



普通高等教育土建学科专业“十二五”规划教材  
全国高职高专教育土建类专业教学指导委员会规划推荐教材

# 建筑工程英语

(土建类专业适用)

赵琼梅 胡莹 主编

中国建筑工业出版社

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## 图书在版编目(CIP)数据

建筑工程英语 / 赵琼梅, 胡莹 主编. —北京: 中国建筑工业出版社, 2011. 7

普通高等教育土建学科专业“十二五”规划教材. 全国  
高职高专教育土建类专业教学指导委员会规划推荐教材  
(土建类专业适用)

ISBN 978-7-112-13415-1

I. ①建… II. ①赵… ②胡… III. ①建筑工程-英语-高等  
职业教育-教材 IV. ①H31

中国版本图书馆 CIP 数据核字 (2011) 第 159212 号

本书以《迪拜码头 9AB 地块高层住宅》这一真实项目作为背景, 根据工程项目的建设过程, 从前期工程、主题结构施工、后期工程到竣工验收四个大部分来进行构架, 共分为 14 个单元。每个单元由对话、角色扮演、课文、词汇、练习、翻译技巧等模块组成, 并配有漫画插图。编者力图在语言学习与专业学习之间找到一个契合点, 当学生完成本课程的学习, 具备涉外工程一线施工组织与技术应用管理岗位工作所需的英语阅读、写作、交流能力的同时, 也具备一定的工程建设认知能力。本书既考虑了专业能力的宽度与深度, 也注重语言词汇从简单到复杂的有序渐进, 各单元有机选取真实的涉外工程项目资料作为素材, 并穿插原创性的漫画, 选材新颖、语言规范、特色鲜明, 供高等职业技术学院建筑工程相关专业学生使用, 也可供成人教育培训相关专业的学生使用。

责任编辑: 朱首明 李 明

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中国建筑工业出版社出版、发行(北京西郊百万庄)

各地新华书店、建筑书店经销

北京永峥排版公司制版

北京世知印务有限公司印刷

\*

开本: 787×1092 毫米 1/16 印张: 18 字数: 450 千字

2012 年 1 月第一版 2012 年 1 月第一次印刷

定价: 38.00 元

ISBN 978-7-112-13415-1

(21219)

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(邮政编码 100037)

## PREFACE 前言

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随着我国建筑行业劳务输出业务不断增长,近年来,高职建筑工程类专业学生出国就业已成增长趋势。与传统的专业英语教学目标定位在外文资料的阅读翻译不同,学生在涉外工程一线施工组织管理岗位工作,其交流、阅读、写作等专业英语应用能力的要求已演变得更加宽泛与灵活。宽泛,体现在贯穿工程项目的全过程要求;灵活,体现在直接面对外籍工程专业人员的交流。高职教育逐渐走上以能力培养为本位的道路,“基于工作过程”已经成为一种有效的高职人才培养教育教学模式。作为语言与专业深度契合在一起的专业英语,给我们的教学提出了同样的要求——专业语言能力是否也可以基于工程项目建设的工作过程,由简单到复杂,贯穿始终来进行培养?为此,笔者在本课程多年教学改革总结的基础上,认为是有效可行的。多年来,我们积累了大量的教学参考资料,尤其是从2008年开始,到迪拜就业的几批次学生提供了很多真实的海外工程案例资料,也给我们反馈回来在工程一线工作所要求具备的专业英语能力的宽度与深度,让我们明确了基于工程项目建设过程的编写思路,并以能力培养为基准点进行全面布局。专业教师与英语教师的共同参与,使我们在专业与语言之间找到了一个契合点,那就是:语言的应用贯穿工程建设全过程,语言能力与专业能力相长——学生在培养英语语言能力的同时,也培养工程建设项目工作过程的基本认知能力,或者说,培养工程建设项目的“构造”认知能力。这里的“构造”,不是专业上说的建筑物的构造,而是工程建设过程的全局“构造”。

