LANDSCAPE ARCHITECTURE

PORTFOLIO

PREFACE

The following work is a selection of projects I have completed during my career as a landscape architect at SWA and LJA, as well, as work completed through my time as a student at Texas Tech University. During my career in landscape architecture my focus has been to create designs that intersect Art and Ecology. My passion has always been in the process of design. I hope to take this passion and knowledge of design to create realistic and immersive experiences in video games. I have always dreamed of creating games that make users feel intense emotions throughout the story. I have always seen a future in creating video games and contributing to an industry that has been my escape, since I can remember. I didn't chase this dream until I looked at my son and realized I wanted to set an example for him, and show him that anything in the world is possible, no matter the hardships you are the only person that controls your own destiny.

It matters not how strait the gate
How charged with punishment the scroll,
I am the master of my fate
I am the Captain of my Soul.

INVICTUS
William Ernst Henly

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CADENCE

PROJECT INFO

COMPANY: LJA ENGINEERING

ROLE: LANDSCAPE DESIGNER

LOCATION: NORTH TEXAS

PROJECT GOAL: Leading the design team, we were tasked with creating the themeing and design for this sprawling housing development in North Texas. Starting from scratch with just a word "cadence" and existing site, I was tasked to create rendered perspectives for the client. I began by sketching preliminary thoughts and carried thses ideas into AutoCAD and Sketchup, as well as, creating the presentations for the client to gain their support to move forward with this option.

CREATING DESIGN
A NAME AND SITE

CADENCE noun
cadence

- the beat, time, or measure of rhythmical motion or activity
- a rhythmic sequence or flow of sounds in language
- a regular and repeated pattern of activity

CREATING FORM

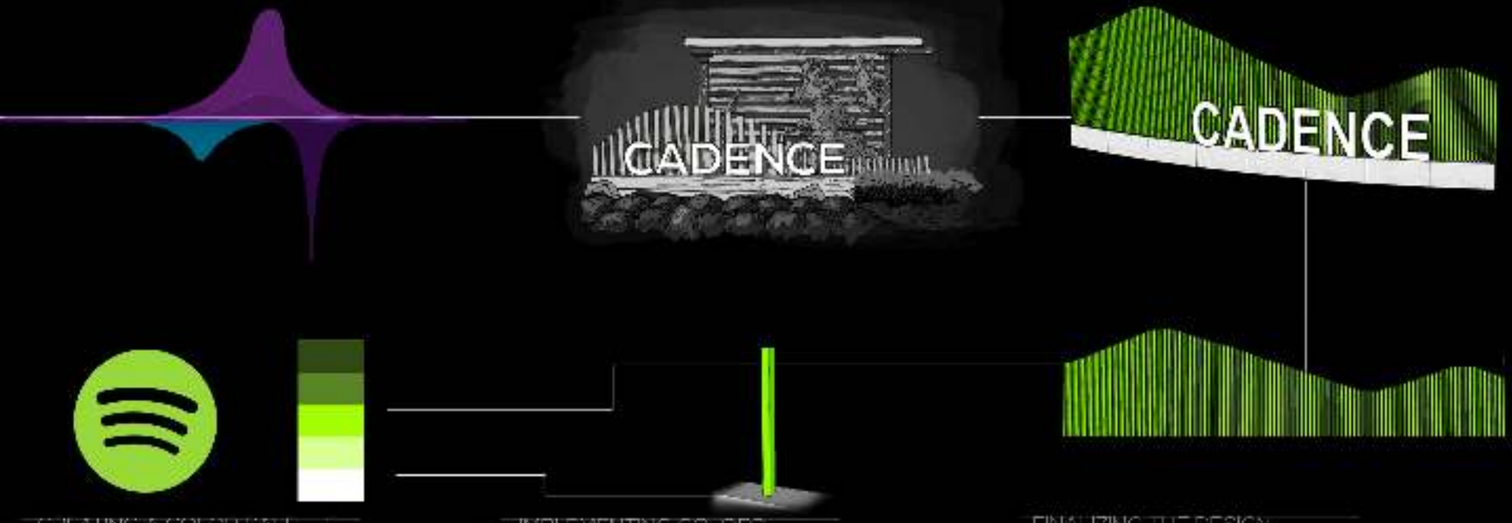
When thinking of a cadence, what comes to mind? The beat? The rythm? Or is it the pace? With so many different ways of interpreting the word, I took a broader approach by using the form songs create through soundwaves. I overlayed a color used by Spotify for their logo, a streaming app that has become a pillar in the Music Industry.

SKETCHING

Building upon the inspiration, I began sketching multiple different options to show how we could create a beautiful environment for users. These designs can manifest in the broad strokes of the designs or in the small details scattered around the site.

3D MODEL

After you workshop the idea through different sketches, the next step is to take the design into AutoCAD and SketchUp to model the site. This process is always bouncing back and forth as the design grows and changes. In order to save time and money, the managment of the files and knowing when to sketch vs when to model is crucial when trying to design efficiently.



CREATING A COLOR SCALE

IMPLEMENTING COLORS

FINALIZING THE DESIGN

DESIGNING THE SITE

USER MOVEMENT & SPACE OF THE CROWD

User movement and space of the crowd are the most important aspects of a design. Poor movement and spacing of users can ruin the most beautiful of designs. Understanding how the human brain thinks and moves is vital when designing a site. Once the flow and movement of the site is laid out, you can begin to overlay other design elements while shifting and moving the design until a creative solution is reached.



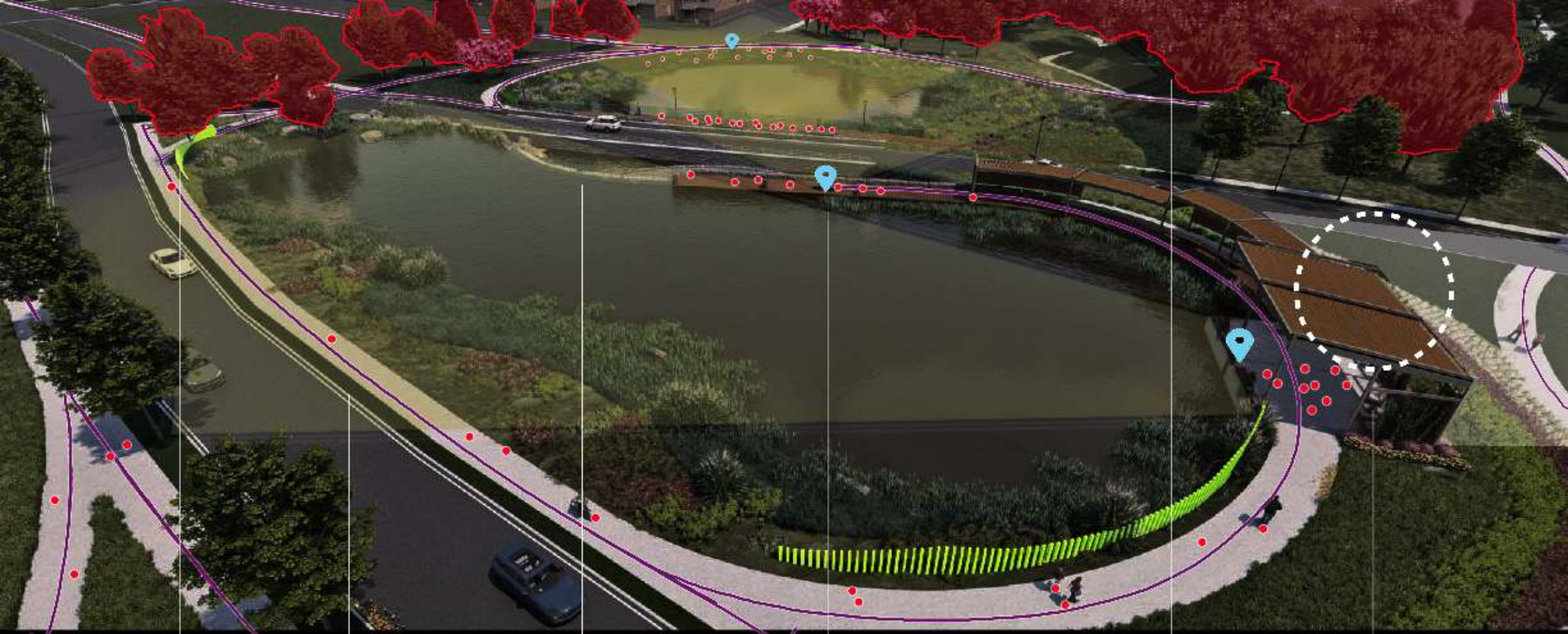
POINTS OF INTEREST & TARGET VIEWS

The brain remembers what it's senses can pick up. Sight being one of the most recognizable. To create lasting memories you want to target the different senses of the user. With this in mind, I first located the target areas where we can anticipate users to congregate. Overlaying the areas with existing and proposed context we can create our desired view corridors which will be the areas we will want to beautify first.

ENHANCING VIEWS THROUGH DESIGN

Now that the view corridors and points of interests have been determined, the next step is blocking unsavory elements and enhancing current views by opening and closing them. This allows the user to be surprised by the breathetaking views and creates a lasting memory.





SENSE OF PLACE

Using the theming of the entry sign, I carried the same color and style sparatically around the site. This helps build the unique sense of place at the entry with small reminders in the fencing that pop out of the planting and create corrilations that the users will notice while they are walking along the trail.

USER MOVEMENT

Unlike most entry monuments, Cadence's entry monument is the whole park. The user movement needed to have a looped walking trail. Building off of this requirement, the points of interest were stratigically placed as destinations at the end of the trails.

AUDIBLE BARRIERS

Designing for spaces in the real world means anticipationg unwanted noises. This includes vehicular noise created from traffic. To drown out the irritating sound, a waterfall with multiple impact points will create a loud sound that can drown out the cars. This leads to a more relaxing environment for the users.

POINTS OF INTEREST

When walking on paths, the human brain subconciously is drawn to elements at the apex of the trail. Much like a reward or goal to achieve at the end. This knowledge is integrated into the design by having the points of interests at the end of trails and then orienting the best views to surprise the users once they reach the point of interest.

VISUAL BARRIERS

Backs of houses, roads, or visually unapealling engineering elements can ruin a user's experience. Blocking these elements with fences is an option, but it is not always the most desired. Using natural elements such as, trees, shrubs, or earthwork creates the same barrier but does not draw the users eye like a fence would. Creating the most desirable and visually pleasing barrier.

CREATING MOMENTS

The culmination of adding all the design techniques together will create a different moment throughout the site. Each more memorable than the last.


CADENCE





DALLAS MUSEUM OF ART

PROJECT INFO

COMPANY: SWA GROUP

ROLE: LANDSCAPE DESIGNER

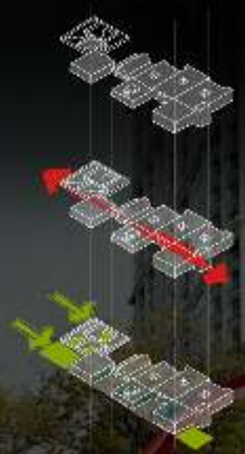
LOCATION: DALLAS, TX

PROJECT GOAL: Working on a combined team from SWA Group and Nieto Sobejano Arquitectos, two internationally renowned firms set out to win the design competition for the Dallas Museum of Art. I assisted in the competition by creating models, renderings, and diagrams to illustrate the complex design to the competition's judges. While assisting I also helped design the main street connection that is a part of a bigger green connection through downtown Dallas.

CREATING UNIFIED DESIGN

UNITY OF LANDSCAPE AND ARCHITECTURE

UNDERSTANDING ARCHITECTURAL INTENT





CIRCULATION

Using the architect's circulation maps we unified the project by reinforcing their design with our green connection.

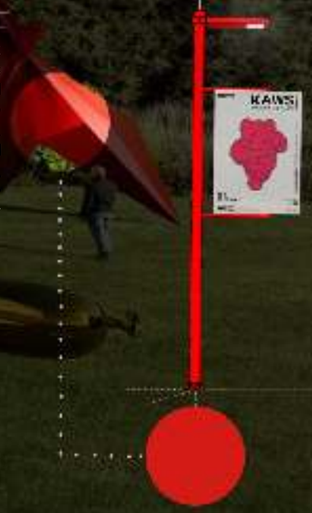
LIGHTING

Used to reinforce the main circulation

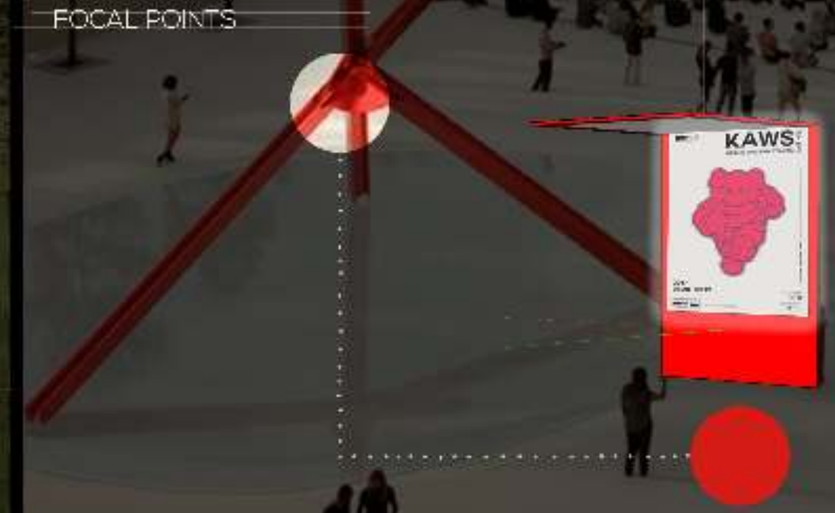
UNITY THROUGH MATERIALITY

LIGHTING

Using the recognizable red from the art installment in front of the existing Dallas Museum of Art. I modeled and designed the streetscape elements. Extending the design out on to the green connection. These site elements will create a fluid sense of place throughout the site , as well as pay respects to a sculpture that has sat in front of the museum for decades.



FOCAL POINTS



SAFETY

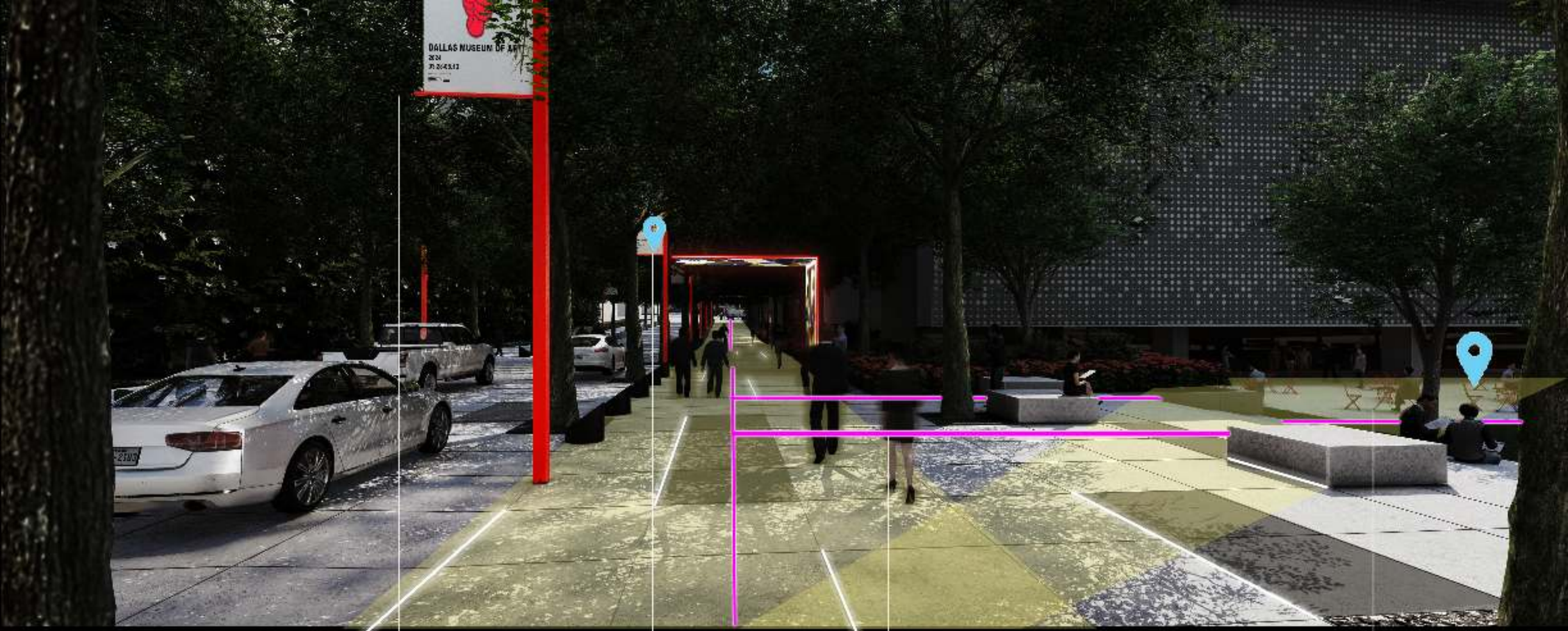


REIMAGINING THE DALLAS MUSEUM OF ART

INTERNATIONAL DESIGN COMPETITION

WINNER TO VIEW FULL FINAL PRESENTATION VISIT:

https://competitions.malcolmreading.com/dallasmuseumofart/gallery/nieto_sobejano_arquitectos



SENSE OF PLACE

Using the existing and well known art installment that has sat in front of the museum for years. The Light poles and focal points take inspiration from the art piece, and create a sense of place that is derived from the location of the project. Using unique history when creating the sense of place, gets the public on board for projects especially when the project is on a culturally significant property.

POINTS OF INTEREST

Leading users through the site with different visual elements, will draw them in and keep them interested while walking down the straight axis through the green connection.

REINFORCING MOVEMENT

With the strong linear pedestrian trail running parrallel to the museum, I decided to highlight the users movement and guide them along the path by integrating LED lights into the concrete pavers. Users walking down the road will feel in sync with the design.

DESIGNING TO THE HUMAN SCALE

Designing around tall buildings presents a unique challenge. It is important to create a space where the users will not feel small and isolated next to the large buildings. This was solved by designing to the human scale, and layering trees and smaller elements to break up the massive height of the surronding buildings.


KAWS
DALLAS MUSEUM OF ART


DALLAS MUSEUM OF ART


KAWS:
DALLAS MUSEUM OF ART



DALLAS DESIGN DISTRICT

PROJECT INFO

COMPANY: SWA GROUP

ROLE: LANDSCAPE DESIGNER

LOCATION: DALLAS, TX

PROJECT GOAL: Working on the design team for the Dallas Design District, I helped throughout the schematic design process by designing, creating 3D Models, and creating graphics. I was integral to the success of the project. Located less than one mile from the Dallas Museum of Art, The Design District has been at the forefront of the renovation of Dallas. With new investors that have high hopes for the area, our team was hired to bring their hopes to reality.

DESIGNED FOR USERS VS. TO PROTECT USERS

THE DIFFERENCE IN STREETSCAPE DESIGN

While all streets may appear to be designed the same, in actuality their designs can vary drastically depending on their intended use. In the following diagram you will see the comparisons of the streetscape design between the Dallas Museum of Artr and the Dallas Design District.

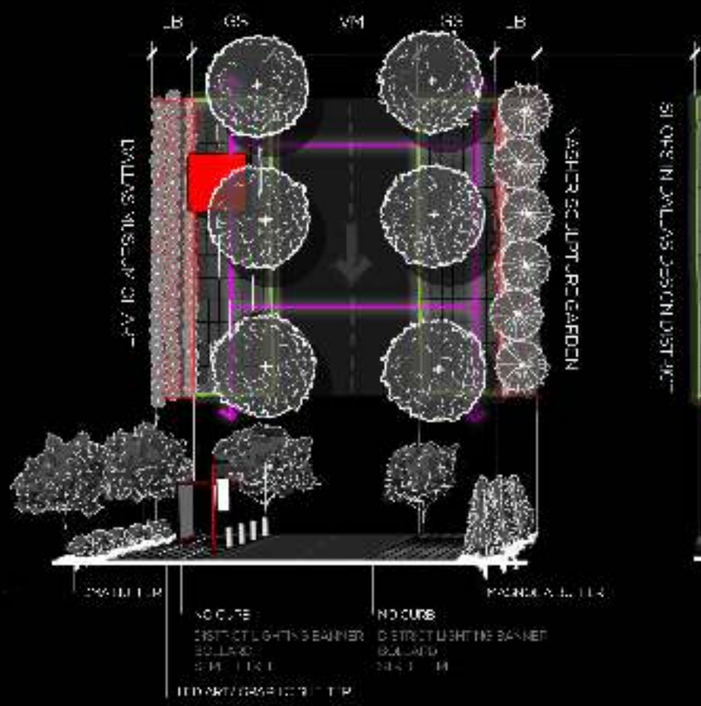
FOR USERS

At the Dallas Museum of Art the streets are designed for users. This is, achieved through utilizing bollards instead of traditional curbs, open flow through the street, as well as a continuous paving pattern, blurring where the sidewalk ends and the street begins.

VS.

TO PROTECT USERS

In the Dallas Design District user movement needs to be protected, using a typical curb restricting user movement across the street and funneling them across at crosswalks. Utilizing curbs on street parking and landscape buffers will create the safest environment for users to get distracted by the shops and fabulous dining options.



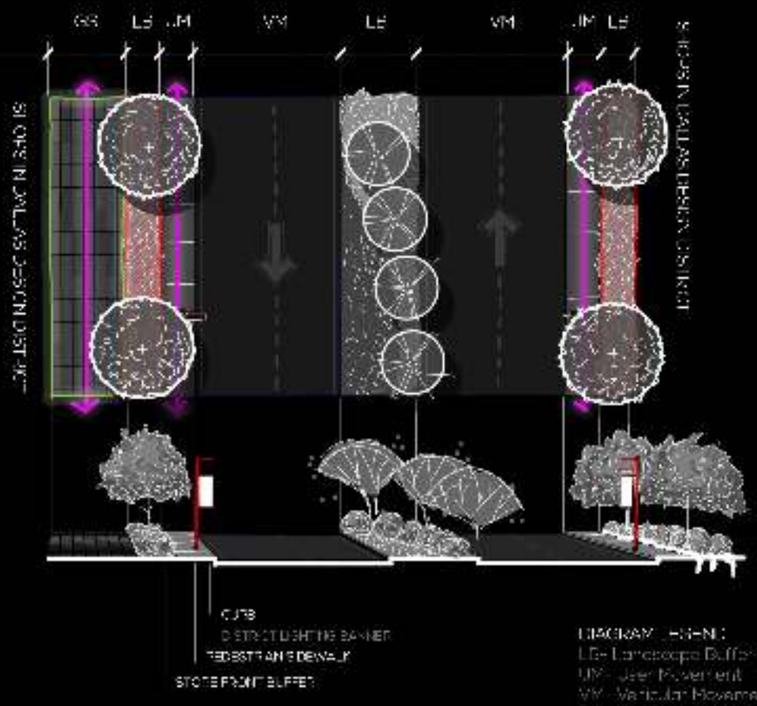


DIAGRAM LEGEND:
LS- Landscape Buffer
UM- User Movement
VM- Vehicular Movement
GS- Gathering Space

CREATING ENVIRONMENTS WITH REALISM

USING CITY CODE AS A BASE FOR DESIGN

APPLICABLE CODES IN DALLAS TX
CITY OF DALLAS STANDARDS
CITY OF DALLAS COMPLETE STREETS DESIGN MANUAL

CITY OF DALLAS STREET DESIGN MANUAL

CITY OF DALLAS STORMWATER MANUAL

DALLAS CENTRAL BUSINESS DISTRICT STREETS AND VEHICULAR CIRCULATION PLAN

CITY OF DALLAS BIKE PLAN

FEDERAL AND STATE DESIGN GUIDELINES
AMERICANS WITH DISABILITIES

TDLR ACCESSIBILITY STANDARDS

TXDOT ROADWAY DESIGN MANUAL

AASHTO GREEN BOOK

NACTO URBAN STREET DESIGN GUIDE



	Pedestrian	Sidewalk Clear	Curb/ Furnishing Zone	Parking	Roadway	Median
Mixed-Use	●	●	●	●	●	●
Commercial	●	●	●		●	●
Residential	●	●	●	●	●	
Industrial	●	●	●	●	●	
Parkways	●	●	●		●	●
Mixed-Use	●	●	●	●	●	
Alleys					●	

TYPICAL STREETS AND ELEMENTS



KEY FEATURES
1 WIDER PEDESTRIAN ZONES FOR RICH PEDESTRIAN EXPERIENCE

2 ENCOURAGING FRONTAGES FOR PLEASANT PEDESTRIAN EXPERIENCE

3 ALTERNATIVE MODES OF TRANSPORTATION FOR FLEXIBILITY OF USE

4 ON-STREET PARKING TO PROVIDE CONVENIENT PARKING ALONG THE TRAVELWAY

5 STREET AND PEDESTRIAN LIGHTING FOR SAFETY AND COMFORT

6 TREES AND LANDSCAPING FOR AESTHETICS AND SHADE OR BUFFER

7 FURNITURE AND AMENITIES FOR IMPROVED USABILITY OF THE STREET

ADDITIONAL FEATURES MAY INCLUDE
WAYFINDING AND SIGNAGE FOR ENHANCING THE USER EXPERIENCE

WHERE FEASIBLE TO ACCOMMODATE SPECIFIC TRANSPORTATION MODES, PROVISION OF ANGLED STREET PARKING, BICYCLES AND MICRO-MOBILITY DEVICES SHOULD BE CONSIDERED

CITY OF DALLAS APPROVED TREE LIST

LARGE SIZE TREES

AMERICAN ELM	Ulmus Americana
CHINESE ELM	Ulmus x hassleri
LACEBARK ELM	Ulmus x 'Sarvela'
SOUTHERN MAGNOLIA	Magnolia grandiflora
BUR OAK	Quercus macrocarpa
CHINKAPIN OAK	Quercus Muehlenbergii
LIVE OAK	Quercus Virginiana
SHUMARD OAK	Quercus Shumardii
SYCAMORE	Plantanus occidentalis

MEDIUM SIZE TREES

TEXAS ASH	Fraxinus Texensis
TRIDENT MAPLE	Acer buergerianum
CHINESE PISTACHE	Pistacia Chinensis
MEXICAN BUCKEYE	Ceris Canadensis var. Mexicana
EASTERN RED CEDAR	Juniperus Virginiana

SHRUB AND GROUNDCOVER
WHILE THERE ARE NOT A LOT OF TREES ON THE LIST, THEY REPRESENT THE REQUIREMENTS BY THE CITY. PRIOR TO DESIGNING THE ROADWAY, ONE SHOULD EXAMINED TO DETERMINE THE BEST TREE TO USE.



VEGETATIVE BUFFER

A vegetative buffer consisting of trees, shrubs and groundcovers will provide a variety of benefits to the design. Not only will it bulster the bio-diversity of the streetscape design, but it will also work as an implied buffer between the sidewalk and redeveloped store front providing an extra layer of safety for pedestrians walking between the stores.

SENSE OF PLACE

When creating a sense of place, I took the existing "Design District Red" and applied the color to different site elements such as the lighting, seating, and custom over head elements seen in the sunken plaza at the entry.

POINTS OF INTEREST

The Points of interest in this design are much more subtle due to the nature of designing developments where the stores have not been decided yet. The raised boardwalk restricts user movement leading up to the point of interest and then opens back up allowing for seating. This triggers a subconcious recognition that you are leaving one space and entering another.











