

HARMONIC HEALING  
NATIVE AMERICAN OUTPATIENT CLINIC



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## PREFACE

This book was designed as an exploration into the problems of our world, this one specifically being that of Native American health and the incorporation of traditional healing into modernized medicine through design. It is here that I tell about my background research on the area of the site, the culture, and the inclusion of Native Americans into healthcare Architecture.



“ IF WE KEEP DOING WHAT WE HAVE ALWAYS DONE,  
WE WILL KEEP GETTING WHAT WE HAVE ALWAYS GOTTEN ”

HENRY FORD

0

# INTRODUCTION

# INTRODUCTION

## TRADITIONAL HEALING

Ceremony is an essential part of traditional Native healing. Because physical and spiritual health are intimately connected, body and spirit must heal together. Traditional healing ceremonies promote wellness by reflecting Native conceptions of Spirit, Creator, and the Universe. They can include prayer, chants, drumming, songs, stories, and the use of a variety of sacred objects. Healers may conduct ceremonies anywhere a sick person needs healing, but ceremonies are often held in sacred places. Special structures for healing are often referred to as Medicine Lodges. Wherever they take place, traditional healing ceremonies are considered sacred, and are only conducted by Native healers and Native spiritual facilitators. Non-Natives may participate by invitation only. In contrast, today, Native powwows have evolved into primarily social and cultural events that feature Native dancing, singing, drumming, regalia, and food. All people are welcome at most powwows.

Native Americans frequently combine traditional healing practices with allopathic/westernized medicine to promote health and wellbeing, though the role of spirituality in health promotion and wellness is uncomfortable for many allopathic providers. Here we can suggest new ways to provide care based on traditional Native American practices. This includes the inclusion of family and community in treatment plans, decrease the isolation from staff and other patients, and thinking about the lack of person-environment harmony and balance. There are many reasons why it is hard for Native Americans to share their traditional healing techniques. First is the lack of trust, the sacredness of certain cultural values, difficulty to translate needs, lack of knowledge on both parties, and overall, they are simply just protective of their culture. On the other hand, physicians do not initiate communication or show comfort in the subject of different approaches so there is a cultural disconnection. In building stronger collaborations between western and traditional practitioners we first need to understand the importance of client-centered approaches. Maybe find a way or time to ask your client about his or her culture and beliefs and open the door to discuss traditional practices.



## THE PROBLEM

ALL CAUSES OF DEATH	AI/ AN # OF DEATHS 2009-2011	US ALL RACES # OF DEATHS 2009-2011
DISEASES OF THE HEART	999.1	747
CANCER	194.7	179.1
UNINTENTIONAL INJURIES	93.7	38
DIABETES	66	20.8
ALCOHOL- INDUCED	50	7.6
CHRONIC LOWER RESPIRATORY DISEASE	46.6	42.2
STROKE	42.9	39.1
LIVER DISEASE AND CIRRHOSIS	42.9	9.4
INFLUENZA AND PNEUMONIA	26.6	15.1
DRUG INDUCED	23.4	15.3
KIDNEY DISEASE	22.4	15.3
INTENTIONAL SELF HARM	20.4	12.1
ALZHEIMERS DISEASE	18.3	25.1
SEPTICEMIA	17.3	10.6
ASSAULT	11.4	5.4
HYPERTENSION DISEASES	9.0	8.0

- Healthcare lags behind all other groups despite a legal obligation on part of the U.S to provide healthcare to American Indians.
- Life expectancy is 4.4 years less than the U.S all races population & continue to die at higher rates than other Americans from preventable diseases.
- Indian health services provides care to over 2.2 million Native Americans across the country and are underfunded by the government. To match federal prisoners care, funding would have to double, needs to be even higher to match the benefits guaranteed by programs such as Medicaid.  
-Challenges: shortage of medical personell and roll back in Medicaid expansion.

GOAL: Putting Native Americans on a path to health equity, adequate funding that supports evidence based, outcome based, and community bases approaches is essential, focus on chronic illness reduction & access to specialty care.

## YAVAPAI



- The Mountain Spirit dance was a masked dance, which was used for guidance or healing of a sick person.
- The masked dancers represented Mountain Spirits, who were believed by Yavapai to dwell in [four mountain peaks] near present-day Prescott
- The modern Yavapai take part in several dances and singing, such as the Apache Sunrise Dance and the Bird Singing and Dancing of the Mojave people.

## HAVASUPAI



- Performed at least three traditional ceremonies a year, The largest coming in the fall at harvest time
  - It includes music, dancing, and speechmaking.
  - Often invited Hopi, Hualapai, and Navajo neighbors to share in these celebrations.
  - One important ceremony was cremation and mourning of the dead, who were greatly feared.
  - Hopi influenced the Havasupai in many ways, such as the use of masked dancers,
  - Curing was accomplished by means of shamans, who acquired their power from dreams.
- The Havasupai accepted the Ghost Dance in 1891.

## HUALAPAI



- Ties sacred significance to areas such as the Colorado River and associated canyons
- Embodied with sacred esoteric cultural and traditional values for Hualapai
- The Colorado River is revered as a life-giving source, known as "Ha'yidaḏa," the backbone or spine of the river.
- It is the belief that without the spine, Hualapai cannot survive as a people.
- Makes a life-way connection that flows through the hearts of the Hualapai people. The Hualapai maintain this connection through ties of sacredness to the Colorado River.
- Hualapai believe that they were created from the sediment and clay of the River.

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CHAPTER ONE



CONTEXT

## ABSTRACT

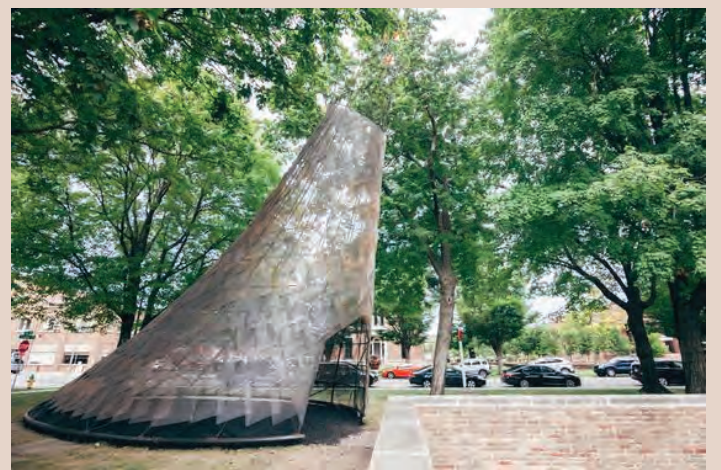
In focusing on healthcare design, I have recently found interest in the cultural aspect of incorporating history throughout interior and exterior of healthcare sites and spaces. In my first semester of the graduate program, I was introduced to the theory behind race and modern architecture. Within my semester, I did research on Native American architecture "under the surface". In learning about the topic, I touched on how Native American culture has been misplaced, misinterpreted, and misrepresented. To truly capture one's culture is to learn its history and then in some way bring it back to life. We have constantly covered up history, literally and figuratively. Literally in the sense of building over top of things that have yet to be discovered and figuratively in the way of teaching and portraying histories correctly. Understanding the places, people, and the culture underneath the architecture helps us display the most accurate depiction of the individuals.

According to Professor Kirk Hamilton, evidence-based design is the "explicit use of current best evidence from research and practice in making critical decisions, together with an informed client, about the design of each individual and unique project" (Stichler, Jaynelle). In practicing evidence-based design and contemplating the current problems of our world, I dove into the aspect of Native American culture representation in healthcare. While researching this subject, my main design question became in what ways can we incorporate Native American traditional healing and culture into the design of a western medicine outpatient clinic that helps promote health and wellbeing for all patients and staff? To begin to answer this question, we need to break down the specific needs of the community it involves.

## INSPIRATION

There are many aspects of this topic that made me want to pursue it. Providing culturally specific healthcare is the goal of indigenous health care design. All the different Native American communities practice very different and unique types of cultures.

With that though, many of them share similar traditional medicines and healing practices. These practices consider the entire person and integrate physical, spiritual, emotional, and mental health. This is where I believe facilities should be designed as a culturally informed healthcare center and specifically allow for cultural practices that are not at all known in everyday healthcare settings. My goal for my thesis is to not only build architecture but represent it in a way that people can interpret specific cultures and ways of life through design.



## CLIENT/ USER

The users of the building will be the locals and tribal communities in the northern region of Arizona. The two counties the clinic will be servicing are the Yavapai and the Mohave. Yavapai country is one of the four original Arizona counties formed in September of 1864, one year after the Arizona territory was established. The county was named after the Yavapai tribe, whose name means the "people of the sun". Yavapai county reflects the history of the old west and the future of the new. Mohave county is the second largest county in the state of Arizona, with a total of 13,461 squaremiles. The first inhabitants of the Mohave county history were the Mojave people. The colorado river and the rich soil, provided the locals with all the necessary resources for farming and fishing. Like mentioned earlier there is a need for the promotion of healthcare within Native American communities so providing a clinic in such a rural area to the three large tribes there, there is better hope for their future.

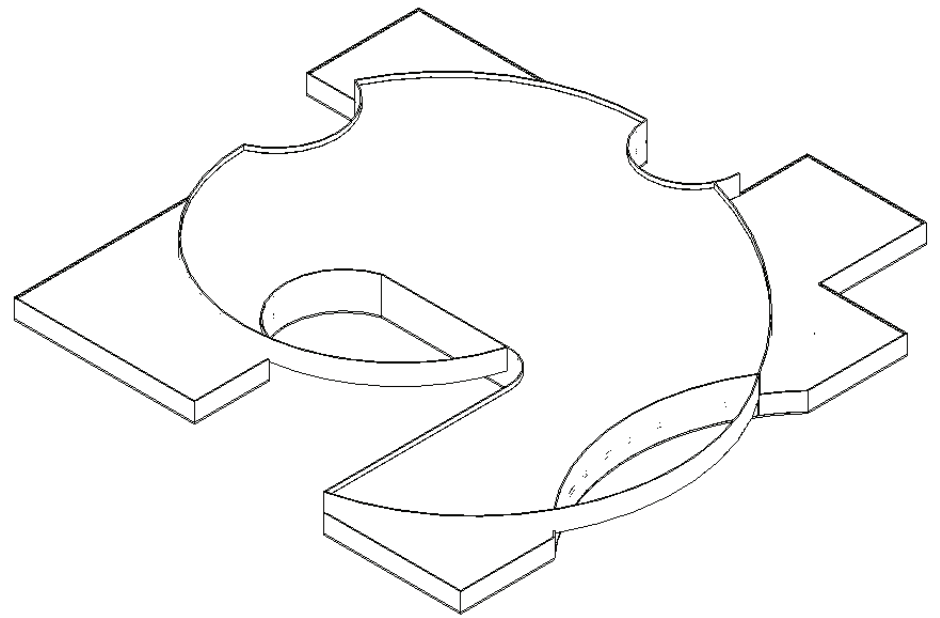
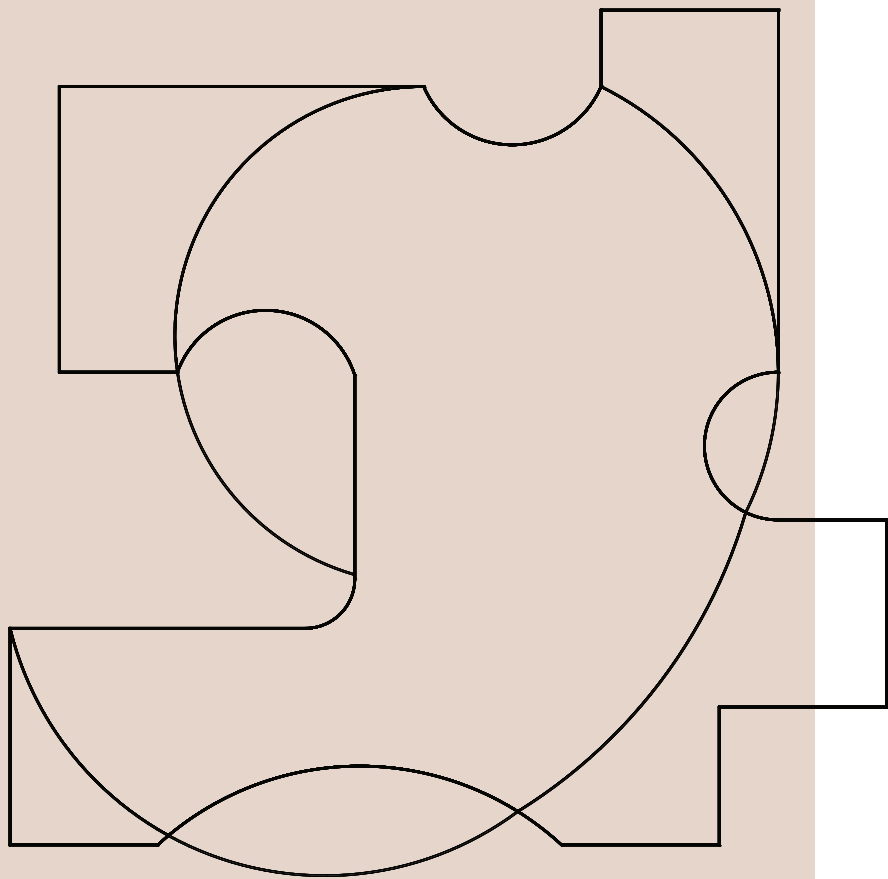


