Clinic, other divisions of wellness must be considered.

There is no absolute listing of common wellness divisions. Each listing seems to be slightly different, but commonalities can be found. Physical, emotional, and spiritual wellness seem to be the most common divisions. According to Julie Chobdee, there are seven dimensions to wellness; physical, Intellectual, occupational, environmental, spiritual, emotional, and social. She suggests that there is a close relationship amongst these dimensions. Balancing them is the key to success (Chobdee, 2009).



## Supportive Design

5.

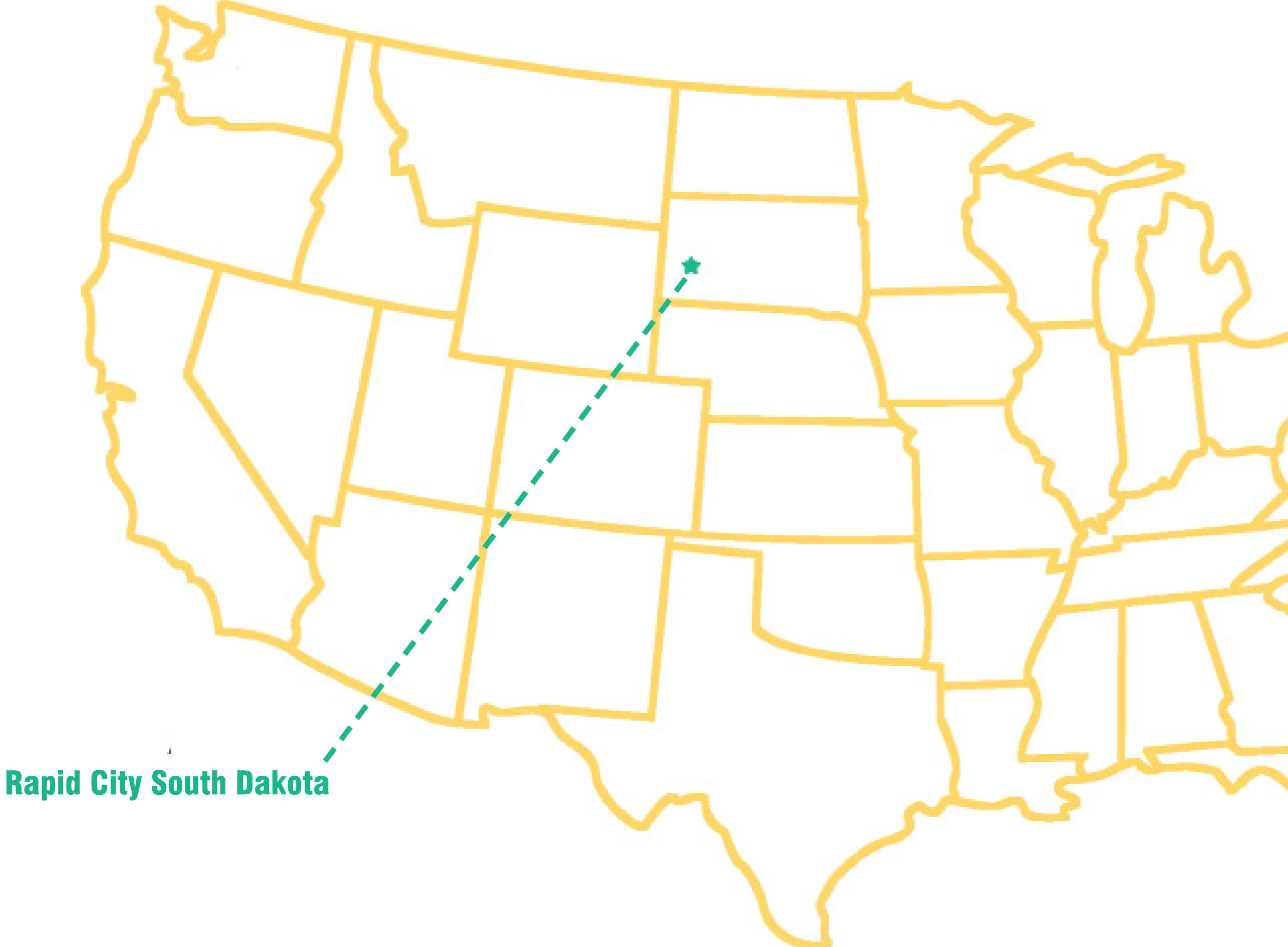
Sense of Control + Access to Social Support + Positive Distractions

Reduced Stress

Supportive design is also referred to as evidence-based, evidence-informed, or research-based design. Regardless of the term used, observation is focused on how people respond to environmental space, stimuli, and variability. The biophilia hypothesis is a underlying premise that suggests that there is an instinctive bond between human beings and other living systems.

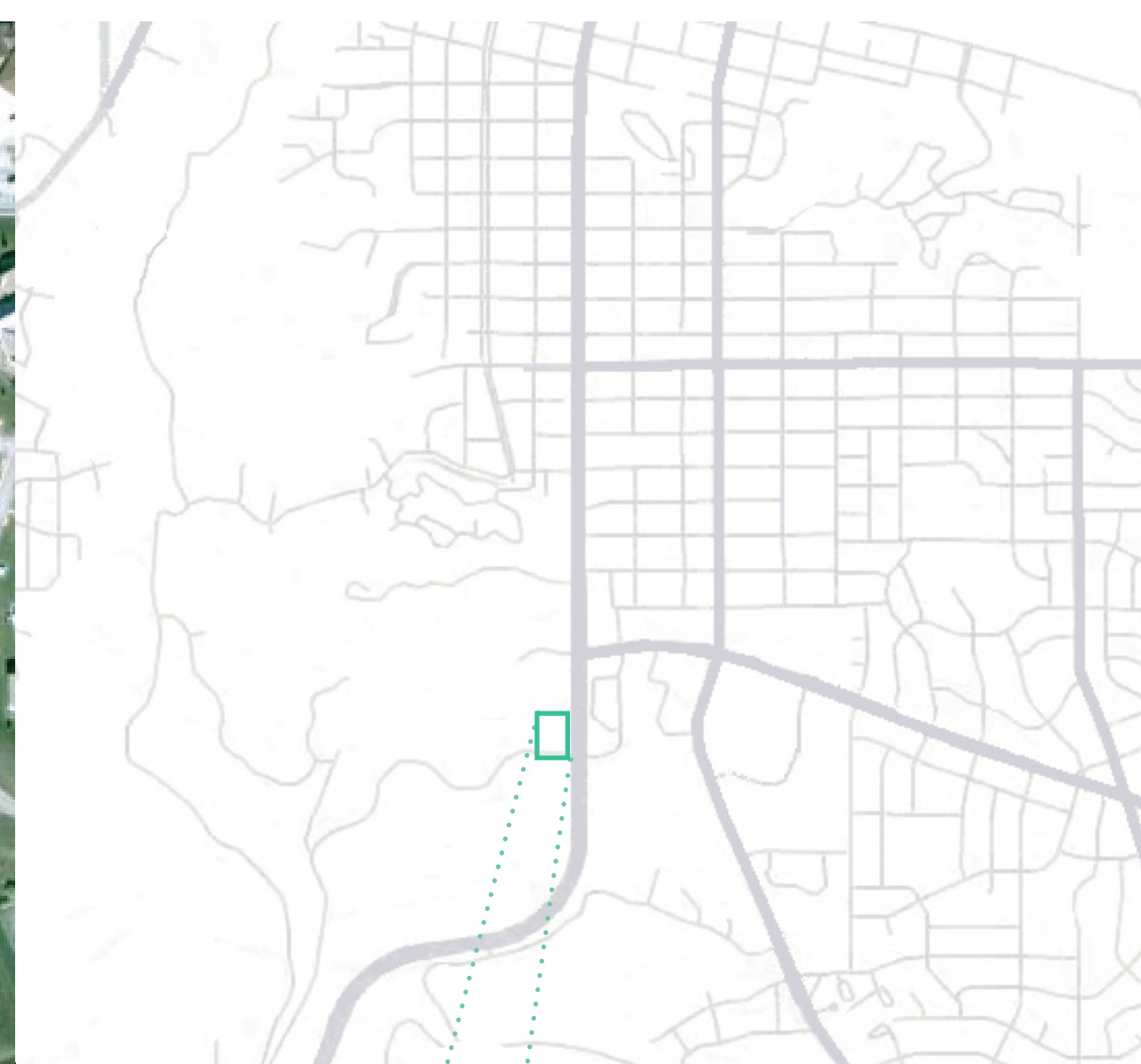
- Health facilities should not raise obstacles to coping with stress, contain features that are in themselves stressors, and thereby add to the total burden of illness.
- Healthcare environments should be designed to facilitate access or exposure to physical features and social situations that have stress reducing influences.
- Target groups should include patients, visitors, and healthcare Staff.

