a thesis by
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Stop | Sit | Look | Listen | Relax | Engage | Interact

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INTRODUCTION |

Faster phones, expanded use of personal computers, widespread access to digital bandwidth, and applications for the internet across multiple devices allows nearly instantaneous access to information and provides a means to stay in constant touch with remote friends and family. On the one hand, technology appears to benefit us socially and culturally by reducing perceived distances between individuals and groups – even between continents. On the other hand, such emersion in technology serves to isolate us from our immediate context by focusing our attention inward, toward ourselves and our devices, distracting us from being truly aware of our surroundings. It is what German philosopher Martin Heidegger would call living an "inauthentic existence."[1]

For Heidegger, how individuals situate themselves in the world centers around the concept of "dasein," meaning "to be present."[2]

> Heidegger argued that the alienation of contemporary existence was based on the separation of thought from 'Being,' a condition epitomized by the privileging of technology and calculative thinking in the modern world. His project was therefore an attempt to return humankind to some form of authentic existence.[3]

Heidegger's twentieth century concerns seem even more relevant in light of today's twenty-first century challenges. How might we find ways to live more authentically – to actively engage with and experience our environment and contemplate our place in our families, communities, and in the world? Given our hi-tech, accelerated lifestyle, is it possible to moderate the constant barrage of activity by providing opportunities in the built environment to pause and consider the world around us? Can architects find effective ways to make the everyday environment – especially the urban environment – more present to the users of space, shifting from being simply "occupants," passively taking up space, to dwelling authentically?

> Not only does architecture allow for the possibility of dwelling, but it is precisely part of that dwelling. To dwell authentically, for Heidegger, is to dwell poetically, since poetry is a manifestation of truth restored to its artistic dimension. Architecture becomes a setting into work of 'truth' and a means of making the 'world' visible.[4]

Within the urban fabric of day-to-day constant activity part of becoming a "dweller" requires the opportunity to **stop** what they are doing, to **look, listen, and engage** in something without losing momentum and energy. In the urban environment, the places in between – the interstitial spaces of the city – made up of walkways, green spaces and circulation around buildings that provide the opportunity to see oneself in relation to the whole.

Stopping. From the source of Merriam-Webster, "to cease activity or operation."[5] The movement of coming to a standstill and the user participating in the activity that is taking place. Stopping gives one the opportunity to examine their surroundings and contemplate where the visitor fits into the space.

Looking. Dictionary.com states, "to use one's sight or vision in seeking, searching, examining, watching, etc."[6] By looking around, one has a better opportunity to observe the community. They become more aware with themselves and what is around them, not just active looking, but engaging with color, textures, and light as well.

Listening. Merriam-Webster defines it as, "to pay attention to sound."[7] By listening and actually hearing what is taking place around the community, you begin to understand what is significant about the space. Noise levels, accents, high vs. low pitches, young children vs. older, male vs. female voices, different volumes, echoes, the distant noises of the streets and different activities, all help depict what is helping in the surrounding space.

Engaging. From the source of Dictionary.com, "to involve (a person or his attention) intensely."[8] Do you engage by physically taking part of the activity as in, touching or moving? In addition to the other senses, actually feeling you in the space, a 6th sense – synesthetic – where the body is in relation to other things. Intellectually engaged by observing and thinking about the impact on what those actions have. Socially, by interacting with individuals, directly or indirectly in the environment. Engaging someone by taking part in the activity but not losing momentum or energy in their pursuit, but continues with excitement.

Interacting. Merriam-Webster states, "to be or become involved in communication, social activity, or work with somebody else or one another."[9] Engaging in the action and environment on a physically or an intellectual level.

By defining public spatial zones, urban environments provide interaction that is meaningful for occupants and visitors alike as they flow through and experience these compositions. Throughout this paper, I explore some of the ways that architects and artists have used installation design to more fully engage and interact with urban inhabitants. Merriam-Webster defines "installation" as, "a work of art that usually consists of multiple components often mixed media and that is exhibited in a usually large space in an arrangement specified by the artist."[10] An intentional assembly to get a response from participants that can either be temporary or permanent. Once the installation piece is out there, people will respond and interact with it however they wish. Its intention is to get a response, and provoke action. It is up to each community to activate and use that installation in the intended manner or not.

The installations I have researched are design related to the urban environment and how it interacts with the people who use the space. Case studies carefully analyzed in order to create an interactive urban space that belongs to the community around it. By going and observing interactive spaces, it gives a perspective of what I believe is successful about a certain space and what I believe is not. By observing, the feeling of what is liked and accepted in the different site settings and how they differ from one another is more evident. From there, by researching what the designer had in mind for the specific installation and see if it is perceived that way today.

Researching the designs of others provides an opportunity to examine and analyze interactive/installation case studies that incorporate a high level engagement with urban inhabitants.

By utilizing my creative abilities to **create**, experiment, build and rework installation pieces for the specific site I have chosen, research of the site helps me gain knowledge of the environment that then inspires me to create for the community.

Designing and creating a sense of space, which successfully adapts to the urban context while engaging the members of the community to **Stop, Sit, Look, Listen, Relax, Engage and Interact** with the space being the end goal.

METHODOLOGY |

The methodology employed in this work focuses on a comparative case study analysis of a number of relatively recent art and architectural installations intended to examine the interaction between the urban environment and its users. Each of the case study sites selected provided ample published (hardcopy and online) material, including photographs of the installations, to assist with my analysis. In addition, where possible, I made personal visits to a number of sites in order to make direct, in-depth observations, particularly observations that involve the individual senses (sight, sound, smell, touch, taste, etc.) and to document my experiences using written notes, photography and, where possible, video.

My case study analysis is organized into overarching categories that are a) common to all case study sites, and b) seem to be central to the engagement within an urban context. Categories include:

1. User Benefits and related subcategories of installation adaptability, public/private environment and active participation help bring the user of the space into perspective. Case studies that, in my opinion, are most descriptive of this category are Heme Upadhyay's *Modernization* installation at the Contemporary Arts Center in Cincinnati and Anish Kapor's *Cloud Gate* at Millennium Park in Chicago.

2. Sociological and Psychological Implications and related subcategories of changing lifestyle patterns, human behavior awareness, architectural awareness, sense of place, control of space, attachment to space, preamble to engagement, post engagement experience, sense of sound, sense of smell, intended goal, outcomes of the installation and the urban community/context respectively. Case studies that, in my opinion are most illustrative of this category inlcude Diller and Scofidio's 2002 *The Blur* building at the Swiss Expo, J. Meejin Yoon's *Light Drift* installation in Philadelphia, Daan Roosegaarde's *Dune 4.0*, and two installations housed at Hotel 21C in Cincinnati: *Lightmail 2012* by Astrid Krogh and *Healing Tiles 2012* by Brian Knep.

Data from the analysis was compiled into a matrix for reference and details each element examined for each case study (see Appendix I). When looking for projects, the interactive aspect and how they related to the urban context was most prominent. Ultimately, I was able to narrow down those successful and unsuccessful aspects of each installation, resulting in a list of essential characteristics to use as a baseline for my own design work in this arena.

The criteria by which I made my analysis and assessment of each case study installation includes:

Installation Adaptability. As a whole, how does an installation modified by the community and communicate with the environment itself? What is the space specifically designed for and can it change in the future?

Public/Private Environment. Is the venue in which the installation is viewed, how is the space accessible? Is it free to the public? Is there an admissions fee? Are there certain days that are free for the community if there is an admissions fee? Are they trying to include or exclude a certain cultural, social or public engagement?

Active Participation. How is this space interactive with its surrounding environment? Is there a certain routine one must go through to get the intended experience?

Public Engagement. The physical participation in a space, is it highly active, moderately active or passive? How much does the user interact with the space?

Modes of Activity and Engagement. What senses do you use when in the environment? What do you see, hear, and smell?

Social Participation. Is this space geared towards an individual or group activity? Is there an age range? Is it a space everyone can enjoy and utilize?

Cultural Participation. Is the space diverse in its ethnic and neighborhood range? Is it highly diverse, moderately diverse, or homogenous?

Human Behavior: Physical. How is the user utilizing the space? Does it affect the installation and its interactive capabilities? Is the user aware if they do a specific movement, that movement alters the space and installation itself?

Participant Lifestyle Patterns. Does this space change patterns in human interactions and its relationships? What has the designer done specifically to perceive a space differently by the user?

Architecture Awareness. Is there a relationship between the installation and the architecture around it? Does it read well with the environment around it?

Sense of Place. Does the installation belong is the space? How does it communicate with the environment around it?

Control of Space. How does the installation control the space? Does it control one environment or multiple spaces?

Attachment to Space. Is there constant change in the installation space? Is there one permanent piece that represents the environment?

Preamble to Engagement. Is there anything that pulls you in before entering the space? How do you know it is there?

Post Engagement Experience. What does the user remember and take back with them? Is it physical, intellectual? Will these memories bring them back to the space? The sounds and smells?

Intended Goal. What was the intended goal by the artist/designer? What did they want the user to get out of this environment?

Outcomes of installation. How Success was measured. Was it successful?
Who decides if an environment is successful and how? By the number of people that interact with the space and if they come back?

Urban Community/Context. Is the space in an urban area? If not, how far from the urban community is it?

FINDINGS |

USER BENEEFITS |

For these case studies to represent success in terms of the user benefits, they should possess some or all of these qualities. They are, but not limited to, adaptable space, public environment and active participation.

INSTALLATION ADAPTABILITY |

"When the entire environment becomes an interactive environment that is mediating the needs of the users and the environment outside, it must facilitate communication through the physical space itself."[11]

CASE STUDY 1 | SPACE WITHIN A SPACE

Modernization. Hema Upadhyay. Contemporary Arts Center. Cincinnati, Ohio.

Upadhyay shows urbanization and its effect on the ever-growing city of Mumbai, India through her full gallery floor installation, as an aerial view of Mumbai's biggest slum neighborhood: Dharavi. Her work explores the contrasts found in the city's densely populated slums. The installation is made up of materials that the buildings themselves are comprised of; aluminum sheets, car scrap, enamel paint, plastic sheets, objects found by Upadhyay that mimic the traits of Dharavi. [12]

Figure 1, Upadhyay Installation, CAC. 2013.

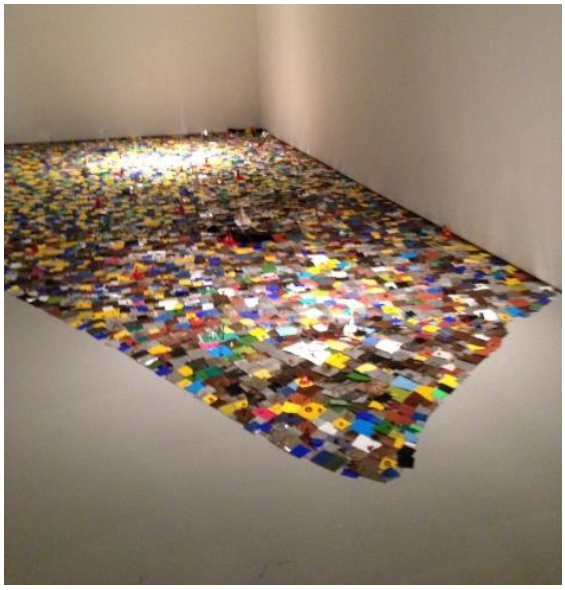


Figure 2, Upadhyay Installation, Haley Rice. 2013.

The installation is currently being displayed at Zaha Hadid's Contemporary Arts Center. The entrance into the space is large, tall and cold due to the concrete, yet inviting. To the right, there is a large staircase the leads to the upper floors and to the left, a gift shop and reception desk. Walking up the long staircase becomes a view of angles that of the surroundings. The steps themselves are very walkable and manageable.

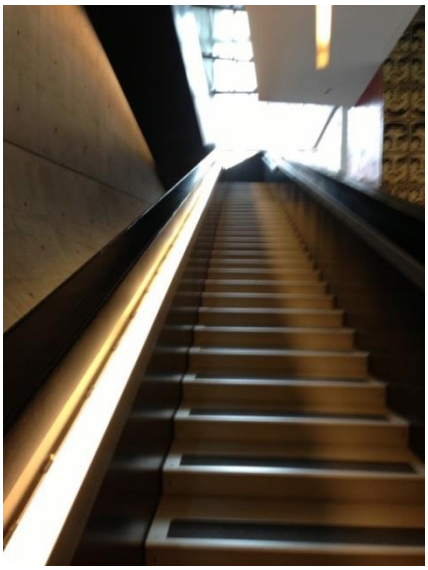
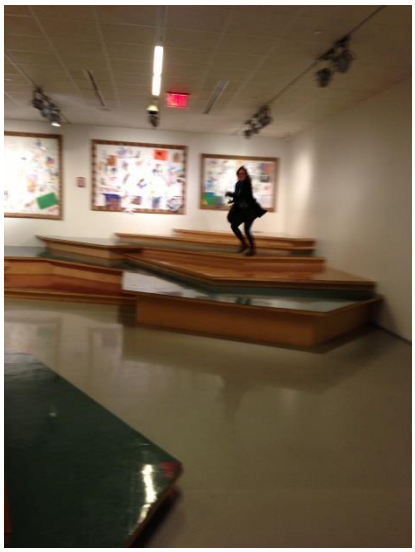


Figure 3, CAC Steps, Haley Rice. 2013.

Arriving at the top, a glass door opens into a new space full of angles. The floor is littered with small pieces of bright colors. It is completely quiet. There is a stillness that comes with the territory of the museum, as well as the installation. The installation becomes 'Modernization' by Hema Upadhyay of India.

The brightly colored pieces on the ground represent a city the artist knows well. There are small toy cars, buildings, towers, and bridges of all colors. The color ignites life into this installation. Standing and looking at all the intricate pieces that cover this space, a very loud noise disrupts the quiet stillness. Wondering what it is, the sound distracts us from our observations and feelings. The direction of the sound comes from the left where mechanical shutters, interaction pieces, are opening and closing. The attraction changes from visualizing colors to hearing noises. The **sound** attracted us to the space. The **noise** becomes the attraction. The sound pulls you into the space just as many before us.

The sixth floor is the Unmuseum's location. Stepping off the elevator we encounter the pandemonium of music, noise, motion, color, children of different ages, and adults interacting with the different activities and living the experiences of the space.



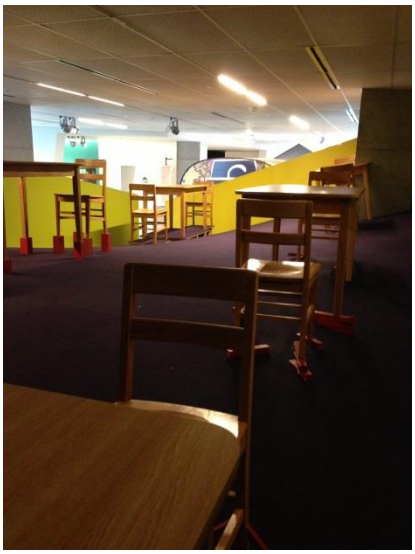


Figure 4 and 5, CAC, Hypar Room, Haley Rice. 2013.

Figure 6 and 7, CAC, Hypar Room, Haley Rice. 2013.

Sitting down in the 'Above and Below: The Hypar Room' to reflect in writing what was just observed, a mixture of chairs and tables are there for the choosing, in which one becomes comfortable by absorbing the space and emerging oneself into it.
These installations and exhibits at the CAC adapt to the space that has been provided for them. **Does this mean that installations change slightly with each new location? And does the user notice the small changes when relocated if the user travels to the new space?**

PUBLIC ENVIRONMENT |

"The physical architecture can be used to include or exclude people from one another to facilitate, dissipate or focus crowds of people. In this realm of the physical world, interactive public spaces can have a profound effect on social interaction."[13]

CASE STUDY 2 |

<u>Anish Kapoor. Cloud Gate. Chicago.</u>

Cloud Gate is featured as the centerpiece of the AT&T Plaza in Millennium Park in Chicago, Illinois. Designed by Indian- born British artist Anish Kapoor, construction began in 2004 and completed in 2006. The structure acquired the nickname "The Bean" because of its bean like shape. The sculpture is made up of 168 stainless steel plates welded together, highly polished with no visible seams.

Figure 8, Millennium Park, Haley Rice. 2013.

The composition inspired by liquid mercury, reflects and distorts the city's skyline. Visitors and tourists walk around, under and stare up into the reflective surface.[14] The Bean is a popular photo opportunity for its uniqueness and mirror images.

What is it about these spaces that draw people from all over the world?

OBSERVATION |

Walking down Michigan Ave. to Millennium Park, the city and its vastness is truly amazing. It's misting, windy, and cold. Approaching the park, Frank Gehry's Pritzer Pavilion greets you with Cloud Gate, aka The Bean off to the right. People are seen milling around, taking pictures for the memories of their experience of the space.

Figure 9, Millennium Park, Haley Rice. 2013.

Observing the activity in Millennium Park and The Bean for the next two days, I saw a resurgence in the park as warmer weather drew out the people. The warm sun, cool wind kicked my sense into overdrive. Crying babies, birds flying, the Chicago skyline, children playing and chasing birds, the sound of different languages being spoken (Chinese, Spanish), sirens whaling, people sitting, eating, and poor people begging all encompass the space.

With these observations, **one wonders what brings them to interact with the space? Is it The Bean itself? The reflection of it, the pictures that can be taken by it (the interactive aspect), the smoothness of it, or the large open space around it?**

The Bean and the public environment has been brought together to create a space that community members and tourists use together. The effect Millennium Park has on the public environment forces crowds of people to interact in this public space. The trip to Chicago was to experience how space intertwines with our person.

ACTIVE PARTICIPATION |

"Much of our daily existence and experience with architecture is made up of different types of routines and rituals. Adaptive control of an interactive space allows for enhancing and simplifying these daily tasks and creates a sense of active participation with the environment." [15]

SOCIOLOGICAL AND PSYCHOLOGICAL IMPLICATIONS |

For these case studies to represent success there are sociological and psychological implications. They are, but not limited to, changing lifestyle patterns, behavior awareness, architectural awareness, sense of place, attachment to space, sense of sound, sense of smell, and the artistic initiative.

Architectural space can take advantage of an audience locally, regionally, and globally by **re-conceptualizing** the role that the physical environment plays in shaping **the viewer's experience**.

MODIFICATION OF PARTICIPANT LIFESTYLE PATTERNS |

"Architects need to explore, think about, and design for applications particularly suited to such new lifestyle trends, ranging from programmatic and site-context response to spatial dynamics."[16] Changing patterns of human interactions are forcing architects to design differently, to design to maintain the interactions of relationships. New trends have given growth to a number of new behavioral, organizational and social issues. In the past, the work place and out of the home associations defined the person. With new technology changing the way and where people work, insights into lifestyles are imperative for adaptation.

CASE STUDY 3 |

The Blur. Diller and Scofidio.

In the 2002 Swiss Expo in Switzerland, Diller and Scofidio designed the 'Blur Building' with the help of interactive designer Steven Rubio of EAR Studio. 'Blur' was a temporal building that relied on performance technologies such as a mist system façade to create an intimate and explorative participant experience.

Figure 10, Diller & Scofidio. 2001.

Although never fully actualized, the idea they proposed that each participant took a survey of personal interest. They would be given a rain coat that had smart devices

placed inside the coat that would react with other devices as they moved through the space. Ideally, the device would light up if there was some social compatibility between the people; a type of "social radar" that could detect multiple emotions from appeal to discomfort.[17]

Figure 11, Diller & Scofidio. 2001.

The building and social experiment was an attempt at diminishing the reliance on visual interpretations to make judgments. The 'Blur Building' showed potential for creating a specific atmosphere that a user can engage in and experience by employing methods of materiality, light, water, sound and circulation narratives. [18]

Trying to change life style patterns of everyday living becomes a striving point for most architects. 'Blur' fits into behavior awareness, architectural awareness, and sense of space categories. These categories should be a point of interest when designing for the user and how to perceive one another.

MODIFICATION OF HUMAN BEHAVIOR |

"While the architecture can adapt and learn from our actions and adjust itself accordingly, it also has the capacity to **teach** us how to live and how to work."[19]

Case Study 4|

Hotel 21C. Cincinnati, Ohio.

Hotel 21C, is a 24/7 art gallery known for its artistic diversity. The gallery is very inviting, with many colors, the surrounding people, and the warmth within. The sound of life from people enjoying the experience heightened the personal awareness. Walking through the gallery, the flooring becomes interactive with each step, Brian Knep's 'Healing Tiles'. The impact of a step dispersed the projected light into a new pattern and new experience.

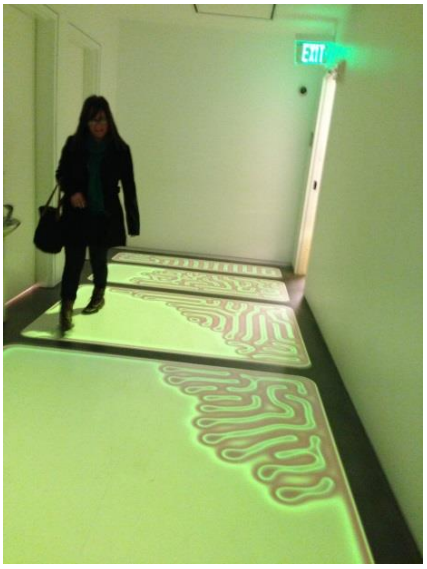


Figure 12, 21C, Haley Rice. 2013.

This technological installation of color and light attracts people into this hallway for an interactive encounter.

Continuing though the building, there is an installation in the ceiling/skylight in the middle of the structure, Astrid Krogh's 'Lightmail.' There are bean bag chairs scattered across the floor; waiting to be used, jumping, sitting, lying, for staring at the skylight installation. The change in color of the different pieces brings light into the space. It is decided that this would be more intriguing at night with a drink in hand.

The placement of the bean bag chairs forces one to sit. If not there, the likelihood of looking up would be miniscule. The installation needed the chairs to aid viewing the lighting display. The focal point of the room might easily have been missed if not for the chairs and the invitation they provide. Which brings me to question; **Do I need to see the installation at first glance? Is there some way to indicate something is happening without showing the main event right away? What is the purpose for seeing things this way?**

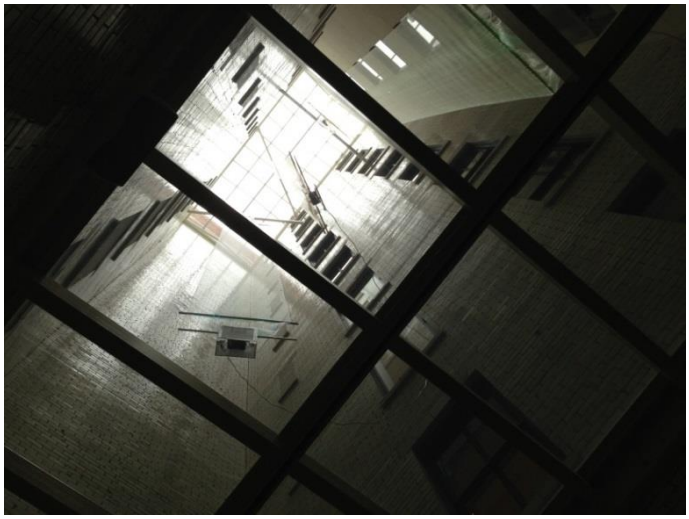


Figure 13 and 14, Hotel 21C, Haley Rice. 2013.

"To a certain extent, our behaviors are nothing but learned intuitions growing out of our experiences in the world. We learn early how to operate our buildings, opening doors, windows, and shades ourselves, but when the building responds to our actions we are confronted with a new level of **awareness and choices**."[20]

These installations bring awareness to oneself and to others around it. The user is affected by the interaction of the space and how they can manipulate it. In an urban context, the manipulation of space and the behavior of the user becomes one of the same. But, there needs to be an engagement to pull the user in before one can be totally aware of the space around them.

ARCHITECTURAL AWARENESS |

"At the core of such projects dealing specifically with behaviors is the requirement to establish a **dialogue with the users**. Such a relationship requires an understanding of one's owns actions and others' actions within the space, and awareness that there is some sort of dialogue with the environment itself"[21] as experienced at the Blur and at the CAC.

SENSE OF PLACE |

"In simple terms, when communication is clear and the results are satisfactory, there can be a sense of accomplishment on the part of the user. Such interaction transcends traditional goals of operating a place to that if having a **successful conversation with a space**."[22]

CASE STUDY 5 |

J. Meejin Yoon of MY Studio. Light Drift.

Light Drift by Yoon was a temporary interactive installation along the Schuylkill River that drew hundreds of viewers of all ages into a playful engagement with the artwork, the river's edge and each other.

The orb-shaped lighting elements arrayed along the waterfront on land and in the water, responded to visitors and communicated with each other using sensors that detected the presence of people and relayed radio signals to corresponding orbs in the water. As viewers engaged and occupied the orbs, they transformed the lighting behavior and color as the grid of lights in the water became a reflected mirror of the activities on land.

This unique art experience was open to the public for only three days as part of DesignPhiladelphia. [23]

Yoon's tactic for 'Light Drift' not only lures people to approach and occupy the space along the river, but participants are persuaded to interact and converse with each other through the creation of different light configurations.

Figure 15, schuylkillbanks.org. 2010. *Figure 16, City of Philadelphia Mural Arts Program, 2010.*

This space creates a language between one space and another. The communication between the two spaces produces a sense of place through conversation on land and water. This installation has a cause and effect persona. The user affects what is happening to the installation, which bring life into the space. Creating a language

between user and installation helps communicate what a space is about. That language is needed for all spaces to be successful.

CONTROL OF SPACE |

"Users of space can manipulate the use and control over the space. There is an emotional attachment that affects the spatial experience. Communication of thought must be explicit for interactive architectural applications to achieve fruition. Architects can play a more **active role** in suggesting new ways for its inhabitants to use environments based on real-time information exchanges. The experience can change depending on how a group of users interacts, whereby the rules are learned or the rules are completely dynamic and evolving."[24]

CASE STUDY 6 |

Dune 4.0 – Daan Roosegaarde.

Dune 4.0 by Daan Roosegaarde is an interactive landscape which physically changes its appearance in accordance to human presence. Placed in the main corridor of Montevideo, Dune 4.0 is composed of hundreds of fibers which react in correspondence to the movements and sounds of the visitors. Daan described this as a "hybrid of nature and technology" which "functions as a platform on which the relationship between visitor and the existing architecture is enhanced. By means of looking, walking and interacting, visitor and space merge into one coherent environment which could be best interpreted as a kind of Alice in Technoland". [25]

Dune 4.0 is part of a series of interactive installations called 'Liquid constructions' where interactive design environments become alive. Dune 4.0 is a landscape swaying reed-like fibers with microphones and sensors. The mood of the landscape varies. When nobody is there, it will sleep, glooming softly. But it awakens as one enters and the light becomes as extension of where you walk. This interactive design promotes personalization and customization of context which invites visitors to spontaneously perform and create alternative designs.

Figure 17 and 18, Interactive Architecture.org. 2007.

The space is manipulated by the user, which in turn affects how the installation reacts in the space. The user has control to do with which one pleases. The interactivity of how the user controls the installation is important to any space one is positioned in. As architects, the control of space helps bring our thoughts together in new ways and how a space is presented to the public environment.

ATTACHMENT TO SPACE |

"When architectural space has a true **communicative capacity**, it can foster a heightened sense of attachment."[26]

"City planners believed that people's taste for green space, for ornament, for people watching, for cozy places for intimate gathering, were just social constrictions. They were archaic historical artifacts that were getting in the way of the orderly design of the cities, and should be ignored by planners designing optimal cities according to so-called scientific principles."[27]

"It is important to recognize that people truly desire space, not style, and to understand the role that interactive architectural applications can play in fulfilling such desires." [28]

"The overemphasis on design is a problem because it tries to capture visually, in one go, what is a changing set of experiences, by season, day of the week, time of day. We do not inhabit architectural space simply for shelter; we do so because we need the experience of space." [29]
Special attachment to space is based on ones experiences with that space. If the space can become interactive on a personal level, true attachment to space is achieved.

SENSE OF SOUND |

Experiences are defined by our senses. The effect of sound has many implications on one's person. The sound of soft music is soothing and is calming. The loudness of rock and roll can be deadening and disturbing. "The sense of **sound** is much **underrepresented** in discussions of architectural experience and is very often only dealt with from a design standpoint, relative to the negative aspects.[30] Sound is a design issue which effects one's emotions and need not to be neglected when planning an architectural experience."

SENSE OF SMELL |

Usually the memory of smell has been associated with negative remembrances. Odor, a term of unpleasant smells is an environmental pollution issue often due to poor air quality. If air movement can be improved by an interactive architectural system, odor management can be controlled.

"Smells can have extremely positive associations too, smells can evoke strong emotional reactions, as many of our olfactory likes and dislikes are based on emotional associations. Our **olfactory receptors** are directly connected to the limbic system, which is the part of the brain commonly associated with **emotions**."[31] Architectural systems need to take advantage of the emotional aspects of smells because of the personal associations one has with their environment, positively or negatively.

ARTISTIC INITIATIVES |

"Installations and other artistic endeavors also free the designer form many of the constraints associated with constructing architecture, such as building codes or life safety considerations. Artist explorations open up the door to take a look at human emotion and human impulse."[32] Allowing for artistic interactive initiatives, focus can be directed towards specifics which permit artistic exploration, flexibility and opportunity.

CONCLUSION |

What is special about spaces that bring people to them? Each having its own unique installation/ sculpture piece, the attraction of people is not surprising. The feelings of people when in these spaces elicit memories, heightened sensory awareness and new experiences. Imaginative explorations allow interactivity to become experiential, as people have the ability to interact with the installation or just watch others.

As architects, planning a space design requires an emotional attachment to the space. Personal observations of the space include how people respond to the space, the smell, the texture, the surrounding noises and sounds and sometimes the taste of the area cuisine help the architect become one with the space. The challenge is then to blend the current culture with the new to maintain the space's emotionally and attractiveness to the soul.

WHAT NEXT |

From here, I will create an installation in a space that is one with the community. This one site will act as a hub; I want to draw people in from the different communities, to become one. I am proposing to have multiple satellite installation locations in different parts of Chicago that will lead to this one space along the river near Chinatown. By incorporating the case study research, I believe I will be able to successfully adapt an interactive installation in this area that will bring people in from different parts of the city and help the area become a new, up and coming location by incorporating the **Stop, Sit, Look, Listen, Relax, Engage and Interact** mentality.

Appendix I |

	MODERNIZATION[1]	CLOUD GATE	THE BLUR	LIGHTMAIL 2012[2]	HEALING TILES 2012[3]	LIGHT DRIFT	DUNE 4.0
Ranking							
Location	Cincinnati, OH: Contemporary Art Center	Chicago, Il: Millennium Park	Yverdon-les-bains, Switzerland	Cincinnati, OH: Hotel 21C	Cincinnati, OH: Hotel 21C	Philadelphia, PA	Rotterdam, Netherlands
Location Type	Urban	Urban	Remote	Urban	Urban	Urban	Urban
Designer/Author	Hema Upadhyay	Anish Kapoor	Diller and Scofidio	Astrid Krogh	Brian Knep	J. Meejin Yoon	Daan Roosegaarde
Interior/Exterior	Interior	Exterior	Interior and Exterior	Interior	Interior	Exterior	Interior
Temporary or permanent	Temporary	Permanent	Temporary	Temporary	Temporary	Temporary	Temporary
Installation Adaptability	Designed to accommodate multiple exhibition locations.	Can accommodate multiple events in the space. From tourist, to private events.	Adapted to a specific lake to create a mystical space.	The installation is site specific to 21C, but could be duplicated in a new location.	Can adapt to any open space, interior or exterior.	Can adapt to any open space, interior or exterior, on land or water.	Can adapt to any open space, interior or exterior.
Public/Private Environment	Open to the public with a minor admission fee; free on specific community days.[4]	Free and open to the public.	Open to the public from May 15-October 20th 2002.	Free and open to the public.	Free and open to the public.	Free and open to the public.	Open to the public with a minor admission fee.[5]
Active	This installation	Interacting	Interacting	Interaction of	Walking across the	Interacting	Interacting with

[1] Modernization by Hema Upadhyay examined, was located at CAC in Cincinnati, Ohio, the author also examined the CAC as a venue for the changing installation exhibits, discussed below.
[2] Exhibited in conjunction with 'Illuminati: Site Specific art at Hotel 21c Museum in Cincinnati.'
[3] Ibid.
[4] Contemporary Arts Center, "Visiting," n.d., http://www.contemporaryartscenter.org/visiting.
[5] Stedelijk Museum Amsterdam, "Visit us: Hours and Admission," 2013, http://www.stedelijk.nl/en/visit-us/hours-and-admission; information from latest installation location, May 16-Sepetember 8, 2013.

Participation	does not focus on developing active participation.	with The Bean in multiple ways.	with each other using the brain coats.	stopping to lay on the beanbags provided on the floor to look up into the shaft space and watch the colors change.	floor, the image tears apart and then rebuilds itself.	with the lights in the water by interacting with the people and sensors on land.	movement and sound.
Public Engagement: Physical Participation (highly active, moderately active, passive)	Passive	Highly Active	Highly Active	Moderately Active	Highly Active	Highly Active	Highly Active
Modes of Physical Interactivity/ Engagement	Touching Hearing Seeing Climbing - Engaging with the art	People Touching Hearing Seeing Smelling Playing Sitting Eating Standing - Engaging with everything that is going on near the Bean and at Millennium park.	People Hearing Seeing Touching - Engaging with brain coat & the people participating, shows compatibility.	Touching Hearing Seeing Smelling Sitting Eating Standing - Engaging with the art, the light and colors it produces.	Touching Hearing Seeing Smelling Sitting Eating Standing - Engaging with the art, the movement depicts what happens on the floor of the technical install.	Touching Hearing Seeing Sitting Standing - Engaging with people & making the installation on the water imitate what is happening on land.	Walking Seeing Standing Touching - Engaging by walking through the space, the activity brings the install to life.
Social Participation	-Individual or group -All ages	-Individual or group	-Individual or group	-Individual or small group	-Individual or small group	-Individual or group	-Individual or group -All ages

-Individual or group activity, -multiple age, range		-All ages	-All ages	-All ages	-All ages	-All ages	
Cultural Participation -Diversity (highly diverse, moderately diverse, homogenous) **(Multiple ethnic/ neighborhood range)**	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Highly diverse in all cultural levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Highly diverse in all cultural levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.
Overarching Goals of Installation Design							
Modification of Participant Human Behavior: Physical **a) Active Installation Response**	The awareness of the meaning of the installation.	The visitor's behavior of walking through the space. What do they do?	The visitor's behavior depicts what relationship it will have with other users.	This installation does not focus on developing human behavior awareness.	The user's behavior of walking through the hall shows the action on the Interactive floor.	The user's behavior is reflected in the installation's technology usage of the sensors.	The user's behavior of movement and noise is reflected in the installation's change of light.
Modification of Participant Lifestyle Patterns							

b)Post Installation Response	This installation does not focus on changing lifestyle patterns.	Develop a pattern or routine of walking through the park on a daily basis instead of walking through the streets. The routine changes.	Changes how you perceive and relate to other people in the space.	The user has to stop and lay down to appreciate the installation. By changing the pattern of being able to walk by and look at it, the visitor must cease.	"is similar to a scar left behind when a wound heals."[6] -The pattern changes when walked upon.	This installation does not focus on changing lifestyle patterns.	This installation does not focus on changing lifestyle patterns.
Modification of Human Behavior: Attitudinal **a) Architecture Awareness**	The awareness of the installation going into the space of the CAC.	The awareness of the city around Millennium Park.	The relationship of the space with the environment it was created in.	The installation heightens viewers' awareness of the natural and built environments.[7]	This installation does not focus on developing architecture awareness.	This installation does not focus on developing architecture awareness.	This installation does not focus on developing architecture awareness.
b) Sense of Place	This installation does not focus on developing a sense of place.	The Bean has a conversation with the surrounding area.	The Blur communicates with the water that connects with the building itself.	This installation does not focus on developing a sense of place.	This installation does not focus on developing a sense of place.	The people on land create a space that communicates with the space created in the water.	This installation does not focus on developing a sense of place.

[6] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/ healing-tiles/.
[7] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/lightmail/.

Control of Space	The space is controlled by the building itself and how the space is used for installations.	The Bean and Millennium Park controls the space in that environment.	This installation does not focus on developing control of space.	This installation does not focus on developing control of space.	This installation does not focus on developing control of space.	The interactivity of the space on land controls the space in the water.	This installation does not focus on developing control of space.
Attachment to Space	The space is constantly changing for new installations and art work. The attachment is short lived due to most of the pieces being temporary.	The Bean is a permanent installation that is attached to the space.	This installation does not focus on developing an attachment to space.	The attachment is short lived due to it being temporary but is also site specific.	The attachment is short lived due to it being temporary.	This installation was specific to this space for duration of 3 days.	The attachment is short lived due to it being temporary.
Sequence of Engagement							
Preamble to Engagement	Zaha Hadid's CAC building brings you into the space of the installations.	The streets (Magnificent Mile) that leads to Millennium Park and other surrounding areas.	The elongated ramp that brings visitors from land to the space.	Walking into the hotel, there is no sense of a gallery or installation space unless it has been brought to your attention beforehand.	Walking into the hotel, there is no sense of a gallery or installation space unless it has been brought to your attention beforehand.	DesignPhilidelphia brought the installation in for a 3 day period. The marketing for this installation engaged visitors before they arrived.	The museum brings you into the space before getting to the installation.
Post Engagement Experience	-The quietness from the surrounding rooms.	-The environment always brings people back the space after the first engagement. - Food	- The sound and smell of the water and lake around it.	- The restaurant in the hotel. - The sound of people coming into the hotel to check in; sit at the restaurant to eat or to view	- The restaurant in the hotel. - The sound of people coming into the hotel to check in; sit at the restaurant to eat or to view the gallery	- The smell of the city and water along the river. - The sound of people interacting with each	- Noise and sounds made, directly affects how brightly the lights shine.

		venders, the lake, exhaust from cars. City smells. - The sound from the people, the city, birds, music.		the gallery spaces.	spaces.	other, but does not directly affects how the installation works.	
Intended Goal	-To understand and address urbanization in Mumbai, India.	To bring people into the space that reflects the city in a unique manner.	An attempt at diminishing the reliance on visual interpretations to make judgments.	- To create an array of ever shifting, interactive experiences that are both magical and mysterious. [8]	- "adapting their tools and techniques to explore alternative meanings and ways of connecting to the world."[9]	To approach and occupy the space along the river and persuade to interact and converse with each other.	An interactive landscape that interacts with human behavior.
Outcomes of installation. How was success measured?	-Successful in parts. -I believe it was successful in representing the city and its urbanization. Interactive wise, there was nothing to physically interact with.	-Successful. -By the amount of people that come and visit the space each day, and by the user that passes through each day instead of walking the sidewalk.	-Successful for a period of time. -Success was measured by the amount of people who came and if the interaction worked like it was intended to.	-Successful. -Success was measured by the amount of people who would stop and take part in the activity.	-Successful. -The space brings people into the area and reacts to the visitors.	-Successful. -Hundreds of people came out to engage with the artwork during the short period of time. The installation itself and the interaction with it is what made it successful.	-Successful. -It brings people into the space and reacts to the visitors how it was intended to.

[8] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/lightmail/.
[9] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/ healing-tiles/.

Urban community /context	The museum itself relates to the community and the city as part of the urban fabric.	The space brings the urban community and visitor into the space.	The context of the building connected with the water of the lake around it.	The artist featured is from Denmark, but this installation is in the Urban context of Cincinnati.	The artist featured is from the US, but this installation is in the Urban context of Cincinnati.	The installation was placed in the urban environment for the community to interact with.	The museum itself relates to the community and the city as part of the urban fabric where the installation is located.

ENDNOTES |

[1] Will Buckingham, Douglas Burnham, Clive Hill, Peter King, John Marenbon, and Marcus Weeks, *The Philosophy Book* (New York: Dorling Kindersly Limited, 2011), 255.
[2] Neil Leach, ed., *Rethinking Architecture: A Reader in Cultural Theory* (New York: Routledge, 1997), 98. Merriam-Webster.com details the origin of "daesien" as "G, lit., existence, being, fr. *Dasein* to be present, fr. *Da* there, here (fr. OHG *dār) + sein* to be …."
[3] Ibid.
[4] Ibid.
[5] *Merriam-Webster Dictionary,* s.v. "stopping." 2013. http://www.merriam-webster.com/dictionary/stopping (accessed August 2013).
[6] *Dictionary.com.,* s.v. "looking." June 6, 2012. htttp://www.dictionary.com/looking (accessed 2013).
[7] *Merriam-Webster Dictionary,* s.v." listening." 2013. http://www.merriam-webster.com/dictionary/listening (accessed August 2013).
[8] *Dictionary.com.,* s.v. "engaging." June 6, 2012. htttp://www.dictionary.com/engaging (accessed 2013).
[9] *Merriam-Webster Dictionary,* s.v. "interacting*."* 2013. http://www.merriam-webster.com/dictionary/interacting (accessed August 2013).
[10] *Merriam-Webster Dictionary,* s.v. "installation." 2013. http://www.merriam-webster.com/dictionary/installation (accessed August 2013).
[11] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 98.
[12] *Contemporary Arts Center.* n.d. http://contemporaryartscenter.org/HemaUpadhyay (accessed March 3, 2013).
[13] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 104.
[14] Chicago, Cloud Gate - A Magic Mirror in. n.d. http://www.sculpture-info.com/news-288/cloud-gate-a-magic-mirror-in-chicago.html (accessed February 23, 2013).
[15] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 128.
[16] Ibid. 140.
[17] Bullivant, Lucy. *Responsive environments: architecture, art and design.* London: V & A Publications, 2006, pg. 40.
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[19] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 142.
[20] Ibid. 148.
[21] Ibid. 152.
[22] Ibid. 153.
[23] *Schuylkill Banks.* October 2010. http://www.schuylkillbanks.org/stories/light-drift (accessed March 2013).
[24] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 156.
[25] *Interactive Architecture.org.* January 5, 2007. http://www.interactivearchitecture.org/dune-40-daan-roosegaarde.html (accessed March 2013).
[26] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 158.
[27] Ibid. 158.
[28] Ibid. 158.
[29] Ibid. 158.
[30] Ibid. 161.
[31] Ibid. 168.
[32] Ibid. 169.

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Will Buckingham, Douglas Burnham, Clive Hill, Peter King, John Marenbon, and Marcus Weeks, *The Philosophy Book* (New York: Dorling Kindersly Limited, 2011), 255.

Addendum |

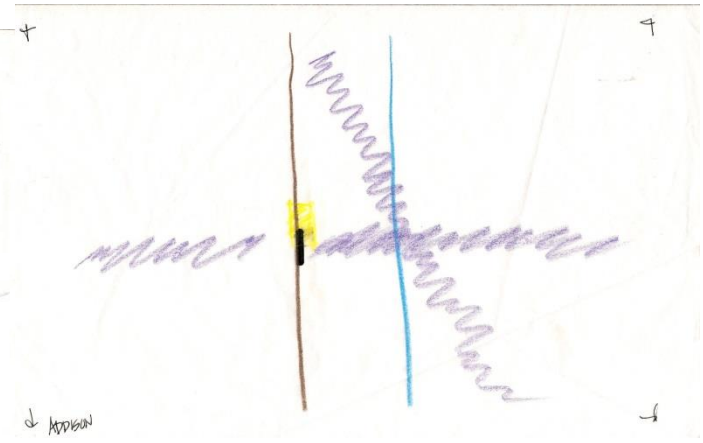
This thesis project is about creating movement and interaction in an interstitial space. Creating a place within a space while connecting the community to the city. This project is located in Chicago, Illinois on the El at the Addison stop on the Brown Line. This project is composed of two major components; the path one takes to and from the station and how it connects visually to the user and the rail system. "The Ribbon" is located under the elevated rail at the Addison stop on the Brown line and is made up of 5 different paths along the site. Each "walking ribbon" is different and allows for a different experience with each step taken. Your senses realize the surroundings by the interaction with the materials used. The feel you feel with your hand on the smooth, cool stainless steel railing, the sound of shoes walking on the grating and tactile pavers, the sound of a roller bag going across, the sound of cars going across the tactile pavers in the street, the overbearing sound of the train overhead, and the vision of color pulling you toward the station when entering the site from the back alley. These encounters play a role in the engagement of the space and its connection to the station and its surroundings.

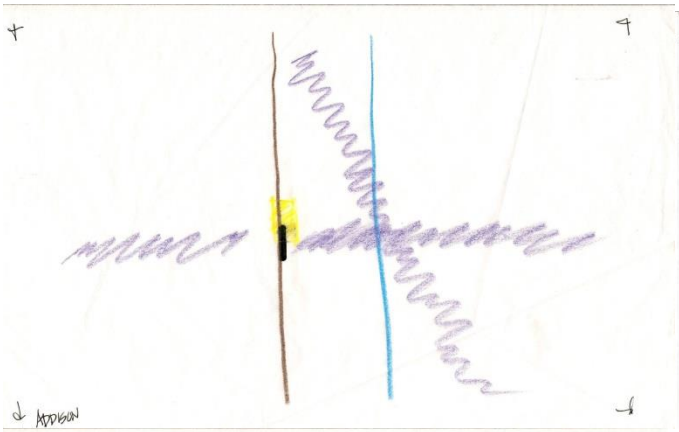
During the final review, there were suggestions to consider changing different parts of the Ribbon. The paths could be made different widths; some wide, some narrow, some straight and some curved which would create more opportunities for personal interaction and contact. Creating a variation of space in these walking paths, allows the user to stop and talk to someone, to interact, to engage. Another consideration offered was to have the walking paths extend from the site up to the train platform. A displayed study model that created many travel options was thought to more intriguing and interactive by bringing the user up and over the rail instead of having to go through the station to reach the platform. I had contemplated that idea which is more complex and know it is very achievable.

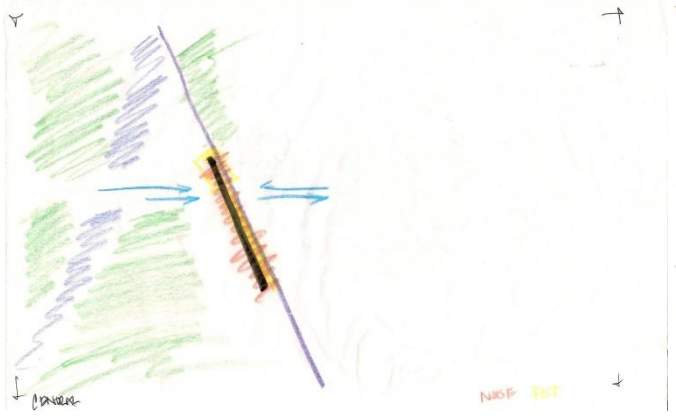
A final proposal was to have the Ribbon implemented at different stops along the rail that would connect the system and the city to a greater depth, and create a greater experience. I thought about designing multiple sites at the beginning of 701, but felt at the time is would be too much to undertake. Having gone through this design process at a specific site, I see how multiple sites would have an immense impact on the city and its people. The Addison stop would be the first place the design could be implemented into the train system and stops.

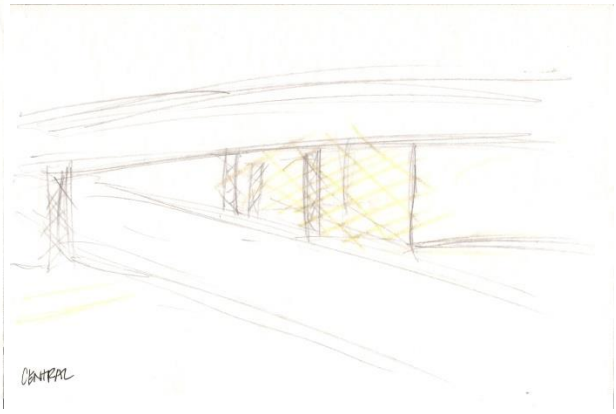
In conclusion, I feel that the Ribbon successfully captured my vision and concept of creating a place within a space by bringing people into the space, influencing their experience by the interaction of the rail, the city and surrounding community.

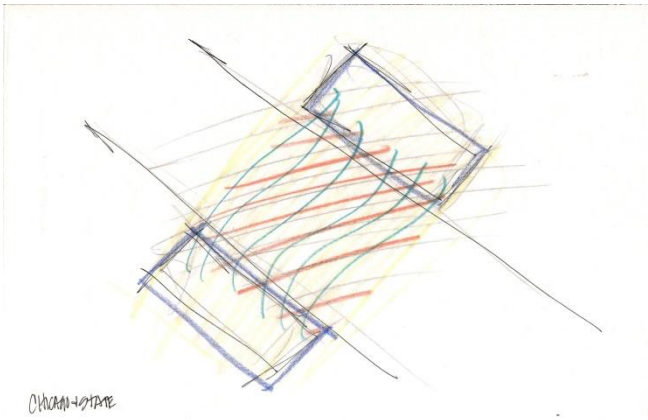
On Site Chicago El Diagramming

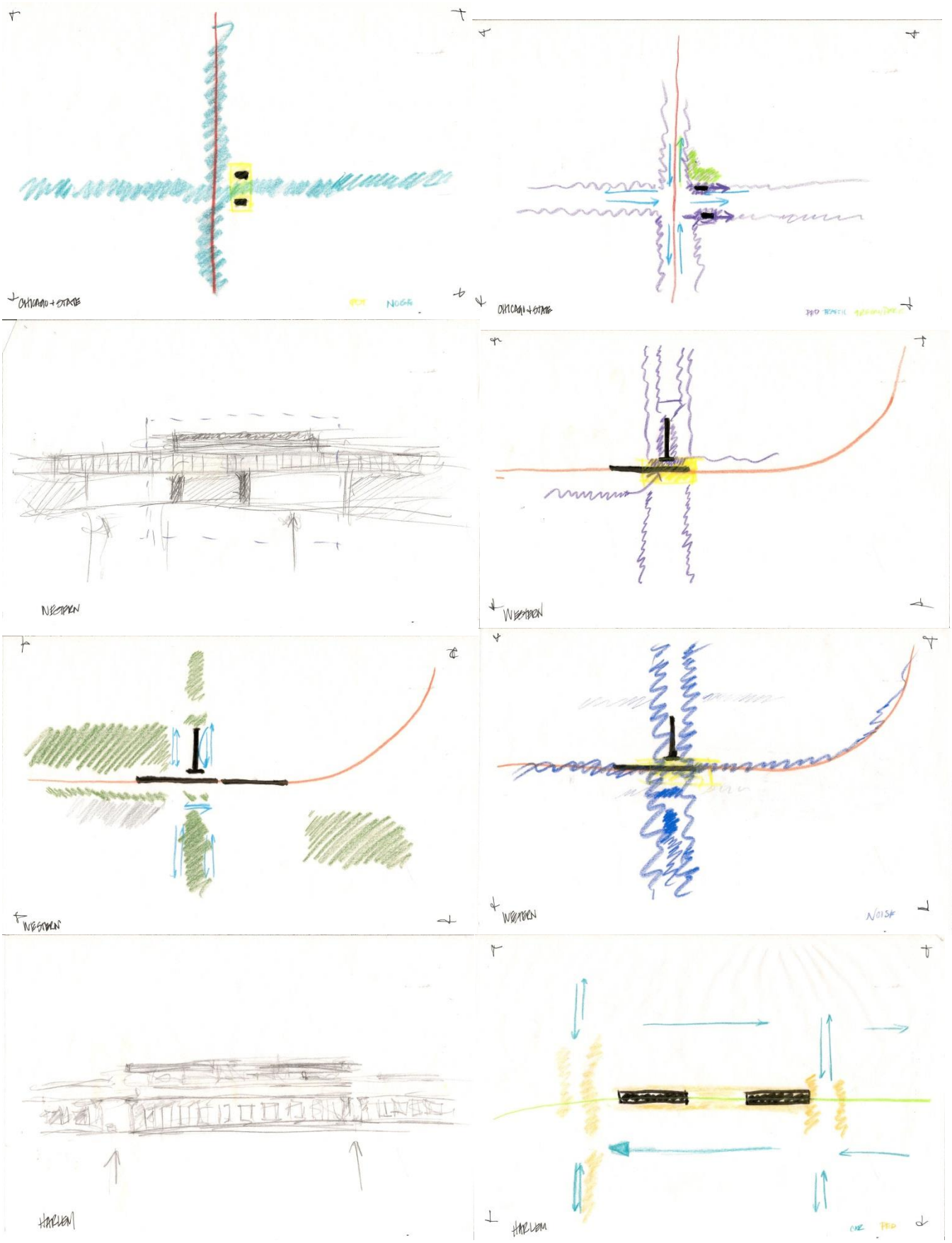








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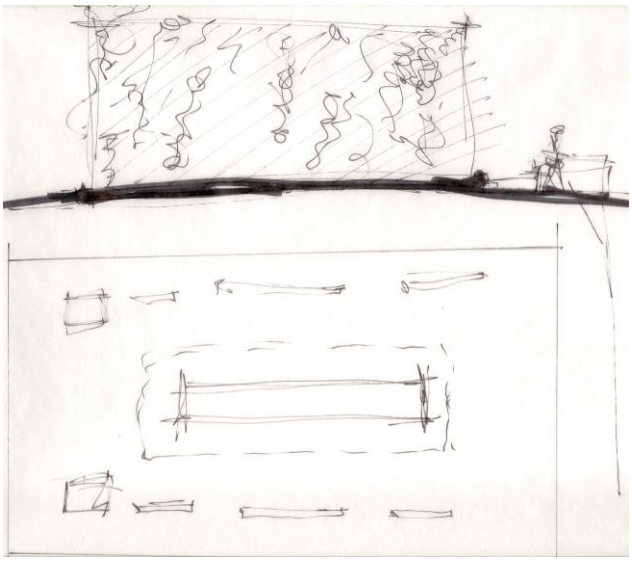

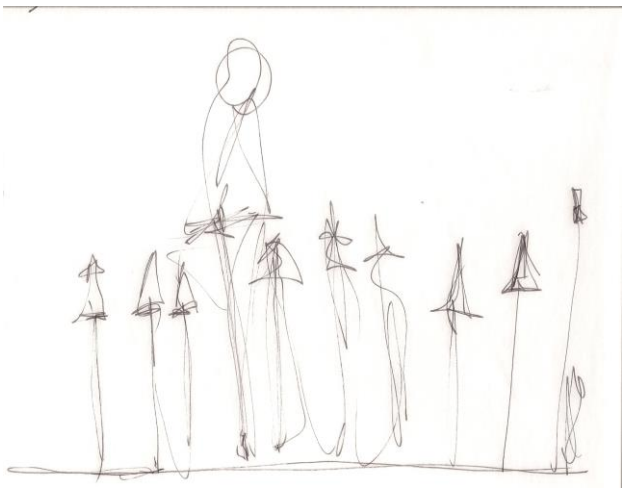

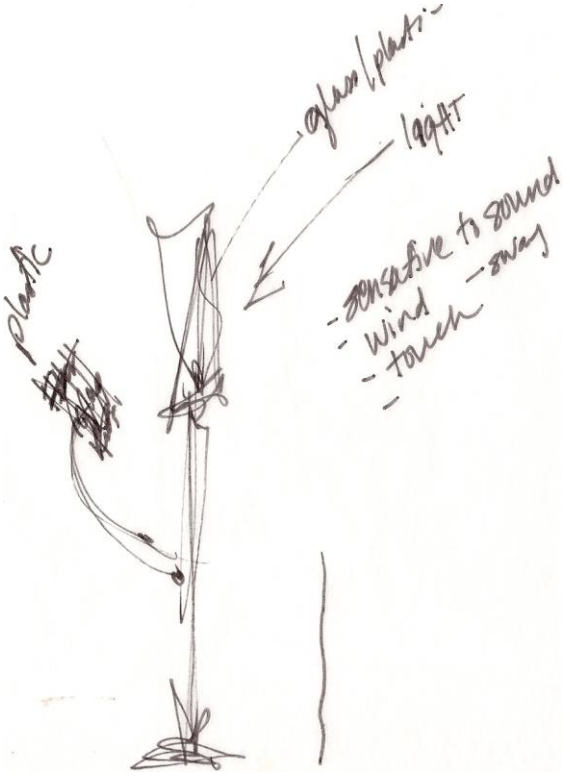

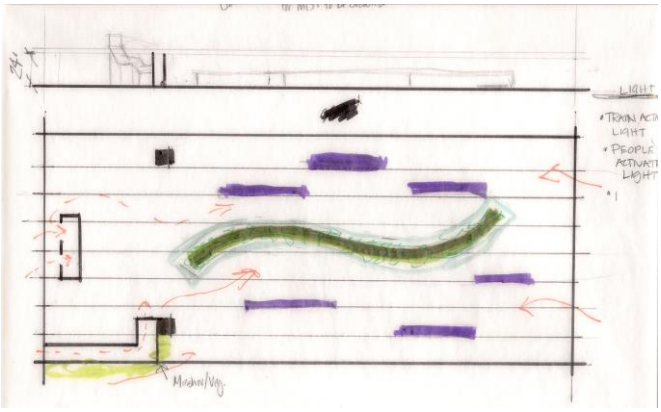

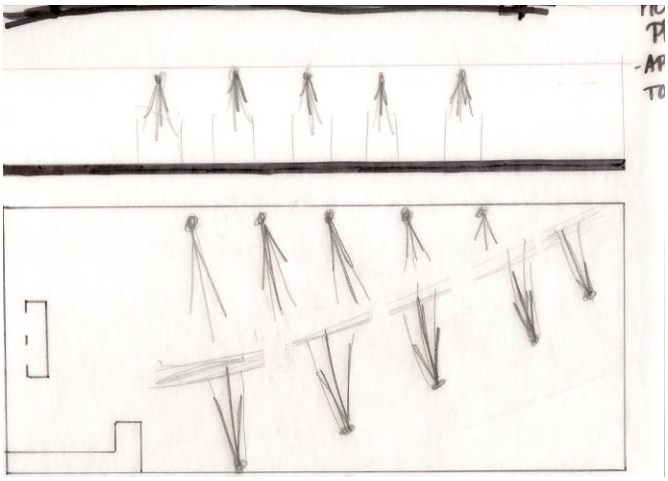

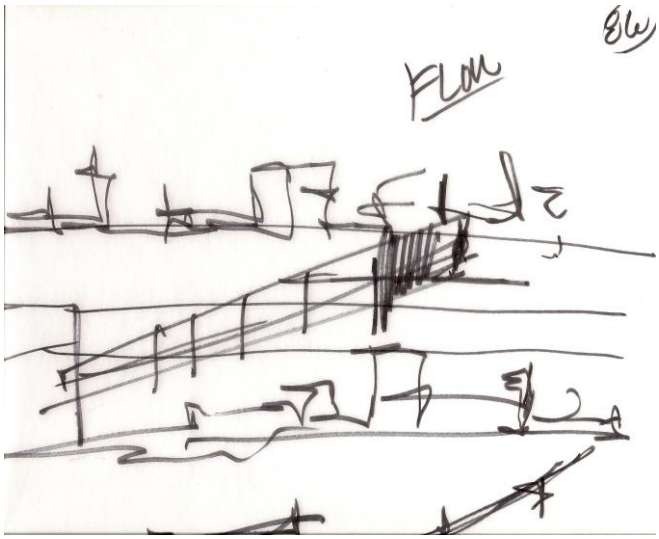
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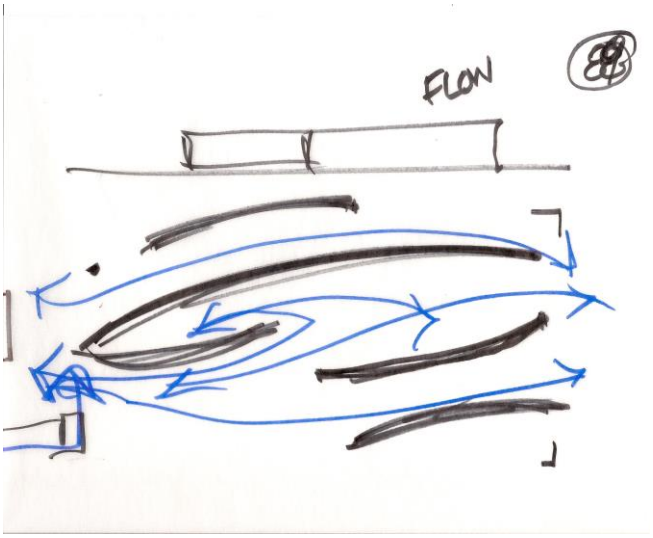
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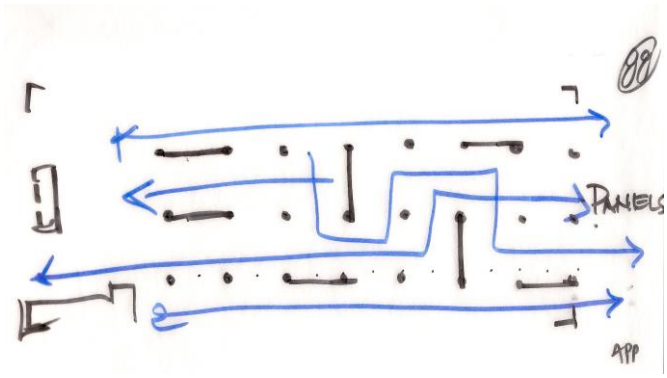
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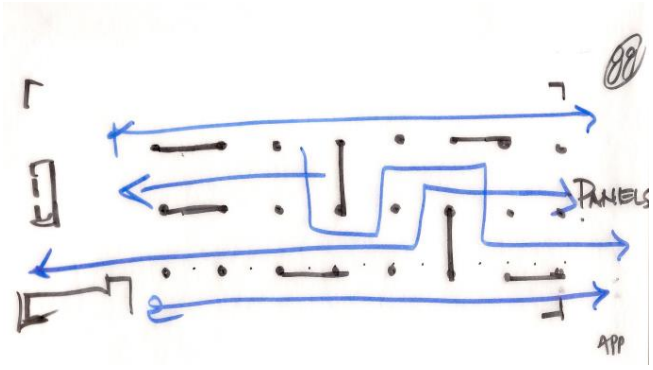
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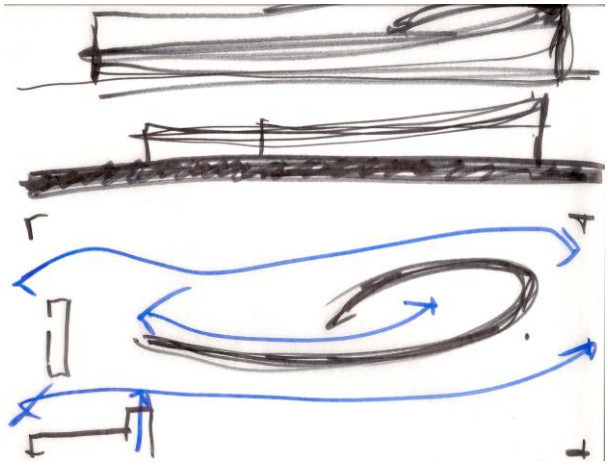

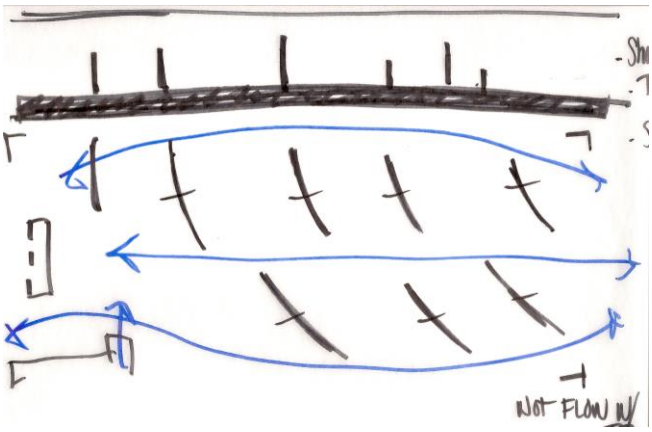
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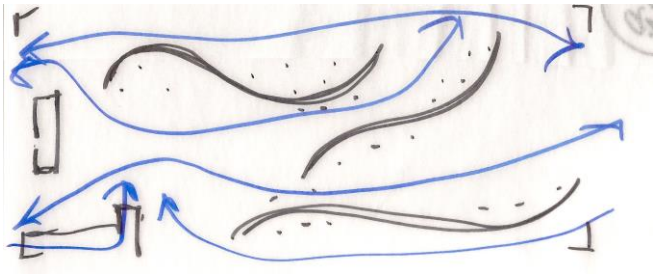

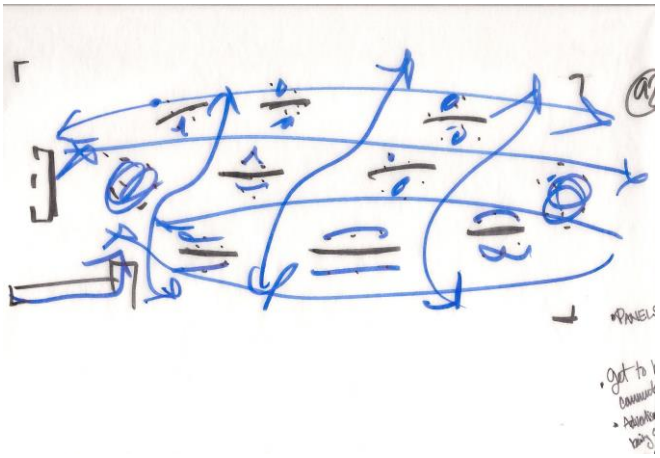

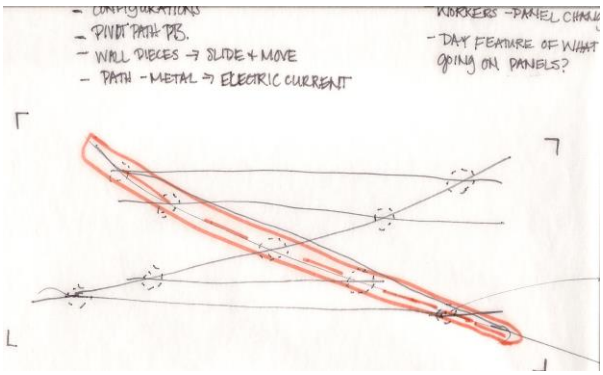
- PIVOT PATH PTS.
- WALL PIECES → SLIDE + MOVE
- PATH - METAL → ELECTRIC CURRENT
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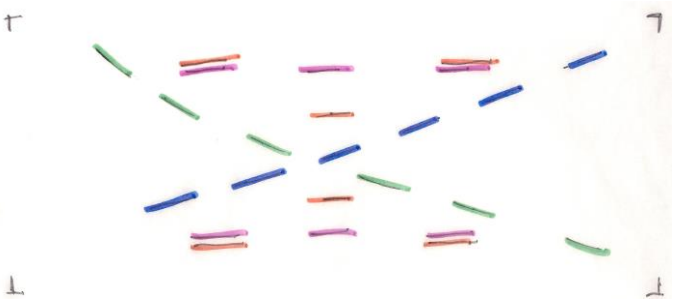