Illustration: Sonny Ross/Sonny Ross for Guardian US

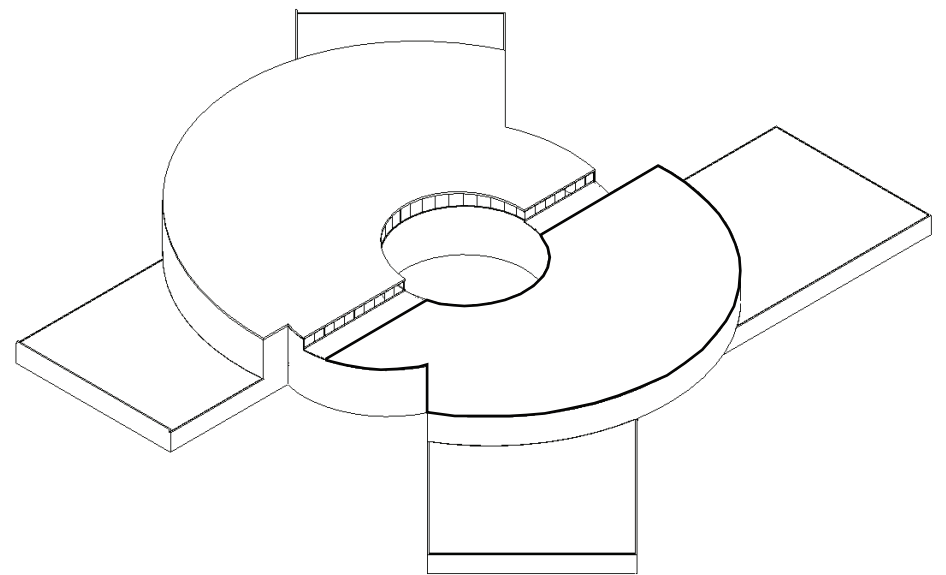
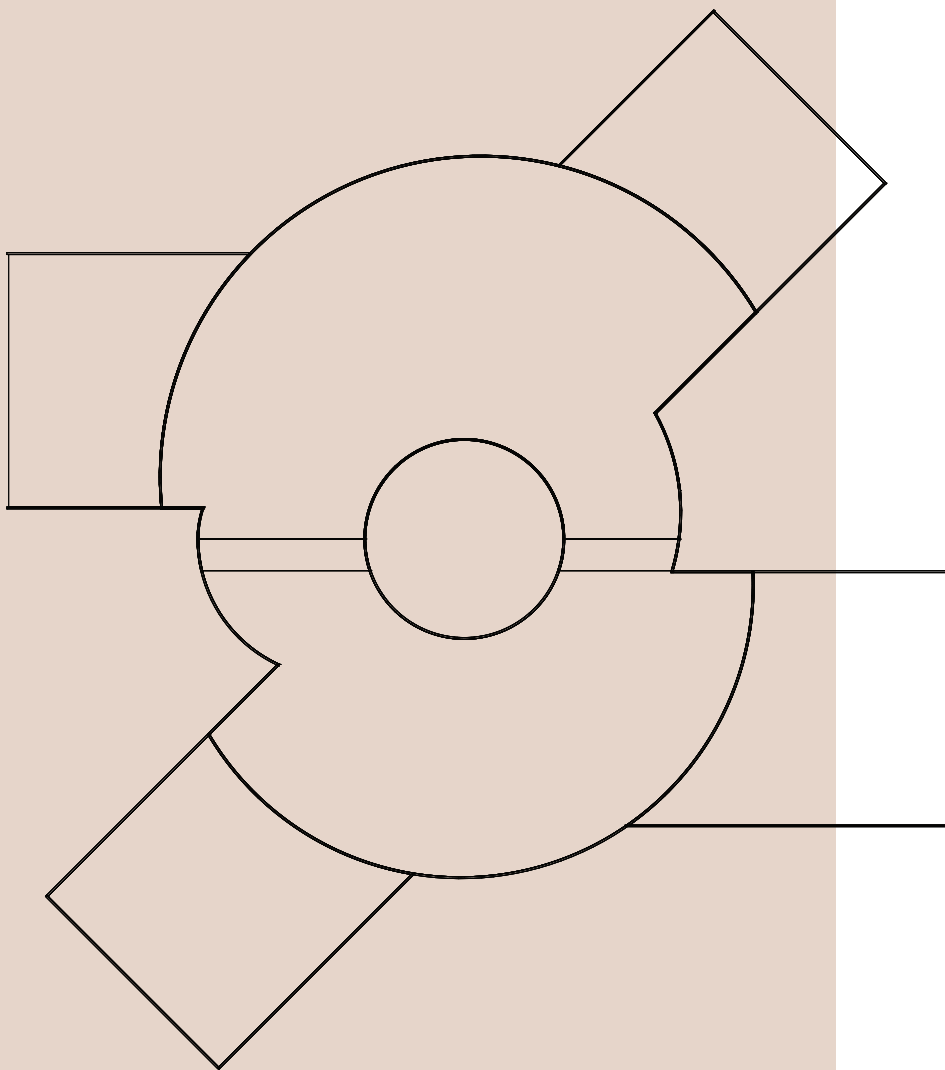


## DESIGN GOALS INTRO TO CONCEPTS

When designing a building to incorporate cultural values, I think we need to first begin with understanding that the culture should be viewed as a holistic approach rather than trying to fit the culture into a building as a "sticker". Moving into important aspects of my thesis proposal, I believe there are three very important design approaches to begin to incorporate Native American culture into healthcare. First is the orientation on the site (and the site itself, as this determines what Native American Community you are involved with). Second is the incorporation of the Native natural landscape within and throughout the building and site. And lastly is providing references to traditional tribe healing within the building and exterior spaces. I also believe that knowing the health care rituals of each community needs to be understood.



Early Design Concepts as an introduction to the final building design.



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CHAPTER TWO





## BANNER PAGE HOSPITAL HKS- PAGE, AZ

Page Hospital is a 25-bed critical access hospital built in 1958. We provide a range of medical services that include emergency services, surgery, medical imaging, obstetrics, cardiopulmonary, acute care and rehabilitation. As a Planetree bronze tier person-centered hospital, we are a place of physical, mental and spiritual healing. Page Hospital emphasizes a uniquely holistic approach to recovery. The care provided to each patient goes beyond physical needs, caring for the person's spiritual and emotional well-being in an environment uniquely designed for healing.

In keeping with the Planetree philosophy, distractions commonly associated with hospitals have been removed. Medical equipment is kept out of sight and overhead paging has been replaced with the soothing sounds of soft music. Hospital rooms have couches, refrigerators, outdoor patios and gardens, and more. Artwork is inspired by the area's large Native American population and the surrounding beauty of the canyons and Lake Powell. Other Native American elements include a weaving loom and a traditional healing Hogan.

Located in the patio area, the hogan was built with an east-facing entrance and tarps for covering openings and doors for blessings and other ceremonies. A fireplace is also available. family members and patients can weave on the Navajo loom. We also have a number of oversized rooms to accommodate gatherings of family and friends. Page Hospital has a Native American Cultural Committee, comprised of Native American staff members. They work to enhance communication and to integrate aspects of the culture throughout the hospital.

Design features that I am most drawn to are first the large overhangs, like at the front entrance. It creates a very visible entrance for people to come into and also makes a lot of shade for the area to be comfortable in the Arizona climate. Another aspect is the color and textures used inside and outside. They are all very neutral to the natural landscape in the area. I enjoy the design aspect of the circular central nurse station, as it makes viewing patients easier and creates a flow. Lastly, the large windows in the patient rooms create a more relaxing atmosphere for patients who are under a lot of stress and connect them to the natural landscape outside without the heat.



Top: Perspective of front entrance from the parking lot.  
Bottom Left: Centralized nurse station.  
Bottom Right: Example of one of the patient rooms.



## AMERICAN INDIAN CENTER REDESIGN CUNINHAM GROUP ARCHITECTURE FIRM- MINNEAPOLIS, MN

Architecture is vital to Native culture and a powerful conveyor of identity that can achieve a balance between the traditions of the past, the necessities of the present, and the opportunities for the future. We strive to create beautiful, meaningful, and inspiring buildings and to help shape the relationships of these buildings through community planning and urban design. Remote reservation communities may have to travel great distances to healthcare facilities that have intensive care units, ventilators, pharmacies, and other adequate provisions. Healthcare may be best delivered by directly bringing healthcare to the individual rather than expecting the individual to have the resources to travel to a facility in these circumstances.

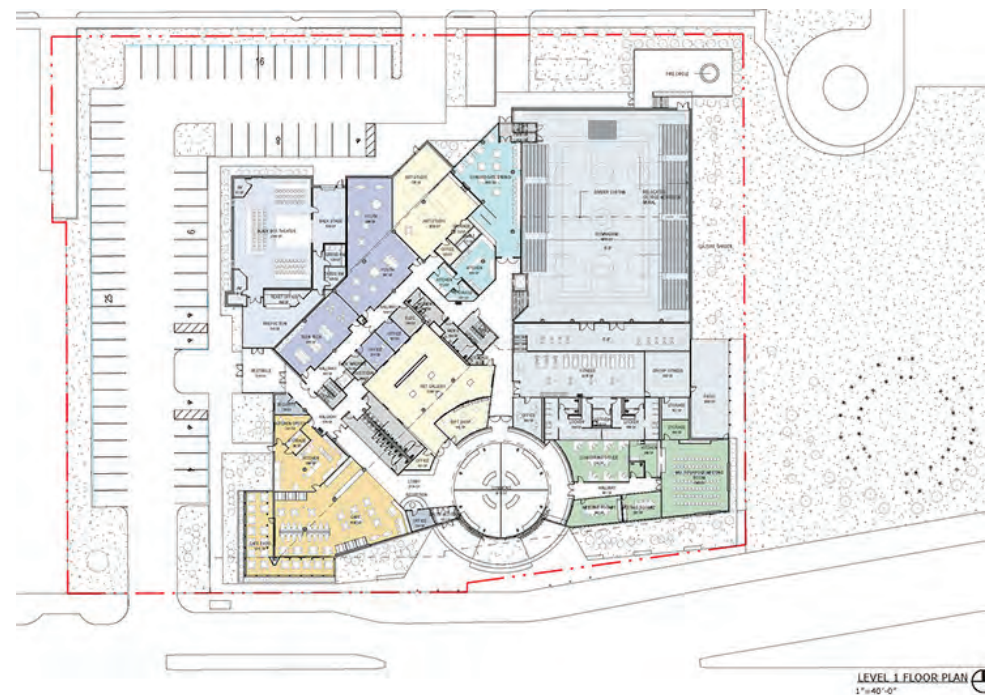
The center was originally built in 1975 and is one of the oldest cultural center in the US. The redesign consist of making most areas in the center such as meeting spaces and gathering cafe more accessible for elders. They also want to make the center become more sustainable from its operations and less dependent on grants, nonprofit donations, and other government programs. A design aspect that I like alot and that I believe serves a purpose for the native american community is the theater inside the center. This allows the community to express themselves and bring the community together. Also in the design process they thought about making the physical exercise areas and the equipment more accessible. This promotes physical activity for the community, ultimately creating a healthier way of life.



Top: Front elevation showing main entrance and materiality choice.

Bottom Left: Ariel perspective of the site showing the shape of the structure and its attributes.

Bottom Right: First floor plan showing the connection to the circular lobby.



LEVEL 1 FLOOR PLAN  
1"=40'-0"

# MUSKOGEE CREEK NATION COMMUNITY HOSPITAL

## WALLACE DESIGN COLLECTIVE-OKEMAH, OK

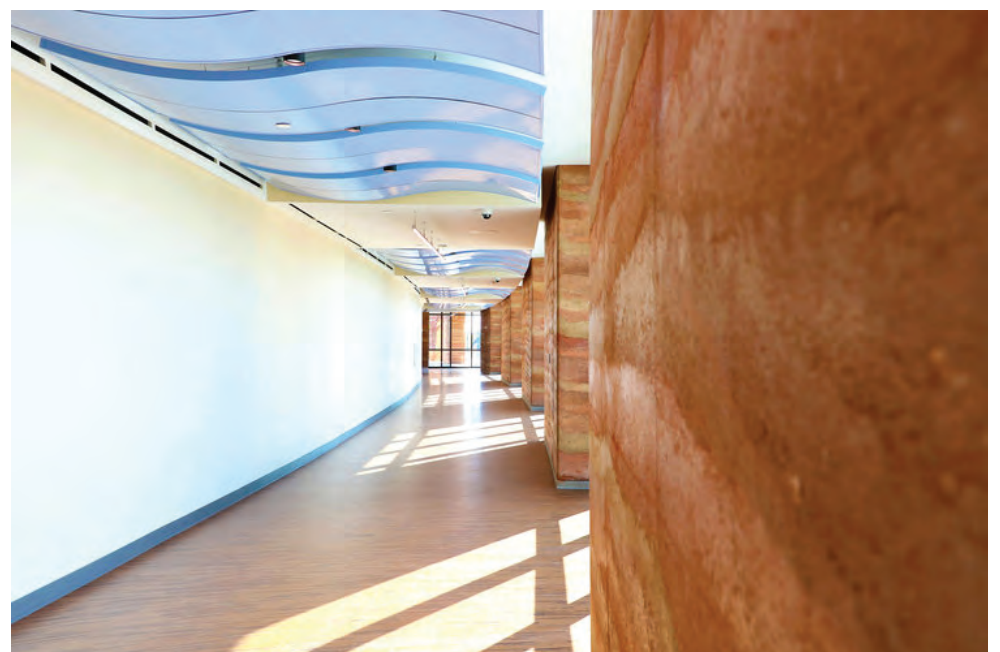
Where some may see challenge, the Muscogee (Creek) Nation saw opportunity. When faced with the need to address an aging hospital in Okemah, Oklahoma, the Tribe responded by designing a comprehensive regional wellness campus. This cornerstone project, a 122,000 sf hospital, sets the standard for healthcare facilities in the region and proudly tells the story of the Muscogee People. This design became a story of respect for the earth, traditions, and culture all while providing healing. The organization of the facility was based on understanding the spirit of the site combined with sustainable strategies. Like an existing waterway on the site helped determine orientation and served as an anchor of the facility to the ground. Another thing is the gentle curve of the building represents flowing wind. The entry and the courtyard create a large open axis that is defined by a large glass tower. There is a central healing garden that has running water which represents the healing power of water as "the first medicine".