K.E.R.A. HEADQUARTERS OPTION 01

PROJECT INFO

COMPANY: SWA GROUP

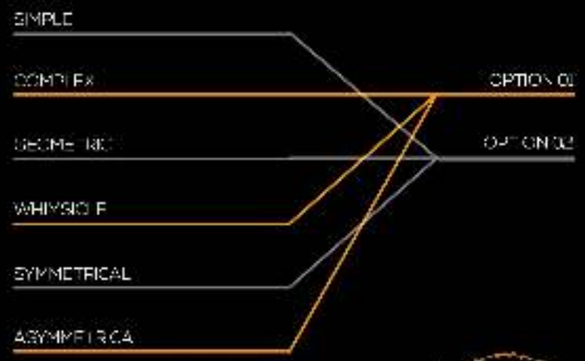
ROLE: LANDSCAPE DESIGNER

LOCATION: DALLAS, TX

PROJECT GOAL: I was tasked to support my team by creating the 3D model and renderings for this project. In the following pages option 01 and option 02 will be shown for this urban redevelopment plan to turn an old office headquarters building into a mixed use (residential/ commercial/ office space) site. This project is supported by inforgraphics highlighting the benefits of developing multiple options and how to achieve the clients goals while designing two completely different ideas. This also includes the basic design techniques that span across both ideas. Having a large library filled with different techniques is crucial to any designer. Core ideas like this can translate into video game design. Sometimes when problem solving you have to come at the problem from multiple angles. My history of constantly thinking of multiple ways to solve the same problem leads me to find to more creative and more efficient solutions when faced with any challenge.

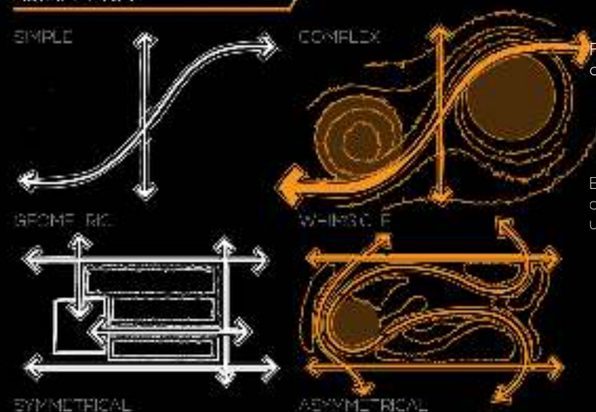
OPTIONS EQUALS OPPORTUNITIES

Each project will have a different client and different expectations, each shareholder will have their own opinions and personal prefrences. This can be a very important task to make everyone feel engaged and like their suggestions were taken into consideration. All of this input can be overwhelming, but can be easily solved if addressed at the beginning of a project, by presenting one- three options in the begining of conceptual design. This strategy opens up a conversation with the shareholders. Each shareholder will find pros and cons to each option revealing their individual prefrences, the options can be combined down into one option that merges everyone's ideas and prefrences.



SIMPLE OR COMPLEX

Creating multiple options, casting a wide net, and incorporating multiple design theories is crucial to the success of the multiple option strategy. Simple designs are seen throughout history and provide nice sleek lines through the design. In contrast, a complex design can constantly change the users attention, overlaying design elements, and sometimes a sense of chaos brings a very unique tone to every design.



GEOMETRIC OR WHIMSICLE

Geometrical designs are very mathematical utilizing 90° and 45° angles. The users sightline can go on forever at staight paths and their movement is controled by the strict form. Whimsicle designs are the opposite, free flowing, and adventurous. Whimsicle designs meander the user through the site with no visible end point, and the user is surprised around every corner.

SYMMETRICAL OR ASYMMETRICAL

Symmetrical and Asymmetrical techniques work the same, drawing the user's attention. For symmetrical designs, the user feels the pattern and ryhthm that forms with matching design interventions around them. Asymmetrical designs call attention to the design interventions that are different than the rest. Utilized heavily in traditional japanese garden, Asymmetrical designs are not perfect. Much like life.



ACHIEVING THE SAME GOALS WITH DIFFERENT TECHNIQUE

PHYSICAL BARRIERS

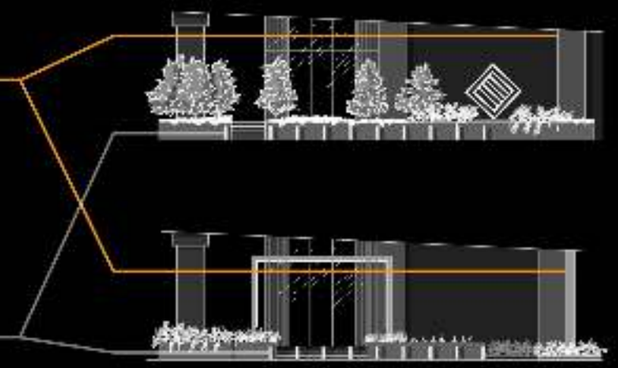
In the process of creating different options, it is important to solve the difficulties with the site in all options. Whether topography or user movement, each option needs to solve the same problems.

WALLS

An important issue that was apparent in the design process was seperating the parking garage entry and the main enterance of the building. This is achieved in both option one and two by using a physical barrier. We chose in both options to use a wall. In option 01 it is a concrete wall that is built into the building, while in option 02 we used an artistic wall that utililizes 3D printing.

BOLLARDS

Bollards are an amazing semi permiable barrier, allowing pedestrian traffic to flow freely while blocking vehicles and providing safety.



IMPLIED BARRIERS

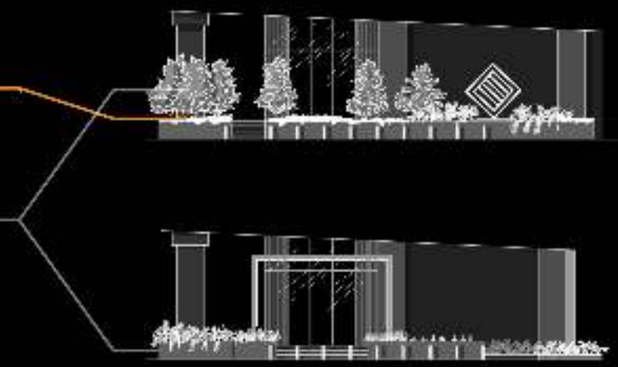
Implied barriers work to restrict user movement or user line of sight. Physical barriers can look harsh against the landscape, drawing the user's eye. Implied barriers on the other had will blend into the landscape

TREES

Trees can be utilized as implied barriers by breaking up the user's movement and sight line. Different trees can be better for each needed use. Evergreen conifers work great to blocking off movement and line of sight while deciduous trees work great for breaking up buildings.

PLANTERS

Planters can achieve the same effect. Raising or lowering planting areas will cut off pedestrian movement as well as create a barrier for sight lines. Utilizing different heights of plants, as well as different types, will create a pleasing barrier that users might not even notice was intentional.



FOCAL POINTS

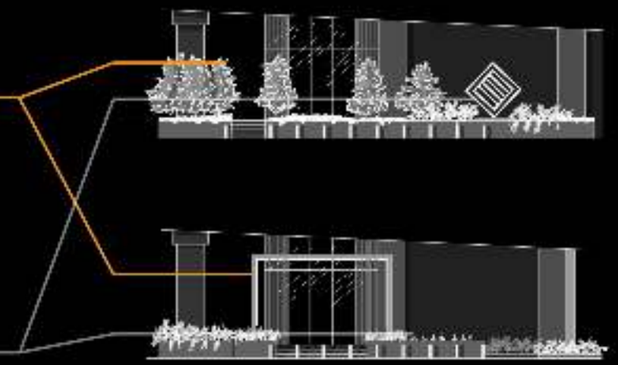
Focal points are all objects that catch the user's attention and draws their eye to the intended space.

PORTALS

Barriers create movement through blocking off, portals create movement through opening up. Grabbing the users attention and pulling them through.

FOCAL ENTITIES

Art sculptures, water features, or even ornamental trees are all examples of focal points. This could even be in the form of creating asymmetry in the design.









K.E.R.A. HEADQUARTERS OPTION 02

PROJECT INFO

COMPANY: SWA GROUP

ROLE: LANDSCAPE DESIGNER

LOCATION: DALLAS, TX

PROJECT GOAL: Building on the previous layout, this option focuses on an artistic approach. Custom design elements will be scattered through the site, and highlight the beauty in the architecture, engulfing the user in the design by utilizing the same material/ design in different features around the site. To give the client an honest and realistic idea of how the design will look upon installation, it is important to model and render with incredible detail down to the plants that will be used.



VISUAL BARRIER

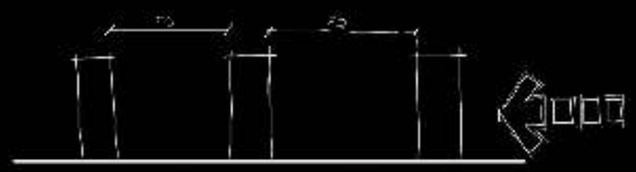
Knowing there needed to be a physical barrier to block the parking garage, I created an organic pattern to be laser cut or 3D printed. With either of these techniques, the final product will have a glossy appearance either from the metal or from the plastic. This artistic wall will soften the harsh nature of physical barriers and provide a softer approach to the solution.





CREATE RHYTHM AND REPETITION

Using the same plant/ design feature along trails or roads can create a sense of rythm while moving, adding in a new layer of interest into the design. It can also dictate the pace at which users move along the path. In this design we chose to create rythm through columns that are lighted on the inside. This will create the effect during the day and at night, allowing the site to mantain its beauty at all times of the day.



TERMINUS OF VIEW POINT

As the rythm draws users in and guides them down the drive, the accent wall anchors the drive and backdrops their approach. I designed a wall that is a combination of the visual barrier and the columns. This seperates them from the outside world and lets them be fully immersed in the buildings entry drive.



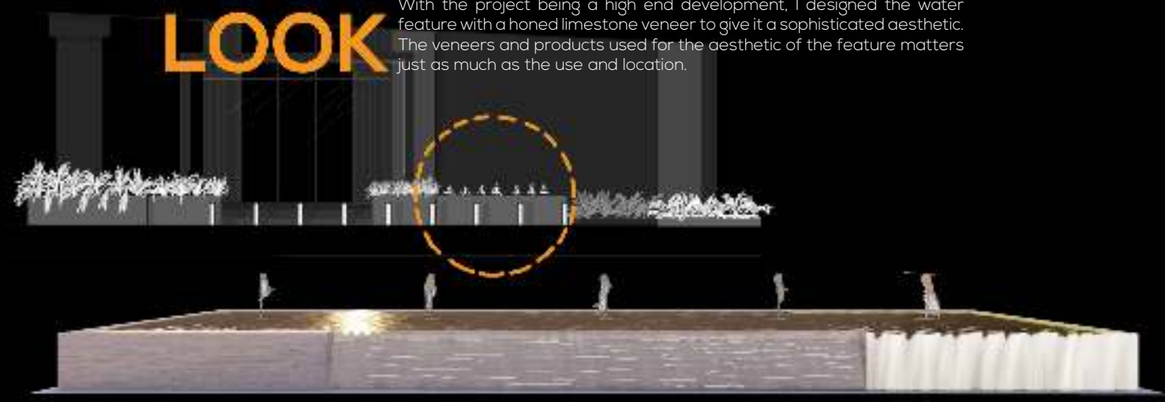


DESIGNING WATER FEATURES

LOCATION Depending on the use of the water feature, the best location for it may change. For this design, we needed the water feature to not only be a physical barrier to direct guests, but also to be a focal point and provide enough noise to drown out the valet.

USE Being a physical barrier and an audible barrier, this water feature would need more than one fountain to provide enough noise to block the sound of the cars. Placing it between the valet and upper plaza it will do a better job of cancelling out the sound than if it was up by the building

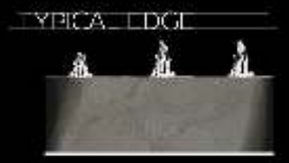
LOOK With the project being a high end development, I designed the water feature with a honed limestone veneer to give it a sophisticated aesthetic. The veneers and products used for the aesthetic of the feature matters just as much as the use and location.



EDGE CONDITIONS AND THE EFFECTS ON WATER

When starting and modeling a design, a strong knowledge of the construction documents is important. To create realistic renders for the client every small detail matters. Clients take the renders as matter of fact, this means real world dimensions matter and could gain or lose the confidence of the clent quickly. Below are examples of different types of edge conditions and what effects they create when used. Each type has its own pros and cons. I designed ours to match the sleek and modern design of the building which best fit a tradional edge.

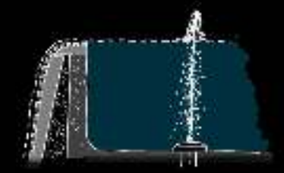
TYPICAL EDGE





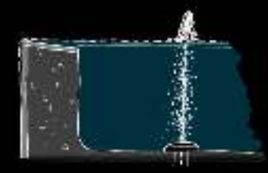
RIPPLING WATER





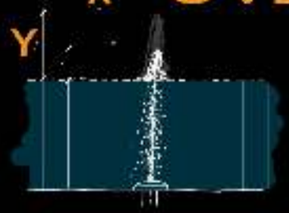
INFINITY EDGE





FOUNTAIN HEIGHT AND SPLASH RADIUS

X 3:1 Y



The splash radius of fountains is always important to remember, being along walkways or valets it is important to not have the chlorinated water splash on people or cars. with no infinity edge the only splash will be at the base of the bubbler. This should be designed to remain inside the features basin.











LA CANTERA RESORT & SPA

PROJECT INFO

COMPANY: SWA GROUP

ROLE: PROJECT MANAGER

LOCATION: SAN ANTONIO, TX

PROJECT GOAL: La Cantera is a well known luxury hotel nessled into the Texas Hill Country. The owner and developer were wanting to expand the existing resort to add new life into their resort and spa. To do this they were interested in adding new villas, a kid's club and an event barn. Unfortunatly, the new villas and kid's club were removed from the scope of the project due to the client's budget was cut and inflation in the development industry. The luxurious event barn is in the existing spanish style of architecture. My team collaborated with HKS Architects for the design. Leading the landscape design team presented new challenges and tasks that I had to learn on the fly. An important aspect was leading the design process and keeping up with all necessary changes and deadlines. In the following project I will walk you through my design process andd how I takled each phase of the project.

PROCESS OF PROJECT MANAGMENT

FLOW CHART OF PROJECT AND RELATED APPLICATIONS



The concept design stage is when the landscape architect puts pen to paper (or stylus to screen) to develop the initial ideas for the project.

The main objective of this stage is to develop documents(plan or report) that provide the client with an understanding of the proposed spatial arrangement, programs, functions, constraints, opportunities and overall aesthetic. These documents often including plans, analysis studies(topographic, climatic, land use, vegetation, access, etc), precedent project images, renders (perspective, aerial, etc), typical material palettes, depending on the clients' requirements.

During Concept development, the landscape architect could also have to provide documents required by the government for planning approval (sometimes called town planning, developmental approval, planning approval, or government approval)

A stage where the initial concept is developed to provide the client with a greater understanding of the design. This is the stage when landscape architects start to develop their ideas in more detail to ensure that the concept design is achievable and will meet the client needs. At this stage, the designer also determines if there are any major issues (topographic, access, services, drainage, budget) as the design evolves and allied disciplines start to investigate and design their own design with greater detail.

Often clients see the initial concept but don't fully understand that it is a concept and there needs to be further design undertaken to resolve the concept and ensure it is viable (financially, constructibility, etc).

This is typically shown in this stage as site plan renders, rendered elevations, 3D models, and rendered perspectives and videos.

The documents and level of detail provided in this stage differ from country to country. In some countries, Design Development entails providing colour plans, sections, material palettes with notation about materials, colours, heights and more.

Other countries require Design Development to be highly detailed documents(plans, sections, details, material schedules) ready for landscape construction companies (and/or quantity surveyors) to provide initial pricing (tender) on the project. This is usually determined by local practice and client expectations during the initial discussions.

In the U.S. it is typical for the phase to include 50%, 80%, 90% and 100% Design Development sets that express the design through materials plan, layout plan, grading plan, planting plan, and all corresponding details.

During this stage, the landscape architect develops documents including plans, sections, schedules, construction details, quantities and a specification for landscape construction companies to be price and build the project.

This stage often requires coordination with other consultants to reduce the possibility for construction issues and also to allow for resolution of overlapping design elements (architecture, landscape, lighting, engineering, etc)

The plans will be refined through this stage until they are ready to be sent out to contractors. Through 50%, 80%, 90%, and 100% construction document sets.

To start the 100% design development package should be transitioned into the 50% construction document set. The biggest changes will occur with any site cahnges, as well as, adding in extar layers of detail to the shedules and details

The stage when the contractor is on-site building the landscape design.
Construction often includes the following stages:

Demolition and Site Clearing
Services Installation (drainage, irrigation, electrical, etc)
Fine Grading
Hardscape Structure Construction
Hardscape Finishes Construction
Planting (trees, plants, organic mulch)
Completion (Initial and Final)

Although the site is being installled by contractors, the plans will continue to be worked on making addendums that are requested by the contractors on site. It is also an important aspect of the phase to continually check on the progress of the installation through site visits. This insures that the site is being installed exactly to the specifications in the plans.

SITE CONTEXT

LA CANTERA RESORT AND SPA

GOLF SHOP

SPA

VILLAS

01 UNDERSTAND YOUR SITE

02 REMEMBER THE USER

03 USE A FORM AND STYLE



04 CREATE AND LINK SPACES



05 THE FUNCTION OF PLANTS

06 STRUCTURE THE PLANTING



07 HIGHLIGHT IMPORTANT FEATURES



SITE CONTEXT





CONCEPT DESIGN

TURNING INSPIRATION INTO DESIGN





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F



















DESIGN DEVELOPMENT

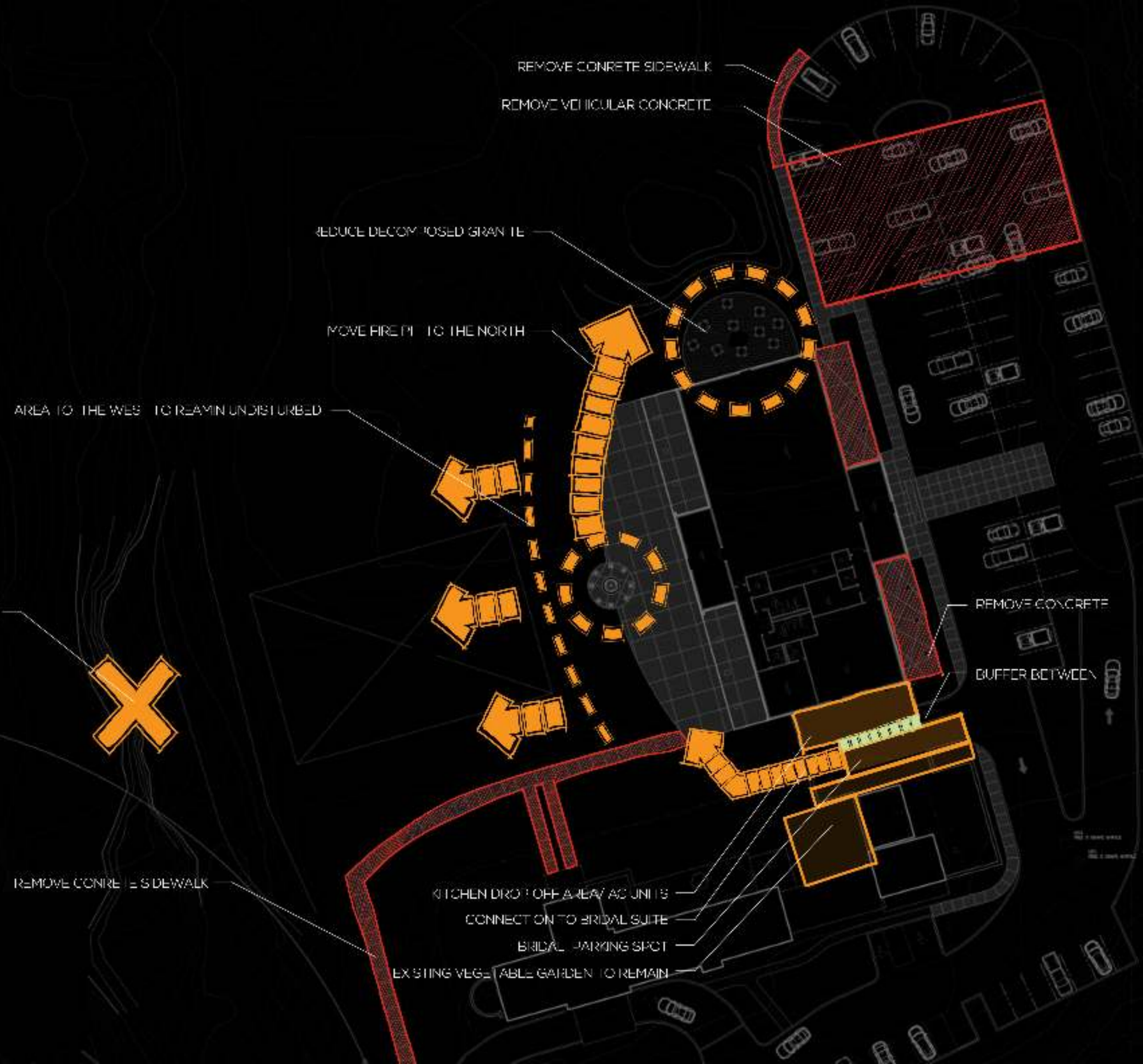
Here, the design will transition from artistic renderings and models to typical construction documents. This is where the city will begin to look at the project and begin permitting.

A document set showing tree preservation and mitigation, materials plan, layout plan, grading plan, and landscape plan will be issued along with the construction details that correlate to each plan. In the Design Development, phase the project budget and opinion of probable cost will begin to become more realistic resulting in scope of project being cut or the design itself being reexamined to fit into the clients anticipated budget.

This can occationally cause drastic changes to the design. These changes may be from budget or because of changes to the architecture. It is important to make the changes in a way that keeps the original design and integrating the wishes of the client.

The design will always be in a flux state during this phase, working out small changes and details that come up. Orginaztion is key in this phase to keep your team on top of constantly changing designs from archtects and engineers, as well as, changes from the client. It is also in this phase that the grading previously done by landscape architecture is passed off to the engineers to refine and modify to achieve there own standards and requirements.

Sometimes the changes may or may not have to happen, by finding creative solutions to issues you are able to fight for design aspects. This is why it is important to design with purpose. If the layout and design involves designing something because it "looks good" it does not have a defense when value engineering comes into play. If a design intervantion has a good purpose and reason to be placed, the higher the probability is that it will remain through value engineering.











CONSTRUCTION DOCUMENTS- 100% SET

WHAT ARE CONSTRUCTION DOCUMENTS

The purpose of construction documentation is deceptively simple: tell the landscape contractor what to install, where, and how. Comprised of two types of content, visual drawings and verbal specifications, they are technical documents—not concerned (as the Preliminary Design was) with evoking emotion, but rather with conveying information. As the realization of all the research and design thinking that has come so far, and the tangible product that allows installation to happen, the Construction Documentation phase is the king of the process. This is where the dream becomes a reality.



TREE PRESERVATION PLAN

Tree Preservation Plan means a plan which determines trees to be preserved through an assessment process which identifies trees, shrubs and other specific areas of natural habitat and their ecological function or importance,

They determine the impacts of development on the trees, shrubs, and other specific areas of natural habitat and their ecological function or importance and such plan shall determine mitigation measures and measures to protect and manage trees to be preserved and proper practices to remove trees to bedestroyed

GRADING AND DRAINAGE PLAN

A grading and drainage plan is a vital component of any landscape architecture project, especially on a sloped site. It shows how the land surface will be shaped and sloped to manage stormwater runoff, prevent erosion, and create functional and aesthetic spaces.

In this set the slope of the site is clearly defined through 1' contours, spot grades, and slope percentages. National standards set out in A.D.A. require certain slopes for walkways to allow access for all disabilities.

MATERIALS PLAN

A material plan is a graphic plan that calls out all materials, and site elements. Calling out all existing site features as well as where architectural components and engineering components are located.

The plan refences back to a materials legend and notes that give a technical description of all materials on the plan. The notes are specification and applicable codes that must be followed. While the materials legend calls out the exact material's measurements, colors, as well as where and who to buy them from.

LAYOUT PLAN

A layout plan can be merged into the same set as the materials, if it does not become graphically congested. This plan provides all lengths, widths, radius of turns. This includes the distance between each sidewalk joint.

This gives a clear and easily readible guide on where everything is located. Apart of a layout plan is drawing every dimension to buildable standards. The easier a measurement is to build means a lower chance of it being installed wrong. This means sticking to whole numbers or easily built fractions (1/4", 1/2", or 3/4").

PLANTING PLAN

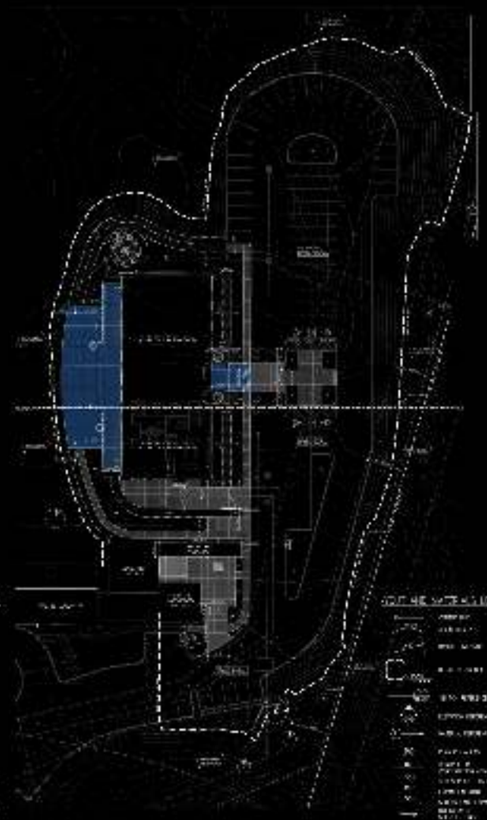
A planting plan is a graphic plan that calls out all trees, shrubs, groundcovers, and grasses.

