Forward

Liases Foras was approached by SD Corporation to conduct Product Viability Study and Design Brief Development that can help them take a decision on future development plan for their XYZ Redevelopment Project located in Tardeo in Mumbai, Maharashtra.

While, there are many ways to arrive at the recommendations related to product, price and phasing, we have considered rationales that according to urban economics are most crucial for success of any location. All the recommendations and suggestions mentioned in the report are directly or indirectly governed by scientifically laid down theories and methodologies of Urban Economics. We hope the report will be helpful to SD Corporation to envisage the project and its future market outlook.

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Chapter 1: Introduction

Aim

Aim of the study is to suggest the ideal product mix for the Tardeo Redevelopment project and develop the design brief for master planner. The study has to test the odds of developing the site as a part of larger estate including the existing Imperial Towers and assess its impact on the overall perception of the project.

Objectives

- Identify the potential of the subject-site in terms of product
- Specific recommendations regarding products, their prices and amenities
- Specific timelines for development and their sales
- Determining the market efficient achievable rates for the product on subject site
- Defining the master planning and urban design features considering the present and future market trends
- Determining the market response towards designer product

A detailed financial model for various options to be calculated that includes- total revenue, total cost, monthly cash flow, peak negative cash flow, equity & debt component, return on investment, return on equity, NPV and IRR.

Site Location

The subject site is situated at a distance of 6km from Lower Parel[1] which is considered as a point of destination. The site is located in the high profile influential area of Tardeo, located bang on the Tardeo-Haji Ali road. Subject site lies between the two prominent landmarks of the area, the SoBo Central mall on the north and the SD Imperial towers on the south. Part of the subject site falls under a hilly area located on the west and southwestern direction of the site. Subject site is part of Ward-D of the Greater Mumbai Municipal Corporation.

[1] The economic activity in MMR falls towards island city, which draws maximum number of employees, but considering the net flow of employees in the MMR Lower Parel comes as an epicenter of MMR.

Figure 1 Site Location Drawing

(Source: Liases Foras, Base Image: Google Earth)

Study Approach

Approach to study has been divided into five key steps. These steps help analyzing the subject site in detail and putting forth recommendations.

Figure 2 Study approach

- **Step 1** •Site assesment with respect to present development and expected future developments
- **Step 2** • Analyzing the Real estate market dynamics
- **Step 3** •Pricing Pressure
- **Step 4** •Preparation of Design Brief for Master Planners
- **Step 5** •Financial validation of the product mix and launch strategy

Study Components

In this section the major components of the study as defined in the study approach section are described briefly.

Site Assessment and Prospected Future Development

Site has been studied with following key parameters:

- Study of Existing Surrounding areas near site and amenities located in vicinity.
- Connectivity of site to major transportation nodes of Mumbai.
- Demographic characteristics of area and surroundings, areas under transformation from low-end to redeveloped area.
- Population dynamics at ward level, density study, annual growth, study of existing population in slums on the subject site.
- Landuse study of area, Regulations applicable & FSI permissible on the subject site.
- Present state of physical infrastructure (water, sewage, road, etc.) and social infrastructure (education, health, etc.).

Study of Real estate market dynamics

Study of real estate market dynamics is carried based on the existing base data present with Liases Foras. The analysis is executed at three levels; MMR, Island city and catchment area. On the basis of inventory, sales and unsold stock, analysis at all three levels have been carried out. The catchment area has been defined within the island city further delineating the island city into western central zone.

A detailed study of the quarterly and yearly sales and supply trend across the catchment area has been carried out. Case study of Mumbai slums, industries and chawls along with that of Gentrification – cycles and phases in London and Mumbai island city was done. Based on the historical trends and events, future market outlook has been forecasted.

Product assessment and Related Recommendations

Various product mixes i.e 2BHK, 3BHK, 4BHK, Duplex and penthouse, within 1.5 km of the subject site and selected competitive projects have been analyzed based on their inventory and sales for FY 2013-14.

Based upon the same, different product mixes are recommended.

Pricing Pressure

Based on the study of current sales velocity, rental yield, price movements and corrections at subject site and catchment area, pricing pressure has been put forth.

Preparation of Design Brief

A design brief has been developed taking into consideration the structural elements and spaces together to achieve cohesion and develop an Estate like development.

The design brief includes details of entrance vistas, human activity nodes, natural elements and streetscapes, etc.

Financial validation

Development mix has been suggested after financial testing of various development mixes. Launch strategy is primarily subject to projected market behavior and financial balancing.

Chapter 2 : Site Assessment

Surroundings & Amenities

Shops and office buildings surround the immediate site area. Educational Institutes such as Bhausaheb Junior College and Spring International School are situated on the south western side of the site. The subject site is located at a distance of only 800 meters from Mumbai Central railway Station. It is located at a distance of 500 meters from Haji Ali Circle and 1 km from the famous Haji Ali Dargah. The Mahalaxmi race course and the Willingdon Sports club are situated within 1.5 km of the site. The Sobo central Mall is located in close vicinity at a distance of 230 meters from the site area.

Figure 3 Site surrounding and amenities

(Source: Liases Foras, Base Image: Google Earth)

Connectivity

Site is connected via Haji Ali circle to major roads of south Mumbai such as Peddar road, Wadala road, Napeansea road, Dr. Annie Besant road etc. Site is situated in the vicinity of Mumbai Central Railway Station at a distance of just 900 meters and at a distance of 6km from Dadar Main Railway Station.

The Worli Sea Link road gives easy access to the Domestic Airport Terminal and the Sahar International Airport that are located at a distance of 14 km and 16km respectively from the subject site.

Figure 4 Site connectivity

(Source: Liases Foras, Base Image: Google Earth)

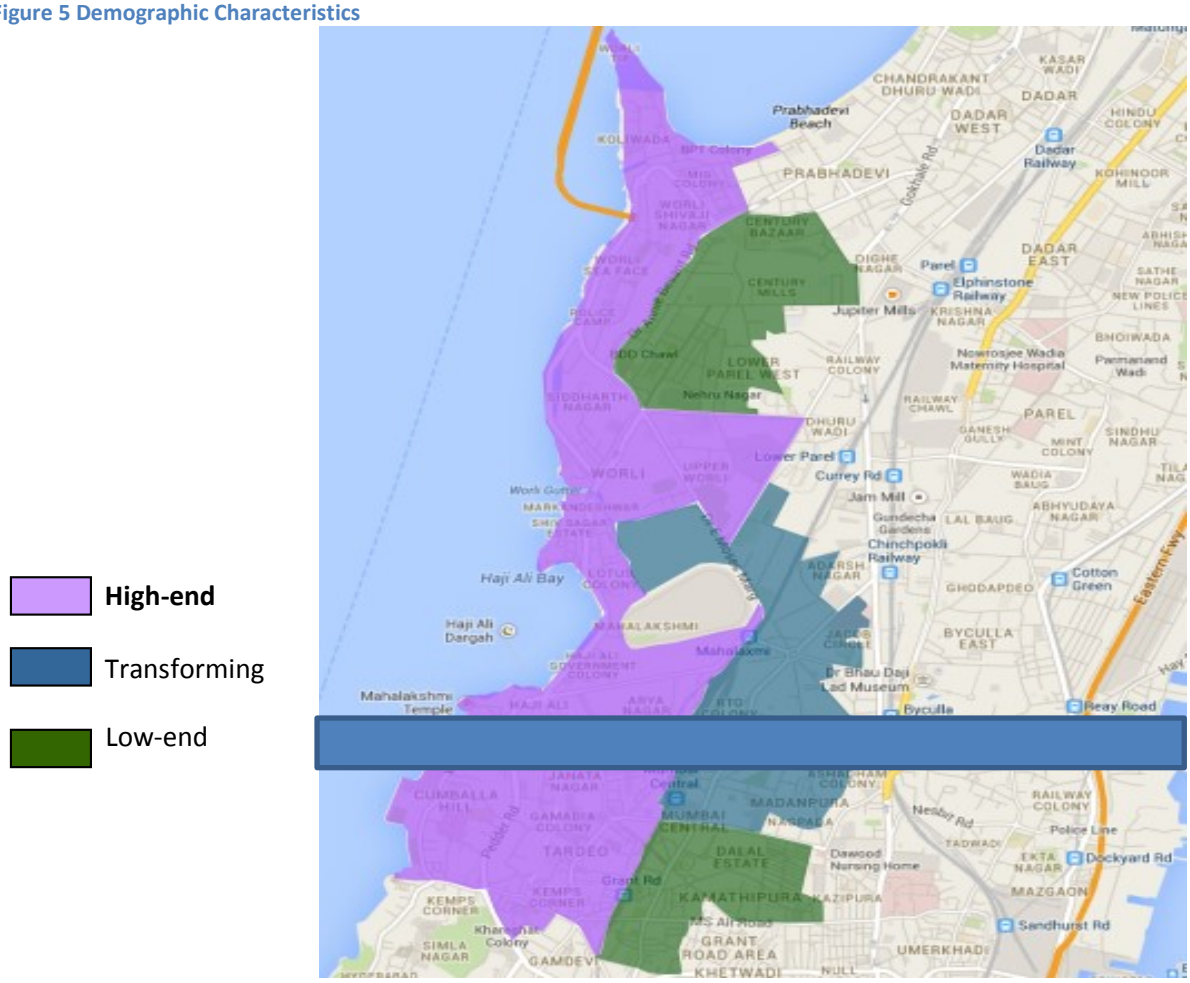
Demographic Characteristics

Tardeo Road is part of an influential high-end area where there are posh localities and upper middle class societies in existence. This is an aristocratic ward of Mumbai comprising of costly areas like Nepeansea Road, Pedder Road, Malabar Hills, Carmichael Road, Walkeshwar, etc. The adjacent areas of Mahalaxmi such as Jacob circle have started transforming from low-end areas to Redeveloped areas with rehabilitation buildings attracting upper middle class and high-end societies to live here.

There are a number of families staying in slums on the subject site. Many of whom are washer men and work at the same site. So removing the dhobi ghat from here can harm their livelihood. Other than that the location has a decent population. Even the original tenants of existing rehabilitation buildings are selling off their units and shifting to suburbs giving way to higher class population. These people presently are purchasing the units only to give

on rent. But with the high rental rates the people renting these belong to a higher class than the original tenants. It is expected that the area will be redeveloped when most of the buildings are sold to investors.

Figure 5 Demographic Characteristics



(Source: Liases Foras Base Image-Google earth)

Table 1 Ward 'D' Population

	1991	2001	2011
Population	**3,43,422**	**3,82,841**	**3,46,866**
Density (people per sq.km.)	**42,767**	**47,676**	**43,196**
Annual Growth Rate		**1.09%**	**-0.98%**
Incremental Increase		**39,419**	**-35,975**

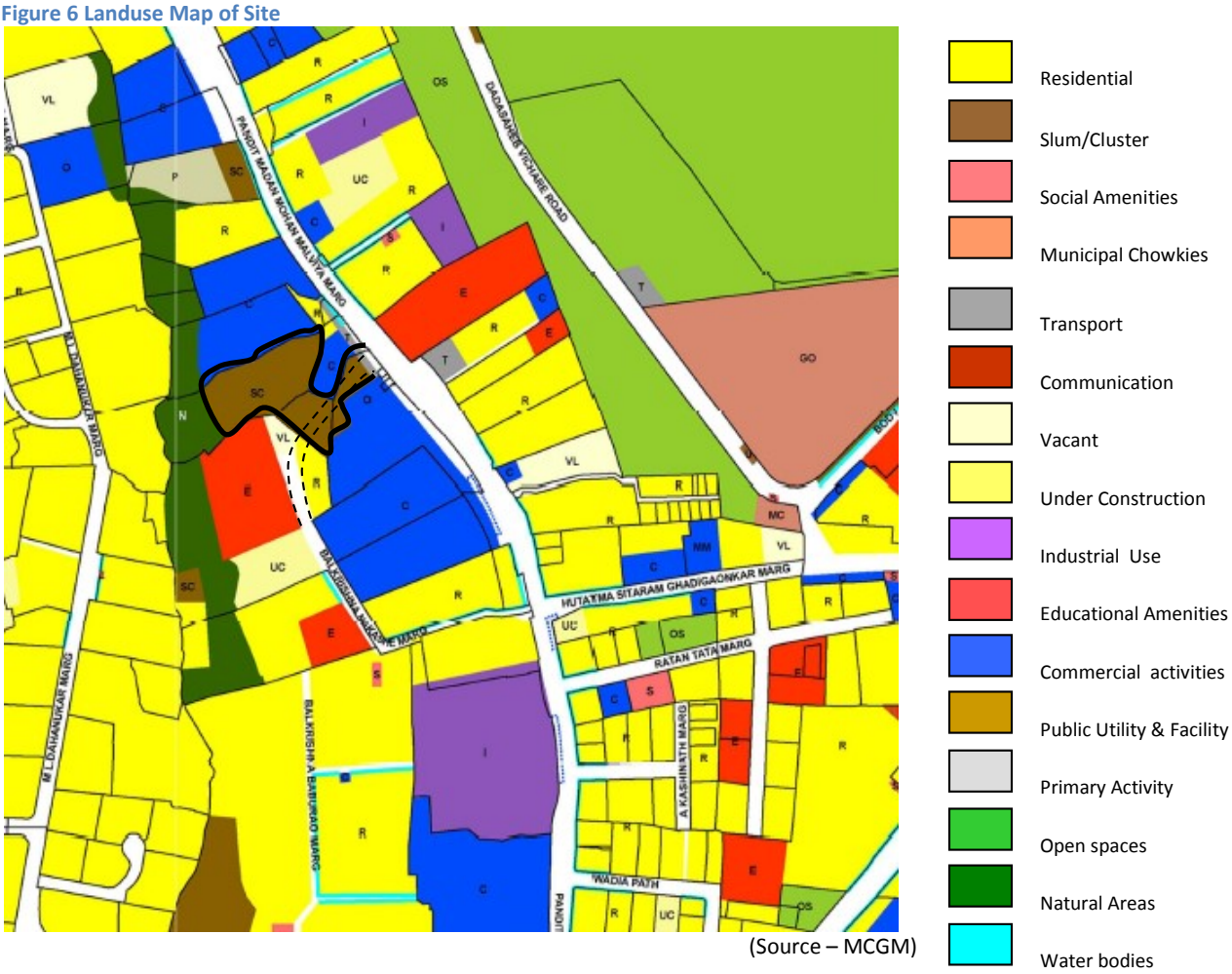
The ward D had a population of 3,82,841 in the year 2001 which decreased by a rate of 0.98% in the next decade to 3,46,866 in 2011.

Landuse

The prevailing landuse around the subject site is shown below. The subject site is presently under Slum/Cluster Housing Use. Subject Site is located between two commercial land parcels on the main road of Tardeo on the north & the south. There is educational landuse on the southwestern side. A

hill is located on the western side of the subject site. A proposed road that connects the existing Balkrishna Naka Marg to Tardeo road which passes through the site.

Figure 6 Landuse Map of Site



(Source – MCGM)

Regulations - FSI

As per DCR of Greater Mumbai, regulation 33(7), 33(9) and 33 (10) deals with majority of the redevelopment buildings in Mumbai.

Table 2 Permissible FSI

Regulation	Clause	Permissible FSI
33(5)	Low Cost Housing Scheme of MHADA for EWS and LIG	2.5 times of the gross plot area plus maximum of 75% as incentive
33(7)	Reconstruction or redevelopment of cessed buildings (built prior to 1940) in Island City	2.5 on gross plot area or FSI required for rehabilitation of existing tenements plus incentive FSI (60% of rehab. area)
Regulation	**Clause**	**Permissible FSI**

33(9)	Repairs and reconstruction of cessed buildings and urban renewal scheme: Cluster Redevelopments	4.00 of required for rehabilitation of existing tenements
33(10)	Slum Redevelopment:	3.00 FSI for rehabilitation includes FSI for rehab component and for free-sale component. In Island City, if rehab component is 10 Sq.mt, additional 7.5 sq.mt. will be permitted whereas 13.33 sq.mt. is permitted in Dharavi.

(Source : DCR)

As per the current DCR, the section 33(10) is applicable on subject site which provides a FSI of 3 including both the rehab component as well as the free sale component. Parking: For apartments with area upto 70 sq.mt, a car park per apartment is required and for apartments bigger than 70 sq.mt, 2 car parks is required. Additional 10% of car parks is mandatory for visitors. In terms of space- 50% of total parking spaces can be 4.5 x 2.3 sq.mt, the rest should not be less than 5.5 x 2.5 sq.mt.

Physical Infrastructure

Connectivity - The island city is well connected to the rest of the suburbs through rail and Road network. The rail connectivity will further improve through proposed metro line connecting Worli- Fort and Wadala-Fort further running up-to Colaba. Road Connectivity will be enhanced by the expansion of existing roads and construction of Eastern Freeway connecting Wadala to Fort.

Water supply - The present water Supply is insufficient to cater to the population of Island City and frequent water cuts are witnessed in island city. The demand in Greater Mumbai was 4526 MLD in the Year 2011 as compared to the supply of only 3852 MLD. According to CDP 2005-2025, the MCGM had policies and pipelined projects to meet demand of 5172 MLD of water demand by 2021.

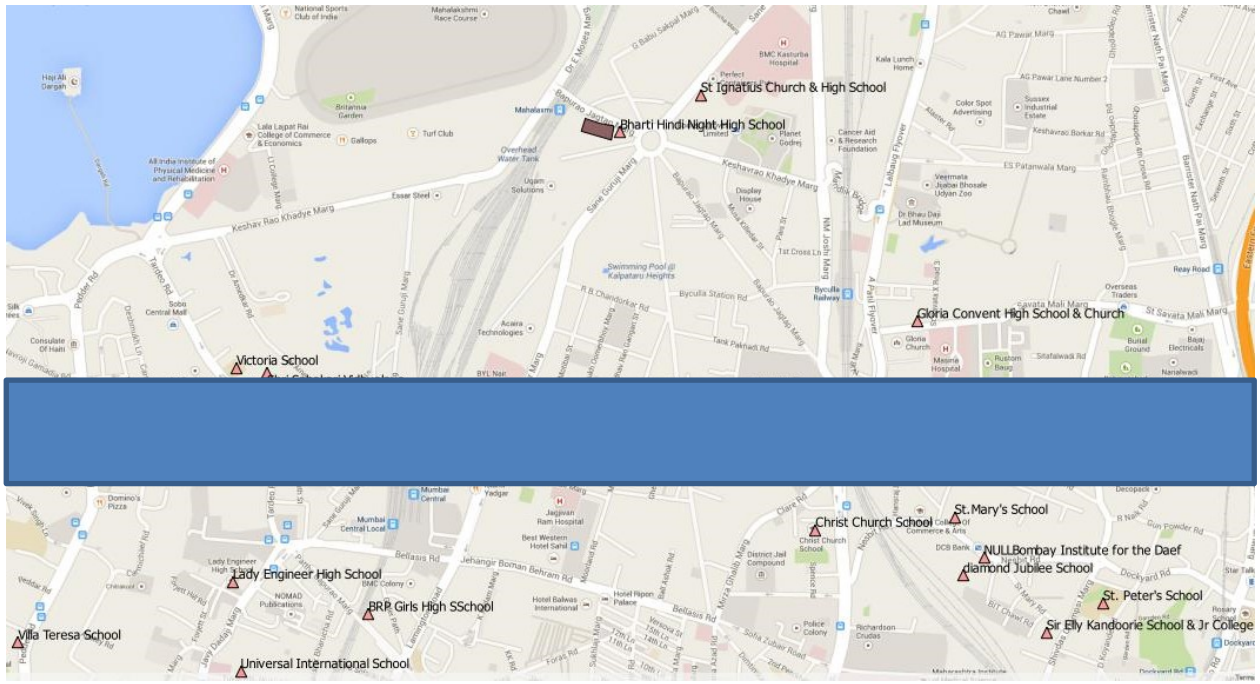
Drainage - Drainage is a major issue during monsoons, as flooding is a very common phenomenon in the Island City.

Sewerage - The current sewerage system of Greater Mumbai covers 42% population, which includes Residential, Commercial and Industrial Areas, excluding Slum Pockets which lack proper connectivity to the city network. Slum Sanitation program has also been implemented.

Social Infrastructure

This section deals with the location of schools and hospitals in close proximity to the subject site.

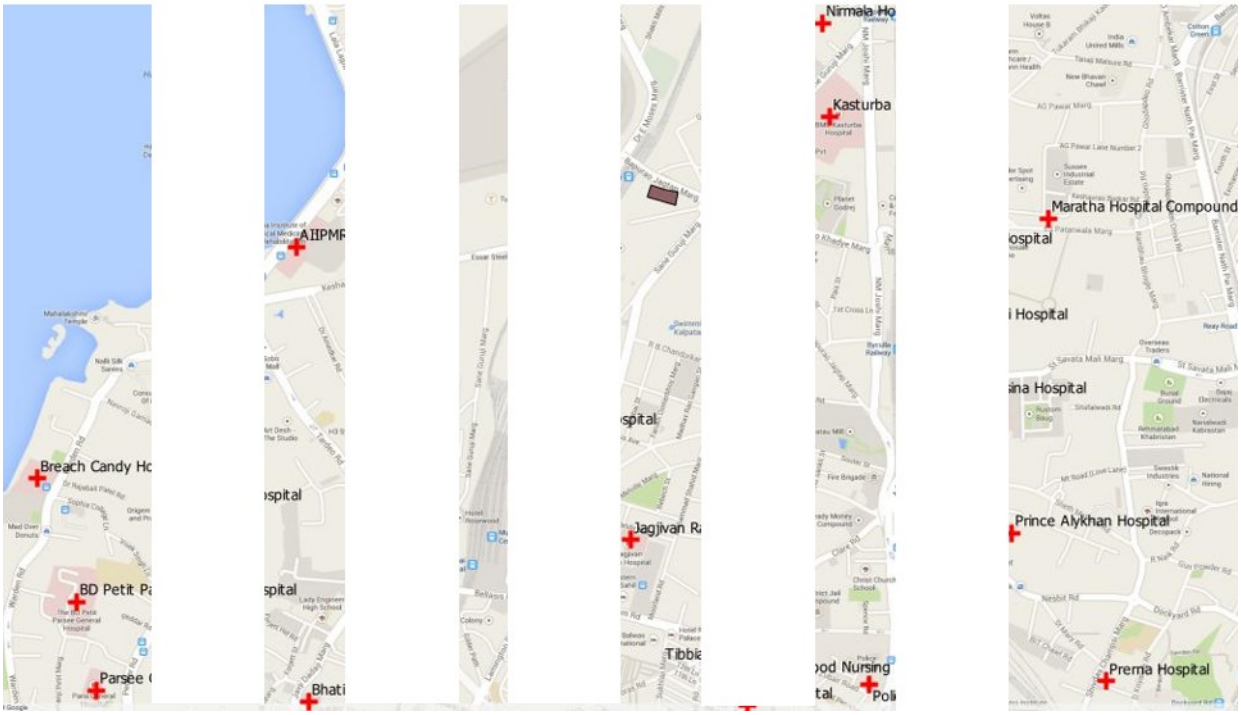
Figure 7 Schools near Subject site



(Source: Liases Foras Base Image-Google maps)

Schools – There are numerous educational institutes situated near the subject site. Victoria school & Shri Sahakari Vidyalaya are two schools that are located in close vicinity to the subject site; distance of less than 200 meters.