Other design aspects that have drawn me to this facility are first the large cedar canopy at the front entrance. It helps welcome patients and visitors and makes like you are entering a "sacred mound". This then leads into a large, bright, open lobby with a view to the courtyard. The exterior consists of two different facade types, metal paneling and rammed earth walls. This creates a natural look with texture and color. Like the exterior the interior boundaries are made of rammed earth walls and they also incorporated tribe names and their families into the floor.



Top: Front entrance showing the difference in facade and the large glass atrium.

Bottom left: central garden space and its flowing water feature. Bottom right: exterior hallway with rammed earth walls and wavy ceiling panels that represent a river.



## SOUTHERN UTE CULTURAL CENTER JONES & JONES- IGNACIO, CO

Jones, of Choctaw-Cherokee heritage, said the Ute were particular as clients and relentless in insisting the building reflect their traditions. A driving force in the energy-conscious design, he said, was the tribe's "thousands of years of experience living sustainably." The building unfolds in a circular shape with two wings arcing out over a landscaped plaza. The curves reflect the Ute "circle of life" principle and are carried into the welcoming hall where the main skylight terminates in a circle of glass, quartered into four shades: yellow (which represents east, springtime and infancy), red (south, summer and youth), black (west, fall and adulthood) and white (north, winter and old age). Visitors then enter the main exhibition hall, an open space with ceilings high enough to house an actual tepee constructed of wood poles and elk skins. The exhibits guide them along a chronological, kid-friendly journey through time. At the core of the experience are listening stations featuring fascinating, recorded stories from tribe elders. The room compresses as visitors move through, showcasing the classroom and a story wall detailing, briefly, key moments in 20th-century Ute history.

The center was designed to tell the tribes story so that future generations of the community would know what it is to be Ute and so that visitors will come and appreciate the rich culture. The building is constructed of glass, steel, and local materials like ponderosa pine and colorado stone. Something that draws me in the most is the cone shaped atrium at the main entrance that represents the traditional tepee. It is supported by a vertical assembly of stripped pine logs gathered by a steel collar. On the interior, there is a ringed walkway that is halfway up the conical shape to enhance the experience. The 52,000 square foot center offers a take on the past and present of Ute culture. There is a main exhibition space that closes with special music, sounds, and videos. The spaces also contains interviews with those from the community, artifacts, and crafts. Finally, there is an exterior steel lattice on the whole perimeter that helps with sun control.





Top: Front entrance showing the tepee design atrium.  
Bottom left: Garden walk space with marked directions.  
Bottom right: Perspective view of garden space with "tepee structure"



## DILKON HEALTH CENTER CHILDERS ARCHITECTS- DILKON, AZ

The Regional Health Center consist of 39 departments and 620 rooms. The facility not only has emergency and diagnostic services but also provisions for short stay, low acuity in-patients. A full range of pharmacy and laboratory services will be on site. It will house the local offices for the Navajo Nation and Winslow Indian Health Services including programs such as Diabetes Prevention and Treatment, Health Education, Breast and Cervical Cancer Program, Behavioral Health, Home and Public Health Nursing. The new Regional Health Center will serve as a focal point in the community with numerous outreach programs and provide meeting space along with a well-equipped exercise/activity area.

The Dilkon Health center is a new 150,000 sqft Rural health center in Dilkon, Arizona that serves the surrounding Navajo Nation population. This facility offers programs such as diabetes prevention, health education, breast and cervical cancer program, and provides meeting space along with an exercise area. Design aspects that intrigued me were the inclusion of the natural landscape throughout the parking lot and the natural color use on the exterior façade. I also really liked the use of the multiple different material choices that look so natural. The use of stucco, brick, and metal paneling made for a beautiful natural outside that blend with the surrounding landscape. Lastly, there is a lot of windows that bring in natural light to multiple areas of the building.



Top: Perspective of front entrance from the parking lot.  
Bottom Left: Circle drive to drop off point at front entrance.  
Bottom Right: Shading structure of the front entrance.



# 3

## CHAPTER THREE

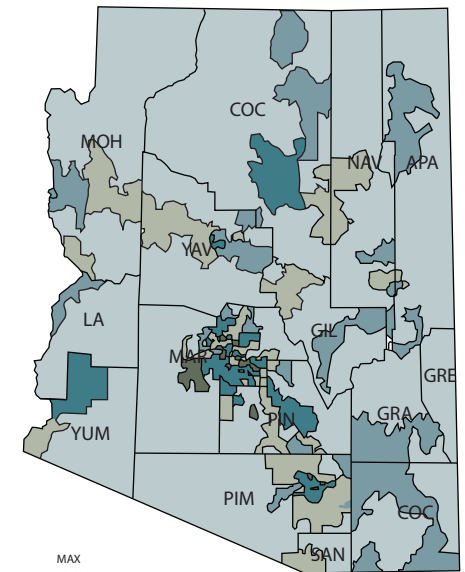
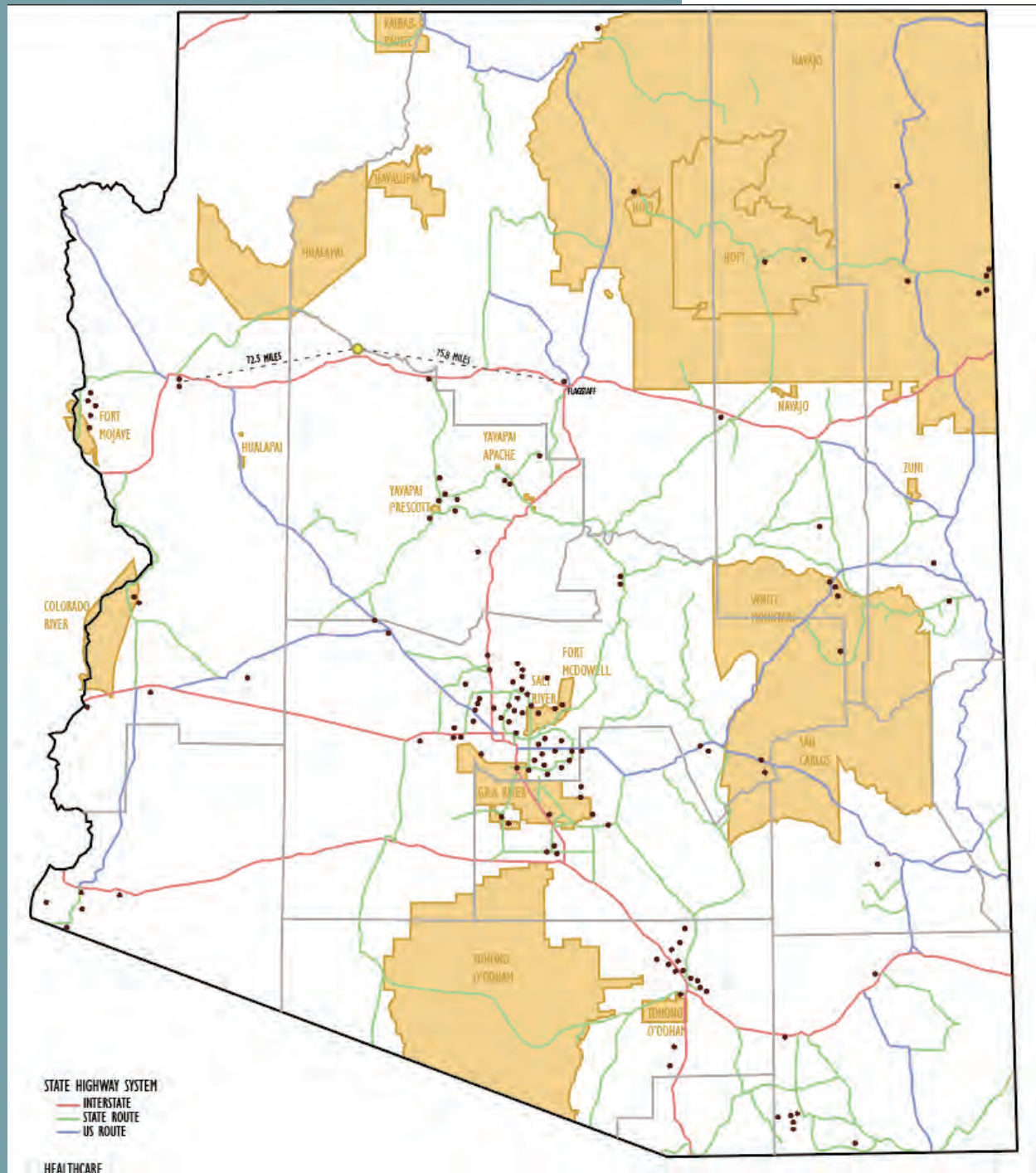


## SITE

In Arizona, there are many different communities within a specific radius. Each Tribe would have its own clinic, but for larger emergencies they would be sent to a specific hospital in a large town. There is usually a large clinic about 1 to 2 hours away from every tribe and then a rather large hospital at minimum 3 to 4 hours away. Each of these are shared by tribes closest to them. The large clinics are approximately 150,000 SQFT and the hospitals (to accommodate for everything) could be anywhere from 700,000 SQFT to 1,000,000 SQFT. For a clinic facility the spaces would most likely be made of public health/nutrition/education, programs for the tribes to communicate health, primary and specialty clinics, rehab/wellness/-physical therapy, ED, lab, imaging, soil and clean processing, pharmacy, education, food services, employee facilities, building maintenance and central storage, behavioral health, human resources, dental, audiology, podiatry, acute care unit, and eye care. Moving into a larger hospital facility these would exist along with more specific care such as pediatrics, oncology, and Intensive care.

The area chosen is in rural northwestern Arizona, in a town called Seligman. The closest towns are 72 miles east of Kingsman and 75 miles west of Flagstaff. It is located within the Yavapai county, but the clinic itself will appease to the Yavapai and Mohave County. In these counties there is anywhere between 400,000 to 1 million people along with three local native tribal communities. The Yavapai, Hualapai, and the Havasupai are the closest communities and are all equal distance to the proposed clinic site. While studying the healthcare facilities in the area, there seemed to be none in the city of Seligman and the closest outside of the town are both an hour in each direction. So, this new facility would bring health-care to a rural but populated area.

ARIZONA POPULATION DISTRIBUTION PER ZIP CODE



COLOR	MIN	MAX
(Lightest Blue)	0	50,000
(Light Blue)	50,000	100,000
(Medium Blue)	100,000	200,000
(Dark Blue)	200,000	500,000
(Darkest Blue)	500,000	999,999

Left: A map of Arizona showing the site selection (yellow dot) in comparison to healthcare facilities (black dots), along with tribes in orange.

Right: Population Maps by zip code and county.

# NATIVE PLANTS



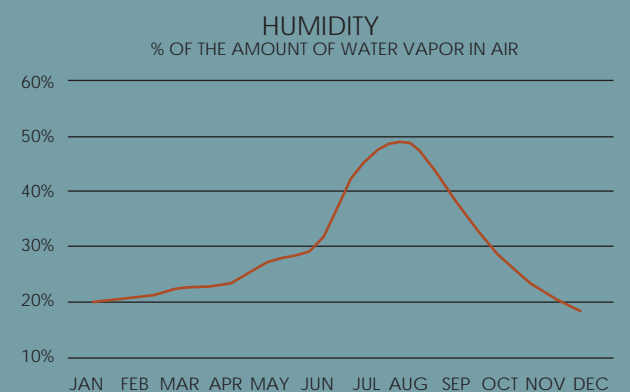
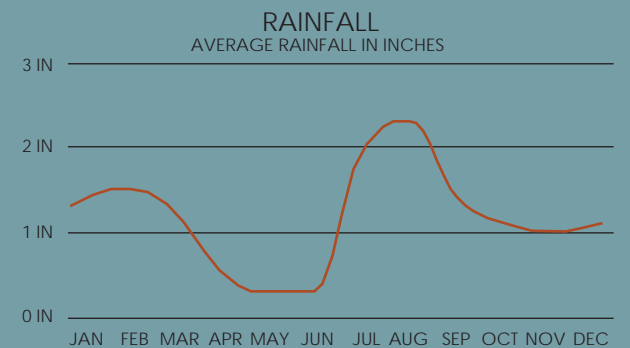
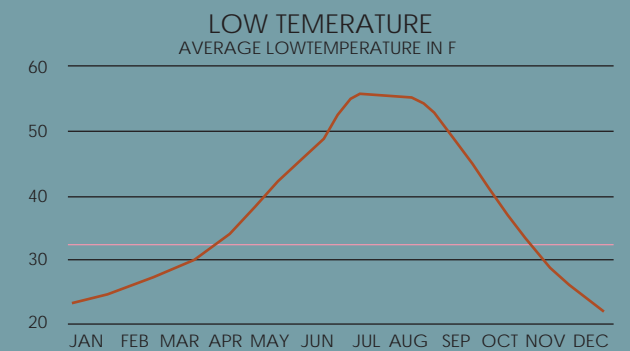
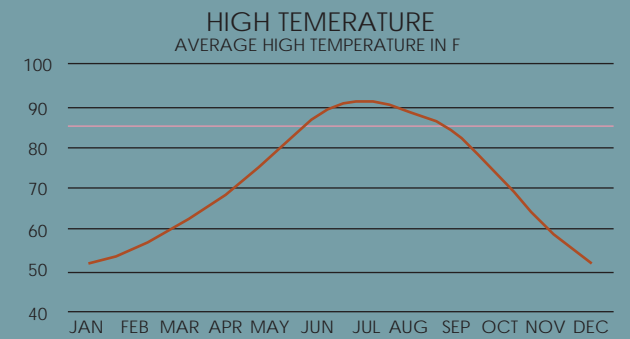
Examples of native plants in the area of Seligman, Arizona.



