

C.V. of Dr. Andrew K.W. SO

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1. PERSONAL PARTICULARS

Present Position: Director

Research Engineering Development Facade Consultants Ltd.

Co-chairman of Façade Group of HKISC

2. QUALIFICATIONS

09/2008	Registered Professional Engineer (Fire)	Engineers Registration Board
01/2007	Fellow member and Certified Laboratory Manager	The Hong Kong Institution of Certified Auditors
11/2006	MHKIE (Fire Discipline)	The Hong Kong Institution Engineers
11/2000	Fellow member	Hong Kong Institute of Steel Construction
11/1995	Doctor of Philosophy in Civil Engineering	The Hong Kong Polytechnic University
11/1991	Master of Philosophy in Civil Engineering	Hong Kong Polytechnic, HK
11/1989	B.Eng. (Hons.) in Civil Engineering	Hong Kong Polytechnic, HK

3. COMMUNITY SERVICES

Working Group on the Structural Use of Glass (PNAP APP-37, PNAP APP-110), Buildings Department, Hong Kong(2011).

Member of the Sub-committee on Review of the Use of Glass in Building Works (PNAP), Buildings Department, HONG KONG(2006).

4. PAST PROJECTS IN CONSULTANCIES AND TESTING

Fire Testing

Fire resistance tests for specimens including Timber Fire Doors, Steel Fire Doors, Roller Shutters, Glazed Screen Walls, Windows, Curtain Walls, Cement Sand Grout, GRC partitions, Glazed Doors and Other Special Joint Design. Fire performance test for building materials.

Examples of past projects in consultancies and testing of curtain walls

Job Reference (HONG KONG Buildings Department & ASD)

- The University of Hong Kong Centennial Campus
- Redevelopment of Hysan Center
- Redevelopment of 31 Queen's Road, Central
- URA Development, K31
- Customs Headquarters Building, North Point
- **International Commerce Center**
- Hung Hom Bay Hotels
- AIG Building at No.1 Connaught Road
- Hong Kong Disneyland Resort Project
- URA-K2 project Site A and Site B

^{*} This Laboratory is accredited by HOKLAS for specific tests as listed in HOKLAS Directory of Accredited Laboratories.



Research Engineering Development Facade Consultants Limited 雄略幕牆顧問有限公司 •Tel: 2807-0930 •Fax: 2662-6105



- New Territories South Regional Police Head Quarters and Operational Base at Tsuen Wan
- West Rail CC602-Kam Sheung Road Station, West Rail CC603 Head Quarter, West Rail CC203 Tin Shui Wan Station, West Rail CC300 Tsuen Wan Station
- Cyberport Contract C1, Cyberport Contract C3/C4 & Cyberport Contract C310/C410
- Science Park Phase 1a, 1b & 1c
- Princess Margaret Hospital, Tang Shiu Kin Hospital, Pok Oi Hospital, Hospital Authority Building

Job Reference (Hong Kong Housing Authority)

- Redevelopment of Yau Tong Estate Ph 4
- Yuen Tung HOS Development, Fortune St. Ph.1, Ph. 2 & 3
- Tin Shui Wai Area 105 Ph 1, Tseung Kwan O A59 Ph2
- Tseung Kwan O Area 74 Ph 2, Choi Hung Rd PSPS
- Wang Tau Hom Ph 13, Tuen Mun Area 29 Ph. 2
- Ma On Shan A 77 Ph 2, Aldrich Bay Ph.3
- Tin Shui Wan A 102 Ph 3, A 106 Ph 2
- Tai Yuen Estate Glass Panel
- Pre-qualification for Inclusion in the Approved List of Suppliers for Aluminium Windows