全书依工程建设过程分为工程简介、施工方案会审、标书与合同、进场、基础工程施工、模板工程、钢筋工程、混凝土工程、安全检查、质量检查、屋面工程、设备工程、装饰工程、竣工说明14个单元。每个单元由对话、角色扮演、课文、词汇、练习、翻译技巧等模块组成。内容有机选取了《迪拜码头9AB地块高层住宅》这一真实工程项目资料作为素材,既考虑对应专业能力的程度,也注重语言能力从简单到复杂的有序渐进。每个单元根据工程背景设计一幅相应的漫画插图,增强教材界面的活泼性。语言力求规范、流畅,整体特色鲜明、有所创新。

杜国城教授对于本书的酝酿与成书过程的指导,激发了编者创作的

灵感，增添了编写此书的信心。建工出版社的编辑与高职土建施工分委员会的领导对编者的帮助，树立了完成全书的恒心，感恩之情潜行于字里行间。

本书由赵琼梅、胡莹担任主编，谭碧云、周艳、唐取文参与编写。谭碧云牵头该门优质课程的建设，刘绮雯设计漫画插图。经验与水平局限，疏漏与不妥在所难免，敬请各位读者不吝指正。

编 者

2011 年 7 月

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## **Part one**

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# **Prophase Works(前期工程)**





## UNIT 1

# Project Synopsis (工程简介)



## DIALOGUE

*Mr. Yang, a project manager of China Overseas Construction Engineering Group (COCEG) is now discussing with Mr. Howell, president of World shelter, a local company which specializes in residential buildings, about the possibility of subletting the construction camp.*

**Howell:** What's your first impression of our country?

**Yang:** It's a beautiful country and it's the centre of Arabic world. People here are friendly. It seems to me that most of the people here speak quite different English. It's hard to understand them sometimes.

**Howell:** You will soon get used to it. Only officials, teachers and businessmen speak standard English. Let's get down to business, Mr. Yang. You invite us to bid for a construction camp to accommodate eighty men, and can you put it in more details?

**Yang:** As you know, the camp will accommodate eighty Chinese overseas workers here. It includes double occupancy staff units (两人房), four-man occupancy units (四人房) for workers and cooks, a kitchen and dining units, shower bath units, office units, a conference room and a reception unit.

**Howell:** Do you have any specific requirements?

**Yang:** I would like to hear your recommendation.

**Howell:** There is a kind of prefabricated house, which is easy and economical to transport,





fast to erect and very convenient to dismantle for either relocation or disposal when the whole project is completed.

**Yang:** Sounds fine. What's it made of?

**Howell:** Light concrete slabs.

**Yang:** Good. Could you please give us a quotation for such a camp on a turn-key basis as soon as possible?

**Howell:** All right. But who will be responsible for leveling the ground for the camp site?

**Yang:** We will do that. You will be responsible for the water and power supply. This is a duty-free project. So everything imported for it is duty-free.

**Howell:** In that case, our quotation will be much lower. When do you want the camp to be completed?

**Yang:** Within sixty days, starting from our notice to commence the work.

**Howell:** I hope we can be given the opportunity to work for you and if so, I believe we will surely do a good job.

**Yang:** I hope so, too.

## Notes

1. 会话背景与指南：由于刚刚到达工程施工所在国，承包商（contractor）的主要施工人员还没有到场，机械设备也还没有运至现场（construction site）所以，施工营地（construction camp）的建设常常分包给当地的建筑公司（local construction company）。一般情况下，承包商请业主（employer/client）向其推荐几家比较有信誉的当地公司，然后逐一去了解这些公司的情况。

2. COCEG：中国海外建设工程集团有限公司（简称 COCEG 原 COCE）是经中国政府相关部门批准，并接受中国商务部海外中心管理系列跨国集团公司的业务指导及管理，是中国政府海外发展战略的重要组成部分。COCEG 是集设计、建筑、施工、安装、调试于一体的集团公司，有十多家具有丰富承揽国际工程经验的知名施工企业、设计单位、劳务公司承揽工程项目，而且还将大力发展以建材五金电器为主的国际贸易业务。

3. prefabricated house：装配式房屋，活动房屋 prefabricated house 在口语中常用 prefab 来替代。Prefabricated 这个词在工程实施中常常使用，与它搭配的词很多，例如：prefabricated construction（装配式施工），prefabricated pile（预制桩），prefabricated unit（预制构件）。