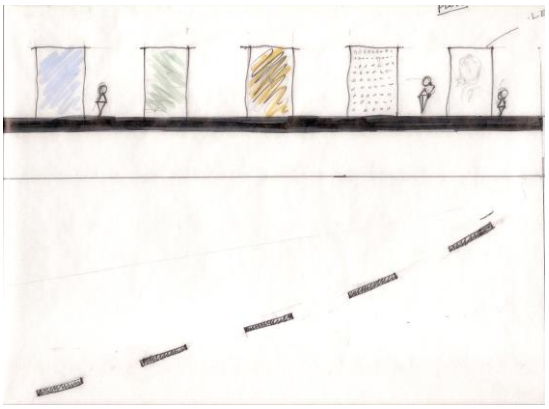

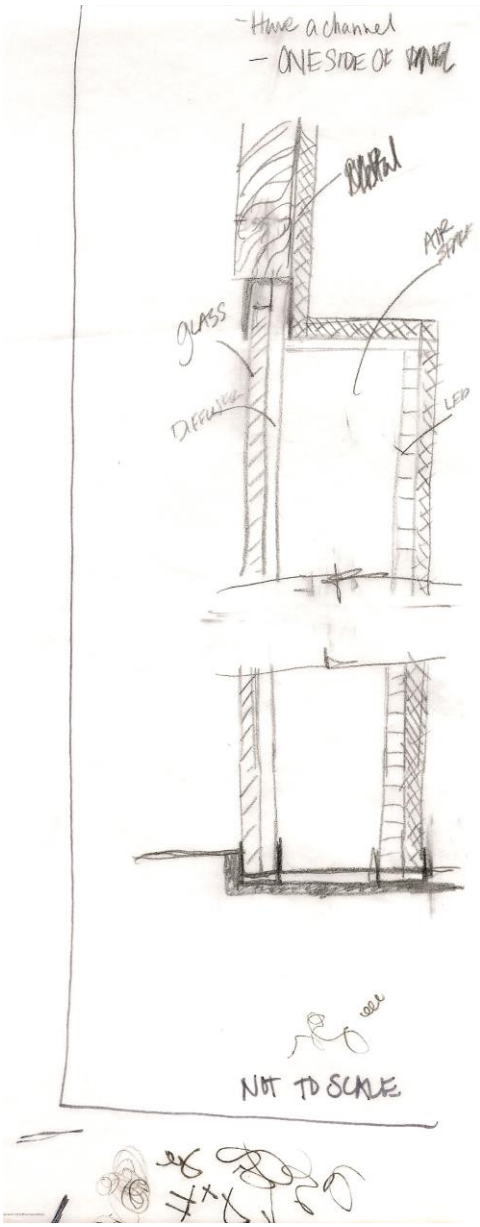
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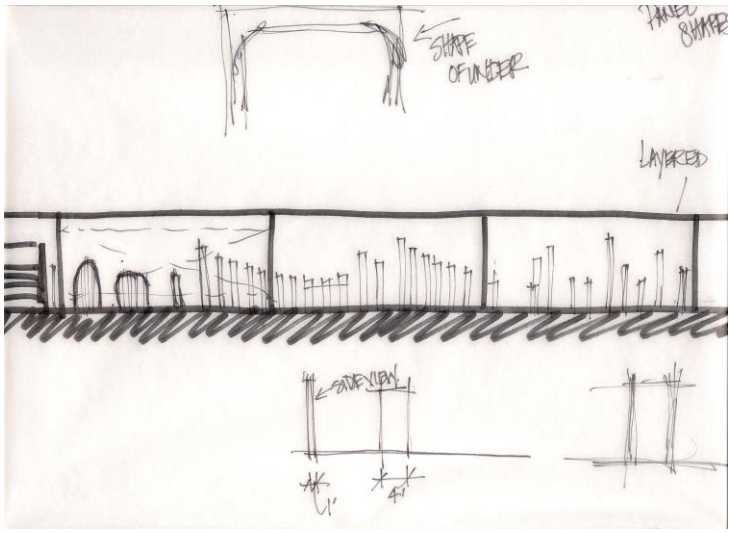
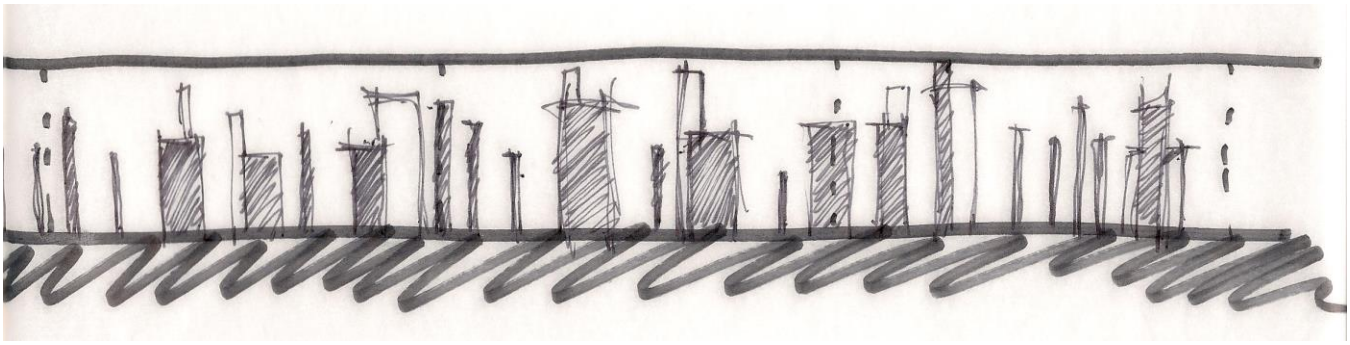
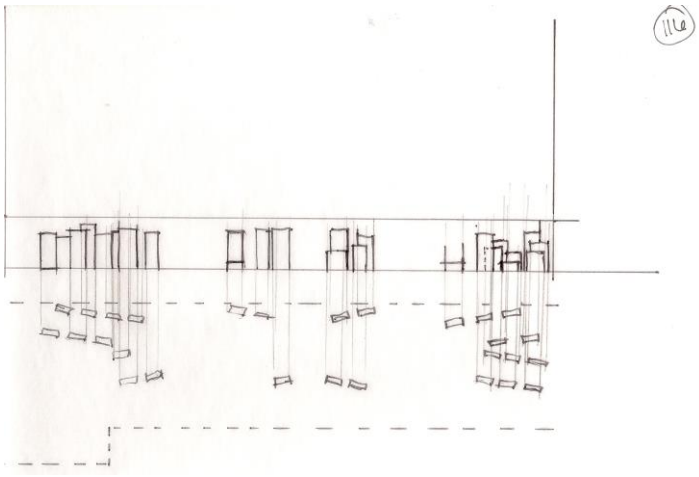
NOT TO SCALE


SHAPE OF WATER
LAYERED
SIDE VIEW



6'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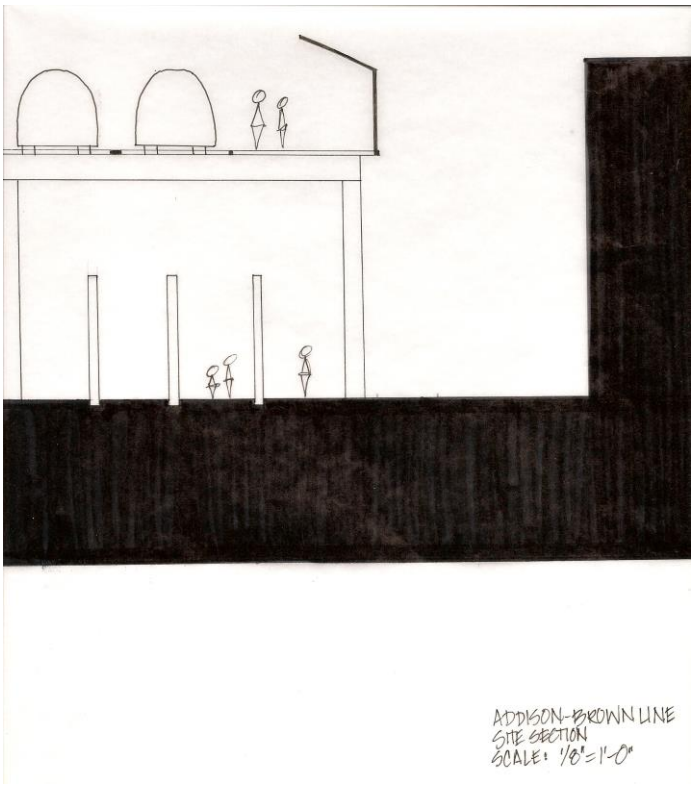
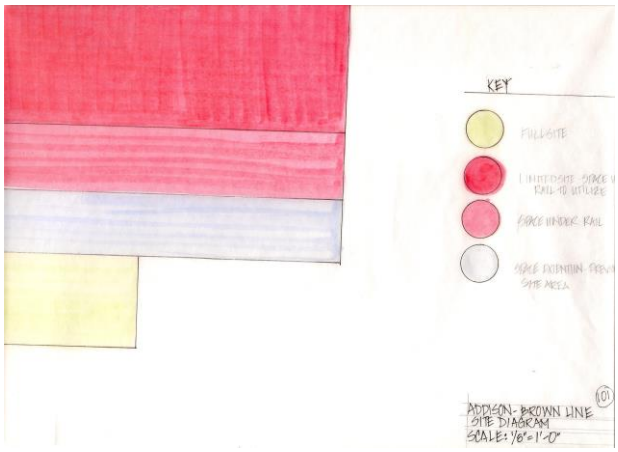
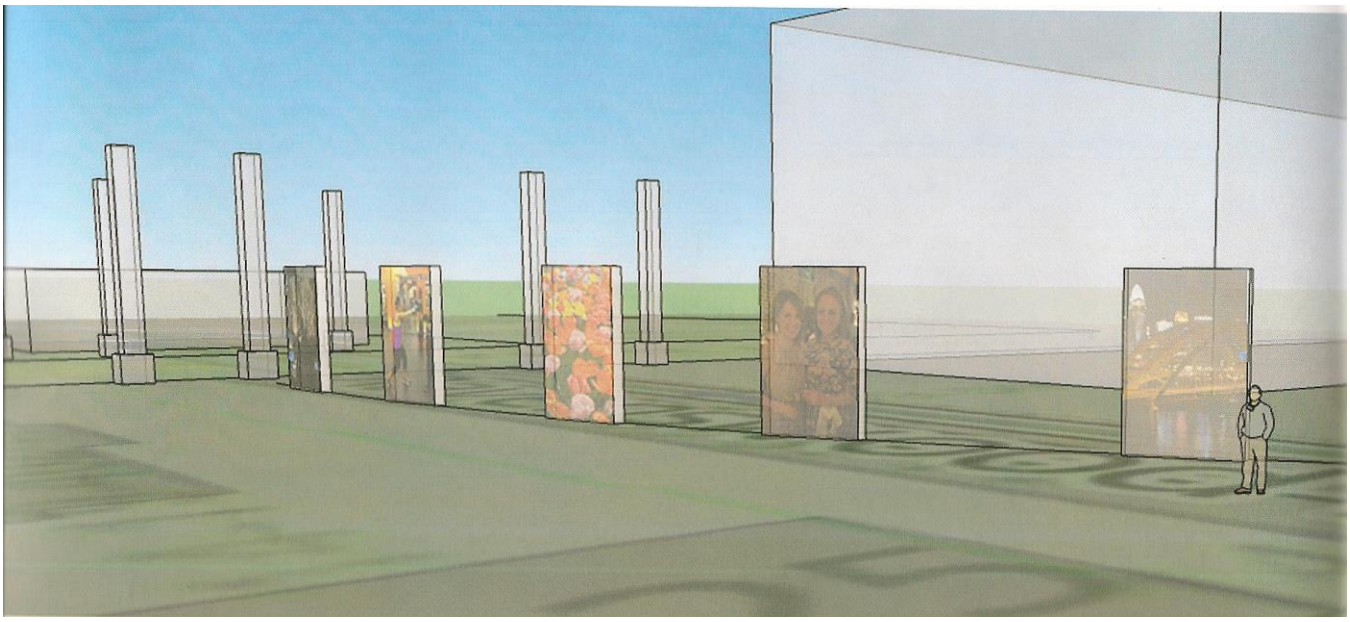
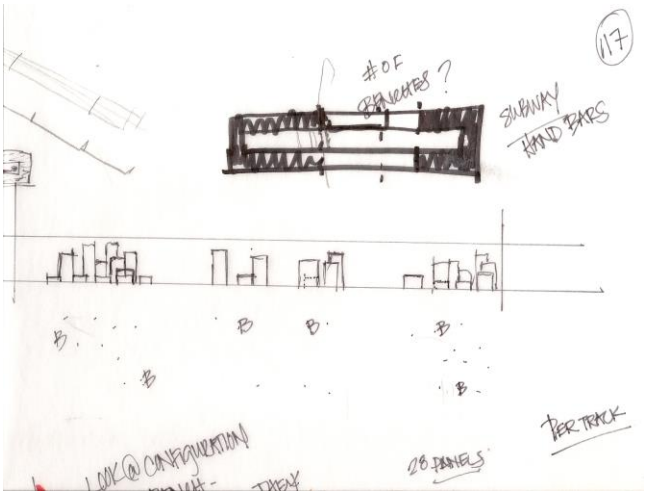
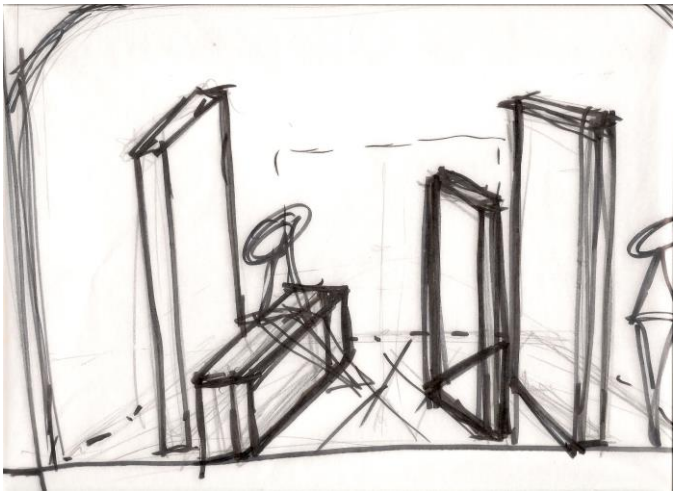
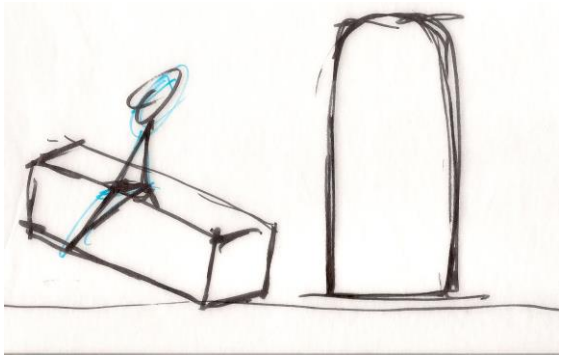

ADDISON-BROWN LINE
SITE SECTION
SCALE: 1/8"=1'-0"

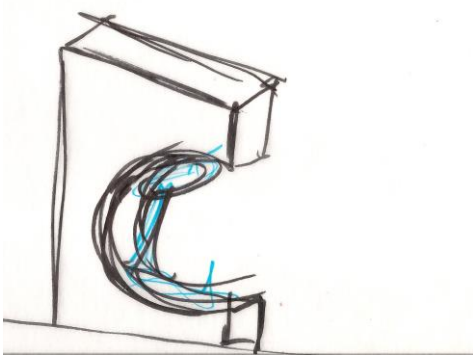

KEY
ADDISON-BROWN LINE
SITE DIAGRAM
SCALE: 1/8"=1'-0"

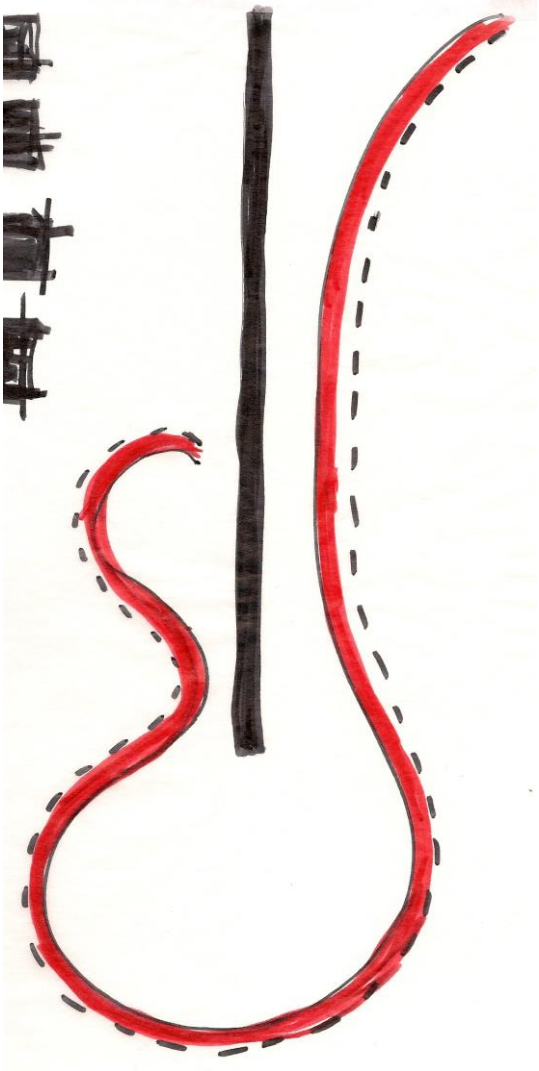


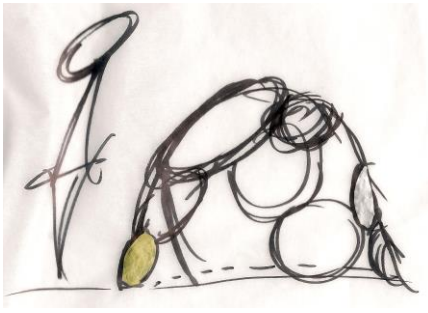

#OF
SUBWAY
HAND BARS
BEER TRACK





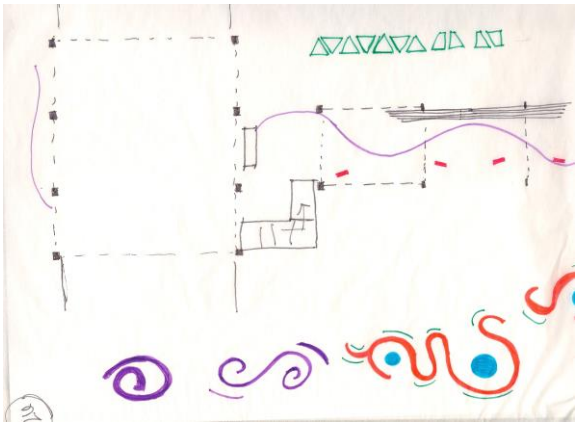


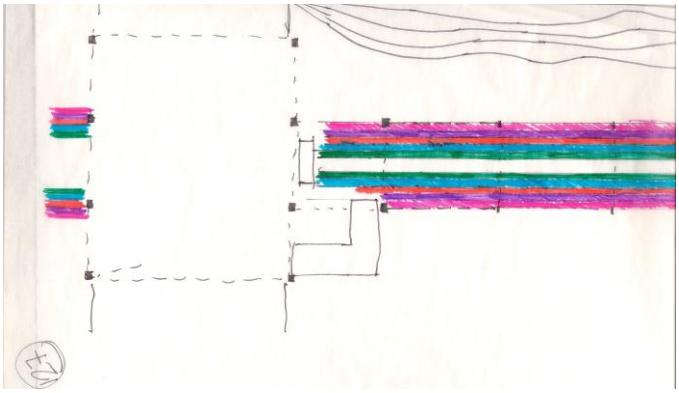


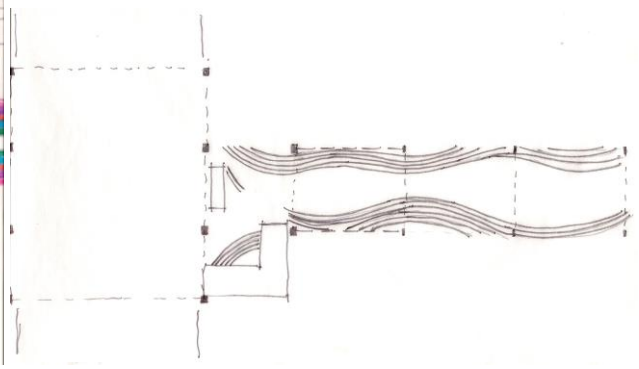


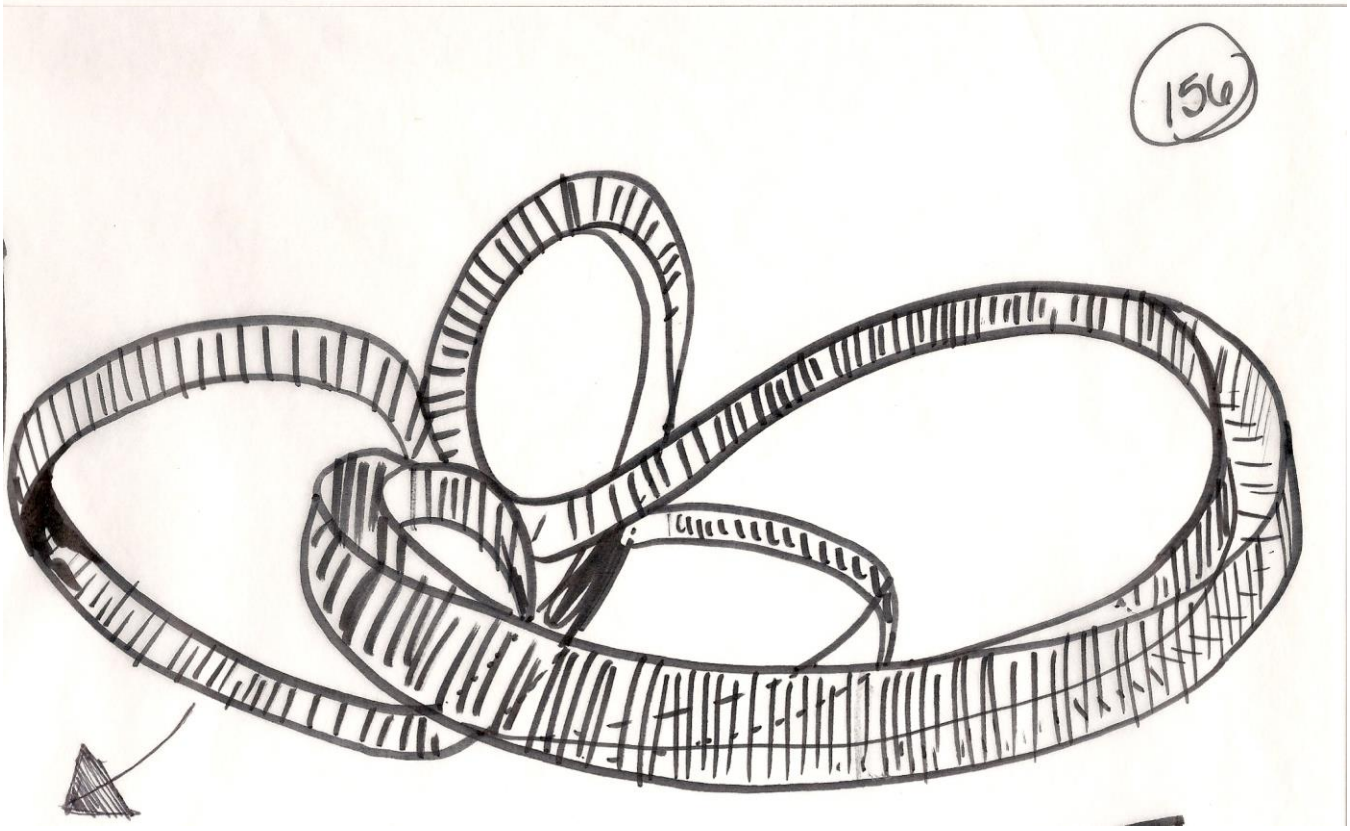
PODS

SLOW
MED
FAST
SIT





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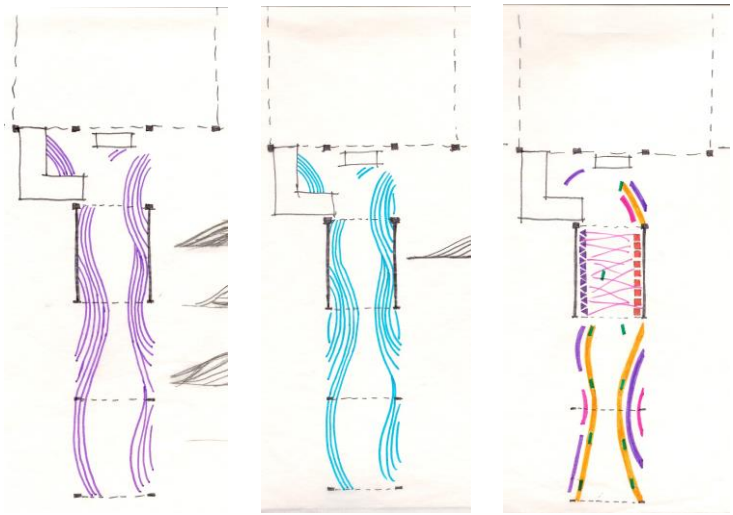
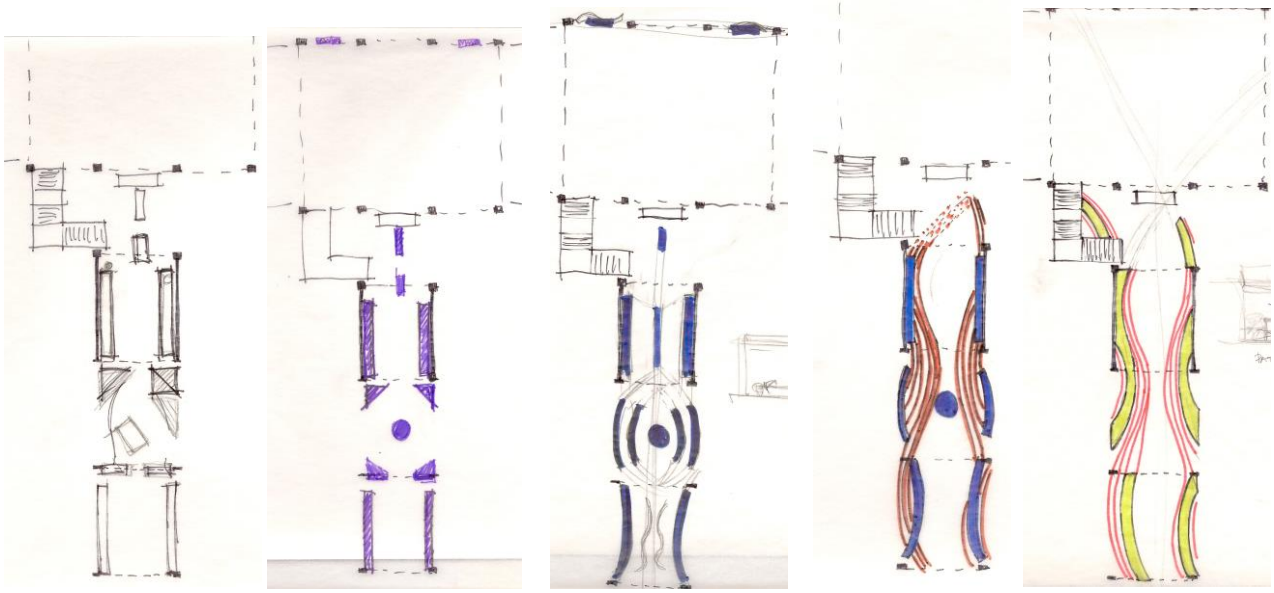
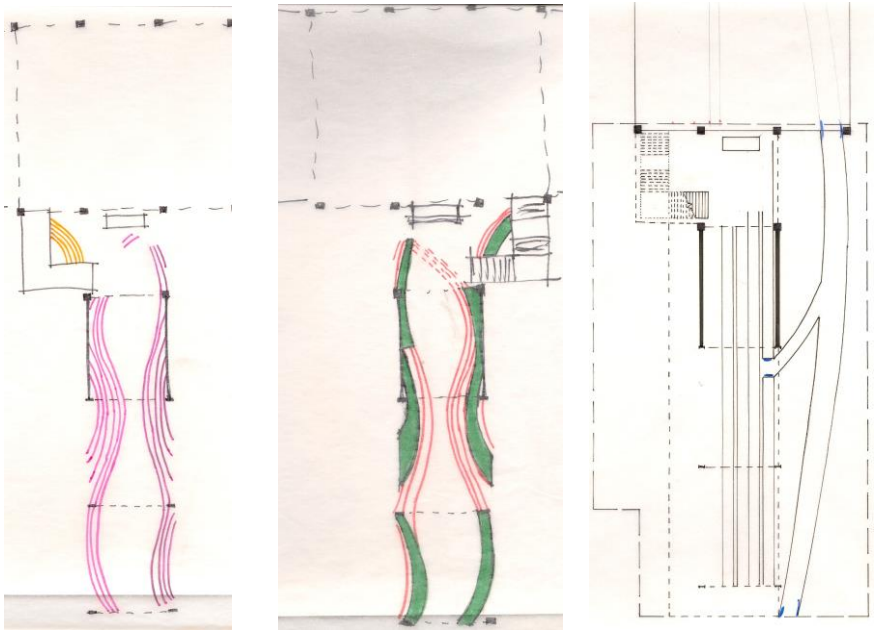
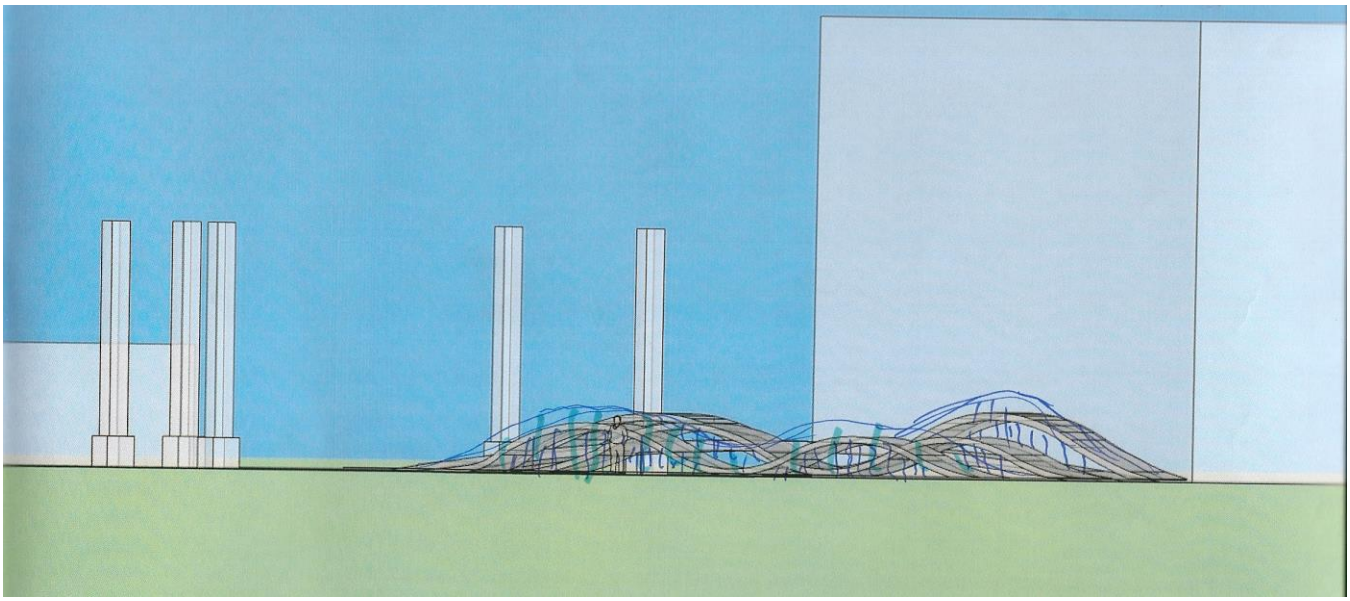
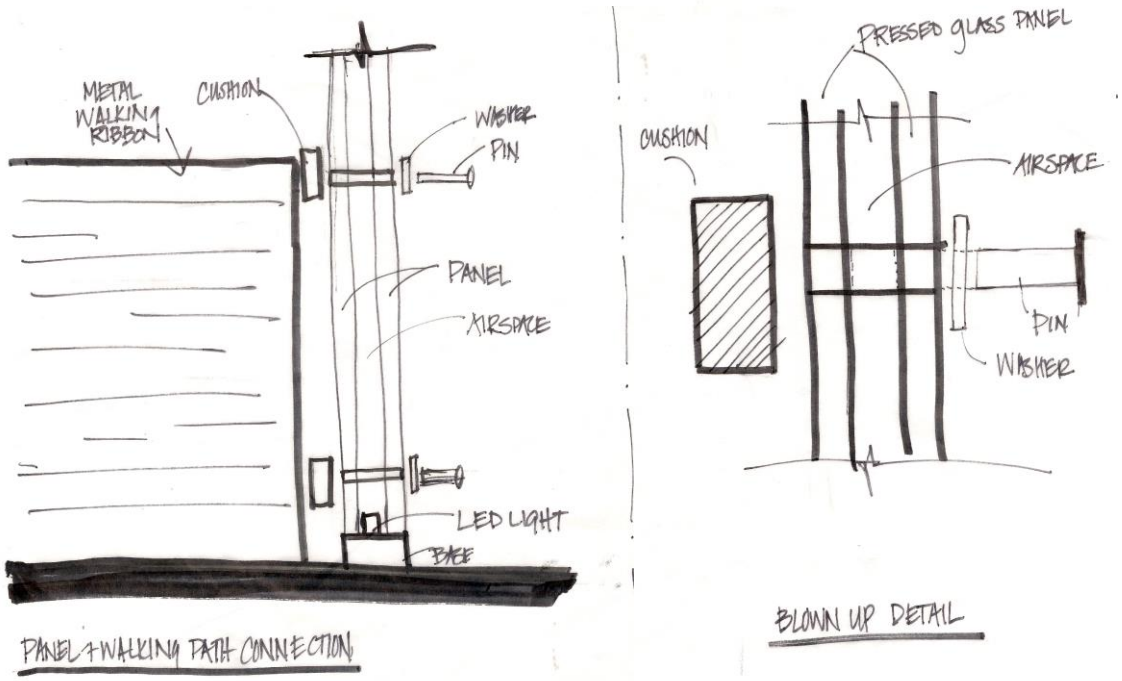
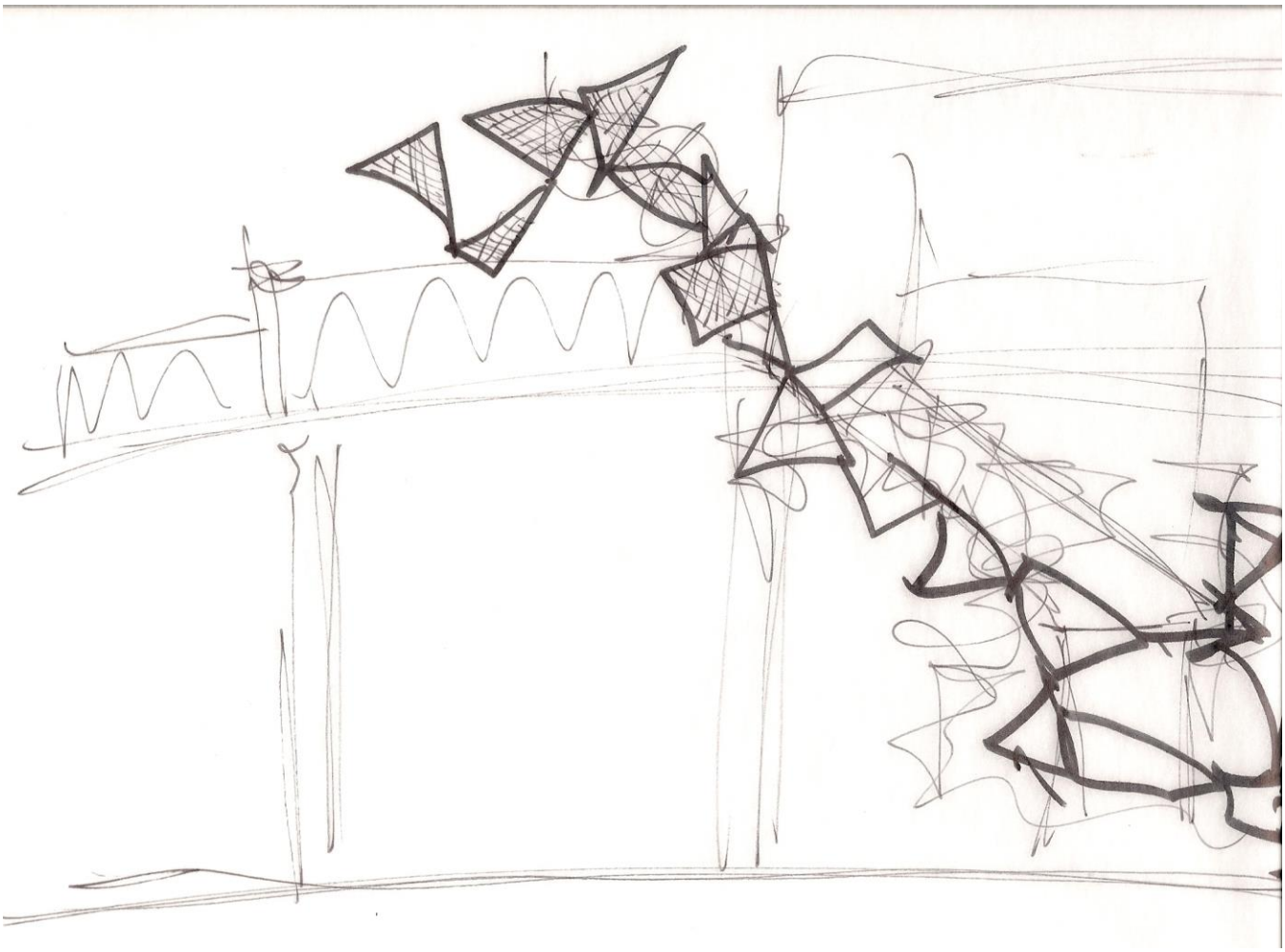


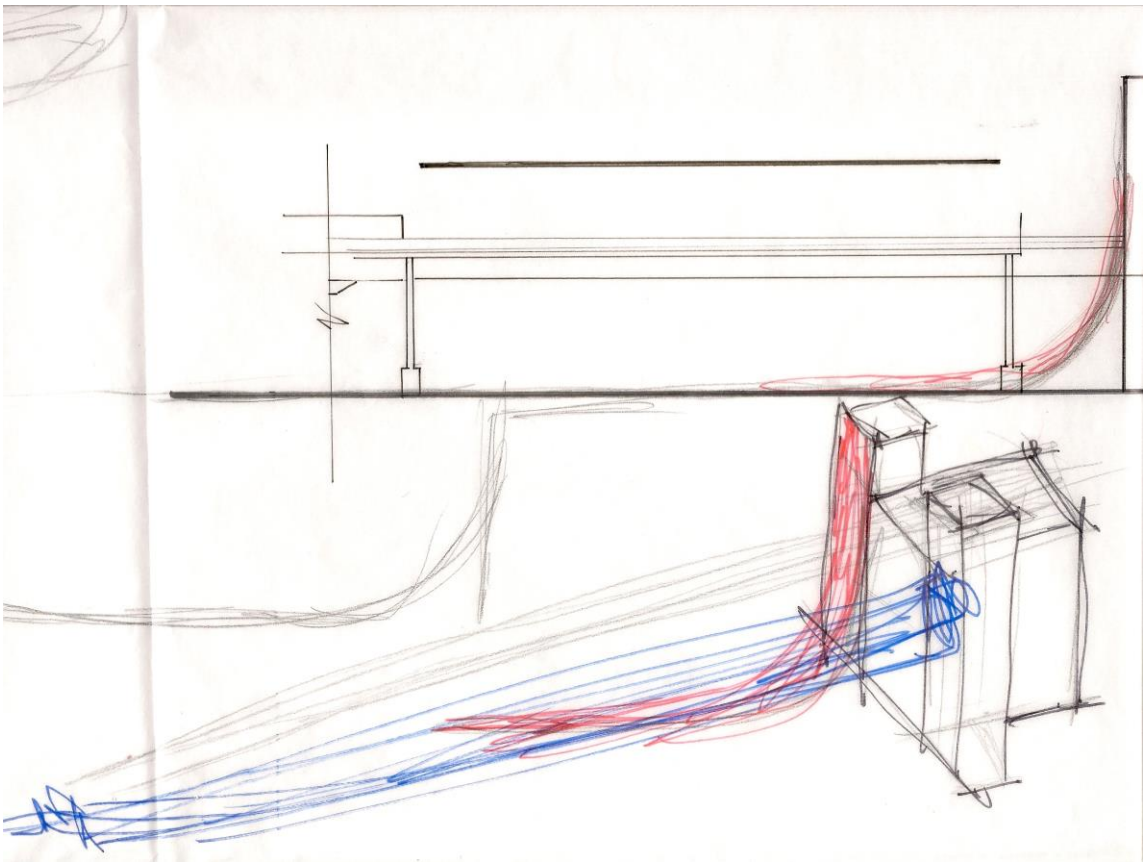


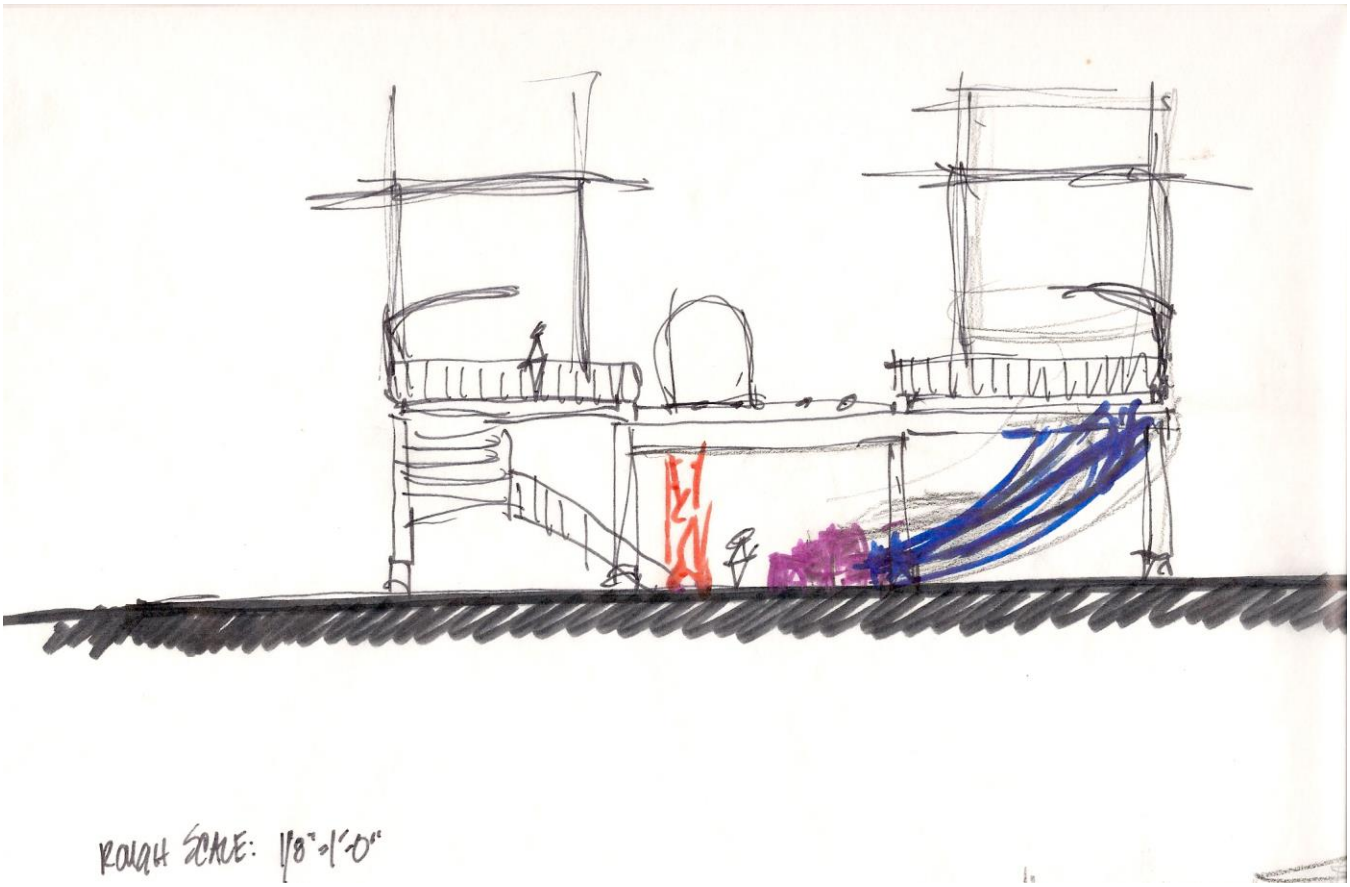





METAL WALKING RIBBON
CUSHION
WASHER
PIN
PANEL
AIRSPACE
LED LIGHT
BASE
PANEL + WALKING PATH CONNECTION
PRESSED GLASS PANEL
CUSHION
AIRSPACE
PIN
WASHER
BLOWN UP DETAIL

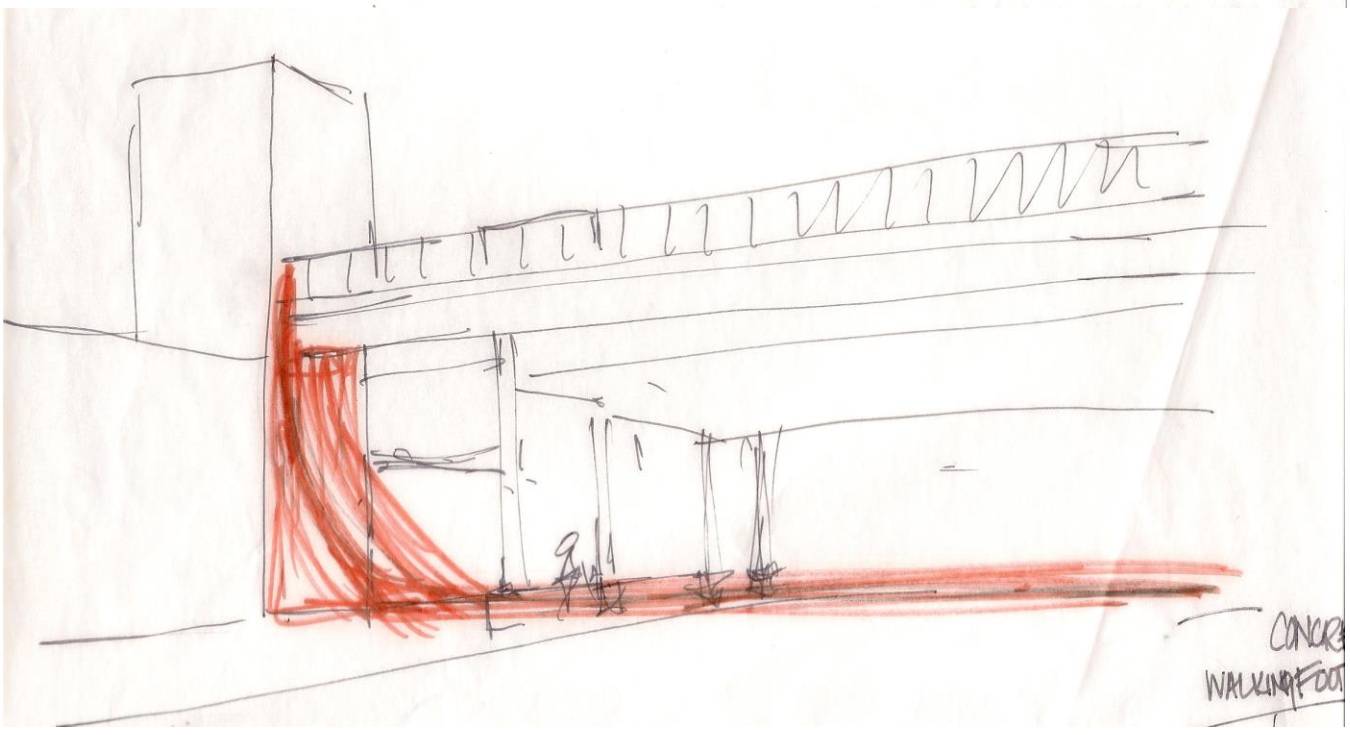




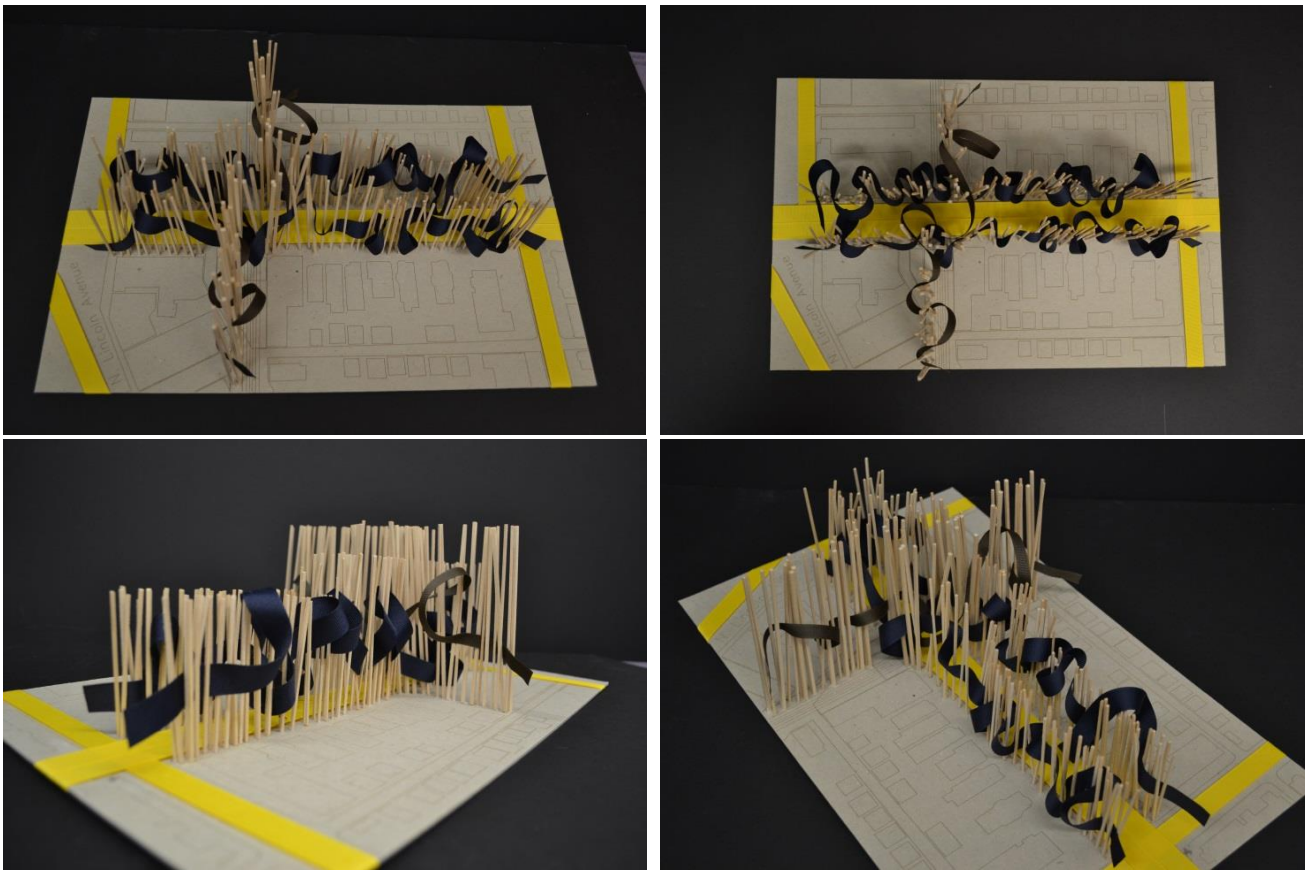


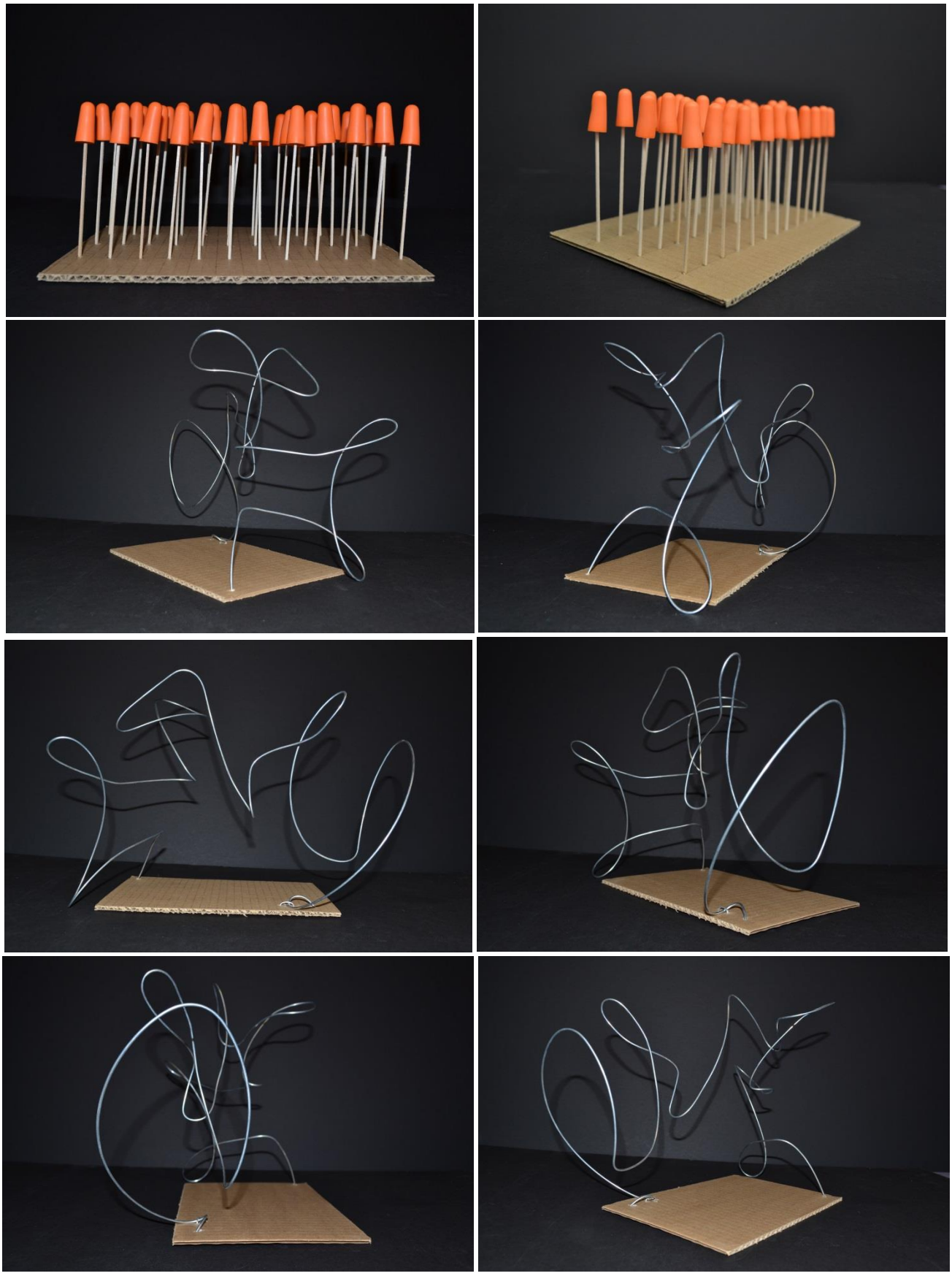
ROUGH SCALE: 1/8"=1'-0"

