RECONNECTING THE CONNECTIONS

Sangita Bhattacharjee I FALL'22

Tarrytown is a dynamic and engaging place with a beautiful riverfront of Hudson river. The whole town provides a wonderful tourist attraction with its enourmous green spaces, riverfrint parks, beautiful train station and vibrant downtown. To address the probable issues found from the resources and from the stakeholder meetings, I focused on building upon a strong consensus from the public engagement, the master plan for the Tarrytown Riverfront Park creates a socially inclusive and ecologically meaningful waterfront with a strong cultural identity that embraces the Tarrytown's unique philosophy derived from centuries of living alongside a dynamic river.

PROBLEMS FOUND IN SITE

Image: Pierson park zone and Franklin court zone (Future threat from flooding issue)

One of the key problem to focus on site is the threat of future flooding conditions from sea level rise and also from storm water from uphill side.

Image: Losee park zone and Sarah Micheals zone (Disintegrated green spaces in Tarrytown)

There are some green spaces in the town. But the green spaces are not integrated with a single green network which will also connect people with riverfront.

Image: Hardscape parking lots in Tarrytown

There are many hardscape parkings in the town. These large area of parkings are a major theart for storm water management system and they are also creating a lot of heat in the nearby places.

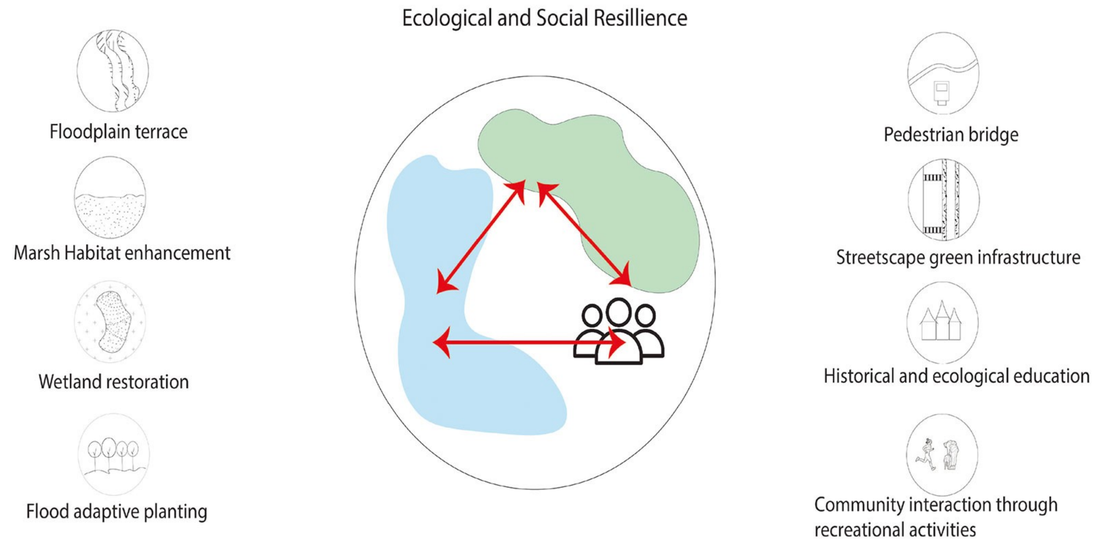
Image: Poor pedestrian connectivity through H bridge.

Another key issue for Tarrytown is the pedestrian connection from the town to the riverfront. tarrytown has a very active and vibrant downtown. However, there is no proper pedestrian connection from the downtown to the riverfront which may attract more tourists and visitors.

CONCEPT GENERATION

From my research on Tarrytown, I am adrdressing my solutions with a broader concept of ensuring social-ecological resilience in Tarrytown. For the flooding issue, I am focusing on ensuring ecological resilience by establishing terrace embankment, making safe room for marsh habitats, wetland restoration, permeable parking and resilient planting.

For achieving social resilience my key focus is to strengthen the relationship and interaction among the community people so that they can become prepare to face the upcoming challenge together. Therefore, I have created the opportunities for recreational, interactive and educational spaces for all age group people which will help them to grow for this unpredictable future together.