# Site

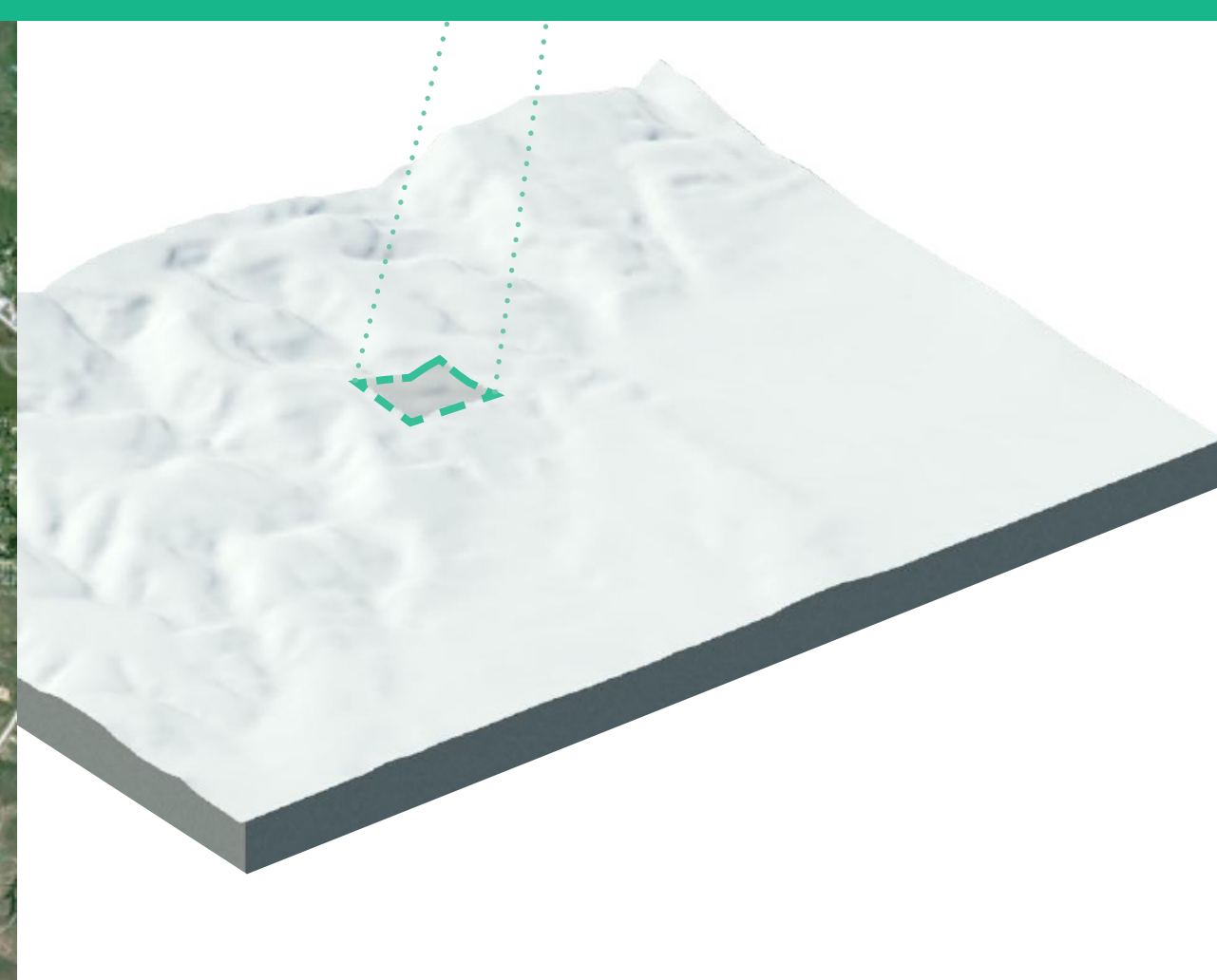
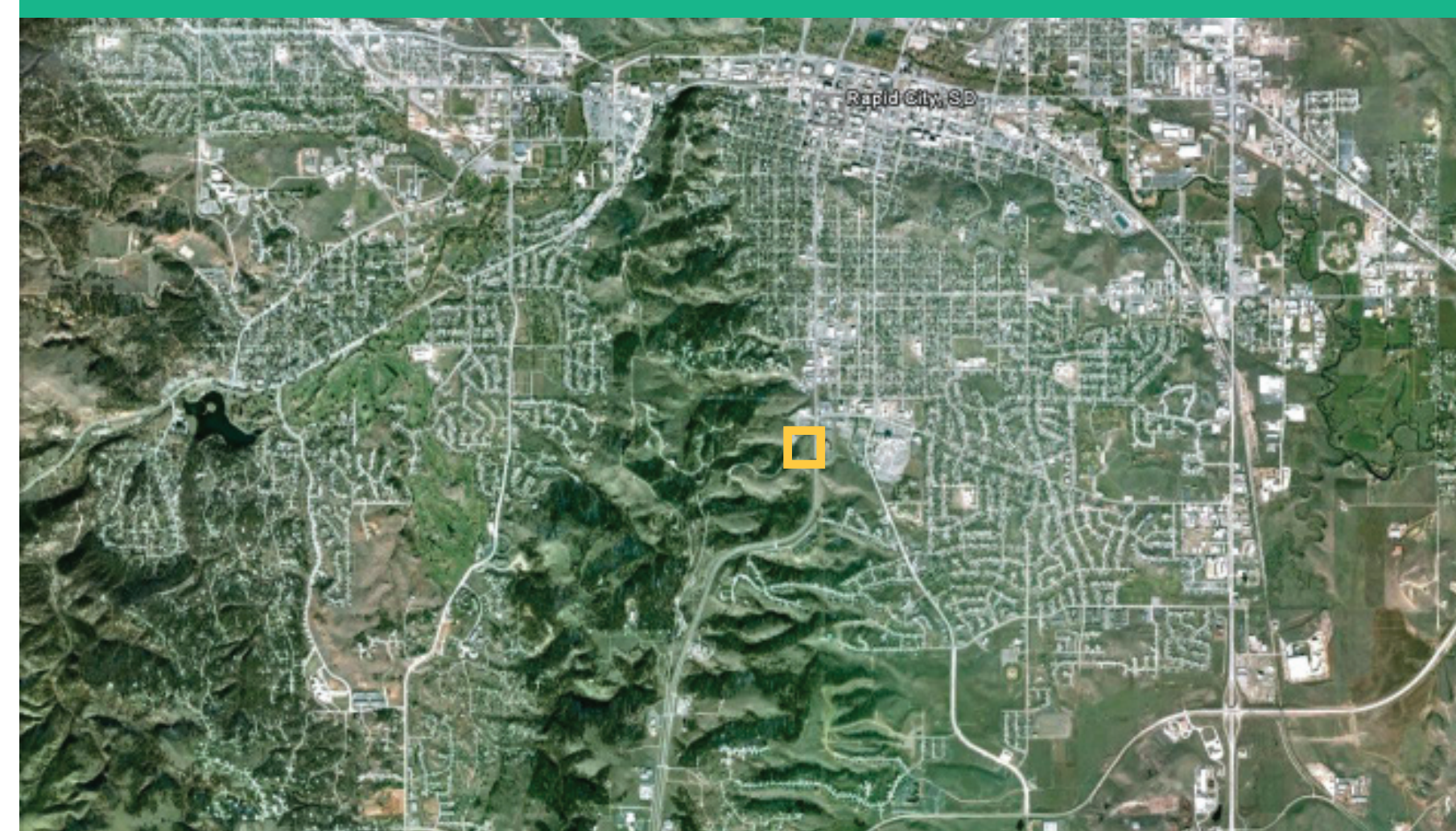


**Rapid City South Dakota**

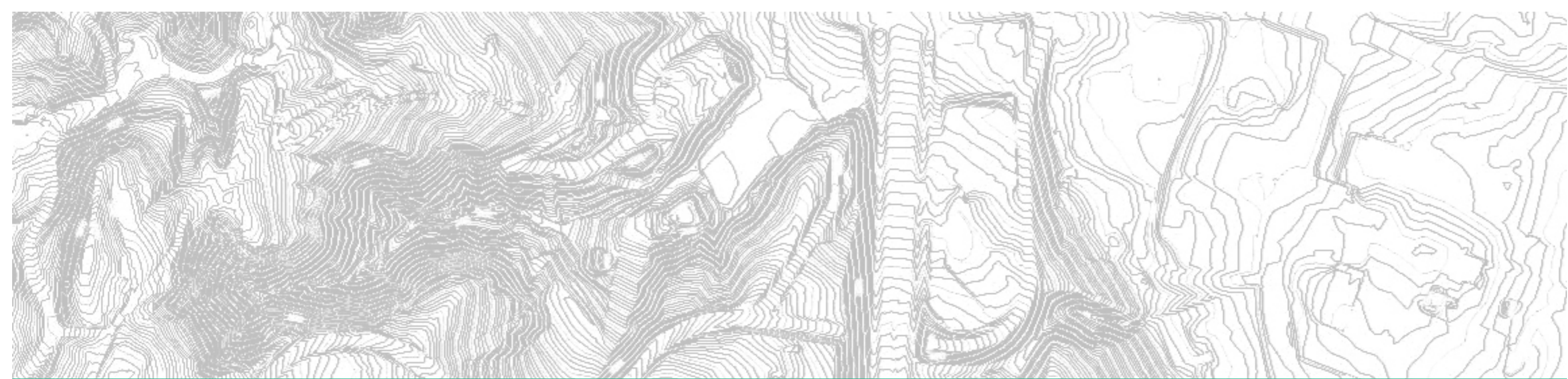




## Context







Dakota Hogback

**Site**  


East Rapid City



# Rapid City Regional Hospital

The Rapid City Regional Hospital is home to numerous healthcare services. The Rehabilitation Institute is an extension of that programming. The Rehabilitation Institute is accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) and The Joint Commission. It offers care to individuals suffering from illness, injury, and various other disabilities. Therapists treat over 300 patients a month and their average length of stay is around 13 days.