# CLIMATE

Arizona is known for its hot climate, but as we move to Seligman in the northern part of the state, the climate becomes more comfortable. In comparison to the US averages, we start with rain fall. Seligman on average receives an average of 14 inches of rain, where the US average is 38 inches per year. Though snow is rare, Seligman receives about 6 inches, where the US average is 28 inches per year. In thinking about the building design, Seligman receives about 264 days of sun, where the US average is only 205. This is good to keep in mind for window types, shading devices, and systems used.

On the comfort index on a scale from 1 (least comfortable) to 10 (most comfortable), Seligman is averaged at a 7.7. May, September, and October are the most comfortable months of the year, while January and December are the least pleasant. Shown in the graphs to the right, July is the hottest month for Seligman with an average high of 91.2 degrees (F). On average, there are about 50.4 days annually when the high temperature is above 90 degrees (F). In December, Seligman experiences its lowest temperatures at nighttime, which is on average 22 degrees (F). In Seligman, there are about 105 days annually that the temperature falls below freezing. The humidity on average is low throughout the year, staying around 20% and then rising to 50% between the months of June to September. The wettest month in Seligman is August and the driest month is May.

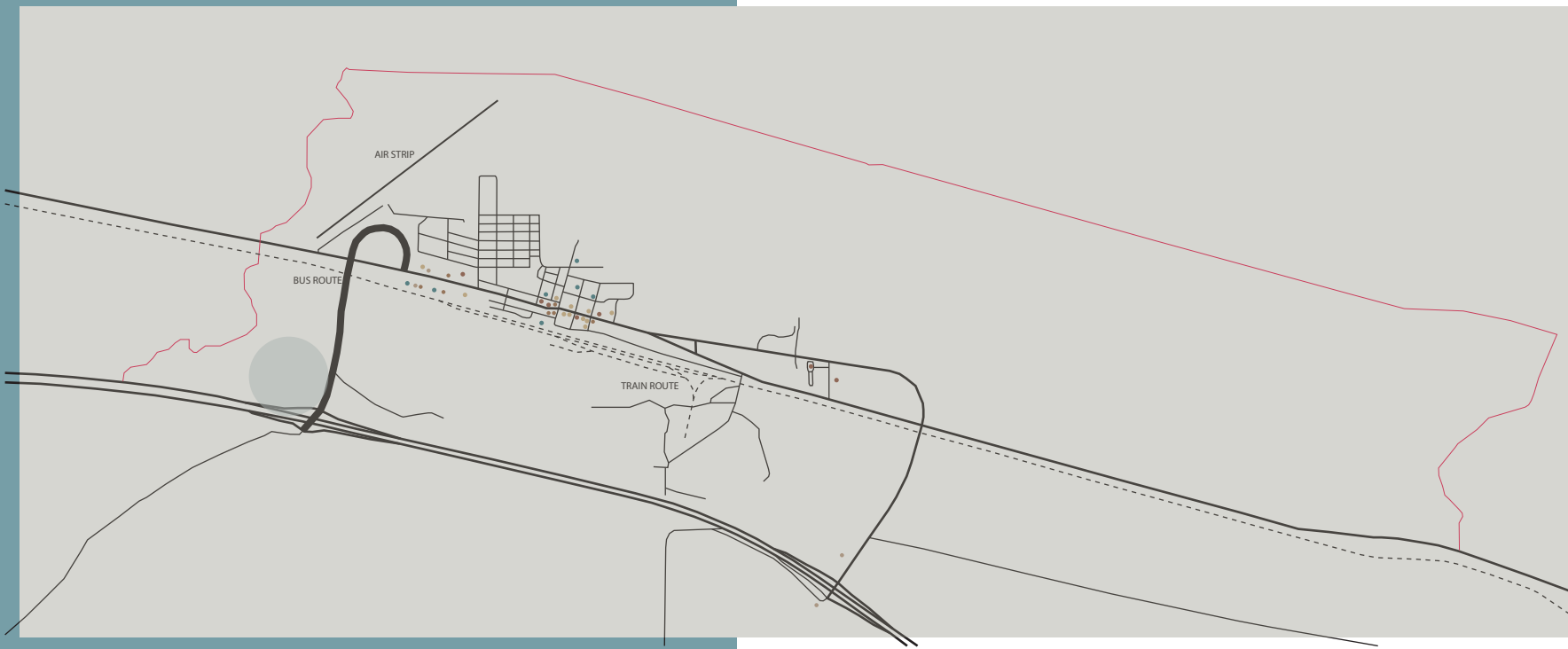


## THE CITY OF SELIGMAN

Originally born as a railroad town encampment named Prescott Junction, Seligman was officially named in 1886 after Jesse Seligman, a railroad financier. Located in beautiful Northern Arizona between Flagstaff and Kingman, Seligman is now internationally known as an iconic Route 66 town. Seligman successfully made the transition from railroad town to Route 66 town, however when Seligman was bypassed by Interstate-40 in 1978, it suffered a devastating economic blow. Eventually Seligman would use this setback as a catalyst to make a name for itself. In 1987, Seligman gained its name "Birthplace of Historic Route 66" due to the efforts of Seligman residents, most notably Angel Delgadillo, the Seligman barber who convinced the State of Arizona to dedicate Route 66 a historic highway. This grassroots effort to bring Route 66 back not only revitalized Seligman but it also caused world-wide interest in Route 66 and the old-fashioned Americana that it represents.



- Airstrip
- 2 Restaurants
- 6 Hotel/ Motels
- Seligman Unified School District
- Transportation Department-Bus
- 9 Food Stops
- Seligman's Justice Court
- Church
- 5 Gas Stations
- 10 Shops
- Firestation



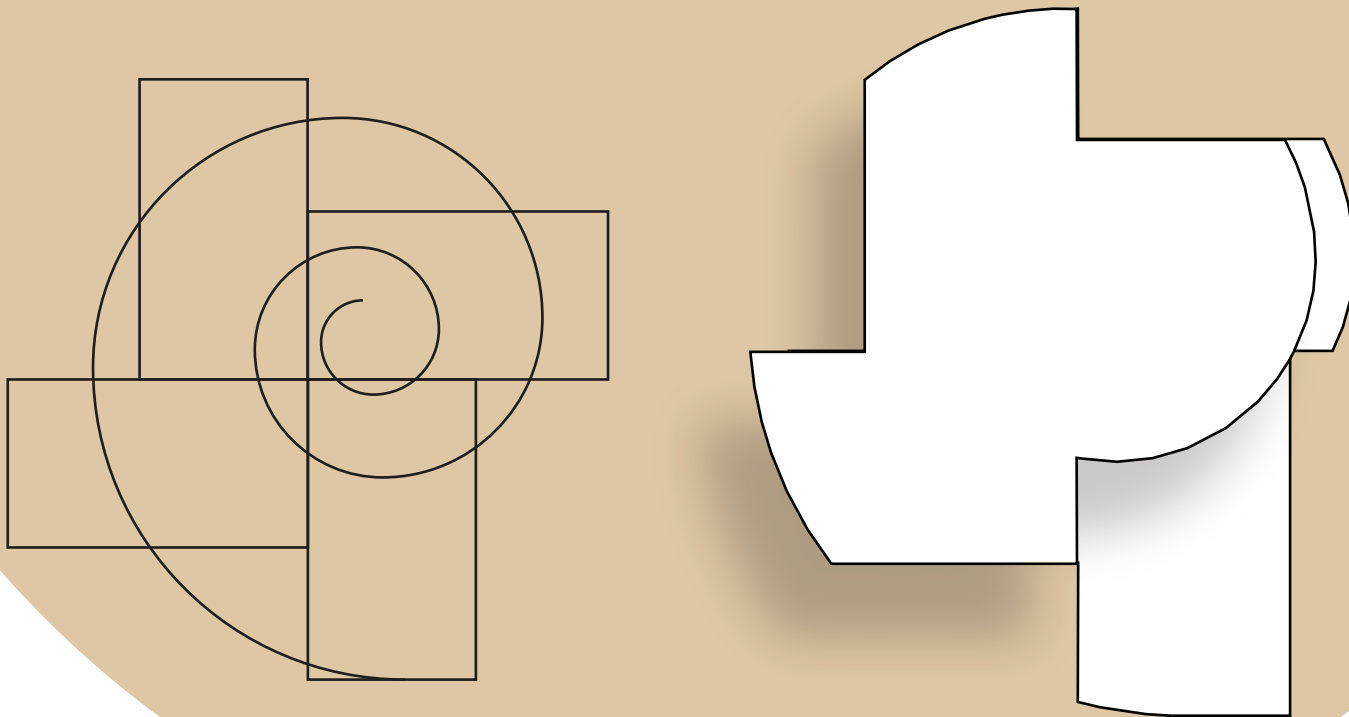
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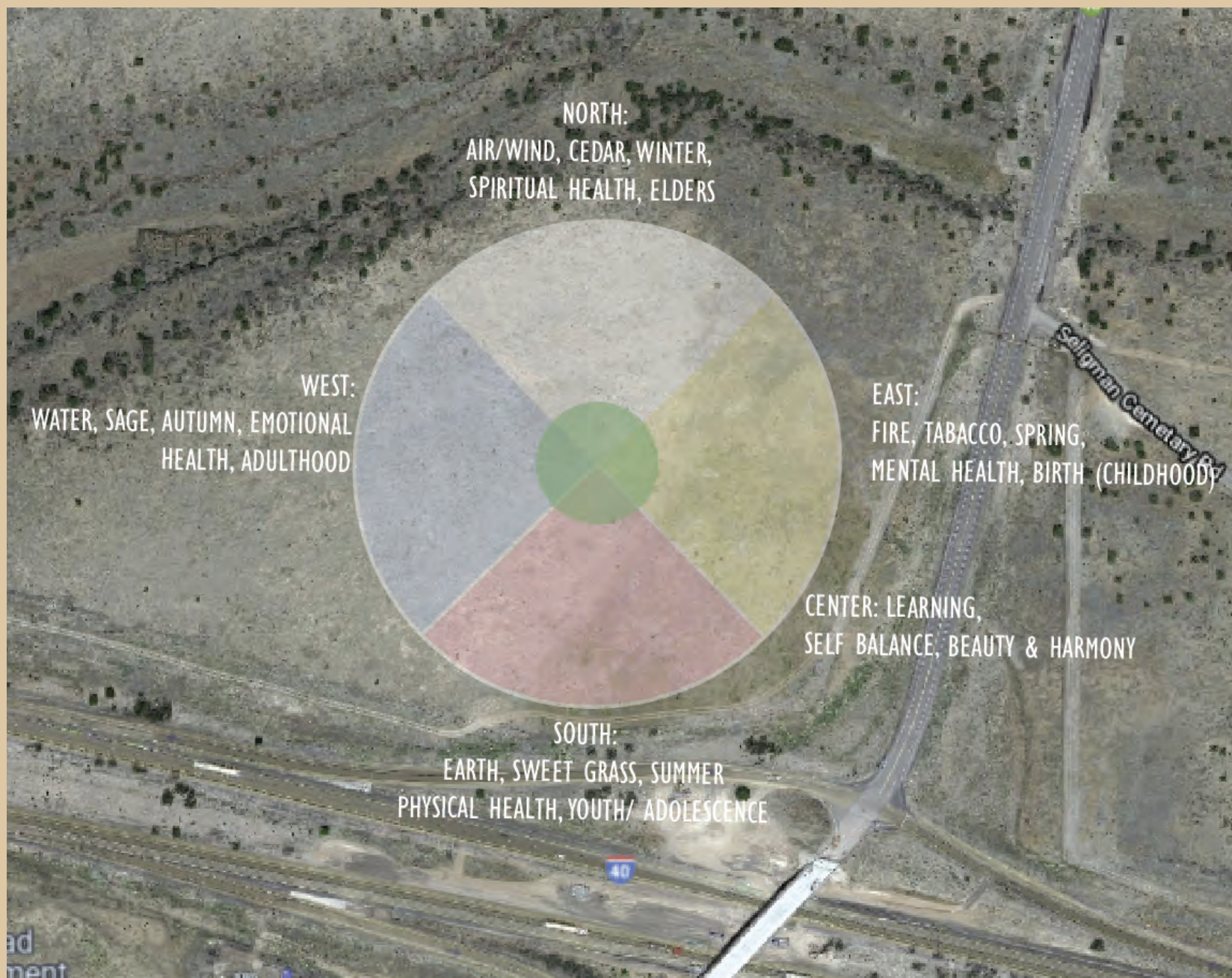
CHAPTER FOUR

DESIGN

## CONCEPT DEVELOPMENT

The medicine wheel and the healing spiral are two of the most used symbols within Native American traditional healing. In focusing on both of these traditional ways, I wanted to somehow integrate their design into the actual shell design of the building. I began with sketching out both of the symbols in ways that can functionally be used. Once I had achieved the design I wanted to best represent both, I combined the two so they could interact with each other. When comparing the symbols together, I wanted each direction to still have a clear path, but I also wanted to show the clockwise movement of the healing spiral. I began to subtract pieces of the four directions into the shape of the spiral which combined the two perfectly.

