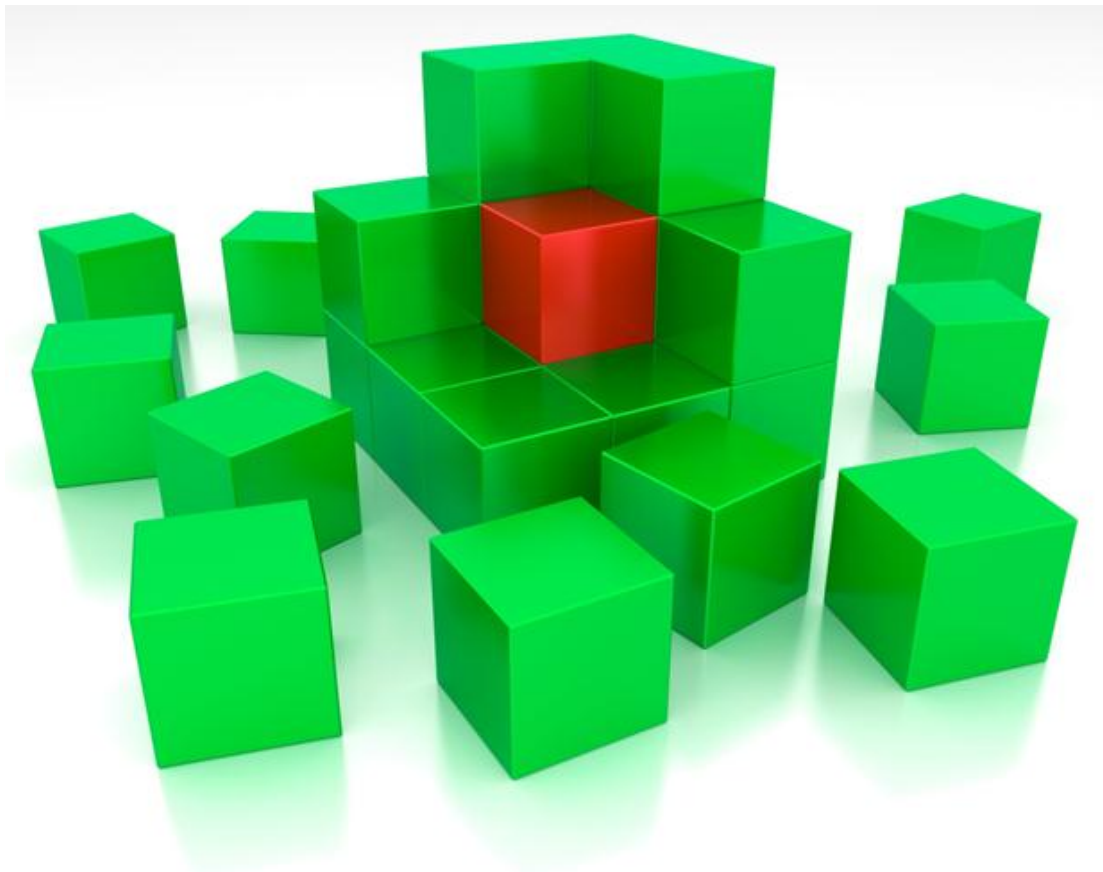




Bruhat Bengaluru Mahanagara Palike (BBMP)

Pre-feasibility Study for Development/ Re-Development of
Markets in Bengaluru: Final Report



Submitted By
Deloitte Touche Tohmatsu India Private Limited

ACRONYMS

BBMP	Bruhat Bengaluru Mahanagara Palike
BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BOT	Build Operate Transfer
DBFOT	Design Build Finance Operate and Transfer
DTTIPL	Deloitte Touche Tohmatsu India Private limited
FOB	Foot Over Bridge
Gol	Government of India
GoK	Government of Karnataka
IDD	Infrastructure Development Department
PPP	Public Private Partnership
UDD	Urban Development Department
ULB	Urban Local Body
VGF	Viability Gap Funding
EOI	Expression of Interest
RFQ	Request for Qualification
RFP	Request for Proposal

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1 Executive Summary

1. Bangalore, the capital city of Karnataka is one of the fastest-growing Indian metropolises. The city has seen an unprecedented increase in its population in the last few decades due to IT / ITES and biotechnology sectors, leading to rise in demands and strain in existing public infrastructure.
2. In order to provide adequate commercial facilities to the citizens, BBMP developed several markets in the past within their jurisdiction. While BBMP has taken efforts to provide improved commercial facilities, lack of marketing and proper maintenance has left the markets in poor conditions, in spite of some of them being situated in prime locations. Hence, in keeping with the goal of providing adequate civic amenities to the citizens, BBMP intends to re-develop some of these market areas and develop newer ones. To make these markets commercially viable with shared or little investment from their side, BBMP has decided to take up development/re-development of the markets on a Public Private Partnership (PPP) basis.
3. The project has been envisaged to provide new, better designed and clean public shopping areas. The PPP model is seen as a win-win solution for all the stakeholders. As a strategy towards sustainability for the redevelopment project, the existing shop owners will get the much needed improved infrastructure, the city would get the desired commercial space and BBMP would benefit from saving the money spent on maintenance of the area which can then be diverted for other infrastructure development.
4. This report studies feasibilities of three of them. These are:
 - Re-development of Johnson Market
 - Re-development of Moore Market
 - Development of a neighbourhood market in Mahalakshmi Layout
5. The broad objective of the market re-development/development project is to reinvigorate the market areas as a retail shopping destination for local residents while ensuring their commercial viability. The design philosophy is mainly based on strengthening the existing market activity by providing a profit oriented public space

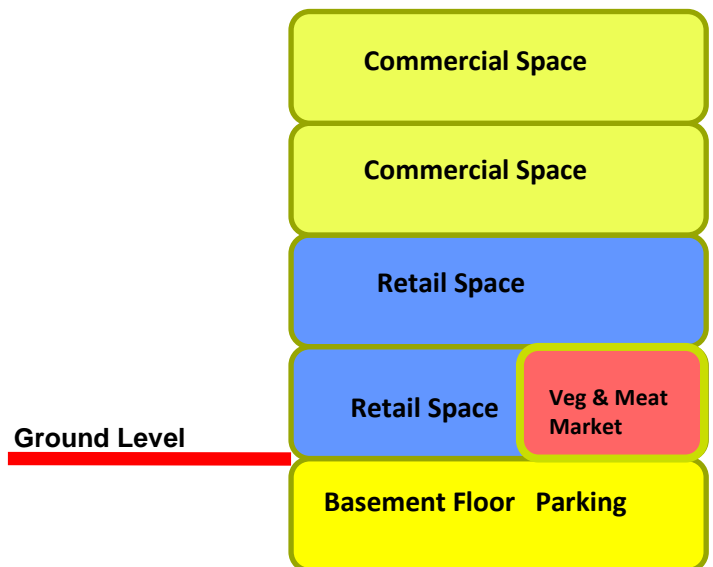
that will increase the draw and frequency of shoppers to the area, while creating an outlet for local entrepreneurial activity and a public space for social interaction.

6. The project structure envisaged for all the three markets is on Build-Own –Transfer basis where the private party enters into an agreement with BBMP for providing land for development / re-development of markets and in turn the private sector developer will share a part of his revenues with BBMP. This provides a win-win solution for both the parties to the agreement.
7. Johnson Market is located at a prime location in Hosur Road. The market is surrounded by residential and commercial buildings along with some prominent institutions .At present, the front of the market has numerous retail shops, the central part has vegetable shops, and the rear is a mutton market. The market lacks proper sanitation, sewerage connection and solid waste management.

The new re-development plan proposes a three storestoreyy building to consume the available FSI. The proposal is to accommodate the vegetable and meat market and to build a modern facility for organized retail. It also suggests the accommodation of the vegetable market on the rear side with access from both the side roads, and provides frontage in the GF

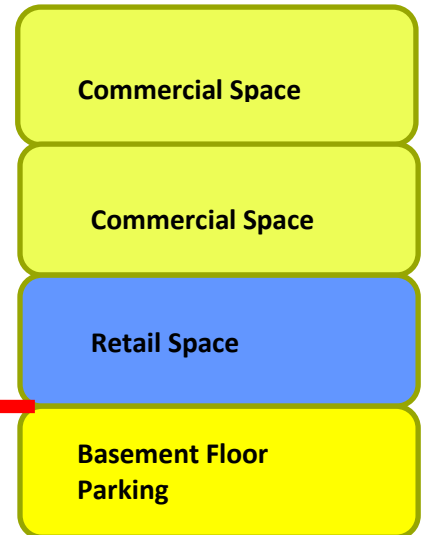
and FF for the retail format. The upper floors are proposed to be let out to commercial offices with an exclusive access.

The viability assessment in case of Johnson Market (given the project structure and other assumptions) estimates project IRR to the private developer at 15.93%. Given the positive and high returns, this project is financially feasible.



8. Moore Market is located on Moore road at its junction with Frazer town. At present, the market hosts small vegetable and meat stalls. The site is surrounded by residential colonies and has very little commercial activities around it. The plan is to build a two storey building to consume the available FSI. It proposes a modern facility for organized retail with provision of the frontage in the GF to the retail sector. The upper floors are proposed to be leased out to commercial offices with an exclusive access.

Ground Level



In Moore Market Re-development Project (given the project structure and other assumptions) project IRR to the private developer is estimated at 16.02%. Considering the positive IRR, the project is financially feasible.

9. With reference to Mahalakshmi Layout, the vacant site for development of Market in Mahalakshmi Layout is located in a thickly populated residential area. The site is envisaged to be developed for retail and commercial use. The ground floor is proposed for retail activity and the first and second floor for commercial office spaces. The main idea of the development is to accommodate the ground floor with hawkers/vendors who are currently occupying the footpath in an organized fashion and to provide a clean Neighborhood Market for the local residents.

Ground Level



In developing the market in Mahalakshmi layout, the project structure with revenue sharing percentage of 30%, project IRR to the private developer is estimated at 16.00%. Considering the positive IRR, the project is financially feasible.

10. The Projects will conform to rules and regulations laid for development/construction projects under Bangalore Master Plan-2013, Bangalore Mahanagara Palike Building Bye-laws 2003 and Indian Standard codes for Building Construction.
11. The projects will have minimal impacts on the environment during pre and post operation of the markets. However, adequate measures will be taken by BBMP in conjunction with other departments for proper functioning of services and utilities, after the markets become operational.
12. The market re-development/development project will have tremendous social impact on the area. It is expected that the project and consequent activities will generate additional employment and income opportunities for the local population due to growth of small shops & trading activities. The projects will foster economic growth in the area along with providing the residents a complete new dimension to their shopping experience.
13. In conclusion, the three projects are feasible from the technical, financial and social perspectives and could be taken up for further development and BBMP could seek transaction assistance.

2 Introduction

2.1 Background

- 2.1.1** Bangalore, the capital city of Karnataka is India's third most populous city and fifth-most populous urban agglomeration. It is one of the fastest-growing Indian metropolises and has seen an unprecedented increase in its population in the last decade due to IT / ITES and biotechnology sectors.
- 2.1.2** Bruhat Bengaluru Mahanagara Palike (BBMP), the City Corporation was formed in 2007 by merging the wards of the erstwhile Bangalore Mahanagara Palike, with seven neighbouring City Municipal Councils, one Town Municipal Council and 110 villages around Bangalore. The urban agglomeration with an area of around 800 sq.km now, is divided into 198 wards and an estimated population of 84.74 lakhs, up from 45.92 lakh ten years ago.

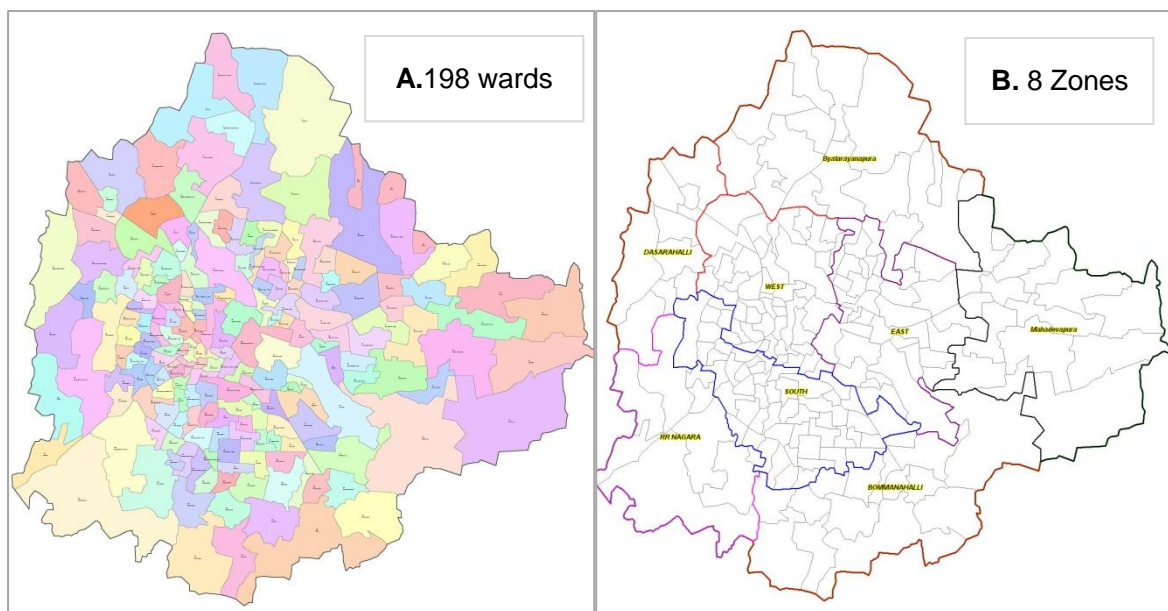


Figure i: BBMP area map A. 182 wards, B. 8 Zones

- 2.1.3** The rapid increase in population has led to rise in demands and strain in existing public infrastructure. In order to provide convenience to citizens to shop for their daily needs at ease, several markets have been developed in the past within BBMP jurisdiction. However, poor maintenance, dearth of basic facilities, absence of power supply, and

lack of parking and improper management has led to the downward spiral of these public markets. In addition to this, the cosmopolitan image that the city has acquired in last two decades has further altered the typology of public spaces demands. This has resulted in shifting of consumers from public markets to shopping malls for their needs.

- 2.1.4** While BBMP has taken efforts to provide improved commercial facilities, lack of marketing and proper maintenance has left the markets in poor conditions, in spite of some of them being situated in prime locations. Hence, in keeping with the goal of providing adequate civic amenities to the citizens, BBMP intends to re-develop some of these market areas and develop newer ones. To make these markets commercially viable with shared or little investment from their side, BBMP has decided to take up development/re-development of the markets on a Public Private Partnership (PPP) basis.

2.2 Project Idea

- 2.2.1** Public Markets have been defined as markets, in public spaces, where independent merchants sell daily need products to the public. They have been traditionally considered as the best source to get fresh produce and baked goods, locally raised meats and dairy products, and various other food items. These markets are not only an important business and economic contributor in the cities; they also act as an important interactive space for the community. Attracting a wide range of people and acting as an effective place where people mix, public markets have become the heart and soul of a community.
- 2.2.2** There are many old neighbourhood /public markets in the city which if revived can prevent people from not only flocking to farther markets/malls for their basic needs but also add convenience to their shopping. BBMP has thus taken up market re-development projects in the city. Some of these have been planned to be taken up on the PPP model. To prepare feasibilities for these projects, to unlock value and provide better services to citizens, BBMP is working with Infrastructure Development Department (IDD) which was established with a mandate to find efficient ways of sharing risk, joint financing and achieving balanced partnership between private operators and public authorities through Public Private Partnership.
- 2.2.3** The objective of redevelopment/development of the Markets is to provide a new and better designed market having a clean environment. The PPP model is being envisaged as a win-win solution for all the stakeholders. As a strategy towards

sustainability for the redevelopment project, the existing shop owners will get the much needed improved infrastructure, the city would get the desired commercial space and BBMP would benefit from saving the money spent on maintenance of the area which can then be diverted for other services.

2.2.4 This report focuses on pre-feasibility of three markets:

- Re-development of Johnson Market
- Re-development of Moore Market
- Development of a neighbourhood market in Mahalakshmi Layout

2.2.5 Johnson Market is the oldest amongst the three markets; however the present image of the century-old market in downtown is definitely a far cry from the feverish activity that it witnessed decades ago. Once 'the destination' for passionate meat eaters the market has now lost its old charm. From nearly 100 shops which thrived here, at present only 30 shops can be seen open today. Absence of adequate water supply, electricity and sanitation system have been insufficient for a long time for not only for the shopkeepers but for the customers too. The rentals of the shops are still as low as Rs 150 per month. In spite of being at a prime location, the market hardly generates any revenue to the ULB. Currently, parking facilities are absent, there is a lack of maintenance and the shop owners refuse to pay the maintenance fee. Hence, it calls for an urgent need to re-develop the market.



2.2.6 Moore Market is another old market in Cox town, Bangalore. On similar lines with Johnson Market, this market too suffers from poor infrastructure and maintenance.



2.2.7 As a potential site for neighbourhood market and revenue generation, the plan to develop a market in a vacant site in Mahalakshmi Layout has been thought over by

BBMP. At present, the land is being encroached upon by vendors & nearby residents who use it as a parking space for their vehicles. Being in proximity to an upcoming metro station, the site has a huge potential for development into a market.



2.2.8 The re-development initiative is expected to address problems faced by these markets due to inadequate facilities and unhygienic conditions and enable re-development in a manner that provides a hygienic and clean environment for shopping.

2.2.9 While developing the pre-feasibility for these markets, the following broad objectives have been considered:

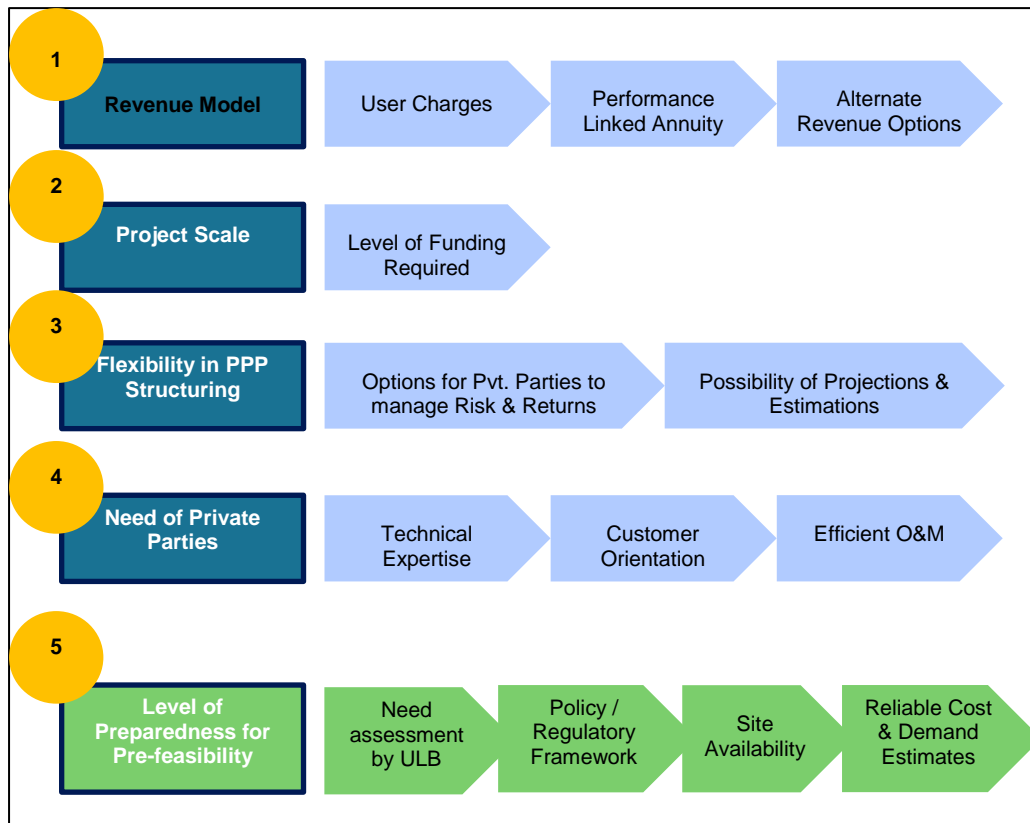
- Ensure that the traditional character of a Public Market is preserved.
- Reinvigorate the market areas as a retail shopping destination for local residents.
- Ensure improved parking and traffic management
- Promote the survival and predominance of small shops, marginal businesses, thrift shops, arts and crafts, and other enterprises, activities, and services which are essential to the functioning of the market.
- Create a new attraction for a different type of visitor that is not currently drawn to the market.

2.3 Approach & Methodology, studies, surveys including Data collection, analysis

2.3.1 A workshop was conducted to create a platform for discussing and bringing to fore all market re-development/development projects that BBMP has since conceived. On this basis a sector inventory was developed. The following table provides the list of projects that were discussed during the workshop conducted with BBMP officials.

Sl. No.	Name	Nature	Project components	Project estimate in Rs.lacs	Source of funding envisaged (if any)
Markets Development					
1	K R Market II floor	Market development with Media Hub as main component	2 nd floor, Multi-level car parking, separate connectivity	500	Proposed under PPP
2	Johnson Market	Re-development	Re-development	Not available	Proposed under PPP
3	Moore Market	Market cum office complex after dismantling existing market	Basement, Ground, +2 floors	300	Proposed under PPP
4	Yediyur Market	Reconstruction of commercial market	Basement, Ground, +2 floors	221	BBMP Budgetary allocation
5	Lakkasandra Market	Reconstruction of commercial market	Basement, Ground, +2 floors	300	BBMP Budgetary allocation
6	Mavalli Market	Reconstruction of commercial market	Basement, Ground, +2 floors	295	BBMP Budgetary allocation
7	MM Road, Cox Town	Demolition of existing Revenue Office and construction of vegetable and fruit market and office complex	Basement, Ground, +2 floors	350	BBMP Budgetary allocation

2.3.2 All the seven projects to be taken up under PPP format were analysed on the following criteria.



2.3.3 Based on the above, the projects were prioritised. In addition, the ease of implementation, mitigation of legal, technical and political risks and alignment with Bangalore Master Plan- 2015 by Bangalore Development Authority were also considered. Accordingly, redevelopment of Johnson market and Moore market and development of a neighbourhood market at Mahalakshmi layout was chosen as projects for which pre-feasibility would be established.

2.3.4 The scope of work included creating a re-development strategy, preparing a concept design plan, assessing the viability of the project and developing an operations plan (including financial projections for the redeveloped Market). This report and the attached drawings addresses the scope of work.