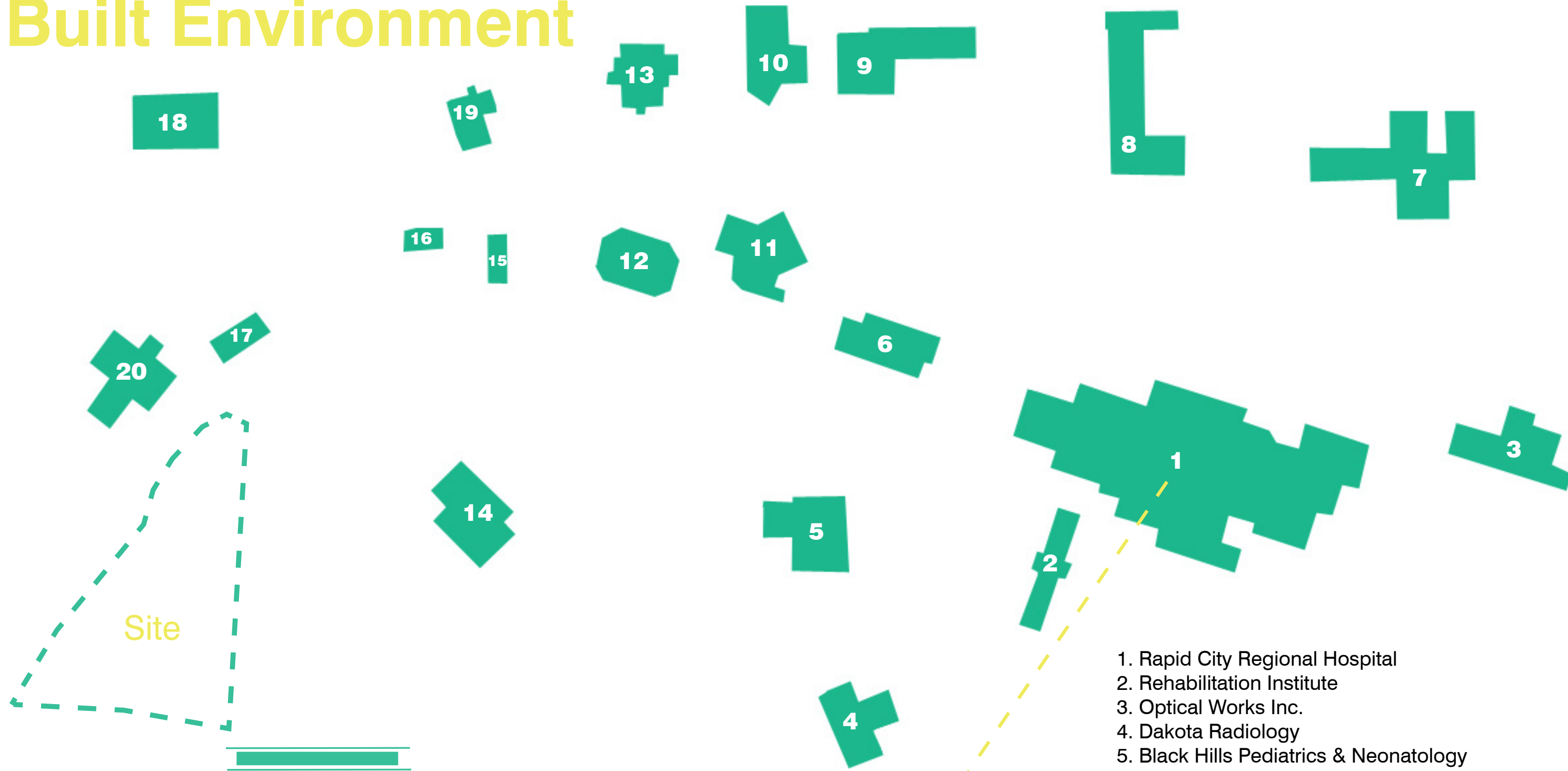




**Seeing Greater Potential**



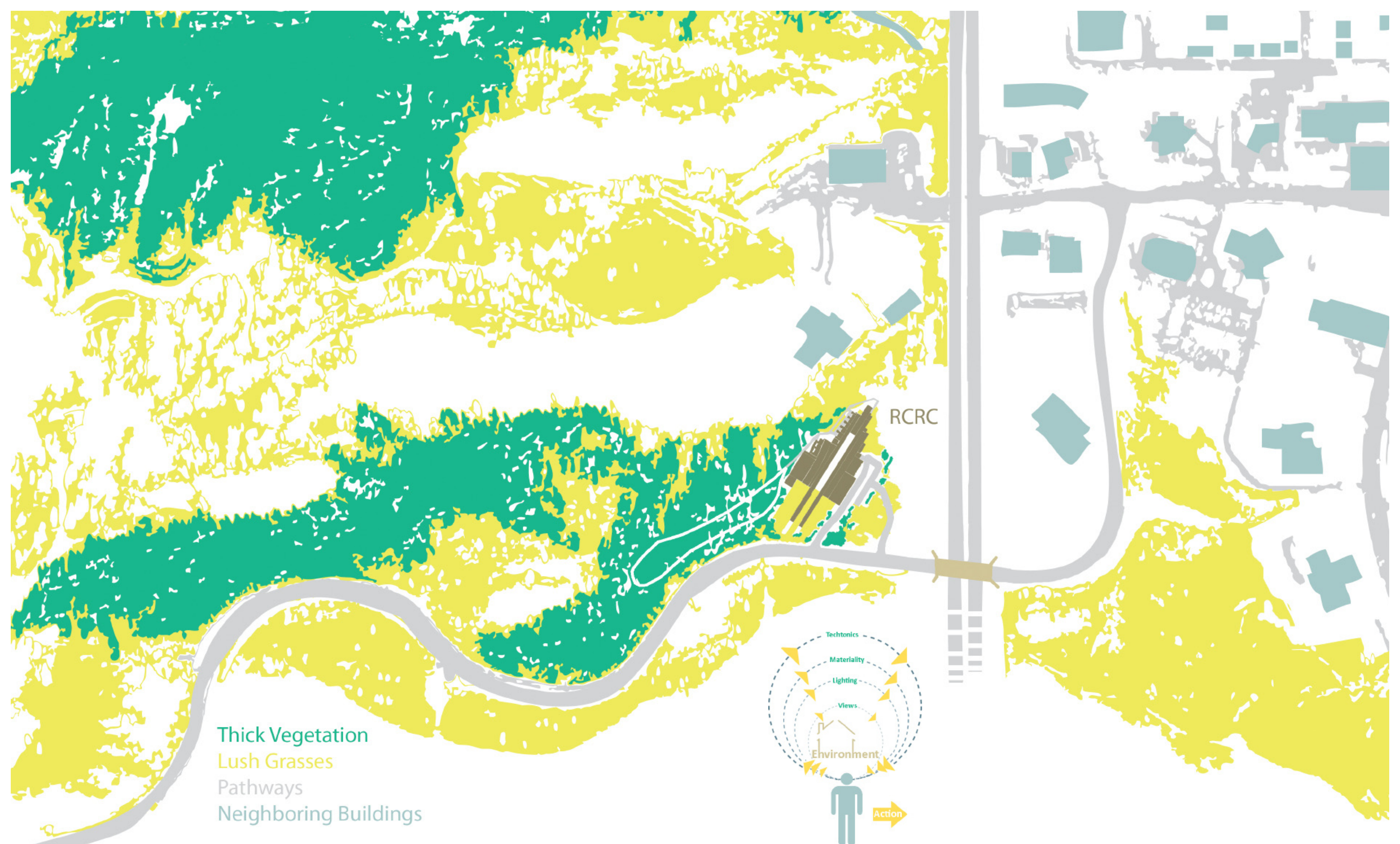
# Built Environment



1. Rapid City Regional Hospital
2. Rehabilitation Institute
3. Optical Works Inc.
4. Dakota Radiology
5. Black Hills Pediatrics & Neonatology
6. Cardiology Clinic
7. St Thomas More High School
8. St Elizabeth Seton School
9. Our Lady of Perpetual Help Church
10. Diocese of Rapid City
11. Same Day Surgery Center
12. Black Hills Obstetrics & Gynecology Llp
13. Harrington Buissness Building
14. Rapid City Medical Center Llp
15. Wendy's
16. Taco Bell
17. Ruby Tuesday
18. Riddle's Jewlery
19. Exxon Gas Station
20. Comfort Inn & Suites

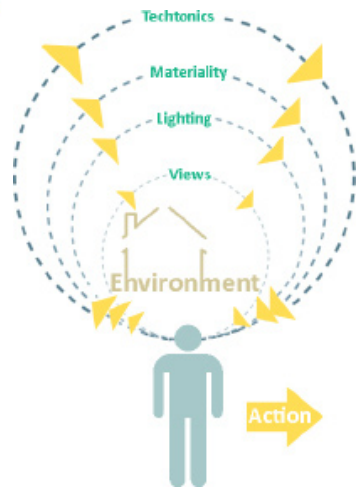






Thick Vegetation  
Lush Grasses  
Pathways  
Neighboring Buildings

RCRC



# Natural Environment







## Site Character



Vegetation

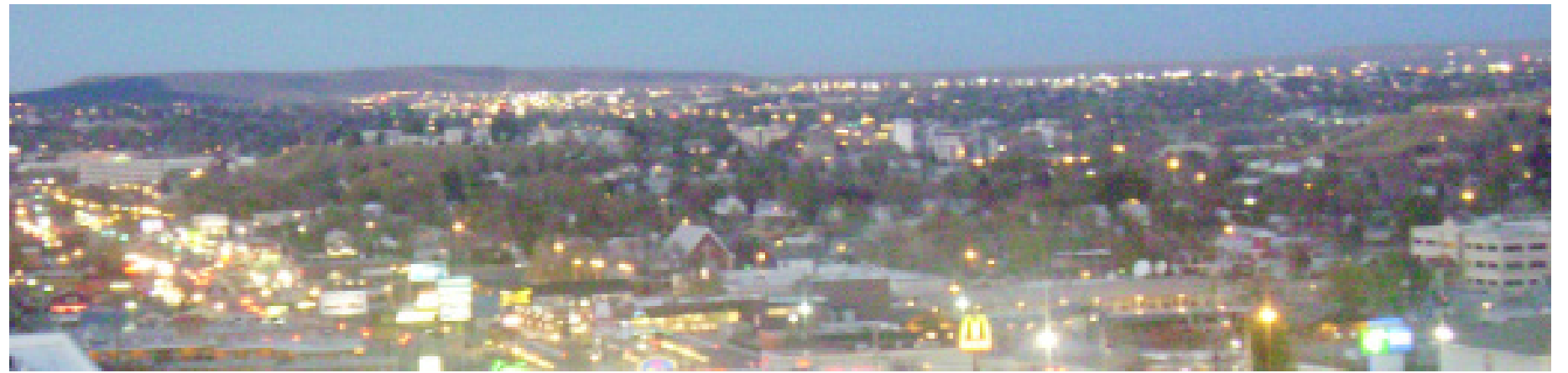
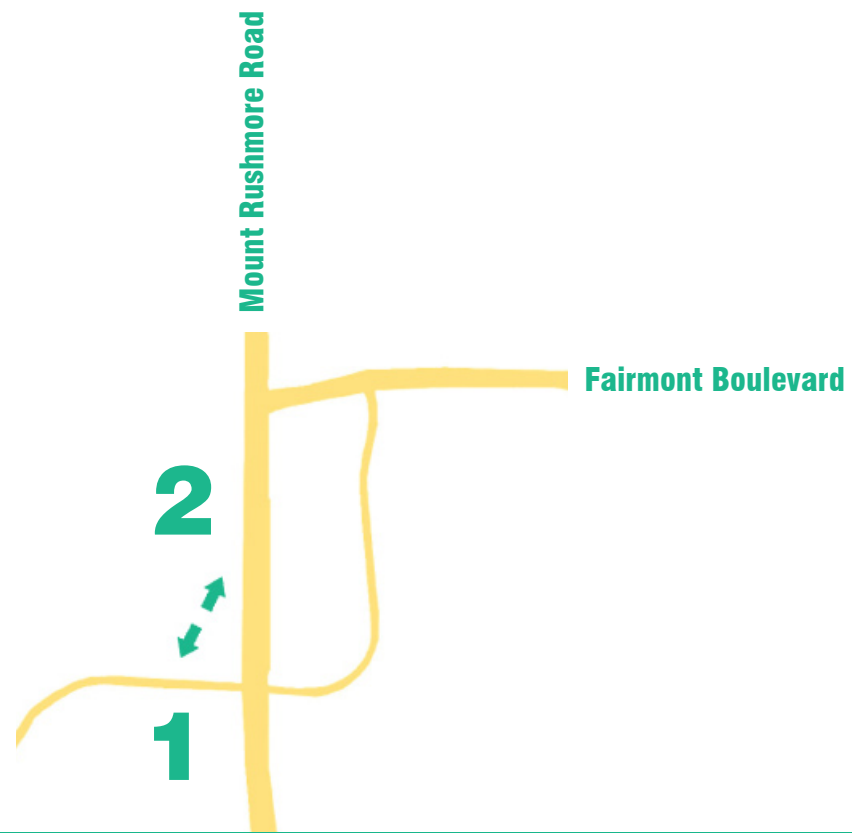


Grasses



Stone





# Views





# User/Clients

1.



Owner

2.



