



Ar. Rashedul Hasan Deepon

Transportation Planning: Highway Solution

Brief description: This project was formulated as per the Transportation policy proposal in the Detail Area Plan of Dhaka and Development Plan of Mongla (a sea port area in Khulna).



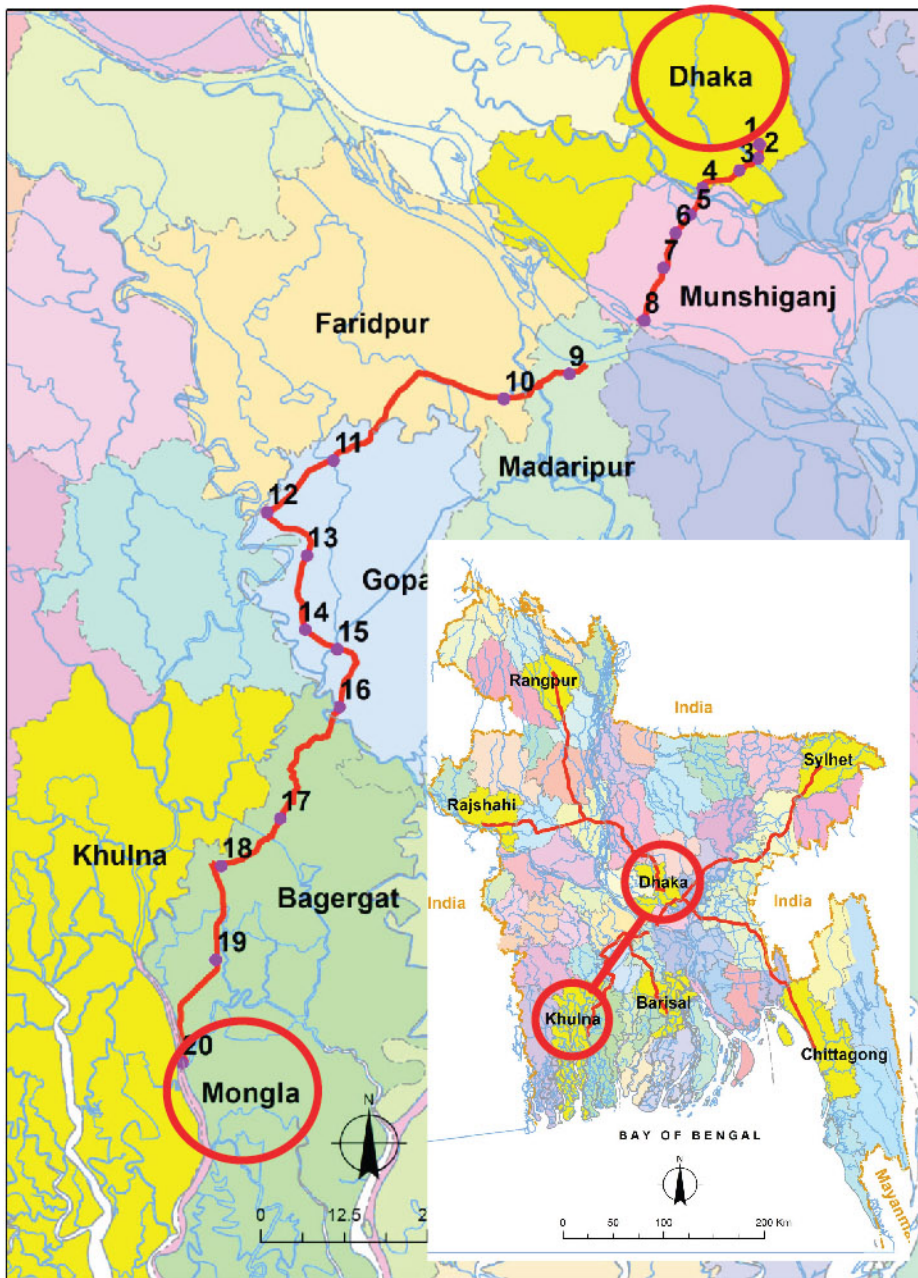
About the project

Connectivity is the most important aspect of development of any region. It is all the more important for the project area due to the sea port. Presently Mongla Port is connected with rest of the country by roadway and waterway. Railway link is also underway.

3.1.1 Roadway

Due door to door connectivity road is the most preferred mode of transport. Depending on the level of connectivity a road may be a highway, an area connector or local road. These road systems together form an effective road network connecting all facilities and establishments to each other. Since highways connect distant regions, 'speed' is the determining factor for highway planning. On the other extreme, key function of access road is to provide link to individual households or facilities where 'safety' of the individual is the prime concern. Roads performing these two extreme functions therefore must be segregated through a proper road hierarchical system to avoid fatal consequences.

- Excerpt from Chapter 3 of Mongla Report



Above: Map of Dhaka - Mongla Highway.
 Inset: Map of Bangladesh, highlighting the major Road networks connecting to other regions.

Atleast twenty known settlements besides the Major Highway road connecting Dhaka to Khulna, whose presence greatly affects the effectiveness of the Highway and in many cases defeats it's sole purpose of mobility.