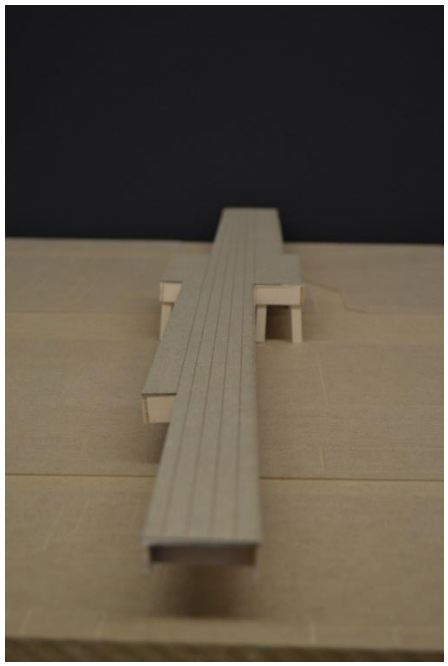
Addison
WALKING IDEA UP TO PLATFORM



Site Design Process Models

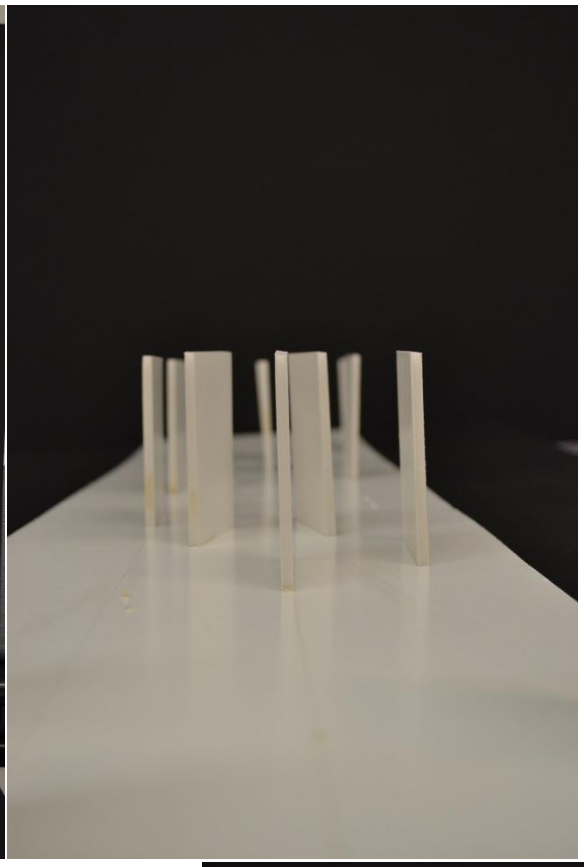


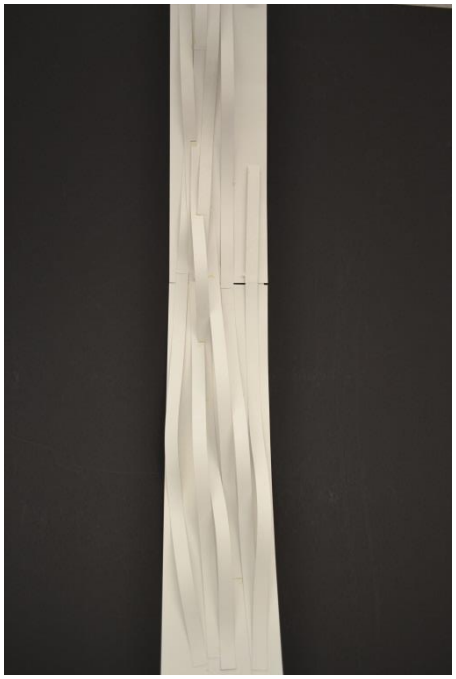


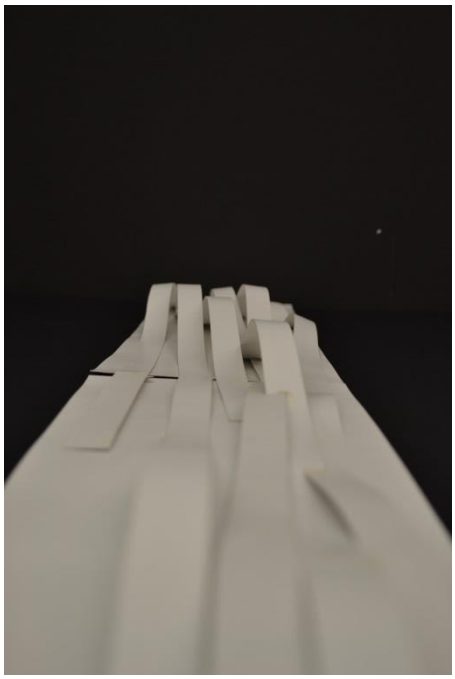


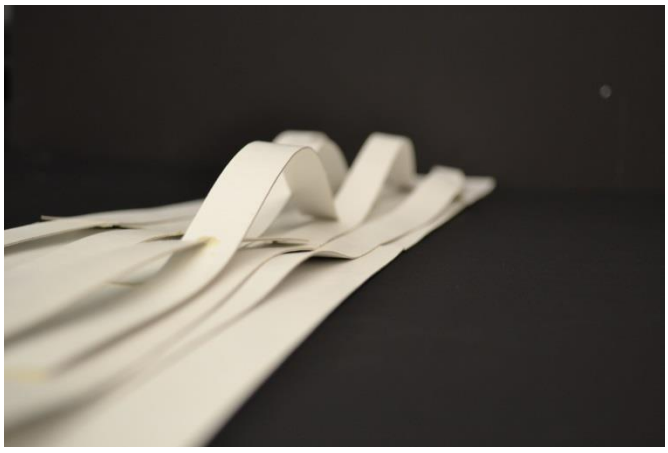
ADDISON

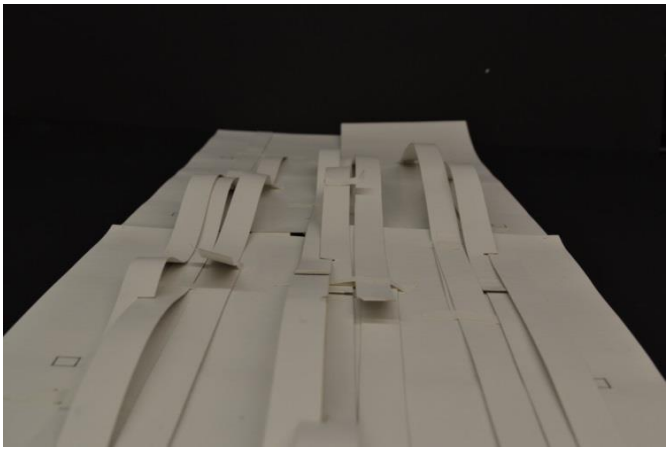
ADDISON

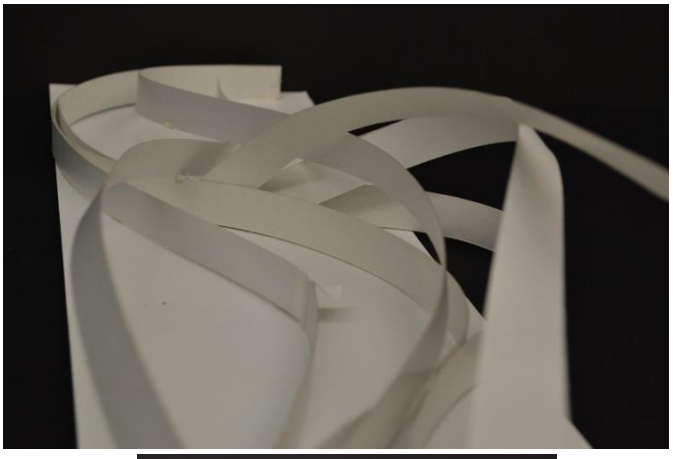


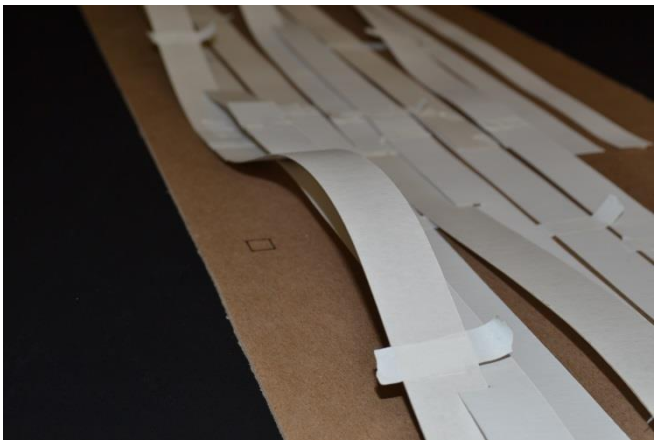


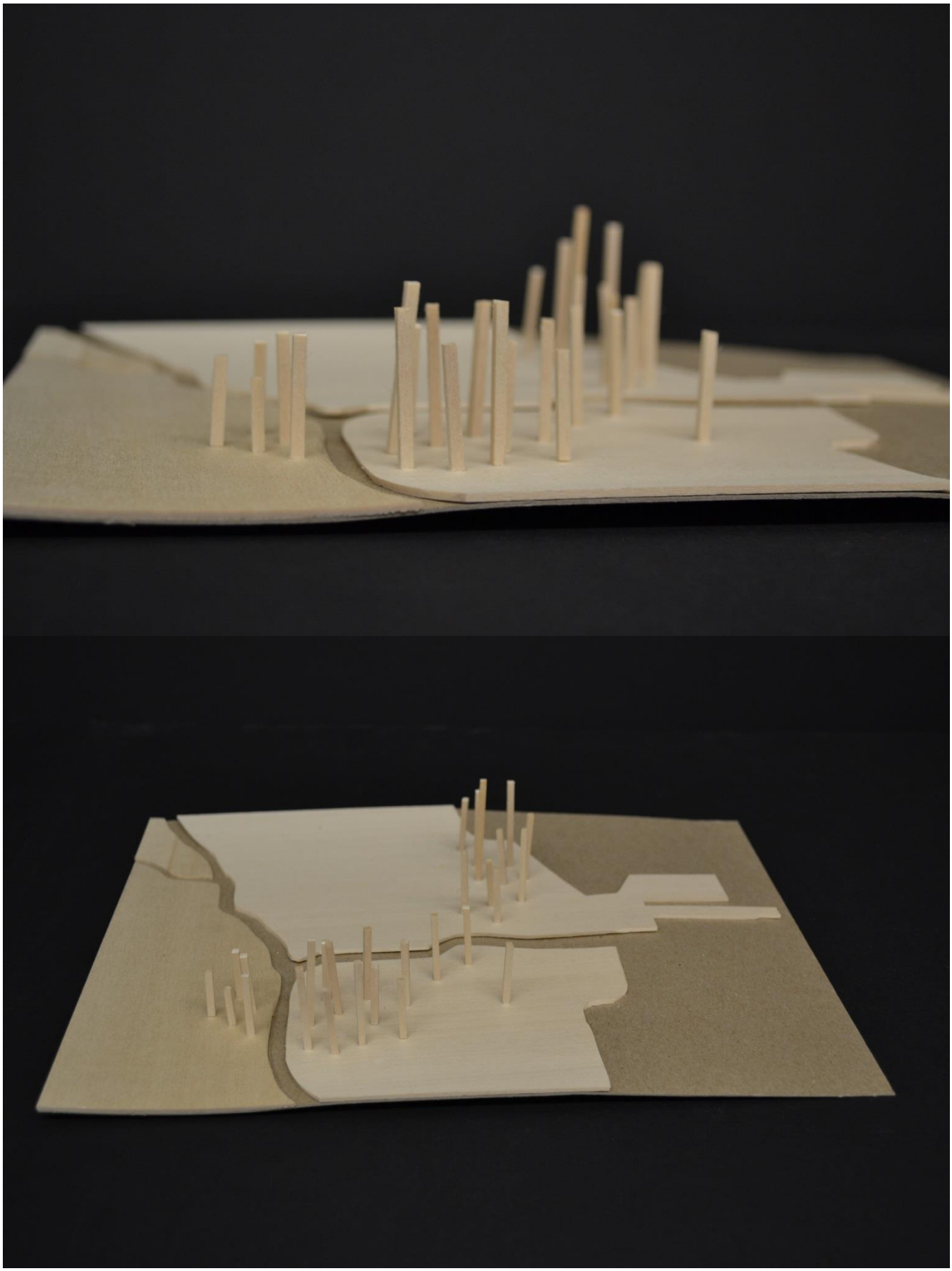




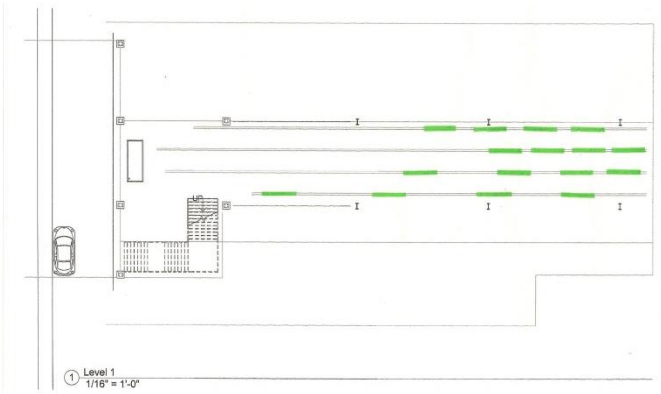


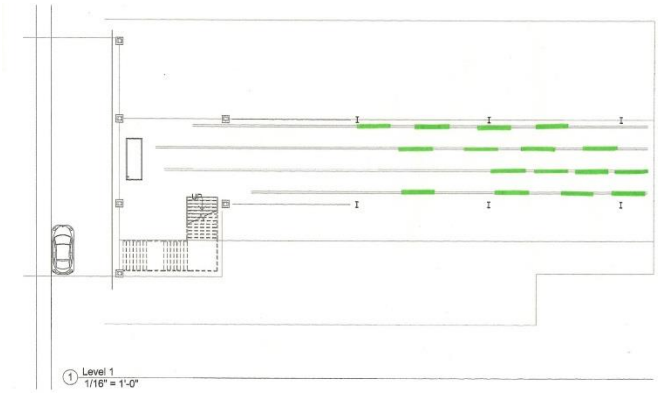


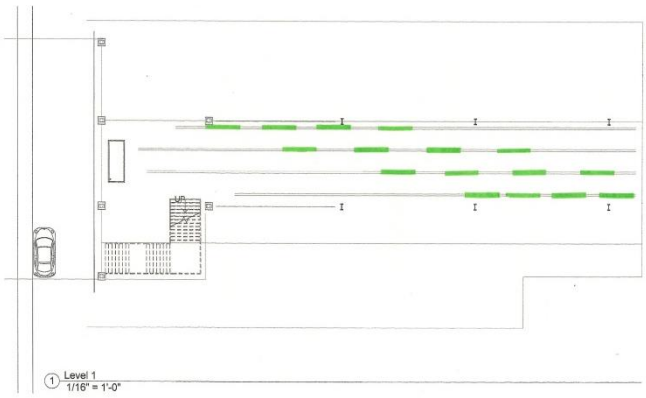


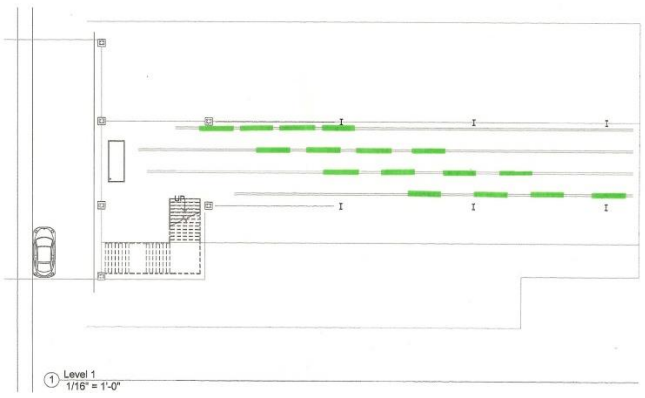


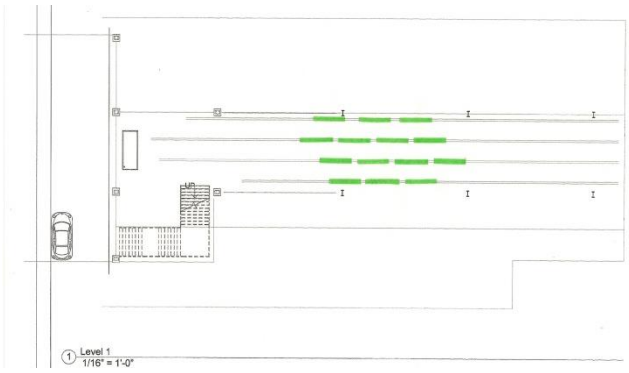
Panel DesignProcess Diagrams 1-1

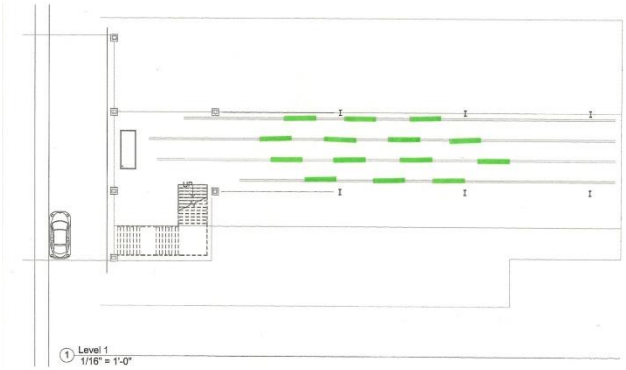


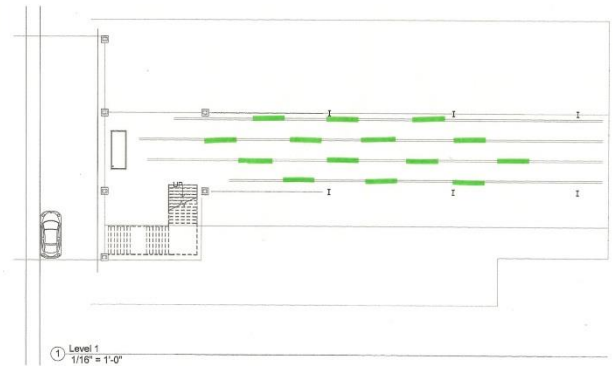






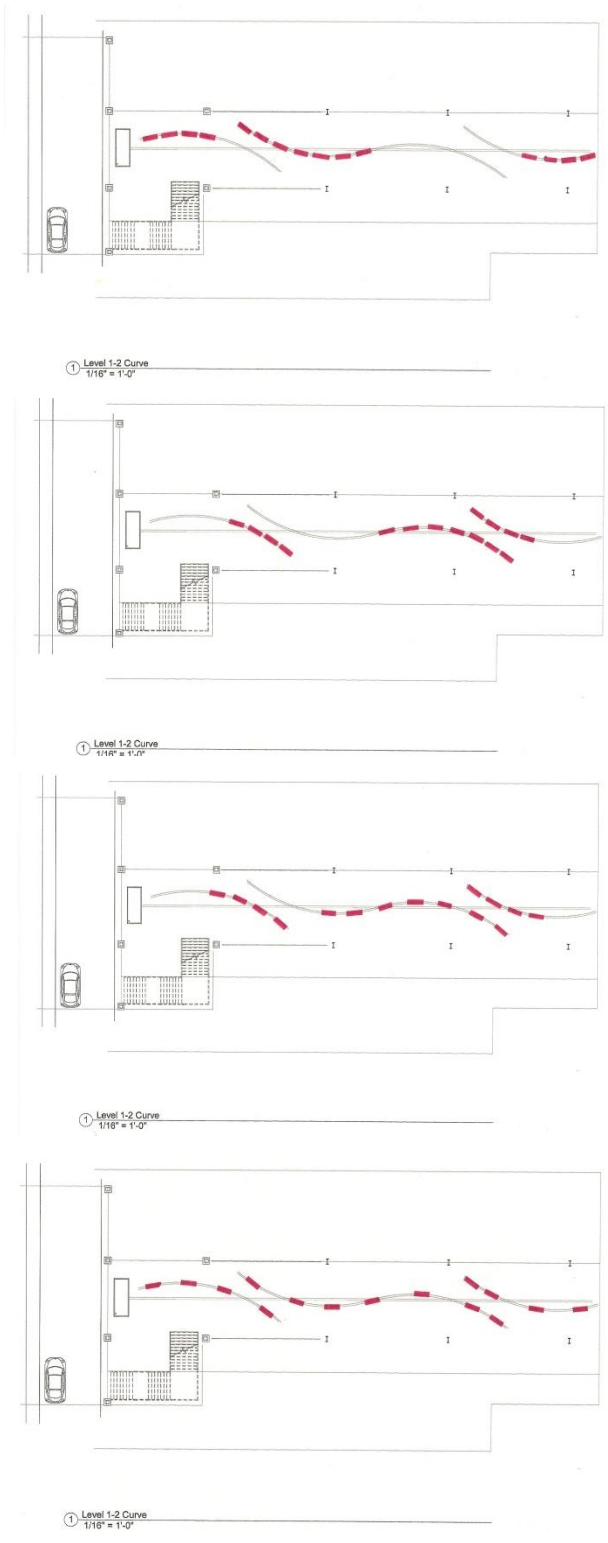

UP
1 Level 1
1/16" = 1'-0"


UP
1 Level 1
1/16" = 1'-0"

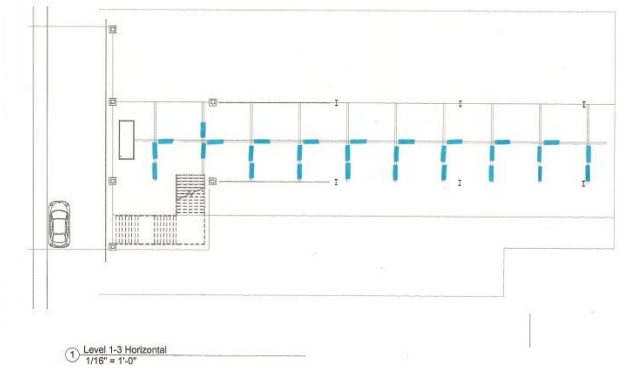

UP
1 Level 1
1/16" = 1'-0"

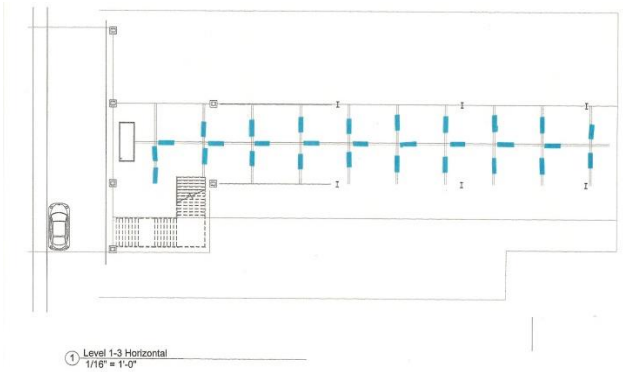
UP
1 Level 1
1/16" = 1'-0"

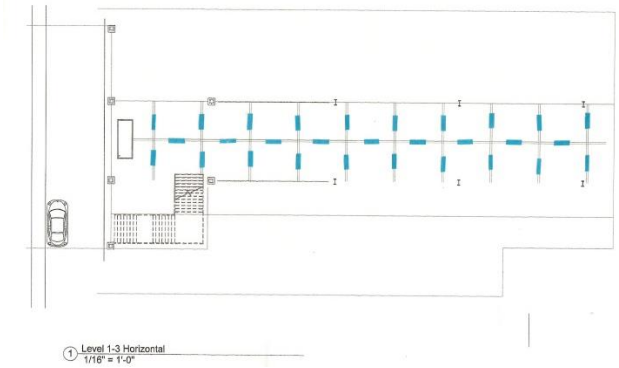
Panel Design Process Diagrams 1-2 Curve

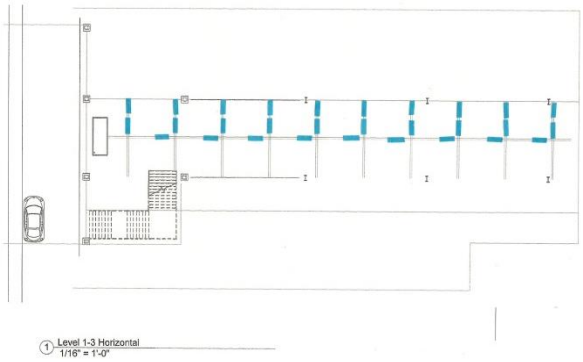


Panel Design Process Diagrams 1-3 Horizaontal

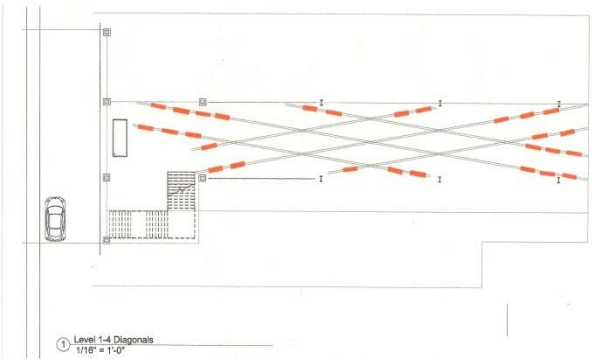


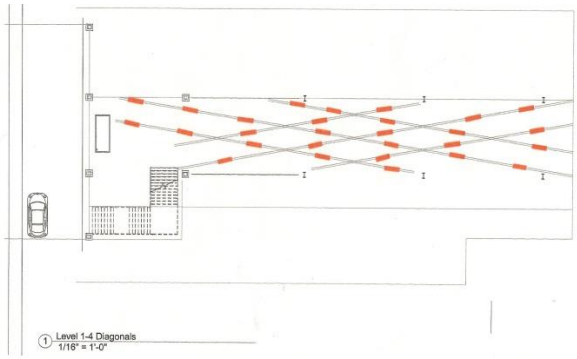


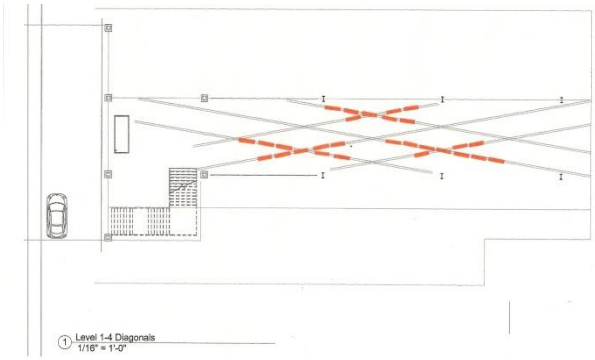


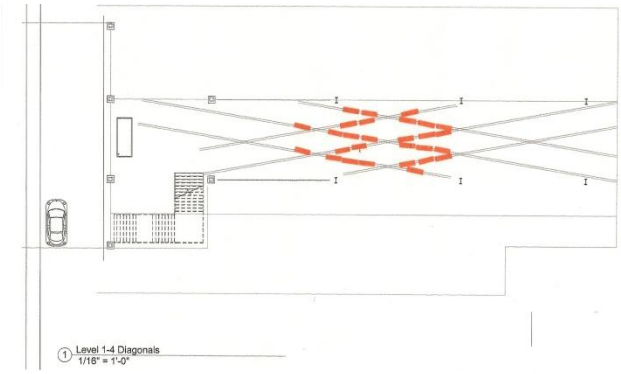


Panel Design Process Diagrams 1-4 Diagonals

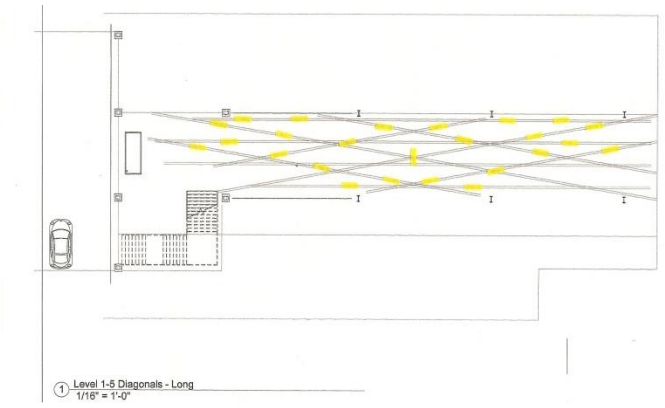


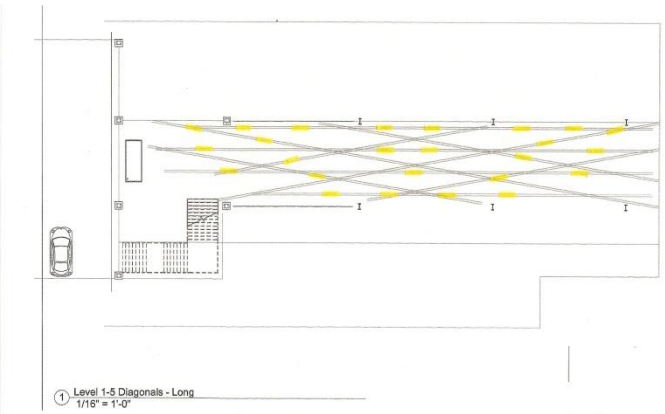


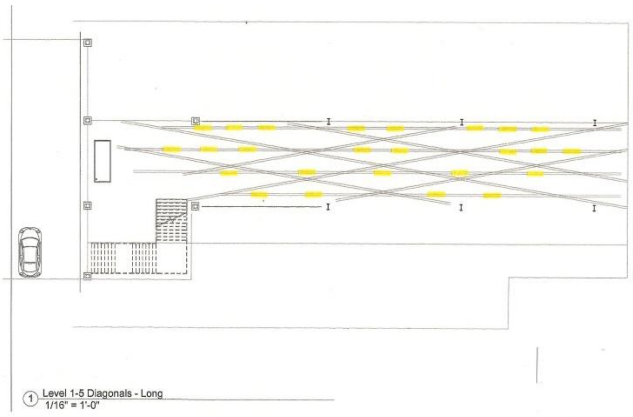




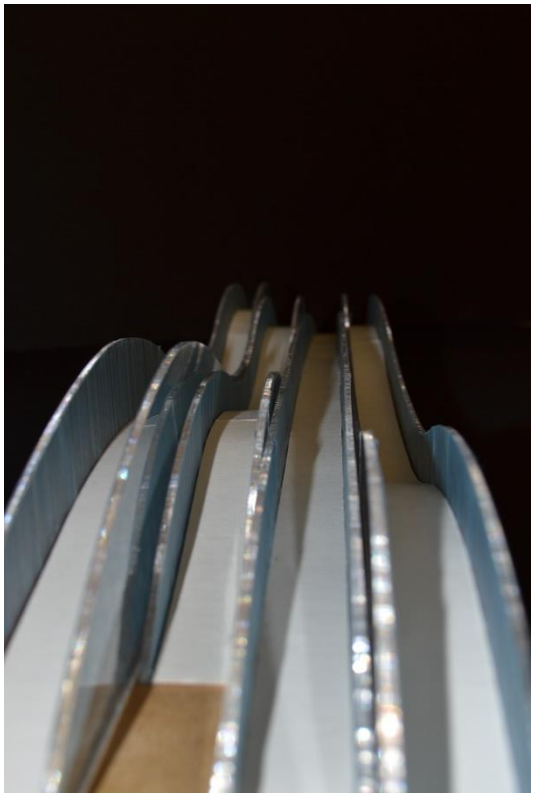
Panel Design Process 1-5 Diagonal Long

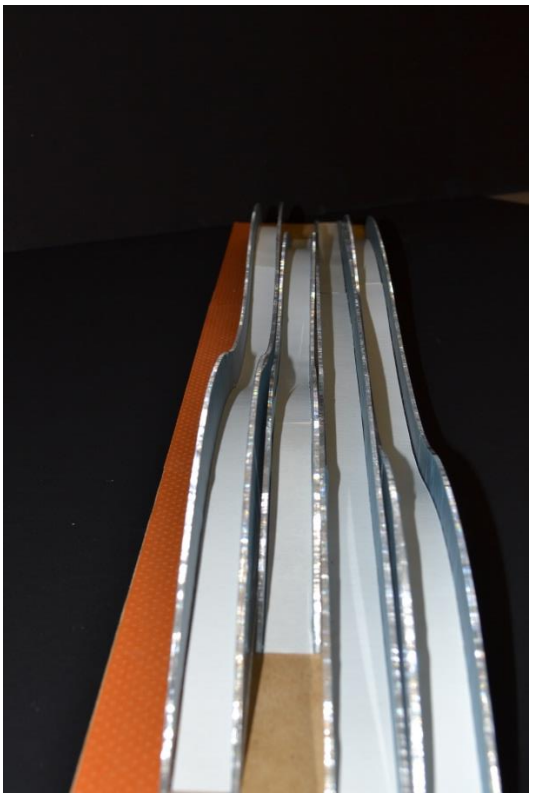


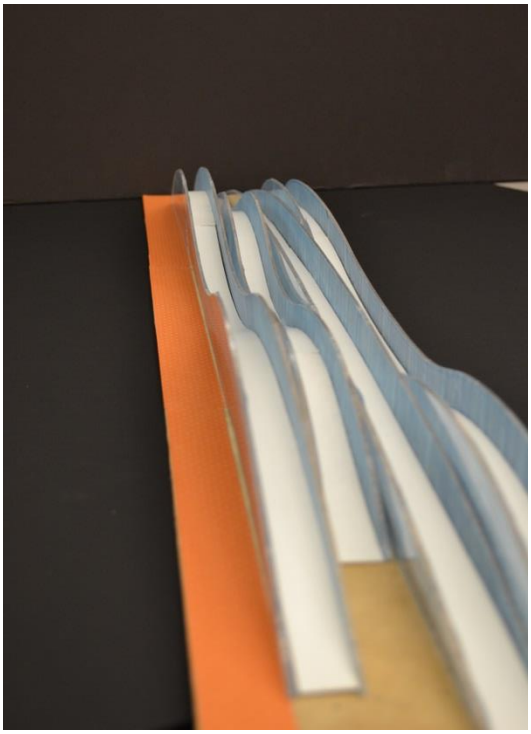


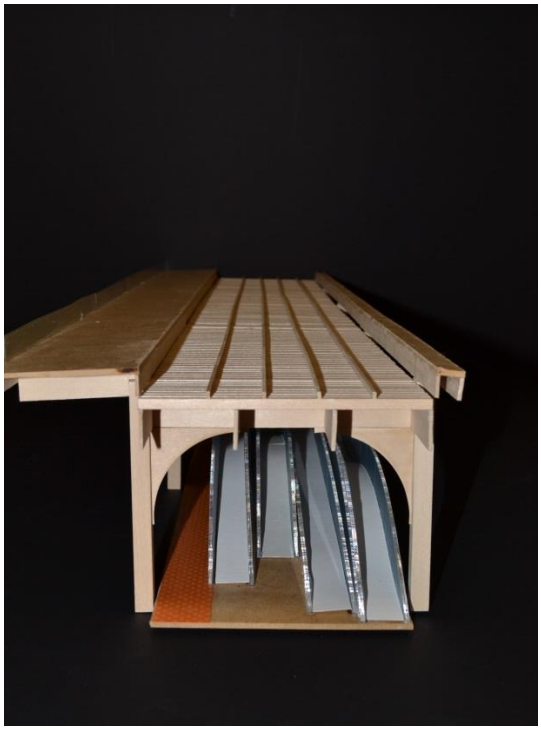


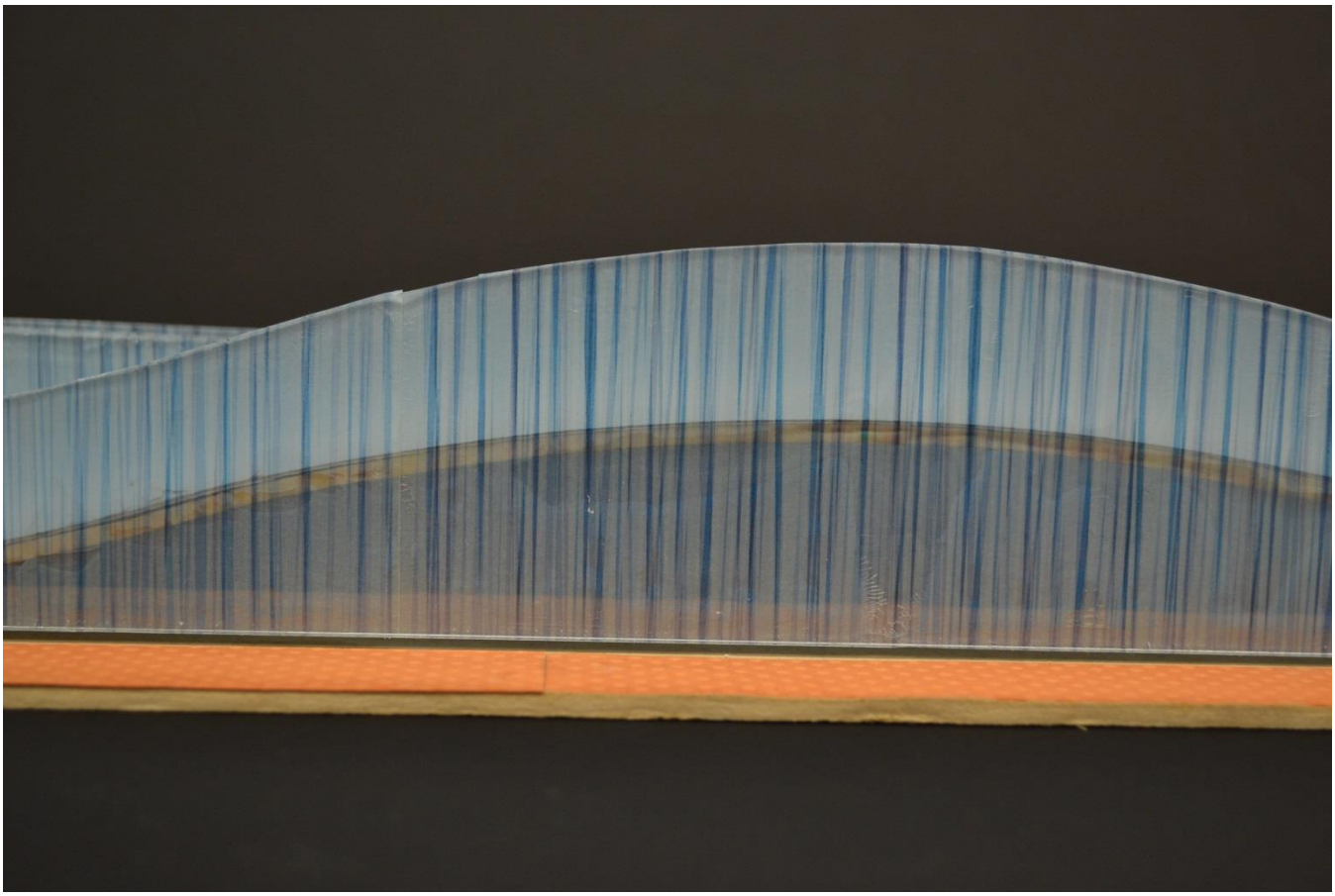
Final Model

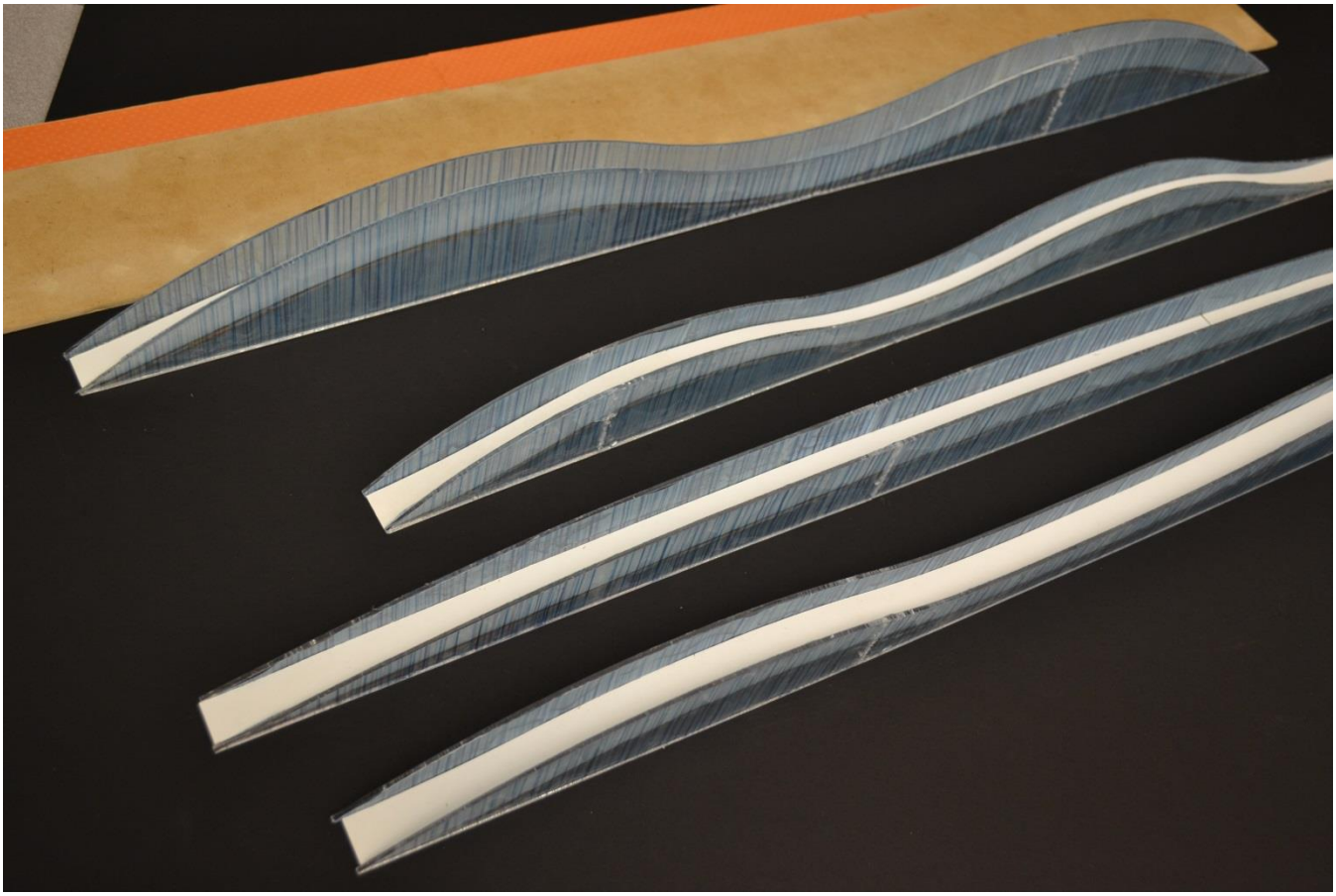


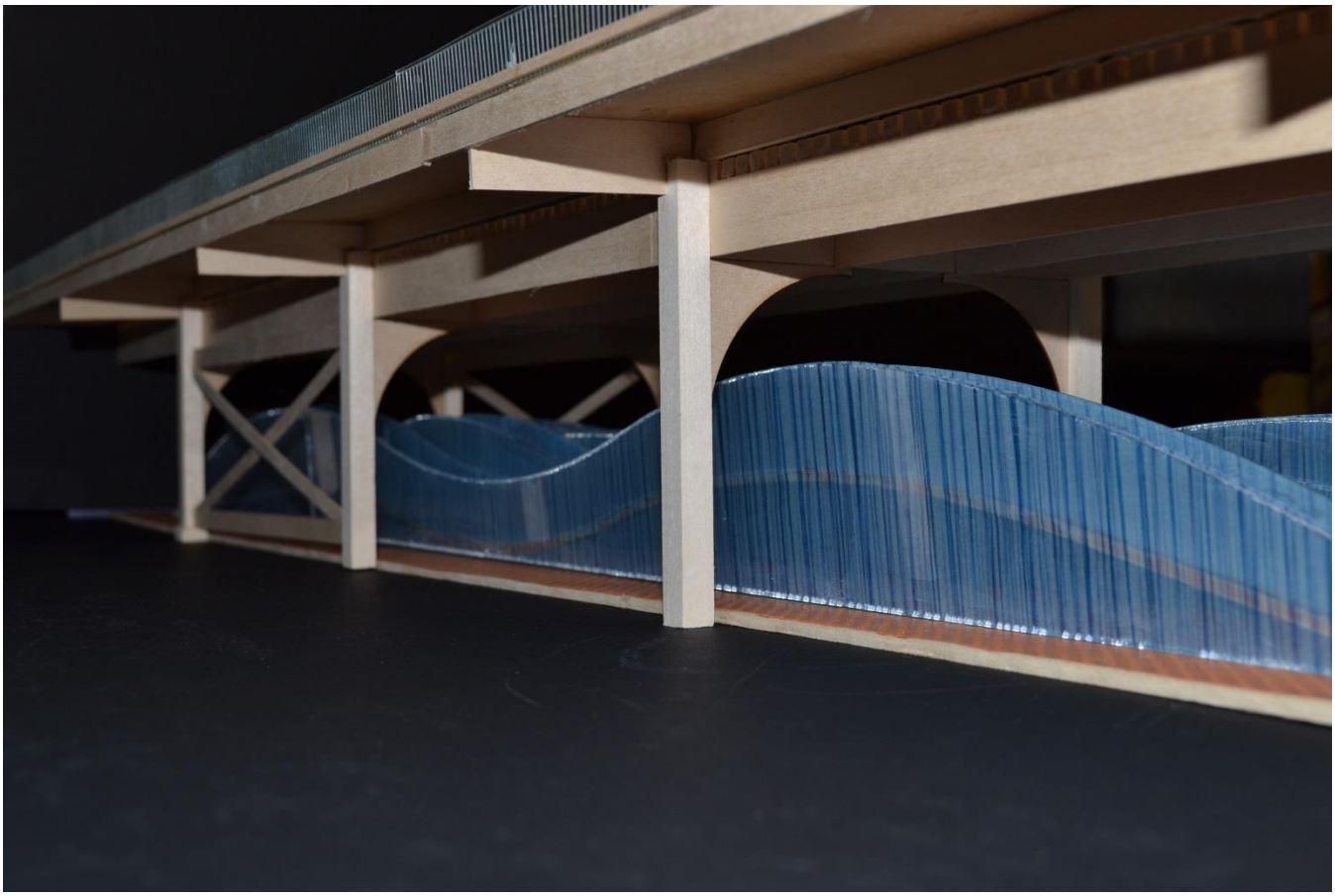


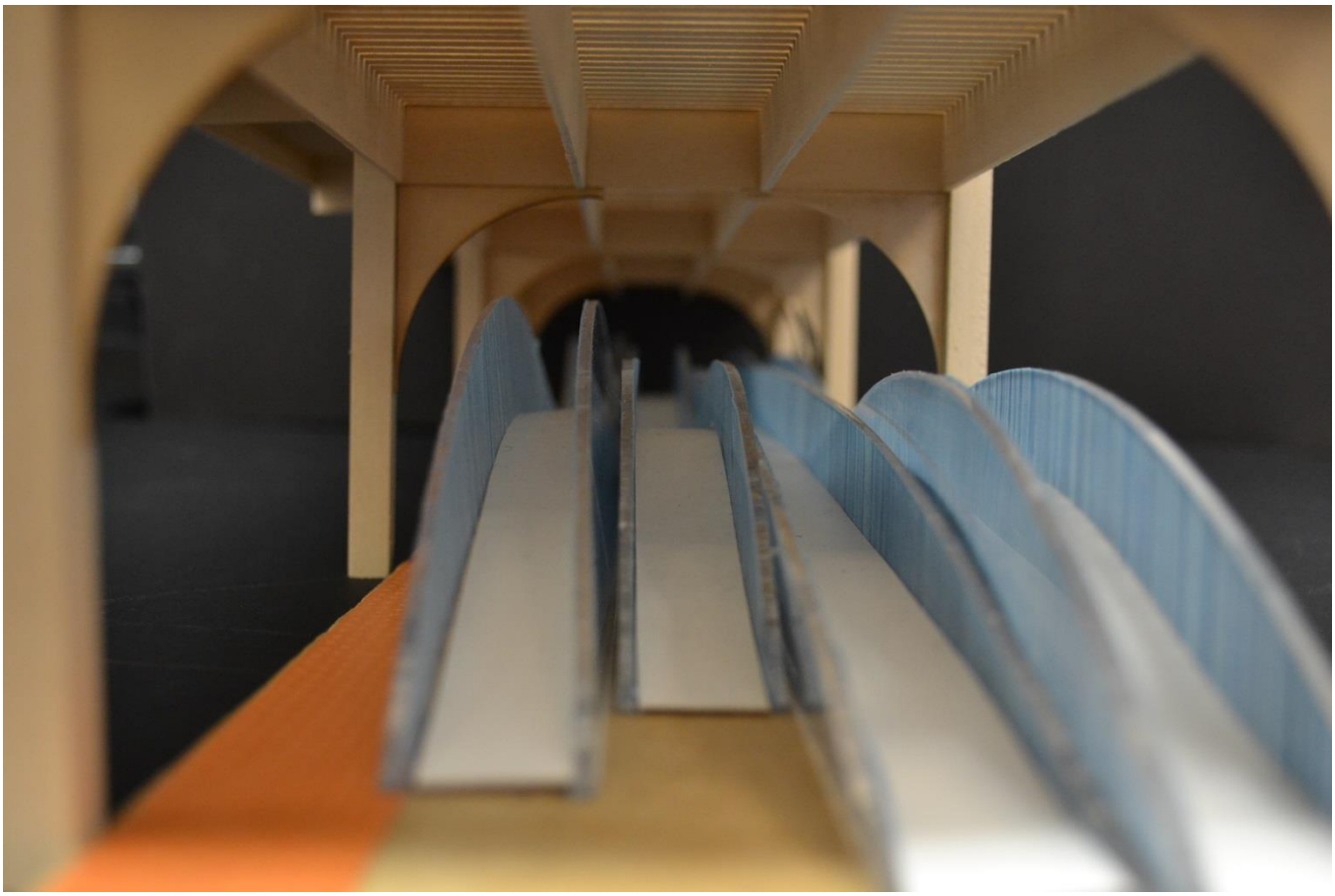


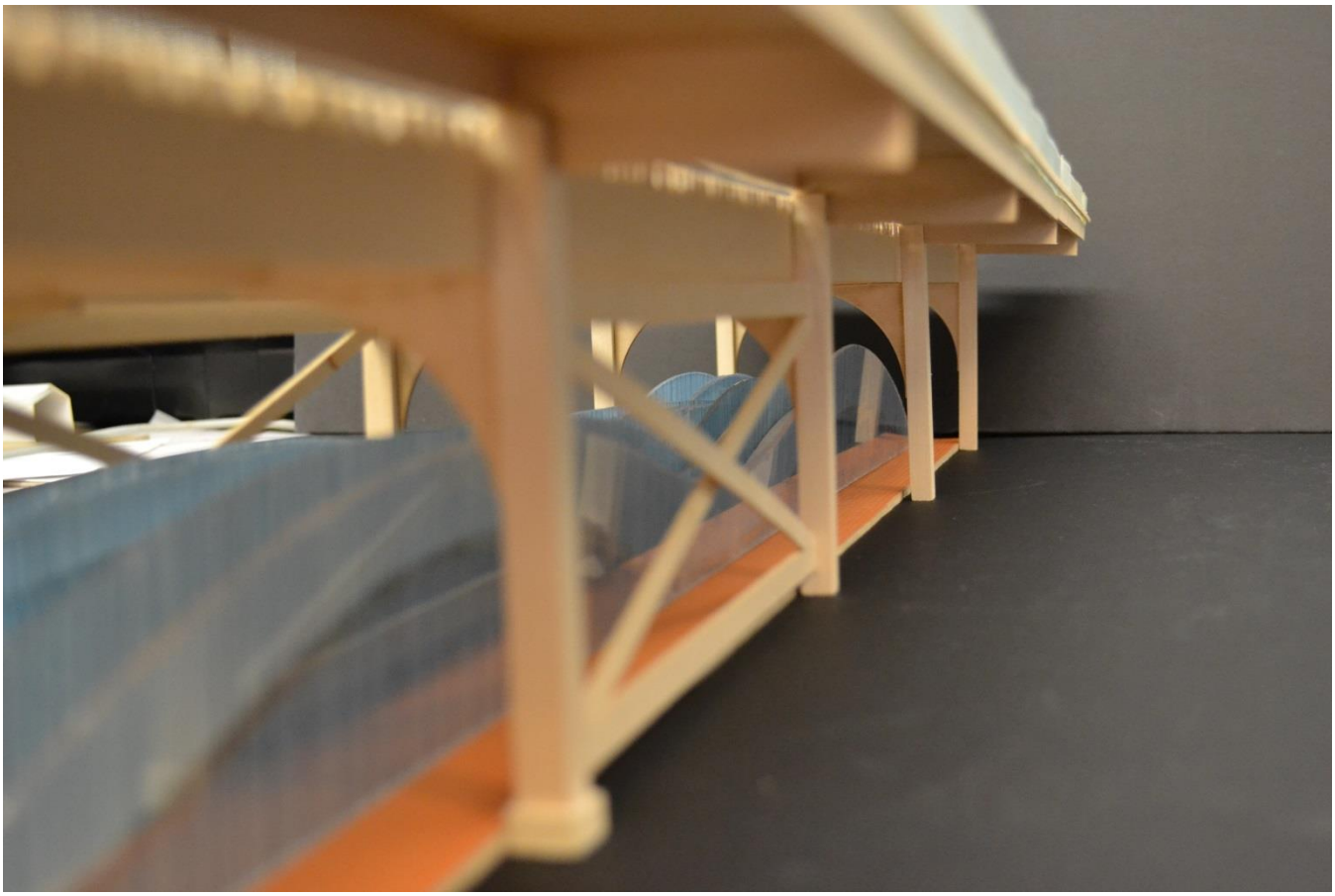


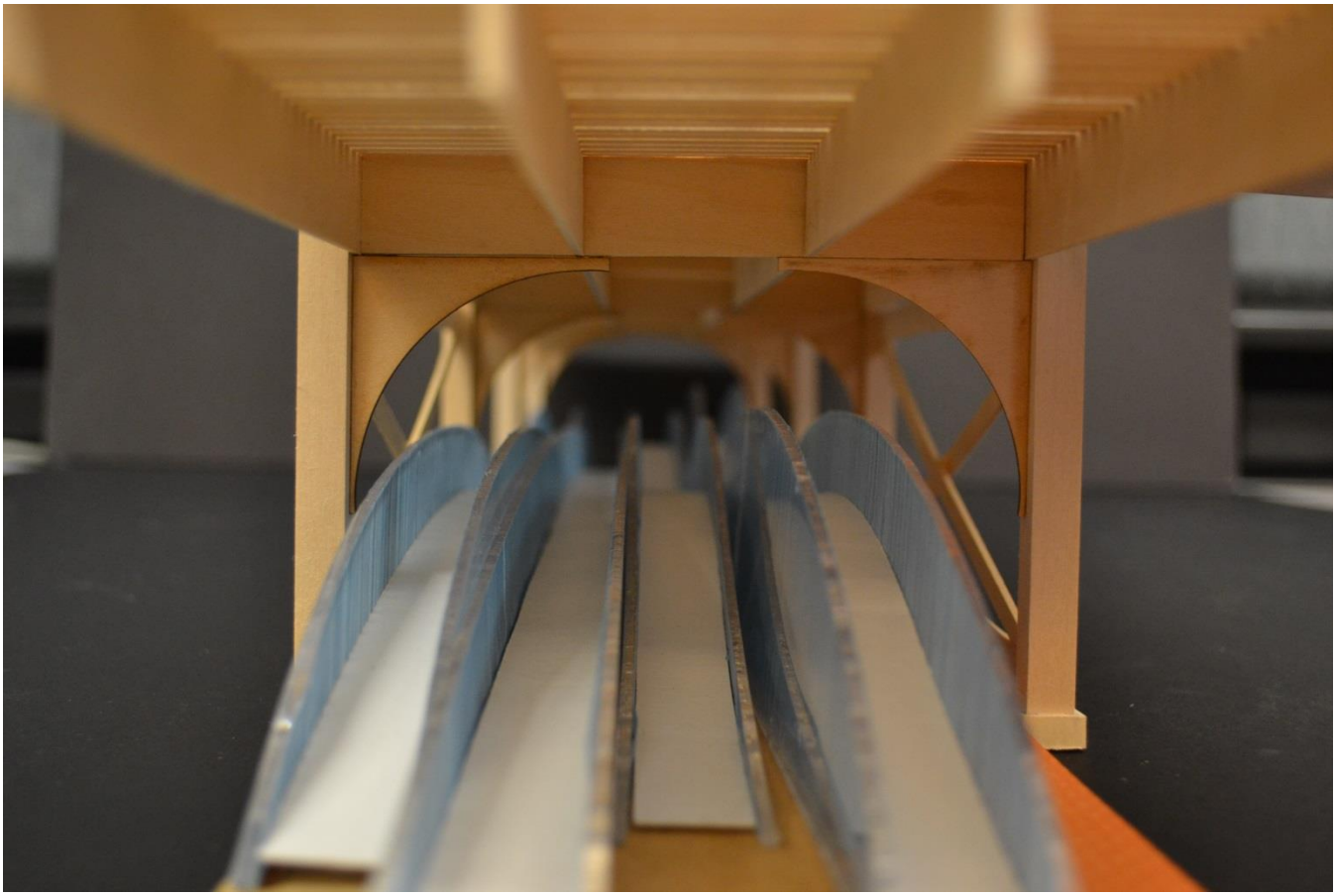


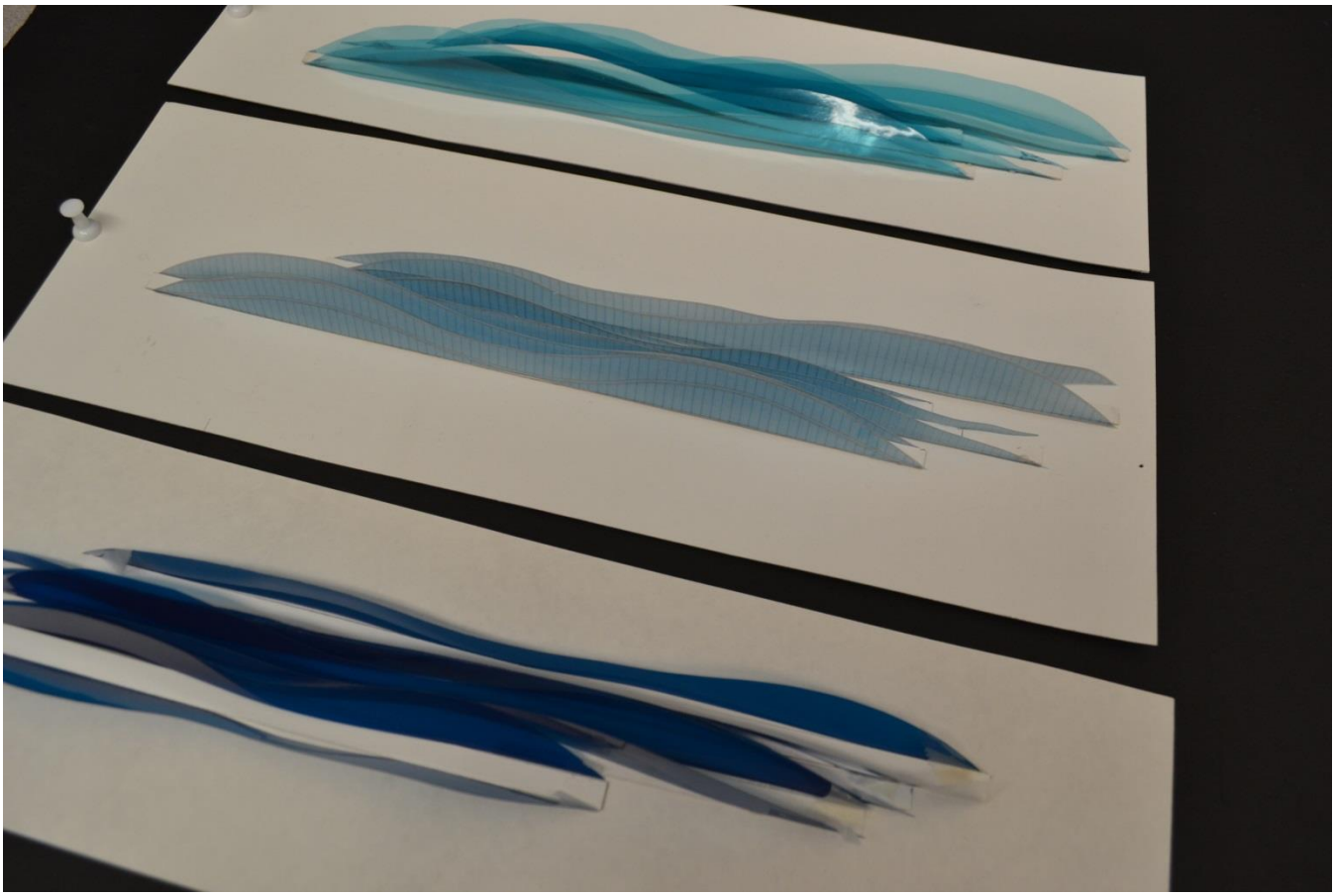




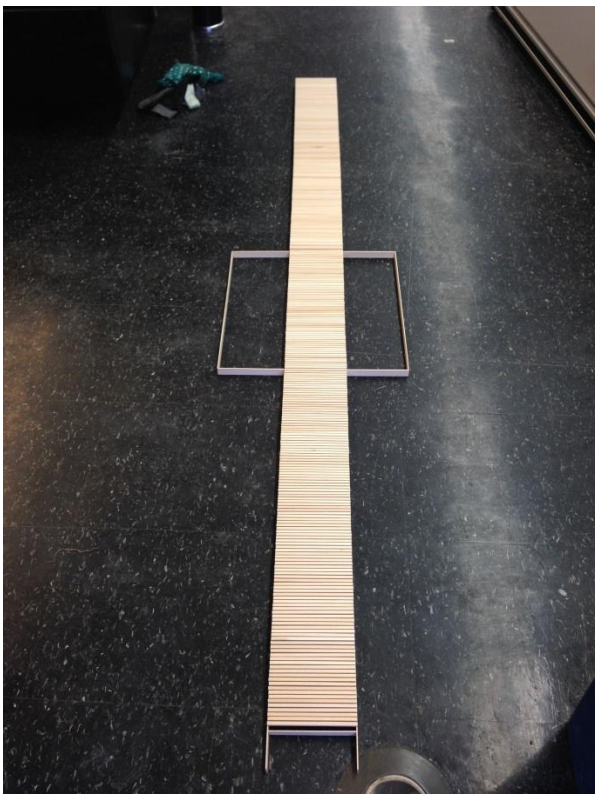


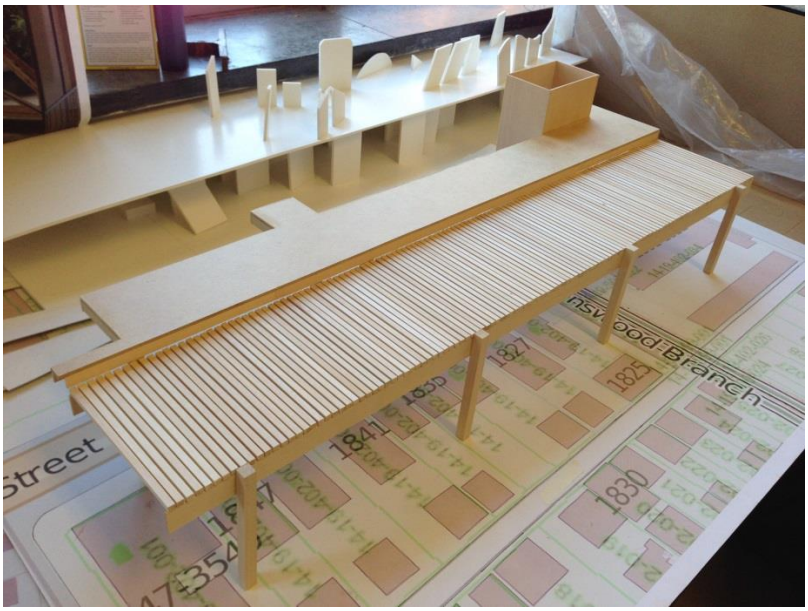






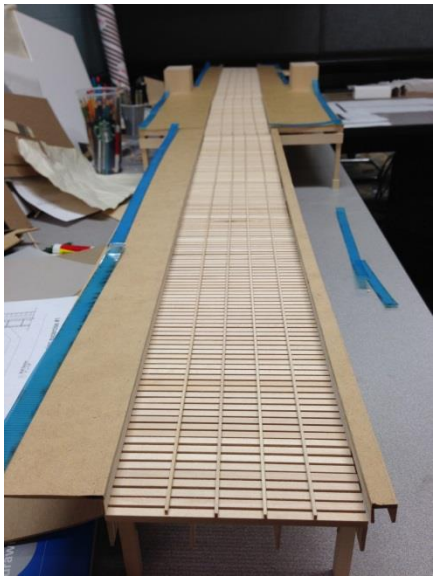
Final Model Process

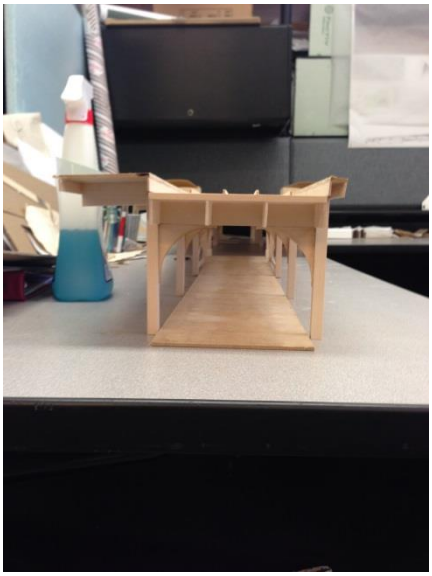
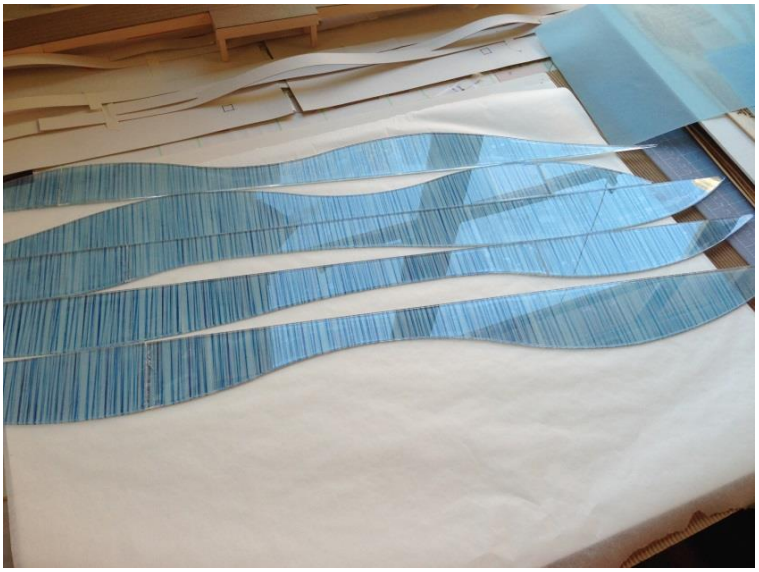
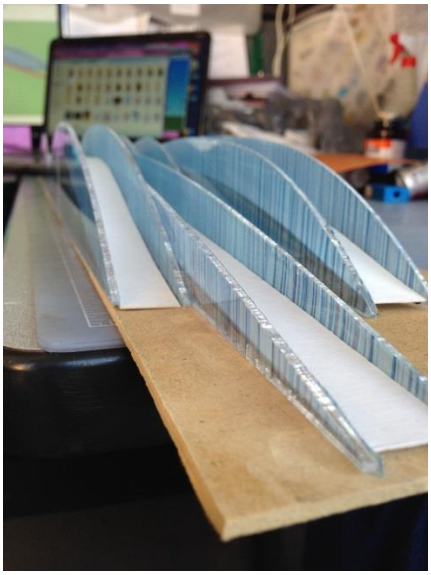



Street
1841
1830
1825

Branch
1841
1830
1827
3547-3549

Street
1830
3547-3549



Concept

DESIRE
to be a ***sense*** of place

ENCOURAGE
interaction between people

FACILITATE
interaction between people
and the rail

INVENT
an ***interaction*** differently for
everyone

CREATE
an ***intellegent*** structure

URGE
user ***awareness***

GENERATE
an ***experience*** - not a building

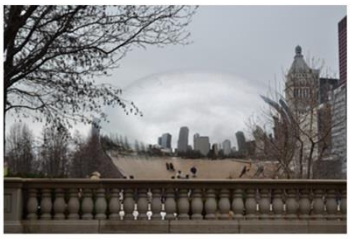
CELEBRATE
an interesting and pleasurable
experience

PLACE within a ***SPACE***

Precedents

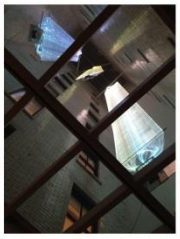
MODERNIZATION
Cincinnati, OH

CLOUD GATE
Chicago, Il



THE BLUR
Yverdon-les-bains, Switzerland

LIGHTMAIL 2012
Cincinnati, OH



HEALING TILES 2012
Cincinnati, OH

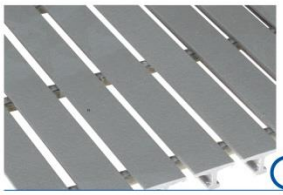
LIGHT DRIFT
Philadelphia, PA

DUNE 4.0
Rotterdam, Netherlands

Materials

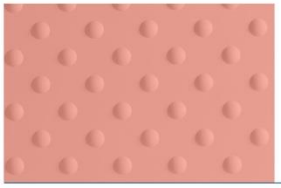
Pressed Glass

Stainless Steel Handrail



Pultruded Fiberglass
Grating 'Walking Ribbon'

