

THERAPLAY INVESTIGATION

ERIN LYDAY | FALL 2020 | STUDIO 5 | THERAPLAY PROJECT

SENSORY SIGN [CONCEPT]

SENSORY SIGN:

The sensory sign will be located at the entrance of the barn and is going to be a piece that will help build the confidence of patients prior to riding a horse. The sign will have all components to a horse that are important for patients to learn about. The sense of touching and feeling the horse's gear will give them a sense of comfort and confidence.

COMPONENTS:

- **Horse Mane:** A tassel of faux horse hair will dangle off of the chair to tie in the element of a horse's mane. This will give the patient confidence to brush and pet the horse when approaching it.
- **Horse Shoe:** A horse shoe will be on one end of the chair's arm to provide the patient with a major component to how a horse is able to walk. This might provide the patient with confidence and hope for themselves.
- **Safety Stirrups:** Adjustable stirrups will allow patients to practice putting their feet in stirrups prior to riding a horse. This is also a way for the patients to relax and stretch out their legs if possible.
- **Saddle Leather:** The material of the cushion and the back of the chair will be made of a leather that is similar to the saddle for the patients to get used to what they will be sitting on while riding.
- **Horse Bridle:** The arms of chair will be wrapped in the same materials of a horse bridle - similar to rope. This will get patients comfortable to the material of what they will be holding onto while riding a horse.
- **Dirt:** The chair will be placed in a box with dirt in it to make the patient feel like they are in the barn while sitting on the piece of furniture.



SENSORY SIGN

[CONCEPT]



DIRT

LEATHER

BRIDLE/
ROPE

HORSE
HAIR

HORSE
SHOE

IOS RANCH - BAINBRIDGE ISLAND, WA

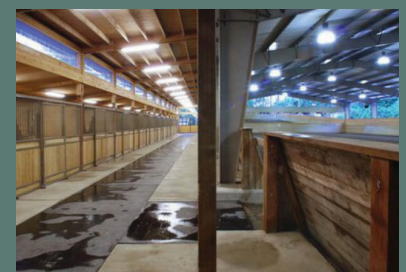
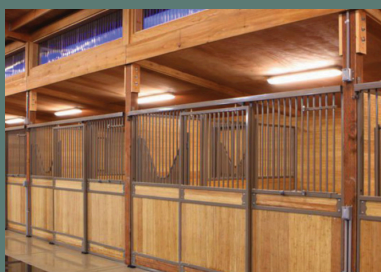
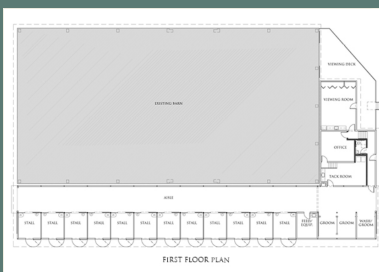
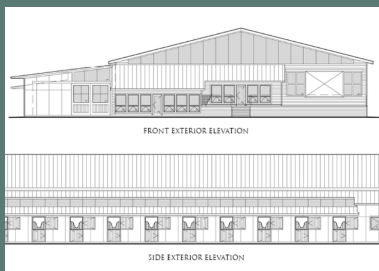
[RESEARCH]

CASE STUDY

OVERVIEW:

The existing ranch needed renovation in the training barn and replacement of stalls and support facilities. The new aisle, stalls, groom, tack, feed, office and viewing room are designed to be constructed adjacent to the existing steel covered arena. The site provided opportunity to incorporate both active and passive solar design into the structure. South facing glass walls were added into the design for the viewing room and to add the appropriate thermal storage in masonry mass and appropriate insulation to create a design that will keep occupants comfortable and lower energy costs. The stall walls are lined with bamboo wood which is a renewable resource. This project was completed in 2011.

(Ios Ranch, n.d.)



USE OF HIPPO THERAPY WITH A BOY AFTER TRAUMATIC BRAIN INJURY [RESEARCH]

CASE STUDY

OVERVIEW:

This case study is over a 13-year-old boy who went through a traumatic brain injury. Just 6 months after his injury he decided to go through hippotherapy. He received great improvements after his sessions including better balance, strength, gross motor skills, gait speed, functional mobility, and active participation. The hippotherapy had a very positive impact on this 12-year-old boy. The non therapy atmosphere of the barn environment along with the opportunity of animal engagement has positively affected John's motivation of therapy, self-esteem, confidence, and subsequently his participation in non therapy activities. Over the course of John's sessions he became comfortable to feed, brush, pet and care for the horse. Before hippotherapy, John had many limitation that kept him from being able to attend school, socialize with his peers and sibling, and participate in family outings/chores at his prior level.