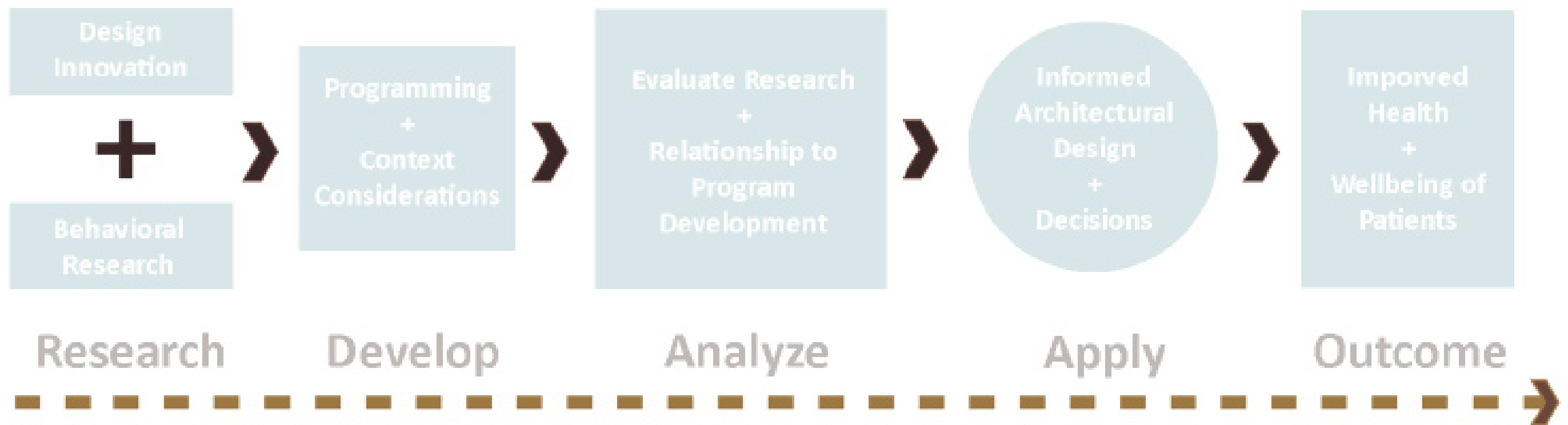
Patients

3.

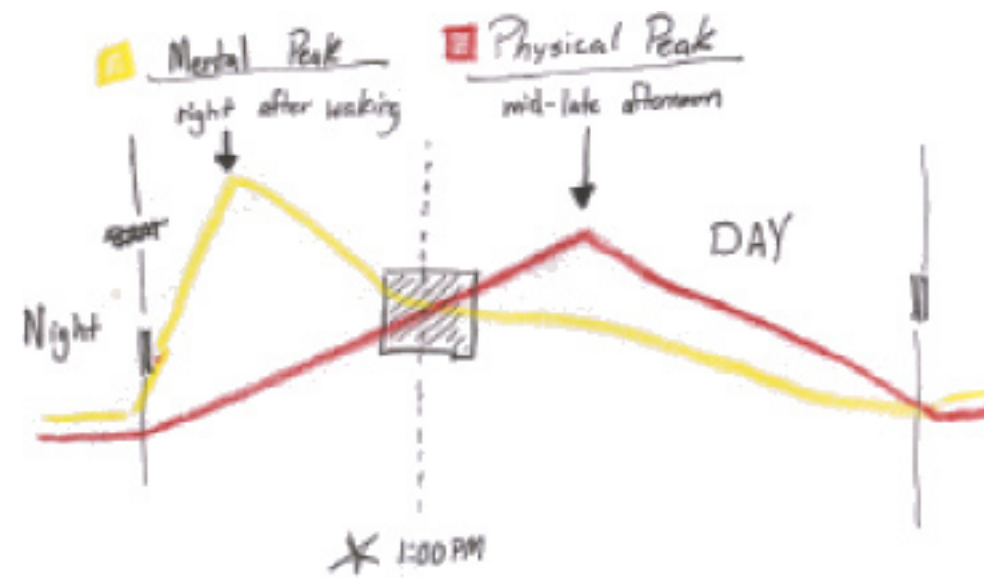


Staff

# P r o c e s s e s

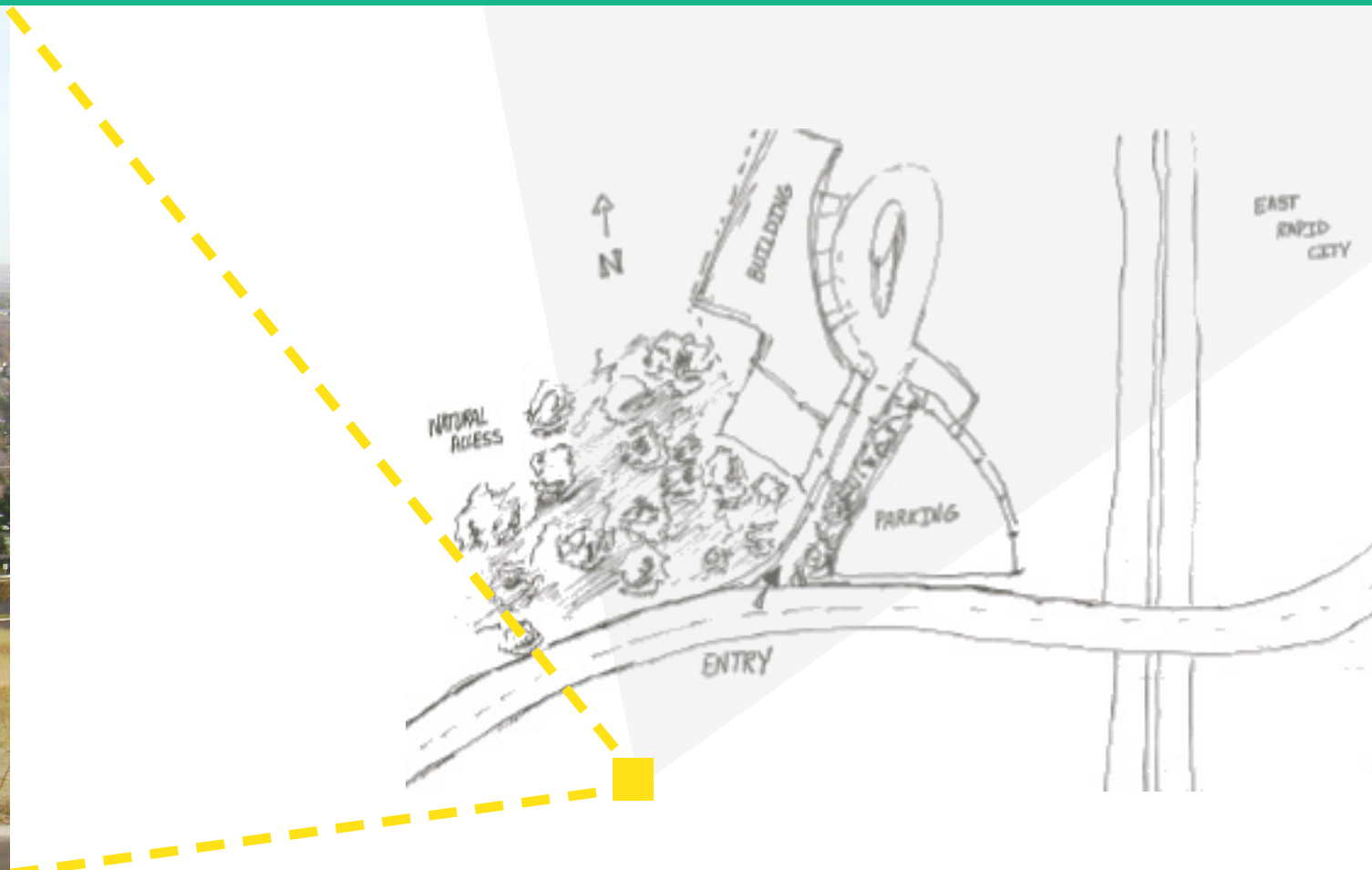




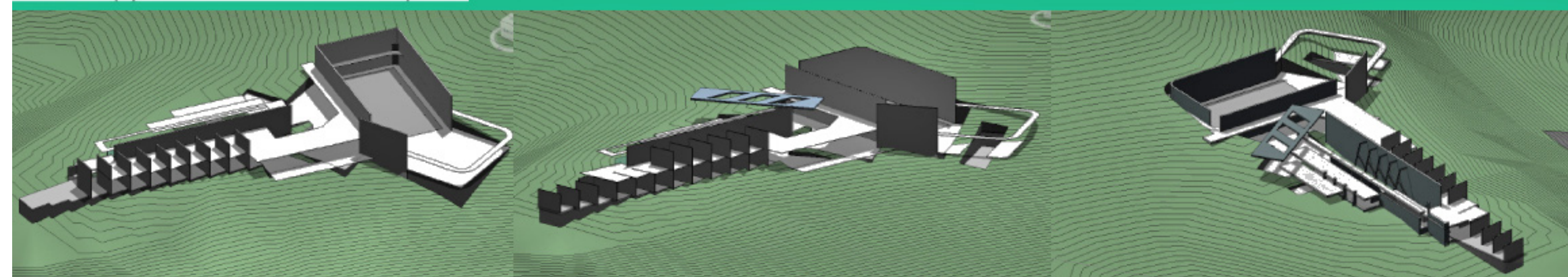
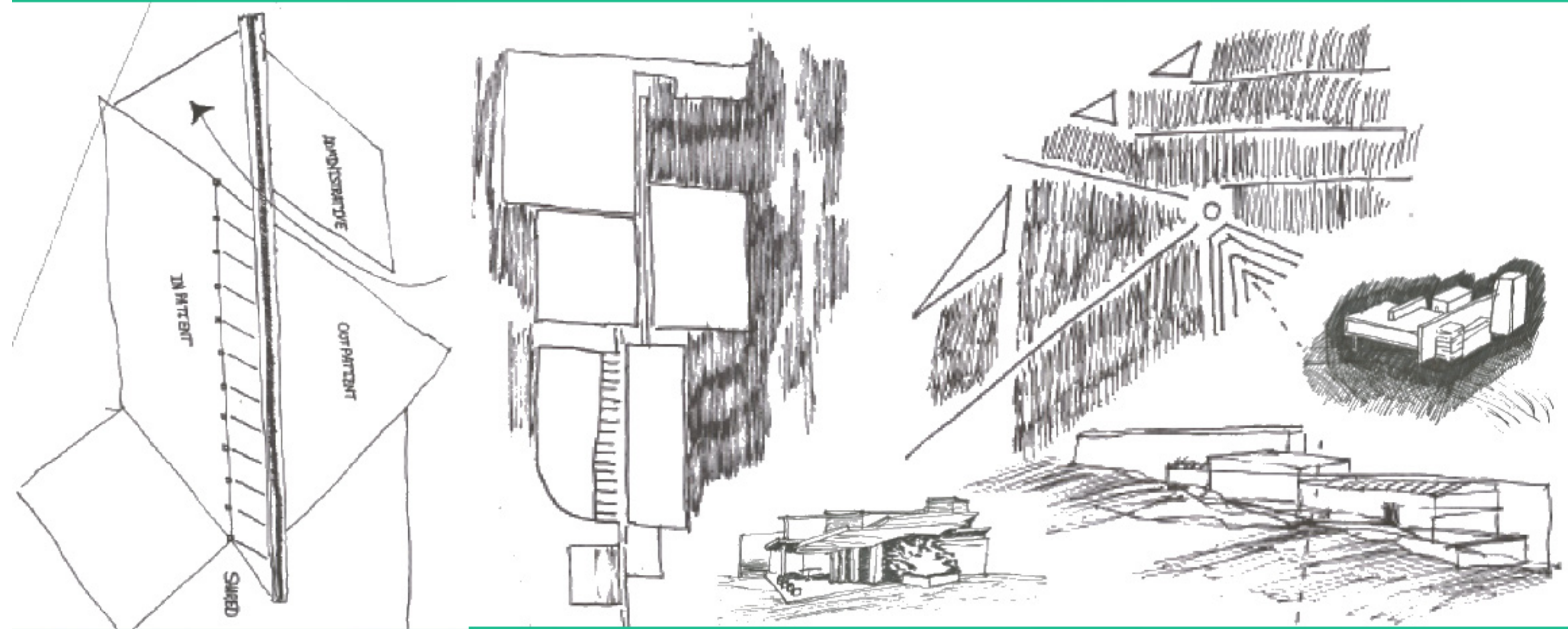
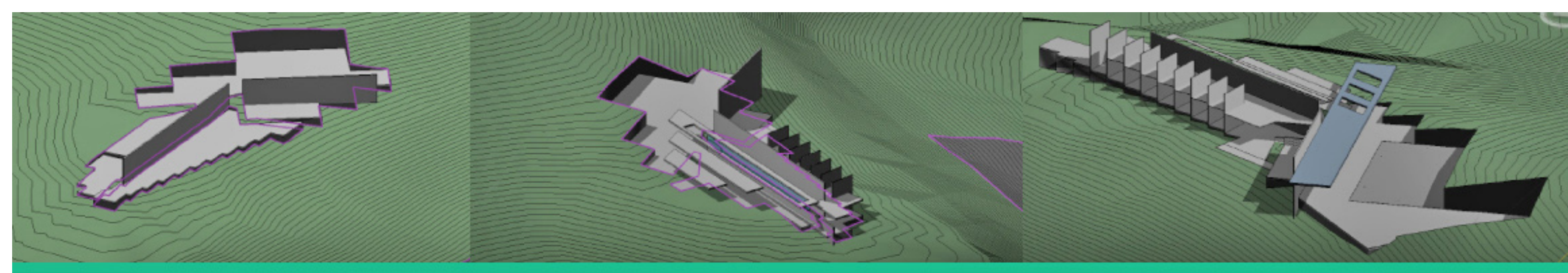