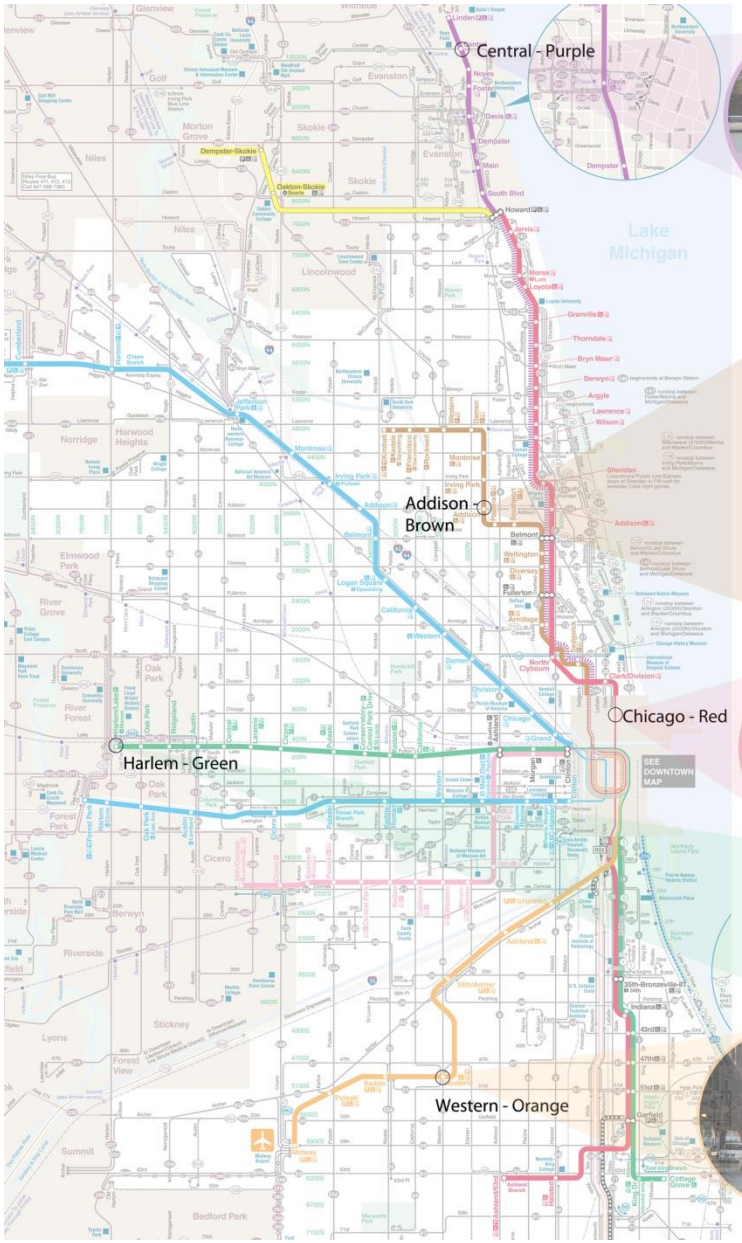
Light Tape
3form - LT Series LED



Orange Tacticle Pavers

Steel Tacticle Pavers

Concrete Pavers



CHICAGO SITE ANALYSIS

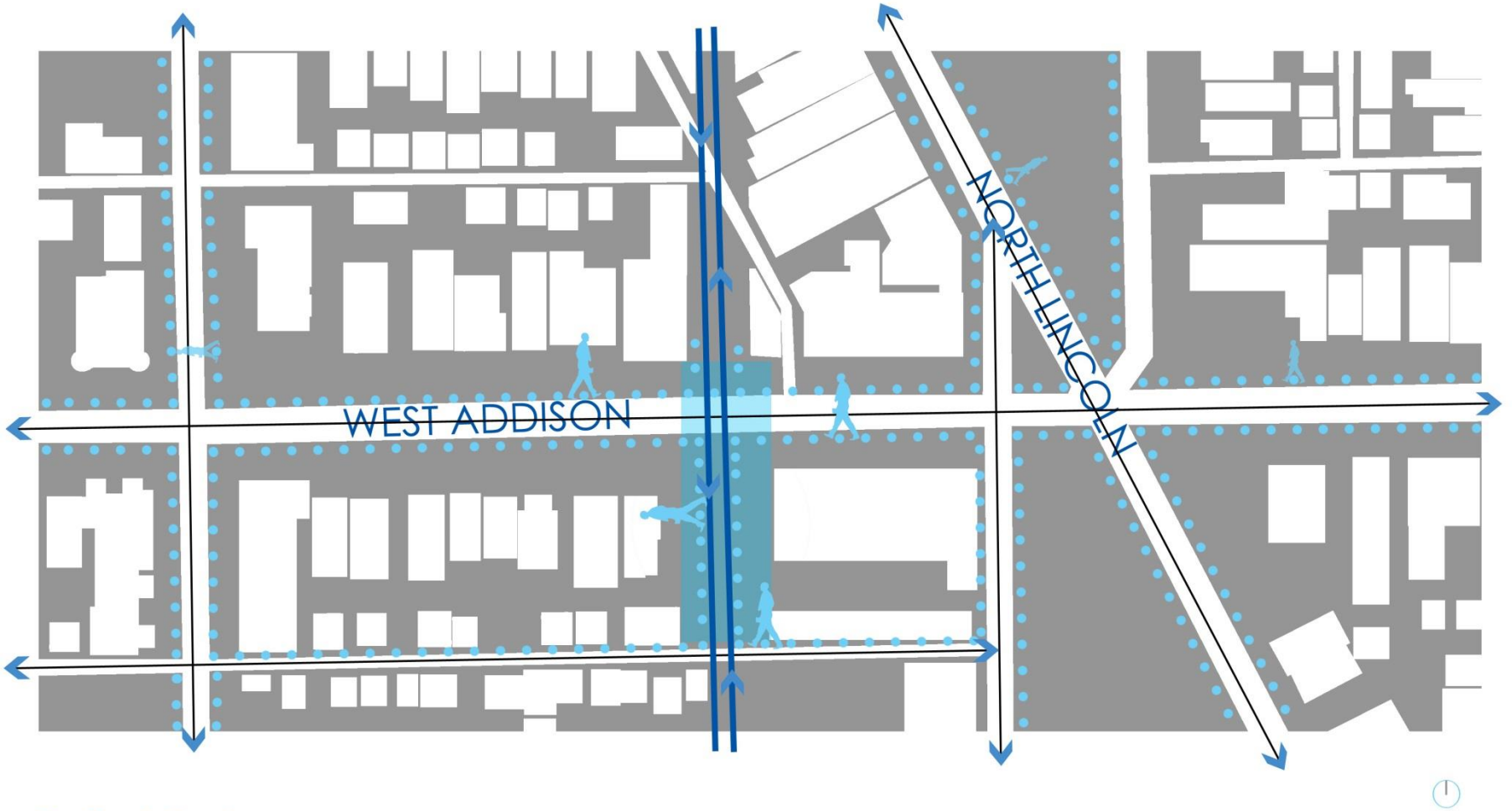
Site | Scale - 1:40

Figure Ground | Scale - 1:40

Brown Line Rail

Residential

Commercial

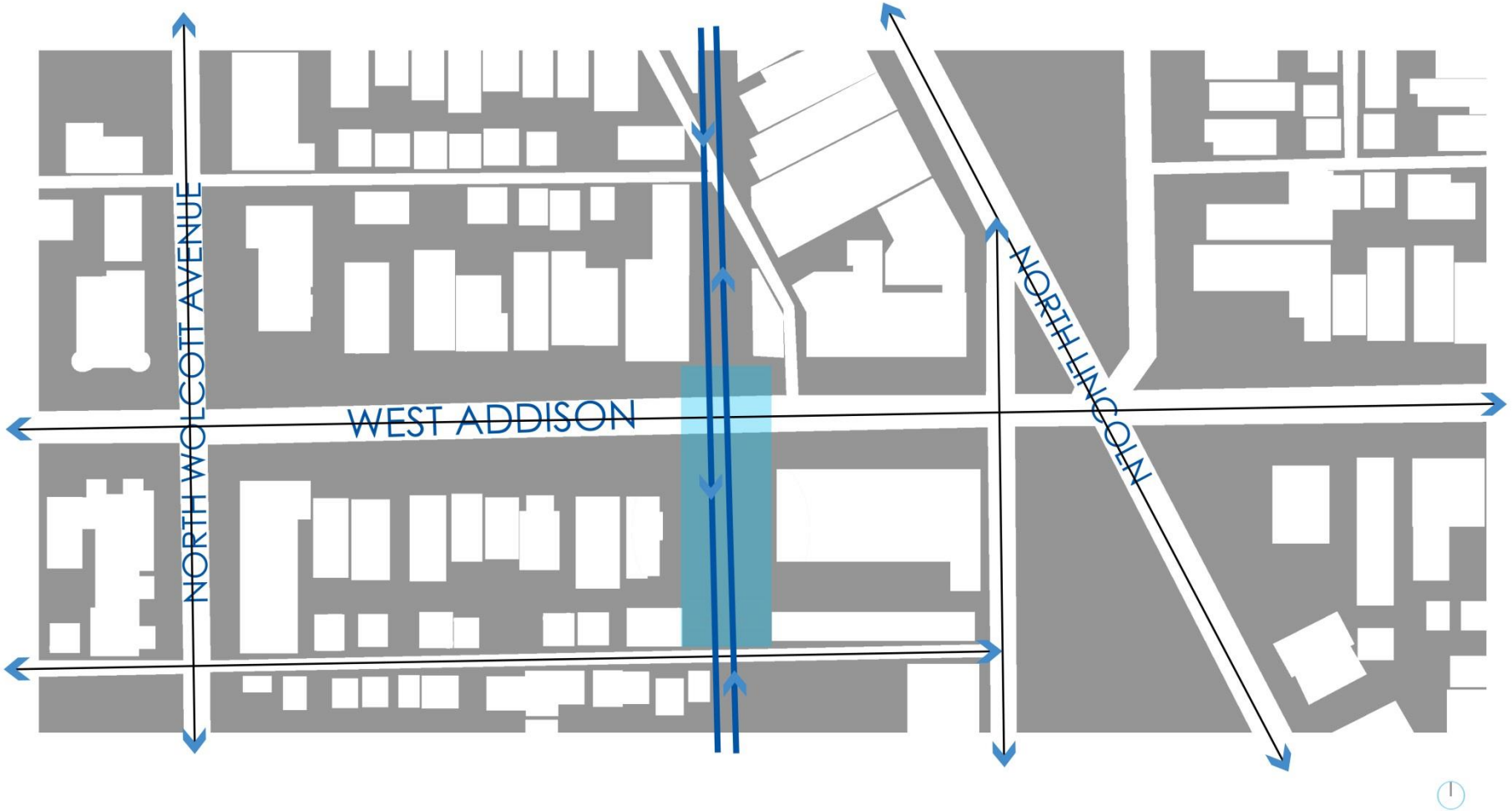


Site Circulation | Scale - 1:40

Brown Line Rail

Vehicular

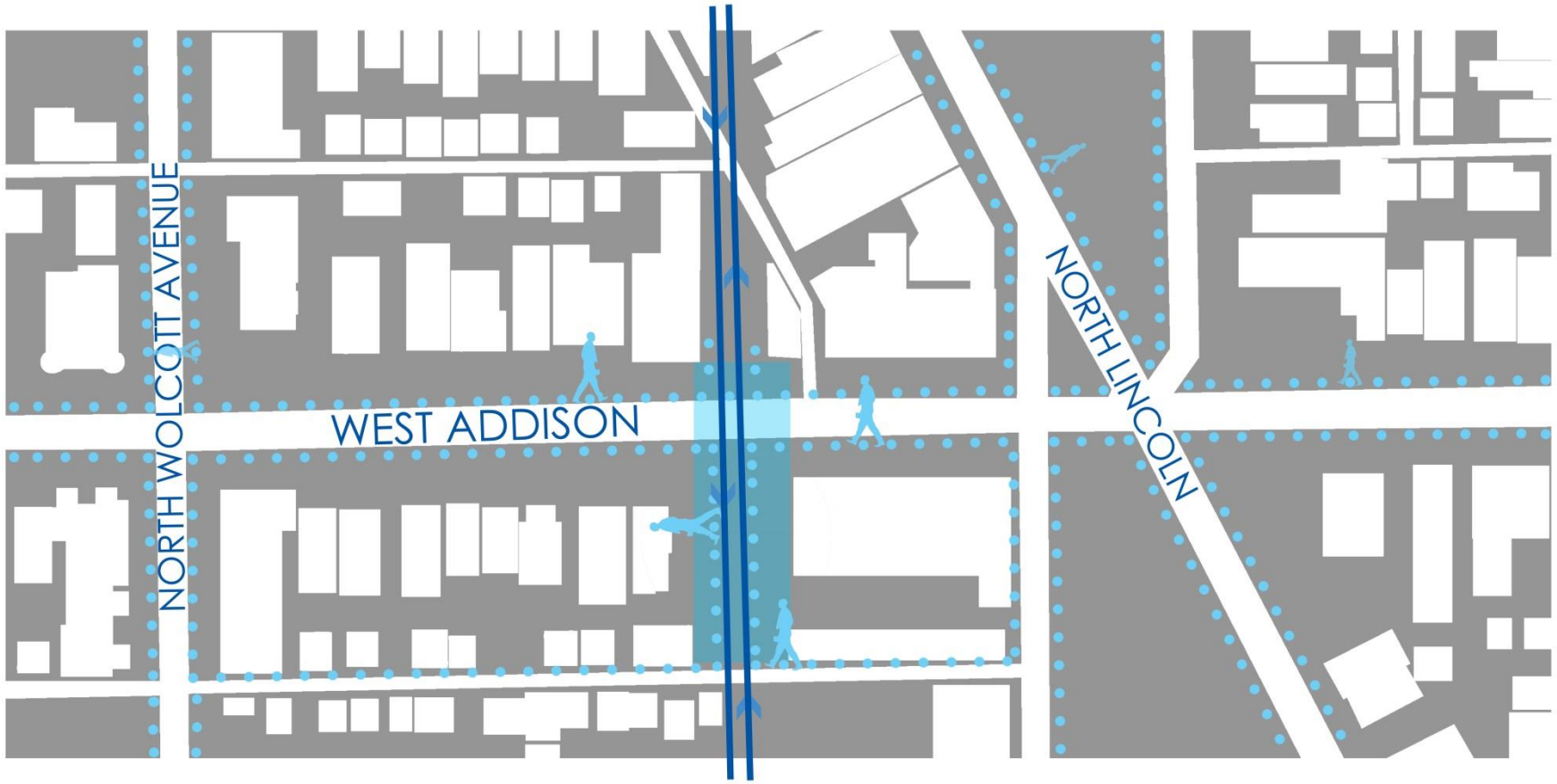
Pedestrian



Transportation Circulation | Scale - 1:40

Brown Line Rail

Vehicular



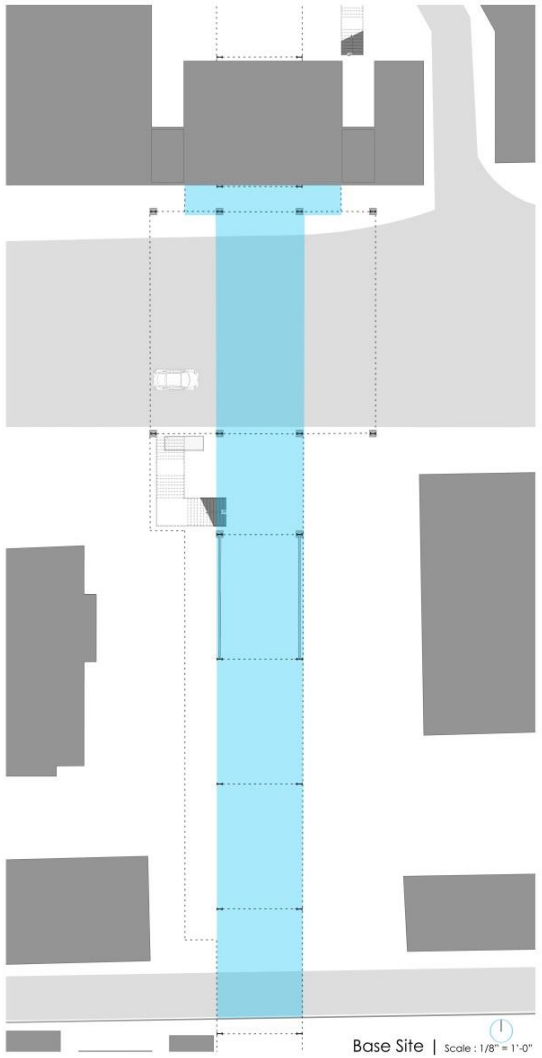
Pedestrian Circulation | Scale - 1:40

Brown Line Rail

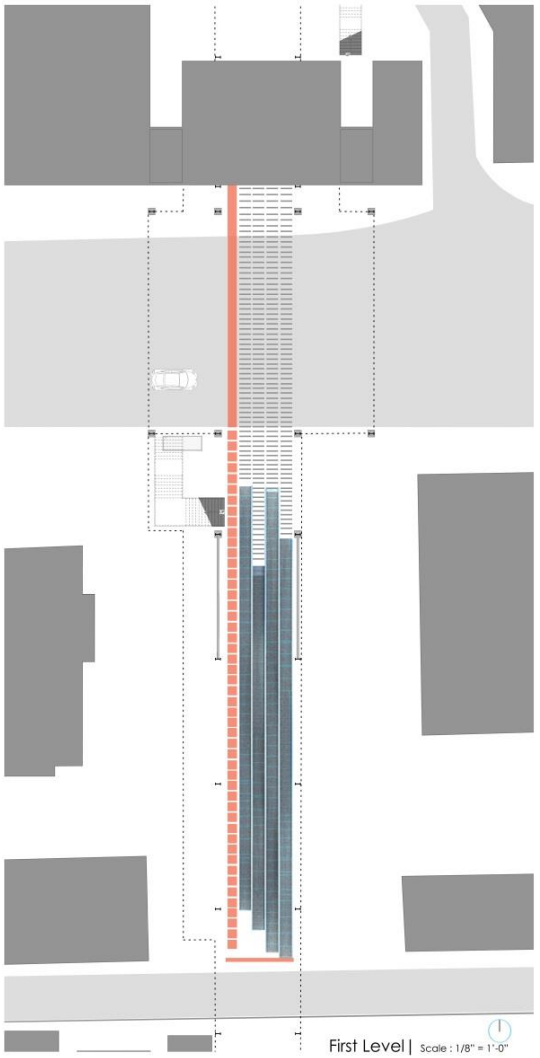
Pedestrian

Site Panorama

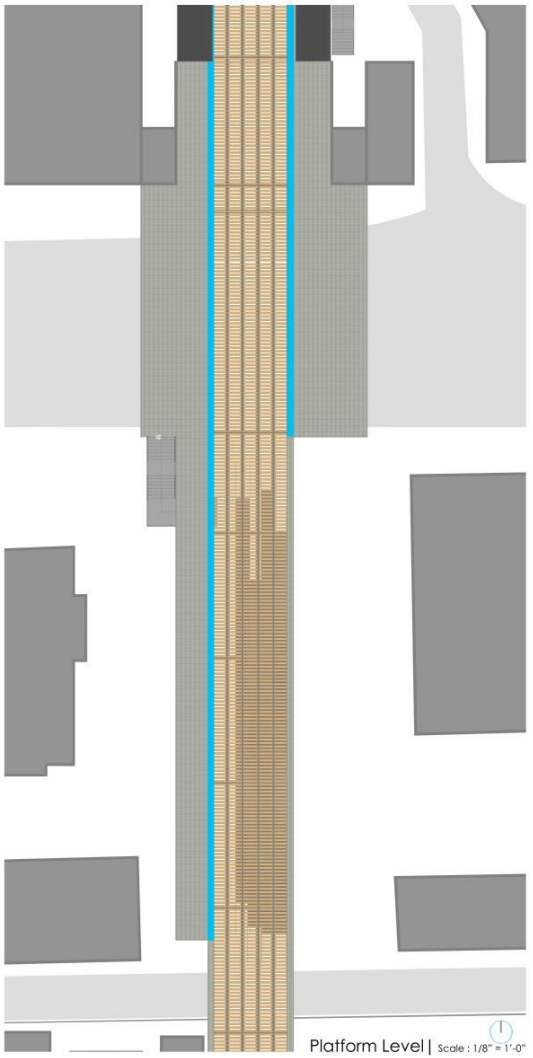
Plans



Base Site | Scale : 1/8" = 1'-0"

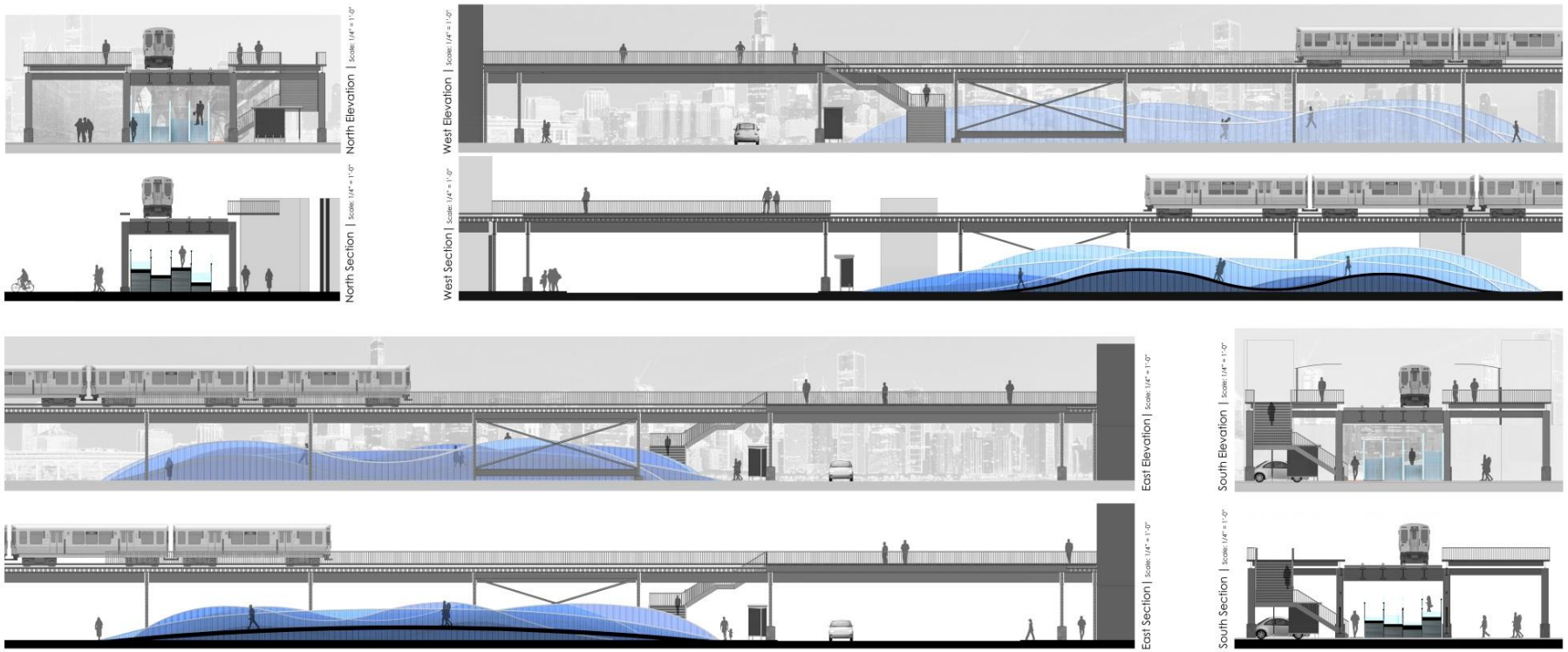


First Level | Scale : 1/8" = 1'-0"

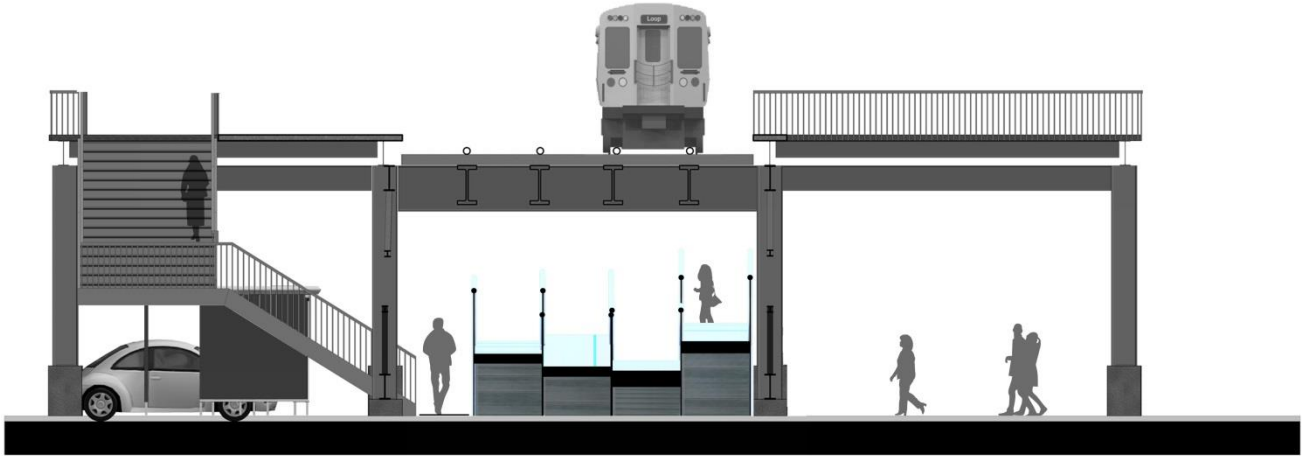


Platform Level | Scale : 1/8" = 1'-0"

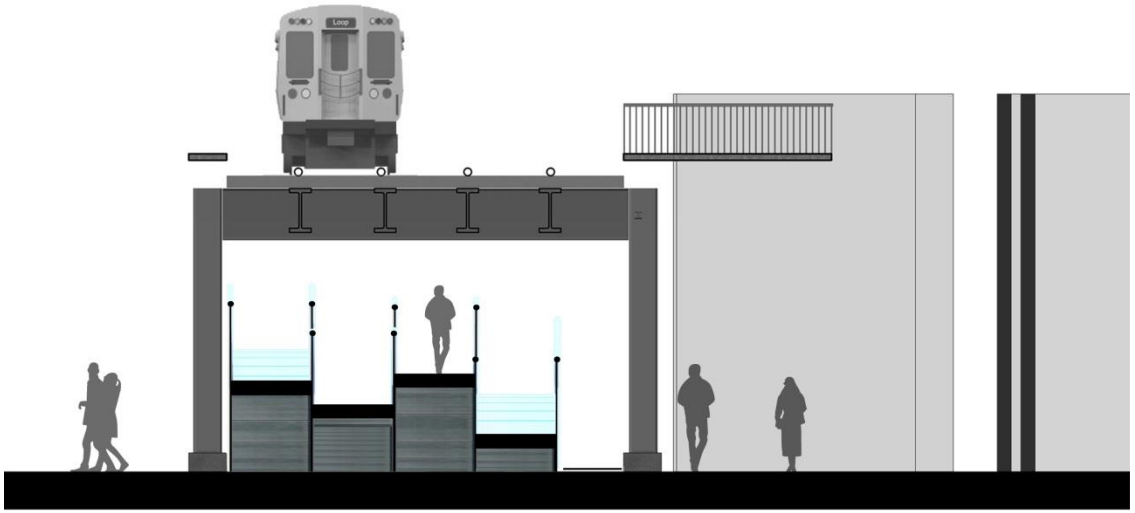
Elevations & Sections



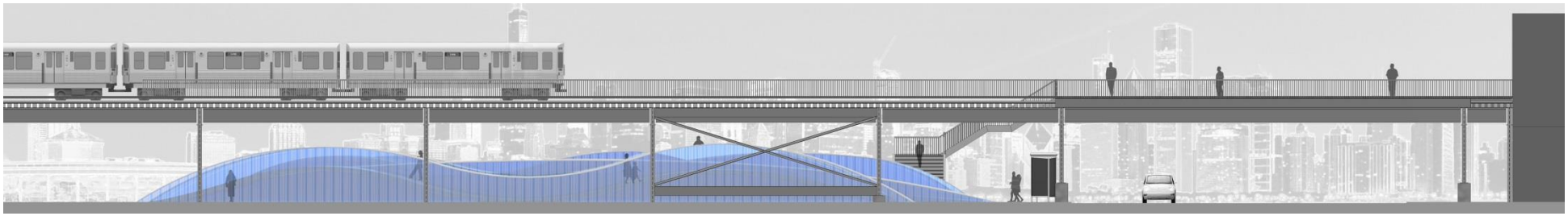
North Elevation and Section

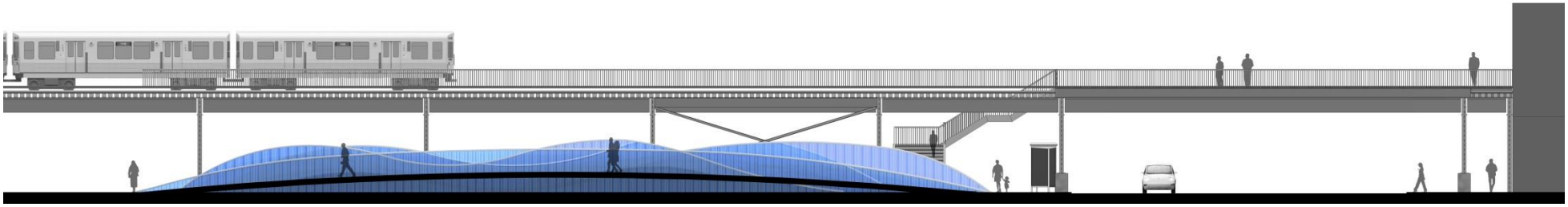


South Elevation and Section

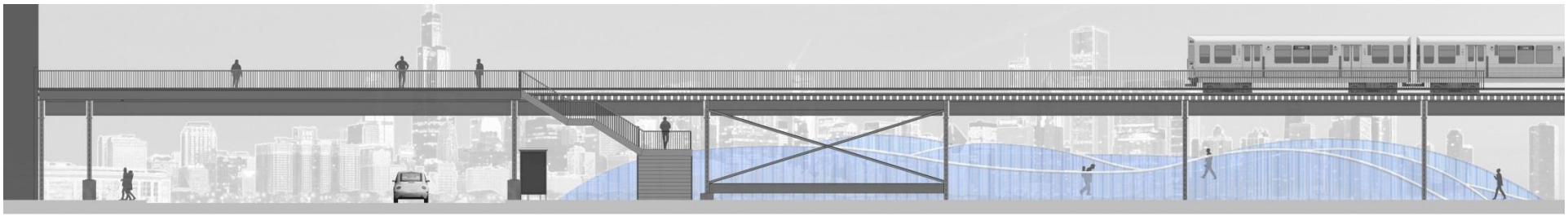


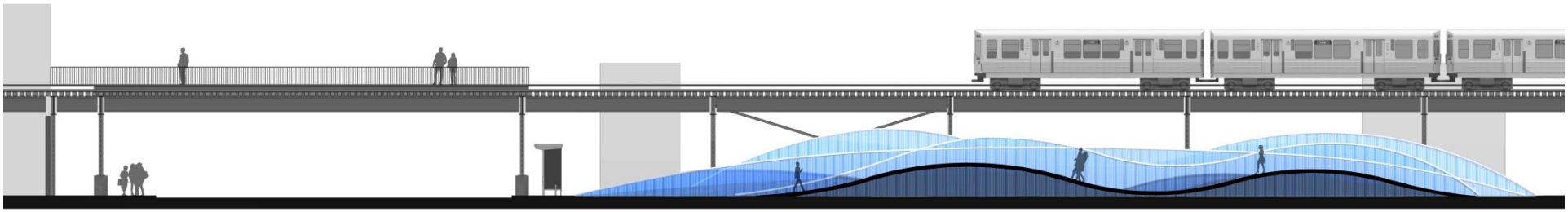
East Elevation and Section

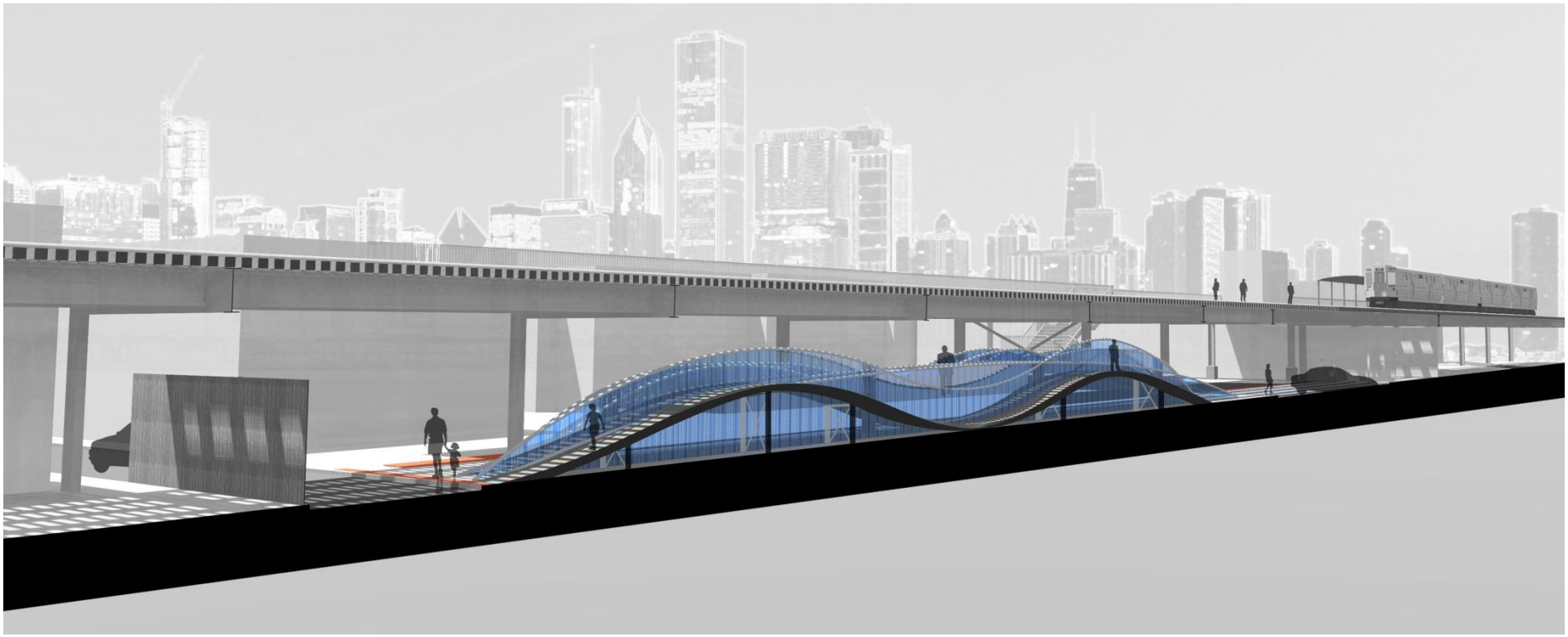




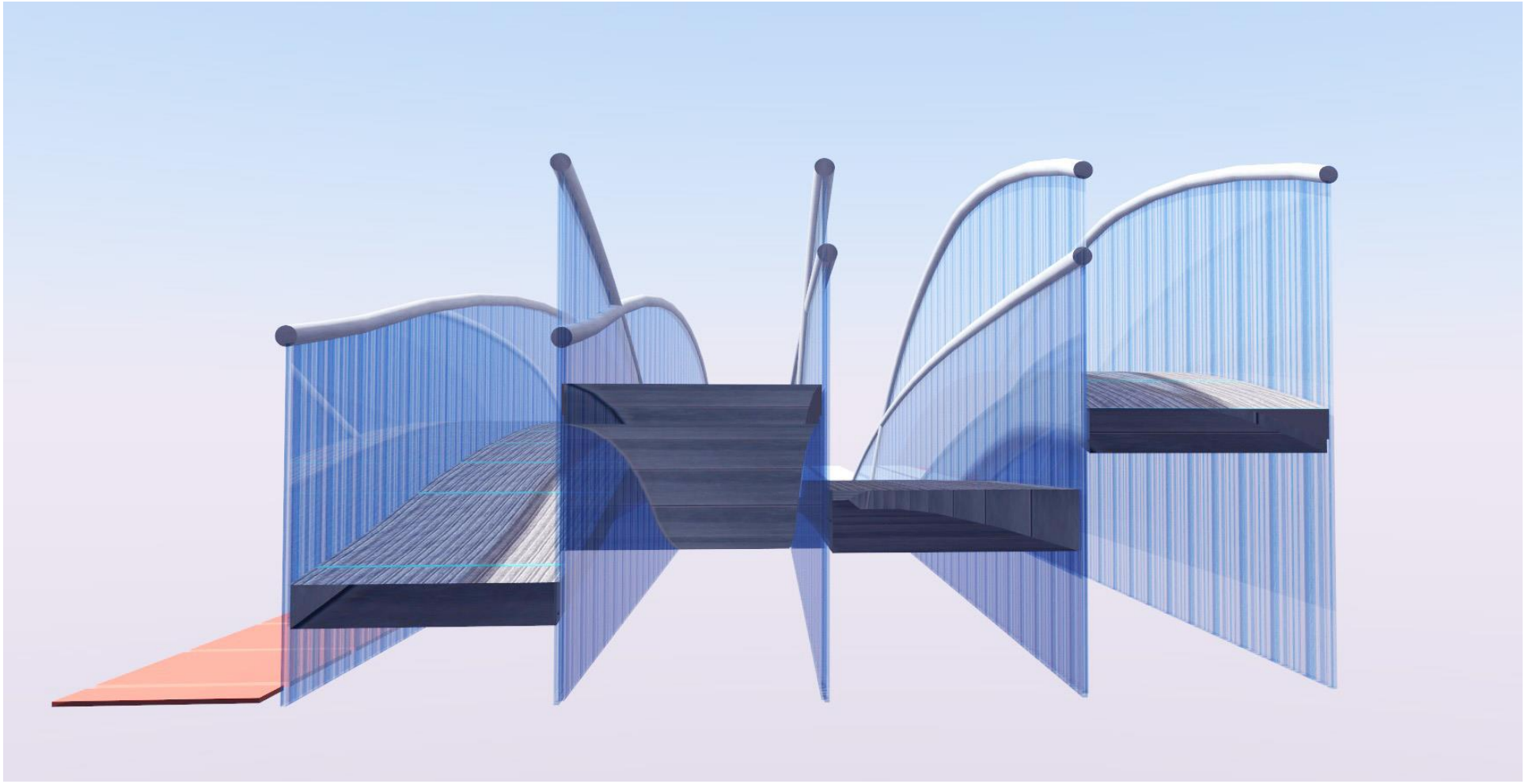
West Elevation and Section



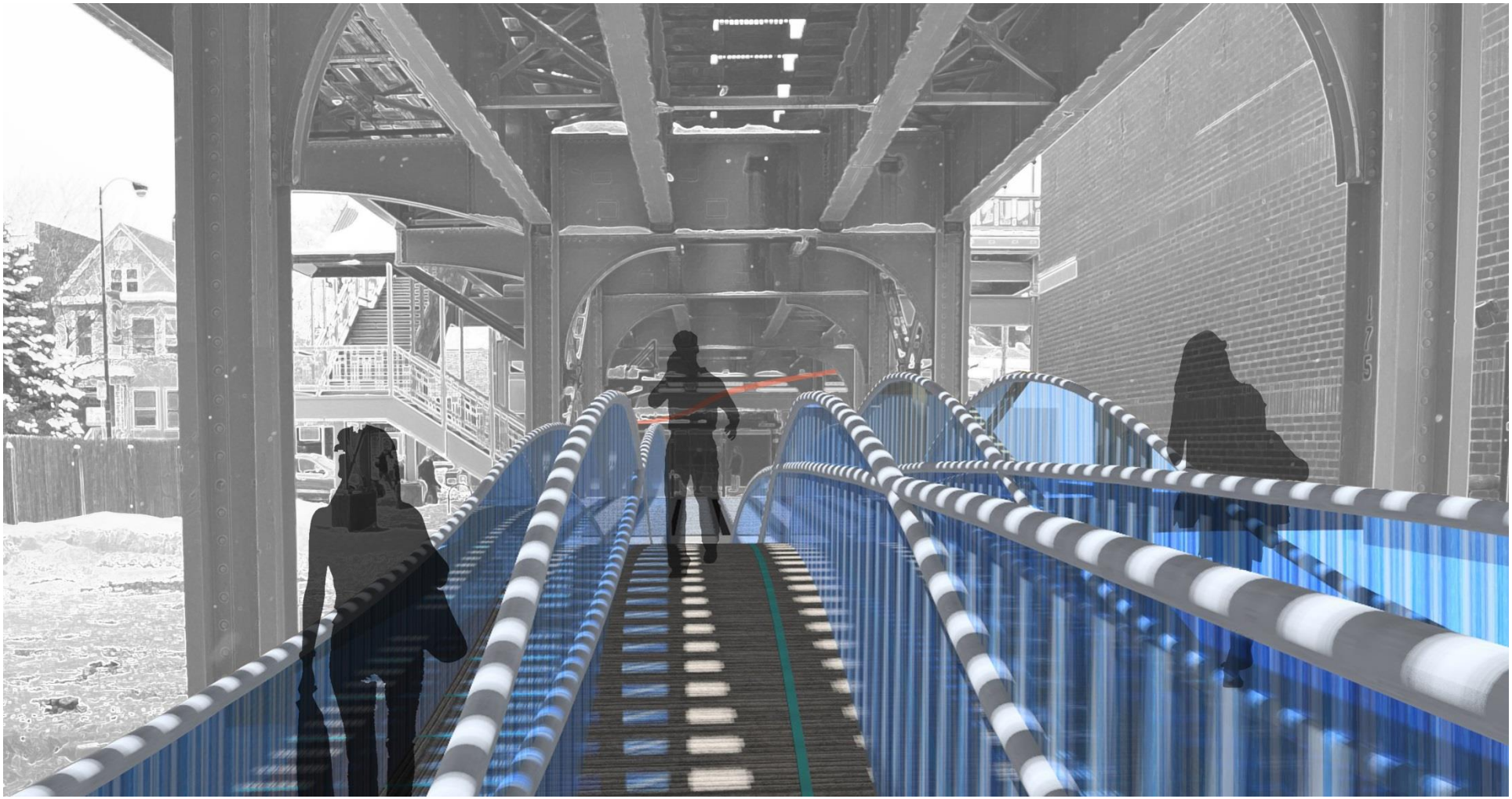




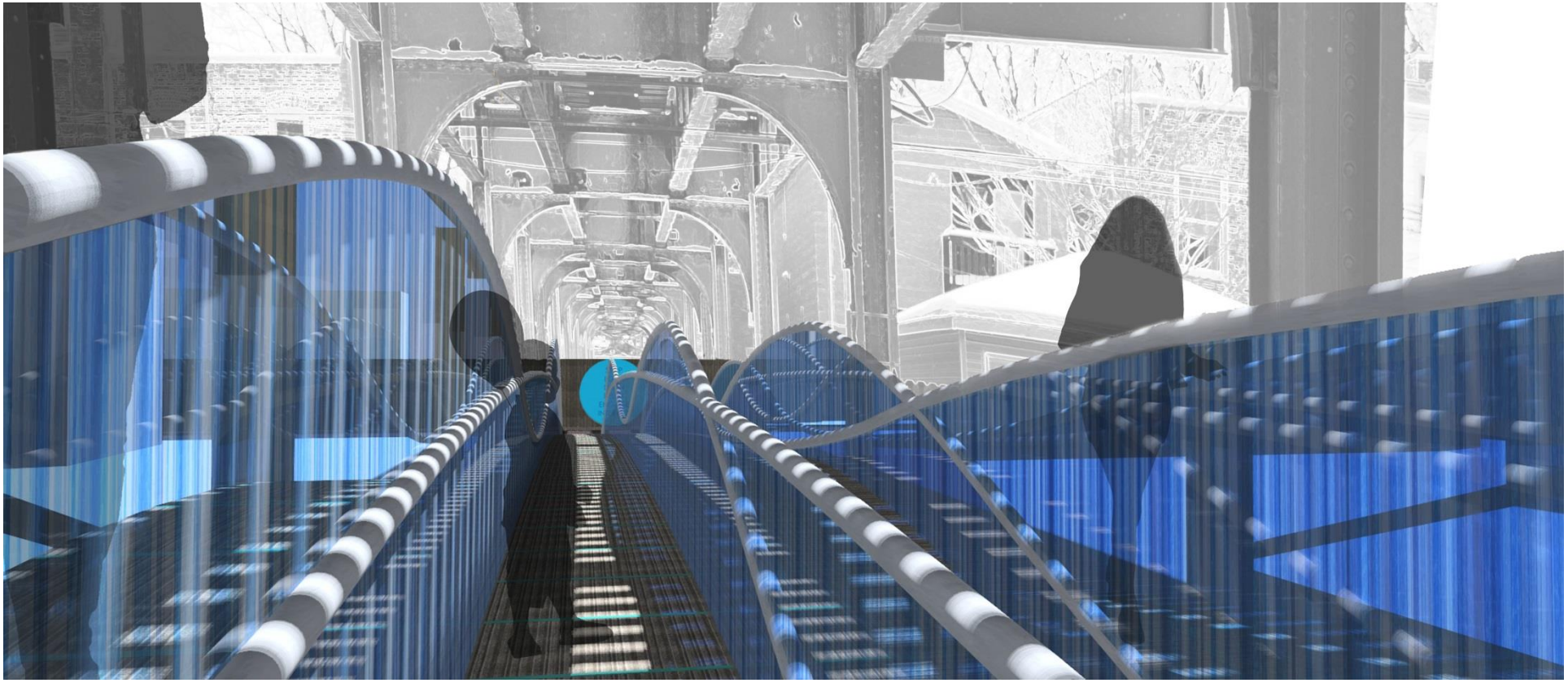
Section Perspective



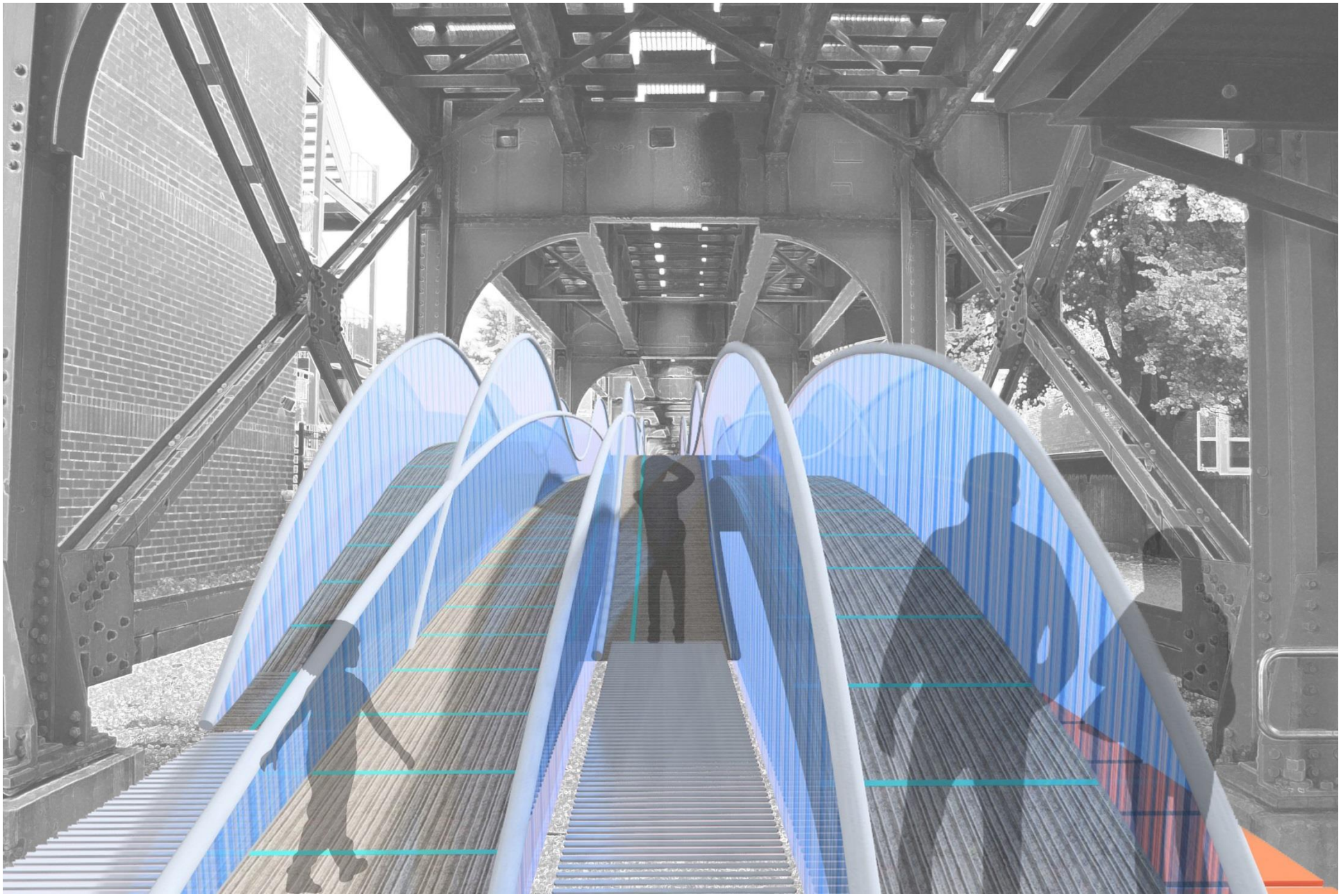
Render Section

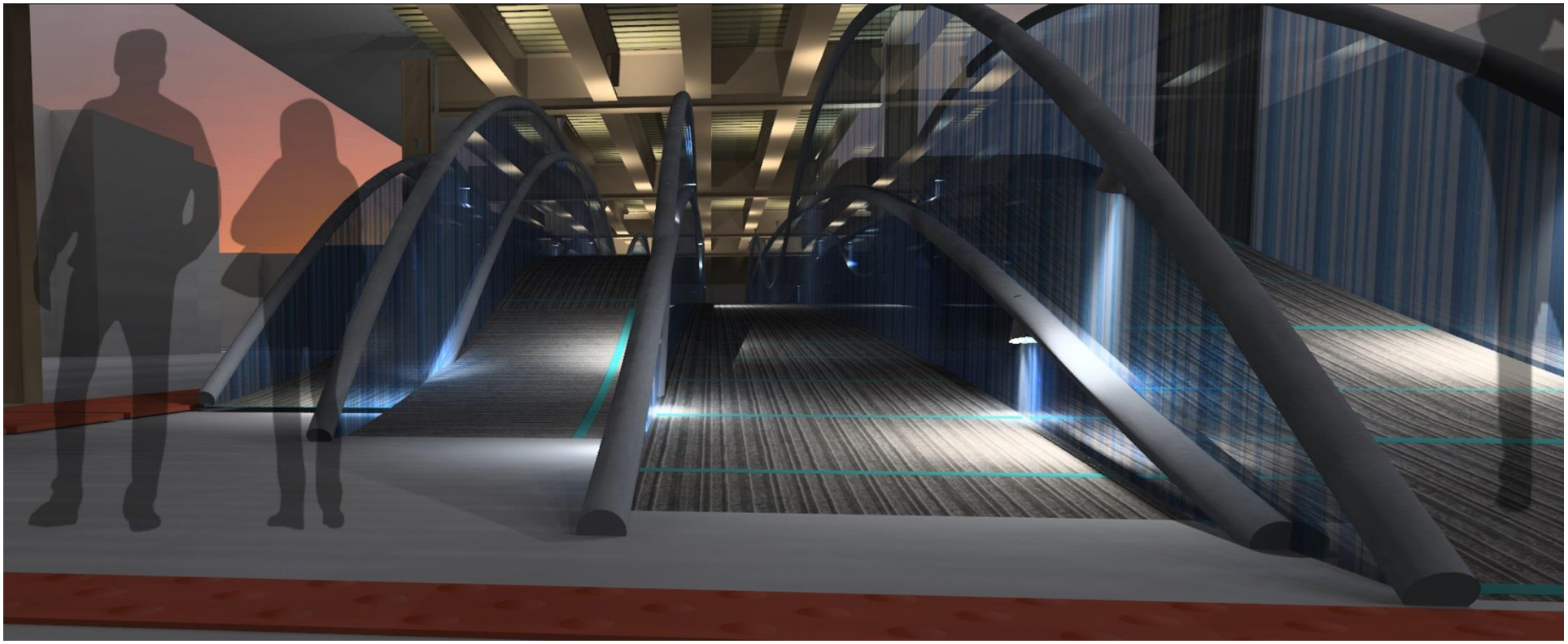


Beginning Perspective

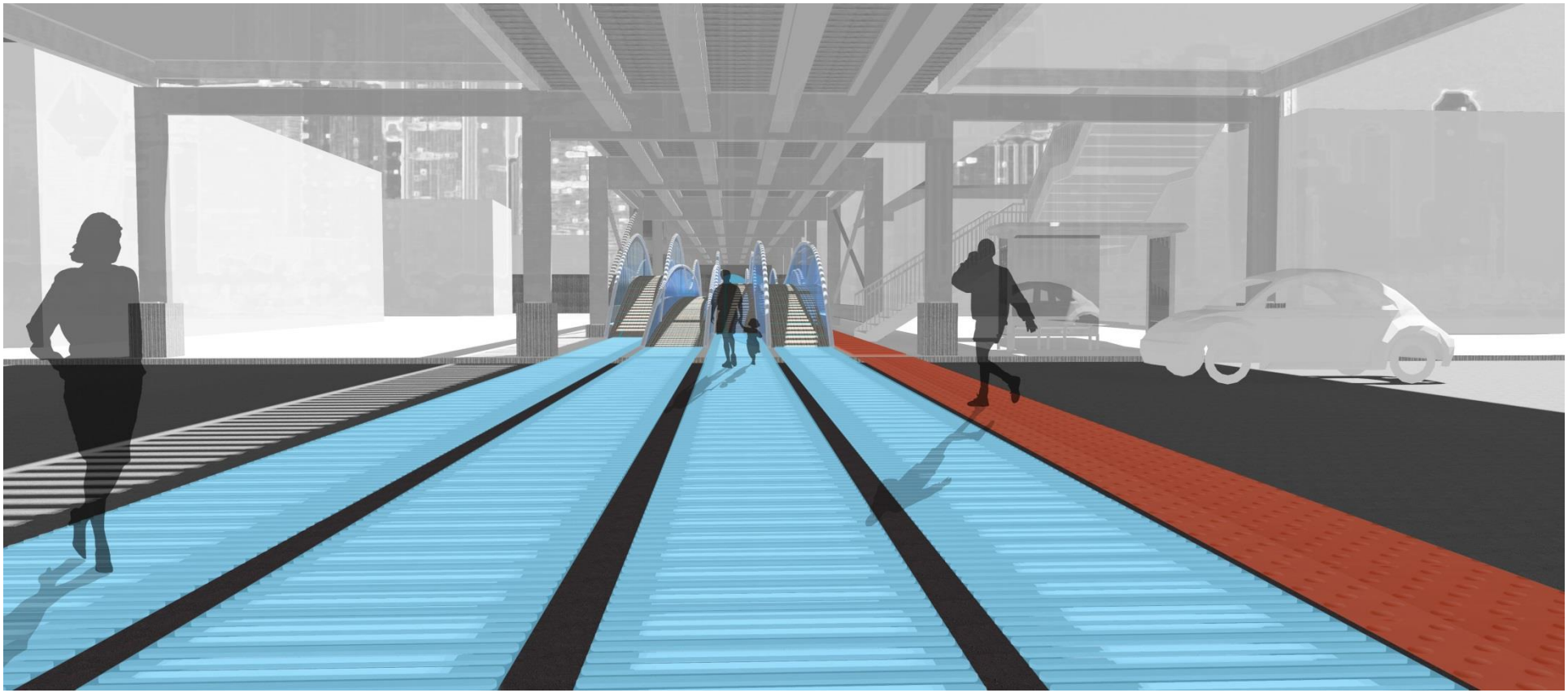


End Perspective

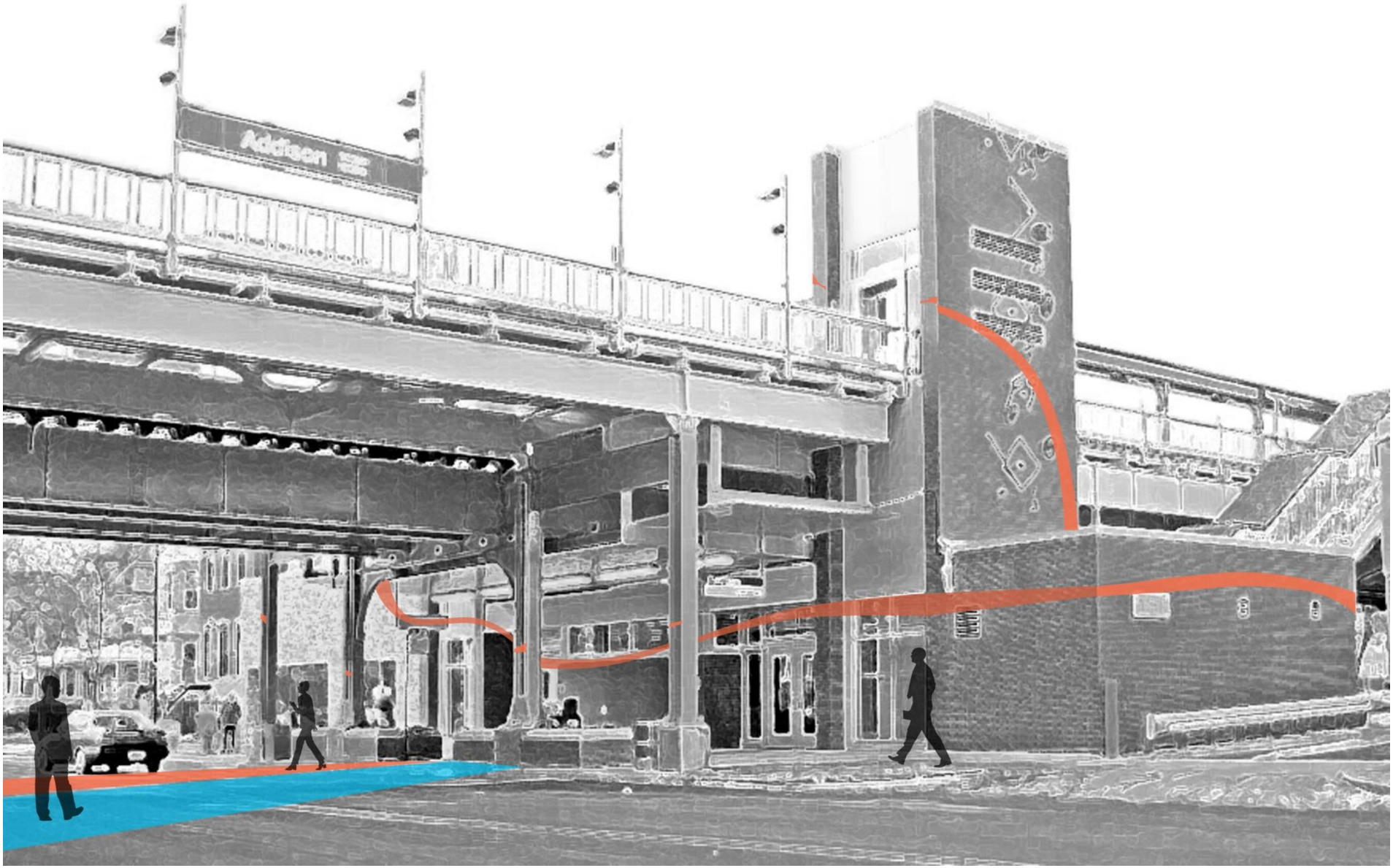




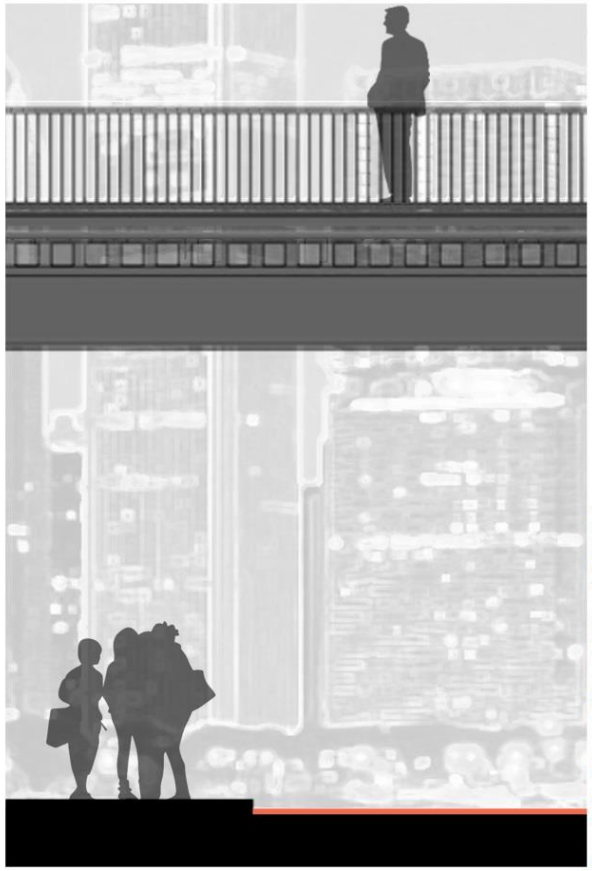
Evening Perspective



Street Perspective

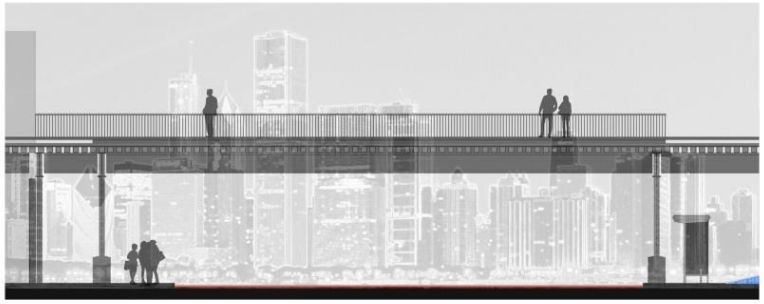

Addison St

Steel Tacticle Inlay | East | Scale 1/4" = 1'0"

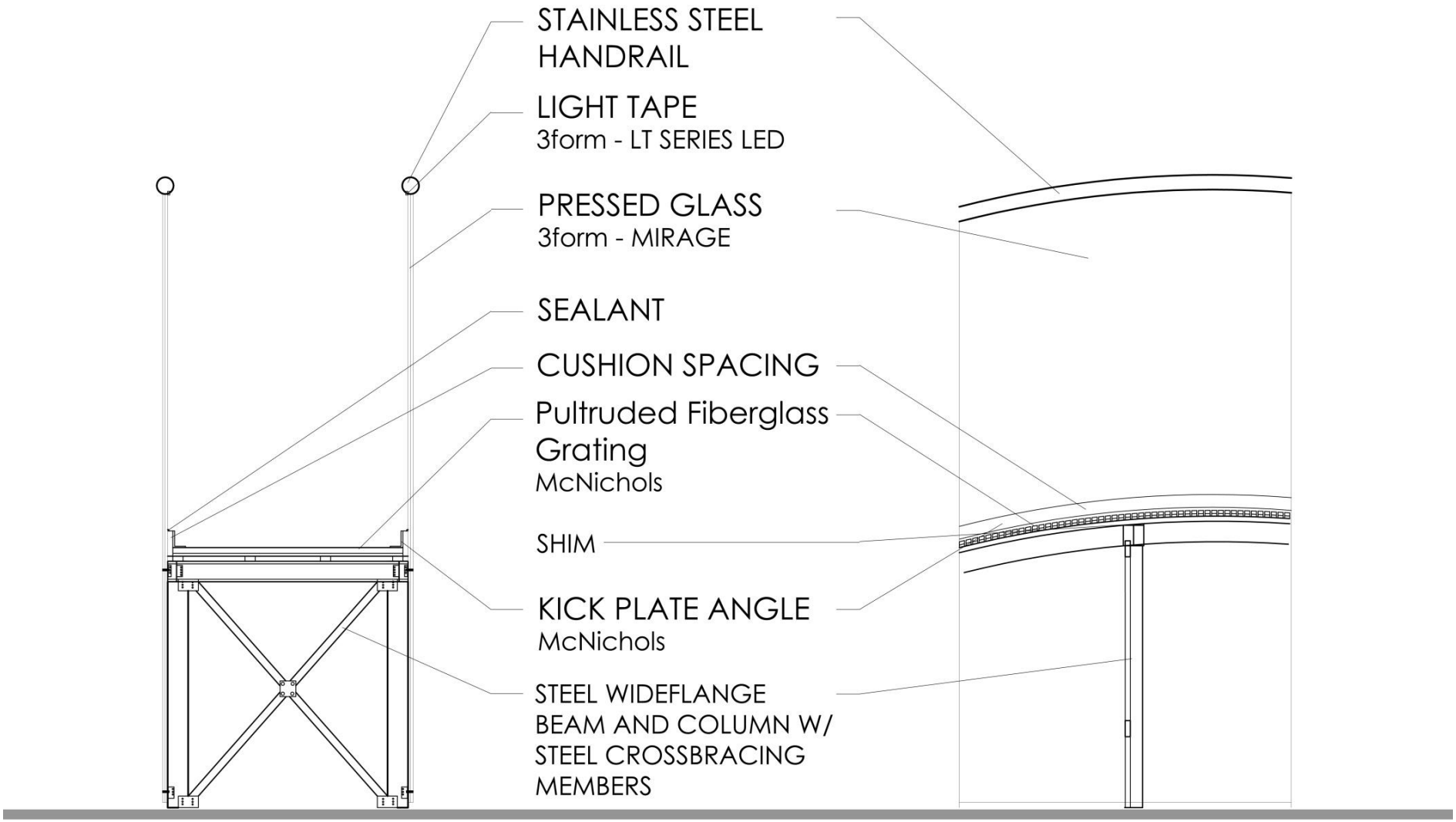


Tacticle Pavers Street Inlay | West | Scale 1" = 1'-0"

Steel Tacticle Inlay | East | Scale 1" = 1'0"



Tacticle Pavers Street Inlay | West | Scale 1/4" = 1'-0"



Walking Ribbon Detail Sections | Scale: 1" = 1'0"

STOP
LOOK
LISTEN
RELAX
ENGAGE
INTERACT

Final Presentation

Stop | Sit | Look | Listen | Relax | Engage | Interact
Concept
Precedents
Materials
The Ribbon
Site Analysis
Process
Site Analysis of Stops

Stop | Sit | Look | Listen | Relax | Engage | Interact
Precedents
Materials
The Ribbon
Plans
Details

Process
Site Analysis of Stops
Design Analysis

Site Analysis of Stops
Design Analysis

Site Analysis
Process
Site Analysis of Stops

Process

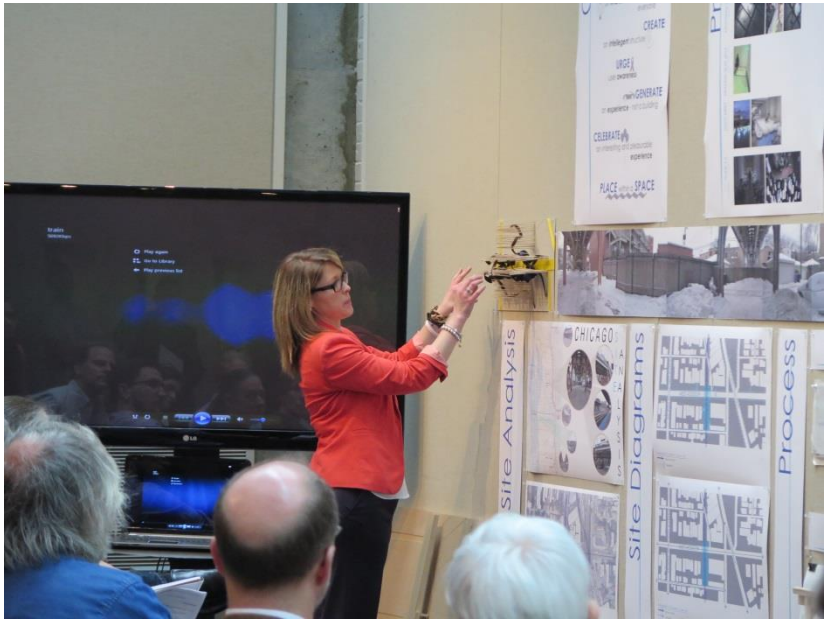
The Ribbon
Site Analysis of Stops
Design Analysis

Concept
Precedents
Materials
CHICAGO
Site Diagrams
Site Analysis of
Design A

Stop | Sit | Look | Listen | Relax | Engage | Interact
Precedents
Materials
The Ribbon
Plans
Site Diagrams
Process
Site Analysis of Stops
Elevations & Sections

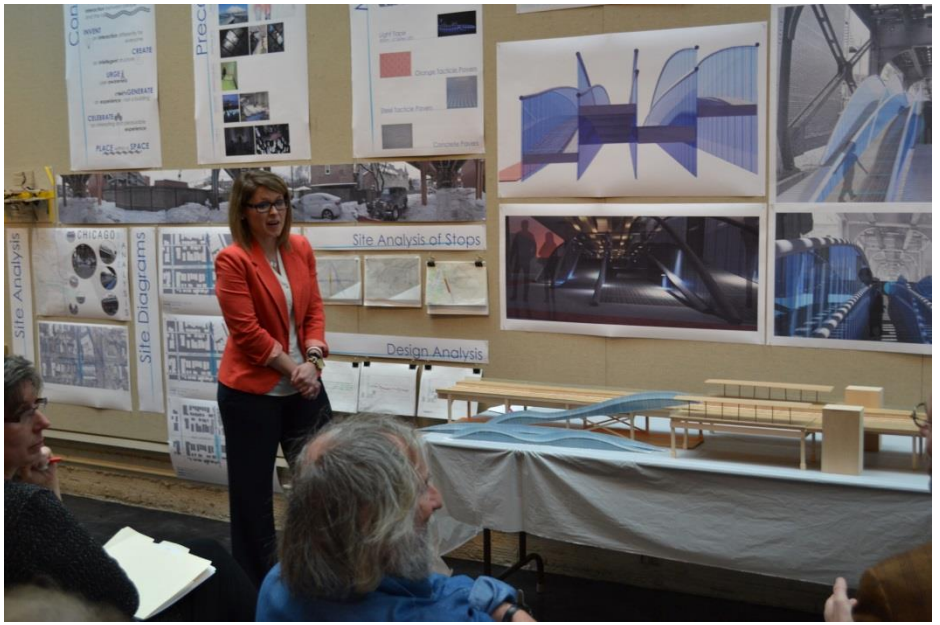
Elevations & Sections

Elevations & Sections


CREATE
GENERATE
CELEBRATE
PLACE
SPACE
CHICAGO
Site Analysis
Site Diagrams
Process

Plans
Details
Elevations & Sections
STOP
LOOK
LISTEN
RELAX
ENGAGE

Site Analysis
Site Diagrams
Elevations & Sections


Site Analysis
Site Diagrams
Site Analysis of Stops
Design Analysis

The Ribbon

Stop | Sit | Look | Listen | Relax | Engage | Interact

Haley Elizabeth Rice
Miami University College of Creative Arts
Department of Architecture and Interior Design

INTRODUCTION |

Faster phones, expanded use of personal computers, widespread access to digital bandwidth, and applications for the internet across multiple devices allows nearly instantaneous access to information and provides a means to stay in constant touch with remote friends and family. On the one hand, technology appears to benefit us socially and culturally by reducing perceived distances between individuals and groups – even between continents. On the other hand, such emersion in technology serves to isolate us from our immediate context by focusing our attention inward, toward ourselves and our devices, distracting us from being truly aware of our surroundings. It is what German philosopher Martin Heidegger would call living an "inauthentic existence."[1]

For Heidegger, how individuals situate themselves in the world centers around the concept of "dasein," meaning "to be present."[2]

> Heidegger argued that the alienation of contemporary existence was based on the separation of thought from 'Being,' a condition epitomized by the privileging of technology and calculative thinking in the modern world. His project was therefore an attempt to return humankind to some form of authentic existence.[3]

Heidegger's twentieth century concerns seem even more relevant in light of today's twenty-first century challenges. How might we find ways to live more authentically – to actively engage with and experience our environment and contemplate our place in our families, communities, and in the world? Given our hi-tech, accelerated lifestyle, is it possible to moderate the constant barrage of activity by providing opportunities in the built environment to pause and consider the world around us? Can architects find effective ways to make the everyday environment – especially the urban environment – more present to the users of space, shifting from being simply "occupants," passively taking up space, to dwelling authentically?

