

## MARKET TREND SURVEY of LARGE-SCALE OFFICE BUILDINGS IN TOKYO'S 23 WARDS ("ku")

(As of December 2005)

- Supply of extremely large-scale office buildings (buildings with total office floor space of over 30,000 m<sup>2</sup>) will be concentrated in the three central wards. With more office consolidation, the office environment in the Tokyo Central Business District (CBD) is expected to be further invigorated.
- Office space demand remains steady, especially in the three central wards. With continuing business expansion, the number of office employees will increase further.

#### What users expect of the office environment:

- **O** Views of general affairs departments and facility management staff are different from that of office workers;
- **O** The ideal office environment for the future on the basis of what office workers expect of offices.

Since 1986, Mori Building Company Ltd. (Headquarters: Minato-ku, Tokyo; President and CEO: Minoru Mori) has been regularly conducting surveys of demand and supply trends of large office buildings with total office floor space of over 10,000 m<sup>2</sup> (in this survey, they will be referred to as "large-scale office buildings") throughout Tokyo's 23 wards. Forecasts of future trends in the office market are also carried out by analyzing the results of this survey from a variety of angles. The results of the survey as of December 2005 are contained in this report.

## Outline of Market Trend Survey

Survey date:December end, 2005Coverage:Tokyo's 23 wards ("ku")Type of property:Large office buildings with total office floor space of over 10,000 m² (built after 1986)

(Notes on the contents)

- X This survey is not only based on publicly available information, but also shows the results of the compilation of on-site observations and direct interviews with developers on the progress and other conditions of each project.
- X Supply volume in this survey refers to the gross total floor space of office accommodation in all large-scale office buildings completed after 1986, excluding floor space in those buildings reserved for other purposes, such as retail, residences, hotels and others. The supply volume figures are calculated based on the planned completion date of the respective projects.
- X Absorption capacity in this survey is calculated as follows: net increase of occupied total floor space in all large-scale office buildings completed after 1986 [(total vacant floor space as of the end of the previous year) + (total newly supplied floor space) (total vacant floor space as of the end of the current year)]. In order to facilitate comparison with supply volume, the total floor space (gross) is calculated on the basis of the leased areas in the original data (net) converted to gross numbers using a ratio of 65.5%, which represents the average effective rentable ratio of typical large-scale office buildings.

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- Supply of extremely large-scale office buildings (buildings with office floor space of over 30,000 m<sup>2</sup>) will be concentrated in the three central wards. Office environments in the Tokyo Central Business District (CBD) are expected to be further invigorated as companies consolidate their offices.
- Office space demand remains steady, especially in the three central wards. With continuing business expansion, the number of corporate workers will further increase.

What users expect of the office environment:

- Views of general affairs departments and facility management staff are different from that of office workers;
- The ideal office environment for the future on the basis of what office workers expect of offices.

## Main Features of the Survey

[Supply Trends]

- **O** Supply volume for 2006 projected to be 1.54 million m<sup>2</sup>.
- Average for 2006 to 2010 forecast to be 0.80 million m<sup>2</sup> (equivalent to 78% of the average of 1986 to 2005).
- The percentage of extremely large-scale office buildings (buildings with office floor space of over 30,000 m<sup>2</sup>) is projected to be significantly high between 2006 and 2010.
- **O** Trend of supply concentration in the three central wards to continue.
- **O** Office consolidation will further invigorate the office environment in CBD.

#### [Demand Trends]

- O Absorption capacity for 2005 was 1.15 million m<sup>2</sup>, far exceeding the supply (0.77 million m<sup>2</sup>).
- O Consequently, vacancy rate significantly improved to 3.2%.
- All potential demand accumulated from 2002 by the "wait-and-see" attitude of potential tenants has materialized, with a further increase of demand.
- O Planning of new leases remained steady in the 2005 survey. A steady office space demand increase is expected to continue.
- **O** Further demand for the three central wards.
- Companies will continue to further expand business and increase the number of employees.

## [What users expect of the office environment]

<Viewpoint of general affairs departments and facility management staff>

- General affairs departments and facility management staff tend to focus on access convenience, building specifications, building management and cost efficiency.

  Viewpoint of office workers>
- Office environments with good view, comfort and ample green space have a positive influence on the attitude of office workers toward their work.

• The ideal office environment for the future on the basis on what office workers expect of offices.