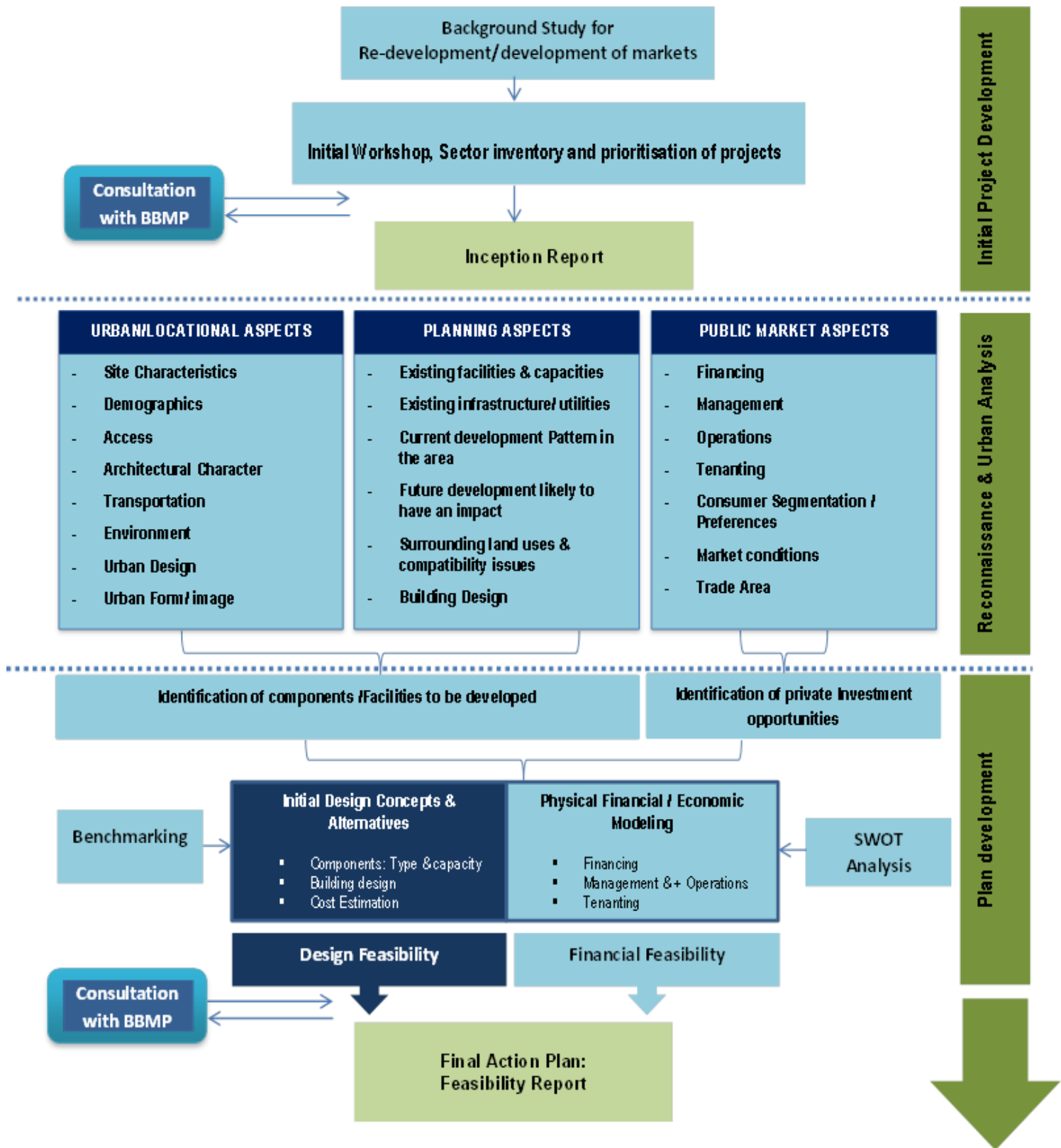
2.3.5 Prior to commissioning this study, BBMP had conducted a Topographical Survey for these areas to capture the site features, area of the market, all existing utilities, and

details of existing infrastructures which is to be retained because of its heritage value or other legalities, pattern of land slopes, levels for features such as drains and roads.

2.3.6 As the first activity of this engagement, the consultants carried out a reconnaissance survey to study the site characteristics, other required features and constraints of the area.

2.3.7 Subsequently, a broad study was conducted through a market survey on the existing scenario of the market conditions, shop rentals and other inputs. In addition, interviews with market management and vendors were conducted at a broad level. Subsequently, the consultants involved in information collection through primary and secondary research with respect to the background, types and volumes of customers and the expected rentals in compared to the neighbouring areas.

2.3.8 Methodology



2.4 Study of earlier reports in this sector in the relevant area

2.4.1 BBMP had earlier prepared re-development strategies for both Johnson Market & Moore Market which were not implemented. However, this report is an independent study to analyse the pre-feasibility of the sites and has not been influenced by earlier studies.

2.5 Similar Studies

2.5.1 Thimpu Centenary Farmers Weekend Market, Bhutan

2.5.1.1 Thimphu weekend market is one of the largest domestic markets for Bhutanese farmers. The weekend market is crammed into a set of stalls on both banks of the Wang Chhu, just north of Changlimithang Stadium. The market essentially is a farmers market, where every week vendors from throughout the region start arriving by Thursday evening and stay at the market till Sunday. Farmers from all across the country bring their farm products to the market. The two storied building has about 400 stalls for sale of vegetables, fruits, meat and other farm produces. It also houses cafeteria and separate stalls for non- wood forest products.

2.5.1.2 The CFM operates during Fridays, Saturdays and Sundays for Farm Produce, and Tuesdays and Wednesdays for promotional and exhibition activities by any interested party. The market remains closed during Mondays and Thursdays for mass clean up. Strict rules have been made for the vendors of the market. Vendors are allowed to bring in their farm produce to their allotted stalls for storage on Thursday, however no farm produce is allowed for sale during that period. Vendors have to remove their farm produce by 8 pm on Sunday or before 10 am on Monday. No farm produce is allowed for sale during that period. At the end of each market day, a warning siren for closure of the market is given 30 minutes prior to the market closing time. During that time, all vendors ready themselves for the closure of the market. Thirty (30) minutes after the warning siren, the lights are put off and the main gates are closed at 8:00 pm.

2.5.1.3 Stalls are allocated to regular vendors based upon the following criteria:

- i. Wholesalers of farm produce registered with the Management and stores shall be allotted to them. They shall sign contractual agreement with the Management;

Wholesalers allotted with stores shall continue to operate at the existing rental charge upon signing of contractual agreement with the new management

ii. Cafeteria and glasshouse operators shall be registered with the Management and space shall be allotted to them. They shall sign contractual agreement with the Management; Existing Cafeteria and glasshouse operators shall continue to operate at the existing rental charge upon signing of contractual agreement with the new management

iii. Regular vendors shall be registered with the Management and the contractual agreement shall be signed. Each registered vendor shall be issued with a CFM Registration number and card; Vendors allotted with stalls shall continue to operate at the existing stalls (except for those vendors required to change their stalls as per product categorization), upon signing of letter of undertaking with the new management

2.5.1.4 The stalls for the farmer vendors are allotted on “first come, first served” basis for the number for days required. Farmer vendors sell their Farm Produce only from the designated stalls;



2.5.2 Panjim Market , Goa

2.5.2.1 The Panaji market is located in the heart of the Panji city. This is the destination for all residents of Panaji and Parvorim for the supplies of fish and vegetables. The design is well planned and a spacious hall for small vegetable sellers and large shops for domestic retailers. The market is planned with sufficient space for customer's circulation and demarcated space for vendors.

2.5.2.2 The Panaji Municipal Market consists of basement with a built up area of 3089 sq.m for parking of 71 cars and 32 scooters. The ground floor has a built up area of 3176 sq.m with A, A1, B, C, D, D1 types of shops and also has a mezzanine area of 534.48 sq.m. The first floor has a built-up area of 2490.01 sq.m with B, C, D, H, HC types of shops and 2nd floor with a built up area of 678.89sq.m

2.5.2.3 The Market floors were divided to have perishable goods and grocery on ground floor and non-perishable goods on first floor for effective garbage disposal.



3 Sector Profile

3.1 Industry Overview

3.1.1 Commercial establishments/markets in a settlement are planned according to guidelines laid down under UDPFI (Urban Development Plan Formulation & Implementation). The table below shows the hierarchy of commercial establishments in an urban center according to the population it has to serve.

Planning Unit	Population Served	Hierarchy of Commercial Centre
Housing cluster	1000 - 4000	Cluster Centre
Sector	5000 - 20000	Sector Centre
Community	25000 - 100000	Community Centre
District	125000 - 500000	District Centre
Sub-city	25 lakh - 50 lakh	Sub-city Centre
City	50 lakh +	City Centre

Source: UDPFI Guidelines

3.1.2 UDPFI also highlights the distribution of type of shops in these commercial centers for provision of adequate services to the citizens.

Type of Shops	District Centre	Community Centre	Sector Centre	Cluster Centre
Formal Shops(total)	1250	365	55	24
General Retail	1200	295	35	16
Fruit & Vegetables	Not specified	40	6	3
Service & Repairs	50	30	13	5
Informal Shops	370	110	22	13

Source: UDPFI Guidelines

3.2 Regional profile

3.2.1 The City has been divided into eight zones under the BBMP jurisdiction for provision and maintenance of public infrastructure. There are 1089 markets in the entire BBMP area managed by the Market Department. The total number of markets in each zone is given below.

BBMP All Zones Commercial Establishment Details				
Zone	Population	House Holds including houses in apartments	Shop	Markets
East	955126	224899	20784	48
West	1925301	609146	102578	787
South	1686094	412923	33933	62
Yelahanka	536091	120260	9011	40
Dasarahalli	441072	120514	10132	37
Mahadevapura	1265209	343023	11625	10
Bommanahalli	874179	302615	8787	67
R.R.Nagar	553012	212697	7031	38
Grand Total	8236084	2346077	203881	1089

Source: BBMP

3.2.2 Zone -wise details of all markets and commercial units in BBMP Area is given in Annexure 1.

3.3 Key Issues

3.3.1 Several markets have been developed by BBMP in all the zones. However some of the wards are still devoid of adequate number of markets. Also due to lack of maintenance and poor infrastructure many of these lay in dilapidated state.

3.3.2 There are a number of other old properties owned by BBMP at strategic locations which can also be redeveloped to unlock their potential and provide better services to citizens.

4 Planning & Design Considerations

4.1 Project Design Consideration

4.1.1 The design philosophy is mainly based on strengthening the existing market activity by providing a public space that will increase the draw and frequency of shoppers to the area, while creating an outlet for local entrepreneurial activity and a public space for social interaction.

4.1.2 **The following design principles have been identified for these market re-development/development projects:**

- Engagement needs of the users have to meet in the design.
- The scheme has to be a very successful integration of public needs and private participation in a compelling and agreeable manner, which would create a meaningful transformation of the dilapidated market buildings to a potential revenue generating and socially successful public market place.
- The design has to be disabled friendly.
- The design should allow flexibility and lend itself to various groups to use it.
- The design should also encourage various user-groups to territorialize areas of the public space designed for them and provide for more vibrant and comfortable gathering spaces.
- Wherever feasible, adaptive re-use of building should be looked into.
- Improve tenant signage, provide updated signage. [Objects, neon, clever painting, etc.-all contribute to the vibrancy of the retailing / entertainment experience] and design guidelines to all tenants.
- Enhanced and improved advertisements provision to attract investors for example installing a retractable decorative banner system for ease of replacement [seasonal

banners, city-wide promotions and special event advertising opportunities]. The system is potential revenue generation tactics.

- Consider the benefits of the larger anchor tenant opportunities and reconfigure the market layout accordingly.

4.2 Development Needs, Public needs & Planning Considerations

4.2.1 As per the analysis done to make the projects financially viable, types of development planned in the proposed development are Retail & Commercial.

4.2.2 The public needs are to provide a safe neighbourhood shopping and generate additional employment and income opportunities for the local population due to growth of small shops & trading activities.

4.2.3 The following points were considered while planning these markets:

- Permissible FSI for each building type: FSI of 2.0 has been considered for all the markets.
- Permissible building height based on adjoining road widths for high rise building: The number of floors has been in the building have been calculated based on FAR/FSI and permissible ground coverage. The building heights in all the three cases are between 9-15 meters as permissible by Building Byelaws.
- Plot coverage applicable: In all the three cases maximum plot coverage allowed is 55% and has been taken the same.
- Percentage of land parcel to be allocated for Open Spaces/ Civic Amenities:
- Parking regulations as per local bye-laws: Business: 2 ECS (Equivalent Car Space) for every 100sqm & in case of Retail & Office Space : 1 ECS for every 100sqm has been considered.

4.3 Project Specific Considerations

4.3.1 Studies and Surveys: As mentioned earlier, the redevelopment and development of these markets have been taken up in consultation with BBMP and this report does not rely on any previous studies or surveys.

4.3.2 Interaction with Stakeholders: As a first step, detailed interactions were conducted with BBMP markets division with regard to identifying and developing the prefeasibility for the markets. In addition, a basic market survey was conducted to get an idea of the current scenario. These included interviews with market management and vendors and understanding their needs and views on PPP format. These stakeholder meetings

5 Johnson Market: Project Description & Financials

5.1 Description of the Site

Introduction: Johnson Market is a century old market, strategically located in the downtown. The market site's proximity to landmarks of downtown provides it with a strong public presence. It creates an appeal that transcends its age with the strong architectural/urban design form that helps to bridge the gap between the past, the historic urban fabric and the present, the new mixed use developments.

Location: It is located on Hosur road at its junction with Richmond road.



Connectivity: The market is well connected with the neighbouring areas.

Urban form: The market is surrounded by both residential and commercial buildings with narrow internal roads. It also has some prominent institutions around. It has excellent frontage from Hosur road.

Urban Image: The Market is an unmaintained building structure with an ornate façade. The existing structure is subtle and mingles with the existing surroundings. Lack of commercial activity and lesser number of consumers hitting the market these days has converted it into a silent market space in spite of location at a busy and prominent road of the city

Existing Site Status: The existing condition and other important features of the market site are given in the table below.

S. No:	Aspect/Current Site Condition	Remarks
1	Existing land use of site as per Development Plan	Commercial
2	Existing Components of the Market	The front of the building has retail shops, the central portion has vegetable shops, and the rear is a mutton market.
3	Name of Planning/ Building Authority's jurisdiction in which site is present	BBMP
4	Is there need for land use conversion?	No
5	Width of approach/ internal road:	18 mts
6	Road widening proposals from Road authorities for the roads surrounding the site	No
7	Type and nature of neighbouring development	Commercial, Public Semi Public & Institutional
8	Is there any building line setback regulation from centre of the existing adjoining main roads	No
9	What are the Planning/Environmental/Building Authorities relevant to site based on location and proposed residential development (Electricity Board, Water Supply Board, Pollution Control Board etc)	KPTCL,BWSSB,PCB
10	Any HT lines running through the site	No
11	FAR/FSI utilisation	No. The layout of the building is not efficient and the current building consumes fractional portion of the available FSI.
12	Nature of services existing <ul style="list-style-type: none"> Water, Sewerage, Electricity 	Available
13	Status of existing service utilities	Lacks proper sanitation, sewerage connection and solid waste management.

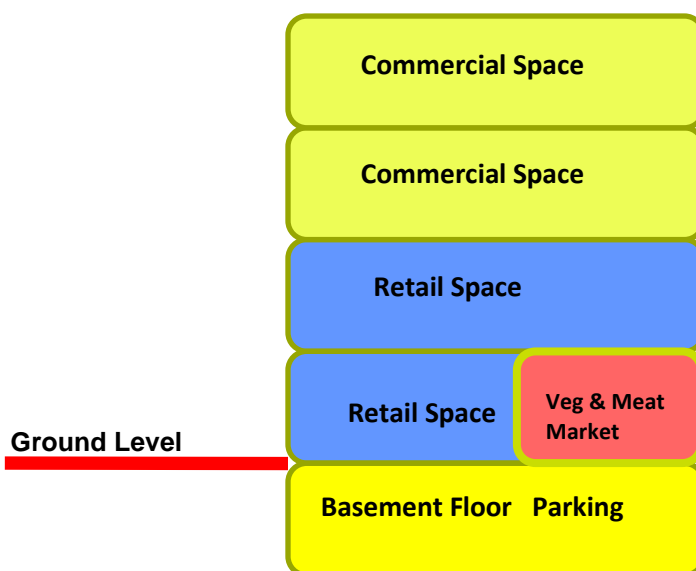
5.2 Description & Components of the Project

5.2.1 Proposed use: The proposal is to accommodate the vegetable and meat market and to build a modern facility for organized retail and to consume the available FSI. The proposal also suggests, accommodation of the vegetable market with access from both the side roads, and provides the frontage in the Ground Floor and First Floor for the retail format.

The upper floors are proposed to be let out to commercial office space with an exclusive access with a lift and staircase core.

5.2.2 Building use and vertical zoning:

- 3 storey, mixed use building fronting Market Street with service / delivery area to the rear.
- Approximately 68,000 sq.ft building with around 15, 600 sq.ft ground floor footprint and 17, 600 sq.ft first floor footprint for retail and 17, 600 sq.ft second and third floor footprints for commercial use.
- An anchor ground floor retail / food tenant for increased consumer traffic [like home furnishings, value retailer and daily grocery shops; specifically an operation for limited competition to the market vendors].
- Upper storey tenants for additional on-site consumer traffic [public or private offices, service industry units like photocopying, stationery shops or customer specific units like dental clinics and beauty salons]
- Basement parking for four wheeler & two wheelers.



5.2.3 Facilities Description and design parameters: Details of facilities provided with their typology, area and number of units are given in the table below.

S. No:	Use	Nature	Details
1	Retail space	Revenue generating facility	2 floors
2	Commercial space	Revenue generating facility	2 floors
3	Basement parking	Facility provided	1 floor

4	Veg and Meat Market	Value added facility	Ground floor
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5.3 Assumptions used for the Financial Feasibility

5.3.1 Area allocation

5.3.1.1 Total site area for Johnson Market is 32202 sq. feet which translates into approximately 68000sq. feet of Total Built-up Area (BUA) with the FSI of 2.00.

5.3.1.2 Allocation of areas to Commercial / Office space, Retail space other spaces is given in the table below. It is assumed that the ground floor and first floor will be allotted to retail whereas second and third floor to commercial / office space.

FLOOR-WISE DESIGNATED AREAS (in sq.ft)					
	Ground Floor	First Floor	Second Floor	Third Floor	TOTAL
Commercial / Office Space	0.00	0.00	17663.72	17663.72	35327.45
Retail Space	15650.86	17663.72	0.00	0.00	33314.58
Total BUA	15650.86	17663.72	17663.72	17663.72	68642.03
Driveway / Landscape					0.00
Other space (Common Area +Basement Area)					17567.00
Total	15650.86	17663.72	17663.72	17663.72	86209.03

5.3.2 Project Structure

5.3.2.1 Financial assessment was done based on various parameters related to project structure, project financing, cost estimates (both capital and operational expenditure) and revenue estimates for the **project of a duration of 20 years**.

5.3.2.2 The project structure has been proposed to provide optimum returns to the project promoters. It has been assumed that developer would be sharing 56.50% of the gross revenues with BBMP. Details of various assumptions related to project structure is given in the table below:

PROJECT STRUCTURING ASSUMPTIONS		
Start year	Year	Jan-13
Concession period (inclusive of construction period)	Years	20
Construction period (in months)	Months	12
Delay in Construction (in months)	Months	6
Revenue Sharing (%age of gross revenue)	%age	56.50%

5.3.2.3 The project is expected to start in beginning of 2013. Construction period of 12 months along with delays of another 6 months have been assumed.

5.3.3 Project Financing

5.3.3.1 It is assumed that no grant would be provided to support the project. Debt: Equity ratio of 70:30 has been assumed for financing the project. Other assumptions related to project financing is given in the table below:

PROJECT FINANCING ASSUMPTIONS		
Discount Rate for NPV calculation	%age	8.25%
Grant (if any)	%age	0%
Debt	%age apart from grant	70%
Equity	%age apart from grant	30%
Rate of interest for term loan	%age	12.00%
Rate of interest for short term loan	%age	12.00%
Moratorium period	Months	12
Tenure of Debt	months	60

5.3.4 Capital Expenditure

5.3.4.1 Detailed breakup of assumptions related to construction of commercial / office space and retail space is given in the table below.

CAPITAL EXPENDITURE ASSUMPTIONS				
Construction Costs (Rate/sft on total BUA)	Commercial / Office Space	Retail Space	Driveway / Landscape	Other Space
Consultant/ soft cost	70	70		75
Shell, core, Architectural finishes	900	900		900

Parking in basement	150	150		270
Electrical, PHE,	227	227		437
Generator, HSD	45	45		75
Fire-fighting, protection and fire doors	55	55		55
Roads, Ext Development, signage, Hardscape, Softscape	55	55		78
Interior design and finishing	0	0		1100
Total	1502	1502	0	2990
Other Costs	number of units	of rate unit	per	
Lifts	5.00	670,000.00		
Escalators	0.00	0.00		
Others	0.00	0.00		

5.3.4.2 Escalation in capital expenditure due to construction delays was assumed to be 5% per year.

5.3.5 Operational Expenses

5.3.5.1 Detailed breakup of assumptions related to operational expenses is given in the table below.

OPERATIONAL EXPENSES ASSUMPTIONS	
Electricity costs only for common areas (monthly). Rented areas not included.	Rs. per sq. feet per month 0.80
Other operating costs only for common areas (monthly). Rented areas not included.	0.50
Marketing costs (annually)	0.20
Maintenance costs (annually)	2.00
Major maintenance costs (once in 5 years)	10.00

5.3.5.2 Electricity costs and other operating costs which include expenses related to manpower, cleaning, security etc. have been taken only for common areas. The same for the rented areas shall be borne by the shopkeepers / office owners. Apart from the

annual maintenance costs, major maintenance costs would be incurred once in 5 years for the upkeep of the building/ market.

5.3.5.3 Inflation for operational expenses was assumed to be 5% per year.

5.3.6 Taxation

5.3.6.1 The private developer would be incurring two heads under taxation: (1) Corporate Tax / Minimum Alternate Tax and (2) Property Tax.

5.3.6.2 Corporate Tax and Minimum Alternate Tax are assumed at 33.99% and 17.00% respectively.

5.3.6.3 Property tax has been calculated using the Handbook on Property Tax by BBMP. This market is a new market and it falls under Zone-B and the property taxes have been calculated accordingly.

5.3.7 Revenue Streams

5.3.7.1 Revenue is divided into four revenue streams:

- Revenue from rentals
- Revenue from advertisement hoardings
- Revenue from parking
- Miscellaneous revenue

5.3.7.2 Revenue from rentals – Assumptions related to revenue from rentals of commercial / office as well as retails space is given in the table below. Apart from rentals, Common Area Rentals and Common Area Maintenance have been assumed to be charged from the tenants for usage of common areas. Escalation in rentals was assumed to be 5% per year for all floors. It was assumed that no rentals and no common area rentals/ maintenance would be charged during construction since the market is a new market.

REVENUE FROM RENTALS

				Ground Floor	First Floor	Second Floor	Third Floor
Rentals for Commercial /	Rs.	per	sq.	-	-	65.00	65.00

Office space (Rs. per sq.ft.)	Rs. per sq. feet per month				
Rentals for Retail space (Rs. per sq.ft.)	Rs. per sq. feet per month	90.00	75.00	-	-
Vacancy for Commercial / Office space	%age	0.00%	40.00%	40.00%	0.00%
Vacancy for Retail space	%age	20.00%	0.00%	0.00%	0.00%
Common Area Rental (Rs. per sq.ft.)	Rs. per sq. feet per month	5.00	2.00	2.00	2.00
Common Area Maintenance (Rs. per sq.ft.)	Rs. per sq. feet per month	1.00	1.00	1.00	1.00

5.3.7.3 Revenue from advertisement hoardings – Assumptions related to revenue from advertisement hoardings is given in the table below. Slightly higher rates for advertisement on side facing front has been assumed compared advertisement hoardings to inside the market. Escalation was assumed to be 5% per year for advertisement on all floors.

REVENUE FROM ADVERTISEMENT HOARDINGS

		Ground Floor	First Floor	Second Floor	Third Floor
Advertising front facing outside the market	Rs. per sq. feet per month	100.00	80.00	60.00	-
Advertising inside the market	Rs. per sq. feet per month	70.00	30.00	20.00	-
Advertisement Space front facing outside the market	in sq. feet	300.00	150.00	-	-
Advertisement Space inside the market	in sq. feet	150.00	-	-	-
Vacancy for Advertising front facing outside the market	%age	10.00%	10.00%	15.00%	15.00%
Vacancy for Advertising	%age	10.00%	40.00%	60.00%	60.00%

inside the market

- 5.3.7.4 Revenue from parking** – Assumptions related to revenue from parking is given in the table below. Slightly higher rates for parking for 4-wheelers have been assumed compared parking for 2 wheelers. Escalation was assumed to be 10% per year.

REVENUE FROM PARKINGS

		4-wheeler	2-wheeler
Parking charges (outside the market)	per parking	20.00	5.00
No. of parking slots	nos.	61	-
Vacancy	%age	20.00%	40.00%

- 5.3.7.5 Miscellaneous Revenue** – Assumptions related to revenue from promotions events is given in the table below. Escalation was assumed to be 10% per year for advertisement on all floors.

