

澳門科技大學 MACAU UNIVERSITY OF SCIENCE AND TECHNOLOGY 持續教育學院 School of Continuing Studies



6

Engineering Buildability for International Projects

Course Introduction

Buildability is an in-dispensable and integral development of any buildings or infrastructures from design to construction. It is a project management technique to review construction processes from start to finish during pre-construction phase in order to identify obstacles before a project is actually built to reduce or prevent errors, delays and cost over-runs. The term "Buildability" defines the ease and efficiency with which structures can be built. The more buildable a structure is, the more economical it will be. Buildability is in part a reflection of the quality of the design documents; that is, if the design documents are difficult to understand and interpret, the project will be difficult to build and vice versa.

Course Outlines

With the aid of video, the presentation will focus on the following issues:

1. Buildability is a pre-construction exercise that looks at a design from the perspective of those that will manufacture, install components and carry out the construction works. This should not be confused with value engineering though some processes are common to both activities.

2. Assessment of buildability should look into the three elements of the planning, design and construction as illustrated in the chart below in relation to:

- a. Achieving the desired final quality
- b. Meeting the programme requirement
- c. De-risking perceived problems
- d. Achieving optimum value for money.

3. The constructability of a long span bridge and case study relating to the collapse of a suspension bridge in USA.

4. Case study relating to the collapse of a multi storey residential building in Shanghai



Target Audience	Engineers / construction professionals			
Instructor Instructor with relevant professional qualifications and experience.				
Medium of Instruction To be conducted in English with Cantonese supplementary				
Venue	335 da Dr. Carlos D' Assu	5-341 mpção 335-341, Hot	11 line Centre, 11/F, Macau	
Course Date & Time				
Tuition Fee	MOP 1,200		Class Size	30
* MUST is an Academic Affili:	ate of Chartered Associa	ation of Building Engin	The School of Continuin neers (CABE).	g Studies,
* Enrollm	ent Notes *			
(9):00 - 20:00)	(9:00 - 13:00) []	
Operation hours: Monday to Friday (9:00 – 20:00) ; Saturday (9:00 - 13:00) [Close at Public Holidays]				
1. QR Code	< >	https://coes-stu	d.scs.must.edu.mo/oasc/Persona	<u>lInfo.do</u>
For those who enroll for our courses for the first time, please go to <u>https://coes-stud.scs.must.edu.mo/oasc/PersonalInfo.do</u> or scan the QR Code below, choose the category of < >, and input personal information (no need to upload ID copy). After registration online successfully, please come to our school to make payment. You should bring along with your ID card and copy, and a passport size photo.				
2. / STUDIES MACAU UNIV. (<u>5,000</u> Tuition fee and materials fee SCHOOL OF CONTINU for payment of not more th	DF SCIENCE AND TECH (if any) should be paid by ING STUDIES MACAU han MOP5,000.	INOLOGY y cash or by cheque/Cash UNIV. OF SCIENCE AN	SCHOOL OF CONTIN	UING / o accepted
3. All payment made is not refe	undable (except that the co	ourse is cancelled by the S	School) or transferable.	
4. The School reserves the right	to cancel or postpone the	courses if minimum class	s size is not reached.	