

## **Management of building construction**

### **A. Architects**

Till the end of 2008, the number of licensed architects is 3,314 which increases 0.4% in comparison with 3,300 in 2007, and 3,286 of them are Class A architects; in addition, the number of Class B architects (licensed according to Article 53 of the Architects Act) is 28. Taipei City has the most architects: 1,159 people; 489 in Taipei County, 407 in Taichung City, 251 in Kaoshiung City, 150 in Taoyuan City and 146 in Tainan City, 78.5% of all licensed architects. 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 licensed architects centralized.

### **B. Construction management**

According to the Construction Industry Law, construction is divided into comprehensive construction enterprises and specialized construction enterprises and construction projects by contracts. Comprehensive construction enterprises are categorized into three groups: A grade, B grade and C grade. By the end of 2008, the number of construction companies was 14,556. There were 6,108 companies of C grade comprehensive construction enterprises (42.0%), 5,115 companies of construction projects by contracts (35.1%), 1,814 A grade comprehensive construction enterprises (12.5%), 1,276 B grade comprehensive construction enterprises (8.8%) and 243 companies of specialized construction enterprise (1.7%).

The capital of the whole construction was 501,82 million dollars; A grade comprehensive construction had 51.6% of the whole capital, specialized construction enterprises had 37.0% and construction projects by contracts had the least -- 1.01%.

In terms of construction companies' average capital, the average amount for each company was 34,480,000 dollars in 2008. The highest average capital of companies was in Kaoshiung City, with the amount of 172,940,000 dollars; 141,500,000 dollars in Taipei City, 29,610,000 dollars in Kaoshiung County, 25,950,000 dollars in Taichung City and 20,170,000 dollars in Taipei County.

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

By the end of 2008, there were 6 institutions of safety inspection in lifting equipment of buildings, including 5 in Taipei City and 1 in Kaoshiung City and 393 specialized companies which increased 3.1% in comparison with 381 in 2007. Taipei City had the most specialized companies – 94 (24.4%), followed by 71 companies in Taipei County (18.1%) and 43 companies in Kaoshiung City (10.9%). There were 6,184 professional technicians which increased 1.2% in comparison with 6,111 in 2007; 3,747 in Taipei City (60.6%), 695 in Taipei County (11.2%) and 344 in Kaoshiung City (5.6%).

By the end of 2008, the case number of the inspected lifting equipments were 138,557 which increased 5.4% in comparison with 131,448 in 2007 and 138,539 lifting equipments were qualified (100.0%). The cities and counties which had over ten thousand inspected lifting equipments were: 29,803 in Taipei City (21.5%), 26,529 in Taipei County (19.1%), 14,281 in Taoyuan (10.3%), 13,564 in Kaoshiung City (9.8%) and 13,181 in Taichung City (9.5%); in addition, the five counties and cities had 70.3% 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 2008, the city (county) was deregulated for recreation center included Hsinchu County (1), Changhua County (1), Kaoshiung County (1) and Taipei City (1). Yet, a new recreation center was established in Kaoshiung City. Therefore, by the end of 2008, the number of recreation center was 35, decreased 3 in comparison with 38 in 2007; 28 were in business and 7 had been suspended by the enterprise. The number of mechanical recreation facilities was 272; 187 were still running and 85 were suspended (50 by the enterprise and 35 had been ordered to stop before checked). Among all recreation facilities, 179 were licensed, 187 had records of maintenance and 187 had regular safety inspection. And there were 8 recreation facilities in Taipei City which were not licensed, did not obtain the certificate and the use license. However, the city government processed them with special sign, and those centers also met the requirement.

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

By the end of 2008, the number of safety inspectors of fire prevention facilities in buildings was 2,909 and the number of safety equipment inspectors

was 2,840. Architects had the highest number among all – 2,205 and 2,202 respectively; followed by 121 electrical technicians and 109 construction technician. The numbers of architects, electrical technicians and construction technician had increased; however, the numbers air-condition technicians and other inspectors had decreased compared with those of last year.

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

There were 3,731 building interior construction companies by the end of 2008 which increased 4.5% in comparison with 3,572 in 2007; 3,130 design construction factories (83.9%) and 580 construction factories (15.5%). Taipei City had the most companies – 1,611 (43.2%), followed by 559 in Taipei County (15.0%) and 356 in Kaoshiung City (9.5%). There were 11,599 construction specialists which increased 4.9% in comparison with 11,057 in 2007; 8,957 of professional design construction specialists (77.2%) and 2,435 professional construction specialists (21.0%).

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

There were 2,930,146 parking spaces in the buildings by the end of 2008; 20,544 for large vehicles (0.7%), 2,452,958 for automobiles (83.7%), 456,644 for motorcycles (15.6%). In Taiwan Province, Taipei City had 778,754 parking spaces (26.6%), Taipei County had 404,413 (13.8%) Taoyuan County had 364,249 (12.4%), Kaoshiung City had 249,794 (8.5%) and Taichung City had 195,883 (6.7%). The number of parking spaces in the urban development project areas was 2,651,355 (90.5%) and 278,791 (9.5%) parking spaces for in non-urban development project areas.

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

The number of applying permission advertisement is 2,460 in 2008: 2,018 of signboard (82.0%) and 442 of vertical advertisement (18.0%). Taichung City had the most advertisement – 1,207 (49.1%), followed by 634 in Taipei City (25.8%), and 123 in Kaoshiung City (5.0%). There were 10,748 of prosecution cases, 10,411 of removing and tearing (96.9%), and 337 of fine (3.1%).