## 1. General Trends in Supply

- $\bigcirc$  Supply volume for 2006 projected to be 1.54 million m<sup>2</sup>.
- O Average for 2006 to 2010 forecast to be 0.80 million m<sup>2</sup> (equivalent to 78% of the average of 1986 to 2005).

The supply volume of large-scale office buildings within Tokyo's 23 wards in 2006 is projected to be 1.54 million m<sup>2</sup>. A 1.09 million m<sup>2</sup> supply is expected in 2007, but the projection for the period between 2008 and 2010 is 1.32 million m<sup>2</sup>, shifting back to a decrease. The average supply volume for the years 2006 to 2010 in this survey is 0.80 million m<sup>2</sup>, equivalent to 78% of 1.02 million m<sup>2</sup>, average figure from 1986 to 2005 (See Figure 1).

A considerable number of plans for new medium-scale office buildings in 2007, with total office floor space of 10,000 to 20,000 m<sup>2</sup>, was particularly notable in this year's survey. The majority of these medium-scale office buildings are built to replace existing buildings with relatively short construction periods of approximately two years between start and completion. The background of this trend is the recovery of the office building market that has brought back real estate yield performance, along with the intention of property owners to sell buildings at an early stage while the fund market is brisk.

Urban functions have continued to improve through new extremely large-scale office buildings with floor space of over  $30,000 \text{ m}^2$  which have attracted much public attention since 2003. In the meantime, the ripple effect is now spreading to medium-scale office buildings with floor space of  $30,000 \text{ m}^2$  or less.



When looking at the supply of extremely large-scale office buildings, rebuilding or replacement of existing buildings is expected to increase. Compared to totally new supply, the actual influence of rebuilt buildings over the total number of existing buildings stock remains small because buildings stock only increases in accordance with the floor area ratio after rebuilding is completed. Furthermore, there could be more cases in which building usage shifts from office use to educational use after rebuilding, or the existing buildings may be used as a different facility for other purposes just by undergoing under conversion. Since the focus of this survey is on the new supply of office buildings after 1986, the decrease of office floor space has been excluded in the research. However, in order to correctly understand and analyze the total office building stock in the future, it is necessary to keep an eye on the increase and decrease of net stocks before and after rebuilding.

Figure 1: Fluctuation of supply volume of large-scale office building within Tokyo's 23 wards



#### <Reference>

The construction volume of all office buildings, including small-scale office buildings with a total floor space of less than  $10,000 \text{ m}^2$ , which are not included in this survey, is 2.17 million m<sup>2</sup> in 2005 (Figure 2). The total supply volume has increased with regard to new buildings to be completed in 2006 and 2007. However, when compared with the large supply volume during the bubble era (from the late 1980s to the early 90s) when a number of small-scale office buildings were developed, the volume remains less than half of what it was then.

#### Figure 2: Fluctuation of total construction within Tokyo's 23 wards (including small-scale office buildings)



## **1-1. Supply Trend by Size**

# O Percentage of extremely large-scale buildings over 30,000 m<sup>2</sup> projected to be high in office floor space supply between 2006 and 2010.

Now we look at trends in supply by building size. Large-scale office buildings are divided into two groups: buildings with office floor space of over 10,000 m<sup>2</sup> and less than 30,000 m<sup>2</sup>, and buildings with office floor space of over 30,000 m<sup>2</sup> (hereafter called "extremely large-scale office buildings"). The shift of the average annual supply volume for each five-year term is shown in Figure 3.

As previously stated, <u>many new medium- and</u> <u>small-scale office buildings with floor space of</u> <u>between 10,000 m<sup>2</sup> and 20,000 m<sup>2</sup> are expected</u> <u>particularly in 2007; but when looking at the trend</u> <u>by total office floor space for the period of 2006 to</u> <u>2010, the percentage of extremely large-scale office</u> <u>buildings is substantially high, adding up to 84% of</u> the total supply volume.



Figure 3: Supply volume of large-scale office buildings

(Source) Compiled on the basis of Mori Building data

## 1-2. Supply Trend by Area

#### **O** Trend of supply concentration in the three central wards to continue.

Next, we look at the trends in supply by area. Figure 4 shows the shift in supply trends of large-scale office buildings in the three central wards (Chiyoda-ku, Chuo-ku, and Minato-ku) and the other 20 wards, covering the period of 1986 to 2010, divided into terms of five years and showing the average annual supply volume for each term. In recent years, supply has continued to be concentrated in the city center. In fact, the ratio of supply in the three central wards for the period of 2001 to 2005 adds up to 77% of the total volume. Consolidation of extremely large-scale office buildings in the three central wards is projected to continue in the years 2006 to 2010 as well, with 73% of the total supply being concentrated in these wards.