WHAT IS HIPPO THERAPY:

Hippotherapy is a type of therapy that includes the movement of a walking horse to facilitate response from the person on the horse, and address functional goals. It is known to improve posture and balance through movements transmitted from the back of a moving horse to an individual positioned on the horse's back. In hippotherapy, the rider makes no attempt to control the horse and instead, each step the horse takes, the ride reacts to the 3-dimensional movement. Hippotherapy is known the improve self-esteem, confidence, trunk posture, stability and many more. There has also been studies to show that hippotherapy has improved mental health compared with traditional physical therapy.

(Erdman, E. A., & Pierce, S. R., 2016)

FURNITURE

[RESEARCH]

IMPORTANCE OF FURNITURE:

The placement of furniture can greatly impact how people feel when entering your space. It is a way to test different configurations to see what is most inviting and flows well for the patients. A study done by art of feng shui says that minimal clutter and open air and light are key to a healthy healthcare environment. Most therapy facilities find it beneficial to have seats that face each other directly. Another key component to furniture arrangement is having the patients face the door so their feelings of safety and security are increased. When deciding finishes for a therapy facility, choosing clean lines and wood finishes helps create a professional look without being cold. It is important to avoid the use of glass table tops and steels. Bookcases often remind patients of professionals which can also create a sense of security. As an additional benefit, it can display resources you the therapist may wish to use during a session.

TYPES OF FURNITURE & DECOR:

Adjustable chairs and table are very important in rehabilitation facilities to accommodate for all. Chairs also needs to be at an appropriate height where patients they allow patients to stand on their own. Handholds need to be located everywhere to help with balance and stability throughout the common area. Studies have shown that indoor plants can make people feel relaxed and comfortable. The geometric features and interesting shapes can offer a calming effect for people to focus on. Artwork is another enjoyable way to decorate with positive impact on the patients. It is important to avoid prints that include people are distinct narratives. Abstract artwork is the most soothing and least distracting. Peaceful landscapes offer a high therapeutic comfort. Research as shown that fish tanks facilitate the type of therapy you practice. Artwork and soothing decor are great ways to brighten up the mood and uplift a dark office.

(Lighting Design for Behavioral Health Facilities, 2018)
(What to Look for in Furniture for Rehabilitation Facilities., 2017)



COLORS

[RESEARCH]

IMPORTANCE OF COLORS:

Color therapy is used as an alternative healing process. It can heal physical and emotional problems within the human body. The goal of color therapy is to correct any physiological and psychological imbalances. It is used to soothe and regain energy without having to physically do anything except be surrounded by or even seen a specific color.

POSITIVELY IMPACTING COLORS:

BLUE: Blue is a color that can zap energy if someone is feeling low. It helps express feelings and can help calm the body creating peaceful and relaxed feelings. It is very soothing and lowers your heart rate, helps alleviate tension, stress, and immune system problems. It is a symbol of the sky and the sea.

YELLOW: Yellow is an aid for digestion and acts as a cleanser for the body. It also helps relieve arthritis. Yellow also brings energy and encourages actions making someone feel happier. Although yellows can bring out someone's intelligent and wisdom, too much yellow can be associated with cruelty and betrayal.

GREEN: Green is known for its balance and harmony. It is good for heart and blood problems. Color therapists usually consider green the safest color and typically start color therapy with it. It is a mood improving color when feeling depressed or hopeless.

ORANGE: Orange signifies an increased feeling of connectedness between someone's mind and body. Orange gives vitality to the body. It increases mental energy and revitalizes someone's well being. Therapists avoid this color if you are prone to anxiety.

PINK: Pink is a very calming color that is often used in healthcare facilities to enhance the healing process.

(Dzidefo, A., 2019)
(Gaylen, W., 2018)



LIGHTING

[RESEARCH]

IMPORTANCE OF LIGHTING:

Lighting can make or break a patient's healing experience. It is important to establish an environment that includes both natural and artificial light. The intensity, brightness and color of the light all play a role in the healing process of most patients. Parke from Lighting Design for Behavioral Health Facilities says, "We use a blend of light fixtures and a range of intensities, each area of a behavioral health facility might call for different lighting throughout the day, and achieving the ideal lighting scheme requires careful calibration."

TYPES OF LIGHTING:

Natural lighting is an important component to promoting natural healing on patients. It provides a homelike feel and helps all patients feel more at ease in a clinical setting. Although depending on the time of day, sometimes it can be too much. Subtlety is key. Daylight is superior for tasks as it offers no glares. When artificial lighting is needed, it is important to focus on the hues and intensity. Cool hues are recommended for behavioral health facilities; research shows blue light reduces violence and agitation and promotes healthy sleep patterns. Amber lights are often used for nighttime illumination in other healthcare settings, but blue is preferred for behavioral health patients. The intensity of artificial lighting is also important in therapy facilities as its effects are tied to the wall colors.

