

## **Management of building construction**

### **A. Architects**

By the end of 2010, the number of architects in practice is 3,443 which increases 2.41% in comparison with 3,362 in 2009, and 3,416 of them are Class A architects; in addition, the number of Class B architects (licensed according to Article 53 of the Architects Act) is 27. When compared in term of each county (city), Taipei City has the most architects: 1,215 people; 514 in Taipei County, 420 in Taichung City, 257 in Kaohsiung City, 156 in Tainan City and 155 in Taoyuan County. The 6 cities/counties above cover 78.91% of all architects in practice. It shows that the request in the space of buildings in urban area is rarely high due to centralization of population. With the convenience of information and traffic, urban city becomes the area for architects in practice centralized.

### **B. Construction Industry management**

According to the Construction Industry Act, construction is divided into comprehensive construction enterprises, specialized construction enterprises and civil engineering contractors. Comprehensive construction enterprises are categorized into three groups: A grade, B grade and C grade. By the end of 2010, the number of construction companies, exclusive of the companies without renewing certificates after Construction Industry Act was enacted, was 15,659. There were 6,176 companies of C grade comprehensive construction enterprises (39.4%), 5,896 companies of civil engineering contractors (37.7%), 2,012 A grade comprehensive construction enterprises (12.8%), 1,266 B grade comprehensive construction enterprises (8.1%) and 309 companies of specialized construction enterprise (2.0%).

In terms of total capital, the capital of the whole construction was 565,950,000,000 dollars: A grade comprehensive construction enterprises had 51.3% of the whole capital, specialized construction enterprises had 38.2%, followed by 3.9% of B grade and 5.5% of C grade. The total investment of civil engineering contractors constituted as few as only 1.2%.

In terms of construction companies' average capital, the average amount for each company was 36,140,000 dollars by the end of year 2010. There thus has concluded a comparison results that in terms of geological location, Kaohsiung city has the highest average of 164,370,000 dollars, followed by 161,470,000 dollars in Taipei City, 29,030,000 dollars in Kaohsiung County, 28,540,000 dollars in

Taichung City and 23,080,000 dollars in Taipei County.

### **C. Safety inspection in lifting equipment of buildings**

By the end of 2010, there were 8 institutions of safety inspection in lifting equipment of buildings, including 6 institutions in Taipei City, 1 in Kaohsiung City and 1 in Taichung City and 435 specialized companies which increased 2.6% in comparison with 424 in previous year (2009). Taipei City had the most specialized companies –101 (23.2%), followed by 80 companies in Taipei County (18.4%) and 42 companies in Kaohsiung City (9.7%). There were 6,768 professional technicians which increased 3.1% in comparison with 6,566 in 2009; 3,883 in Taipei City (57.4%), 806 in Taipei County (11.9%) and 389 in Kaohsiung City (5.8%).

The number of the inspected lifting equipments in 2010 is 153,095, which increases 2.6% in comparison with 149,262 in 2009. The qualified case number of the inspected lifting equipments was 153,057, nearly 100%. The cities and counties which had over ten thousand inspected lifting equipments were: 32,115 in Taipei City (21.0%), 31,918 in Taipei County (20.8%), 16,164 in Taoyuan County (10.6%), 14,385 in Kaohsiung City (9.4%) and 13,821 in Taichung City (9.0%); in addition, the five counties and cities had 70.8% of the inspected amount.

### **D. Safety inspection in mechanical recreation facilities**

The recreation center will be deregulated if mechanical recreation facilities were removed completely. In year 2010, one city (county) for recreation center was founded individually in each of Hsinchu County (1) and Tainan City (1). Yet, a new recreation center was established in Kaohsiung County. Therefore, by the end of 2010, the number of recreation center was 33, decreased 1 in comparison with 2009; 24 were in business and 9 had been suspended by the enterprise. The number of mechanical recreation facilities totaled up to 287, however, 219 were still running and 213 have duly obtained building licenses from competent authorities, 6 have not obtained miscellaneous license, acceptance certificate for completion of inspection and use license but processed by special sign for they fit the regulations and have maintained excellent facility maintenance record and conducted periodic safety inspection, and 68 were suspended.