Figure 8 Hospitals near Subject site



(Source: Liases Foras Base Image- Google maps)

Hospitals - A number of famous hospitals like Breach Candy, Jaslok, AIIPMR, etc. are situated within 10-15 minutes of travel time from the subject site. Other hospitals and healthcare centers like Ambedkar, Nair, BMC, Kasturba, etc. are also located close to the site. Jaslok Hospital is the nearest hospital located within a distance of 400 meters. Breach Candy & Bhatia hospital are located within a distance of one km from the subject site.

Chapter 3: Residential Market Dynamics

Introduction

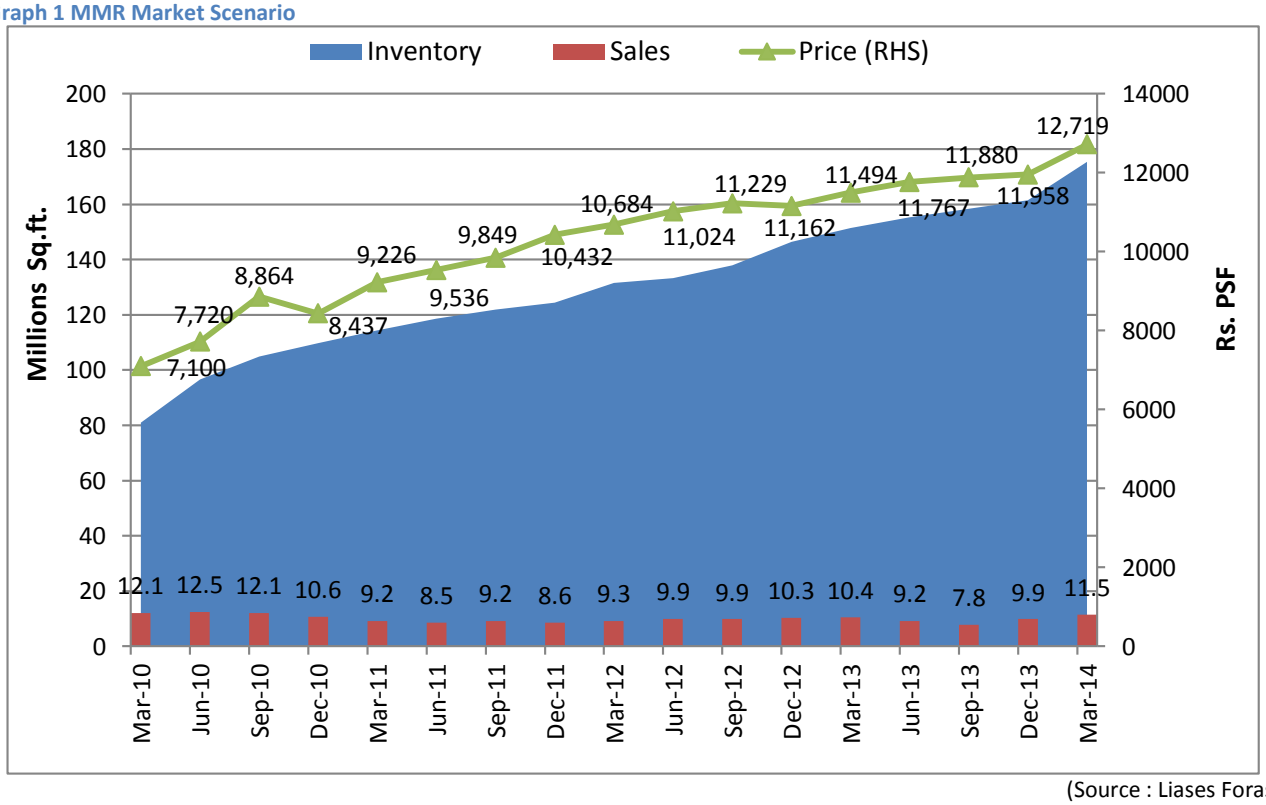
The following chapter elaborates on the details of residential dynamics to assess the best performing products and specify the required area and cost range for the subject site. The survey included 16 projects located in the island city that had similar characteristics as the subject site.

The study was done on three levels: First the Mumbai Metro regional market summary was studied, next the study zoomed down to the Island city market dynamics and lastly, the immediate catchment area of the subject site that covered the wards of Western Central Mumbai were analyzed.
Macro level : Mumbai Metro Region (MMR)
Intermediate level : Island city - South Mumbai & Central Mumbai
Micro Level: Catchment area of Western Central Mumbai i. e.Tardeo, Mumbai Central, Mahalaxmi, Lower Parel, Parel, Worli, Elphinstone, Prabhadevi, Dadar, Matunga and Mahim.
Subject site location : Tardeo

MMR Market Summary

To understand and project the growth of the city affecting real estate of different regions, MMR market study is carried out. This section deals with the study and its observations in detail.

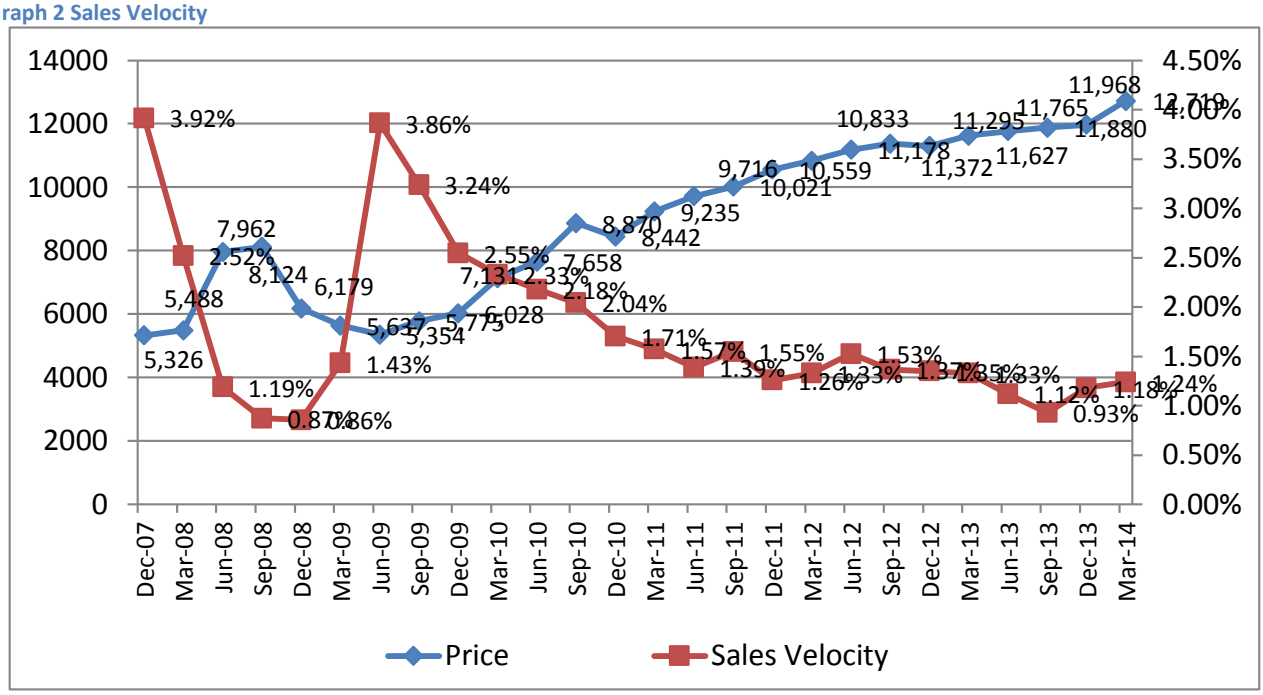
Graph 1 MMR Market Scenario



(Source : Liases Foras)

The study of the graph depicting the Inventory & sales Scenario of MMR in the last four years from, March 2010 to March 2014 clearly shows that the prices have been steadily increasing and the sales are simultaneously decreasing. This has resulted in the piling up of inventory in the market. It is also observed that the sales in the last quarter from Dec 2013 to march 2014 has increased slightly, this is because of sales generation from projects in the extended suburbs of Mumbai.

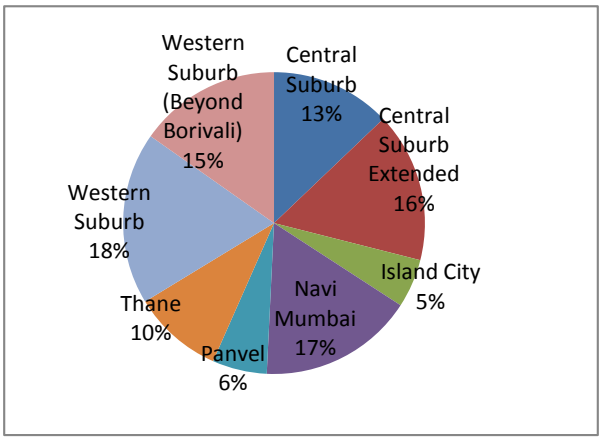
Graph 2 Sales Velocity



(Source : Liases Foras)

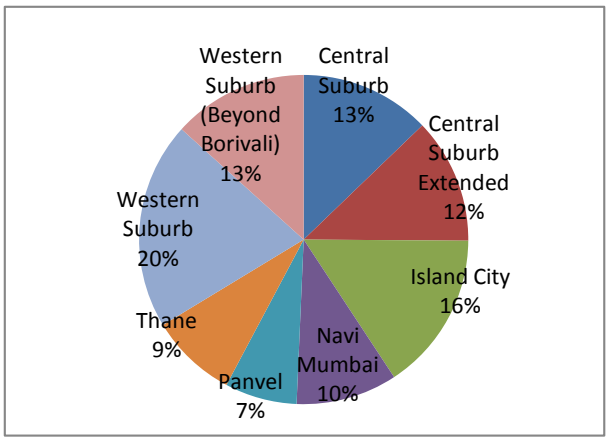
The graph above depicts an inverse relation between price and sales velocity. The increase in price has resulted in a decrease in sales velocity. The inverse proportion of the two is seen to begin from March 2012 onwards before which there was a constant change in the sales velocity and price relation. The gap between sales velocity and price is seen to widen further since March 2010, till date.

Chart 3 Composition of Sales in FY 13-14



(Source : Liases Foras)

Chart 4 Composition of unsold stock in March 2014



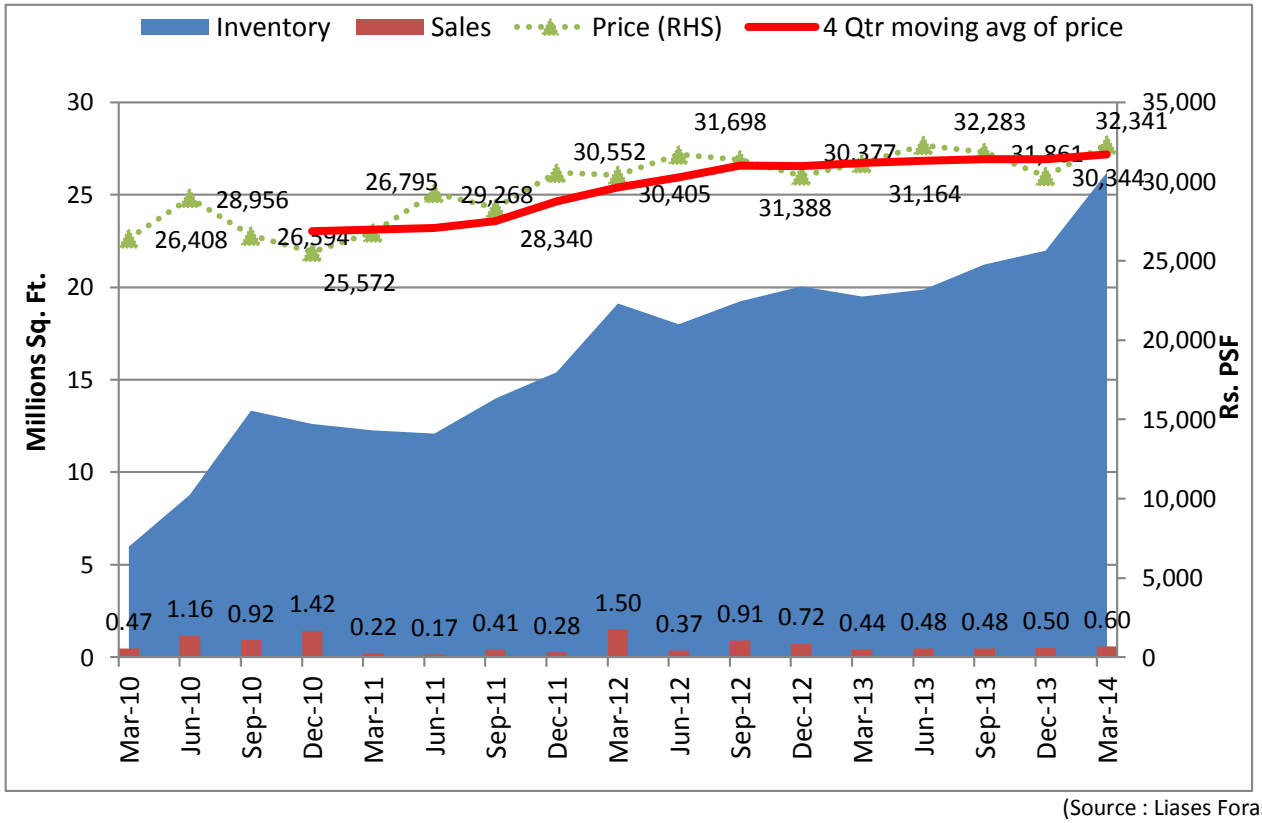
(Source : Liases Foras)

The study of sales generated in the last year from March 2013-March 2014 shows that the maximum sales have taken place in the Western suburbs and Navi Mumbai. Only 5% of sales were generated in the Island city. The impact of price increase can be further seen in the unsold stock of Island city that comprises 16% of the total unsold stock of the MMR market.

Island City Market summary

This section discusses about the market sales and supply break up in the island city over a period of 4 years from march 2012-2014.

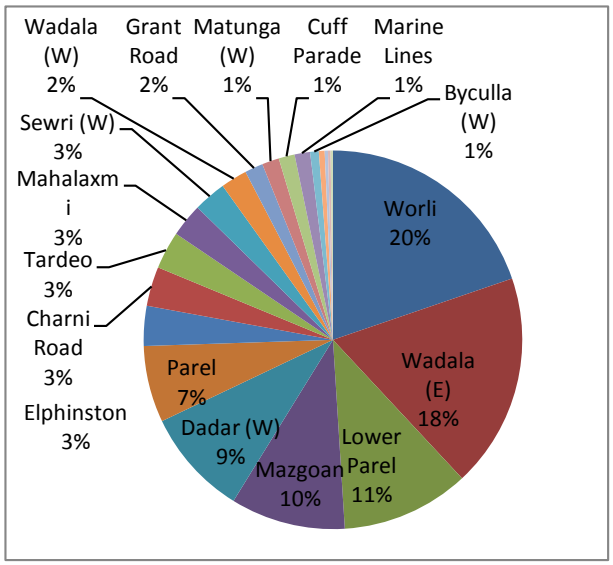
Graph 5 Island City Market Summary



(Source : Liases Foras)

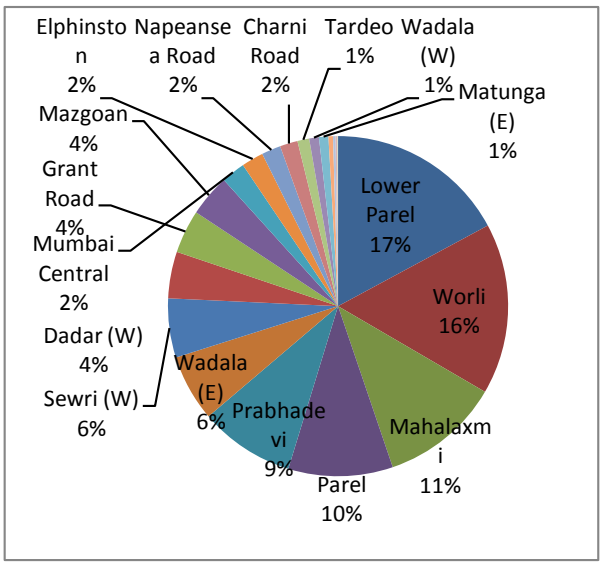
The graph depicting the Island city market summary clearly shows the rising price of projects and the sluggish sales generated thereof. As a result, the inventory has piled up in the market. It is observed that the price has remained more or less constant in the last two years from Sept 2012 to March 2014; however there has been no significant increase in sales.

Graph 6 Composition of Sales in FY 13-14



(Source : Liases Foras)

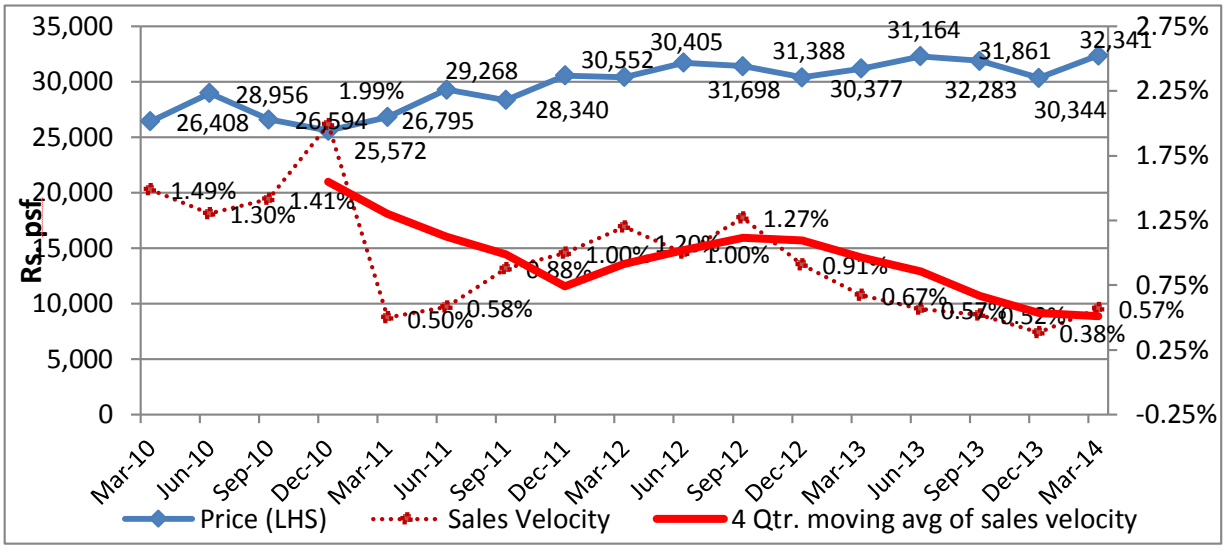
Graph 7 Composition of Unsold stock March 2014



(Source : Liases Foras)

The pie-chart depicting composition of sales and unsold stock of the micro level catchment area show that Worli, Wadala, Lower parel, Mazagaon have witnessed the highest sales and unsold stock as compared to the other areas. Tardeo has had sales of 3% in FY 13-14 and a lesser percentage of unsold stock, just 1%, in March 14.

Graph 8 Price & sales Velocity



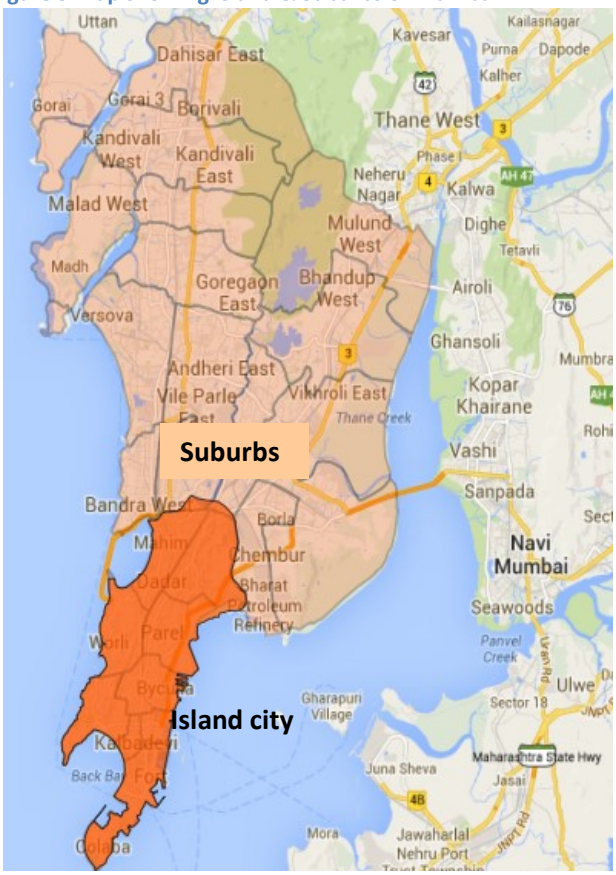
(Source : Liases Foras)

The study of Price and corresponding sales velocity of the Island city shows that the price has remained inefficient and sales velocity has remained sluggish. Slight improvement is observed in the last quarter of FY 2013-14, this is due to increase in sales of Parinee Exclusive In. Ajmera Aeon, HBS Towers, India Bulls Bleu ,ICC (new projects).