Indirect lighting is key when choosing artificial lights as it doesn't cause glares or any harsh shadows. It is also more diffused and can come across as much relaxing.

(Impact of Light on Outcomes in Healthcare Settings, n.d.)
(Lighting Design for Behavioral Health Facilities, 2018).



WAYFINDING

[RESEARCH]

IMPORTANCE OF WAYFINDING:

Patients often have a heightened anxiety when entering a therapy facility. They are often understand enough stress that wayfinding shouldn't be a worry. Whether they are edlerly or from the younger generation, wayfinding should be universal to all ages to avoid frustration and the fear of getting lost.

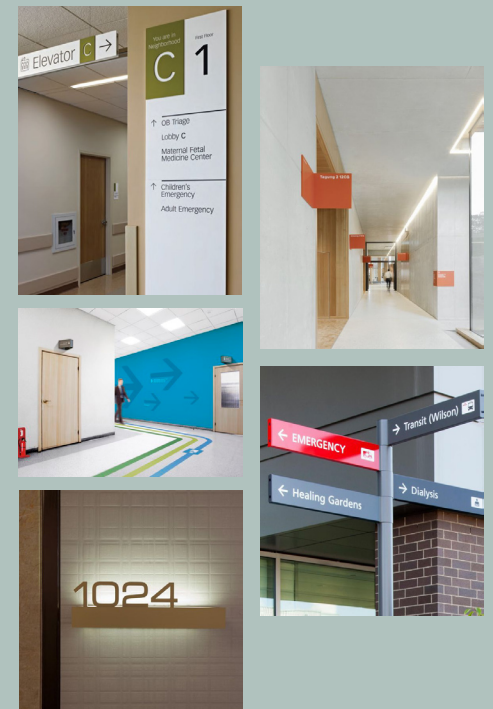
TYPES OF WAYFINDING:

There are three different modes of wayfinding; exterior vehicular, exterior pedestrian, and interior pedestrian. Within the three different modes there are types of wayfinding signage; identification, directional, informational, and regulatory. Identification is the most common type of signage as it tells people when they have arrives to their destination. Directional signage helps people get to where they are supposed to be going. Informational signage is best places in an area with broad exposure to provide information that pertains to the facility.

WAYS TO INCORPORATE WAYFINDING:

When providing wayfinding, it is important to only provide the necessary information. Interactive kiosks are a great way to provide information and directions in a facility because the information can easily be updated and the kiosks can also provide temporary information and messages. When adding wayfinding into a therapy facility, it is important to avoid any specialized medical terms so the client doesn't feel like he or she is in a healthcare facility. Another engaging way to incorporated wayfinding is through visuals and color-coding. Visuals allows the signage to be universal to all ages and avoid any language barriers. Color-coding is a way to engage younger generation to find things on there own by remembering specific colors to specific rooms. This is a way to give children more confidence is secondary locations. Lastly, ceiling and flooring movement is an extremely effective way to incorporate wayfinding as it will guide patients through a space without signage. This practice feels less like a healthcare facility and more like a home.

(A Practical Guide to Hospital Signage & Wayfinding, 2020)
(Sheynkman, A., 2020)



ACOUSTICS

[RESEARCH]

IMPORTANCE OF ACOUSTICS:

Acoustics are an extremely important consideration in healthcare design. Supporting the patient's well-being and privacy, supporting communication among staff, and meetings standards and regulations such as HIPAA. The importance of sound to patients can make or break their experience. Maintaining speech privacy in therapy facilities helps reduce medical errors as it supports open conversations among patients, families, and therapists. If patients are not confident that they have complete privacy, they may hesitate to provide complete information about their conditions and concerns. Acoustic levels in hospitals today are very high. The sound pressure levels have risen significantly to 0.38 dB in the daytime and 0.42 dB in the nighttime. Sudden noises can set off startle reflexes and can lead to increased blood pressure, and higher respiratory rates for patients. Prolonged loud noises can lead to memory problems, irritation, impaired pain tolerance, and perceptions of isolation.

TYPES OF ACOUSTICS:

- Cisca - Ceilings & Interior Systems Construction Association
- Rockfon Acoustics
- Armstrong

(Acoustics in Healthcare Environments., n.d.)



MATERIALS

[RESEARCH]

IMPORTANCE OF MATERIALS:

Deciding which materials are best suited for the patients can be overwhelming because materials are not a one-size-fits-all. It is important to pick something that is not only aesthetic but also durable.