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

The number of management companies in apartment and large buildings is 542 in the end of 2008 which increases 4.6% in comparison with 2007. The

numbers of affairs managers and technicians (including administrator of fire prevention escape facility and administrator of facility security) who obtained the certificate according to Condominium Management Ordinance (CMO) are 1,485 and 2,019. Total number of managers is 3,504 which increases 15.0% in comparison with 2007, 1,485 of administrator of facility security (42.4%) and 1,257 of affairs managers (35.9%). Taipei City and Taichung city had the most companies – 125 (23.1%) respectively, followed by 120 in Taichung City (22.1%), 85 in Taipei County (15.7%).

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

Buildings constructed without licence (also called Illegal Construction) is the tumor of a city. It not only influences the sight of the city, but also affects the 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 old and the new illegal constructions. The division date for the old and the new illegal constructions must be regulated according to the regulation planned by construction authority in the county and city.

By the end of 2008, the number of illegal construction was 484,968. The new added unauthorized building was 48,513 and the removal of illegal construction was 29,647. The net increase number of 18,866 increases 4.0% in comparison with 466,102 in 2007. In which, old illegal constructions were 25,658 (5.3%), net increase number of 1,107 in comparison with 24,551 in 2007. The reason of increase was that Taichung City Government inspected and reported monthly. The new added ones were 1,139 for the whole year. In addition, the number of new unauthorized building was 459,310 (94.7%), increased 17,759 in comparison with the number of 441,551 in 2007.

By the end of 2008, Taipei County had the most number of illegal construction, 149,060 (30.7%), followed by Kaoshiung City, 89,742 (18.5%) and Taipei City 78,491 (16.2%). 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 1000 contained Tainan County, Taitung County, Lienchiang County and Penghu County. In which, Penghu County had the leaset number of 4 cases (0.001%).

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

1. 19,484 Construction Licenses were issued in 2008 and compared with last year's figure, the number decreased 38.5%. The total floor area was 26,166,355 square meters, which decreased 24.7%.
2. Taipei County, which had 4,347,000 square meters (16.6%), had the most total floor area; followed by 2,954,000 square meters (11.3%) in Taoyuan County, 2,833,000 square meters (10.8%) in Taipei City. In comparison with last year's figures, the total floor area increased the most in Lienchiang County (76.1%), followed by Kinmen County (23.8%), and Penghu County (6.9%). The total floor area decreased in the following city and counties: Hualian County (49.7%), Chiayi City (46.0%) and Chiayi County (45.8%).
3. In terms of the usages, Housing (H-2) had 13,912,000 square meters (53.2%), Industry and Warehousing (C) had 5,537,000 square meters (21.2%) and Business and Service (G) had 2,120,000 square meters (8.1%).
4. In terms of the structures, 20,377,000 square meters were concrete construction, including steel concrete construction (77.9%), 3,271,000 square meters were steel construction (12.5%) and 2,282,000 square meters were steel reinforce concrete construction (8.7%).

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

1. 27,376 Usage Licenses were issued in 2008, which decreased 21.3% compared with last year's figure; the total floor area was 32,717,000 square meters (decreased 9.2%).
2. Taipei County had the most construction area: 6,224,000 square meters (19.0%), followed by 4,198,000 square meters in Taoyuan County (12.8%) and 3,531,000 square meters in Taipei City (10.8%). In comparison with last year's figures, Lienchiang County increased 120.8% total floor area, followed by Yilan County (46.3%), and Chiayi County (34.8%); however, the total floor area decreased in the following counties: Tainan city (39.4%), Hualien County (37.5%) and Hsinchu County (34.7%).
3. In terms of the usages, Housing (H-2) had 18,415,000 square meters (56.3%), Industry and Warehousing (C) had 5,355,000 square meters (16.4%) and

Business and Service (G) had 3,550,000 square meters (10.8%).

4. In terms of the structures, 26,911,000 square meters were concrete construction, including steel concrete construction (82.3%), 3,451,000 square meters were steel construction (10.5%) and 2,086,000 square meters were steel reinforce concrete construction (6.4%).
5. In terms of the height, compared to last years' figures, the buildings of 7 – 15 meters, 15-30 meters, 30-45 meters and 75 – 90 meters decreased 20.2%, 3.9%, 30.2% and 16.7% repectively; others increased. The total floor area of buildings over 90 meters increased the most: 60.6%; followed by 45.6% of buildings over 60-75 meters and 8.2% of buildings from over 45-60 meters.
6. In terms of high rise building over 15 floors, the total floor area of 15 floors buildings was 5,484,000 square meters in 2008 and was about 16.8% of 32,717,000 square meters for the whole year, increased 17.4% in comparison with last year. Taipei County had the most squre meters of 2,460,000, followed by Taipei City of 794,000 squre meters, Kaoshiung City of 764,000 square meters, Taichung City of 606,000 square meters, Taoyuan County of 325,000 square meters, Hsinchu City of 259,000 square meters, Kaoshiung County of 121,000 square meters, Hsinchu County of 115,000 square meters, Keelung City of 29,000 square meters, and Tainan City of 12,000 square meters. Other city or county does not issue the license for the building over 15 floors.