- Lungs function 6x better in afternoon than in any other time of day.
  - Muscles are loose & body temp peaks
- Nick Morgan (April 06)

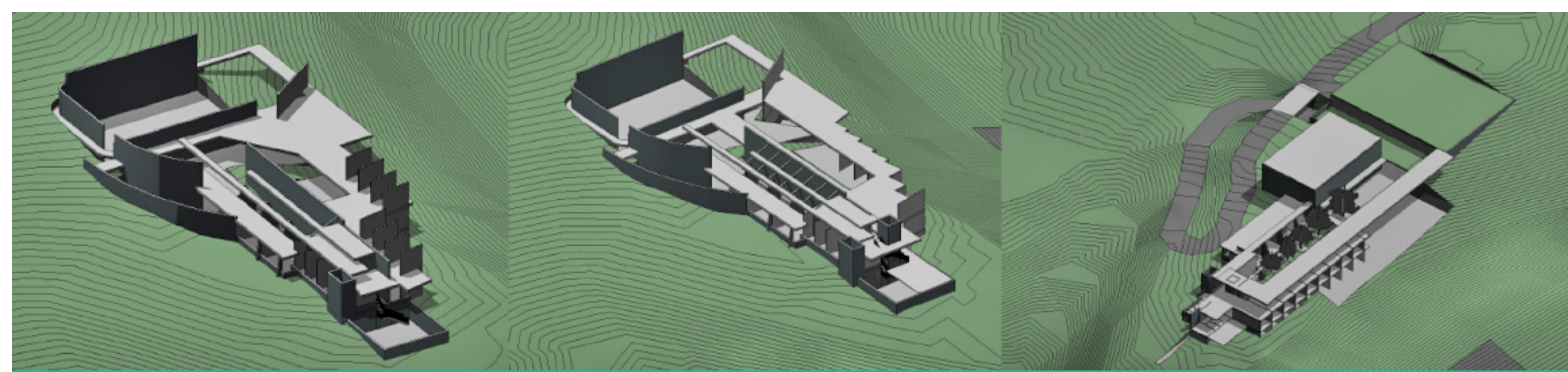
# Masterplanning/Layout/Orientation



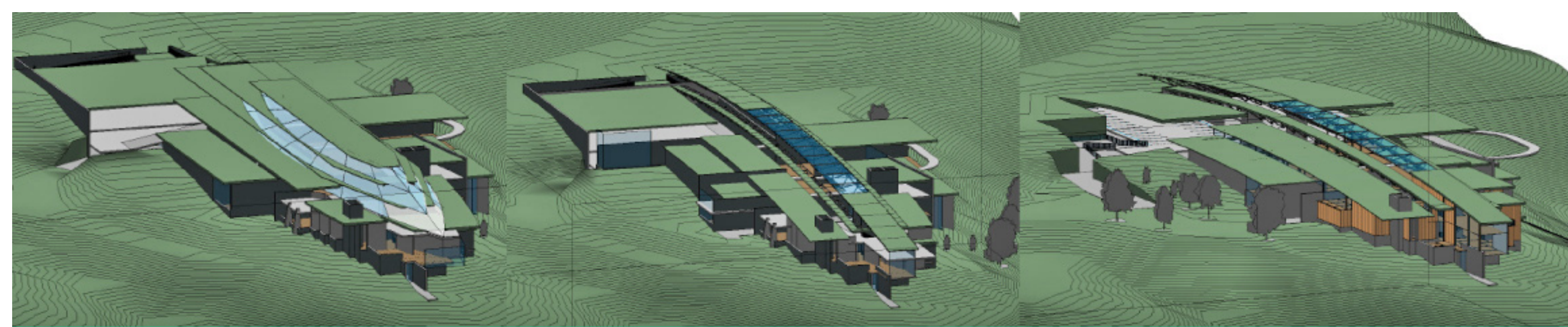




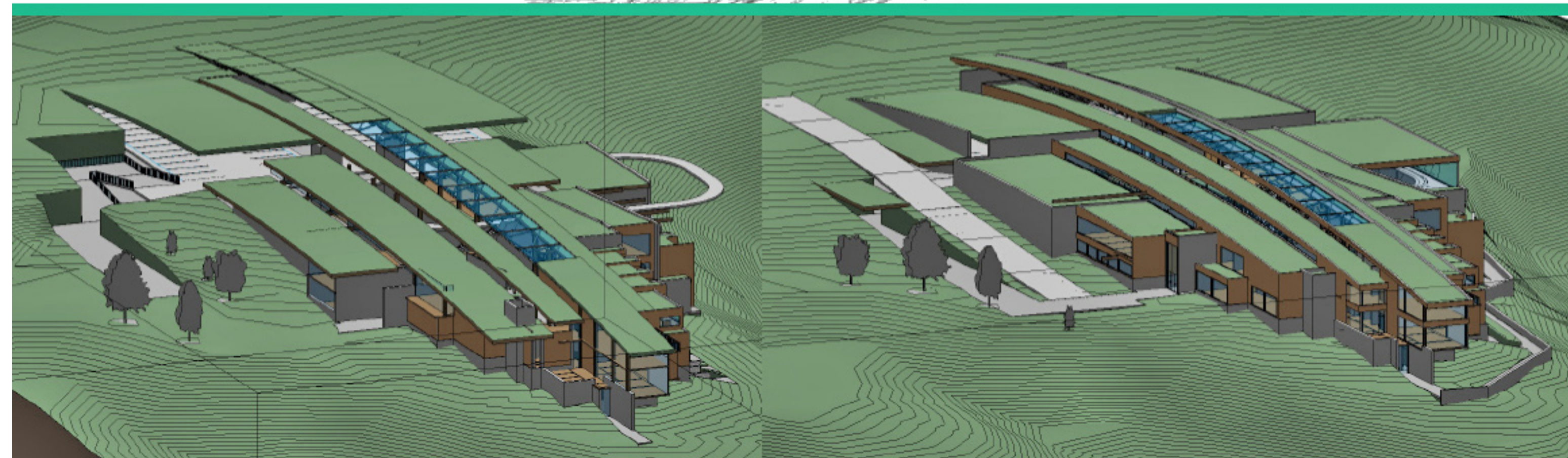
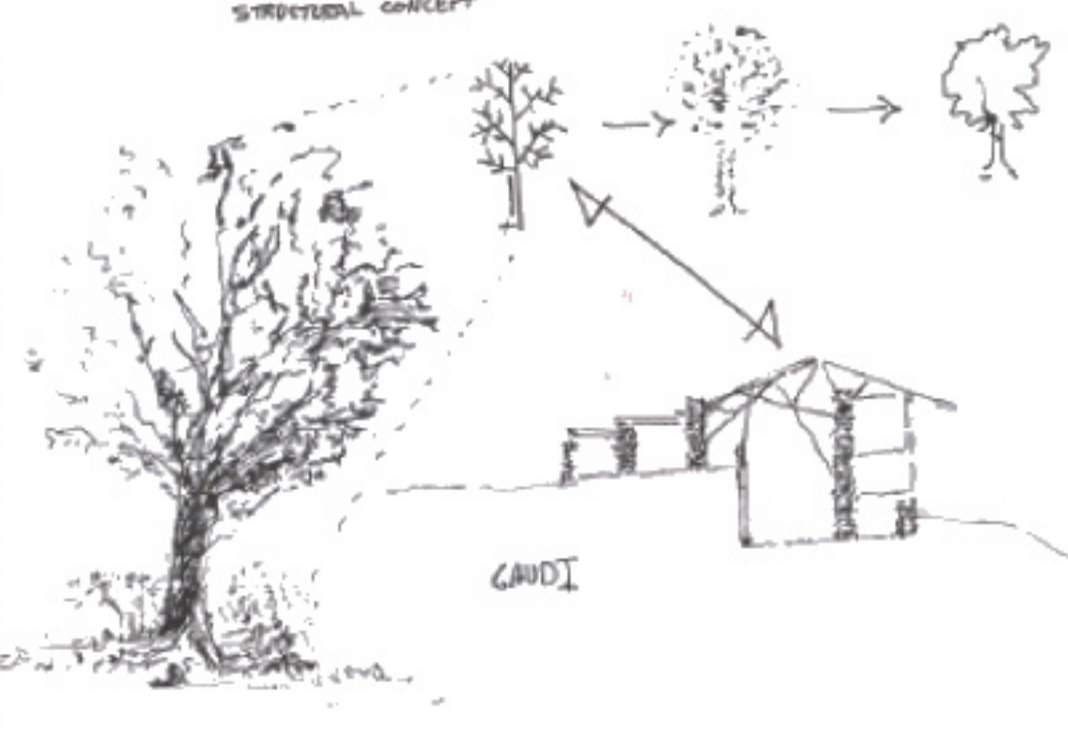
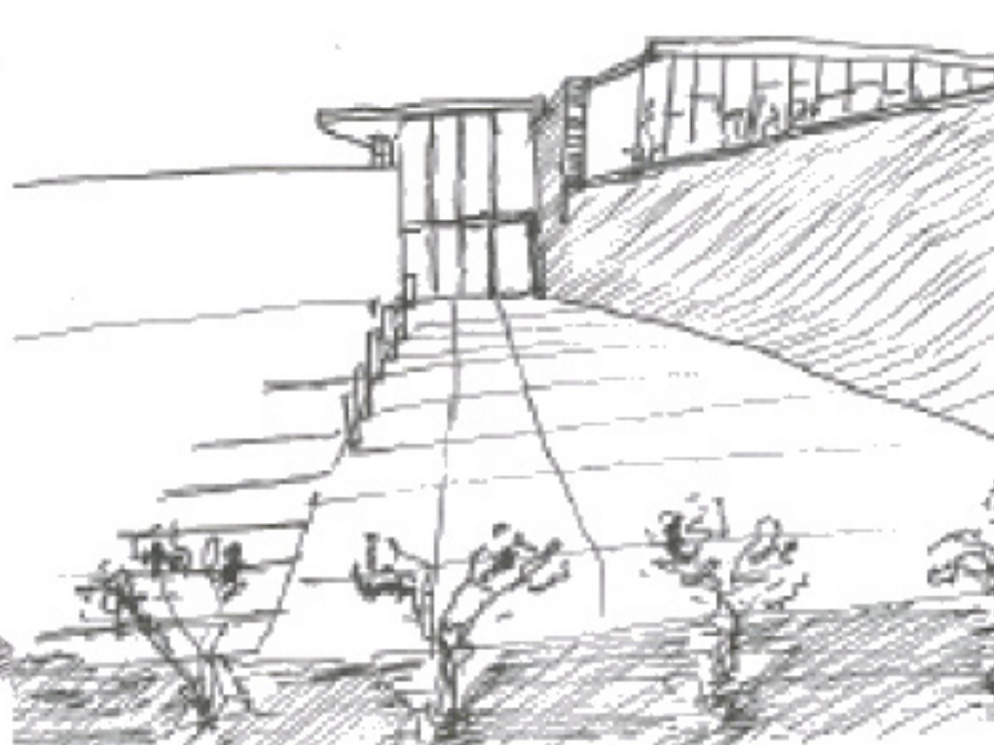
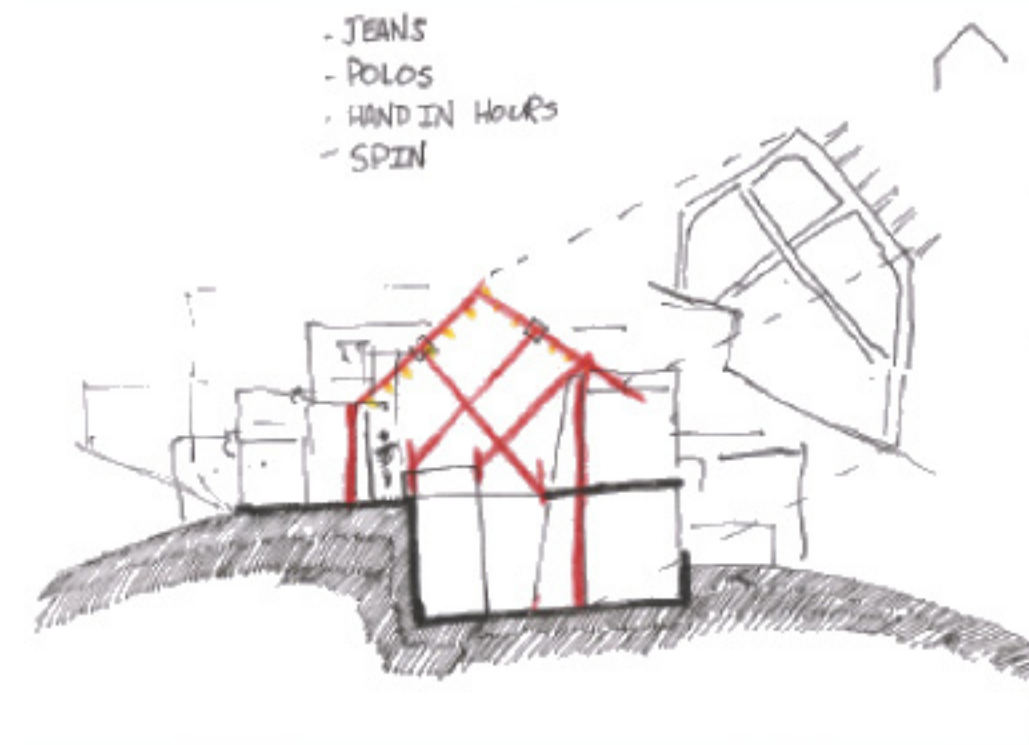








- JEANS
- POLOS
- HAND IN HOURS
- SPIN





# Programming

Name	Department	Area
Conference Room	Administrative	222 SF
Janitorial	Administrative	149 SF
Office	Administrative	275 SF
Staff Break Room	Administrative	678 SF
Storage	Administrative	49 SF
Unisex Restroom	Administrative	96 SF
		<b>1469 SF</b>
Classroom	In-Patient	491 SF
Community Space	In-Patient	2792 SF
Dining	In-Patient	1739 SF
Kitchen	In-Patient	856 SF
Meditation Room	In-Patient	926 SF
Patient Room	In-Patient	5280 SF
		<b>12084 SF</b>
Dividable Aerobic Room	Out-Patient	1391 SF
Fitness Assessment	Out-Patient	955 SF
Men	Out-Patient	125 SF
Men's Locker Room	Out-Patient	1336 SF
Nursery	Out-Patient	286 SF
Reception	Out-Patient	343 SF
Waiting Area	Out-Patient	612 SF
Women	Out-Patient	126 SF
Women's Locker Room	Out-Patient	1336 SF
		<b>6509 SF</b>
Cafe	Shared	1161 SF
Cardio/Machine Area	Shared	2442 SF
Central Corridor	Shared	9970 SF
Free Weights	Shared	1585 SF
Indoor Recreation	Shared	6594 SF
Mechanical	Shared	1592 SF
Pool Room	Shared	3691 SF
Running Track	Shared	2312 SF
Spa	Shared	834 SF
		<b>32512 SF</b>