PRECEDENT STUDIES

This is the Wuhan Yangtze riverfront park. In this project they have focused to address the sea level rise conditions with terraced embamkment which was successful in that context. So, I have considered this solution in my concept to address the issue of flooding in the riverfront side of Tarrytown.
Image source: Landzine

My second precedent project is Yanweizhou park in Jinhua city in China where they focused on creating adaptive pedestrian paths considering the flooding condition so that people can enjoy the natural landscape at different times of the year differently.
Image source: Landzine.

MASTERPLAN

Zone 8
Urban Streetscape redesigning

Zone 7
Footover bridge with urban park connectivity

Zone 6
Raised trainstation and adjacent neighbourhoods

Zone 5
Wetland park restoration in Franklin court

Zone 3
Terraced em-bankment with train station permeable parking

Zone 4
Marsh Habitat restoration with recreational facilities

Zone 1
Terraced Parks with Neighbourhoods

Zone 2
Terraced embankment with shorline

Existing structure with no change
Permeable parking
Newly propsed mix use building with multi level parking
Existing structure which ground floor will be used as community space from 2050

N
500 1000 2000ft

RECONNECTING PEOPLE WITH WATERFRONT PROGRAM STATEGIES

NEIGHBOURHOOD ACTIVITIES AND GREEN INFRASTRUCTURE
Permeable Parking
Childrens Park
Proposed Mixed-use Coomercial Building

FOOT OVER BRIDGE/ PEDESTRIAN BRIDGE
To Ensure Uninturrupted Pedestrian connection from east to west side a pedestrian and bike friendly bridge

Streetscape construction with historical exhibition corridor

NEWLY PROPOSED MIXED USE BUILDINGS INTEGRATING PARKING

WETLAND PARK
Franklin court relocation to uphill side
Wetland Park Construction
Kids Playground
Green Infrastructure
Sea Level Rise Adaptation
Ecological Education

TENNIS COURTS

NEIGHBOURHOOD INTEGRATION
Sea Level Rise Adaptation
Using the ground floor of the shorline-adjacent buildings as community inter-action and gathering space
Nature Observation
Marsh Enhancement

MULTIPURPOSED TERRACED EMBANKMENT
Sea Level Rise Adaptation
Amphitheatre
Picnic spots
Event Spaces
Gathering Zone
Relaxation and Meditation in Nature

NEIGHBOURHOOD ACTIVITIES AND NATURE INTERACTION
Terraced Embankment
Sea Level Rise Adaptation
Basketball Court
Nature Exploration
Birds Observation
Children Nature Learning Zone

MARSH PROTECTION
Enhancement of Marsh Habitat
Viewing Decks
Ecological Education
Cafe
Bird Viewing Zone

GREEN PARKING
Permeable Parking for coming to Marsh Protection Zone
Cafes with Viewing decks
Marina

PHASING STRATEGY

2020S

Streetscape construction starting.
Relocation of Franklin court houses.
Construction of the first two levels of terraced embankments by cutting and filling.
Public gathering spaces construction
Terrace path construction.
Raising the rail-line.
Converting existing parking to permeable parking.