## New Words

sublet ['sʌb'let] vt. 转租；转包给；分包给

accommodate [ə'kɒmədeɪt] vt. 给方便，帮助，供给... 住宿，容纳

e. g. accommodate (sb.) for the night 留（某人）住一夜

economical [i: kə'nɒmɪkəl] adj. 节俭的，节省的，经济的；经济学的

e. g. be economical of one's time 节省时间

dismantle [dis'mæntl] vt. 拆除的设备（装备、家具、防御工事）





e. g. dismantle a car 拆掉汽车上的零件  
quotation [kwəu'teɪʃən] n. 【商】行情, 时价; 报价, 估价; 行市表; 估价单, 报价单

## ***New Phrases***

specialize in 专攻于  
residential building 住宅楼  
light concrete slabs 轻混凝土板  
on a turn-key basis 以交钥匙方式  
level the ground 平整场地  
duty-free 免税的

## ***Role Play***

Making conversations by using the information given below:

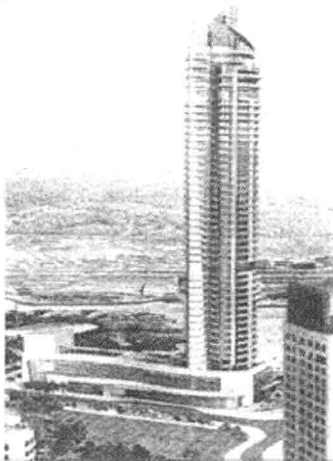
Allen is a high school student who is facing the college entrance examination. He wants to be a civil engineer but knows nothing about this course in college. A famous teacher, Professor Green, is trying to explain about civil engineering and encourage him.

## **TEXT A**

### ***A Brief Introduction to the Project***

#### **TRIDENT GRAND RESIDENCE**

Multi-Storey Residential Building  
on Plot No 9AB-Dubai Marina



#### **a. LOCATION**

The project occupies plot 9AB (Parcel ID no. 392 - 296) in Dubai Marina, adjacent to the





Royal Lc Meridian Hotel to the North, and JBR to the West. The site runs along D2.

#### **b. THE SITE**

The main construction access points will be from the service road at the South West side of the site. The site in its final condition will have vehicular access from the road on the North and West sides. The main pedestrian will be from the south-west road. Residential vehicular access will be from the south-west road, and the retail vehicular access will be from Street D2. The proposed new building is to be constructed within the plot limits.

#### **c. SCOPE OF WORKS**

1) The project comprises the construction, completion and maintenance of Residential building, a podium on plot No 9AB, at Dubai Marina and consists of 4 1/2 No. , Basement Floors, Ground Floor and two floors from the podium building, and 43 levels of residential tower (including 2 plant floors on the 15<sup>th</sup> and 39<sup>th</sup> floors). Total build-up area is approx. 99, 756m<sup>2</sup>.

2) The building construction shall also include the provision of all services and the permanent power substation along with all exterior work.

3) The building shall have the following floors:

##### **Basement:**

4 1/2 No. , basement floors ( -5, -4, -2, -1 ) comprises Water Tanks (B5), car parks, apartment, storage, retail storage, plant/service areas, indoor pool, fitness club and spa, squash courts and other tenant amenities.

##### **Podium:**

Ground floor comprises External Landscape Area/Front-of-house (FOH) areas including main residential drop-off and lobby (complete with security desk and office), retail lobbies and F&B outlets, and retail shops.

First floor level comprises retail shops and outdoor terrace seating.

##### **Plenum floor:**

Second floor level comprise pool deck with bar area, tennis court and chiller/cooling tower.

##### **Residential Tower:**

Second floor level comprises mix of 2 and 3 bedroom apartments.

Third to 14<sup>th</sup> floors comprise mix of 1, 2 and 3 bedroom apartments.

15<sup>th</sup> floor level comprises plant areas.

16<sup>th</sup> to 37<sup>th</sup> floors comprise mix of 1, 2 and 3 bedroom apartments.

39<sup>th</sup> floor level comprises plant areas.

40<sup>th</sup> to 44<sup>th</sup> floors comprise of 4 bedroom penthouse and duplex apartment with outdoor pool terraces.

Roof level comprises BMU.

Construction of building complete with structure and cladding works all as detailed in relevant drawings and specifications.

MEP services installation for all buildings.