Catchment Analysis

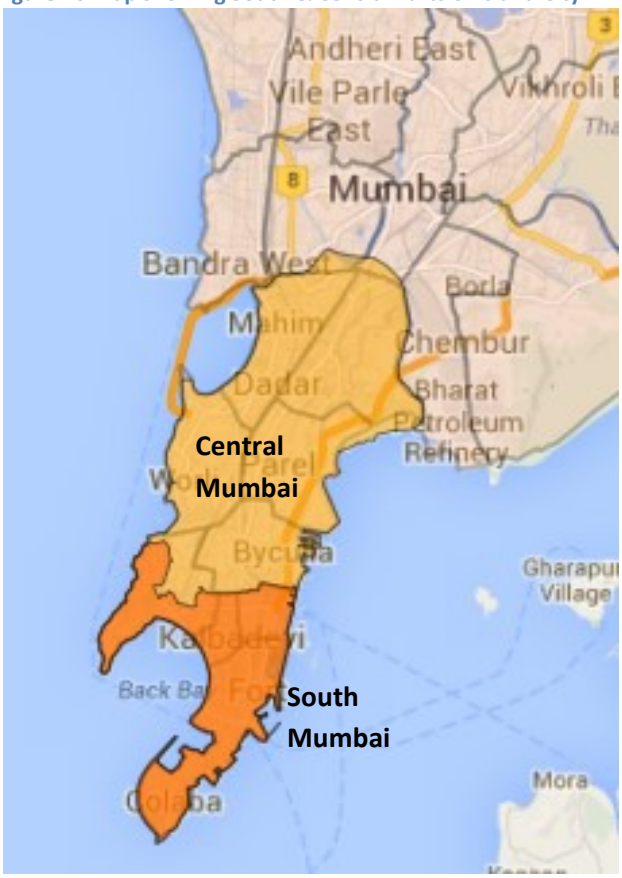
The catchment area has been delineated keeping in view the similarity in market with respect to economic density and prices prevailing in the area. The next level of study assesses the supply sales dynamics of the micro market. The following figures indicate how the delineation of the catchment area has been done.

Figure 9 Map showing Island & Suburbs of Mumbai



(Source: Liases Foras Base Map : Google earth)

Figure 10 Map showing South & Central Parts of Island City



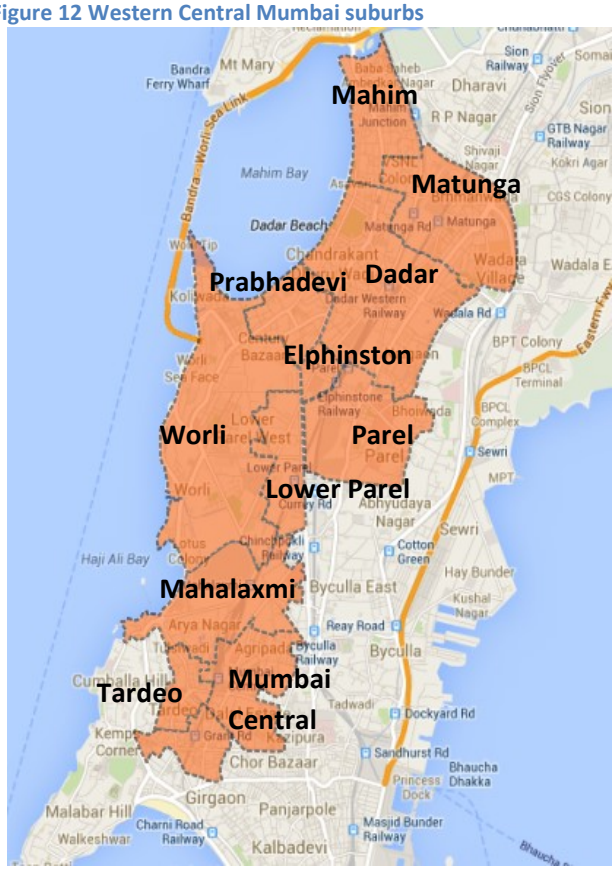
(Source: Liases Foras Base Map : Google earth)

The first map shows the location of Island City and Suburbs in Mumbai. The second map illustrates the South and Central parts of Island city. South Mumbai demography comprises of a very effluent population living in posh localities. Central Mumbai comprises of slightly low-end demography where the high-income groups live with the middle-income groups of the society In the same localities with Slum pockets existing in between areas.

Figure 11 Western & Eastern Central Mumbai

(Source : Liases Foras, Base map : Google earth)

Figure 12 Western Central Mumbai suburbs



(Source : Liases Foras, Base map : Google earth)

Central Mumbai has been further divided into two regions, Western Central Mumbai and Eastern Central Mumbai. As the Eastern part comprises of slightly low-end demography compared to its western counterpart, and is similar in economic density to our subject site, the western central Mumbai region has been considered as the micro market. The pricing levels and the development in each of these locations of western central Mumbai is also similar to our subject site and hence delineated as micro catchment area.

Catchment Market Summary

Supply has witnessed a significant surge in last one year with sales surging and then decreasing in the last quarter this year. The catchment market has not seen a significant price rise in last 5 quarters in fact it has witnessed a correction in the third quarter this year. Business Turnover has increased two fold on yearly basis but has decreased by 28% in the last quarter this year.

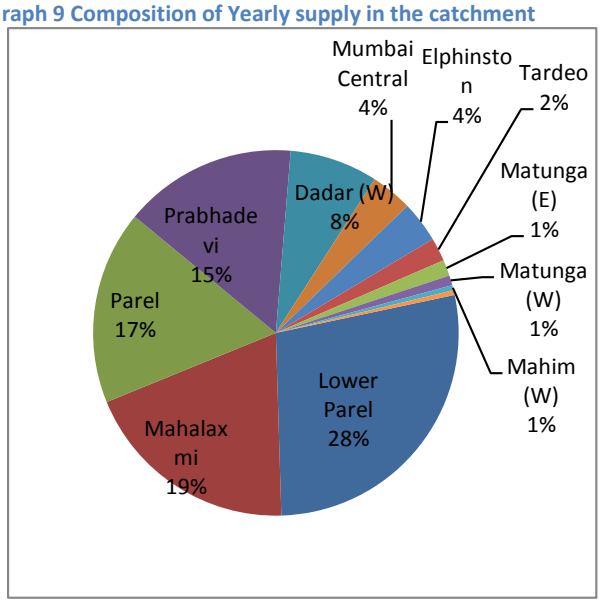
Table 3 Catchment Market Summary

Particulars	Q4 12-13	Trailing 12 Months				QoQ	YoY
		Q1 13-14	Q2 13-14	Q3 13-14	Q4 13-14		
Supply in Sq.Ft.	132.1	137.6	147.6	156.8	195	24%	48%
Supply in Units	3,957	4,128	4,594	5,001	6,048	21%	53%
Sales in sq.ft.	2.4	3.0	3.6	4.1	3.5	-15%	46%
Sales in Units	120	123	152	122	145	19%	21%
Price (Rs. PSF)	34,911	35,990	35,327	32,633	34,669	6%	-1%
BT (in Rs. Crore)	659	988	1,173	1,456	1,054	-28%	60%

(Supply and sales Stock Figures are in Lac Sq.Ft.)

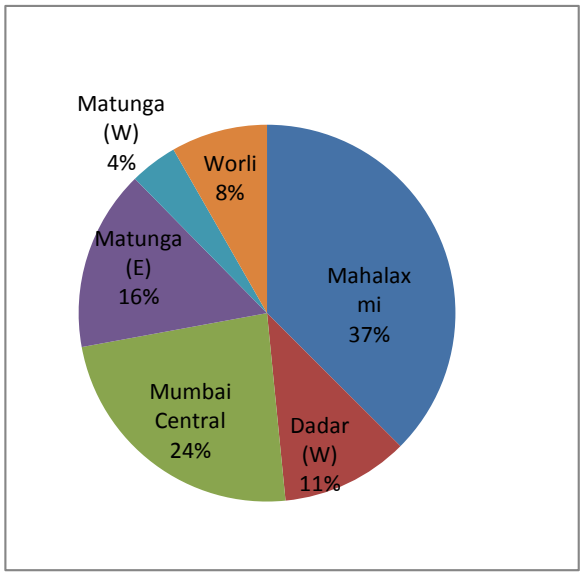
The above table depicts a constant increase of supply in the catchment area since Q4 2013-2014 which amounts to 53% increase in supply yearly. The quarterly sales are merely 2-3% of the quarterly supply.

Graph 9 Composition of Yearly supply in the catchment



(Source : Liases Foras)

Graph 10 Composition of New supply in the catchment



(Source : Liases Foras)

The study of annual supply to the Catchment area reveals that the maximum supply has been in Lower Parel and Mahalaxmi with 28% and 19% respectively. Tardeo has a supply of 2% in last year. The study of new supply to the catchment area shows that Mahalaxmi and Mumbai Central have the maximum new supply with 37% and 24% respectively.

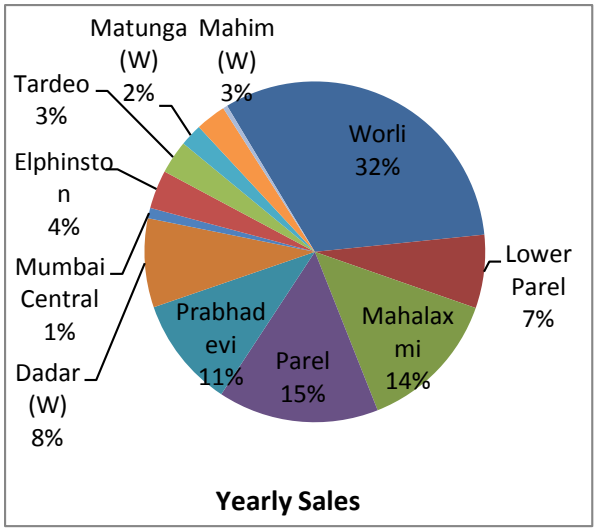
Table 4 Composition of Supply in Catchment area

Location	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2013-14 New Supply
Worli	21.64	22.92	22.03	45.87	12.19
Lower Parel	32.02	25.75	30.38	44.54	
Mahalaxmi	41.85	29.77	27.04	30.87	5.49
Parel	1.88	12.02	18.98	27.42	
Prabhadevi	18.35	27.72	27.45	24.50	
Dadar (W)	10.68	8.40	11.95	12.47	1.60
Mumbai Central	1.61	1.50	0.74	5.90	3.47
Elphinston	0.00	0.00	0.00	5.83	
Tardeo	2.57	3.17	3.38	3.31	
Matunga (E)	0.17	0.01	0.00	2.28	2.27
Matunga (W)	0.00	1.91	1.91	1.39	.60
Mahim (W)	0.38	1.03	1.02	0.73	
Dadar (E)	1.41	0.98	0.90	0.67	
Lalbaug	0.30	-0.20	0.00	0.00	
Grand Total	**134.71**	**136.05**	**146.86**	**206.82**	**2.56**

(Supply Stock Figures are in Lac Sq.Ft.)

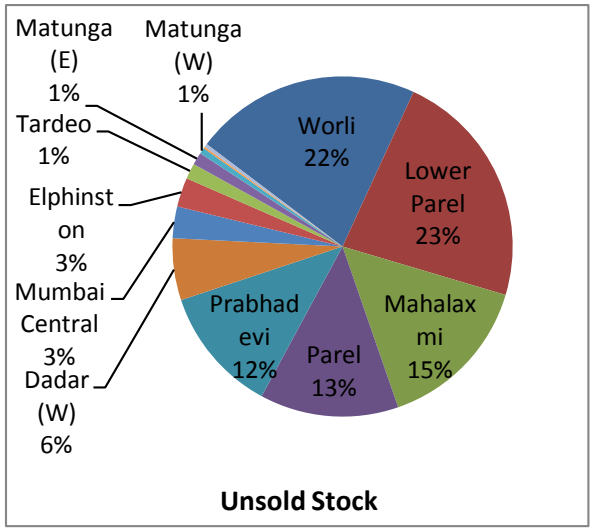
Tardeo has witnessed an increase in supplies from FY 2010-14 from 2.57 to 3.31 lacs Sq.ft. there is no notable new supply in Tardeo as of FY 2013-14.

Graph 11 Annual sales in Catchment area



(Source :Liases Foras)

Graph 12 Unsold stock in catchment area



(Source :Liases Foras)

The pie-chart depicting composition of annual sales and unsold stock in the catchment area show that Worli, Lower parel, Mahalaxmi, Parel and Prabhadevi have witnessed the highest sales and unsold stock as compared to the other areas.
Tardeo has had sales of 3% in FY 13-14 and a lesser percentage of unsold stock, just 1%, in March 14.

Table 5 Sales in catchment area

	Sales				Unsold As on Mar 2013
Location	2010-11	2011-12	2012-13	2013-14	
Worli	9.62	0.05	1.54	4.55	41.31
Lower Parel	11.72	0.3	1.29	0.99	43.55
Mahalaxmi	5.03	2.73	2.79	1.94	28.92
Parel	0.43	0.08	6.29	2.17	25.25
Prabhadevi	0.91	0.3	1.03	1.49	23.00
Dadar (W)	2.15		1.25	1.2	11.26
Mumbai Central	0.4	0.77	0.25	0.14	5.76
Elphinston				0.52	5.31
Tardeo	0.86		0.72	0.45	2.85
Matunga (E)	-0.37	0.01			2.27
Matunga (W)			0.36	0.3	1.09
Mahim (W)	0.05		0.3	0.41	0.31
Dadar (E)	1.11	0.09	0.27	0.06	.60
Lalbaug	0.3	-0.2			0.00
Grand Total	**32.42**	**4.12**	**16.09**	**14.22**	**192.60**

(Sales Stock Figures are in Lac Sq.Ft.)

A study of the annual sales in the catchment area shows that worli has had the highest sales with 32% followed by parel with 15%. Tardeo had an annual sales percentage of 3%. Considering the unsold stock in the catchment area, Lower Parel has the maximum unsold stock with 23% followed by Worli with 22%. Tardeo comprises of only 1% of unsold stock.

Price Movement

Price arbitrage plays a critical role in determining sales in the catchment area.

Table 6 Price Movement

Location	FY10-11	FY11-12	FY12-13	FY13-14	CAGR
Dadar (E)	14,675	24,397	26,065	26,821	16%
Dadar (W)	19,080	27,874	43,956	45,219	24%
Lower Parel	21,162	26,742	26,815	29,898	9%
Mahalaxmi	28,034	36,137	38,754	39,793	9%
Mahim (W)	24,078	24,204	23,410	25,301	1%
Matunga (W)		18,741	20,310	23,959	-
Mumbai Central	21,103	22,425	22,194	27,841	7%
Parel	16,871	23,338	23,085	21,621	6%
Prabhadevi	30,292	34,889	39,482	37,903	6%
Tardeo	43,060	37,224	43,078	42,602	0%
Worli	32,965	30,580	33,362	39,515	5%
Grand Total	**27,027**	**31,685**	**33,956**	**34,607**	**6%**

(Price per Sq.Ft.)

Most of the locations in the catchment have a very low CAGR of prices, less than 8%, which is not even enough to cover the inflations in the market. As the industry is looking at a growth rate of 14-15% for prices, these locations are very much below the level. But since the prices are already high a radical change in the prices is not expected.

Months Inventory Movement

With the increase in new supply and decrease in sales and hence increase in overall inventory the months inventory is increasing drastically every year. The higher the months inventory depicts how over supplied the market is.

Table 7 Months Inventory Movement

Location	FY10-11	FY11-12	FY12-13	FY13-14
Dadar (E)	3	NA	29	114
Dadar (W)	47	NA	103	113
Lower Parel	21	122	270	526
Mahalaxmi	88	186	104	179
Mahim (W)	83	40	29	9
Matunga (W)	-	255	51	44
Mumbai Central	36	14	23	503
Parel	41	78	24	140
Prabhadevi	230	147	308	185
Tardeo	24	201	44	76
Worli	15	175	160	109
Grand Total	**38**	**148**	**97**	**162**

(Source : Liases Foras)

Months inventory is seen to increase drastically in the financial years from 2010-2014. Tardeo witnessed a high months inventory in the financial year 2011-12 from 24 in the previous year to a whopping 201. It later reduced to 44. It has seen increasing since 2012-13 to 2013-14.

Prospective Outlook of Supply

Island City is going through a phase of redevelopment. The process of gentrification (demographic transformation) that prevalent in island city is a relatively recent & incomplete phenomenon that was started after 2009. The redevelop able area is calculated taking into consideration the area under slums, chawls & closed textile mills and development control regulations applied in island city.

Table 8 Land Area under Chawls, Industries & slums

Row Labels	% of land area	Land Area in sq.km.
Chawls	12.36	1.01
Industry	52.20	4.27
Slums / Clusters	35.44	2.90
Total	**100**	**8.18**

(Source : Liases Foras)

Central Mumbai Slums, industries and chawls

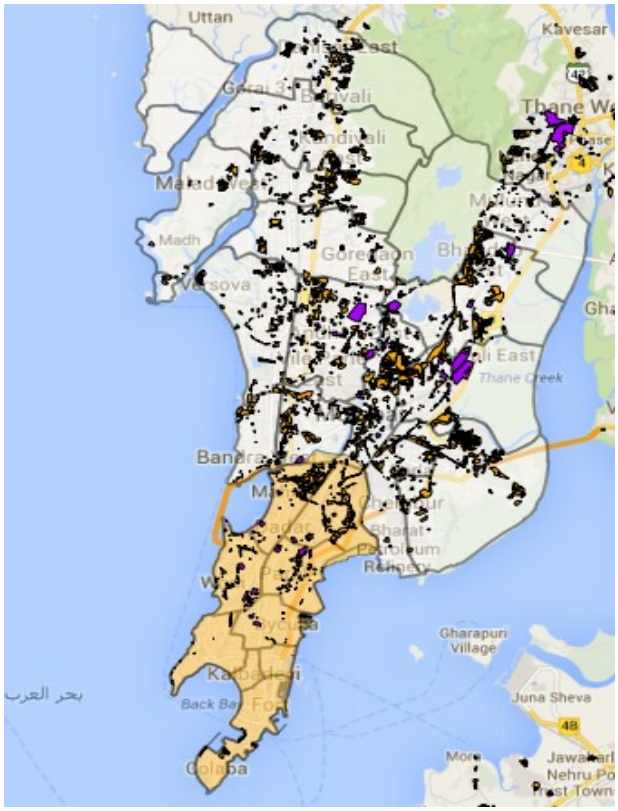
Slums are fairly widespread and account for over 50% of the population with the main concentration in the suburban zone. The slum Transfer of Development Rights (TDRs) introduced in 1997 has helped to kick-start the slum redevelopment schemes.

In the latter part of the 19th century Mumbai became established as an important industrial center with the textile industry dominating its economy that developed on the outskirts of the then populated areas in Central Mumbai. The manufacturing sector began to decline from the 80s and a number of textile mills became “sick”. As the D’Souza report of 1997 points out, this is an area where vast spaces are underutilized and various proposals are under consideration. At present, a few piecemeal attempts at gentrification have resulted in tall skyscrapers developing side by side with the industrial chawls. In fact, the heart of the textile area has witnessed the entry of shopping arcades, bowling alleys, and other up-market developments.

Chawls were constructed in abundance in the early 1900s to house the people migrating to Mumbai because of its booming cotton mills and overall strong economy. Chawls in Mumbai is a unique housing typology evolved during end-19th century / early 20th century. These are high-density tenements “stack-piled” horizontally as well as vertically with shared utilities. With increasing land values and development pressure, there are proposals for redevelopment of these chawls so as to provide occupants better housing and also to optimize the development potential of the land.

There is about 8 sq.km of land under slums, chawls & non functional mills that can be re-developed in future on the horizon of 60 years with current average annual new supply.

Figure 13 Slums & industries in Mumbai



(Source : Liases Foras Base Map : Google Earth)

Gentrification Case Study: London

Gentrification is the name given to the process in which the original working class inhabitants of an area are replaced by upper class societies and the social character of the neighborhood is changed completely. Gentrification in Mumbai is explained through the case-study of London.

The Cycle of Gentrification in London is explained as follows:

Urbanization
After the Second World War, the core city part of London started decaying.

Suburbanization
Migrants from East Europe and commonwealth started living in the unoccupied houses of the core city and with lower class that were also looking for work in the city centre. The higher classes started moving out to live in the suburbs. Industrialization happened and more and more room colonies started building in the empty houses.

