

Area IV

Landscape Architecture Junior Spring 08 Design Studio Project Two



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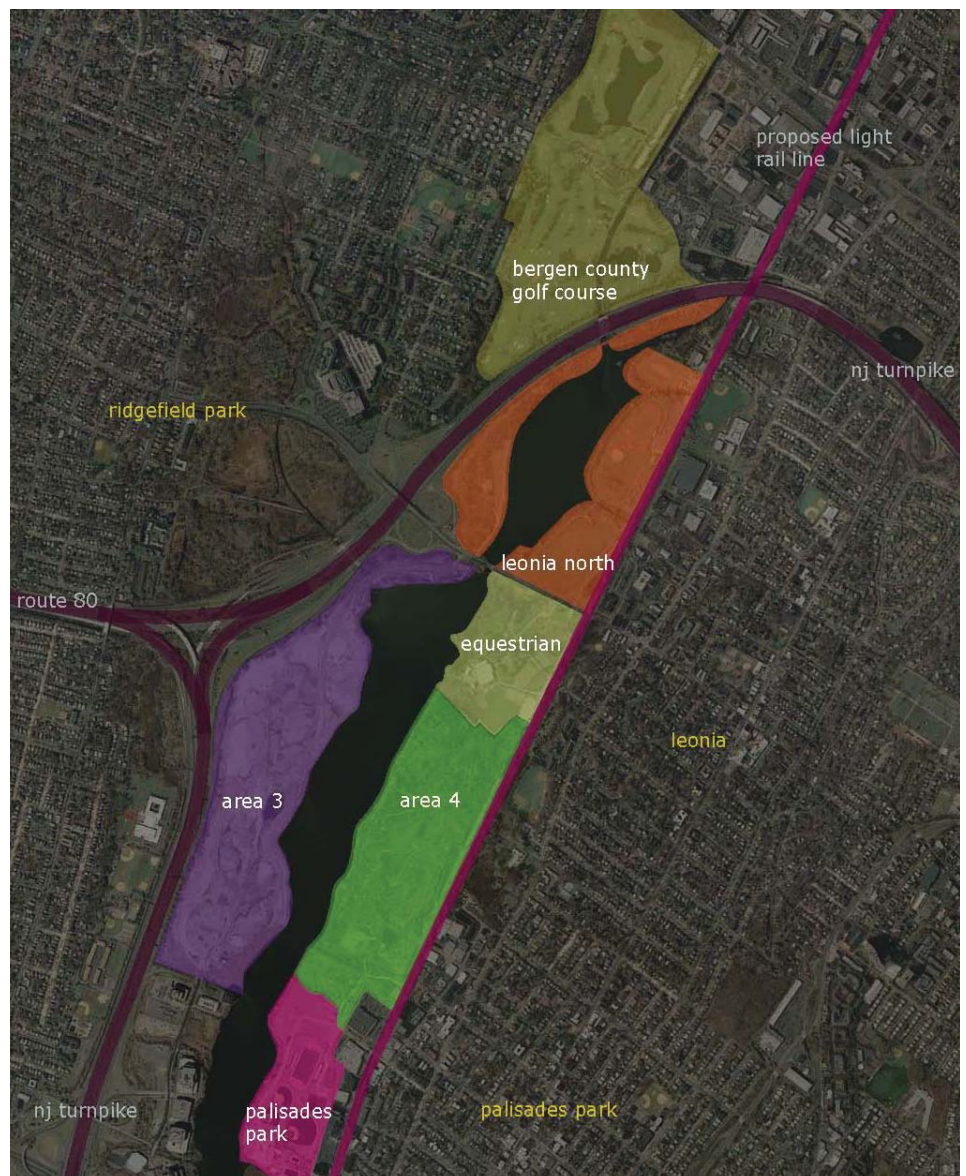
1 Introduction

1.1 Site

James Brosius
Charlie Oropallo

Overpeck park is located in Bergen County, New Jersey and consists of 811 acres along Overpeck Creek, a Hackensack River Tributary. The site was historically a brackish tidal creek and part of the Meadowland ecosystem.

In 1954, President of the Bergen County Park Commission, A. Thornton Bishop, proposed development of a park to rival Central Park. The surrounding municipalities of Leonia, Palisades Park, Ridgefield and Teaneck agreed to donate land for development. Overpeck Creek was dammed to create Overpeck Lake. However, the new freshwater lake disrupted the ecosystem and became a breeding ground for mosquitoes. In order to fix this problem and to create usable parkland, the county decided to fill swampy areas with municipal waste, with parkland developed on top.



The Northernmost area of the site was developed into the Bergen County Golf Course, the Area known as Leonia North was developed into an active recreation park with sports fields and memorials. The southernmost area in Palisades Park was developed into a recreation and sports complex, and Area III, in Ridgefield Park, is currently being developed. Though the northern area of Area IV has been developed into a very popular equestrian center, the larger area of it remains an open landfill.

Though it has not received municipal waste for quite some time, the site has never been properly dealt with. It started receiving waste in the 1950s, prior to the establishment of the Clean Water Act. The site has never been capped, and waste is clearly present throughout the site and along the Overpeck Creek. Volunteer growth of mostly weedy species is present throughout the site.

Despite this, the site hosts a variety of interesting uses and users. The volunteer growth serves as habitat to migratory birds, and brings with them many birdwatchers. Red-tailed hawks and bald eagles frequently visit the site. A local enthusiast has even mowed trails through the phragmites and has embraced the site as a nature preserve. The site is also home to at least two groups of squatters, one of which has constructed a sizeable dwelling, complete with a vegetable garden.

The site consists of approximately 200 acres. A service road runs along a freight rail line on the eastern edge of the site. A large rubble pile is in the center of the site, containing construction debris from development along the Palisades Cliffs. Municipal





waste was filled to approximately 15 feet throughout the site. Though it can be assumed that the organic waste deposited at the site has decomposed, much of the site has exposed non-biodegradable waste such as plastics, glass and metals present on the surface. Larger items such as refrigerators, clothes washers and even automobiles can be found littering the site. Most disturbingly, waste was dumped all the way to the waters' edge. The banks of the river are not stable and erode solid waste directly into the waterways, littering the lake with garbage.



The landfill represents not only a sad history of man's desecration of nature and a public safety nightmare, but also a tremendous opportunity. Area IV is over 200 acres of undeveloped county land with waterfront property. With an appropriate design solution, Area IV could be transformed from a landfill to a landmark example of park design for the 21st Century.



1 Introduction

1.2 Methodology

Wolfram Hoefler

The methodology *Morphological Box* offers the opportunity to integrate the inventory and analysis into the design process and to increase the number of possible creative solutions. It is based on the morphological thinking by Fritz Zwicky (1969) and was further developed by Peter Latz at TU Munich. I have built upon and adapted this methodology for this portion of the course.

Our studio project is facing the challenge of numerous environmental problems, social issues and aesthetic questions which, are all inter-related to each other. For example, any possible solution for the capping will of course have a strong effect on existing vegetation and on any proposed planting design. A complete cap will kill all trees. And this conflict does not even touch the issues of possible uses in the park or accessibility, etc. This complexity demands that we implement a specific design methodology.

In contrast to the first part of the semester, this project is not organized in assignments but in phases. This demands a higher level of organization and responsibility by each group member, but it offers the opportunity to develop and practice methodological design skills in a more mature manner.

Issue 1 Problem Statement Criteria	Issue 2 Problem Statement Criteria	Issue 3 Problem Statement Criteria	Issue 4 Problem Statement Criteria	Issue 3 Problem Statement Criteria
Status Quo 1	Status Quo 2	Status Quo 3	Status Quo 4	Status Quo 5
Diagram 1.1	Diagram 2.1	Diagram 3.1	Diagram 4.1	Diagram 5.1
Diagram 1.2	Diagram 2.2	Diagram 3.2	Diagram 4.2	Diagram 5.2
Diagram 1.3	Diagram 2.3	Diagram 3.3	Diagram 4.3	Diagram 5.3
Diagram 1.4		Diagram 3.4		Diagram 5.4

Phase # 1

Inventory and Analysis

Your site analysis will reveal that it will not be possible to combine all these demands easily on the site. Additionally, it will become obvious that there is not one clear solution for issues like pedestrian, bicycle and vehicular circulation etc. In order to be able to address these issues properly each group will develop a matrix.

The matrix is composed of 5 to 7 issues. The first step is to define the most relevant issues. Then, each group will develop a problem statement for each issue. In our example capping is an important issue and the problem statement will describe why a cap is necessary and how this will relate to possible uses and a possible park design. The second step is to describe criteria to evaluate possible solutions; what would be a good solution for a cap and what aspect would make it a bad solution. You will do these problem statements and criteria for all your 5 to 7 issues.

Phase # 2

Alternatives

In the next step, each group develops 3 to 7 diagrammatic solutions concerning each issue. For that it is important that each solution is truly diagrammatic: it shows the important aspects of a solution in an abstract diagram that is to scale. It is imperative that each alternative concerning the same issue has the same scale, the same level of abstraction and is significantly different from each other.

However, the scale or even the representations (diagram or text) of alternatives of a different issue can be diverse. Diagrams for the issue of capping may only consider the site, diagrams about access may consider a larger context and are of a different scale.

Phase # 3

Evaluation

The status quo will always be treated as one option and is evaluated in the same manner as the other options. The diagram of the status quo is basically the inventory of the existing conditions. The evaluation of the existing conditions is an in depth analysis with respect to the developed criteria. One major principle of environmental design that will be stressed during the course is that the effort of changing an existing situation has to be justified by a noteworthy benefit. The existing condition is always one option.

This process shall lead to one preferred solution with respect to each issue (not to an overall design!) and a red yarn shall visualize the connection between the preferred solutions.

Phase # 4

Test Design

All preferred solution will be transferred to the same scale and will be overlaid. It is very likely that the overlay will show that the different solutions do not match. Now you will have to go back to the matrix, do a new solution that will match. It is important to note that this is not an arbitrary 'fixing', this process creates awareness which aspect of a preferred solution has to be altered in order to develop a comprehensive design, which evolves from an overlay of solutions through several test designs into a final design.

Phase # 5

Final Design

The fine tuning of the design is using the 'performance' methodology that was introduced in the first part of the semester. Please use plan drawings, sections, perspectives and working models as tools in the design as appropriate. The outcome shall be a final a proposal that intergrates environmental issues and demands of the public into an innovative design.

Phase # 6

Documentation

Final product will be a brochure that documents acquired data, research papers, and reproductions of models and drawings. Layout details (chapters, headlines, font, graphics, etc.) will be discussed in class. This document will cover project one and project two of the class. For a professional appearance of the final booklet, consistency is essential.

2.1 Interpreting the Urban Grid

Jessica Cummings, Eric Drop,
Shauna Koenig

When considering the larger context of the site, we felt that the grid system of the local area, including the proximity of New York City, could translate directly to the park itself. Our design consists of areas similar to city blocks, mimicking neighborhoods of different habitats, dividing up the 200 acres of the park.

Each block is approximately 10 acres; this size and rectangular shape is an attempt to promote safe habitats for the plants and animals who will be living there; the rectangle blocks have less edges – center is safer for critters; safer from predators, disturbance, denser;

It was important to not so much restore, but rehabilitate this large piece of land for human enjoyment but also we had the responsibility of creating healthy habitats for flora and fauna as well, creating a balance between protecting the environment and providing recreational opportunities. We established a site that could primarily provide for different levels of activity and engage in the waterfront but yet still provide habitats for wildlife without much disturbance. The major elements

conceptualized in our design are a grand concourse, which connects multiple entrance points and allows for a central gathering space, a lookout point that provides a view into the meadows and horseback riding trails, and a bike/pedestrian pathway that borders a great lawn on the west side of Area IV, and along the eastern border which allows for access from the surrounding neighborhoods in Leonia and Palisades Park.

The grand concourse is deemed our “city center”, with broad avenues lined with allees that lead you in and out. Park goes emerge from this canopy into the great bosque, and at the center is a large circular clearing containing a central fountain, hedges, three rings of ornamental flowering trees, tables, and benches. This can be used on an everyday basis for gathering and sitting or for concerts and public meetings. Just immediate to the allee along the east and northeast ends of the site, is the dense forest consisting of mixed deciduous and evergreen trees and shrubs

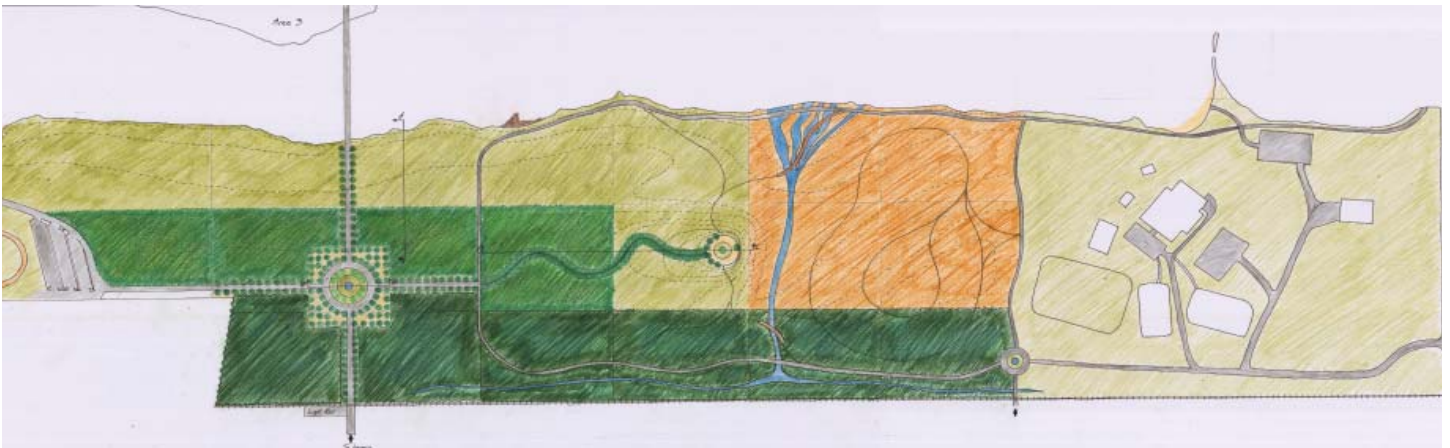
A lookout was created toward the center of the site to provide a

great view and different distinctive experience from the rest of the park, both on the gradual slope up and at the lookout. It would allow for viewing of the meadows and horseback riding trails to the north, and the great lawn and Overpeck Lake to the west. Birds could be viewed from the lookout without creating a direct disturbance of their habitat. A swale extends through the meadow east to west, to allow for collection and treatment of runoff water created from within and the surrounding neighborhoods just east to the site. The current rock pile on site was removed to allow for the gradual grade change leading to the lookout. The removed rock was used to create a jetty, which can be found along the southwest embankment along the Overpeck Lake, to add appeal to park users along the bike/pedestrian pathway and from the footbridge connecting Areas III and IV. The great lawn area directly west of the lookout was developed with slightly rolling hills and large specimen trees throughout to provide for shade and beauty. It was designed to allow for park users to gather about and to take in the views along the Overpeck Lake.

Our context of design for Area IV of Overpeck County Park was developed through a methodology, based on several criteria we deemed important for creating a new passive park for the County

of Bergen. This methodology involved evaluating the existing conditions of each criteria, and then generating and evaluating several alternative options. Once we had picked the best alterna-

tive for each criteria, we overlaid these specific elements to create our first design. From here, we revised the original overlay many times to come up with our final design.



Plan View



Methodology

CAPPING/LANDFORM

Problem Statement: The site presently displays exposed garbage, primarily along the eroding embankment of the Overpeck Lake, as well as throughout the site. The site's current grade is relatively flat, with the exception of a rock pile near the site's center.

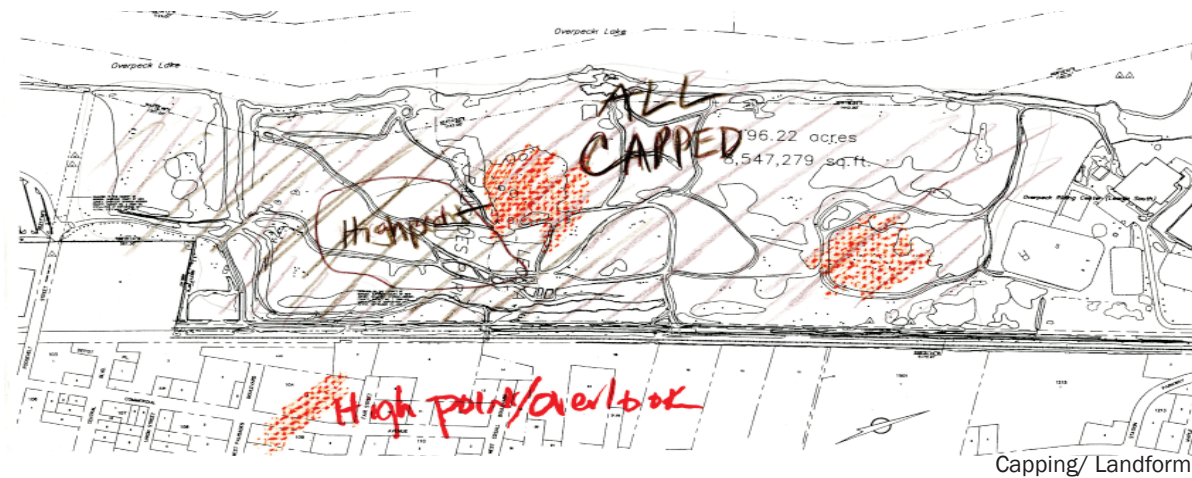
Criteria: A full cap would help to prevent erosion and garbage from being exposed in the fu-

ture. Vegetation would flourish in newly added soil and provide for habitats of wildlife. Creation of new landform throughout the site would provide different elevation experiences for all park goers, i.e. overlook/lookout. The current rock pile would be used to provide a rock jetty in the Overpeck Lake.

CIRCULATION

Problem Statement: There are two major entrances to Area IV,

found at the north and south ends. Currently there is no set circulation pattern within the site other than created by the users of the Overpeck Preserve, which includes numerous winding footpaths throughout the entire site. **Criteria:** Circulation should provide for different levels of activity, from walkers, joggers, cyclist, and horseback riders. It should also allow for interaction with the waterfront and feel safe and secure.



USES AND USERS

Problem Statement: The primary users of the site are wildlife and horses, which allows for education of habitats, bird watching, horseback riding and recreation. However, the site's under development has allowed for "squatters" who have used the site for home and shelter.

Criteria: The new site should provide as an escape from daily living. An exploration of different habitats would provide an edu-

cational value for park goers and could allow for future school field trips to see wildlife up close.

ACCESSIBILITY

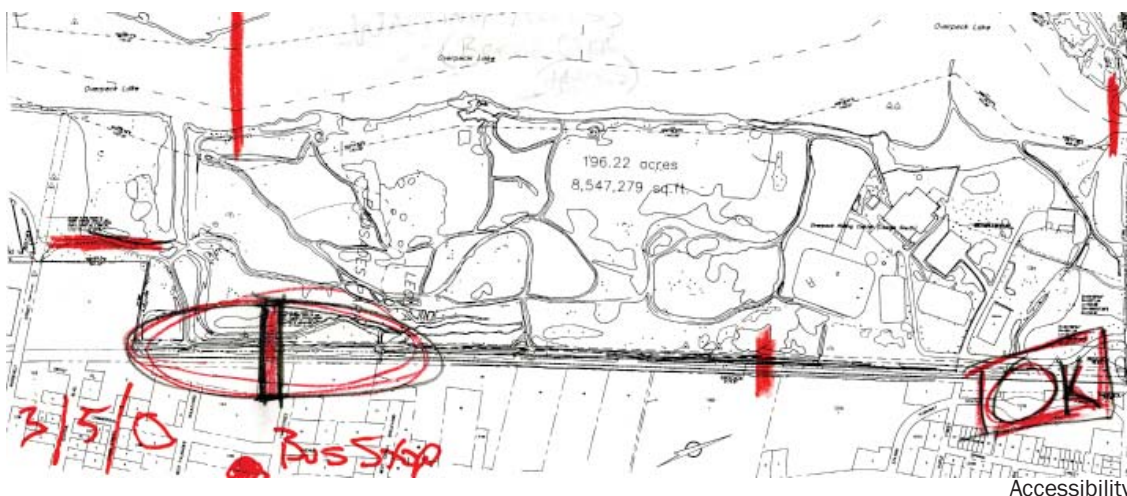
Problem Statement: The site is completely surrounded by highway and local roads. There is public transportation via NJ Transit bus close to the site, as well as NJ Transit Pascack Valley Line within 2 miles. Directly to the east end of the site is a freight train railway which disconnects neighborhoods surrounding

the site that are within walking distance. There is presently no direct connection between Area III across the lake from Area IV.