The plan refences back to a planting legend and notes that give a technical description of all plantson the plan. The notes are specification and applicable codes that must be followed. While the planting legend calls out the exact plants measurements, colors, as well as where and who to buy them from. In this section it also details what the plants should look like when bought reducing the possibility for dead or aesthetically unpleasing plants from being on the site

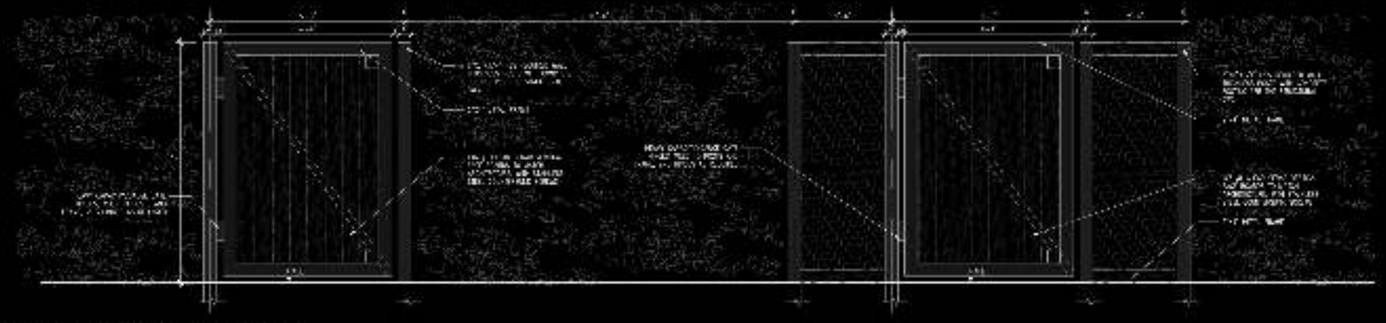




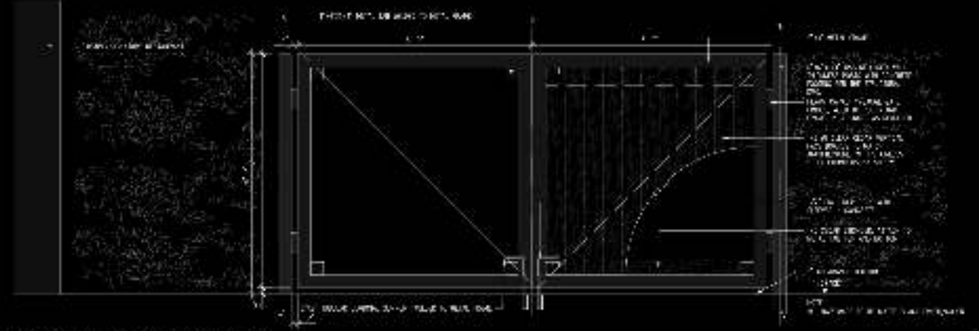








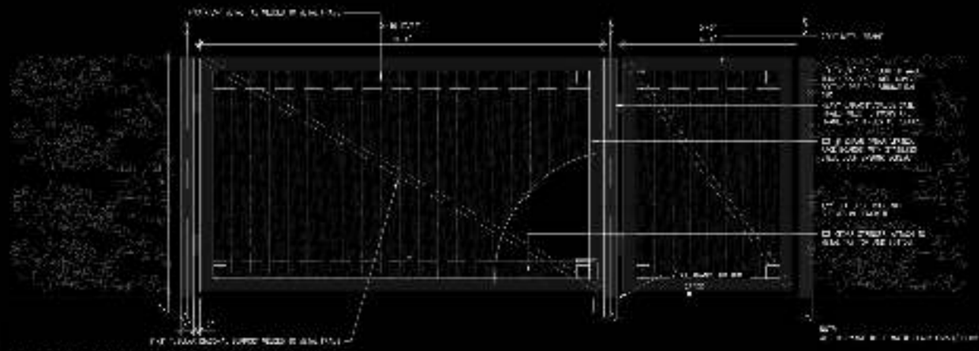
PEDESTRIAN GATE AT WOODWELL CANOPY



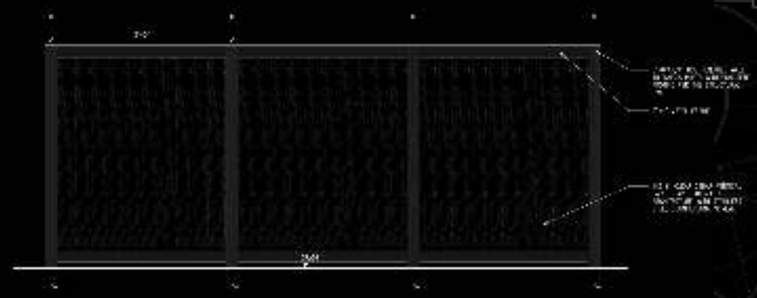
VEHICULAR SWING GATE AT SIGNATURE



SIGNATURE RESTAURANT GARDEN FENCE



VEHICULAR SWING GATE AT EVENT BARN



EVENT BARN PRIVACY FENCE



MIYAKO HYBRID HOTEL

PROJECT INFO

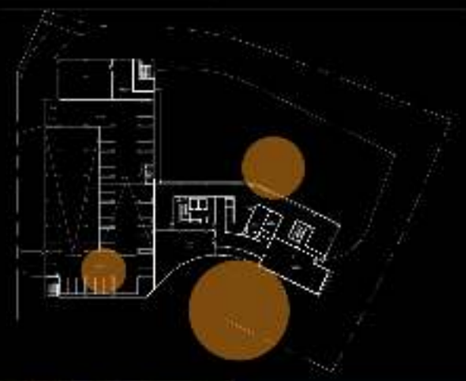
COMPANY: SWA GROUP

ROLE: PROJECT MANAGER

LOCATION: PLANO, TX

PROJECT GOAL: A new luxury hotel located by Toyota's United States headquarters. The client wanted an authentic Jpanese hotel designed with their customs and design techniques, but in the Texas venacular. I have always held a deep appreciation and respect for Japanese landscape design. Being a designer means having an ability to design across cultures, and this needs to come from a place of appreciation and respect.

SITE ANALYSIS | AREAS OF FOCUS



USER MOVEMENT | SPACES OF THE CROWD



POINTS OF INTEREST AND TARGET VIEWS



DESIGNING THROUGH CULTURAL LENSES
JAPANESE DESIGN WITH A TEXAS TWIST





















ARCHITECTURAL THEME "THE LANTERN"



LVL 03 POOL

Located on the 3rd story and a major connection point between the hotel and event space, the pool is an important node to the overall flow of the building. With beautiful views over the garden and adjacent pond, it is a huge opportunity for users to relax and enjoy their stay at the Miyako Hotel. Rooftop gardens and pools come with a new set of challenges and restrictions in the designing process, each of these challenges need creative solutions to provide an amazing experience for the guests.

JAPANESE GARDEN

Secluded away from the world with a central reflecting pool, the garden provides an opportunity for guests to escape and reflect. In the garden, you will find an event space/ stage, bocca ball court, outdoor spa patio, and enough seating to get away and enjoy a trainquil day outside.

HOTEL VALET & ENTRY

First impressions always matter. That is why at the grand entry guests are welcomed in by the gorgeous natural stone wall inspired by a famous Japanese architect Tomoaki Uno. After pulling into the valet, the rest of the world will fall away as the guests are surronded by the traditional Japanese garden. Upon exiting their car, guests are greeted with the calming noise of falling water as they enter into the sleek and modern lobby.

MIYAKO ENTRY

Being inspired by the traditional Japanese design style, I studied the base elements of their different design techniques. Clean lines, portals, and native venacular all played a role in creating the special entry to the hotel. Playing on the different senses of the guests, once out of their cars guests will hear the hustle and bustle of the city drowned out by the water feature coming out of the natural stone wall and the bubblers coming out of the reflecting pool anchoring each side of the entry. Accenting the water features will be the soft adaptive ornamental grasses of North Texas, and a floral arroma from the carefully currated planting beds.





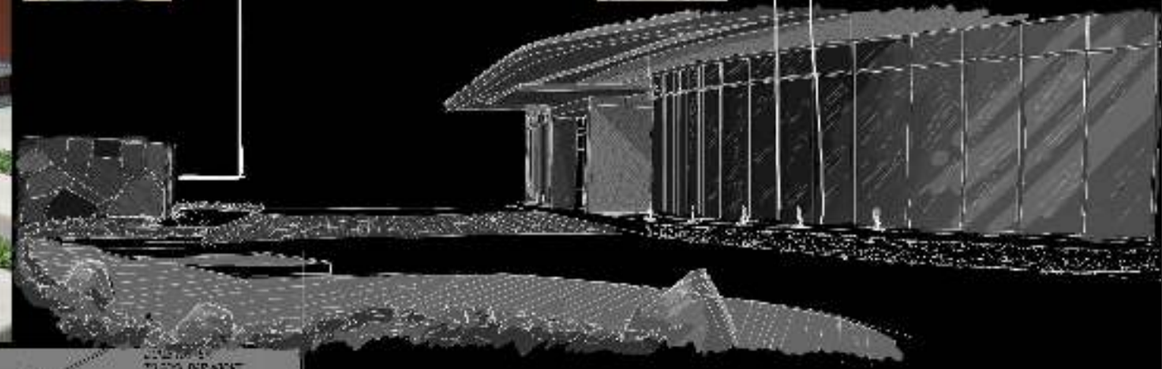














ORIGINAL CONCEPT SKETCHES











MYAKO GARDEN

From the lobby of the hotel, guests will look down into the hidden garden that removes you from the stresses of the outside world. Guests will be led down into the garden by an elegant spiral staircase that sits in the middle of the reflecting pool. Calling back to the architectural inspiration of a floating lattern, the staircase will paint the reflecting pool with the beautiful detail of the stair case. With an event lawn and stage to the west the hotel can be fitted to accommodate a variety of events. Guests are also provided an option to lay back and relax at the spa's outdoor patio or sit around with their friends at the different fire pits and sitting areas. Located on the east side of the garden a bocca ball court is tucked away behind a uniquely designed wall that combines Japan and Texan design influence. The bocca ball court will have the option to be covered and used as an outdoor dining area or an extension for larger events held in the garden.































TCU UNIVERSITY DRIVE

PROJECT INFO

COMPANY: SWA GROUP

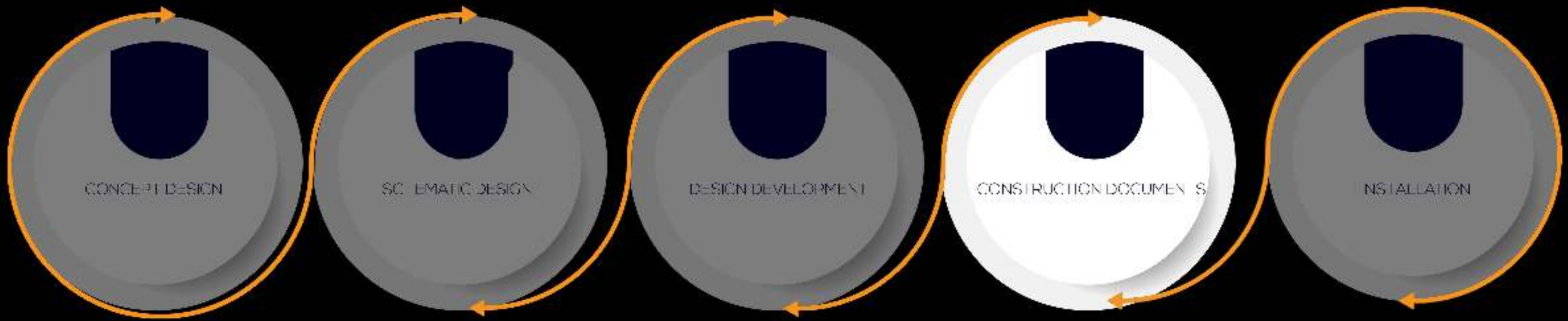
ROLE: PROJECT MANAGER

LOCATION: FORT WORTH, TX

PROJECT GOAL: I took over project management of the redevelopment of TCU's Univesity Drive from a previous landscape architect who had left the firm. While I joined the project towards the end, it still holds a lot of sentimental meaning to me. I grew up less than half a mile from the TCU campus and getting to see the school grow throughout the years was always amazing to me TCU inspired me while going through school, hoping one day to be involved in a project for TCU. As the project manager working on this project brought me so much joy and excitement to be able to give back to the community I was raised in. Picking up the design in the middle of the construction documents phase brought a whole new challenge in my career, and developed me into a better manager.

PROCESS OF PROJECT MANAGMENT

TAKING OVER PROJECTS ALREADY IN DEVELOPMENT



The project was already in the construction documents phase, with diligent communication with the university and engineers on the project I got caught up on the progress and intent of the design and pushed our documents forward through the process. During this time the university wanted to re-examine their veteran's memorial located off of University Dr. the existing design of the fountain and plaza space no longer met the needs of the student body and was not being used. Re working the existing design, I removed ornamental trees and replaced them with large cut limestone benches to be more welcoming to students or guests of the university. I also designed the fountain wall to be cut in the middle to open up the space as a way to create intrigue in the plaza with the new view through the monument.











TOWNELAKE PARK

PROJECT INFO

COMPANY: LJA ENGINEERING

ROLE: LANDSCAPE DESIGNER

LOCATION: MCKINNEY, TX

PROJECT GOAL: Townelake Park is a piece of a larger green corridor through the city. With existing flooding and traffic issues , as well as a lack of visitors to the site, the city hired my team to redesign the park and make it a staple in North Texas, on par with the likes of Klyde Warren Park and the Dallas Arboritum. As a lead designer on the project, I oversaw the final design presentations to the city. I worked diligently to design each site elements (bathroom structures, treehouse, workout stations, light park, amphitheater, playground, and dog park). With the new design and accompaning renderings/ videos the city used my renders to gain support and funding for the park. The renders were also used by local news agency in articles about the upcomming plans for the park.

SITE CONTEXT





MAP LEGEND

PROJECT BOUNDARY

25' PIPELINE EASEMENT

25' SEWER EASEMENT

15' WATERLINE EASEMENT

POTENTIAL WETLAND

POTENTIAL FLOODPLAIN

A

AE

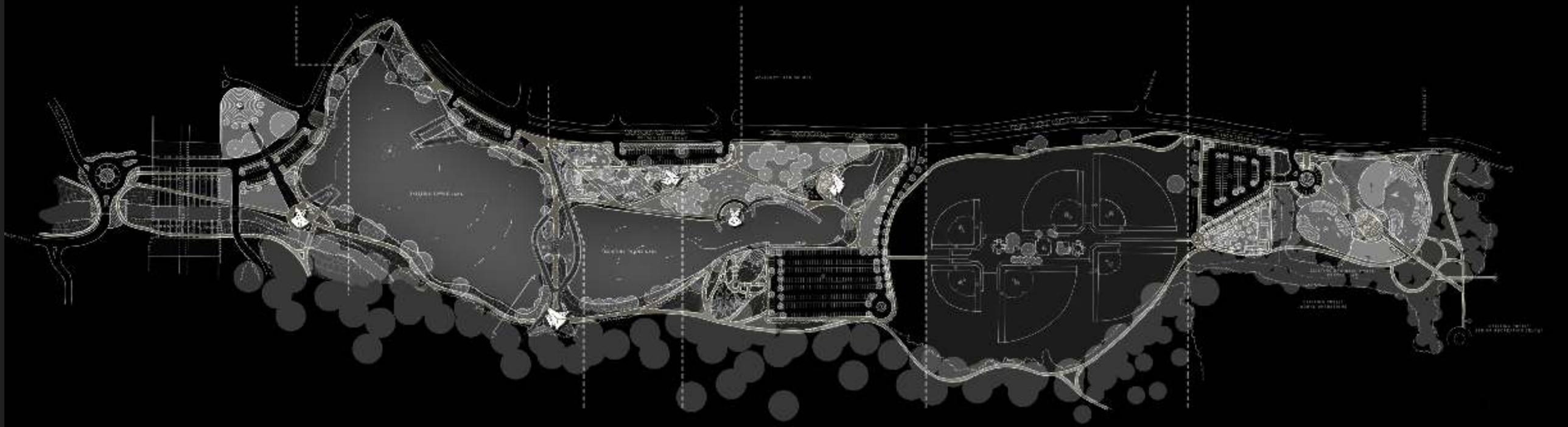
FLOODWAY

SITE ANALYSIS

Townelake Park has been in the Mckinney community for decades, with the existing pond and sports fields, our design focuses on enhancing the park in its totality. With the flooding issues in mind, we wanted to create a space that not only helps the community get out and interact with nature, but also solved the existing issues by increasing the hydrological carrying capacity of the site. Success of a site means enhancing the social, environmental, and economic structures of the surronding area.

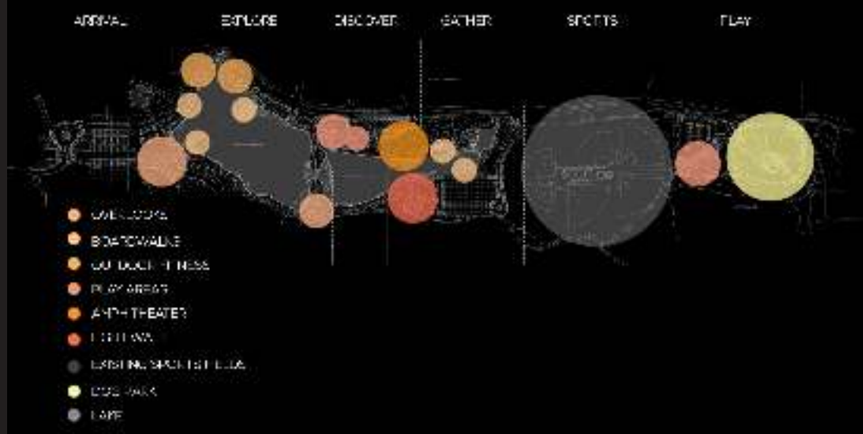
TO VIEW THE OVERALL TOWNELAKE VIDEO SCAN THE QR CODE:

ARRIVAL EXPLORE DISCOVER GATHER SPORTS PLAY



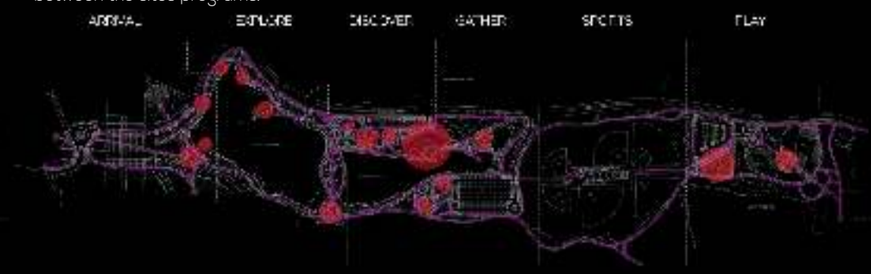
SITE ANALYSIS & SCOPE OF WORK

The site has excitement around every turn. From stunning overlooksd and boardwalks that weave around the pond, to a treehouse that elevates users into the canopy of the existing forest.



USER MOVEMENT & SPACES OF THE CROWD

The theory of the user movement began with the idea that there needed to be an interconnected web of trails stemming from a larger loop that runs around the perimeter of the site. With little nooks along the way that nessle into the trail creating seamless transitions between the sites programs.



POINTS OF INTEREST & TARGET VIEWS

Targeting long views that extend across the lake dictated a lot of the design philosophy, leading to the programs being oriented to overlook the lake and create beautiful back drops to accompany the stunning views.



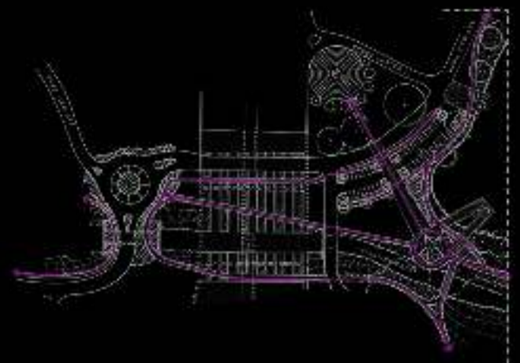
ARRIVAL

WELCOMING • EXCITING • BEAUTIFUL

SITE PLAN & PHASE GOALS

The arrival is the first experience that users will have with the park. Exiting off of the highway, an entry monument rises above the tree canopy gauiding users into the site. On the otherside of the highway at the entrance off of Park View Ave, guests are greeted into the site by an enhanced traffic circle centered with an original sculpture from a local artist. Creating an option to continually highlight different artists and styles of art through out the year. Utilizing the underpass for parking allows cars to remain out of the backdrop of the amazing views. After exiting their car, guests will see the first aspect of the theming design with a modern sign made with the phase's color. Guests will subconsiously start to piece together a map in their mind of the widely different phases all brought together through design interventions. Wayfinding can enhance a site and create a more successful project.

USER MOVEMENT



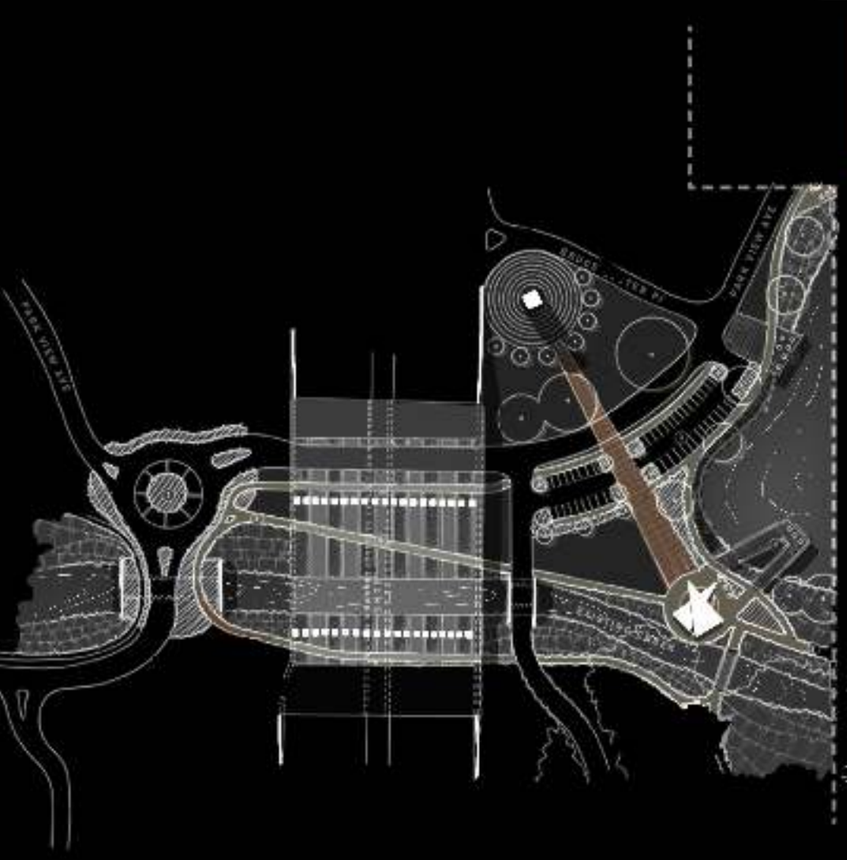
POINTS OF INTEREST & TARGET VIEWS



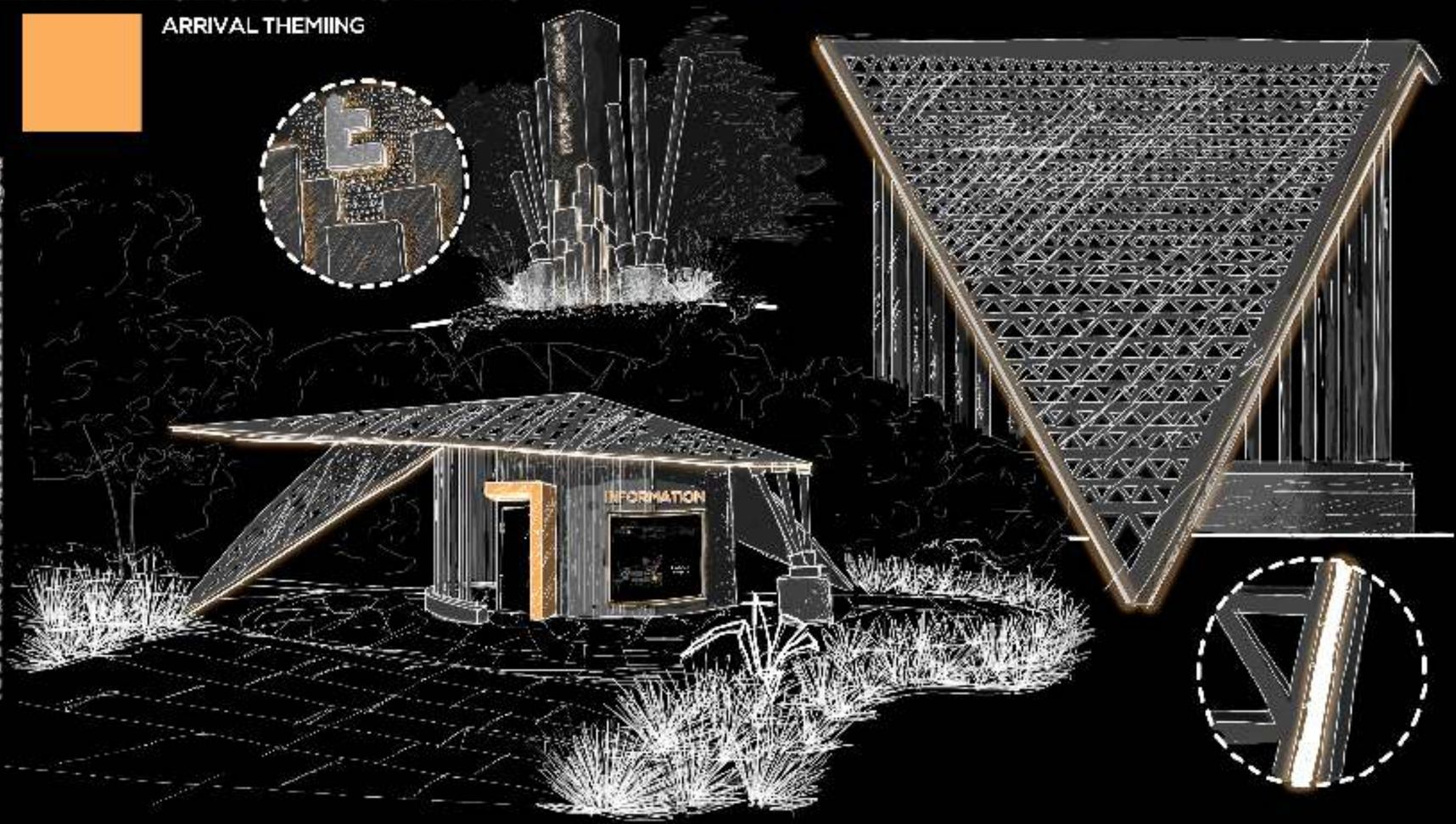
PERSPECTIVE VIEWS



PRELIMINARY SKETCHING OF PHASE ELEMENTS



ARRIVAL THEMIING








ARRIVAL



EPLORE

WORKOUT • DISCOVER • WONDER

SITE PLAN & PHASE GOALS

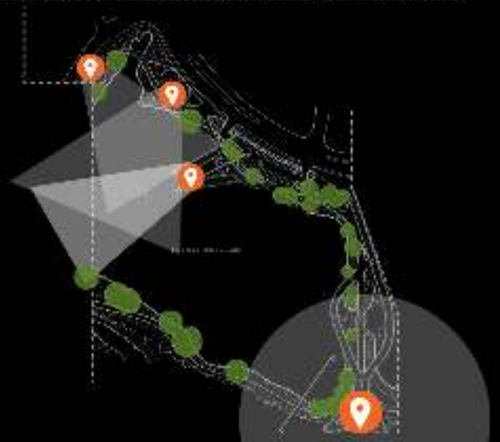
Exploring the site through two outdoor workout locations that conncect to the greater walking trail, lets users have options on where to workout and the ability to workout and move across the park. While walking along the trail, guests will notice the boardwalks spanning into the lake and rising up into the treehouse creating an accessible route to experience the unique tower hidden in the folliage. The boardwalk rising into the tree house will also frame the view of the amphitheater and water fountain through it's carefully designed support structure.