Other Job Reference

- Dubai Burj Dubai Tower, Dubai Mall Hotel, Al Durrah Tower, Princess Tower
- United States The Smith Center for the Performing Arts (LV), Palazzo Hotel (LV), Panorama Tower (LV), World Market (LV), Cosmopolitan Resort(LV), Sobella Veer Towers(LV), Mandarin Oriental Hotel(LV), Fontainebleau Resorts(LV), Country Club Village (Hawaii), Moana Vista (Hawaii), 100 11th Ave (NY), Smiths Center (LV), Jazz Center (SF).
- Canada- Trump International Hotel & Tower, Toronto
- Peking-北京中青旅,北京航華科貿中心,北京中山大廈
- Shanghai-上海陆家嘴发展项目,上海招商局廣場, 洲際太平洋企業中心, 上海华尔登广场(二期), 上海德意志工商中心(一期),上海汇亚大厦,上海市杨浦中央社区中心区域一期工程发展项目,上 海嘉华中心, 上海世茂国际广场
- Macau Macau Las Vegas Sands, Wynn Resort, Galaxy Starworld Hotel, Venetian Macau, Grand Lisboa
- Philippines E-Service 3- Makati City, The ICON Residences- Metro Manila, The COLUMNS Legazpi Village-Makati City.
- Singapore- Marina Bays Sands IR
- Jordan International Airport

5. EMPLOYMENT HISTORY

5.1 February 1996 - Present: Director / Laboratory Manager

With Research Engineering Development Façade Consultants Ltd.

5.2 Mar, 1995 - Feb, 1996: Civil Engineer Graduate

With Ove Arup & Partners Hong Kong Limited. Projects involved:

- (1) Development at Ho Tung Lau
- (2) The Open University of Hong Kong

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6. LIST OF PUBLICATIONS

- [1]. 'Buckling and Geometrically Nonlinear Analysis of Frames using one Element/Member', Journal of Constructional Steel Research, Vol 20, 1991, pp.271-289.
- [2]. 'Development of an Educational and User-friendly Design Software for Steel Members SD449', The Journal of the Hong Kong Institution of Engineers, Vol. 19, No.6, June 1991, pp.32-36
- [3]. 'Automatic Nonlinear Analysis and Design of Steel Frames by Micro-computer', Computers and Structures, accepted for publication.
- [4]. 'Biaxial Bending Design of Arbitrarily Shaped Reinforced Concrete Column', Journal of American Concrete Institute, Vol. 90 No.3, pp.269-278, 1993.
- [5]. 'Nonlinear Finite Element Analysis of Glass Panels', Engineering Structures, Vol. 18, No.8 pp.645-652, 1996
- [6]. 'Stability and Strength Analysis of Glass Wall Systems Stiffened by Glass Fins, Finite Elements in Analysis and Design 23 (1993) 57-75.
- [7]. 'User-Friendly Computer Analysis of Space Trusses And Frames', Fourth International Conference on Steel Structures & Space Frames, Singapore 1990, CI-Premier PTE LTD, pp.35-41.
- [8]. 'Geometrically Nonlinear Analysis of Three Dimensional Framed Structures using a Higher Order Element', Proceedings of the International Conference on Computational Engineering Science, Australia 1991, ICES, pp.169-172.
- [9]. 'Large Deflection Analysis of Glass Panels', Proceedings of the International Conference on Building Envelope Systems and Technology, Singapore 1994, <u>ICBEST</u>, pp.176-183.
- [10]. 'Strength *Analysis of Glass Panels*', Australasian Structural Engineering Conference, Australia 1994, pp.769-774.
- [11]. *Snap-through buckling of plastic-glassy sheeting*, the 2nd International Conference on thin-walled Structures (Dec 1998)
- [12]. 'Buckling behavior and design of unrestrained steel beams' The Journal of the Hong Kong Institution of Engineers, Transactions, 1992 No.4., pp.23-26.
- [13]. 'Concept of nonlinear analysis and design of glass panels', Proceedings of Symposium of Advanced Façade Engineering and Technology 2006, Hong Kong.
- [14]. *'Wind Tunnel and Full Scale Testing of the Façade of the Tallest Building in the World*', Proceedings of Innovation Light-weight Structures and Sustainable Facades 2008, Hong Kong.
- [15]. *'Experimental measurement on air temperature in a glass façade fire* ', International Journal on Engineering Performance-Based Fire Codes, Volume 9, Number 2, 2007, pp.78-86.
- [16]. 'Vertical Air Temperature Profiles in a Single Skin Glass Façade with a "Jumping Fire" Scenario', Journal of Applied Fire Science, Volume 17, Number 2, 2007, pp.107-130.