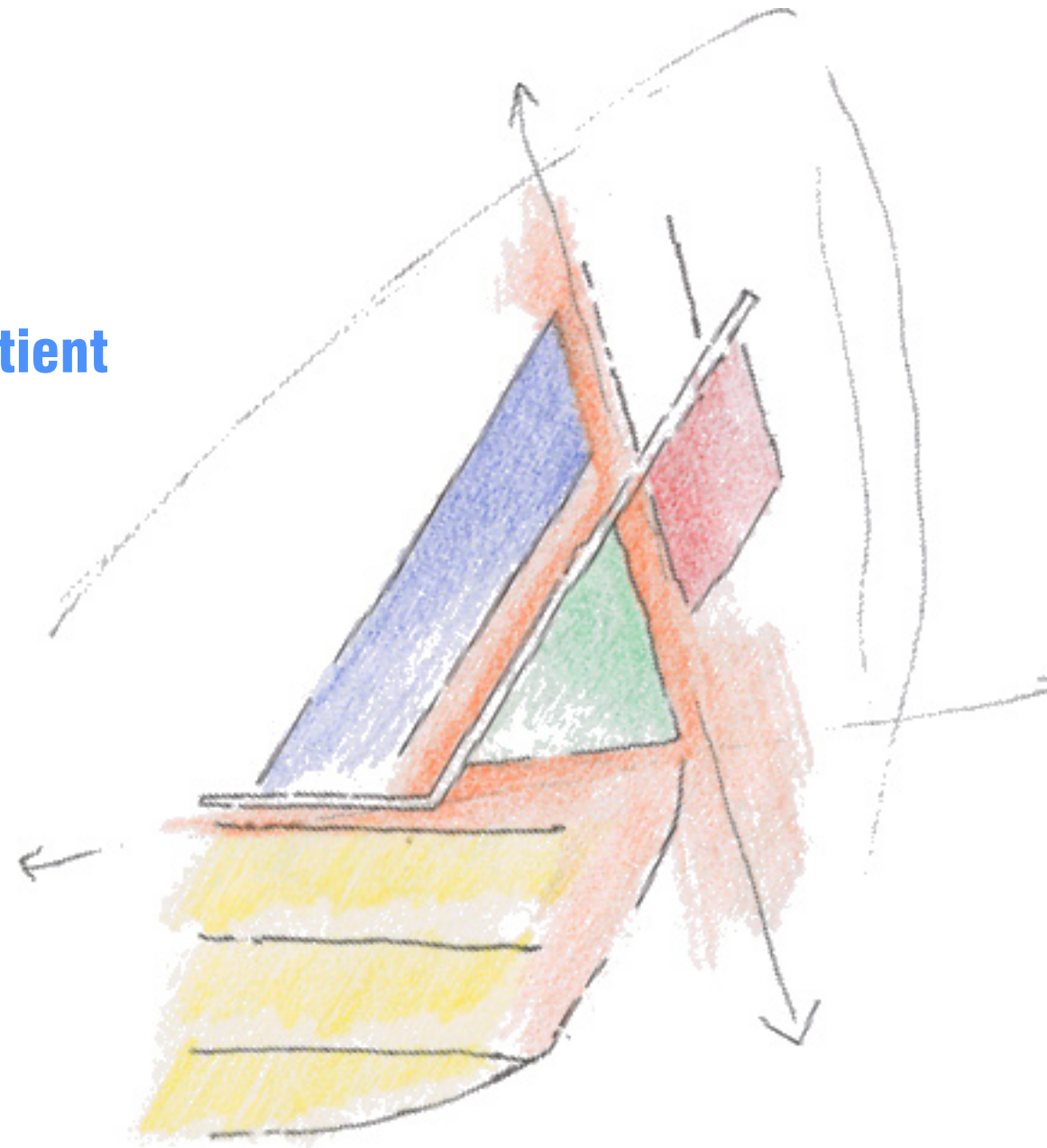
Total 52574 SF

In - Patient

Administrative

Out - Patient

Shared



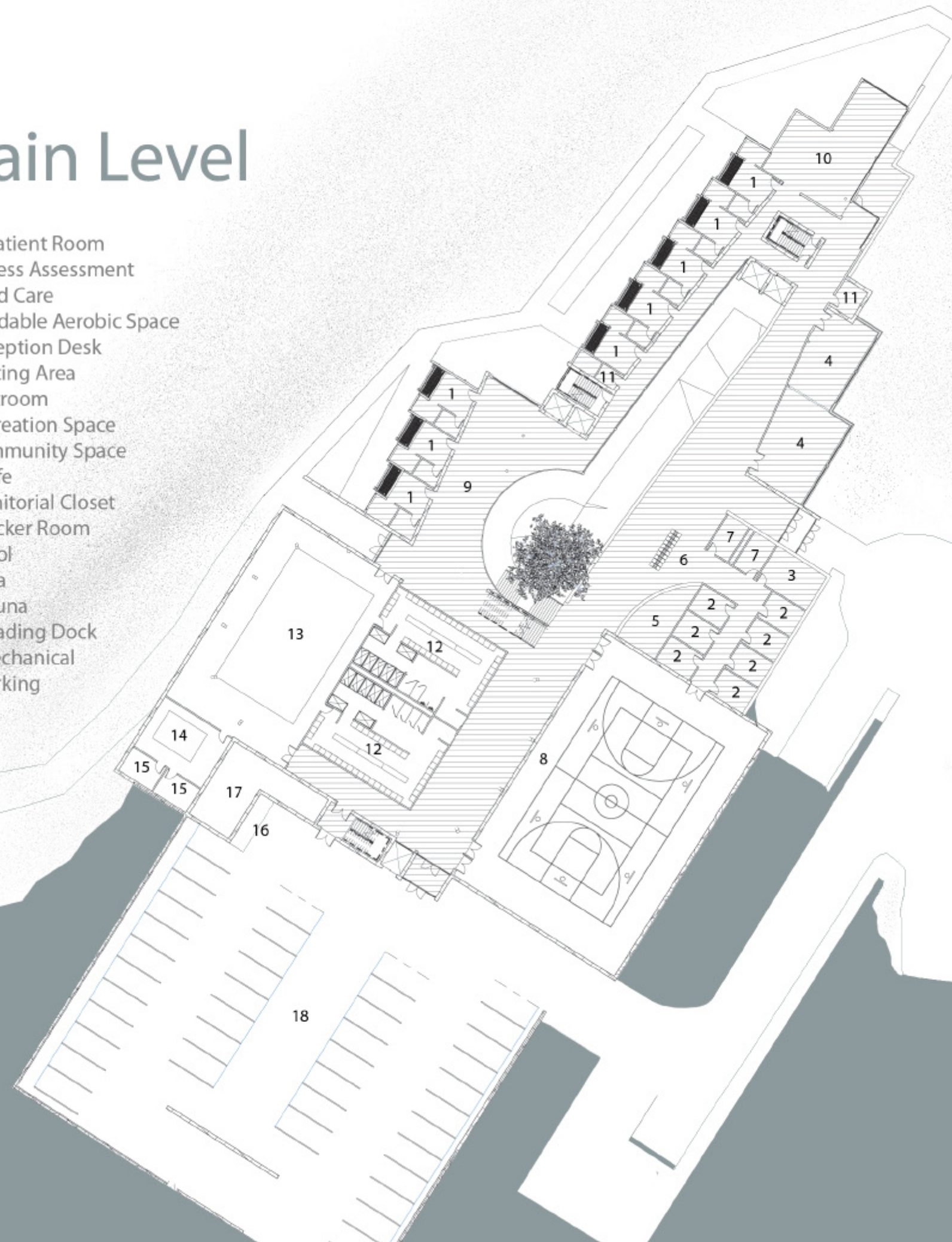
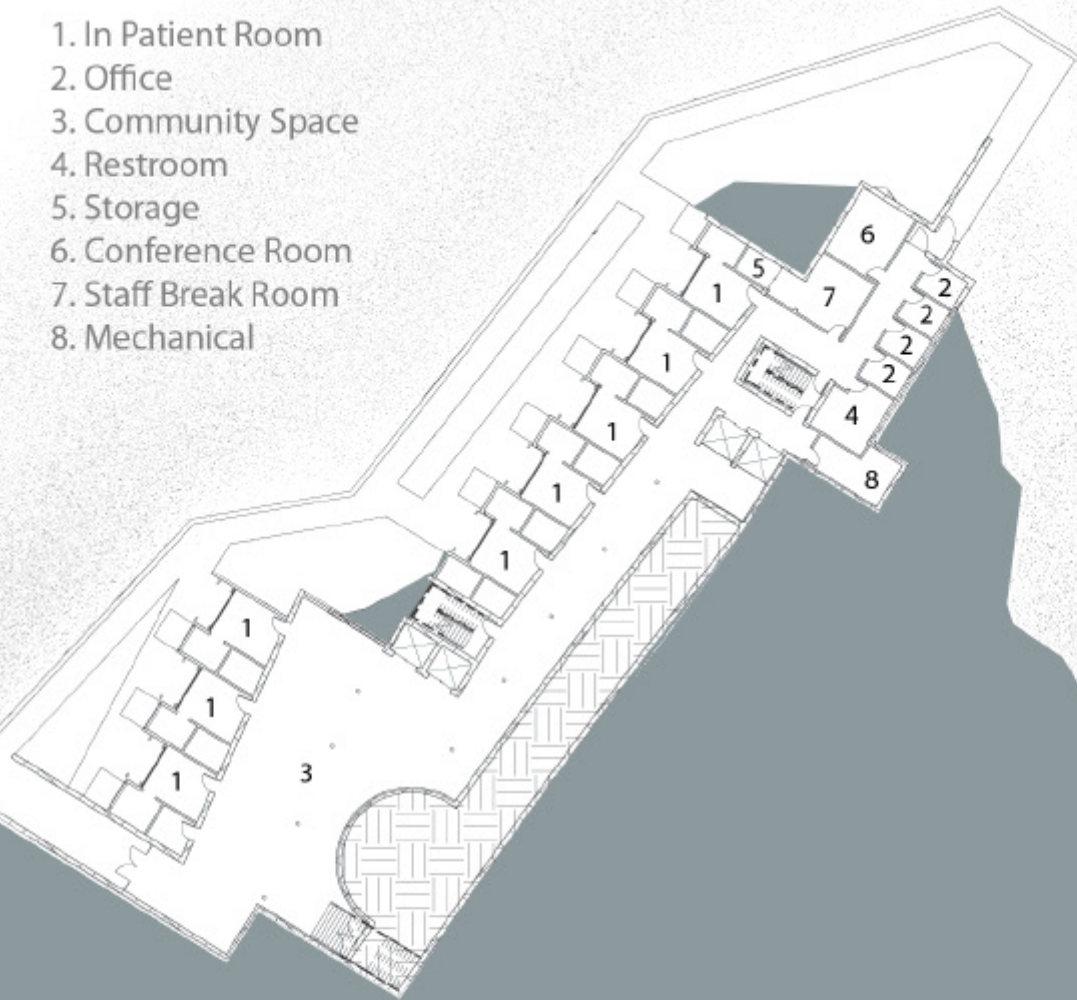


# Base Level

- 1. In Patient Room
- 2. Office
- 3. Community Space
- 4. Restroom
- 5. Storage
- 6. Conference Room
- 7. Staff Break Room
- 8. Mechanical

# Main Level

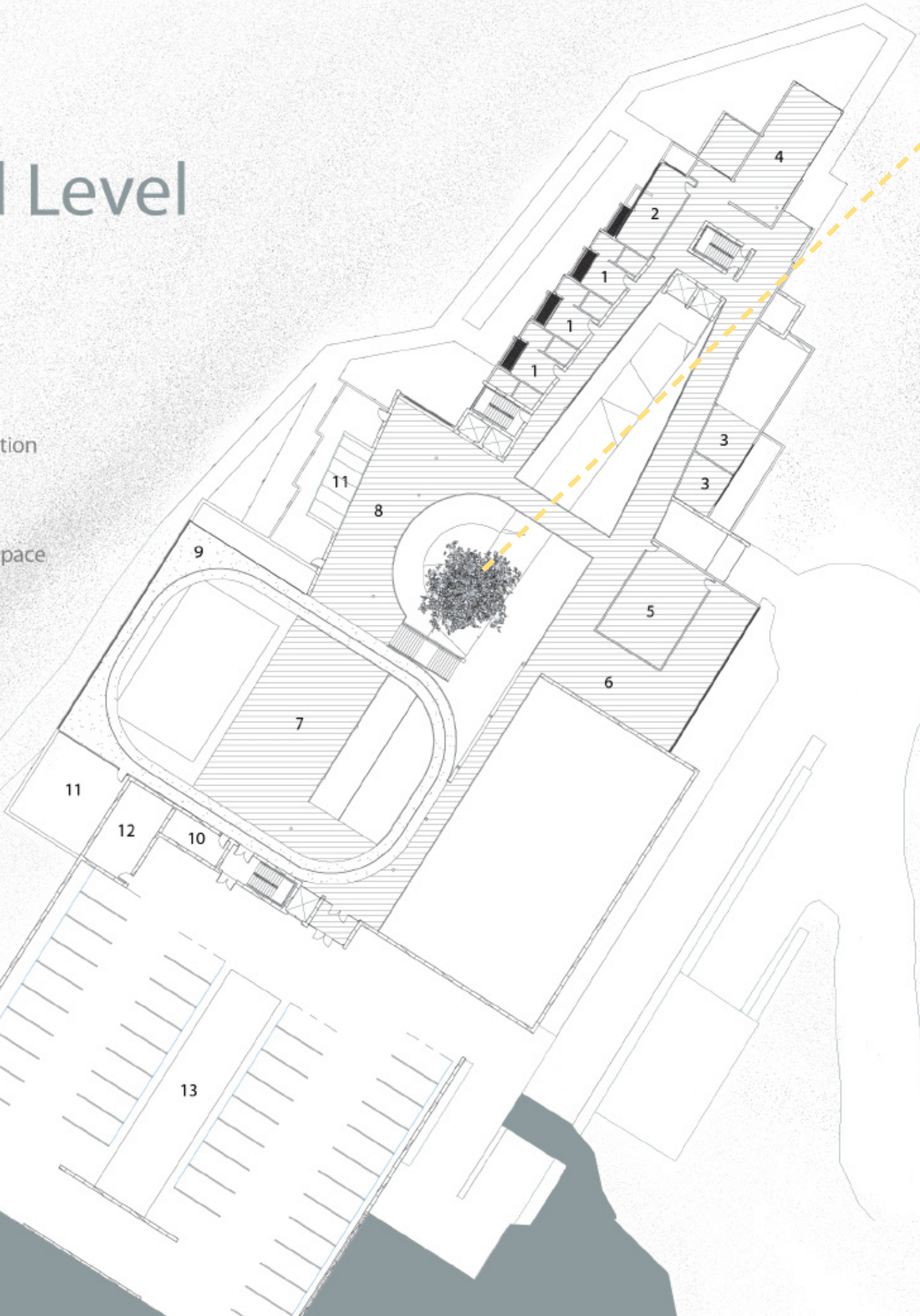
- 1. In Patient Room
- 2. Fitness Assessment
- 3. Child Care
- 4. Dividable Aerobic Space
- 5. Reception Desk
- 6. Waiting Area
- 7. Restroom
- 8. Recreation Space
- 9. Community Space
- 10. Cafe
- 11. Janitorial Closet
- 12. Locker Room
- 13. Pool
- 14. Spa
- 15. Sauna
- 16. Loading Dock
- 17. Mechanical
- 18. Parking





# Second Level

- 1. In Patient Room
- 2. Staff Break Room
- 3. Classroom
- 4. Meditation Room
- 5. Kitchen
- 6. Dining
- 7. Cardiac Rehabilitation
- 8. Freeweights
- 9. Running Track
- 10. Restroom
- 11. Green Roof/Sunspace
- 12. Mechanical
- 13. Parking



## Symbolic Meaning in Trees

- Environmental - Maple trees meanings includes balance, promise and practicality.
- Occupational - Aspen tree symbolism includes determination and overcoming fears and doubts.
- Social - Beech tree symbolism includes tolerance, past knowledge and softening criticism.
- Emotional - Birch tree meanings include new beginnings and cleansing of the past.
- Spiritual - Cedar trees meanings include healing, cleansing and protection.
- Physical - The oak is the mightiest of trees and symbolizes strength and courage.
- Intellectual - Pine tree symbolism includes creativity, life, longevity and immortality.