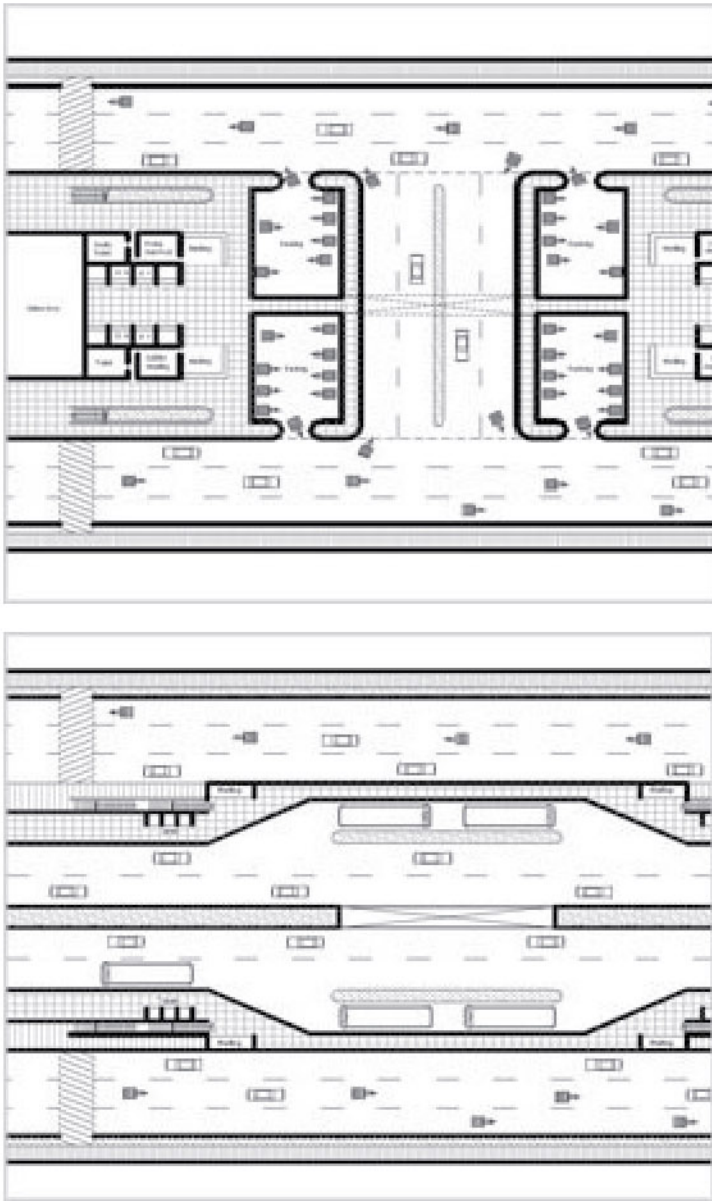
PROBLEMS FOUND IN HIGHWAY

- Traffic jam
- Fatal accident
- Highway robbery



REASONS BEHIND THE PROBLEMS

- Mix of local and highway traffic
- Roadside settlement
- Activities on road
- Relative height of the highway from the surrounding
- Borrow pit (canal) along the highway
- Using speed breakers on Highways
- At grade rail crossing
- Improper road geometry
- Surface condition
- Visibility obstruction
- Over exhausted or unskilled drivers
- Under performing vehicles
- Highly inadequate treatment facility for trauma victims
- Ineffecient law enforcement on



Schematic Section: Segregation of Highway road and Local road. Also linking the local roads on opposite sides of an highway



View of Junction point

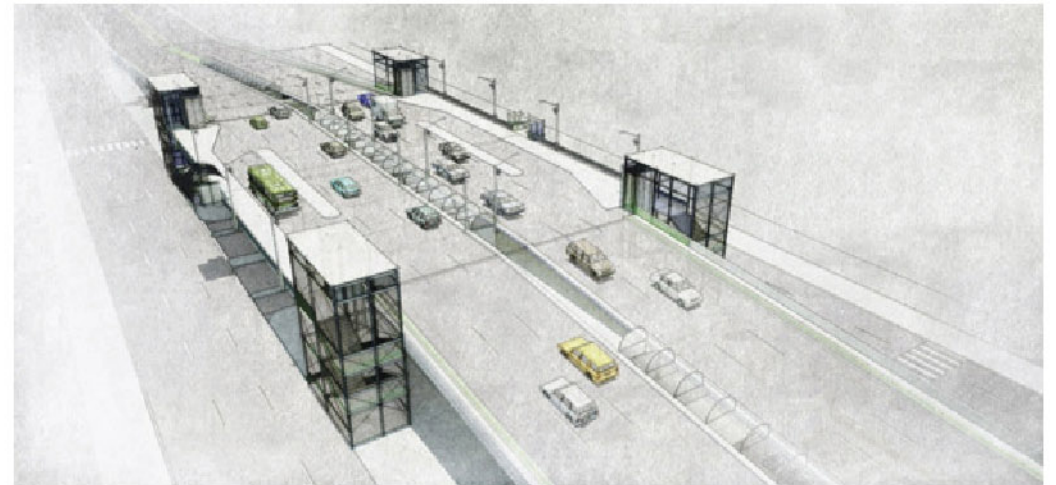


View of Junction point at ground level with surrounding context

- Segregation of highway traffic from local traffic
- Link settlements on either side of highways
- Proper road geometry
- Maintain appropriate slope on highway
- Ensure grade separated railway crossing
- Ensure proper visibility on highway
- Ensure proper rest and training of highway drivers
- Ensure vehicle with appropriate fitness
- Establish Trauma centers at necessary intervals on highway
- Strengthen highway police with appropriate man power and logistics



View of Bus stop at + 25'



Bird's eye view of junction point



View of possible functions such as highway restaurants at +12'



Bird's eye view of vehicular exit-entry point to highway



View of possible functions such as local bazars at ground level



Bird's eye view of vehicular exit-entry point to highway

Housing solution for LOW - WAGE URBAN CITIZENS

About the project

As the center of power Dhaka attracts most financial investment both in public and private sectors. This unequal concentration of investment has contributed to an astronomical escalation in Dhaka's land values creating diminishing accessibility to land for the low income range people. In such a situation the 'urban poor' bear the brunt of insufficient resources, unemployment, substandard housing and an inadequate supply of clean water and sanitation, high incidence of diseases and insufficient health care. Some of these problems have reached very critical proportions.

General view is that people living in slums are poor and hence cannot afford better houses. But ironically many studies reveal that the reality is the other way round. They pay more per square feet rent compared to the middle and at times higher-middle income people. Though they have immense contribution to the smooth functioning of the city yet their living condition is too inhuman devoid of all amenities deserved by a citizen.

- Excerpt from Original Report

these

The idea of this project stemmed out of the understanding that low wage citizens do not belong to the city they live in, rather the village they lived in prior to this informal job or temporary factory job is their actual 'Home'. Nevertheless as long as they work in the cities they have a right to have a decent house for them.

Bangladesh: Housing Context



Dhaka the capital city due to centrality of location, reasonably short distance and easy connectivity from all parts of the country grew into country's nucleus. It became the destination of majority of in-migrants (according to recent data, above 40%) from all across the country. It is one of the most rapidly growing mega cities of the world.

Due to this unprecedented migration of the active work force the traditional agriculture suffered further triggering more migration and the process is still on. This chain reaction shrunk the share of agriculture down to about 30% of GDP. This huge GDP gap was effectively covered by an entirely new economic sector – Ready Made Garments (RMG). Starting virtually from nothing, today this export oriented labor intensive sector is the highest in-country GDP contributor (next to remittance from the expatriates) creating huge direct jobs specially for the woman folk with minimal educational background and many times more indirect jobs in the support and service industries having forward and backward linkages with RMG. Besides RMG, many industries too such as pharmaceuticals, chemicals, transport etc. create significant amount of jobs.

urban migration of these workers is contributing in the overall GDP but the problems created are much more difficult to be handled with proper solutions. The annual increase of 1.5 million people in Dhaka is adding 300,000 new families every year creating an estimated annual demand for 200,000 new dwelling units which results in explosion of slums and squatter settlements manifesting mass poverty and gross inequality regarding basic amenities provision.

As the center of power Dhaka attracts most financial investment both in public and private sectors. This unequal concentration of investment has contributed to an astronomical escalation in Dhaka's land values creating diminishing accessibility to land for the poor people. In such a situation the urban poor bear the brunt of insufficient resources, unemployment, substandard housing and an inadequate supply of clean water and sanitation, high incidence of diseases and insufficient health care. Some of these problems have reached very critical proportions.



To reiterate, general view is that people living in slums are poor and hence cannot afford better houses. But ironically many studies reveal that the reality is the other way round. They pay more per square feet rent compared to the middle and at times higher-middle income people. Though they have immense contribution to the smooth functioning of the city yet their living condition is too inhuman devoid of all amenities deserved by a citizen.