USER MOVEMENT



POINTS OF INTEREST & TARGET VIEWS



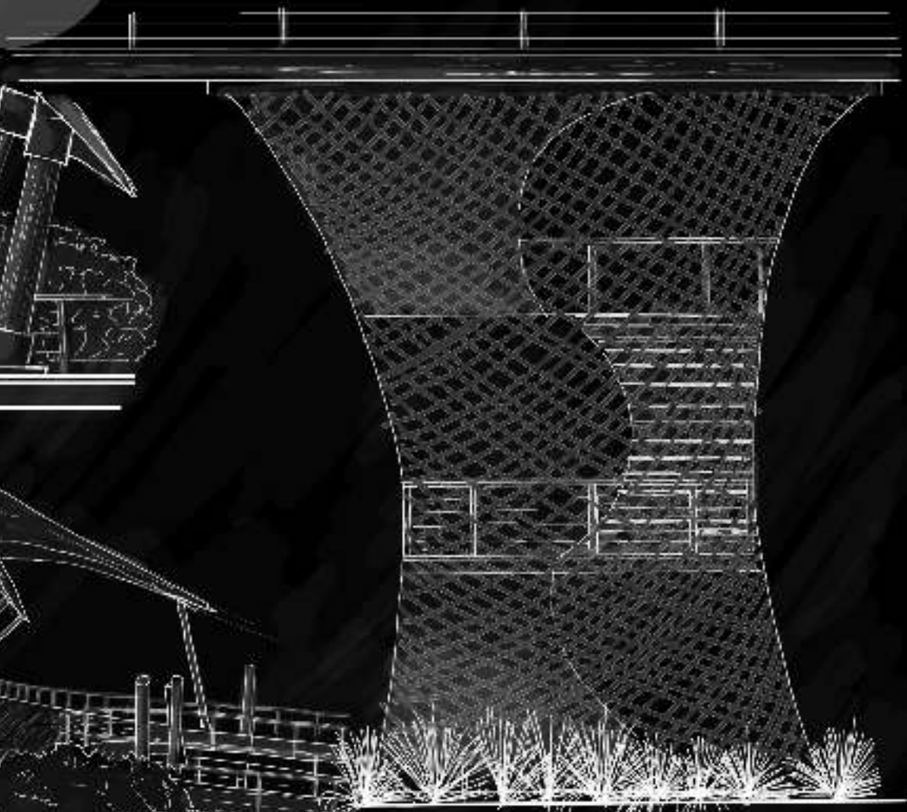
PERSPECTIVE VIEWS

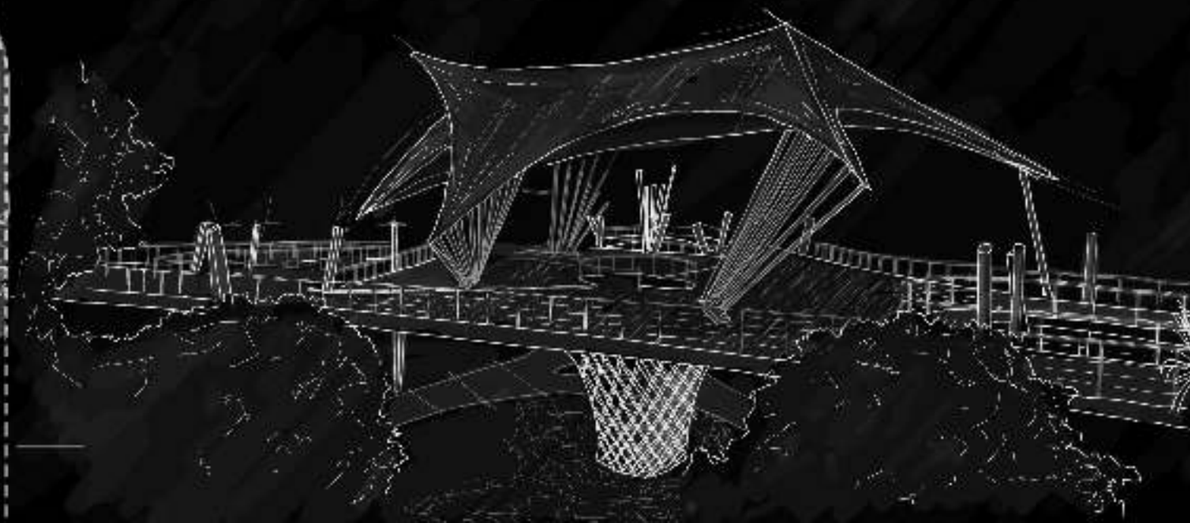


PRELIMANARY SKETCHING OF PHASE ELEMENTS

EXPLORE THEMIING








EXPLORE



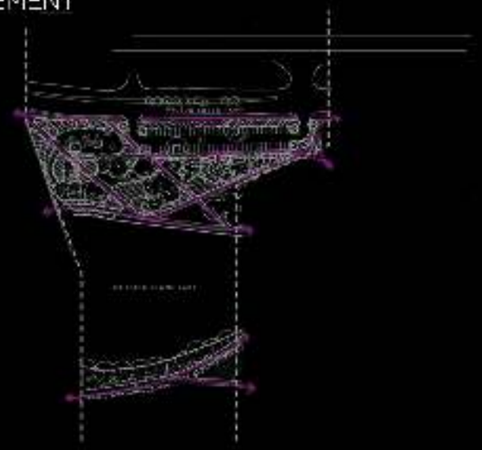




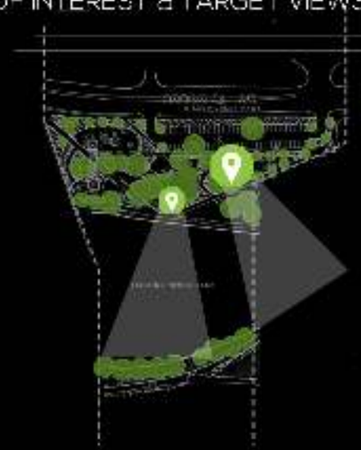
SITE PLAN & PHASE GOALS

The discover phase is intended to get families out of the house and kids playing on a one of a kind playground that will spark creativity and inspiration. Designing the playground to be accessible for kids with all abilities means all children can enjoy the childhood they deserve. Using design techniques from behavioral doctors and modern techniques for disabilities makes sure that the theory of the playground will play out as intended when built. With trails leading down to the amphitheater, the playground will be utilized by families during concerts and events letting everyone enjoy a night out.

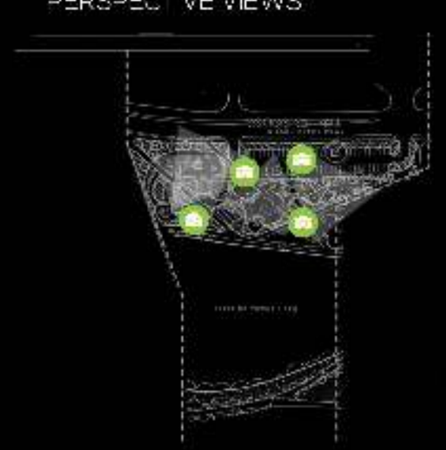
USER MOVEMENT

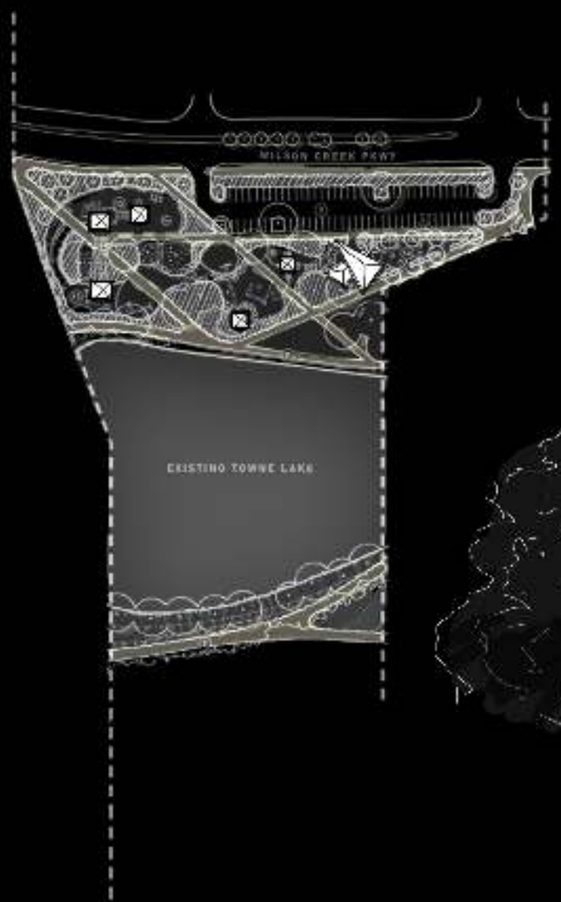


POINTS OF INTEREST & TARGET VIEWS



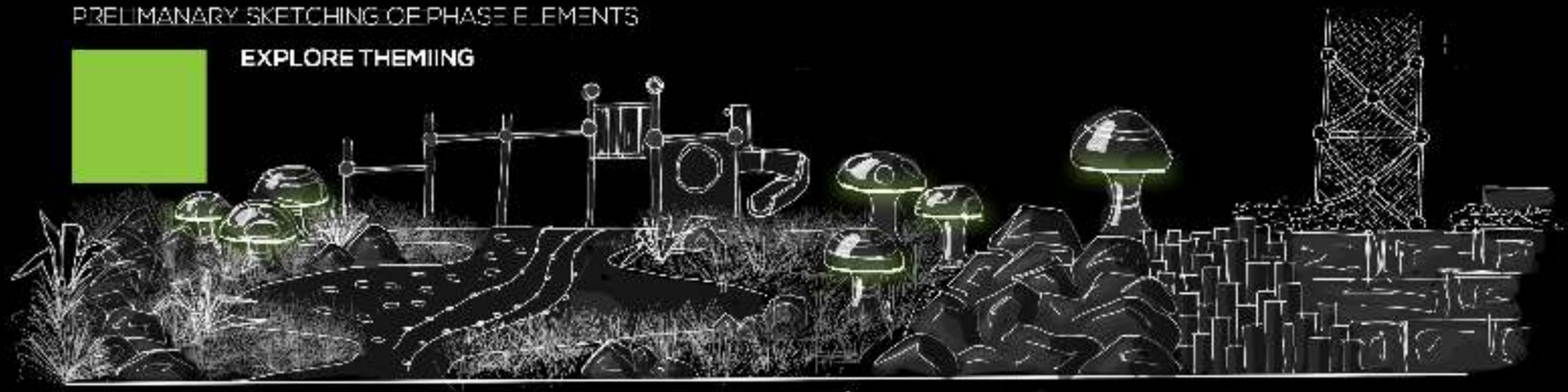
PERSPECTIVE VIEWS

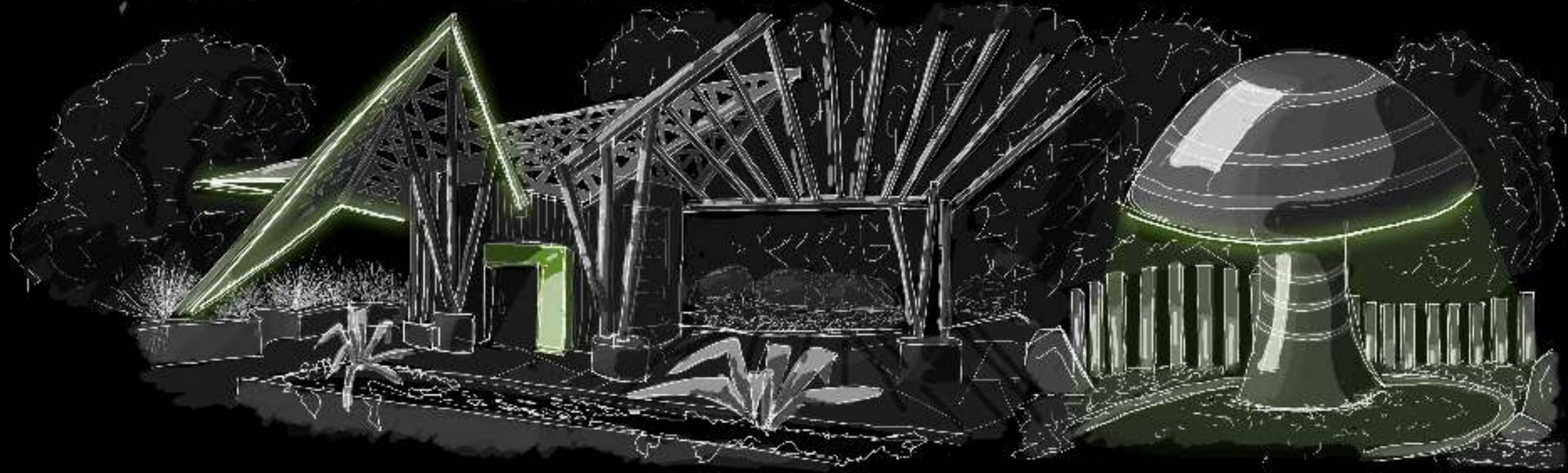




PRELIMANARY SKETCHING OF PHASE ELEMENTS

EXPLORE THEMIING






DISCOVER







GATHER

WORKOUT • DISCOVER • WONDER

SITE PLAN & PHASE GOALS

This phase plans on activating the lake's edge. Starting on the northern edge, at the the amphitheater, a boardwalk extends and wraps around the edge to an outdoor working space with provided wifi so anyoneone will be able to come and work from the park. Coupling the outdoor space with food trucks would make a social experience and keep the park busy all throughout the day. Working your way south, guests will find a dock where they can rent paddle boards, kayaks, or paddle boats activating the lake's surface. This dock continues down the lake and ends at the light walk. Working as a backdrop for the amphitheater, the light park is drapped in artistically designed art features that are woven into the fabric of the existing folliage.

USER MOVEMENT



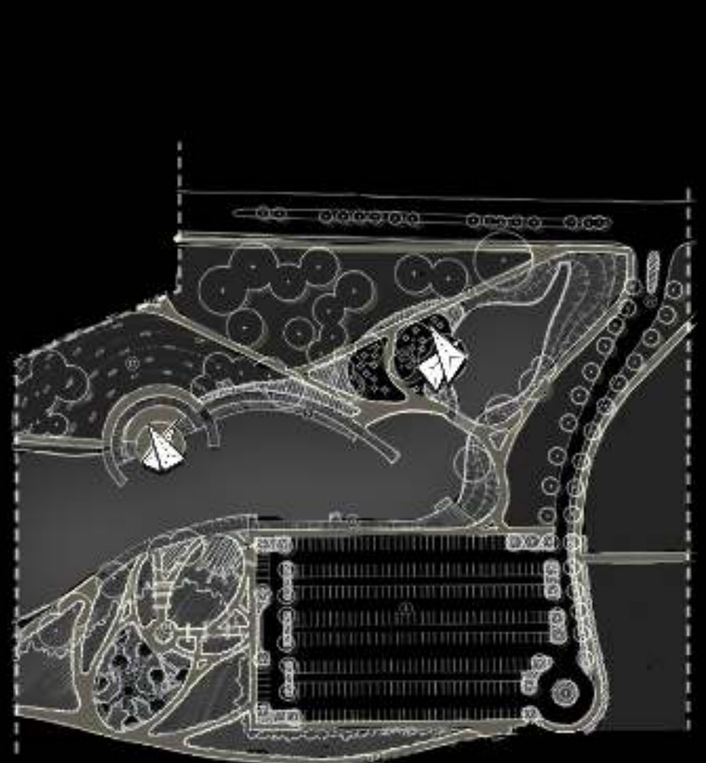
POINTS OF INTEREST & TARGET VIEWS



PERSPECTIVE VIEWS



PRELIMINARY SKETCHING OF PHASE ELEMENTS



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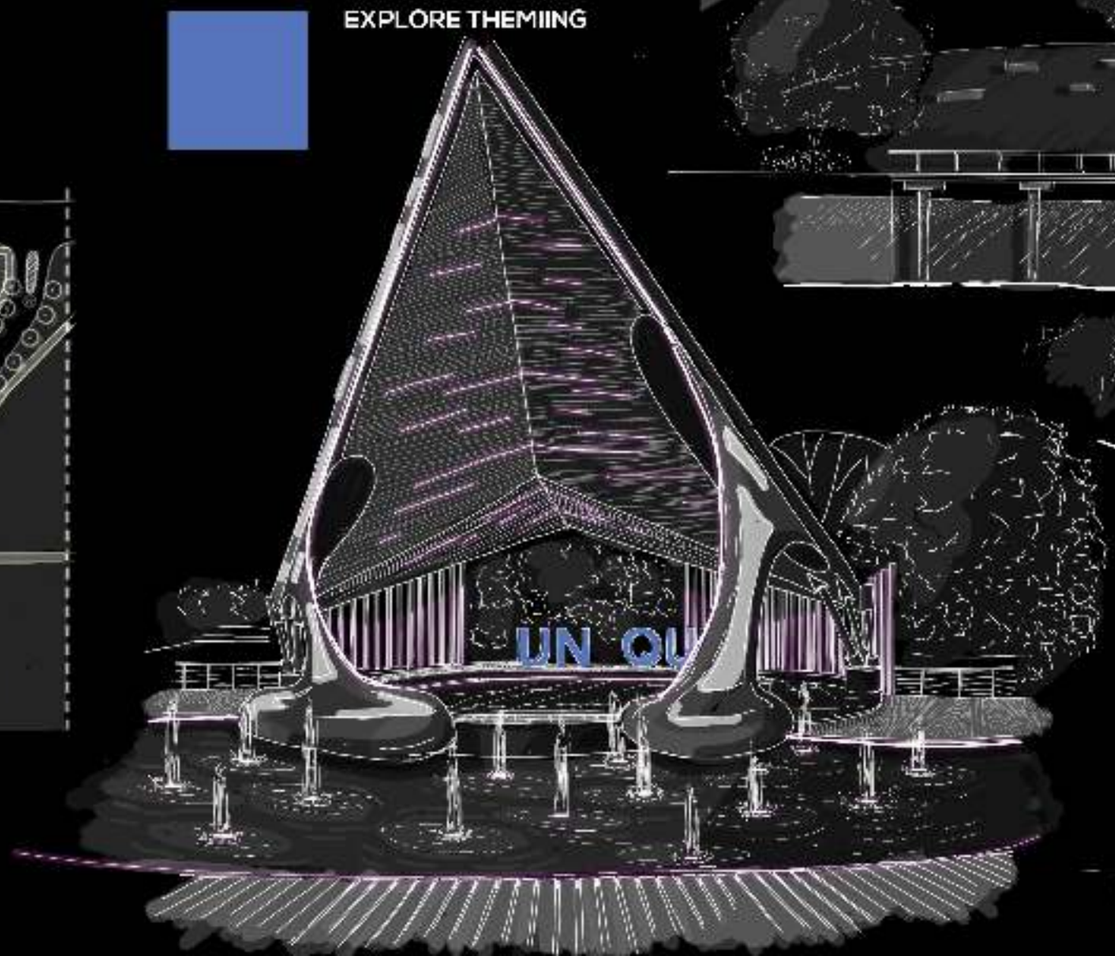
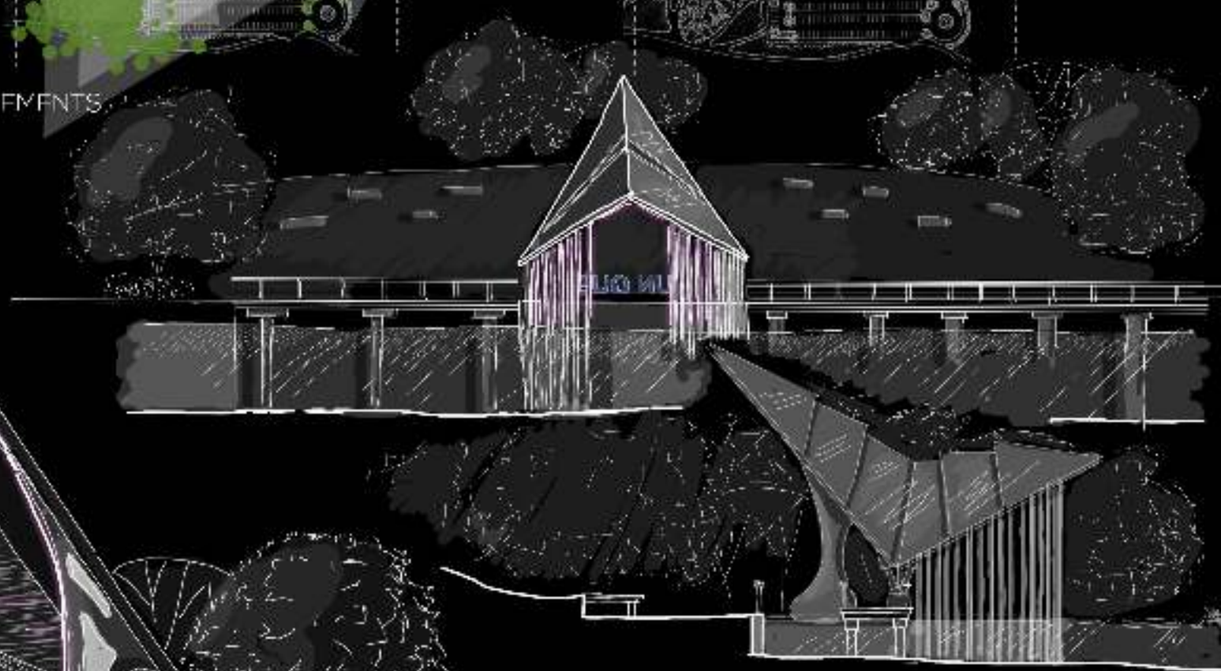
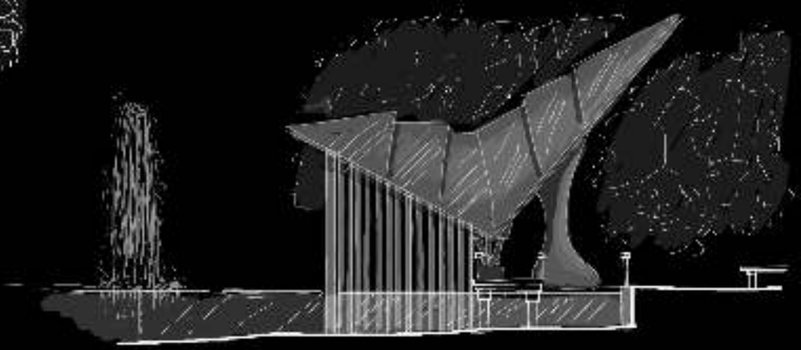









GATHER



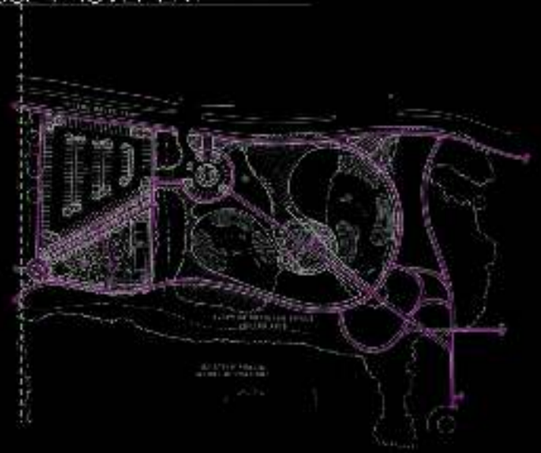




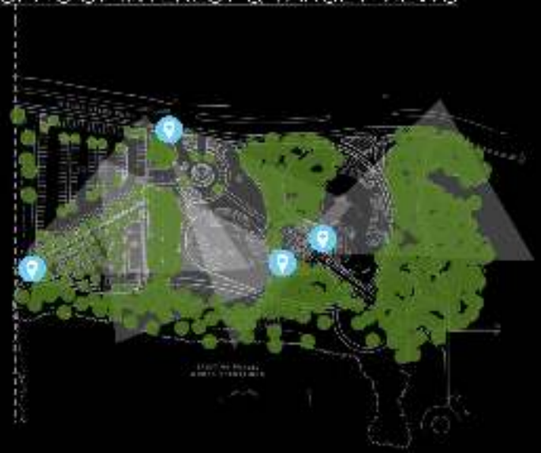
SITE PLAN & PHASE GOALS

Anchoring the east end of the site, the play phase focuses on outdoor games, farmers markets, and dog parks. Guests moving from the existing baseball fields will arrive at the enterance of the play phase, a drop off and pick up location. With another food truck location, yard games, and sand volleyball courts there are enough activities to keep everyone entertained. At the main traffic circle there is enough plaza and open lawn space for weekly farmers markets. Continuing west, hidden in the existing trees, is the central plaza for the dog parks. With one park for large dogs and one for small, anyone can bring their dog and enjoy the day or the farmers market while their dog runs around and plays.