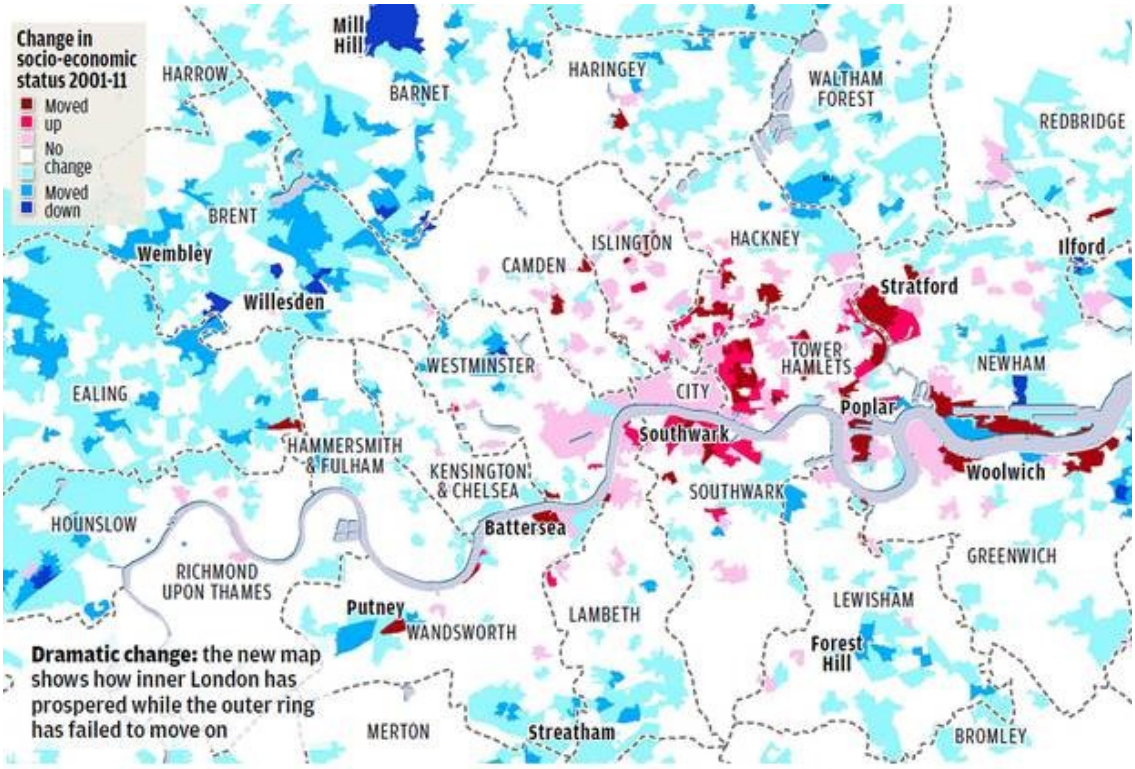
"The Urban Renaissance" (Post Industrialization)

Workers and Young Professionals started converting the unused manufacturing buildings in the new lifestyle called "Loft Living" with shared toilets. More manufacturing units started converting into Pubs, cafes and restaurants to cater to the young professionals working in Central London.(Commercialization started taking place).New Concepts of Neighborhood and Community living started emerging.

"The Industrial Aesthetics"(Revenchism)

While the commercialization was taking place at a faster pace, developers started converting the mill lands and buildings into high end residential apartments. After the decentralization of financial institutions, London became the financial capital of United Kingdom. These residential areas were catering to high-end professionals working in financial institutions, stock exchange and high-end law firms. Builders were dedicated to provide "exclusion" to the wealthy and city core is full of "High Quality Consumption Products" and became "The Ghetto of Wealth".

Figure 14 Cycle of Gentrification in London



The map above shows change in socio economic status of London, where the suburbs around the city of London have moved down and the counties in core city has moved up. The indications clearly show the gentrified London City where the wealthy have moved from suburbs.

Gentrified London: Bansbury, Islington County

Bansbury is a residential neighborhood in the north London borough of Islington, located approximately 3 kilometers from the City of London. It was built as an upper-middle-class suburb in around 1820 on hilltop fields stretching northwards; the housing is composed of terraces and free

standing villas. This neighborhood has experienced the maximum degree of gentrification in all stages explained earlier. Bansbury is experiencing the stage of "Super Gentrification" or "Financification" at this time which is considered to be the highest degree, though it is also said that Gentrification is constant.

Figure 15 Bansbury, Islington County

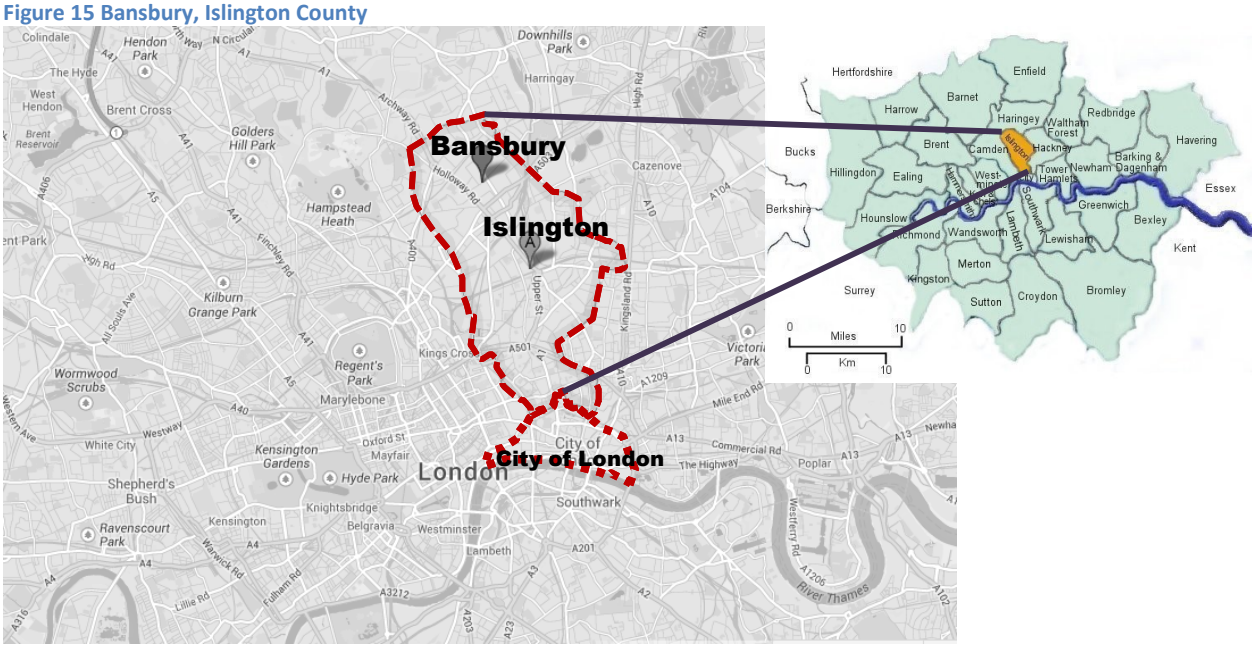


Figure 16 Gentrification in Bansbury, London

Bansbury's terraced apartments have been converted to luxury individual housing with larger sizes.

First wave of Gentrification (1950-1975)

Post World war, the original landlords built societies and gave them on rent to the commonwealth migrated population and mill workers. As the development of the area started taking place, market rate of lands increased from £1200 in 1955 to £100,000 in 1971. As the developers started realizing the capital gains and landlords had to settle for very less returns from the tenants due to Rent Act, 1957; the landlords started selling their properties to developers who built apartments for the middle class families. Government provided them with tax benefits for developing rundown areas through Housing Act, 1969 which was also called "Aided Gentrification Process". Due to state intervention, number of middleclass families increased and more and more people moved in.

Second wave of Gentrification (1975-1997)

By the late 1970s, property speculation had dampened significantly as gentrification became firmly anchored in Barnsbury. In the 1980s, larger conversions were replaced by smaller-scale conversions. For example the conversion of single-family townhouses into one- or two-bed flats. With London becoming the centre of economic finance and de-centralization of stock exchange in 1986, stratification improved in the city. Commercial Gentrification happened in the late 1980s where old agricultural hall got converted into Business Design Centre.

"The Slowdown" took place from 1987 to 1992 due to several reasons like stock market crash, increased interest rates and development of nearby areas taking the charm of the neighborhood. In spite of this slowdown, due to commercial gentrification, property prices increased from £100,000 in 1971 to £ 208,125 in 1991.

Third Wave of Gentrification (1997- 2006)

Also called the post recession gentrification period, experiencing immense growth of economic and financial sector. By 1997 there were 479 foreign banks, by the end of 1990s the number increased to 550. Jobs in investment banking, merchant banking, equity sales and research increased dramatically. From 1995 to 2001, investment banking increased by 43%,

national security training by 167% and city employment grew by 1.1% annually. The salaries grew sharply in the decade of 199s to 2001 by 25-30%. Differential revenues rose by 40-60%. Gentrification began to change both, qualitatively and quantitatively due to three types of pressure coming from the market. 1) Money 2) Space Crunch 3) Gentry with money to buy space. Era of Urban Renewal, Rehabilitation, Physical Improvements. These urban developments dominated rapid price escalations. Tension begun between the old residents and the new gentry, tenants in bad housing felt threatened and started moving out. Larger conversions happened during this period. Shops and offices developed were only catering to the upper class of the neighborhood. In this period, property prices rose to £ 1.2 million.

Fourth Wave of Gentrification, "Super Gentrification" (2006 – Today)

The Global Elites chose to colonize in the already gentrified neighborhood. A new group of super-wealthy professionals working in the City of London is slowly imposing their mark on this inner London housing market by displacing the original middle class and traditional urban upper class gentrifiers. Today, two third of the Bansbury population belongs to the global elites living in luxurious apartments.

Gentrification in Mumbai

Mumbai is presently undergoing the Fourth wave of gentrification i.e. "Super gentrification" that London experienced from 2006 wherein super-wealthy professionals working in the Mumbai core city are slowly imposing their mark in the Central area housing market by displacing the original middle class and lower income groups of people.

The process of present gentrification in Mumbai started after the closure of the textile mills in the 80's and the recent introduction of the Cluster development policy. Under this policy, about 8 sq km of area is likely to be redeveloped.

Gradually under this process, the rehabilitated buildings are coming up and the prices of the saleable and even the rehabilitated residential buildings are shooting up. As the higher gentry comes in, the economic density of the area is changing to a high-income category. Due to quick capital gains it is very likely for the original inhabitants to sell off their rehabilitation dwelling units and move to the suburbs.

In the next wave of gentrification eventually, the area will become high-end replacing even the rehabilitated buildings with flashy buildings.

Figure 17 Image showing abandoned mill compound & new buildings coming up on redevelop able lands

Outlook of supply

About 3 sq.km. of area in the catchment falls under slums, chawls and industrial land where redevelopment can take place.

Table 9 Land under catchment area

Catchment Wards	Slums (A)	Industrial Land (B)	Chawls (C)	Total (A+B+C)
G/S	0.51	0.90	0.35	1.76
G/N	0.20	0.22	0.24	0.66
F/N	0.18	0.05	0.01	0.24
F/S	0.04	0.08	0.05	0.17
E	0.00	0.10	0.01	0.11
D	0.04	0.00	0.03	0.07
Total	**0.97**	1.35	**0.69**	3.01

(Area in Sq.Km.)

The land under different wards under the catchment areas is stated in the above table. Ward G/S has the highest land cover of around 1.76 sq.km. out of the total 3.01 sq.km falling within the catchment area.

Table 10 Development Potential

Cumulative Development Potential	753.8 Lac sq.ft
Average Flat Size	1800 sq.ft.
Total Units Possible	41,878
Total No. of People	2,09,390

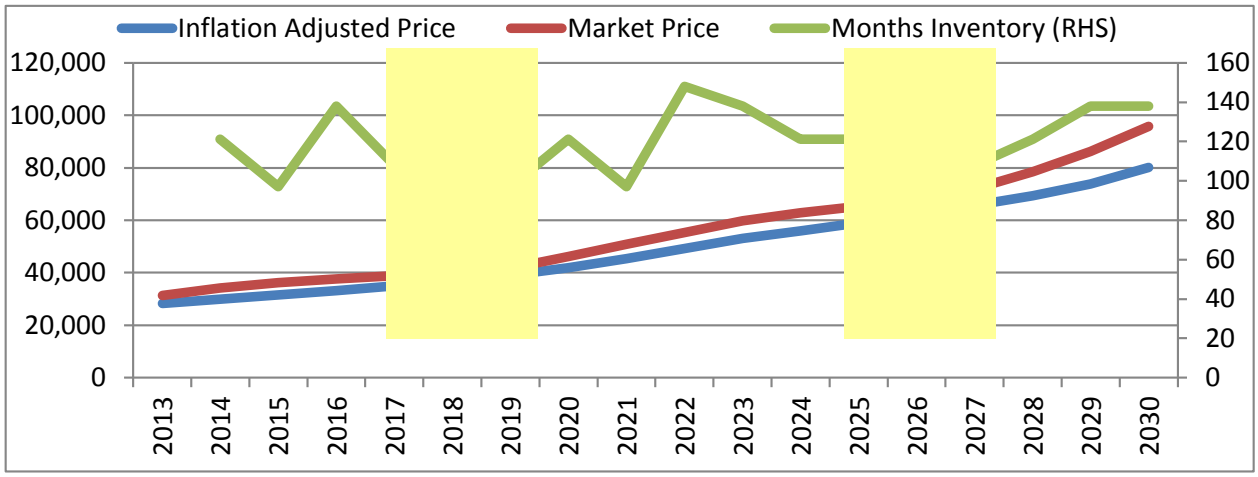
(Area in Sq.Km.)

According to average annual supply, it will take approximately 22 years to develop this 753.8 lac sq.ft. which will further bring in a population of 2.09 lac. This suggests the reversal of trends seen in last decade where the population declined in the Island City with a rate of 1.91%.

Future Projection Considerations

Based on the market price, months inventory and inflation, future sales and inventory with their respective price range is projected in this section. The section will further prove fruitful while launching the pricing strategy for the products.

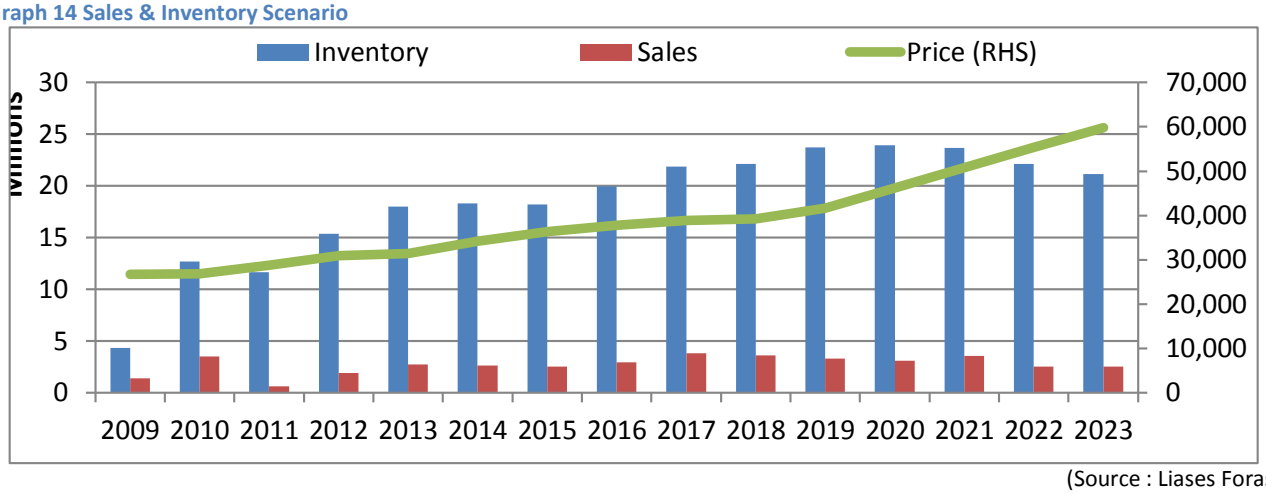
Graph 13 Typical Real Estate Economic Pattern



(Source : Liases Foras)

It was observed that market follows a cycle of seven years approximately where it swells and shrinks. A similar pattern is seen in price which is directly-indirectly affected by this shift in market and vice versa. So the same cycle is considered for future projection where it is assumed that after 2010 the next boom in the market will be around 2017.

Graph 14 Sales & Inventory Scenario



(Source : Liases Foras)

The correction or shrink in the market can be observed in the months inventory trends which is directly related to the price trends. It is also observed that the prices in Island city have seen a reasonable increase in the last five years almost just covering the inflation.

Product Analysis

This section deals with the various products available in the market. It gives a detailed analysis of the size of the product that sells best in the market and also the cost range of the same.

The market under catchment area, immediate catchment area and competitive project was studied based on their sales and unsold stock comparison. This comparison was carried based on the values obtained for the financial year 2013-14.

Table 11 Comparison of Typology at three level of market

Typology	Sales- FY 13-14			Unsold Stock FY 13-14		
	Catchment	Immediate Catchment	Competition Projects	Catchment	Immediate Catchment	Competition Projects
1BHK	0.36	0.08	-	0.83	0.12	-
1 1/2 BHK	0.02	0.02	-	0.25	0.06	-
2BHK	1.80	0.42	-	12.11	4.22	-
3BHK	4.64	2.15	1.43	47.18	20.27	14.78
4BHK	5.11	2.42	1.76	79.13	37.22	20.53
5BHK	0.96	0.62	0.69	31.48	3.38	6.40
Duplex	1.46	1.30	0.93	16.62	12.26	11.03
Penthouse	0.00	0.00	-	0.87	0.79	-
Triplex	0.07	0.07	-	0.54	0.54	-
Others	0.28	-		1.87		
Grand Total	14.71	7.07	4.80	190.88	78.87	52.74

(Figures in Lacs sq.ft.)

It was observed that generally there is a sale of approximately 8-12% of the unsold stock in all typologies.
3BHK and duplexes are performing better than 4BHK and have high sales in all three levels of market.
5BHKs are not performing well in the catchment market and have sales less than 10% of their unsold stock.

The market in catchment and immediate catchment was studied in detail and as per discussion it was understood that a product analysis of competitive markets would prove to be more useful than studying the entire catchment.

The next section deals with the analysis of competitive projects in detail.

Product in Competitive Projects

A micro level product analysis was done to understand the product mix of competitive projects of Island City.

Figure 18 Competitive projects

(Source : Liases Foras, base map : Google earth)

Redefining Catchment for Product Analysis

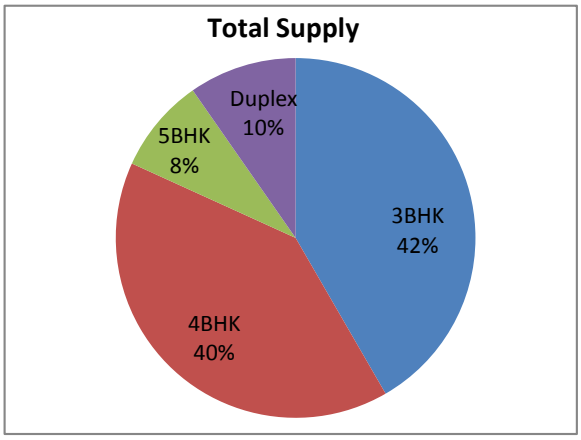
The projects for product analysis are selected based on the attributes and location. The projects which can be competitive to the subject site as selected are:

- 1972 Omkar
- Ahuja Tower
- HBS Tower
- Minerva
- One Avighna Park
- Vivarea
- World Tower

Product in Selected Competitive Projects

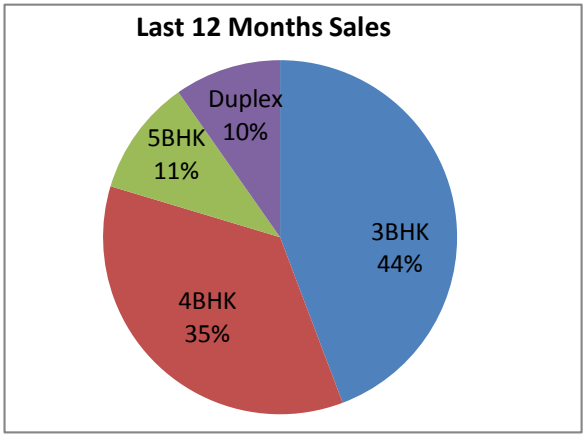
This section deals with the total supply of products and their respective percentage break up from amongst the selected competitive projects in the immediate catchment area.

Graph 15 Total Supply



(Source : Liases Foras)

Graph 16 Months Sales



(Source : Liases Foras)

From among the total supply of competitive projects in the catchment area, 4BHKs are maximum in number followed by 3BHK, Duplex and 5BHK. Similarly, from among the total sales of competitive projects in the catchment area, 3BHKs sell the most followed by 4BHKs, 5BHKs and Duplex.

Table 12 3BHK Area Range Analysis (Competitive Projects)

Area Range (Sq.Ft.)	Total Sold	Unsold Stock	Total Supply	Price (Rs. psf)	Sales Velocity	Efficiency Ratio
2500-3000	8.44	12.22	20.66	37,719	0.75%	100%
3000-3500	1.43	1.76	3.19	35,000	0.68%	17%
3500-4000	0.39	0.81	1.19	40,000	1.19%	4%
Grand Total	**10.25**	**14.78**	**25.03**	**37,521**	**0.75%**	

(Sales and unsold stock units are in Lacs sq.ft)

The area range of 2500-3000 sq.ft. is the most efficient area range for 3BHKs.