Criteria: More gateways and corridors to the neighborhoods and adjacent parks would create a more open feel, creating higher usage of the park for the surrounding towns. Construction of a footbridge connecting Area III would allow people west of Area IV accessibility as well.



Users and Uses



Accessibility

WATER

Problem Statement: Overpeck Lake was established to provide a picturesque view within the original site. It has the potential to act as a focal point but presently is disconnected from the site. There is one major inlet at the southwestern end which extends through the site to the east end, and parallels railway and local neighborhoods

Criteria: The site should allow

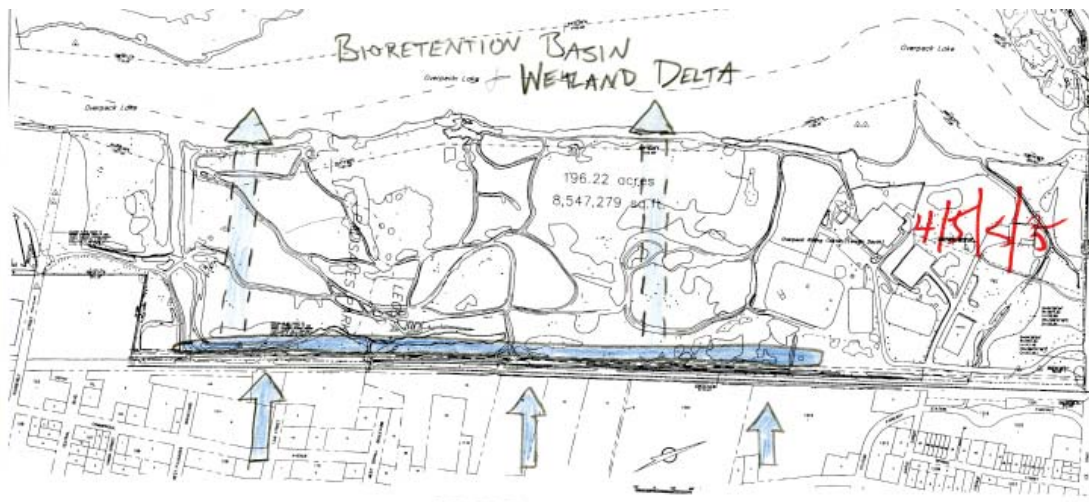
for parkgoers to interact with the waterfront along Overpeck Lake. The creation of a swale would allow for handling of runoff water from the site, while creating a wetland delta to promote biodiversity.

VEGETATION

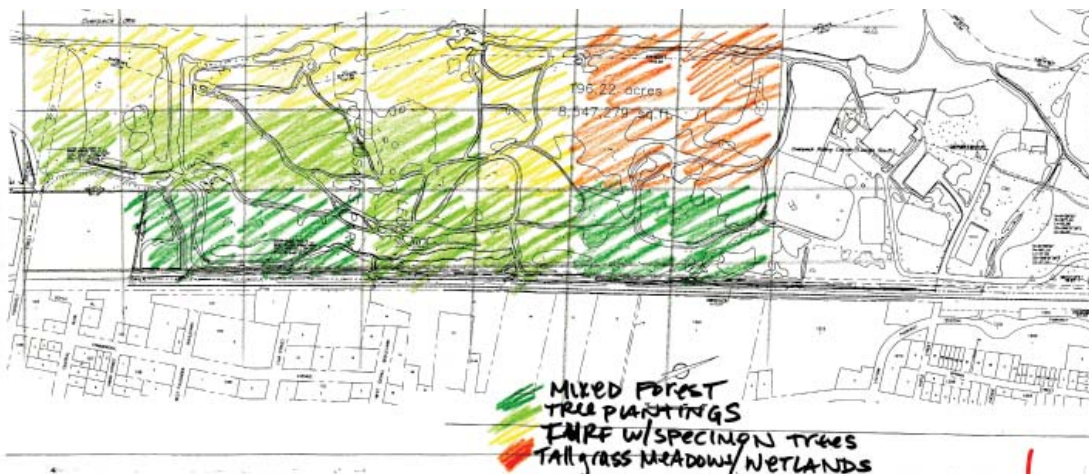
Problem Statement: Current vegetation is entirely voluntary. Of great note is a tree fallen on its side revealing its roots growing in garbage. Another major aspect is that of the phragmites

which crowds the current man-made, winding footpaths.

Criteria: Introduction of new vegetation of various deciduous and evergreen trees, to create a forest. The implementation of warm grass meadows will provide habitats for different species of birds and other small wildlife creatures. The vegetation will be the primary factor in creating space.



Water

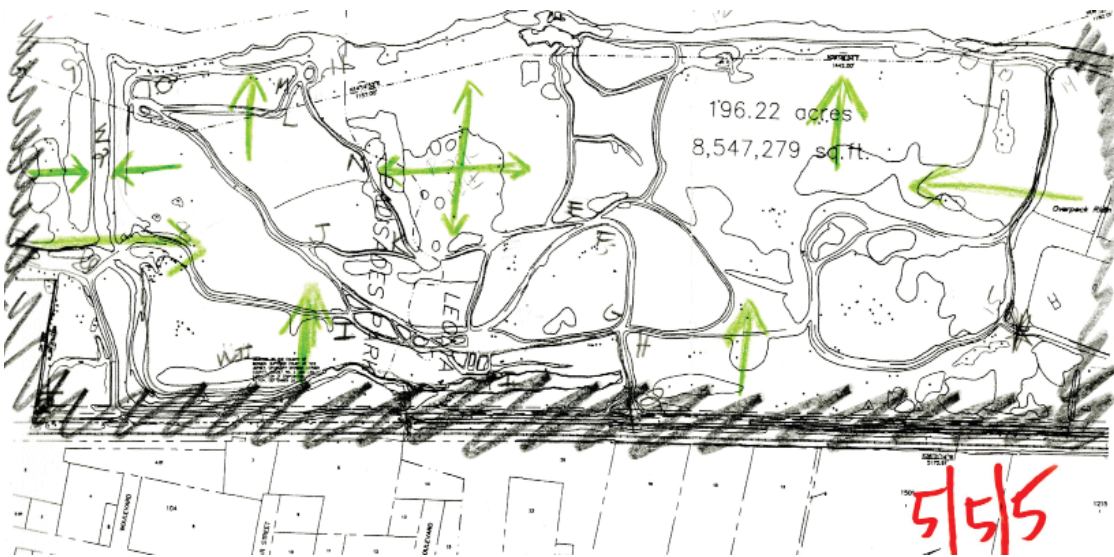


Vegetation

VIEWS

Problem Statement: Views within the site are limited by the height of invasive vegetation and lack of grade change throughout the site. Directly to the south and southeast ends, a ShopRite and various industrial/commercial buildings are noted.

Criteria: Bad views should be buffered to allow for a more pleasurable experience. Visibility within the site should be increased to provide views of the lake and Area III.



Views

2.2 Area 4: Building Habitat on the Remnants of the Past.

James Bykowski
Bill Conticchio
Greg Carlino



Introduction:

Our design exploration of the 21st Century Post Consumption Park began with the idea that its future could be open and as of yet largely undetermined. Our intent was not necessarily to define all the things this place would be now, but to create a viable, workable space that started with the best set of conditions we could provide for it given its unfortunate past

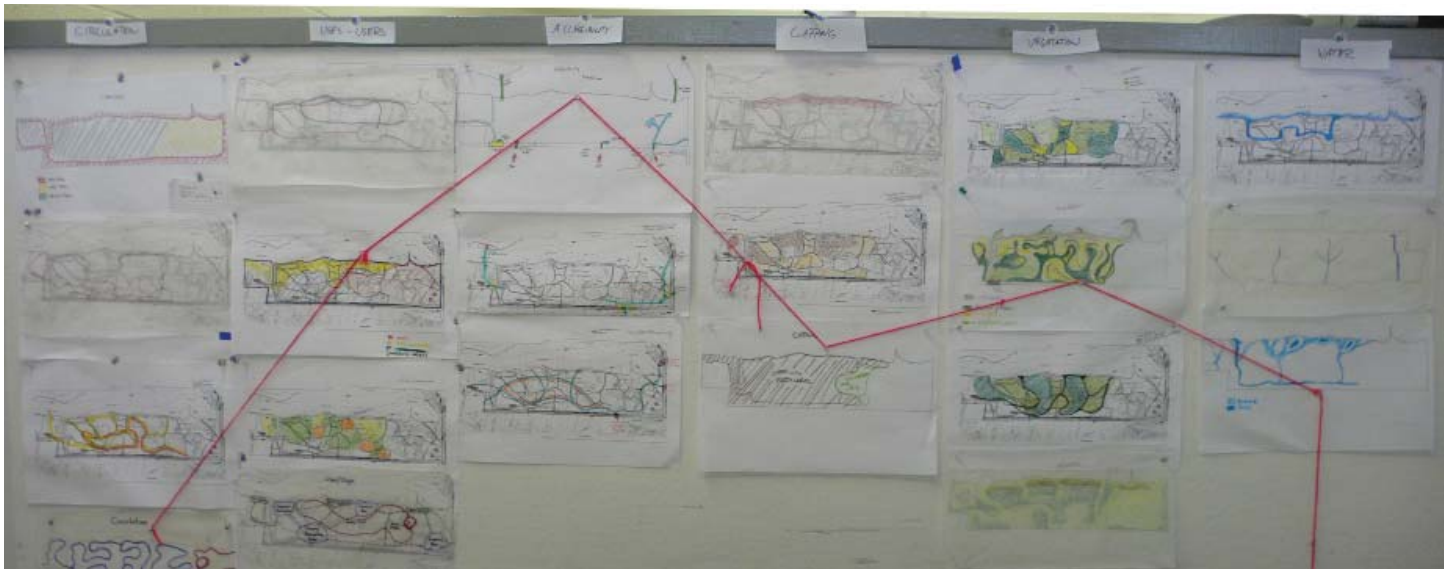
Contextually, the Overpeck Preserve site is ringed by many amusement and activity based parks, golf cours-

es and dense urbanization suggesting an opportunity to create something passive by contrast. Despite being an abandoned former landfill site, some wildlife has established itself over several decades. And while virtually any meaningful reclamation would require human intervention we seek to leave it appearing as under engineered as possible.

Finally we're mindful of the site's recent history changing hands from the residents of neighboring towns to that of county control and the lack of care since then. To those who



donated this site we seek to provide redemption in the form of a semi wild space to educate and enjoy.



Methodology:

By first listing issues, then attaching problem statements to each, then suggesting possible solutions we engaged in a closed loop analysis to test solutions against current conditions and restrictions. Exploration sketches gave our discussion a visual reference for each alternative. We selected the best outcome for each of the following.

Circulation: After considering several options including a single, common circulation, we chose Separate Zoning of Pedestrian/Biking and Horseback Riding to avoid conflict while still providing experiential usage. While we now feel a hierarchical path system would provide a stronger, clarified movement within the park we also appreciate the simple, random route that exists in our work.

Accessibility: To provide principle access and safety to those stakeholders who donated the land to the county in the first place, two ¼ mile spaced platform light rail crossings would serve residents of the condos and those using the small private park to the east. In addition access

through a designed light rail station and from the Shop Rite parking area and sports fields to the South were intended to add secondary access to those potentially from outside the neighborhood.

The Light Rail station could be made commercially viable by a footbridge link to the Office Park on the Southwestern shore of the lake via the most direct route through the park we could envision. Perhaps just as relevant, this station and attached shaded grove act as an important connection to the urban fabric of the streets beyond.

Capping: Determining that the only viable way to shield people as well as future wildlife from the garbage spread over the entire site, the prudent use of 15 feet of soil capping was chosen only after partial capping was considered. This choice would also help in better long term vegetation growth and diversity. An unintended consequence was the filling of a drainage channel coming in from the lake and running along the train tracks running North/South.

Water: As a result of the above channel filling from capping, drainage contours were created in the new fill to facilitate runoff towards the lake now that soil retention is achieved with rock shoreline or into swales. This would also reduce mosquito breeding and further shield people and wildlife from garbage during continued detoxification. Continuation of created greenways across site also helped establish an Interfluvial system acting as a surrogate drainage divide.

Vegetation: Initial consideration of retaining some existing trees and brush growth gave way to Zoning new Forrest, Meadow, Stone, and Turf/Earthworks over entire site. Spacing and sizing considerations of zones were approximated to provide what we hope would be a diversity of shelter spacing and provide microclimates to new species. Also, this shaping of vegetation zones seeks to reduce solar radiation while channeling wind flow to carry heated air from meadows and pollution from urbanized borders out and over water to cool and disperse. We chose not to specify vegetation at this stage of planning.

Program:

The reclamation of Overpeck Preserve or “Park” seeks to add miles of biking, running, walking and equestrian trails through forest of varying density, edged by great meadows, biomorphic water features and dynamic earthworks. While time did not permit the fullest exploration of all these together we believe our design indicates the beginnings of a site where visitors can discover new views and textural experiences.

Like that of Fresh Kills land fill in Staten Island New York, Overpeck Area 4 would, through it's adaptable nature offer a place where new habitats could develop along side of the reintroduction (post capping) of what is currently there and become both biologically and economically sustainable.



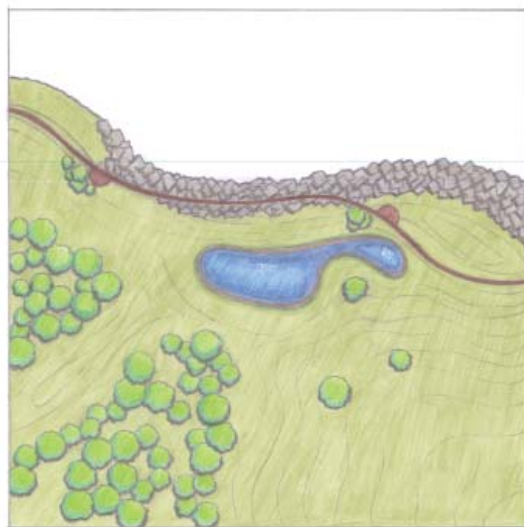
Inspiration:

On the way to a design Methodology we encountered the landscapes of Roberto Burle Marx. Our interest in Marx was brought on by his use of form and color. The apparent adaptability and economy of expression within his work served as a basis for a design language we could use. Marx's landscapes designs were viewed by many as paintings using rhythm and shape in bold greens and yellows to convey emotional response. These biomorphic shapes represented blocks of plantings

rather than individual vegetation. Their uniformity were only broken by the detail each plant revealed on a smaller human scale. For this reason we choose to use a Marx like graphical presentation to achieve a community "buy in" when proposing our plan. Like the Marx gardens for Odette Montiero and Olivio Gomes, our design seeks to reject formalism and structure while forming a symbiotic relationship between wildlife habitat and man where he is the observer more than the participant.



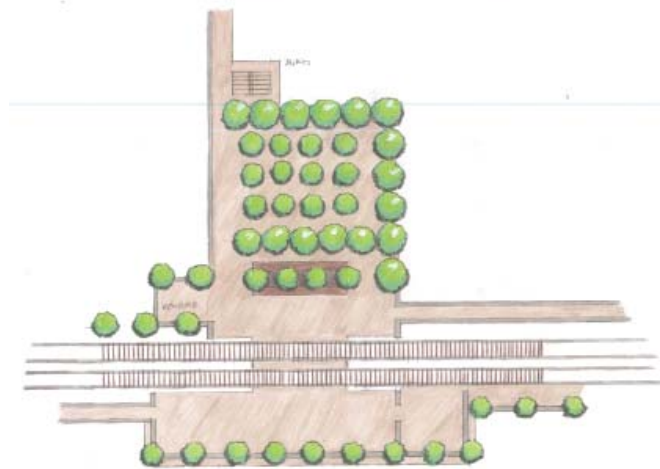




A Walk On The Waterfront

Scale : 1" = 50'

Connecting With The Urban Fabric



NJT Light Rail Station

Scale : 1" = 20'

Closing Thoughts:

While the scale of our site and time constraints did not permit a more detailed spacial exploration of new vegetation and earthworks, we are satisfied with the results. An informed exploration of habitat development through consultation with staff in other departments would determine whether our vision for the site is supportable. Further study of water and wind patterns, habitat requirements and changes in proposed grade could result in design alteration.

2.3 Waterfront

2.3.1 Approach - Design

Bryan Obara
Shane Umbach
Cha-wen Rung

When an artist is given a canvas, one paints; but how do you work with a canvas that has been used, soiled and mistreated? Do you discard, paint over, or do you reshape and create something that is a blend? Our process was driven by waste.

The extreme amounts of exposed waste from the eroding landfill presented not only an environmental hazard, but a health hazard to anyone who would visit the site. Our solution, as commonly practiced, would be to pull back all exposed waste further back within the site to be covered by extra fill. This not only solved our problem with waste hazards, but shaped our earthworks within the site. Since the entire site would be capped, this saved the desired waterfront experience by maintaining a closer profile to the Overpeck Creek. The lower topography near the water allowed for the development of wetland functions along with the desired human experience. The higher quality sediment is essential for a healthy benthic ecosystem.

Although the site will never return back to the state it previously was, nor should it, our analysis of the

site context revealed that estuarine habitat was essential within this urban fabric. The majority of the surrounding open space is either entangled in major roadways or developed into playfields, many with artificial turf. Surely only meant for human use. Instead of going to the extreme and excluding humans from what would become a habitat to many species, the local community is connected in order to learn and reconnect with the water front.