(Source) Compiled on the basis of Mori Building data



## 1-3. Supply Trend in the Tokyo Central Business District (Tokyo CBD)

## **O** Consolidation of offices to further invigorate the office environment in Tokyo CBD.

In order to closely watch future supply trend in detail, we have defined a particular area as the Tokyo Central Business District (Tokyo CBD), and have conducted annual surveys on actual supply figures and supply projections.

Last year's survey showed the result that with high-quality office buildings being consolidated in this area, the amenities and the surrounding environment of the area showed further improvement. Figure 5 shows that the supply to the Tokyo CBD will continue in the period of 2006 and 2010.

With the synergy effect of more office building supply improving the amenities and the surrounding environment of the office area, thereby boosting more supply, <u>consolidation in the Tokyo CBD will</u> further increase, as it invigorates the office environment in the area.



(Source) Compiled on the basis of Mori Building data

The areas in which both the actual supply of the past and expected supply for the future are high are 1) Akasaka/Roppongi area, 2) Marunouchi/Otemachi area, and 3) Shinbashi/Toranomon area. Meanwhile, in terms of the emergency development areas for urban regeneration based on the "Law on Emergency Measures for Urban Regeneration" in which supply is expected to further accelerate in the future, we can see that the areas mentioned above are mostly within or surrounding "the area around Loop Road No. 2, Akasaka and Roppongi" or "the area around Tokyo and Yurakucho stations." We hereby define these areas as the Central Business District of Tokyo (Tokyo CBD).



## 2. General Trends in Demand

#### O Absorption capacity for 2005: 1.15 million m<sup>2</sup>, strongly exceeding the supply (0.77 million m<sup>2</sup>);

#### O Consequently, vacancy rate in 2005 significantly improved to 3.2%.

In this section, we will look at the trends in demand, using the concept of absorption capacity. As depicted in Figure 6, absorption capacity shows the newly absorbed area [(vacant floor area at the end of the previous year) + (newly supplied floor area) - (vacant floor area at the end of the present year)] in all large-scale office buildings covered in this survey, which are those completed in 1986 and after.



10.8

Note: Total floor space (gross) is calculated on the basis of floor area for lease (net) grossed up by the ratio of 65.5%, the average effective rentable ratio of a typical large-scale office building.

The absorption capacity for 2005 was 1.15 million m<sup>2</sup>, strongly exceeding the supply volume of 0.77 million m<sup>2</sup>. The percentage of absorption capacity compared to new supply reached 149%, the highest figure since the survey was started in 1986. As a result, the vacancy rate decreased to 3.2%, marking a significant improvement from the previous years as shown in Figure 7.

#### <Reference>

In Figure 8, we have added the absorption capacity of extremely large-scale office buildings (total office floor space of 30,000  $m^2$  or more) in the three central wards completed in 1985 or before (hereafter referred to as "pre-1985 buildings"), in order to analyze the demand trends of large-scale office buildings in advantageous locations. The absorption capacity of pre-1985 buildings, particularly in 2002 and 2003, showed a low rate, thereby indicating a worsening of the vacancy rate in older buildings, even large-scale buildings in the three central wards. However, in 2004 and 2005, the absorption capacity of pre-1985 buildings recovered, marking an improvement in the competitiveness of large-scale older buildings.



Figure 7: Fluctuation of supply volume, absorption capacity

and vacancy rate of large-scale office buildings







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## 2-1. Verification of Last Year's Demand Forecast

## **O** All potential demand accumulated from 2002 by the "wait-and-see" attitude of potential tenants has materialized, with a further increase of demand.

In last year's survey, we presented a projection of future office demand in the period of 2005 to 2007. We presented two possible scenarios by working out a simulation using a regression analysis based on the correlation between past supply volume figure and past absorption capacity figure as shown in Figure 9.

<Scenario 1> shows the case where the entire remaining potential demand from the "wait-and-see" attitude of 2002 materializes in 2005. <Scenario 2> is based on the assumption that the materialization of the potential demand from 2002 ended in 2004, and will not appear in 2005. Our own "Survey of Office Needs in Tokyo's 23 Wards" projected that the demand for office space will maintain its strength, which gave good grounds for <Scenario 1> to be more realistic.