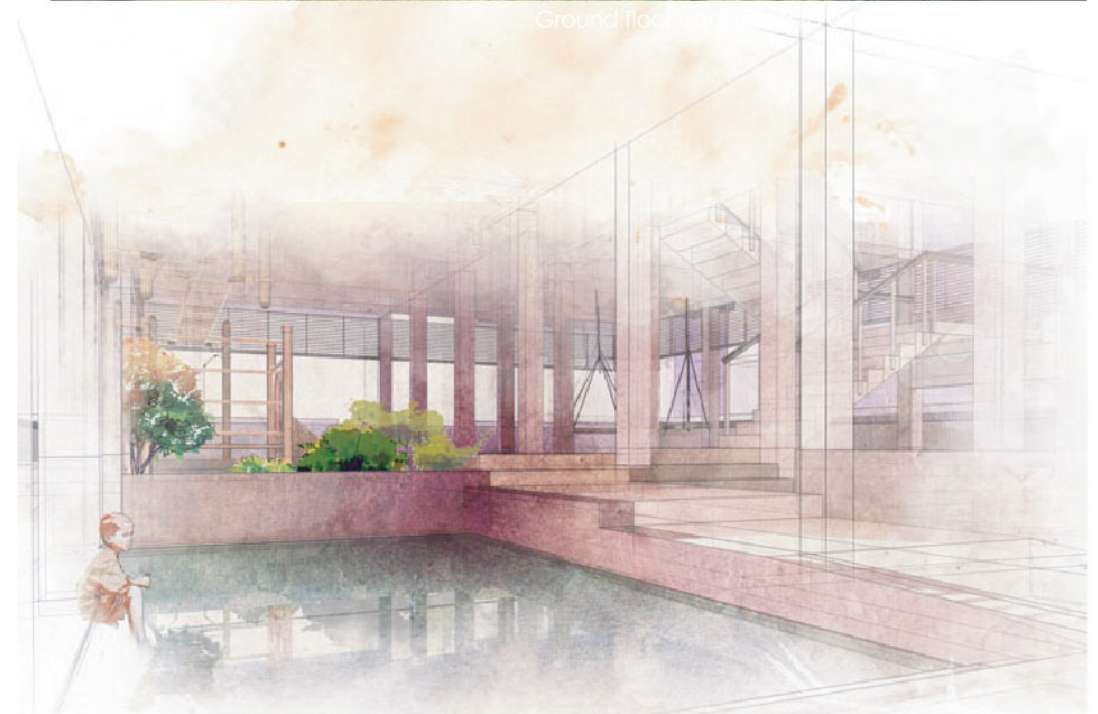
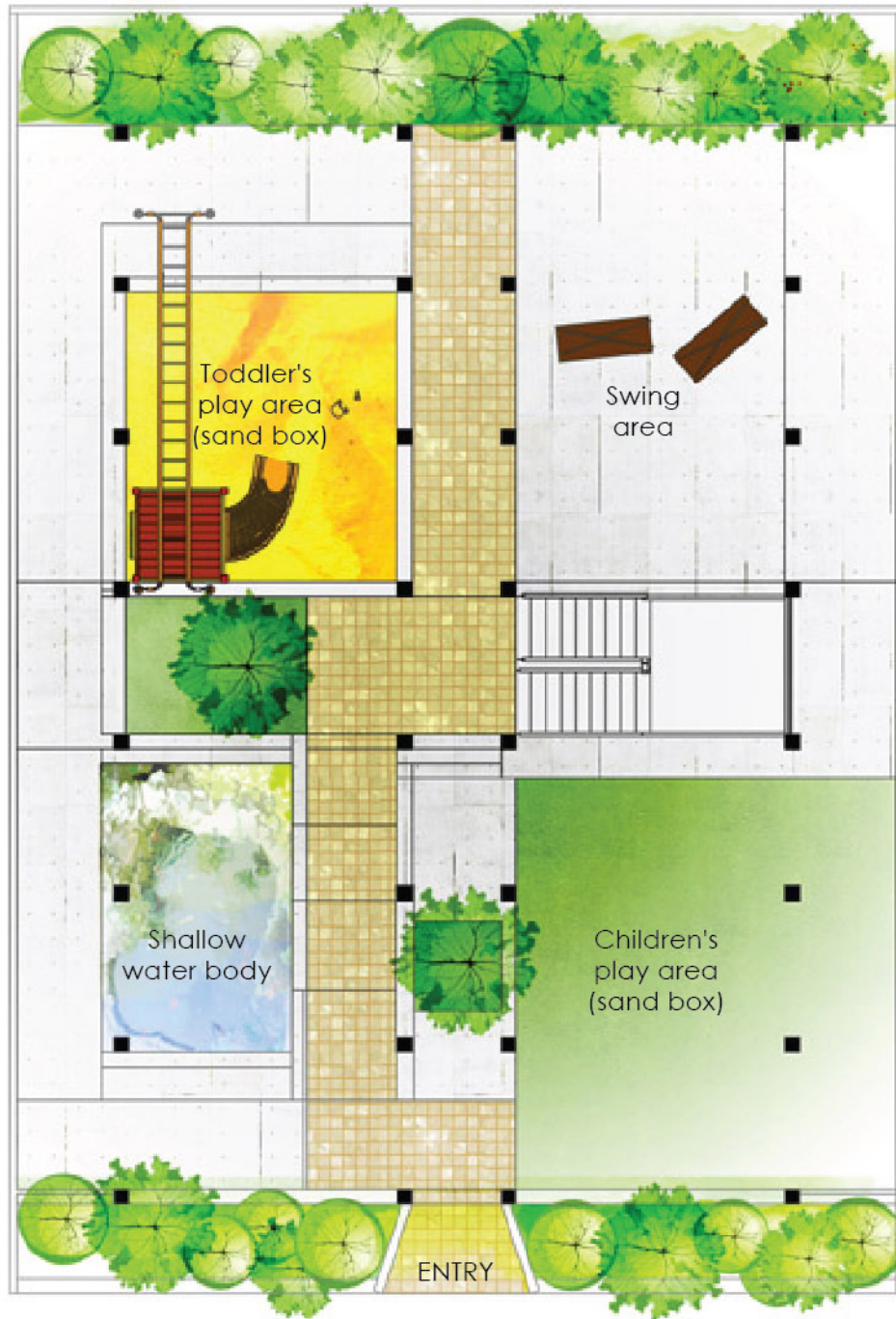
AIM OF PROJECT

To address the day to day problem faced by the low income section of the urban working community. Short term option is explored while for a more sustainable and much adorned traditional rural livelihood, suitable income provision options compatible with agrarian economy near to their home to be found out as a long term solution.