TYPES OF MATERIALS:

When choosing a material for the walls there are many considerations. It is important to have a scrub resistance of Class 1 and hygienic wall coatings. The material also needs to be highly flexible that can withstand expansions, contractions, and cracking. Some options for the floors in therapy facilities are luxury vinyl tile, sheet vinyl, vinyl composition tile, rubber, linoleum, welded sheet rubber, dri fit tape, and two-part urethane epoxy. It is very important to choose materials that are water-resistant, easy to clean, and nonslip.

(Design in Healthcare, n.d.)
(Sika Group, 2019)



FONTS

[RESEARCH]

FONT STYLE:

- In general, children with Autism can easily read text if it is written in any of the Sans Serif fonts below:

Comic Sans

Garamond

Helvetica

Verdana

SIZE OF FONT:

- When choosing the font size, it is important that the font is at least 18 in size. In general the larger the font is the easier it is to read.

(Autism and the Assembly, n.d.)

SITE ANALYSIS

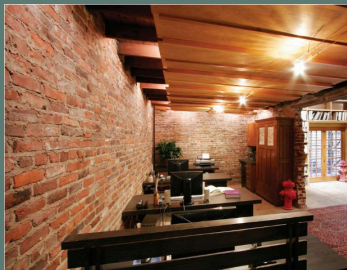
ELEMENTS IN THE FLOOR PLAN:

Some important elements in the floor plan include: reception desk, donor wall, graduation tree, proposed furniture layouts for offices, reception, waiting area, and party area. The entrance from the therapists is on the South side and has a large storage area for personal items. A barn style door is added for additional security and aesthetics. They are wanting very natural materials throughout the space. The reception and waiting area is designed to be very colorful and exciting for the children entering. Wood material is used throughout the space to play into the natural theme. The wood can be adapted to look like a horse stall door to further develop the theme. They are looking to incorporate lots of wood elements. The donor wall and graduation tree will be located in high traffic areas on the way to the parents restrooms and viewing area.

OVERALL STYLE



OFFICE AREA



PARTY AREA



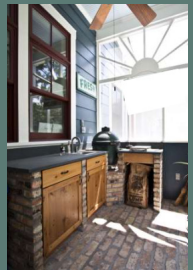
ARENA



OUTSIDE



STAFF LOUNGE



OBSERVATION

ROOM NAMES:

- Speech Room
- Life Skills Room
- Kiddo Friendly Restroom
- PT Evaluation Room
- Sensory Gym

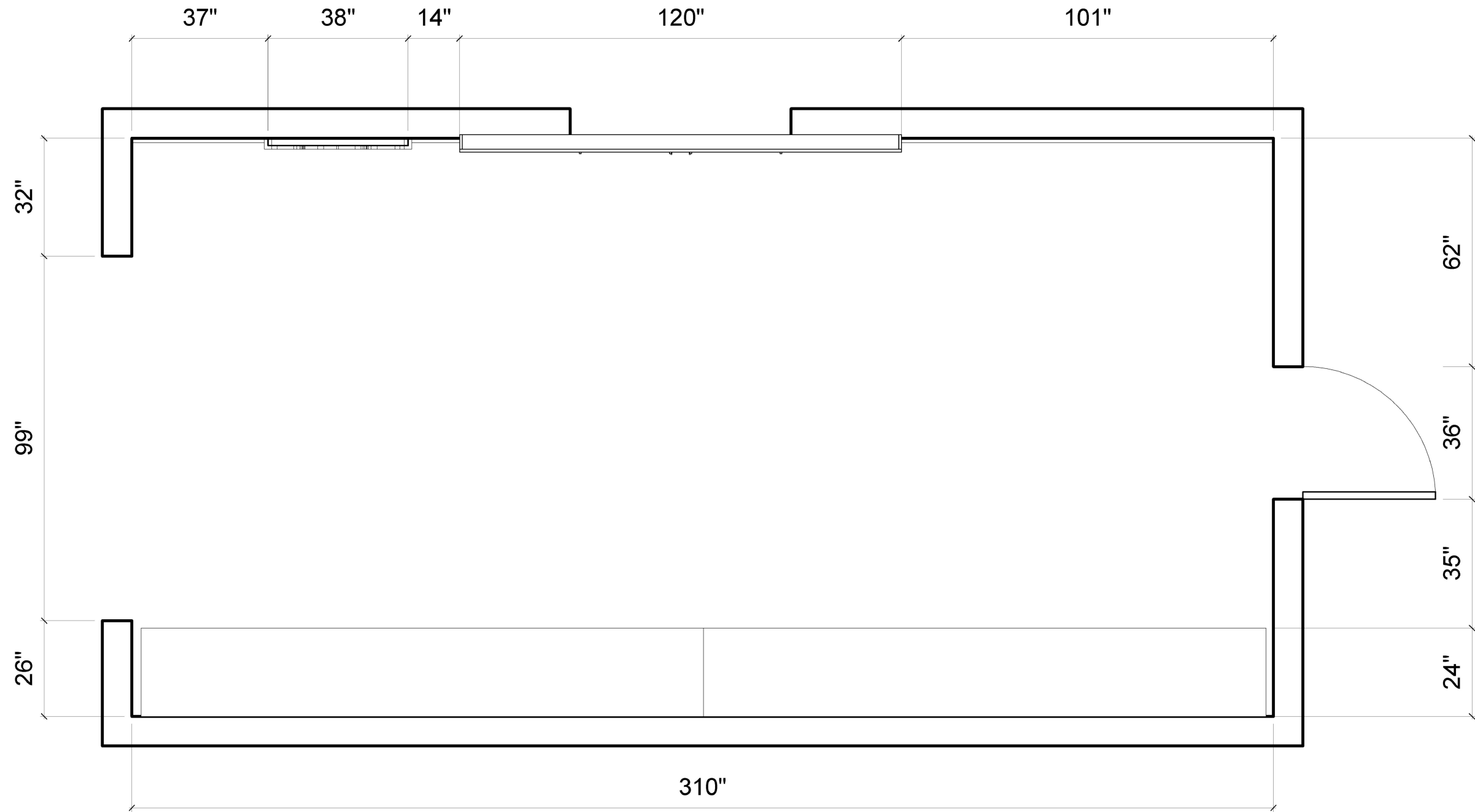
OBSERVATION #1 COMMENTS:

My first observation experience was extremely helpful and beneficial to this project. I started by observing a patient in the gym. I was able to observe the behaviors he was performing in front of the therapist. I also picked up on what words and actions were beneficial to the patient if they had been acting up or not listening. The second half of my experience was me observing the patient while riding a horse. I was very impressed and intrigued at his reaction to the new environment. It led me to understand how helpful Hippotherapy is for the patients

OBSERVATION #2 COMMENTS:

My second experience was more focused on the patients interaction with all the furniture and toys. I found this step also very helpful as I was able to observe what they held onto for support and what they didn't prefer. The patient that I was observing first played on the swing for the majority of the time I observed. He held onto the rope for extra stability and sat on the carpet swing. The materials didn't seem to bother him or effect his actions. The second patient that I observed was in a wheelchair and was coloring. The piece of furniture that she used was a table on wheels that would fit over her wheelchair. It was extremely efficient and helpful. She was able to role her legs under the table without a problem. The moveable table was made out of wood and the patient didn't have a problem with the color or texture of the table.





① Level 1
3/8" = 1'-0"

EL

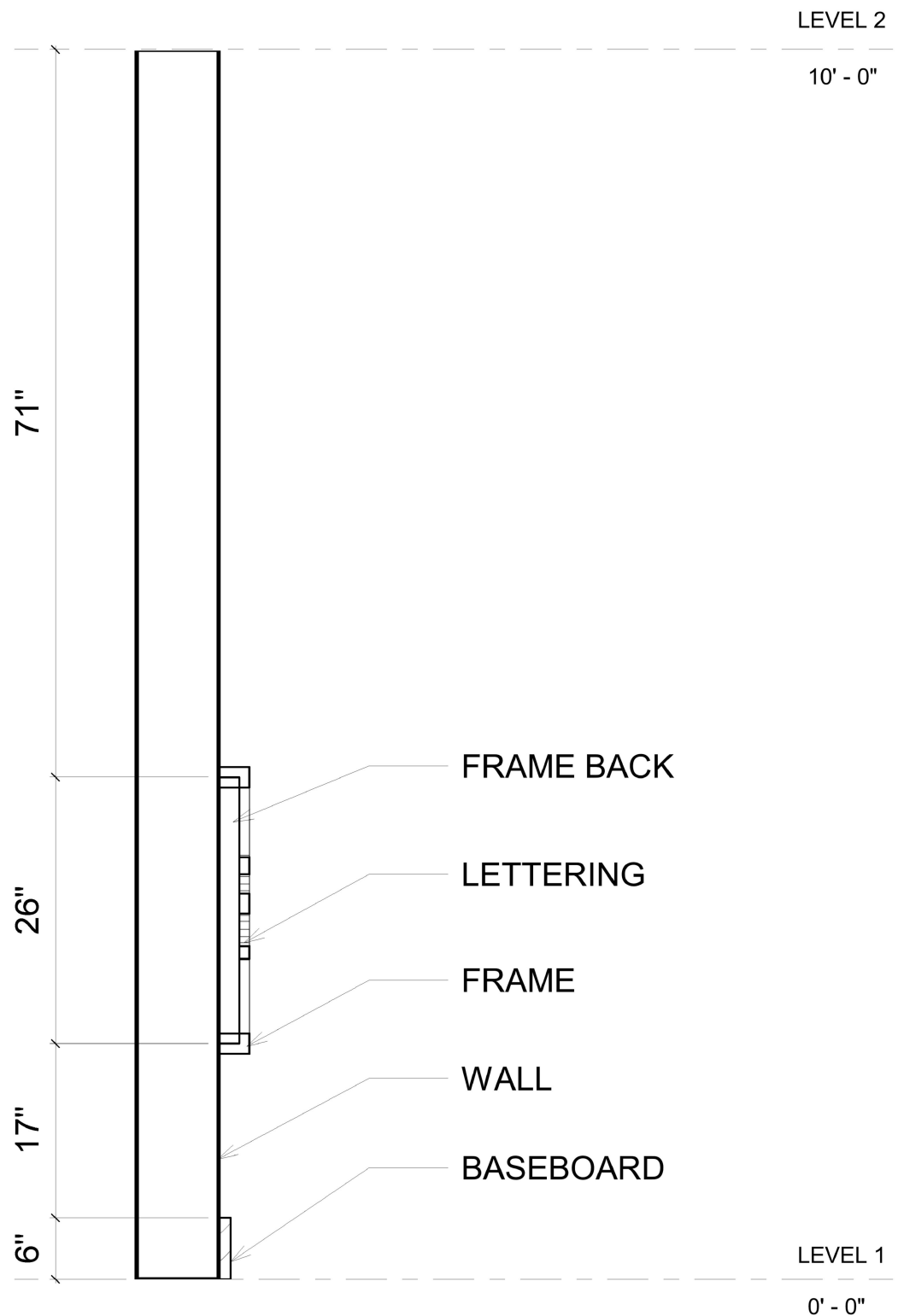
**THERAPLAY
FINAL PHASE**

FLOOR PLAN

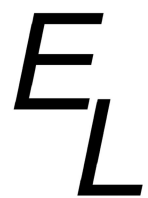
Project number FINAL
Date FALL 2020
Drawn by ERIN LYDAY
Checked by SHIREEN KANAKRI

A1

Scale 3/8" = 1'-0"