> Not only does architecture allow for the possibility of dwelling, but it is precisely part of that dwelling. To dwell authentically, for Heidegger, is to dwell poetically, since poetry is a manifestation of truth restored to its artistic dimension. Architecture becomes a setting into work of 'truth' and a means of making the 'world' visible.[4]

Within the urban fabric of day-to-day constant activity part of becoming a "dweller" requires the opportunity to **stop** what they are doing, to **look, listen, and engage** in something without losing momentum and energy. In the urban environment, the places in between – the interstitial spaces of the city – made up of walkways, green spaces and circulation around buildings that provide the opportunity to see oneself in relation to the whole.

Stopping. From the source of Merriam-Webster, "to cease activity or operation."[5] The movement of coming to a standstill and the user participating in the activity that is taking place. Stopping gives one the opportunity to examine their surroundings and contemplate where the visitor fits into the space.

Looking. Dictionary.com states, "to use one's sight or vision in seeking, searching, examining, watching, etc."[6] By looking around, one has a better opportunity to observe the community. They become more aware with themselves and what is around them, not just active looking, but engaging with color, textures, and light as well.

Listening. Merriam-Webster defines it as, "to pay attention to sound."[7] By listening and actually hearing what is taking place around the community, you begin to understand what is significant about the space. Noise levels, accents, high vs. low pitches, young children vs. older, male vs. female voices, different volumes, echoes, the distant noises of the streets and different activities, all help depict what is helping in the surrounding space.

Engaging. From the source of Dictionary.com, "to involve (a person or his attention) intensely."[8] Do you engage by physically taking part of the activity as in, touching or moving? In addition to the other senses, actually feeling you in the space, a 6th sense – synesthetic – where the body is in relation to other things. Intellectually engaged by observing and thinking about the impact on what those actions have. Socially, by interacting with individuals, directly or indirectly in the environment. Engaging someone by taking part in the activity but not losing momentum or energy in their pursuit, but continues with excitement.

Interacting. Merriam-Webster states, "to be or become involved in communication, social activity, or work with somebody else or one another."[9] Engaging in the action and environment on a physically or an intellectual level.

By defining public spatial zones, urban environments provide interaction that is meaningful for occupants and visitors alike as they flow through and experience these compositions. Throughout this paper, I explore some of the ways that architects and artists have used installation design to more fully engage and interact with urban inhabitants. Merriam-Webster defines "installation" as, "a work of art that usually consists of multiple components often mixed media and that is exhibited in a usually large space in an arrangement specified by the artist."[10] An intentional assembly to get a response from participants that can either be temporary or permanent. Once the installation piece is out there, people will respond and interact with it however they wish. Its intention is to get a response, and provoke action. It is up to each community to activate and use that installation in the intended manner or not.

The installations I have researched are design related to the urban environment and how it interacts with the people who use the space. Case studies carefully analyzed in order to create an interactive urban space that belongs to the community around it. By going and observing interactive spaces, it gives a perspective of what I believe is successful about a certain space and what I believe is not. By observing, the feeling of what is liked and accepted in the different site settings and how they differ from one another is more evident. From there, by researching what the designer had in mind for the specific installation and see if it is perceived that way today.

Researching the designs of others provides an opportunity to examine and analyze interactive/installation case studies that incorporate a high level engagement with urban inhabitants.

By utilizing my creative abilities to **create**, experiment, build and rework installation pieces for the specific site I have chosen, research of the site helps me gain knowledge of the environment that then inspires me to create for the community.

Designing and creating a sense of space, which successfully adapts to the urban context while engaging the members of the community to **Stop, Sit, Look, Listen, Relax, Engage and Interact** with the space being the end goal.

METHODOLOGY |

The methodology employed in this work focuses on a comparative case study analysis of a number of relatively recent art and architectural installations intended to examine the interaction between the urban environment and its users. Each of the case study sites selected provided ample published (hardcopy and online) material, including photographs of the installations, to assist with my analysis. In addition, where possible, I made personal visits to a number of sites in order to make direct, in-depth observations, particularly observations that involve the individual senses (sight, sound, smell, touch, taste, etc.) and to document my experiences using written notes, photography and, where possible, video.

My case study analysis is organized into overarching categories that are a) common to all case study sites, and b) seem to be central to the engagement within an urban context. Categories include:

1. User Benefits and related subcategories of installation adaptability, public/private environment and active participation help bring the user of the space into perspective. Case studies that, in my opinion, are most descriptive of this category are Heme Upadhyay's *Modernization* installation at the Contemporary Arts Center in Cincinnati and Anish Kapor's *Cloud Gate* at Millennium Park in Chicago.

2. Sociological and Psychological Implications and related subcategories of changing lifestyle patterns, human behavior awareness, architectural awareness, sense of place, control of space, attachment to space, preamble to engagement, post engagement experience, sense of sound, sense of smell, intended goal, outcomes of the installation and the urban community/context respectively. Case studies that, in my opinion are most illustrative of this category inlcude Diller and Scofidio's 2002 *The Blur* building at the Swiss Expo, J. Meejin Yoon's *Light Drift* installation in Philadelphia, Daan Roosegaarde's *Dune 4.0*, and two installations housed at Hotel 21C in Cincinnati: *Lightmail 2012* by Astrid Krogh and *Healing Tiles 2012* by Brian Knep.

Data from the analysis was compiled into a matrix for reference and details each element examined for each case study (see Appendix I). When looking for projects, the interactive aspect and how they related to the urban context was most prominent. Ultimately, I was able to narrow down those successful and unsuccessful aspects of each installation, resulting in a list of essential characteristics to use as a baseline for my own design work in this arena.

The criteria by which I made my analysis and assessment of each case study installation includes:

Installation Adaptability. As a whole, how does an installation modified by the community and communicate with the environment itself? What is the space specifically designed for and can it change in the future?

Public/Private Environment. Is the venue in which the installation is viewed, how is the space accessible? Is it free to the public? Is there an admissions fee? Are there certain days that are free for the community if there is an admissions fee? Are they trying to include or exclude a certain cultural, social or public engagement?

Active Participation. How is this space interactive with its surrounding environment? Is there a certain routine one must go through to get the intended experience?

Public Engagement. The physical participation in a space, is it highly active, moderately active or passive? How much does the user interact with the space?

Modes of Activity and Engagement. What senses do you use when in the environment? What do you see, hear, and smell?

Social Participation. Is this space geared towards an individual or group activity? Is there an age range? Is it a space everyone can enjoy and utilize?

Cultural Participation. Is the space diverse in its ethnic and neighborhood range? Is it highly diverse, moderately diverse, or homogenous?

Human Behavior: Physical. How is the user utilizing the space? Does it affect the installation and its interactive capabilities? Is the user aware if they do a specific movement, that movement alters the space and installation itself?

Participant Lifestyle Patterns. Does this space change patterns in human interactions and its relationships? What has the designer done specifically to perceive a space differently by the user?

Architecture Awareness. Is there a relationship between the installation and the architecture around it? Does it read well with the environment around it?

Sense of Place. Does the installation belong is the space? How does it communicate with the environment around it?

Control of Space. How does the installation control the space? Does it control one environment or multiple spaces?

Attachment to Space. Is there constant change in the installation space? Is there one permanent piece that represents the environment?

Preamble to Engagement. Is there anything that pulls you in before entering the space? How do you know it is there?

Post Engagement Experience. What does the user remember and take back with them? Is it physical, intellectual? Will these memories bring them back to the space? The sounds and smells?

Intended Goal. What was the intended goal by the artist/designer? What did they want the user to get out of this environment?

Outcomes of installation. How Success was measured. Was it successful?
Who decides if an environment is successful and how? By the number of people that interact with the space and if they come back?

Urban Community/Context. Is the space in an urban area? If not, how far from the urban community is it?

FINDINGS |

USER BENEEFITS |

For these case studies to represent success in terms of the user benefits, they should possess some or all of these qualities. They are, but not limited to, adaptable space, public environment and active participation.

INSTALLATION ADAPTABILITY |

"When the entire environment becomes an interactive environment that is mediating the needs of the users and the environment outside, it must facilitate communication through the physical space itself."[11]

CASE STUDY 1 | SPACE WITHIN A SPACE

Modernization. Hema Upadhyay. Contemporary Arts Center. Cincinnati, Ohio.

Upadhyay shows urbanization and its effect on the ever-growing city of Mumbai, India through her full gallery floor installation, as an aerial view of Mumbai's biggest slum neighborhood: Dharavi. Her work explores the contrasts found in the city's densely populated slums. The installation is made up of materials that the buildings themselves are comprised of; aluminum sheets, car scrap, enamel paint, plastic sheets, objects found by Upadhyay that mimic the traits of Dharavi. [12]

Figure 1, Upadhyay Installation, CAC. 2013.

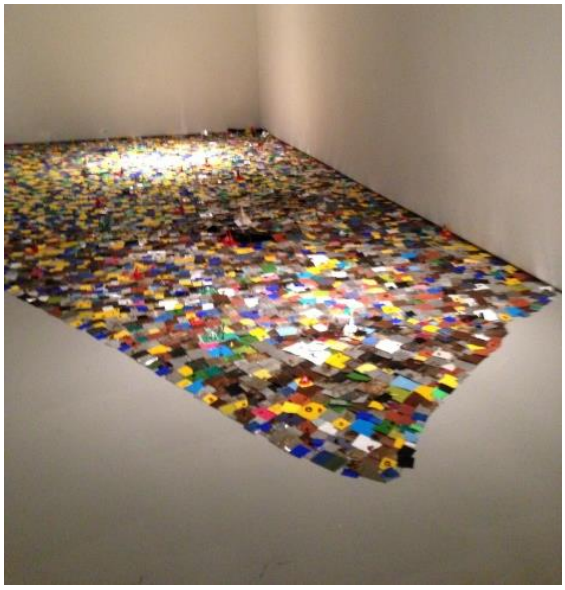


Figure 2, Upadhyay Installation, Haley Rice. 2013.

The installation is currently being displayed at Zaha Hadid's Contemporary Arts Center. The entrance into the space is large, tall and cold due to the concrete, yet inviting. To the right, there is a large staircase the leads to the upper floors and to the left, a gift shop and reception desk. Walking up the long staircase becomes a view of angles that of the surroundings. The steps themselves are very walkable and manageable.

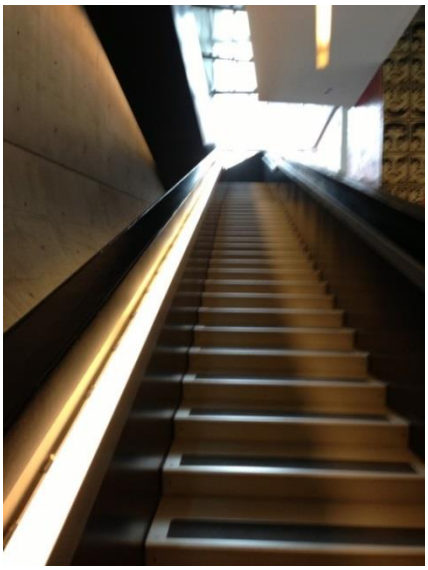
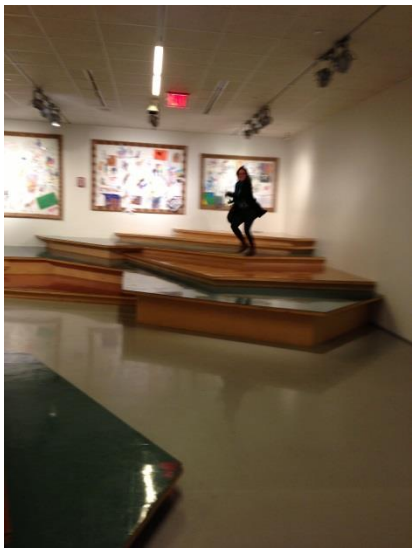


Figure 3, CAC Steps, Haley Rice. 2013.

Arriving at the top, a glass door opens into a new space full of angles. The floor is littered with small pieces of bright colors. It is completely quiet. There is a stillness that comes with the territory of the museum, as well as the installation. The installation becomes 'Modernization' by Hema Upadhyay of India.

The brightly colored pieces on the ground represent a city the artist knows well. There are small toy cars, buildings, towers, and bridges of all colors. The color ignites life into this installation. Standing and looking at all the intricate pieces that cover this space, a very loud noise disrupts the quiet stillness. Wondering what it is, the sound distracts us from our observations and feelings. The direction of the sound comes from the left where mechanical shutters, interaction pieces, are opening and closing. The attraction changes from visualizing colors to hearing noises. The **sound** attracted us to the space. The **noise** becomes the attraction. The sound pulls you into the space just as many before us.

The sixth floor is the Unmuseum's location. Stepping off the elevator we encounter the pandemonium of music, noise, motion, color, children of different ages, and adults interacting with the different activities and living the experiences of the space.



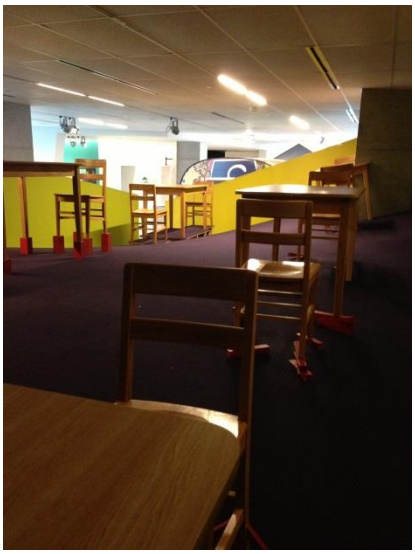


Figure 4 and 5, CAC, Hypar Room, Haley Rice. 2013.

Figure 6 and 7, CAC, Hypar Room, Haley Rice. 2013.

Sitting down in the 'Above and Below: The Hypar Room' to reflect in writing what was just observed, a mixture of chairs and tables are there for the choosing, in which one becomes comfortable by absorbing the space and emerging oneself into it.
These installations and exhibits at the CAC adapt to the space that has been provided for them. **Does this mean that installations change slightly with each new location? And does the user notice the small changes when relocated if the user travels to the new space?**

PUBLIC ENVIRONMENT |

"The physical architecture can be used to include or exclude people from one another to facilitate, dissipate or focus crowds of people. In this realm of the physical world, interactive public spaces can have a profound effect on social interaction."[13]

CASE STUDY 2 |

<u>Anish Kapoor. Cloud Gate. Chicago.</u>

Cloud Gate is featured as the centerpiece of the AT&T Plaza in Millennium Park in Chicago, Illinois. Designed by Indian- born British artist Anish Kapoor, construction began in 2004 and completed in 2006. The structure acquired the nickname "The Bean" because of its bean like shape. The sculpture is made up of 168 stainless steel plates welded together, highly polished with no visible seams.

Figure 8, Millennium Park, Haley Rice. 2013.

The composition inspired by liquid mercury, reflects and distorts the city's skyline. Visitors and tourists walk around, under and stare up into the reflective surface.[14] The Bean is a popular photo opportunity for its uniqueness and mirror images.

What is it about these spaces that draw people from all over the world?

OBSERVATION |

Walking down Michigan Ave. to Millennium Park, the city and its vastness is truly amazing. It's misting, windy, and cold. Approaching the park, Frank Gehry's Pritzer Pavilion greets you with Cloud Gate, aka The Bean off to the right. People are seen milling around, taking pictures for the memories of their experience of the space.

Figure 9, Millennium Park, Haley Rice. 2013.

Observing the activity in Millennium Park and The Bean for the next two days, I saw a resurgence in the park as warmer weather drew out the people. The warm sun, cool wind kicked my sense into overdrive. Crying babies, birds flying, the Chicago skyline, children playing and chasing birds, the sound of different languages being spoken (Chinese, Spanish), sirens whaling, people sitting, eating, and poor people begging all encompass the space.

With these observations, **one wonders what brings them to interact with the space? Is it The Bean itself? The reflection of it, the pictures that can be taken by it (the interactive aspect), the smoothness of it, or the large open space around it?**

The Bean and the public environment has been brought together to create a space that community members and tourists use together. The effect Millennium Park has on the public environment forces crowds of people to interact in this public space. The trip to Chicago was to experience how space intertwines with our person.

ACTIVE PARTICIPATION |

"Much of our daily existence and experience with architecture is made up of different types of routines and rituals. Adaptive control of an interactive space allows for enhancing and simplifying these daily tasks and creates a sense of active participation with the environment." [15]

SOCIOLOGICAL AND PSYCHOLOGICAL IMPLICATIONS |

For these case studies to represent success there are sociological and psychological implications. They are, but not limited to, changing lifestyle patterns, behavior awareness, architectural awareness, sense of place, attachment to space, sense of sound, sense of smell, and the artistic initiative.

Architectural space can take advantage of an audience locally, regionally, and globally by **re-conceptualizing** the role that the physical environment plays in shaping **the viewer's experience**.

MODIFICATION OF PARTICIPANT LIFESTYLE PATTERNS |

"Architects need to explore, think about, and design for applications particularly suited to such new lifestyle trends, ranging from programmatic and site-context response to spatial dynamics."[16] Changing patterns of human interactions are forcing architects to design differently, to design to maintain the interactions of relationships. New trends have given growth to a number of new behavioral, organizational and social issues. In the past, the work place and out of the home associations defined the person. With new technology changing the way and where people work, insights into lifestyles are imperative for adaptation.

CASE STUDY 3 |

The Blur. Diller and Scofidio.

In the 2002 Swiss Expo in Switzerland, Diller and Scofidio designed the 'Blur Building' with the help of interactive designer Steven Rubio of EAR Studio. 'Blur' was a temporal building that relied on performance technologies such as a mist system façade to create an intimate and explorative participant experience.

Figure 10, Diller & Scofidio. 2001.

Although never fully actualized, the idea they proposed that each participant took a survey of personal interest. They would be given a rain coat that had smart devices

placed inside the coat that would react with other devices as they moved through the space. Ideally, the device would light up if there was some social compatibility between the people; a type of "social radar" that could detect multiple emotions from appeal to discomfort.[17]

Figure 11, Diller & Scofidio. 2001.

The building and social experiment was an attempt at diminishing the reliance on visual interpretations to make judgments. The 'Blur Building' showed potential for creating a specific atmosphere that a user can engage in and experience by employing methods of materiality, light, water, sound and circulation narratives. [18]

Trying to change life style patterns of everyday living becomes a striving point for most architects. 'Blur' fits into behavior awareness, architectural awareness, and sense of space categories. These categories should be a point of interest when designing for the user and how to perceive one another.

MODIFICATION OF HUMAN BEHAVIOR |

"While the architecture can adapt and learn from our actions and adjust itself accordingly, it also has the capacity to **teach** us how to live and how to work."[19]

Case Study 4|

Hotel 21C. Cincinnati, Ohio.

Hotel 21C, is a 24/7 art gallery known for its artistic diversity. The gallery is very inviting, with many colors, the surrounding people, and the warmth within. The sound of life from people enjoying the experience heightened the personal awareness. Walking through the gallery, the flooring becomes interactive with each step, Brian Knep's 'Healing Tiles'. The impact of a step dispersed the projected light into a new pattern and new experience.

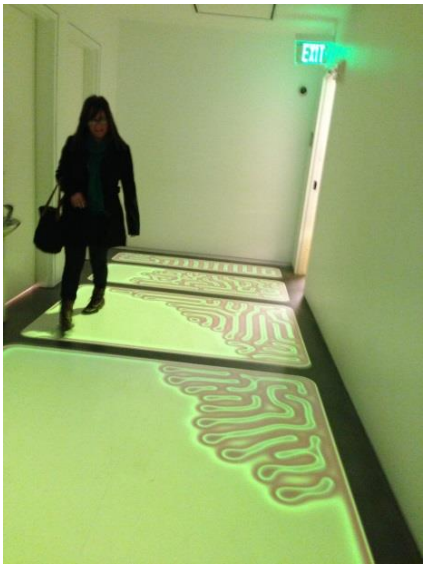


Figure 12, 21C, Haley Rice. 2013.

This technological installation of color and light attracts people into this hallway for an interactive encounter.

Continuing though the building, there is an installation in the ceiling/skylight in the middle of the structure, Astrid Krogh's 'Lightmail.' There are bean bag chairs scattered across the floor; waiting to be used, jumping, sitting, lying, for staring at the skylight installation. The change in color of the different pieces brings light into the space. It is decided that this would be more intriguing at night with a drink in hand.

The placement of the bean bag chairs forces one to sit. If not there, the likelihood of looking up would be miniscule. The installation needed the chairs to aid viewing the lighting display. The focal point of the room might easily have been missed if not for the chairs and the invitation they provide. Which brings me to question; **Do I need to see the installation at first glance? Is there some way to indicate something is happening without showing the main event right away? What is the purpose for seeing things this way?**

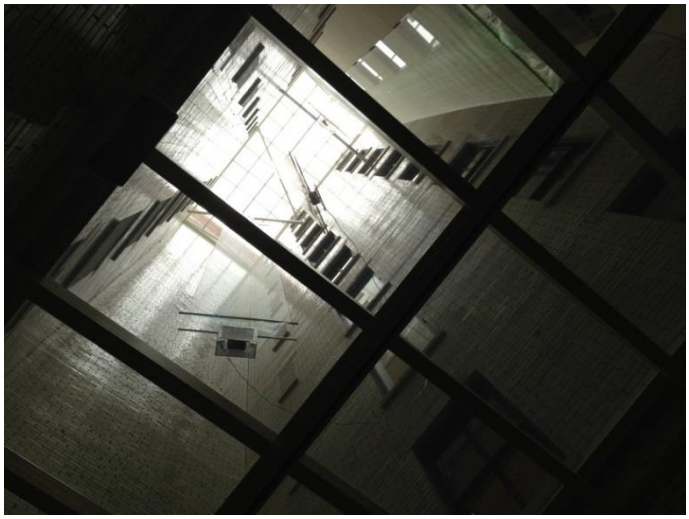


Figure 13 and 14, Hotel 21C, Haley Rice. 2013.

"To a certain extent, our behaviors are nothing but learned intuitions growing out of our experiences in the world. We learn early how to operate our buildings, opening doors, windows, and shades ourselves, but when the building responds to our actions we are confronted with a new level of **awareness and choices**."[20]

These installations bring awareness to oneself and to others around it. The user is affected by the interaction of the space and how they can manipulate it. In an urban context, the manipulation of space and the behavior of the user becomes one of the same. But, there needs to be an engagement to pull the user in before one can be totally aware of the space around them.

ARCHITECTURAL AWARENESS |

"At the core of such projects dealing specifically with behaviors is the requirement to establish a **dialogue with the users**. Such a relationship requires an understanding of one's owns actions and others' actions within the space, and awareness that there is some sort of dialogue with the environment itself"[21] as experienced at the Blur and at the CAC.

SENSE OF PLACE |

"In simple terms, when communication is clear and the results are satisfactory, there can be a sense of accomplishment on the part of the user. Such interaction transcends traditional goals of operating a place to that if having a **successful conversation with a space**."[22]

CASE STUDY 5 |

J. Meejin Yoon of MY Studio. Light Drift.

Light Drift by Yoon was a temporary interactive installation along the Schuylkill River that drew hundreds of viewers of all ages into a playful engagement with the artwork, the river's edge and each other.

The orb-shaped lighting elements arrayed along the waterfront on land and in the water, responded to visitors and communicated with each other using sensors that detected the presence of people and relayed radio signals to corresponding orbs in the water. As viewers engaged and occupied the orbs, they transformed the lighting behavior and color as the grid of lights in the water became a reflected mirror of the activities on land.

This unique art experience was open to the public for only three days as part of DesignPhiladelphia. [23]

Yoon's tactic for 'Light Drift' not only lures people to approach and occupy the space along the river, but participants are persuaded to interact and converse with each other through the creation of different light configurations.

Figure 15, schuylkillbanks.org. 2010. *Figure 16, City of Philadelphia Mural Arts Program, 2010.*

This space creates a language between one space and another. The communication between the two spaces produces a sense of place through conversation on land and water. This installation has a cause and effect persona. The user affects what is happening to the installation, which bring life into the space. Creating a language

between user and installation helps communicate what a space is about. That language is needed for all spaces to be successful.

CONTROL OF SPACE |

"Users of space can manipulate the use and control over the space. There is an emotional attachment that affects the spatial experience. Communication of thought must be explicit for interactive architectural applications to achieve fruition. Architects can play a more **active role** in suggesting new ways for its inhabitants to use environments based on real-time information exchanges. The experience can change depending on how a group of users interacts, whereby the rules are learned or the rules are completely dynamic and evolving."[24]

CASE STUDY 6 |

Dune 4.0 – Daan Roosegaarde.

Dune 4.0 by Daan Roosegaarde is an interactive landscape which physically changes its appearance in accordance to human presence. Placed in the main corridor of Montevideo, Dune 4.0 is composed of hundreds of fibers which react in correspondence to the movements and sounds of the visitors. Daan described this as a "hybrid of nature and technology" which "functions as a platform on which the relationship between visitor and the existing architecture is enhanced. By means of looking, walking and interacting, visitor and space merge into one coherent environment which could be best interpreted as a kind of Alice in Technoland". [25]

Dune 4.0 is part of a series of interactive installations called 'Liquid constructions' where interactive design environments become alive. Dune 4.0 is a landscape swaying reed-like fibers with microphones and sensors. The mood of the landscape varies. When nobody is there, it will sleep, glooming softly. But it awakens as one enters and the light becomes as extension of where you walk. This interactive design promotes personalization and customization of context which invites visitors to spontaneously perform and create alternative designs.

Figure 17 and 18, Interactive Architecture.org. 2007.

The space is manipulated by the user, which in turn affects how the installation reacts in the space. The user has control to do with which one pleases. The interactivity of how the user controls the installation is important to any space one is positioned in. As architects, the control of space helps bring our thoughts together in new ways and how a space is presented to the public environment.

ATTACHMENT TO SPACE |

"When architectural space has a true **communicative capacity**, it can foster a heightened sense of attachment."[26]

"City planners believed that people's taste for green space, for ornament, for people watching, for cozy places for intimate gathering, were just social constrictions. They were archaic historical artifacts that were getting in the way of the orderly design of the cities, and should be ignored by planners designing optimal cities according to so-called scientific principles."[27]

"It is important to recognize that people truly desire space, not style, and to understand the role that interactive architectural applications can play in fulfilling such desires." [28]

"The overemphasis on design is a problem because it tries to capture visually, in one go, what is a changing set of experiences, by season, day of the week, time of day. We do not inhabit architectural space simply for shelter; we do so because we need the experience of space." [29]
Special attachment to space is based on ones experiences with that space. If the space can become interactive on a personal level, true attachment to space is achieved.

SENSE OF SOUND |

Experiences are defined by our senses. The effect of sound has many implications on one's person. The sound of soft music is soothing and is calming. The loudness of rock and roll can be deadening and disturbing. "The sense of **sound** is much **underrepresented** in discussions of architectural experience and is very often only dealt with from a design standpoint, relative to the negative aspects.[30] Sound is a design issue which effects one's emotions and need not to be neglected when planning an architectural experience."

SENSE OF SMELL |

Usually the memory of smell has been associated with negative remembrances. Odor, a term of unpleasant smells is an environmental pollution issue often due to poor air quality. If air movement can be improved by an interactive architectural system, odor management can be controlled.

"Smells can have extremely positive associations too, smells can evoke strong emotional reactions, as many of our olfactory likes and dislikes are based on emotional associations. Our **olfactory receptors** are directly connected to the limbic system, which is the part of the brain commonly associated with **emotions**."[31] Architectural systems need to take advantage of the emotional aspects of smells because of the personal associations one has with their environment, positively or negatively.

ARTISTIC INITIATIVES |

"Installations and other artistic endeavors also free the designer form many of the constraints associated with constructing architecture, such as building codes or life safety considerations. Artist explorations open up the door to take a look at human emotion and human impulse."[32] Allowing for artistic interactive initiatives, focus can be directed towards specifics which permit artistic exploration, flexibility and opportunity.

CONCLUSION |

What is special about spaces that bring people to them? Each having its own unique installation/ sculpture piece, the attraction of people is not surprising. The feelings of people when in these spaces elicit memories, heightened sensory awareness and new experiences. Imaginative explorations allow interactivity to become experiential, as people have the ability to interact with the installation or just watch others.

As architects, planning a space design requires an emotional attachment to the space. Personal observations of the space include how people respond to the space, the smell, the texture, the surrounding noises and sounds and sometimes the taste of the area cuisine help the architect become one with the space. The challenge is then to blend the current culture with the new to maintain the space's emotionally and attractiveness to the soul.

WHAT NEXT |

From here, I will create an installation in a space that is one with the community. This one site will act as a hub; I want to draw people in from the different communities, to become one. I am proposing to have multiple satellite installation locations in different parts of Chicago that will lead to this one space along the river near Chinatown. By incorporating the case study research, I believe I will be able to successfully adapt an interactive installation in this area that will bring people in from different parts of the city and help the area become a new, up and coming location by incorporating the **Stop, Sit, Look, Listen, Relax, Engage and Interact** mentality.

Appendix I |

	MODERNIZATION[1]	CLOUD GATE	THE BLUR	LIGHTMAIL 2012[2]	HEALING TILES 2012[3]	LIGHT DRIFT	DUNE 4.0
Ranking							
Location	Cincinnati, OH: Contemporary Art Center	Chicago, Il: Millennium Park	Yverdon-les-bains, Switzerland	Cincinnati, OH: Hotel 21C	Cincinnati, OH: Hotel 21C	Philadelphia, PA	Rotterdam, Netherlands
Location Type	Urban	Urban	Remote	Urban	Urban	Urban	Urban
Designer/Author	Hema Upadhyay	Anish Kapoor	Diller and Scofidio	Astrid Krogh	Brian Knep	J. Meejin Yoon	Daan Roosegaarde
Interior/Exterior	Interior	Exterior	Interior and Exterior	Interior	Interior	Exterior	Interior
Temporary or permanent	Temporary	Permanent	Temporary	Temporary	Temporary	Temporary	Temporary
Installation Adaptability	Designed to accommodate multiple exhibition locations.	Can accommodate multiple events in the space. From tourist, to private events.	Adapted to a specific lake to create a mystical space.	The installation is site specific to 21C, but could be duplicated in a new location.	Can adapt to any open space, interior or exterior.	Can adapt to any open space, interior or exterior, on land or water.	Can adapt to any open space, interior or exterior.
Public/Private Environment	Open to the public with a minor admission fee; free on specific community days.[4]	Free and open to the public.	Open to the public from May 15-October 20th 2002.	Free and open to the public.	Free and open to the public.	Free and open to the public.	Open to the public with a minor admission fee.[5]
Active	This installation	Interacting	Interacting	Interaction of	Walking across the	Interacting	Interacting with

[1] Modernization by Hema Upadhyay examined, was located at CAC in Cincinnati, Ohio, the author also examined the CAC as a venue for the changing installation exhibits, discussed below.
[2] Exhibited in conjunction with 'Illuminati: Site Specific art at Hotel 21c Museum in Cincinnati.'
[3] Ibid.
[4] Contemporary Arts Center, "Visiting," n.d., http://www.contemporaryartscenter.org/visiting.
[5] Stedelijk Museum Amsterdam, "Visit us: Hours and Admission," 2013, http://www.stedelijk.nl/en/visit-us/hours-and-admission; information from latest installation location, May 16-Sepetember 8, 2013.

Participation	does not focus on developing active participation.	with The Bean in multiple ways.	with each other using the brain coats.	stopping to lay on the beanbags provided on the floor to look up into the shaft space and watch the colors change.	floor, the image tears apart and then rebuilds itself.	with the lights in the water by interacting with the people and sensors on land.	movement and sound.
Public Engagement: Physical Participation (highly active, moderately active, passive)	Passive	Highly Active	Highly Active	Moderately Active	Highly Active	Highly Active	Highly Active
Modes of Physical Interactivity/ Engagement	Touching Hearing Seeing Climbing - Engaging with the art	People Touching Hearing Seeing Smelling Playing Sitting Eating Standing - Engaging with everything that is going on near the Bean and at Millennium park.	People Hearing Seeing Touching - Engaging with brain coat & the people participating, shows compatibility.	Touching Hearing Seeing Smelling Sitting Eating Standing - Engaging with the art, the light and colors it produces.	Touching Hearing Seeing Smelling Sitting Eating Standing - Engaging with the art, the movement depicts what happens on the floor of the technical install.	Touching Hearing Seeing Sitting Standing - Engaging with people & making the installation on the water imitate what is happening on land.	Walking Seeing Standing Touching - Engaging by walking through the space, the activity brings the install to life.
Social Participation	-Individual or group -All ages	-Individual or group	-Individual or group	-Individual or small group	-Individual or small group	-Individual or group	-Individual or group -All ages

-Individual or group activity, -multiple age, range		-All ages	-All ages	-All ages	-All ages	-All ages	
Cultural Participation -Diversity (highly diverse, moderately diverse, homogenous) **(Multiple ethnic/ neighborhood range)**	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Highly diverse in all cultural levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.	-Highly diverse in all cultural levels.	-Moderately diverse due to location in museum setting, the installation is likely to be less available to all social economic levels.
Overarching Goals of Installation Design							
Modification of Participant Human Behavior: Physical **a) Active Installation Response**	The awareness of the meaning of the installation.	The visitor's behavior of walking through the space. What do they do?	The visitor's behavior depicts what relationship it will have with other users.	This installation does not focus on developing human behavior awareness.	The user's behavior of walking through the hall shows the action on the Interactive floor.	The user's behavior is reflected in the installation's technology usage of the sensors.	The user's behavior of movement and noise is reflected in the installation's change of light.
Modification of Participant Lifestyle Patterns							

b)Post Installation Response	This installation does not focus on changing lifestyle patterns.	Develop a pattern or routine of walking through the park on a daily basis instead of walking through the streets. The routine changes.	Changes how you perceive and relate to other people in the space.	The user has to stop and lay down to appreciate the installation. By changing the pattern of being able to walk by and look at it, the visitor must cease.	"is similar to a scar left behind when a wound heals."[6] -The pattern changes when walked upon.	This installation does not focus on changing lifestyle patterns.	This installation does not focus on changing lifestyle patterns.
Modification of Human Behavior: Attitudinal **a) Architecture Awareness**	The awareness of the installation going into the space of the CAC.	The awareness of the city around Millennium Park.	The relationship of the space with the environment it was created in.	The installation heightens viewers' awareness of the natural and built environments.[7]	This installation does not focus on developing architecture awareness.	This installation does not focus on developing architecture awareness.	This installation does not focus on developing architecture awareness.
b) Sense of Place	This installation does not focus on developing a sense of place.	The Bean has a conversation with the surrounding area.	The Blur communicates with the water that connects with the building itself.	This installation does not focus on developing a sense of place.	This installation does not focus on developing a sense of place.	The people on land create a space that communicates with the space created in the water.	This installation does not focus on developing a sense of place.

[6] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/ healing-tiles/.
[7] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/lightmail/.

Control of Space	The space is controlled by the building itself and how the space is used for installations.	The Bean and Millennium Park controls the space in that environment.	This installation does not focus on developing control of space.	This installation does not focus on developing control of space.	This installation does not focus on developing control of space.	The interactivity of the space on land controls the space in the water.	This installation does not focus on developing control of space.
Attachment to Space	The space is constantly changing for new installations and art work. The attachment is short lived due to most of the pieces being temporary.	The Bean is a permanent installation that is attached to the space.	This installation does not focus on developing an attachment to space.	The attachment is short lived due to it being temporary but is also site specific.	The attachment is short lived due to it being temporary.	This installation was specific to this space for duration of 3 days.	The attachment is short lived due to it being temporary.
Sequence of Engagement							
Preamble to Engagement	Zaha Hadid's CAC building brings you into the space of the installations.	The streets (Magnificent Mile) that leads to Millennium Park and other surrounding areas.	The elongated ramp that brings visitors from land to the space.	Walking into the hotel, there is no sense of a gallery or installation space unless it has been brought to your attention beforehand.	Walking into the hotel, there is no sense of a gallery or installation space unless it has been brought to your attention beforehand.	DesignPhilidelphia brought the installation in for a 3 day period. The marketing for this installation engaged visitors before they arrived.	The museum brings you into the space before getting to the installation.
Post Engagement Experience	-The quietness from the surrounding rooms.	-The environment always brings people back the space after the first engagement. - Food	- The sound and smell of the water and lake around it.	- The restaurant in the hotel. - The sound of people coming into the hotel to check in; sit at the restaurant to eat or to view	- The restaurant in the hotel. - The sound of people coming into the hotel to check in; sit at the restaurant to eat or to view the gallery	- The smell of the city and water along the river. - The sound of people interacting with each	- Noise and sounds made, directly affects how brightly the lights shine.

		venders, the lake, exhaust from cars. City smells. - The sound from the people, the city, birds, music.		the gallery spaces.	spaces.	other, but does not directly affects how the installation works.	
Intended Goal	-To understand and address urbanization in Mumbai, India.	To bring people into the space that reflects the city in a unique manner.	An attempt at diminishing the reliance on visual interpretations to make judgments.	- To create an array of ever shifting, interactive experiences that are both magical and mysterious. [8]	- "adapting their tools and techniques to explore alternative meanings and ways of connecting to the world."[9]	To approach and occupy the space along the river and persuade to interact and converse with each other.	An interactive landscape that interacts with human behavior.
Outcomes of installation. How was success measured?	-Successful in parts. -I believe it was successful in representing the city and its urbanization. Interactive wise, there was nothing to physically interact with.	-Successful. -By the amount of people that come and visit the space each day, and by the user that passes through each day instead of walking the sidewalk.	-Successful for a period of time. -Success was measured by the amount of people who came and if the interaction worked like it was intended to.	-Successful. -Success was measured by the amount of people who would stop and take part in the activity.	-Successful. -The space brings people into the area and reacts to the visitors.	-Successful. -Hundreds of people came out to engage with the artwork during the short period of time. The installation itself and the interaction with it is what made it successful.	-Successful. -It brings people into the space and reacts to the visitors how it was intended to.

[8] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/lightmail/.
[9] Contemporary Arts Center, "Experience," n.d., http://www.contemporaryartscenter.org/cincinnati/museum/exhibits/ healing-tiles/.

Urban community /context	The museum itself relates to the community and the city as part of the urban fabric.	The space brings the urban community and visitor into the space.	The context of the building connected with the water of the lake around it.	The artist featured is from Denmark, but this installation is in the Urban context of Cincinnati.	The artist featured is from the US, but this installation is in the Urban context of Cincinnati.	The installation was placed in the urban environment for the community to interact with.	The museum itself relates to the community and the city as part of the urban fabric where the installation is located.

ENDNOTES |

[1] Will Buckingham, Douglas Burnham, Clive Hill, Peter King, John Marenbon, and Marcus Weeks, *The Philosophy Book* (New York: Dorling Kindersly Limited, 2011), 255.
[2] Neil Leach, ed., *Rethinking Architecture: A Reader in Cultural Theory* (New York: Routledge, 1997), 98. Merriam-Webster.com details the origin of "daesien" as "G, lit., existence, being, fr. *Dasein* to be present, fr. *Da* there, here (fr. OHG *dār) + sein* to be …."
[3] Ibid.
[4] Ibid.
[5] *Merriam-Webster Dictionary,* s.v. "stopping." 2013. http://www.merriam-webster.com/dictionary/stopping (accessed August 2013).
[6] *Dictionary.com.,* s.v. "looking." June 6, 2012. htttp://www.dictionary.com/looking (accessed 2013).
[7] *Merriam-Webster Dictionary,* s.v." listening." 2013. http://www.merriam-webster.com/dictionary/listening (accessed August 2013).
[8] *Dictionary.com.,* s.v. "engaging." June 6, 2012. htttp://www.dictionary.com/engaging (accessed 2013).
[9] *Merriam-Webster Dictionary,* s.v. "interacting*."* 2013. http://www.merriam-webster.com/dictionary/interacting (accessed August 2013).
[10] *Merriam-Webster Dictionary,* s.v. "installation." 2013. http://www.merriam-webster.com/dictionary/installation (accessed August 2013).
[11] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 98.
[12] *Contemporary Arts Center.* n.d. http://contemporaryartscenter.org/HemaUpadhyay (accessed March 3, 2013).
[13] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 104.
[14] Chicago, Cloud Gate - A Magic Mirror in. n.d. http://www.sculpture-info.com/news-288/cloud-gate-a-magic-mirror-in-chicago.html (accessed February 23, 2013).
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[16] Ibid. 140.
[17] Bullivant, Lucy. *Responsive environments: architecture, art and design.* London: V & A Publications, 2006, pg. 40.
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[19] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 142.
[20] Ibid. 148.
[21] Ibid. 152.
[22] Ibid. 153.
[23] *Schuylkill Banks.* October 2010. http://www.schuylkillbanks.org/stories/light-drift (accessed March 2013).
[24] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 156.
[25] *Interactive Architecture.org.* January 5, 2007. http://www.interactivearchitecture.org/dune-40-daan-roosegaarde.html (accessed March 2013).
[26] Fox, Michael. *Interactive Architecture.* China: Princeton Architectural Press, 2009, pg. 158.
[27] Ibid. 158.
[28] Ibid. 158.
[29] Ibid. 158.
[30] Ibid. 161.
[31] Ibid. 168.
[32] Ibid. 169.

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Will Buckingham, Douglas Burnham, Clive Hill, Peter King, John Marenbon, and Marcus Weeks, *The Philosophy Book* (New York: Dorling Kindersly Limited, 2011), 255.

Addendum |

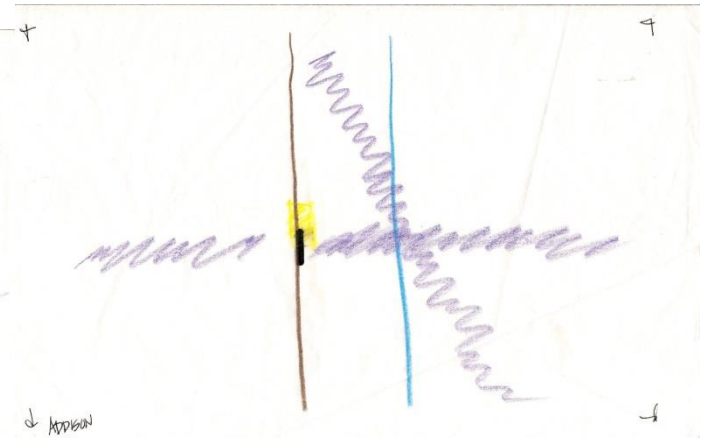
This thesis project is about creating movement and interaction in an interstitial space. Creating a place within a space while connecting the community to the city. This project is located in Chicago, Illinois on the El at the Addison stop on the Brown Line. This project is composed of two major components; the path one takes to and from the station and how it connects visually to the user and the rail system. "The Ribbon" is located under the elevated rail at the Addison stop on the Brown line and is made up of 5 different paths along the site. Each "walking ribbon" is different and allows for a different experience with each step taken. Your senses realize the surroundings by the interaction with the materials used. The feel you feel with your hand on the smooth, cool stainless steel railing, the sound of shoes walking on the grating and tactile pavers, the sound of a roller bag going across, the sound of cars going across the tactile pavers in the street, the overbearing sound of the train overhead, and the vision of color pulling you toward the station when entering the site from the back alley. These encounters play a role in the engagement of the space and its connection to the station and its surroundings.

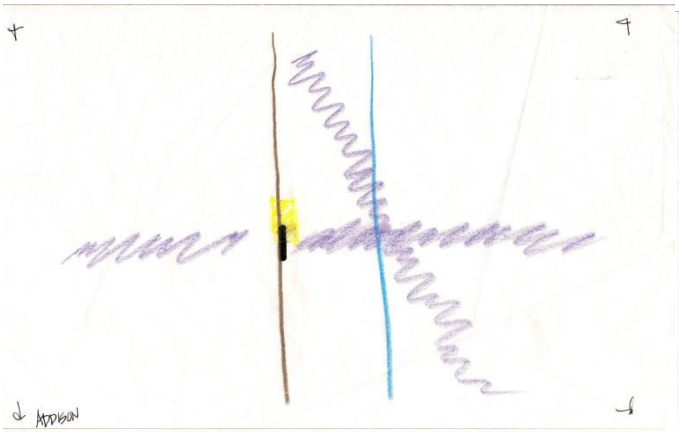
During the final review, there were suggestions to consider changing different parts of the Ribbon. The paths could be made different widths; some wide, some narrow, some straight and some curved which would create more opportunities for personal interaction and contact. Creating a variation of space in these walking paths, allows the user to stop and talk to someone, to interact, to engage. Another consideration offered was to have the walking paths extend from the site up to the train platform. A displayed study model that created many travel options was thought to more intriguing and interactive by bringing the user up and over the rail instead of having to go through the station to reach the platform. I had contemplated that idea which is more complex and know it is very achievable.

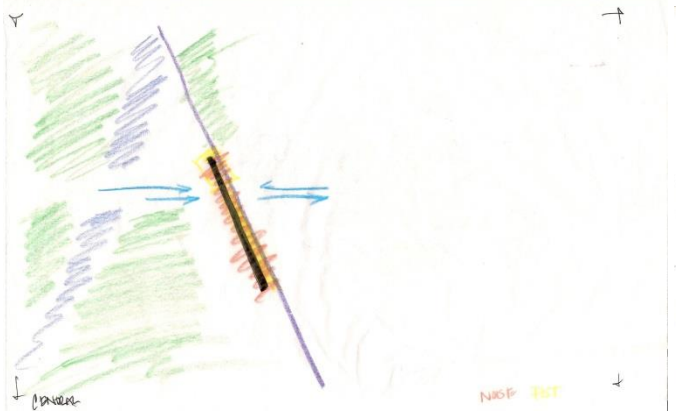
A final proposal was to have the Ribbon implemented at different stops along the rail that would connect the system and the city to a greater depth, and create a greater experience. I thought about designing multiple sites at the beginning of 701, but felt at the time is would be too much to undertake. Having gone through this design process at a specific site, I see how multiple sites would have an immense impact on the city and its people. The Addison stop would be the first place the design could be implemented into the train system and stops.

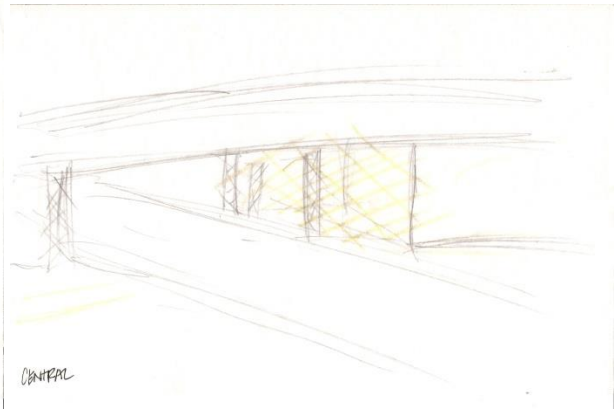
In conclusion, I feel that the Ribbon successfully captured my vision and concept of creating a place within a space by bringing people into the space, influencing their experience by the interaction of the rail, the city and surrounding community.

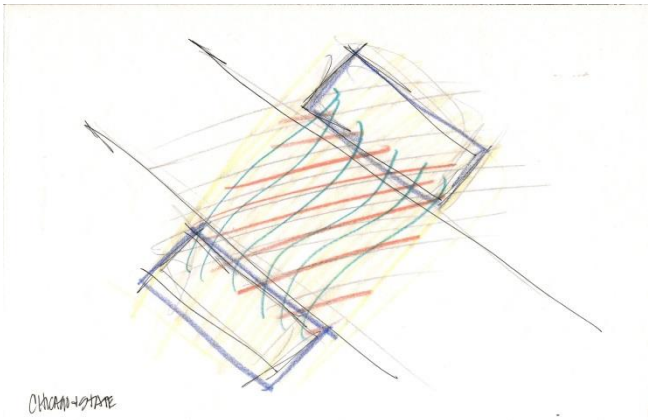
On Site Chicago El Diagramming

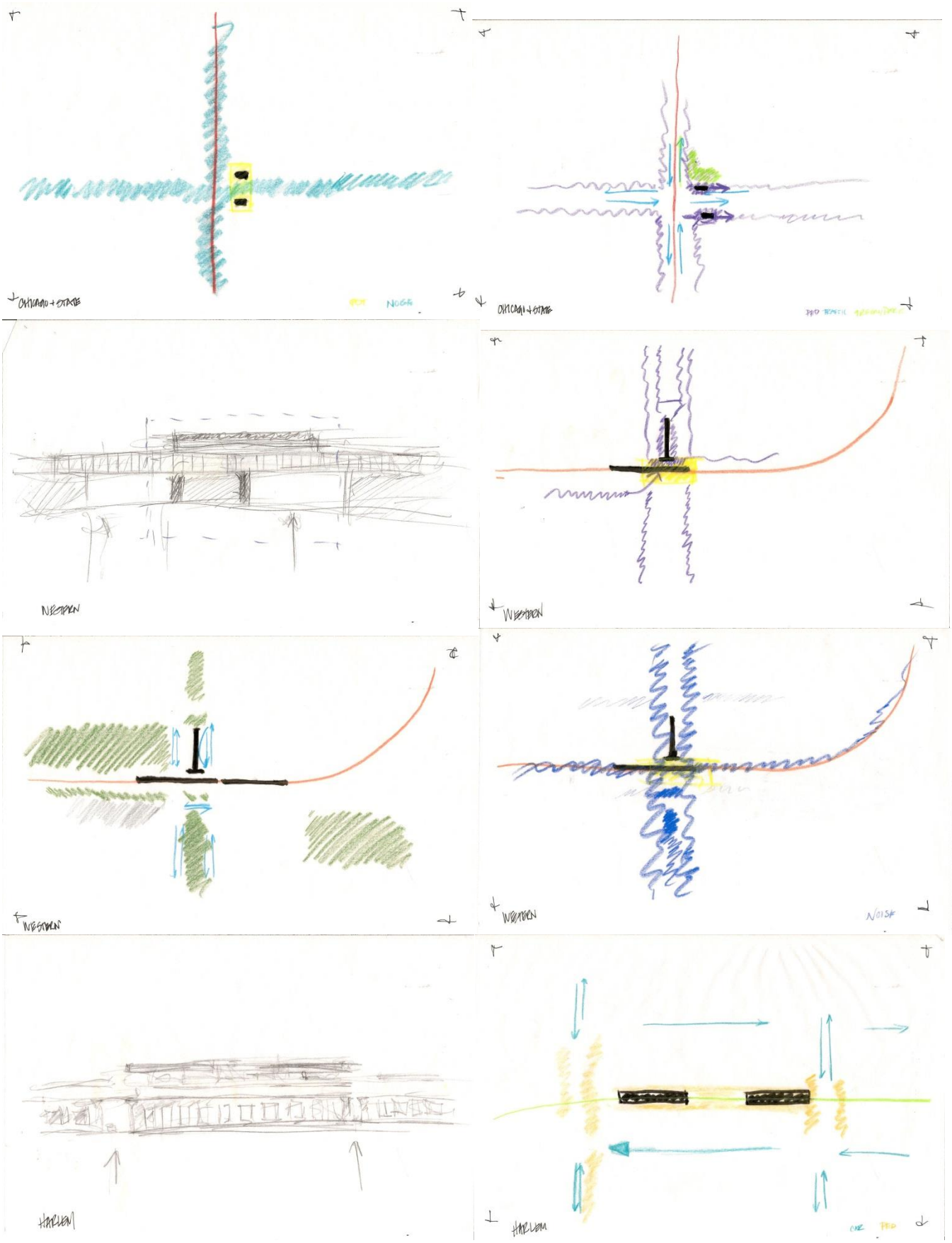








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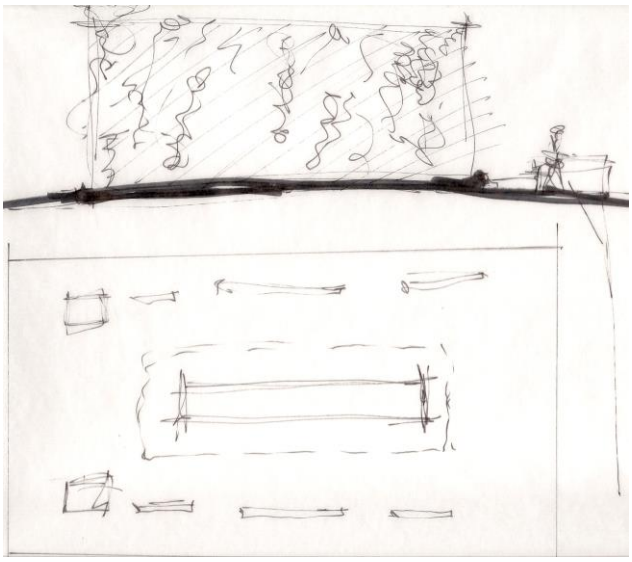

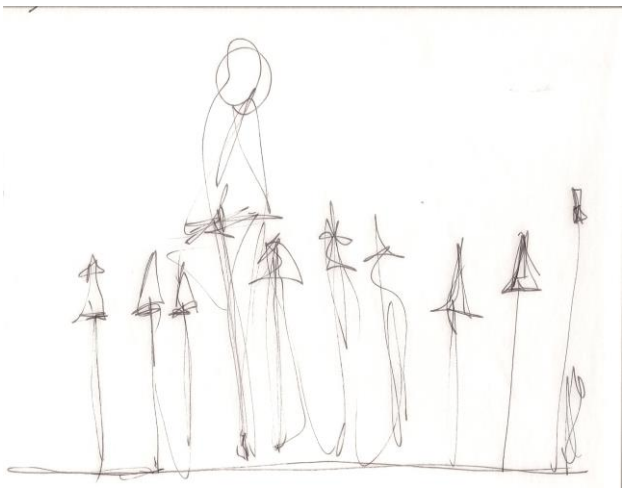

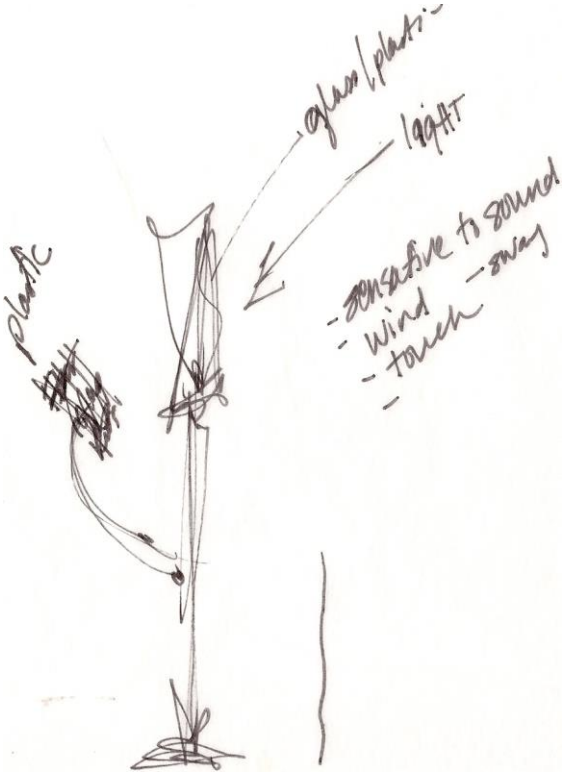

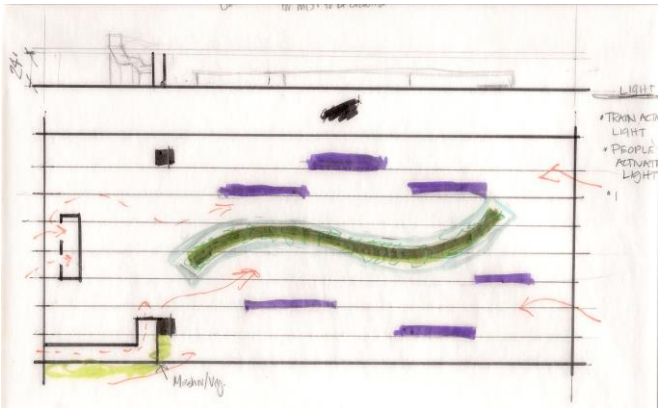

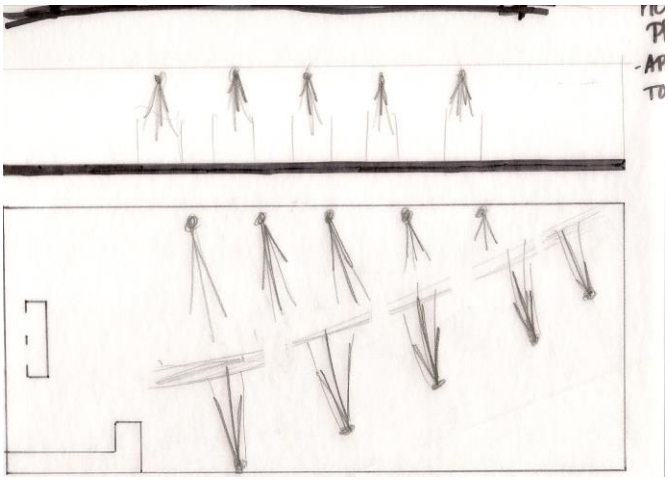

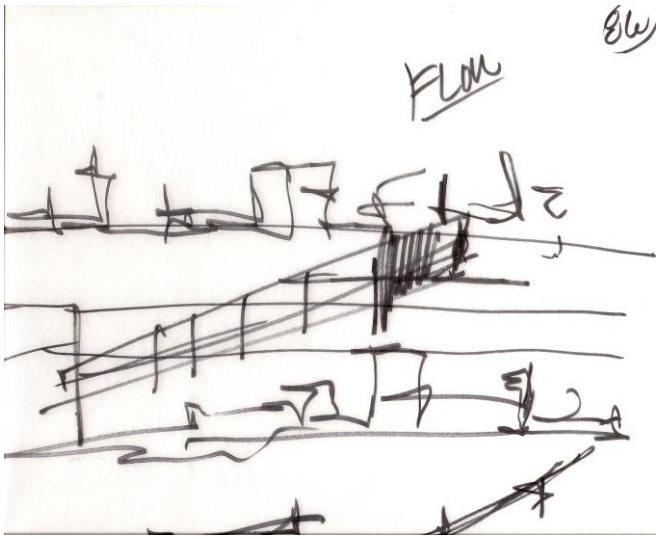
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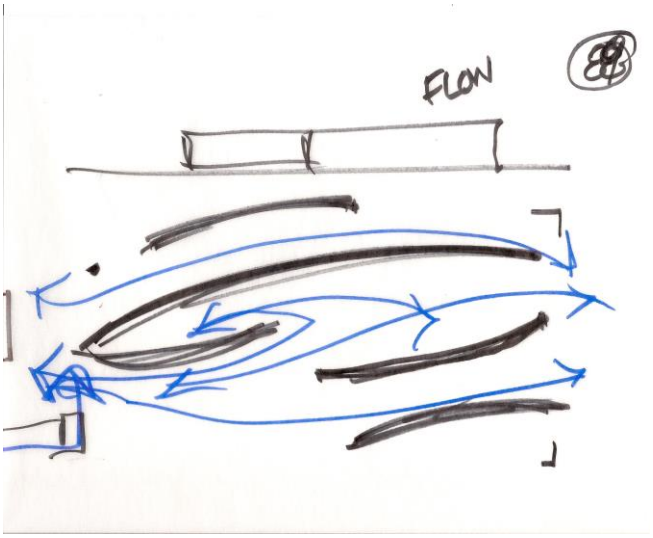
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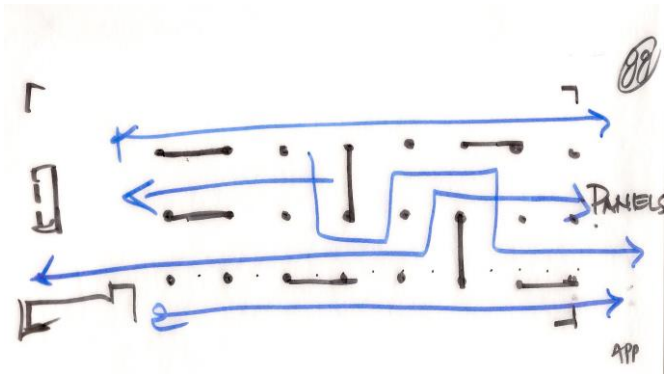
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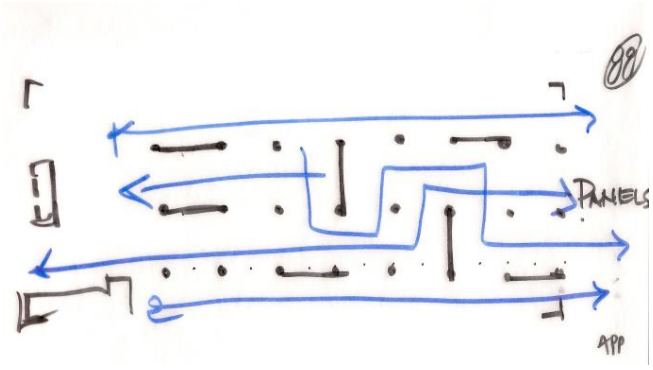
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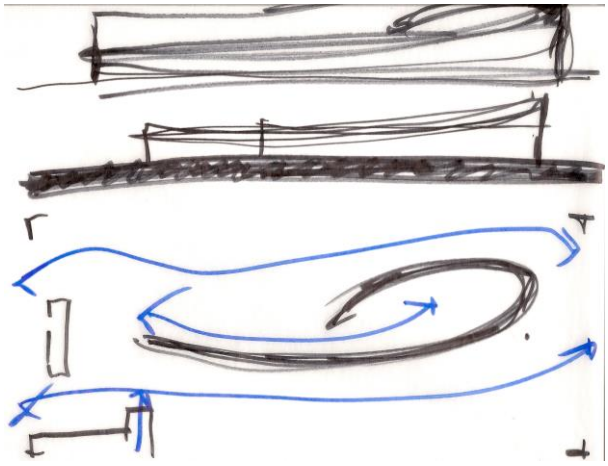

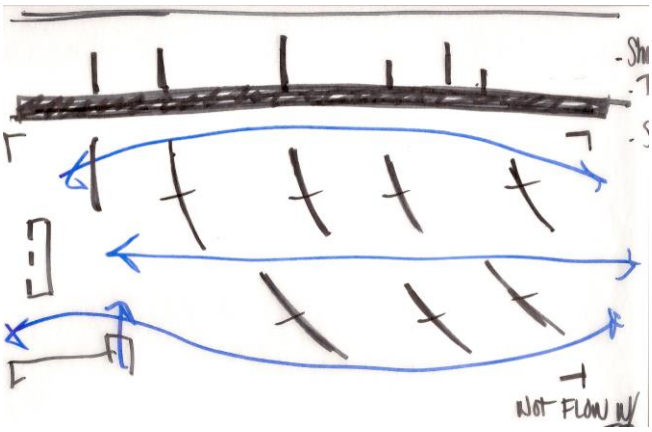
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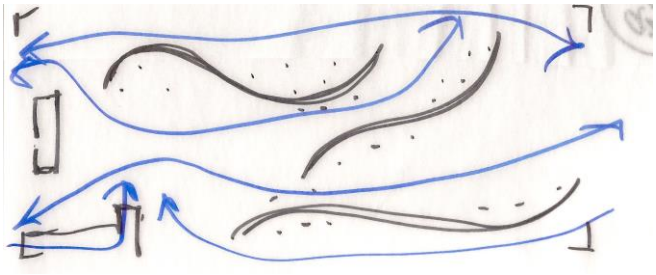
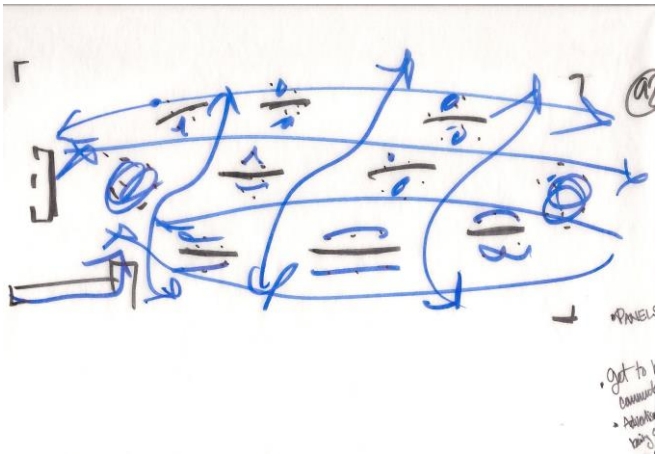
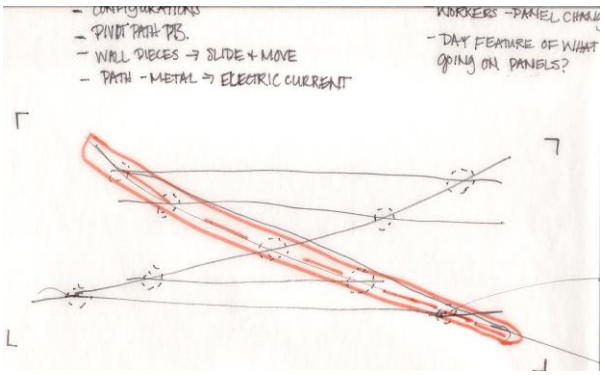
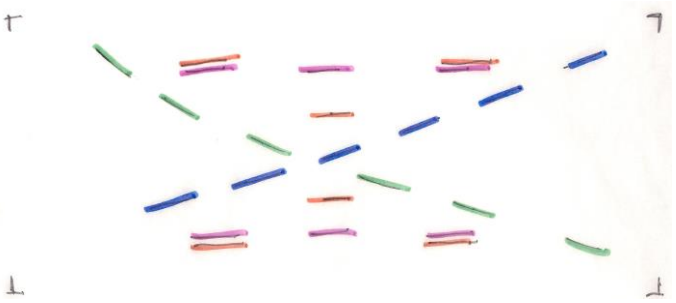
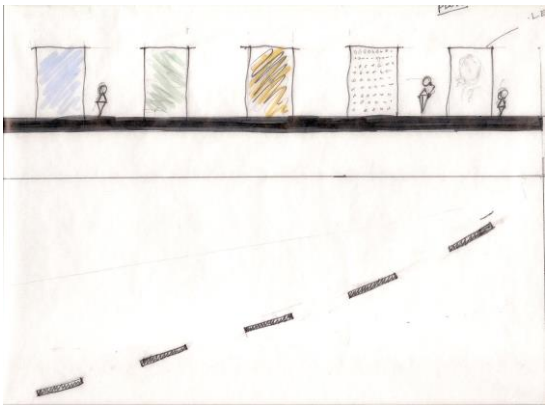
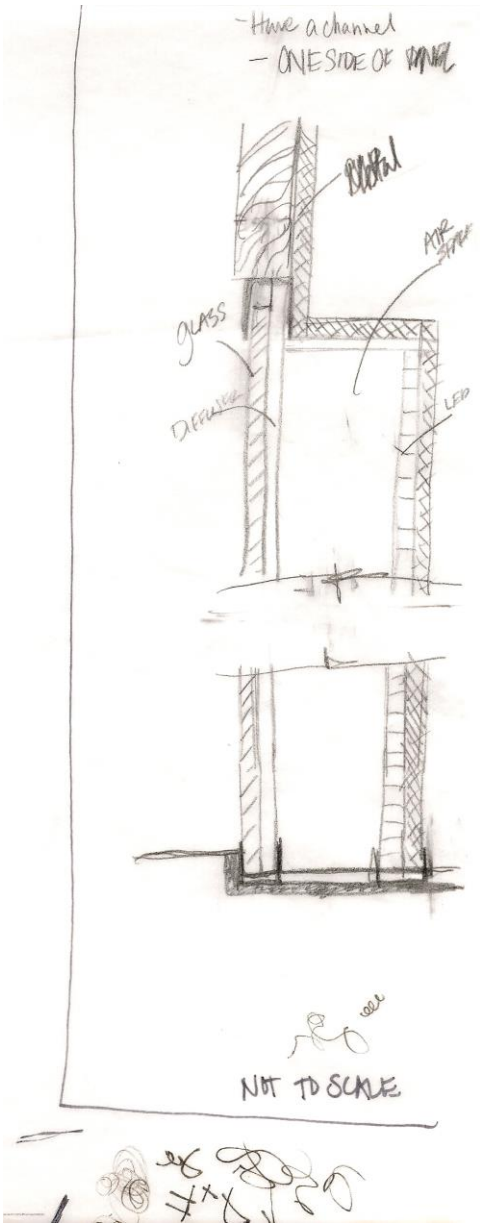





- PIVOT PATH PTS.
- WALL PIECES → SLIDE + MOVE
- PATH - METAL → ELECTRIC CURRENT
- DAY FEATURE OF WHAT GOING ON PANELS?



