Construction Industry as one of the Founding Stones of Modern Hong Kong

Organization of the construction industry and recent developments since 1960s to enhance the professionalism of the industry to cater for the modern world.
Changing is not enough. In view of city development in modern world, we need to change with a prime objective to improve the urban quality, living environment, as well as competitiveness of the city.

Making a wish or setting a target is easy, how to make development happen is another issue. Development needs a very long term and accurate planning, with the means and resources to implement the plan, as well as the ability to carry out the targeted works. In order to make this happens, it required a highly professional team. Construction professions is of no doubt a core member in this efficient team.

In the following slides, we will briefly review how Hong Kong has changed in the recent decades.
The Metro-area of Hong Kong in 2010
Hong Kong in 1890
Hong Kong before 1967

Lion Rock Tunnel operational in 1967

Kai Tak Airport reclamation completed in 1957
Hong Kong before 1980

- Kowloon-Canton Railway Terminal moved to Hung Hom in 1975
- Container Terminal reclamation completed in 1976
- Cross-Harbour Tunnel operational in 1972
- Airport Runway extension completed in 1974
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City is ever changing
Milestones of Hong Kong Development concerning Construction

World War 2

1950s –60s Rising of HK’s light industries

1972 HK taking-off as a financial center HSI hitting 1700

1974 Forming of ICAC


1976 Major revision of Building Regulation

1976 China economic opening in 80’s

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2098 China economic opening in 80’s

2099 China economic opening in 80’s

2100 China economic opening in 80’s
What kind of City Development for Hong Kong – Public Facilities and Private Developments

Public Facilities

Public housing, transportation facilities, port and airport, urban infrastructure.

community facilities (public halls, sport facilities, community centre),
government buildings/facilities, hospitals, environmental projects, schools
and universities.

Other logistic supporting facilities and strategic development projects such
as reclamation and land formation, Ports and Airport, Cyber Port, Theme
Parks, Science and Industrial Park, exhibition/convention/tourism facilities,
West Kowloon Cultural District, Kai Tak Redevelopment

Private Developments

Residential, Commercial/office buildings

Hotel and entertainment facilities

Private industrial facilities (including stores and go-down)
Figures that show the difficulty in providing better living quality to mass public (area per person for public housing, \( \text{m}^2/\text{person} \))

<table>
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<td>2010</td>
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The organization and professional involvement in a typical development project for building

- Carry out the planning and design for a development according to client’s requirements and satisfying related government regulations
- Coordinate and supervise the process of development to ensure products fulfills the required standards & quality
- Carry out the construction works by the main contractor based on “building contract”.
- Works are to be done by various sub-contractor under the management of the main contractor.
- Works are to be done according to the requirements of all related government regulations.
Government bodies involved in the controlling of development/Construction process

1. Development Bureau
2. Transport and Housing Bureau
3. Environmental Bureau
4. Buildings Department
5. Civil Engineering & Development Dept.
6. Drainage Services Department
7. Environmental Protection Department
8. Fire Services Department
9. Highways Department
10. Housing Department
11. Lands Department
12. Planning Department
13. Rating & Valuation Department
14. Water Supplies Department
15. Independent Commission Against Corruption
Statutory bodies involved in the controlling of development/construction process

1. Housing Authority
2. Town Planning Board
3. Urban Renewal Authority
4. Mass Transit Railway Corporation
5. Housing Society
6. Various Public Utility companies
Regulations and Standards

1. Buildings Ordinance
2. Building Regulations (Administration, Planning, Construction, Demolition Works, Minor Works, Lift & Escalator)
3. Practice Notes
4. Town Planning Ordinance
5. Fire Safety Ordinance
6. Construction Workers Registration Ordinance
7. Factories and Industrial Undertakings Ordinance
8. Dangerous Goods Ordinance
9. Occupational Safety and Health Ordinance
10. Builder’s Lifts and Tower Working Platforms (Safety) Ordinance
11. Protection of the Harbour Ordinance
12. Antiquities and Monuments Ordinance
13. Environmental Impact Assessment Ordinance
14. Various Pollution Control Ordinances
15. Employment Ordinance
Major planning and control framework