### **E. Safety inspectors of buildings**

By the end of 2010, the number of safety inspectors of fire prevention facilities in buildings was 3,007, followed by 2,940 of equipment inspection staff. The

architects of various expertise amounted to 2,310 and 2,308, ranking the first, followed by 119 electronic engineering technicians and then 106 civil engineers. When compared with that of previous year (2009), the amount of architects increased, that of structure technicians, mechanical technicians and refrigeration and air-conditioning technicians remained unchanged, but that of civil engineers and electronic engineers decrease in contrast.

#### **F. Building interior construction**

There were 4,537 building interior construction companies by the end of 2010 which increased 8.0% in comparison with 4,200 in 2009; 3,428 design construction factories (75.6%) and 1,079 construction factories (23.8%). Taipei City had the most companies –1,850 (40.8%), followed by 768 in Taipei County (16.9%) and 419 in Kaohsiung City (9.2%). There were 13,628 construction specialists which increased 7.1% in comparison with 12,725 in 2009; 9,477 of professional design construction specialists (69.5%) and 3,863 professional construction specialists (28.4%).

#### **G. Parking spaces in the buildings**

There were 3,406,594 parking spaces in the buildings by the end of 2010; 34,079 for large vehicles (1.0%), 2,790,292 for automobiles (81.9%), 582,223 for motorcycles (17.1%). In Taiwan Province, Taipei City had 895,815 parking spaces (26.3%), Taipei County had 491,810(14.4%), Taoyuan County had 399,493 (11.7%), Kaohsiung City had 269,290(7.9%) and Taichung City had 232,936(6.8%). The number of parking spaces in the urban development project areas was 3,103,425(91.1%) and 303,169(8.9%) parking spaces for in non-urban development project areas.

#### **H. Statistics of Advertisement Management**

The number of applying permission advertisement is 1,902 in 2010: 1,530 of signboard (80.4%) and 372 of vertical advertisement (19.6%). In terms of the county/city, Taipei City had the most advertisement –807 (42.4%), followed by 507 in Taichung City (26.7%), and 171 in Kaohsiung City (9.0%). There were 13,532 of prosecution cases, in which 13,272 of removing and tearing (98.1%) is the highest, followed by 260 of fine (1.9%).

#### **I. Management Companies in Apartment and Large Buildings**

The latest statistics indicates that the number of management companies in apartment and large buildings is 606, representing an increase of 5.9%, in the previous year (2009). The amount and ratio of the building management service

corporations duly organized amounted to 140(23.1%) in Taipei city, followed by 127 (21.0%) in Taichung City and 102 (16.8%) in Taipei County. It has been required that both the administration and technology management staff shall pass the qualification and certification before getting the employment for handling such affairs since the duly enactment of Condominium Management and Ordinance (CMO) Act. By the end of 2010, the latest statistics indicate the amount and growth rate of employees with certification were 4,243 (7.6%). Including 2,028 management staff and 2,215 technicians; the technician category is composed of disaster prevention and building facility maintenance in which the former amounted to 846 and the latter, 1,369 respectively.

## **J. Removal of Illegal Constructions**

Buildings without legal permits (also called Illegal Construction) do not only damage the urban landscape beauty but also influence the sight of the city and endangered public security. According to Article 11 in Approaches of Illegal Constructions, the illegal construction must be processed based on the time of existence, the influence degree in city, transportation, and public security to be divided into the old and the new illegal constructions. The enforcement rules of the base date for separating the old from the new illegal constructions must be enacted duly according to the regulations of relevant competent authorities.

By the end of 2010, the number of illegal construction was 527,588 for the whole country. The new added unauthorized building was 55,443 and the removal of illegal construction was 31,180. The enforced supplementary application cases are 86. There were 24,177 more illegal construction cases in comparison with the amount of 503,411 and a growth ratio of 4.8% in 2009. In which, the number of old buildings with illegal construction extensions was 27,355 with a ratio of 5.2% in 810 cases were added in comparison with the amount of 26,545 in 2009. The reasons for the increases of illegal cases mainly resulted from that Taichung city government conducted inspection on regulation of new buildings monthly and found 937 cases illegal in 2010. The number of new illegal constructions (including the amount before the end of 2010 and the amount in 2010) was 500,233 with a ratio of 94.8%, representing a net increase of 23,367 cases over the amount of 476,866 in 2009.