Drainage /Plumbing service to all buildings.

Proposed Civil and MEP work as shown in relevant drawings.

The contractor should submit a detailed construction programme with the tender indicating





the construction sequences.

The main contractor will be responsible for the management, supervision and co-ordination of the works.

The contractor should allow for safe access routes into the site through the existing entrances. The contractor will take all reasonable steps to minimize transference of noise, dust and debris.

## Notes

1. The Dubai Marina: 迪拜码头. 在这座码头完工后, 它将取代目前的加州码头成为世界上最大的人造码头, 包括 200 多个高层建筑的建筑群, 里面有迪拜网络城、媒体城和美国在迪拜的大学。

2. MEP 是 Mechanical, Electrical & Plumbing 的缩写, 即机械、电气、管道三个专业的英文缩写, 也就是工程行业常说的水电风专业。如 AUTODESK 公司开发的 AUTOCAD MEP, 专门为帮助机械、电气和给排水专业人员应对日益严酷的竞争环境而设计。

## New Words

pedestrian [pe'destriən] adj. 步行的; 行人的, 人行的; n. 行人, 步行者, 人行道

vehicular [vi'hikjulə(r)] adj. 车辆的

e. g. This road is closed to vehicular traffic. 此路不准车辆通过。

maintenance ['meintinəns] n. 维持; 保持, 维修; 保养; 维修保养费用

e. g. cost of maintenance 维持费

the maintenance of an automobile 汽车保养

podium ['pəudiəm] n. (pl. -dia [-die]) 【建】作基础用的矮墙

specification [ˌspesifi'keɪʃən] n. 详细说明, 分类 [pl.] 清单, 明细单; 计划书具体要求; [pl.] 规范, 规格, 技术说明

supervision [ˌsjuːpə'vɪʒən] n. 监督; 管理

e. g. The house was built under the careful supervision of an architect.

这房子是在一位建筑师的细心监督下建造的。

co-ordination n. 合作

reasonable ['riːznəbl] adj. 合情合理的, 有道理的

## New Phrases

multi-story residential building 高层住宅楼

vehicular access 车路; 车辆通道

Ground Floor 底层, 一楼 (美 = first floor)

basement floors 地下室层

water tank 水箱, 水槽

squash courts 壁球室





tenant amenities 租赁设施, 租赁场所  
 external Landscape Area 外部观景台  
 Front-of-house 前场  
 main residential drop-off 主住宅楼落客点  
 outdoor terrace seating 露天看台  
 plenum floor 夹层  
 BMU 氨基树脂皮革鞣剂  
 duplex apartment 复式套间  
 cladding works 骨架外墙工程; 面板工程  
 be responsible for 对...负责

## ***Role Play***

1. Describe a famous building in your country or the one you are familiar with that tourists like to visit. You should say: What kind of feature it is? What is special about it? Why it is popular?
2. Describe the teaching buildings and dormitories in your college.  
 "What are the advantages and the disadvantages?"  
 "What is the building design?"

## ***Exercises***

### ***I. Answer the following questions .***

1. Where is the location of Trident Grand Residence?
2. Would the building construction include the provision of all services and the permanent power substation along with all exterior work?
3. Which floor comprises of 4-bedroom penthouse and duplex apartment with outdoor pool terraces?
4. Who will be responsible for the management, supervision and co-ordination of the works?

### ***II. Complete the sentences with the given words or expression. Change the form where necessary .***

1. All that is lacking of good \_\_\_\_\_ (co-ordinate).
2. The tenderer offer a \_\_\_\_\_ (reason) quotation.
3. He is \_\_\_\_\_ (responsibility) of the construction of the whole building.
4. The project comprises the \_\_\_\_\_ (construct), \_\_\_\_\_ (complete) and \_\_\_\_\_ (maintain) of Residential building.
5. Construction of building should comply with technical \_\_\_\_\_ (specify).