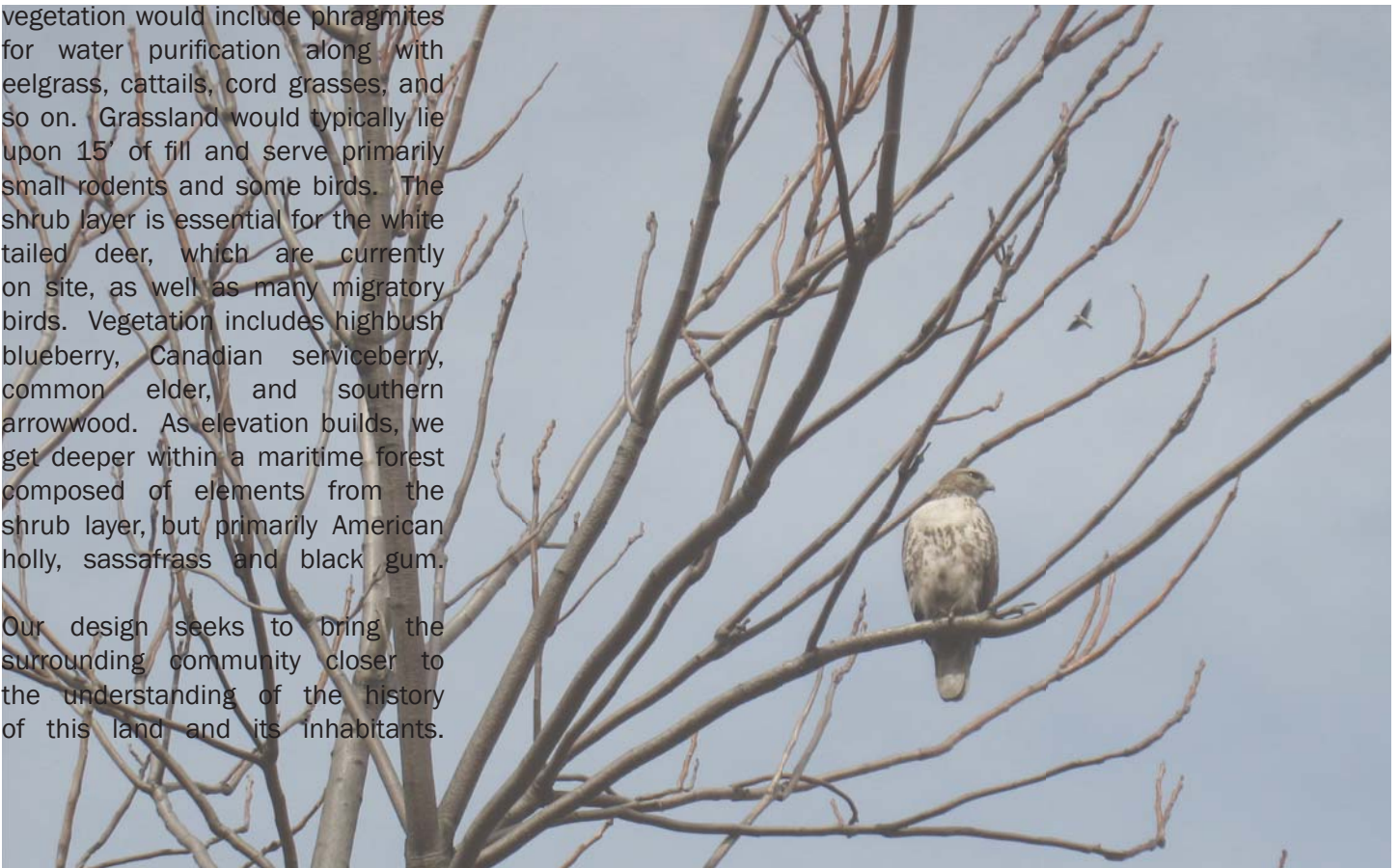
The site's history as a landfill would become evident through many of our design elements. The main pathways would be paved using recycled glass asphalt, while the smaller off-beaten paths would remain compacted soil to create more of an informal and intimate walk. The third type of pathway would be developed to go out into the creek. The floating walkway is developed out of recycled drums covered by a thin mesh. These would lightly undulate along with the water, bringing people directly in response to the water. The pathway snakes in between the vegetated barges which help to filter contaminants within the creek. Plants would be chosen based on concepts of phytoremediation.

Another design element inspired by the landfill were our gathering spaces or "holes in the landscape." Specific debris or elements significant to telling the history would be encased by concrete walls to retain the surrounding fill. Visitors would be able to walk up to it, restricted by a railing, to look upon the trash art. These gathering spaces are indicated on the plan through the light spots. The third major element we use reflects much of northern New Jersey by using sea box walls to retain some of the fill from the water's edge. A low amount of fill would remain at the base of the walls to maintain aquatic habitat.

The other designed habitats reflect the needs of the NY/NJ Harbor Estuary. These habitats were developed through the proposed topography and vegetation. The topo lines on our plan indicate the number of feet of fill after pulling waste away from the edges. It ranges from 5' of fill, all the way to 35' of fill. These higher elevations are connected through a bridge to allow for layered circulation and develop an entrance to inside the park. The lower wetlands would allow for further oyster reef development along with fishing nurseries. The

vegetation would include phragmites for water purification along with eelgrass, cattails, cord grasses, and so on. Grassland would typically lie upon 15' of fill and serve primarily small rodents and some birds. The shrub layer is essential for the white tailed deer, which are currently on site, as well as many migratory birds. Vegetation includes highbush blueberry, Canadian serviceberry, common elder, and southern arrowwood. As elevation builds, we get deeper within a maritime forest composed of elements from the shrub layer, but primarily American holly, sassafras and black gum.

Our design seeks to bring the surrounding community closer to the understanding of the history of this land and its inhabitants.





Method Morphological Box

External Circulation

Problem

There is no current direct public transportation to the site. Many of the local roadways and businesses are cut off from direct access due to the rail line.

Criteria

1. Provide mass transit stop near site.
2. Define entrance points from surrounding neighborhood.

Solution

Push the light transit stop to off of the site to minimize impact. Entrances would accommodate local residents by offering bridges over the railway into the park. Also, a shuttle bus could be developed to loop the nearby neighborhood and offer a stop at the light rail transit.

Habitat

Problem

Although this site is a landfill, it serves as a habitat for certain species as it is now. If any major changes are made to the site, it will impact the habitat which in turn will impact the wildlife dwelling there.

Criteria

1. Diversify habitat space
2. Minimal disturbance to current habitat
3. Open experience to visitors with minimal impact

Solution

The core phragmites would be maintained, however the goal would be to develop a more complex and better functioning system. Large swaths of vegetation would be interconnected to allow for the greatest movement of species and animals within the environment.

Vegetation

Problem

Invasive and volunteer growth
Lack of biodiversity

Criteria

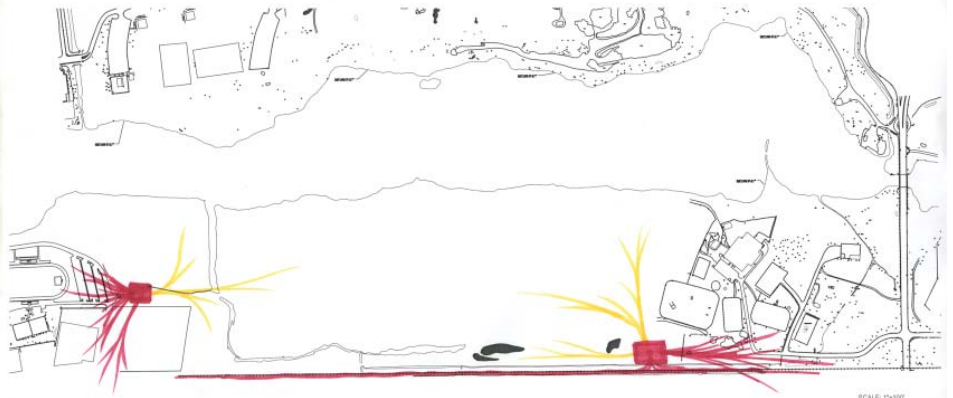
1. Spatial organization through vegetation height
2. Hierarchy of plant communities
3. Use of native vegetation

Solution

A layering of vegetation would occur, but reflect a gradual change in environment. The system would include low growing wetland, high growing wetland, grassland, shrub and scrub, and high canopy forest. This would highly reflect and even exaggerate the earthworks developed.

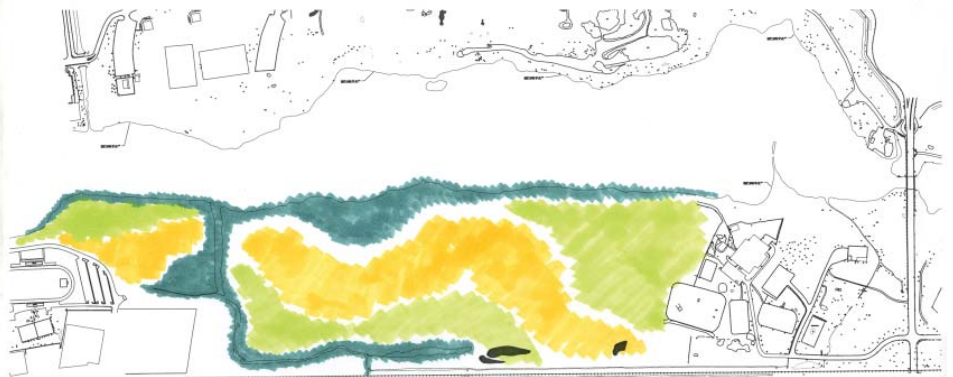
ENTRY

■ HUB
~ FROM
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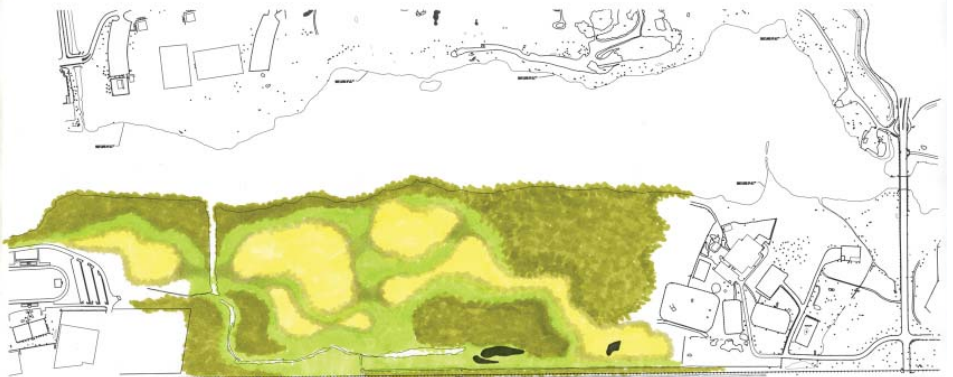
PROPOSED HABITAT

■ WETLAND
■ GRASSLAND
■ WOODLAND



PROPOSED VEGETATION

■ FOREST
■ SHRUB/SCUPE
■ GRASS/MEADOW



Site Circulation

Problem

There is no clear indication of who uses the path or who can use the path, providing a limited amount of walking experience. There is limited access to the surrounding community.

Criteria

1. To create different experience
2. Limit fragmentation of proposed habitat space
3. A path system that serves different users
4. Define entrance points based on access outside of the park

Solution

Develop a 2-order pedestrian system to accommodate different uses. A main pathway will be paved using recycled glass asphalt for the use of pedestrian and possible equestrian circulation. Stemming from these larger pathways would be “off-beaten” unpaved paths for a more intimate and wandering experience within the environment.

Earthworks

Problem

Poses a threat to park users
Poses an environmental hazard

Criteria

1. Deal in a way that poses no danger to park users
2. Deal in a way that minimizes environmental damage
3. Prevent further degradation of water quality

Solution

Waste on the site would be pushed back to build up a more dynamic topography on the site. The current water's edge and streams would be exaggerated by digging out exposed waste. All areas cut and filled would then be capped a minimum of 5 feet depending on health risk on nearby uses. Core habitats that would be limited to human exposure would remain uncapped.

Uses

Problem

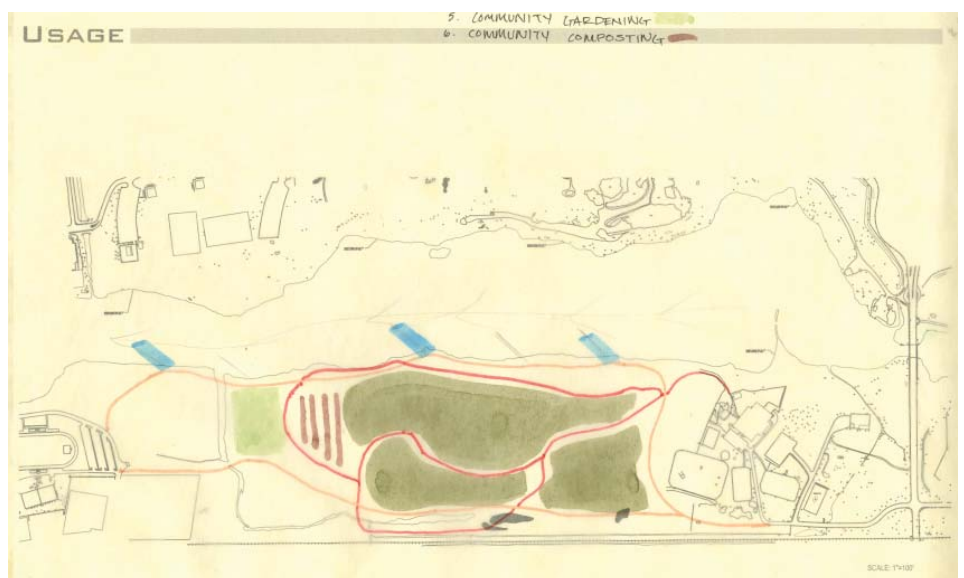
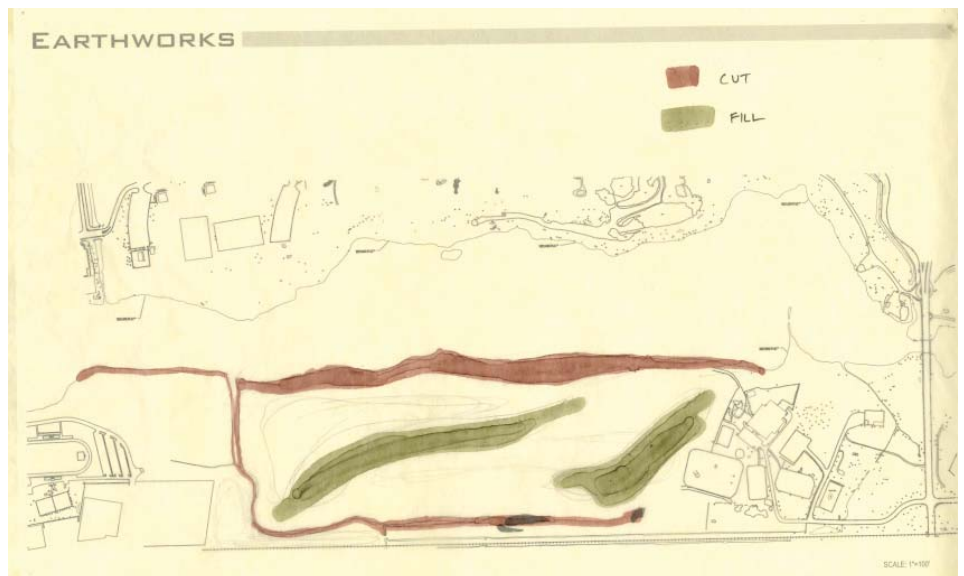
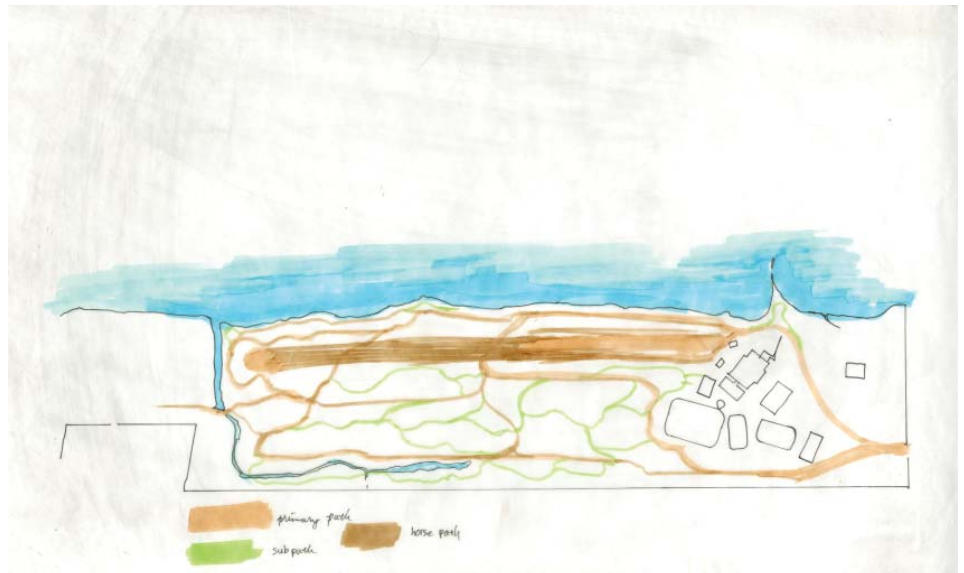
As with habitat, any major changes may affect park usage. Locals are also said to have conflicting expectations in terms of what the park should be used for.

Criteria

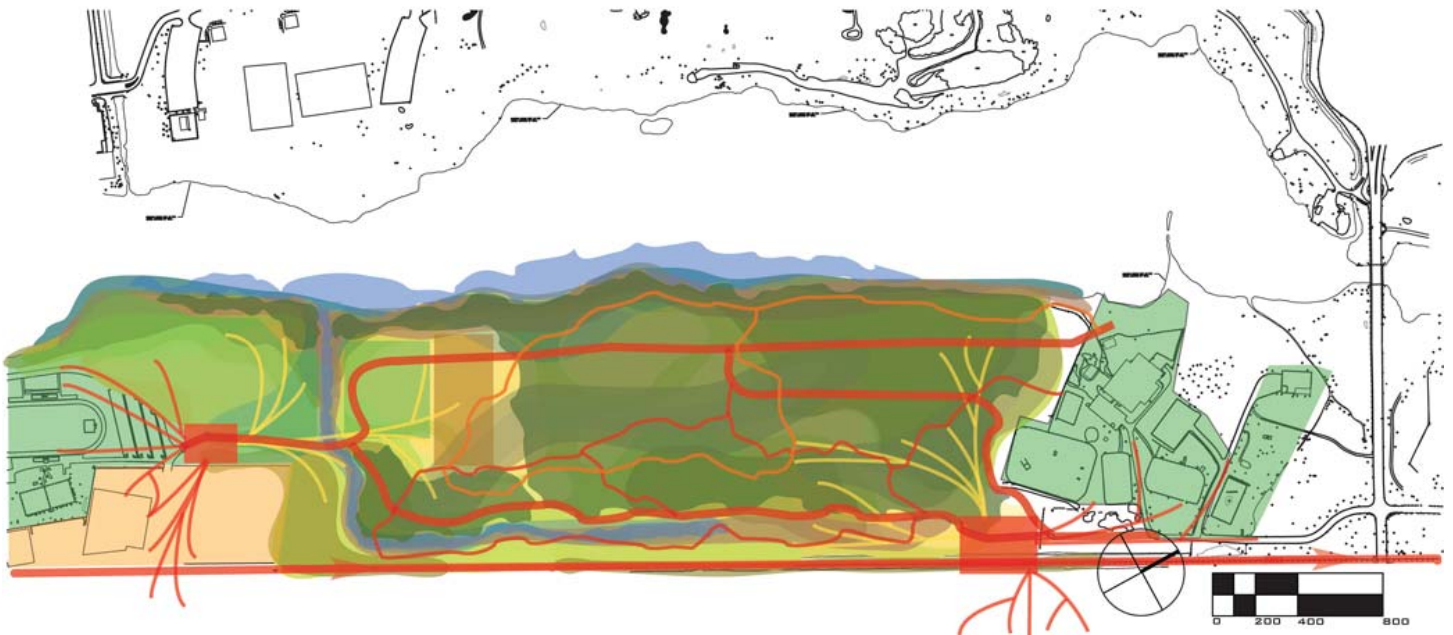
1. Get local residents involved
2. Accommodate variety of uses that coexist within a space

Solution

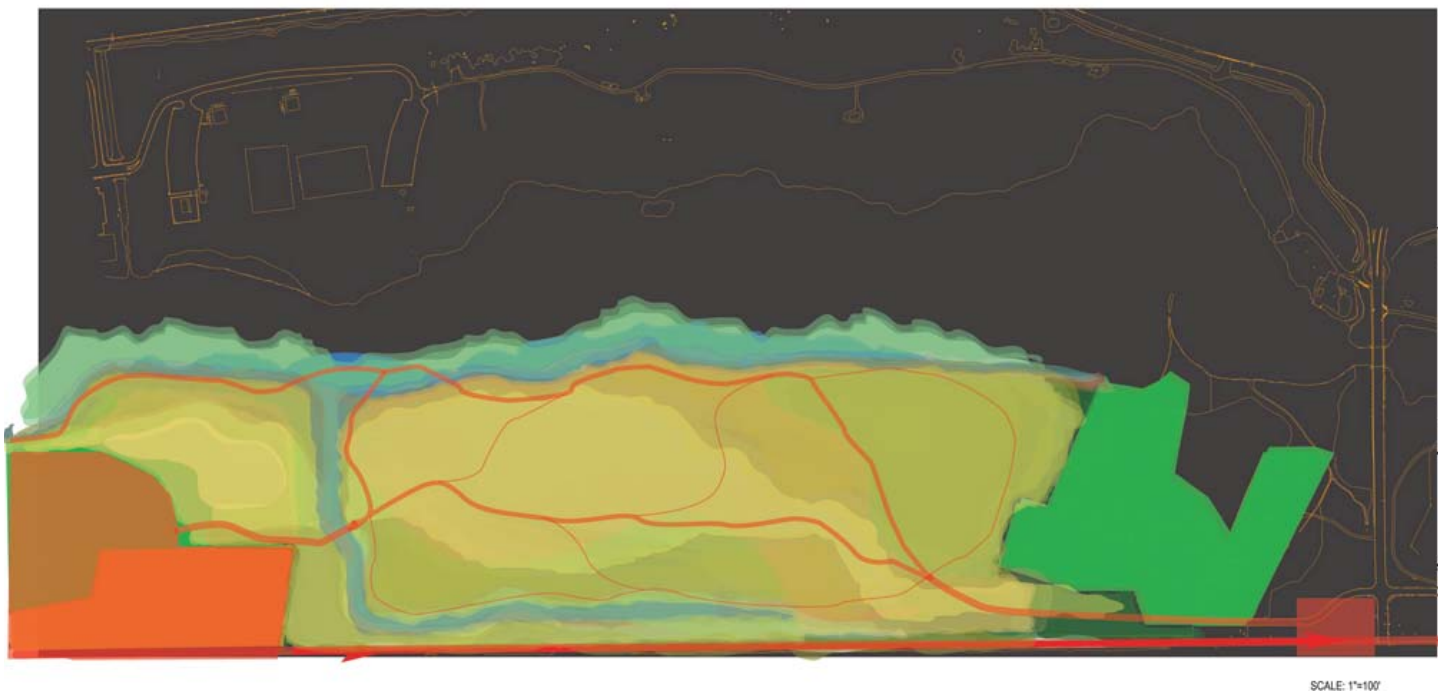
Use would be limited to pedestrian and equestrian use. Wild life observation would be able to occur in the more intimate pathways that connect with the inner proposed habitat spaces. Bikes would be stored at the entrances to prevent the extra complications with circulation within a site at this scale.