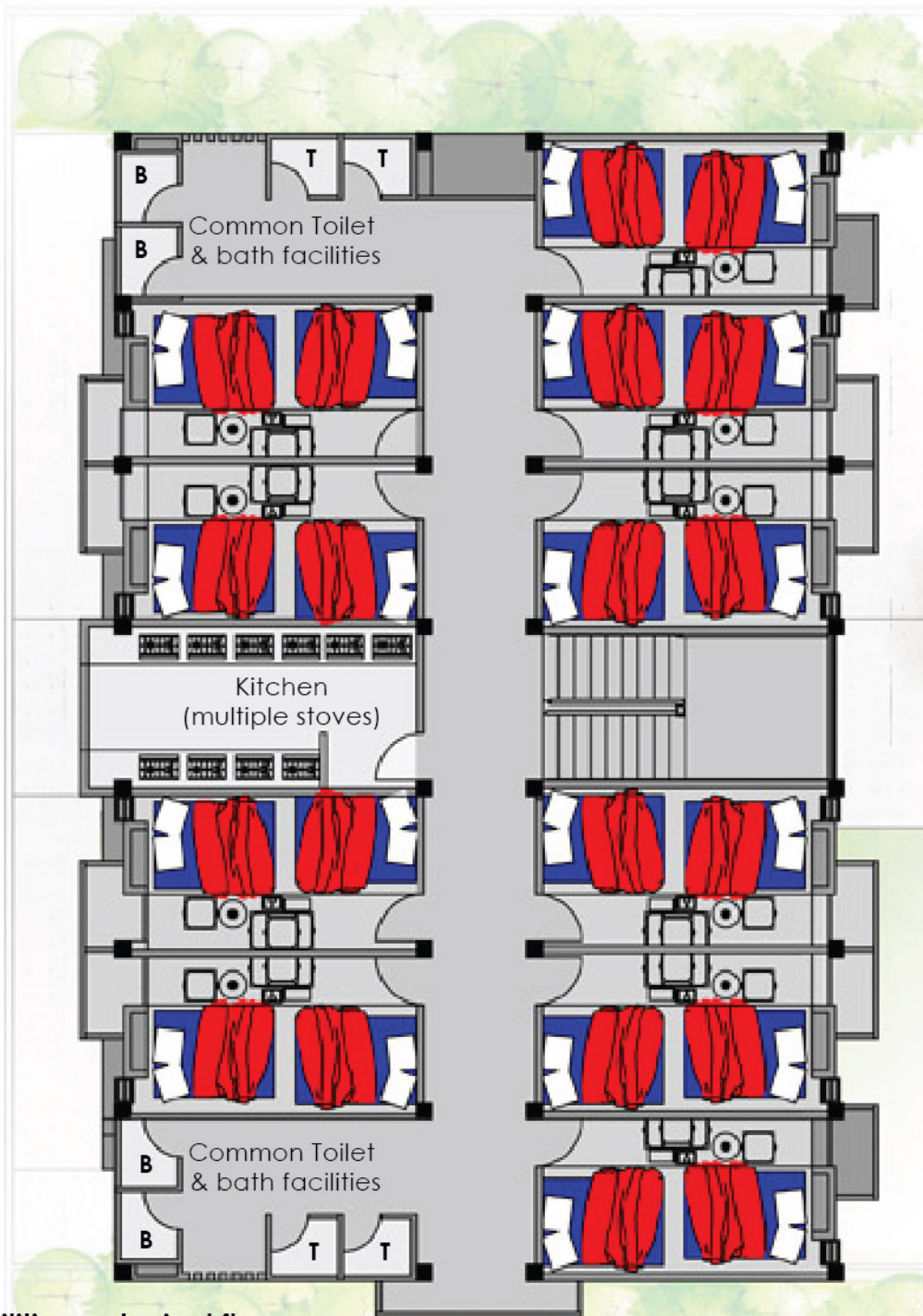
OBJECTIVE

- To provide acceptable housing within affordable price for low income people
- To provide proper utility services and urban amenities
- To provide housing at walking distance from place of work
- To ensure safety and social security for the low income people
- To ensure care and elementary education for the children of working people
- To reduce traffic load on the urban road network

Ground floor plan



Typical floor plan



Facilities on typical floor

1. Ten Bedrooms (2 beds per room)
2. One Kitchen (10 kitchen stoves and washing area)
3. Two Toilet and bathroom facilities (2 bathrooms and 2 toilets on each facility)



View of Bedroom arrangement



External view verandah

- 205 sft space with accomodation for two beds and top shelf storage
- Monthly rent Tk. 2460 only (approximately the same amount paid for existing living conditions in slums around Dhaka)



View of kitchen facilities

IAB Competition- Design of Unity Complex



Brief description: This unique project competition had three things in one. Urban Context (especially drainage) response to nature through cultural tradition and finally, housing modern lifestyle of it's residents. All these tempted us to explore a solution.

CONCEPT and IDEAS

Village Pattern- Two prominent types for flatland

Linear Village:

Highland, generally not inundated except high flood:

Clustered Village:

Low lying areas prone to perennial flood



Munshiganj



Narayanganj

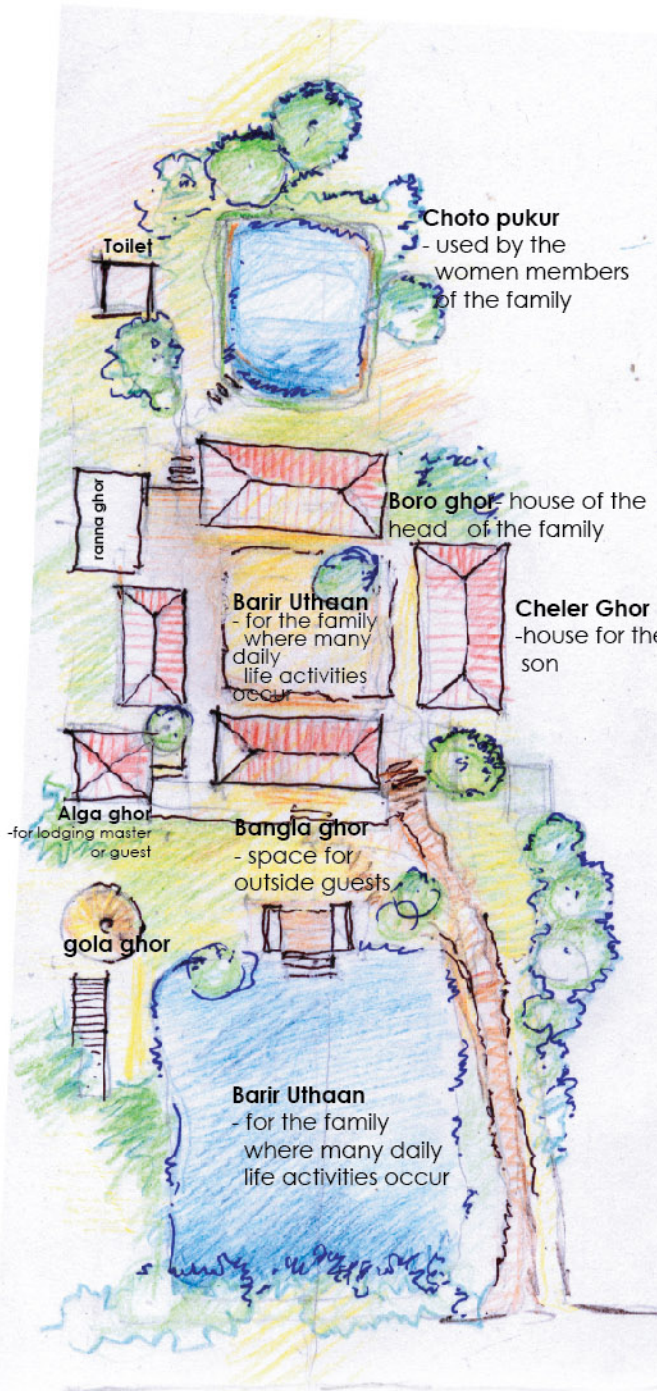


Settlement near public area



Findings:

1. Clustered village pattern surrounded by vegetation and vast agricultural land.
2. Houses are connected by linear roads or canals.
3. Traditional Elaborate layout of house is shrunk to single courtyard, single structure houses for low-income people.