### ***III. Translate the following words or phrases into English.***

车辆通道 \_\_\_\_\_ 露天看台 \_\_\_\_\_  
 底层 \_\_\_\_\_ 复式套间 \_\_\_\_\_





地下室层\_\_\_\_\_

骨架外墙工程\_\_\_\_\_

外部观景台\_\_\_\_\_

房屋保养\_\_\_\_\_

前场\_\_\_\_\_

高层住宅楼\_\_\_\_\_

#### IV. Translate the following sentences into Chinese.

1. The contractor will take all reasonable steps to minimize transference of noise, dust and debris.

2. Ground floor comprises External Landscape Area/Front -of-house ( FOH ) areas including main residential drop-off and lobby ( complete with security desk and office ), retail lobbies and F & B outlets, and retail shops.

#### V. Try to Write.

**Direction:** You are required to write a letter of application according to the following information provided. You may refer to the given words and samples.

假设你是广东建设职业技术学院的一名土木工程专业大三的学生,在2009年9月17日的中国日报上看到珠海市设计院招聘助理设计师的工作,对此很感兴趣,特申请这一职位。

Words for reference:

毕业于……graduate from 专业 major in 申请 apply for

设计院 designing institute 职位 position 助理设计师 designer assistant

专长是…… be skillful at .../ be excellent at ...

蓝图 blueprint

Samples:

Dear Sir or Madam,

I'm writing to apply for the position that you advertised on newspaper several days ago. With an excellent achievement, I received my master degree of Civil Engineering in MIT about 2 years ago. I have engaged in some designing work in an institute since I graduated from university. If I have the honor to meet you after this letter, I will bring my blueprints together with me. During working in that institute, I cooperated with my group members so well that we did many good jobs together.

The reason why I want to quit is that I need a brand new working environment to improve my skills and know more friends outside. The payment, I think, is not the key factor for me to choose a job but the prospect.

Hoping to hear from you soon, I am looking forward to the meeting between us.

Yours faithfully,  
Peter

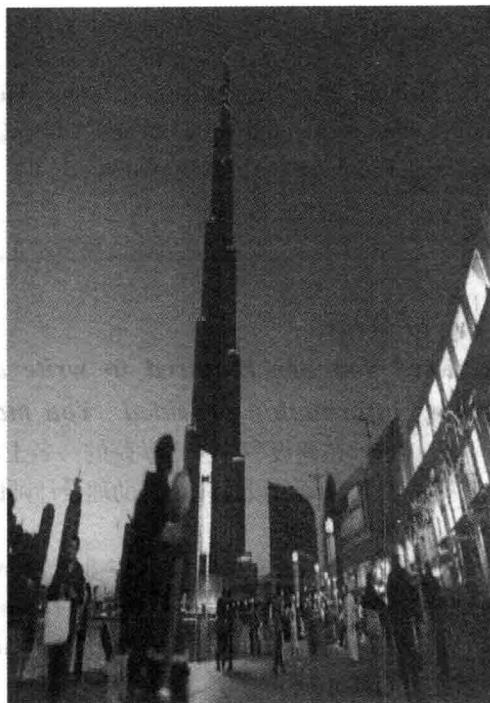
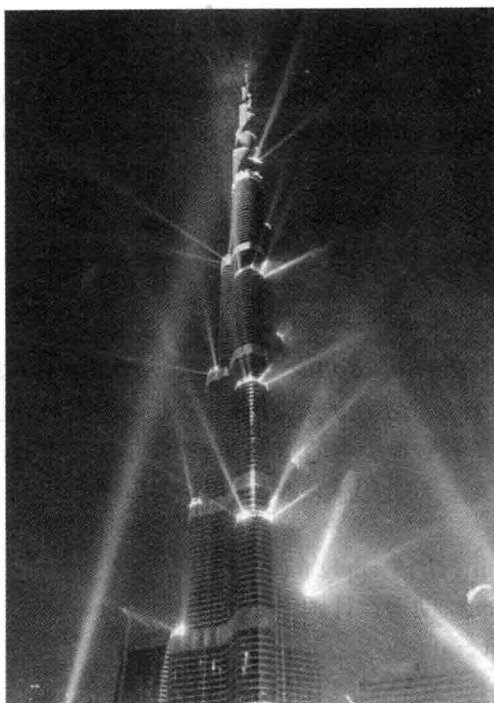




VI. The following is a brief description of a building. Read it carefully and try your best to figure it out by referring to the translation.