According to this <Scenario 1>, the absorption capacity and vacancy rate for 2005 were respectively forecasted to be 1.06 million m<sup>2</sup> and 3.6%, whereas the actual figures for that year were 1.15 million m<sup>2</sup> and 3.2% as shown in Figure 7, proving that the actual recovery exceeded the projection. These figures show that with the recovery of the office space market since 2003, the entire remaining potential demand from the "wait-and-see" of 2002 has materialized, and also that economic recovery has further boosted demand.



#### Figure 9 : Projection of absorption capacity and vacancy rate form 2005 to 2007 (Estimate from last year's report)

<Scenario 1>

~Potential demand to materialize in 2005 as well~ (Source) Compiled on the basis of Mori Building data

(Method of Calculation)

(1) Projection figures of absorption capacity of after 2005 are calculated on the basis of the correlation between the supply volume and absorption capacity from 1993 to 2001, using the least squares method (coefficient: - 0.85)

(2) As for the projection for 2005, the potential demand remaing from 2002 (0.28 million m<sup>2</sup>) is added under the assumption that this will materialize this year.

<Scenario 2>

~No materialization of potential demand in 2005~ (Source) Compiled on the basis of Mori Building data (Method of Calculation)

(1) Projection figures of absorption capacity of after 2005 are calculated on the basis of the correlation between the supply volume and absorption capacity from 1993 to 2001, using the least squares method (coefficient: - 0.85)

(2) As for the projection for 2005, the figure calculated in (1) is used without modification under the assumption that the potential demand remaining from 2002 will not materialize this year.



## 2-2. Future Demand Trend

- **O** Office space demand remains steady in the 2005 survey, with high demand for new leases.
- O More demand in the three central wards.
- Further expansion of business, staff increases expected.

In the previous section, we saw that the office demand remained steady in 2005. In this section, we will predict how the trend of demand will fluctuate in the future by reviewing our own "Survey of Office Needs in Tokyo's 23 Wards" which we have been conducting since 2003.

In our "2005 Survey of Office Needs in Tokyo's 23 Wards" which was conducted in October and November 2005, a questionnaire on the needs for office space was made, mainly of the top 10,000 companies (ranked by capital) that are headquartered in Tokyo's 23 wards. The results are shown below.

Figure 10 shows that 16% (340 companies) are planning new leases within the coming five years or so. Figure 11 indicates that 9% (190 companies) are planning either cancellations or downsizing of current leases within the coming five years.

The massive supply of office space since 2003 has triggered the establishment of new offices and active office relocation. While some see that potential demand for office space has already materialized, the 2005 survey shows that 16% of the corporations who replied have "plans for new leases in the coming five years or so", indicating that office demand remains steady.

Figure 12 shows the replies from companies that have plans for new leases and companies that have plans for cancellations or downsizing of current leases for intended location of new leases. Sixty nine percent (69%) answered that they wish to cancel or downsize their offices in the three central wards and relocate again to new offices in the three central wards. On the other hand, 49% intend to cancel or downsize their office in the 20 other wards and relocate to a new offices in the three central wards, showing an increase of 9% compared to the 2004 survey. These results show that new office leases in the three central wards will further intensify.

Figure 12: Relation between areas of corporate plans for





#### Figure 10: Corporate plans for new leases in the coming five years or so



#### Figure 11: Corporate plans for cancellations or downsizing of current lease in the coming five years or so





(190 companies)



91%

(1,897 companies)

Not Planning



Figures 13 and 14 show the reasons for the new lease/cancellations or downsizing of companies.

The top reason for new leases was "business expansion and increase of staff" (43%), the ratio of which continued to be as high as it was in the 2004 survey. Therefore we see that companies are further expanding business and also increasing staff. For the reasons for cancellation or downsizing, "integration of several divisions" or "need for more space" reached the highest, totaling 27%. "Relocation to building with cheaper rent", which had been the top reason in 2003 (reaching 30%), has continued to decrease significantly, down to 11% in the 2005 survey.

Another notable point is the increased number of replies in the new leases question for "better security" and "earthquake resistance" compared to previous years. Likewise, answers for <u>"credibility of landlord"</u> and "aiming at higher corporate profile" have increased in recent years, proving that respondent companies are becoming more aware of factors other than just hardware.