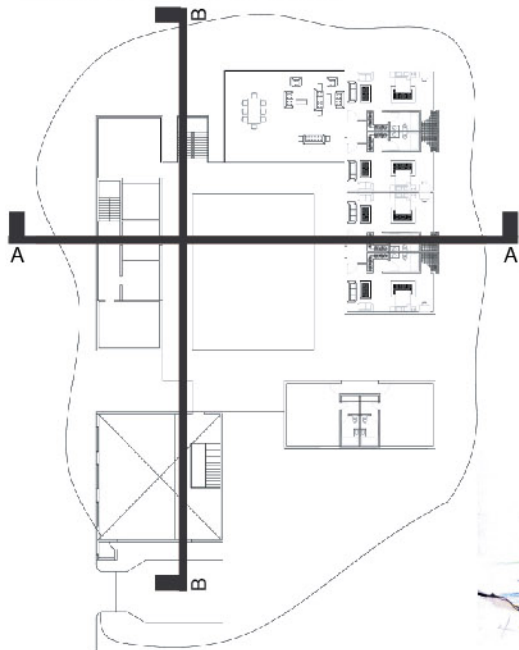


N Diagrammatic understanding of a typical village pattern



Decisions:

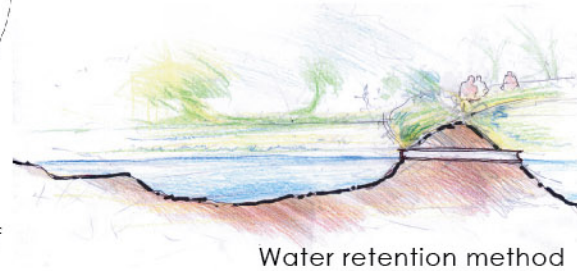
1. Houses will be placed on Earthen Mounds.
2. The Houses will be linearly linked by both road and canal.
3. House Pattern of low income people will be adapted for the workers or service providers
4. Vegetation and Agricultural land will be incorporated to create the traditional environment.



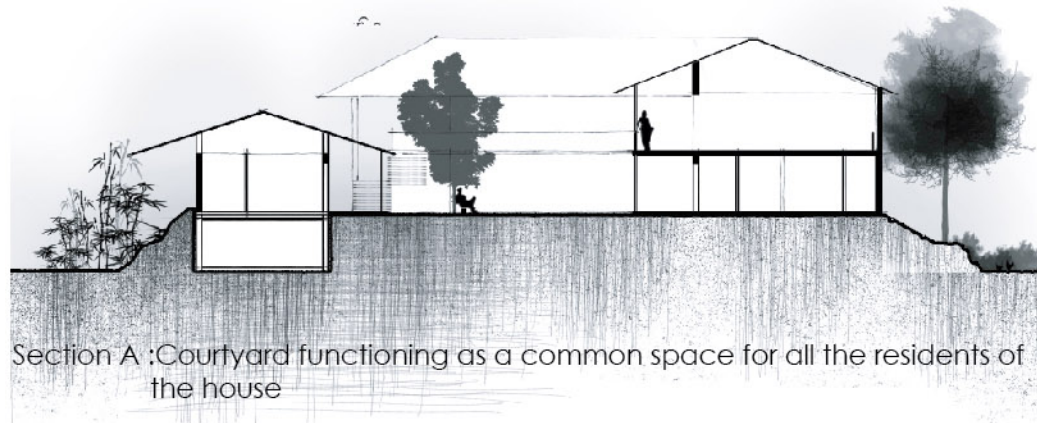
Plan: inspired by the schematics of a typical village house pattern



Road to serve both pedestrian and vehicular purpose



Water retention method



Sequence of tasks performed:

1. Comprehend the scope of the project from the supplied materials.
2. Understand the context of the site, especially about natural drainage scenario based on study of relevant reference material.
3. Establish a vision in the form of guiding principles to crystallise the project.



4. Develop site layout, creating environment to house its residence physically, emotionally and culturally.

5. Design development through preparation of in-scale drawing.

6. Develop 3D models of individual residence, mosque

7. Develop presentation drawing, with appropriate rendering



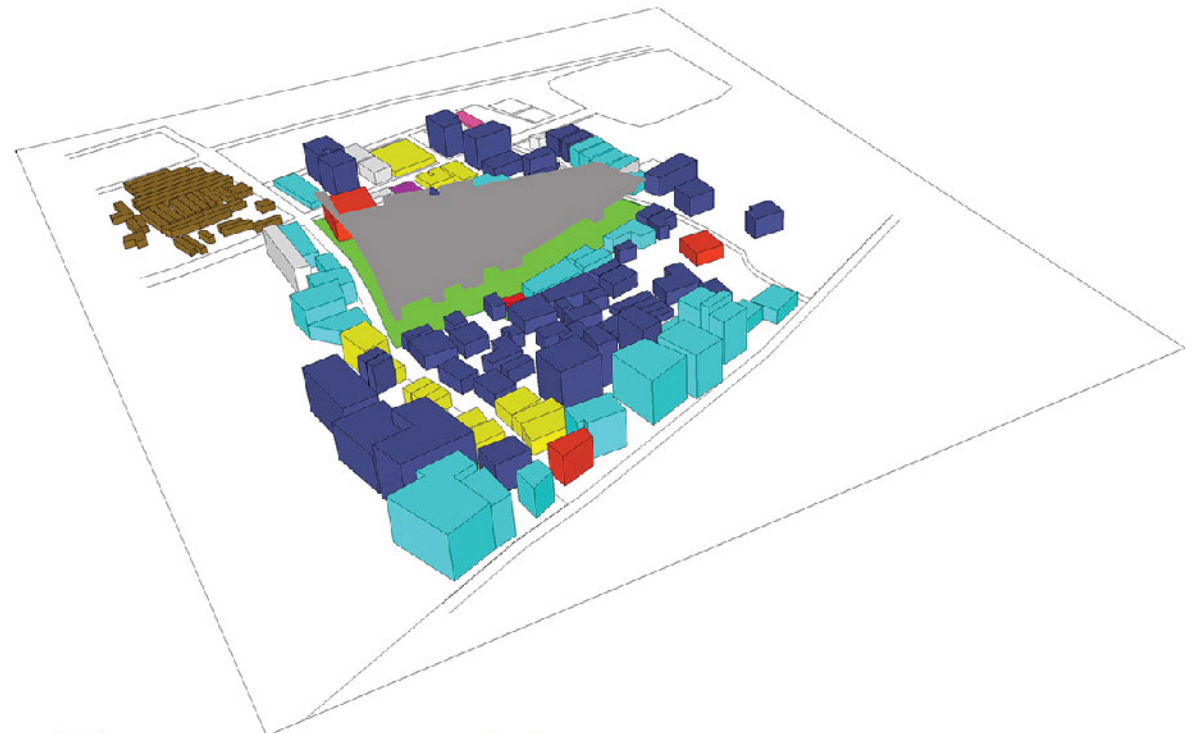
Activities such as flying kites and fishing form an integral part of childhood memories. They enable a physical and emotional bonding with nature. When a child grows up, these moments become inspiring and contribute to building up characters.