1 Section 1
3/4" = 1'-0"



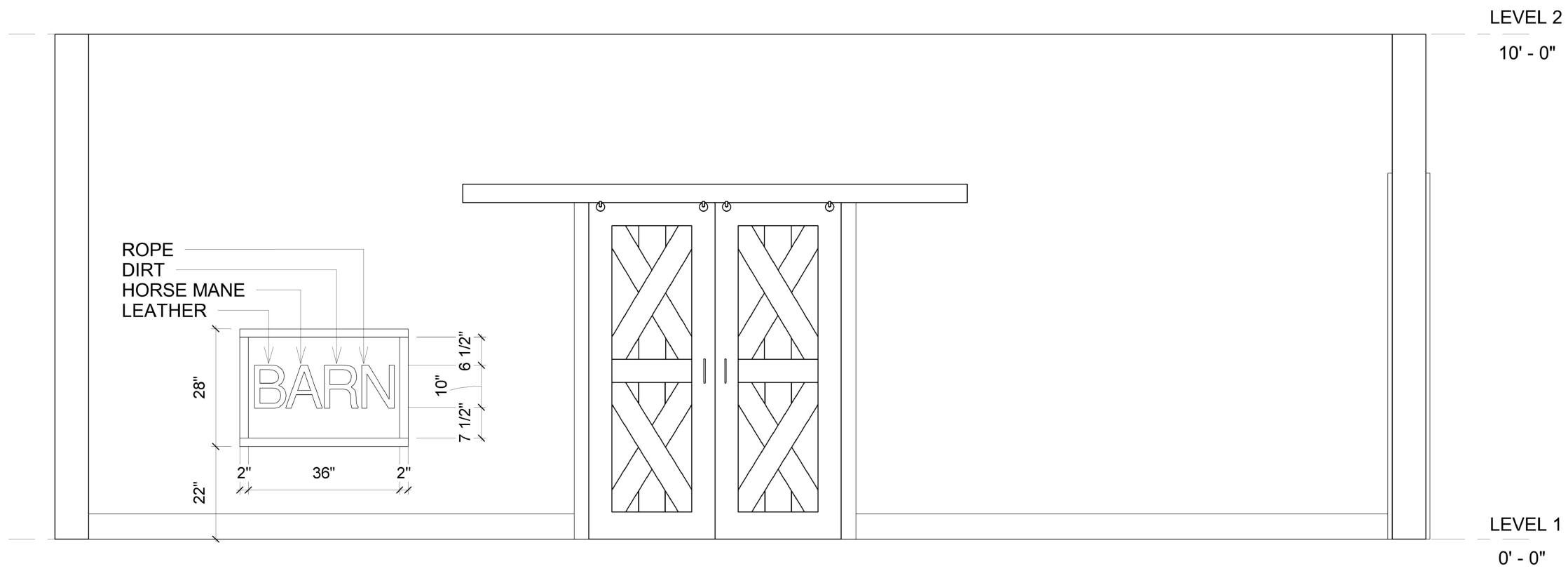
THERAPLAY
FINAL PHASE

SECTION

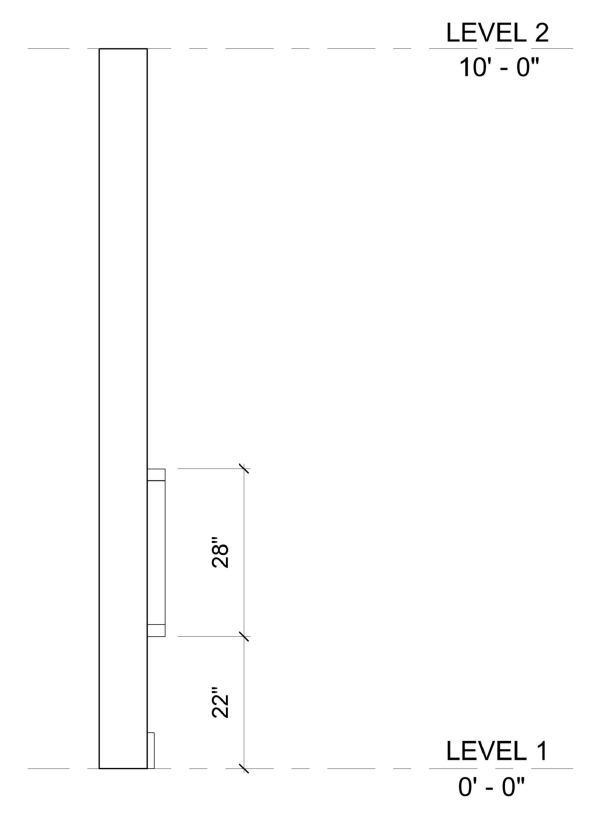
Project number	FINAL
Date	FALL 2020
Drawn by	ERIN LYDAY
Checked by	SHIREEN KANAKRI

A2