1. Town Planning Board
2. Territorial Development Strategic Scheme
3. Port and Airport Development Strategy
4. Hong Kong 2030 Planning Vision and Strategy
5. Planning Consultation and Reviews (Kai Tak, West Kowloon Cultural District)
6. Green Master Plan
7. Hong Kong Planning Standards and Guidelines
8. Railway Strategic Plan
9. Outline Zoning Control
10. Development Permission Area
11. Urban Renewal Authority Development Scheme
Professional bodies

1. Hong Kong Institute of Architects
2. Hong Kong Institute of Engineers (Civil, Structural, Geotechnical, Building Services)
3. Hong Kong Institute of Surveyors (Building, Quantity and Estate Surveyor)
4. Hong Kong Institute of Planners
5. Hong Kong Institute of Landscape Architects
6. Hong Kong Institute of Clerks of Works
7. Hong Kong Institute of Facilities Management
8. Other recognized overseas professional institutions such as: - Royal Institution of Chartered Surveyors
   - Royal Institute of British Architects
   - Chartered Institute of Building
   - Institution of Civil Engineers
Semi-Statutory bodies that help to regulate/support construction

1. Construction Industry Council
2. Construction Worker Registration Authority
3. Vocation Training Council
4. Hong Kong Construction Association
5. Hong Kong Green Building Council
6. Occupational Safety and Health Council
7. Hong Kong International Arbitration Centre
8. Harbour-front Enhancement Committee
9. Various academic bodies and universities
Other guidelines and systems that help to control and ensure quality of construction and developments

1. Various Quality Schemes (ISO, Quality Audits, Quality Management Systems,
2. Various Safety Schemes
3. Various Environmental Schemes (EIA,
4. Site Supervision Plan
Milestones of Hong Kong Development concerning Construction

World War 2

1950s –60s Rising of HK’s light industries

Cultural Revolution in China

HK taking-off as a financial center HSI hitting 1700 in 1972

Planning and construction of the MTR (1976 – 1981)

Major revision of Building Regulation in 1976

Forming of ICAC (1974)

China economic opening in 80’

New Towns Development (73)

Signing of Sino-Chinese Joint Declaration 82

Major revision of Building Regulation in 1976

HSI hitting 1700 in 1972

Major revision of Building Regulation in 1976

Implementation of a series of quality policies for construction

Construction of the new airport and the associated projects 93-98

Handing over in 1997

China blooming

Launching of Ten-Major Infrastructure Projects (2007)

CEPA 2003

Launching (2002) of a series of construction enhancement policies/practices

Leading of China blooming

Launching of the Integrated Building Maintenance Scheme (since 2005)

Launching of Comprehensive Transportation Scheme in mid 90’

Introduction of District Councils in 1999

China economic opening in 80’

Manpower Training Enhancement

Environment-friendly construction

Launching of Ten-Major Infrastructure Projects (2007)

Constructing the new airport and the associated projects 93-98

Launching of Comprehensive Transportation Scheme in mid 90’

Handing over in 1997

Release of various privilege scheme by China (e.g. CEPA)

Release of various privilege scheme by China (e.g. CEPA)

Launching of Comprehensive Transportation Scheme in mid 90’

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Launching of a series of construction enhancement policies/practices

Manpower Training Enhancement

Environment-friendly construction

China blooming

Launching of the Integrated Building Maintenance Scheme (since 2005)

Completion of a series of cross-border facilities (2009)

Climax of the 10-Major Infra Projects

Supervision Plan, Joint Practice Notes, Green Master Plan etc.

Free travel (since 2005)

Launching of the Integrated Building Maintenance Scheme (since 2005)

Completion of a series of cross-border facilities (2009)
How these Milestones affect Hong Kong’s Development into a high-quality and competitive modern city

Rising of HK’s light industries during the 1960s
– put Hong Kong onto the track of development and generated the drive to improve herself to satisfy various developmental needs (for housing, land, basic infrastructure ....)