#### Figure 13: Reasons for new lease

(Note) Percentages show number of replies (multiple replies allowed) divided by number of respondent companies. Would be 100% if all respondent companies tiked that particular answer. [Number of replies] 2005: 1,141, 2004: 878, 2003: 858 [Number of respondent companies] 2005: 340, 2004: 335, 2003: 365 \*This answer was not included in 2003's survey (Source) Compiled on the basis of Mori Building data

Figure 14: Reasons for cancellation or downsizing of current lease



(Note)Percentages show number of replies (multiple replies allowed) divided by number of respondent companies. Would be 100% if all respondent companies ticked that particular answer. [Number of replies] 2005: 313, 2004: 295, 2003: 364 [Number of respondent companies] 2005: 190, 2004: 183, 2003: 212

(Source) Compiled on the basis of Mori Building data



## <Reference> Projection of future demand

## ~ Regression analysis based on the correlation between supply volume and absorption capacity~

In our surveys of office space demand over recent years, we have concluded that the potential demand stemming from the "wait-and-see" attitude of potential tenants in 2002 will materialize between 2003 and 2005. Consequently, this potential demand has actually been materialized while the office space market makes steady recovery.

Now we hereby provide a scenario of office demand in 2006 by working out a simulation using a regression analysis based on the correlation between past absorption capacity and the vacancy rate of the period between 1993 and 2005 as shown in Figure 15.

As a result, we see that the supply in 2006 is projected to be as large as  $1.54 \text{ million } \text{m}^2$ . In the meantime, when looking at the correlation between the supply volume and the demand volume, these two figures are expected to be more or less the same. Though it is said that tenants have already been fixed for buildings to be completed in 2006, the vacancy rate will not increase owing to the supply volume of  $1.54 \text{ m}^2$ . In fact, the vacancy rate is projected to be 3.2% for 2006 and 3.1% for 2007.



#### <Reference> Figure 15: Demand projection scenario

(Method of Calculation)

(1) Projection figures of absorption capacity of after 2006 are calculated on the basis of the correlation between the supply volume and absorption capacity from 1993 to 2005, using the least squares method (coefficient: - 0.80) (Source) Compiled on the basis of Mori Building data



## 3. What users expect of the office environment

- O General affairs departments and facility management staff tend to focus on access convenience, building specification, building management and cost efficiency;
- Office environments with good view, comfort and ample green space have a positive effect on office workers' attitude toward work;
- The ideal office environment for the future on the basis of what office workers expect of offices.

From what we have reviewed in the previous section concerning the supply and demand trends for office space, we can say that the office environment will continue to be invigorated centering around Tokyo CBD where more offices will be consolidated. In the meantime, what do users who actually work in offices think about the office environment? In this chapter, we will focus on the evaluation criteria and the desired office environment from the users' viewpoint.

## 3-1. Viewpoint of general affairs departments facility management staff

In the aforementioned "2005 Survey of Office Needs in Tokyo's 23 Wards," personnel from general affairs departments and facility management responded to a question about what they regard as their evaluation criteria when selecting office space.

As shown in Figure 16, "access convenience" is regarded as the most important factor when choosing an area for office location, followed by "building specifications", "building management" and "costs". Conversely, "ample choice of commercial facilities" and "ample parks and green spaces" were ranked low. For a more general evaluation of office buildings, "appearance/design of the building", "view from building", "name value of the building" and utilities were not emphasized when selecting offices.



Figure 16: Criteria of office selection (from "2005 survey of office needs in Tokyo's 23 wards")



#### **3-2.** Viewpoint of office workers

Now let us take a look at what is expected of an office environment from the viewpoint of office workers. Office buildings completed in recent years have been planned as part of large-scale mixed-use facility developments. While many of them offer satisfactory facilities for office workers and further value through good town management, it is no longer possible to evaluate office space merely by building specifications. Therefore we conducted two surveys: "Survey on Office Life in Roppongi Hills" (conducted in July 2005) and "Survey of Office Life in Ark Hills and Atago Green Hills" (February 2006), believing it was necessary to hear direct opinions from office workers regarding the items deemed as positive factors in an office environment other than good building specifications. The outcome of the two surveys was publicly released on April 25<sup>th</sup>, 2006 as "Survey of Office Life in Hills," with the comments of a total of 2,695 office employees at the Hills office buildings in an attempt to describe what factors have affected their work in general (motivation, performance etc).