Scale 3/4" = 1'-0"



1 South
3/8" = 1'-0"



2 West
3/8" = 1'-0"

EL

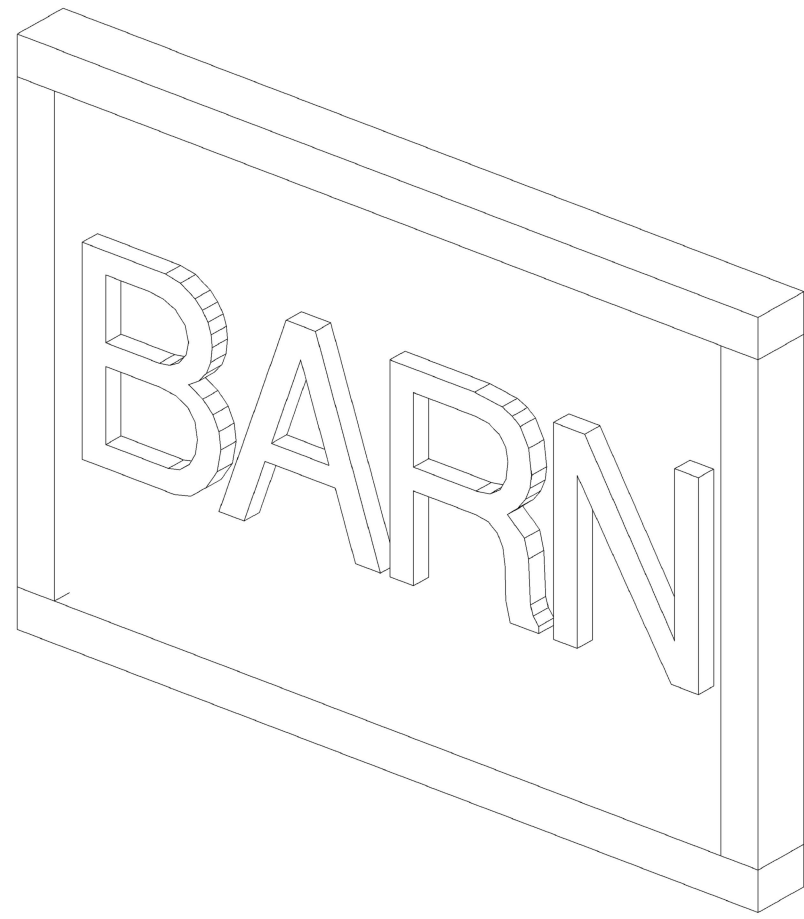
**THERAPLAY
FINAL PHASE**

ELEVATIONS

Project number FINAL
Date FALL 2020
Drawn by ERIN LYDAY
Checked by SHIREEN KANAKRI