Cultural Revolution in China/Vietnam War
– rushing in of refugees that cause further demands on various social needs
– sanctions against China that stimulated the manufacturing and transportation industries
– led to the development of Hong Kong as a regional container centre

HK taking-off as a financial center
– generate the needs to develop more high-grade office buildings and provide more efficient infrastructure facilities to support HK’s growth
– getting wealthier thus able to fulfill the needed developments
Forming of ICAC
– uprooted the corruptive culture undermined in various sectors that hindered Hong Kong’s development into the international community
– rationalize the urgency to reform Hong Kong legal framework towards a corruption-free environment

Major revision of Building Regulation in 1996
– as part of ICAC recommendation, besides quality of works concerns, the revision also improved the entire set of building regulations to ensure no leak in the construction control framework against corruption

Planning and construction of the MTR
– activated a new direction of city upgrading and attracted further developments
– bring in international experience by the employing of overseas contractors
China economic opening in 80s’
– triggered the removal of Hong Kong manufacturing industry
– vacated factory gave room for property development resulted to the heating up of the property market and the construction industry

Signing of Sino-Chinese Joint Declaration
– clearing of Hong Kong political future that made investment for future development possible
– triggered the finalization of the new airport projects

Launching of the Territorial Development Strategy
– a planning framework being formed to lead the development of Hong Kong (infrastructure) for the coming decades

Construction of the new airport and the associated projects
– Replacing the old airport at Kai Tak and release valuable land space within down town for future development
– Building of a modern airport to face international demands
– the associated projects forming part of the infrastructure upgrading of Hong Kong urban structure
Implementation of a series of quality policies for construction
– respond to the demanding needs in the carrying out of various high-end developments
– tighten the control and gradually improved the attitude and culture of the industry

Launching of New Transportation Scheme in mid 90’
– triggered the construction of a series of efficient railway and highway projects that refined the transportation network of HK
– the new network also refined the land use and town planning pattern of HK in a long run

Handing over in 1997
– ..........

Introduction of District Councils
– allowing local districts having involvement in the development process in particularly related to local urban quality issues
– allowing budgets to support the related located development
Releasing of Construction Industry Review in 2001
– recognize the weaknesses of the construction industry that require improvement
– initial a series of reform aiming to improve such weaknesses
– legitimize government to put in resources/funding support for such reform

Launching (2002) of a series of construction enhancement policies/practices
– enforcing of the Environmental Impact Assessment Scheme, Supervision Plan, Joint Practice Notes, Green Master Plan etc.

CEPA 2003/China obtaining the WTO status, China blooming HK investments drain into China
– encourage more developers and construction professions getting into China for developments
– Hong Kong professions acquired more outreaching experience in construction to work in international environment
Launching of the Integrated Building Maintenance Scheme
– aroused the awareness of citizens about building maintenance
– improved the living condition and urban images of Hong Kong
– allow construction industry to have more job opportunities

Launching of Ten-Major Infrastructure Projects
– further improve the infrastructure framework of Hong Kong with closer linkage to China
– bring in more development and job opportunity to the industry
– trigger economic multiplying/overheating effects

Completion of a series of cross-border facilities (2009)
– bring Hong Kong closer to China’s development network

Releasing of 自由行 scheme
– make some business sectors including the property market more active that benefit construction and property markets

Climax of the 10-Major Infrastructure Projects
– Hong Kong experience the most busiest expansion in history ....
Factors to support efficient development

1. Good and appropriate planning strategies

2. Soft powers including education level, networking capability, global experience good image and integrity

3. Effective operative systems including legal, government machines, economical/financial, professional, information network

4. Efficient infrastructure provision

5. Good administrative and management capability

6. Required technological capability
Hong Kong contribution to China

• The first wave of investments in China starting in early 1980s, mainly concentrated on manufacturing, infrastructure/highway and limited property developments.

• The second wave of investments in China starting in mid 1990s. Projects diversified into many high-end properties such as commercial centre, office towers, hotels and residential estates.

• During the process, quite a large number of Hong Kong’s practitioners with strong professional capability and experience entered China, bring in together with them the knowledge, know-how and experience giving somewhat a modelling effect that trained and educated in an informal way to the counterparts in China.

• The experience brought into China (together with that of China) mainly in the areas of professional practices, property management, construction management and project operations etc.
CONSTRUCTION EXPENDITURE FORECAST
FOR PUBLIC AND PRIVATE SECTORS
(2013/14 TO 2022/23)

Actual Expenditure & Mid-Term
Public Sector | Private Sector
--- | ---
E&M Works* | | |
RMAA Works* | | |
Civil Works | | |
Building Works | | |

*E&M Works = Electrical and Mechanical Works
*RMAA Works = Repair, Maintenance, Alteration and Additional Works

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<th>Actual Expenditure</th>
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<td>HK$ Billion</td>
<td>HK$ Billion</td>
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Construction Expenditure (in September 2013 Prices)

Upper Bound Line
Lower Bound Line