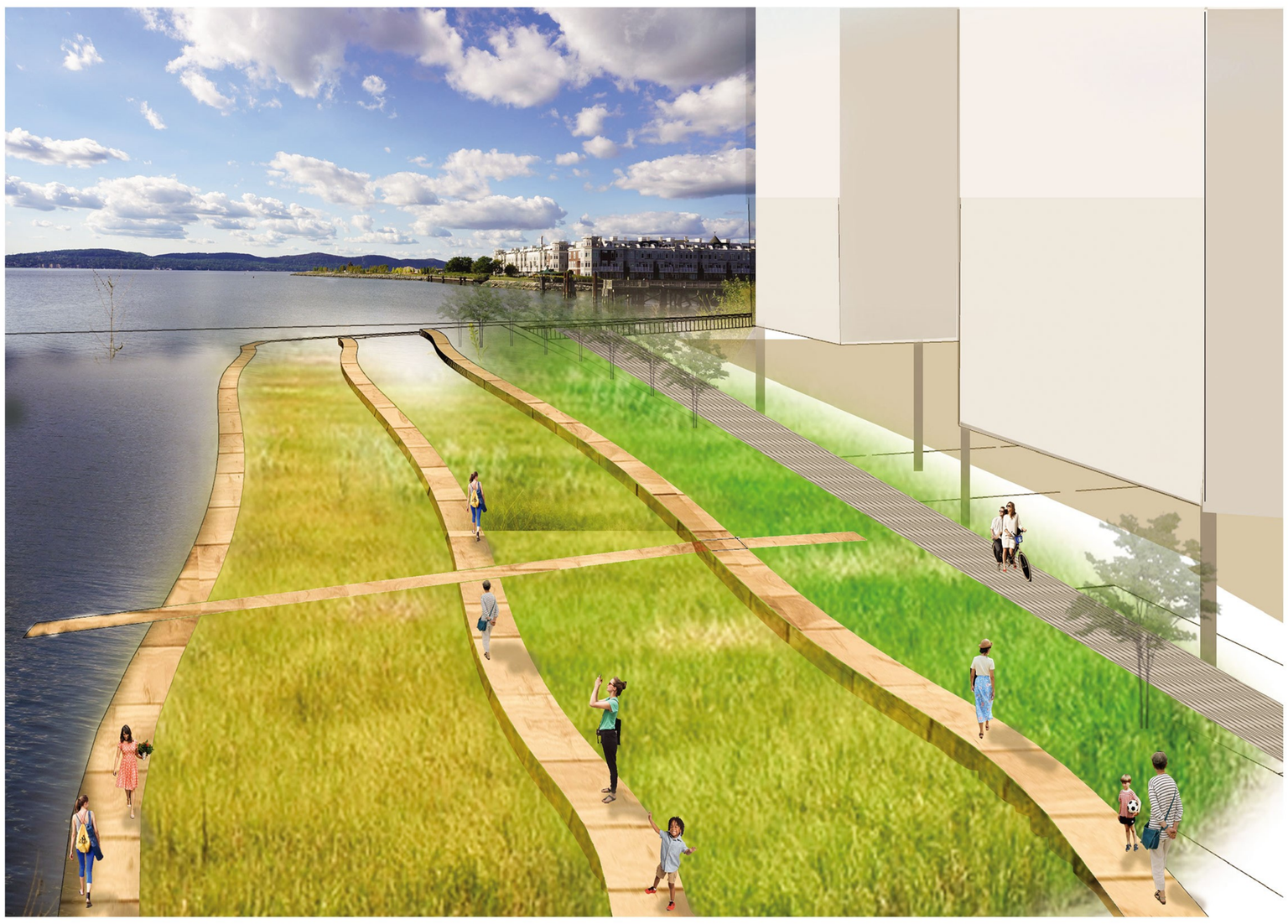
2050S

Sarah Michaels park reconstruction as chil-drens park
Mixed-use structures construction
Converting parking to urban seniors park
Streetscape construction continue
Converting existing parking to perme-able parking.
Conveting Ground floor as community space
Construction of the upper level of terraced embankment (+6'-00")
Reconstruction of Losee Park
Wetland park construction

2080S

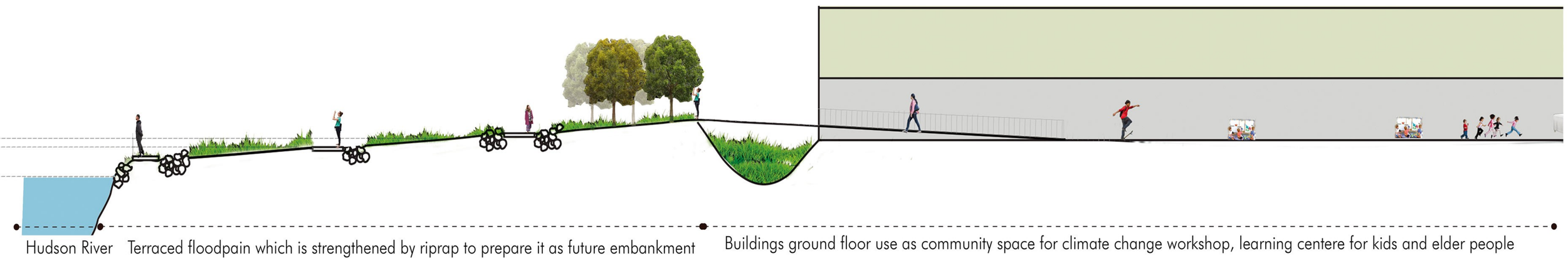
Community engagement for further development and maintenance of the recreational site
Continue converting parking to permeable one
Streetscape construction continue
Community collaboration for replacing inundated paths