USER MOVEMENT



POINTS OF INTEREST & TARGET VIEWS

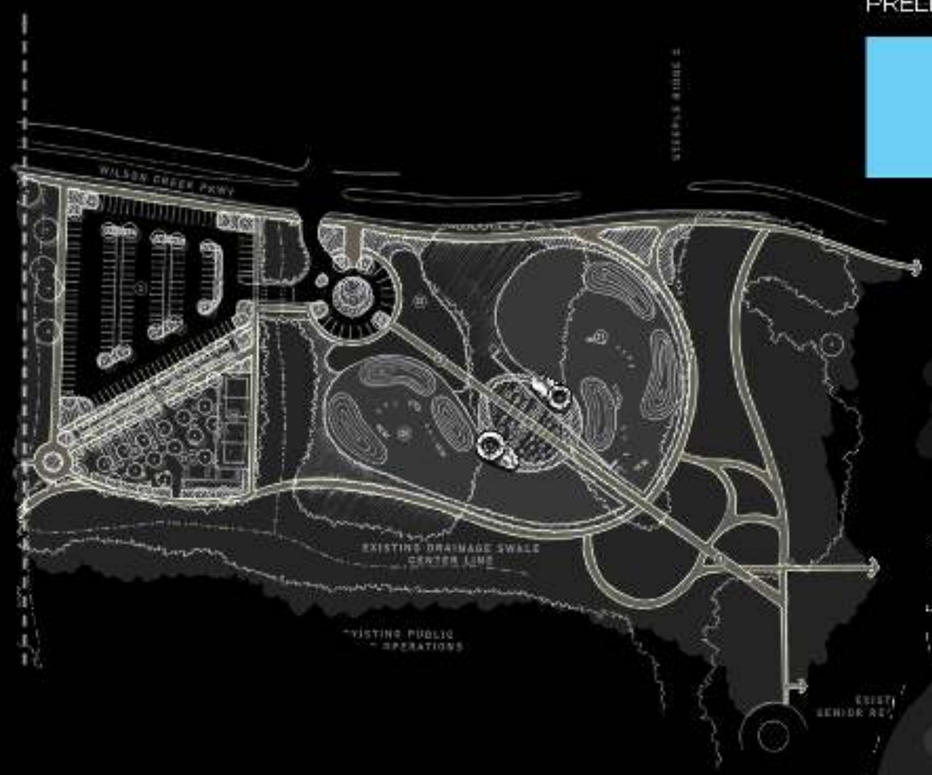


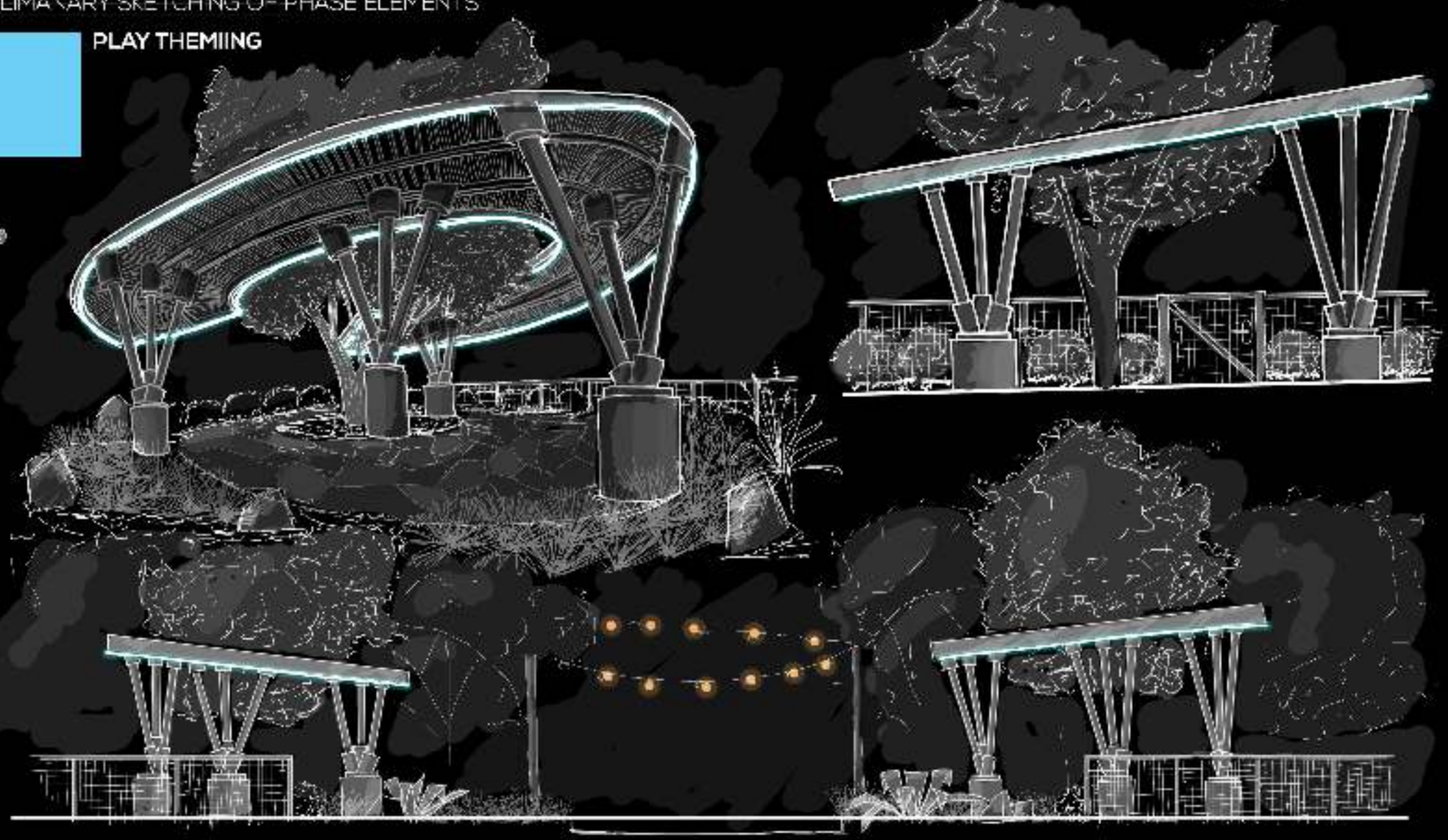
PERSPECTIVE VIEWS



PRELIMINARY SKETCHING OF PHASE ELEMENTS

PLAY THEMING










PLAY





SMART BORDER

PEOPLE NATURE NATIONS

PROJECT INFO

COMPANY: TEXAS TECH UNIVERSITY

ROLE: LANDSCAPE ARCHITECTURE STUDENT

LOCATION: EL PASO, TX

PROJECT GOAL: As our semester project for urban planning we had a class trip to El Paso, Texas. While there we were tasked with identifying an issue that effects the city, and how we as landscape architects could solve the problem. I decided to set out and research the current state of the border crossings that connect El Paso and Juarez. Once I began researching the existing port of entry in downtown El Paso, I realized there was a wider systematic issue with all three ports along the border. The Rio grande a once viberant ecosystem has been concreted over and most of the native vegetation removed, the ports of entry are not a welcomingenvirnment for the thousands of guests that pass through everyday. This research also revealed the environmental impacts that concreting over an entire create. The habitats of native and migrating fauna have been destroyed as well as the water quality downstream.

CREATIVE SOLUTIONS FOR THE FUTURE

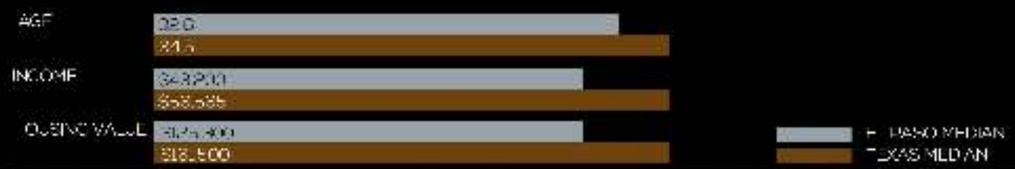
RESEARCH AND DATA

SOCIAL

When designing urban and regional projects it is important to not just study the environmental conditions, but the social and economic breakdown of the area. Looking at the statistical breakdown we seethe trends of wealth, gender, and race. I also wanted an understanding of the density and type of traffic coming into El Paso's ports of entry. For this data set I relied on U.S. Customs data for each port and combined them to the see over numbers for the city. These different data points paint a picture of the border and wider El Paso region.







EL PASO PORT OF ENTRY CROSSINGS

	2010	2014	2015	TWO-YEAR TOTAL (2014-15)	CHANGE (2010-15)	CHANGE (2014-15)
TRUCKS	710,963	746,817	758,074	1,504,891	1.5%	6.27%
PERSONAL VEHICLES	9,967,259	11,573,436	12,247,409	23,820,877	5.8%	-5.8%
PEDESTRIANS	8,930,357	6,523,026	3,847,683	10,370,710	5.0%	-1.19%

KEY PROBLEMS & SOLUTIONS

PEOPLE

I wanted to center my design around connecting people, nature, and nations. Incapsulating the theme of the overall design. Reimagining the ports of entry to be more welcoming I hope to bring people and families together in the new parks and gardens at each port. Turning a place people try to pass through as quickly as possible into a place where they want to stop and enjoy their time in a safe and beautiful site.

NATURE

With an existing detachment from nature that is seen through the existing site with concrete covering the river bed and a once beautiful ecosystem destroyed. One of the three pillars of this project is revitalizing the Rio Grande and surronding ecosystems. To do this a combination of phytoremediation, Low Impact Development, and Bioretention will be implemented to deal with the pollutants that litter the sites. To help with people's connection to nature there is also educational opportunities to spread knowledge and awareness about the beautiful ecosystems they are visiting.

NATIONS

With the project involving the connection points between two countries that are only seperated by a river it is important to highlight how we will always be connected come hell or highwater. Using art installments this messege will be visualized for guests. This messege is also recalled in the design intent by reimagening the ports I hope to make the crossing more welcoming and efficient.

PORTS OF ENTRY SITE ANALYSIS

CITY OVERVIEW

Represented by the orange circle is El Paso's downtown district, and the location of the first port of entry. This close proximity is an opportunity for the design. New studies and research show that walkability through high density districts is a vital aspect of the health and well being of a city and can be capitalized on in the connection between the port and the downtown. Highlighted in green are the existing green spaces in El Paso and Juarez. These could have varying functions, such as, parks, golf courses, or sports complexes. The red band represents the enbankment of the Rio Grande river. This is at the core of the design perameters. Restoring and enhancing the river will be a cornerstone of the project.



NON POINT SOURCE POLLUTANTS

The research and project focuses on mitagating pollutants from the two major systems of transportation (highway, railroad). My design focuses on the revitalization of the Rio Grande. To achieve this we need to mitage the entire system by implementing phytoremediation, low impact development, and bioretention. The goal is to clean groundwater before it reached the river. The railroads and highways will have their own designated design principles that will buff the river, as well as a general buffer that will be installed on the river's edge. By overlaying the focus areas we start to the the target areas that will be the focus for revitalization techniques.



SITE ANALYSIS

Overlaying the non-point source pollution data and site overview is how I created the parameters for the project. The site analysis map is the first look at everything the project intels. Highlighted by the orange circles are the three ports of entry, this is where most of the designing will occur. The blue is the Rio Grande where the river bed restoration and phytoremediation buffer dedicated to water quality will be located. The purple and white are the railroads and roads. The major highways will have their own phytoremediation design guidelines that are designed for road pollution. The railroads will be fitted with their own techniques of phytoremediation as well that focus on metal pollutants from trains.



PORT OF ENTRY #1

UNITY OF NATIONS

The first port of entry is located in the downtown district of El Paso. Focusing on the pedestrian experience lead me to create a promenade to the west of the lanes of traffic that lead guests straight into the busy downtown. This port of entry focuses on the connection between countries. Seen to the right is the proccess I went through to create each piece and the inspiration and meaning behind the design decisions. I also created elevations and details showing the theory behind the design techniques of Low Impact Development, Bioretention and Phytoremediation for roadways. Diagrams and elevations are the best way to represent how the systems will funtion and be integrated into the site.

UNITY OF NATIONS EXPRESSED THROUGH ART



INSPIRATION FOR THE WORK

Alone, we can do so little.
Together, we can do so much.
-Helen Keller



America is God's Crucible, the great Melting-Pot where all the races of Europe are melting and reforming
- Israel Zangwil

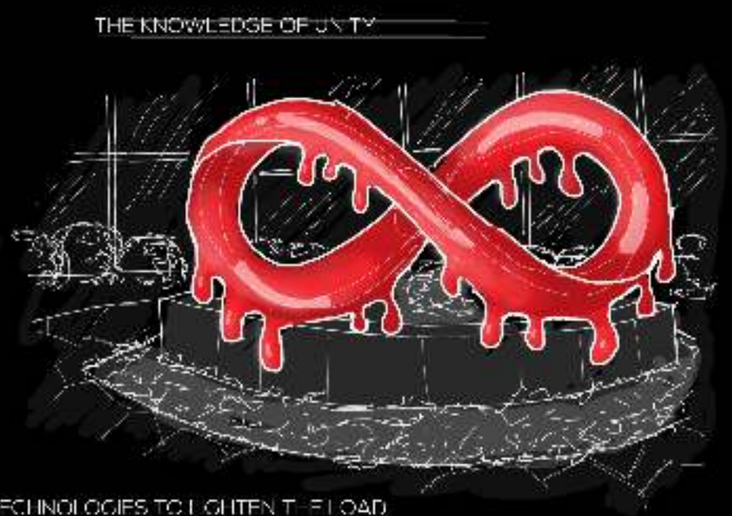
Two countries bound together by geography



TRIALS AND TRIBULATIONS OF PEACE



THE KNOWLEDGE OF UNITY



PORT OF ENTRY #1- PROGRAMMING

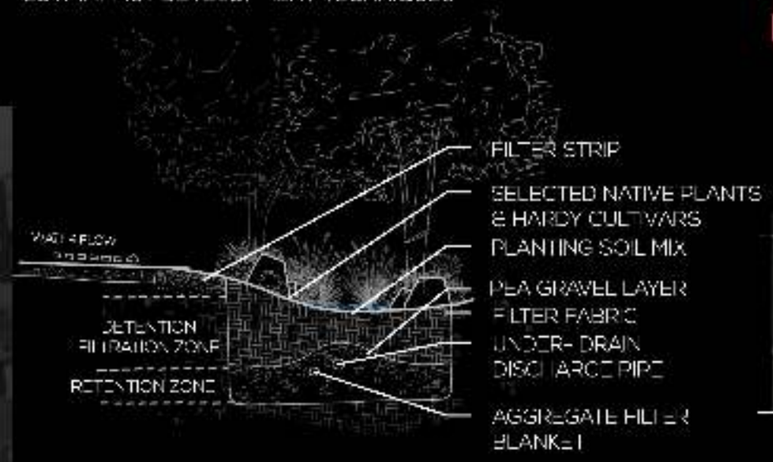
1- Entry From Mexico
2- Bioretention/ Phytoremediation Zones
3- Public Art
4- Green Roof
5- Parking
6- Secondary Entry
7- Tertiary Entry
8- Exit to Downtown El Paso



DESIGN INTERVENTIONS

LOW IMPACT DEVELOPMENT AND GREEN GREEN TECHNOLOGIES

LOW IMPACT DEVELOPMENT TECHNIQUES



BIORETENTION AND PHYTOREMEDIATION

PHYTOREMEDIATION FOR PARKING LOTS



1- AIRFLOW BUFFER
Tree species that trap particulate matter from the air. These pollutants will wash off in the first rain and collect in the following system.

2- STORMWATER FILTER
Typically salt- tolerant plants that will filter out pollutants from the buffer strip.

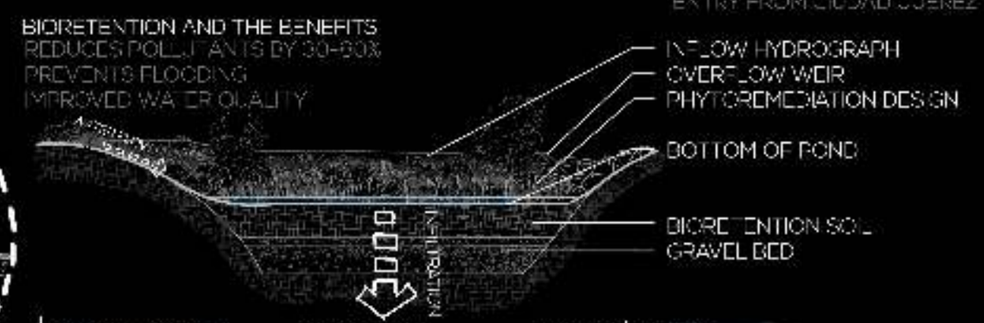
3- SURFACE FLOW WETLAND
Plants are solid that filter out pollutants in a series of designed wetlands.

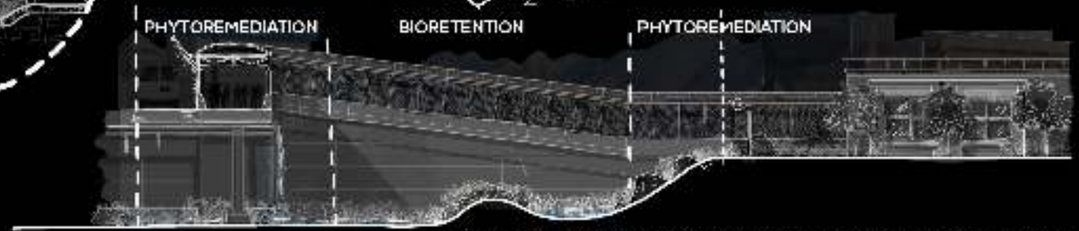
INTEGRATING GREEN TECHNOLOGIES TO LIGHTEN THE LOAD

SOLAR

ENTRY FROM CIUDAD JUAREZ

BIORETENTION AND THE BENEFITS
REDUCES POLLUTANTS BY 30-80%
PREVENTS FLOODING
IMPROVED WATER QUALITY





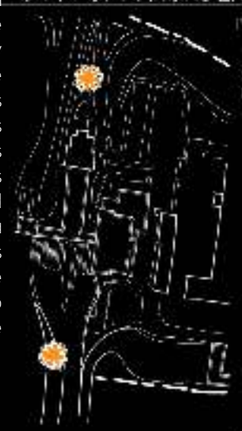
BIORETENTION AND PHYTOREMEDIATION OF BRIDGE RUNOFF

PORT OF ENTRY #2

UNITY BETWEEN PEOPLE

The second port of entry is located adjacent to a large park, capitalizing on this was crucial in the overall design thesis of this site, connecting people. Giving people safe and comfortable spaces to come together and enjoy their time together is so important, and the main theme for this port. This is achieved by retrofitting the roofs with extensive and intensive green roofs. This process is depicted on this page in the implementing green roofs section. The art installments on this site depict this through two seperate pieces "The Good Samaritan" and "The Giving Hand". This port is unique because it has a direct correlation to the existing railroad that passes under the entry bridge. The design guidelines for the phytoremediation of the railroad and it's connection to the site can be seen in the elevation at the bottom of the page.

UNITY OF NATIONS EXPRESSED THROUGH ART



INSPIRATION FOR THE WORK

"Remember there's no such thing as a small act of kindness. No act of kindness, however small, is ever wasted"
– Aesop

- "You have two hands: One to help yourself, the second to help others"
- – Audrey Hepburn

- "I awoke and saw that life was service. I acted and behold, service was joy" –
Rabindranath Tagore

THE GOOD SAMARITAN



THE GIVING HAND



PORT OF ENTRY #1- PROGRAMMING

1- Entry From Mexico
2- Bioretention/ Phytoremediation Zones
3- Public Art
4- Green Roof
5- Low-impact Development
6- Secondary Entry
7- Tertiary Entry
8- Connection to Adjacent Park
9- Exit to El Paso



DESIGN INTERVENTIONS

INTEGRATING GREEN ROOFS

DIFFERENT CLASSIFICATIONS OF GREEN ROOFS

EXTENSIVE GREEN ROOFS

Extensive green roofs are designed to reap the benefits that green roofs offer, at minimal cost and with very little maintenance.

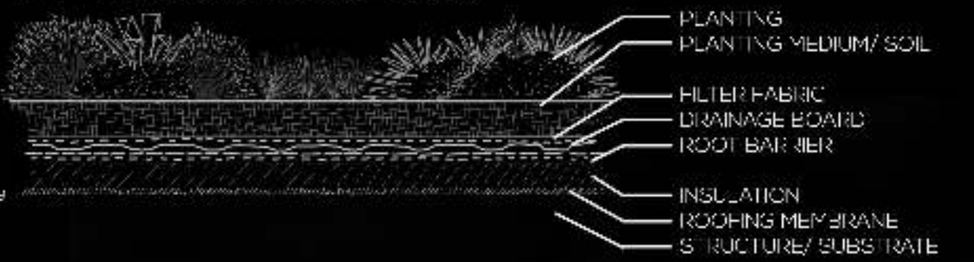
BIODIVERSE GREEN ROOFS

Biodiverse green roofs are low maintenance roofs designed to create or replace natural habitats.

INTENSIVE GREEN ROOFS

If you want a garden on your roof, perhaps if you are hoping to plant shrubs and have a mown grass area, this solution is the most appropriate, but it is the heaviest and requires the same maintenance of any garden.

IMPLEMENTATING EXTENSIVE GREEN ROOFS





MAIN ENTRY FROM UNITED STATES

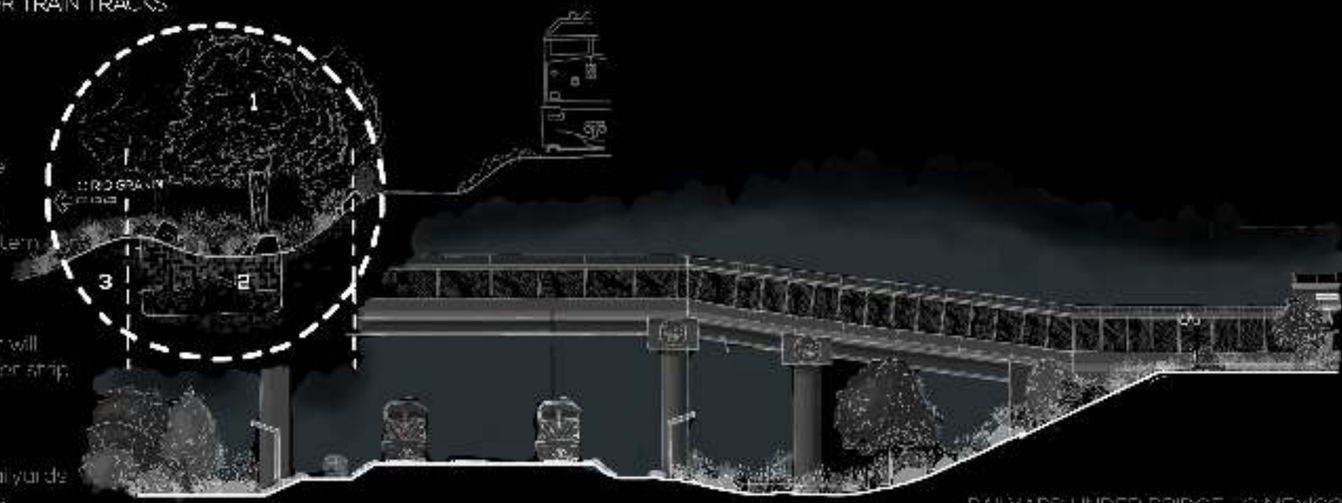
BIORETENTION AND PHYTOREMEDIATION

PHYTOREMEDIATION FOR TRAIN TRACKS

1 AIRFLOW BUFFER
Tree species that trap particulate matter from the air. These pollutants will wash off in the first rain and collect in the following system.

2- STORMWATER FILTER
Typically salt- tolerant plants that will filter out pollutants from the buffer strip.

3- MULTI-MECHANISM BUFFER
Heavily vegetated buffer along railyards will mitigate organic contaminants.



RAILYARD UNDER BRIDGE @ MEXICO

PORT OF ENTRY #3

UNITY WITH NATURE

The third port of entry is highlighting humans experience with nature and the importance of connecting to the beautiful world around us. Nature provides us life and safety only if we protect and give life back to this earth. This connection is also shown in the art features on the site. You can see more about the inspiration and how I tied all the art pieces together to the right. The native grassland that is in between the port and the river is a perfect location to show the phytoremediation techniques that will occur down the length of the river. This technique is depicted in the elevation below. Above that is a section showing the importance of knowing the region a project is located. El Paso is located in the USDA zone 8B. This information lets us know what species are adaptive to the region and can be successful. This boils down to plants that can be planted here and act as native plants requiring little to no irrigation help.

PORT OF ENTRY #1- PROGRAMMING

1- Entry From Mexico
2- Bioretention/ Phytoremediation Zones
3- Public Art
4- Green Roof
5- Low-impact Development
6- Secondary Entry
7- Tertiary Entry
8- Connection to Adjacent Park
9- Exit to El Paso



UNITY OF NATIONS EXPRESSED THROUGH ART

INSPIRATION FOR THE WORK



- "If the environment is happy, people will laugh and your grief will go away."
  - Srinivas Mishra
- "Land really is the best art."
  Andy Warhol
- "The earth is always changing...readjusting to our existence. Each era is full of unique challenges"
  - Val Plumwood

THE PROTECTOR



MOTHER NATURE'S LOVE



DESIGN INTERVENTIONS

NATIVE AND ADAPTIVE PLANTS

NATIVE AND ADAPTIVE PLANTS FOR EL PASO

A native plant is "a plant that has evolved in a given place over a period of time sufficient to develop complex and essential relationships with the physical environment and other organisms in a given ecological community."

-Doug Tallamy, Professor of Entomology and Wildlife Ecology at the University of Delaware



USDA HARDINESS ZONE 8B

TRANS-PECOS MOUNTAINS AND BASIN

MIN. AVERAGE TEMPERATURE

15- 20°

NATIVE TREES

Cottonwood (Populus sp.)

Desert Willow (Chilopsis linearis)

Honey Mesquite (Prosopis glandulosa)

Mondell Pine (Pinus edulis)

Live Oak (Quercus Virginiana)

NATIVE SHRUBS

Desert Spoon (Dasylirion wheeleri)

False Yucca (Hesperoyucca parviflora)

Big Sagebrush (Artemisia tridentata)

Silver Sagebush (Artemisia cana)

Mahonia (Mahonia repens)

NATIVE GRASSES

Gulf Muhly (Muhlenbergia capillaris)

Deergrass (Muhlenbergia rigens)

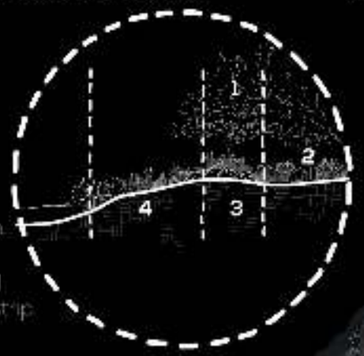
Side-oats Grama (Bouteloua curtipendula)



BIORETENTION EXISTING SITE

RIVER PHYTOREMEDIATION

PHYTOREMEDIATION FOR RIVER CONNECTIONS



1- AIRFLOW BUFFER
Tree species that trap particulate matter from the air. These pollutants will wash off in the first rain and collect in the following system.

2- STORMWATER FILTER
Typically salt-tolerant plants that will filter out pollutants from the buffer strip.

3- STABILIZATION MAT
Vegetation capping is used to reject contaminants and people from interacting.

4- MULTI-MECHANISM BUFFER
Heavily vegetative buffer along the river to remove organic contaminants.

GRASSES AND POLLUTANTS

REDUCES POLLUTANTS BY

30-80%

COURTYARD ESCAPE AND PHYTOREMEDIATION TO RIO GRANDE

RESURRECTED REEF

PROJECT INFO

COMPANY: TEXAS TECH UNIVERSITY

ROLE: LANDSCAPE ARCHITECTURE STUDENT

LOCATION: BRITISH VIRGIN ISLANDS

PROJECT GOAL: The capstone project takes place over the fall and spring semester of your final year. The first semester is locating your project and researching the core issues that effect your location. The final product is a presentation showing where, why, and how it relates to landscape architecture. This must be presented and defended to the entire facultly of the landscape architecture department. If they don't feel the evidence or project is at a point to continue the project has to be started over the next year. With the stakes so high I wanted to study an issue close to my heart. The fisrt teacher I had that showed me how to have passion in school was my marine biology teacher in high school. I remember sitting in her class watching a documentary from Sylvia Earl and wanting to find a solution to protect our un seen world that is our ocean, After two diving trips to the British Virgin Islands (B.V.I) where I got to experience this amazing and fragile ecosystem firsthand. I knew I wanted to help to protect the Islands, Then when the islands were 90% destroyed in the 2017 during Hurrican Harvey I realized something had to be done right now. Why as landscape architects and environmental planners do our designs stop at the start of the ocean, when there is a whole new world right under the waterline.

SITE CONTEXT





MAP LEGEND

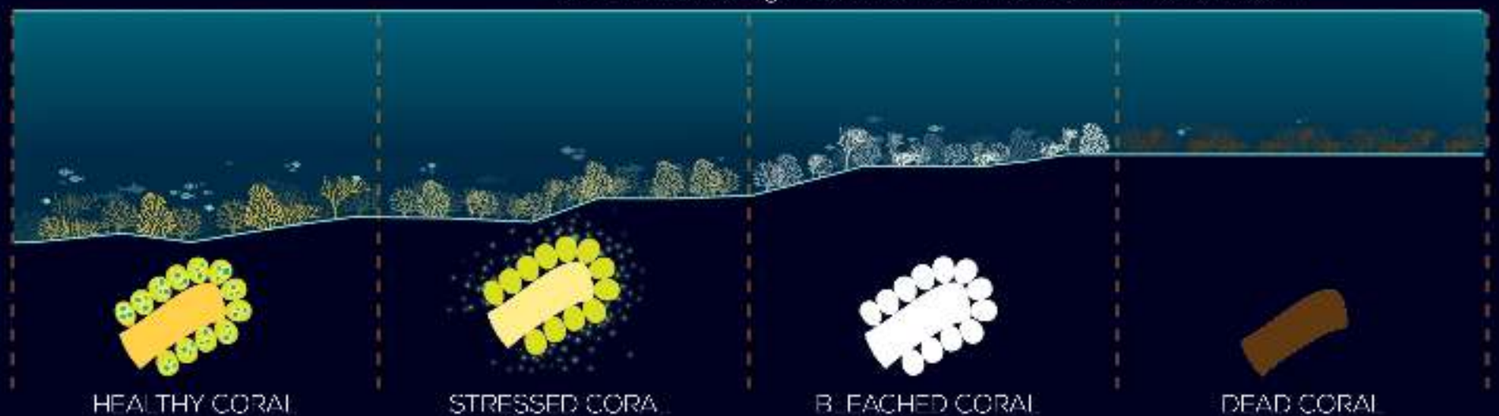
- PROJECT BOUNDARY
- POPULATION CENTER
- U.S. VIRGIN ISLANDS
- FERRY LOCATION
- BRITISH VIRGIN ISLAND

PROJECT **DILEMMA**

Due to climate change and human activity, coral reef ecosystems are declining at an accelerated rate. This is caused by multiple reasons such as ocean **temperature**, rising **sea levels**, **coral bleaching**, and a loss of biodiversity due to overfishing.