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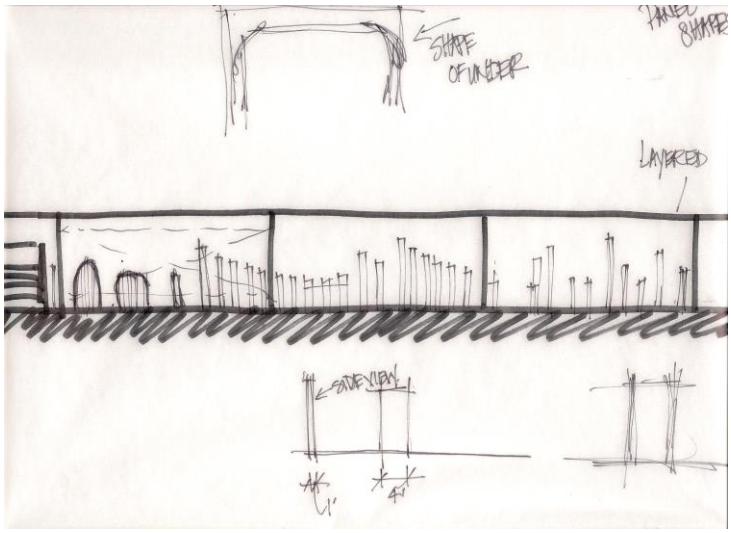
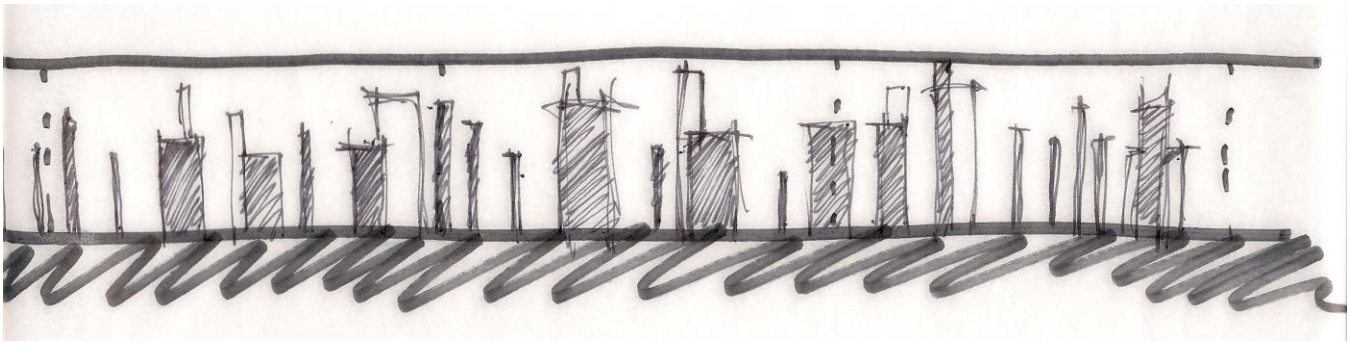
NOT TO SCALE


SHAPE OF WATER
LAYERED
SIDE VIEW



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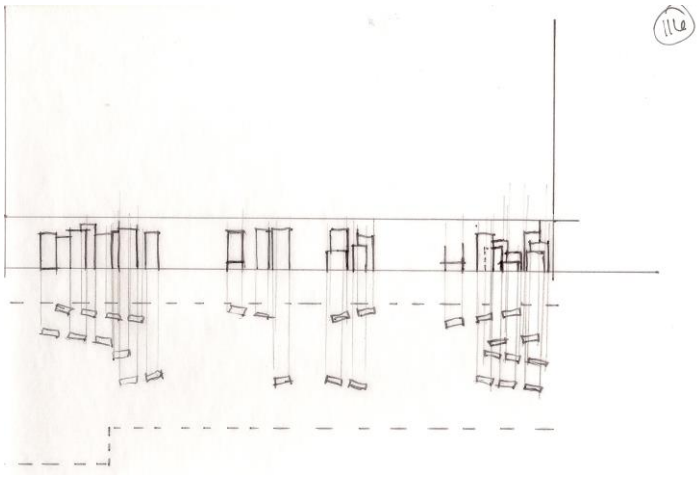
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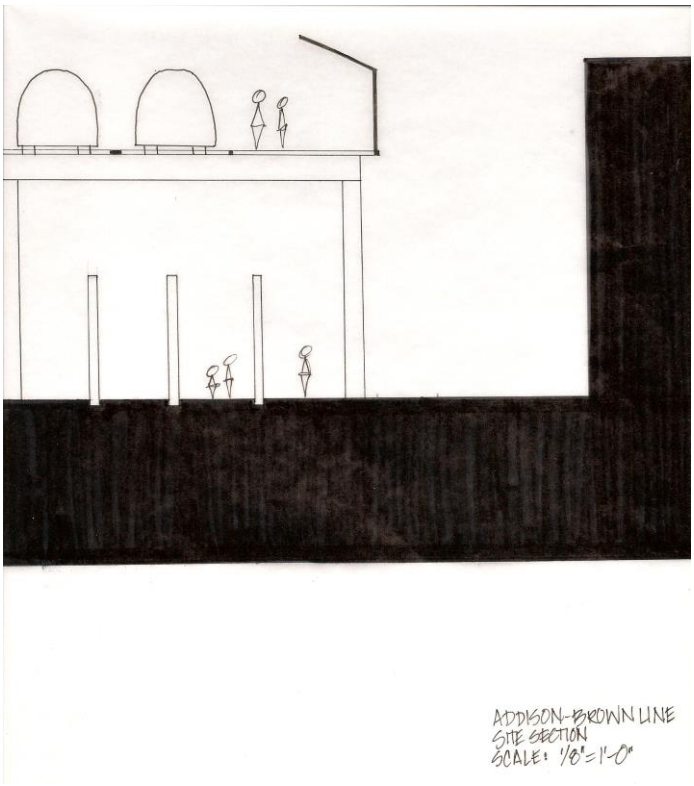
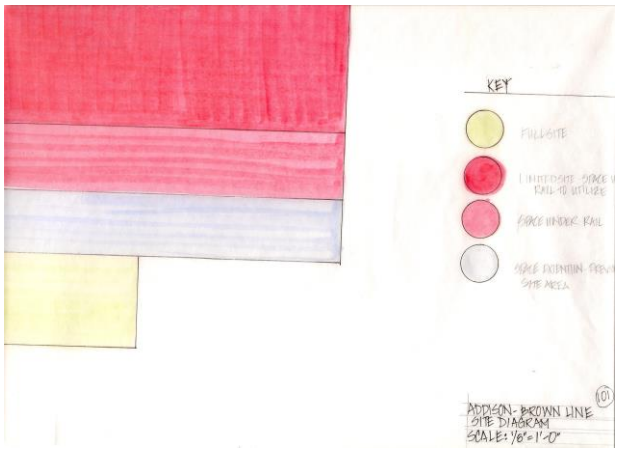
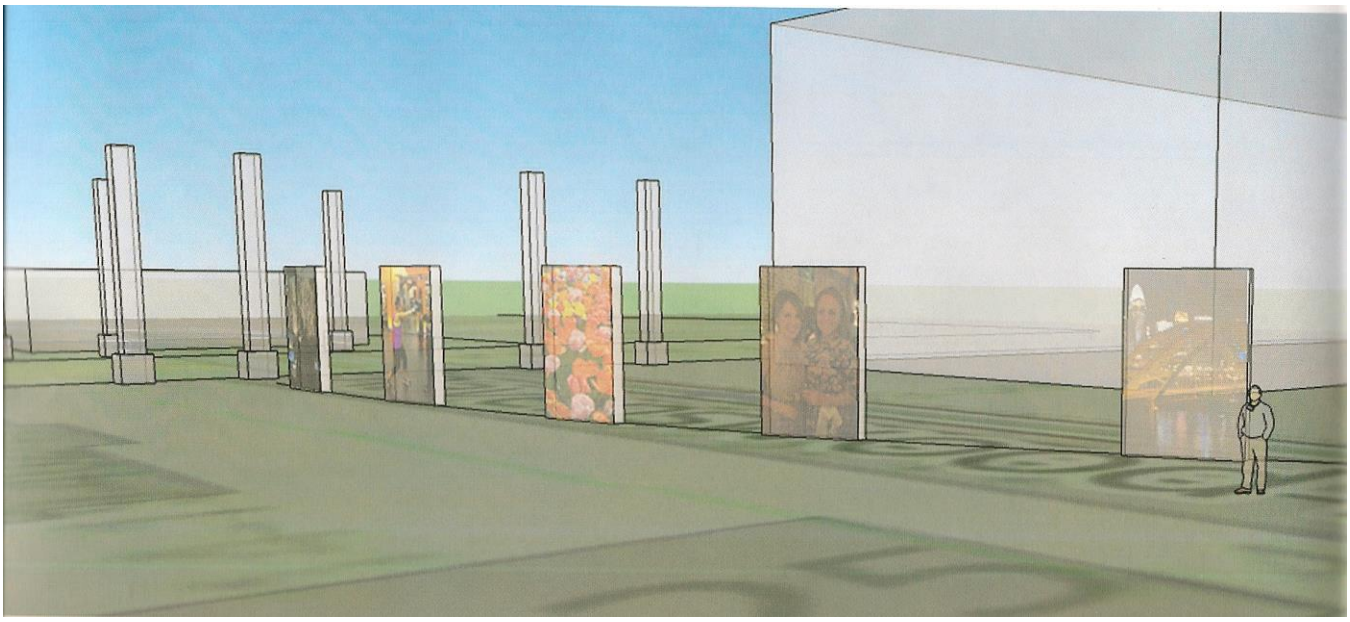
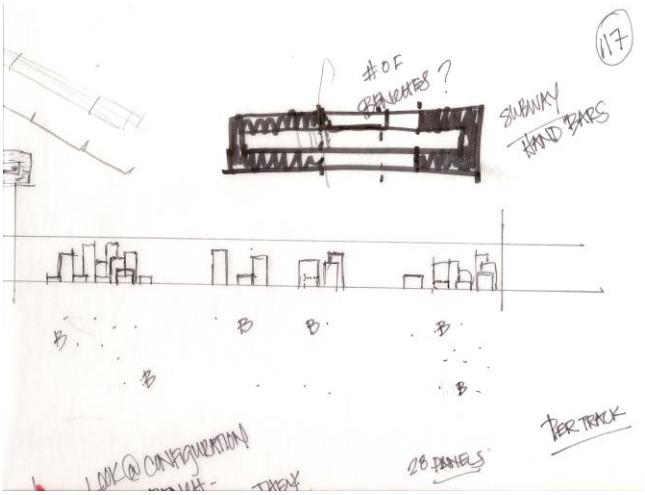
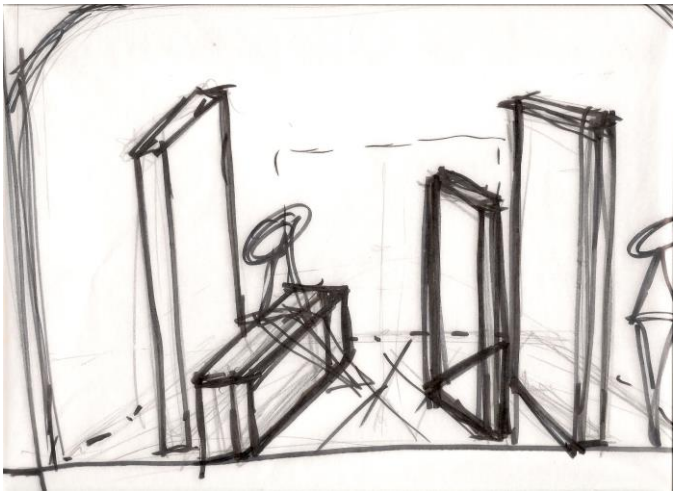
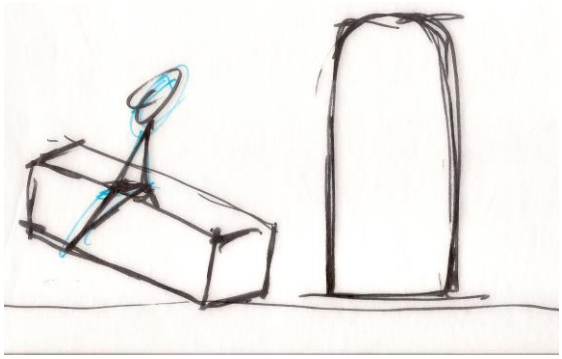

ADDISON-BROWN LINE
SITE SECTION
SCALE: 1/8"=1'-0"

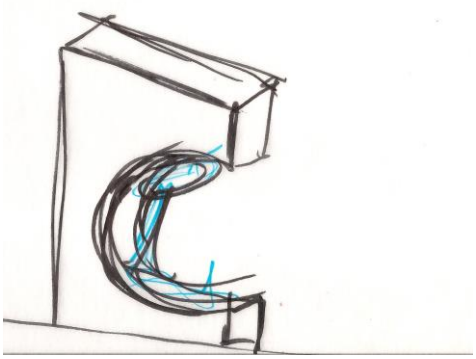

KEY
ADDISON-BROWN LINE
SITE DIAGRAM
SCALE: 1/8"=1'-0"

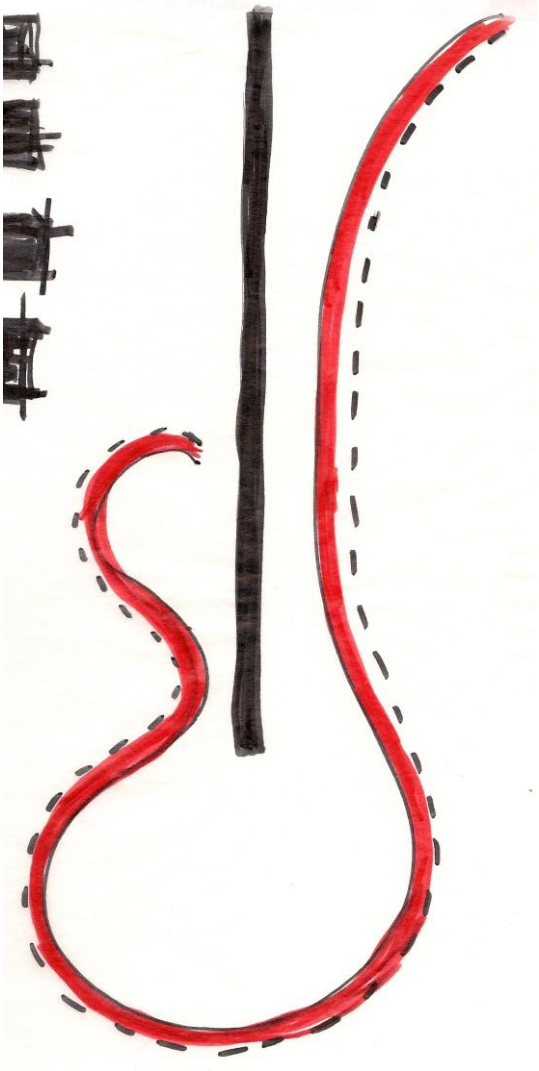


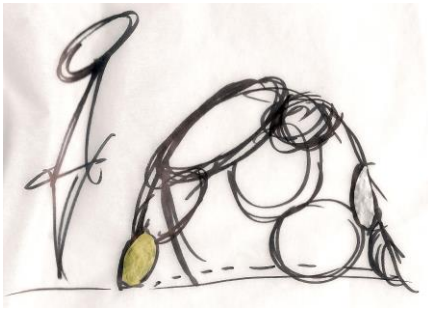

#OF
SUBWAY
HAND BARS
BEER TRACK





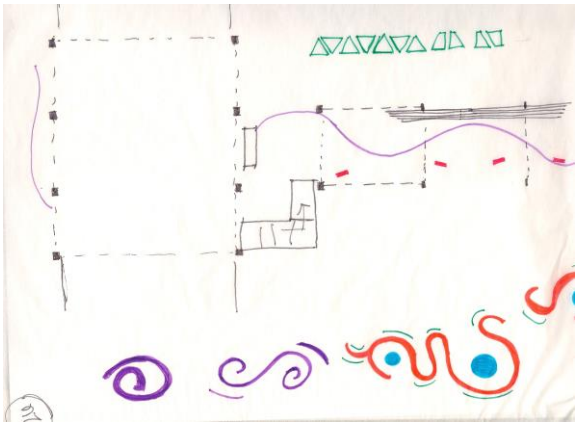


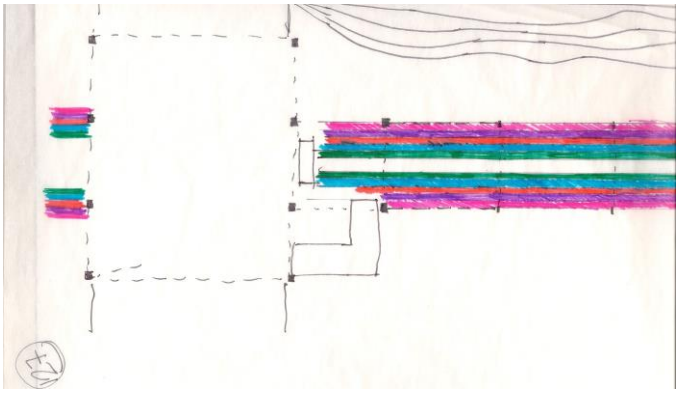


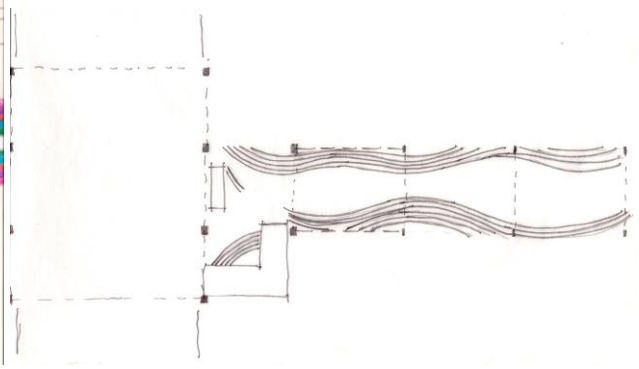


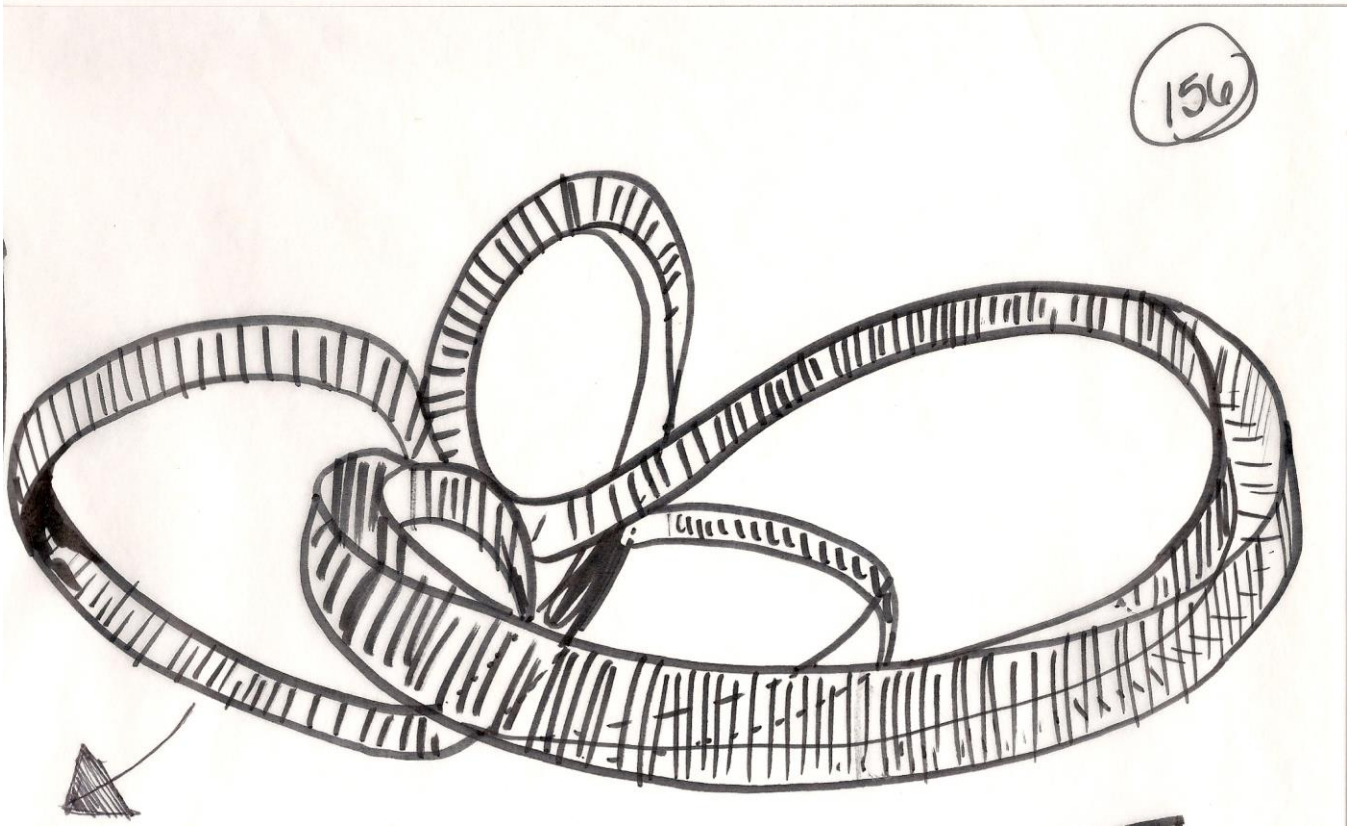
PODS

SLOW
MED
FAST
SIT





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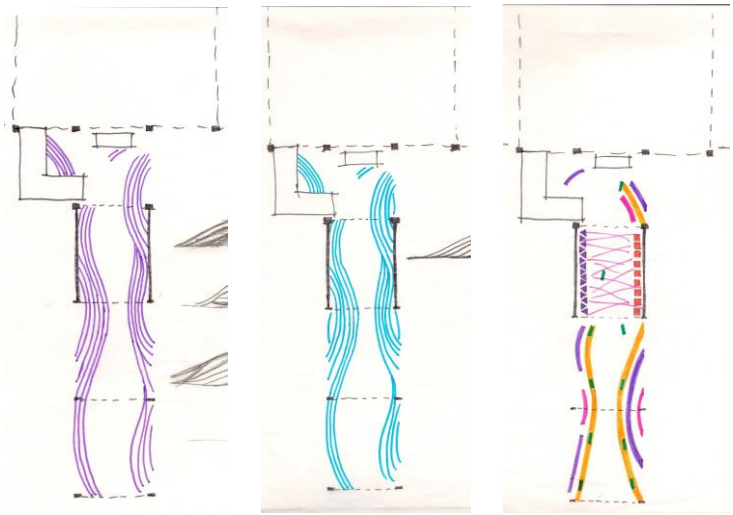
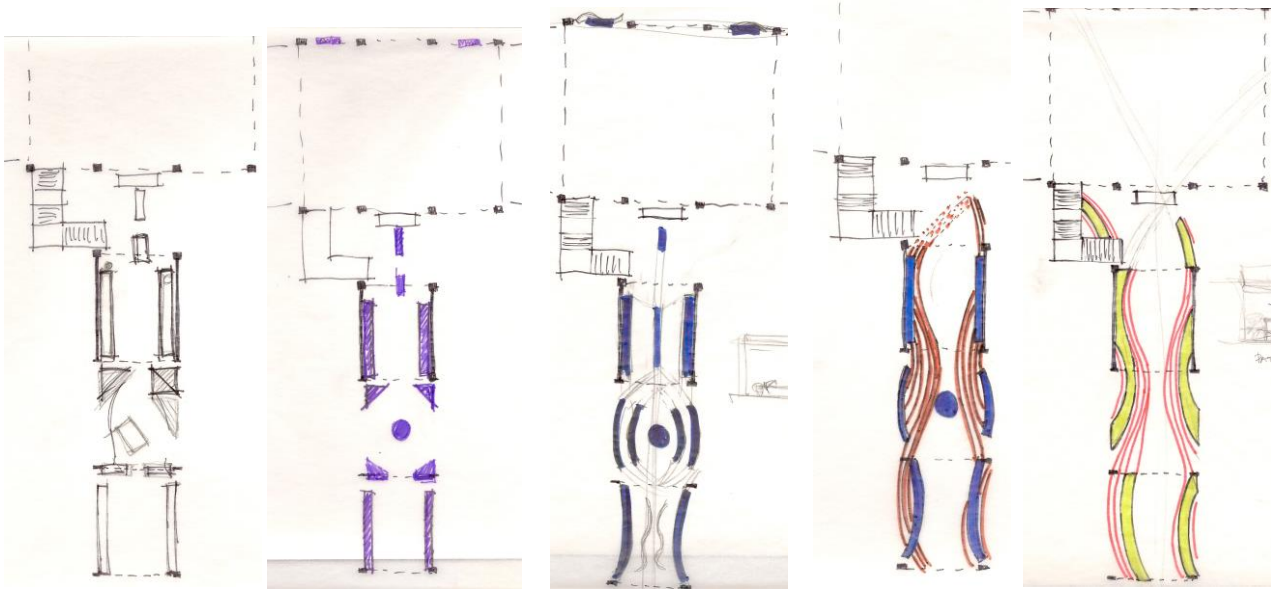
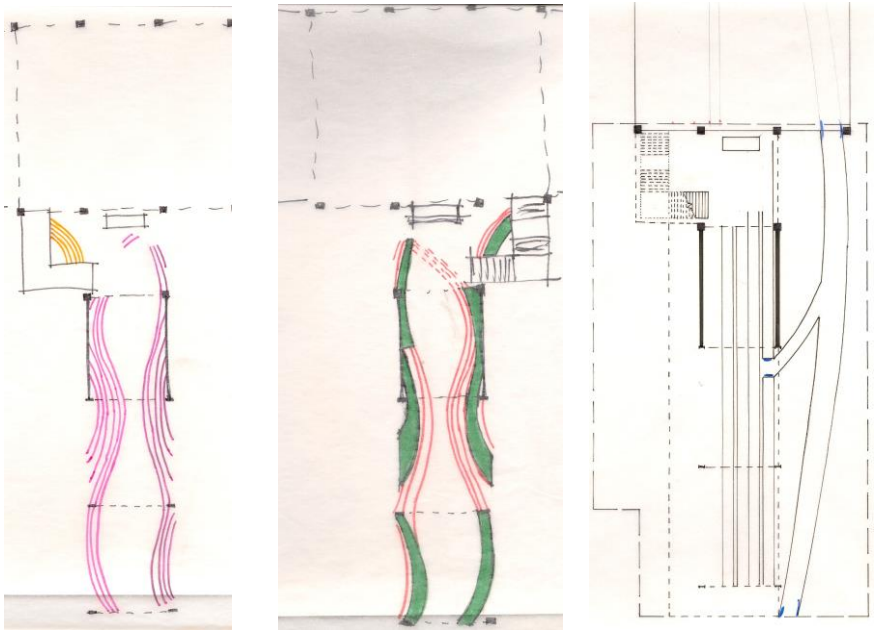
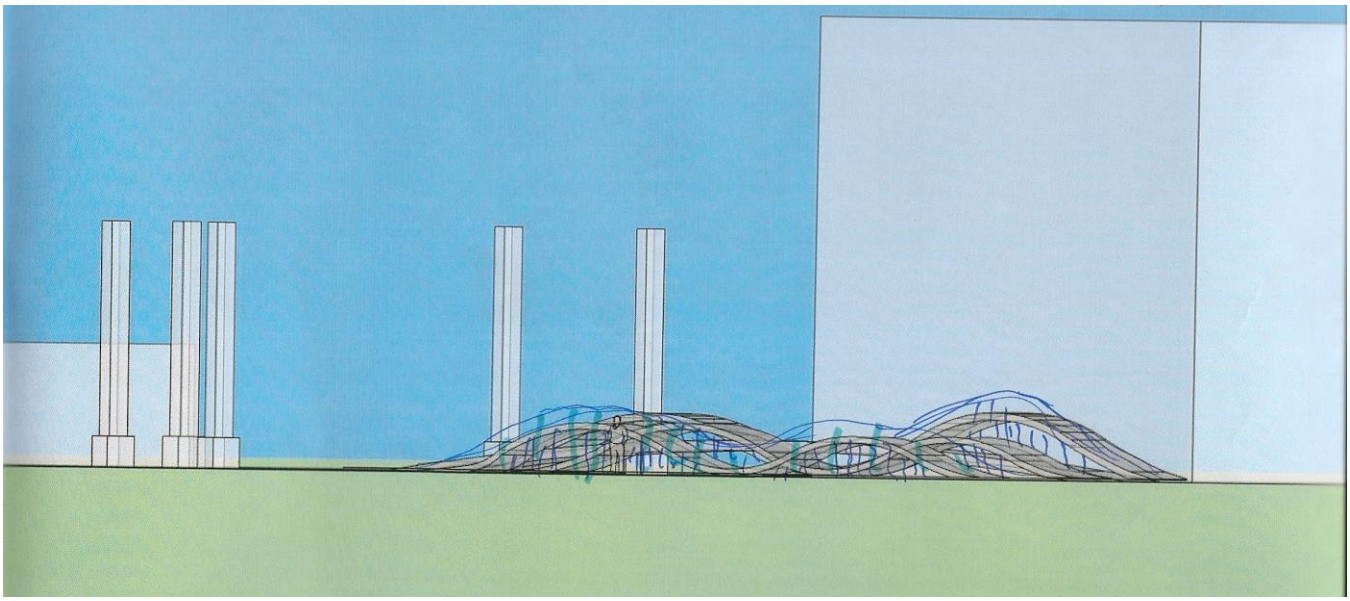
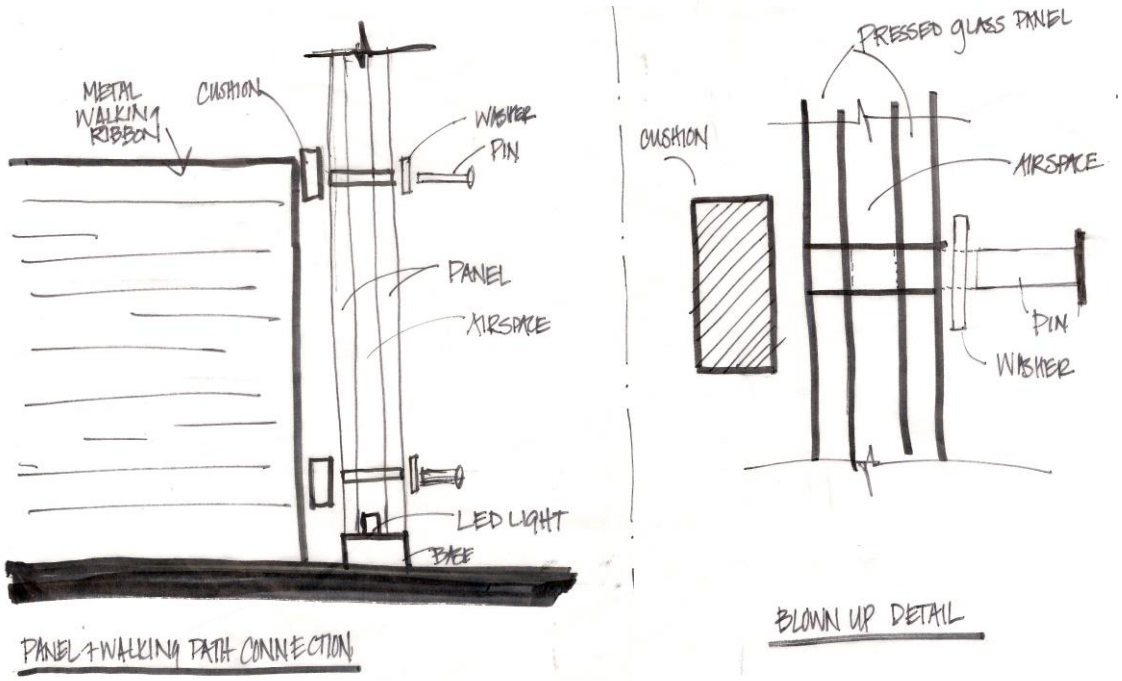
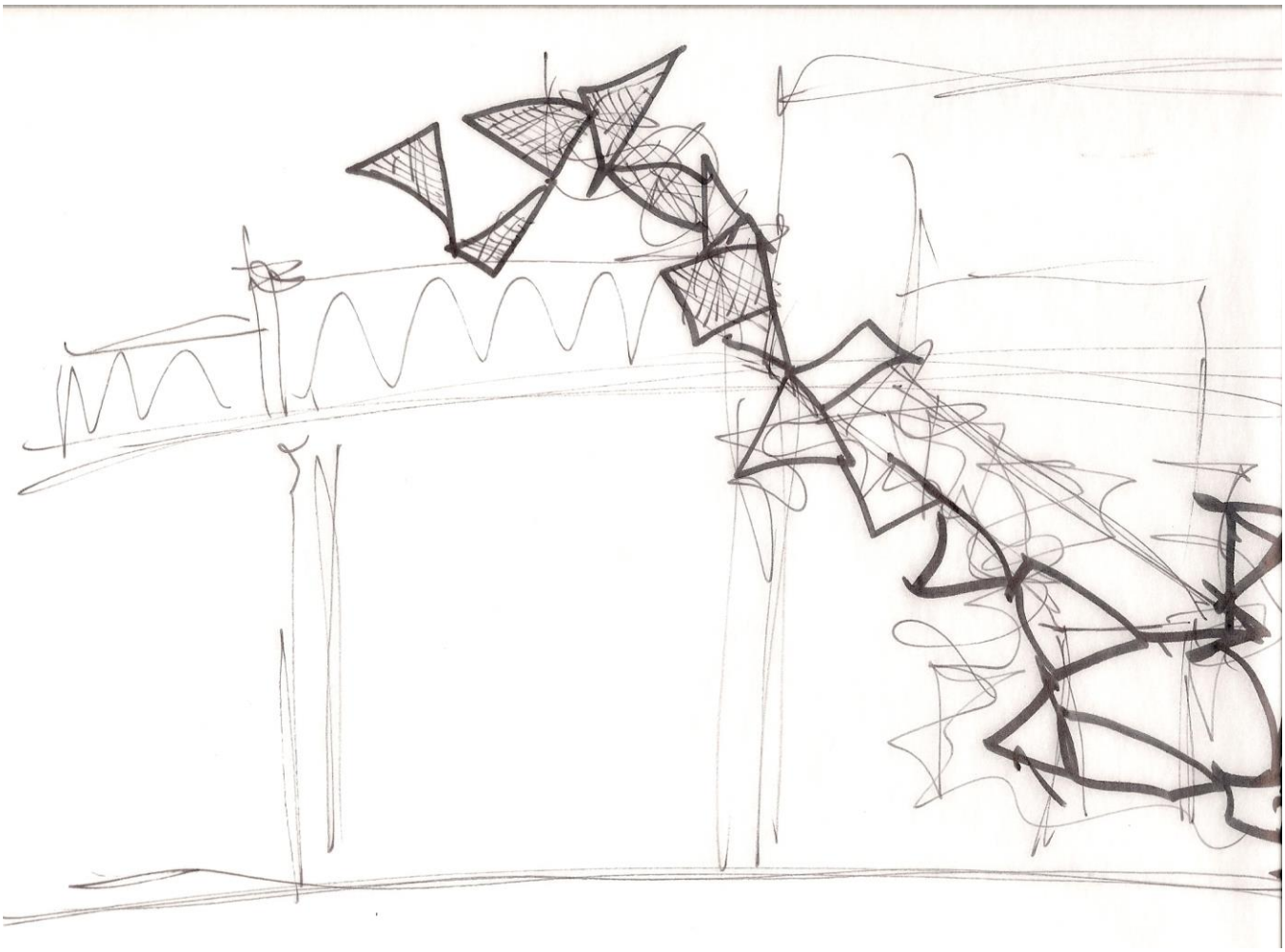


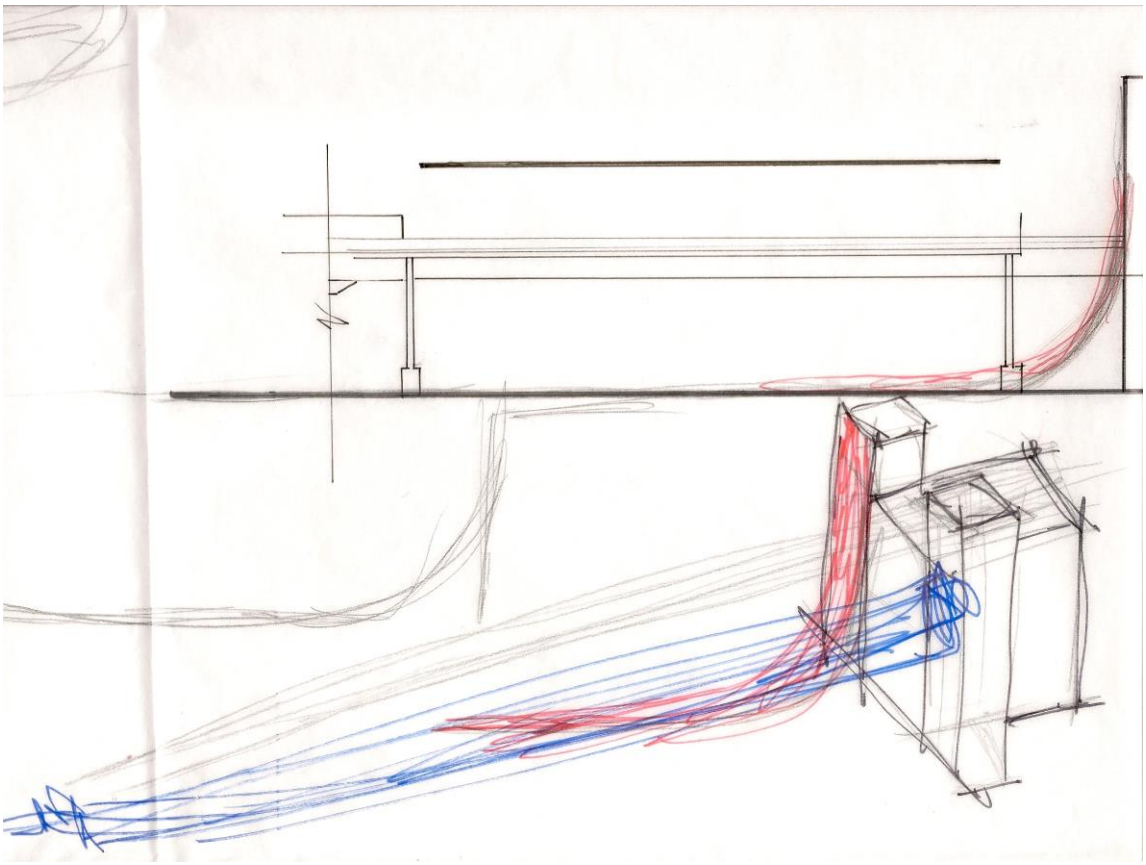


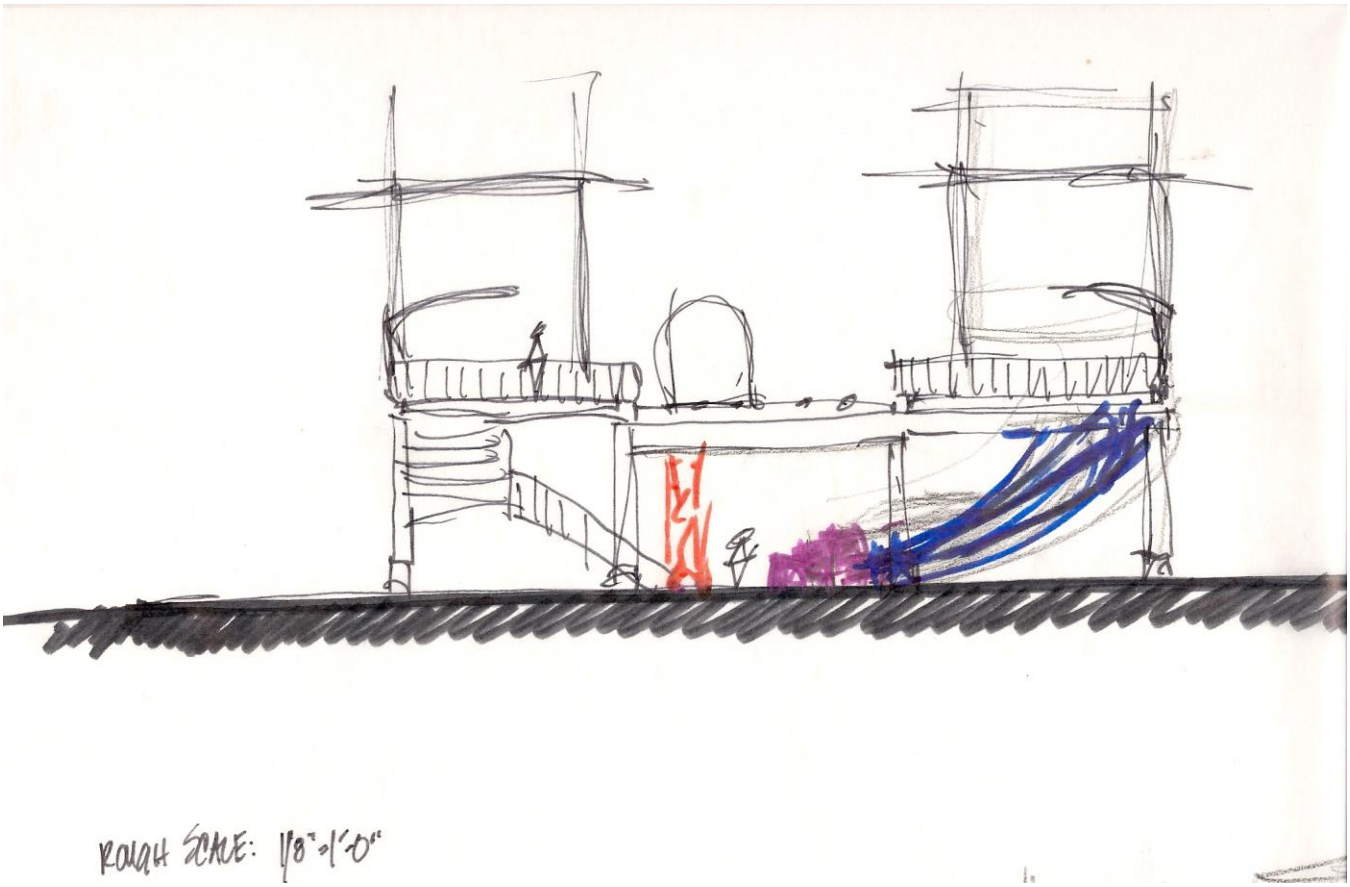





METAL WALKING RIBBON
CUSHION
WASHER
PIN
PANEL
AIRSPACE
LED LIGHT
BASE
PANEL + WALKING PATH CONNECTION
PRESSED GLASS PANEL
CUSHION
AIRSPACE
PIN
WASHER
BLOWN UP DETAIL

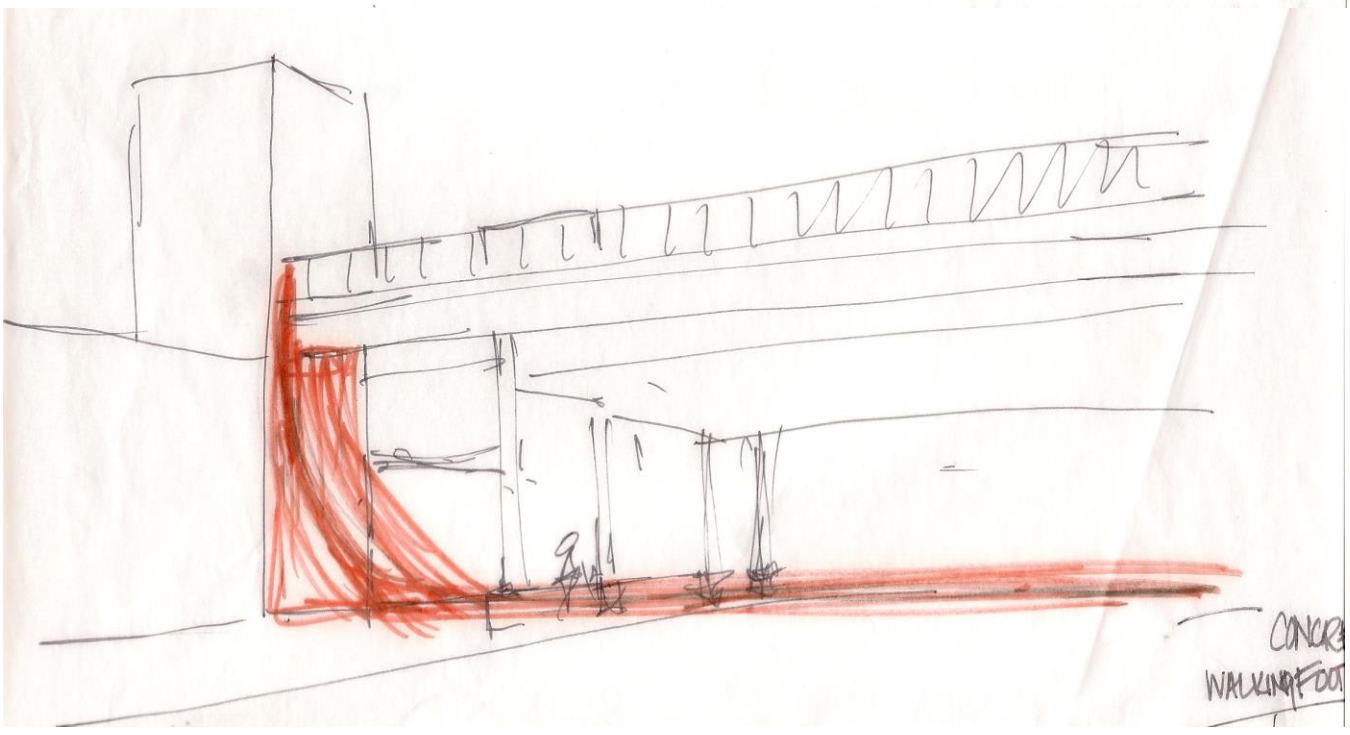




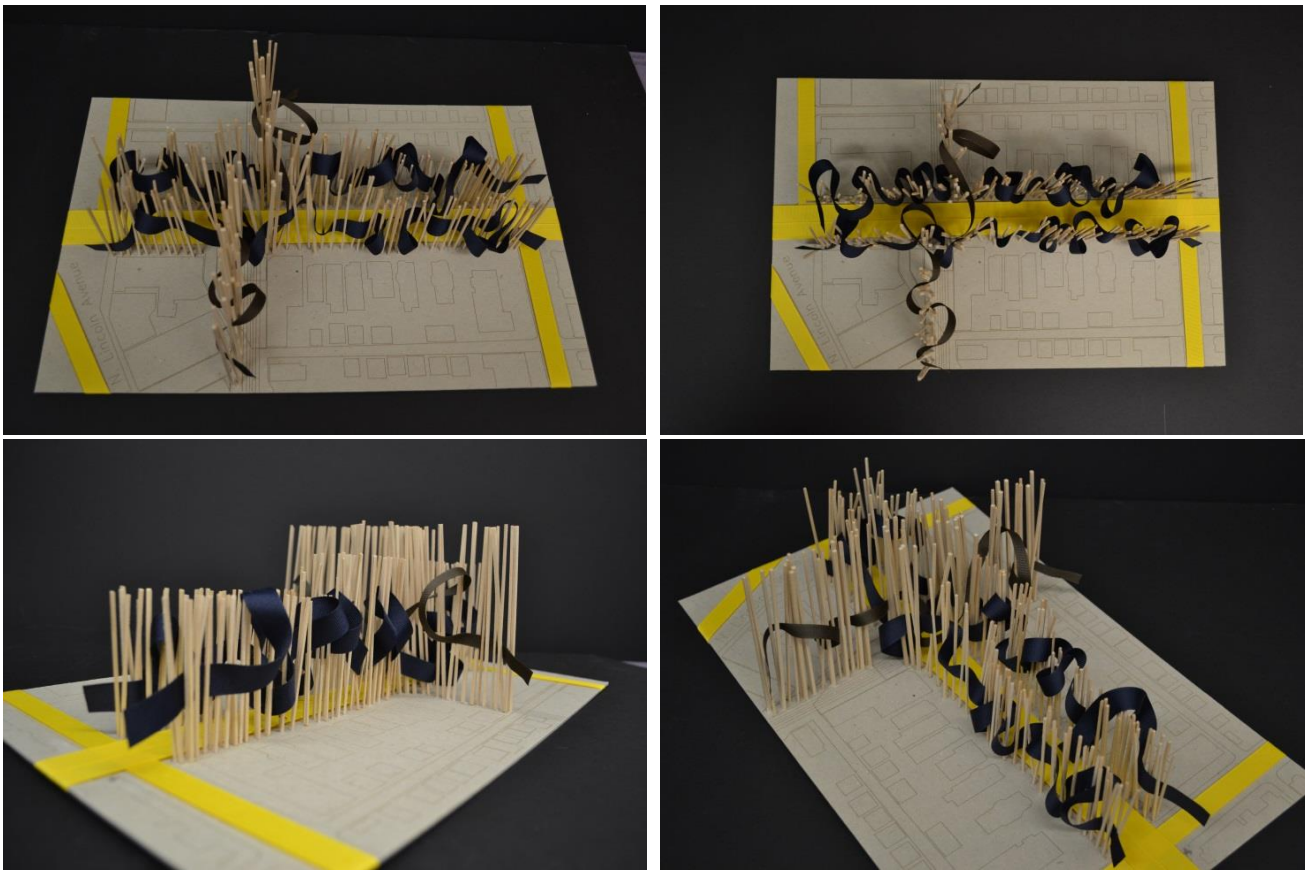


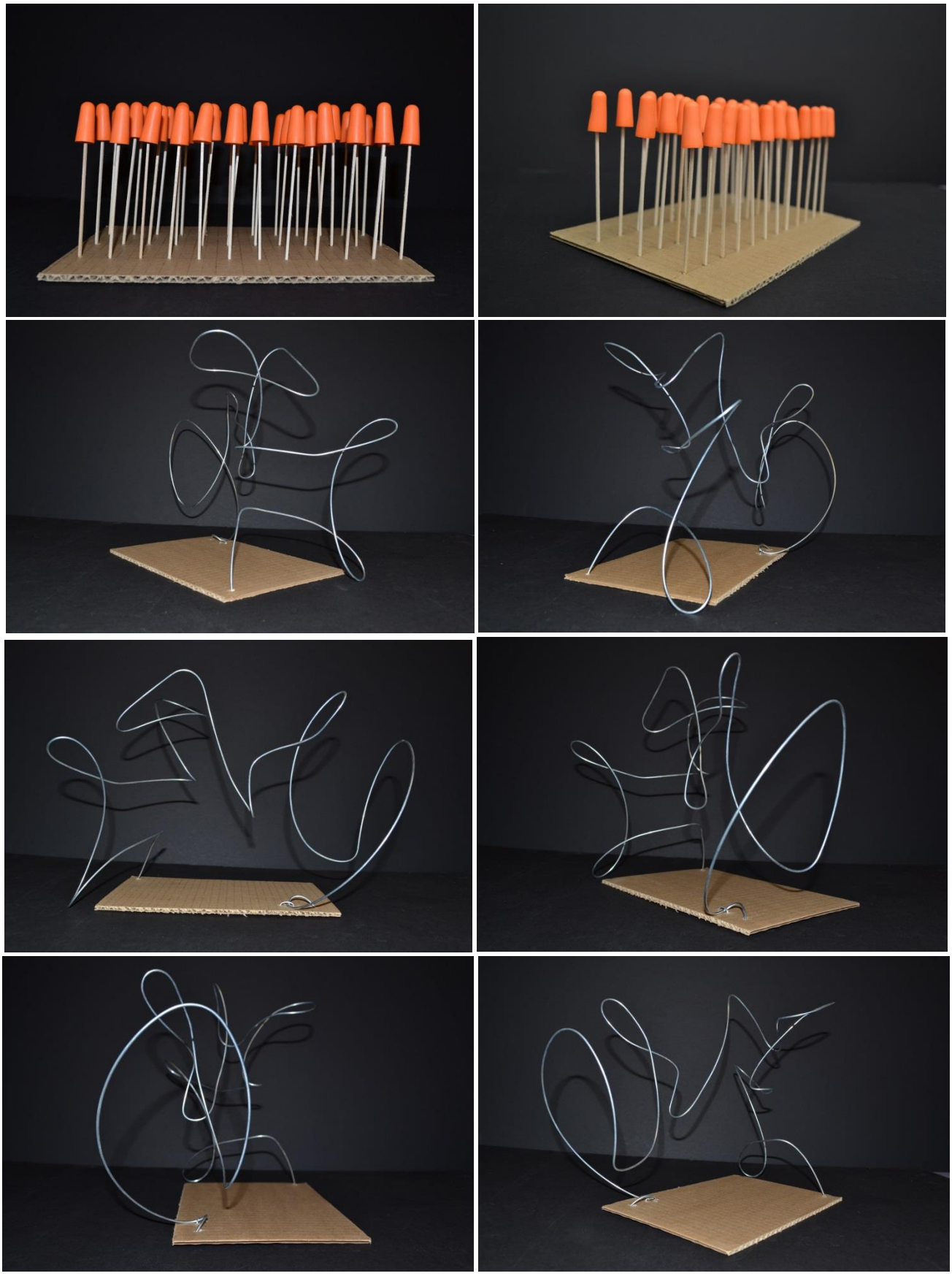
ROUGH SCALE: 1/8"=1'-0"