MISCELLANEOUS REVENUE

Promotional events - temporary stalls	per day rates	2,000.00
Number of locations for such events	nos.	2.00
Number of event days in a year (weekends + public holidays)	nos.	60.00

5.4 Results and Outputs

5.4.1 Capital Expenditure

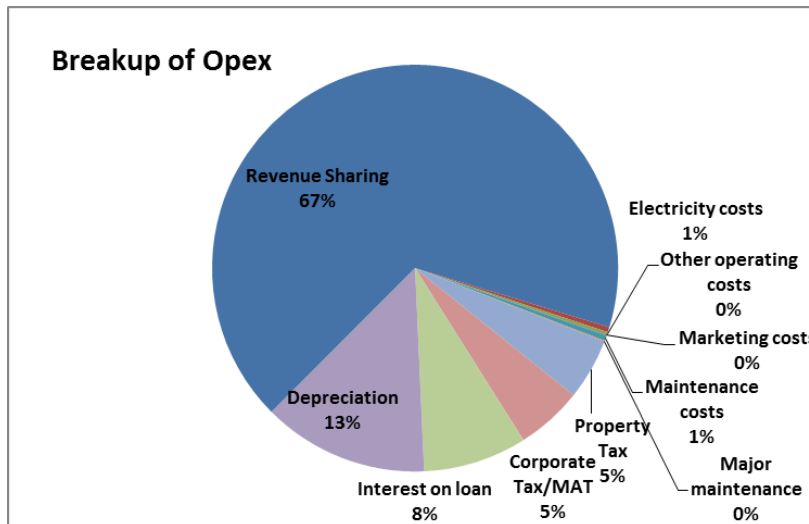
- 5.4.1.1** Based on assumptions given on area allocation and capital expenditure, details of capital expenditure were calculated to be more than INR 1500 lakhs (pre-interest during construction). The details are presented in the table below.

CAPITAL EXPENDITURE DETAILS**(figures in INR lakhs)****Construction Costs****Commercial / Office Space**

Ground Floor	-
First Floor	-
Second Floor	265.31
Third Floor	265.31
Total construction costs of commercial / office space	530.62
Retail Space	
Ground Floor	235.08
First Floor	265.31
Second Floor	-
Third Floor	-
Total construction costs of retail space	500.38
Driveway / Landscape	-
Other Space	525.25
Other Capital Items	
Lifts	33.50
Escalators	-
Preliminary Expenses	2.00
Total	35.50
TOTAL CAPITAL EXPENDITURE	1,591.76

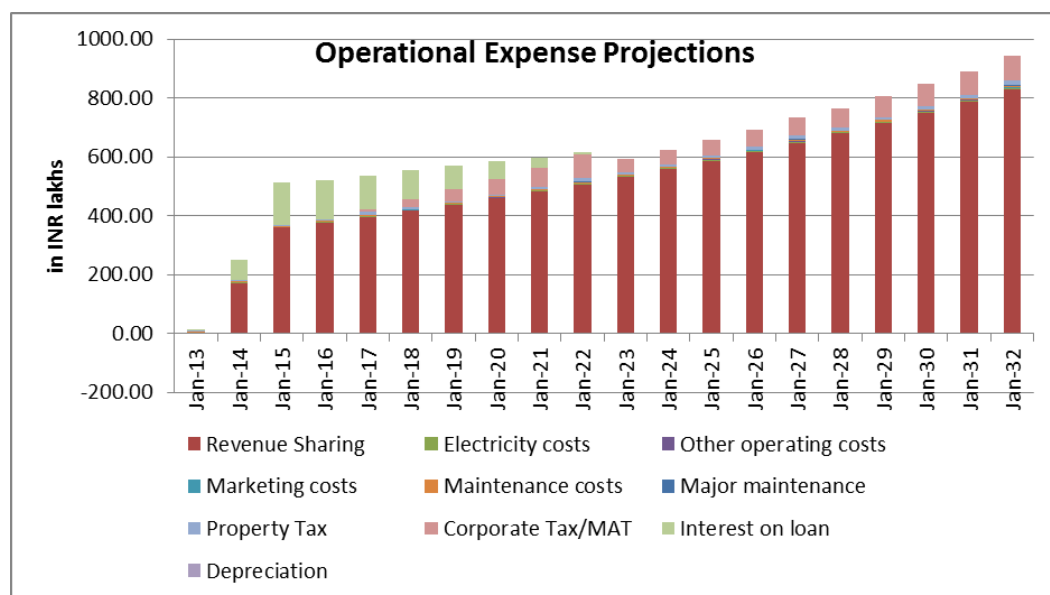
5.4.2 Operational Expenses

5.4.2.1 Based on assumptions related to revenue sharing, operational expenses, taxation and interest on loan, operational expenses for the private developer have been calculated.



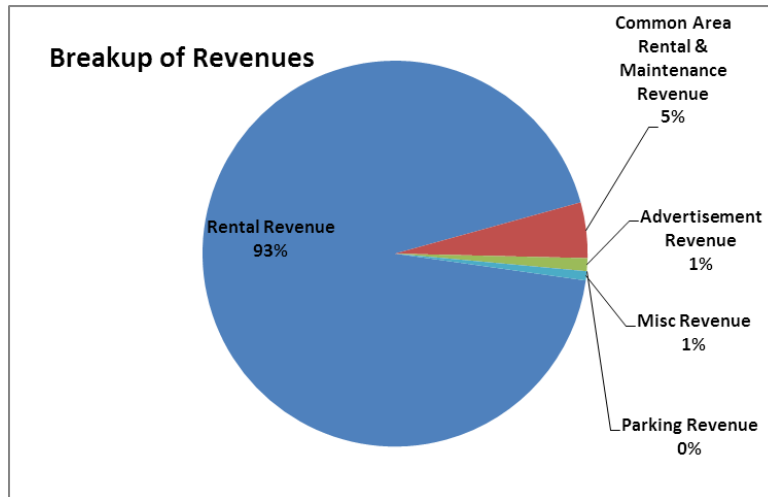
5.4.2.2 It is seen that 67% of the operational costs is charged by BBMP has revenue share (calculated as 56.5% of gross revenues). Other major cost heads are depreciation, taxes and interest on loan. Operational expenses related to actual operations are as low as 2% - which consists of electricity, maintenance, overheads and marketing.

5.4.2.3 Year-wise breakup of operational expenses is depicted by the graph given below. It is seen that major maintenance is incurred once in 5 years. It is seen that interest costs is very high in initial 5 years due to interest on both term and working capital loans. Term loans expire at the end of 5 years. From 6 years onwards interest costs have reduced considerably due to repayment of working capital loans.



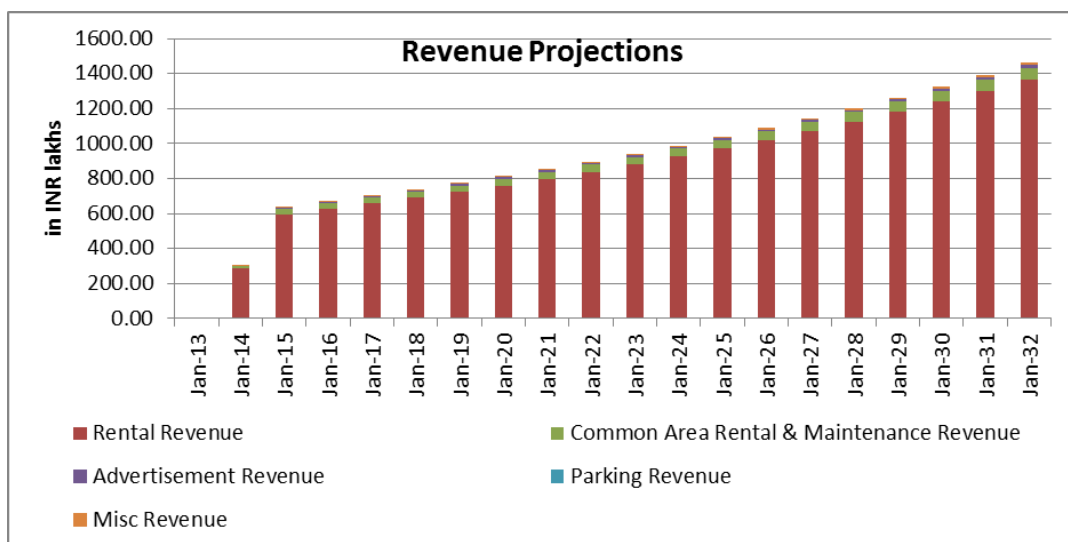
5.4.3 Revenue Streams

5.4.3.1 Based on assumptions related to area allocations and revenue streams, revenues for the private developer have been calculated.



5.4.3.2 It is seen that 93% of the revenues come from rentals from commercial / offices and retail space. These tenants also pay common area rental & maintenance charges which amount to another 5%. Around 1% revenues are estimated from advertisements, parking and promotional events.

5.4.3.3 Year-wise breakup of revenue is depicted by the graph given below. No revenues have been estimated in the 1st year due to construction. Due to delays in construction no revenues have been estimated for first 6 months of the 2nd year as well. It is seen that revenue from promotions events have grown over the years. This can be attributed to increasing popularity of the market over the years.



5.5 Viability Assessment

5.5.1 Viability Assessment for the Private Developer

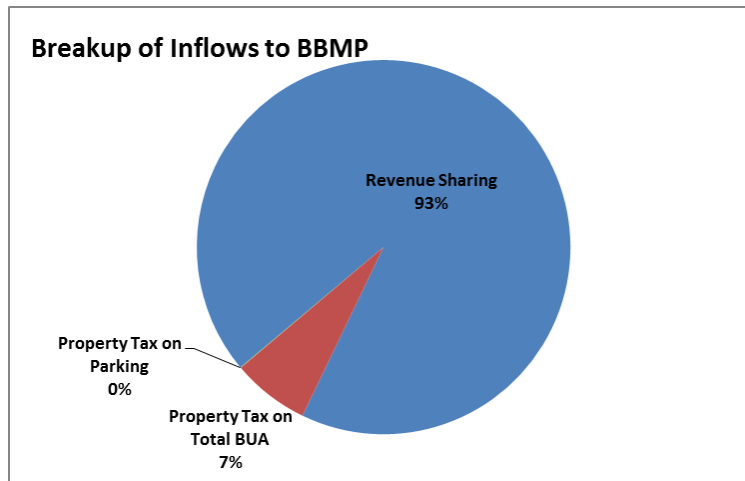
5.5.1.1 Given the project structure and other assumptions related to the project, equity IRR to the private developer is estimated at 15.93%.

FINANCIAL VIABILITY		
Total Project Costs		
Uninflated TPC without IDC	in INR lakhs	1591.76
Uninflated TPC	in INR lakhs	1699.35
Inflated TPC	in INR lakhs	1814.06
INDICATORS		
Project IRR (pre-tax)	%age	15.46%
Project IRR (post tax)	%age	13.82%
NPV-FCF	in INR lakhs	853.60
Equity IRR	%age	15.93%
NPV-FCFE	in INR lakhs	743.89

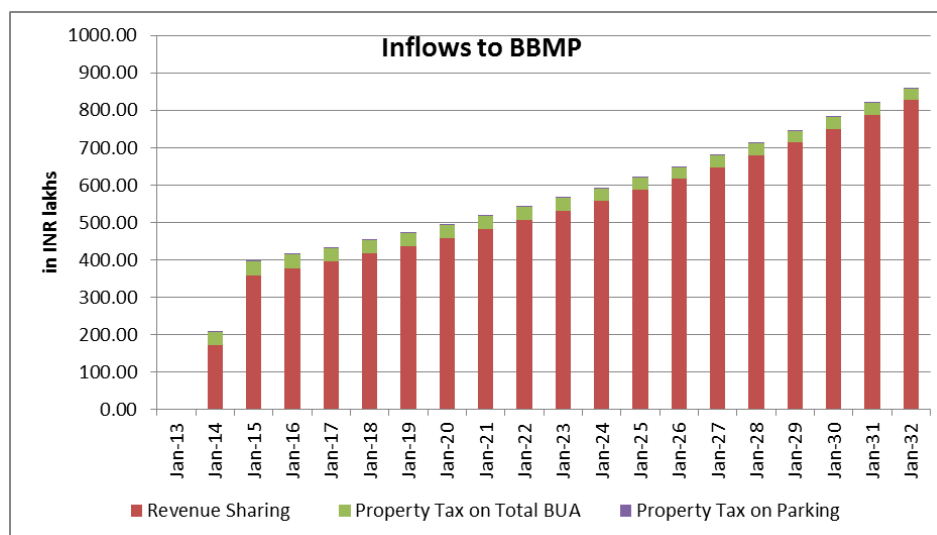
5.5.1.2 It is seen that NPV of the inflows to debt and equity holders (FCF) is around INR 853 lakhs whereas NPV of the inflows to equity holders (FCFE) is around INR 743 lakhs.

5.5.2 Inflows to BBMP

5.5.2.1 Given the project structure and property taxation laws of BBMP, the project will give two types of inflows to BBMP. Around 93% of the inflows would come from the private developer as a revenue share from the project calculated as a percentage of gross revenues. 5% would come from property taxes on total BUA and parking.



5.5.2.2 Year-wise breakup of inflows to BBMP is depicted by the graph given below. It is seen that there are no inflows from revenue sharing in the 1st year and first 6 months of the 2nd year for BBMP due to construction activities.



5.5.2.3 NPV of inflows to BBMP is calculated at INR 4433 lakhs using a discounting factor of 8.25%.

RESULTS

NPV of INFLOWS TO BBMP

Revenue Sharing	in INR lakhs	4134.26
Property Tax on Total BUA	in INR lakhs	297.41
Property Tax on Parking	in INR lakhs	1.59
Total Inflows to BBMP	in INR lakhs	4433.26

5.5.3 Profitability Statement

5.5.3.1 The profit and loss statement for the project period of 20 years is given in the table below.

Year	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32	
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Revenue	7317.27	0.00	302.36	635.11	667.02	700.55	735.77	772.77	811.65	852.49	895.40	940.48	987.85	1037.62	1089.91	1144.87	1202.61	1263.30	1327.07	1394.09	1464.54
Revenue sharing	4134.26	0.00	170.83	358.84	376.87	395.81	415.71	436.62	458.58	481.66	505.90	531.37	558.13	586.25	615.80	646.85	679.48	713.76	749.80	787.66	827.46
Operating expense	73.16	4.87	5.11	5.37	5.64	8.12	6.21	6.52	6.85	7.19	10.36	7.93	8.33	8.74	9.18	13.22	10.12	10.63	11.16	11.72	16.88
Depreciation SLM	812.67	0.00	49.03	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06	98.06
Property Tax Paid	299.01	0.00	36.48	36.48	36.48	35.35	35.35	35.35	34.23	34.23	34.23	33.11	33.11	33.11	31.99	31.99	31.99	30.86	30.86	30.86	29.74
Interest paid on term loan	197.19	0.00	57.63	108.84	65.31	21.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest paid on short term loan	311.02	0.31	10.18	36.14	67.39	95.84	100.38	80.88	58.38	32.58	9.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.5.4 Scenario Analysis

5.5.4.1 As per the financial model, the equity IRR to the private developer is estimated at 15.93%. The table below gives the percentage of revenue sharing between the private developer and BBMP and the total inflows that BBMP will incur at 18% and 20% equity IRR respectively.

Scenarios for Equity IRR	Johnson market		
	16%	18%	20%
Revenue Sharing (%age of gross revenue)	56.5%	52.0%	47.0%
Total Inflows to BBMP (in INR lakhs)	4433	4104	3738

6 Moore Market: Project Description & Financials

6.1 Description of the Site

Introduction: The market in old Frazer town is in a completely dilapidated form.

Location: The site is located on Moore road at its junction with Frazer Town.

Connectivity: Well connected. The road leading to the site is connected to Moore road and the other end connects to Coles road.

Urban form: The site has existing small vegetable stalls and meat stalls. The surrounding area consists of mostly of residential colonies and has very less commercial activities. The site has frontage on the Moore road.



Urban Image: The development of the area is mainly catering to the neighbourhood requirement. There are less traffic issues due to lesser commercial development.

Existing Site Status: The existing condition and other important features of the market site are given in the table below.

S. No:	Aspect/Current Site Condition	Remarks
1	Existing land use of site as per Development Plan	Commercial
2	Existing Components of the Market	The front of the building has retail shops, and the rear is a mutton market.
3	Name of Planning/ Building Authority's jurisdiction in which site is present	BBMP
4	Is there need for land use conversion?	No

5	Width of approach/ internal road:	10-12 mts
6	Road widening proposals from Road authorities for the roads surrounding the site	No
7	Type and nature of neighboring development	Commercial and Residential
8	Is there any building line setback regulation from centre of the existing adjoining main roads	No
9	What are the Planning/Environmental/Building Authorities relevant to site based on location and proposed residential development (Electricity Board, Water Supply Board, Pollution Control Board etc)	KPTCL,BWSSB
10	Any HT lines running through the site	No
11	FAR/FSI utilisation	No. The layout of the building is not efficient and the current building consumes fractional portion of the available FSI.
12	Nature of services existing • Water, Sewerage, Electricity	Available
13	Status of existing service utilities	Lacks proper sanitation, sewerage connection and solid waste management. There is an adjoining nala next to the site.

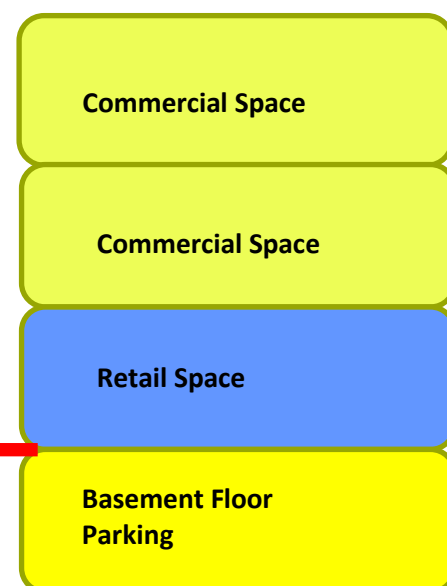
6.2 Description & Components of the Project

6.2.1 Proposed use: The proposal is to build a modern facility for organized retail and to consume the available FSI. A provision of the frontage in the Ground Floor to the retail format is suggested. The upper floors are proposed to be let out to commercial office space with an exclusive access with a lift and staircase.

6.2.2 Building use and Vertical zoning:

- 2 storey, mixed use building fronting Market Street with service / delivery area to the rear
- Approximately 19,200 sq.ft building with around 6000 sq.ft ground floor footprint for retail and 6, 600 sq.ft first and second floor footprints for commercial use.

Ground Level



- Anchor ground floor retail for increased consumer traffic [home furnishings, value retailer, daily grocery shops and other retail outlets].
- Upper storey tenants for additional on-site consumer traffic [public or private offices, service industry units like photocopying, stationary shops or customer specific units like dental clinics and beauty salons.]
- Basement parking for four wheelers & two wheelers.

6.2.3 Facilities Description and design parameters: Details of facilities provided with their typology, area and number of units are given below.

S. No:	Use	Nature	Details
1	Retail Space	Revenue generating facility	1 floors
2	Commercial space	Revenue generating facility	2 floors
3	Basement Parking	Facility	1 floor
4	Staircase/lift		

6.3 Assumptions used for the Financial Feasibility

6.3.1 Area allocation

6.3.1.1 Total site area for Moore Market is 10843 sq. feet which translates into approximately 21687 sq.feet of Total Built-up Area (BUA) with the FSI of 2.00.

6.3.1.2 Allocation of areas to Commercial / Office space, Retail space other spaces is given in the table below. It is assumed that the ground floor will be allotted to retail whereas first & second floor to commercial / office space.

FLOORWISE DESIGNATED AREAS (in Sq.Ft)					
	Ground Floor	First Floor	Second Floor	Third Floor	TOTAL
Commercial / Office Space	0.00	6647.42	6647.42	0.00	13294.83
Retail Space	5956.15	0.00	0.00	0.00	5956.15
Total BUA	5956.15	6647.42	6647.42	0.00	19250.98
Driveway / Landscape					0.00
Other space (Common Area +Basement Area)					10839
Total	5956.15	6647.42	6647.42	0.00	30089.98

6.3.2 Project Structure

6.3.2.1 Financial assessment was done based on various parameters related to project structure, project financing, cost estimates (both capital and operational expenditure) and revenue estimates for the **project of a duration of 20 years**.

6.3.2.2 The project structure has been proposed to provide optimum returns to the project promoters. It has been assumed that developer would be sharing 21.5% of the gross revenues with BBMP. Details of various assumptions related to project structure is given in the table below:

PROJECT STRUCTURING ASSUMPTIONS		Units
Start year		Year
Concession period (inclusive of construction period)		Years
		Jan-13
		20

Construction period (in months)	Months	12
Delay in Construction (in months)	Months	6
Revenue Sharing (%age of gross revenue)	%age	21.50%

6.3.2.3 The project is expected to start in beginning of 2013. Construction period of 12 months along with delays of another 6 months have been assumed.

6.3.3 Project Financing

6.3.3.1 It is assumed that no grant would be provided to support the project. Debt: Equity ratio of 70:30 has been assumed for financing the project. Other assumptions related to project financing is given in the table below:

PROJECT FINANCING ASSUMPTIONS	Units	
Discount Rate for NPV calculation	%age	8.25%
Grant (if any)	%age	0%
Debt	%age apart from grant	70%
Equity	%age apart from grant	30%
Rate of interest for term loan	%age	12.00%
Rate of interest for short term loan	%age	12.00%
Moratorium period	Months	12
Tenure of Debt	months	60

6.3.4 Capital Expenditure

6.3.4.1 Detailed breakup of assumptions related to construction of commercial / office space and retail space is given in the table below.

CAPITAL EXPENDITURE ASSUMPTIONS				
Construction Costs (Rate/sft on total BUA)	Commercial / Office Space	Retail Space	Driveway / Landscape	Other space
Consultant/ soft cost	70	70		
Shell, core, Architectural finishes	900	900		
Parking in basement	150	150		

Electrical, PHE,	227	227		
Generator, HSD	45	45		
Fire-fighting, protection and fire doors	55	55		
Roads, Ext Development, signage, Hardscape, Softscape	55	55		
Interior design and finishing	0	0		
Total	1502	1502	300	1200
Other Costs	number of units	of	rate per unit	
Lifts	5.00		670,000.00	
Escalators	0.00		0.00	
Others	0.00		0.00	

6.3.4.2 Escalation in capital expenditure due to construction delays was assumed to be 5% per year.

6.3.5 Operational Expenses

6.3.5.1 Detailed breakup of assumptions related to operational expenses is given in the table below.

OPERATIONAL EXPENSES ASSUMPTIONS	Rs. per sq. feet per month
Electricity costs only for common areas (monthly). Rented areas not included.	0.80
Other operating costs for common areas (monthly). Rented areas not included.	0.50
Marketing costs (annually)	0.20
Maintenance costs (annually)	2.00
Major maintenance costs (once in 5 years)	10.00

6.3.5.2 Electricity costs and other operating costs which include expenses related to manpower, cleaning, security etc. have been taken only for common areas. The same for the rented areas shall be borne by the shopkeepers / office owners. Apart from the

annual maintenance costs, major maintenance costs would be incurred once in 5 years for the upkeep of the building/ market.

6.3.5.3 Inflation for operational expenses was assumed to be 5% per year.

6.3.6 Taxation

6.3.6.1 The private developer would be incurring two heads under taxation: (1) Corporate Tax / Minimum Alternate Tax and (2) Property Tax.

6.3.6.2 Corporate Tax and Minimum Alternate Tax are assumed at 33.99% and 17.00% respectively.

6.3.6.3 Property tax has been calculated using the Handbook on Property Tax by BBMP. This market is a new market and it falls under Zone-D and the property taxes have been calculated accordingly.

6.3.7 Revenue Streams

6.3.7.1 Revenue is divided into four revenue streams:

- Revenue from rentals
- Revenue from advertisement hoardings
- Revenue from parking
- Miscellaneous revenue

6.3.7.2 Revenue from rentals – Assumptions related to revenue from rentals of commercial / office as well as retails space is given in the table below. Apart from rentals, Common Area Rentals and Common Area Maintenance have been assumed to be charged from the tenants for usage of common areas. Escalation in rentals was assumed to be 5% per year for all floors. It was assumed that no rentals and no common area rentals/ maintenance would be charged during construction since the market is a new market.

REVENUE FROM RENTALS

				Ground Floor	First Floor	Second Floor	Third Floor
Rentals for Commercial / Office space (Rs. per	Rs.	per	sq.	-	50.00	45.00	-

sq.ft.)		feet per month				
Rentals for Retail space (Rs. per sq.ft.)		Rs. per sq. feet per month	55.00	-	-	-
Vacancy for Commercial / Office space	%age		0.00%	40.00%	40.00%	0.00%
Vacancy for Retail space	%age		20.00%	0.00%	0.00%	0.00%
Common Area Rental (Rs. per sq.ft.)		Rs. per sq. feet per month	5.00	2.00	2.00	2.00
Common Maintenance (Rs. per sq.ft.)		Rs. per sq. feet per month	1.00	1.00	1.00	1.00

6.3.7.3 Revenue from advertisement hoardings – Assumptions related to revenue from advertisement hoardings is given in the table below. Slightly higher rates for advertisement on side facing front has been assumed compared advertisement hoardings to inside the market. Escalation was assumed to be 5% per year for advertisement on all floors.