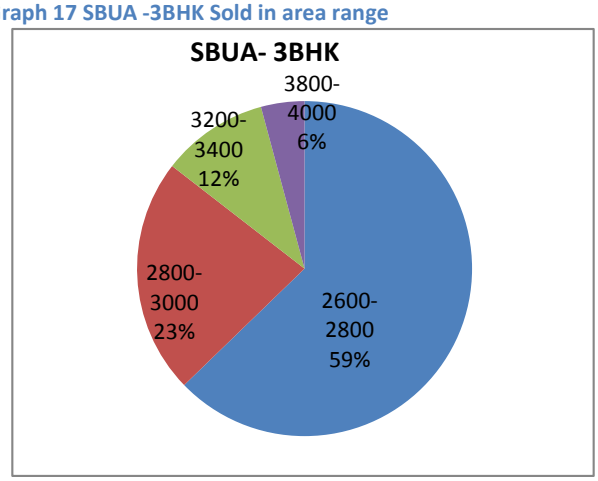
Table 13 4BHK Area Range Analysis (Competitive Projects)

Area Range (Sq.Ft.)	Total Sold	Unsold Stock	Total Supply	Price (Rs. psf)	Sales Velocity	Efficiency Ratio
3000-3500	2.23	1.50	3.73	36,148	1.24%	100%
3500-4000	1.83	12.88	14.71	40,905	0.69%	71%
4500-5000	2.02	3.70	5.73	37,950	0.92%	82%
5500-6000	1.77	2.11	3.88	38,000	0.55%	75%
6500-7000	1.71	0.34	2.05	40,000	1.74%	86%
Grand Total	**9.56**	**20.53**	30.09	**39,711**	**0.95%**	

(Sales and unsold stock units are in Lacs sq.ft)

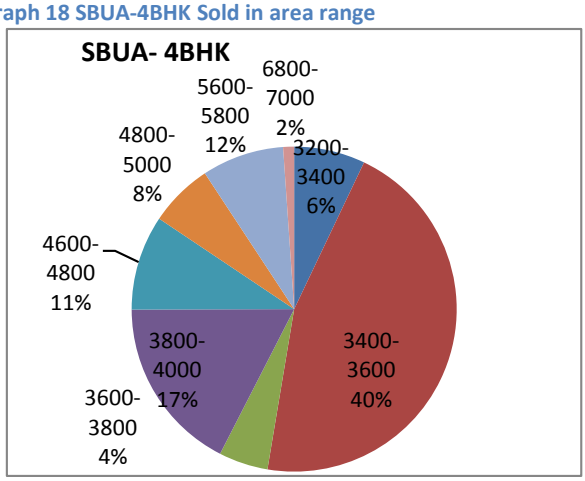
The best performing area range in 4BHK in the competitive projects is 3000-3500sq.ft. with projects like Minerva & Vivarea.

Graph 17 SBUA -3BHK Sold in area range



(Source : Liases Foras)

Graph 18 SBUA-4BHK Sold in area range



(Source : Liases Foras)

Inferences

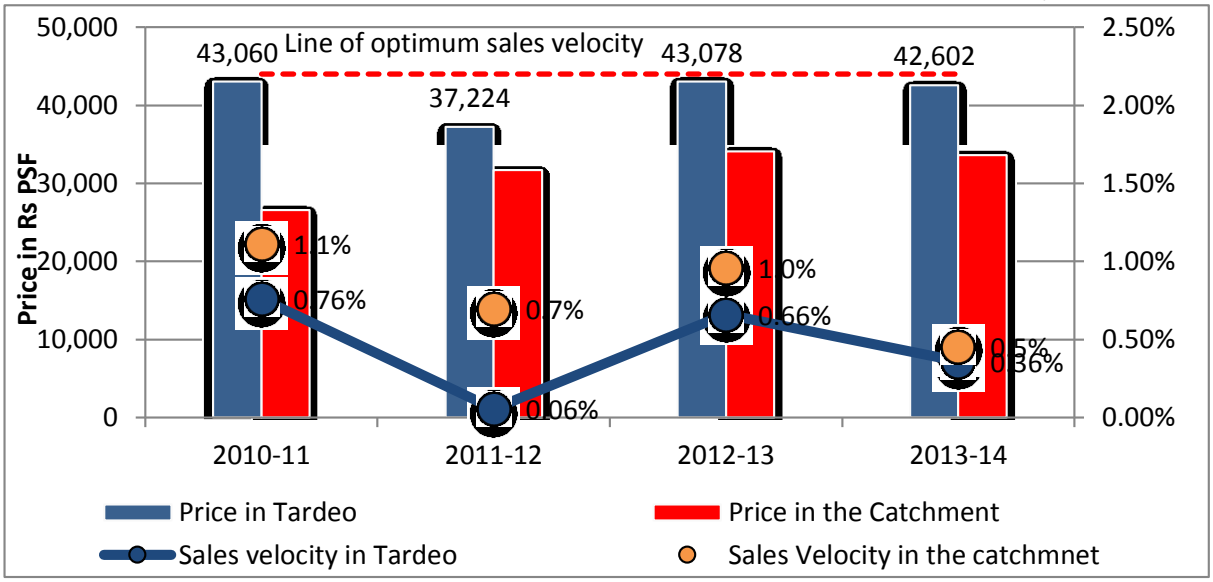
Among 3BHK, the best selling area is 2600-2800 which amounts to 59% of the total 3BHK sold.
Similarly among 4BHK, the best selling area is 3400-3600 which amounts to 40% of the total stock sold among competitive projects.

Pricing pressure

In this section we will analyze whether the rising pressure has an impact on the sales velocity. It also helps determine the rental yield in the market, whether it is optimum or is it below the optimum rental yield. It also includes price movement study in the secondary and the primary market and determines whether the market is moving towards price correction.

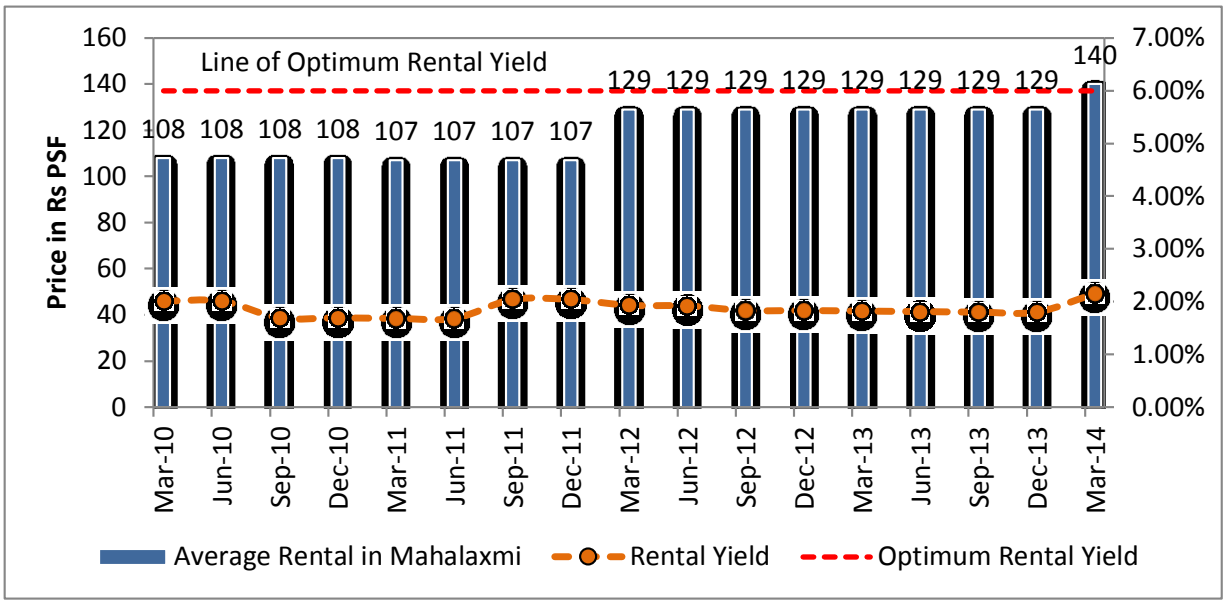
Graph 19 Sales Velocity

(Source : Liases Foras)



There is an increasing Price and depreciating Sales Velocity in the catchment area & Tardeo. The market has remained constantly inefficient. The worst performance was seen in 2011-12, with the sale velocity dropping down to 0.05%, even after the price came down to Rs 37,224 in Tardeo. With the increase in price the sales velocity is constantly coming down.

Graph 20 Rental Yield



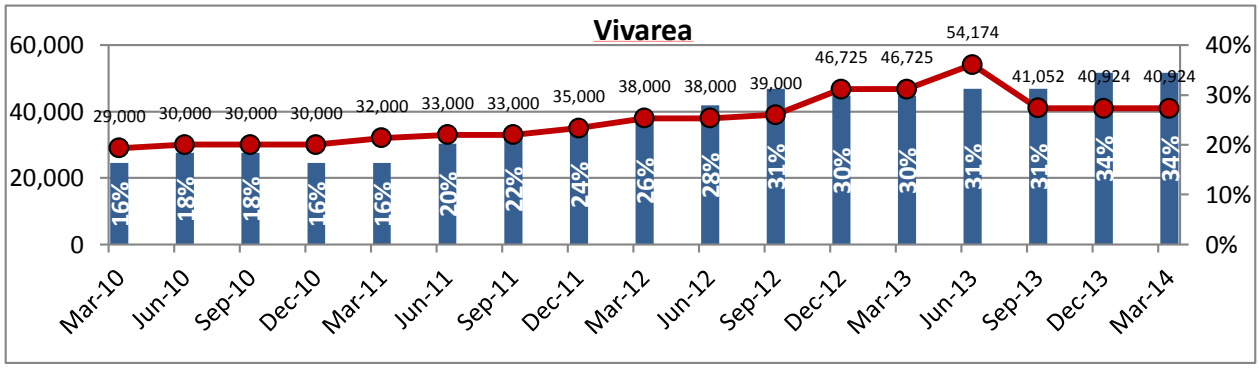
(Source : Liases Foras)

Rental Yield is far below the optimum rental yield of 6%. In an efficient market, the rental yield for the high end product should be 6%. The pressure of rising price is having impact on the rental yield, which has constantly remained around 1.86% .

Price Determination

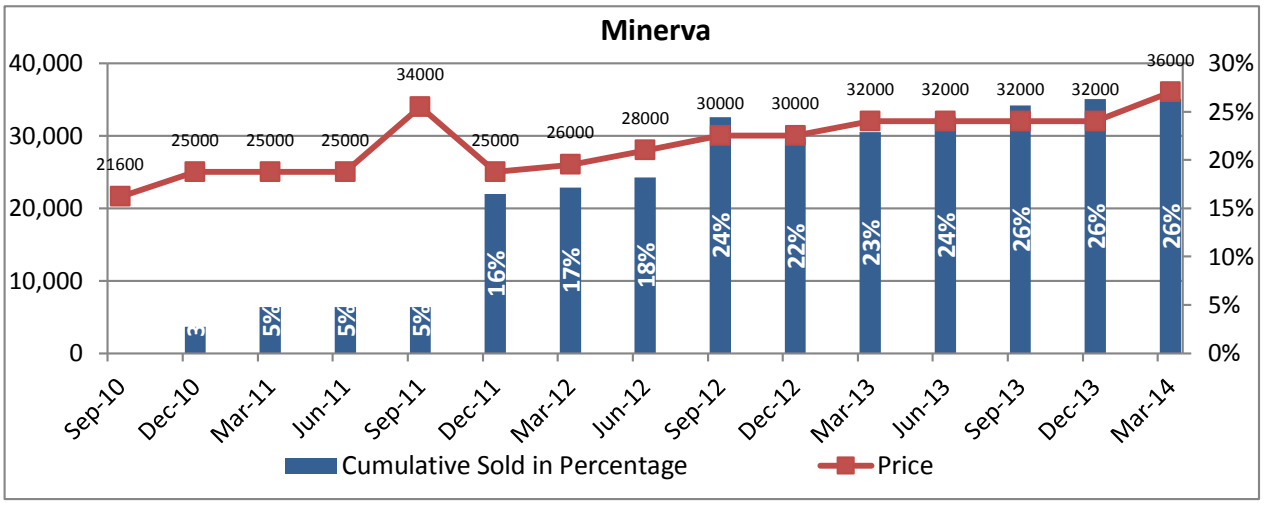
This section deals with the factors which help determining the price of the project based on the prices offered by competitive projects around the catchment.

Graph 21 Price v/s Cumulative Sold in percentage - Vivarea



(Source : Liases Foras)

Graph 22 Price v/s Cumulative sold in percentage - Minerva



(Source : Liases Foras)

In the initial phases most of the projects have sold at a lower price than the market price.

Projects like Minerva and Vivarea also sold considerable amount of their stock before increasing their prices.

So the ideal strategy would be to start with a lower price, sell off an amount of inventory and after the equity is recovered increase the prices as per the market response.

Table 14 Market price v/s Price at launch of project

Projects	Launch Date	Launch Price	Market Price at the time of launch
1972 Omkar	Jan-12	28000	31280
	Dec-13	38000	39,768
Ahuja Tower	Jan-10	33350	26,170
	May-10	36500	28,838
HBS Tower	Aug-13	41000	39,660
Minevra	Aug-10	21600	26,486
One Avighna Park	Nov-10	28500	30,395
Vivarea	Dec-07	32000	38,170
	Jul-08	40500	45,995
	May-13	40000	42,011
World Tower	May-10	26,406	35,000
	Aug-10	34,902	33,089
	Sep-10	31,034	33,089

(Source : Liases Foras)

The current weighted average rate in the immediate catchment market is of Rs.38,225 PSF.

So in that case we have three options:

- Go with the market price- Rs. 38000
- Reduce the prices and achieve higher velocities in the initial stages and increase the price at later stages as per market response (like most of the other projects)- Rs.35000
- Charge a premium for the product & location- Rs.41000

Chapter 4: Recommendations and Financial Analysis

Unit design Assessment

Each design is evaluated based upon the sizes, proportion and quality of living offered by the competitive projects. According to the mentioned parameters, important elements of the flat are graded.
The recommended product attributes (sizes) are defined based upon the prevailing best design offered in the market.
Based upon unit typology we selected the preferred design to recommend the space configurations.

Table 15 Unit Design Assessment- 3BHK

	Minerva		One Avighna Park		1973 Omkar		Vivarea		World Tower		Recommen-dation	
	L	B	L	B	L	B	L	B	L	B	L	B
Living	21	15	14	20							15	13
Living/Dining or Family Sitting	13	15			25	25	13.7	10.5	20	26	13.5	22
Dining	16	15	12	8							20	12
Kitchen	13	10	11	12	27	10	11	11	19	10	8	12
Utility	6	5			6	6			5	5.5	5	4.5
Bedroom 1	13	15	11	11	12	12	15.3	14	15	21	16	12
Bedroom 2	12	15	13	12	10	12	11	17	14	12	14.5	12
Bedroom 3	12	17	13	12	13	12	16	13	14	12	12	12
Toilet 1	12	8	6	8	6	9	10	8	9	9	12	6
Toilet 2	10	6	4	5	5	7	7	11	8	6	9	6
Toilet 3	10	6	6	7	5	7	7	10	8	6	9	6
Toilet 4	5	7	6	5	6	5	7	3	5	4	6	4
Terrace	49	11			25	6					12	4
Servant Room	8	7	9	7	6	6			8	6	6.33	6

(Source : Liases Foras)

Table 16 Unit Design Assessment- 4BHK

	Minerva		One Avighna Park		1973 Omkar		Vivarea		World Tower		Recommen-dation	
	L	B	L	B	L	B	L	B	L	B	L	B
Living	19.1	8.5			4	15					5	4.5
Living/Dining or Family Sitting	33	25.2	13	24			21.7	20.6	22.6	17.3		
Dining	13.7	7.58	13	24	14	22	20.4	15.4			20	26
Kitchen	13.3	10.8	16	18			11.8	20.8	23.6	13.3		
Utility	10.3	11.7	12	18	11	11	16.6	9.16	17.5	11.1	19	9.75
Bedroom 1	17.0	10.5	9	9			5.75	4.91	8.33	6.8	5	4.5
Bedroom 2	11.8	23.5	13	18	13	14	13.7	16.8	12.2	17.3	15	21
Bedroom 3	10.8	17.7	13	15	13	10	15.7	13.6	16.3	12.8	14	12
Bedroom 4	11.8	10.8	15	18	12	16	11.3	13.6	12.3	12.8	14	12
Toilet 1	13.1	19.7	12	15	11	10	13.1	13.6	12.2	17.3	14	12
Toilet 2	7.92	8.25	15	9	8	15	5.75	5.66	10.7	6.67	5	4
Toilet 3	6.92	8.33	13	9	7	12	9.9	8.16	6.17	9.67	9	8.5
Toilet 4	5.92	10.8	13	9	6	7	5.43	7.91	6.17	9.67	8	6
Toilet 5	12.1	17.8	9	8	6	5	5.43	7.91	10.7	6.67	8	6
Toilet 6			9	8	6	8	5.43	7.91	5	6.3	8	6
Terrace			9	6	5	6						
Servant Room	21.2	7.08							13.8	6.8		

(Source : Liases Foras)

Table 17 3 BHK Area Assessment

	Minerva	One Avighna Park	1973 Omkar	Vivarea	World Tower	Recommendation
Base Carpet (Sqft)	1799	1145	1538	1123	1633	**1650**
Loading	67%	57%	67%	54%	58%	**60%**
Total SBUA (sqft)	3044	2111	2568	2157	2770	**2640**
Grade attained	79%	69%	65%	64%	57%	**90%**

(Source : Liases Foras)

Table 18 4BHK Area Assessment

	Ahuja Towers	Minerva	One Avighna Park	1973 Omkar	Vivarea	World Tower	Recommendation
Base Carpet (Sqft)	3017	2801	1457	2208	2140	1849	**2172**
Loading	61%	67%	57%	67%	54%	58%	**60%**
Total SBUA (sqft)	5794	4677	2288	3689	3297	2923	**3476**
Grade attain	77%	61%	63%	65%	74%	57%	**85%**

(Source : Liases Foras)

Table 19 Suggested Product Mix

Product	% Share	Total SBUA	SBUA	Loading on SBUA	Carpet of Flat	No. of Units
3 BHK	58%	178,531	2,640	60%	1650	68
4 BHK	30%	92,344	3,440	60%	2150	27
Duplex	12%	36,937	6,080	60%	3800	6
Total Saleable	100%	307,812				101

(Source : Liases Foras)

Based on the above analysis of competitive projects and their sales and unit designs, a product mix has been suggested for Imperial Estate. Financial testing is done on this product mix, trying different prices and the off takes expected at the same.

Financial assessment

Financial analysis for the project is done to check its feasibility. Various options are presented in this section which helps us identify the best suitable option.

The table below gives cost assumptions to various parameters which they are anchored with.

Table 20 Assumptions for Financial analysis

Particulars	Cost Assumptions	Anchor
OOP	20,000	Saleable Area
Stamp Duty & Brokerage	7.00%	Land Cost
Consultants	3.0%	Construction Cost
Architect	1.0%	Construction Cost
Project Management	1.0%	Construction Cost
QS & Cost Management	1.0%	Construction Cost
Facility Management	0.0%	Construction Cost
Approval Cost	40	Saleable Area
Construction Costs		
3 BHK	2,400	Saleable Area
4 BHK	2,400	Saleable Area
Duplex	2,400	Saleable Area

Particulars	Cost Assumptions	Anchor
MHADA + Rehab Component	1,800	Saleable Area
Amenities	2,200	Saleable Area
Covered Parking	1,000	Parking Area
Infrastructure	100	FSI Utilised
Interest	14%	Debt
Sales & Marketing	2.0%	Total Revenue
Planning & Admin	2.0%	Total Revenue

(Source : Liases Foras)

Considering the above assumed costs, financial analysis for the project is done which is presented in the tables to follow.

Table 21 Comparison of options

(NPV, Peak Negative, Equity & Overall Revenue in Rs. Crore)

	Price (Rs. Psf)	Overall Revenue	Gestation Period	Realisat -ion	NPV	Peak Negative	Equity	NPV/ Equity	ROE (%)	IRR (%)	SV (%)
Option 1	35,000	1,248	79	41,223	363	228.4	114.2	3.2	38.0	56	1.26
Option 2	38,000	1,406	106	46,451	379	228.4	114.2	3.3	29.4	52	0.95
Option 3	41,000	1,593	130	52,613	385	228.4	114.2	3.4	25.0	47	0.77

As per the financial assessment it was seen that although the off-takes in the 3rd option is slower but due to higher price the NPV is higher. But even if the NPV is higher it can be seen that the project duration or the gestation is also much higher.

It was observed that the return on equity is better if the prices are kept lower since it improves the sales volumes to some extent. However, lowering the price than a certain level stops impacting the sales.

Table 22 Comparison of options in Stages

Share of sales	Stage 1	Stage 2	Stage 3
Option 1	25%	47%	28%
Option 2	20%	38%	42%
Option 3	15%	29%	56%

(Source : Liases Foras)

The project is divided in 3stages and the velocities are assumed accordingly. From the study of various projects it was found that a project sells approximately 25-30% in first stage before increasing their prices.