As shown in Figure 17, <u>the top ranked items that were "positive" or "somewhat positive" in regard</u> to influence on work in general (motivation, performance etc.) were "good view" (62%), "comfort and in the building" (49.8%) and "ample green space" (47.5%), showing that elements other than building specifications have a large influence on the motivation and performance of office workers.

	Positive	Somewhat positive	Neutral	Somewhat negative	Negative
Good view	23. 1	38	. 9	35.	8 1. 7 0.
Comfort in the building	14. 1	35. 7		44. 7	4.31.
Ample green space*	12. 7	34. 8		41.7	8. 7 2. 1
Relaxing atmosphere*	9.5	37.0		48.5	4. 2 0.
Landmark status of the building*	12.8	33. 2		51.7	2. 1 0.
Appreciation from third parties	11.1	34.6		51.5	1. 71.
Comfort on security	14. 0	30. 8		49.1	4.51.6
Appearance/design of the building*	14. 6	30. 1		49.4	4. 71.
Attractiveness of overall facility and environment	9. 2	34. 9		47.5	7.2 1.
Status image	10.3	33. 4		52.5	2. 21.
Comfort on earthquake resistance	15.8	24. 7		51.9	5.6 2.0
Design of common area	10.0 2	25. 4		60. 7	3.00.
Access convenience	12.0	22. 6	33. 2	21. 4	10. 9
Pleasure with complexed facilities (cultural/commercial facilities)	6.6 19.1		60. 9		8.6 4.8
Satisfaction of private time	6.5 15.6		62. 9		10.4 4.6
Stimulation by activities such as events	5. 2 15. 9		67. 3		7.5 4.0
Stimulation by other workers	5. 7 14. 5		71.6		5.3 3.0
Amount of information	4. 6 14. 2		72. 7		6.3 2.2
Factors stimulating creativity	4. 9 13. 1		75. 6		4. 3 2. 1
Convenience for shopping	4. 7 10. 1	44. 6		26. 7	13.9
Opportunities of communication	3.4 8.2		76.6		8.4 3.3

Figure 17: Office environment affecting motivation, productivity and others (from "Survey on Office Life in Roppongi Hills")

(Note) Percentage figures are rounded to one decimal place.

\* Only for Ark Hills and Atago Green Hills

(Source) Compiled on the basis of Mori Building data

#### Outline of "Survey on Office Life"

Survey on Office Life in Roppongi Hills"

Period: July 11-22, 2005 Responses: 1057

The survey results were disclosed on October 26, 2005. http://companylnfo/press/index.html "Survey on Office Life in Hills"

In addition to "Survey on Office Life at Roppongi Hills", surveys at Ark Hills and Atago Green Hills were included. Period: February 10-17, 2006 Responses: 497 at Ark Hills, 1,141 at Atago Green Hills The survey results were disclosed on April 25, 2006 http://www.mori.co.jp/companyInfo/press/index.html



## 3.3 The desired office environment from the viewpoint of office workers

The comparison of the viewpoint of general affairs departments and facility management staff with that of office workers is shown in Figure 18. It apparently shows that the items which are considered relatively unimportant by the general affairs departments and facility management staff in fact have a positive impact on the motivation and performance of office workers. In this way, <u>we see that the viewpoints of the general affairs departments and facility management staff and office workers differ.</u>

Needless to say, the office is the place of intellectual productivity for office workers and good office environments improve their intellectual productivity. There is no doubt that improvements of the office environment eventually bring about corporate profitability.

In the coming years, office consolidation will lead to further invigoration of the office environment, and it is essential that this environment has a positive influence on the attitudes of office workers. <u>The ideal</u> office environment from now on is something that is based on the viewpoint of office workers. A satisfactory workplace for workers ensures improvement of intellectual productivity of the office workers.





#### **Column:** More interest in earthquake-resistant buildings

With the growing concern regarding a massive earthquakes and recent incidents of falsifying earthquakeresistance data in the construction of condominiums, people have no other choice but to become more conscious of earthquake resistance. When reviewing the aforementioned surveys conducted by Mori Building, responses have increased regarding "relocation to a building with better earthquake resistance" as the reason for new lease. Also, earthquake resistance is an important evaluation criterion for general affairs departments and facility management staff when selecting office space. Similarly, in the "Survey of Office Life in Hills," "earthquake-resistance safety" was stated as a positive factor in the motivation and performance of office workers. (See Figure 19)

In regard to such worries over earthquake resistance, we have calculated the percentage of total office floor space that had been completed in accordance with the former earthquake-resistance standards of all the office building stocks in Tokyo.