REVENUE FROM ADVERTISEMENT HOARDINGS

			Ground Floor	First Floor	Second Floor	Third Floor
Advertising front facing outside the market	Rs. per sq. feet per month		100.00	80.00	60.00	-
Advertising inside the market	Rs. per sq. feet per month		70.00	30.00	20.00	-
Advertisement Space front facing outside the market	in sq. feet		100.00	50.00	-	-
Advertisement Space inside the market	in sq. feet		50.00	-	-	-
Vacancy for Advertising front facing outside the market	%age		10.00%	10.00%	15.00%	15.00%
Vacancy for Advertising inside the market	%age		10.00%	40.00%	60.00%	60.00%

6.3.7.4 Revenue from parking – Assumptions related to revenue from parking is given in the table below. Slightly higher rates for parking for 4-wheelers have been assumed compared parking for 2 wheelers. Escalation was assumed to be 10% per year.

REVENUE FROM PARKINGS			
		4-wheeler	2-wheeler
Parking charges (outside the market)	per parking	20.00	5.00
No. of parking slots	nos.	31	-
Vacancy	%age	20.00%	40.00%

6.3.7.5 Miscellaneous Revenue – Assumptions related to revenue from promotions events is given in the table below. Escalation was assumed to be 10% per year for advertisement on all floors.

MISCELLANEOUS REVENUE		
Promotional events - temporary stalls	per day rates	2,000.00
Number of locations for such events	nos.	2.00
Number of event days in a year (weekends + public holidays)	nos.	20.00

6.4 Results and Outputs

6.4.1 Capital Expenditure

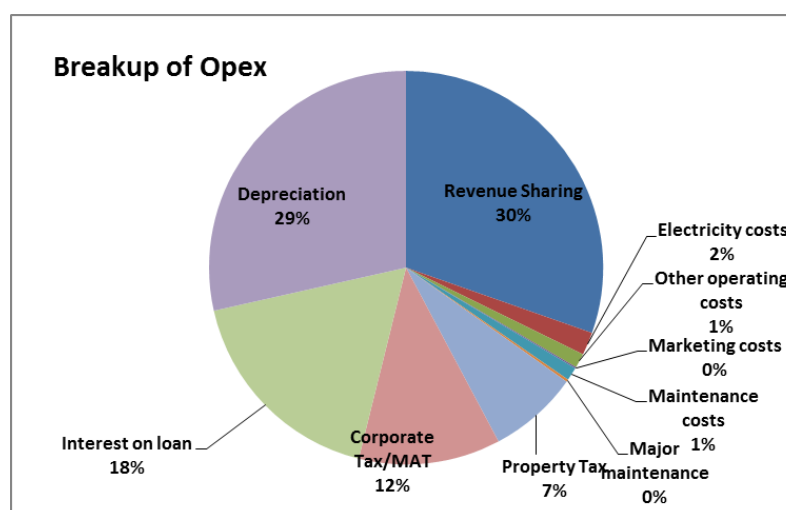
6.4.1.1 Based on assumptions given on area allocation and capital expenditure, details of capital expenditure were calculated to be around INR 454 lakhs (pre-interest during construction). The details are presented in the table below.

CAPITAL EXPENDITURE DETAILS		(figures in INR lakhs)
Construction Costs		
Commercial / Office Space		
Ground Floor		-
First Floor		99.84
Second Floor		99.84

Third Floor	-
Total construction costs of commercial / office space	199.69
Retail Space	
Ground Floor	89.46
First Floor	-
Second Floor	-
Third Floor	-
Total construction costs of retail space	89.46
Driveway / Landscape	-
Other Space	130.47
Other Capital Items	
Lifts	33.50
Escalators	-
Preliminary Expenses	2.00
Total	35.50
TOTAL CAPITAL EXPENDITURE	454.72

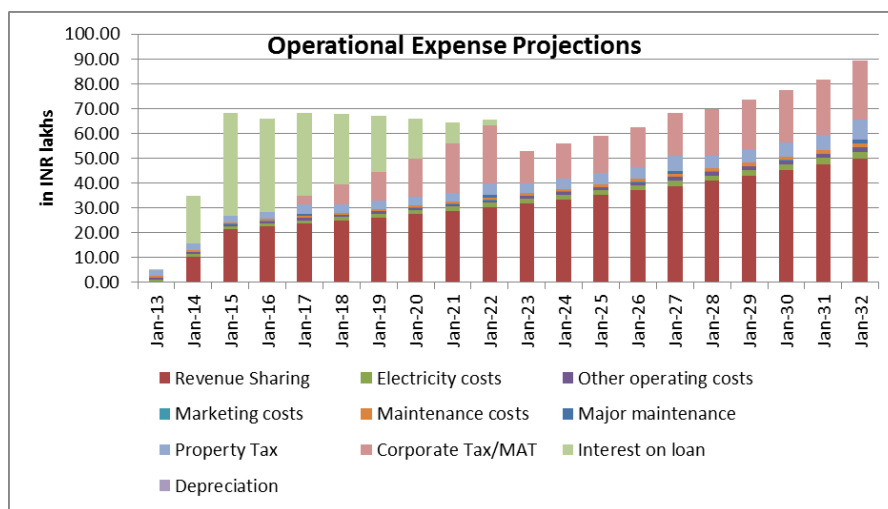
6.4.2 Operational Expenses

6.4.2.1 Based on assumptions related to revenue sharing, operational expenses, taxation and interest on loan, operational expenses for the private developer have been calculated.



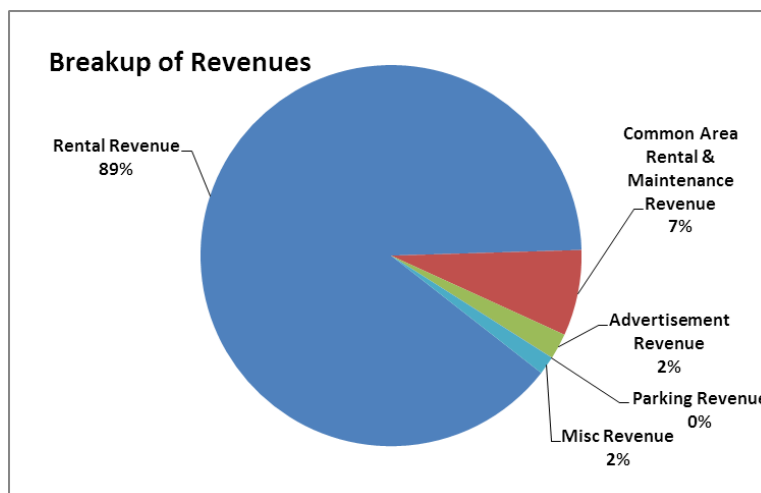
6.4.2.2 It is seen that 30% of the operational costs is charged by BBMP has revenue share (calculated as 21.50% of gross revenues). Other major cost heads are depreciation, taxes and interest on loan. Operational expenses related to actual operations are as low as 4% - which consists of electricity, maintenance, overheads and marketing.

6.4.2.3 Year-wise breakup of operational expenses is depicted by the graph given below. It is seen that major maintenance is incurred once in 5 years. It is seen that interest costs is very high in initial 5 years due to interest on both term and working capital loans. Term loans expire at the end of 5 years. From 6 years onwards interest costs have reduced considerably due to repayment of working capital loans.



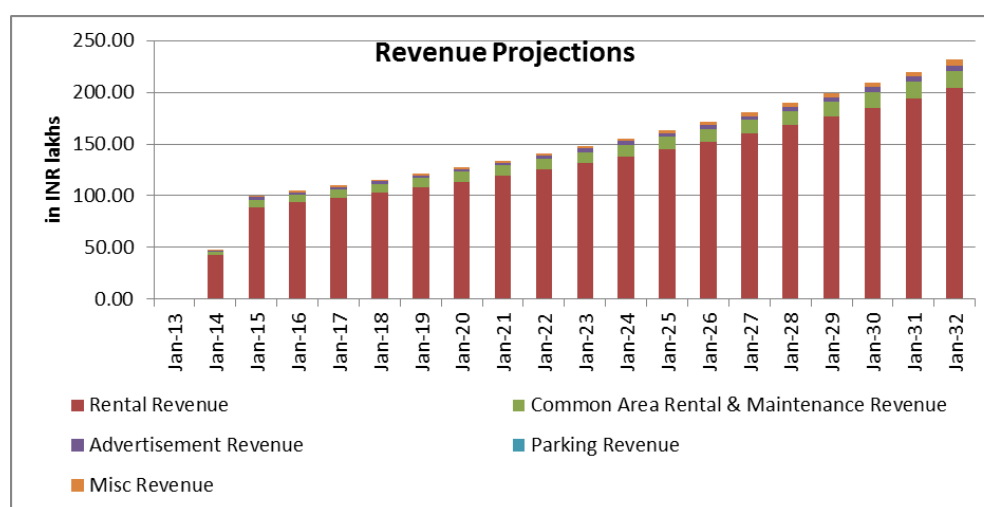
6.4.3 Revenue Streams

6.4.3.1 Based on assumptions related to area allocations and revenue streams, revenues for the private developer have been calculated.



6.4.3.2 It is seen that 89% of the revenues come from rentals from commercial / offices and retail space. These tenants also pay common area rental & maintenance charges which amount to another 7%. Less than 5% revues are estimated from advertisements, parking and promotional events.

6.4.3.3 Year-wise breakup of revenue is depicted by the graph given below. No revenues have been estimated in the 1st year due to construction. Due to delays in construction no revenues have been estimated for first 6 months of the 2nd year as well. It is seen that revenue from promotions events have grown over the years. This can be attributed to increasing popularity of the market over the years.



6.5 Viability Assessment

6.5.1 Viability Assessment for the Private Developer

6.5.1.1 Given the project structure and other assumptions related to the project, equity IRR to the private developer is estimated at 16.02%.

6.5.1.2 It is seen that NPV of the inflows to debt and equity holders (FCF) is around INR 246 lakhs whereas NPV of the inflows to equity holders (FCFE) is around INR 215 lakhs.

FINANCIAL VIABILITY

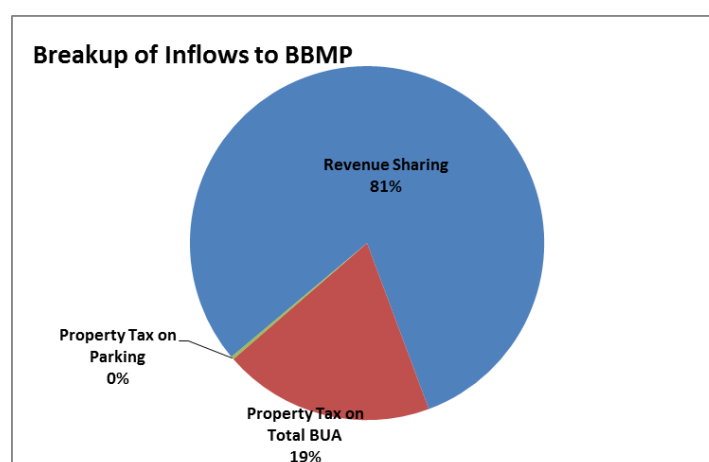
Total Project Costs

Uninflated TPC without IDC	in INR lakhs	454.72
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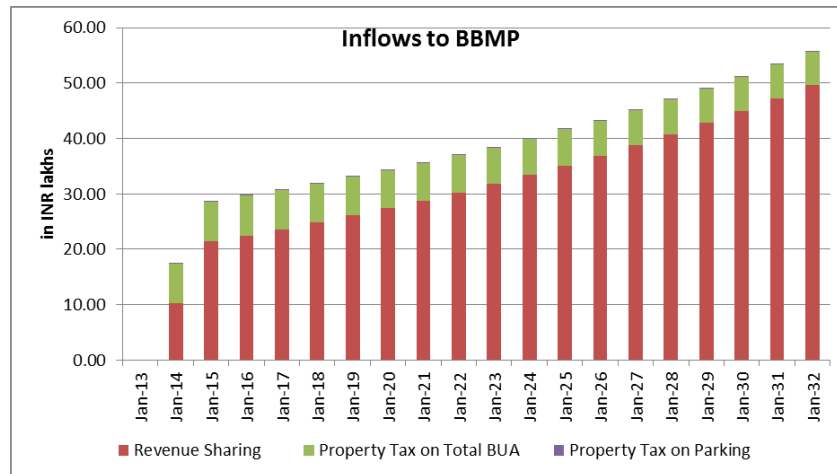
Uninflated TPC	in INR lakhs	485.45
Inflated TPC	in INR lakhs	518.22
INDICATORS		
Project IRR (pre-tax)	%age	15.56%
Project IRR (post tax)	%age	13.87%
NPV-FCF	in INR lakhs	245.63
Equity IRR	%age	16.02%
NPV-FCFE	in INR lakhs	214.88

6.5.2 Inflows to BBMP

6.5.2.1 Given the project structure and property taxation laws of BBMP, the project will give two types of inflows to BBMP. Around 81% of the inflows would be come from the private developer as a revenue share from the project calculated as a percentage of gross revenues. 19% would come from property taxes on total BUA and parking



6.5.2.2 Year-wise breakup of inflows to BBMP is depicted by the graph given below. It is seen that there are no inflows from revenue sharing in the 1st year and first 6 months of the 2nd year for BBMP due to construction activities.



6.5.2.3 NPV of inflows to BBMP is calculated at around INR 307 lakhs using a discounting factor of 8.25%.

RESULTS

NPV of INFLOWS TO BBMP

Revenue Sharing	in INR lakhs	247.34
Property Tax on Total BUA	in INR lakhs	59.32
Property Tax on Parking	in INR lakhs	0.81
Total Inflows to BBMP	in INR lakhs	307.47

6.5.3 Profitability Statement

6.5.3.1 The profit and loss statement for the project period of 20 years is given in the table below.

Year	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32	
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Revenue	1150.44	0.00	47.40	99.60	104.63	109.92	115.48	121.33	127.47	133.93	140.72	147.86	155.37	163.27	171.57	180.30	189.48	199.14	209.30	219.99	231.24
Revenue sharing	247.34	0.00	10.19	21.41	22.50	23.63	24.83	26.09	27.41	28.80	30.26	31.79	33.40	35.10	36.89	38.76	40.74	42.82	45.00	47.30	49.72
Operating expense	36.37	2.47	2.59	2.72	2.86	3.77	3.15	3.31	3.48	3.65	4.81	4.02	4.23	4.44	4.66	6.14	5.14	5.39	5.66	5.95	7.84
Depreciation SLM	232.15	0.00	14.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01	28.01
Property Tax Paid	60.13	0.00	7.33	7.33	7.33	7.11	7.11	7.11	6.88	6.88	6.88	6.66	6.66	6.66	6.44	6.44	6.21	6.21	6.21	6.21	5.99
Interest paid on term loan	56.33	0.00	16.46	31.09	18.66	6.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest paid on short term loan	87.12	0.16	2.95	10.20	18.97	27.03	28.30	22.63	16.11	8.65	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6.5.4 Scenario Analysis

6.5.4.1 As per the financial model, the equity IRR to the private developer is estimated at 16.02%. The table below gives the percentage of revenue sharing between the private developer and BBMP and the total inflows that BBMP will incur at 18% and 20% equity IRR respectively.

Scenarios for Equity IRR	Moore market		
	16%	18%	20%
Revenue Sharing (%age of gross revenue)	21.5%	13.5%	4.5%
Total Inflows to BBMP (in INR lakhs)	308	215	112

7 Mahalakshmi Layout Market Development: Project Description & Financials

7.1 Description of the Site

Introduction: Mahalakshmi Layout is a suburb in north-west Bengaluru. The site proposed for market development is located in a thickly populated residential area. It is a vacant site measuring 19mx12m currently encroached upon by vendors and used for haphazard parking.

Location: Site is located in Mahalakshmi layout at its junction with West of Chord Road.

Connectivity: The road leading to the site is connected to West of Chord Road and the other end connects to Nandini layout. The mass-transit intra-city rail system Metro station is within 1km from the site

Urban form: This layout is prime residential area. The buildings in and around are mostly 1-2 storey high. There is not much of retail activity in the area. It's a quiet non-traffic area with narrow connectivity roads.

Urban Image: The famous temple of Lord Hanuman etched on a single monolith stone and Lakshmi temple signifies this area. This area has some of the known people in Bengaluru city residing. It has been attributed with many sobriquets such as "Layout of Hills", "Twin Layout" and "Temple Layout". ISKCON temple is located very close to Mahalakshmi Layout. Proposed site is an ideal space for a vegetable and fruit market.

Existing Site Status: The existing condition and other important features of the market site are given in the table below.



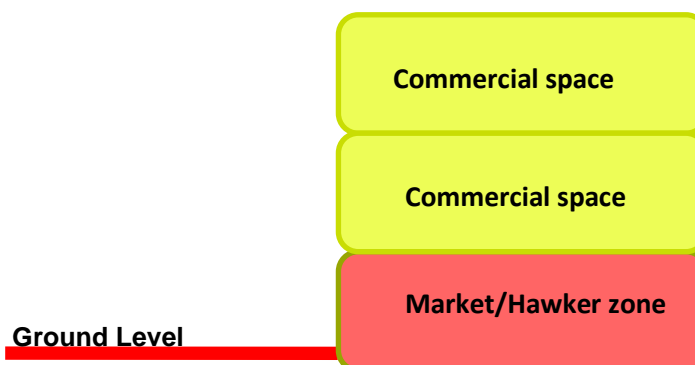
Aspect/Current Site Condition	Remarks
1 Existing land use of site as per Development Plan	Commercial
2 Existing Components of the Market	Vacant Land
3 Name of Planning/ Building Authority's jurisdiction in which site is present	BBMP
4 Is there need for land use conversion?	No
5 Width of approach/ internal road:	10-12 mts
6 Road widening proposals from Road authorities for the roads surrounding the site	No
7 Type and nature of neighboring development	Residential
8 Is there any building line setback regulation from centre of the existing adjoining main roads	No
9 What are the Planning/Environmental/Building Authorities relevant to site based on location and proposed residential development (Electricity Board, Water Supply Board, Pollution Control Board etc)	KPTCL,BWSSB
10 Any HT lines running through the site	No
11 FAR/FSI utilisation	No
12 Nature of services existing <ul style="list-style-type: none"> • Water, Sewerage, Electricity 	Available

7.2 Description & Components of the Project

7.2.1 Proposed use: The site is envisaged to be developed for retail and commercial use. The ground floor is proposed for retail activity and the first and second floor for commercial office spaces. The main idea of the development is to accommodate the ground floor with hawkers/vendors who are currently occupying the footpath in an organized fashion and to provide a neat clean Neighborhood Market for local residents.

7.2.2 Building use and vertical zoning:

- 2 storey, mixed use building fronting Market Street with service / delivery area to the rear
- Approximately 5000 sq.ft building with around 1600 sq.ft ground floor footprint for retail and approximately 2, 000 sq.ft first and second floor footprints for commercial use.
- Anchor ground floor retail exclusively for vendors and to be developed as vending zone. Vending, when creatively undertaken, offers many possibilities to enliven spaces and provide micro-business opportunities to the economically disadvantaged thus serving a social cause apart from being a potential source of revenue generation.
- Upper story tenants for additional on-site consumer traffic [public or private offices, service industry units like photocopying, stationery shops or customer specific units like dental clinics and beauty salons.]



7.2.3 Facilities Description and design parameters: Details of facilities with their typology, area and number of units are given below.

S. No:	Use	Nature	Details
1	Vendors Space	Market facility	27
2	Commercial space	Revenue generating facility	2 floors
3	4W Parking	Revenue generating facility	2 No.s

7.3 Assumptions used for the Financial Feasibility

7.3.1 Area allocation

7.3.1.1 Total site area for Mahalakshmi Market is 2583 sq. feet which translates into 5166 sq.feet of Total Built-up Area (BUA) with the FSI of 2.00.

7.3.1.2 Allocation of areas to Commercial / Office space, Retail space other spaces is given in the table below. It is assumed that the ground floor will be allotted to retail whereas first & second floor to commercial / office space.

FLOOR-WISE DESIGNATED AREAS (in sq.ft)					
	Ground Floor	First Floor	Second Floor	Third Floor	TOTAL
Commercial / Office Space	0.00	1937.52	1937.52	0.00	3875.04
Retail Space	861.00	0.00	0.00	0.00	861.00
Total BUA	861.00	1937.52	1937.52	0.00	4736.04
Driveway / Landscape					290.63
Other space (Common Area +Basement Area)					807.00
Total	861.00	1937.52	1937.52	0.00	5833.67

7.3.2 Project Structure

7.3.2.1 Financial assessment was done based on various parameters related to project structure, project financing, cost estimates (both capital and operational expenditure) and revenue estimates for the **project of a duration of 20 years**.

7.3.2.2 The project structure has been proposed to provide optimum returns to the project promoters. It has been assumed that developer would be sharing 24.50 % of the gross revenues with BBMP. Details of various assumptions related to project structure is given in the table below:

PROJECT STRUCTURING ASSUMPTIONS	Units
Start year	Year Jan-13

Concession period (inclusive of construction period)	Years	20
Construction period (in months)	Months	12
Delay in Construction (in months)	Months	6
Revenue Sharing (%age of gross revenue)	%age	24.50%

7.3.2.3 The project is expected to start in beginning of 2013. Construction period of 12 months along with delays of another 6 months have been assumed.

7.3.3 Project Financing

7.3.3.1 It is assumed that no grant would be provided to support the project. Debt : Equity ratio of 70:30 has been assumed for financing the project. Other assumptions related to project financing is given in the table below:

PROJECT FINANCING ASSUMPTIONS	Units	
Discount Rate for NPV calculation	%age	8.25%
Grant (if any)	%age	0%
Debt	%age apart from grant	70%
Equity	%age apart from grant	30%
Rate of interest for term loan	%age	12.00%
Rate of interest for short term loan	%age	12.00%
Moratorium period	Months	12
Tenure of Debt	months	60

7.3.4 Capital Expenditure

7.3.4.1 Detailed breakup of assumptions related to construction of commercial / office space is given in the table below. A lump-sum figure for retail space and driveway/ landscape is also given.

CAPITAL EXPENDITURE ASSUMPTIONS				
Construction Costs (Rate/sft on total BUA)	Commercial / Office Space	Retail Space	Driveway / Landscape	Other space
Consultant/ soft cost	70			

Shell, core, Architectural finishes	800			
Parking in basement	0			
Electrical, PHE,	127			
Generator, HSD	45			
Fire-fighting, protection and fire doors	55			
Roads, Ext Development, signage, Hardscape, Softscape	55			
Interior design and finishing	0			
Total	1152	750	300	1200
Other Costs	number of units	of rate unit	per	
Lifts	2.00	670,000.00		
Escalators	0.00	0.00		
Others	0.00	0.00		

7.3.4.2 Escalation in capital expenditure due to construction delays was assumed to be 5% per year.

7.3.5 Operational Expenses

7.3.5.1 Detailed breakup of assumptions related to operational expenses is given in the table below.

OPERATIONAL EXPENSES ASSUMPTIONS	Rs. per sq. feet per month
Electricity costs only for common areas (monthly). Rented areas not included.	0.80
Other operating costs for common areas (monthly). Rented areas not included.	0.50
Marketing costs (annually)	0.20
Maintenance costs (annually)	2.00
Major maintenance costs (once in 5 years)	10.00

7.3.5.2 Electricity costs and other operating costs which include expenses related to manpower, cleaning, security etc. have been taken only for common areas. The same for the rented areas shall be borne by the shopkeepers / office owners. Apart from the annual maintenance costs, major maintenance costs would be incurred once in 5 years for the upkeep of the building/ market.

7.3.5.3 Inflation for operational expenses was assumed to be 5% per year.

7.3.6 Taxation

7.3.6.1 The private developer would be incurring two heads under taxation: (1) Corporate Tax / Minimum Alternate Tax and (2) Property Tax.

7.3.6.2 Corporate Tax and Minimum Alternate Tax are assumed at 33.99% and 17.00% respectively.

7.3.6.3 Property tax has been calculated using the Handbook on Property Tax by BBMP. This market is a new market and it falls under Zone-C and the property taxes have been calculated accordingly.