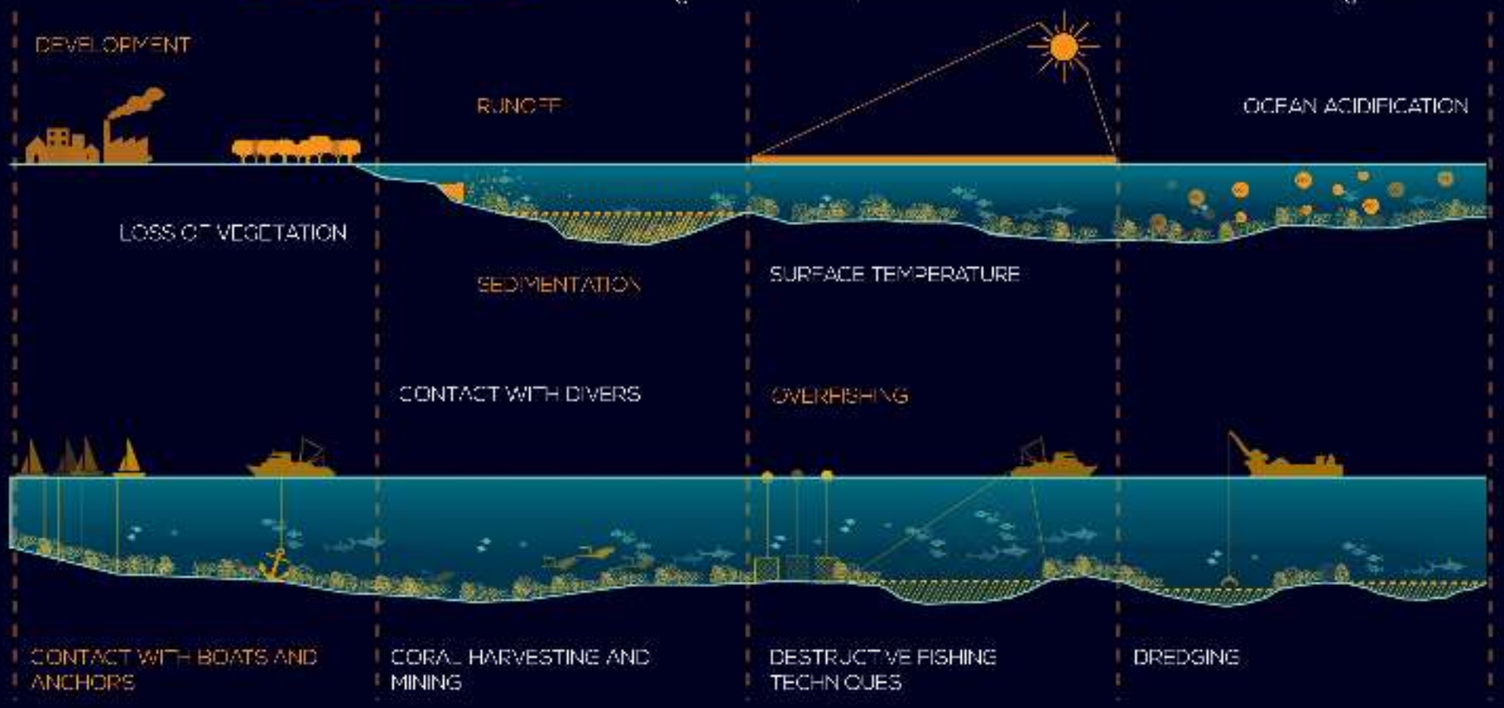
WHAT IS **CORAL BLEACHING**

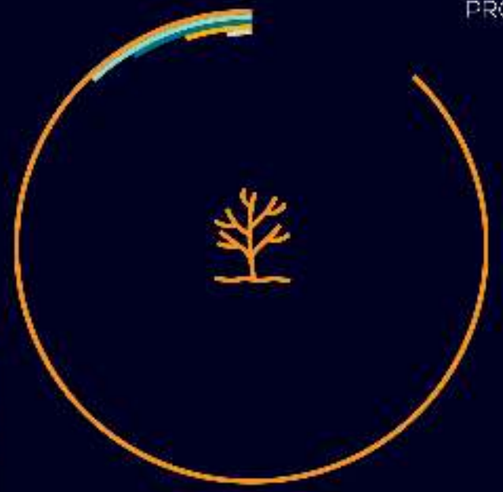
The diagram below show the process in which the algae leaves coral structures leaving them vulnerable to bleaching. This causes the coral to die with no chance of return.



CAUSES OF **CORAL DECLINE**

Below are the different natural and anthropogenic causes of coral and habitat destruction. The titles in orange show the most prominent causes of destruction in the British Virgin Islands.





PROTECTION OF CARIBBEAN CORAL REEFS

- 80% Reefs outside of MPAs
- 8% Reefs in MPAs rated as inadequate
- 7% Reefs in MPAs under an unknown level of management
- 3% Reefs in MPAs rated as partially effective
- 1% Reefs in MPAs rated as good



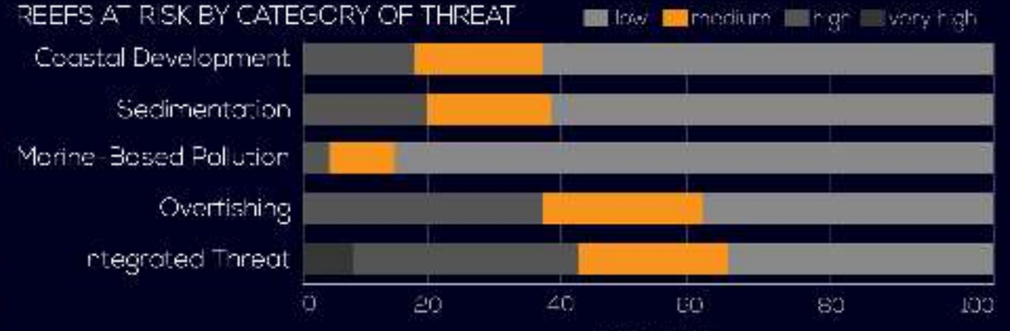
CORAL REEFS

88% of coral reefs in the Caribbean are threatened by anthropogenic activities

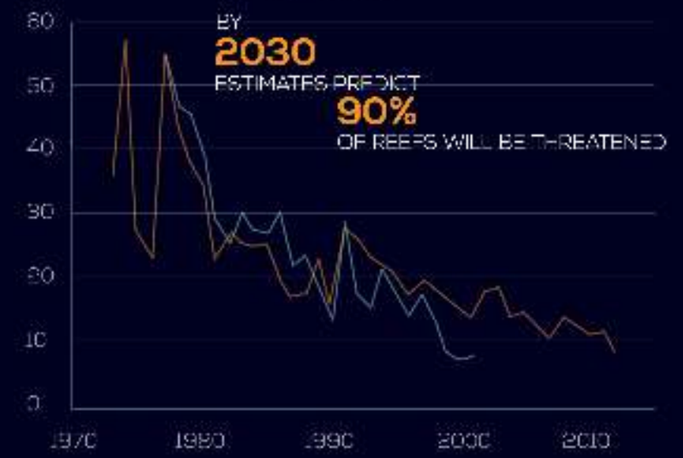


OVERFISHING

60% of coral reefs in the Caribbean are threatened by overfishing



With different natural and athropogenic activities effecting coral development, current studies show by 2030 90% of coral reefs around the world will be classified as threatened and by 2050 coral extinction events will be widespread.



WHY IS CORAL **IMPORTANT**

TO THE BRITISH VIRGIN ISLANDS ECONOMY

The coral reefs around the world and in the region not only effect the ecosystem but also have direct influences on social and economic behavior. With the degradation of these underwater landscapes the damage does not just affect the integrity of the system but also the **Health**, **Safety**, and **Welfare** of the region's population.



AGRICULTURE
0.2% composition of GDP
0.6% labor force

SERVICES
93.1% composition of GDP
59.4% labor force

INDUSTRY
6.8% composition of GDP
40% labor force



ECONOMY
45% of B.V.I economy is from the tourism industry

934,000 Annual Tourists

With **DIVE TOURIST** spending

60-80% More

CORAL REEF-ASSOCIATED FISHERIES
$310 million annually

Degredation of the regions reefs could reduce net annual revenues by

$95-$140 million

This relates to



Of the annual revenue

COASTAL PROTECTION
$2.2 billion annually

Degredation of the regions reefs could reduce net annual revenues by

$140-$420 million

This relates to



Of the annual revenue

DIVE TOURISM
$2.1 billion annually

Degredation of the regions reefs could reduce net annual revenues by

$100-$300 million

This relates to



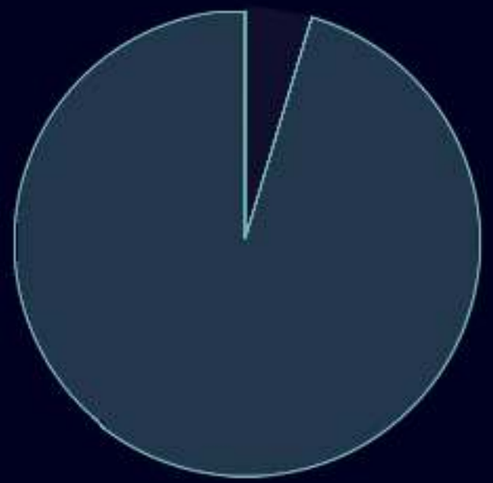
Of the annual revenue

TOP 5 EXPORTS



TO THE BRITISH VIRGIN ISLANDS ECOSYSTEM

Coral reefs are not only vital to the economy and jobs but also vital to our environment. Coral reefs have the highest levels of biodiversity in any ecosystem on earth, as well as provide protection and food for the islands and the rest of the world.



BLEACHING EVENT OF 2005
80% of reefs in the british virgin islands were bleached during the 2005 bleaching event. This was followed by hurricanes in 2009 and 2010, and a wave event in 2010. Hurricane Harvey also left the islands destroyed.



CORAL REEFS
66% of coral reefs in the Caribbean are threatened by anthropogenic activities



ECONOMY
45% of B.V.I economy is from the tourism industry



COASTAL DEVELOPMENT
70% of coral reefs in the Caribbean are threatened by coastal development



HABITAT PROTECTION
30% of habitats are being protected in the area

63 POPULAR DIVE SITES
57 CORAL REEF SITES
6 ARTIFICIAL REEFS
60 ISLANDS AND CAYS
59 SQUARE MILES

PROJECT **DIAGRAM**

KEY PROBLEMS & SOLUTIONS

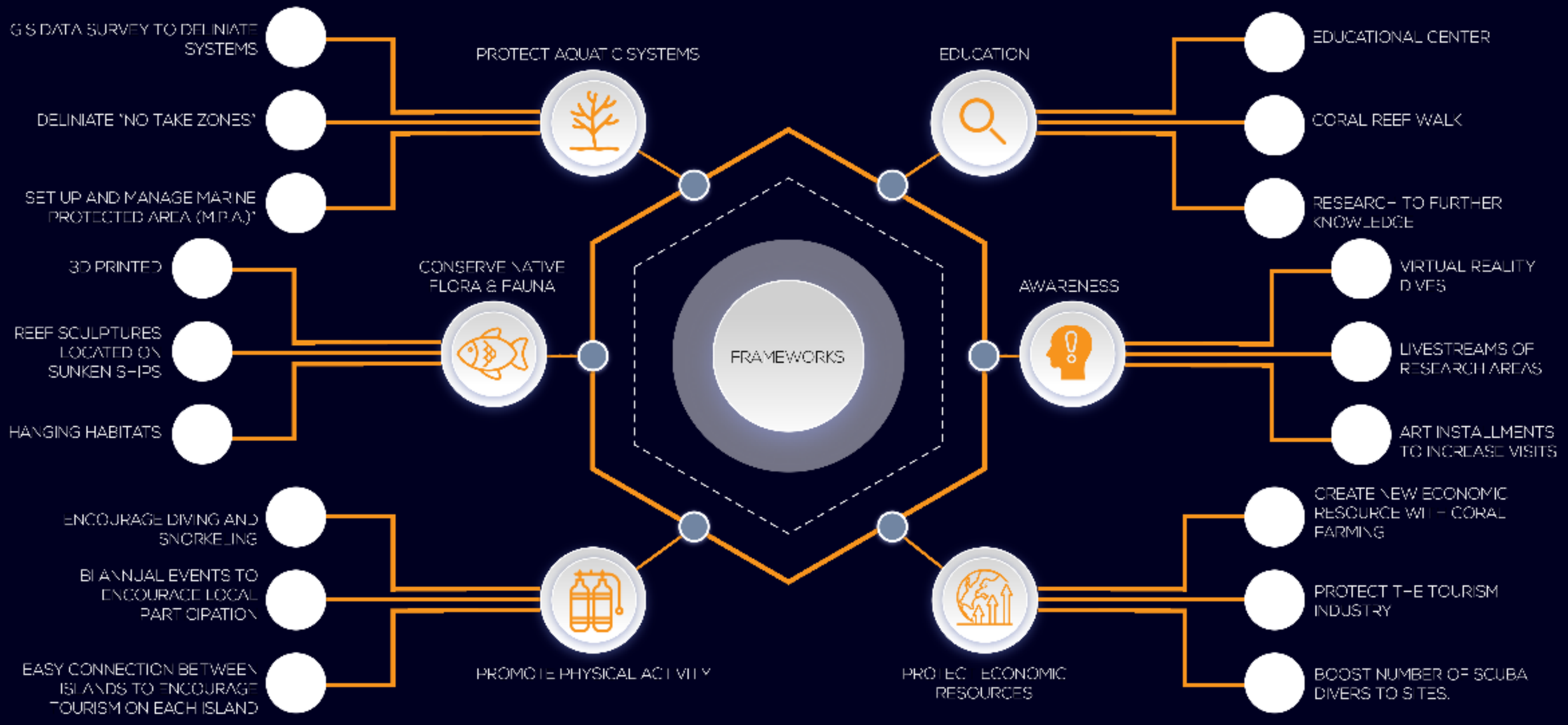
OVERFISHING
- incentives for sustainable fishing
- sensing
- penalties for illegal fishing

DEVELOPMENT
- insentives for sustainable development
- codes for vegetative buffers & native species
- LID & phytoremediation

SEDIMENTATION
- buffers around coastal roads
- codes to limit runoff on residential and commercial
- phytoremediation to help lower sedimentation

CONTACT WITH SHIPS
- markers to alert boats of reef locations
- coral farms to quickly replace destroyed coral
- community engagement to report destroyed reefs

FRAMEWORKS & SUBSEQUENT PROGRAMMING



PROJECT **PRECEDENTS**

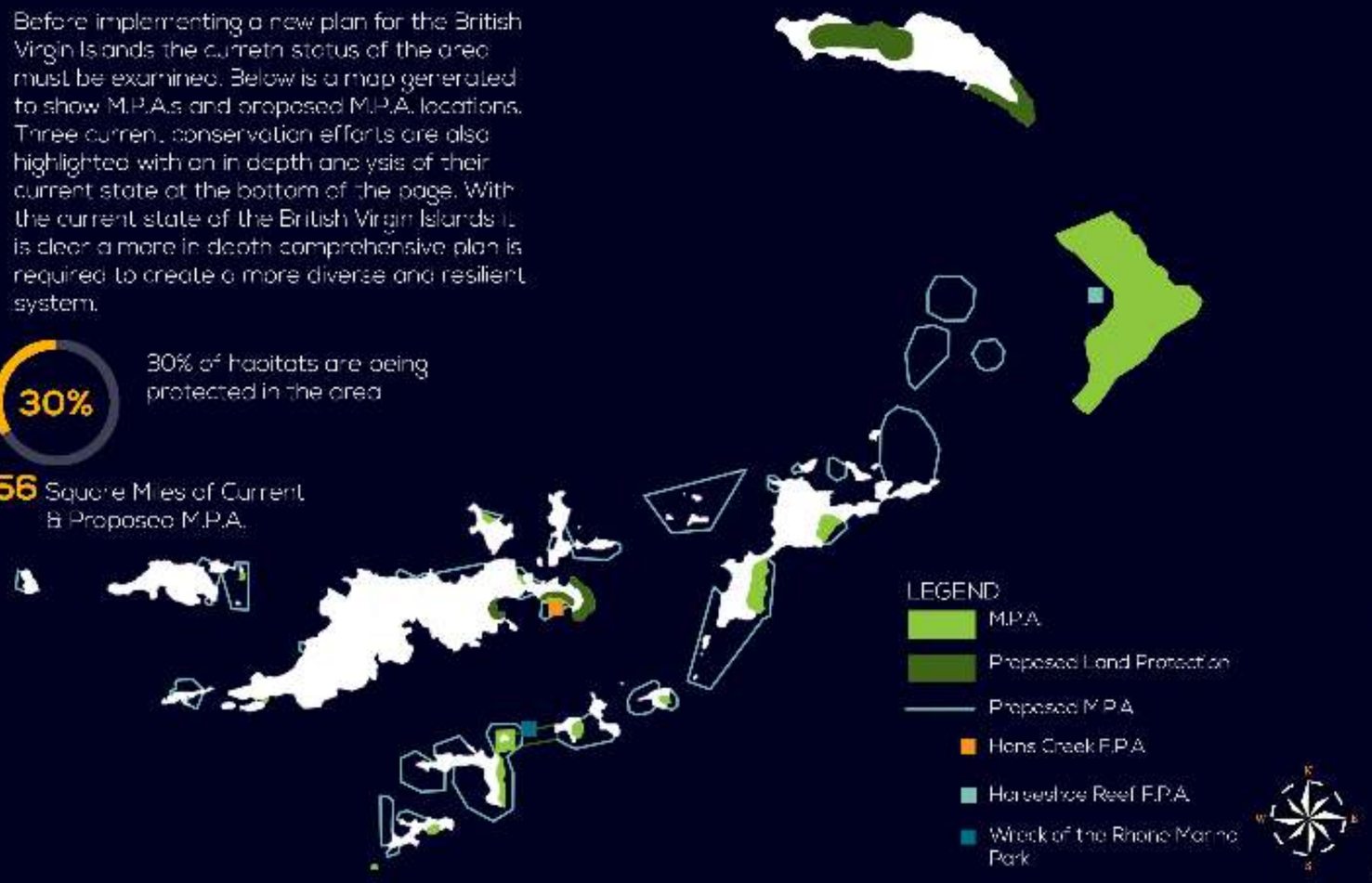
REEF RESILIENCE NETWORK

BRITISH VIRGIN ISLANDS- MPA DESIGN

Before implementing a new plan for the British Virgin Islands the current status of the area must be examined. Below is a map generated to show M.P.A.s and proposed M.P.A. locations. Three current conservation efforts are also highlighted with an in depth analysis of their current state at the bottom of the page. With the current state of the British Virgin Islands it is clear a more in depth comprehensive plan is required to create a more diverse and resilient system.

30% 30% of habitats are being protected in the area

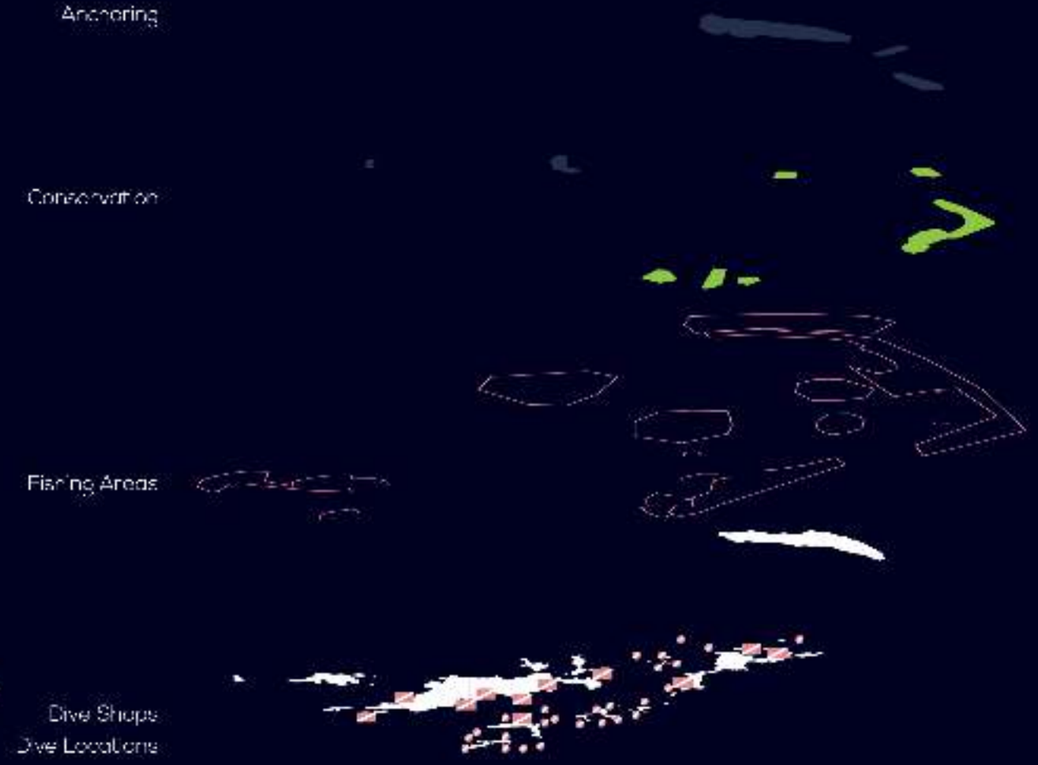
56 Square Miles of Current & Proposed M.P.A.



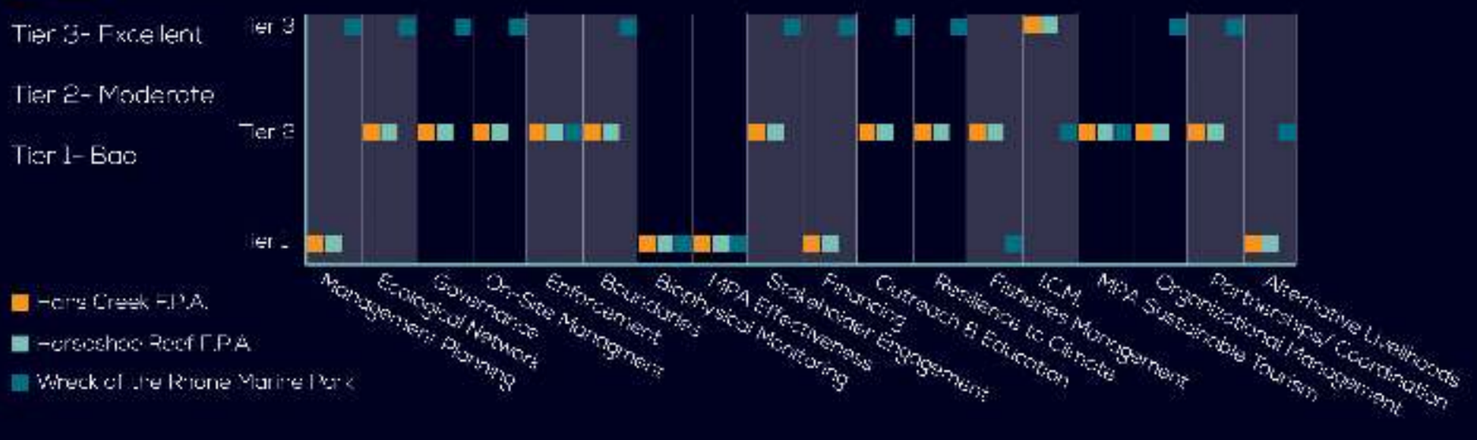
STAKEHOLDER FEEDBACK

INFORMATION FROM B.V.I - MPA DESIGN

Stakeholder feedback is crucial in designating an M.P.A. in these meetings the public helps in mapping important fishing locations as well as dive spots, anchoring locations and the current seen conservation projects



DATA ON CURRENT STATUS OF B.V.I MPA



OTHER PROJECT **PRECEDENTS**

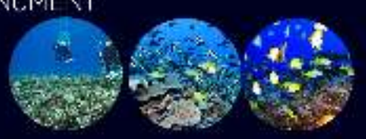
FLOWER GARDEN MARINE NATIONAL SACTUARY
SIZE: 383 sq. miles



ROSE ATOLL MARINE NATIONAL MONUMENT
SIZE: 13,436 sq. miles



PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT
SIZE: 139, 797 sq. miles



M.P.A. **PROCESS**
MANAGEMENT



The Resurrected Reef

Ophion Canopy
The Ophion Canopy is the division of the project whose goal is the oversee the back and forth between the three branches of the project. Ophion will also be in charge of the communication for overall plans to keep comprehensive notes of management and research.

Okeanus M.P.A.
The Okeanus M.P.A. will be the designated management body over the M.P.A. and all implementation, management, and enforcement of codes and laws in accordance to the M.P.A.

Tethys I.C.M.
The Tethys I.C.M. will be in charge of engagement on the islands with implementing, management, and enforcement of conservation efforts on land that will work alongside the M.P.A.

Hyperion
The Hyperion division will be responsible for all post occupancy studies and research. This division will also lead the public engagement of the project. To have a successful approach to conservation the project must have accurate data as well as public support.