Dubai's "super scraper" makes history in hard times

世界最高建筑“迪拜塔”今日落成揭幕



Started at the height of the economic boom and built by some 12, 000 laborers, the world's tallest building is to open today in Dubai as the glitzy emirate seeks to **rekindle** optimism after its financial crisis.

Burj Dubai, whose opening has been delayed twice since construction began in 2004, will mark another milestone for the deeply indebted emirate with a **penchant** for seeking new records.

Dubai, one of seven members of the United Arab Emirates, gained a reputation for excess with the creation of man-made islands shaped like palms and an indoor ski slope in the desert.

With investor confidence in Dubai badly bruised by the emirate's announcement in November that it would seek a debt standstill for one of its largest conglomerates, the Burj Dubai is seen as a positive start to the year after a bleak 2009.

The project has been scrutinized by human rights groups, who have objected to its treatment of laborers, as well as by environmentalists who said the tower would act as a power vacuum, increasing the city's already massive carbon footprint.

But despite the criticism, many say the **edifice**, believed to have cost \$ 1.5 billion to build, is an architectural marvel.







The tower's height has been kept a closely guarded secret until now. Developer Emaar Properties PJSC will reveal the height —known to exceed 800 meters (2, 625 feet) —on Tuesday and Dubai's ruler will inaugurate the opening.

Experts believe Dubai's recent financial troubles have not hurt sales of approximately 1, 100 residential units in the Burj —meaning tower in Arabic —saying they were nearly all sold.

Dubai's real estate sector crashed at the end of 2008 when the global financial crisis hit the emirate after a six-year economic boom. Thousands of jobs were slashed and projects worth billions of dollars were canceled or delayed.

With analysts suggesting **tax-free** Dubai might sell some of its assets to boost revenues and slash \$ 80 billion in debt, many wondered if the tower was on the list for grabs.

Dubai, with few natural resources of its own, expects a budget deficit of 2 percent of GDP this year.

In December, the emirate received a \$ 10 billion lifeline from neighboring Abu Dhabi to repay a \$ 4.1 billion bond for Nakheel, a property arm of indebted Dubai World, and other obligations.

#### Words for reference:

**rekindle**: to revive or renew (重新点燃)

**penchant**: a strong inclination, taste, or liking for something (强烈的倾向, 趣味)

**edifice**: a building, esp. one of large size or imposing appearance (大厦, 大建筑物)

**tax-free**: not subject to taxation; tax-exempt (免税的, 无税的)

### 世界最高建筑“迪拜塔”今日落成揭幕

世界最高建筑“迪拜塔”于今日落成揭幕, 这座高楼于经济鼎盛时期动工, 约 1.2 万名工人参与建造, 饱受债务危机之苦的迪拜酋长国希望能借此机会扬眉吐气。

迪拜塔于 2004 年动工, 其揭幕日期两次延后。这座建筑有望打破世界最高建筑纪录, 为深陷债务危机的迪拜开创一个新的里程碑。

迪拜是阿联酋七个酋长国之一, 拥有人工修建的“棕榈岛”以及位于沙漠中的室内滑雪场, 让其名噪一时。

2009 年 11 月, 迪拜宣布对其最大的一家集团公司暂停偿债, 使投资者信心遭到重创。在这种情况下, 迪拜塔的落成被视为黯淡的 2009 年过后迎接新年的良好开端。

该工程的建造曾受到人权组织的非议, 称参与建筑的工人受到不公正待遇; 环境保护主义者也曾批评迪拜塔耗能过度, 将加剧该城市原本已经很庞大的碳足迹。

但尽管争议不断, 仍有很多人认为, 这座据称耗资 15 亿美元的摩天大楼是一项建筑奇迹。

直至今日, 迪拜塔的“身高”仍是个秘密。开发商艾马尔地产公司将于本周二揭开这一谜底, 据称塔高超过 800 米 (2625 英尺)。迪拜酋长将主持落成仪式。

专家认为, 迪拜最近的债务危机并未影响到迪拜塔的销售, 楼内近 1100 套住宅几乎售罄。在阿拉伯语中, Burj 意为“高塔”。

2008 年末, 在全球经济危机的重创之下, 经历了六年经济繁盛期的迪拜的房地产业崩溃。成千上万的工作机会被削减, 价值数十亿美元的项目被迫取消或延期。