7.3.7 Revenue Streams

7.3.7.1 Revenue is divided into four revenue streams:

- Revenue from rentals
- Revenue from advertisement hoardings
- Revenue from parking
- Miscellaneous revenue

7.3.7.2 Revenue from rentals – Assumptions related to revenue from rentals of commercial / office as well as retails space is given in the table below. Apart from rentals, Common Area Rentals and Common Area Maintenance have been assumed to be charged from the tenants for usage of common areas. Escalation in rentals was assumed to be 5% per year for all floors. It was assumed that no rentals and no common area rentals/ maintenance would be charged during construction since the market is a new market.

REVENUE FROM RENTALS

Ground	First	Second	Third
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		Floor	Floor	Floor	Floor
Rentals for Commercial / Office space (Rs. per sq.ft.)	Rs. per sq. feet per month	-	35.00	25.00	-
Rentals for Retail space (Rs. per sq.ft.)	Rs. per sq. feet per month	50.00	-	-	-
Vacancy for Commercial / Office space	%age	0.00%	40.00%	40.00%	0.00%
Vacancy for Retail space	%age	20.00%	0.00%	0.00%	0.00%
Common Area Rental (Rs. per sq.ft.)	Rs. per sq. feet per month	5.00	2.00	2.00	2.00
Common Area Maintenance (Rs. per sq.ft.)	Rs. per sq. feet per month	1.00	1.00	1.00	1.00

7.3.7.3 Revenue from advertisement hoardings – Assumptions related to revenue from advertisement hoardings is given in the table below. Slightly higher rates for advertisement on side facing front has been assumed compared advertisement hoardings to inside the market. Escalation was assumed to be 5% per year for advertisement on all floors.

REVENUE FROM ADVERTISEMENT HOARDINGS

		Ground Floor	First Floor	Second Floor	Third Floor
Advertising front facing outside the market	Rs. per sq. feet per month	100.00	80.00	60.00	-
Advertising inside the market	Rs. per sq. feet per month	70.00	30.00	20.00	-
Advertisement Space front facing outside the market	in sq. feet	50.00	25.00	-	-
Advertisement Space inside the market	in sq. feet	25.00	-	-	-
Vacancy for Advertising front facing outside the market	%age	10.00%	10.00%	15.00%	15.00%

Vacancy for Advertising inside the market	%age	10.00%	40.00%	60.00%	60.00%
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7.3.7.4 Revenue from parking – Assumptions related to revenue from parking is given in the table below. Slightly higher rates for parking for 4-wheelers have been assumed compared parking for 2 wheelers. Escalation was assumed to be 10% per year.

REVENUE FROM PARKINGS

		4-wheeler	2-wheeler
Parking charges (outside the market)	per parking	20.00	5.00
No. of parking slots	nos.	2	-
Vacancy	%age	20.00%	40.00%

7.3.7.5 Miscellaneous Revenue – Assumptions related to revenue from promotions events is given in the table below. Escalation was assumed to be 10% per year for advertisement on all floors.

MISCELLANEOUS REVENUE

Promotional events - temporary stalls	per day rates	2,000.00
Number of locations for such events	nos.	2.00
Number of event days in a year (weekends + public holidays)	nos.	10.00

7.4 Results and Outputs

7.4.1 Capital Expenditure

7.4.1.1 Based on assumptions given on area allocation and capital expenditure, details of capital expenditure were calculated to be around INR 70 lakhs (pre-interest during construction). The details are presented in the table below.

CAPITAL EXPENDITURE DETAILS (figures in INR lakhs)

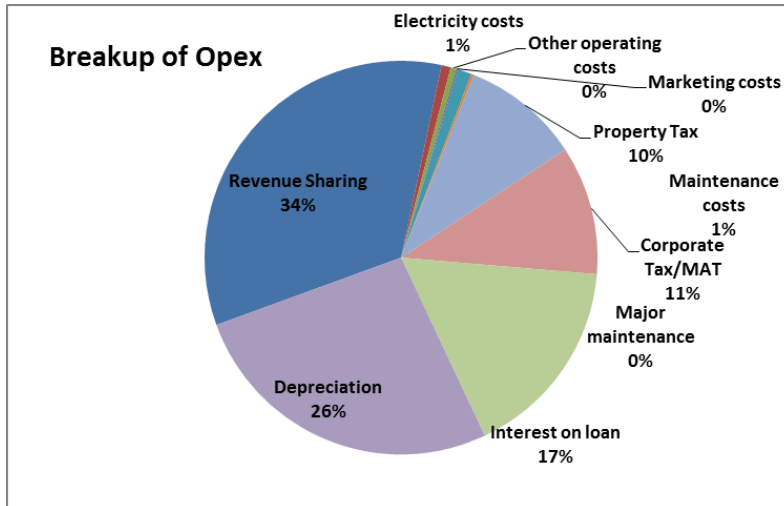
Construction Costs

Commercial / Office Space

Ground Floor	-
First Floor	22.32
Second Floor	22.32
Third Floor	-
Total construction costs of commercial / office space	44.64
Retail Space	
Ground Floor	6.46
First Floor	-
Second Floor	-
Third Floor	-
Total construction costs of retail space	6.46
Driveway / Landscape	0.87
Other Space	9.68
Other Capital Items	
Lifts	13.40
Escalators	-
Preliminary Expenses	2.00
Total	15.40
TOTAL CAPITAL EXPENDITURE	77.05

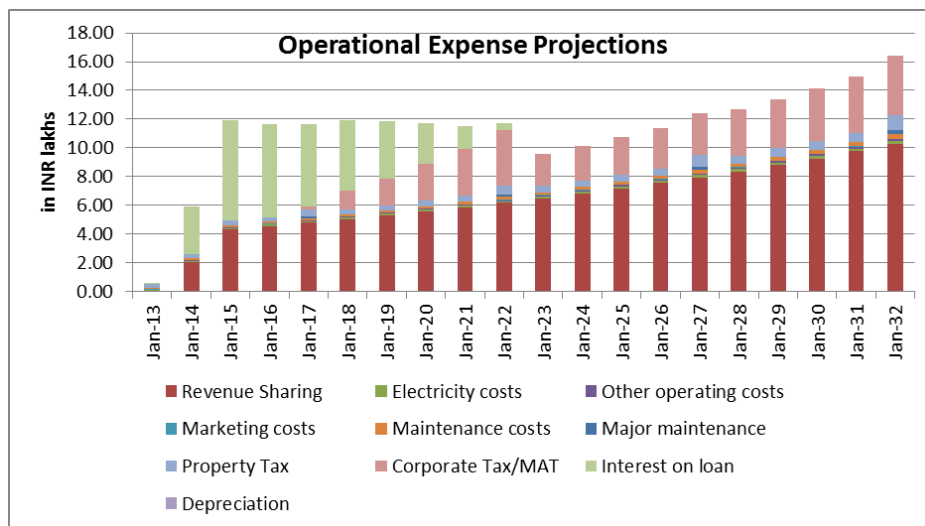
7.4.2 Operational Expenses

7.4.2.1 Based on assumptions related to revenue sharing, operational expenses, taxation and interest on loan, operational expenses for the private developer have been calculated.



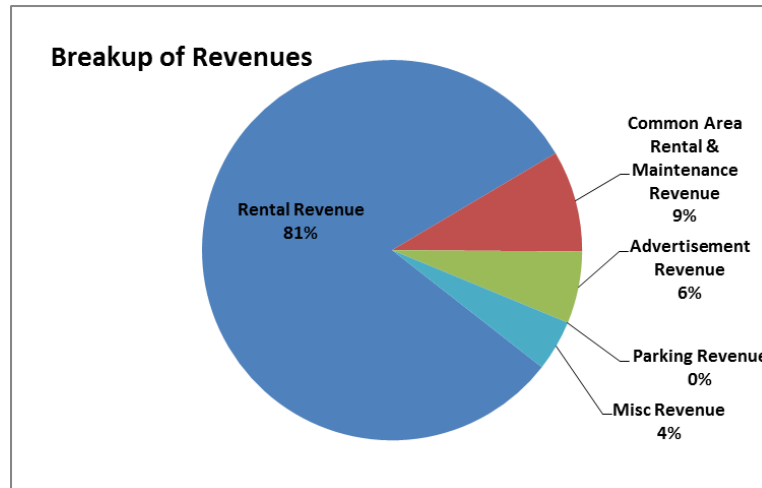
7.4.2.2 It is seen that 34% of the operational costs is charged by BBMP has revenue share (calculated as 24.5% of gross revenues). Other major cost heads are depreciation, taxes and interest on loan. Operational expenses related to actual operations are as low as 2% - which consists of electricity, maintenance, overheads and marketing.

7.4.2.3 Year-wise breakup of operational expenses is depicted by the graph given below. It is seen that major maintenance is incurred once in 5 years. It is seen that interest costs is very high in initial 5 years due to interest on both term and working capital loans. Term loans expire at the end of 5 years. From 6 years onwards interest costs have reduced considerably due to repayment of working capital loans.



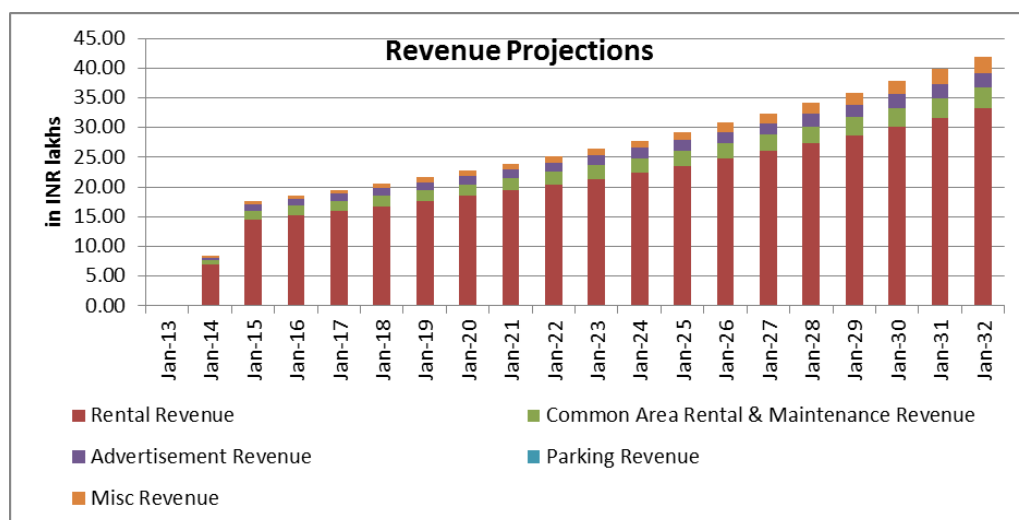
7.4.3 Revenue Streams

7.4.3.1 Based on assumptions related to area allocations and revenue streams, revenues for the private developer have been calculated.



7.4.3.2 It is seen that 81% of the revenues come from rentals from commercial / offices and retail space. These tenants also pay common area rental & maintenance charges which amount to another 9%. About 10% revues are estimated from advertisements, parking and promotional events.

7.4.3.3 Year-wise breakup of revenue is depicted by the graph given below. No revenues have been estimated in the 1st year due to construction. Due to delays in construction no revenues have been estimated for first 6 months of the 2nd year as well. It is seen that revenue from promotions events have grown over the years. This can be attributed to increasing popularity of the market over the years.



7.5 Viability Assessment

7.5.1 Viability Assessment for the Private Developer

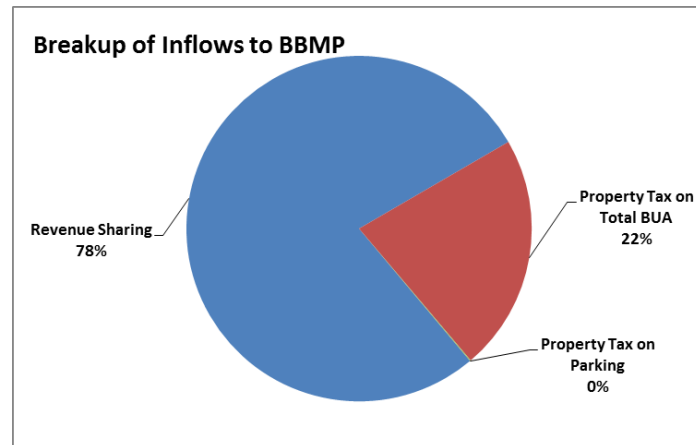
7.5.1.1 Given the project structure with revenue sharing percentage of 24.50%, equity IRR to the private developer is estimated at 16.00%.

7.5.1.2 It is seen that NPV of the inflows to debt and equity holders (FCF) is around INR 42 lakhs whereas NPV of the inflows to equity holders (FCFE) is around INR 36 lakhs.

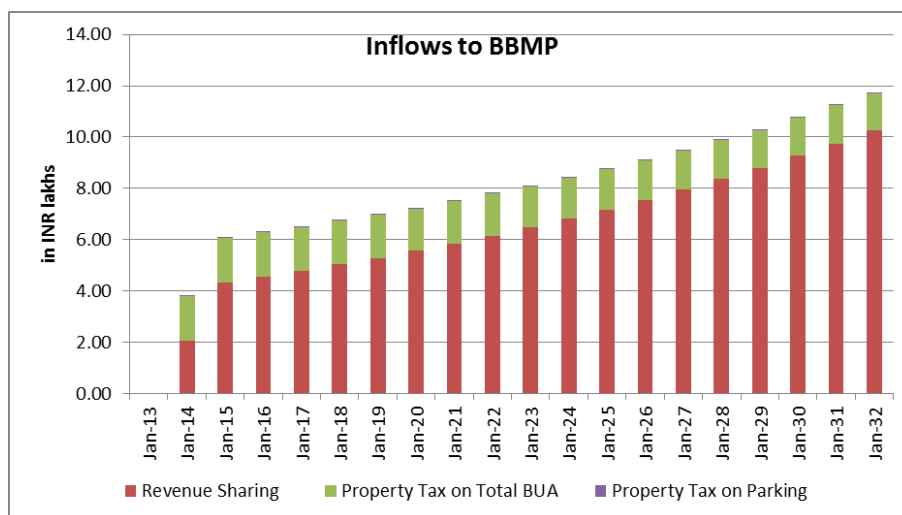
FINANCIAL VIABILITY		
Total Project Costs		
Uninflated TPC without IDC	in INR lakhs	77.05
Uninflated TPC	in INR lakhs	82.26
Inflated TPC	in INR lakhs	87.81
INDICATORS		
Project IRR (pre-tax)	%age	15.48%
Project IRR (post tax)	%age	13.86%
NPV-FCF	in INR lakhs	41.96
Equity IRR	%age	16.00%
NPV-FCFE	in INR lakhs	36.58

7.5.2 Inflows to BBMP

7.5.2.1 Given the project structure and property taxation laws of BBMP, the project will give two types of inflows to BBMP. Around 78% of the inflows would be come from the private developer as a revenue share from the project calculated as a percentage of gross revenues. Remaining 22% would come from property taxes on total BUA and parking.



7.5.2.2 Year-wise breakup of inflows to BBMP is depicted by the graph given below. It is seen that there are no inflows from revenue sharing in the 1st year and first 6 months of the 2nd year for BBMP due to construction activities.



7.5.2.3 NPV of inflows to BBMP is calculated at INR 64.80 lakhs using a discounting factor of 8.25%.

RESULTS

NPV of INFLOWS TO BBMP

Revenue Sharing	in INR lakhs	50.37
Property Tax on Total BUA	in INR lakhs	14.38
Property Tax on Parking	in INR lakhs	0.05
Total Inflows to BBMP	in INR lakhs	64.80

7.5.3 Profitability Statement

7.5.3.1 The profit and loss statement for the project period of 20 years is given in the table below.

	Year	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32
	Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Revenue	205.59	0.00	8.39	17.64	18.55	19.51	20.52	21.58	22.70	23.87	25.11	26.42	27.80	29.25	30.79	32.40	34.10	35.90	37.80	39.80	41.91
Revenue sharing	50.37	0.00	2.06	4.32	4.55	4.78	5.03	5.29	5.56	5.85	6.15	6.47	6.81	7.17	7.54	7.94	8.36	8.80	9.26	9.75	10.27
Operating expense	4.07	0.27	0.28	0.29	0.31	0.47	0.34	0.36	0.38	0.39	0.60	0.43	0.46	0.48	0.50	0.77	0.55	0.58	0.61	0.64	0.98
Depreciation SLM	39.34	0.00	2.37	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
Property Tax Paid	14.43	0.00	1.76	1.76	1.76	1.71	1.71	1.71	1.65	1.65	1.65	1.60	1.60	1.60	1.54	1.54	1.49	1.49	1.49	1.49	1.43
Interest paid on term loan	9.55	0.00	2.79	5.27	3.16	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest paid on short term loan	15.23	0.02	0.50	1.77	3.29	4.67	4.90	3.96	2.87	1.63	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.5.4 Scenario Analysis

7.5.4.1 As per the financial model, the equity IRR to the private developer is estimated at 16.00%. The table below gives the percentage of revenue sharing between the private developer and BBMP and the total inflows that BBMP will incur at 18% and 20% equity IRR respectively.

Scenarios for Equity IRR	Mahalakshmi market		
	16%	18%	20%
Revenue Sharing (%age of gross revenue)	24.5%	16.5%	8.0%
Total Inflows to BBMP (in INR lakhs)	65	48	31

8 Statutory & Legal Framework

8.1 Applicable laws

8.1.1 A number of Acts and Legislations govern the planning and development of building structures in the Bangalore Metropolitan Region. For re-development/ development of markets, the following laws are applicable and these are briefly outlined in the following section.

8.1.2 Bangalore Master Plan-2013

8.1.2.1 The Market Re-development project is required to be in tandem with the criteria and strategies accorded by Bangalore Master Plan -2013 in terms of zoning, land use and sub-division rules that includes occupancy/use, plotting, road space, open space and amenities.

8.1.2.2 In case the proposed use of the building on the site does not conform to the land use proposals of the Development Plan or Zoning Regulations, permission from the Bangalore Development Authority (a) for the change of land use and (b) for the sub-division of plot, have to be furnished.

Since there is no change in land use or zoning in all the three studies and land use remains commercial no permission is needed from the authority.

8.1.3 Bangalore Mahanagara Palike Building Bye-laws 2003

8.1.3.1 The project needs to be in sync with Bangalore Mahanagara Palike Building Bye-laws 2003 (approved by the Government in their Order No.UDD/223/MNU/2001, Dated 21-02-2004 & published in pursuance of Section 428 of the Karnataka Municipal Corporation Act 1976). These are regulations made by the BBMP, with the intention of controlling urban development in harmony with the Master/ Development Plan, which provide zoning rules, land uses allowed and the nature and intensity of development envisaged. They primarily provide guiding principles on which buildings have to be planned and built.

8.1.3.2 Various aspects and parameters of building bye laws as applicable to commercial development are:

a) **Site and building planning:** For any residential /commercial/ semi-public & public building with height more than 9.5 metres a min. of 4.5 metres of exterior open spaces / set-backs is to be left on all sides (Front, Rear and Sides) in mtrs. For buildings above 12 m upto 15 m setbacks of 5metres is to be left on all the sites.

The setbacks as mentioned in the Bye-laws have been followed in all the three markets.

b) Development density (FSI/FAR)

The FAR (Floor Area Ratio) varies according to the ground coverage allowed, use of building (residential, commercial, public and semi-public, etc.) and the planning area they fall into. The local planning area of Bangalore City has been divided into three zones by the Bangalore Development Authority for the purpose of regulating building constructions. 'A' Zone is for intensely developed Area, 'B' Zone for moderately developed area & 'C' for sparsely developed area.

For a commercial development in 'intensely developed area' with plot area of more than 1000 sq.metres, maximum FAR allowed is 1.5. FAR is 1.75 for the same, in 'moderately developed area' and 2 for 'sparsely developed area'. In all the three cases maximum ground coverage allowed is 55%.

As per BDA zoning, Johnson market falls under Zone B Category, Moore market in Zone D category and Mahalakshmi Layout market in Zone C. FAR's have been followed accordingly.

c) Parking:

Adequate space for the parking of vehicles has to be provided in the sites as per the use of the building. 1 car parking space is to be provided for every 50 sq. mtr. of floor area in case of Retail business & office buildings. In case of wholesale and warehouse buildings 1 car parking space for every 150 sq. mtr of floor area plus 1 lorry parking space for every 500 sq.mtr needs to be provided as per the laws. In case of restaurants or establishments serving food and drinks and such other establishments 1 car parking space for every 25 sq.mtr. of floor area is to be provided.

As per the norms, each off street car parking space provided for motor vehicles should not be less than 18 sq.mtrs (3 meters x 6 meters). For motor cycles and scooters, each parking space should not be less than 2.5 sq.mtrs. (1.25 meters x 2 meters) and for cycles it should not be less than 1.5 sq.metres. (0.75 meters x 2 meters).

As per the parking norms adequate parking facilities have been provided in all the concept designs of all the three market areas.

d) Building norms:

The sizes and design of the establishments has to be in conformity with the norms set by NBC (National Building Code).

Basement floors is not be used for purposes other than parking and for locating machines used for service and utilities of buildings. When a basement floor is proposed for car parking, convenient entry and exit has to be provided. The basement should have adequate drainage, ventilation and lighting arrangements. The basement storey should be atleast 2.4 mtr. in height from the floor to the bottom of the roof slab/ beam / ceiling (whichever is less) and this height of B.F should not exceed 2.75 level.

The height of the plinth at the ground floor level should not be less than 0.45 m.

As per the Building byelaws floor to floor height of more than 3.5 metres including basement , plinth height of more than 0.45 metres and only parking facilities in the basement have been designed in all the three market structures.

e) Building services and amenities:

The planning, design and installation of water supply systems, drainage, sanitary installations and gas supply installations in buildings, shall be in accordance with Part IX Plumbing Services, section 1 – Water Supply, section 2 – Drainage and Sanitation and section 3 – Gas supply of the National Building Code of India.

The planning, design and installation, of air-conditioning and heating installations of the building shall be in accordance with Part VIII Building Services, section 2 – Electrical Installations and section 3 - Air-conditioning and Heating of the National Building Code of India.

The service drawings as and when prepared for all the three structures will conform to the NBC codes for utilities.

8.1.4 Indian Standard codes for Building Construction

8.1.4.1 While designing the market, relevant Indian Standard codes have to be followed. These are:

- a) Structural design and provisions:** Loading capacity of structures, design of Common Facilities e.g., water supply tanks, and other Engineering specifications

Sl. No.	Code	Description
1	IS:875(Part 5)-1987	Code of Practice for Design Loads (other than Earthquake) for Building & Structures-Unit weights of Building Materials & Stored Materials

2	IS:875(Part 5)-1987	Code of Practice for Design Loads (other than Earthquake) for Building & Structures-Imposed Loads
3	IS:875(Part 5)-1987	Code of Practice for Design Loads (other than Earthquake) for Building & Structures-Special Loads & Load Combinations
4	IS:456-2000	Code of Practice for Plain & Reinforced Concrete
5	IS:1786-1985	Specification for High Strength Deformed Steel Bars & Wires for Concrete Re-inforcement
6	IS:3370(Part 1, 2)-1965	Code of Practice for Concrete Structures for the storage of liquids-general requirements & RCC

The structural drawings, as and when prepared, for all the three market buildings will conform to the BIS(Bureau of Indian Standard) codes for design of structures.

b) Building safety

Earthquake safety provisions have to be done in buildings with ground plus four floors and above or buildings with a height of 15 mtrs. and above In such cases buildings shall be designed and constructed adopting the norms prescribed in the National Building Code and in the “Criteria for earthquake resistant design of structures” bearing No. IS 1893-2002 & IS 4326-1993 published by the Bureau of Indian Standards, making the buildings resistant to earthquake. Such provision has to be made for Johnson Market Building.

Buildings have to be planned, designed and constructed to ensure adequate fire safety to the property and inhabitants and this shall be carried out, in accordance with Part IV.

Fire Protection of the National Building Code of India. The firefighting requirements, arrangements and installations required in building shall also conform to the provisions of Part IV Fire Protection of National Building Code of India.

All provisions of Building safety (earthquake and fire) will be provided in the final design of buildings for all the three markets and will conform to the NBC codes.

8.1.5 Planning controls for special areas

8.1.5.1 Other planning controls - allowable activity/use, permissible development/redevelopment, building maintenance provisions etc. for special areas like Heritage structures/areas have to be followed.