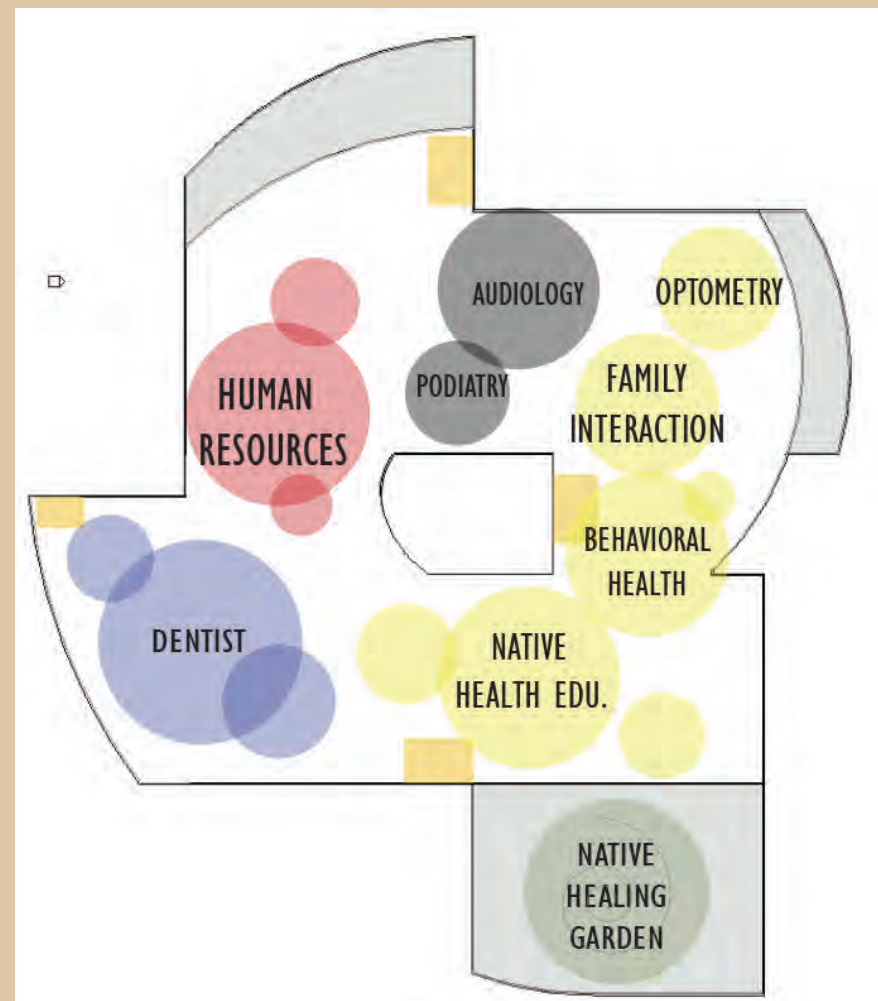
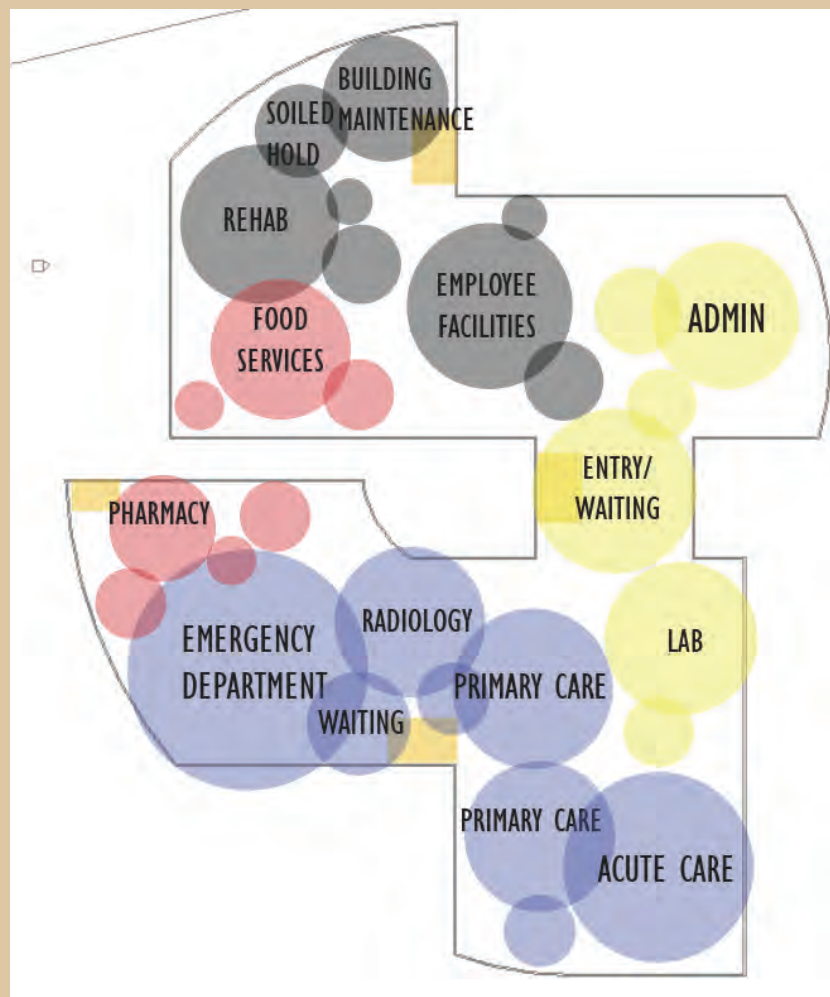




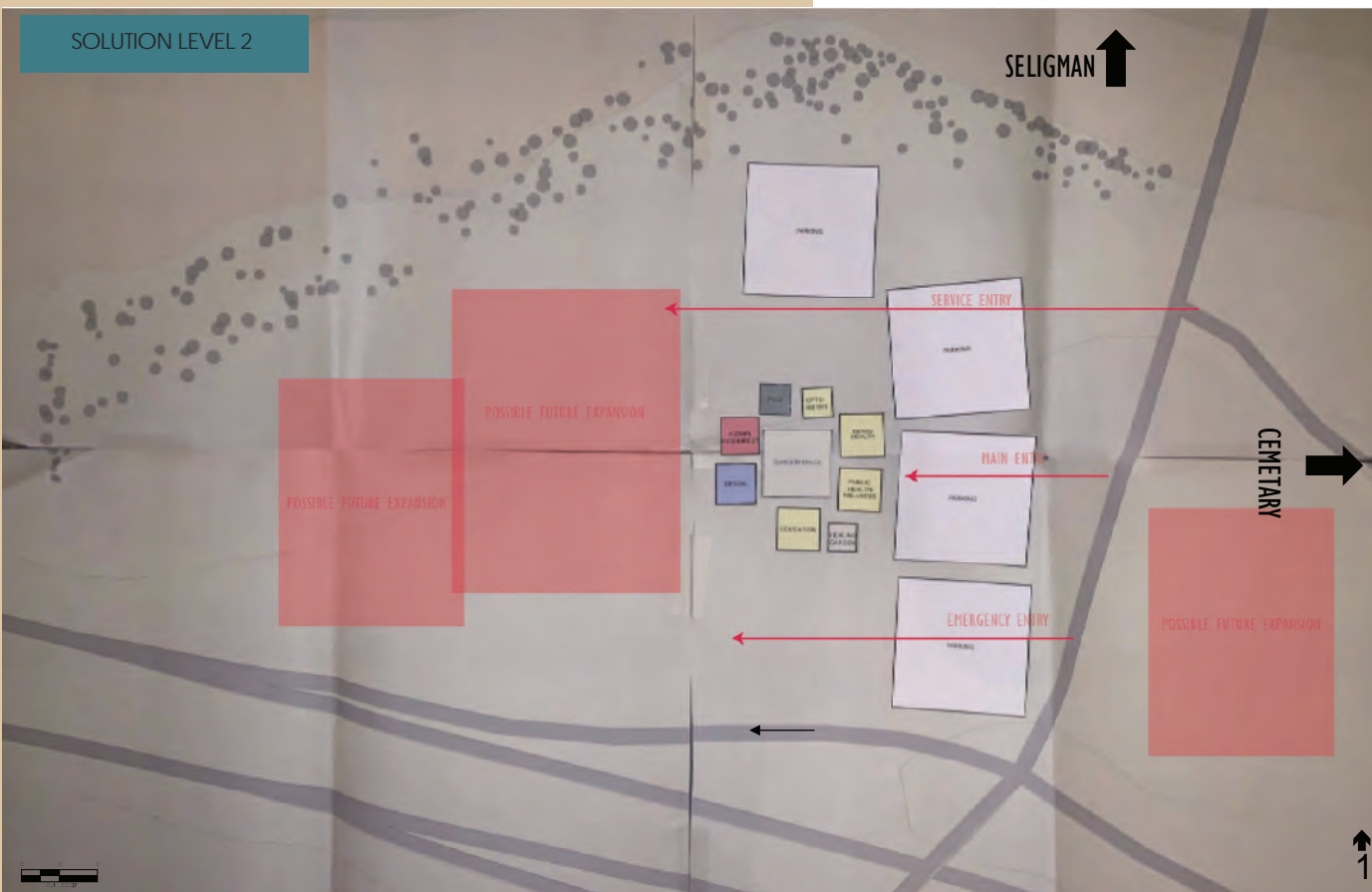
Traditional healing is essential in the recovery and comfort of the Native American community. There are many aspects to traditional healing techniques, the first of which being ceremony. Spiritual and physical health seem to be intimately connected within the Native tribes, meaning that the body and spirit must be healed together. This is done by including prayer, chants, drumming, songs, stories, and use of sacred objects. These ceremonies are usually held anywhere a sick person needs healing but are most often held in sacred places. Special structures are built and referred to as medicine lodges. Wherever these takes place, they are considered sacred pow wow spaces. They have evolved into primarily social and cultural events that promote healing. Another traditional technique that is essential to healing, is the use of the medicine wheel. This embodies the four directions and the special meanings that come with them. Following it in a clockwise formation, they move through seasons, dimensions of life, and the elements of the earth. The circle means the circulation of life and death, the path of the sun and moon, and the shape of the tipi representing home.

# PROGRAMMING

There are many departments that make up the clinic space, those being public health and wellness, physical rehab, dental, lab, optometry, pharmacy, primary care, behavioral health, radiology, emergency, human resources, audiology, podiatry, administration, food services, employee facilities, education, and building maintenance. With using the menu of assumptions below, I created an estimate on each of the department sizes with circulation and came to a total estimated square footage of 103,000 SF.





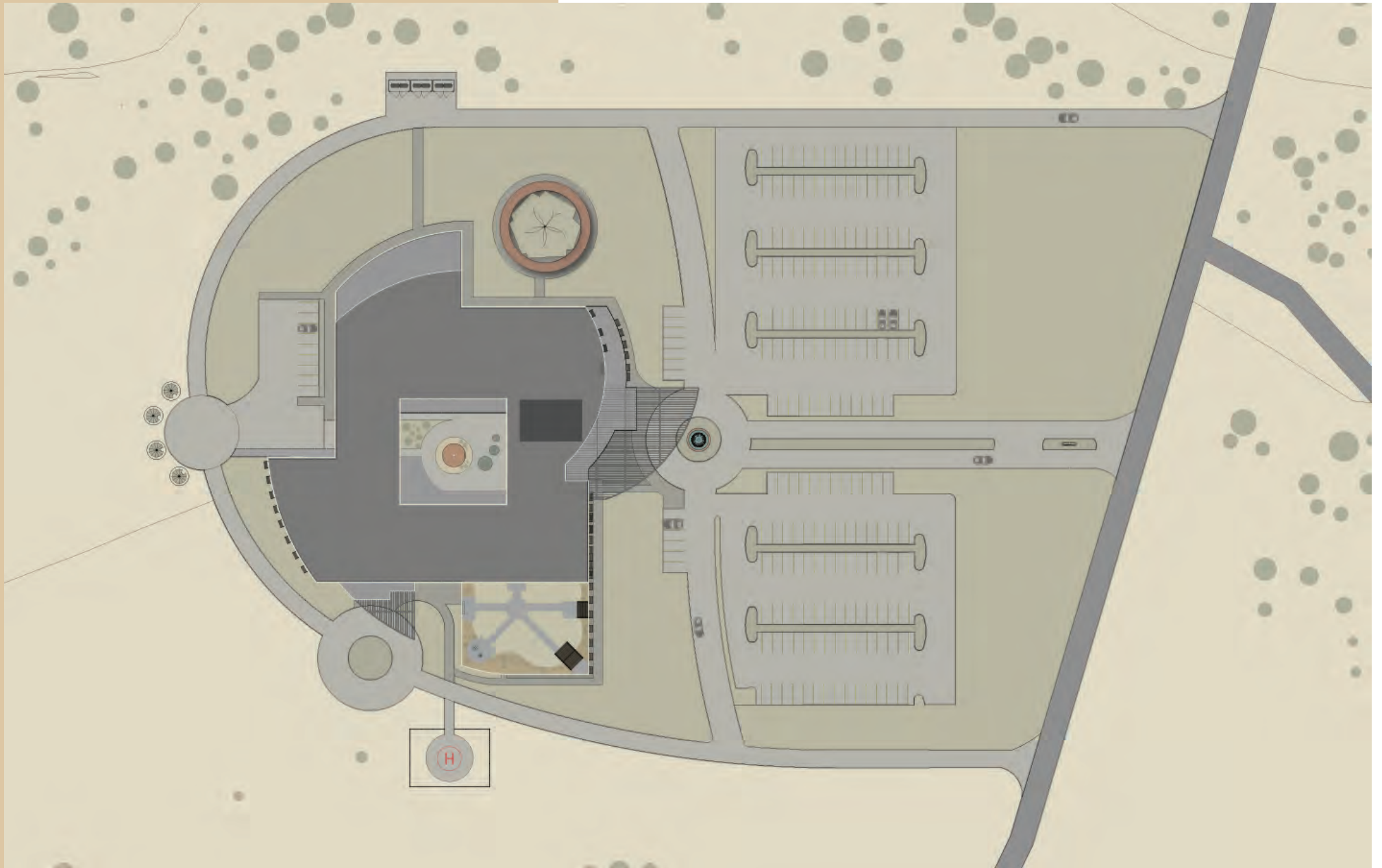


By physically moving the layout of the departments within the building, the parking, the entrances, and future expansion, I found what I believe to be the best programming concept for my building design.