Chapter 5: Design Considerations

Master planning level- Imperial Estate

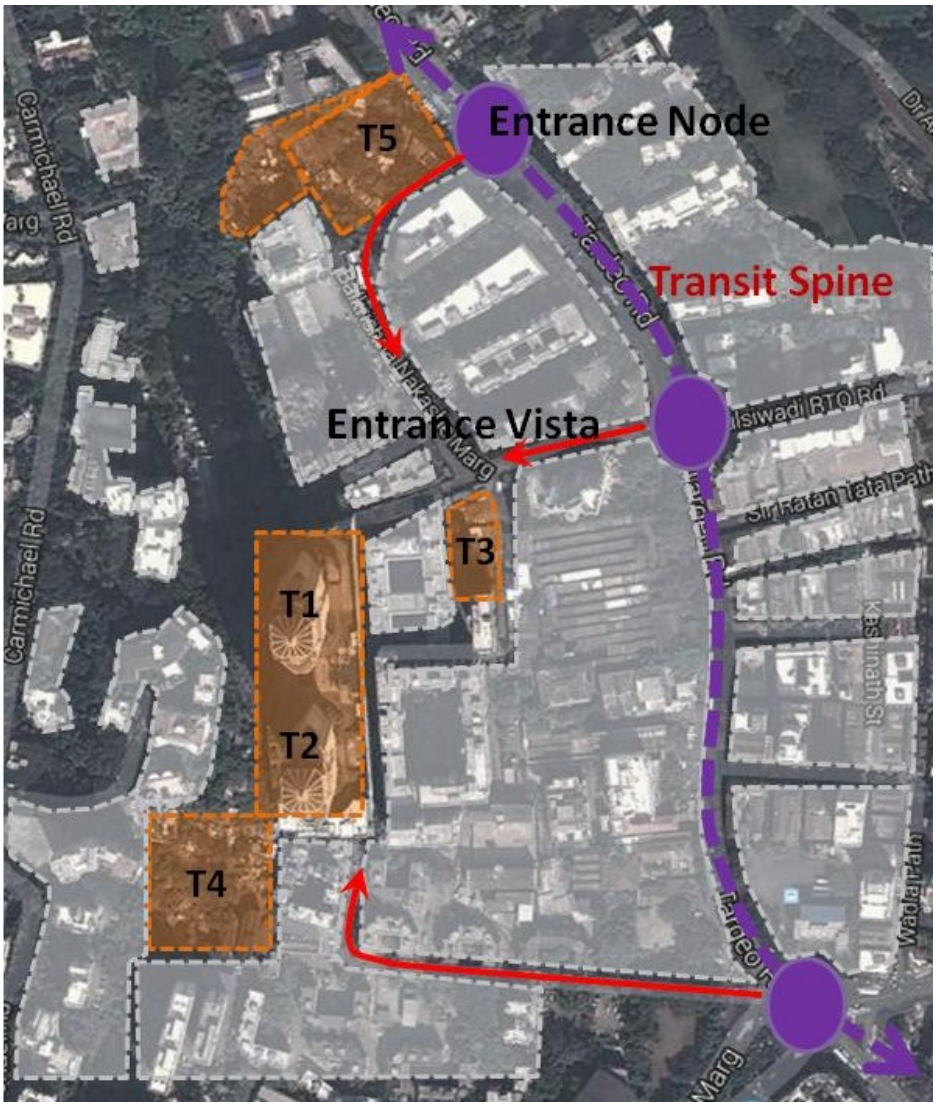
To create an Estate like development in Tardeo, it is very important to tie structural elements and spaces together to achieve cohesion. Connections in urban design link four distinct types of elements with each other:

- **Entrance Vistas and Nodes**
- **Human Activity Nodes**
- **Architectural Elements**
- **Natural Elements**

Entrance Vistas and Nodes

The entrance is one of the most crucial parts of design since it is the entrance that forms a first impression of an estate. The entrance nodes and vistas are hereby discussed taking examples from other projects.

Figure 19 Entrance Vistas and Nodes



(Source : Liases Foras)

Figure 20 Pictures showing different Entrance Vista designs

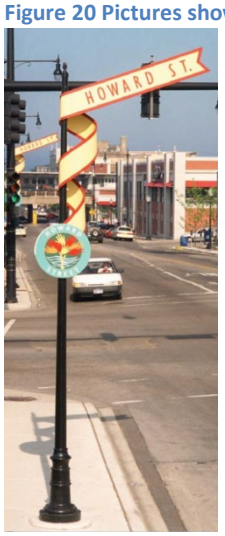


Figure 22 Brigade Metropolis, Bangalore

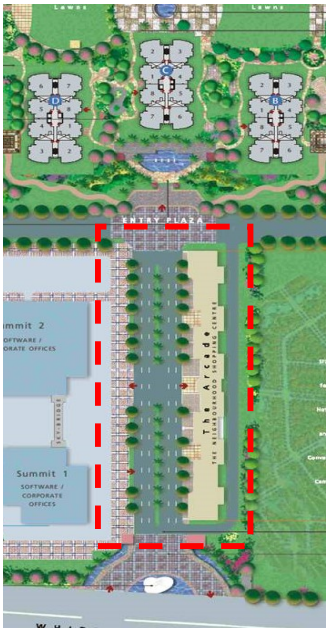


Figure 21 Sun City, Ahmedabad

Human Activity Nodes

A space, which can visually help to slow down the movement of cars, giving a comprehensive look to a place that can act as a focal point for the neighborhood.

Human activity nodes are spaces developed as activity centers for any development acting as its identity. They have elements like small retail areas, shaded benches or a café.

Figure 23 Human Activity Nodes

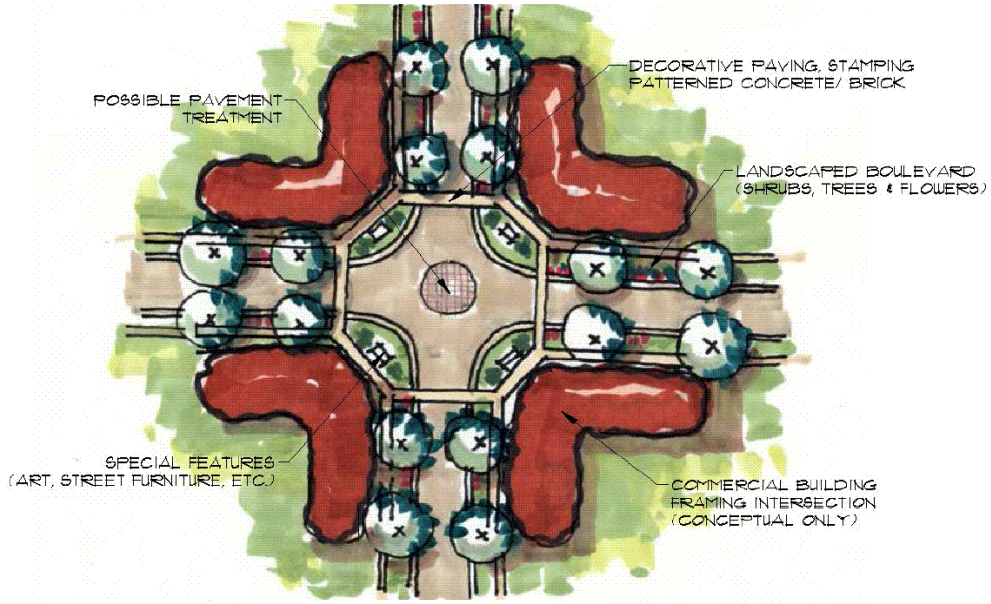
Design Objective:

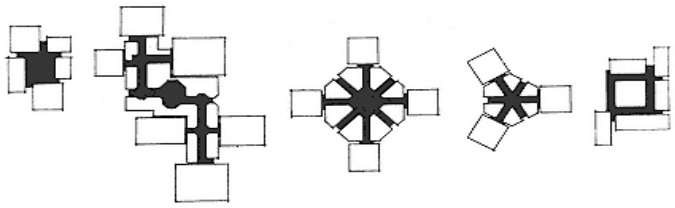
Developing an Urban Node in the area where the streets from the Tardeo Road are coming inside the Imperial Estate.

Urban nodes are not entirely defined by structures such as a prominent building or a monument.

Nodes have to attract people, suggesting them the availability of prominent buildings and monuments that provide an opportunity of human activities and also act as a focus for paths.

Figure 24 Eden Prerry Township, Minnesota





Human Activity Nodes could be of different shapes and sizes.

Figure 25 Banners

Streetscapes

Each element of the street contributes to the streetscape and adds aesthetic value to the overall identity of the neighborhood.

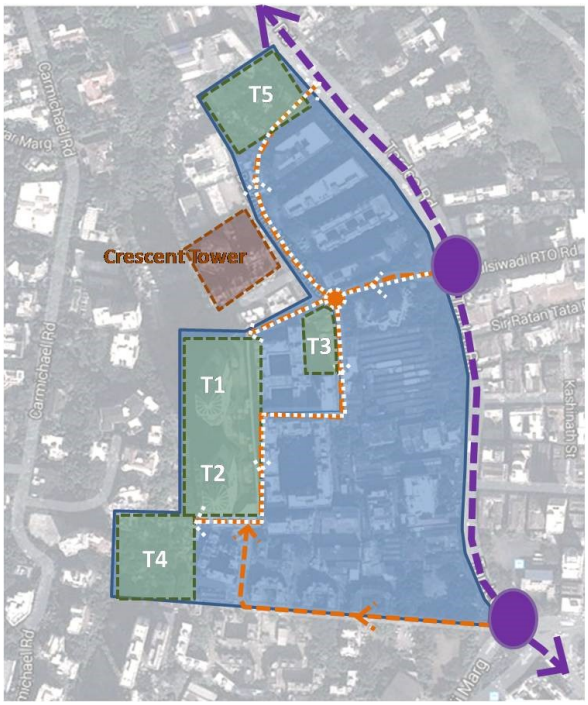
A streetscape is defined by two major elements:

- Lighting
- Landscape

Secondary elements add detail and texture which include:

- Sidewalk Pavements
- Roadway Pavements
- Street furniture, i.e, benches, waste receptacles, Bus stops etc.

Figure 26 Streetscape plan for Imperial Estate



(Source : Liases Foras)

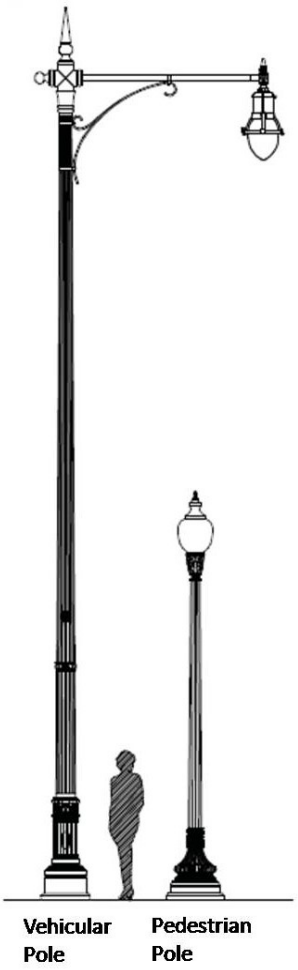
Design Objective:

- Streets leading towards Towers T1,T2,T3 & T4 can be customized by similar streetscape.
- Developing similar street leading to T-5 would be difficult as it has other developments along the street like Crescent Tower and some Chawl buildings.
- The access to T4 can be planned in such a way that it can pass along the towers 1,2 and 3. This street can also be designed as if it is a part of Imperial Estate.

Lighting

There are two major elements of Lighting:

- **Side walk**
- **Vehicular**



Landscape

Figure 27 Trees and other planters



Figure 28 In Ground Planters



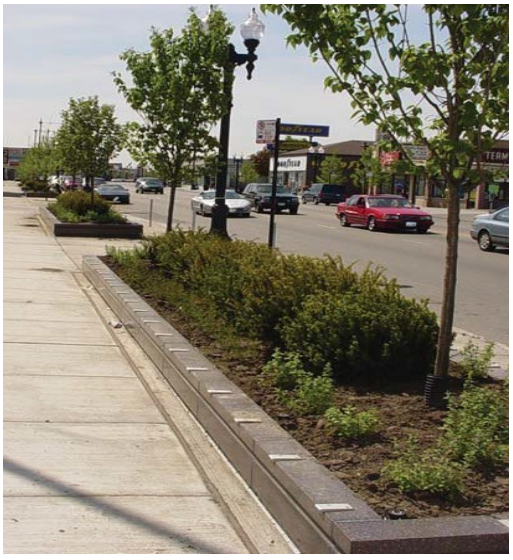



Figure 29 Free-standing planters

Figure 30 Hanging Planters

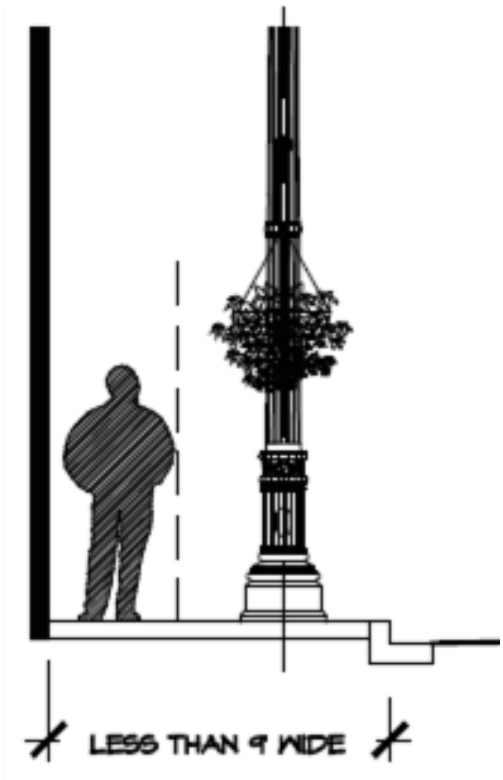


Figure 31 Pavers

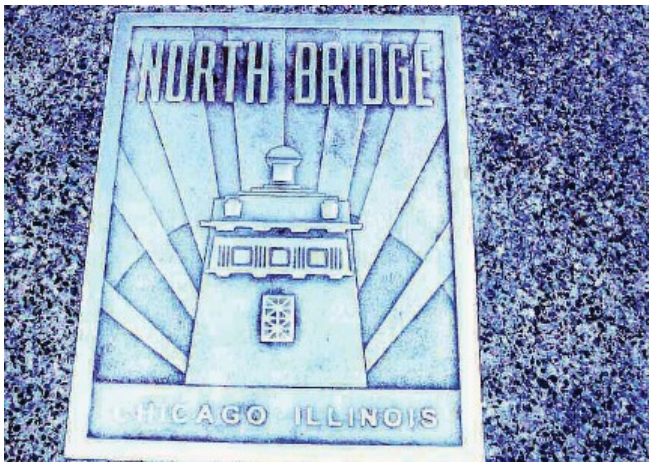


Figure 36 Side Walk Guard

Figure 35 Benches and Waste Receptacles

Figure 33 Community kiosk

Figure 34 Street Pylons

Figure 32 Glass Trees

Natural Elements

Natural elements like open lawn, bunch of trees, water bodies etc. create a sense of one space connected by different types of landscape and open/enclosed spaces.

Figure 37 Natural Elements Design

(Source : Liases Foras)

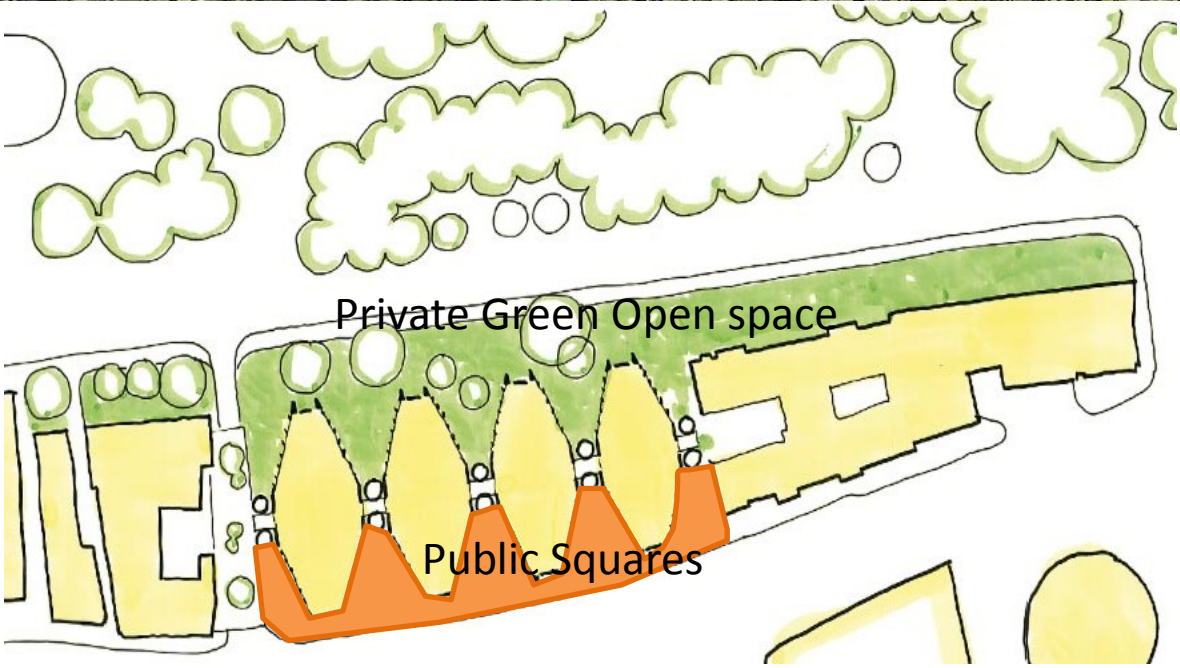
Design Objective:

To develop a podium level open/enclosed space as a mixture of walkable, recreational and planted areas. Walkable areas may be decks, patios, lawn, or other similar surfaces.

This space may include: picnic area, play structure, multi-use court, open lawn area, swimming pool, or a courtyard usable for different outdoor activities. Indoor podium may include club house, gym, community hall, business centre, indoor games area etc.

One Hyde Park

Total 3,85,000 sqft and 86 units, 7 stories structure constructed over four years.



Amenities: A 21m ozone swimming pool, saunas, steam rooms, an exercise studio, squash court, gym, golf simulator, wine cellars, business suites, a private cinema screening room, private entertainment suite, library, secure underground parking and valet service.

Figure 38 Interconnected Podium Level

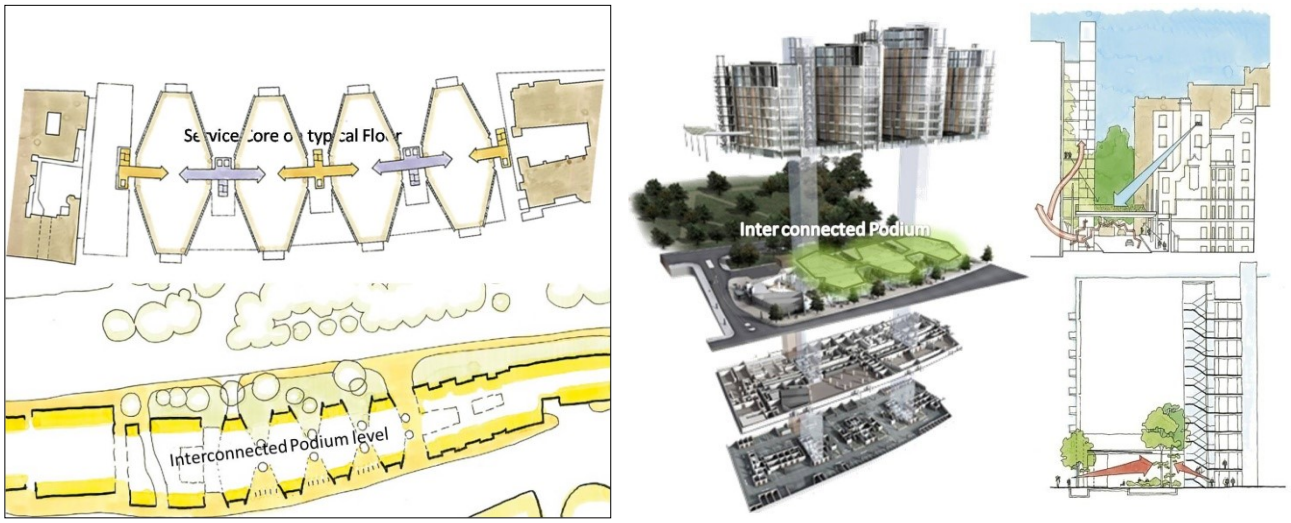
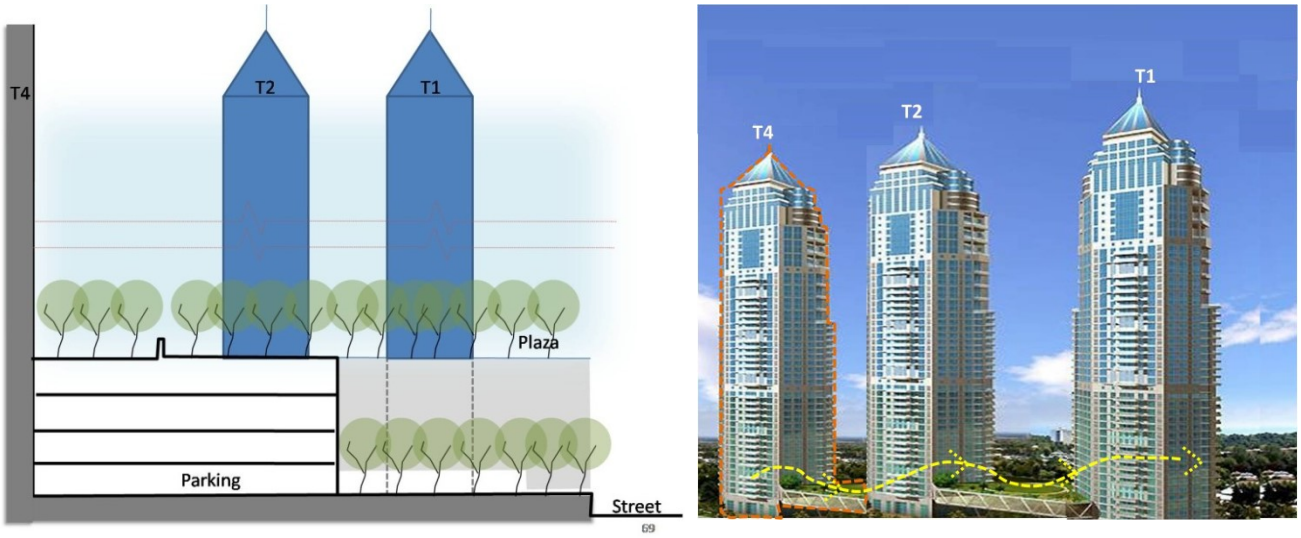


Figure 39 Podium connecting the Three Levels



Annexure

Annexure 1 - Competitive Analysis

Criteria for selection

The competitive projects have been selected based on parameters that are similar in characteristics with our subject site. Few aspects that are considered are; Economic density, Area & surrounding, kind of offering i.e. bare shell or finished projects etc. The projects in particular are located in the catchment zone that has been demarcated for analysis of the subject site. The catchment zone comprises of wards of Tardeo, Mumbai Central, Mahalaxmi and Worli. 15 projects have been selected for comparative analysis.