Applicable only in case of Johnson Market, the front facade which forms a part of a heritage structure will be retained and developed accordingly.

8.2 Legal & Regulatory framework, Tariff framework etc. (Any suggestions)

8.2.1 There are a number of institutions performing municipal and urban development functions in the Bangalore Metropolitan Area. These institutions can be categorized as Urban Local Bodies (ULB), Statutory Authorities, & Government departments. BDA prepares a Comprehensive Development Plan for the city, at an interval of 10 years, while BMRDA prepares a “Structure Plan.” Based on these plans, the development regulation is done by way of plan approvals and land-use. BBMP is the executive body for regulation of bye-laws and any construction activity taking in the city, BWSSB is responsible for providing water supply & maintaining sanitation in the establishments, BESCOM is responsible for providing electricity while regarding Fire Protection, clearance from the Director of Fire Services needs to be taken for buildings with ground floor + four floors and above or height of 15 mtrs and above,

Hence for projects like market re-development/development all the agencies mentioned above will be involved and shall have a major role to play in efficient running of the public markets.

8.2.2 Functional Areas of various Institutions related to any urban development activity within the jurisdiction of the ULB is summarized below:

Functions	Agency			Accountability structure
	ULB	STATUTORY BODY	GOVT. DEPT.	
Urban Planning including town planning		BDA, BMRDA		State Government, Board
Regulation of land-use and construction of buildings	BBMP	BDA, BMRDA		State Government, Board, BBMP
Water supply for domestic, industrial and commercial purposes		BWSSB		State Government, Board
Public health, sanitation conservancy and solid waste	BBMP	BWSSB (Sewerage),		State Government, Board, BBMP
Fire services			Fire	State Government

			Department	
Electricity			BESCOM	

- 8.2.3** BBMP as the main agency has various departments which are responsible for the administration of several civic activities. The **Market Department** of BBMP is responsible for the construction, maintenance and regulation of all public markets. The market department also regulates the movement of vehicles outside the markets by way of creating orderly parking arrangements.
- 8.2.4** As per the provisions of the Karnataka Municipal Corporation Act, 1976, BBMP has been made responsible for all public markets in the city including shops or stalls for the sale of necessities of life to the citizens. The KMC Act 1976, also empowers BBMP to have control over the public markets. They are entitled to collect the license fee and take action for resumption of the market shops/premises in the event of contravention of any of the condition of the license or any regulation or any of by-law including committing default in payment of the fees leviable as provided under the provisions of the Act.
- 8.2.5** Four agencies will have a major role to play in the Market Re-Development/Development Project. BBMP's Market division will be responsible for construction, maintenance and regulation of all the three markets. Water supply and sanitation will be handled by BWSSB. Providing adequate electricity for efficient running of the markets shall be covered by BESCOM and clearance needs to be taken from Fire Department for Johnson Building as the height of the building envisaged is more than 15 metres.

8.3 Key Issues

- 8.3.1** There is a plethora of legislations and a number of institutions that operate in the Bangalore Metropolitan area, which impact the process of urban management. Since the jurisdictions, legislative frameworks, and functional areas of the institutions overlap in many cases, there are clarity issues.

9 Indicative Environmental & Social Impacts

9.1 Environmental Impacts & Mitigation Measures

- 9.1.1** Small scale projects like market re-development/development project has minimal impact on the surrounding environment, hence no EIA study has been envisaged. During the construction period, the propose project may generate noise, waste gas, wastewater and construction refuse. Hence, some impact on the air quality, noise, traffic density and socio-economic environment etc. is expected.
- 9.1.2** Adequate measures will be taken during construction phase to minimize the impacts of construction caused by materials and machineries. Contract document should be crafted in a way that the construction does not cause undue non convenience to the residents. The said environmental protection measures, upon implementations, may minimize impacts of noise, waste gas, wastewater and construction refuse during the construction period on ambient environment; those impacts that are of a temporary nature and will disappear upon completion of the proposed project.
- 9.1.3** The following impacts have been envisaged during various stages of the project. For each of the environmental impacts, the corresponding mitigatory measures for the same are indicated below.

A. Wastewater Generation

IMPACT	MITIGATION MEASURES
<p>Wastewater from the project includes mainly project-related domestic sewage, domestic sewage from vessels, flushing water for mobile machinery, wastewater from mechanic repair and oily wastewater from vessels.</p> <p>Upon completion of the proposed project, the market areas will produce considerable domestic waste water that needs to be disposed of safely.</p>	<p>Temporary arrangements will be made to dispose the water waste generated during the construction phase.</p> <p>Post construction, the said wastewater will be discharged into wastewater pipelines for further treatment. BBMP in conjunction with BWSSB will ensure that the waste water generated due to market activities is connected to the city sewerage system and disposed safely.</p>

B. Solid waste Generation

IMPACT	MITIGATION MEASURES
Solid wastes by the project include mainly domestic refuse, vessel refuse and waste oils from mechanic repair.	During construction phase, the solid waste generated will be regularly collected and transferred to landfill sites.
Post construction the markets will generate solid waste comprising of vegetable refuse, plastics etc.	Post construction all solid wastes generated due to market activities will be handled and disposed in reasonable ways, by BBMP in conjunction with BWSSB and they will not bring about adverse impact on the environment.

C. Dust Generation from Construction materials & machineries

IMPACT	MITIGATION MEASURES
Waste gas from the project during its operation period includes construction material dust and exhaust gas from fuel-powered vehicles with the container yard, of which the leading pollutants are NOx, carbon monoxide and hydrocarbons.	Providing protective cover around the site, providing protective gear to the workers and regular cleaning and sprinkling of water to reduce fugitive dust, are some of the measures that will help minimize the impacts. Exhaust gas emissions will have no material impact on atmospheric environment at neighboring areas.
On completion of the construction, ambient air quality due to dust generation will itself be eliminated.	Post Construction the dust will disappear by itself, however planting of trees is suggested to minimise dust caused due to other factors like nearby roads, open grounds etc.

D. Ground Water Quality

IMPACT	MITIGATION MEASURES
There will be no significant impact on the ground water quality pre and post construction phase.	

E. Noise Generation

IMPACT	MITIGATION MEASURES
<p>There might also be a temporary increase in noise levels at construction site due to use of construction machinery and vehicles. However, it will not have any adverse on the environment as the amount generated will be insignificant and temporary.</p> <p>On completion of the construction, noise levels will itself be eliminated.</p>	<p>Employees working in the site will be provided with earplugs and measures such as adopting low-noise equipment, emphasizing maintenance and administration of vehicles and facilities etc, will be taken so that noise levels does not cause substantially adverse impact on quality of acoustic environment adjacent to the project site.</p>

F. Ecological Environment

IMPACT	MITIGATION MEASURES
<p>Since out of the three sites, two are already existing market areas and have no vegetative cover as such, there will not be any major impact on the ecological environment.</p>	<p>There will be no impact on the ecological environment of the sites; however trees will be planted in the sites as a part of landscaping and minimizer for dust caused due to other factors.</p>

G. Traffic

IMPACT	MITIGATION MEASURES
<p>It is expected that there will be an increase in traffic density in and around the market once it becomes operational. This has to be managed as it might impact the functionality of the newly designed markets and the surrounding areas and cause traffic nuisance.</p>	<p>As a part of the design of the markets and as per the parking norms adequate parking facilities have been provided in all the three markets for the vendors as well as consumers.</p>

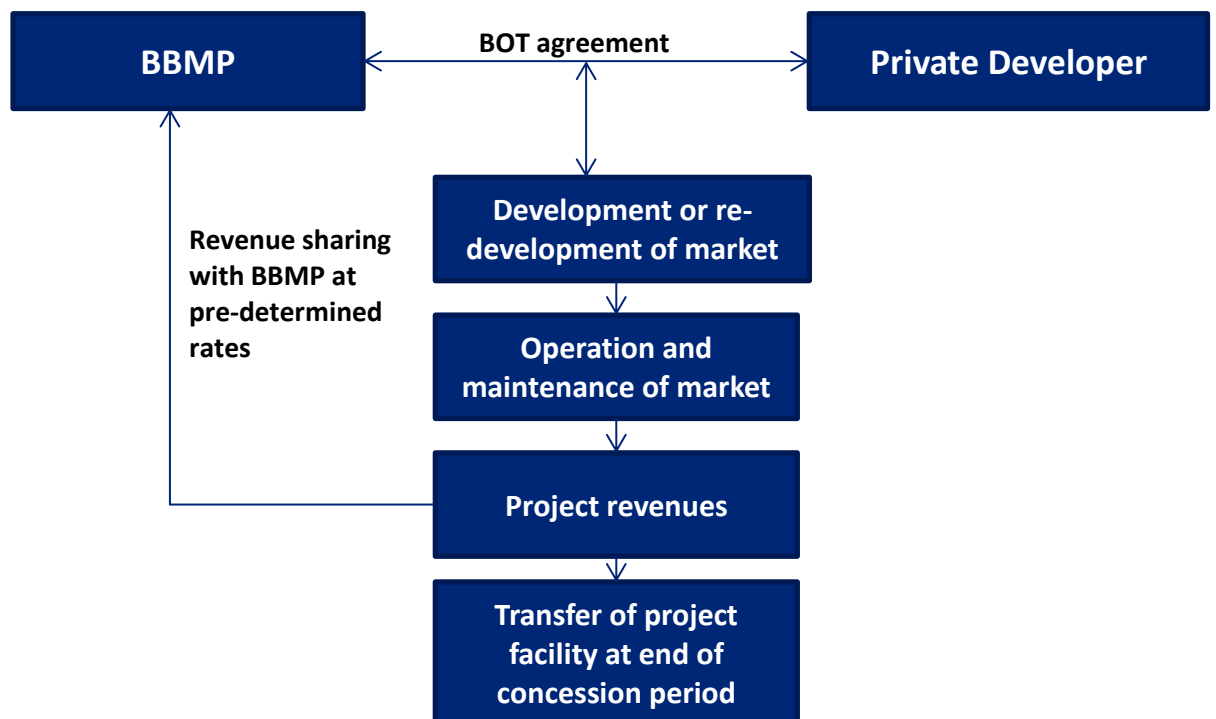
9.2 Social Impacts & Mitigation Measures

- 9.2.1** During re-development/ construction phase there will be temporary displacement of vendors/shopkeepers. However, owing to the benefits they will acquire post development; this is not anticipated to become a critical issue.
- 9.2.2** Apart from employment as skilled and un-skilled during construction, it is expected that the project and consequent activities will generate additional employment and income opportunities for the local population due to growth of small shops & trading activities.
- 9.2.3** Also the market re-development/development, supported by infrastructural development will foster economic growth in the area. It will also provide nearby residents with access to fresh, locally grown food and add a new dimension to shopping experience for the locals.

10 Operating Framework

10.1 Operating framework and indicative Project Structure for Johnson Market, Moore Market and Market development in Mahalakshmi Layout

10.1.1 The operating framework is provided below:



The operational framework envisages BBMP handing over the site to the selected private developer subsequent to execution of relevant contractual agreements. Subsequently, the private developer will construct, operate and maintain the markets for a period of 20 years. During this period, the gross revenues earned by the private developer in the form of shop rentals and other rentals and income from the market facility will be shared in the agreed ratio (specific to each market as mentioned earlier). At the end of the concession period of 20 years, the project facility will be handed over the

private developer to BBMP. The contract entered into with the private sector will specify the details regarding the termination and hand over clause.

11 Way Ahead

The next activity for BBMP is to float an Expression of Interest to seek private sector interest for development of these markets. As each of the markets is financially viable, BBMP could issue on tender for all the three markets or even choose to issue separate tenders. However, considering the size of Mahalakshmi layout market and Moore Market, private sector interest can be evinced better if all the three markets are bid out to the private sector as one project. That is, one private developer will develop, operate and maintain all the three markets for a 20 year time frame.

12 Annexure 1 – Ward-wise List of Markets in 8 BBMP zones

Ward Name & No.	Population	No. of Households	No. of shops	No. of Markets
EAST ZONE				
18-Radhakrishna Templ	41336	9302	1999	1
19 -Sanjaynagar	31192	8629	1178	2
20- Ganganagar	27120	6513	1417	2
21- Hebbal	31268	8221	246	1
22-V Nagenahalli	51216	12777	754	0
33- Manorayanapallya	48008	10333	671	0
34 Gagenahalli	24253	6114	442	2
6 J.C.NAGAR	31264	8151	856	1
32- Kavalabyrasandra	39167	10907	1500	0
48-Muneshwara Nagara	37000	7599	1100	1
31-Kushan Nagar ,	42584	8247	1475	0
60-Sagayapuram	34270	6977	1250	2
47-Devarajeevanahalli	42263	10455	1500	1
61-S.K.garden	38095	7632	2235	1
78-Pulikeshinagara	26470	6190	1850	1
62- Ramaswamy Palya	32309	6600	1100	6

63- Jayamahala	36800	7000	1040	0
93- Vasanth Nagar,	37809	11000	1650	1
110-Sampangiram Nagar	36506	7000	1530	6
89-Jogupalya	41000	9572	750	7
112- Domlur	29734	7825	825	1
114- Agaram	36000	6474	425	4
115- Honnarpet	24800	6200	259	2
111-Shantala nagara	24800	5200	4350	1
116-Neelasandra	31200	8400	630	1
117 – Shantinagar	24400	6100	600	3
80-Hoysalanagara ,	36718	8900	1485	1
88-jeevanbhimagara	35128	9176	753	0
113-Konena Agrahara	32754	10712	980	0
57-C.V.Raman Nagar	59801	17679	657	4
58-New Thippasandra	43066	12435	728	2
50.Benniganahalli	45746	11745	456	4
79.SarvagnaNagar	37299	9053	269	1
49- Lingarajpuram,	64739	8280	525	1
59- Maruthiseva Nagar	48328	9933	510	3
27- Banasawadi	55116	14270	960	1
28- kammanhalli	47477	11560	652	1
24.H B R Layout	57690	13394	1500	1
29.Kacharakanahalli	32662	8508	740	1

23- Nagavara	61614	12520	800	2
30-Kadugondanahalli	48548	9963	400	1
Total	955126	224899	20784	48
R. R NAGARA ZONE				
129	44148	16980	871	5
160	48253	18559	695	5
69	42141	16208	305	1
73	45367	17449	279	4
38	31668	12180	917	1
42	29336	11283	278	2
16	27461	10562	337	0
17	42786	16456	715	0
37	32659	12561	1183	3
40	49036	18860	252	2
72	42936	16514	537	2
130	46790	17996	194	4
159	29583	11378	277	4
198	40849	15711	191	5
Total	553012	212697	7031	38
DASARAHALLI ZONE				
12	41625	15210	1968	2
13	59685	11599	1050	3
14-Bagalagunte	64331	16820	2280	7

15-T.Dasarahalli	32828	8812	2300	12
39-Chokkasandra	59211	16223	1400	2
41-PeenyaIndustrial Area	56692	16207	800	4
70-Rajagopala Nag.	60616	17306	168	2
71-Hegganahalli	66084	18337	166	5
Total	441072	120514	10132	37
MAHADEVPURA ZONE				
52-K.R.Puram	35071	14212	347	0
53-Basavanapura	48547	14903	291	0
55-Devasandra	32987	12117	223	1
25- Hormavu	93830	33264	1702	0
26- Ramamurthy N.	47307	16800	416	1
51- Vijnapura	46068	17012	647	0
56 A narayanapura	43417	14099	353	0
81 Vignanagara	105628	21848	516	0
87 HAL airport	38885	12520	449	0
54 Hoody	126588	26025	890	1
82 Garudachar Palya	105315	21728	438	0
85 Doddanekkundi	83280	26625	890	0
83- Kadugodi	65805	19364	281	3
84 Hagadur	99534	20451	563	0
149- Varthur	73886	19547	730	3
86	74489	16115	1526	1

150	144572	36393	1363	0
Total	1265209	343023	11625	10
BOMANAHALLI ZONE				
174-HSR Layout	60758	22975	983	12
190-Mangammanapalya	65596	21877	724	9
175-Bommanahalli	45827	15430	541	2
188-Bilekalli	47932	15330	418	2
189-Hongasandra	67422	21378	298	0
186-Jaraganahalli	34409	12022	494	3
187-Puttenahalli	37382	14314	293	1
193-Arekere	55548	20167	920	4
191-Singasandra	68690	26336	828	8
194-Gottigere	48443	17240	458	2
192-Begur	77657	28152	444	10
195-Konanakunte	55605	18506	543	2
196-Anjanapura	44621	14750	535	0
184-Uttarahalli	57036	19486	312	6
185-Yelachenahalli	46011	13887	465	0
197 Vasanthpura	61242	20765	531	6
Total	874179	302615	8787	67
YELAHANKA ZONE				
1-Kempegowda	35678	9500 & 900	900	2
2- chowdeswari	32792	9375 & 200	250	1

3 ATTUR	57202	15502	735	1
04 Yelahanka New town	42263	13052	1603	6
5, Jakkur	51961	12410	825	0
06, Thanisandra	71736	16905	865	5
07, Byatarayanapura	71858	19289	1125	5
08, Kodigehalli	47559	12273	715	5
09 Vidyaranyapura	57175	14570	825	5
10 Doddabommasandra	31197	7597	590	5
11 Kuvempunagara	36670	8662	578	5
Total	536091	120260	9011	40
SOUTH ZONE				
122 Kempapura Agrahara	39744	4993	770	0
123 Vijaya nagar	40995	8814	726	1
124 Hosahalli	38292	8344	1107	1
134 Bapujinagar	50480	9152	1915	1
132	41316	10342	410	0
133	38109	9139	396	0
157	37092	9225	1037	0
158	47362	11807	235	0
155	47295	7659	390	0
156	43669	9000	815	1
162	43770	14691	952	0
163	46849	12900	443	0

164	42296	10296	110	0
18Kumaraswamy layout	42426	14564	1565	0
182 Padmanabhanagar	41371	12056	1217	0
166	29946	11567	634	0
Karesandra	29946	11567	634	0
180Banashankari	35022	11756	657	3
146-lakkasandra	32703	5538	194	0
152- suddaguntepalya	46007	12225	430	0
176-BTM Layout	50897	14009	797	4
172-Madivala	47313	12451	666	1
147- Adugodi	35009	10544	170	1
148- Ejjipura	46540	19388	238	2
151-Koramangala	57076	15115	500	1
173-Jakkasandra	39918	11365	203	0
168-Pattabhiramnagar	32325	8122	2254	1
169-Byrasandra	34656	7925	2365	1
170-Jayanagar 9 th block	88000	6859	628	2
171-Bissmilla nagar	85000	8300	855	4
177 J.P.Nagar	42872	13270	675	11
178 Sarakki	39272	12680	625	11
179 Shakambarinagar	37973	12150	650	9
118- SudhamaNagar	35492	15500	2000	0
119- Dharmaraya Swamy	61552	16545	3300	2

Temple				
142- Sunkenahally	54640	13660	1908	2
143- V.V. Puram	55447	11241	1283	1
145-Hombegowdanagar	31574	5949	575	1
153 Jayanagar 2nd Block	25794	3782	238	1
Total	1686094	412923	33933	62
WEST ZONE				
64	37200	9300	1900	0
65	45000	10900	1750	3
66	46000	11500	1000	0
67	45000	11250	1500	1
35	45000	10200	1800	0
36	52000	11200	1650	1
45	36000	10000	1200	1
99	51250	12890	1555	2
100	40236	10059	1025	2
101	46000	11500	2500	6
107	48000	12000	1350	7
	14000	3500	13	95
98	60800	12200	2420	6
77	59200	14800	750	0
94	60900	15225	3900	1
95	49380	12345	504	0

96	54600	13650	2500	0
109	42750	12890	17500	1
120	52630	13850	8200	1
121	55860	14700	3200	1
135	52652	11000	2500	143
136	62630	15000	1800	145
137	66652	15000	1500	145
138	51025	13000	3000	131
139	52500	15325	15940	57
140	41728	13980	1360	0
141	47560	135901	789	0
43	56400	14100	1100	10
44	50000	12500	1250	3
68	46950	10500	1600	4
74	44010	12000	1100	4
67	45000	15100	2500	3
75	40000	11000	2750	3
102	33000	10000	2600	3
103	66250	13250	550	1
104	30405	9081	1037	0
105	29972	8700	900	2
106	36225	7245	800	0
125	34520	6904	600	0

126	31532	7883	600	4
127	45084	11271	925	1
128	40970	8970	620	0
131	39330	10477	540	0
Total	1925301	609146	102578	787