OVERLAY DESIGN



OVERLAY RE-DESIGN



SCALE: 1"=100'



The site's context reflects the dense residential fabric of Leonia, NJ. The lime-green areas represent recreational fields including those with artificial turf. Although these areas may be considered open space, they make poor habitat space. The Area 4 site is demarcated by the yellow tone. This large plot of land is currently the greatest habitat for animals within its surroundings. That is why its function shows a necessity to either remain or be improved.

2.3.2 Site Design Details



View from atop the shore wall, looking out towards the floating walkway and vegetated islands.



View of pedestrian bridge connecting the two higher elevations.

View of shore wall and floating walkway
from the planted barge island.



View of pedestrian bridge crossing
railway, forming an entrance into the site
from the eastern side.

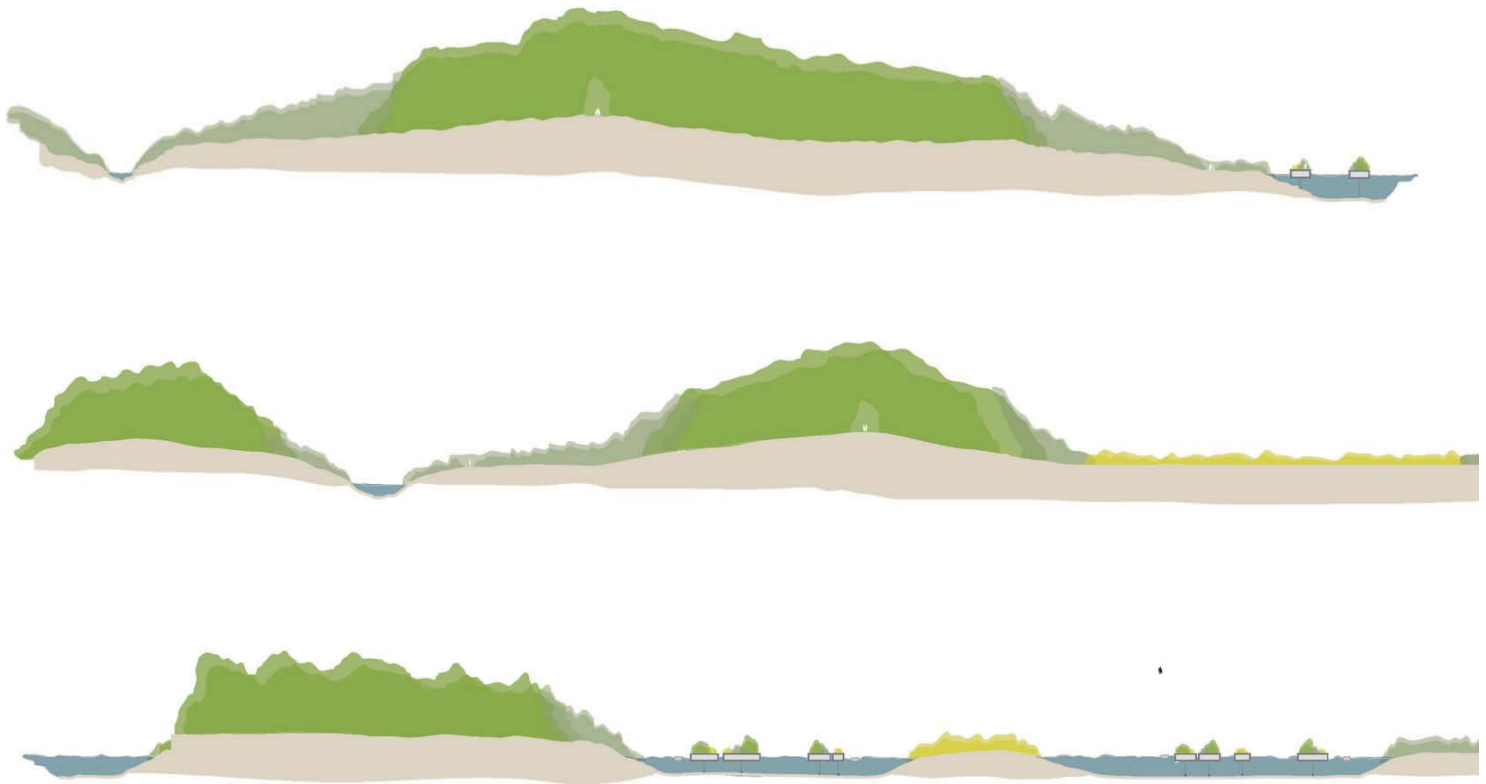


View of waste display pit showcasing
various displays of trash-artwork.



2.3.3 Section Elevations

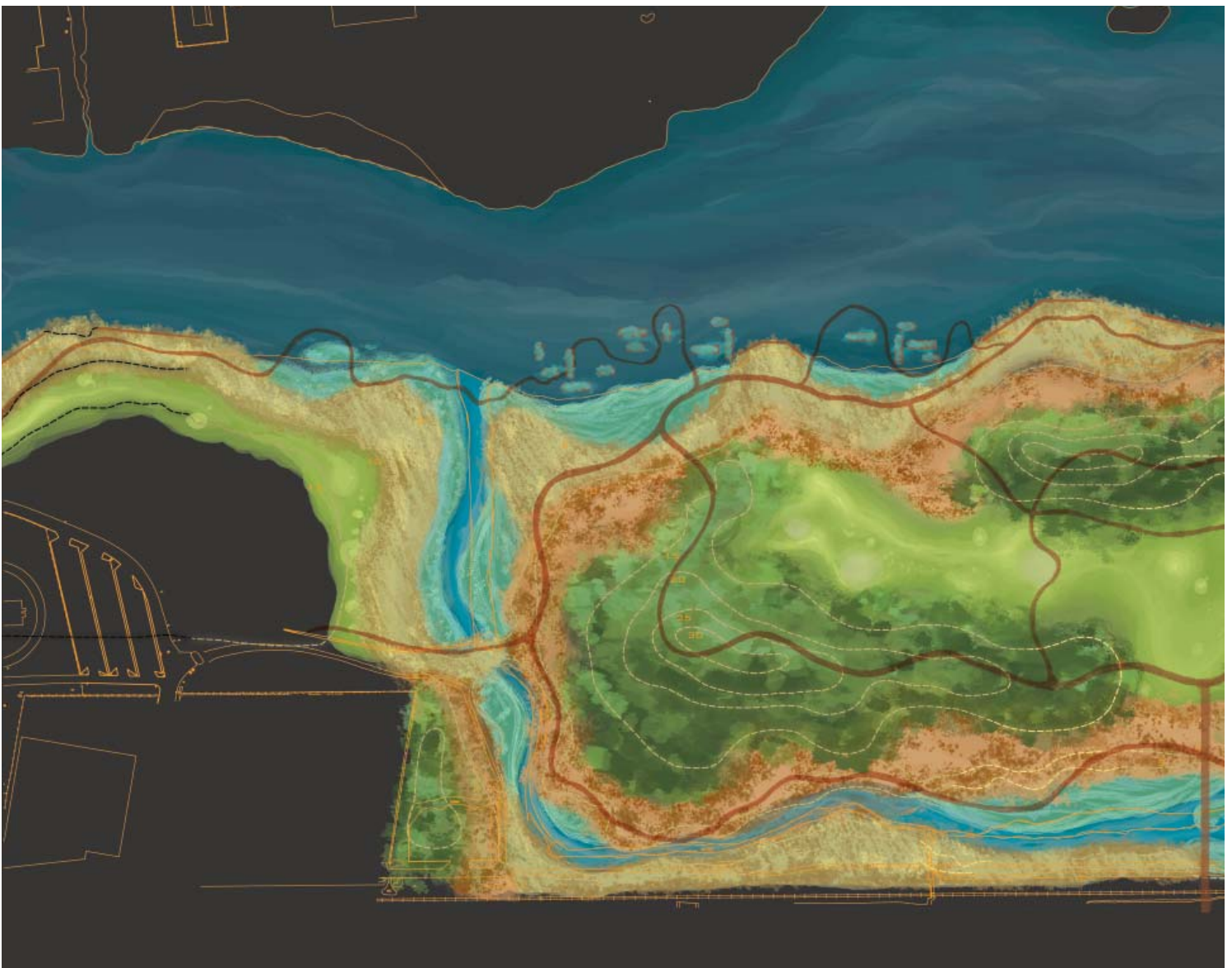
Our use of sections reflect the relationship of plant communities with land-form and the spaces created by them. The beige tone represents proposed fill profile, while the various proposed vegetated communities are represented by shades of green.





2.3.4 Site Plan

The canvas of Area 4 had already been painted by misuse and degradation. Rather than completely wipe clean the sites history, we worked with the discarded material to form our vision. Drawing our palette from the use of recycled materials, the goal was to echo the sites history, while educating visitors. Native plant material in successive order provides essential habitat for local species, while working with landforms designed to create spaces for human experience.





2.4 The Other Side

area4: Overpeck Island

James Brosius
April Maly
Dianna Marino
Ty Triplett

Responsibility to the land and community are reoccurring themes within the practice of Landscape Architecture. Part of true stewardship of the landscape is recognizing its history and incorporating solutions and ideas for fostering the best possible future for the site and its users. While trash is Overpeck Park's most obvious clue to its past, its history begins prior to when mosquito-filled waters were filled in with human refuse, and prior to when a new, modern interstate required a tidal gate for its connection from Ridgefield to Ridgefield Park.

Overpeck Creek was once part of a functional ecosystem. Human intervention severed the connection to the cycle and left the area as a literal wasteland with a bleak future.

However, we are in a unique position to correct the situation. With the right mindset and motivation, we can take this land and make it functional and useful for the immediate future and beyond.

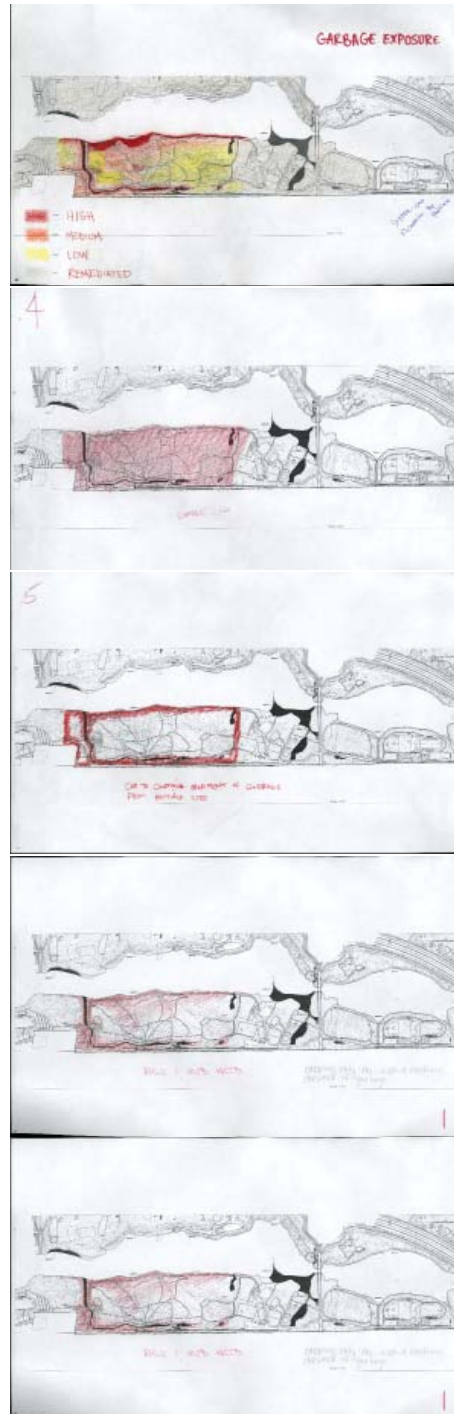


A large part of this project was process. For the first three weeks we explored various categories that later led us to our design. These categories were capping, water, vegetation, users, program, and views. We took all six of these categories, and explored various options for each. These options allowed us to explore the outcomes of different scenarios and merge them together for a coherent design solution.

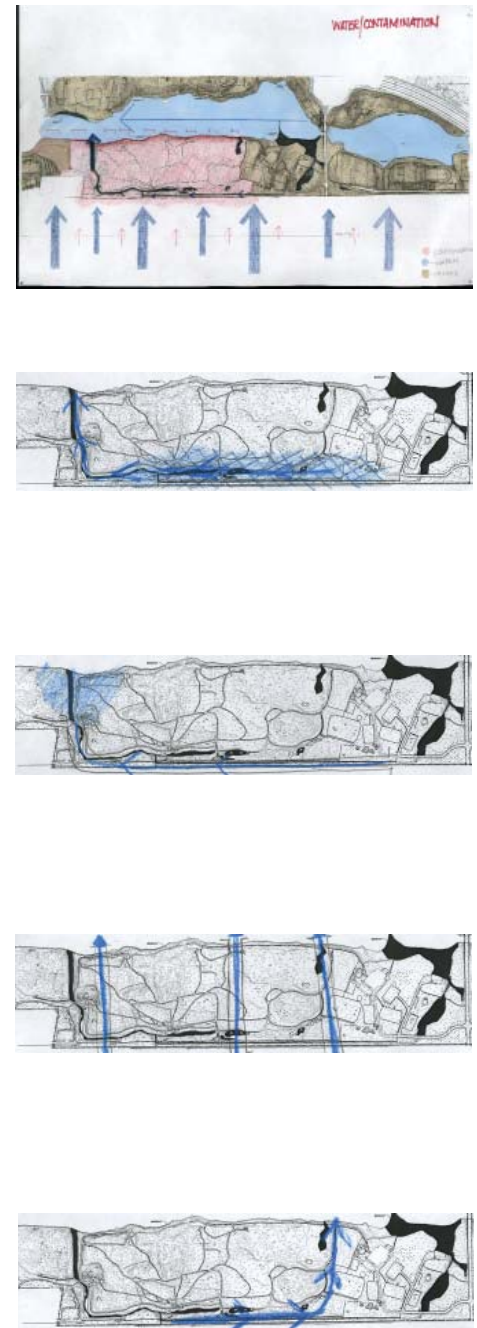
Capping was the first category we discussed. Current conditions exhibit volunteer growth of mostly weedy species. Though there was some initial desire to preserve this growth, it became apparent that the exposed garbage on the site presented a public health hazard that outweighed the potential benefits of preservation. The uncapped riverbanks were a continual source of litter to the waterways and the exposed trash presented a real danger to any visitors to the site. We felt it was a necessary to implement a full cap because of safety and ecological reasons. This decision would change the site drastically because all site qualities would be erased, creating a blank canvas.

The next category in our morphological box was water. Currently, a drainage channel intercepts surface runoff from the surrounding communities, minimizing contact between water flow and the landfill. This channel provides a valuable function and must be preserved, and perhaps expanded upon. Additionally, the waterfront is an extremely important feature of this site that is currently drastically underutilized. The public has a right to waterway access and this site offers many opportunities for improvement. One concept that took precedent in our design with

regard to water was the idea of bioremediation. We felt it was extremely important to use the parkland to cleanse the water and make this a prominent and notable feature of the park.

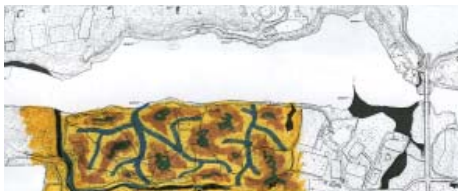
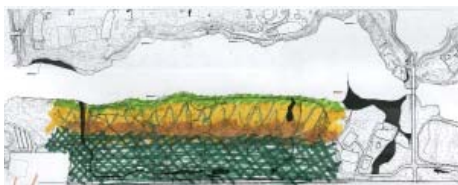
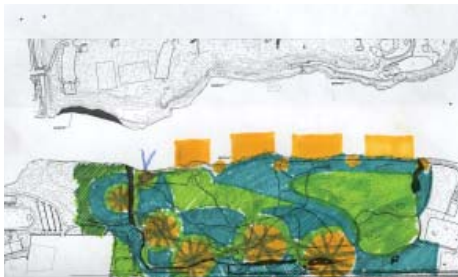
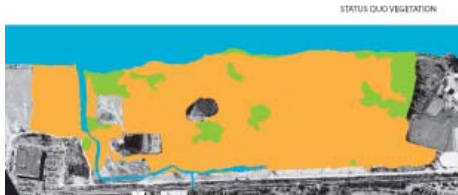


Capping



Water

Vegetation was the next design category. As mentioned before, the capping process will destroy any existing vegetation, giving us a blank page to work with. Though the site was historically a tidal marshland, human intervention has removed any realistic possibility of ecological restoration. With the addition of a



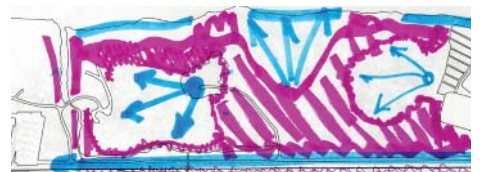
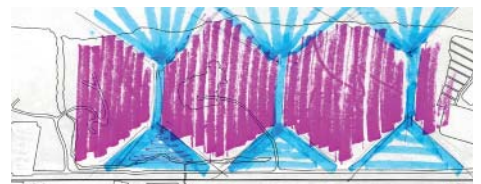
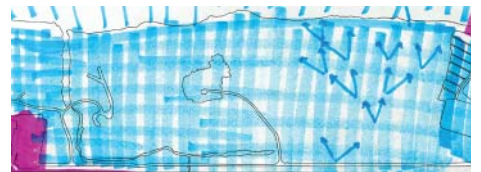
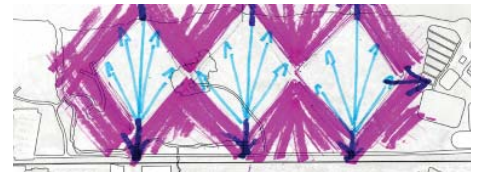
Vegetation

cap, the land would be most suitable for forest and grassland. We felt that a traditional Olmsteadian park layout was not the appropriate solution for a 21st century park. Design solutions that incorporated a mixture of plant materials over large areas scored high in our ranking systems, as did highly designed bioremediation plantings, and large swaths of habitat plantings. Our final solution was an amalgamation of all of these ideas; a large high canopy deciduous forest planted in a naturalistic manner that came in to direct contact with highly designed bosque plantings of trees. We felt the tension between the “natural” and the “man-made” could be thought provoking and challenge the users’ preconceptions of the role of design in a naturalistic setting. Furthermore, large circles of bioremediation plants could speak to the idea of a system, enhancing the concept of the designed nature of the cycle within the park.