Here are the solutions for level one and two of the clinic. There are three different entry points, with parking in the front, and room for possible future expansion behind the building and across from the building. The department are laid out surrounding a central garden space and are organized based off the medicine wheel and functionality.

## SITE PLAN

The outpatient clinic would be programmatically designed based on the directions of the medicine wheel and the movement of the healing spiral. Using the four directions and what they stand for, the interior programmed spaces would be placed based on that and functionality. The entry would be east facing and have roadway accesses all the way around as well as walking paths. There would be an incorporation of a central garden space that houses a sweat lodge and a roof top garden space that becomes more interactive for patients and staff. There are many other balcony spaces to get beautiful views of the landscape around the clinic. To the north there will be a pow wow space where people of the Native American community would be able to perform chants and other cultural dances for healing and communication. There are large atrium windows to let in as much natural light into the lobby space for a relaxing waiting area. There is a use of three different external materials tan stucco, and light-colored masonry, and a specifically designed metal cladding system that is colored based on the native plants to the area. Other internal features would include traditional native art pieces, sounds of nature, and a continuation of natural materials in the large community spaces. A final touch is the incorporation of traditional Native American housing monuments to represent cultural land that the clinic stands on. This would be interactive and educational for guest and staff.



Shown is a site plan providing the three entrances off the main road to the town of Seligman. A service entrance at the top will take you to the waste and then around to service drop off at the west side of the building.

Following the road around will be the ambulance drive and emergency room drop off.

The building is revolved around a central garden space as well as having a roof top garden to the south. To the north there is an outdoor pow wow space for chanting and traditional healing. The east holds the main entrance with seating space for families on the second floor.

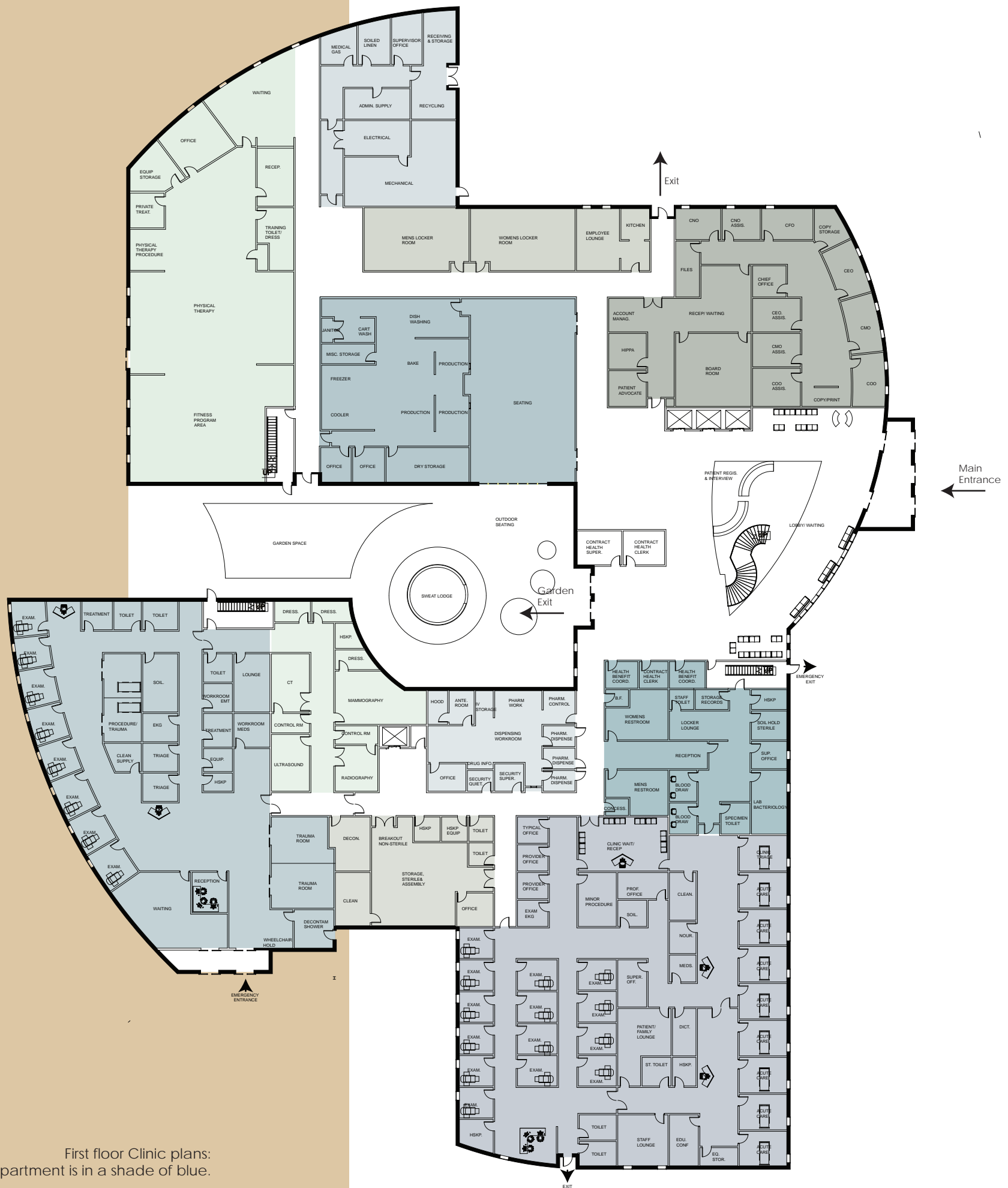
# FLOOR PLAN 1

In keeping the healing spiral and the medicine wheel in mind we begin to look at the detail of the first floor. First, there is a main entrance to the east that leads you into a large open atrium lobby space. Here we find a large staircase placed in an area that will guide you along the clockwise direction of the plan.

This space can also guide you to the information desk and just past that, the elevators. Continuing to follow the clockwise motion past the stair case, you can be guided directly outside into the central healing garden space.

In the North quadrant of the clinic (starting from the west to east), there is physical therapy, building maintenance, employee facilities, food services, and administration offices. Physical therapy has its own small parking lot and its own entrance so you do not have to go all the way through the hospital. In the second quadrant we move into more of the clinical space. Here we have the emergency department, imaging, clean and soiled hold, pharmacy, the lab and primary and acute care. The emergency room has its own entrance for easy access for visitors and ambulances.

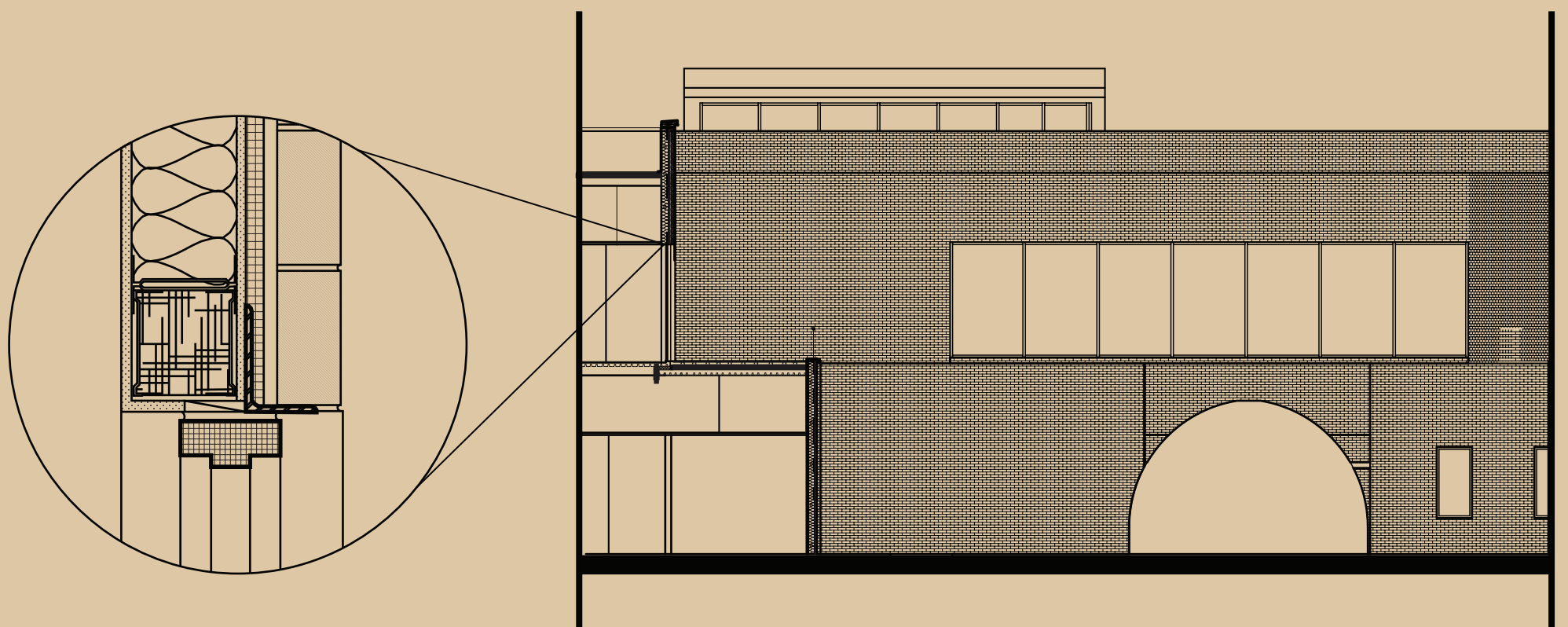




First floor Clinic plans:  
Each department is in a shade of blue.

## HEALING GARDEN SPACE

There are three main spaces that I focused on, the first being the central healing garden space. Here there is a direct connection to Native American traditional healing techniques with a centralized dome sweat lodge. Surrounded by native Arizona plants, the dome creates a connection for traditional healing and westernized medicine through all visitors, staff, and patients. There are large windows to the north on both the first and second floor that give a continuation of natural light to the interior spaces. There is also a large balcony space on the North and South side of the garden to look over the courtyard when on the second floor. Along with a large walkable space there are many different areas for seating and gathering for those who wish to sit in groups. On a wall directly across from the exit into the garden there is a beautiful mural of Native American women in traditional head dresses. Viewing the traditional wear and all the colors that are incorporated into their everyday lives is both beautiful to see and educational for those who do not know a lot about Native American culture.





Central Garden Space:  
Perspective view from the main building exit and entrance  
showing seating spaces, native plants and second floor view-  
ing spaces.

## FLOOR PLAN 2

Continuing with the clockwise shape from the first floor the four “wings” have either lengthened to provide shade or shortened to provide outdoor walking space. The wings to the North, East, and South have all been shortened to provide outdoor viewing and socializing spaces. The space to the South has been transformed into another relaxing roof top garden space. It is split into four different categories based on the medicine wheel. All are seating spaces including different elements of the earth. One embracing sunshine, another shaded and integrated into the garden space and plants. The next is a seating area surrounding fire pits for when the colder months come. Lastly, is a seating area by a water feature that produces relaxing sounds. Here we also see the top view of the pow wow space that can be viewed from the north balcony space.

In the North quadrant of the clinic (starting from the west to east), there is human resources, audiology, podiatry, optometry, and conference learning spaces. The main stair case from the lobby brings you directly to the center of the second floor space where there is a large window view to the west side of the building and courtyard. In the second quadrant we have employee lounges, dental, Native American health education, and behavioral health. This second floor space offers more areas for gathering in groups for communication amongst one another and areas of private reflection.

