

大型卖场工程案例解析



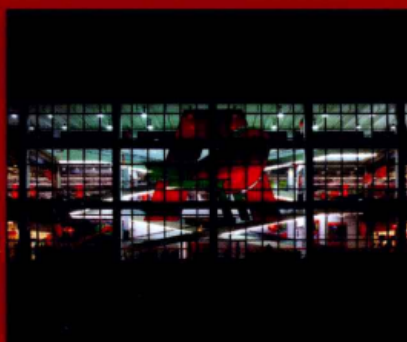
CASE STUDY ON CONSTRUCTION OF HYPERMARKET

本书编委会 编



同济大学出版社
TONGJI UNIVERSITY PRESS

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ISBN 978-7-5608-4402-2



定价: 200.00元

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内 容 提 要

本书以专业科目划分, 主要分为九个章节, 分别为: 结构篇、建筑篇、电气篇、暖通空调篇、给排水篇、制冷篇、设备篇、设计篇以及其他。

结构上以问答的形式, 中英文对照, 并且配以插图, 形象直观, 简洁明了, 实用性强, 使读者能从此书中获取最直接的信息和帮助。

图书在版编目(CIP)数据

大型卖场工程案例解析: 汉英对照 / 《大型卖场工程案例解析》编委会编. —上海: 同济大学出版社, 2010.9

ISBN 978-7-5608-4402-2

I. ①大… II. ①大… III. ①超市—建筑设计—中国—问答—汉、英 IV. ①TU247.2-44

中国版本图书馆CIP数据核字(2010)第157043号

大型卖场工程案例解析

本书编委会 编

责任编辑 孙一风 责任校对 徐春莲 封面设计 潘向葵

出版发行 同济大学出版社 www.tongjipress.com.cn

(地址: 上海市四平路1239号 邮编: 200092 电话: 021-65985622)

经 销 全国各地新华书店

印 刷 上海精英彩色印务有限公司

开 本 889mm×1194mm 1/16

印 张 12.25

印 数 1—1 500

字 数 392 000

版 次 2010年9月第1版 2010年9月第1次印刷

书 号 ISBN 978-7-5608-4402-2

定 价 200.00元

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前 言

亲爱的广大业界同仁：

自从欧尚诞生以来，我们一直致力于为客户提供优质的服务，为员工提供广阔的发展空间，为社会创造更多的财富。经过48年全球范围内的努力，我们确实做到了，并且会一如既往坚持下去。

虽然作为一家欧洲公司，但我们自始至终都有着深厚的亚洲情结。自1999年在上海开设第一家大型超市以来，欧尚在中国已经度过了11个春秋，而且更多的超市项目正在进行中。

中国经济飞速发展，投资环境稳定，特别是中国加入WTO，2008年北京成功举办的奥运会，以及2010年在上海举办的世博会，更增加了我们对中国市场的信心。作为世界500强企业、全球领先的大型超市集团公司，大力拓展中国市场是我们的战略目标之一。

在欧尚发展建店的十一年历程中，我们碰到了成千上万的技术难题。这些问题困惑我们的同时也激励我们面对它，战胜它，从而利用它积累宝贵的经验。

成长的道路难免磕磕碰碰，不经历风雨怎能见彩虹，我们一直努力着。正是凭借着坚持不懈的钻研精神和孜孜不倦的执著信念，我们在追求卓越的道路上获益良多。

十一年来，我们的工作人员沉着应对，耐心处理，并及时对一些共性问题加以总结。本书的出版一方面给新店经理分享前人的工作经验，使他们节省时间，少走弯路；另一方面，也为广大业内人士提供了一个思考的平台，从而对问题进行更好的分析，提出更好的解决方案，使大家共同进步。

衷心希望本书将会广泛地应用于我们日后的工作中，并且成为我们强有力的工具。希望广大业内人士参考本书时，提出宝贵意见。

——欧尚中国区总经理 苏德华

Foreword

Dear experts and insiders:

Since the establishment in 1961, Auchan has committed itself to better services to customers, wider platforms to employees, and bigger fortunes to the society. Through 48 years' worldwide effort, we did and will stick to it.



As a European company although, we have a deep affection to Asian market, especially to China. Since the first store established in Shanghai in 1999, Auchan has lived successfully in China, and more stores are under construction.