Users of Area IV were important to think about during the design process. The site location and context provided a large amount of potential users because of the highly urban context on the entire southern side of the property. It was important for us to establish connection with the urban context through street tree plantings and creating more connections with the surrounding communities. Since the surrounding area currently has an ample amount of active recreation already, we focused on providing a largely passive recreation park while still allowing for a multitude on different users. Bird watching was already an existing site activity in Area four, along with walking trails. These uses were given specific designed areas. Additional site uses include sculptural elements (such as vegetative plantings, large earthwork mounds, seasonal

color swaths, a walking maze and a sculpture garden), and areas for users to interact with water (fishing and swimming areas).

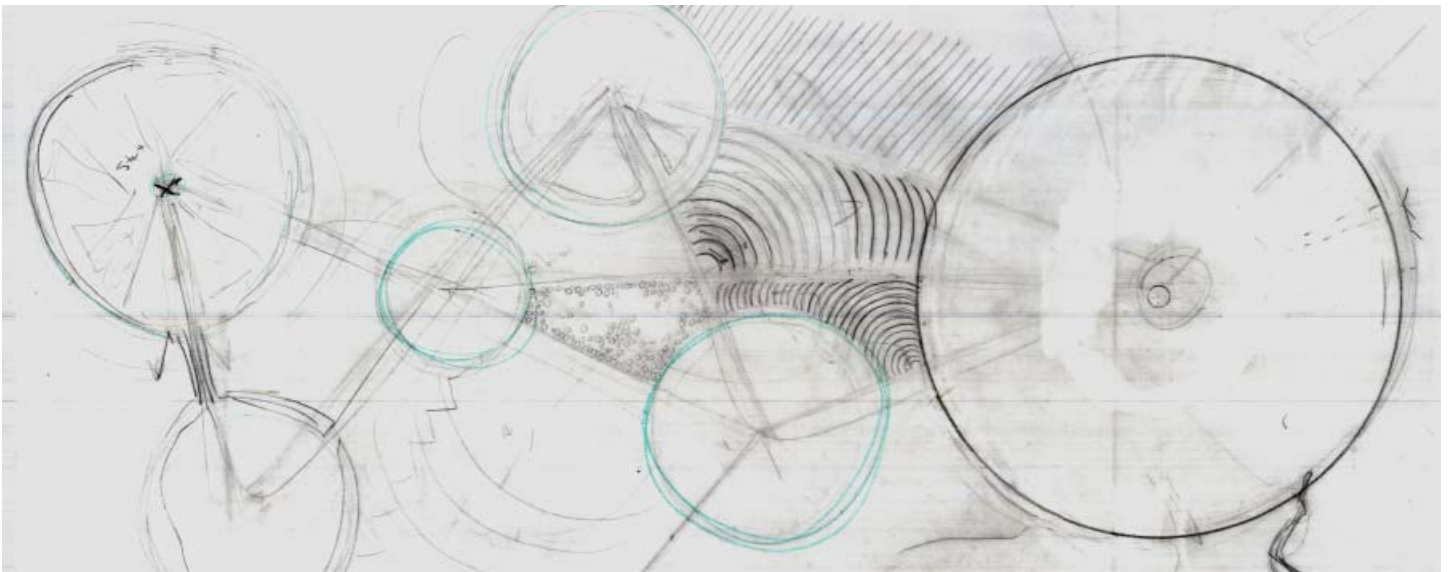
Because of the context of Area 4, views were especially important. We wanted to maximize favorable views such as the waterfront and hide unfavorable views such as the urban setting to the south and the supermarket on the west side. We look to accomplish this by carefully designing vegetation and elevation changes, talked about in more detail below.



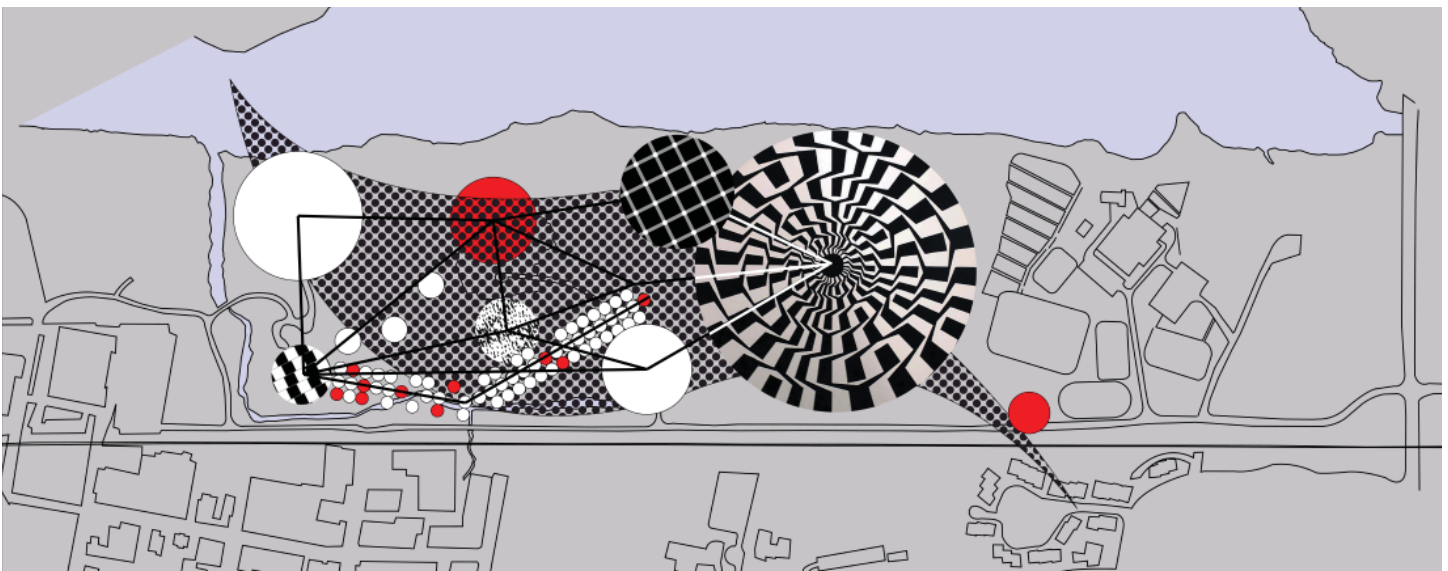
Views



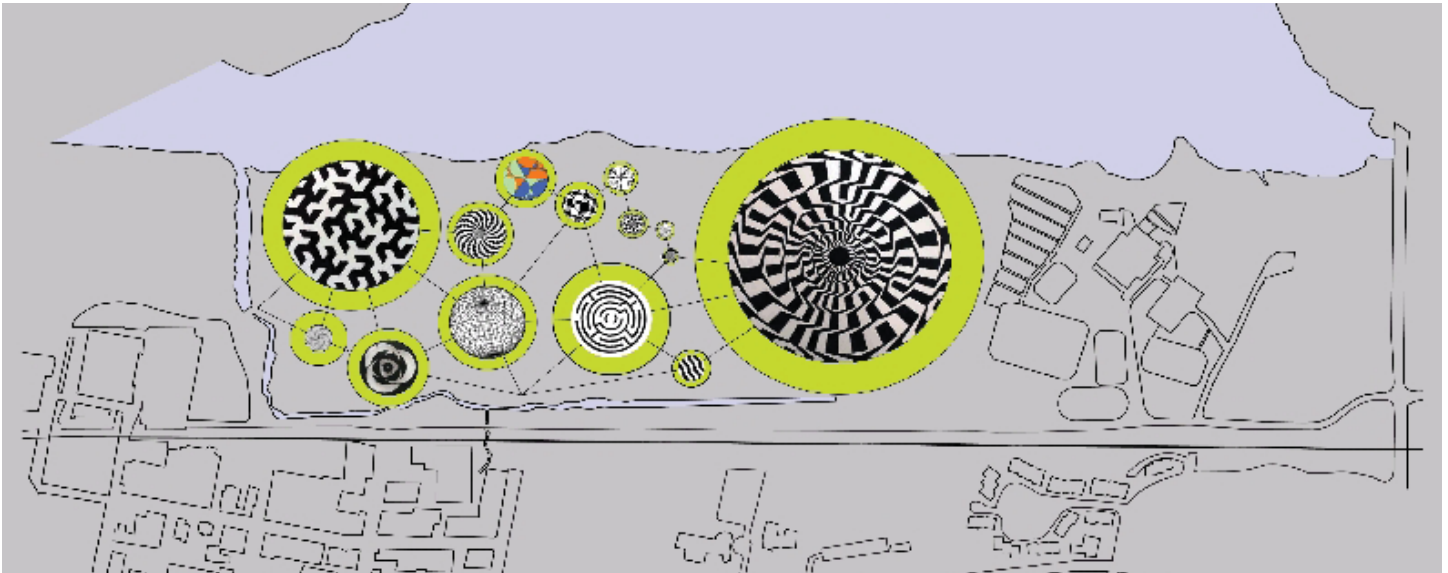
Concept sketch 1 - 4/13/09



Concept sketch 2 - 4/15/09



Concept sketch 3 - 4/21/09



Concept sketch 4 - 4/21/09



Final Plan - Overpeck Island

The nature of the process involved in nurturing the morphological box sometimes results in solutions that feel devoid of emotional and personal connection. The solutions did fuel further discussions where the special character of this unique site was summarized as a profound experience of crossing over: a journey from a known place to the unknown. This experience became the metaphor of "the island."

The physical constraint of the inability to dig down into the trash to create a complete body of water around the site, forced our barrier to go up, and the mounds were introduced. The mounds also began to solve other problems that had come out of discussions of the morphological box. How do we address the issues of multiples program uses? How do we make this land productive/fix the damage caused by human intervention?

We devised an idea for a machine to clean water. The concept was to pump water from Overpeck Creek into large earthwork mounds that would flow, from one to the next throughout the site, being cleaned through bioremediation along the way.

Water is pumped to the highest elevation, the southern-most mound, where it flows through a large circle of phragmites planted in a sculptural form. The planting is to be viewed from the rim above, creating a separation between the user and the uncleansed water. Aside from offering an aesthetic view, this planting is large enough to be used as a bird-watching area.

A raised concourse directs both water and site users to the next contained mound. The concourse is an elevated bridge with a channel in



Swimming hole



Birding haven



Sculpture garden



The tree grid flows through the park



Tree and piling grid meet at shoreline



View from Southern mound

the center that is shaded by vines. Guests follow to the next step in the cleaning process at the second mound. Again separated from viewers, the intricate planting pattern of phragmites is able to be viewed from above like a modern parterre de broderie.

Mound three employs the same technique with a broader plant palette. Color becomes the main theme by choosing different plant choices that have a variety of seasonal interest in addition to their cleansing properties.

Mound four is a sculpture park and offers users their first opportunity to come into contact with the water. The various sculptures that are placed throughout this mound are created from trash and thereby speak to the history of the site. The fifth mound is the second time that the public can directly interact with the water in a maze that is made of phragmites and raised walkway.

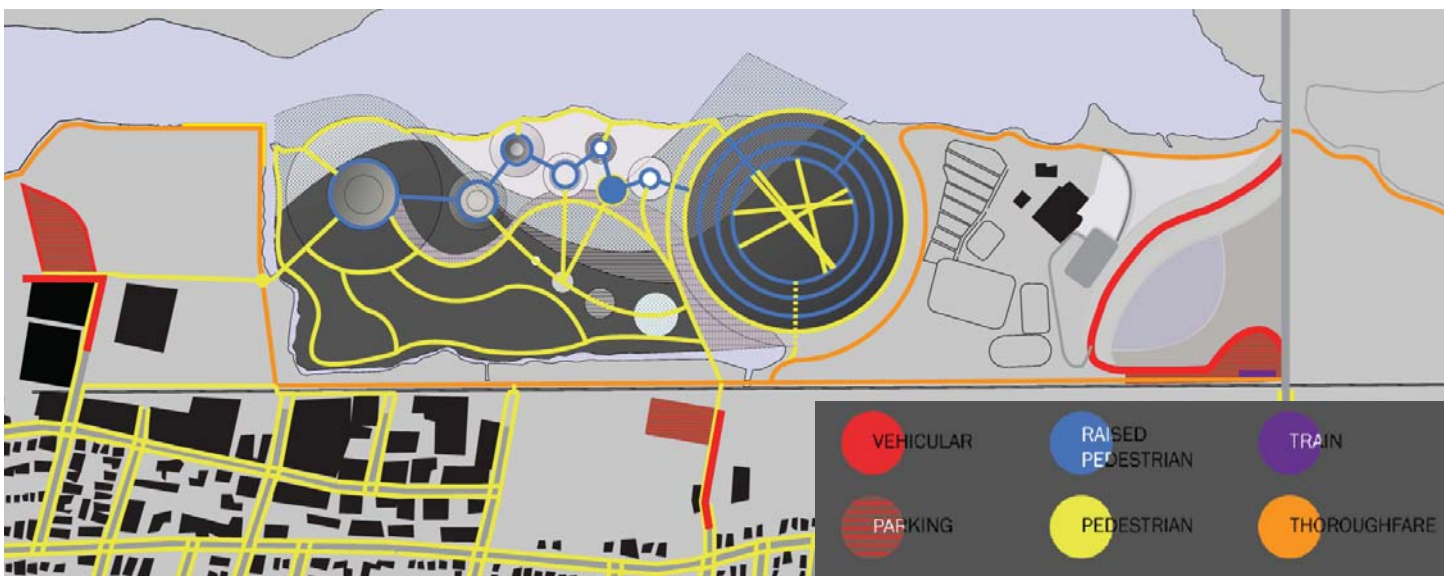
The sixth stop is a trash biodome that is directly cut into the ground, offering views into the park as it exists today. This simple gesture acts as a reminder of the effects that humans have on the environment, without scolding the user.

By the seventh mound, the water has filtered through over one half mile of plant material and is cleansed to the point that it allows full interaction: swimming. This mound acts as destination during the hot summer months and is anticipated to draw guests on regular repeat visits.

The eighth and final mound is a 90 foot high berm with a fully stocked lake with criss-crossing docks allowing users to experience the lake and also use it as a fishing dock. At this mound the water is reintroduced to Overpeck Creek and again becomes part of the larger water system.



Capping solution



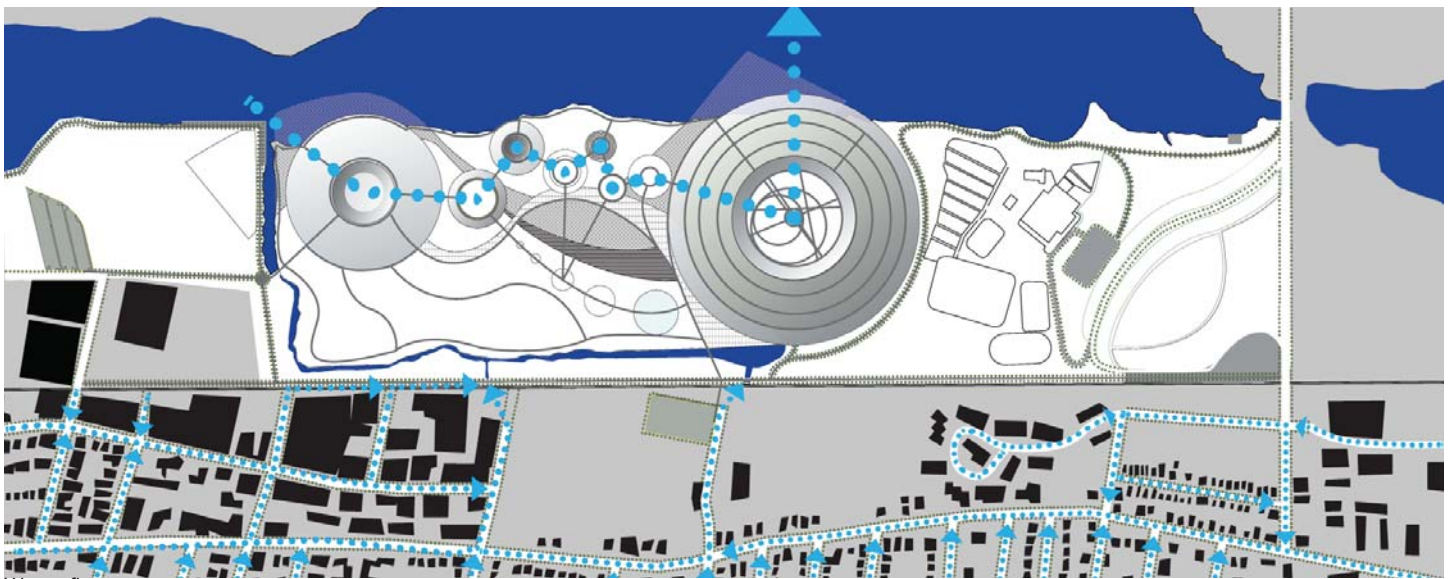
Circulation



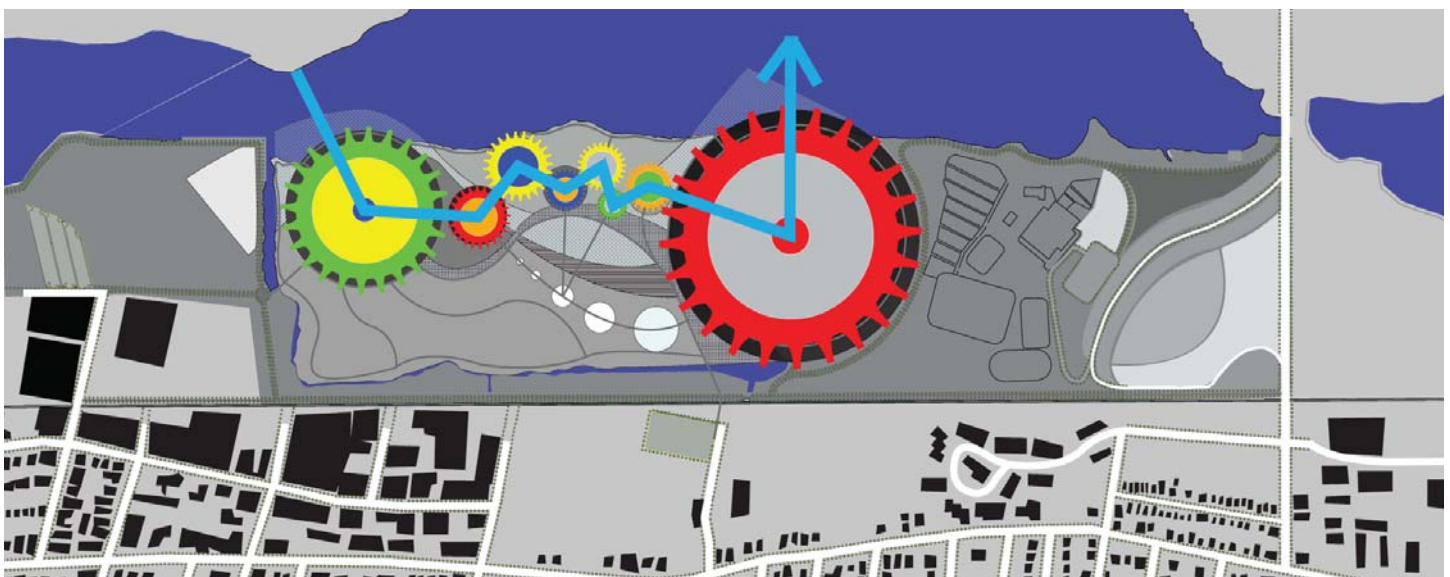
Transition points



Vegetation



Water flow



The water machine

Upon presentation, our design was criticized for being too diagrammatic and not detail oriented enough. We were told that not enough attention was given to the user experience, and that the engineering required for our design was impractical.