VISUALISATION OF FUTURE PROJECTIONS



Zone 1
Riverfront adjacent to Hudson Harbour

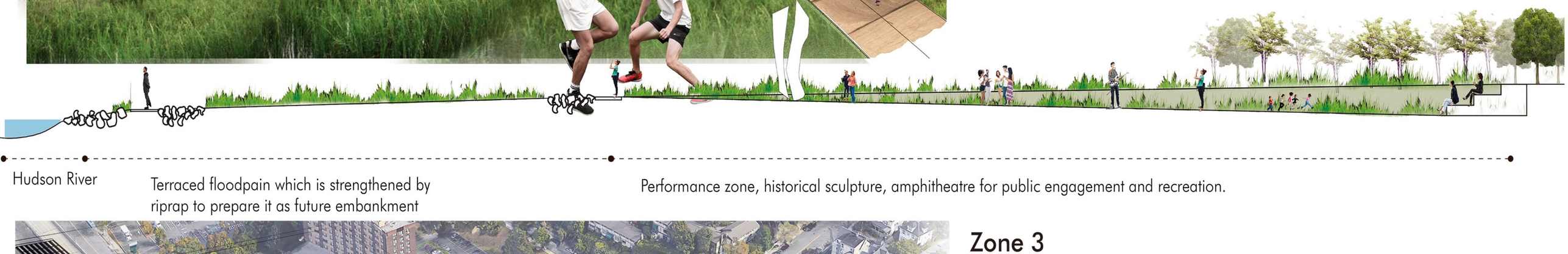
Gently sloped terraced park to accomodate sea level rise changes. The floodable pedestrian paths will allow people to enjoy the Hudson in different season differently. This will also offer people the opportunity to enjoy the riverealk along with the natural marsh.
The multilevel pedestrian paths which is universally accssible will allow people to enjoy the riverfront from different levels. This paths are designed to accept flooding not as a risk, but as an event to celebrate.



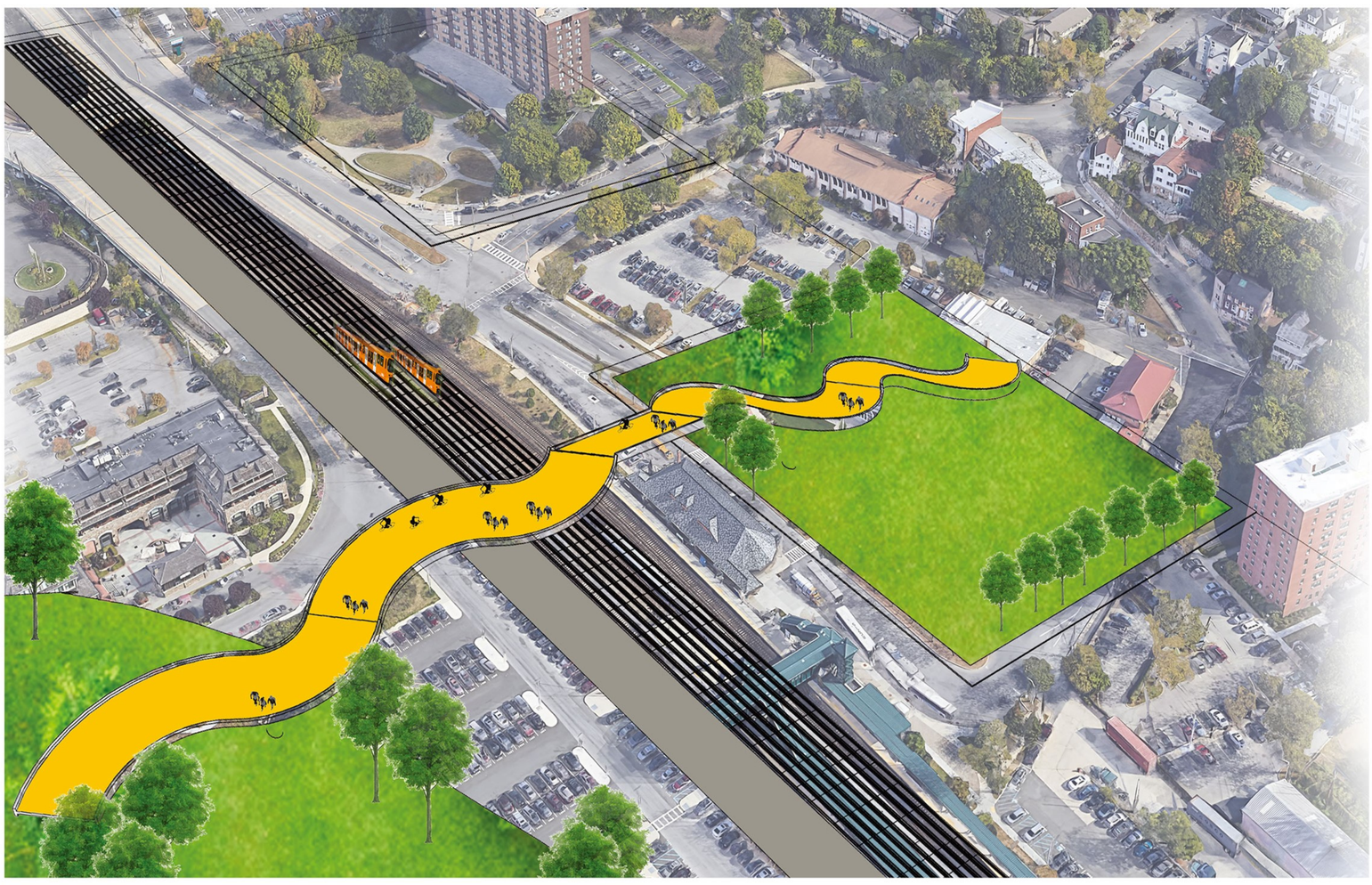
Hudson River Terraced floodpain which is strengthened by riprap to prepare it as future embankment Buildings ground floor use as community space for climate change workshop, learning centere for kids and elder people