China is an ideal place for investment, for its fast-growing economy as well as stable environment. We are more and more confident to Chinese market especially due to the worldwide events held and going to be held in China: Entry into WTO, successful undertaking of 2008 Beijing Olympics, as well as the coming 2010 Shanghai EXPO. As one of the Top 500 fortune corporations and a pioneer hypermarket in the world, it is our great target to develop the Chinese market.

During the stores' building-up, Auchan staff worked very hard on solving problems and summarizing technical methods for sharing, developing as well as advice absorbing.

This book, on one hand, presents the senior experience to the new project managers. On the other hand, provides a wide platform for discussion and analysis, so as to find better solutions and get all of us make progress and move forward together.

I hope this book will be of great use in our daily work and become a strong tool for solving problems. However, due to the limited knowledge and experience, there maybe exist some mistakes and I am so appreciated if you can point out without hesitation.

Olivier SOULE DE BAS
General Manager, Auchan China Head Office



贺璐

结构

STRUCTURE



目录 Contents

前言 Foreword

1. 结构	
Chapter I : Structure	1
2. 建筑	
Chapter II : Architecture	11
3. 电气	
Chapter III : Electrical	39
4. 暖通空调	
Chapter IV : HVAC	75
5. 给排水	
Chapter V : Plumbing	89
6. 制冷	
Chapter VI : Refrigeration	107
7. 设备	
Chapter VII : Equipment	115
8. 设计	
Chapter VIII : Design	139
9. 其他	
Chapter IX : Others	157

后记 Postscript

❖ 问题一 QUESTION 1-1

- ❖ 如何处理露头桩?
- ❖ How to deal with exposed pile head?

❖ 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	<p>现场的露桩头实景 The scenery of exposed pile head</p>

❖ 解答 ANSWER

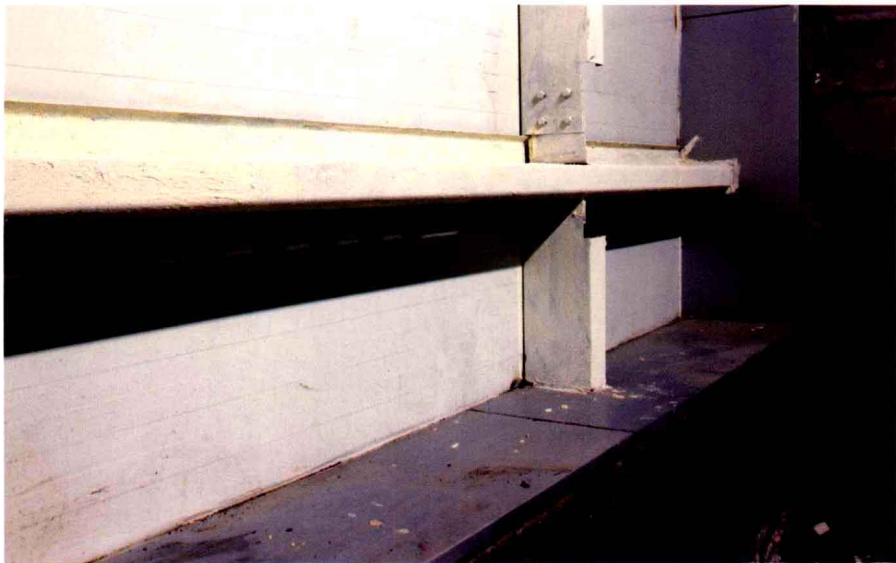
- ❖ 按照设计标高，请专门割桩的单位（或总包单位）进行割桩。对有的割桩单位不付费，以割下的钢筋作为报酬。
- ❖ To invite special unit or General-Contractor to cut exposed pile head according to design height. Some units want to get the waste piles heads as a reward.



* 问题二 QUESTION 1-2

- * 钢结构大楼如何进行防火封堵?
- * How to fulfill FFS seal in steel structure?