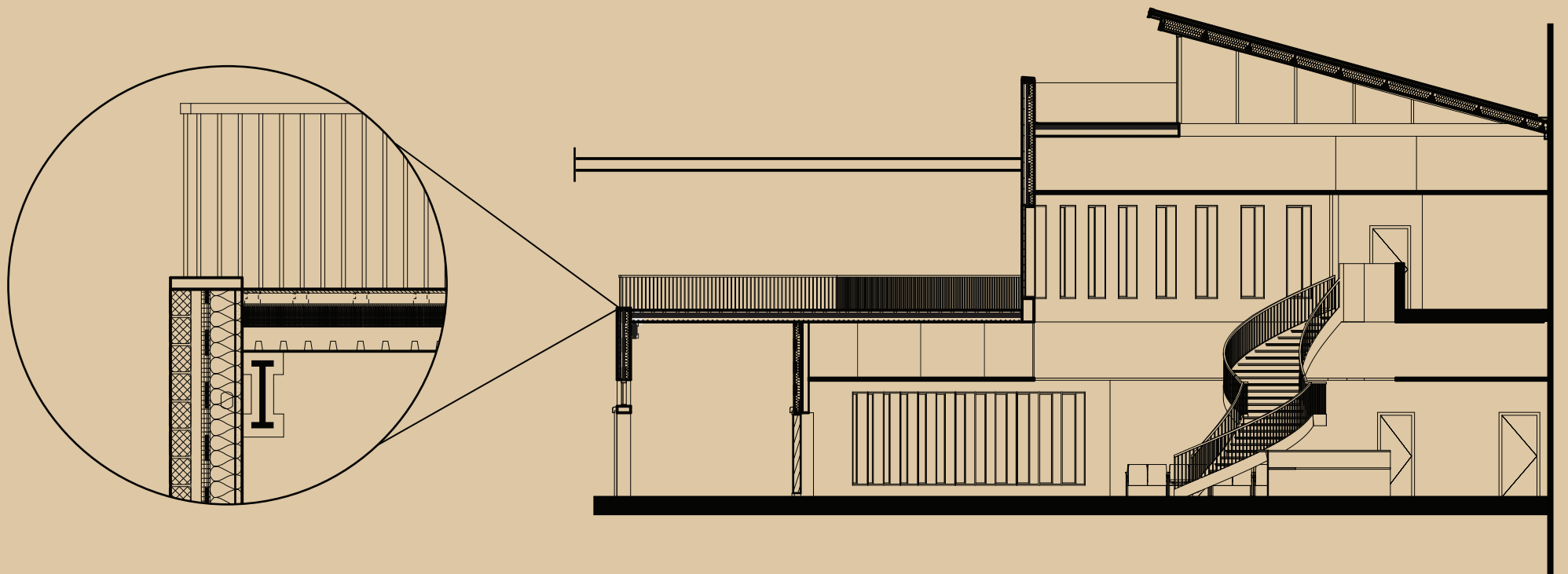






## MAIN LOBBY ATRIUM

The second space I wanted to focus on was the main lobby from the East entrance. When entering you move from a lower ceiling directly into a large open space that becomes a wayfinding marker for the building. Here is where we can make the direct connection from the first to the second floor. Natural light comes in through many points of this space especially the angled ceiling. This is so there is a direct connection to nature and its healing. There is an incorporation of natural materials such as rammed earth, native woods, and natural colored stucco. This keeps the space lite, open, and cozy for new patients, visitors, and staff. The curvature of the information desk and the stair case helps promote directionality when someone enters the building. Lastly, was an incorporation of Native American art. Their art is how they begin to connect with those who don't tend to understand their culture, so providing space for paintings, vases, jewelry and other cultural representations help influence learning.

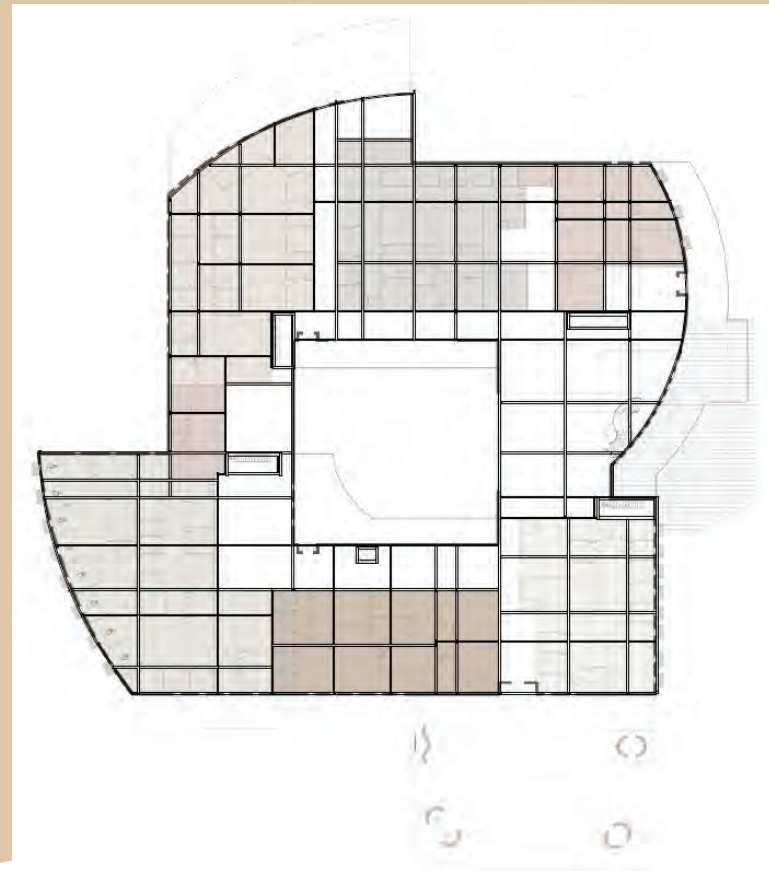
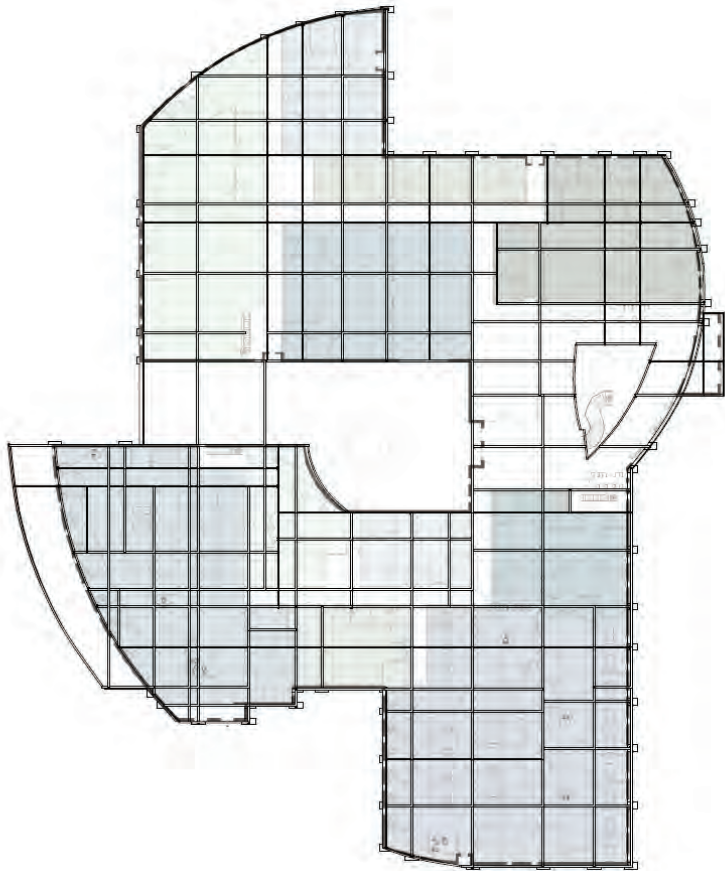


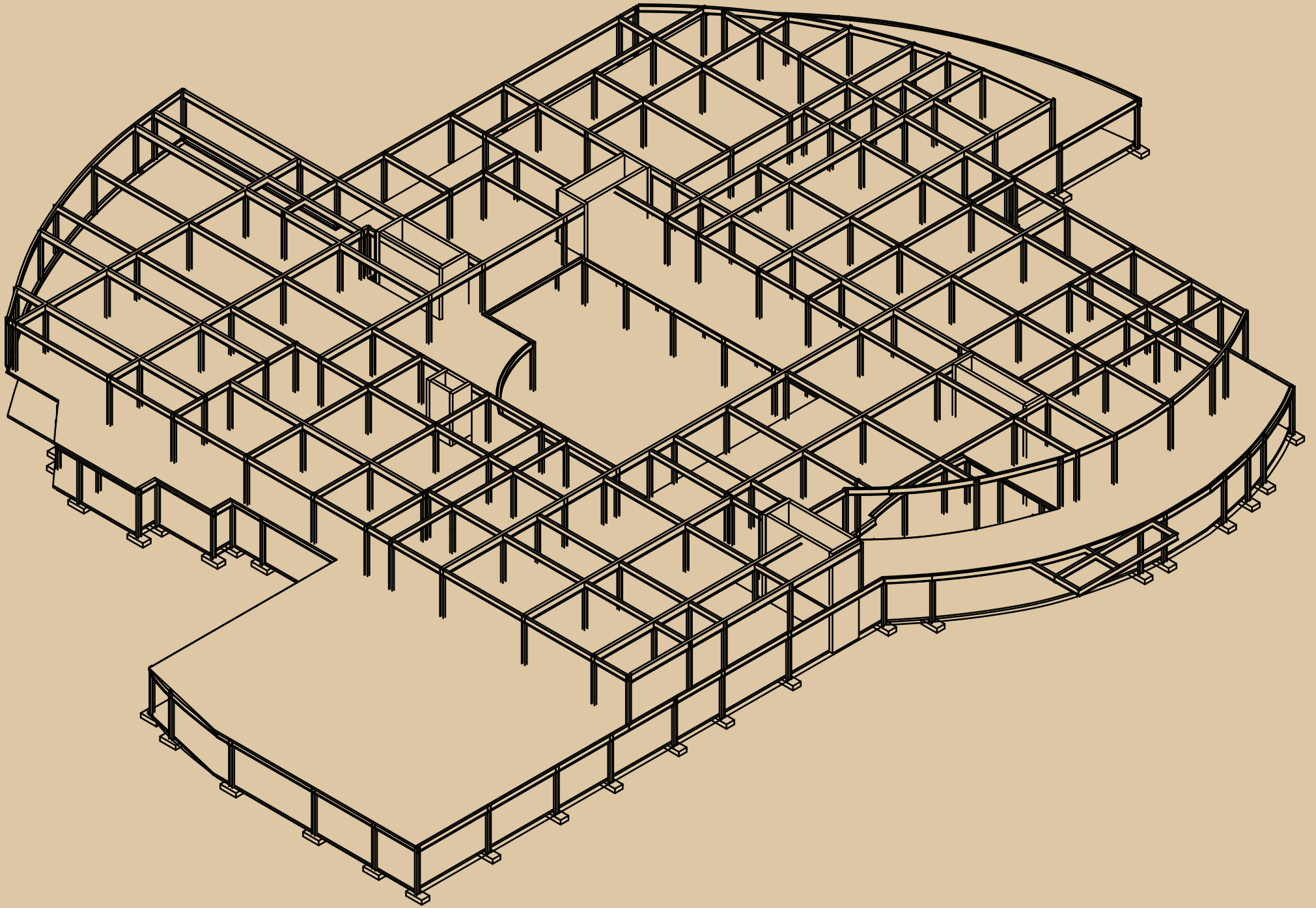


Main Lobby: Shown from the main entrance point of view like you are walking into the building.

## STRUCTURE

For the climate in Arizona and the longevity of the clinic, steel structure with concrete slab seemed to be the most beneficial and widely used structure for clinic spaces in the area. The added advantage of using structural steel is first that the structure can stand for decades. This design also becomes more flexible for future development in the case of technological advances or different room uses. It also is durable and fireproof and is not affected by things such as termites. Steel has the highest strength to weight ratio so it is built to withstand the load of people and machinery needed in the hospital. Lastly, is the low impact on the environment that steel has. In Native American culture it is important to be mindful of the sustainability of the space you are creating so using recycled steel becomes more meaningful over say lumber construction.