Source: BBMP

Annexure 2 – Johnson Market: Site Map & Conceptual Drawings

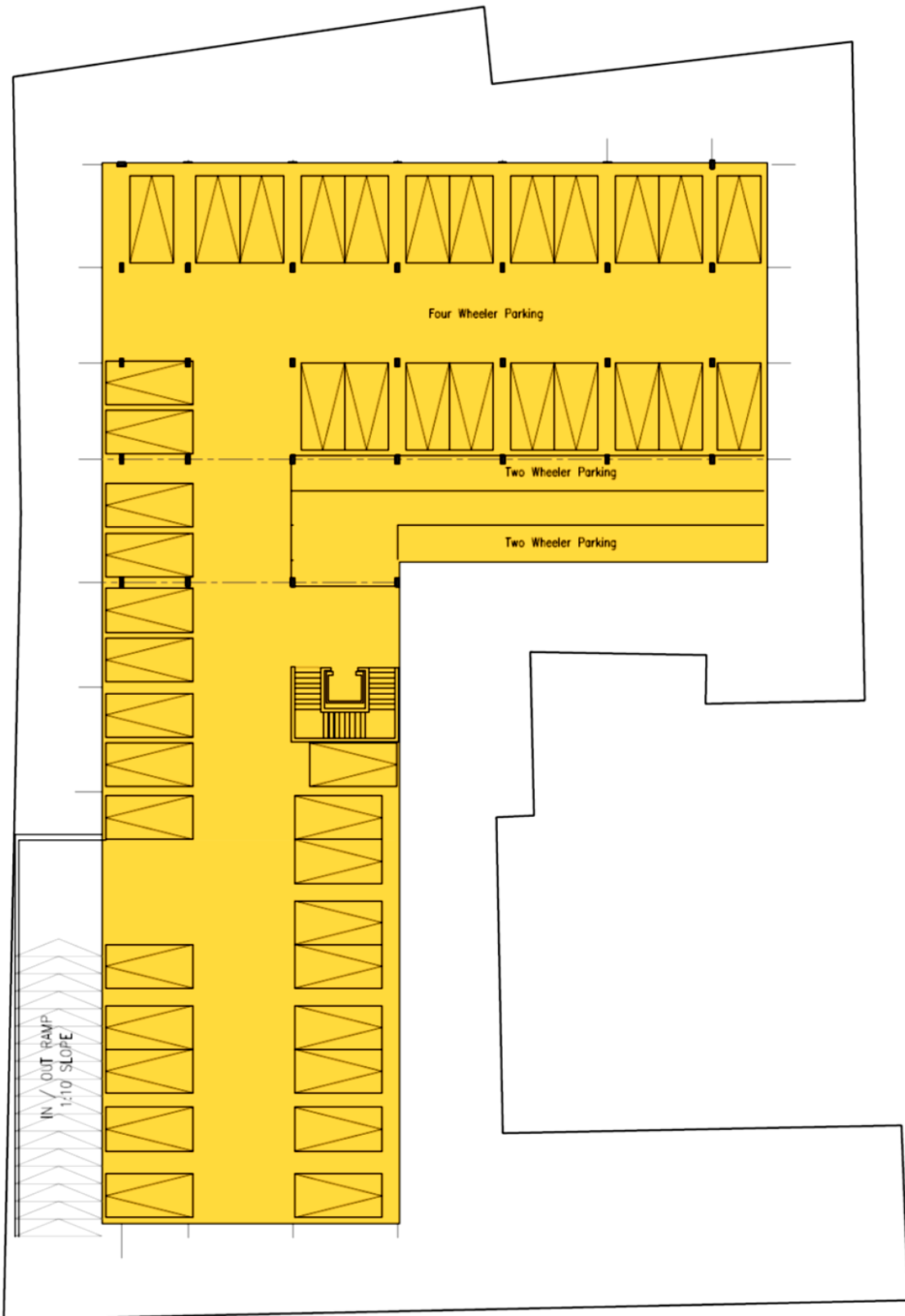
1. Existing Site Plan



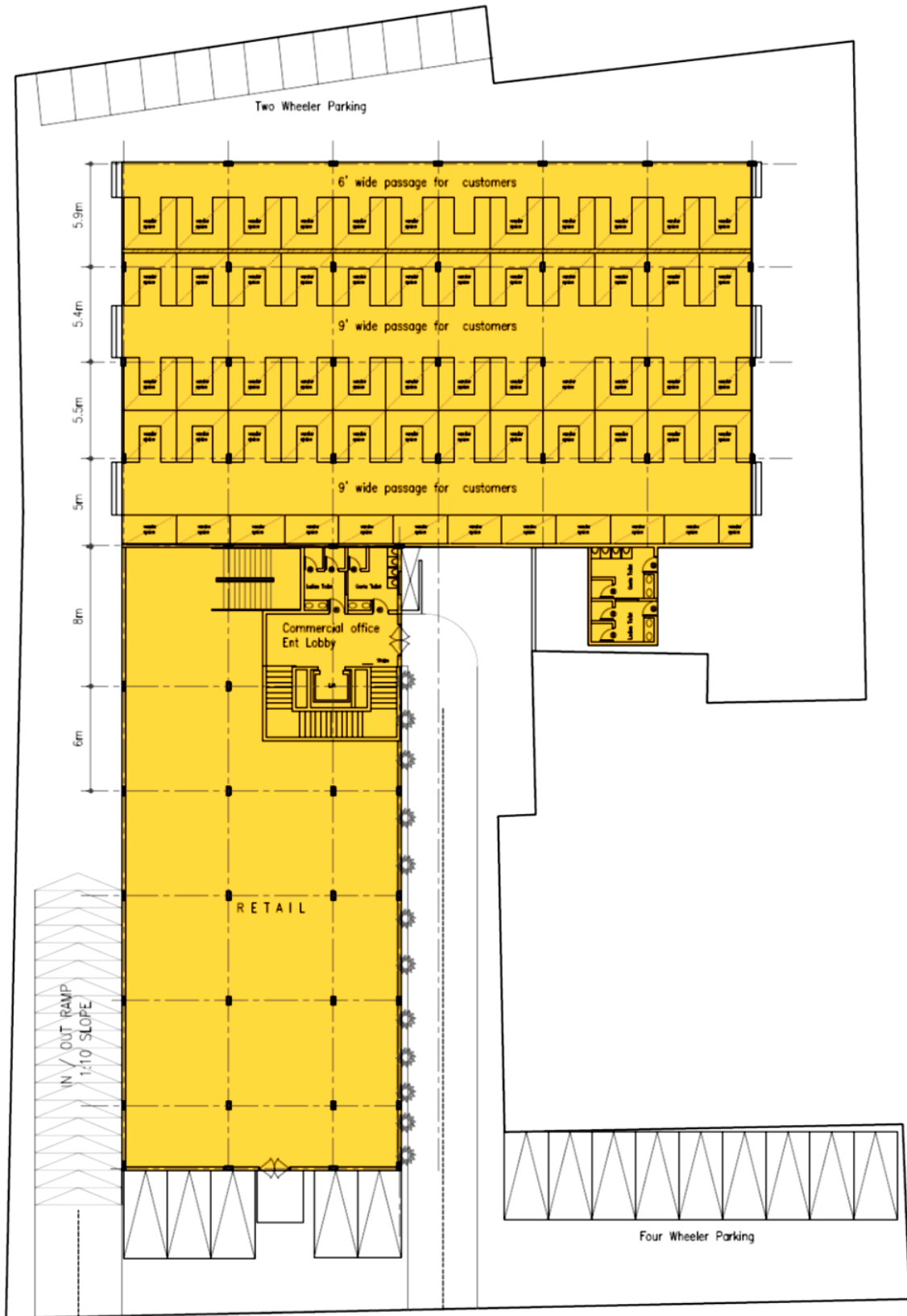
2. Indicative layout/concept plan



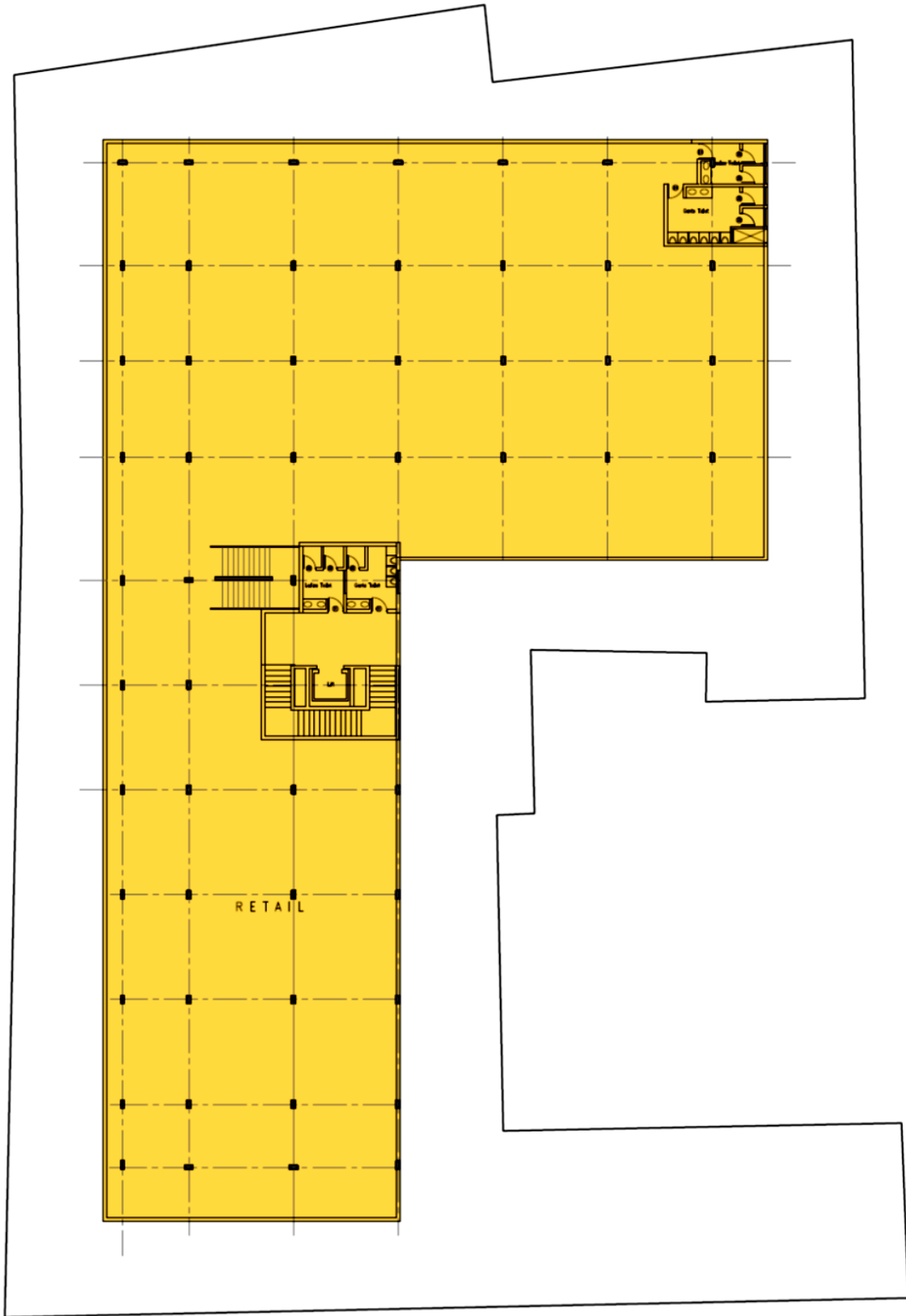
Site Plan



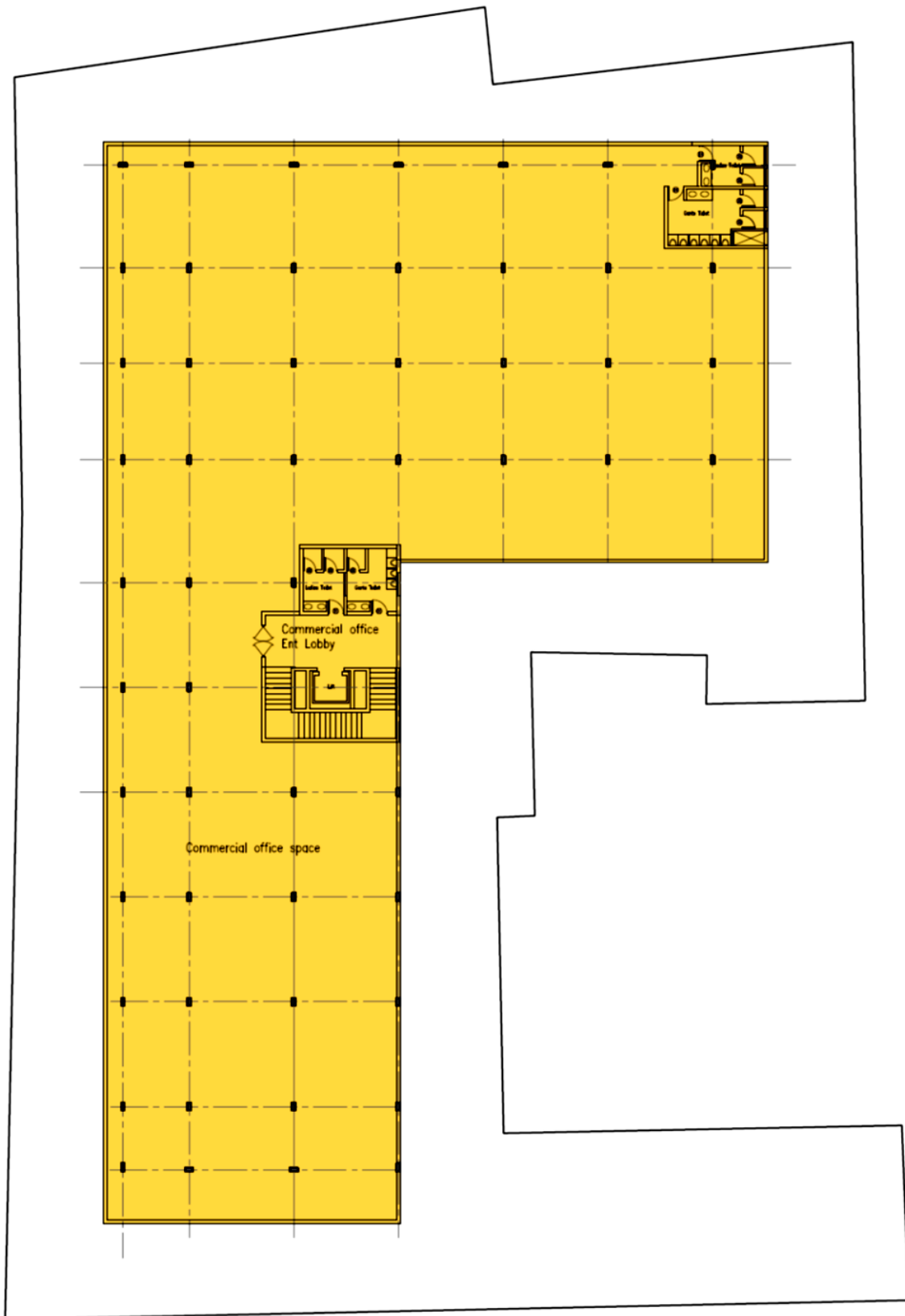
Basement Floor Plan



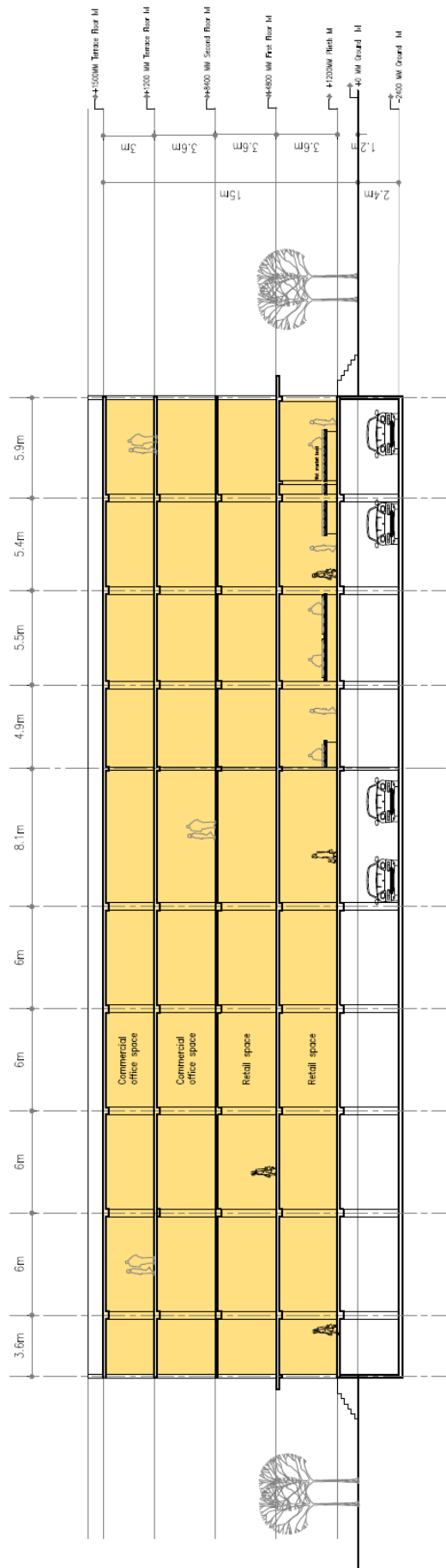
Ground Floor Plan



First Floor Plan



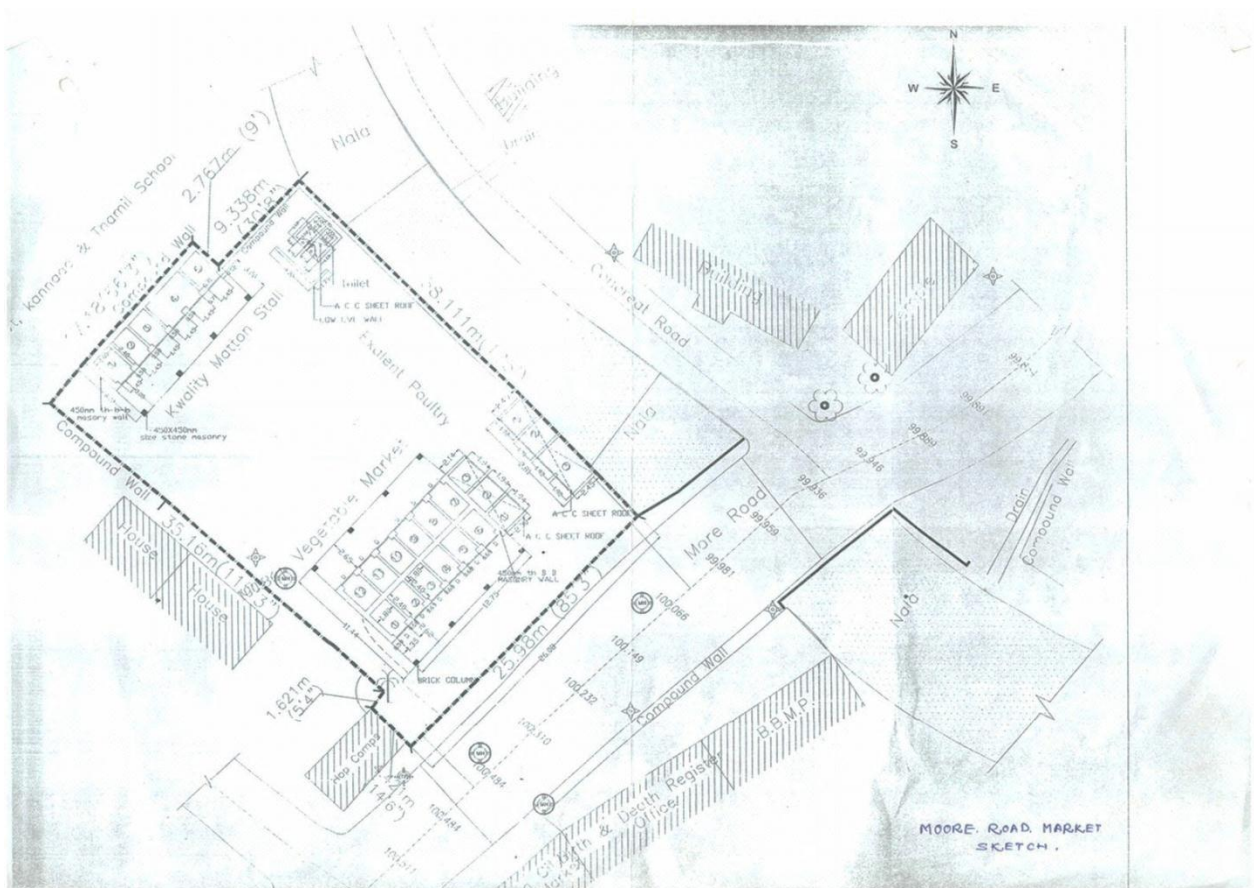
Typical Floor Plan



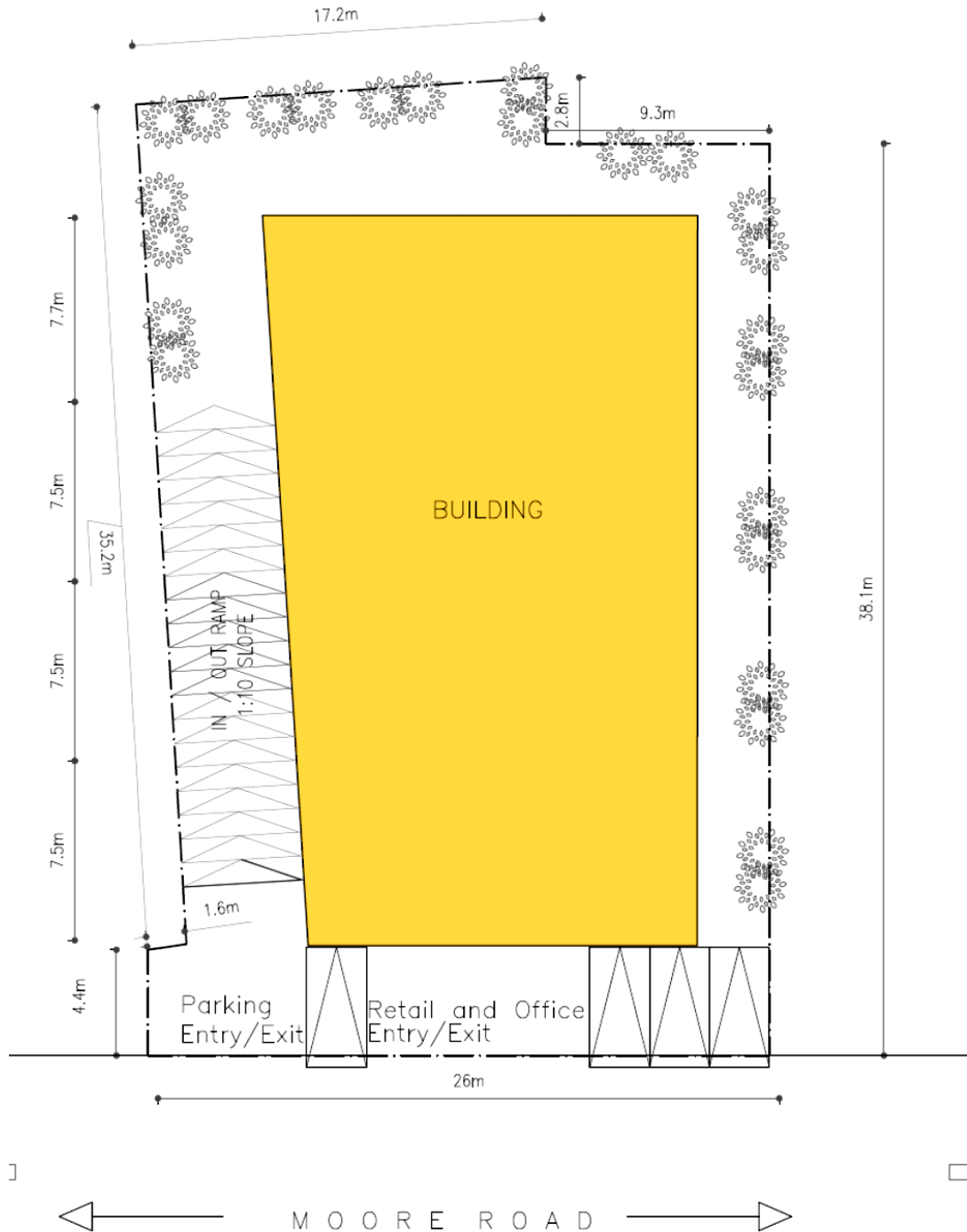
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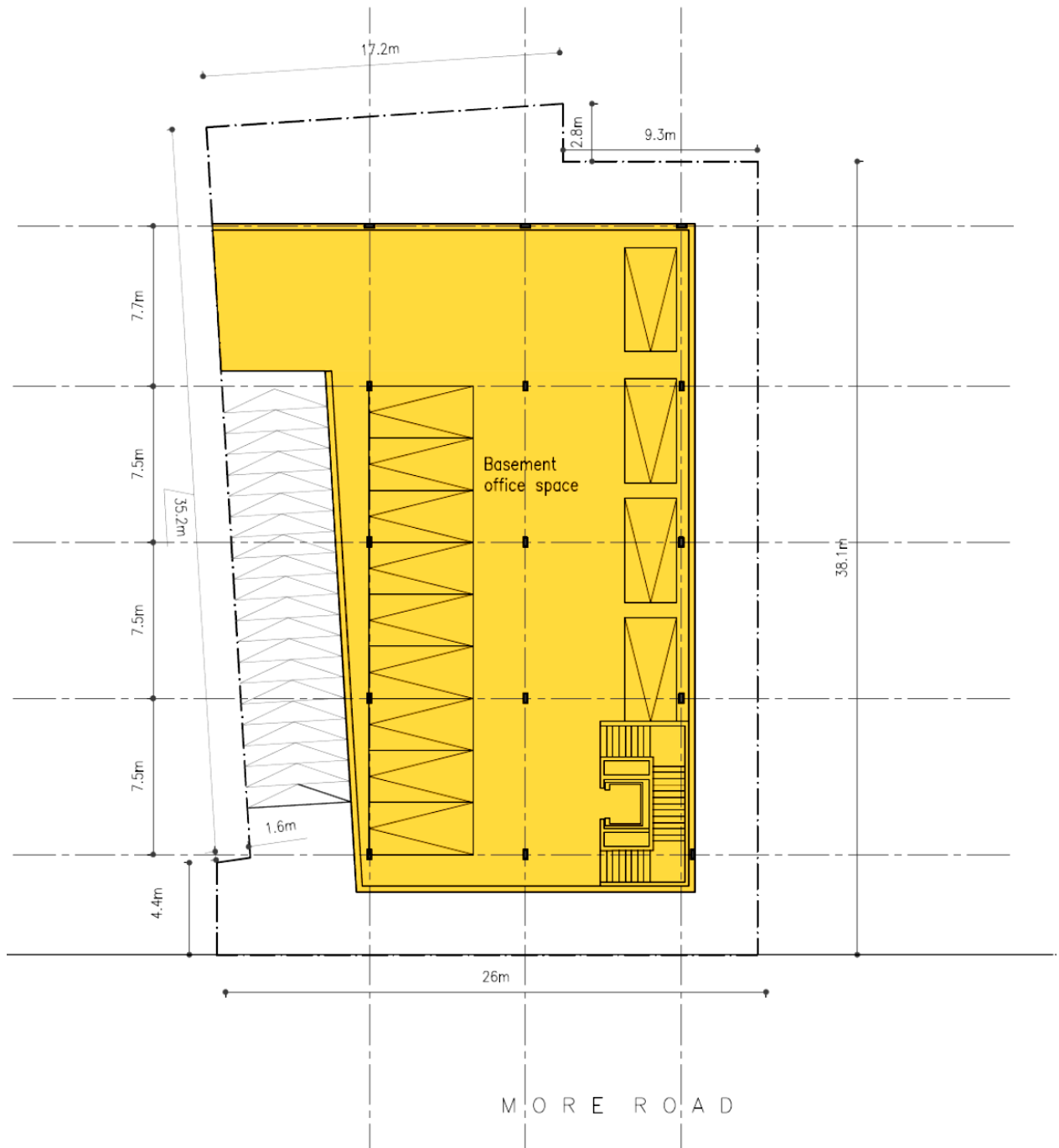
Annexure 3 – Moore Market: Site Map & Conceptual Drawings