We believe that the largest failure on our part was the scale that we designed in. We would have been better off to explore design in a variety of scales, rather than sticking primarily to 1" = 100' scale.

A major influence in our design presentation was other large scale site plans, such as the Design Works plan for the Fresh Kills site. It was

our belief that for a design of this size, given the time constraints, that a largely conceptual master plan would be sufficient. Unfortunately, in our presentation we did not communicate our vision well enough with the perspectives and sections we delivered. We would have been better prepared if we presented section views more appropriate to the human scale, perhaps 1/8" = 1'. Our largest failing was that we understood our design, but did not communicate it.

Given the chance, we would create a more realistic, less conceptual plan, perspective sketches that gave greater information about the user

experience and larger, more detailed section views. It would have been helpful to have specifics regarding the engineering of the water/pedestrian concourses, and more concise diagrams that separated information into a more digestible format.

Though our presentation was somewhat arduous, it was an extremely useful experience. As one juror pointed out, as harsh as student critiques can be, the public can be even harsher. We all now realize the importance of communicating a design clearly and concisely. A design is useless if it cannot be readily understood.



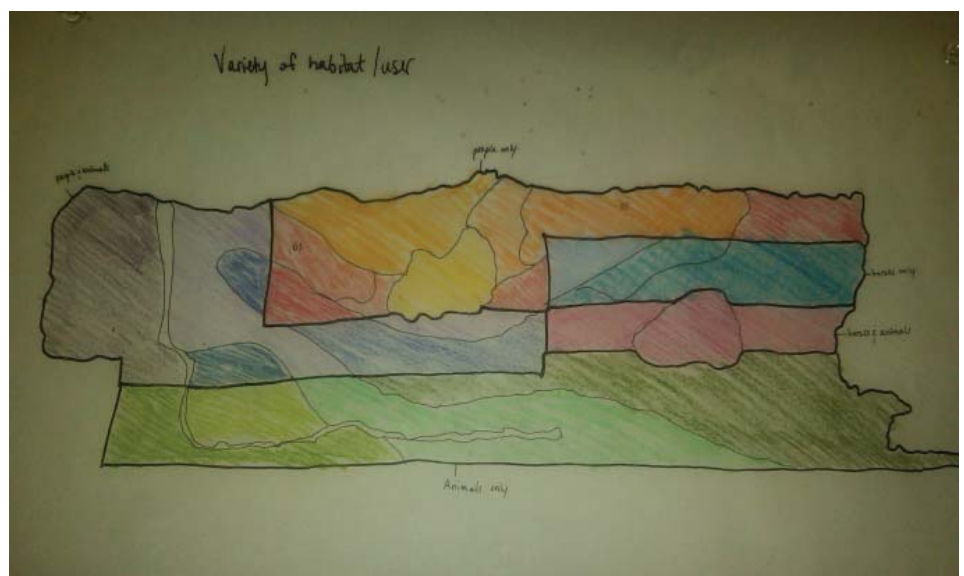
2.5 Redefining the Grid

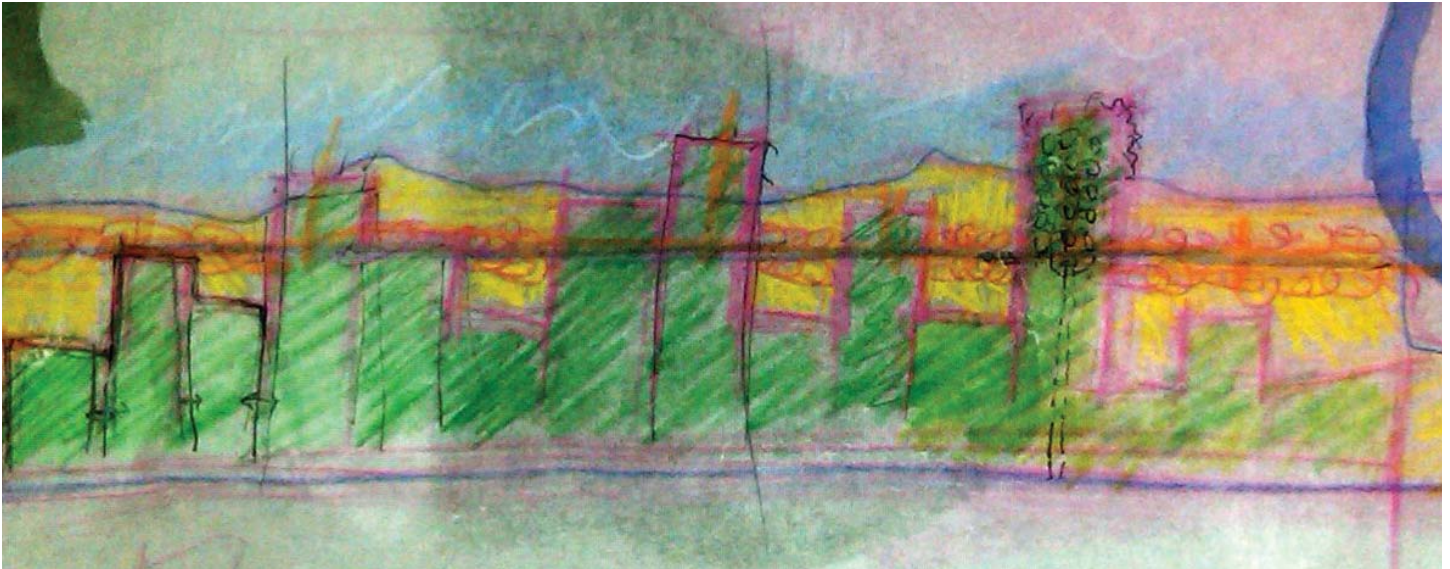
2.5.1 Method Morphological Box

David Buschhorn, Ben Heller
Laura Vaughn

Upon approaching the problems of Area 4 of the Overpeck Park system, we used the Method Morphological Box to start analyzing the existing conditions and began to break down different categories that we felt were important to look at as they would drive the design decision making. We looked at exterior entrance points, internal circulation, 3-D space, water, capping, 2-D spaces, and the users of the site. After we broke down the different categories, we then visited the site to investigate and document the existing conditions that we found.

When we took a look at exterior entrance points, we found that the access to area four is not highly identified as both true access points suggest vehicular traffic and both have barriers. There is nothing there to let you know that you have arrived and there are no formal pedestrian, bike or horse connections to the surrounding context. The criteria that we felt was important to this category was ease of access, connections (roads, neighborhoods, water and transit), safety, and multiple entrances.





With respects to circulation, the current pathway systems in area four lack diversity and circulation. There is no separation of users as to avoid conflict between the potential users. The pathways are arbitrarily located as opposed to creating your experience through the site. Our criteria for circulation were different pathways for users, destinations, experiences and preserving habitat.

As we looked at our 3-D spaces which, technically is vegetation, it is very limited to voluntary growth which plant themselves based on ability to survive. This has created a very homogenous type of landscape that lacks three dimensional attributes that create a more inviting space. The criteria we came up with were diversity of vegetation, spaces created, relationship of vegetation and soil conditions and buffering.

Water is a huge factor on this site as it is situated on the Overpeck Lake. The water that runs through the site is mainly runoff from Leonia and is very stagnant as it struggles to maneuver its way through the exposed garbage. There is no water coming into the site from the lake as

the fifteen feet of garbage prevents this. The criteria we came up with was quality, storm water, access and water as a borrowed feature.

The most obvious problem that takes main stage for this site is the garbage that has been dumped there. Area four is an old uncapped plot of land that is currently occupied by invasive vegetation, squatters, wildlife and a few visitors. The current conditions are exposed garbage which is unsafe for any of the above mentioned users. There are three areas on the site that are informally capped. Two are with excavated dirt from DPW projects and the other is an unstable rock pile. Our capping criteria was safety, land works, looking for the future generations opposed to instant gratification, use capping for creating spaces and mature vegetation.

Area four lacks spaces for those who would use the site as there are no places for someone to come to rest. Once you enter by foot, you are forced to make the long journey through garbage and fragmities until you reach the other side or find some way back to where you started

amongst the maze of trails. The only places that are open on the site are the two dirt piles and the very unstable rock pile. Our criteria for 2-D spaces were places for mildly active recreation, places for serenity and meditation, places near water and places to exercise.

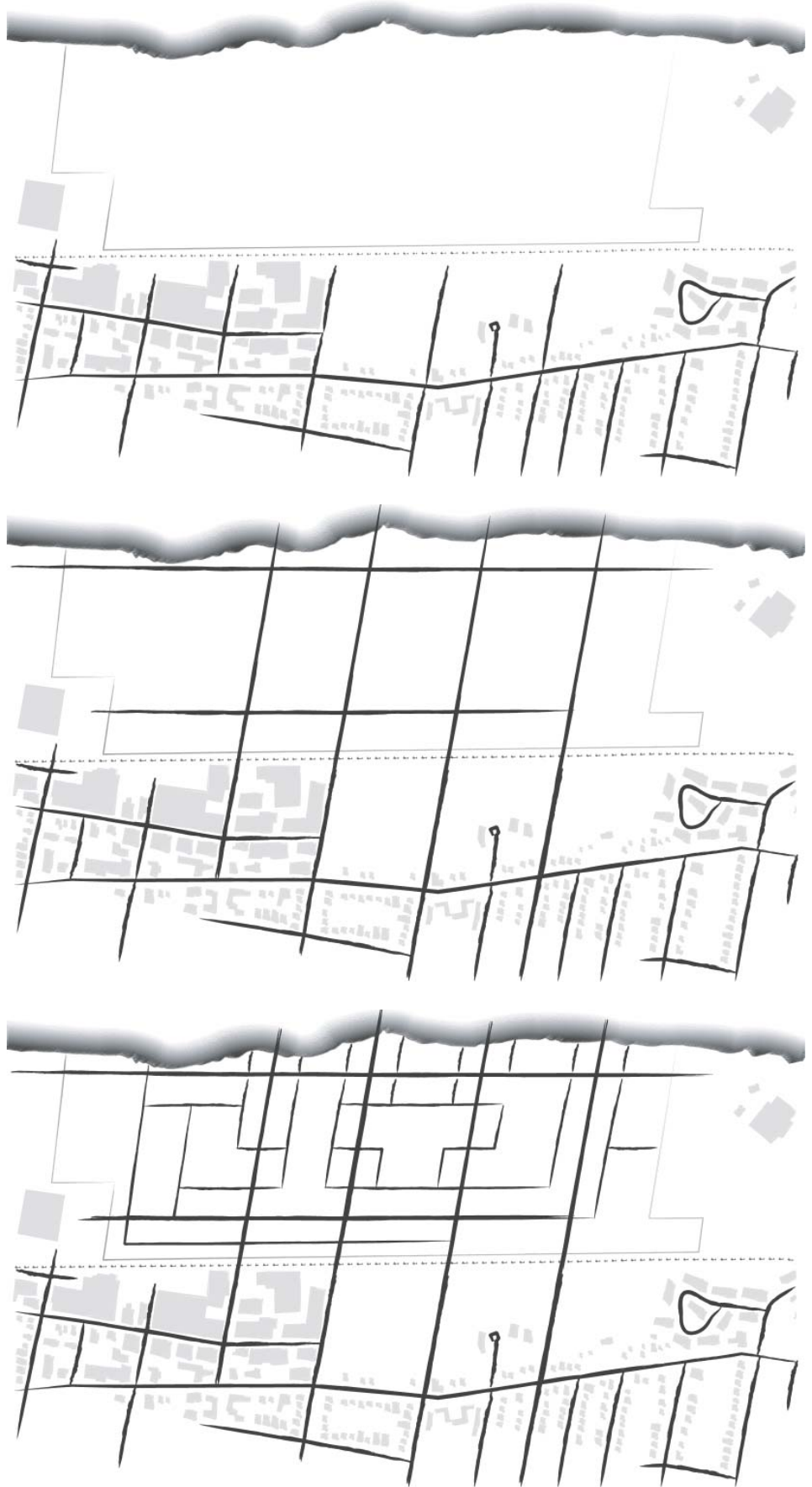
There are many potential uses of the site, yet there are no clean and safe pathways or areas for these users to occupy. There is also no separation to avoid conflict of space between the users. Our criteria for uses were horses, walkers, bikes and rest or relaxation.

As we used these categories and criteria to help guide and influence our design, we ended up with a design that reflected our criteria but was not realistic in the implimentation of the design. We then went back to our Morphological Box and re-evaluated our criteria and made adjustments to the weight and rate of them to come up with our grid like idea that is shown above. It was only though the Morphological Method were we able to come up with a design at the scale we were designing that answered our problem statements.

2.5 Redefining the Grid

2.5.2 Design Process

Upon our groups arrival to our concept, we responded to the needs of the community and how the design reflects what a twenty-first century park should be. We realized that community space and interaction within the populace is an integral part of creating a park for a twenty-first century community. We took the existing grid of the communication corridors of Leonia and extended them through the park. This created the structure of our design and eventually lead to our further exploration of this structure. We accepted the two static lines of the train tracks and the shore of Overpeck Lake and emphasized their ability to act as barriers between the built and natural. We extended the lines of the grid structure through the park. The lines of the grid woven through Area 4 have staggered lengths and occasionally extend into the lake to represent the meshing of the two types of environments. Between the grid structure we assembled, the gaps became individual parcels interacting together to create spaces. This lead to the main axis intended to emphasize and represent the communities reclamation of the Overpeck waterfront.





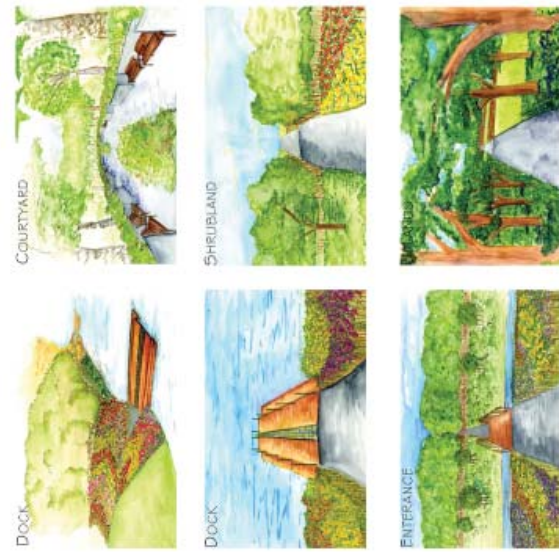
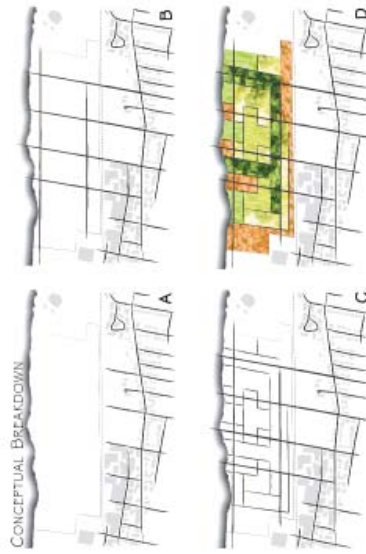
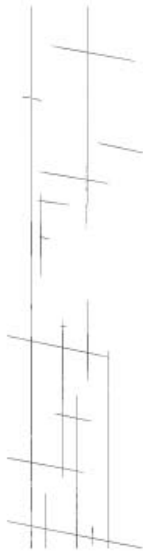
One of the important criterion for our site was storm water management and the use of water on our site. Currently, Leonia and Teaneck's storm water drains into a channel that meanders down the southeast side of the park and then across the southern side out to the lake. The water is very contaminated by non-point source pollution. With this in mind, we wanted to minimize the impact of the water on our site with respects to the Overpeck Lake which acts like a bath tub during a rain event and the tide gate is closed. Since we are on a landfill, we are unable to allow the water to percolate into the soil and recharge the aquifers. We concluded that the next best alternative was to slow down the water as best as possible and allow for a longer time of concentration. We did this by creating bio-swails to slow down the water. tThe bio-swails take the water through vegetation, further slowing the water and allowing time for absorbtion and clensing of the water. This method would reduce the quantity of toxins entering Overpeck Lake. The excess and clensed water from the bio-swails is channeled and runs along the docks emptying the 'friendlier' runoff into Overpeck Lake. The water would travel through tall grass channels which bisect the docks. At the end of the dock, the water waterfalls into the lake. Hopefully this would call attention to runoff and the effect of drainage to the people using the park. Even if the water was not fully cleansed, it will be a lesson as to how much sediment and pollutants enter a water system. Each dock will have a unique set of plant species in its cannal that will filter the water. Hopefully, this initial experiment with species can lead to a more informed plant selection for the site in the future.





The other of our very important agendas was to create a more intriguing entrance and experience walking into and through the site. We wanted to create an inviting and exciting entrance, and continue the experience through the park. The main path along the water is the connection to the larger Overpeck Park pathway. On this main axis you walk through many different niches of vegetation such as upland woods, scrub lands, grasslands, and open turf spaces. The distance from the water is staggered, creating sections of pathway that run close to the water and others that stray. This rhythmic variation of spaces parallels the intention of the prospect refuge theory and traditional Japanese garden design. The rolling hills slightly obstruct views from the path which creates spaces within the basins. These smaller areas make a park of this size manageable on a human scale. We also used these methods when we thought about the entrances to the park from the neighboring community. This was important to us as we wanted to have many entrances and that each had some uniqueness to them. Some would walk through grasslands, and some would go through all changes from grasslands, to scrub, to woodlands. They all eventually led to the most important part of the park which was the community gathering space. We wanted to create spaces that would invite people to use them. It was our intention for the park facilitate public and community interaction as well as privacy and solitude. We feel that we have achieved our goals with our design and with further design development, this can turn into a beautiful and inviting twenty-first century park that is both educational and a place you want to come back to.