Zone 2
Pierson Park zone

Gently sloped terraced park to accomodate sea level rise changes. This will also allow safe room for the growth of the marsh in the first two levels and upper level will include flood resilient planting strategy which will allow people to enjoy a natural riverfront and accomodate the recreational activities like event space, picnic spot, deck for concert, amphitheatre and children playing zone.
These place will also include some historical sculptures which will help people to get connected with the past and it will work as an element of identity of the town.



Hudson River Terraced floodpain which is strengthened by riprap to prepare it as future embankment Performance zone, historical sculpture, amphitheatre for public engagement and recreation.



Zone 3
Pedestrian connectivity through H bridge and the rail-line

The rail-line is raised upto 5 feet which will save the rail line from future flooding and sea level rise. It will also work as a flood wall for the east side in storm surge events.
For uninterruptible pedestrian and bicycle connection from downtown to riverfront, a gently sloped pedestrian bidge is proposed. The bridge will also be connected with the urban parks so when people will use this bridge it will offer a beautiful inviting view of the entire town, the riverfront and urban parks along with a safe pedestraina passage to come to the riverfront.

VISUALISATION OF FUTURE PROJECTIONS

Zone 4
Losee Park zone

The proposal for Losee park is to make it a marsh park with strategic dredging and grading. With the accomodation of open culvurts in the outer layer of the park, there will be a naturally created micro-environment for wildlife with different tidal flactualtions. Secondary streams are graded here to emerge in mudflats during mid-high water levels, and provide alternative passages for aquatic wildlife as well as safe corridor for marshes. This strategy creates a tranquil experience amid tall marsh grasses even when the Hudson water roars. During dry mouths, these stream beds function as informal pathways for visitors to explore, slicing through the dense grasses.

For recreation purpose, cafes, marina are proposed in this zone. From the cafes, people can enjoy an exceptional view of the marsh land along with the Hudson river.

Zone 5
Franklin court zone

As the Franklin court is in a low topographic zone, it is i risk of intense flooding. So the proposal is to relocate the Franklin court existing houses to the uphill side and make the ground floor of the Franklin court a public community space in the time of rennovation.

In the existing zone of the Franklin court, a wetland park is proposed where the biodiversity is adopted and enhanced through the addition of native wetland species.

The pedestrian boardwalks in here will help the children and also the community people to get closer to nature and wildlife and learn about ecology.

This zone will also work as a buffer to reduce the sound pollution from the trains.

Zone 6
Downtown to Riverfront streetscape design

A continue pedestrian access is created along with a green network of native trees. The green network will increase the storm water retaining capacity while the accomodation of the historical photographs with the walkway will help the communi people get connected with their past and it will increase the community connection and prepare them for facing the coming challenge.