The "new earthquake-resistance standards" became effective in June 1981 after the revision of the building standards law of Japan, which stated that all buildings should follow the new standards thereafter. We estimated that it would usually take a period of approximately two years from the design stage until building completion, thereby assuming that buildings completed before 1983 are likely to have followed the "old building standards." Figure 20 shows the total estimation of office floor space stock (including banks).

This assumption suggests that the total floor space of offices (including banks) that have been built under the "old building standards" totals 43% in Tokyo's 23 wards. Although we need to subtract demolished buildings, buildings built before 1983 but which have no earthquake-resistance failures and buildings that underwent anti-seismic reinforcement, the fact still remains that buildings designed and built under the "former earthquake-resistance standards" accounts for a high ratio in Tokyo's 23 wards. Thus, we need to be aware that Tokyo cannot be considered a solid base for intellectual production.







		Breakdown		
	Stock as of 2004	Construction by 1983	Construction between 1984 and 2004	
Chiyoda-ku	14.97 million m	8.92 million m <sup>*</sup>	6.05 million m <sup>*</sup>	
Chuo-ku	12.37 million m <sup>*</sup>	7.30 million m <sup>*</sup>	5.07 million m	
Minato-ku	15.57 million mໍ	5.64 million m <sup>*</sup>	9.93 million m <sup>®</sup>	
Shinjuku-ku	7.10 million m	3.20 million m <sup>*</sup>	3.90 million m <sup>®</sup>	
Shibuya-ku	5.51 million m	2.00 million m <sup>*</sup>	3.51 million m <sup>®</sup>	
Other 18 wards	29.92 million m	9.75 million m <sup>*</sup>	20.17 million m	
Total	85.44 million m <sup>2</sup>	36.81 million m <sup>2</sup>	48.63 million m <sup>2</sup>	

\*Floor space includes banks.

\*Based on tax documents as of January 1 of each year. (Source) Compiled by Mori Building data based on "Tokyo Land 2004" (Land related documents) by Tokyo Municipal Government: published in June 2005.