AREA 4
 REDEFINING THE GRID
 BUSCHHORN HELLER VAUGHN



2.6 21st Century Wasteland

2.6.1 Design Process

Charlie Oropallo
Drew Siglin
Ed Krafcik

Located in a sea of dense urban development, highway infrastructure, active use parks and rail lines is the Area 4 landfill. The site has become host to volunteer plant communities, nature enthusiasts, squatters and school children, among other passerby. Lacking significant connection to the adjacent community of Leonia, NJ Area 4 is currently underutilized and is not achieving its optimal potential. The site lends itself to be a beautiful space, linked strongly to the surrounding community and knitted into the park system by obtaining passive uses and

spaces conducive to such activities. In designing a new look for the Area 4 landfill we worked through a morphological box process where we developed problem statements, criteria and diagrams that represented the status quo of issues such as circulation, accessibility, vegetation, light rail proposals, capping need, users and uses and landforms. We then analyzed the status quo and designed many alternatives for each issue to provide us with a substantial base upon which we would layer our design. Using our predefined criteria we evaluated each status quo and

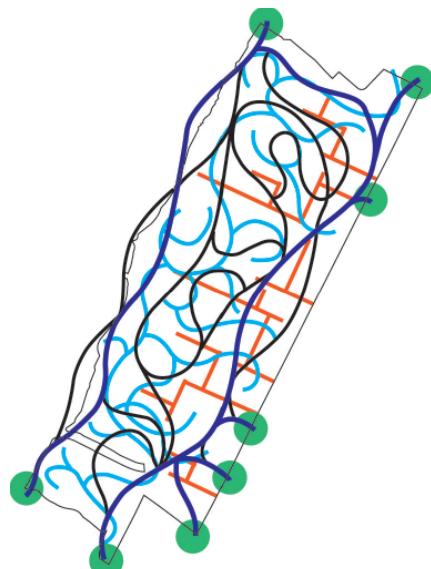
alternative diagram and then combined the highest ranked diagrams from each category. This compilation became known as the explosion diagram, which highlighted the flaws and successes of our alternatives when they became overlaid. We then moved forward, created new alternatives and designs that ultimately became the master plan for Area 4. The first issue we began to work with was circulation. Circulation through the site is an interesting aspect of Area 4 because the phragmites grows so dense in the summer the defined pathways formed by the



plant become some of the only ways to access different locations of the site. This gives the user a very interesting experience and a sense of enclosure as well as openness as some of the phragmites gives way to open spaces. Our design seeks to create circulation that moves one through the site leads them to interesting features and at the same time retains the idea of exploration, enclosure, openness and experiential movement. Our criteria for accessibility were: the ability to provide positive experience, provide excellent access to the site, provide access within the site and create entrances that are easily found. On our site visit we observed a medium-sized tree that had blown over and with it pulled up layers of trash that it had been growing in. This site creates a unique situation where sustainability of vegetation will be restricted by the striations of trash it is growing in. Our analysis has shown us that phragmites is currently the most sustainable vegetative cover, followed by mixed-shrub and then forested areas. Our design will demand that vegetation selection be sustainable, pictorial and that it will provide regenerative habitat. Our criteria for defining the success of a vegetation plan were to successfully create spaces that provide unique experiences for the user, habitats that are conducive to supporting many different species, the ability to enhance the overall aesthetic of the site, and the regenerative nature of the vegetation choice and design. Our analysis of capping need across the site allows us to explore different amounts of capping and different placement of capping. In our effort to preserve the existing water system on the site it is important for us to not simply cap the entire site without thinking about how this will af-



existing circulation



highest rated circulation solution



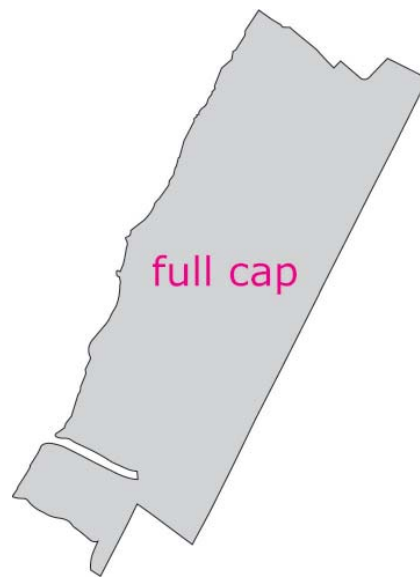
existing vegetation



highest rated vegetation solution



current need for capping



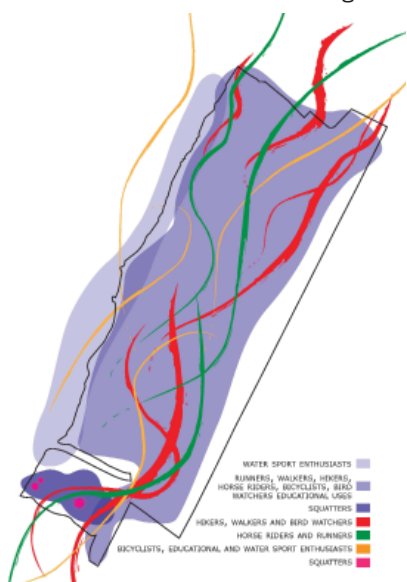
highest rated capping solution



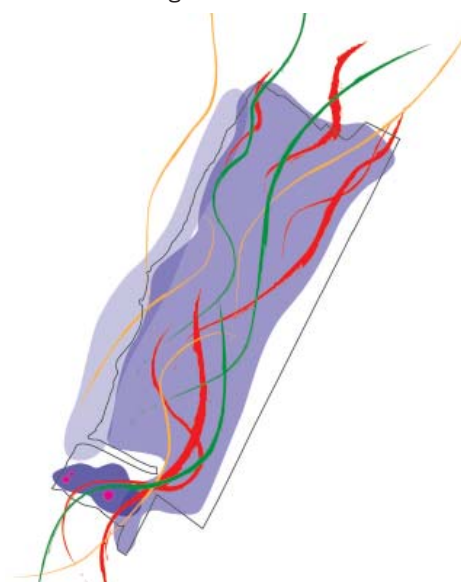
existing landforms



highest rated landform solution



existing users and uses



highest rated users and uses solution

fect the hydrologic system. The need for capping also begins to correlate with landforms that we may propose in the future design phases and how we can creatively cap the site. Our criterion for capping was to promote regenerative and diverse plant communities, the safety for users, the caps ability to contain waste and the preservation of water systems. There are a few interesting landforms on the site that make for an interesting experience and provide very unique views. Two spaces that pique interest were large piles of clean fill that had recently been

placed on the site. Another interesting landform in Area 4 is the large rock pile in the middle of the site. These rocks were originally brought in to the site for water bank restoration, but were later deemed useless to the cause. This pile is now primarily used as an overlook over the meadows of phragmites. This landform also has great potential for design interest, because the raw materials may be used elsewhere on the Area 4 site, or the landform may be used as a model for additional earthwork through the design process. Our criterion for landforms was

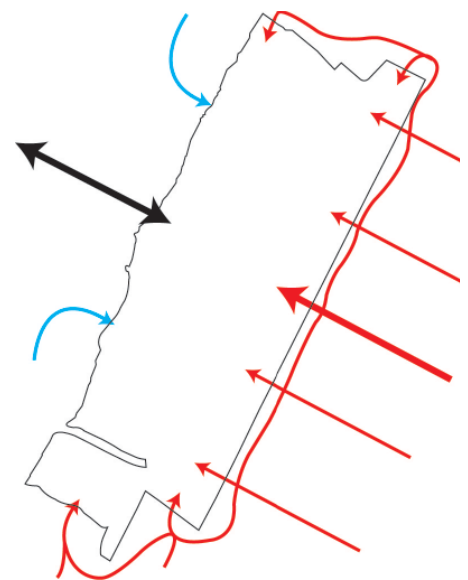
the ability to create pictorial viewpoints, promote exploration, creates spaces that provide unique experiences for the user and be unique to the site and the surrounding parks. The users and uses status quo and alternatives diagrams were developed through knowledge gained by people we met and activities we observed. Users included walkers, hikers, school groups, bird watchers, outdoor enthusiasts, runners, bikers and the squatters. We then analyzed the locations that these users would mainly occupy and observed overlap and relationships. It is apparent that there is a strong flow of users from the north and south of the site and because of the train track there are few users entering the site from the east. Lake Overpeck lends itself to be an entrance and amenity for users such as water sport enthusiasts. The criteria we developed were the uniqueness of uses and users within the overall park system, the successful co-mingling of users and uses, and the provision of multiple uses.

Our exploration of accessibility and context was driven by observed entrances into the site by both pedestrians and vehicles. Vehicle entrances are private and only accessible by the county and authorized personnel where as the pedestrian entrances are accessible to the general public. We also looked at obstructions for access such as the chain-link fence by Shoprite and the railroad track. Our criteria for accessibility and context were: the site acts as central park for the community of Leonia and Bergen County, creates a physical linkage to surrounding communities and existing parks, promotes walkability with community and park and positively enhances immediate surroundings.

In examining the proposed light rail



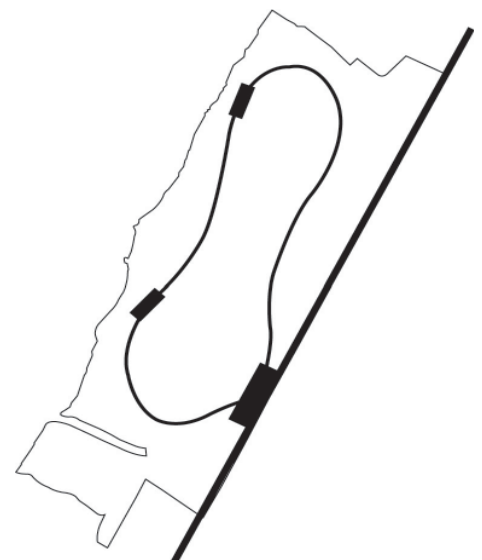
existing accessibility



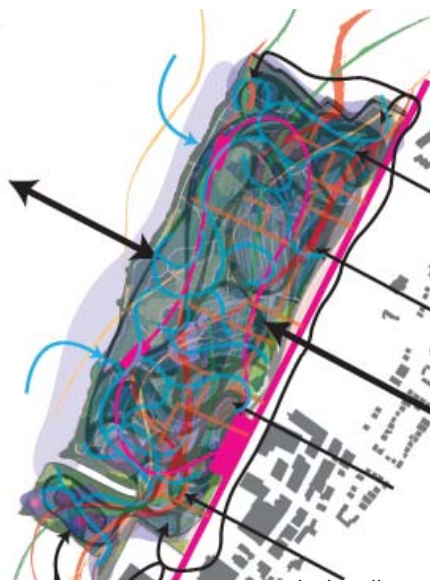
highest rated accessibility solution



proposed light rail station



highest rated light rail solution

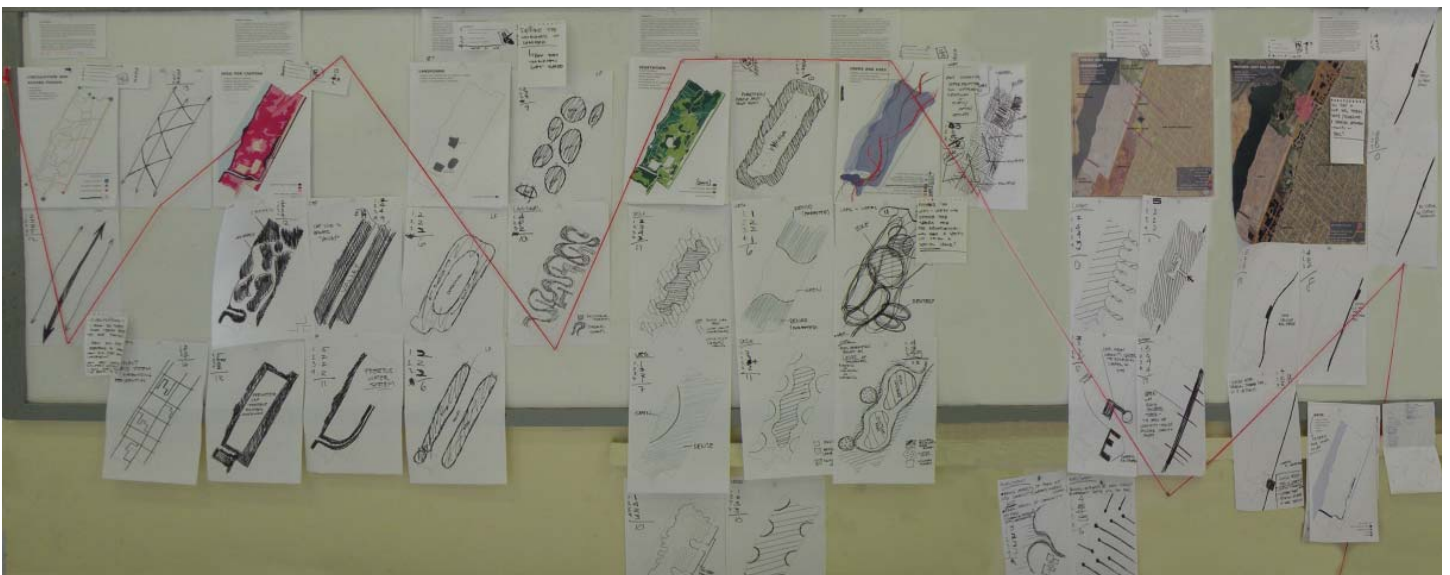


explosion diagram

we defined and analyzed a critical zone where it would be most advantageous to place a light rail station. This zone included residential, commercial, and an active recreational space – made up of soccer and baseball fields. Moving forward in the design process it will be important for us to examine the relationship between a potential light rail system to the site, the context and also ensure a positive correlation between the user, the station and Area 4. The criteria we used to determine the success of our proposed light rail design were the linkage of

the community to the park through the station, a unique station identity that relates to park is formed and the station is in close proximity to the park.

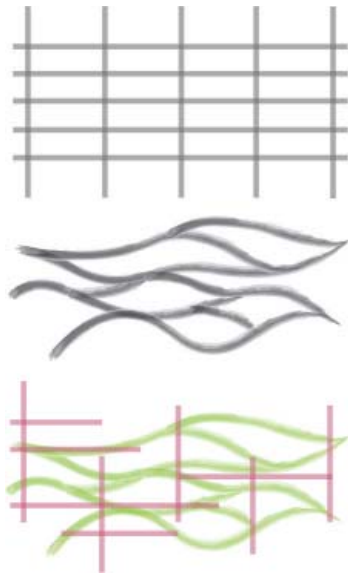
Our design process allowed us to change a blank piece of paper into a designed landscape. Through a process of careful analysis of existing conditions and proposed alternatives we were able to guide our final design to successfully achieve all of our goals that were defined through criteria, problem statements and general observations made while creating our morphological box.



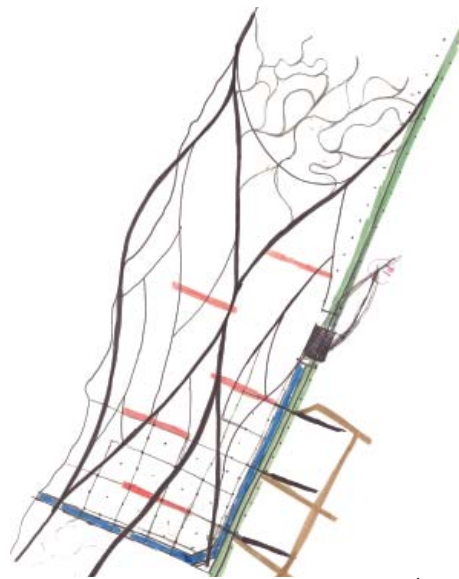
morphological box with highest ranked design solutions indicated



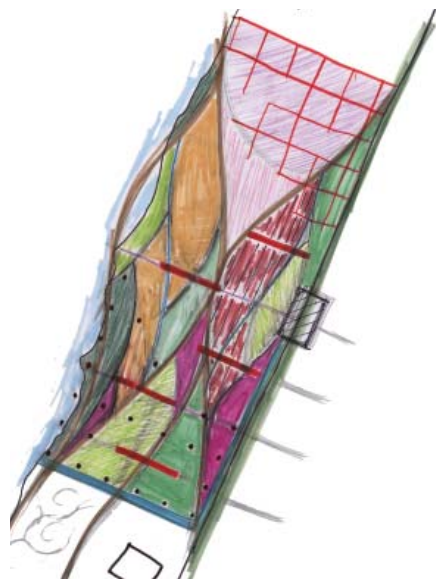
master plan



conceptual forms



concept sketch



concept sketch

2.6.2 Final Design

Our final design expands the grid of the urban fabric into the layers and systems of the proposed park. The grid begins to break down from a formal urban network to an informal gesture at the threshold of the park and the community. The breakdown of the grid creates a transition from order to disorder and recognition to exploration. Order is observed in the urban complex where one can navigate by main roads and cross streets and disorder is observed in informal gestures that offer many alternative routes and novel experiences. Currently, Area 4 is very much an explorative landscape and our design retains the same principles of allowing one to explore and always find some place that is new. The park has a multitude of passive uses that will connect the community to the park and the park to surrounding active use park system.

The 21st century park is a park that will communicate directly with the urban complex and the culture of a place and find inspiration in urban forms and infrastructure. It will not disregard or try to hide urban but instead will reflect the culture of city, town, consumption, waste and all byproducts of the human condition. We have designed our vision of Area 4 to show people who visit that a beautiful park exists on top of a landfill. The idea of scarring the landscape and highlighting trash will be a reminder to those who visit that we cannot neglect the waste we produce. Some may say that it is inappropriate to scold people every-time they visit but we envision the scars to be ever changing because natural reclamation will be encouraged. Our park will change the notion of what one may think of as a park but instead reflect culture.

Throughout the site, there is a variety of programmed spaces to create a passive recreational park. The overall program is to educate the users, promote exploration and provide different recreational spaces for the visitors of the Overpeck Park system. In the north, the preserved area creates a strong juxtaposition between the rest of the manipulated areas. The proposed paths are raised above the ground with railing to provide a safe and legal experience for the user. This pathway would allow users to come in first hand contact with the existing, established habitats of Area

4, and show the the users what the landfill had looked like, previous to any extensive capping. The horse riding trails connect the park and the equestrian center. It provides space for a variety of users and uses to interact with one another and to share the same space. The transitional shrubland spaces provide a softer edge between highly vegetated spaces and more open spaces, and they also promote exploration. The rolling meadows function as frameworks for picturesque views from atop the large hill in the south.

Several bosques highlight the grid concept and geometry, develop picturesque views from outside and within themselves, and contrast against with the more fluid and disordered vegetation.

The serpentine earthworks are programmed to promote exploration and encourage art and creativity.

Hiking, biking, trail running and exploration are programmed uses for a large swath of the park along the western side and in the south tip of the park. The undulating landforms and dense woody vegetation create a forested atmosphere parallel to the palisades seen in the distance.

Three recreational open spaces provide areas for social leisure activities such as picnicking, sun bathing, reading, and playing a variety of friendly sports.

The space along the river's edge develops specific water sports programs and creates a water front amenity.

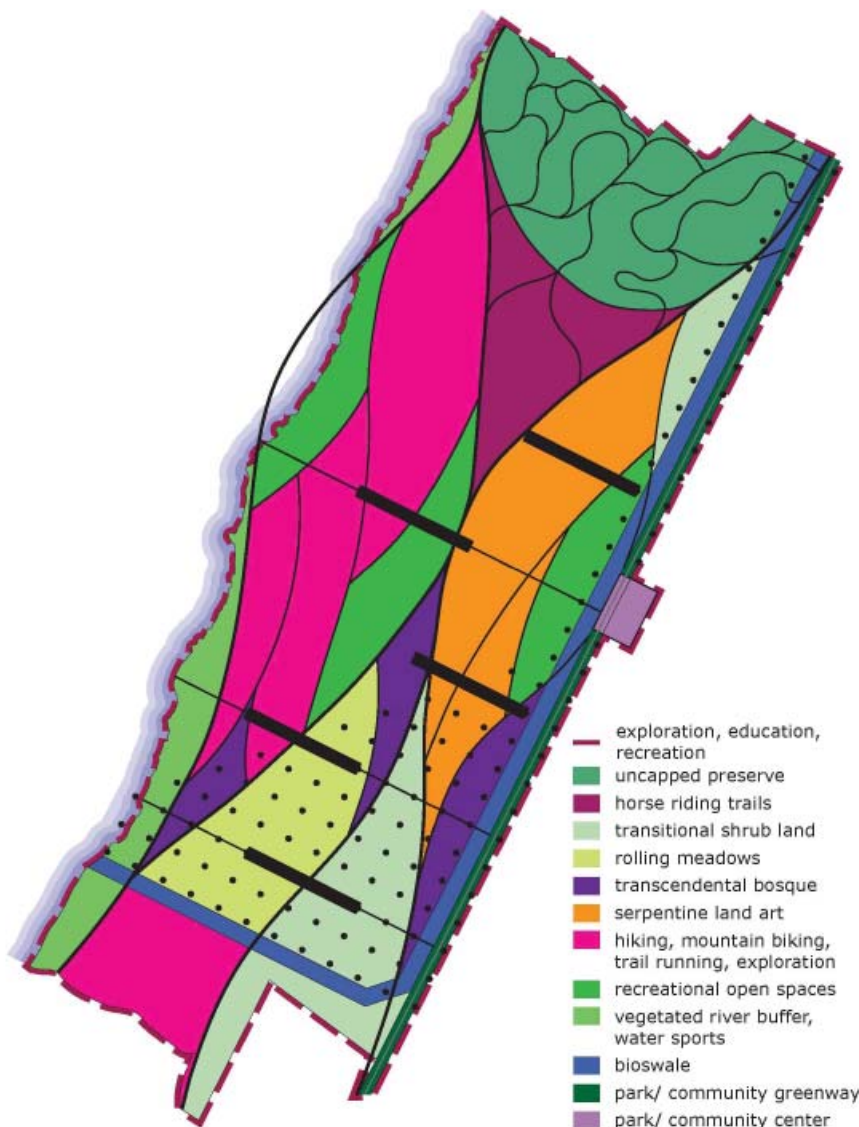
The open space in the center of the park focuses on educating users about the history of the Overpeck Park system, environmental issues, art and any other desired topics.