* 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	现场封堵实景 The scenery of fireproof material sealed

* 解答 ANSWER

- * 对于外墙与楼板间的缝，可利用库板的运输材料，切割后在矮墙上用水泥砂浆进行封堵，这样做既方便又成本低；
- * 对于Deck板下面封堵可以采用高标号水泥砂浆封堵；
- * 对于桥架穿墙洞，可采用防火泥进行封堵。
- * For the gap between sandwich panels and floor slab, the transportation material for sandwich panels is fabricated to used for sealing over the low wall with cement mortar paved on top, which makes construction convenient and low cost;
- * For the gap under deck board, it can be sealed with high standard cement mortar;
- * For cable tray gap, it can be sealed with fire-proof material.

❖ 问题三 QUESTION 1-3

- ❖ 因为用于钢结构夹层的钢板较薄、表面不平整，为避免走在楼面上发出响声，不宜直接在钢板上贴PVC地板，并且钢梁设计荷载较小，又不能在上面浇筑过厚的混凝土结合层。那么从综合施工周期、结构安全性能和经济等方面考虑，该采取何种施工方法比较合理？
- ❖ Because the steel plate used for steel mezzanine is thinner and the surface is not smooth and in order to avoid noise while walking on the ground, Laying PVC floor on the steel plate directly is not recommended; in additional, the thick concrete can not be poured on the steel plate due to less load designed for steel beam. Considering construction schedule, structure safety and cost, which construction manner is reasonable?

❖ 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
<p>1-阿姆斯壮PVC板(300*300*2.2)</p> <p>2-18mm厚多层木工板</p> <p>3-30mm木质地龙骨(间距300*300,50mm岩棉填充)</p> <p>4-聚乙烯地板膜</p> <p>5-钢板结构层</p> <p>PVC踢脚线</p> <p>40*40*3角钢 角钢支架间距400mm</p>	<p>施工示意图 Schematic diagram</p>

❖ 解答 ANSWER

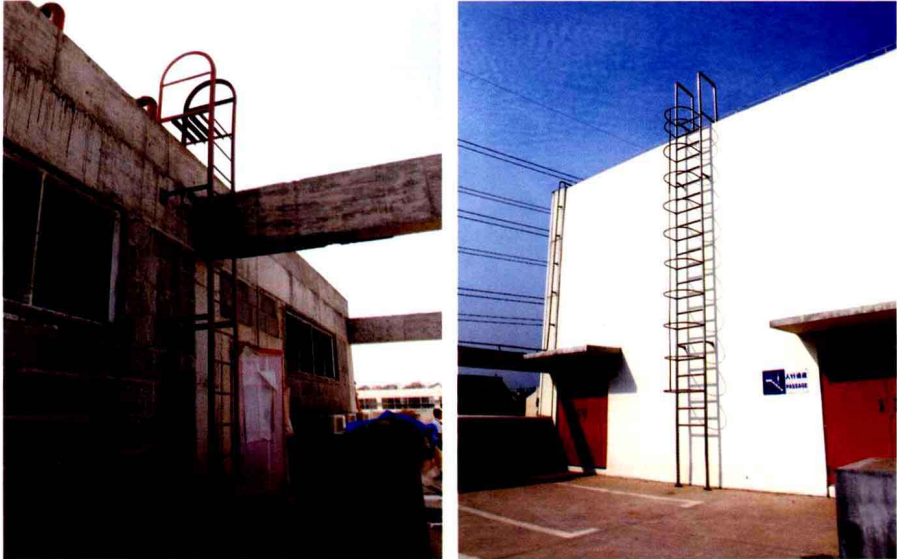
- ❖ 先在钢板基层上铺地龙骨；
- ❖ 然后填充隔音棉，铺贴木工板后再铺贴PVC地板（具体做法见上图）；
- ❖ 这样的施工工艺既减轻了楼层本身的荷载，又有效地减轻了人员行走所产生的噪音，起到了非常好的隔音效果，且施工周期较短，为总工期目标的顺利完成赢得时间。
- ❖ Firstly, pave joist on the surface of steel plate;
- ❖ Secondly, fill in the insulation material, pave the timber boards and PVC floor (see above diagram);
- ❖ This construction process has a good effect on noise insulation, which not only can decrease the load but also can reduce the noise. Moreover, which can make short of the construction schedule to match the general project progress.



* 问题四 QUESTION 1-4

- * 如何保证垂直登高梯的安全性?
- * How to ensure the safety of vertical ladder?