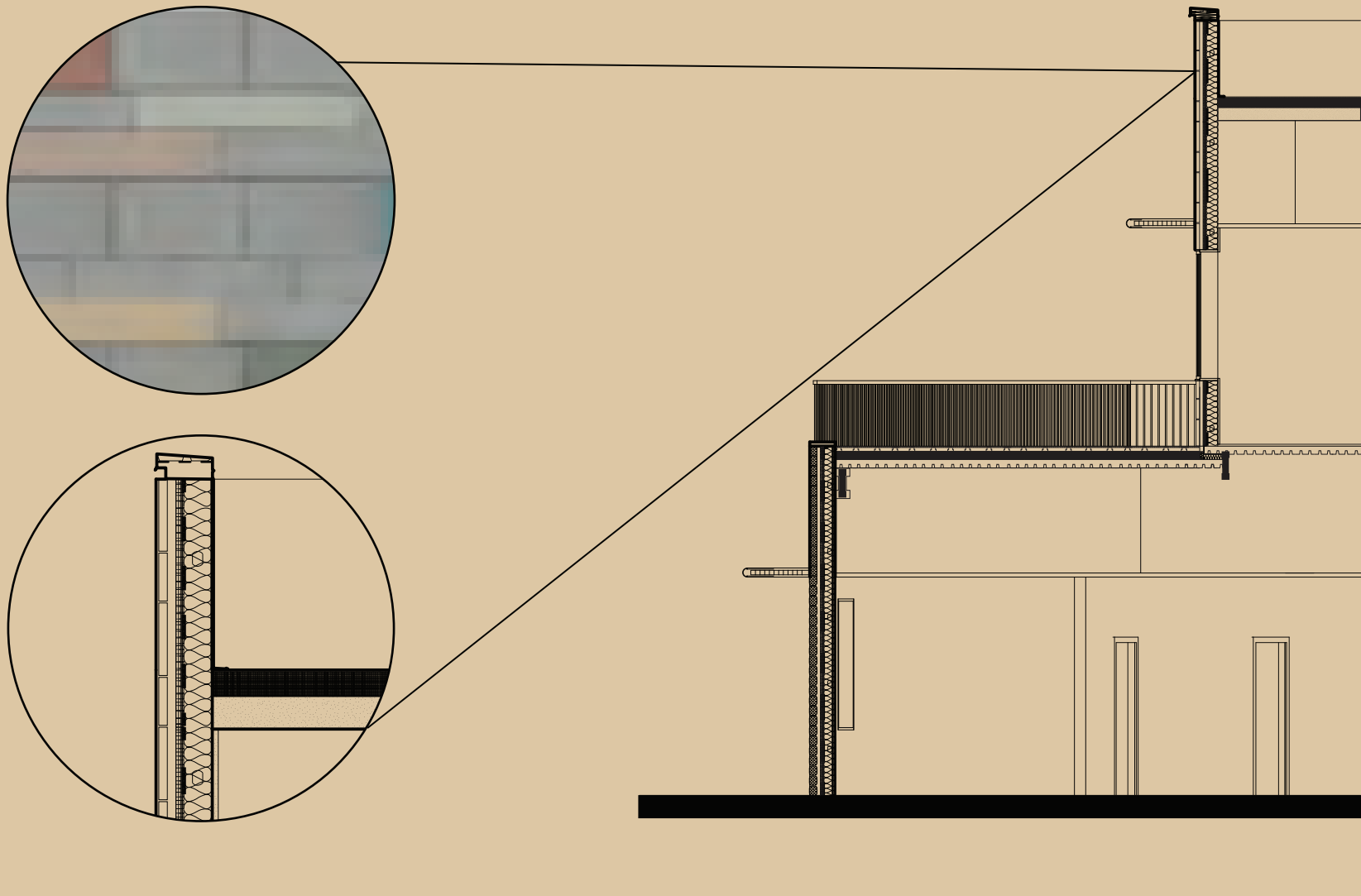




Perspective of the steel framing and the floor slabs of the clinic.

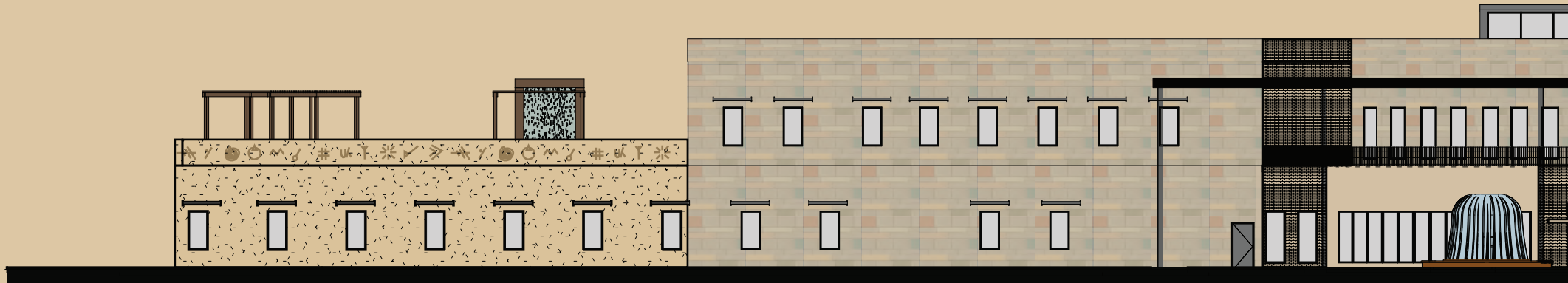
## EXTERIOR CLADDING

The last focus space is the exterior cladding of the clinic. It is important to think about the material choices in such a warm climate that also benefit the building sustainability. I decided to combine three different material choices which are aluminum cladding, ivory masonry, and a tan stucco. The coloring and pattern of the aluminum cladding were designed to coordinate with the colors of the natural landscape around the area including plants, the sky, and the earth. Using the different materials help make the two levels stand out while not being a large distraction on the surrounding land.



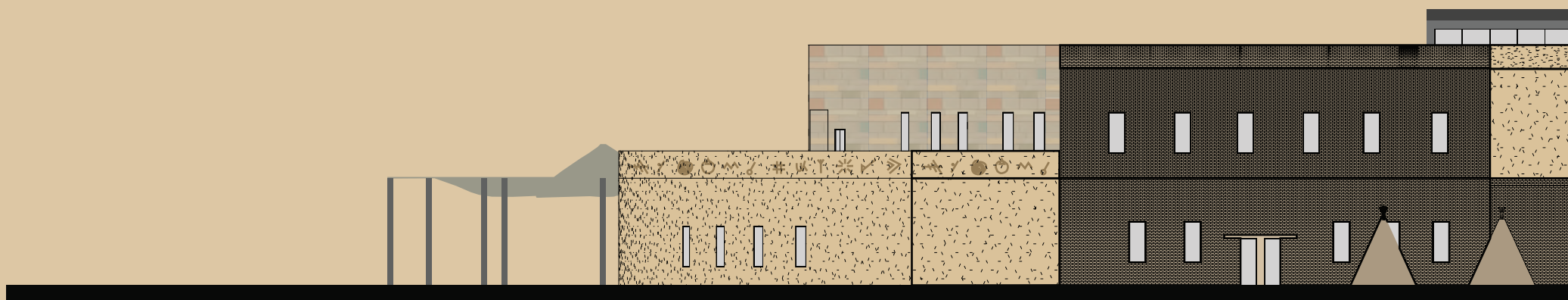


Exterior Perspective: comparison of the aluminum cladding against the light colored masonry.

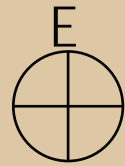
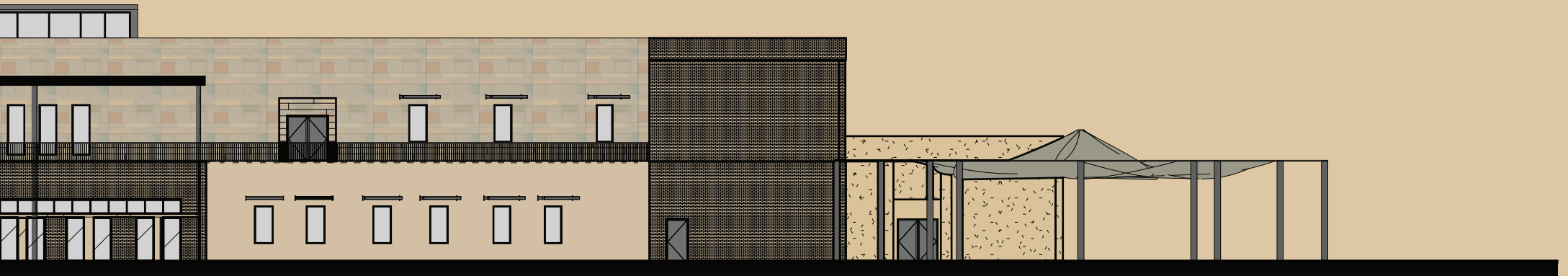


East Elevation: Shows the main entrance of the building along with the specific material choices for each portion of the building.

West Elevation: Puts emphasis on the traditional housing monument and the pow wow space.

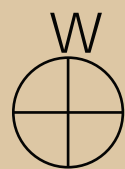
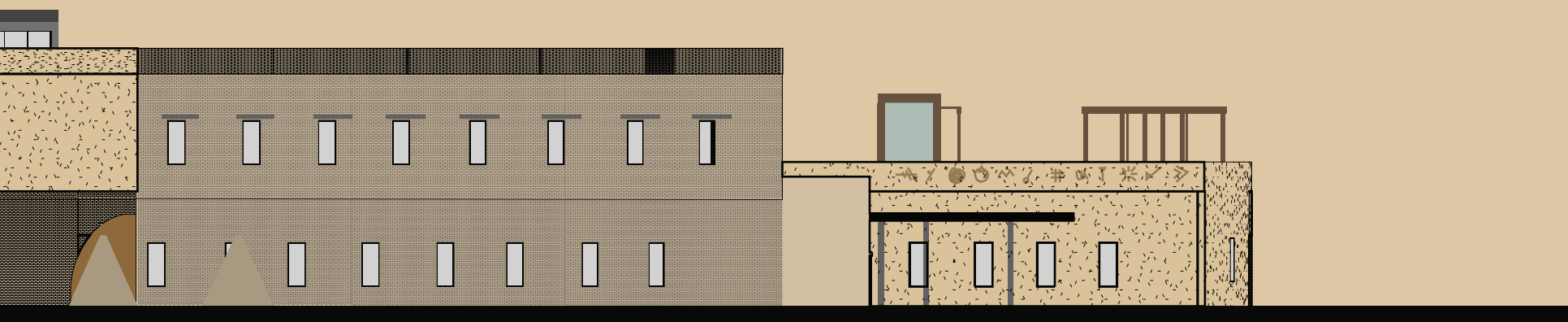






EAST ELEVATION

SCALE 1/8"=1'



WEST ELEVATION

SCALE 1/8"=1'

# 5

## CHAPTER FIVE

# CONCLUSION

CONCLUSION

## AFTERWORD

In answering the question in what ways can we incorporate Native American traditional healing and culture into the design of a western medicine outpatient clinic that helps promote health and wellbeing for all patients and staff, I concluded that my project overview would be as such. It would be a multifunctioning outpatient clinic that medically supported Arizona locals and Native American communities by providing health education, prevention, and physical, cultural, and spiritual healing. The main design goals that need to be achieved are an east facing entry (symbolizes harmony and healing), natural landscape (keeping all-natural land development and native plants), traditional healing (hogans, sweat lodges, onsite garden, and spaces to hold gatherings), and sustainable design (alternative/local materials, rain harvesting, solar, south facing windows, natural light). In creating a design that helps in reducing stress from a Native American standpoint would be community connection, cultural identification, spirituality, and family connectedness. Through other traditional techniques we can also reduce stress through noise control, window access, single patient rooms, flooring materials, and other specific designs like art, music, nature, and air quality.

## BIBLIOGRAPHY

- Stichler, Jaynelle & Hamilton, D.. (2008). Evidence-Based Design: What is It?. HERD. 1. 3-4. 10.1177/193758670800100201.
- Willis, D.J., Haldane, S., DeLeon, P.H., & Heldring, M. B. (2015). A policy article—personal perspectives on the public policy process: making a difference. *Professional Psychology: Research and Practice* . 45 (2). 143-151.
- Bailey, Patrick (2019). The health challenge of stress experienced by Native Americans
- Sanchez TR, Plawecki JA, Plawecki HM. The delivery of culturally sensitive health care to Native Americans. *J Holist Nurs*. 1996 Dec;14(4):295-307. doi: 10.1177/089801019601400403. PMID: 9146187
- Nahian A, Jouk N. Cultural Competence In Caring For American Indians and Alaska Natives. [Updated 2021 Aug 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK570619/>
- Posted May 20, 2019. (2019, May 20). Nature's role in American Indian culture. Faust Gallery. Retrieved March 22, 2022, from <https://www.faustgallery.com/natures-role-in-american-indian-culture/>
- Straits, Kee (2017). Native American Traditional Healing: Information and Ways to Collaborate for Western Medicine and Mental Health Providers
- Muscogee (Creek) Nation Community Hospital. 1Architecture, LLC. (n.d.). Retrieved March 22, 2022, from <https://www.1architecture.com/okemah-hospital>
- cjrw.com, C. J. R. W.-. (n.d.). Dilkon Health Center. Childers Architect. Retrieved March 22, 2022, from <https://childersarchitect.com/work/healthcare/dilkon-health-center/>
- Indian Health Services Rapid City Health Center. HKS Architects. (n.d.). Retrieved March 22, 2022, from <https://www.hksinc.com/what-we-do/case-studies/indian-health-services-rapid-city-health-center/>



## ABOUT ME

Historically speaking, civilizations are identified using their architecture and engineering achievements. A lot of architectural design and engineering of buildings to date, remain a mystery. A mystery that is intriguing to me as a young woman craving creativity. Providing a service to others has long been another passion of mine. Many people do not view architects and engineers as those who provide service to their community, like say a police officer would, when in fact they spend their entire career doing so. The profession can find themselves in product, furniture, interior, building, and infrastructure design. This passion encompassed with my desire to help people is what brought me to attain my certificate in Healthcare Design along with my Master in Architecture in the Spring of 2022. Healthcare design affects everyone, and I am so excited to be able to have the opportunity to serve something more than myself. I am a first generation college student that attended Texas Tech University for three semesters enrolled in their Architecture program, where I was awarded the Deans List. I then transferred to Texas A&M University as a sophomore where I graduated with my Bachelors Degree in Environmental Design through the school of Architecture in May of 2020.

I am so thankful to my parents and my professors for helping me along this journey and in receiving this amazing opportunity to be apart of something bigger than myself. I cannot wait to apply my knowlegde within my future career.