Redesign and Redevelopment of Rayer Bazar Market



About the project

On July 31, 2004 DCC market division sources said a proposal for renovating 13 markets of the capital city was sent to planning division labeling them as dilapidated and risky. The DCC Rayer Bazar kitchen market was stated to be the most risky market. Rayer Bazaar City Corporation Market was built in 1965. It's a historical and traditional market in Dhaka City. This area is named Rayer Bazaar after the landlord Ray although the location has another name, Sultan Ganj, which is found on signboards, banners and festoons but Rayer Bazaar is the most popular name to the people. Due to the passage of time the Bazar is facing dire consequences. First of the the structure of the building has severely weakened and is on the verge of collapse and poses immediate life threatening risks to its users. Based on this circumstance the DCC officials have decided to build a new 14 storey building on the premises with functions such as kitchen market, shopping facilities and apartments. My thesis is to understand the Bazar morphology and the Imprint the current Bazar holds on it's Locality so that I am able to find an appropriate CONTEXTUAL response to the NEW RAYER BAZAR



- | | |
|---|--|
| Mixed use building | Commercial building |
| Residence | Old Police Station |
| Religious building | New Police station |
| | Slums |



The structural weakness of the existing bazaar prompted the DCC officials to develop a 14 storey high rise building consisting of shops, offices and apartments with kitchen market facilities at ground level. Though the new building may be structurally solved it proposes a threat of another kind, the hampering or uprooting of the Ray Bazaar locals and their lifestyles. This situation has provided a conflict of interest of the two parties. The Rayer bazaar locals are concerned that they will not get their allocated spaces back and the DCC officials are upset that they are not able to make optimum use of their

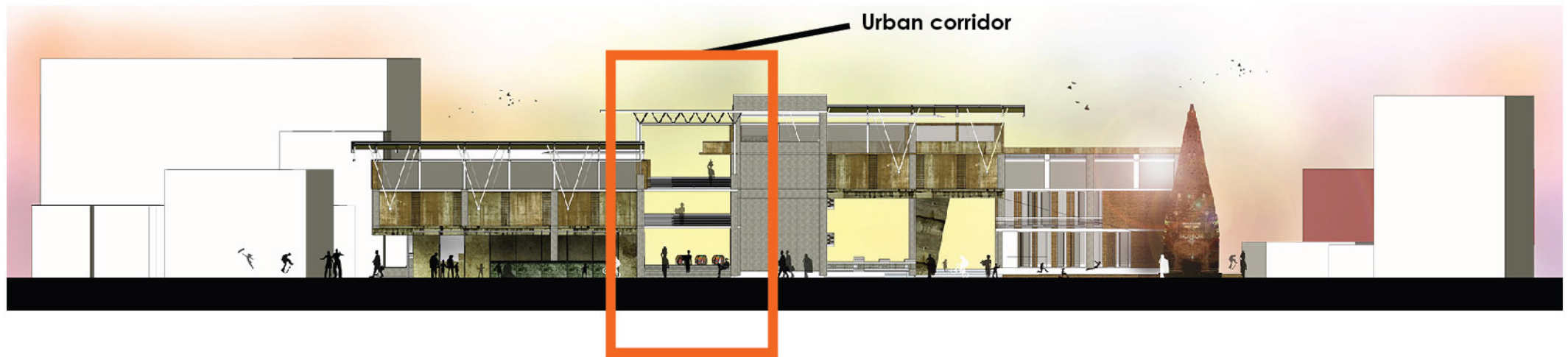
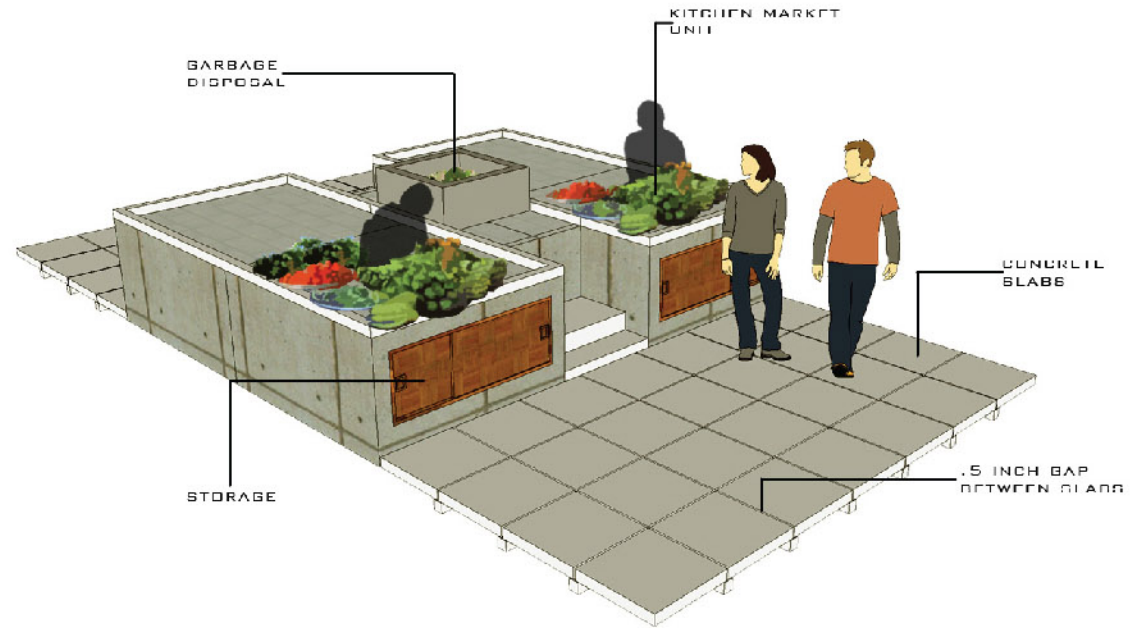
There have been three independent cases made against DCC from the Ray Bazaar market owners and the high court has ^{these} ordered the DCC to solve the dispute before making any move on the market development project. The DCC proposal is justifiable based on the fact that changing economy call for changes or upgrades in all the different infrastructures provided by DCC, thus any new initiative proposed needs to have good economic returns. However, the Locals who have based their lifestyle on the Bazaar have rights as to determine its future and the implication it has on their lifestyle.