* 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	<p>右图是标准设计，左图缺少安全护笼。 Right one is the standard design, while left one lacks safe cage.</p>

* 解答 ANSWER

- * 在原护梯上增加护笼。
- * Add a safe cage on the original ladder.

✱ 问题五 QUESTION 1-5

- ✱ 如何处理地下基础？（关于打桩施工前的准备工作）
- ✱ How to deal with underground foundation? (preparation before piling)

✱ 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	挖掘地下的障碍物实景 The scenery of excavating underground barriers

✱ 解答 ANSWER

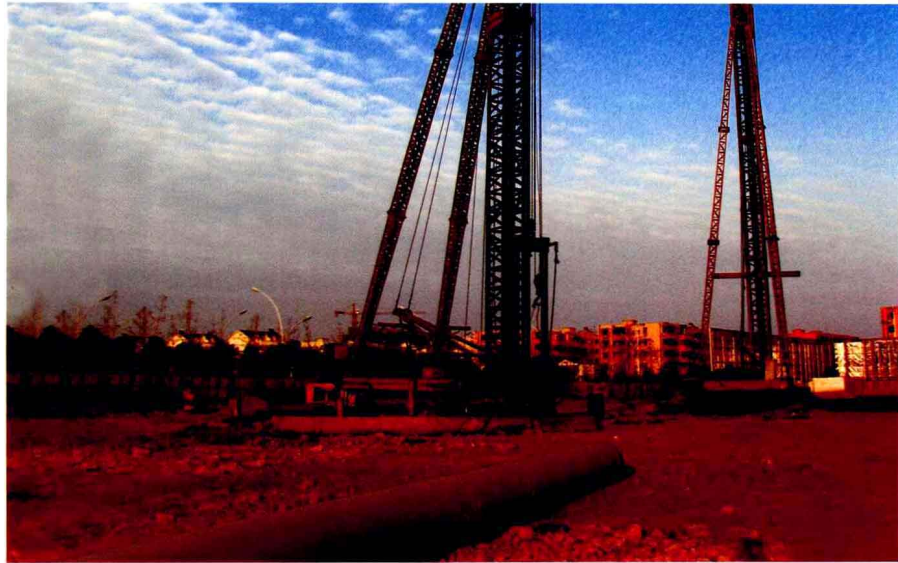
- ✱ 要彻底进行挖掘，将基地地下的障碍物全部清除掉，为顺利打桩做好准备；
- ✱ 关于打桩之前的准备工作，首先要查核原有建筑的基础图纸，找出现场可能存在的地梁及其他障碍物，根据实际情况选择人工或机械进行挖除或破碎。
- ✱ Underground barriers shall be excavated and cleared thoroughly in order to make a good preparation for piling.
- ✱ The following preparing works should be done before piling; to check the original drawing; find out underground beam and other barriers; choose the construction methods according to practice conditions (such as manpower, mechanical).



* 问题六 QUESTION 1-6

- * 打桩打不下去如何处理?
- * How to solve the problem that the pile cannot be pressed down?

* 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	打桩实景 The scenery of piling

* 解答 ANSWER

- * 首先查实桩机打桩力是否足够，如不够则更换桩机；
- * 其次再检查配重是否足够，如不够则增加配重；
- * 如果上述情况都正常则需与设计沟通，修改设计参数。
- * Firstly, check whether the drive force is enough. If not, the pile driver should be replaced;
- * Secondly, check whether the weight load is enough. If not, add accordingly;
- * If the matters above are in good order, ask designer to amend the design data.

* 问题七 QUESTION 1-7

- * 工期很紧，打桩时间更紧，如何处理试桩？
- * How to deal with the tested pile under short project schedule and testing time?

* 图片与说明 PHOTO AND DESCRIPTION

图片 PHOTO	说明 DESCRIPTION
	<p>试桩的承载实验 The load examination for tested pile</p>

* 解答 ANSWER

- * 先将试桩位置标记出来，然后将试桩全部先行压下，在允许的最短时间间隔内，进行试桩的承载实验。
- * Firstly, mark the positions of tested piles, then press down all tested piles completely. And examine the load capacity of tested pile within the minimal time permitted.

1999

欧尚在中国创建第一家大型超市



2001

欧尚在中国的 second 家大型超市