M.P.A. PHASE I TIMELINE

SURVEYING

FAUNA
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

FLORA & REEF AREAS
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

GIS DATA
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan. Lorem Ipsum

IMPLEMENTATION

1 ZONING
The **adaptive management plan** that will form from

2 MOORING LOCATIONS
The **adaptive management plan** that will form from

3 REEF SCULPTURES
The **adaptive management plan** that will form from

4 3D PRINTED REEFS
The **adaptive management plan** that will form from

5 V.R. & LIVESTREAMS
The **adaptive management plan** that will form from

MONITORING

DIVE TEAMS
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

CORAL DEVELOPMENT
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

FISH POPULATIONS
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

RESEARCH

TOURISM
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

SUCCESS OF DESIGN
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

FISH PATTERNS
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

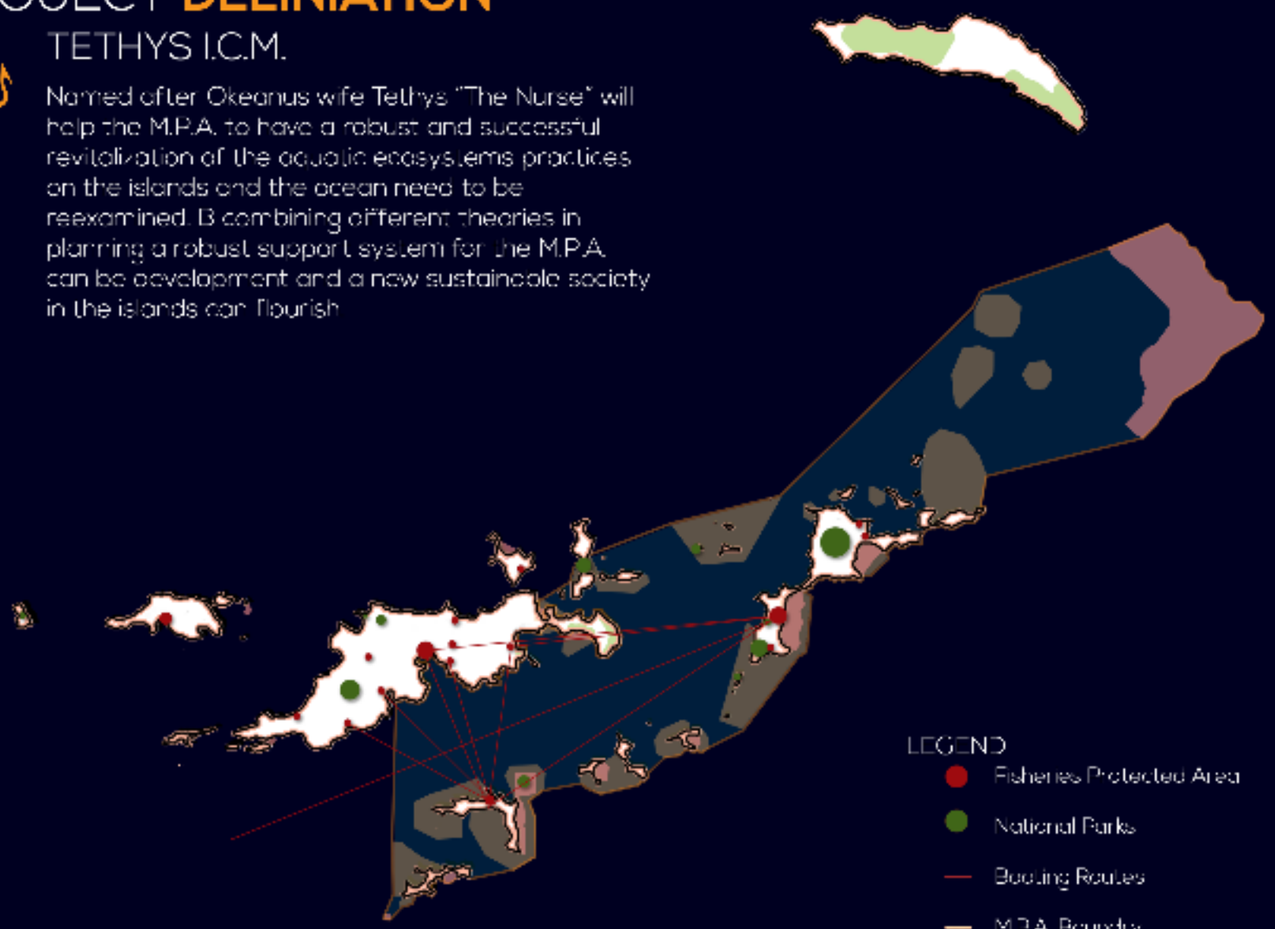
PHASE II

Olympian Phase II
The **adaptive management plan** that will form from research and post occupancy studies will begin phase II and **restart** the timeline to create a more resilient plan.

PROJECT **DELINIATION**

TETHYS I.C.M.

Named after Okeanus wife Tethys "The Nurse" will help the M.P.A. to have a robust and successful revitalization of the aquatic ecosystems practices on the islands and the ocean need to be reexamined. B combining different theories in planning a robust support system for the M.P.A. can be development and a new sustainable society in the islands can flourish



PLANNED TRANSPORTAION

TRANSIT ORIENTED DESIGN

Focusing on development around transportation HUBs, leads to walkible and sustainable cities.

LEADS TO

REBUILDING OF INFRASTRUCTURE

removing dilapidated and gravel roads decreases pollutants that can enter hydrological systems

KEEPING OPEN SPACES OPEN

A beneficial side effect of Transit Oriented design is the ability to keep open spaces open.

SUSTAINABLE DEVELOPMENT

With the opportunity of redeveloping around tranportaion HUBs. It is crucial to implement sustainable design.

VEGETATIVE BUFFERS



VEGETATIVE BUFFERS will be required for areas of the island that border no take and restricted take zones for future development. If no vegetative buffer is implemented a fine or donation to mitigation will be enforced. This will allow protection from the sea and land.

FOCUSED AT

NO TAKE ZONES

&

RESTRICTED TAKE ZONES

SUSTAINABLE DEVELOPMENT DESIGN FRAMEWORKS

NEW URBANISM

Future development will follow the following design principles in new urbanism.

1. Walkability
2. **Connectivity**
3. Mixed- Use
4. Quality Architecture
5. Increased Density
8. **Smart Transportaion**
9. **Sustainability**
10. Quality of Life

LOW IMPACT DEVELOPMENT

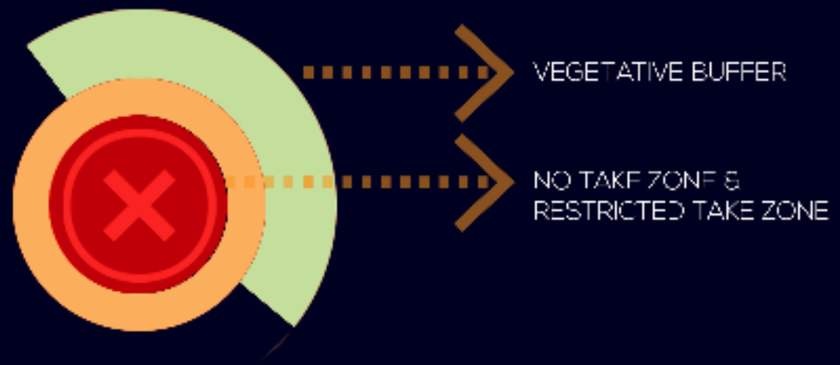
Future development will follow the following design principles in stormwater management.

1. New developments will have **runoff requirements**, failure will result in fines.
2. New coastal roads will have requirement of **bioswells** as well as **vegetative** buffers.
3. Incentives will be offered for following **LEED** and **SITEs** grading

PHYTOREMEDIATION

Phytoremediation will be implemented around areas with high pollutions, such as:

1. Roadways/ Parking Lots
2. Parks, Open Spaces, Lawns, Golf Courses
3. Greenways
4. Coastal Gas Stations
5. Light Industrial
6. Agriculture
7. Airports



PROJECT DELINIATION

TETHYS I.C.M.

PLANNED TRANSPORTAION
TRANSIT ORIENTED DESIGN



CONNECT

PUBLIC TRANSPORT

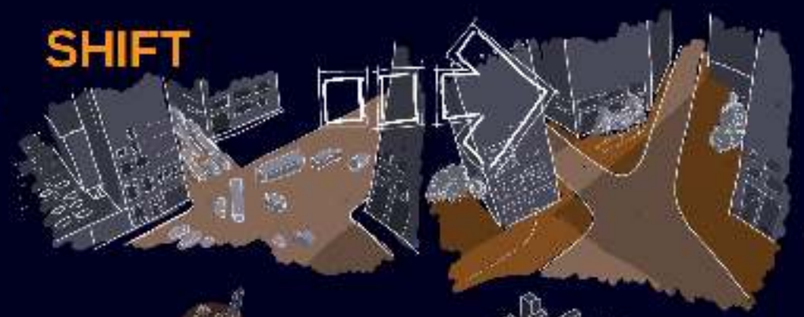


PORT OF ENTRY #1- PROGRAMMING

- PHYTOREMEDIATION BUFFER
- KEEPING OPEN SPACE OPEN
- EXISTING DEVELOPMENT
- PORTS
- FUTURE DEVELOPMENT



SHIFT





COMPACT

DENSIFY



MIX



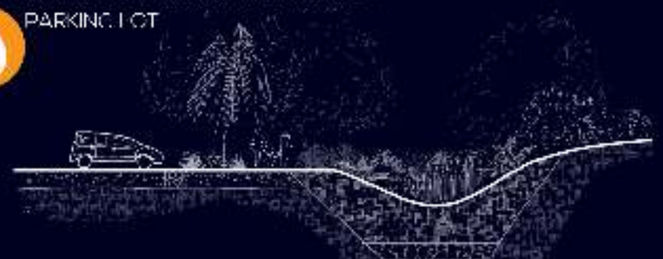
- OFFICE
- MIXED RESIDENTIAL/ OFFICE
- COMMERCIAL
- INSTITUTIONAL
- RESIDENTIAL

DESIGN INTERVENTIONS

LOW IMPACT DEVELOPMENT AND GREEN GREEN TECHNOLOGIES

IMPLEMENTING LOW IMPACT DEVELOPMENT

PARKING LOT



ROADWAY WITH ELEVATION CHANGE

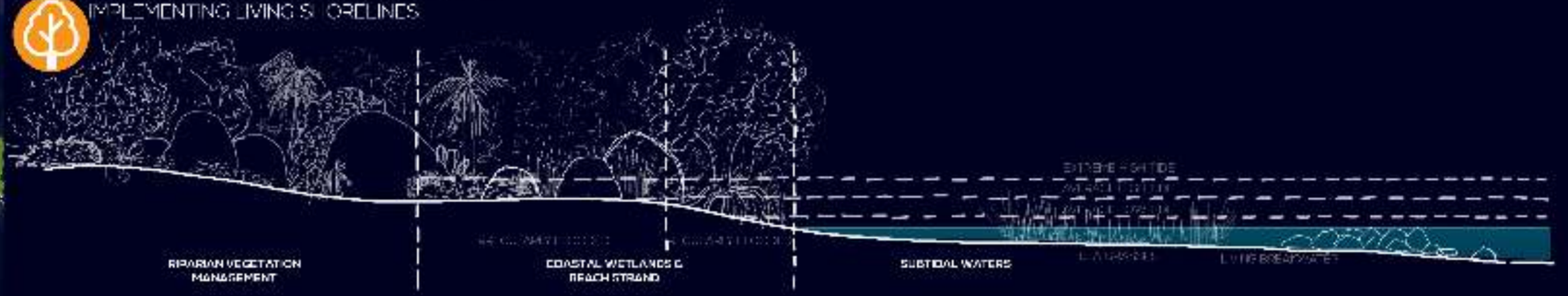


ROADWAYS



IMPLEMENTING PHYTOREMEDIATION

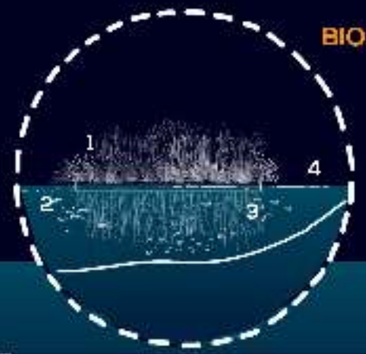
IMPLEMENTING LIVING SHORELINES



HIGH DENSITY CONNECTION TO WATER



BIOHAVEN FLOATING WETLAND



1. TERRESTRIAL HABITAT CREATION
2. AQUATIC HABITAT CREATION
3. WATER QUALITY TREATMENT
4. EROSION CONTROL

PROJECT **DELINIATION**

OKEANOS (OCEANUS) M.P.A.

Named after the Titan god of the ocean. The Okeanos M.P.A. aims at creating one continuous and comprehensive plan for the British Virgin Islands.

"To **protect** and **preserve** the breeding grounds and habitats of the British Virgin Islands and nuture the **regeneration** of aquatic life."



NO TAKE ZONES
No removal
Full protection
Highest management

RESTRICTED ZONES
Licensing
Protection
Moderate management

M.P.A. BOUNDARY
Requirement
Protection
Minimal management

SECONDARY BOUNDARY
Current fishing laws
Current protection
Minimal management

FISHING LOCATIONS

METHOD FOR MPA DELINEATION

1 First all current and proposed conservation plans were cataloged and analyzed as case studies and to deliniate the new plan.



2 Based on public input meeting notes, fishing locations were outlined and protected. This will gain local support as well as protect the industry. Anchoring location were also cataloged



3 The Marine Protected Area (MPA) was then assigned to creat a continuous MPA system through the southern islands. This will create the most resilient system.



4 "No Take Zones" were oriented based on current conservation location, while restricted take zone were located on proposed MPA locations.



GUIDING PRINCIPLES FOR MANAGING M.P.A.

PRINCIPLE 1
Connectivity between terrestrial and marine areas as well as connectivity between M.P.As

PRINCIPLE 2
M.P.A. must be based on the best available knowledge.

PRINCIPLE 3
The success of the project depends on producing perceived benefits and tangible outcomes that contribute to improved quality of life.

PRINCIPLE 4
Strengthened and effective relationships between stakeholders and institutions

PRINCIPLE 5
M.P.A. management should be an integral part of ICM Governance.

PRINCIPLE 6
Planning of individual M.P.A.s should be participatory and integrated into the social, economic and broader ecosystem to insure sustainability

PRINCIPLE 7
Adequate resources and capacity is essential to success.

PRINCIPLE 8
The effectiveness of M.P.A.s and their incorporation into ICM's depends on the appropriate tools, guidelines, and training personnel

PRINCIPLE 9
Ecologically coherent networks of M.P.A.s including geological and oceanographic Consideration provide a sound spatial management tool that prioritizes biodiversity.

DATA ON MPA IMPLEMENTATION

196 Square Miles M.P.A.

36 Square Miles "No Take Zones".

20 Square Miles of "Restricted Take Zones"



70% increase in M.P.A. size.



30% of M.P.A. dedicated to no take and restricted take zones.

CORAL **REVITALIZATION**

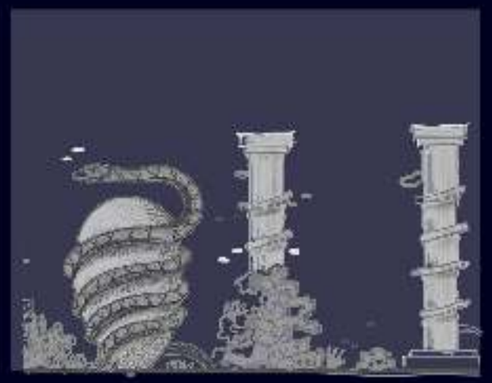
Coral revitallization is vital not only to the environment of the islands but also to the future of the cornerstones of the island's economy. The map diagrams how the MPA looks to protect this important system.



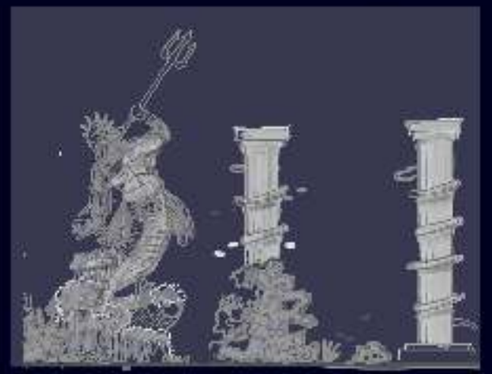
30% 30% of habitats are being protected in the area

Square Miles of Current & Proposed M.P.A.

OPHION STATUE
Using 3D technology a statue dedicated to MPA management teams will be placed in the location below. This allows for more unique diving locations as well as bring awareness.



OKEANUS STATUE



CORAL TRANSPLANTING FROM AQUACULTURE

SOCIETY
The integration of coral farms brings a new source of jobs.

ECONOMIC
Coral surplus can be sold to surrounding islands.

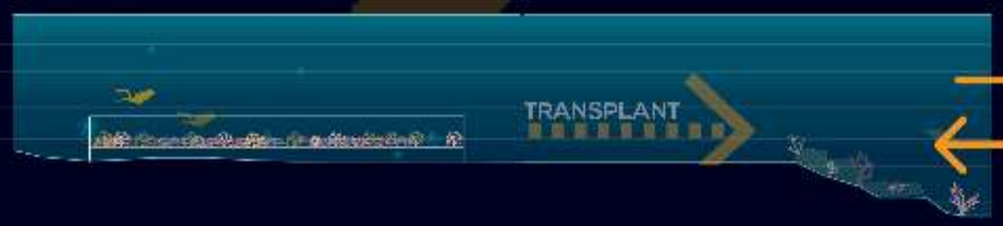
ENVIRONMENTAL
With this process it gives the islands the ability to clean up and replace destroyed coral.

RESEARCH
Allow the ability to research current coral reef redevelopment.

1 CLEAN UP
The process begins with cleanup of destroyed reef and analyzing the damage.

2 STABILIZATION
Next any unstable reef locations must be re stabilized to allow transplanting.

3 TRANSPLANTING
After stabilization the reef from the farms can be transplanted onto the reefs.







The Kraken sunken ship precedent.



Jellyfish

Shark

TETHYS STATUE



HYPERION



PROPOSED **DESIGN INTERVENTIONS**



METHODOLOGY OF DESIGN INTERVENTIONS

Coral Reef Design Interventions

The coral icon reflects the methodology and standard location behind the designs and how they utilized used spaces to create a cohesive environment between tourism and environmentalism.

Habitat Design Interventions

The mooring icon shows how habitat redevelopment strategies and the tourism industry can work together to flourish.



SUSTAINABLE TRANSPORTATION



STANDARDS SUSTAINABLE BOATING

Incentivization programs will encourage private citizens to participate in the sustainable standards for boats, while upgrading public ferries and boats

WASTE DISPOSAL
Incentives will be for boaters to pick up marine debris while implementing codes for reducing, reusing and recycling.

BLACKWATER
Stricter regulations on the process of dealing with blackwater and penalize blackwater dumping heavily in protected areas.

OILS & FUEL SPILLS
Set up public awareness and education on dealing with oil spills. In addition coding a hotline to report oil spills.

GREYWATER
Grey water from private and commercial ships is a dangerous form of pollution. Incentives will encourage boaters to safely dispose of their pollution

LEVELS OF PROTECTION

NO TAKE ZONES — delineates from → **CURRENT M.P.A.**
No take zones were determined based on current protected areas.

RESTRICTED TAKE ZONES — delineates from → **PROPOSED M.P.A.**
The restriction take zones were determined on the location of proposed protected areas.

WITHIN M.P.A. — delineates from → **CORRIDOR**
The basic M.P.A was delinated as a corridor between proposed and current M.P.A.s.

SECONDARY BOUNDARY — delineates from → **BUFFER**
The secondary boundary will work as a buffer around the Restructed Road M.P.A

HABITAT **REVITALIZATION**

The focus of habitat revitalization is to implement new and old technology to not only clean up the ocean but also to provide job opportunities and create a sustainable future.



NO TAKE ZONES
No removal of aquatic life.
Full protection of flora & fauna
Highest management & research

RESTRICTED ZONES
License for removal of aquatic life.
Protection from illegal fishing.
Moderate management & research.

M.P.A. BOUNDARY
Requirement
Protection
Minimal management

SECONDARY BOUNDARY
Current fishing laws
Current protection laws.
Minimal management

3D PRINTED REEFS Reef Design Labs consulted on designs

EMPLOYMENT
Creates jobs and adds variety to the economy of livelihoods

ECONOMY
Helps save ecological services as well as boosts ecotourism.

SUSTAINABILITY
The implementation and introduction of 3D reefs provides ecological goods and services.

RESEARCH
3D reefs are a new technology, the project will allow in depth studies of their benefits.

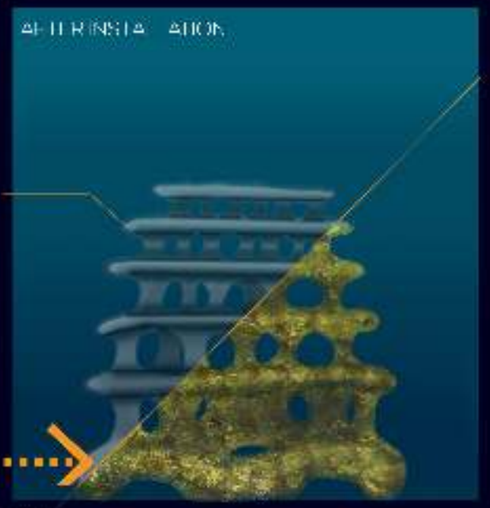
INSTALLATION

1 LOWERING TO SEA FLOOR
The 3D reefs must be carefully lowered to the sea floor with minimal disturbance to the area.

2 STABILIZATION
To make sure the 3D reefs do not move from ocean currents a limestone concrete base is created.

3 INSTALLMENT
After the limestone-concrete base is constructed the 3D reefs are attached to the base.



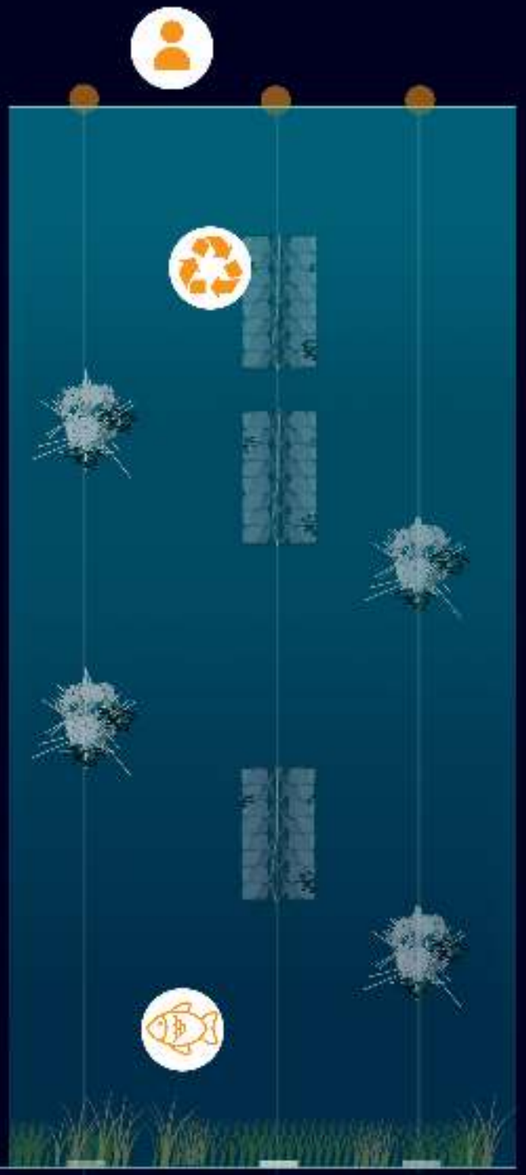


HANGING HABITATS Reef Design Labs consulted on designs

RECYCLING
Using the plastics already located in the ocean will allow for a way to recycle pollution into a strategy for habitat revitalization.

ECONOMY
Another job opportunity as well as tourist attraction will increase the revenue and overall stability of the islands economy.

FAUNA
With the implementation of hanging habitats coral fauna will be given the ability to thrive in damaged environments.



SEA GRASS HABITATS

In the process of revitilizing the flora and fauna of the islands an important aspect will be protecting the sea grass habitats and minimilizing the impact on them. The sea grasses are vital to huricane protection.

FOUR SEASONS TURTLE CREEK

PROJECT INFO

COMPANY: SWA GROUP

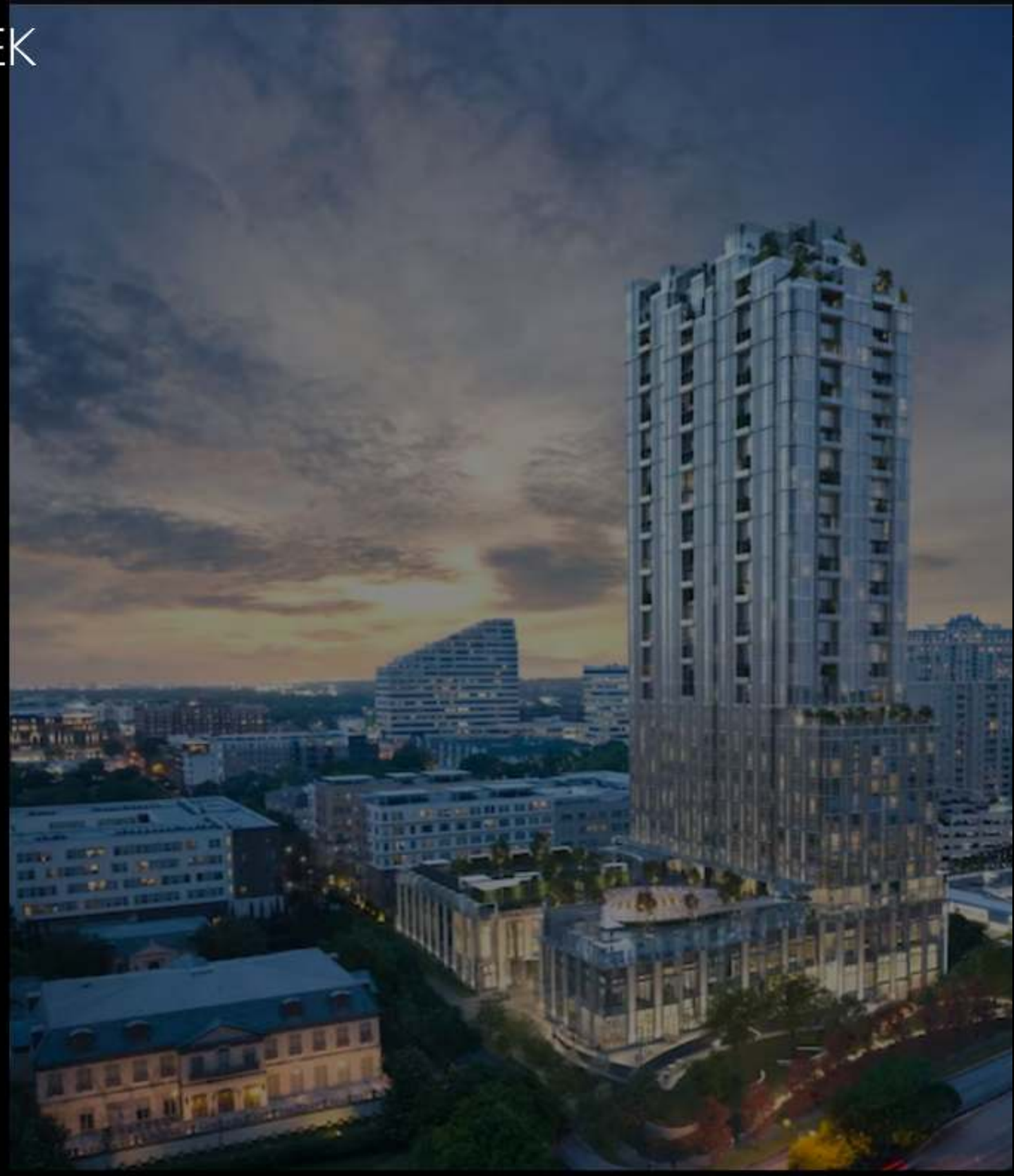
ROLE: LANDSCAPE ARCHITECT

LOCATION: DALLAS, TX

PROJECT GOAL: I assissted my team at SWA on the newest Four Seasons Hotel in Dallas, Teaxs. I was tasked with designing two water features at the hotel. One on the third floor garden and one on the first level near the under ground parking garage. Creating two features at a Four Seasons, I knew that they had to look amazing and fit into the high-end design of the building that has a multi million dollar valet with a honed granite central water feature. Using this as inspiration I created a matching honed limestone feature that will use water to drown out the noise of the parking garage and hide the interior of the garage from the outside. The feature on the third floor is a central focal point for the garden. Using art pieces like the Bean in Chicago and the art piece in front of the Dallas Museum of art as inspiration, I created a piece that stands out on its own with floating islands for planting and a mirror wall behind to reflect thet beautiful features of the main sculpture.