It should be noted that the Bazaar itself holds sense of identity to its locals and acts as a landmark. It even has a historic structure within it's premises (A 'Mot' containing a remnant or Ray Shaheb the original owner of the land and after whom the Bazaar is named) It would be absurd to erase these psychological imprints by proposing a building that does not take into account its surrounding context. It is urgent to find a common ground that benefits the both parties.

SOLUTION: traditional space patterns blended with modern supporting facilities



spaces between buildings that are open to sky with temporary shaded. These spaces are a nod to traditional bazaar spatial quality prevailing in the regions of Bengal





Urban Corridor: that links all the spaces of the building and acts as an axis that connects the 'locally vital' roads on opposite sides of the site.



AIM OF PROJECT

Propose a Bazaar interface that is of equal benefit to both parties

Modern facility

Preserve the integrity of the "bazaar quality"

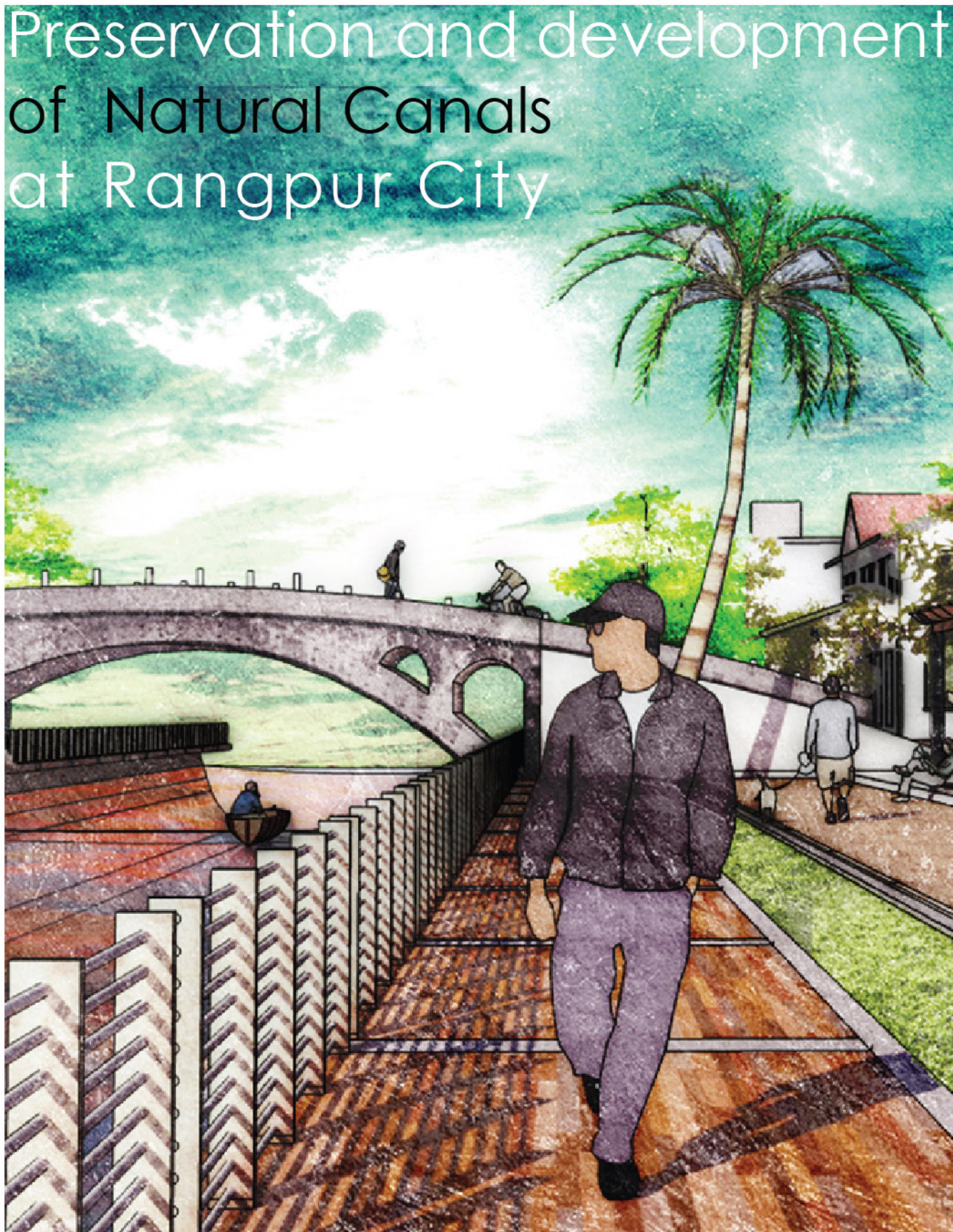
Solutions and Policy of garbage management

A new spatial identity inspired from the old spatial grammar

Bring out a flexible breathing Space

A sustainable bazaar that gives out to the community rather than taking from it.