A3

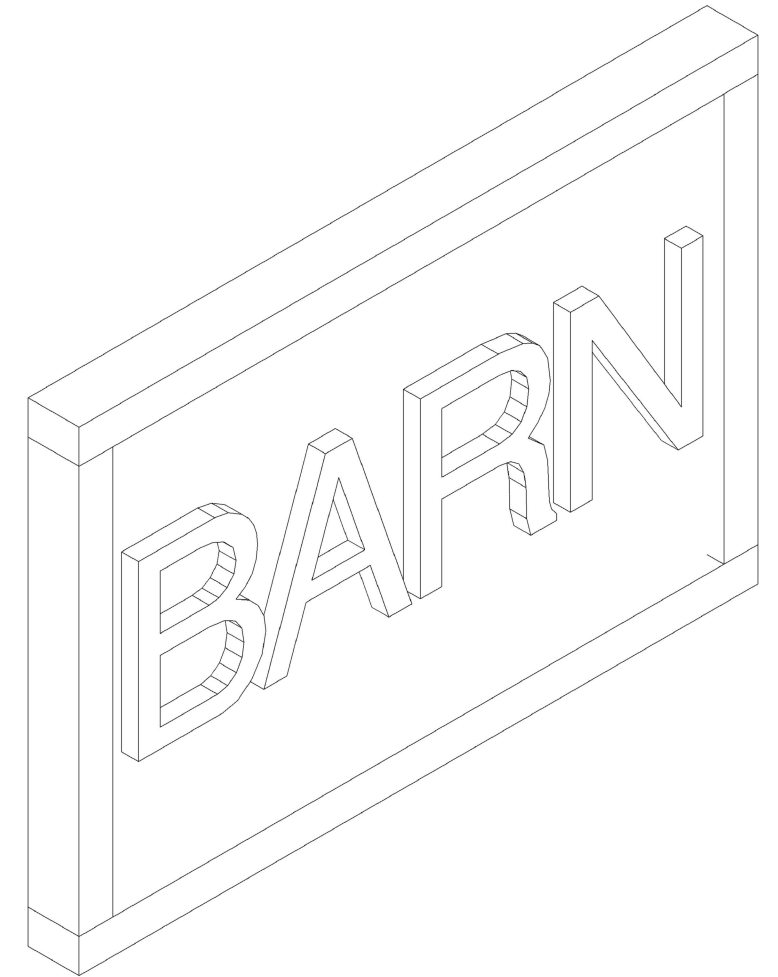
Scale 3/8" = 1'-0"



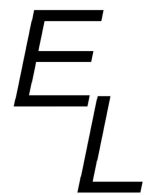
1 ISONOMETRIC 1



2 ISONOMETRIC 2



3 ISONOMETRIC 3



THERAPLAY
FINAL PHASE

ISONOMETRIC

Project number	FINAL	A4 Scale
Date	FALL 2020	
Drawn by	ERIN LYDAY	
Checked by	SHIREEN KANAKRI	

SENSORY SIGN



[PERSPECTIVES]

SPECIFICATIONS

MATERIALS:

- LEATHER: 6922316 Carroll Leather GALVES - <https://www.decorativefabricsdirect.com/Carroll-Leather-GALVESTON-SANDLEWOOD-p/6922316.htm>
- HORSE MANE: Horse Mane Hair - <https://prairieedge.com/black-or-white-horse-hair/?sku=cs-horse-mane-hair-white>
- DIRT: Fill Dirt - https://www.evergladesfarmequipment.com/sand-and-soil/fill-dirt/?utm_source=LSI&utm_medium=redirect&utm_campaign=16
- ROPE: New England Ropes-Vintage Three-Strand Line - <https://www.westmarine.com/buy/new-england-ropes--1-2-vintage-three-strand-line-sold-by-the-foot--P012805966?pCode=12805974>
- HORSE SHOE: 1 in. x 72 in. Plain Steel Flat Bar with 1/8 in. Thick - <https://www.homedepot.com/p/Everbilt-1-in-x-72-in-Plain-Steel-Flat-Bar-with-1-8-in-Thick-801027/204225737?source=shoppingads&locale=en-US>

FABRICATION:

- Glue will be used to attached the textures to the wood base. In case the materials on the letter start to wear, glue will allow you to easily replace the texture.

CITATIONS

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