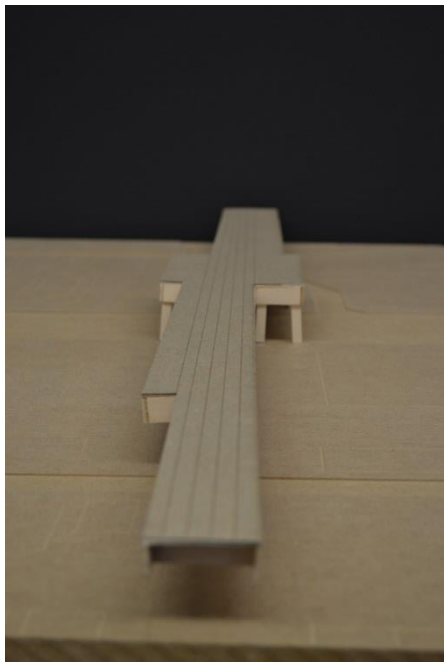
Addison
WALKING IDEA UP TO PLATFORM



Site Design Process Models

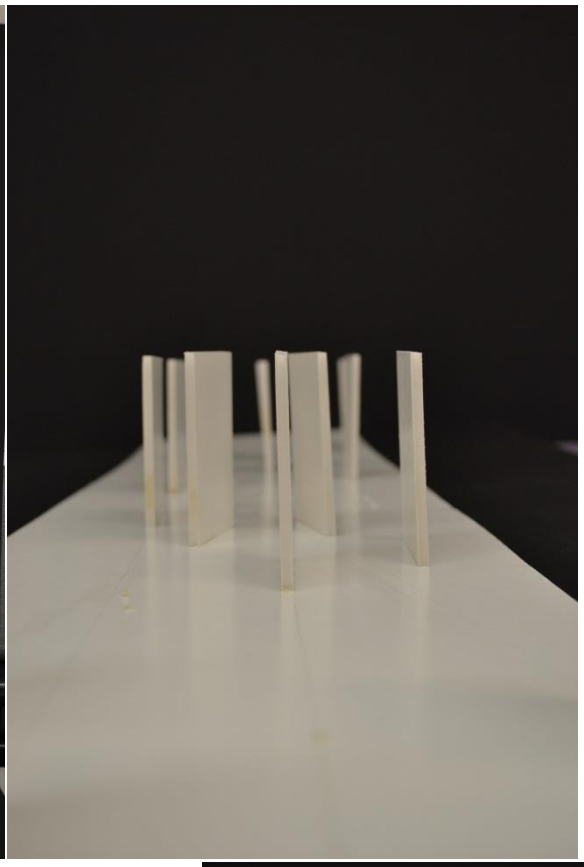


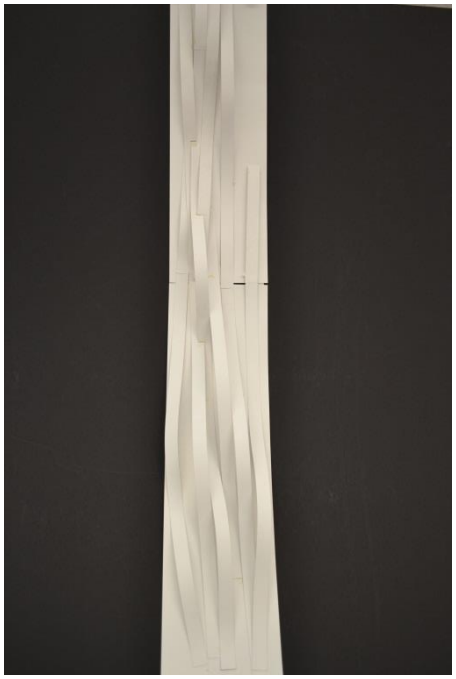


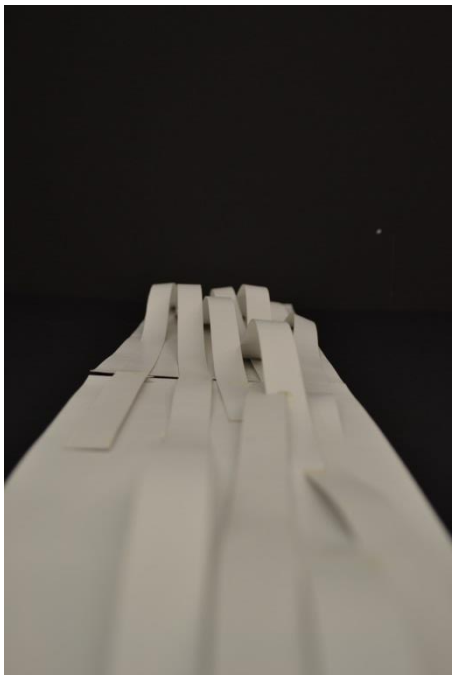


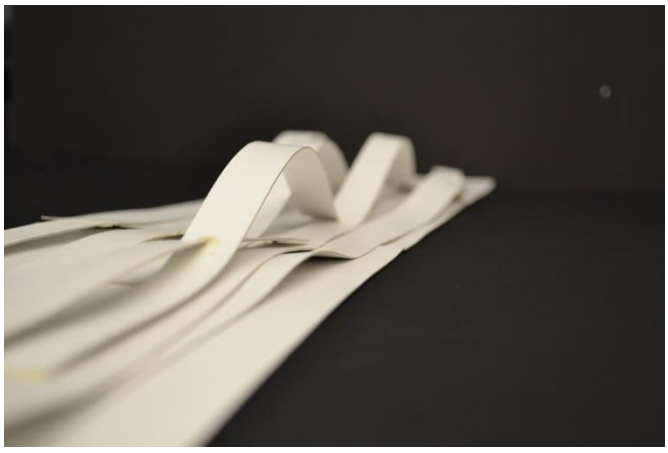
ADDISON

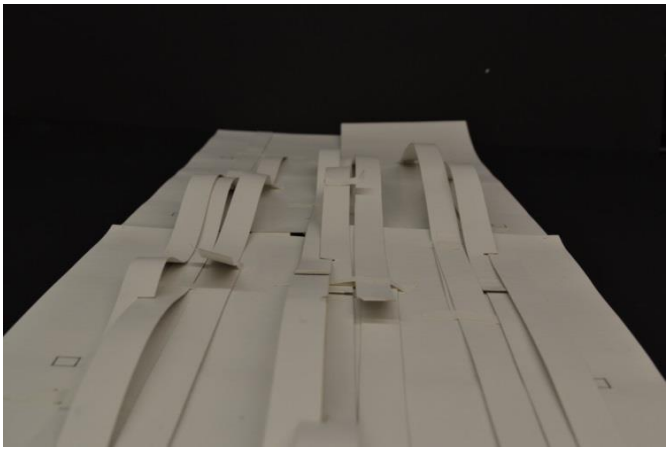
ADDISON

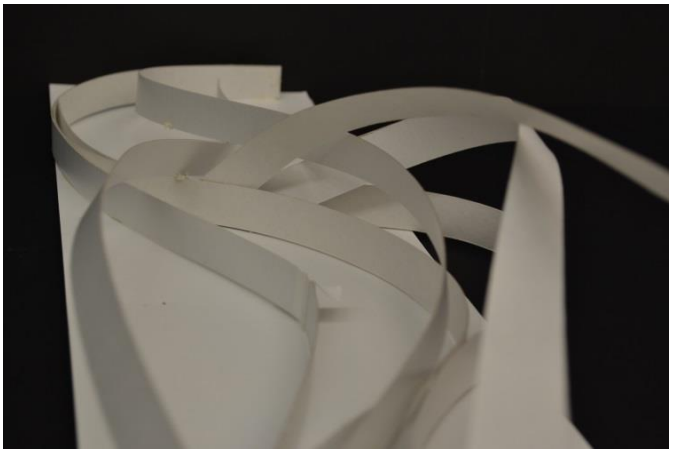


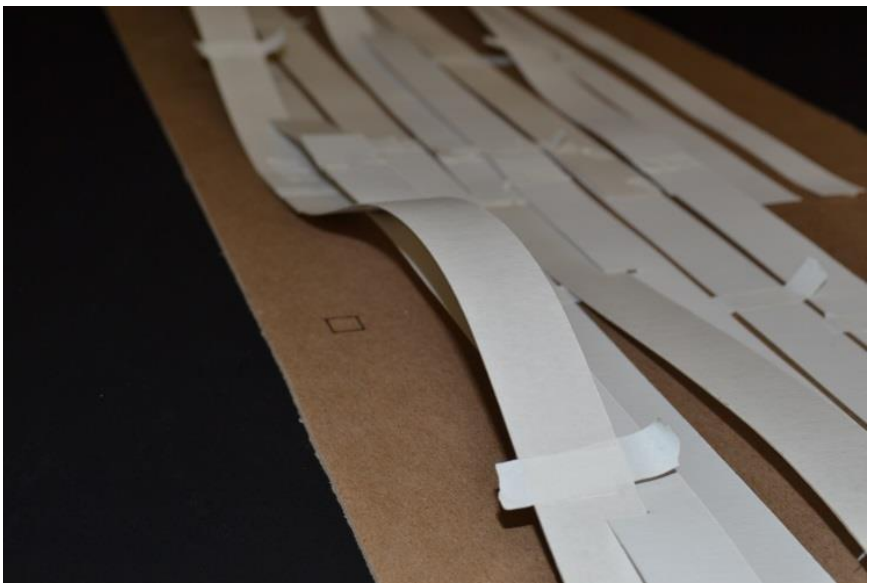


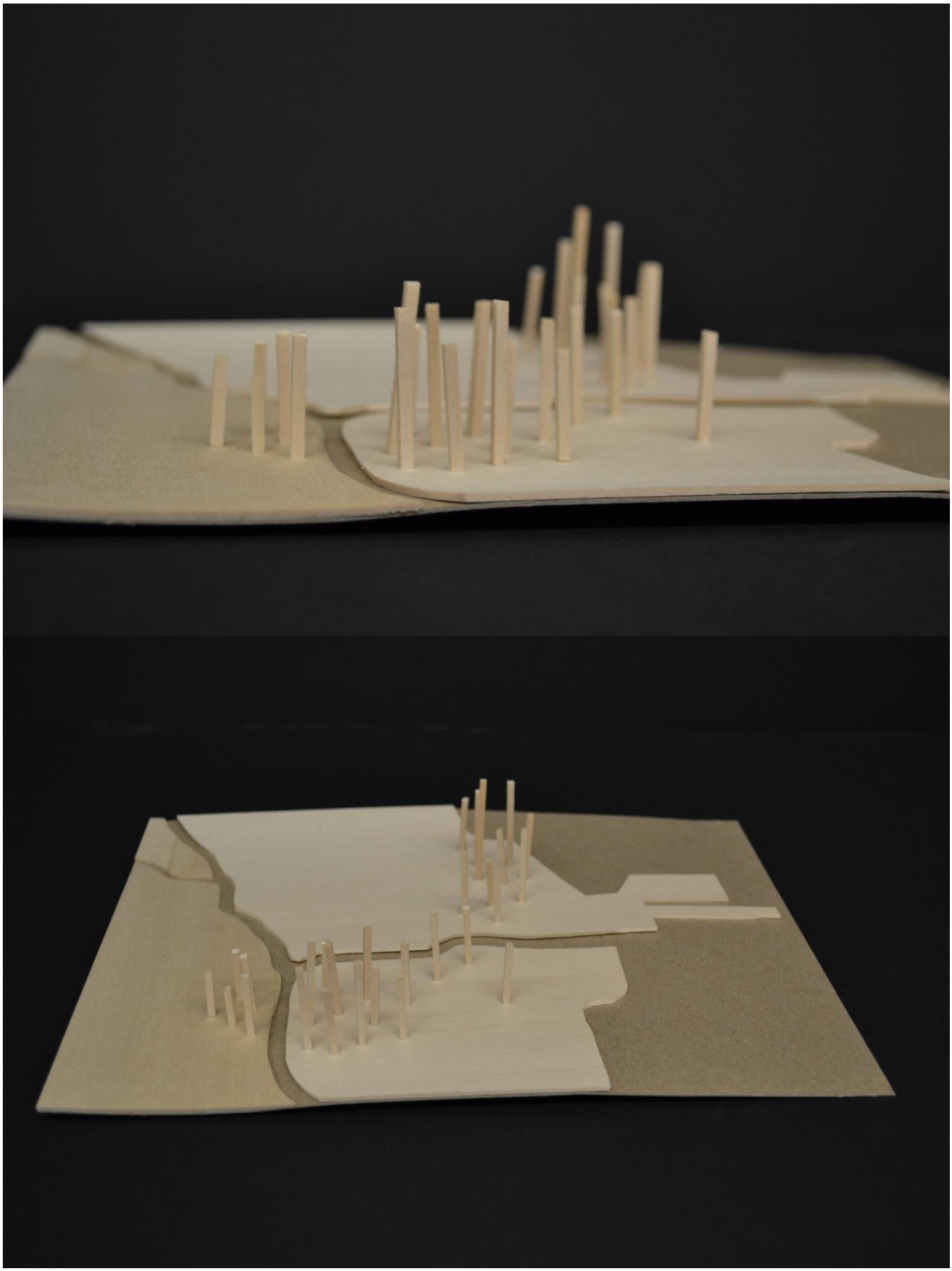




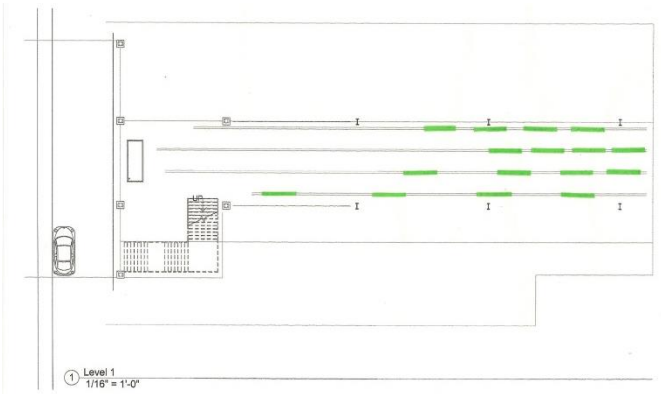


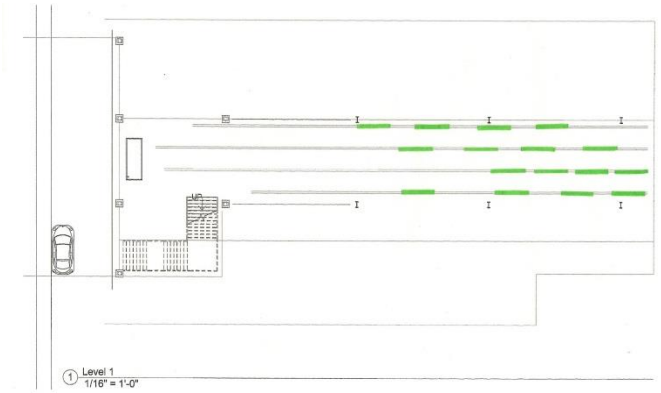


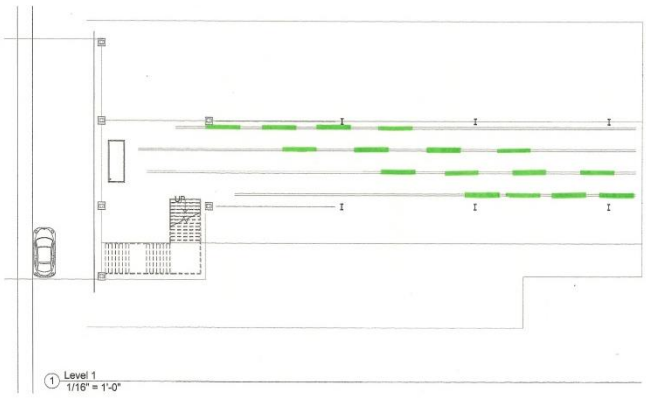


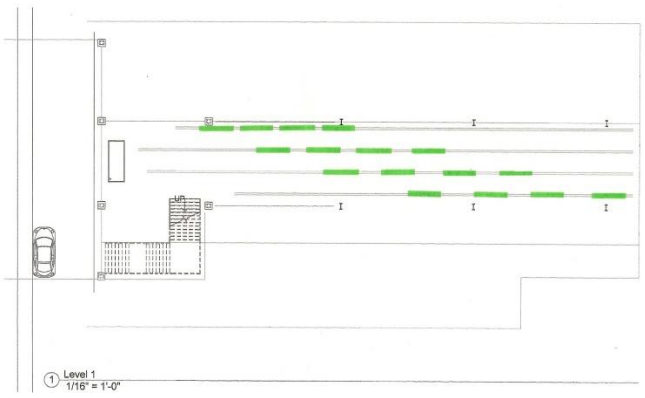


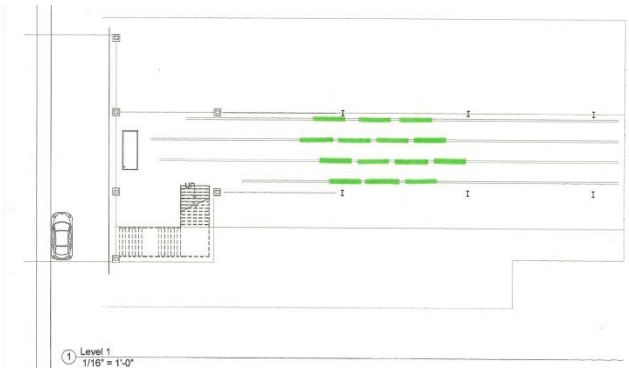
Panel DesignProcess Diagrams 1-1

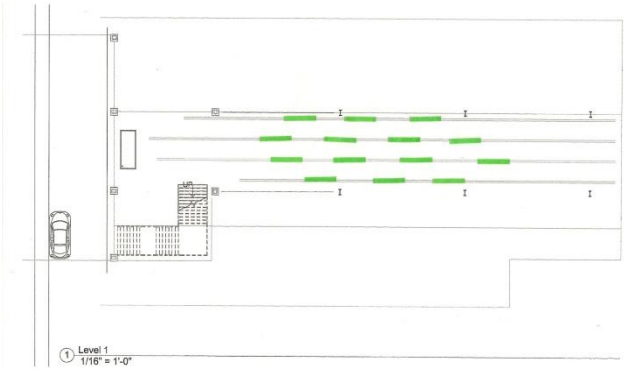


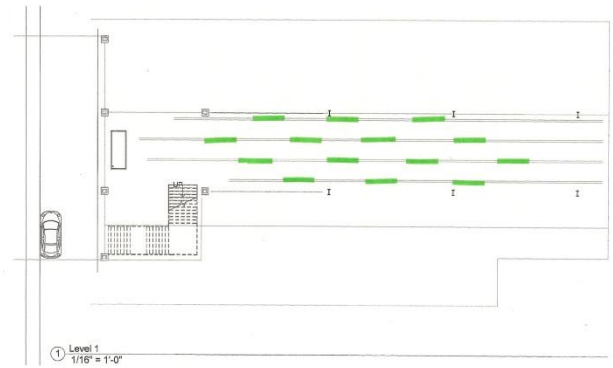






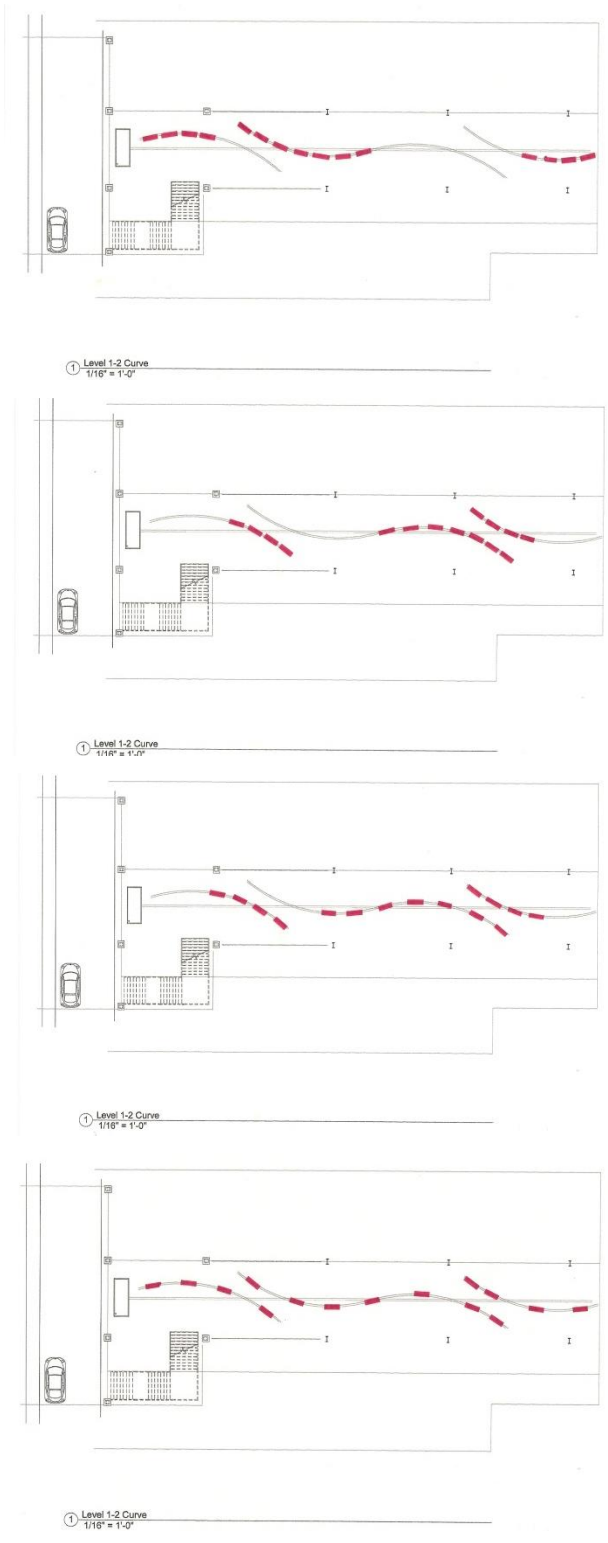

UP
1 Level 1
1/16" = 1'-0"


UP
1 Level 1
1/16" = 1'-0"

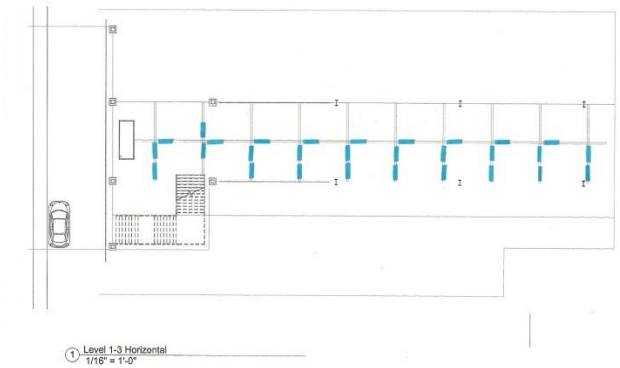

UP
1 Level 1
1/16" = 1'-0"

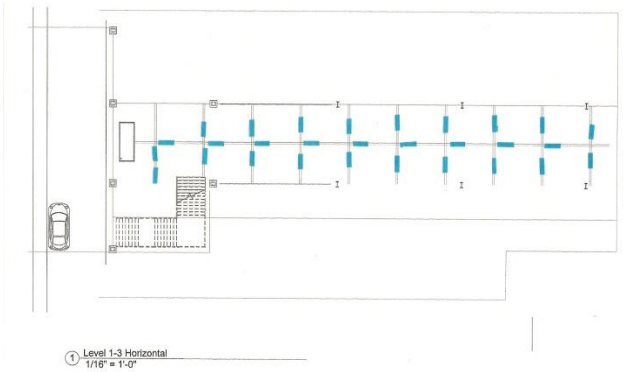
UP
1 Level 1
1/16" = 1'-0"

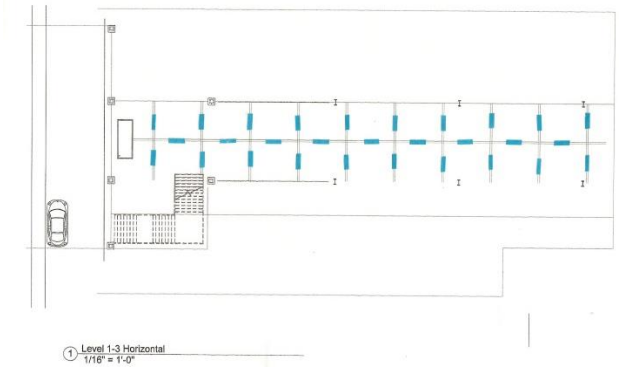
Panel Design Process Diagrams 1-2 Curve

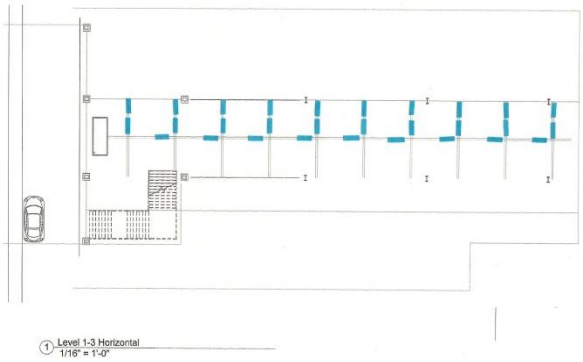


Panel Design Process Diagrams 1-3 Horizaontal

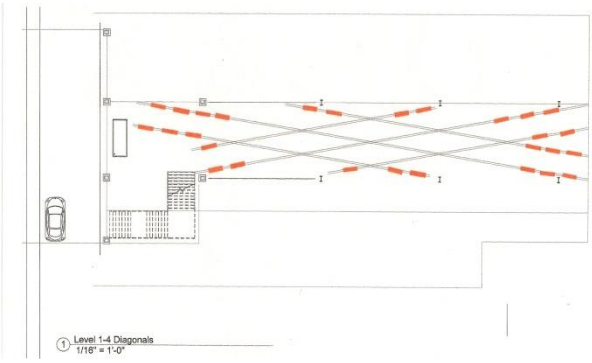


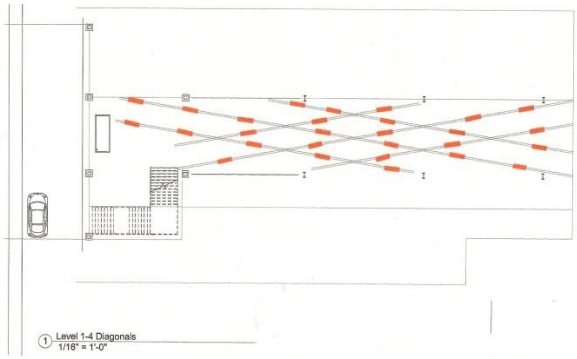


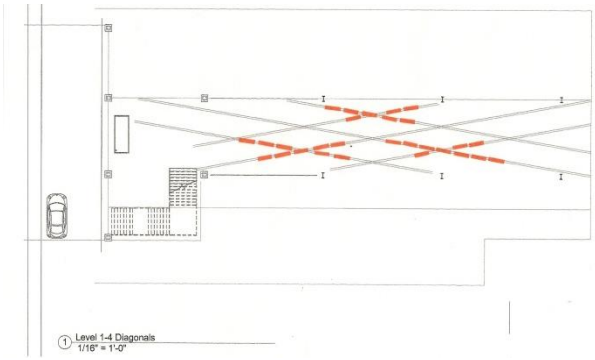


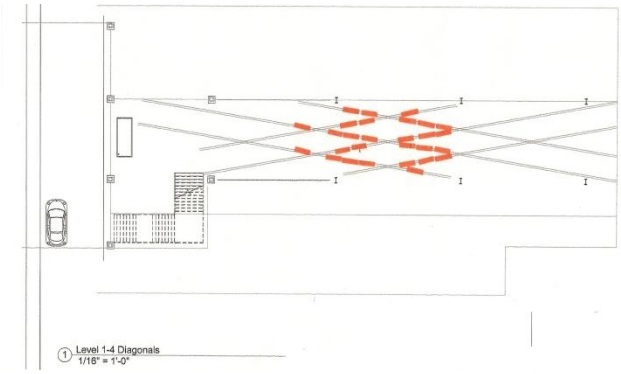


Panel Design Process Diagrams 1-4 Diagonals

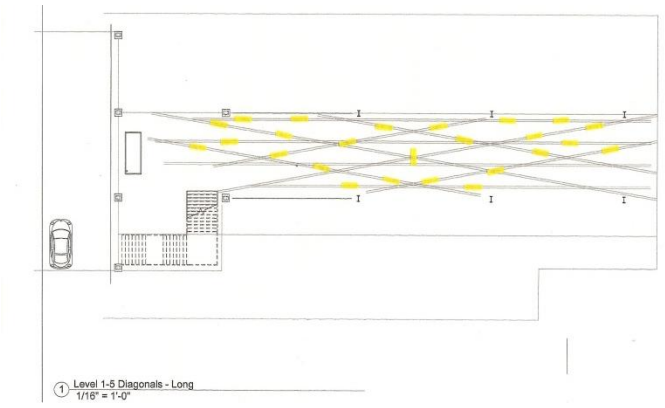


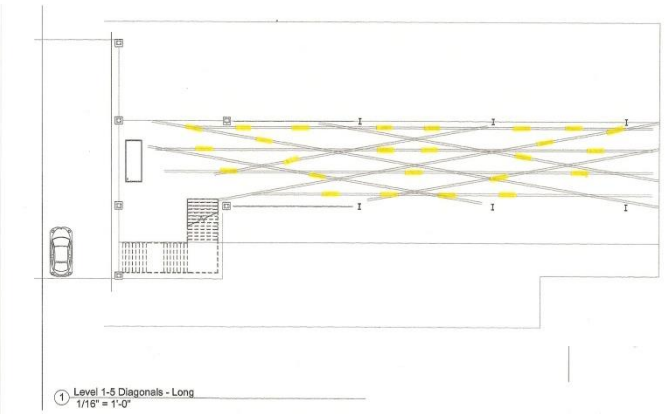


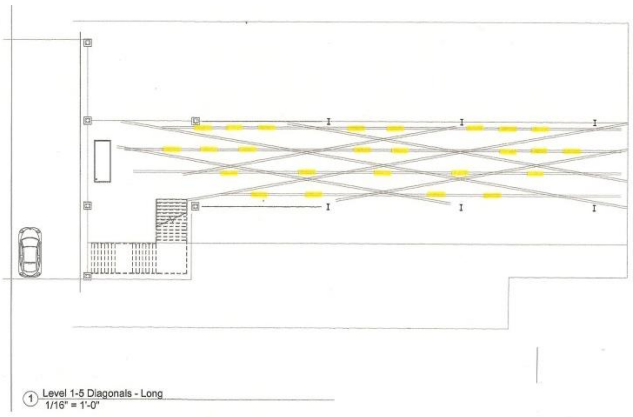




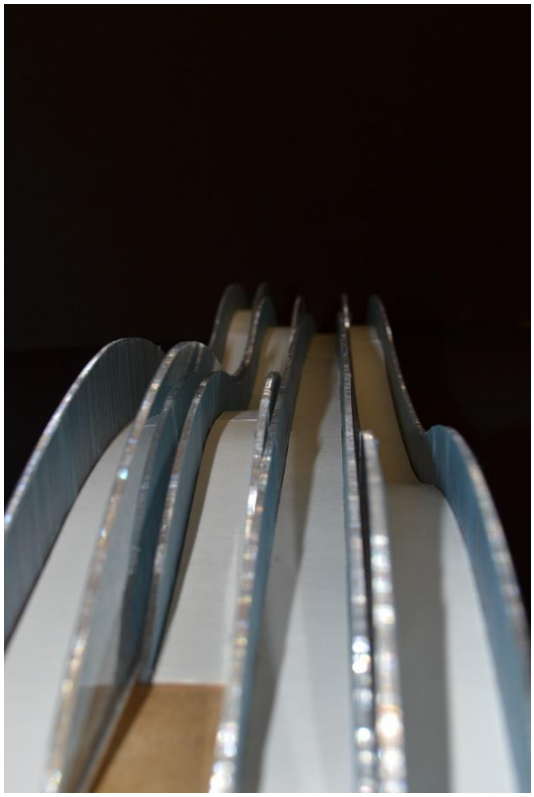
Panel Design Process 1-5 Diagonal Long

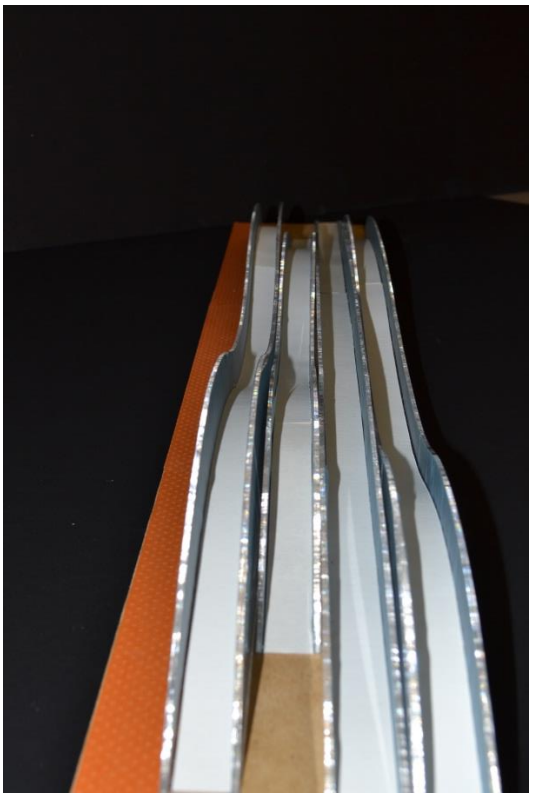


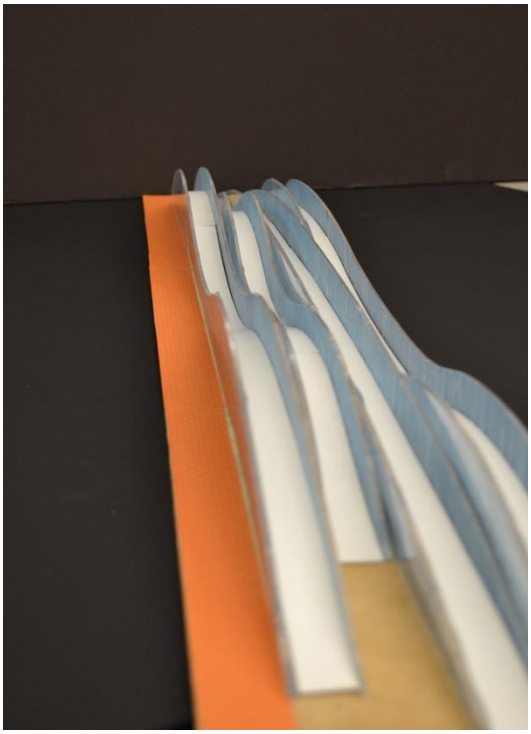


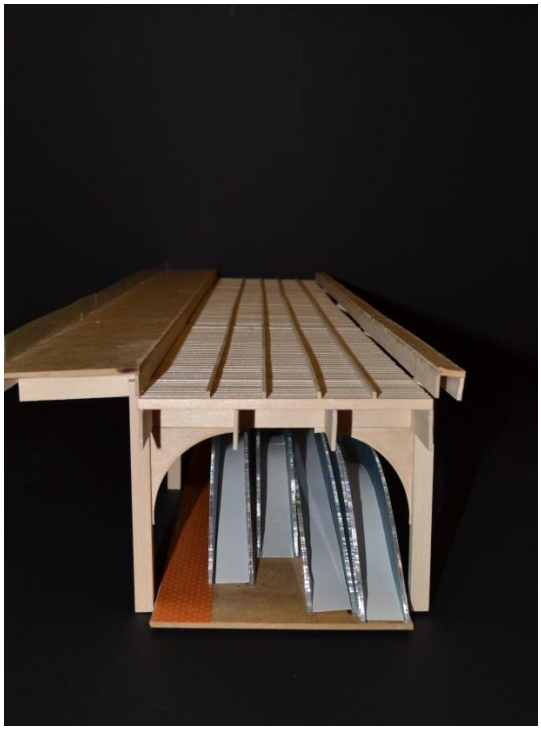


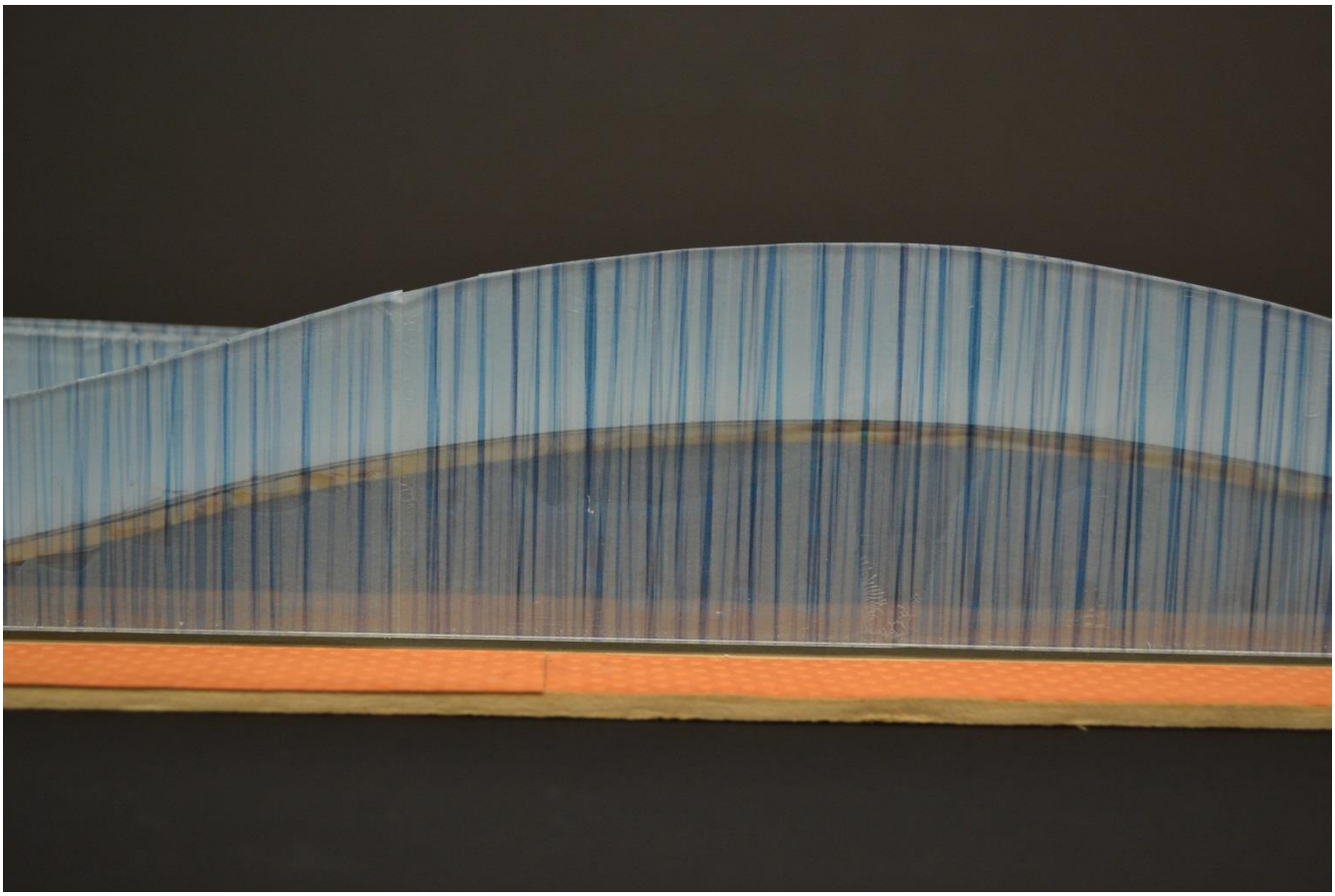
Final Model

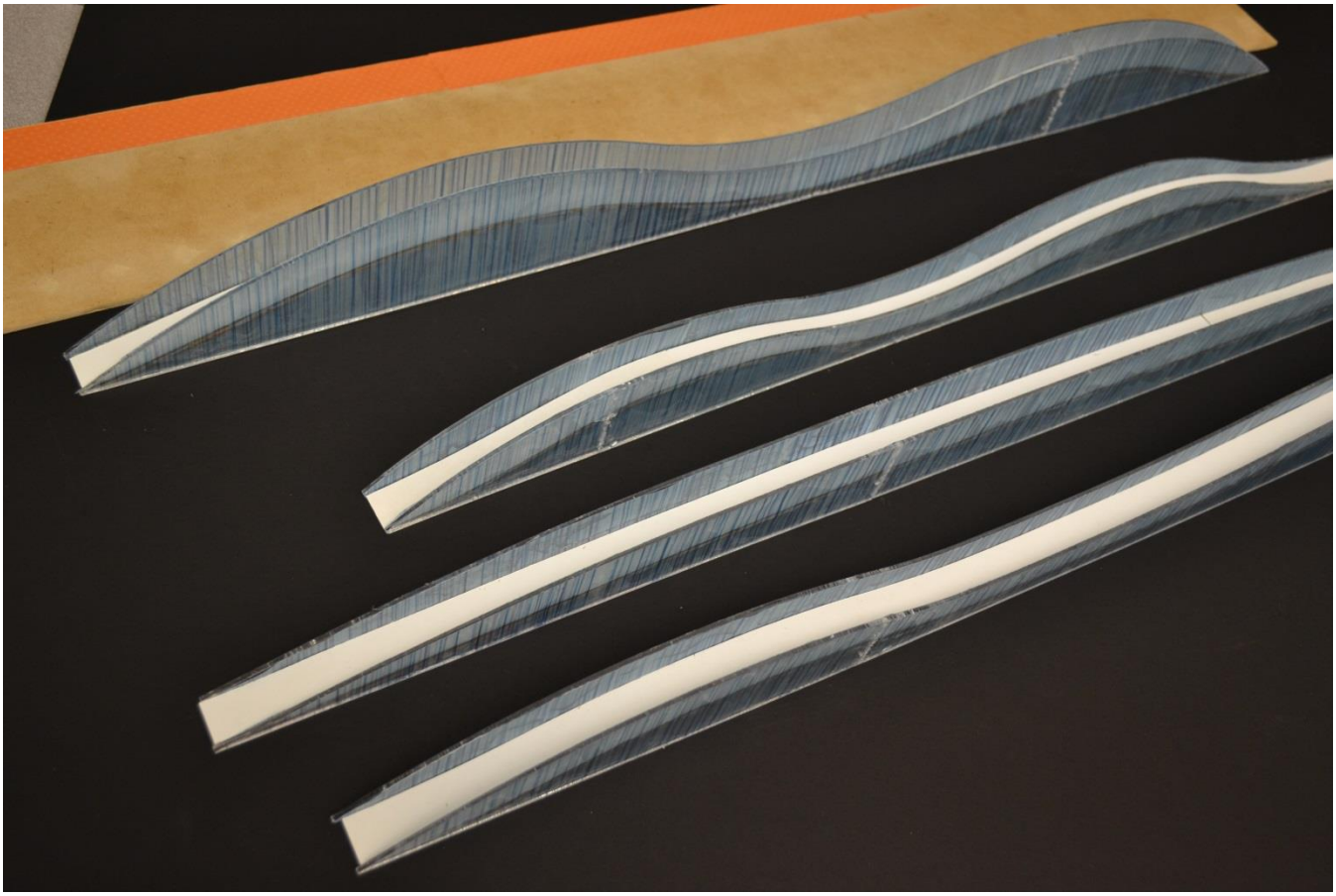


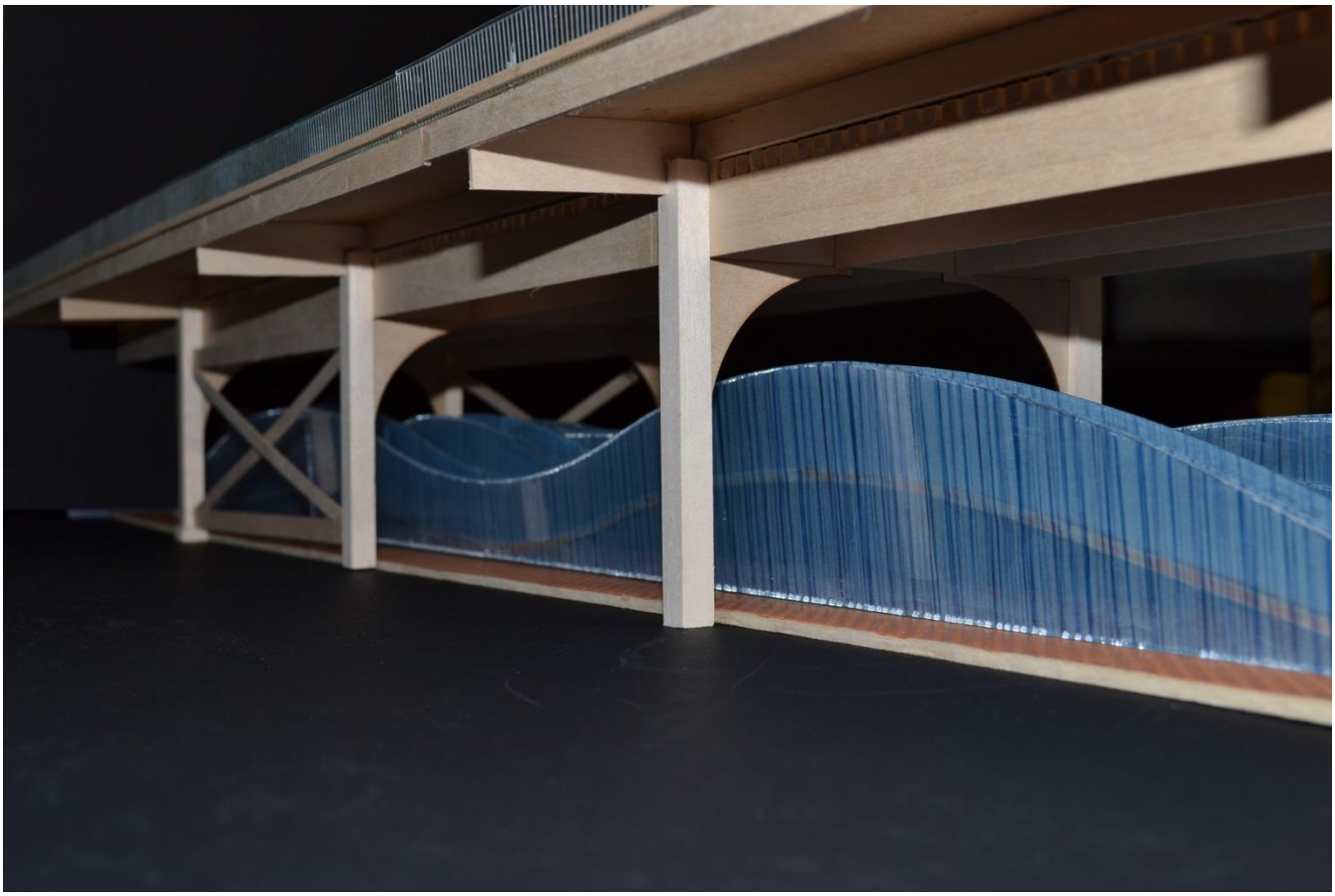


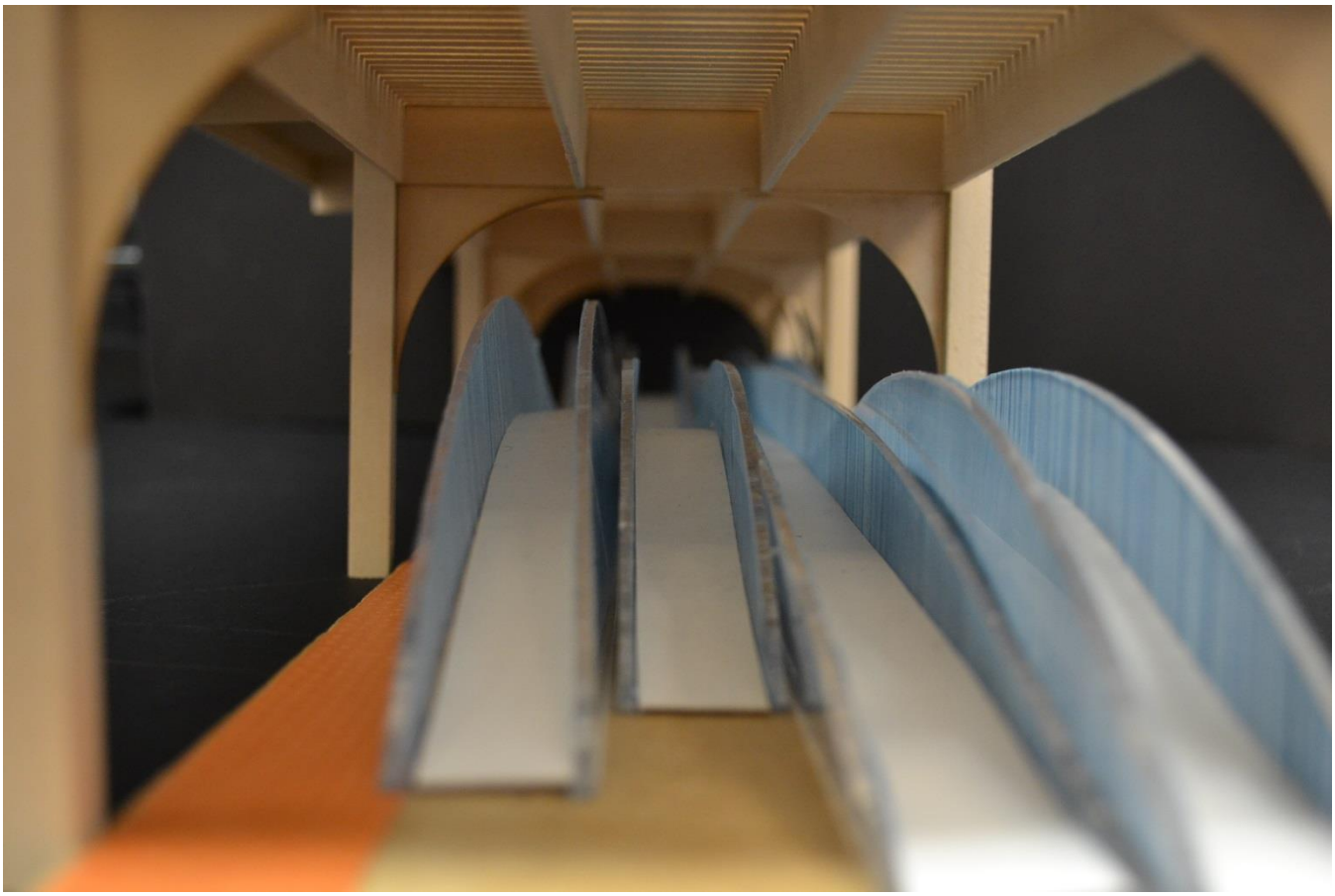


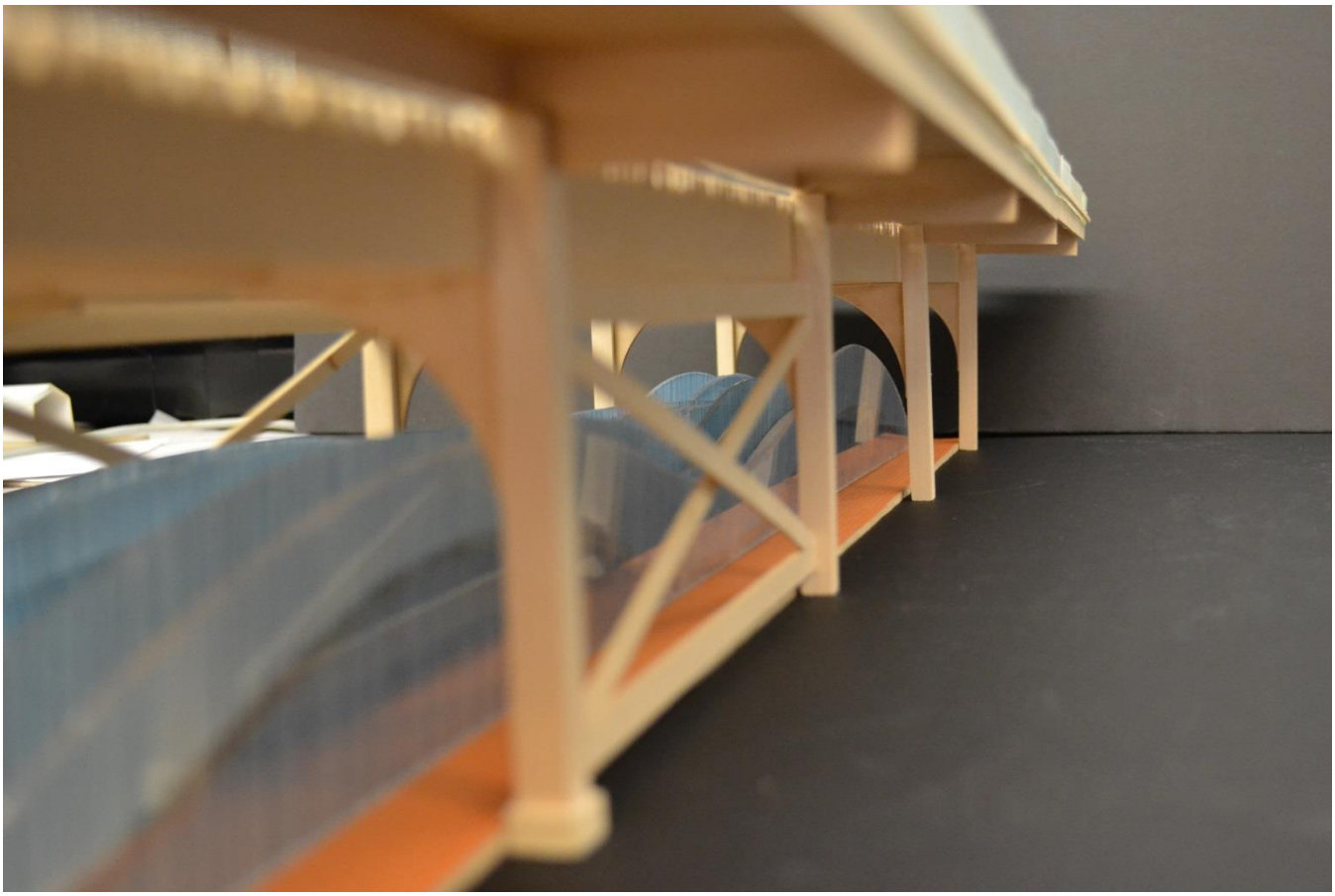


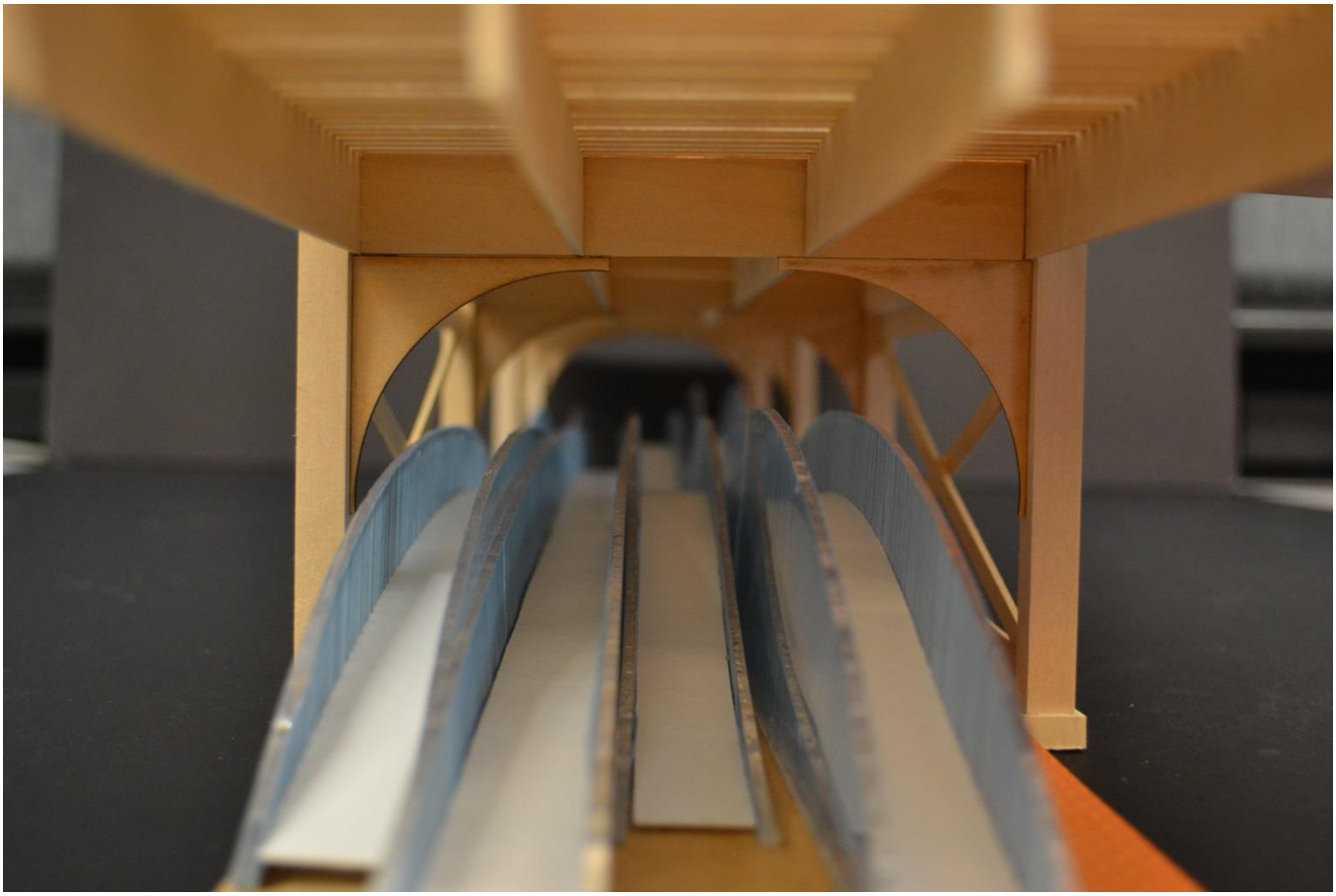


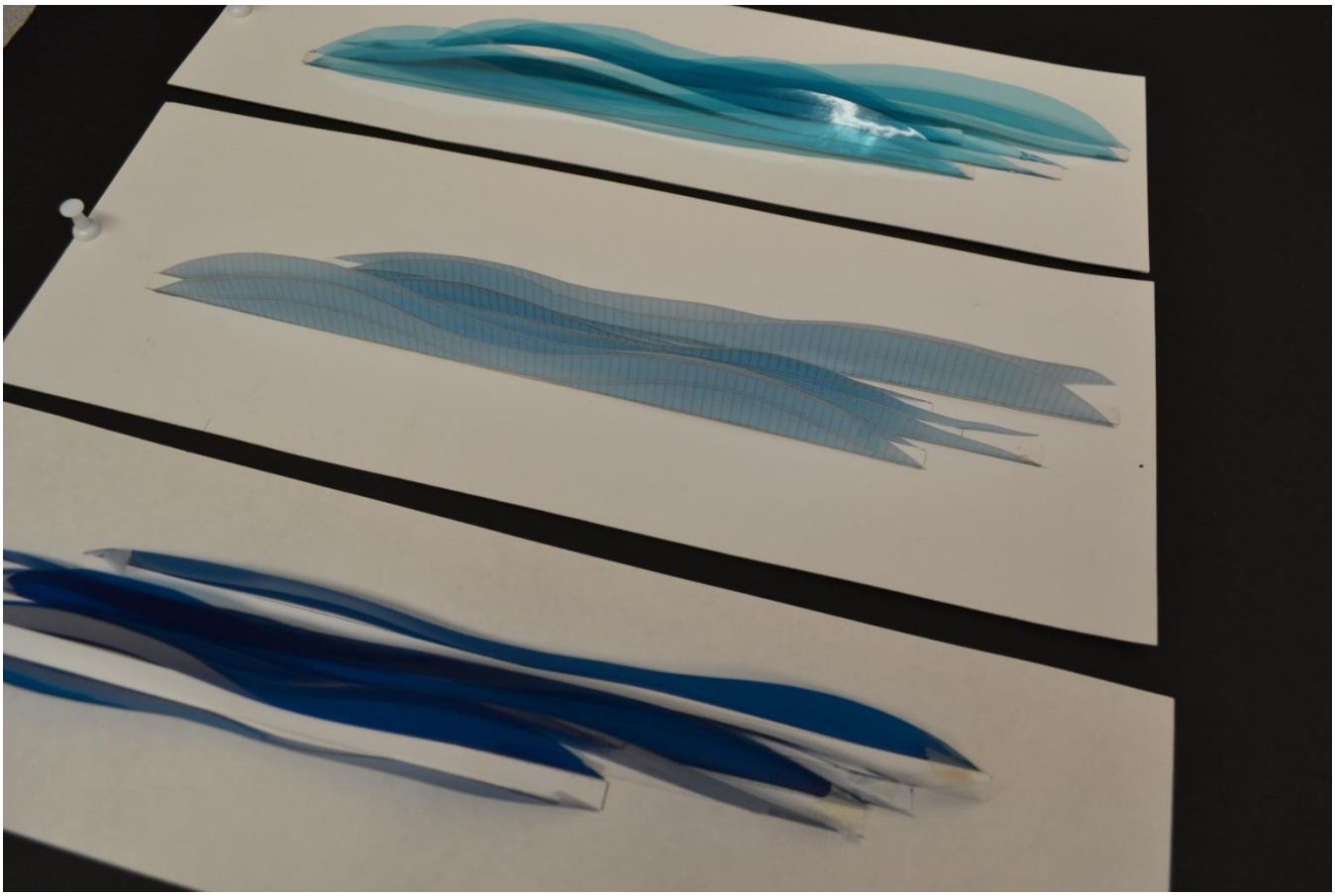




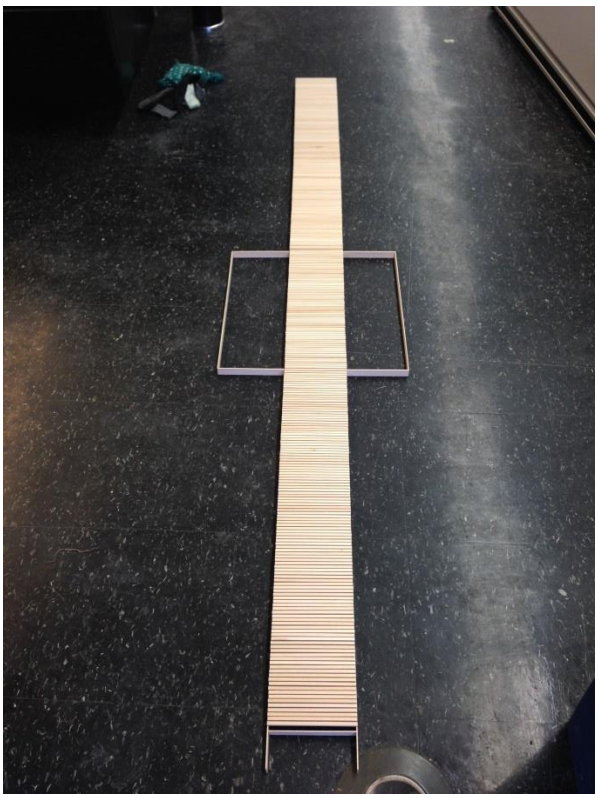


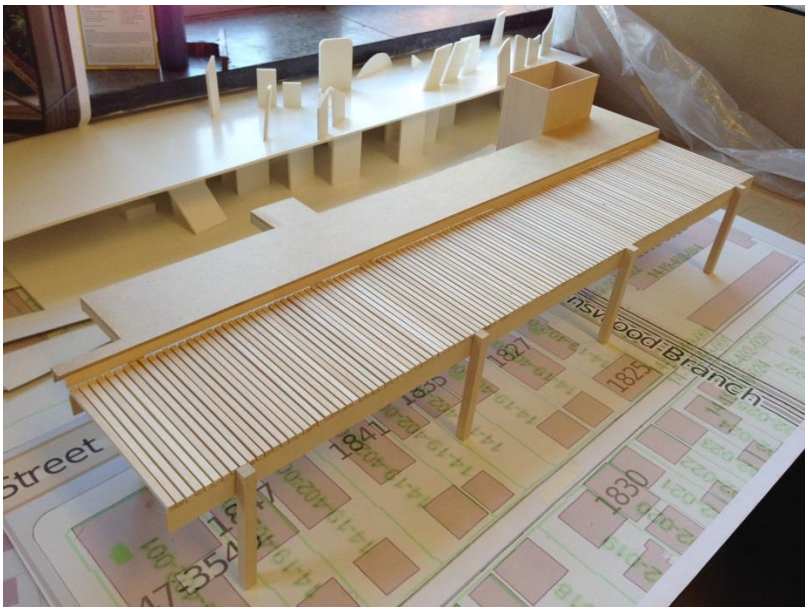






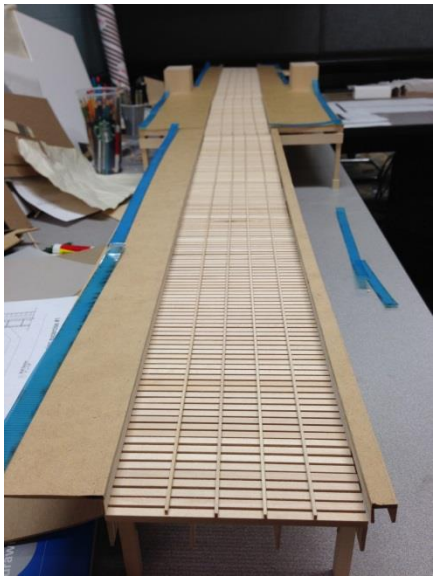
Final Model Process

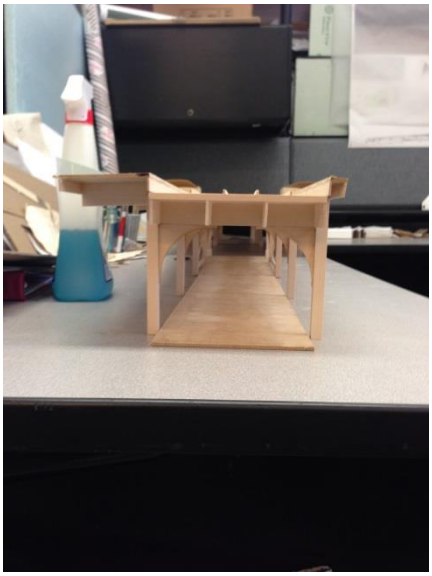
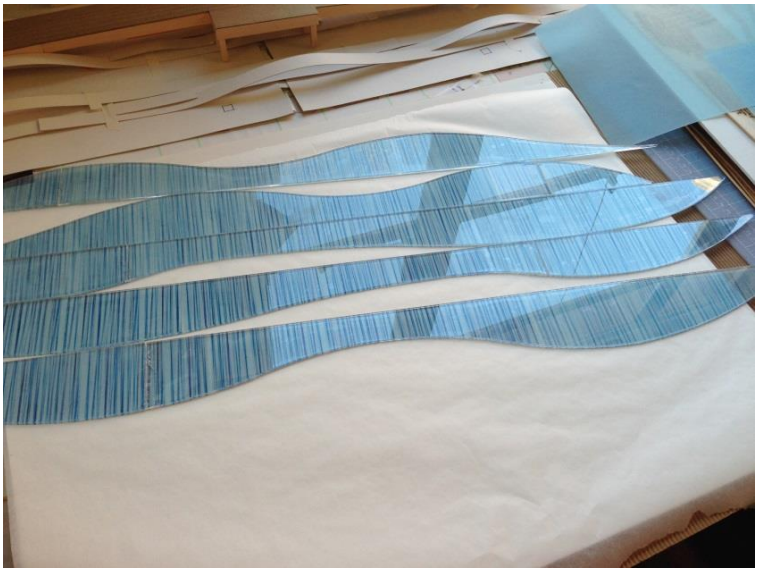
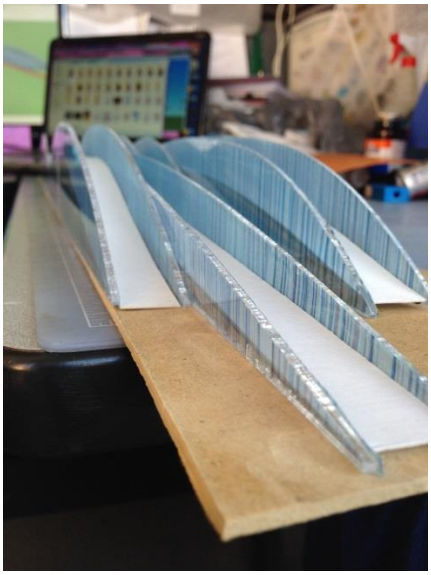



Street
1841
1830
1825

Branch
1841
1830
1827
3547-3549

Street
1830
3547-3549



Concept

DESIRE
to be a ***sense*** of place

ENCOURAGE
interaction between people

FACILITATE
interaction between people
and the rail

INVENT
an ***interaction*** differently for
everyone

CREATE
an ***intellegent*** structure

URGE
user ***awareness***

GENERATE
an ***experience*** - not a building

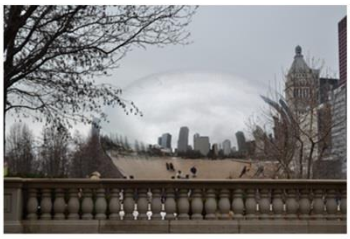
CELEBRATE
an interesting and pleasurable
experience

PLACE within a ***SPACE***

Precedents

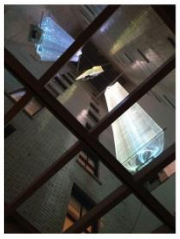
MODERNIZATION
Cincinnati, OH

CLOUD GATE
Chicago, Il



THE BLUR
Yverdon-les-bains, Switzerland

LIGHTMAIL 2012
Cincinnati, OH



HEALING TILES 2012
Cincinnati, OH

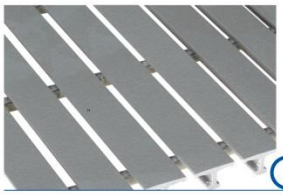
LIGHT DRIFT
Philadelphia, PA

DUNE 4.0
Rotterdam, Netherlands

Materials

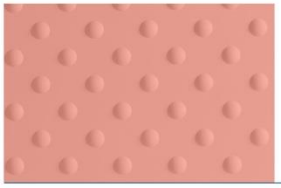
Pressed Glass

Stainless Steel Handrail



Pultruded Fiberglass
Grating 'Walking Ribbon'