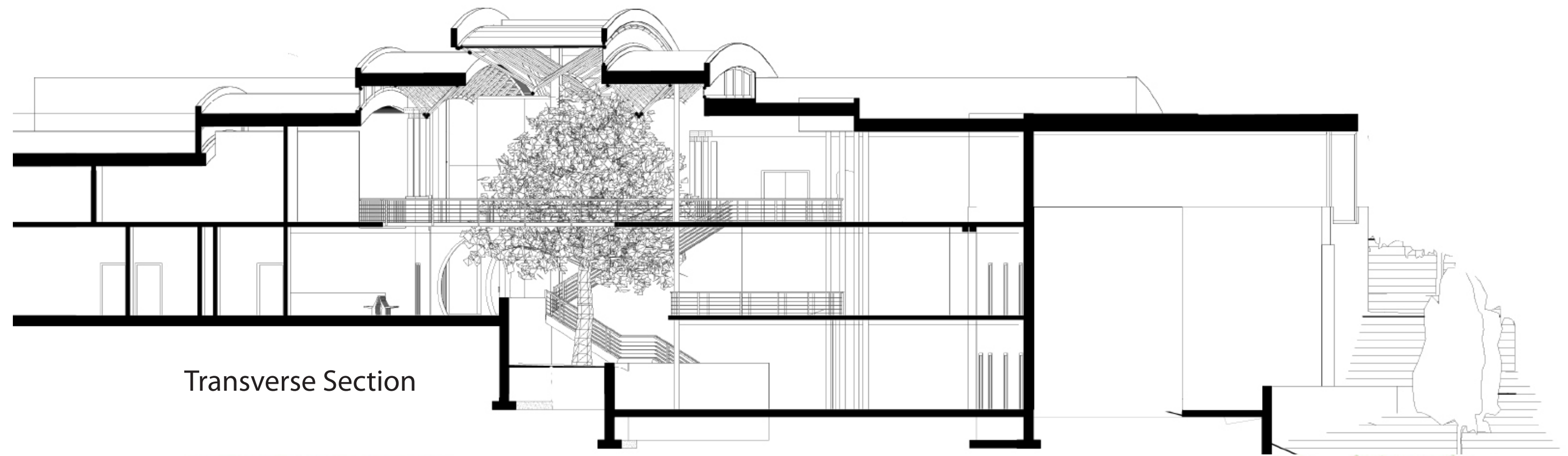




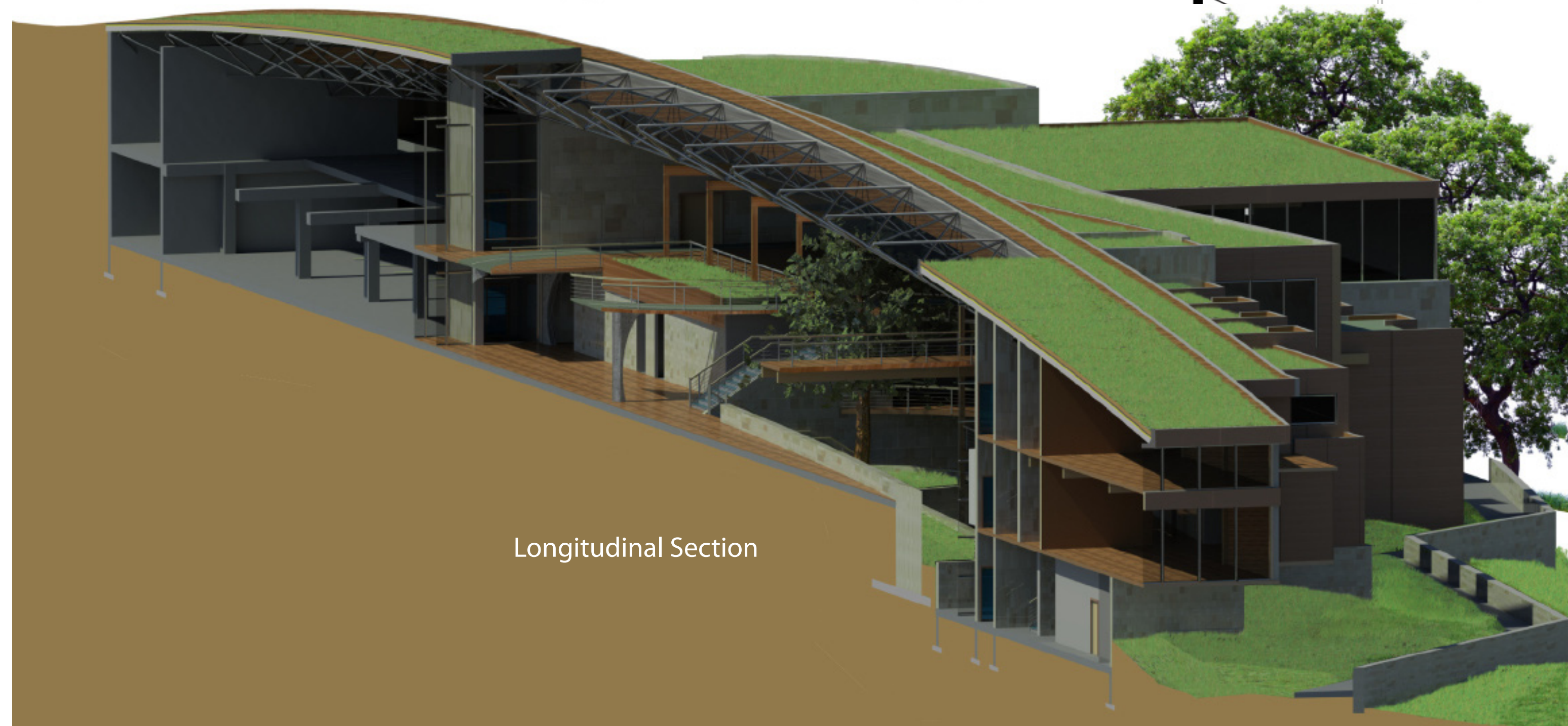
The mighty oak symbolizes strength and courage. It can be seen as an inspiration to those seeking to restore physical wellbeing.







Transverse Section



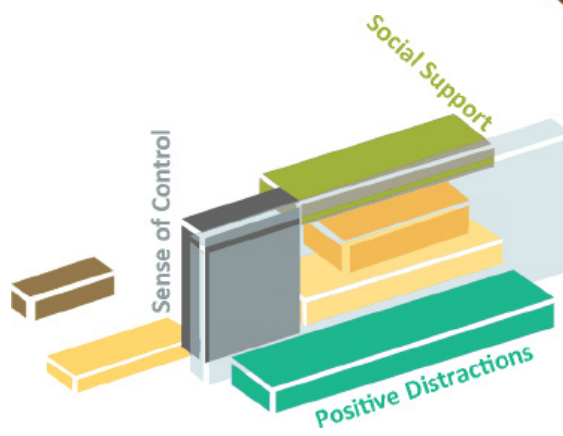
Longitudinal Section



Social Support

Sense of Control

Positive Distractions



# In Patient Room



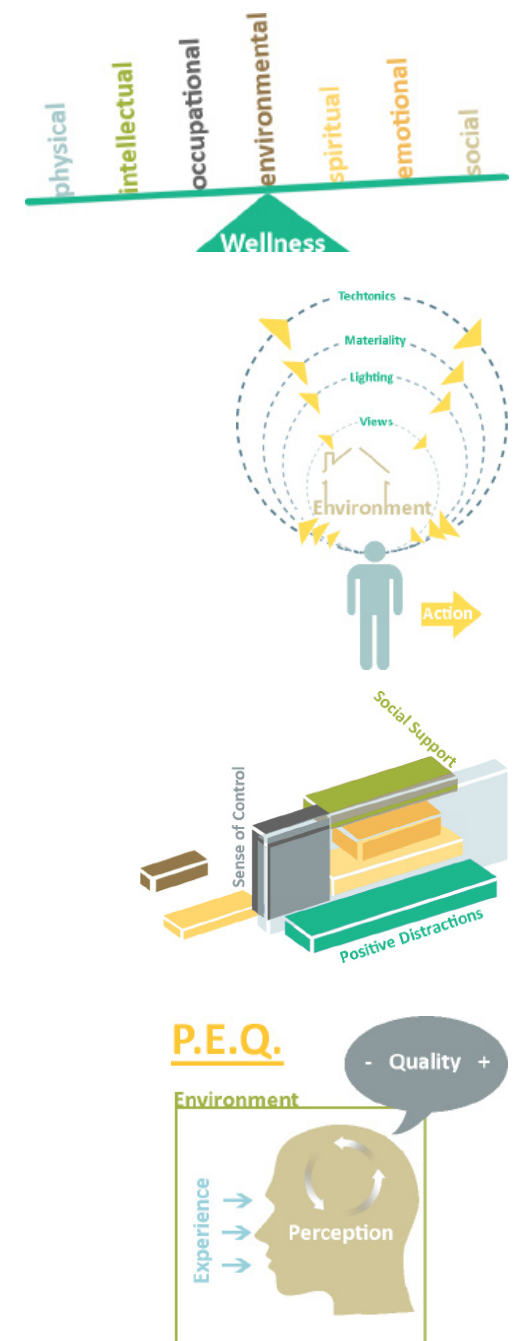












Design has a significant influence on one's ability to reach their full potential. Environment, both natural and built, promote an experience that is perceived as positive or negative. Careful analysis of wellness dimensions and other factors are pivotal in the way technologies are applied and spaces are created.



Questions.....