## Major Large-scale Office Buildings to be Completed in the Future

Name of Project	Floor Area		Development led by	Location					
(Name of Building)	(m <sup>²</sup> )	(Tsubo)	Development led by.	Location					
2006									
Tokyo Midtown Tower	247, 000	74, 718	Mitsui Fudosan Co., Ltd., National Agricultural Association, Meiji Yasuda Life Insurance Co., and 3 others	Akasaka, Minato-ku					
Tokyo Midtown Tower East	117, 000	35, 393	Mitsui Fudosan Co., Ltd., National Agricultural Association, Meiji Yasuda Life Insurance Co., and 3 others	Akasaka, Minato-ku					
Tokyo Midtown Tower West	56,000	16, 940	Mitsui Fudosan Co., Ltd., National Agricultural Association, Meiji Yasuda Life Insurance Co., and 3 others	Akasaka, Minato-ku					
New Shibaura Development Project (tentative name)	163, 745	49, 533	Sony Life Insurance Co., Ltd.	Konan, Minato-ku					
Akihabara UDX	161, 676	48,907	UDX Special Purpose Corporation	Soto-Kanda, Chiyoda-ku					
TOC Ariake	111, 524	33, 736	TOC Co., Ltd.	Ariake, Koto-ku					
Toyosu Center Building Annex	105, 284	31, 848	Ishikawajima-Harima Heavy Industries Co., Ltd.	Toyosu, Koto-ku					
Mita Project (tentative name)	98, 503	29, 797	SF Mita Special Purpose Corporation	Mita, Minato-ku					
Toyosu IHI Building	97, 739	29, 566	TX Special Purpose Corporation	Toyosu, Koto-ku					
Art Village Osaki Central Tower	82, 451	24, 941	Osaki Station East Exit 3rd Area Redevelopment Association	Osaki, Shinagawa-ku					
Olinas Tower	72,957	22,069	Tokyo Tatemono Co., Ltd., Mitsui & Co., Ltd.,	Taihei, Sumida-ku					
Mitsubishi Corporation Marunouch New Office Building	62,000	18, 755	Mitsubishi Corporation	Marunouchi, Chiyoda-ku					
Toranomon Towers Office Building	59, 705	18, 061	Kajima Corporation	Toranomon, Minato-ku					
Kitanomaru Square	58,911	17, 820	Mitsubishi UFJ Trust Bank (Tokyu Land Corporation, Mitsubishi Estate, Deutsche Securities)	Kudan Kita, Chiyoda-ku					
Akasaka Garden City	48, 149	14, 565	Sekisui House Ltd.	Akasaka, Minato-ku					
G Project (tentative name)	48, 102	14, 551	DNP Co., Ltd.	Nishi Gotanda, Shinagawa-ku					
2007									
Kasumigaseki R7 Project Government And	253, 425	76, 661	Kasumigaseki Building 7 PFI. Co., Ltd. (Tokyo Tatemono Co., Ltd., Nippon Steel Corp., Taisei Corp., and others)	Kasumigaseki, Chivoda-ku					
GranTokyo North Tower	171, 770	51, 960	East Japan Railway Co., Mitsui Real Estate, Kokusai Kanko Kaikan	Marunouchi, Chiyoda-ku					
New Marunouchi Building	195, 000	58,988	Mitsubishi Estate Co., Ltd.	Marunouchi, Chiyoda-ku					
ThinkPark Tower	152, 010	45,983	Meidensha, World Trade Center Building	Osaki, Shinagawa-ku					
GranTokyo South Tower	140, 168	42, 401	East Japan Railway Co., Kajima Yaseu Development, Nippon Oil Corporation	Marunouchi, Chiyoda-ku					
Sapia Tower	78,409	23, 719	East Japan Railway Co., Railway Building Co. Ltd.	Marunouchi, Chiyoda-ku					
Category 1 Urban Area Redevelopment Project of Yurakucho Station Area 1 (tentative name)	76,000	22, 990	Redevelopment Association of Yurakucho Station (Urban Area 1)	Yurakucho, Chiyoda-ku					
Fujisoft ABC Akihabara Building (tentative name)	58,740	17, 769	Rail City East Development Co., Ltd.	Kanda-Neribeicho, Chiyoda-ku					
Yaesu 1-chome Project (tentative name)	45, 419	13, 739	Mitsui Sumitomo Insurance Co., Ltd., Shinkin Central Bank	Yaesu, Chuo-ku					
Jingumae Plan	43, 236	13,079	Harajuku Town Ltd.	Jingumae, Shibuya-ku					
Fukagawa Gatharia Tower N Building	43, 150	13, 053	Nomura Real Estate Development Co., Ltd.	Kiba, Koutou-ku					
2008									
Development Project of Akasaka 5-chome,	187, 194	56,626	Tokyo Broadcasting System, Inc.	Akasaka, Minato-ku					
Shiodome I -2 Project (tentative name)	118, 850	35, 952	Mitsubishi UFJ Trust Bank (Mitsubishi Estate, Tokyu Land Corporation, Mitsui Corporation, Heiwa Real Estate)	Kaigan, Minato-ku					
Marunouchi Trust Tower the Main (tentative name)	116, 814	35, 336	Mori Trust Co., Ltd.	Marunouchi, Chiyoda-ku					
2009			· · · · · · · · · · · · · · · · · · ·						
Otemachi Area Redevelopment Project 1st. Phase	240, 000	72,600	Otemachi Development Ltd.	Otemachi, Chiyoda-ku					
Mitsubishi Corporation, Furukawa, Marunouchi Yaesu Rebuilding Plan (tentative name)	200, 000	60, 500	Mitsubishi Estate Co., Ltd.	Marunouchi, Chiyoda-ku					
Urban Area Redevelopment Project of Nishi- Shinjuku 6-chome West, Area 6 (tentative name)	151,000	45, 678	Redevelopment Association	Nishi-Shinjuku, Shinjuku-ku					
Urban Area Redevelopment Project of Futako-tamagawa East District, Urban Area I, Office Tower (tentative name)	104, 900	31, 732	Redevelopment Association	Tamagawa, Setagaya-ku					

\* The supply volume figure announced from Mori Building is calculated from the "genuine office floor area", and does not agree with the total floor area figures shown in this chart.

\* Projects in 2010 are unlisted because there are discrepancy between public information and the results from our hearing for several projects.