Figure 40 Comparative Projects

(Source : Liases Foras Base Image- Google images)

DB Orchid Heights

Project is located in Mahalaxmi and is being developed by DB Realty developers. The residential towers were launched in December 2009 and the possession date given is December 2017. The project comprises of 464 units and has a loading of 67%. The launch price of the project was 23,500 and the present price quoted is 35,000 Rs./sq.ft.

Table 23 DB Orchid Heights

Project Name	DB Orchid
Floor Rise	180
Maintenance	15
No of parking	2
Parking Charges	1,500,000
Extra Car Park Charges	1,500,000
Club House	1,000,000
PLC	
Type of Offering	Bare Shell

(Source : Liases Foras)

Figure 41 DB Orchid heights site plan

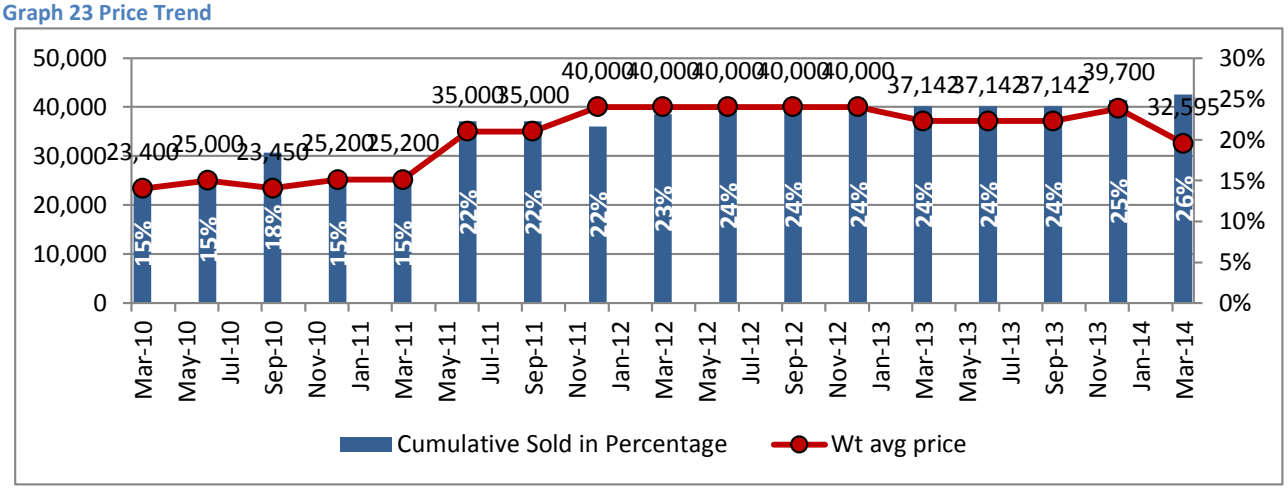
(Source : website Db realty.co.in)

Table 24 Tower Details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
DB Orchid Heights	Tower A	4 BHK	4	63	1	252	4,300	2,580	67%
DB Orchid Heights	Tower B	4 BHK	4	53	1	212	3,700	2,580	67%

(Source : Liases Foras)

Graph 23 Price Trend



(Source : Liases Foras)

22% stock was sold when the price of the project was raised upto 35,000 rs./sq.ft. When the rate was further increased to 40,000, stock sold was 24%. When the price was reduced to 32,595 the stock sold was 26%. Therefore a reduction in prices helped to increase the sales.

Table 25 List of Amenities

External Amenities			
Health club	No	Barbeque	No
Jogging Track	No	Cricket Ground	Yes
Gymnasium	Yes	Games Courts	Yes
Games Room	No	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	No
Landscape Garden	No	Library	No
Children's Play Area	No	Spa & Jacuzzi	No
Multi-Level Lobby	No	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes
Cafe	Yes	24 Hour Power Backup	Yes
conference Room/ Business Centre	No	Rain Water Harvesting	Yes
Sky Lounge and Bar	No	Laundry	No
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 26 Toilet & electrification details

Toilet		Electrification	
Fittings and Fixtures	NA	Concealed Copper	NA
Door	NA	Fire Resistant	NA
Wet and Dry Drop	Yes	Modular Switches	NA

(Source : Liases Foras)

Table 27 Internal Amenities & Specification

Internal Amenities			Internal Specification		
Floor to ceiling Heights	14		Flooring		Kitchen
Centralized Air Conditioning	Yes	Living/Dining	NA	Platform Material	NA
Separate AHU Room	Yes	Kitchen	NA	Chimney	NA
Full Height Glass Windows	Yes	Master Bedroom	NA	Modular Kitchen	NA
Private Lift	Yes	Bedrooms	NA	Dry Balcony	Yes
Home Automation	NA	Toilet	NA		

(Source : Liases Foras)

DB Crown

DB Crown is a residential project being developed by DB realty developers in Prabhadevi. The project was launched in March 2010 and the possession is being given by December 2016. The launch price of the project was 28,800 and the present price being quoted is 36,000 Rs./sq.ft. Project comprises of 1065 units with a loading of 67%.

Table 28 DB Crown project details

Project Name	DB Crown
Floor Rise	180
Maintenance	15
No of parking	2
Parking Charges	1,500,000
Extra Car Park Charges	1,500,000
Club House	1,000,000
PLC	
Type of Offering	**Bare Shell**

(Source : Liases Foras)

Figure 42 DB Crown Site Plan

(Source : website Db realty.co.in)

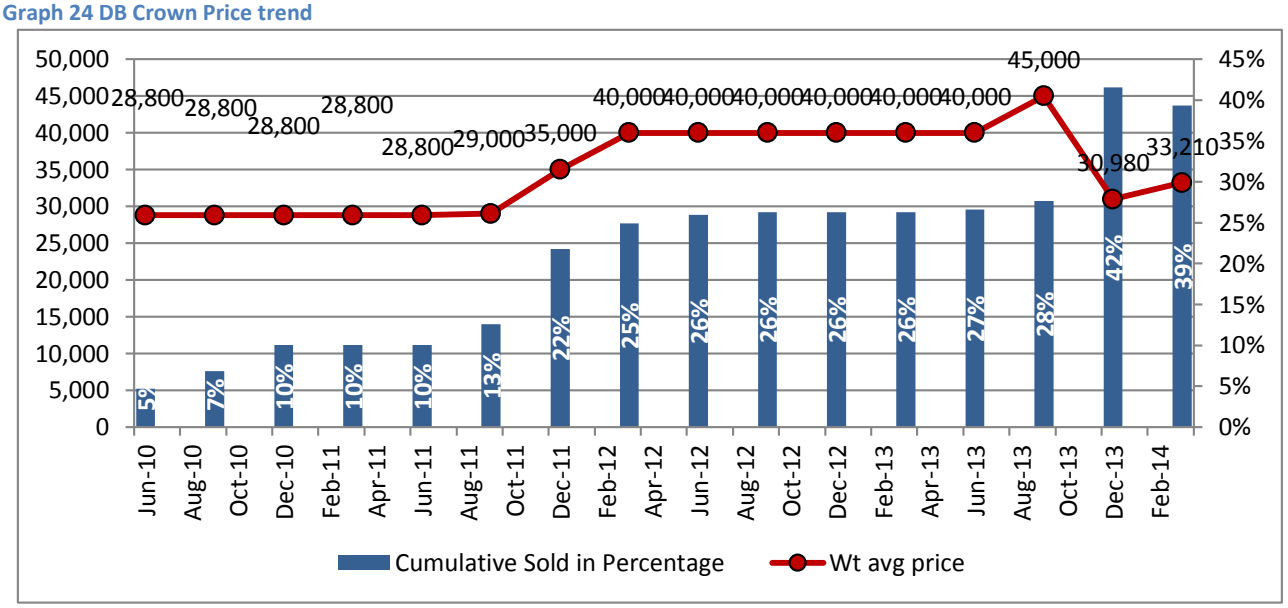
Table 29 DB Crown Tower details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
DB Crown	Tower A	5 BHK	2	71	1	142	4,300	2,580	67%
DB Crown	Tower A	4 BHK	2	71	1	142	3,275	1,965	67%
DB Crown	Tower B	4 BHK	4	71	1	284	3,275	1,965	67%
DB Crown	Tower C pavilion A	4 BHK	2	71	1	142	3,275	1,965	67%

DB Crown	Tower C pavilion A	3 BHK	1	71	1	71	2,975	1,785	67%
DB Crown	Tower C pavilion B& Pavilion C	3 BHK	2	71	2	284	2,975	1,785	67%

(Source : Liases Foras)

Graph 24 DB Crown Price trend



(Source : Liases Foras)

22% stock was sold when the price of the project was raised from 29,000 to rs.35,000/sq.ft. When the price was increased to 40,000 Rs./sq.ft, the stock sold was an average of 26% for almost two years from Dec 2011 to oct 2013. When the price was reduced to 30,980 in Dec 2013, there was an increase in sales and 42% stock was sold.

Table 30 External Amenities List

External Amenities			
Health club	No	Barbeque	No
Jogging Track	No	Cricket Ground	Yes
Gymnasium	Yes	Games Courts	Yes
Games Room	No	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	No
Landscape Garden	No	Library	No
Children's Play Area	No	Spa & Jacuzzi	No
Multi-Level Lobby	No	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes

Cafe	Yes	24 Hour Power Backup	Yes
conference Room/ Business Centre	Yes	Rain Water Harvesting	Yes
Sky Lounge and Bar	No	Laundry	No
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 31 Toilet & Electrification details

Toilet		Electrification	
Fittings and Fixtures	NA	Concealed Copper	NA
Door	NA	Fire Resistant	NA
Wet and Dry Drop	Yes	Modular Switches	NA

(Source : Liases Foras)

Table 32 Internal Amenities & Specifications List

Internal Amenities		Internal Specification			
Floor to ceiling Heights	14	Flooring		Kitchen	
Centralized Air Conditioning	Yes	Living/Dining	NA	Platform Material	NA
Separate AHU Room	Yes	Kitchen	NA	Chimney	NA
Full Height Glass Windows	Yes	Master Bedroom	NA	Modular Kitchen	NA
Private Lift	Yes	Bedrooms	NA	Dry Balcony	Yes
Home Automation	NA	Toilet	NA		

(Source : Liases Foras)

L & T Crescent Bay

This is a residential project being developed by L & T Realty in Parel. The project was launched in August 2012 and the possession date being given is December 2017. The project was launched at a price of Rs. 17,000 and the price being quoted now is 20,444 Rs./sq.ft. The project comprises of 1144 units with a loading of 43%.

Table 33 L & T Crescent Bay details

Project Name	L&T Crescent Bay
Floor Rise	110
Maintenance	8
No of parking	2
Parking Charges	1,000,000
Extra Car Park Charges	1,000,000
Club House	600,000
PLC	0
Type of Offering	Finished

(Source : Liases Foras)

Figure 43 L & T Crescent Bay Site Plan

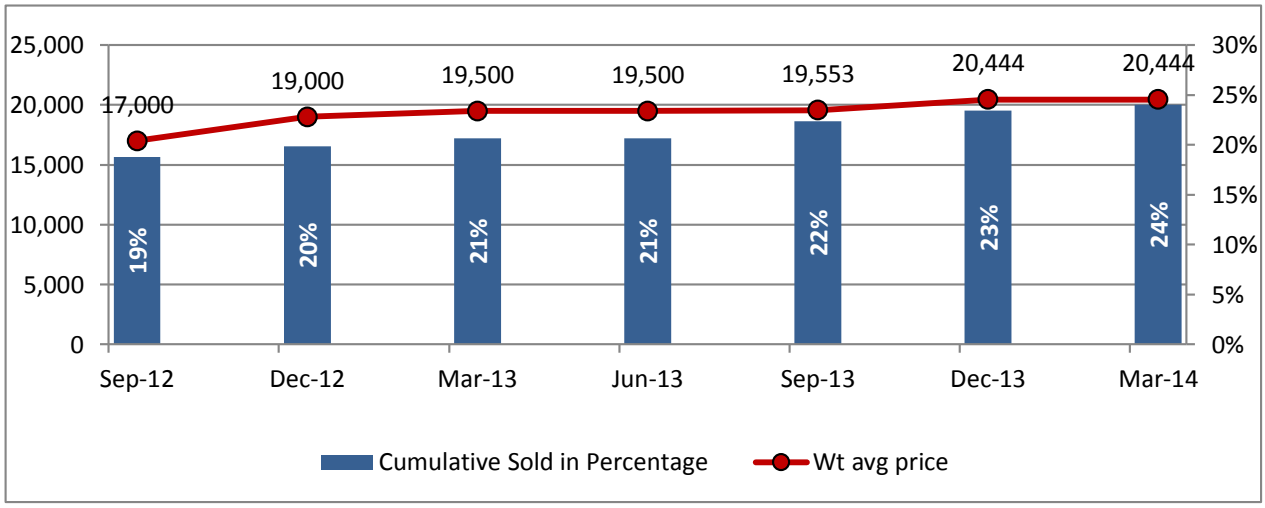
(Source : website l&trealty.com)

Table 34 L & T Crescent Bay Tower details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
L&T Crescent Bay	T6	4 BHK	2	52	1	104	3,910	2,737	43%
L&T Crescent Bay	T6	3 BHK	2	52	1	104	2,750	1,925	43%
L&T Crescent Bay	T5	3 BHK	6	52	1	312	2,275	1,593	43%
L&T Crescent Bay	T4	2 BHK	4	52	1	208	1,400	980	43%
L&T Crescent Bay	T4	2.5 BHK	2	52	1	104	1,775	1,243	43%
L&T Crescent Bay	T2	2 BHK	4	52	1	208	1,400	980	43%
L&T Crescent Bay	T2	3 BHK	2	52	1	104	1,775	1,243	43%

(Source : Liases Foras)

Graph 25 Price Trend in L & T Crescent Bay



(Source : Liases Foras)

The percentage of stock sold has increased steadily from 19% to 20% and 21% when the price was raised from 17,000 to 19,000 and 19,500 rs/sq.ft. respectively. 24% stock was sold when price was raised to 20,444 rs./sq.ft.

Table 35 External Amenities in L & T Crescent Bay

External Amenities			
Health club	No	Barbeque	No
Jogging Track	Yes	Cricket Ground	No
Gymnasium	Yes	Games Courts	Yes
Games Room	Yes	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	Yes
Landscape Garden	Yes	Library	Yes
Children's Play Area	Yes	Spa & Jacuzzi	Yes
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes
Cafe	No	24 Hour Power Backup	Yes
conference Room/ Business Centre	No	Rain Water Harvesting	Yes

Sky Lounge and Bar	Yes	Laundry	No
Amphitheatre	No	Mini Theatre	Yes

(Source : Liases Foras)

Table 36 Door window details in L & T Crescent Bay

	Windows	Doors
Frame	UPVC Frame	Teak Wook Frame
Shutter	UPVC Glass	Laminated on Both Side

(Source : Liases Foras)

Table 37 Toilet & Electrification details in L & T Crescent Bay

Toilet		Electrification	
Fittings and Fixtures	Kohler	Concealed Copper	Yes
Door	NA	Fire Resistant	Yes
Wet and Dry Drop	Yes	Modular Switches	Yes

(Source : Liases Foras)

Table 38 Internal Amenities & Specification in L & T Crescent Bay

Internal Amenities		Internal Specification			
Floor to ceiling Heights	12	Flooring		Kitchen	
Centralized Air Conditioning	Split AC in Living, Dining and Bedroom	Living/Dining	Italian Marble	Platform Material	Granite Platform
Separate AHU Room	No	Kitchen	Italian Marble	Chimney	0
Full Height Glass Windows	Yes	Master Bedroom	Wooden Flooring	Modular Kitchen	Yes
Private Lift	No	Bedrooms	Composite Marble flooring	Dry Balcony	Yes
Home Automation	NA	Toilet			

(Source : Liases Foras)

Chandelier Court

It is a residential project being developed by Neumec Realty developers in Worli. Project was launched in August 2010 and the possession will be given in Oct 2014. The lauch price of the project was 17,000 and the price being quoted at present is 28,000 rs./sq.ft. There are 44 units in the project with a loading of 67%.

Table 39 Chandelier Court Project Details

Project Name	Chandelier Court
Floor Rise	150
Maintenance	12
No of parking	2
Parking Charges	1,500,000
Project Name	**Chandelier Court**
Extra Car Park Charges	1,500,000
Club House	1,000,000
PLC	0
Type of Offering	Bare Shell

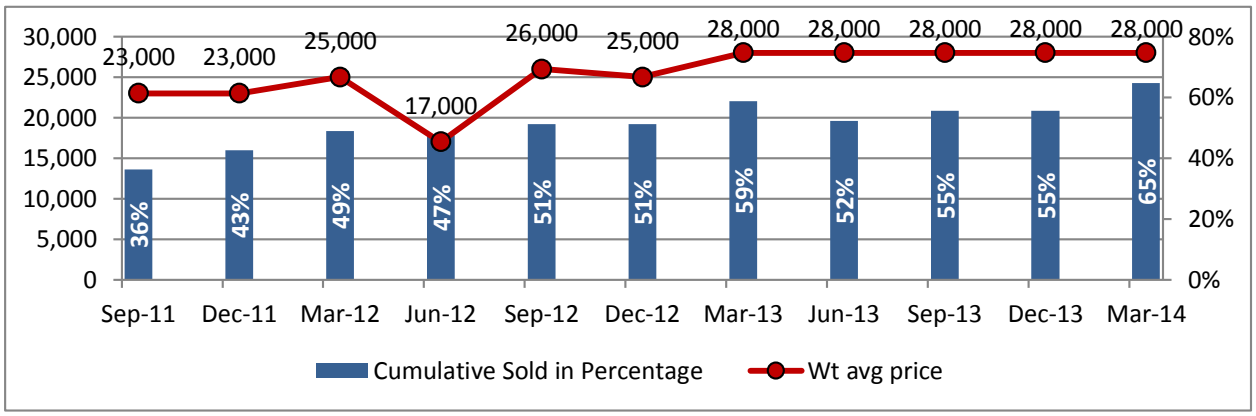
(Source : Liases Foras)

Table 40 Project details in Chandelier Court

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
Chandelier Court	0	3 BHK	2	22	1	44	2,050	1,230	67%

(Source : Liases Foras)

Graph 26 Price Trend in Chandelier Court



(Source : Liases Foras)

The sold stock increased from 36% to 49% when the price was raised from 23,000 to 25,000 in march 2012. There was a no significant increase in sales when the price was reduced to 17,000 in june 2012. The stock sold increased to 51% when the price was increased to 26,000 and it rose to 52% when the price was increased to 28,000 in sept 2013. 65% stock was sold in March 2014 quarter at the same price.

Table 41 External Amenities in Chandelier Court

External Amenities			
Health club	Yes	Barbeque	No
Jogging Track	Yes	Cricket Ground	No
Gymnasium	Yes	Games Courts	No
Games Room	Yes	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	No
Landscape Garden	Yes	Library	No
External Amenities			
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes
Cafe	No	24 Hour Power Backup	Yes
conference Room/ Business Centre	No	Rain Water Harvesting	Yes
Sky Lounge and Bar	No	Laundry	No
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 42 Toilet & electrification Details in Chandelier Court

Toilet		Electrification	
Fittings and Fixtures	NA	Concealed Copper	NA
Door	NA	Fire Resistant	NA
Wet and Dry Drop	Yes	Modular Switches	NA

(Source : Liases Foras)

Table 43 Internal Amenities & specification in Chandelier Court

Internal Amenities		Internal Specification			
Floor to ceiling Heights	12	Flooring		Kitchen	
Centralized Air Conditioning	NA	Living/Dining	NA	Platform Material	NA
Separate AHU Room	NA	Kitchen	NA	Chimney	NA
Full Height Glass Windows	Yes	Master Bedroom	NA	Modular Kitchen	NA
Private Lift	Yes	Bedrooms	NA	Dry Balcony	Yes
Home Automation	NA	Toilet	NA		

(Source : Liases Foras)

1973 Omkar

The project is being developed by Omkar Realty in Worli. The project was launched in Jan 2012 and the possession is being given by Dec 2017. The

project was launched at the price of 28,000 and the price being quoted today is Rs.40, 000 /sq.ft. There are 348 units to be sold with a loading of 67%.