The third open space provides space for gathering adjacent to the park / community center.

Two spaces along the river's edge, not including the open space, provide river buffer to strengthen the riparian zones and provide users spaces for water sport activities, such as fishing and kayaking.

The large bioretention system, which runs along the east side of the park and connects to Overpeck Creek, accommodates for water from on site and off site.

There is a large variety of programs in the designed Area 4 park in order to attract several users of the local communities. The different programs also provide new experiences for users each time they visit.



proposed programs diagram

The primary circulation system connects the different proposed program spaces with one another and connects the park to the greater context within the Bergen county park system. The form of these circulation systems symbolizes the idea of a fluid movement from one point to other, as the beginnings and endings of these pathways are directly connected to greater points of the adjacent park systems.

The secondary path system provides circulation both between, and within the variety of programmed spaces. While many of the secondary paths

follow a similar geometry of the primary circulation pathways, it should be noted the a few of these pathways begin to conform to the local community's street grid. These paths act as direct linkages to the waterfront from the nearby community, and begin to strengthen the strong gestures of the scared cap.

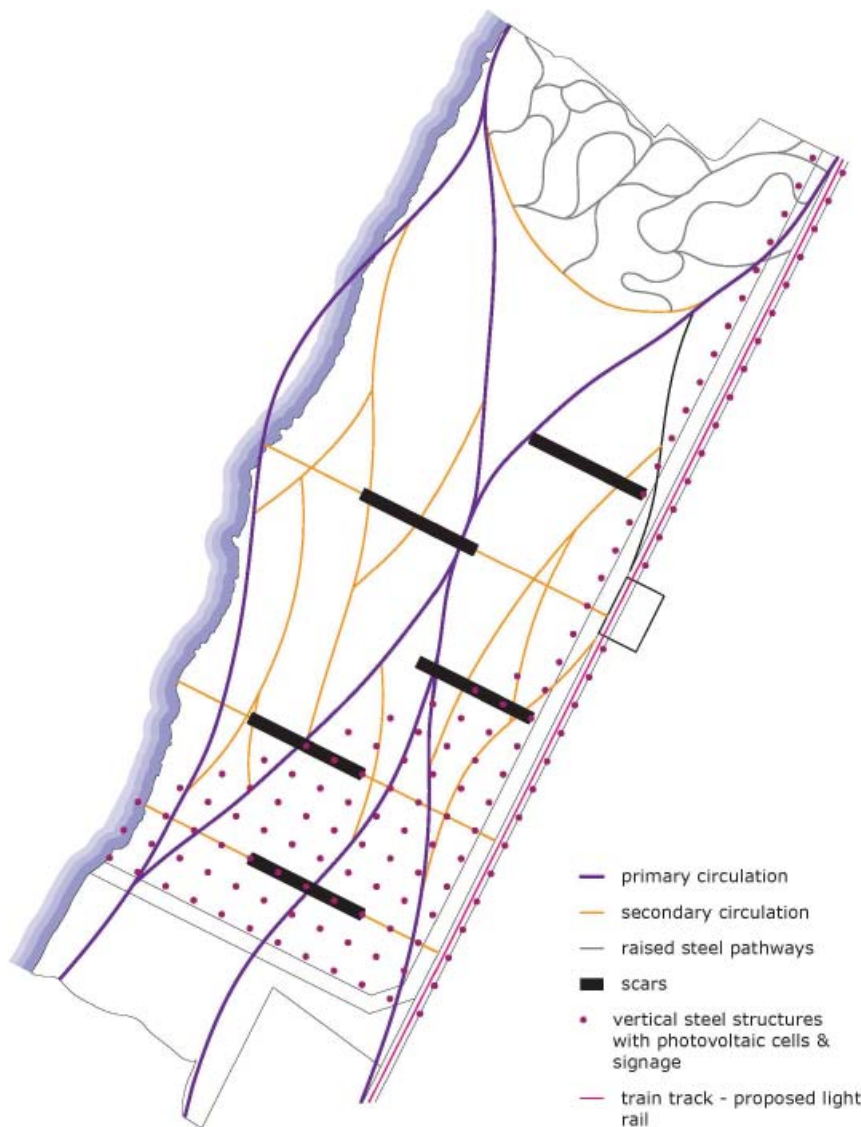
Within the preserve in the northern tip of the site a series of elevated steel paths allow for circulation and experience within a safe spectrum of usage. These pathways would have a metal grate flooring, so those who may be traveling on these pathways

will feel a deeper connection to the sorrounding land.

Five scars within the park capture the essence of this sites unique landscape and provides users a portal into the past; they act as windows into what lies beneath. They directly respond to the grid.

Over 100 vertical steel poles with multiple functions are placed on the same grid, and begin to show the breakdown of the urban fabric.

The proposed light rail runs along the eastern side of the park with several bridges connecting the community with the park.



skeleton diagram

The preserved land of the designed park allows for the existing vegetation of the site to continue reclamation of the distinguished landfill. This varies from large areas of phragmites coverage to some greater canopy trees. Along the river's edge, dense understories create strong river buffers and increase the integrity of the riparian zones.

A third type of vegetative cover occurs on the western side of the site and in the southern tip. There, woody forests contribute to the programmed space by creating a prime location for hikers and mountain bikers.

In the northern area of the park, south of the preserve, meadow plantings of grasses and specimen trees create enjoyable areas for horseback riders to venture through.

Another vegetation type, found on the east side of the park in the north and south is "shrub and scrub" transitional zones. They transition from the preserve in the north and the meadow in the south.

The three open spaces along the central east-west axis of the site incorporate expansive lawns which create open spaces for a large variety of leisure activities.

The earthwork area of the park incorporates designed plantings of larger grasses, phragmites and specimen trees. This vegetation would highlight the earthworks, while creating smaller spaces for more private areas.

The bosque plantings represent the manicured grid of our park, but also provide a place where users may find a unique experience, feeling somewhat overwhelmed or disoriented, while being surrounded by the tree system.

The sculpted meadows in the southern portion of the park could function as a grass species habitat, as well as providing ample sunlight for maximum solar production.



proposed vegetation diagram

Throughout the site the proposed landforms range from no fill to forty-five feet above existing grade.

The majority of the site, except for the “preserve” area, is capped with three feet of fill.

The largest elevation changes are in the southern tip, creating the large rock outcropping hill, which provides the greatest views of the sculpted landscape. There, the topography ranges from the proposed cap to forty-two feet above the cap.

The other areas with the greatest elevation changes are the hiking, biking, trail running and exploration spaces

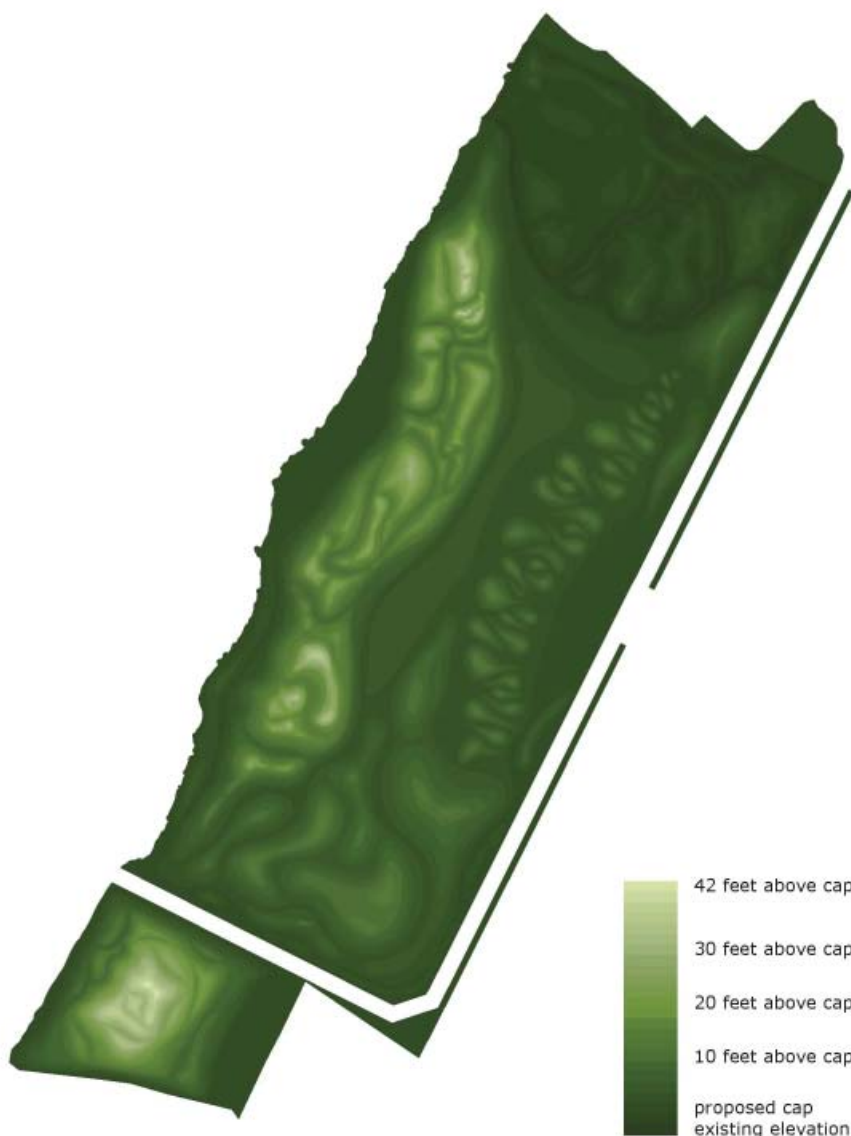
running along the western side of the site. High, vertical vegetation helps accent these steep landforms. There the topography ranges from the proposed cap to almost forty feet above the cap. The major difference between this and the larger southern viewpoint is that the landscape of this area undulates with a diversity of landform signatures.

The earthwork area on the eastern side of the site ranges from the proposed cap to twenty feet above the cap. These earthworks would be the most obviously manufactured landforms of the site.

Three areas in the middle of the site have a flat signature with no topographic change. These are recreational open spaces.

The northern tip of the site, the preserve, maintains the existing grade of the site, with no additional fill or cap. The existing grade of this section of Area 4 has some small topographic changes, but is relatively flat.

The remaining areas have smoother, rolling landform signatures. The elevation changes there range from the proposed cap to twenty feet above the cap with much larger signatures that have shallower slopes.



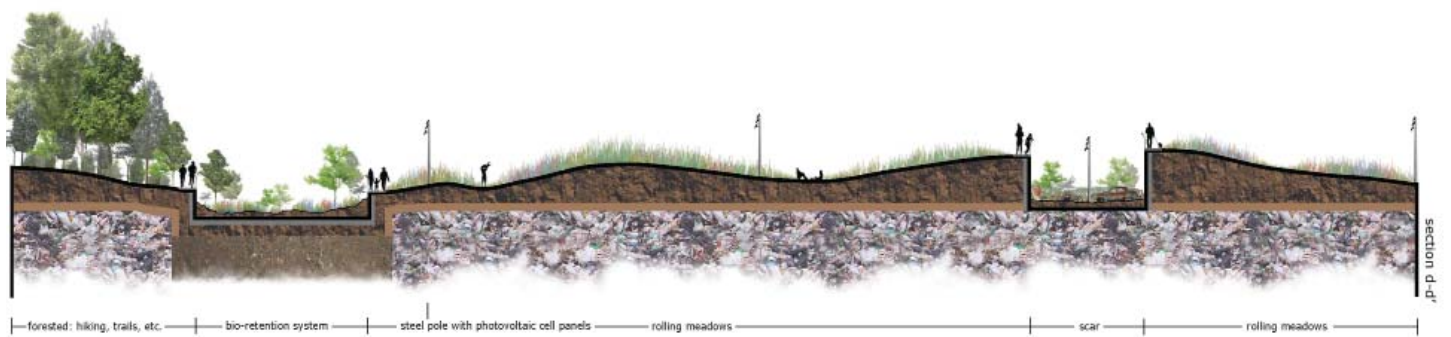
proposed topography map

The park / community center designed in Area 4 serves several functions in the Overpeck Park system. Its location is determined by the proximity to the dense residential neighborhood, East of Area 4, and how the community may potentially connect with the designed park and the greater park system. The existing light rail track that runs along the edge of Area 4 now acts as a barrier

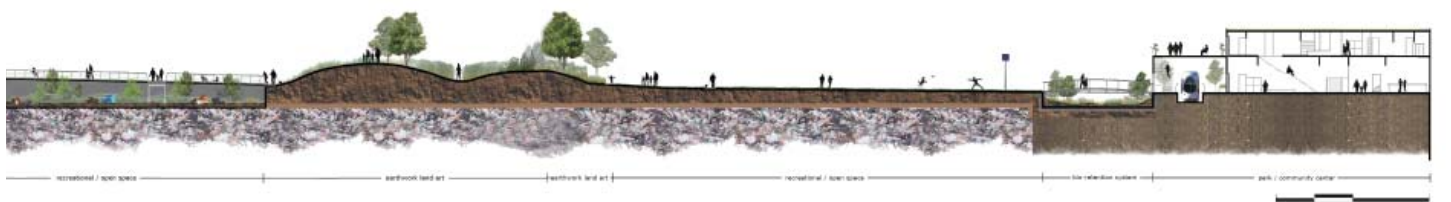
between this residential neighborhood and this portion of Overpeck Park. The center, however, would function as a bridge over this rail line, and unite the two adjacent environments. While the placement encourages walkability to the park / community center, the center is also connected to two nearby parking areas which would account for other methods of entering Area 4 of

Overpeck Park. The designed center would be large enough to act as a private gathering place, a public meeting venue, and also as an educational facility which would inform people of the site's history. The park / community center has two floors, with the second floor opening up as a physical bridge over the rail station. The building, like the greenway it would sit on, would look toward





section running north-south through bioswale, meadow, and scar



section along secondary path from water to community/ park center

sustainable energy solutions, such as green roofing and utilizing solar energy.

In addition to the park / community center, the proposed design creates a lengthy greenway system along the rail line corridor. This system would help connect the community to the park, as there would be pedestrian access bridges at the end of each road (perpendicular to the rail line). This would also follow along a large bio-swale system. This system would be a few feet deep, and be sixty feet wide. It would be heavily vegetated and have positive drainage toward

Overpeck Creek. This storm water system would be capped from any leaching garbage on the site, and would help clean any water traveling into the Overpeck Creek.

Another key element of the proposed design of Area 4 is the installation of nearly one hundred solar panel towers. These towers would be constructed in a simple manner, each consisting of three 1'x3' photovoltaic solar panels hoisted on top of a fifteen foot steel pole. The placement of these, throughout the park, would correspond to the grid from the adjacent community roads.

Having these poles 125 feet apart from one another would show the users both the manipulation and destruction of the urban fabric in Area 4. This solar farming could produce upwards of 5500 watts a day, assuming each tower would receive 6 hours of sunlight a day. This energy could be stored and utilized when needed for park lighting and to help power the park / community center. The steel poles would accent the complex earth-forms of the park and could also serve as locations where several sign types could be placed. Perhaps the most significant fea-



view looking towards bosque, meadow and photovoltaic structures

tures of the Area 4 design are the scars of the landfill cap. The placement of these scars directly relates to the local street grid. The scars resemble much of what the current conditions of this portion of the Overpeck Park system is now. They would be covered with the existing trash in that designated area, and also would have other larger pieces of inorganic trash brought in from around Area 4. While these scars may appear as massive dumpsters at first, they would evolve over time as phragmites and other vegetative species would begin to reclaim

the land. The scars are powerful gestures, forty feet wide and several hundred feet long. The height of the scars would depend on whatever elevations of the proposed earthwork, because the scar floors would be at the existing grade. They would be contained by large retaining walls around all edges to prevent leaching and would have pathways surrounding on all sides. Where circulation pathways may cross the scars, they would bridge over top of them to offer alternative views. These sculpted wounds in the capping would serve as educational and conversation

pieces, while showing users how irresponsible handling of waste can destroy formally innate systems. These scars are crucial to the design of Area 4 because they symbolize the breakdown of the urban fabric on many levels. They begin to defy the urban grid and, through reclamation of the land, show the perseverance and recovery of what Area 4 may have been before the trash of man was left behind. On a greater symbolic level, the scars show the wounds left by the urban landscape and the disfigured, yet healing landscape replacing them.



view looking along scar

3 Conclusion

Wolfram Hoefler



Landfills are ugly and dangerous places, fenced in for good reasons. However, the abundance of landfills in New Jersey makes them the most important spatial resource for developing new public parks.

The site with plenty of volunteer growth on top of garbage made a strong impression on the students walking under 40 year old trees, discovering meadow-like openings and views to Overpeck Creek, all this decorated with old tires, plastic cups and bottles.

Very soon it became clear that capping most of the site will be the only long term sustainable solution that will make safe public access possible. With that in mind the class considered the site an almost “clean slate,” still trying to capture some of its arcane character.

The documented six different design proposals have a rather conceptional character due to the fact that we had only six weeks for inventory, analysis, concept development and design drawings. Nevertheless, the value of these diagrammatic designs lies in their contribution to the possible function of Area 4 within the

Overpeck Park System, outlining a rich variety of possible passive uses and highlighting the need for improved access.

The concept *Interpreting the Urban Grid* considers the urban context, the relation to the rational city layout as the main theme for the design. Exactly the opposite approach was taken by the group *Building Habitat on the Remnants of the Past*. The guiding line of thought was the intention to provide a variety of different habitats that would support wildlife and also provide usable human spaces.

The need for capping was used as a design asset by the group *Waterfront*. Here additional fill is used to create landforms that enclose the core of the park, offering different ecological conditions and interesting human experiences. Adding to that is the introduction of planted barges that float on the Overpeck.

Water is the leading inspiration for the project *The Other Side*. A variety of large earthwork mounts become elements of a water purification system. Strong design gestures marry ecological benefit with a rich cultural experience.

Redefining the Grid incorporates the adjacent settlement structure and develops the grid as organization and access system for the park, providing direct connections from the neighborhood to the waterfront. Increasing accessibility was also a main goal of the group *Interpreting the Urban Fabric*. In addition, the overlay of the grid with a floating landform design lead to scars; cuts in the cap that allow views of the past of the site, views into the inner part of a landfill.

The documented designs show the outstanding opportunity this site provides. With the existing context of adjacent active recreation, an innovative park design can provide a new level of experiences. The site is big enough for the introduction of ecological measures such as water cleansing or wildlife habitat that will significantly improve the whole Overpeck system. Further the designs explorations showed that such ecological approaches do not need to disregard the human experience and showed that creative design does not only provide pleasure for park users but also a whole set of rich cultural experiences.