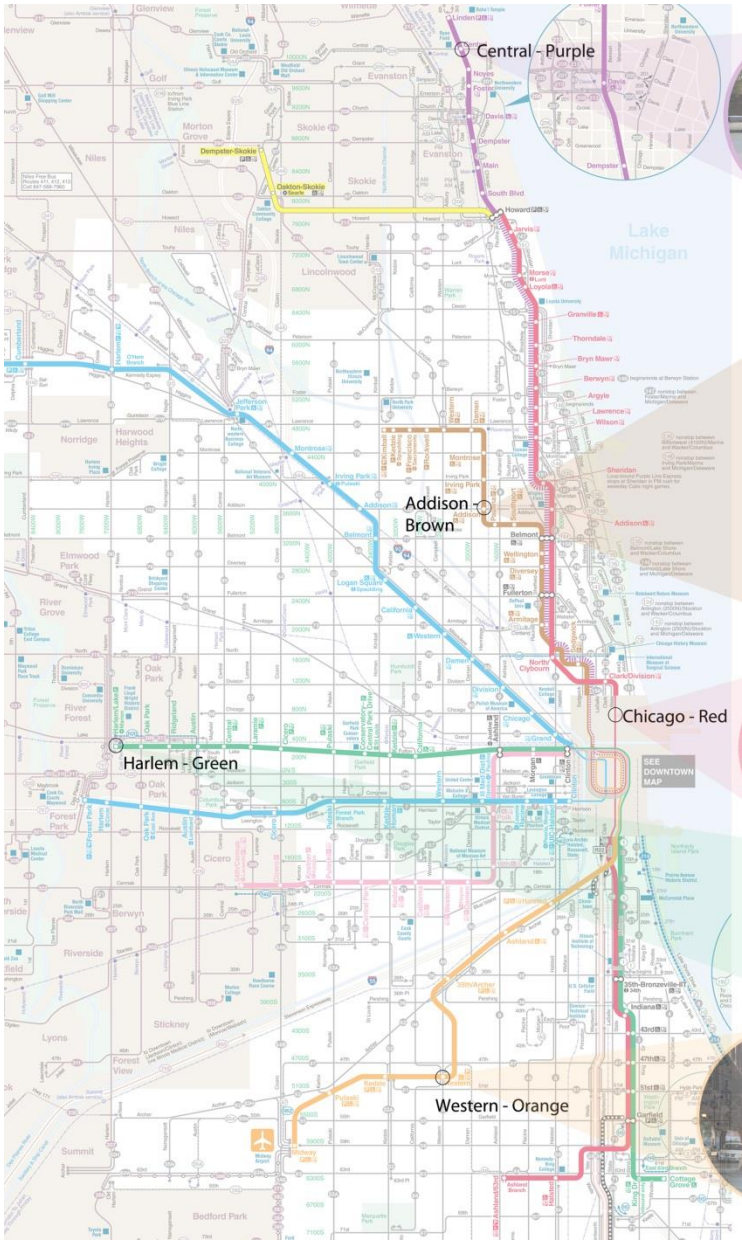
Light Tape
3form - LT Series LED



Orange Tacticle Pavers

Steel Tacticle Pavers

Concrete Pavers



CHICAGO SITE ANALYSIS

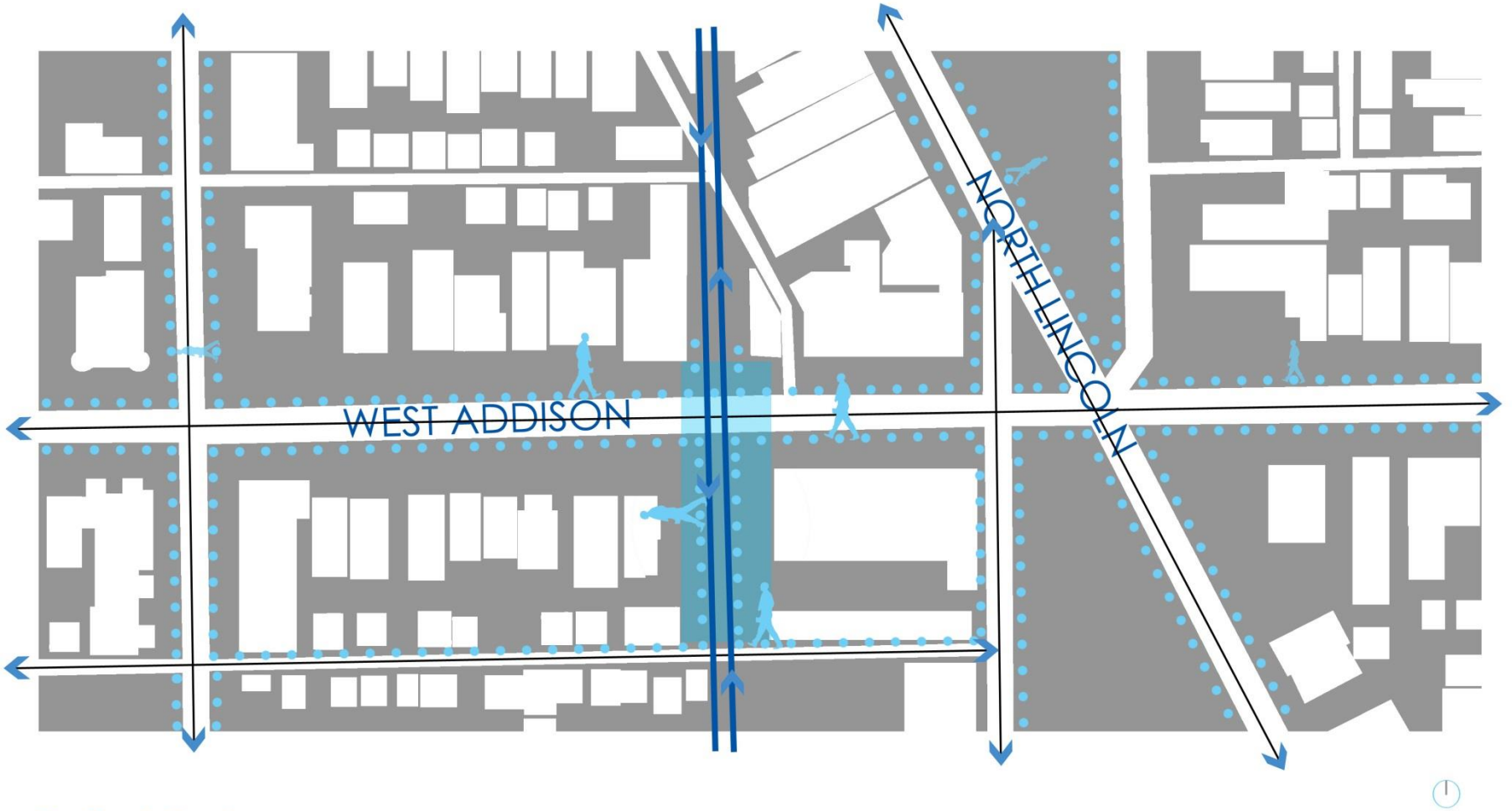
Site | Scale - 1:40

Figure Ground | Scale - 1:40

Brown Line Rail

Residential

Commercial

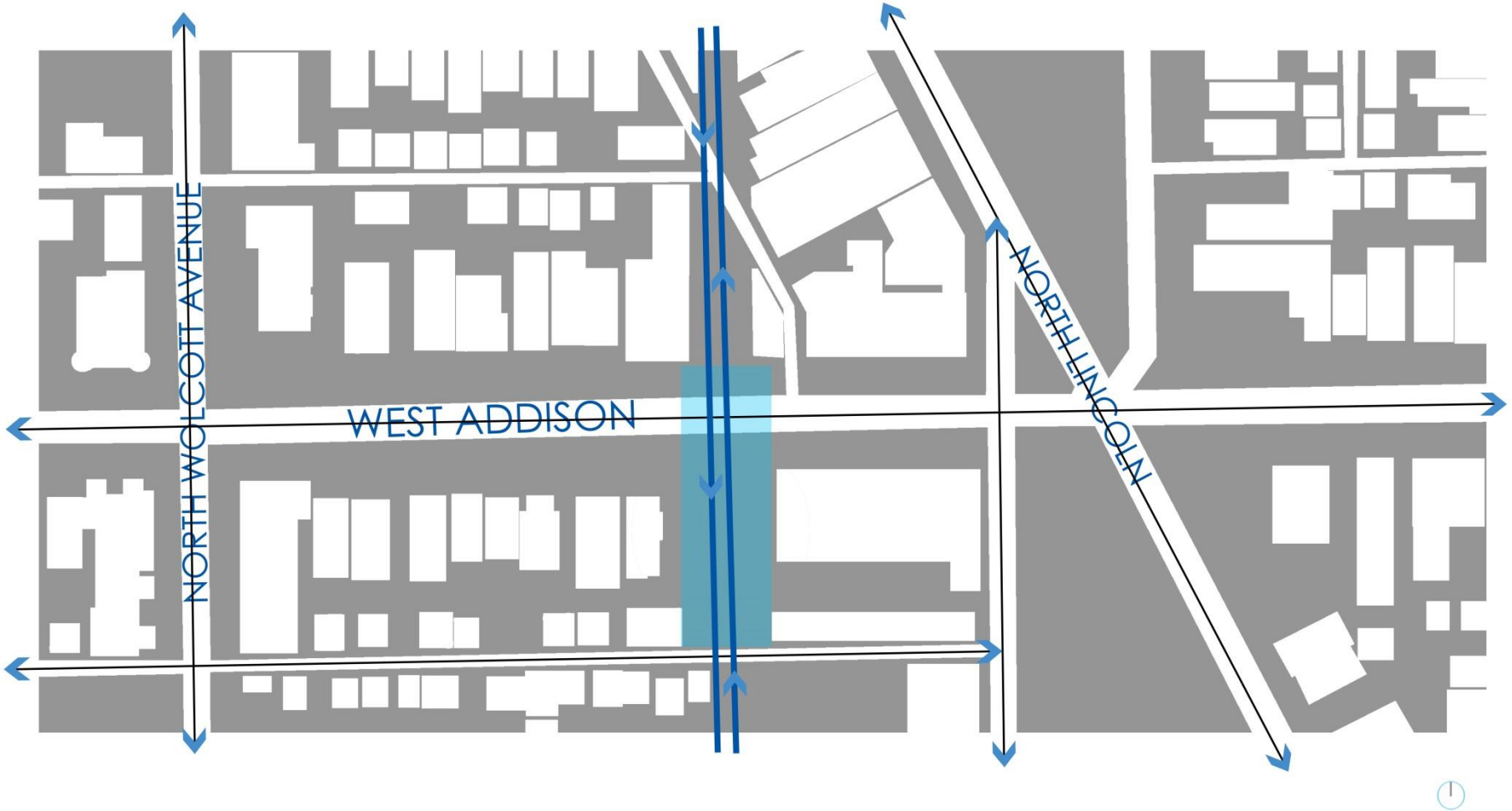


Site Circulation | Scale - 1:40

Brown Line Rail

Vehicular

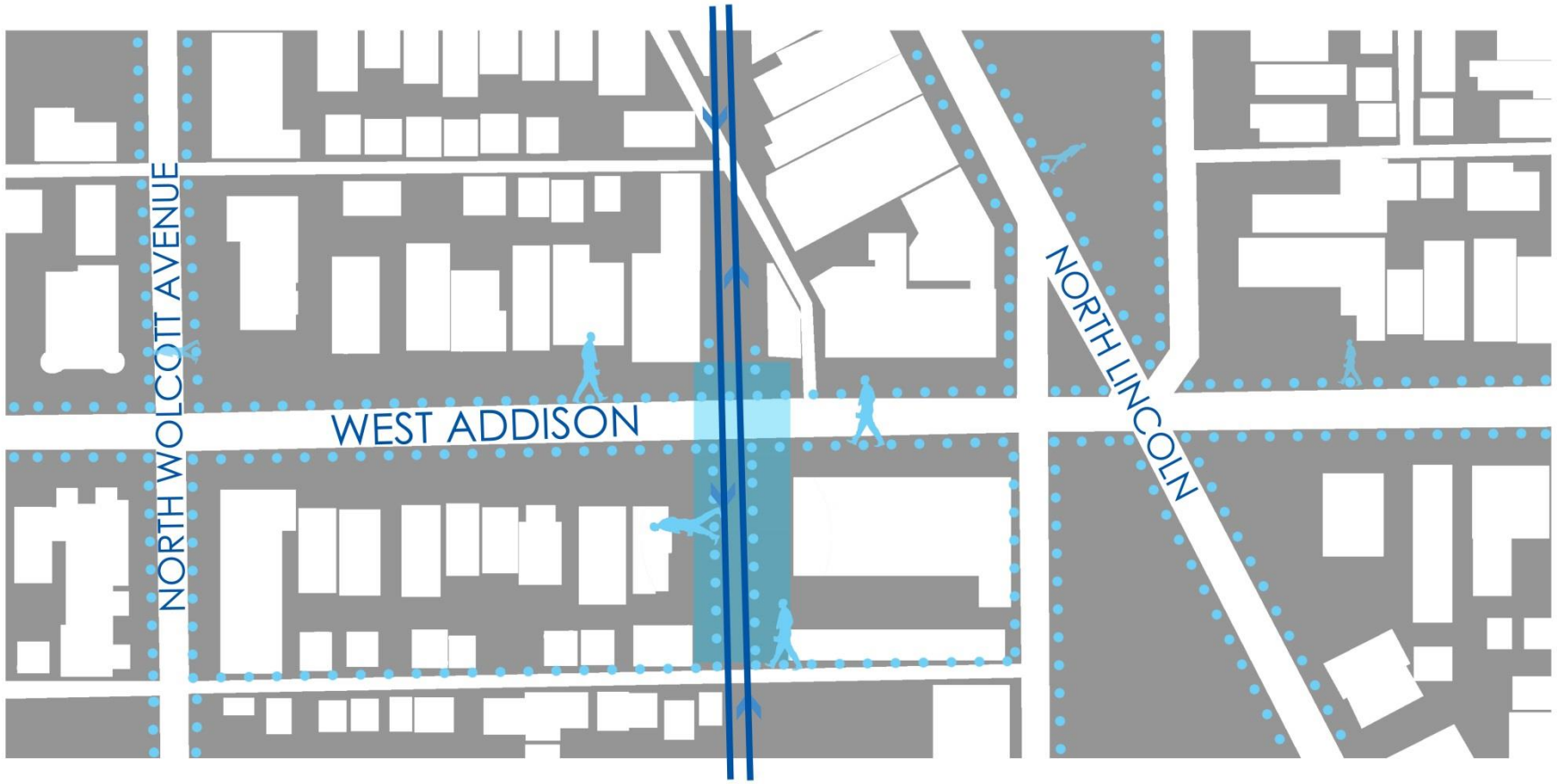
Pedestrian



Transportation Circulation | Scale - 1:40

Brown Line Rail

Vehicular



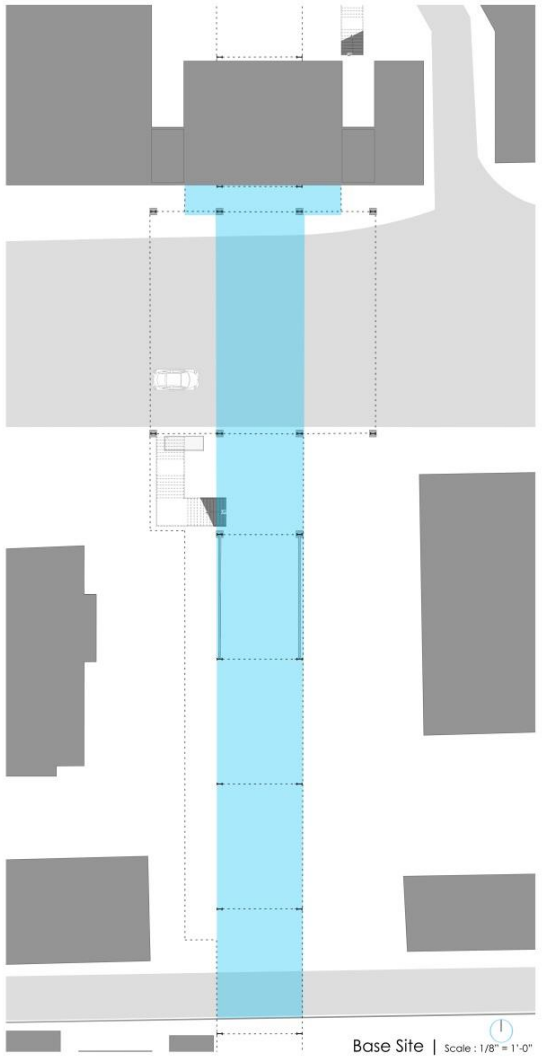
Pedestrian Circulation | Scale - 1:40

Brown Line Rail

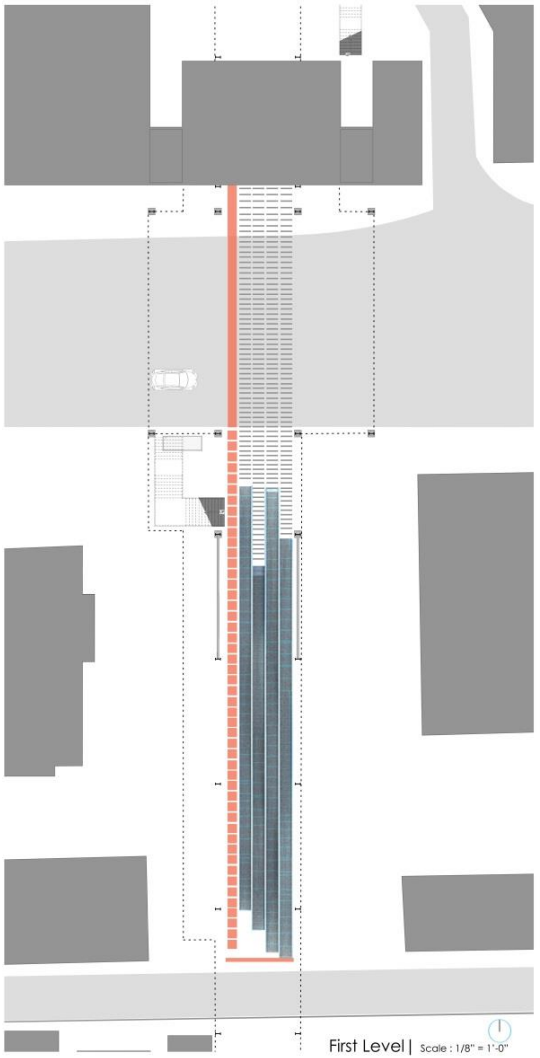
Pedestrian

Site Panorama

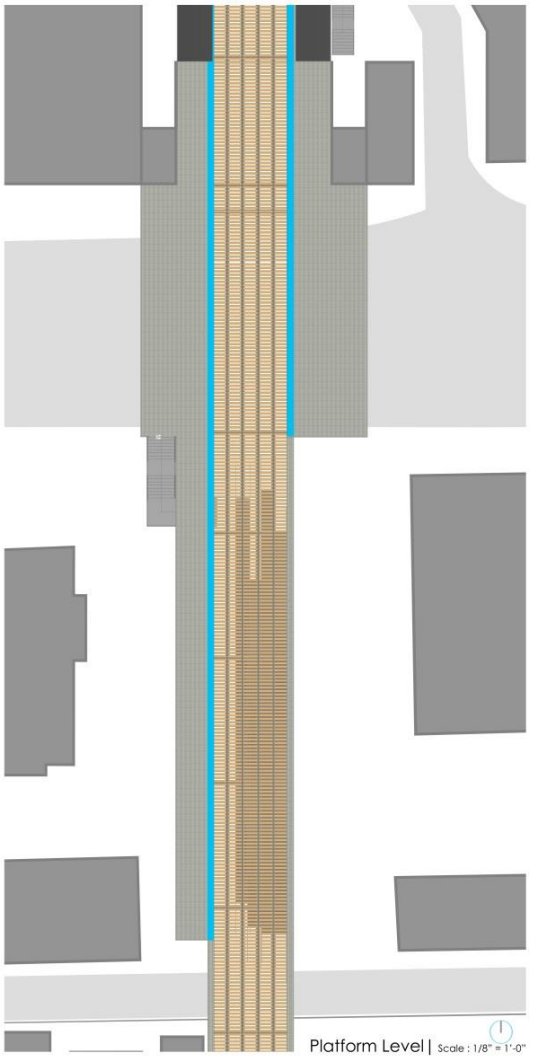
Plans



Base Site | Scale : 1/8" = 1'-0"

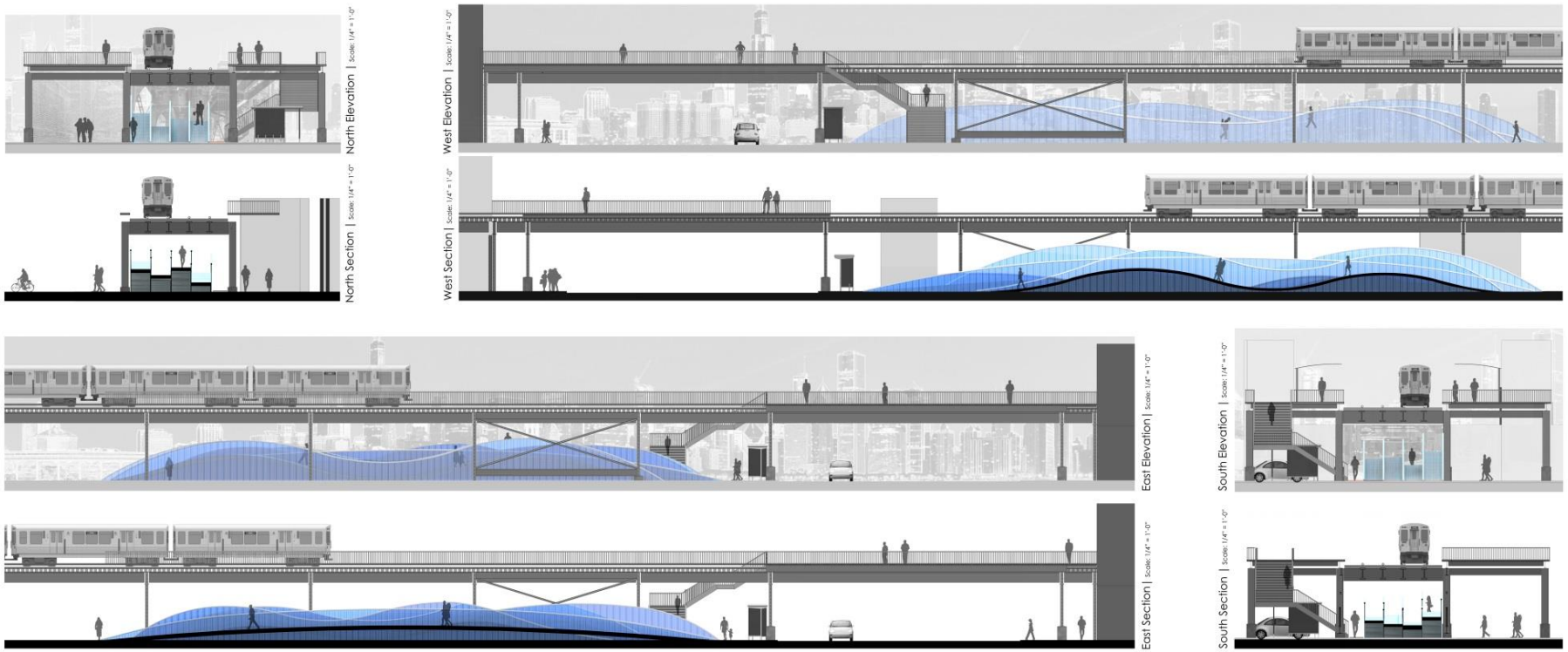


First Level | Scale : 1/8" = 1'-0"

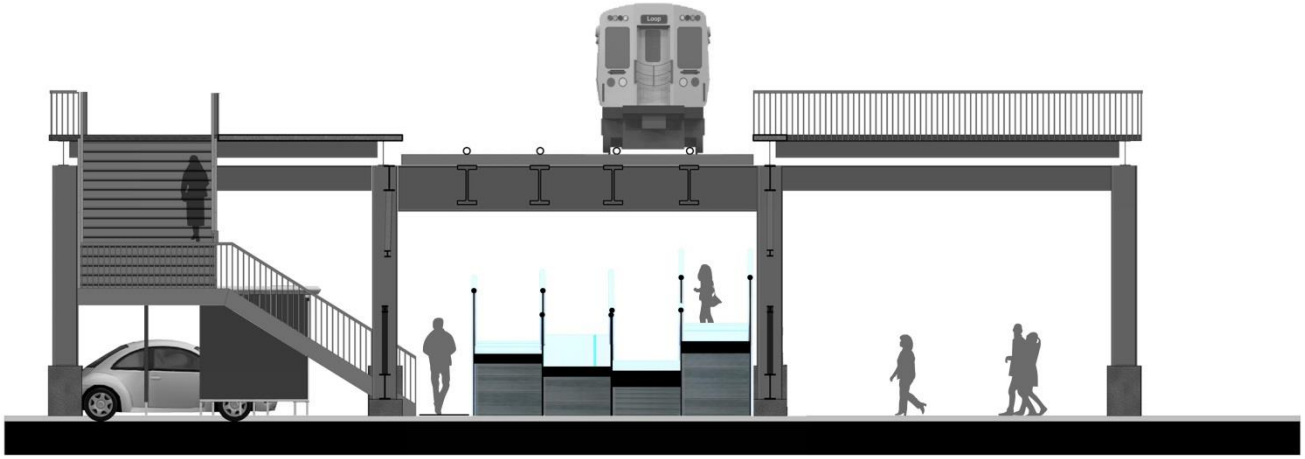


Platform Level | Scale : 1/8" = 1'-0"

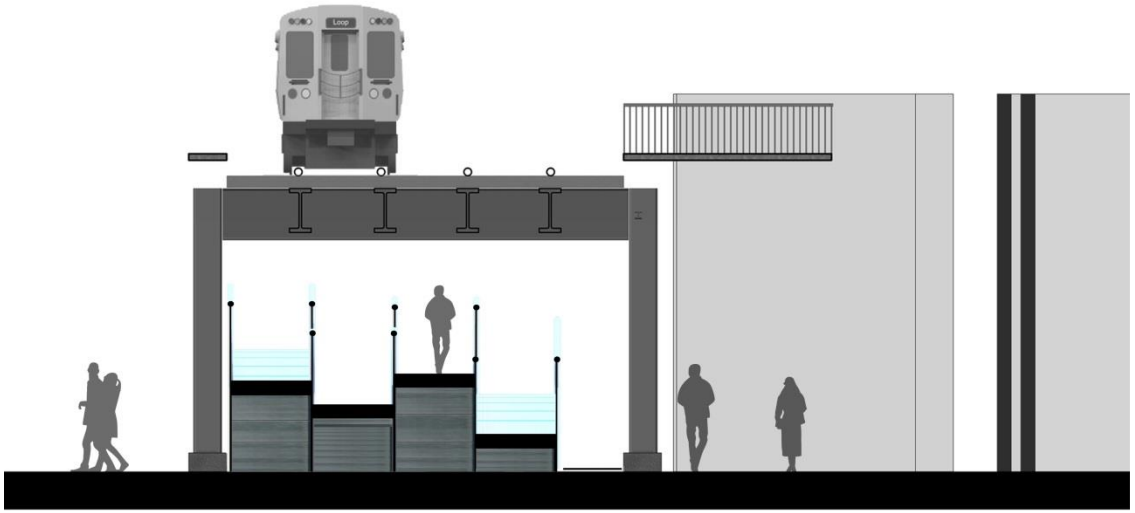
Elevations & Sections



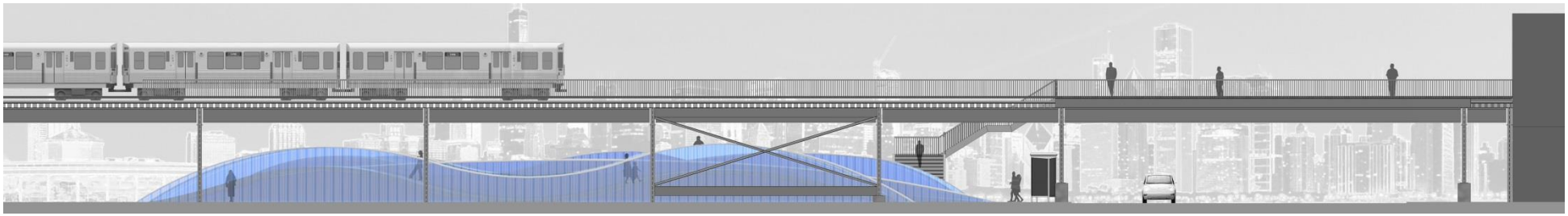
North Elevation and Section

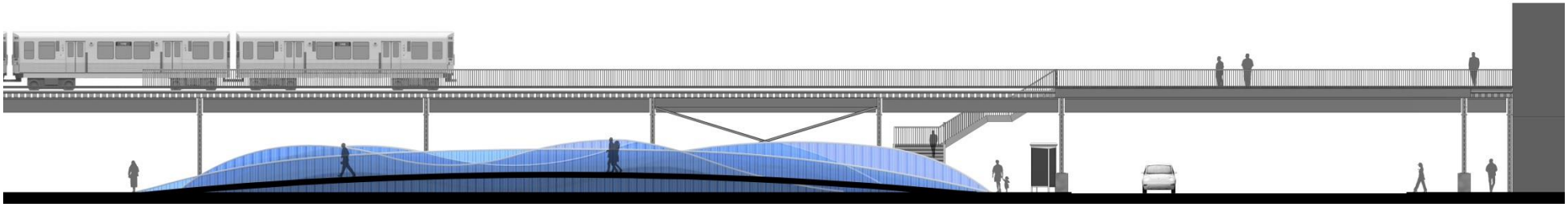


South Elevation and Section

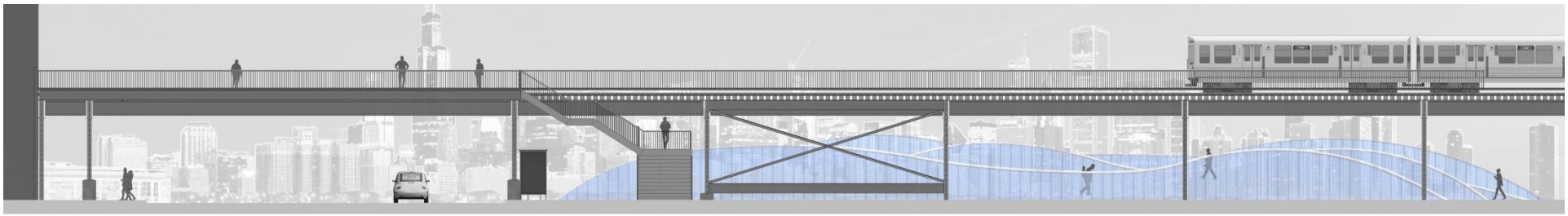


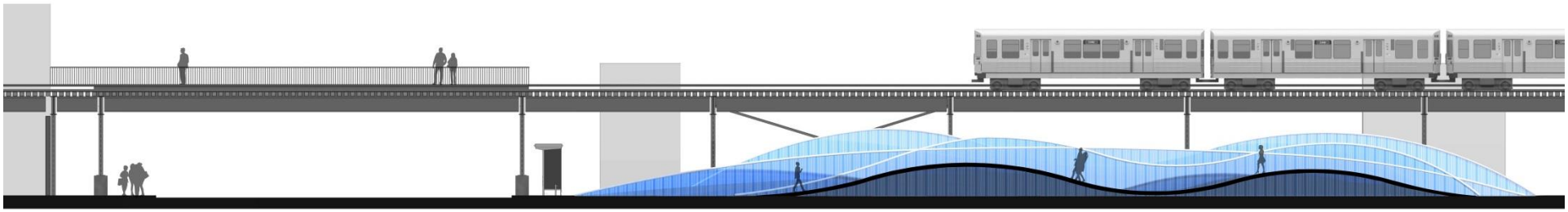
East Elevation and Section

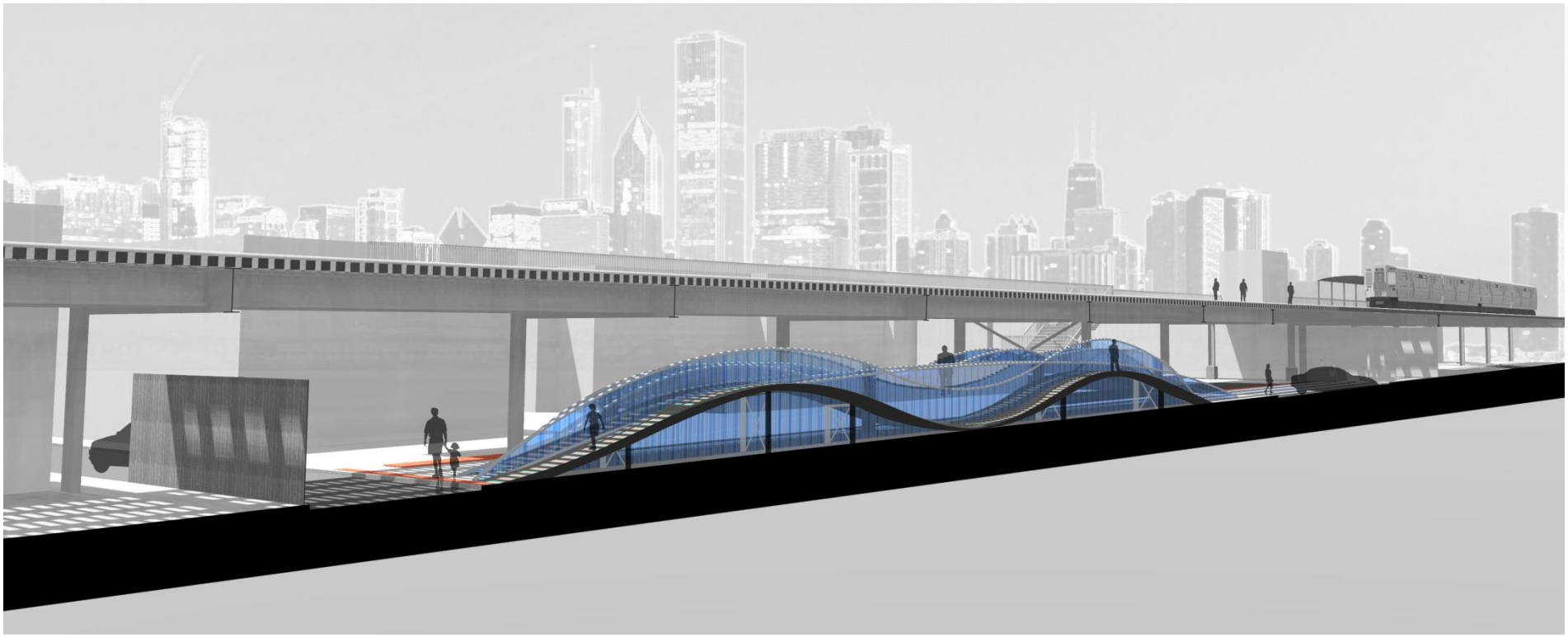




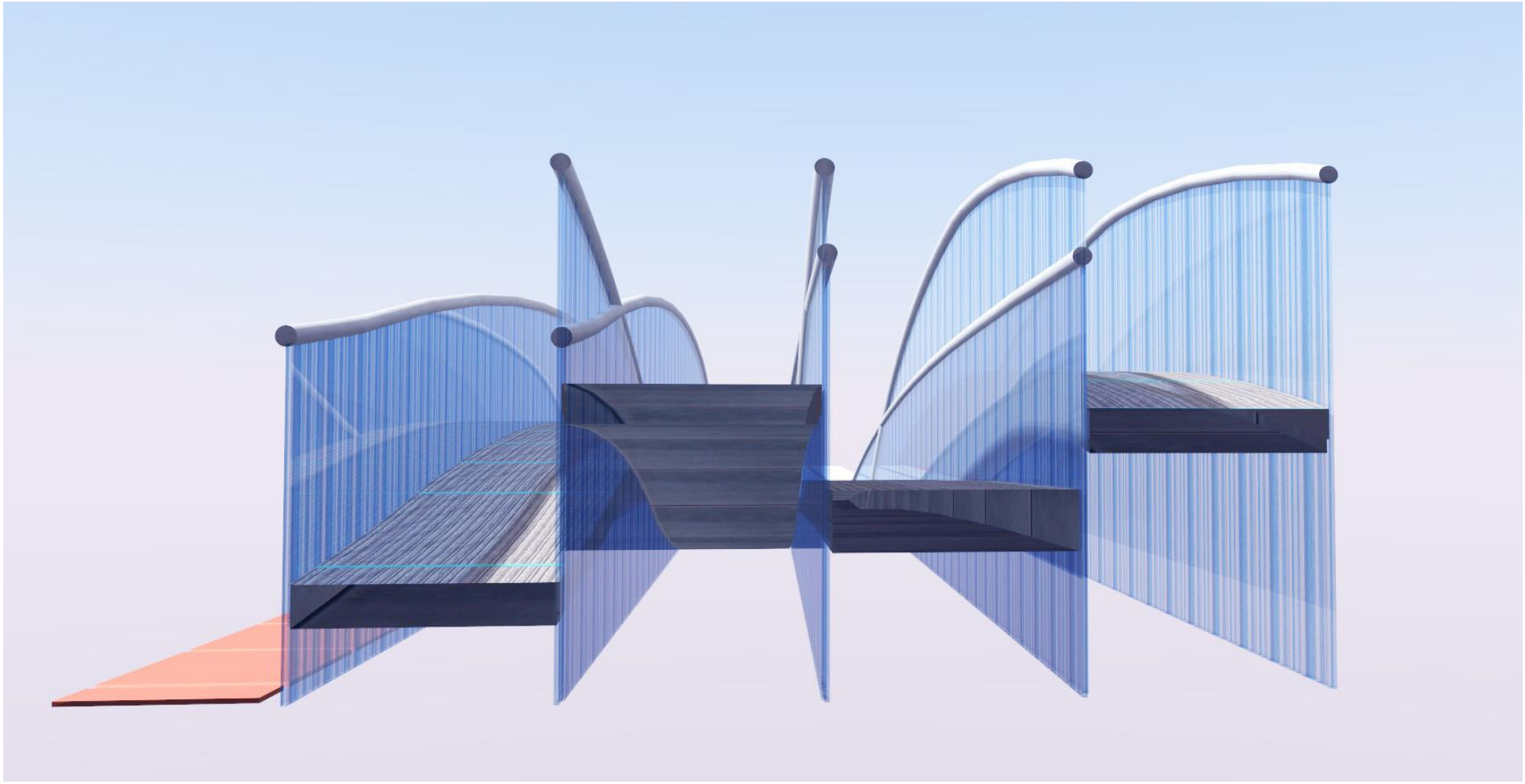
West Elevation and Section



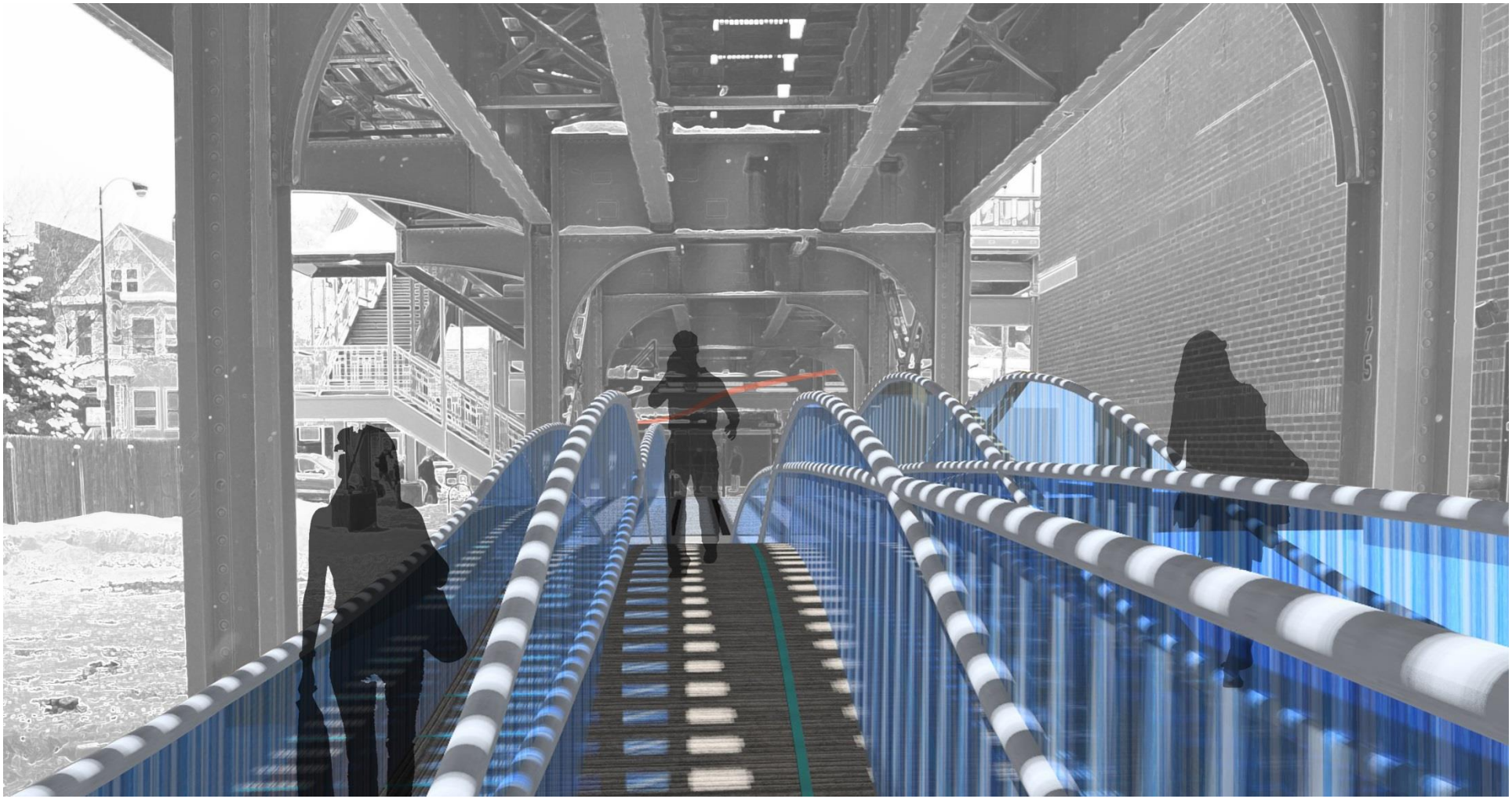




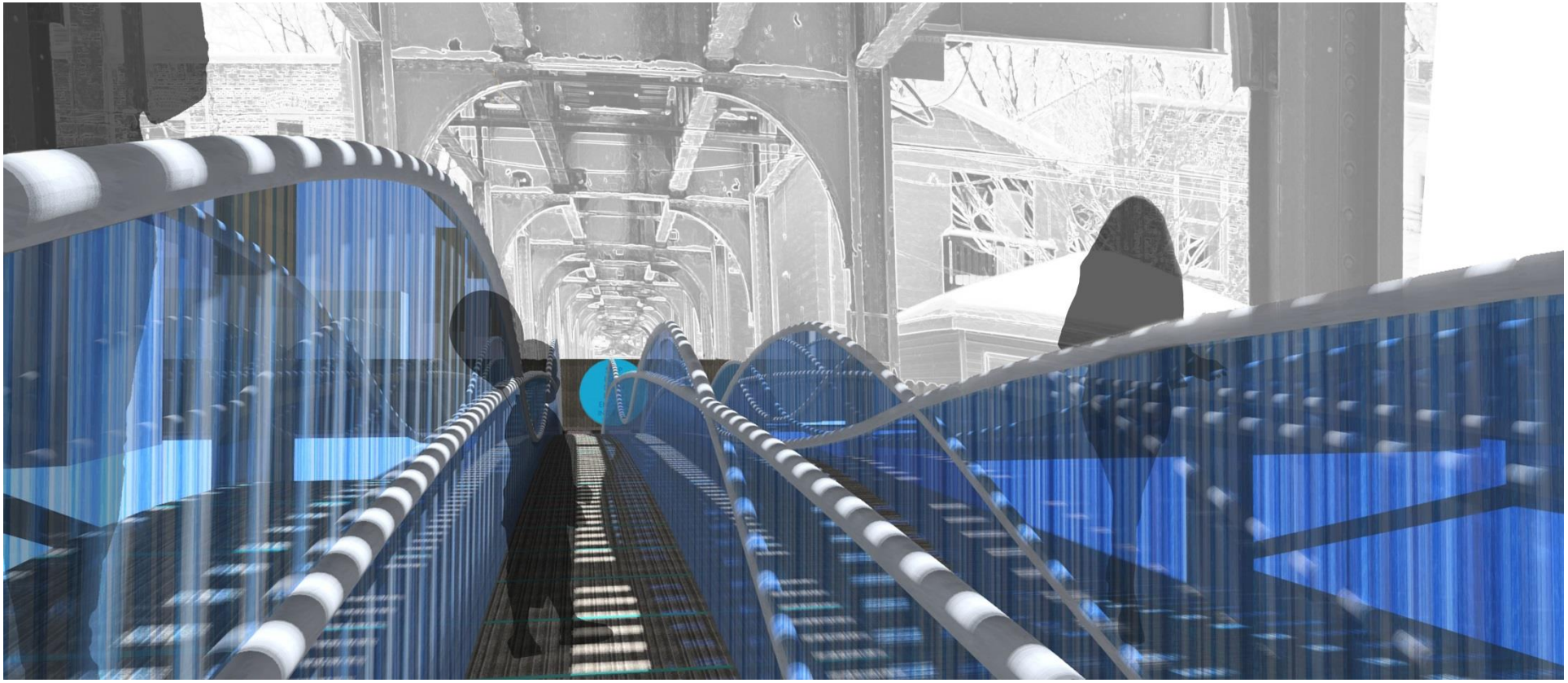
Section Perspective



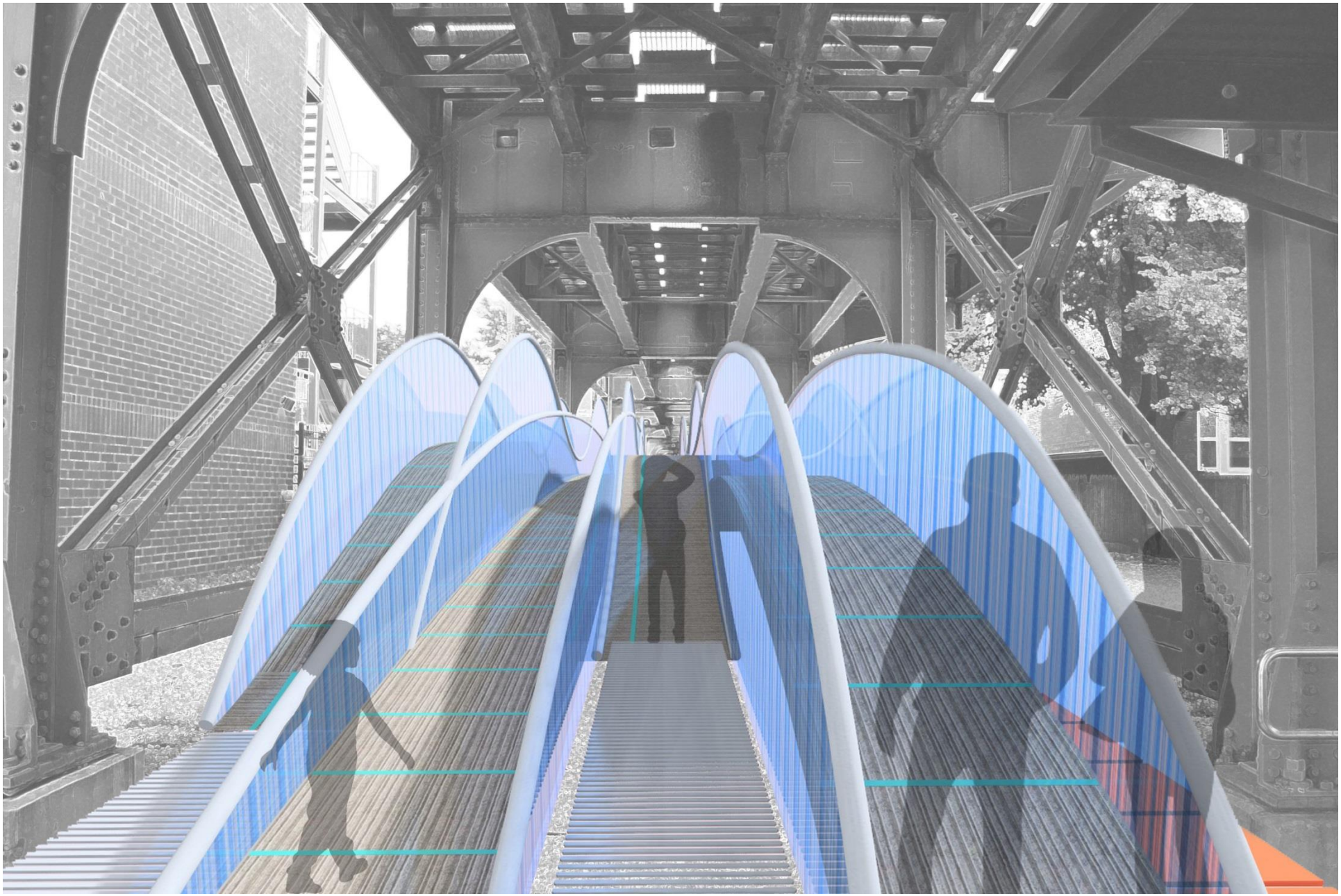
Render Section

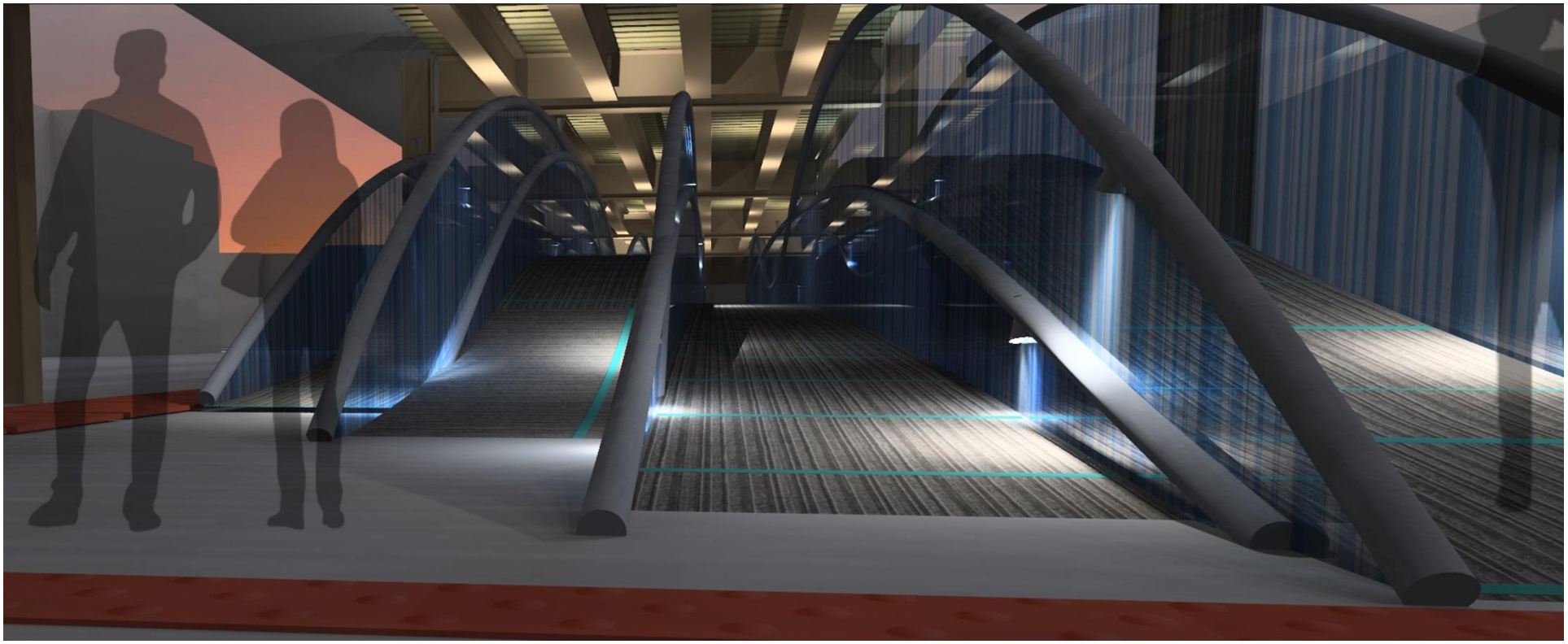


Beginning Perspective

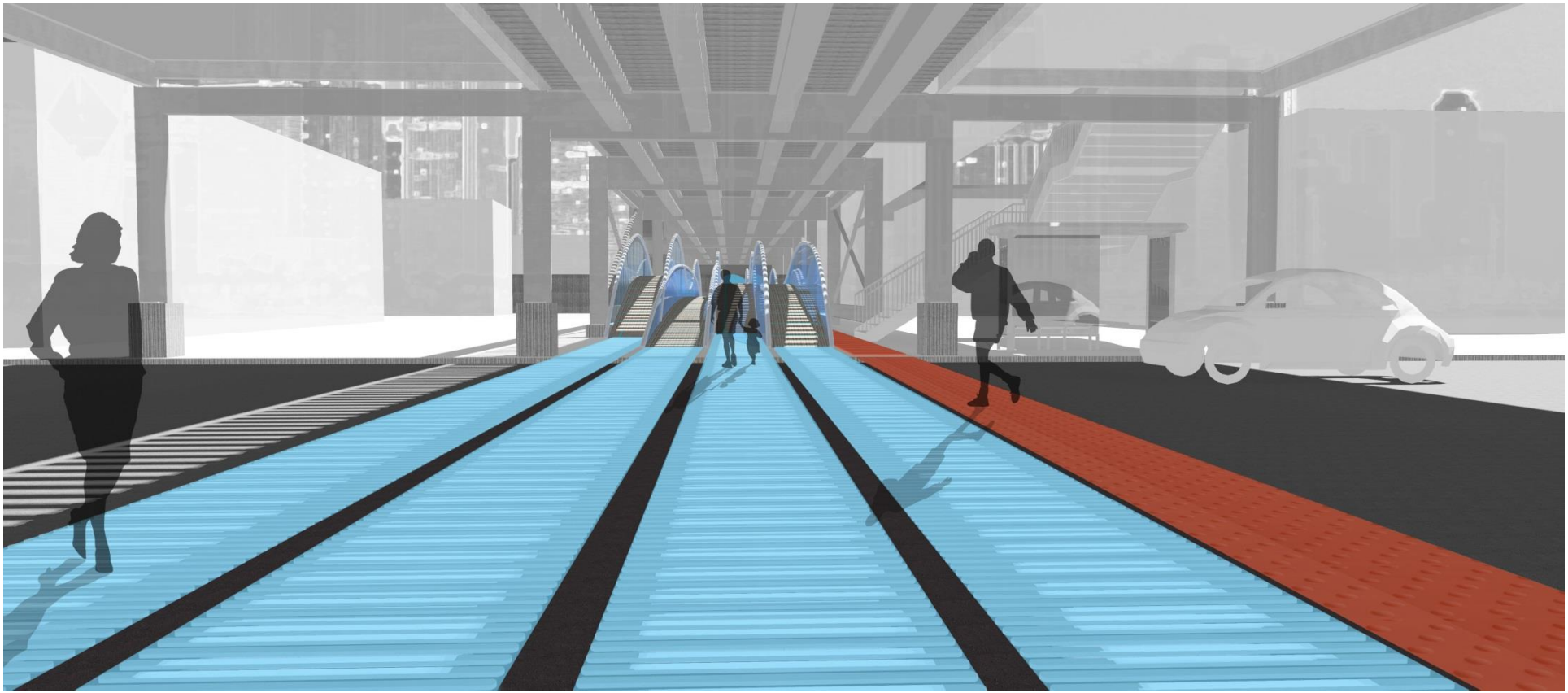


End Perspective

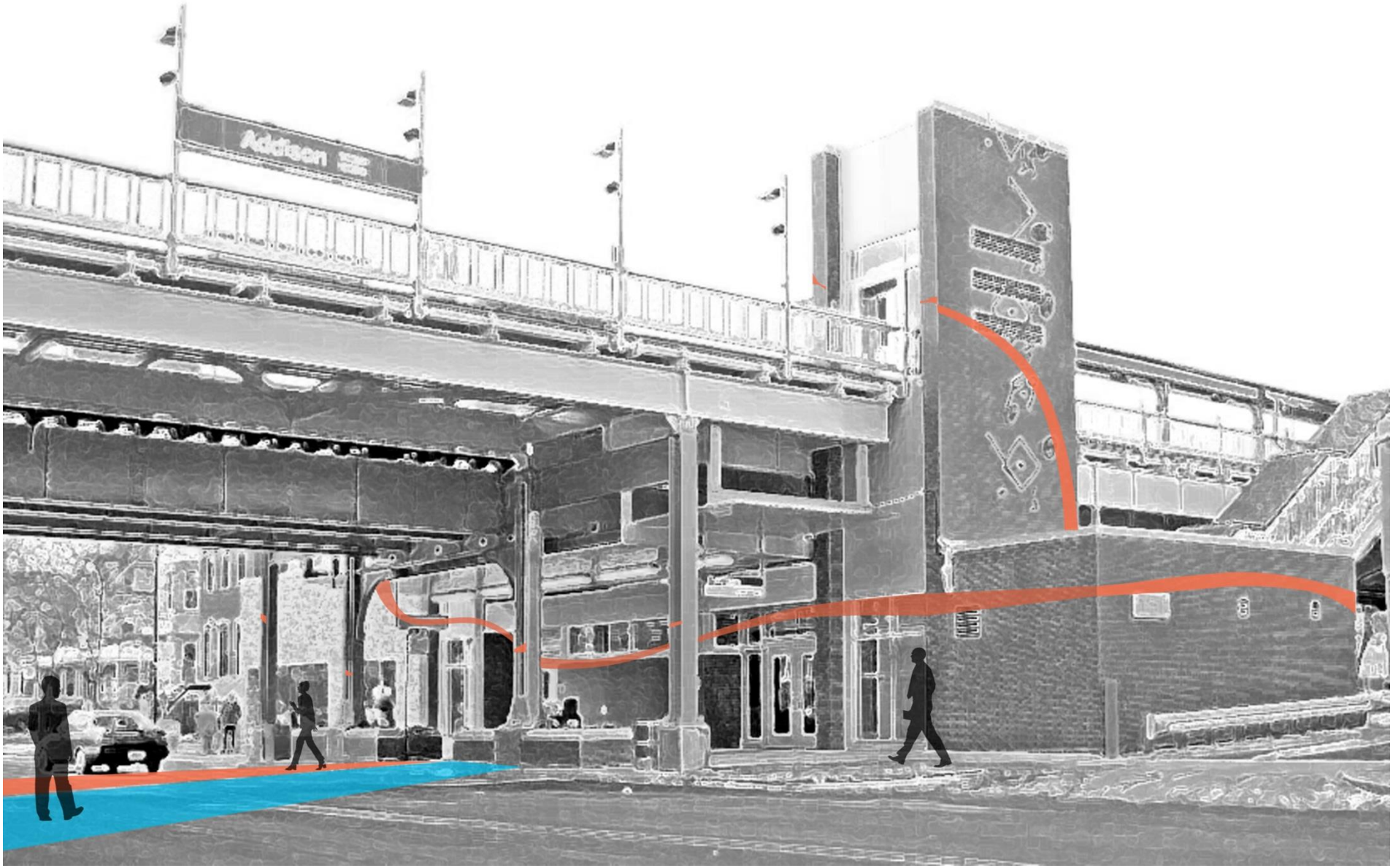




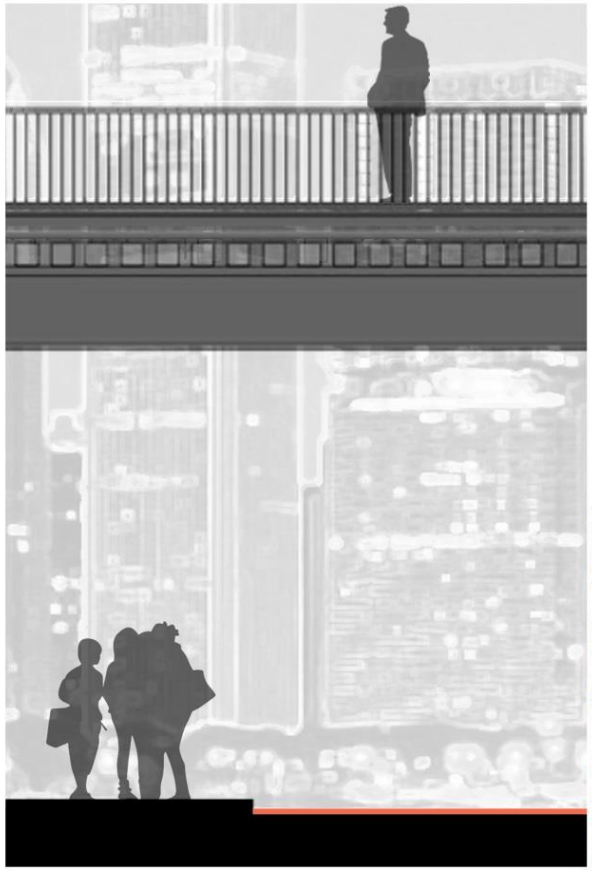
Evening Perspective



Street Perspective

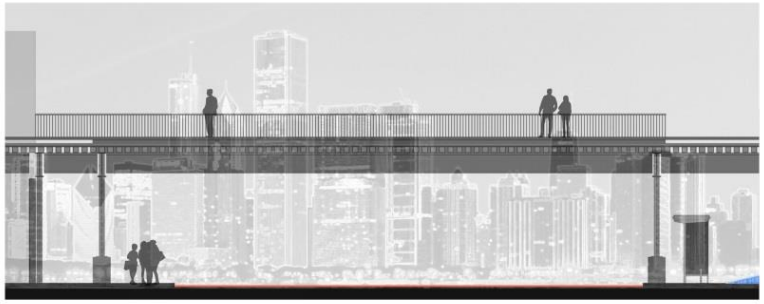

Addison St

Steel Tacticle Inlay | East | Scale 1/4" = 1'0"

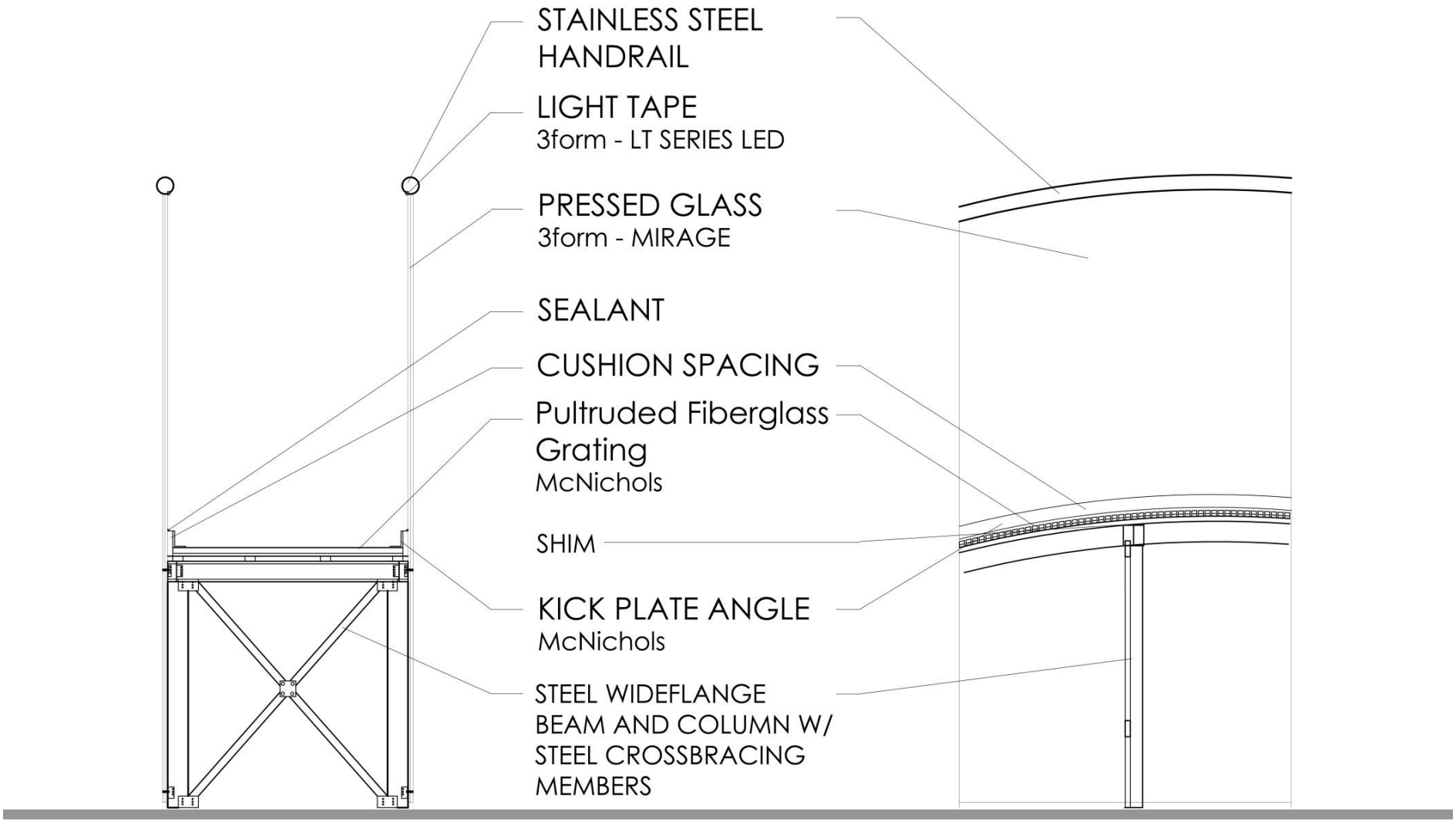


Tacticle Pavers Street Inlay | West | Scale 1" = 1'-0"

Steel Tacticle Inlay | East | Scale 1" = 1'0"



Tacticle Pavers Street Inlay | West | Scale 1/4" = 1'-0"



Walking Ribbon Detail Sections | Scale: 1" = 1'0"

STOP
LOOK
LISTEN
RELAX
ENGAGE
INTERACT

Final Presentation

Stop | Sit | Look | Listen | Relax | Engage | Interact
Concept
Precedents
Materials
The Ribbon
Site Analysis
Process
Site Analysis of Stops

Stop | Sit | Look | Listen | Relax | Engage | Interact
Precedents
Materials
The Ribbon
Plans
Details

Process
Site Analysis of Stops
Design Analysis

Site Analysis of Stops
Design Analysis

Site Analysis
Process
Site Analysis of Stops

Process

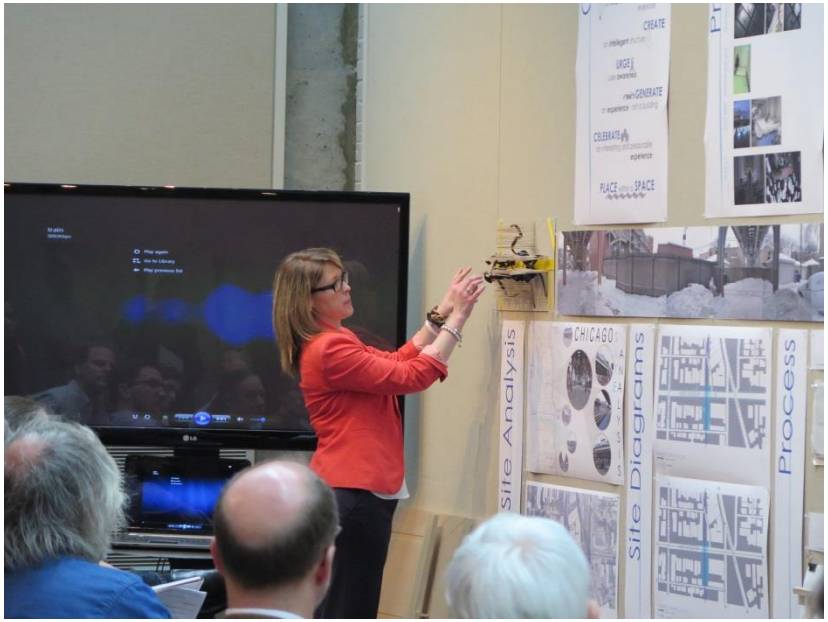
The Ribbon
Site Analysis of Stops
Design Analysis

Concept
Precedents
Materials
CHICAGO
Site Diagrams
Site Analysis of
Design A

Stop | Sit | Look | Listen | Relax | Engage | Interact
Precedents
Materials
The Ribbon
Plans
Site Diagrams
Process
Site Analysis of Stops
Elevations & Sections

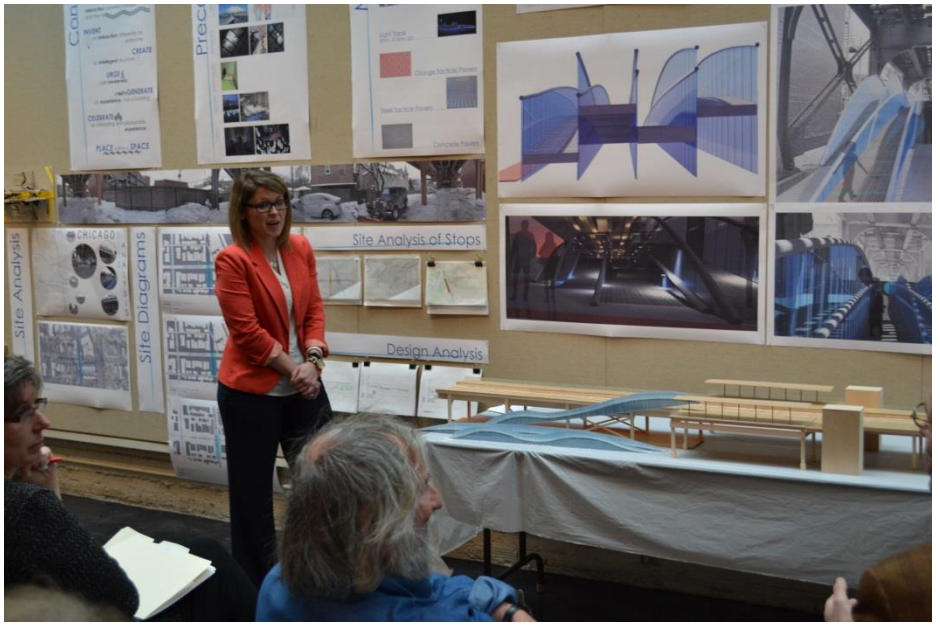
Elevations & Sections

Elevations & Sections


CREATE
GENERATE
CELEBRATE
PLACE
SPACE
CHICAGO
Site Analysis
Site Diagrams
Process

Plans
Details
Elevations & Sections
STOP
LOOK
LISTEN
RELAX
ENGAGE

Site Analysis
Site Diagrams
Elevations & Sections


Site Analysis
Site Diagrams
Site Analysis of Stops
Design Analysis

The Ribbon