Table 44 1973 Omkar Project details

Project Name	1973 Omkar
Floor Rise	100
Maintenance	12
No of parking	3
Project Name	**1973 Omkar**
Parking Charges	1,500,000
Extra Car Park Charges	1,500,000
Club House	1,200,000
PLC	0
Type of Offering	Bareshell

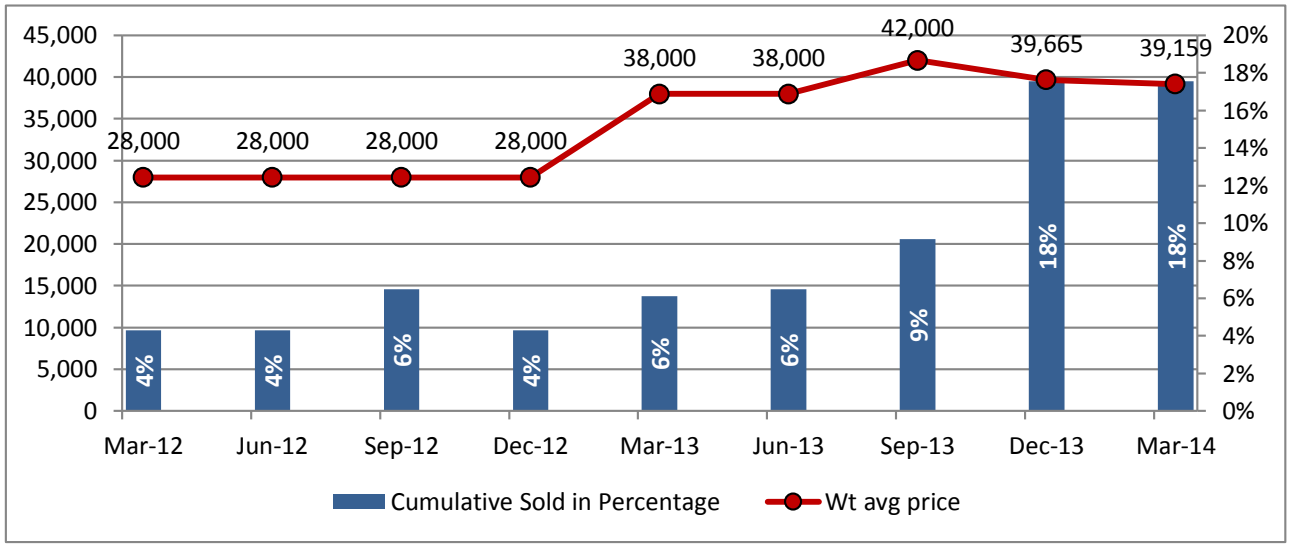
(Source : Liases Foras)

Table 45 Project wing details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
Omkar 1973 worli	Wing A	3 BHK	0	76	1	125	2650	1587	67%
Omkar 1973 worli	Wing A	4 BHK	0	76	1	31	3700	2216	67%
Omkar 1973 worli	Wing B	3 BHK	0	75	1	31	3850	2305	67%
Omkar 1973 worli	Wing B	4 BHK	0	75	1	62	4650	2784	67%
Omkar 1973 worli	Wing B	5 BHK	0	75	1	31	6367	3813	67%
Omkar 1973 worli	Wing C	Duplex	0	60	1	68	9243	5535	67%

(Source : Liases Foras)

Graph 27 Price Trend



(Source : Liases Foras)

An average of 5% stock was sold during Mar-2012 to June-2013 when price was raised from 28,000 to 38,000. 9% stock was sold when price was raised to 42,000. Stock sold increased to 18% when price reduced to 39,665 Rs./sq.ft.

Table 46 External Amenities

External Amenities			
Health club	Yes	Barbeque	No
Jogging Track	Yes	Cricket Ground	Yes
Gymnasium	Yes	Games Courts	Yes
Games Room	Yes	Golf or Putting Ground	Yes

Swimming Pool	Yes	Yoga & Meditation	Yes
Landscape Garden	Yes	Library	No
Children's Play Area	Yes	Spa & Jacuzzi	Yes
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes
Cafe	Yes	24 Hour Power Backup	Yes
conference Room/ Business Centre	Yes	Rain Water Harvesting	Yes
Sky Lounge and Bar	Yes	Laundry	Yes
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 47 Internal Amenities & Specifications

Internal Amenities		Internal Specification			
Floor to ceiling Heights	12	Flooring		Kitchen	
Centralized Air Conditioning	Yes	Living/Dining	NA	Platform Material	NA
Separate AHU Room	Yes	Kitchen	NA	Chimney	NA
Full Height Glass Windows	Yes	Master Bedroom	NA	Modular Kitchen	NA
Private Lift	Yes	Bedrooms	NA	Dry Balcony	Yes
Home Automation	NA	Toilet	NA		

(Source : Liases Foras)

Vivarea

The project is being developed by K Raheja Corp at Jacob Circle in Mahalaxmi. The project was launched in Dec 2007 and the possession is being given by Dec 2017. The project was launched at the price of 26,000 and the current price being quoted is 46,725 Rs./sq.ft. Project comprises of 516 units with a aloading of 54%.

Table 48 Vivarea Project details

Project Name	Vivarea
Floor Rise	200
Maintenance	10
No of parking	2
Parking Charges	2,000,000
Extra Car Park Charges	2,000,000
Club House	0
PLC	0
Type of Offering	Finished

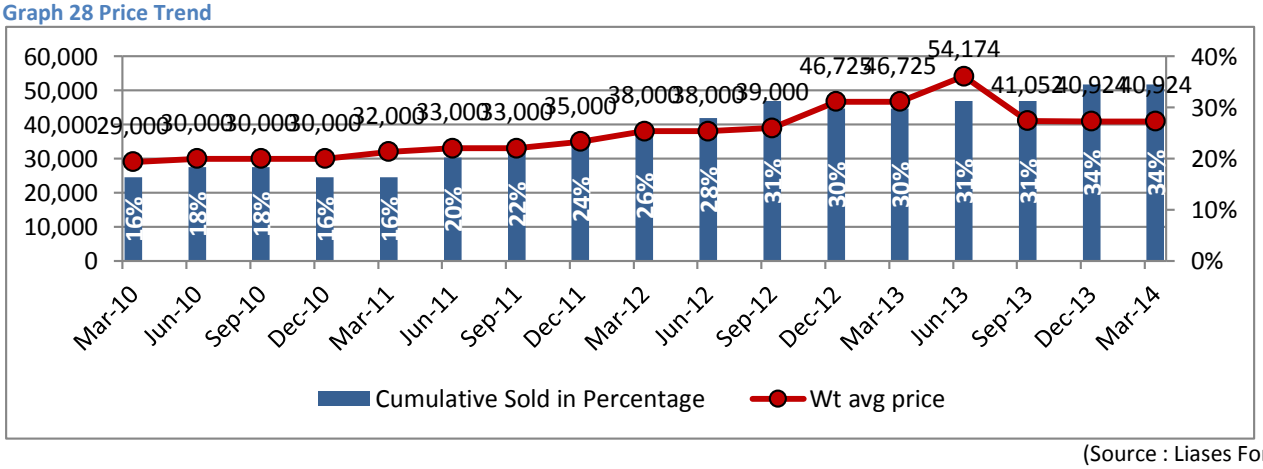
(Source : Liases Foras)

Table 49 Project Wing Details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
Vivarea	Wing A, B,C,D	3 BHK	2	43	4	344	2576	1717	54%
Vivarea	Wing A, B	4 BHK	1	43	4	172	3939	2626	54%

(Source : Liases Foras)

Graph 28 Price Trend



(Source : Liases Foras)

There was a gradual increase in stock sold from 16% to 31% as the price was increased from 29,000 to 39,000 till sept 2012. An average of 32% stock was sold between Dec 2012 to mar 2014 even when the price fluctuated from

46,725 in Dec 2012 to 54,174 in June 2013 and reduced to 40,924 in March 2014.

Table 50 External Amenities

External Amenities			
Health club	Yes	Barbeque	Yes
Jogging Track	Yes	Cricket Ground	No
Gymnasium	Yes	Games Courts	Yes
Games Room	Yes	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	No
Landscape Garden	Yes	Library	No
Children's Play Area	Yes	Spa & Jacuzzi	No
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	Yes
Convenience store	No	24 Hour Security	Yes
Cafe	Yes	24 Hour Power Backup	Yes
conference Room/ Business Centre	Yes	Rain Water Harvesting	Yes
Sky Lounge and Bar	No	Laundry	No
Amphitheatre	No	Mini Theatre	Yes

(Source : Liases Foras)

Table 51 Door Window details

	Windows	Doors
Frame	UPVC	Teak Wood
Shutter	UPVC Glass	Laminated on both side

(Source : Liases Foras)

Table 52 Internal Amenities & specifications

Internal Amenities		Internal Specification			
Floor to ceiling Heights	12	Flooring		Kitchen	
Centralized Air Conditioning	Yes	Living/Dining	NA	Platform Material	Granite
Separate AHU Room	Yes	Kitchen	NA	Chimney	
Full Height Glass Windows	Yes	Master Bedroom	NA	Modular Kitchen	
Private Lift	No	Bedrooms	NA	Dry Balcony	Yes
Home Automation	NA	Toilet	NA		

(Source : Liases Foras)

Parinee Exclusive

Parinee Developers in Worli are developing the project. The project was launched in March 2014 and the possession is being given by Dec 2017. The project was launched at the price of 28,000 and the current price being quoted is 29,000 Rs./sq.ft.

Table 53 Parinee Exclusive In project details

Project Name	Parinee Exclusive In
Floor Rise	150
Maintenance	12
No of parking	2
Parking Charges	1,500,000
Extra Car Park Charges	1,500,000
Club House	1,200,000
PLC	0
Type of Offering	Finished

(Source : Liases Foras)

Figure 44 Parinee Exclusive Site Plan

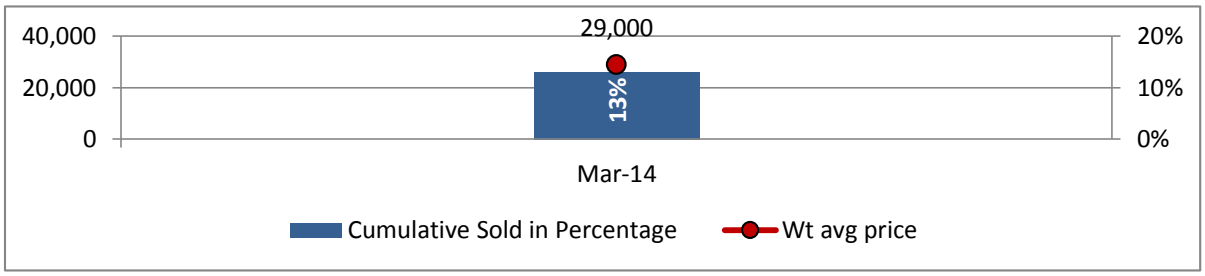
(Source : website parineeexclusive)

Table 54 Project wing details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
Parinee Exclusive in		3 BHK	2	28	1	56	3889	2606	49%
Parinee Exclusive in		4 BHK	2	28	1	56	4778	3201	49%

(Source : Liases Foras)

Graph 29 Price Trend



(Source : Liases Foras)

Table 55 External Amenities

External Amenities			
Health club	Yes	Barbeque	No
Jogging Track	Yes	Cricket Ground	No
Gymnasium	Yes	Games Courts	Yes
Games Room	Yes	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	Yes
Landscape Garden	No	Library	No
Children's Play Area	No	Spa & Jacuzzi	Yes
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	No
Convenience store	No	24 Hour Security	Yes
Cafe	No	24 Hour Power Backup	Yes
conference Room/ Business Centre	Yes	Rain Water Harvesting	Yes
Sky Lounge and Bar	No	Laundry	No
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 56 Door Window details

	Windows	Doors
Frame	UPVC	Teak Wood
Shutter	UPVC Glass	Laminated on both side

(Source : Liases Foras)

Table 57 Toilet & electrification details

Toilet		Electrification	
Fittings and Fixtures	Kohler	Concealed Copper	Yes
Door	NA	Fire Resistant	Yes
Wet and Dry Drop	Yes	Modular Switches	Designer

(Source : Liases Foras)

Table 58 Internal Amenities and Specifications

Internal Amenities		Internal Specification			
Floor to ceiling Heights	12	Flooring		Kitchen	
Centralized Air Conditioning	No	Living/Dining	Italian Marble	Platform Material	Granite Platform
Separate AHU Room	No	Kitchen	Italian Marble	Chimney	0
Full Height Glass Windows	Yes	Master Bedroom	Wooden Flooring	Modular Kitchen	Yes
Private Lift	No	Bedrooms	Composite Marble flooring	Dry Balcony	Yes
Home Automation	NA	Toilet			

(Source : Liases Foras)

Orbit Grand

The project is being developed by Orbit Corporation in Lower Parel. The project was launched in Dec 2007 and the possession date being given is March 2016. The project was launched at the price of 28,000 and the price being quoted at present is 25,500 rs./sq.ft. There are 79 units to be sold.

Table 59 Orbit Grand project details

Project Name	Orbit Grand
Floor Rise	150
Maintenance	12
No of parking	2
Parking Charges	1,500,000
Extra Car Park Charges	1,500,000
Club House	1,000,000
PLC	(Approx 350 added in BSP)
Type of Offering	Finished

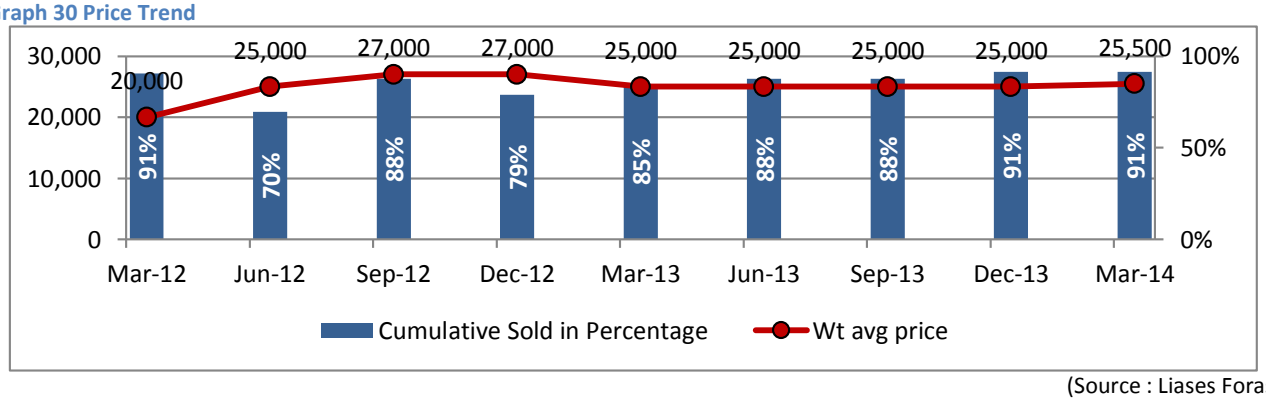
(Source : Liases Foras)

Table 60 Project flat details

Project	Wing Name	Flat Type	Flat Per Floor	No of Floors	No of Blocks	Total no of flats	Saleable Area	Carpet	Loading
Orbit Grand	-	1BHK	4	35	0	52	832	554.	50%
Orbit Grand	-	2BHK	4	35	0	10	1520	1013	50%
Orbit Grand	-	3BHK	4	35	0	17	2025	1350	50%

(Source : Liases Foras)

Graph 30 Price Trend



(Source : Liases Foras)

91% stock was sold in March 2012 when the price was 20,000. Stock sold decreased to 85% when price was increased to 25,000 in march 2013. Stock sold remained more or less steady after that and increased to 91% at a price of 25,500 Rs./sq.ft in March 2014..

Table 61 External Amenites

External Amenities			
Health club	No	Barbeque	No
Jogging Track	Yes	Cricket Ground	No

Gymnasium	Yes	Games Courts	No
Games Room	No	Golf or Putting Ground	No
Swimming Pool	Yes	Yoga & Meditation	No
Landscape Garden	Yes	Library	No
Children's Play Area	Yes	Spa & Jacuzzi	No
Multi-Level Lobby	Yes	Temple	No
Club House	Yes	Healthcare Facility	Yes
Convenience store	No	24 Hour Security	Yes
Cafe	No	24 Hour Power Backup	Yes
conference Room/ Business Centre	No	Rain Water Harvesting	Yes
External Amenities			
Amphitheatre	No	Mini Theatre	No

(Source : Liases Foras)

Table 62 Door & Window details

	Windows	Doors
Frame	UPVC	Teak Wook Frame
Shutter	UPVC Glass	Laminated on Both Side

(Source : Liases Foras)

Table 63 Toilet & Electrification details

Toilet		Electrification	
Fittings and Fixtures	Tota	Concealed Copper	Yes
Door		Fire Resistant	Yes
Wet and Dry Drop	Yes	Modular Switches	Designer

(Source : Liases Foras)

Table 64 Internal Amenities & Specifications

Internal Amenities			Internal Specification		
Floor to ceiling Heights	13		Flooring		Kitchen
Centralized Air Conditioning	Yes	Living/Dining	Italian Marble	Platform Material	Granite Platform
Separate AHU Room	Yes	Kitchen	Italian Marble	Chimney	0
Full Height Glass Windows	Yes	Master Bedroom	Wooden Flooring	Modular Kitchen	Yes

Private Lift	No	Bedrooms	Composite Marble flooring	Dry Balcony	Yes
Home Automation	NA	Toilet			

(Source : Liases Foras)

Project Summary

The following section gives a general comparison between competitive projects with respect to their offering, loading and price per sq.ft.

Table 65 All Project Details

Project	Tenant Building	Type of Offering	Loading	Price PSF	Pro
DB Orchid Heights	Separate	Bareshell	67%	30,000	
DB Crown	Separate	Bareshell	67%	28,800	3,
L& T Crescent Bay	Separate	Finished	43%	19,750	2, 2
Hubtown Celeste		Finished	47%	35,000	1
Chandelier Court	Separate	Bareshell	67%	28,000	
Crescent Aria	Separate	Finished	66%	27,000	2
Darshan Rico	Separate	Bareshell	43%	22000	
Darshan pride	Separate	Bareshell	43%	21000	2(Fini
1973 Omkar	Separate	Bareshell	67%	40000	3,
Vivarea	Separate	Finished	54%	40000	3
Parinee Exclusive in	Separate	Finished	49%	29000	3
Nathani Heights	Together	Bareshell	54%	26,500	2 (fini
Orbit Enclave		Finished	50%	40,000	3
ICC		Finished	40%	42,430	3
Minerva	Separate	Finished	67%	36,000	3,4,4
Affinity Royale		Finished	50%	20,000	

(Source : Liases Foras)

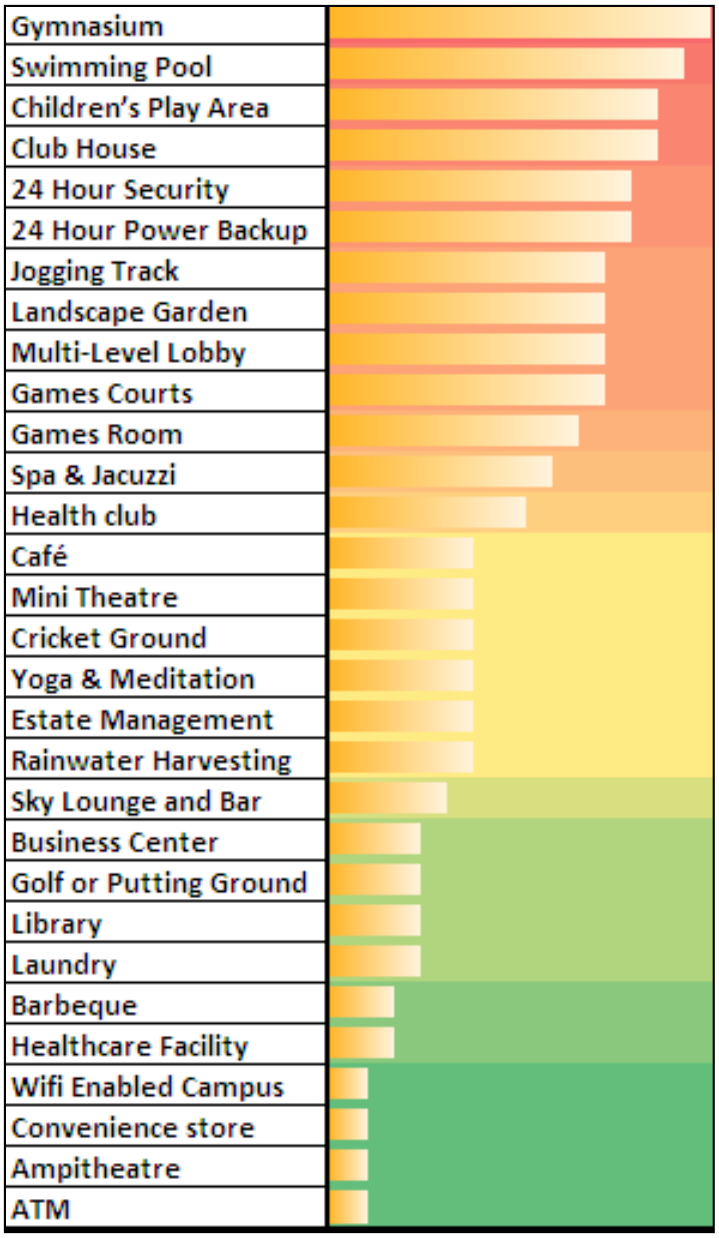
Looking at the supply dynamics it is observed that the product type with higher area are supplied as bare shell and smaller area are supplied as finished and bare shell both. However, from the further study and comparison of projects offering bare shell and finished products it was observed that providing a finished product is capturing a better price.

Tenant Building: It was found that in almost all the projects, tenant building is given separate from the sale building. All though there is no major impact found of a tenant component being in the same building or being separate on the sales.

Amenities

The table shows the hierarchy of amenities according to its importance given in the projects located in the catchment. Amenities falling in Red zone are most widely provided and adds value to the project, whereas amenities in Green zone can be avoid

Figure 45 Amenities List



(Source : Liases Foras)

Therefore amenities such as Gymnasium, Swimming Pool, Children's Play area, 24 hour security, 24 hour power back up, Jogging track are essential and important and need to be provided in the project. Amenities such as Business center, Golf ground, Library, Laundry, Barbeque etc can be avoided and need not be provided with the project.

Glossary

Suburb-	For the convenience of data collection and for better understanding of the development pattern and market dynamics of a city it is sub divided into smaller parts called suburbs.
Inventory (Supply)-	Inventory is the total stock between two dates of survey. It covers all new launches (new additions) as well as carried-forward inventory from the previous quarter/quarters and the sales in the period. It can be simply represented as Unsold as on the end of the period + sales during the period.
Sales / Demand -	Demand is the realty stock sold in a market between the dates of two surveys.
Business Turnover-	It represents the value of the trade or the business done in a certain period. It is calculated by multiplying the total sq. ft. sold during the period with the prevailing prices.
Marketable Supply-	It represents the total marketable stock during the survey period.
Price -	Weighted Average Prices of the unsold stock.
Months Inventory-	Represents the number of months required for the inventory in the market to be absorbed according to the existing demand. It is calculated by dividing the unsold stock by monthly sales.
Sales Velocity per month (or off-take ratio)-	Sales Velocity (SV) signifies demand – supply scenario in a market. It is the ratio between monthly sales and total supply and gives an idea of gestation period of a project as per the existing dynamics.
Typology-	Product type or flat type.