Preservation and development of Natural Canals at Rangpur City

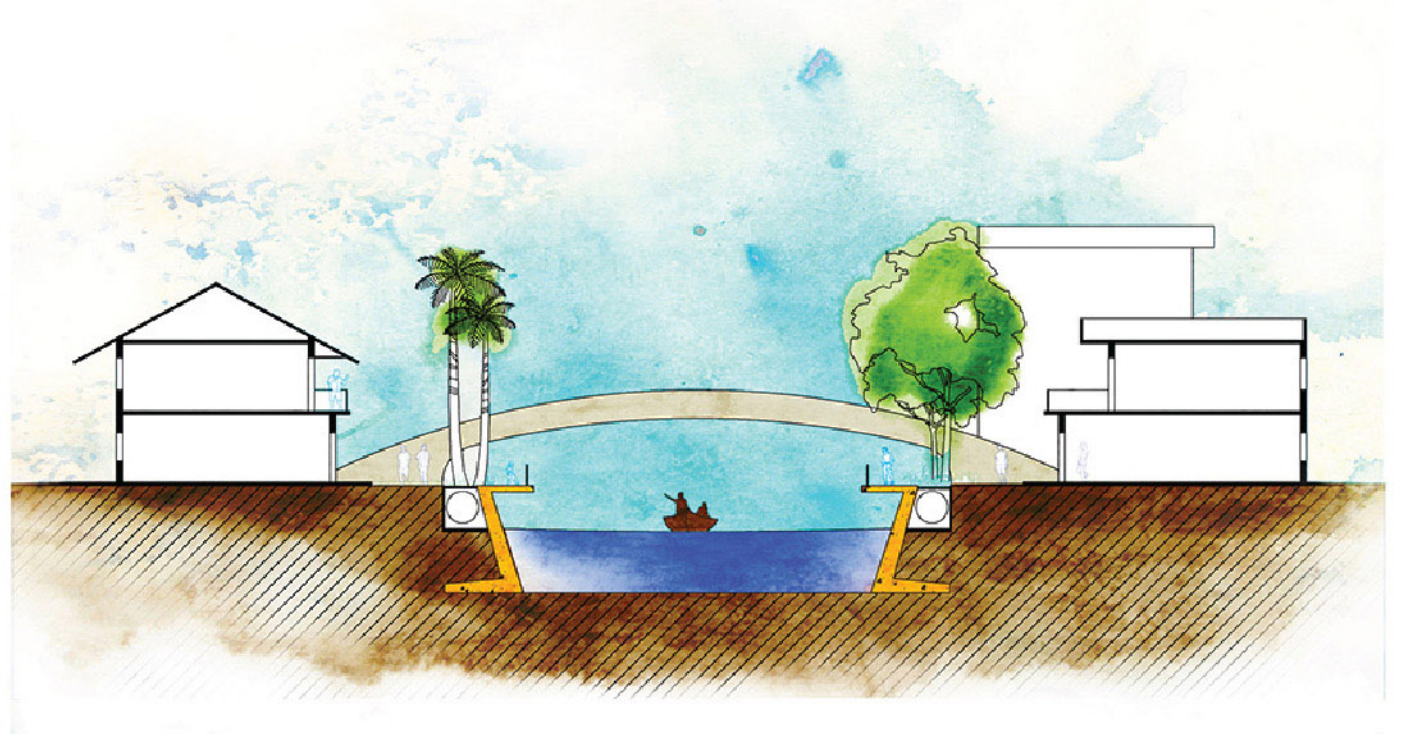
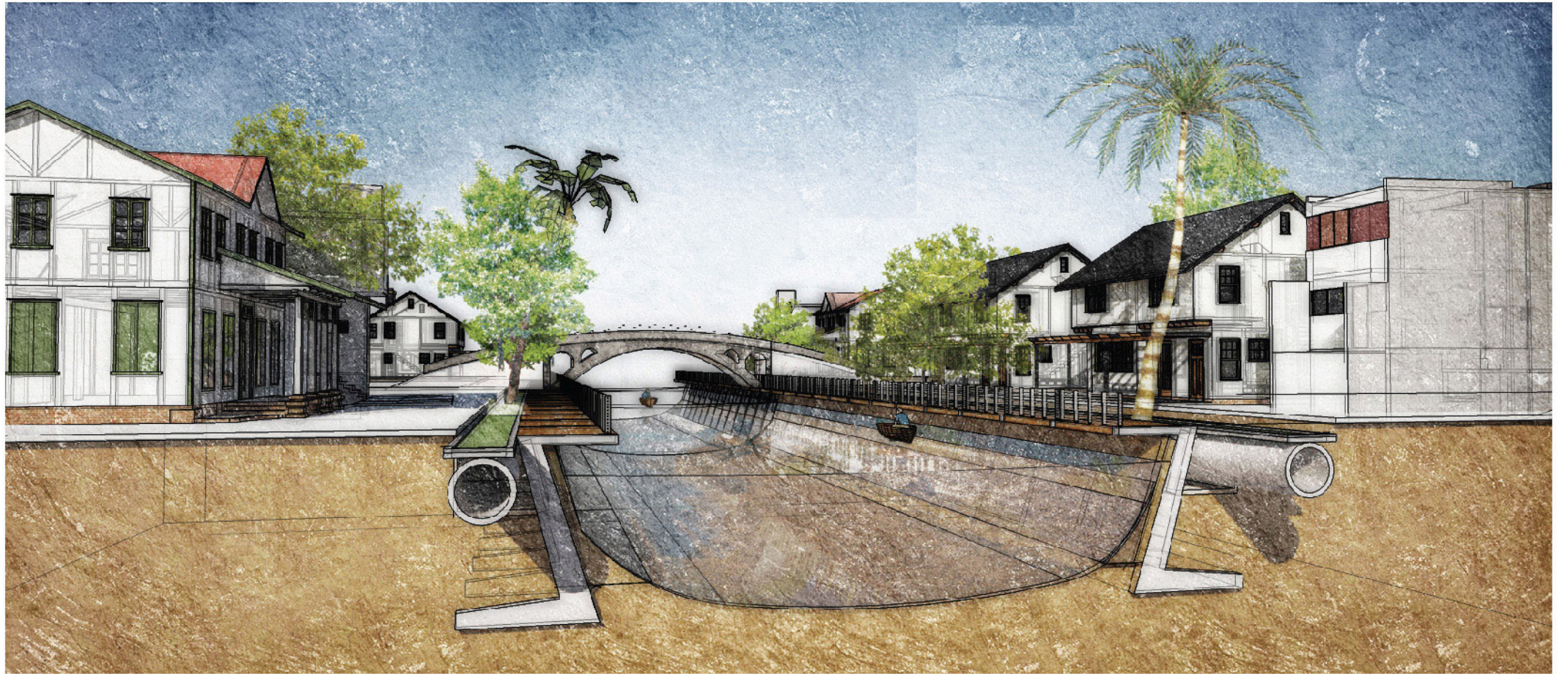


About the project

Amongst the many Rangpur City Corporation (RpCC) development plans and policies, one of them was to preserve and develop the existing canals of the city and its peripheral areas. This is very important in the context for Rangpur because these act as drainage system for rain water and in some cases for paddy fields.

The concept behind the section model is that the canal will retain its natural cross section and only a cantilevered platform will be set up. This will allow the natural flow of water via the canal and a recreational space for the local community. The proper canal cross-section geometry would also promote the use of boats for rides and leisurely activity.

Emphasis has been given to the structural detail of the canal to ensure a perforation between the canal and surrounding land so that the placement of the canal does not hamper the replenishment of the surrounding soil.



ILLUSTRATIONS OF PEDESTRIAN FRIENDLY STREETS AND PUBLIC SPACES



About the project

The illustrations were part of a presentation on pedestrian walkways and public spaces. It focused on the importance of such elements to ensure a proper, safe environment for all the residents of a neighborhood.

Proper neighborhood road geometry enables a safe passage for children, young adults, adults and old aged residents of a community to reach their target destination. These target destinations can be as simple as going to the local hair dresser's shop to everyday routines as going to school. But an inefficient road may make even these simple tasks seem tedious.

Similarly, public spaces such as neighborhood playing fields have significant contributions to the community and in fact play an important role in the social upbringing of children to responsible adults. These playing fields play different roles in different stages of a person's life; as a place for interaction in his/her youth to a place to contemplate in his/her adult life.

The aim of the presentation was to stress the importance of preserving and developing such spaces and an absence of these elements may have consequences that might not be desirable.



Well maintained safe neighborhoods. Children walking to school in a group or alone without fear for their safety



Neighborhood playing fields where the youth of the community interact in a friendly environment and learn about leadership, comradery and earn self confidence ...