1. Existing Site Plan



2. Indicative layout/concept plan

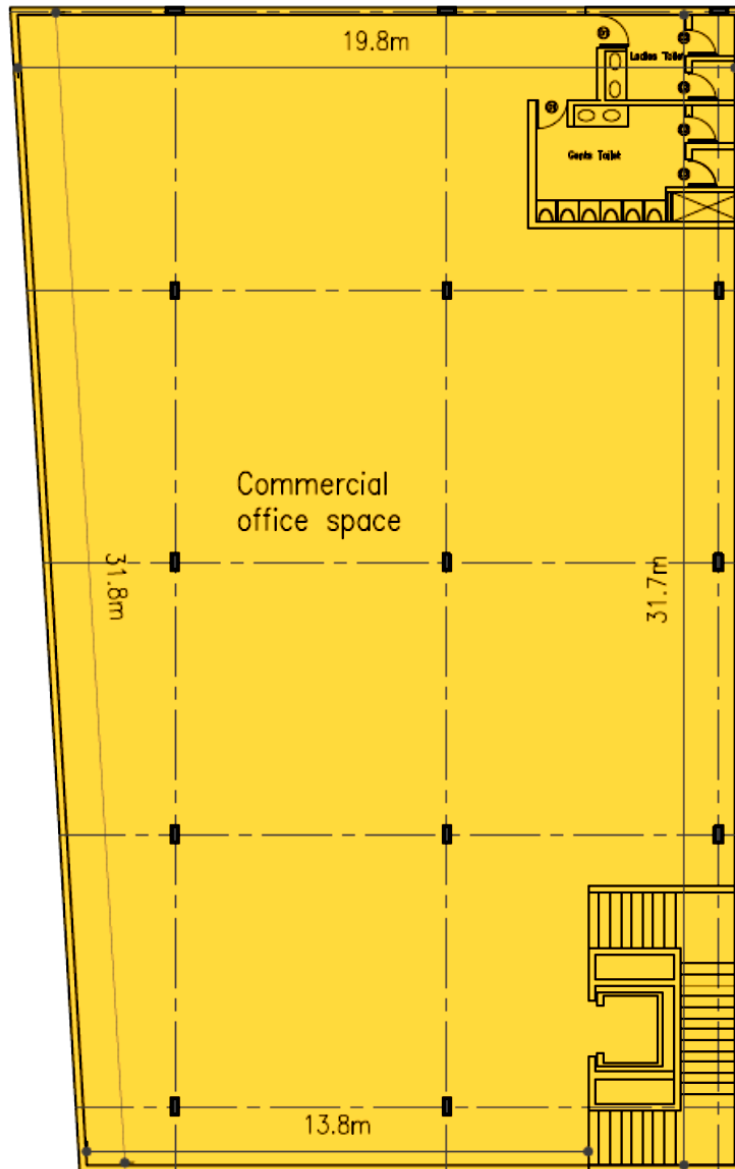




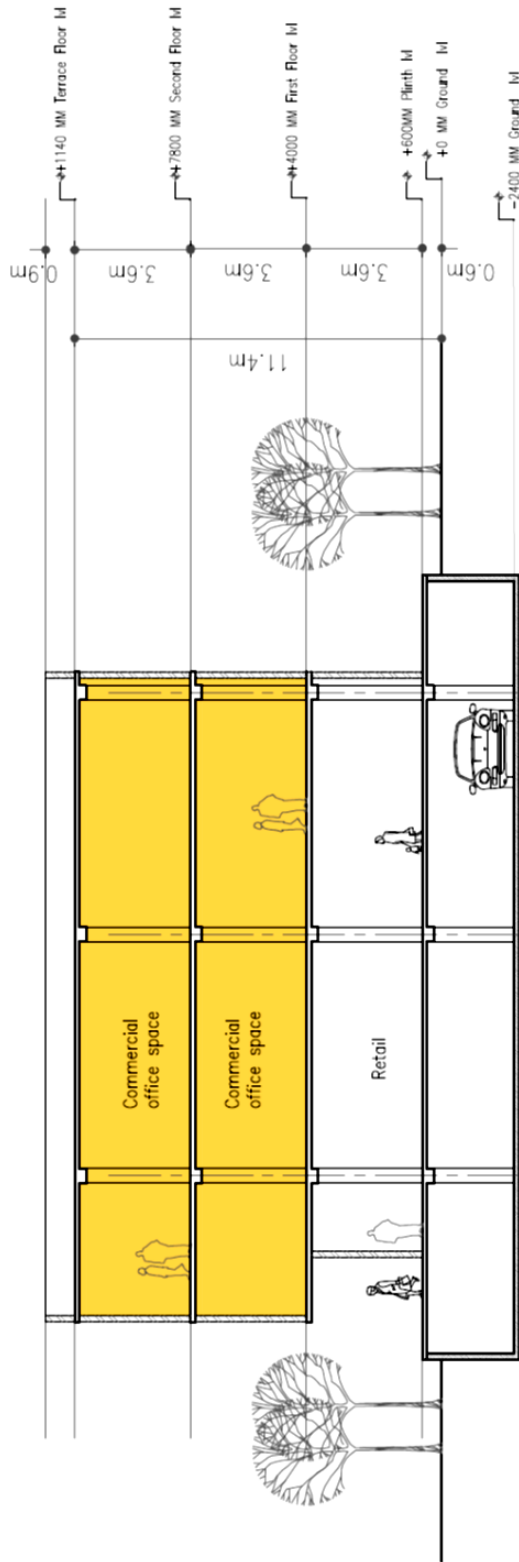
Basement Plan



Ground Floor Plan



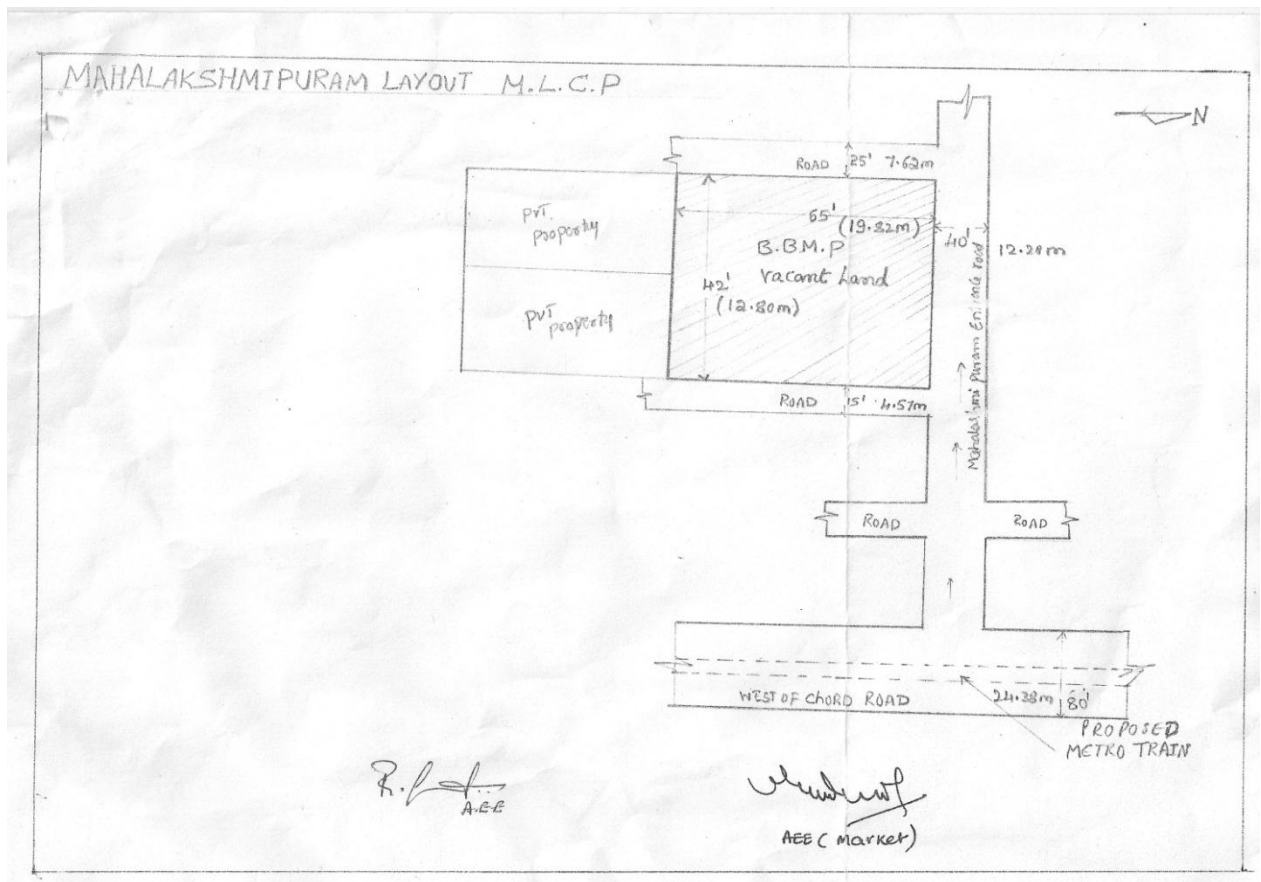
Typical Floor Plan



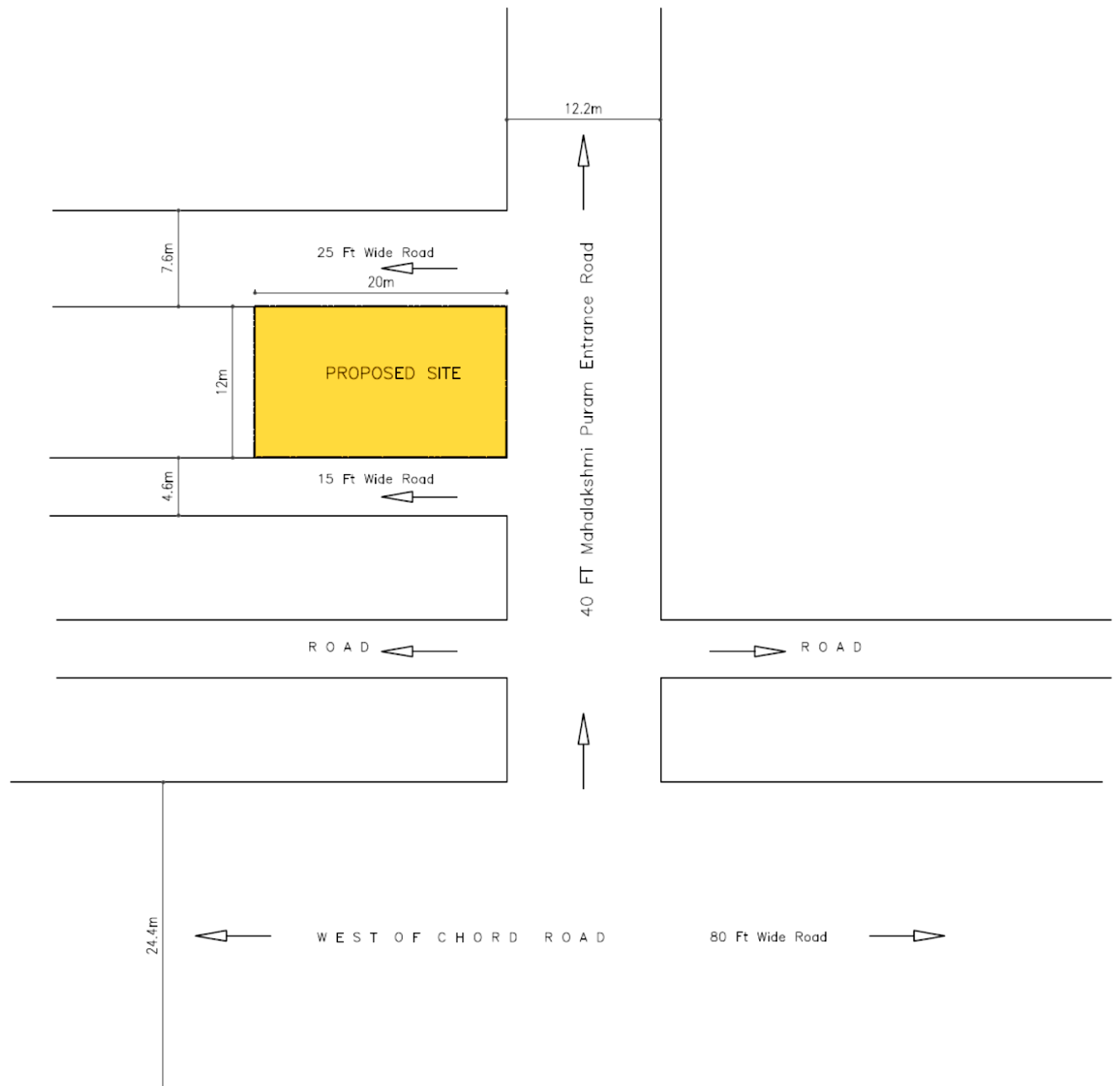
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Annexure 4 –Market Development at Mahalakshmi Layout: Site Map & Conceptual Drawings

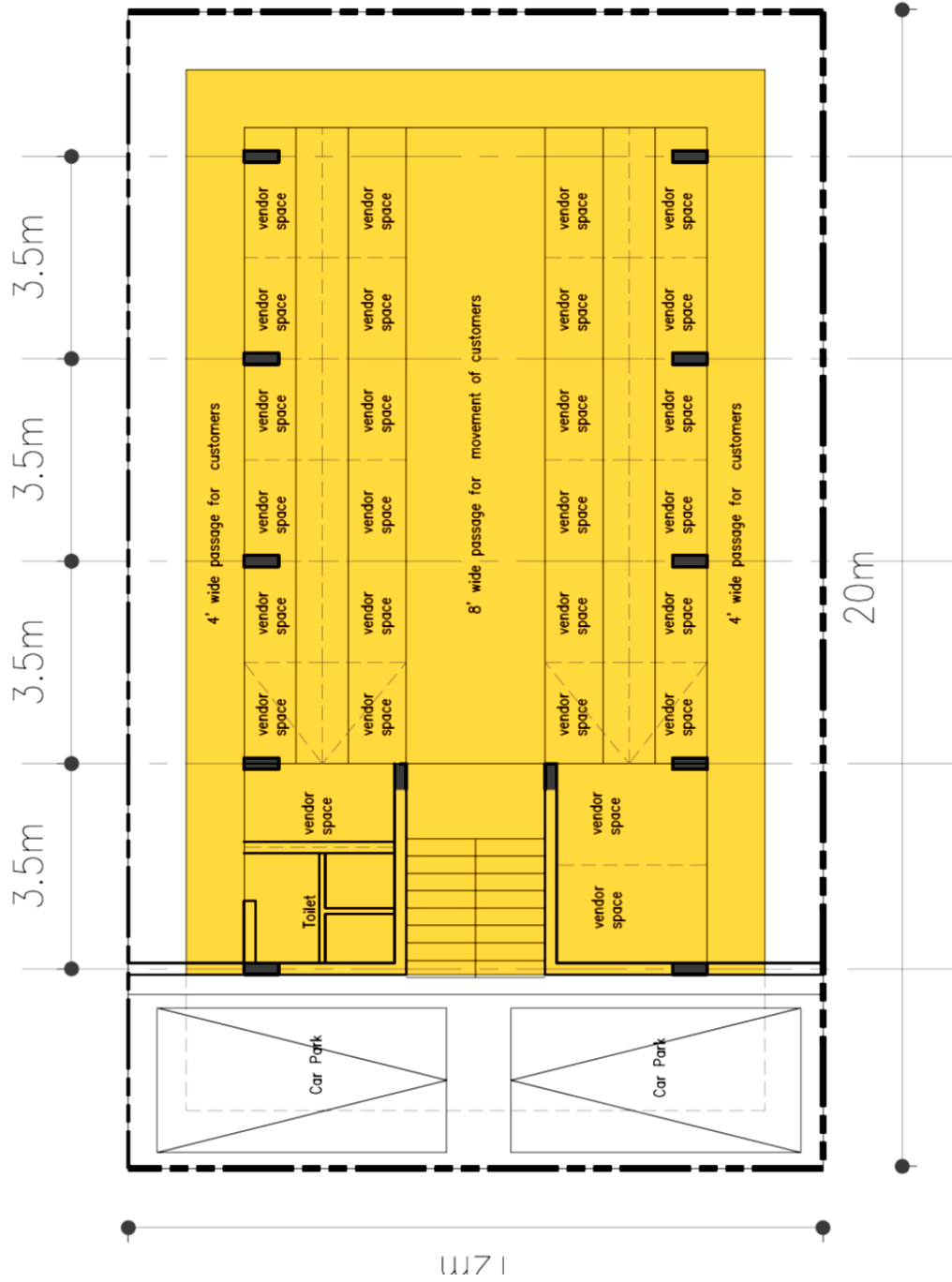
1. Existing Site Plan



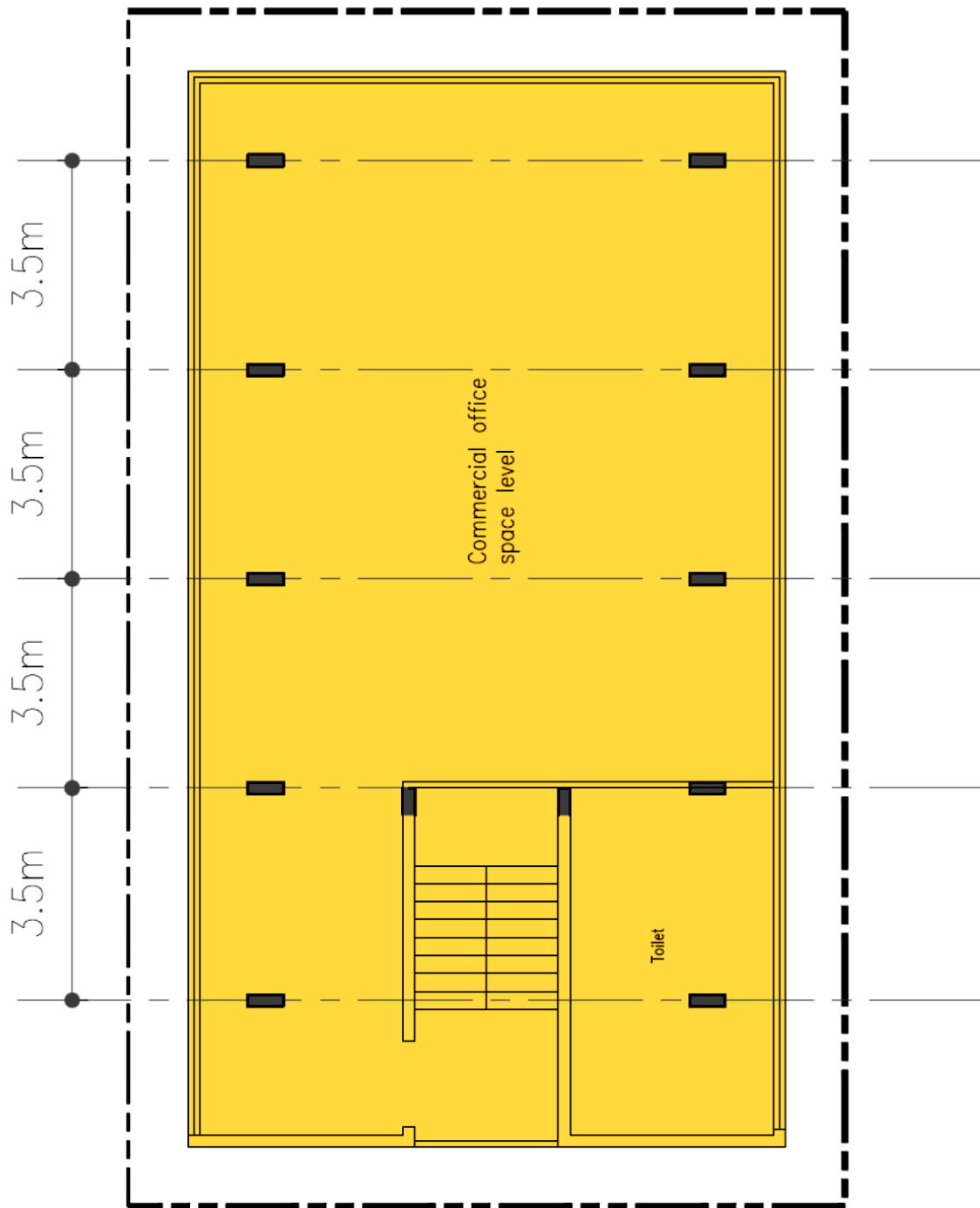
2. Indicative layout/concept plan



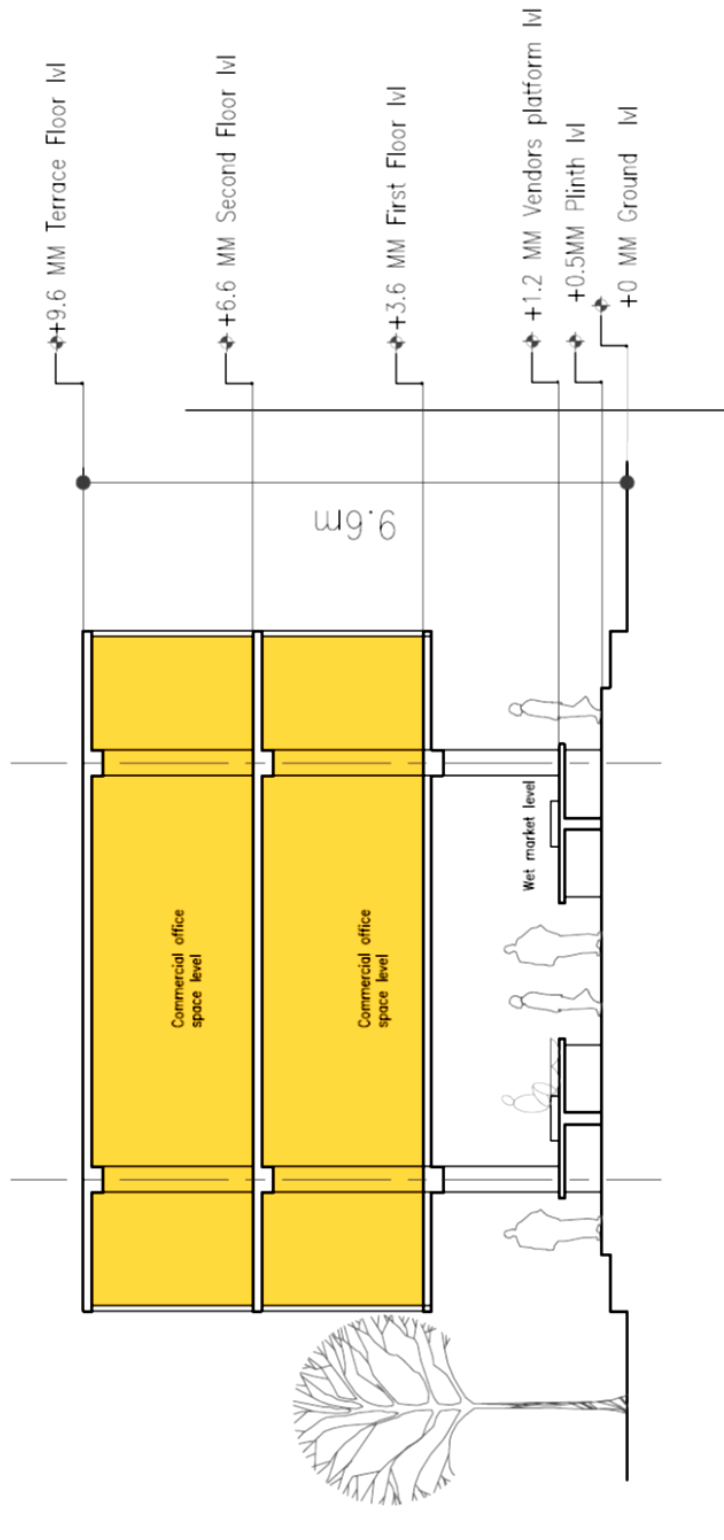
Site Plan



Ground Floor Plan



Typical Floor Plan



Section



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