By the end of 2010, Taipei County had the most number of illegal construction, 167,575(31.8%), followed by Kaohsiung City, 93,695(17.8%) and Taipei City 81,215(15.4%). The number of illegal construction in these three cities and counties occupied 65% throughout the country. City/county with the number of illegal construction below 1,000 contained Tainan County, Taitung County, Lienchiang County and Penghu County. In which, Penghu County had the smallest number of

20 cases.

#### **K. Issue of Construction Licenses**

1. 29,696 Construction Licenses were issued in 2010 and compared with last year's figure, the number increased 44.7%. The total floor area was 31,174,017 square meters, which increased 56.5%.
2. In terms of county/city, Taoyuan County, which had 3,667,000 square meters (11.8%), had the most total floor area; followed by 3,520,000 square meters (11.3%) in Taipei City, 3,390,000 square meters (10.9%) in Taipei County. In comparison with last year, the total floor area increased the most in Taoyuan County 1,593,000 square meters (76.8%), followed by 1,376,000 square meters (129.6%) in Taichung City and 1,268,000 square meters (147.5%) in Hsinchu County. The three biggest decrease of areas were 344,000 (38.6%) in Hsinchu City, 33,000 (5.0%) in Yilan county and 32,000 (5.5%) in Pingtung County.
3. In terms of the usages, Housing (H-2) had 16,737,000 square meters (53.7%), Industry and Warehousing (C) had 6,401,000 square meters (20.5%) and Business and Service (G) had 2,473,000 square meters (7.9%).
4. In terms of the structures, 23,227,000 square meters were concrete construction, including steel concrete construction (74.5%), 4,869,000 square meters were steel construction (15.6%) and 2,767,000 square meters were steel reinforce concrete construction (8.9%).

#### **L. Issue of Usage Licenses**

1. 22,293 usage Licenses were issued in 2010, which increased 32.9% compared with last year's figure; the total floor area was 24,014,000 square meters (decreased 9.5%).
2. In terms of county/city, Taipei County had the most construction area: 4,146,000 square meters (17.3%), followed by 2,462,000 square meters in Taipei City (10.3%) and 2,243,000 square meters in Taoyuan County (9.3%). In comparison with last year, the three biggest increases of areas and increase ratios were: 428,000 (42.3%) in Kaohsiung County and 272,000 (26.4%) in Taichung County and 270,000 square meters (14.8%) in Taichung City. The three biggest decreases of areas and ratios were: 1,776,000 (30.0%) in Taipei County, 860,000 (25.9%) in Taipei City and 437,000 (45.6%) in Hsinchu city.

3. In terms of the usages, Housing (H-2) had 13,315,000 square meters (55.5%), Industry and Warehousing (C) had 4,425,000 square meters (18.4%) and Business and Service (G) had 2,076,000 square meters (8.7%).
  
4. In terms of the structures, 17,404,000 square meters were concrete construction, including steel concrete construction (72.5%), 3,495,000 square meters were steel construction (14.6%) and 2,884,000 square meters were steel reinforce concrete construction (12.0%).
  
5. In terms of the height, compared to last years' figures, the increasing and decreasing occupy half respectively. For the increasing, the floor area for the buildings over 90 meters increased 24.2%, followed by 21.1% for the category of under 7 meters. For the decreasing, the floor area for the building between 30~45 meter decreased 37.5%, followed by the decreasing of 30.0% for the category of between 75~90 meters.
  
6. In terms of high rise building over 15 floors, the total floor area of 15 floors or over 15 floors buildings was 5,047,000 square meters in 2010 and was about 21.0% of 24,014,000 square meters for the whole year, decreased 16.7% in comparison with last year. Taipei County had the square meters of 2,103,000, followed by Taichung City of 1,109,000 square meters, Taipei City of 783,000 square meters.