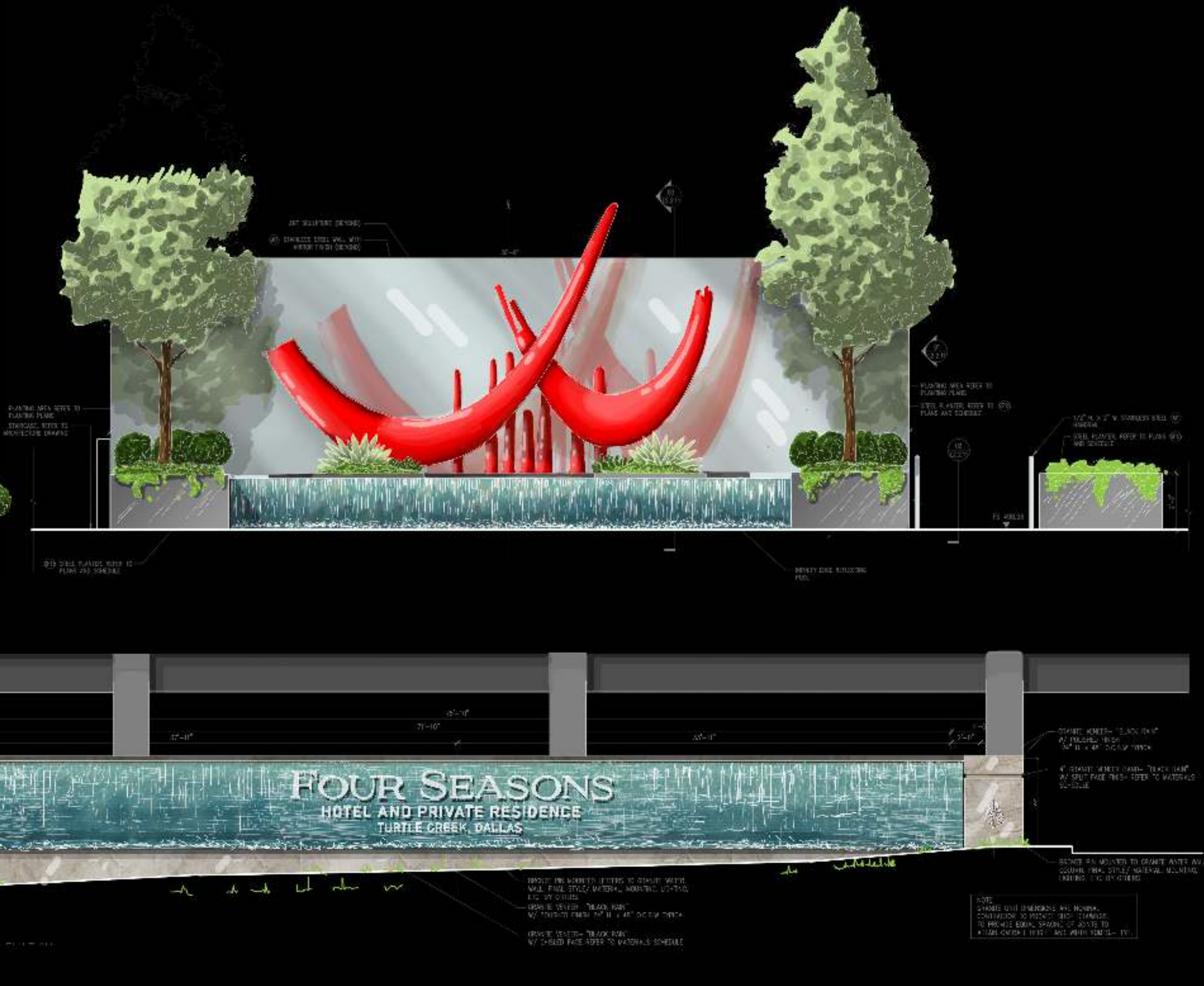
SITE CONTEXT





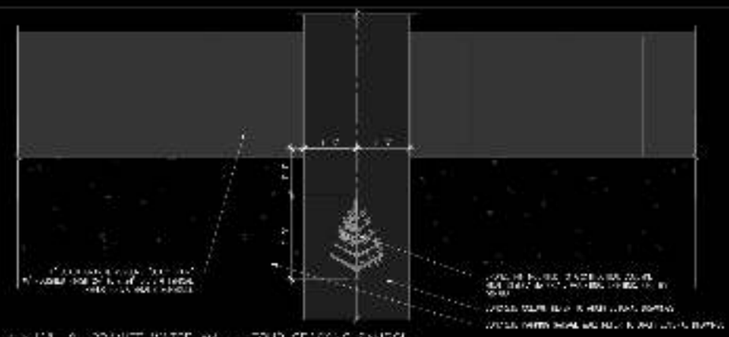
FROM 3D MODEL TO REALITY



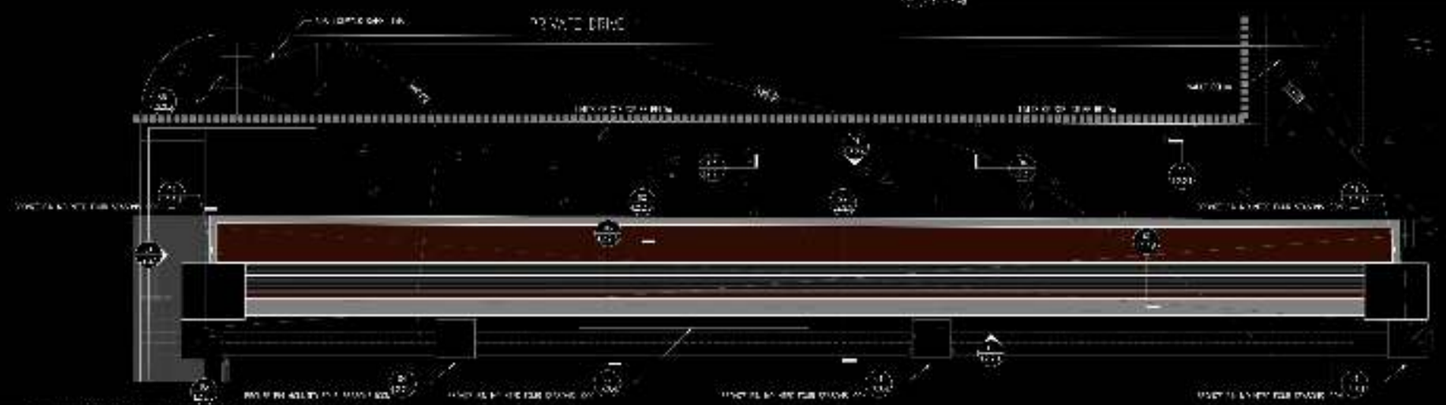


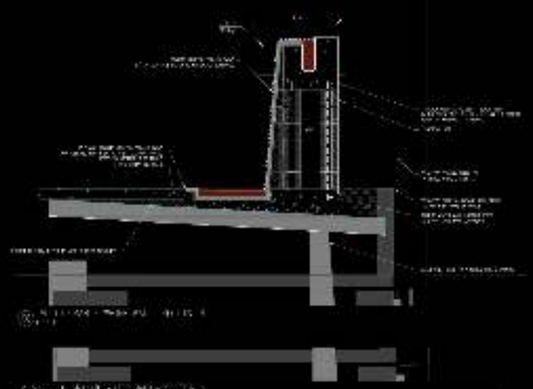
LVL. 01 WATER FEATURE



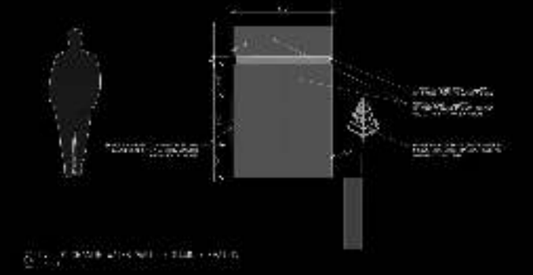


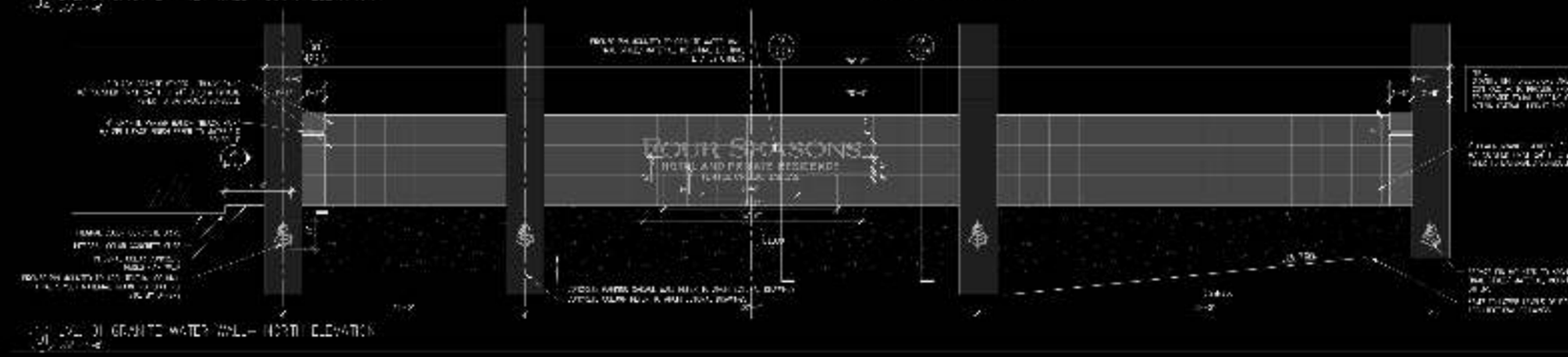




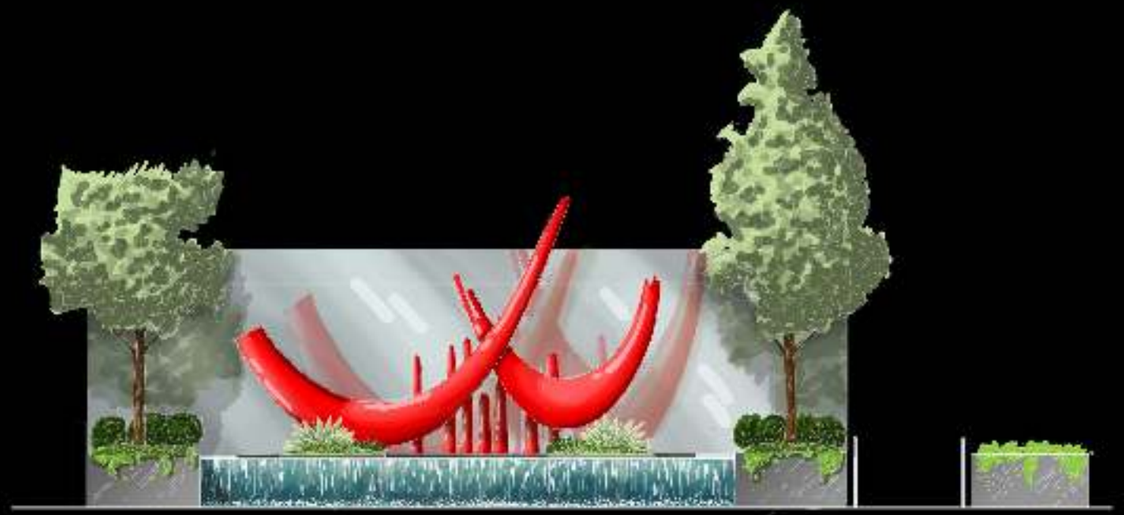


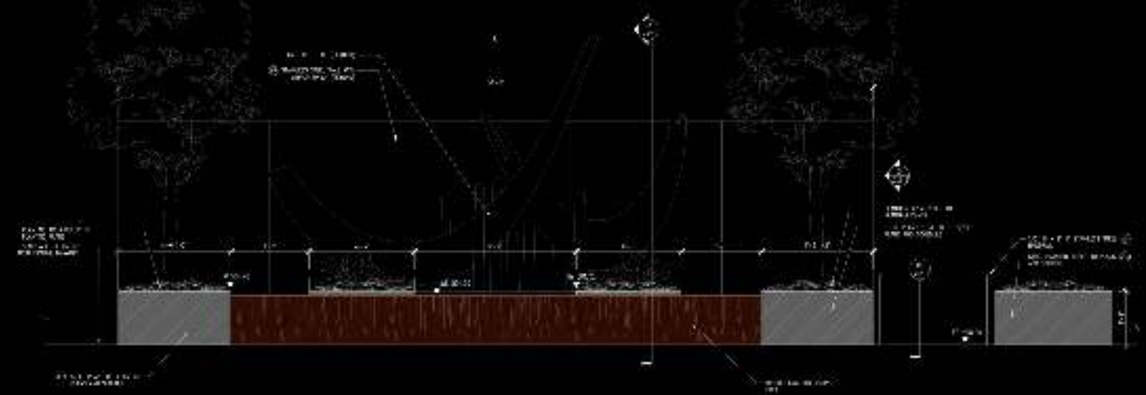


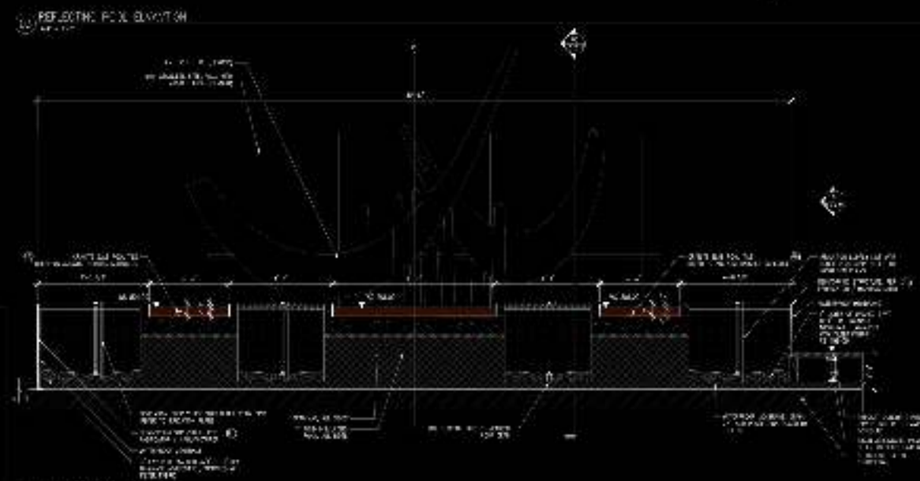




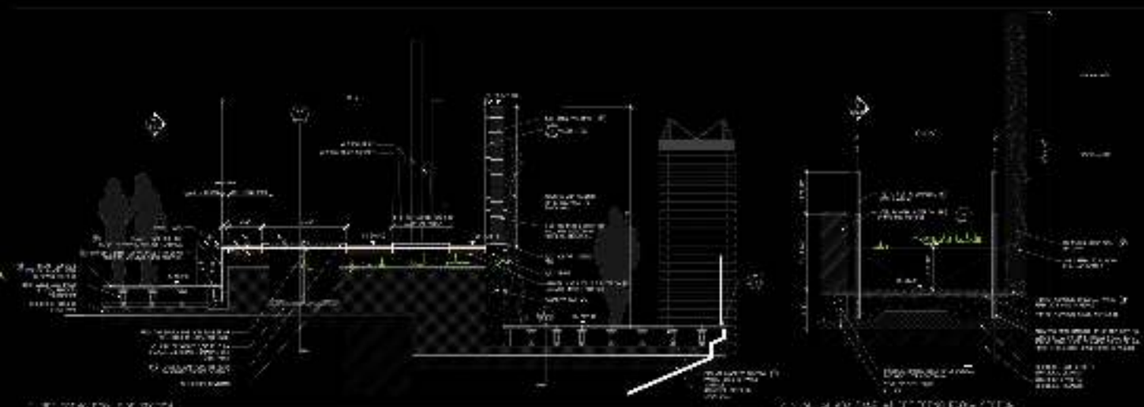
LVL. 03 WATER FEATURE

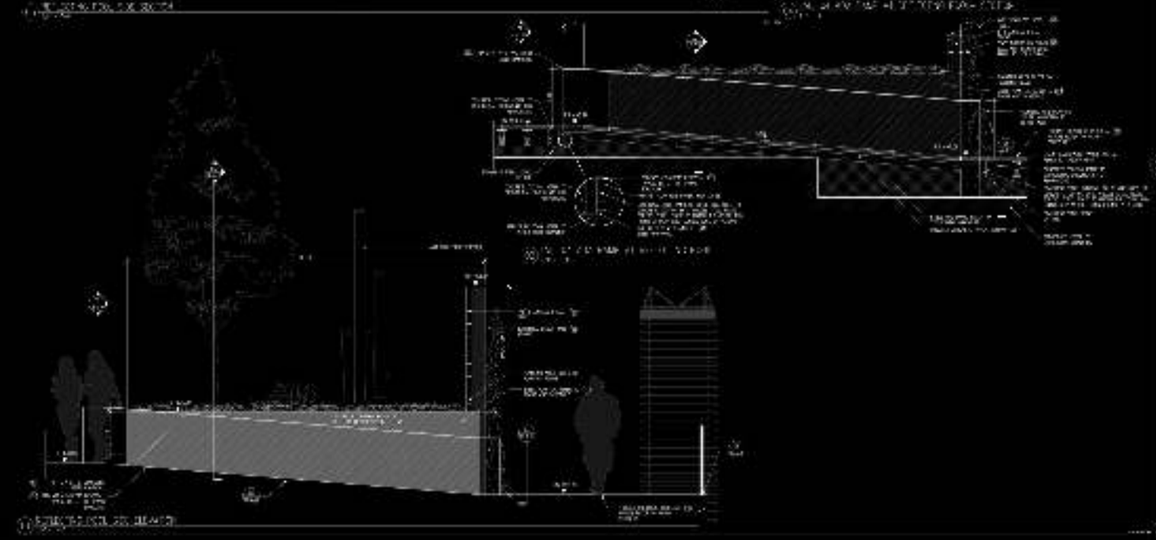


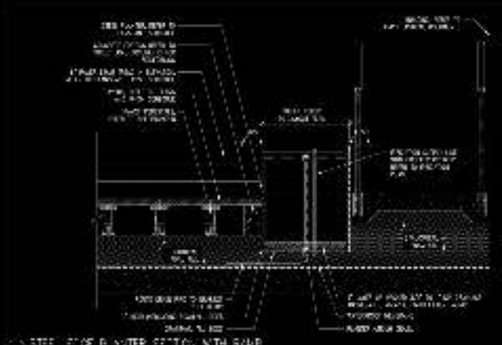


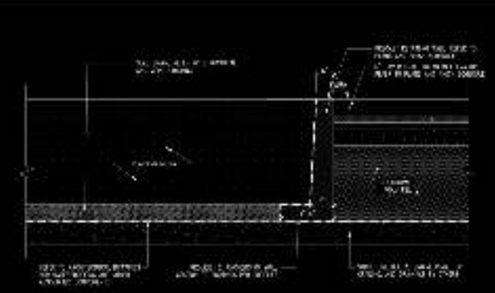




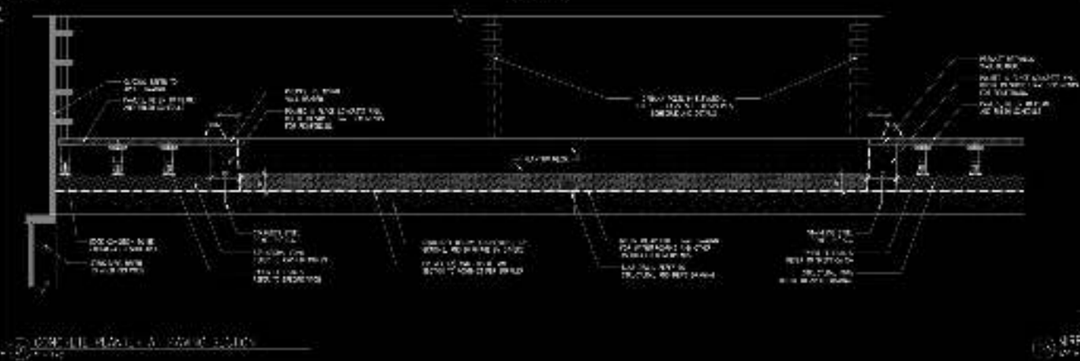


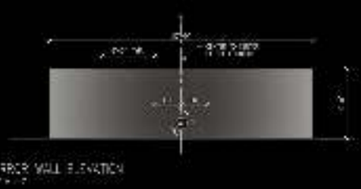












GRAYSON BORCHARDT



PHONE: 817. 709. 9202

TEXAS TECH UNIVERSITY

E-MAIL: grayson.borchard_@outlook.com

EDUCATION -

B.S. in Landscape Architecture at Texas Tech University with experience in commercial and residential design, as well as construction documents and grading plans. Extensive knowledge of computer programs complemented by personal hand-rendered design sketches. These skills have been honed and expanded during my career in Landscape Architecture. After graduating in 2020 I have worked for two companies full time and four as a part time contractor creating residential designs. I worked at LJA Engineering until 2022 when I acceppted a job at the internationally recognized landscape architecture company, SWA Group. Here I developed my skills in team management and leading as a manager. While here I decided to take the leap and chase my dreams of video game design. Moving out to LA and going back to LJA to work from home, while I go to school.

ABOUT MYSELF -

I was born and raised in Fort Worth, Texas. I have developed a love of landscape architecture thanks in part to my life experiences. When I was young, I thought I would become an artist. Growing up in Fort Worth, I loved visiting the Water Gardens and Sundance Square because of their unique characteristics; without realizing it, I was drawn to landscape architecture. While visiting Washington D.C in high school, I witnessed how the memorials are sacred ground; that made me realize that designs can impact people in so many meaningful ways. I knew then I wanted to go into landscape architecture and use my love of art in landscape architecture. My interests have always been in designing beautiful places that people can escape into. Much like how my whole life I have escaped into the world of video games. My biggest inspirations in life have come from different games and movies that I have seen and played through. Recreating them and making them my own in my room with legos when I was young. I thought that this love was in the activity of building the legos leading me down a path in architecture. Now I realize that want I really loved was the stories, and the escapes they provide.

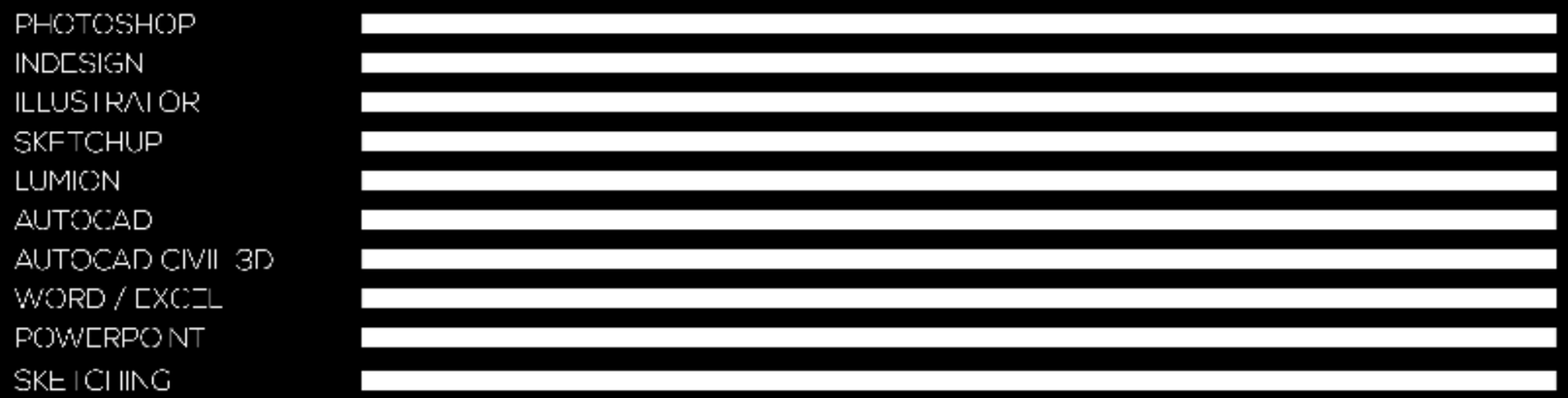
INTERESTS -

I enjoy the outdoors, and I realized the importance of sustainable and resilient designs after watching the destruction of the British Virgin Islands during the 2017 hurricane season. The islands have always held a memorable place in my heart, as I have been fortunate to travel there and sail with my friends. Going to school in West Texas, I have learned water is a very valuable resource that has to be conserved and protected. Implementing the use of native and adaptive species to my designs creates lower water usage. My passion throughout my childhood and adulthood though has always been playing video games. I hope to one day create titles like the ones I played as a kid that meant so much to me. Titles like Medal of Honor, Assassin's Creed, Call of Duty, Halo, Elder Scrolls, and Fallout. Growing up I studied and looked up to the everyday heros like the World War II Medal of Honor winner Audie Murphy. Once at Texas Tech I became close friends with many veterans that deployed to Iraq and Afghanistan. Here I realized these stories and experiences are often un heard and un seen, I hope to be able to one day create games that highlight these stories and tell the untold stories of our fallen heros that never made it back home.

G. P. A. -



PROFICIENCY - 1 3 5



RESUME

MP Studio, San Antonio, TX (January 2019-August 2019)
Landscape Architect Intern
- Created Photoshop site plans, elevations, and perspectives
- Hand rendered site plans for design charrettes and presentations
- Assisted in creating packets, powerpoints, and infographics for clients

Parkhill Smith & Cooper, Lubbock, TX (June 2018 - December 2018)
Landscape Architect Intern
- Created Photoshop renderings and hand-rendered sketches for presentations
- Assisted with final layouts and construction documents
- Produced AutoCAD and hand-rendered grading plans for projects

Texas Tech University, Lubbock, TX (June 2018 - January 2019)
Research Assistant, Landscape Architecture
- Worked with project team to redesign landscape at Texas Department of Transportation offices
- Created the schematic design and Photoshop renderings for the project team
- Worked with project team to finalize landscape design

ALPHATERRA, Fort Worth, TX (March 2018 -2019)
Landscape Designer
- Worked with clients to create hand-rendered residential designs for installation bids
- Worked with architect to create hand-rendered commercial designs for bids and billboard

Archiverde, Dallas, TX (Spring Break 2018)
Landscape Architect Intern
- Created SketchUp models for high-end residential designs
- Worked with project team to complete construction documents
- Worked with project team to survey residential sites

Naturescapes, Hudson Oaks, TX (May 2017 -2019)
Landscape Architect Intern
- Assisted with implementing and installing residential designs
- Consulted with clients to develop landscape designs and implemented designs
- Created hand-rendered sketches of residential designs for installation bids

Ecosystem Planning and Restoration, Tomball, TX (December 2017)
Environmental Technician Intern
- Conducted wetland delineations for ecosystems and monitored ground water tables

LJA Engineering, Mckinney, TX (July 2020 - Present)
Landscape Designer
- In charge of designs, hand graphics and concept packages for commercial clients. Responsibilities for 3D modeling in SketchUP and Lumion. Created and reviewed construction documents for submittals.

SWA Group, Dallas, TX (October 2022- October 2023)
Landscape Architect
- Worked in a project manager capacity on design projects for University projects, as well as, hospitality designs. In charge of designs, hand graphics and concept packages for high end commercial clients. Created and reviewed construction documents

REFERENCES

Academic and work references can be provided upon request

LINKEDIN: Grayson Borchardt