Habitat Business Award - Submit Attachment

1- BEST PRACTICE IDENTIFICATION

Name of the Best Practice (short descriptive title)

The Hills —— A Green, Creative & Internationalized Community

2 - Contact Person:

Title (Mr. Ms, Dr. etc.) Mr.

Last Name: Zhu First Name: Zhao

Job title: HVAC Engineer, Planning&Designing Dept.

3- COMPANY PROFILE

Company Name: China Merchants Property Development Co., Ltd.(CMPD)

Address line 1: 5/F, Building 3, Nanhai Ecool Innovation Park, No.6 Xinghua Road, Shekou, Shenzhen, China

Address line 2 City: Shenzhen Postal Code:518067 Country: China

Telephone (including country code): +86-0755-26818600 Fax (Including country code): +86-0755-26691037

Email address: zhaozhu@cmpd.cn
Website: http://www.cmpd.cn

Year of establishment:1984

Number of employees: (in 2007) 756 Annual revenues for the last five years:

> 2008: ¥3573184200 2007: ¥4111644668 2006: ¥2939402576 2005: ¥2659475668 2004: ¥3475895992

4 - INDUSTRY SECTOR: Real estate

5 - CORPORATE MISSION

Enterprise Mission Statement:

With all our effort, we're trying to construct warm families, and build a harmonious society.

The Interpretation of the Mission:

To inherit the centurial China Merchant's mission – creating green habitations.

To continue stable operation style- ensuring the return to the stock holders, caring the growth of the staff

To commit to our social responsibilities – making excellent contribution to the real estate development business in China; becoming one of the most respectable enterprises; building a warmer and more harmonious society

Enterprise Vision:

Centurial China Merchant - Home is where the heart is.

The Description of the Vision:

Become an everlasting and prosperous real estate enterprise and inherit the culture of humanistic care.

6 - MEMBERSHIP to voluntary initiatives and business associations

Five voluntary initiatives:

- The Global Compact proposed by United Nations
- The OPL(One Planet Living) proposed by WWF and BioRegional
- The ecological footprint proposed by China Council for International Cooperation on Environment and Development (CCICED) and WWF
- The Smart Growth proposed by the Natural Resources Defense Council (NRDC) and International City/County Management Association (ICMA)
- The New Urbanism proposed by The Congress for the New Urbanism (CNU)

Participated industrial institutes:

- China Real Estate Chamber of Commerce (CRECC)
- China Real Estate Association

7 - CATEGORY of the Best Practice

Clean urban energy solutions, mitigation and adaptation to climate change

8 - PARTNERS

(1).

Name of Organisation: World Wide Fund for Nature (WWF-China) Address of the Organisation: WWF China Programme Beijing Office

Wen Hua Gong, Beijing Working People's Culture Palace

Type of Organisation: Non-Governmental Organisation

(2).

Name of Organisation: BioRegional Development Group Address of the Organisation: BioRegional Development Group

BedZED Centre, 24 Helios Road

Wallington, Surrey

SM6 7BZ

United Kingdom

Type of Organisation: Non-Governmental Organisation

Name of Organisation: South China University of Technology

Address of the Organisation: 381 Wushan Road, Tianhe District, Guangzhou City

Type of Organisation: Academic/ research

(4).

Name of Organisation: The DHV Group (DHV)

Address of the Organisation: Laan 1914 no. 35 [route]

P.O. Box 219 3800 AE Amersfoort The Netherlands

Type of Organisation: Professional Association

9 - BUSINESS GOAL

The Hills project is planned to create more local employment opportunities by attracting a number of small to medium corporations in creative industries to settle down in the Hills Office Park, which is under the 'Integrated Community Development' model for the interaction development of habitation and industry. It

will help the local residences to reduce their average daily travel distance. At the same time, the carbon emission and environment pollution caused by the traffics will be reduced.

The aim of zero carbon, zero polluted water and zero waste is to be achieved gradually through the practices of 65% energy saving techniques, water and waste treatment techniques.

10 - MARKET COVERAGE and TARGET GROUP

The Hills is a regional project, which is going to have a great influence on the regional economy, industry and locality's lifestyle in Panyu District and even Guangzhou City area;

The target customers of the green residence part of the project is the group of people from Panyu District and down town of Guangzhou City who pursue high quality living and care for the environment. The companies and institutions from creative industries, R&D centers, service-supporting bases and international education organizations, etc are targeted by the office park.

11 - BUSINESS CONTEXT

- Economy: There are many uncertainties in macro-economy of China in year 2008. The real estate
 market has been facing a great adjustment under the policy of credit crunch. However, at the same
 time, the optimization and upgrade of the industrial structure in Guangzhou city and even the Pearl
 River Delta region brings opportunity for the development of modern service industry and creative
 industries.
- Environment: Along with the high speed development of Chinese economy which is characterized by the rapid urbanization process, the problems of occupation of farmland, waste of energy and materials, and deterioration of environmental quality become more and more evident. According to the study report, the average ecological footprint in the surrounding area is 2.2 earthes. and the implementation of this project can help to drop the ecological footprint within the project and surrounding area to the close level of one earth, thus achieving real sustainable development.
- Technical and human resources: This project cooperates with many organizations and institutions such as BiorRegional, WWF, NRDC, Chinese Academy of Sciences Guangzhou Institute of Energy Conversion, South China University of Technology Building Energy Saving Research Institute, Guangzhou Institute of Building Science, Shenzhen Institute of Building Science, China Real Estate Chamber of Commerce (CRECC) Water Environment Research Institute, Shenzhen Institute of Environment Science and Guangzhou Tianchi Advertisement Co., Ltd., forming a technical supporting league. Furthermore, there is a green development research centre and "One Planet Living" working team builded within the company.

12 - PROCESS

- This project has been guided by the ideologies of Circular Economy, Smart Growth, New Urbanism and Integrated Community Development. Firstly, a research was carried to discover the possibilities of reducing the ecological footprint inside the project and surrounding area. The sustainable development vision and strategy of the whole project are formed based on the related results and the `Sustainable Action Plan' under the 'One Planet Living' concept.
- Secondly, a creative office park is to be build to implement the concept of integrated development of
 habitations and industries. The office park will bring a number of employment opportunities for the
 locals. The carbon emission and environmental pollution caused by the traffics are to be reduced while
 the average daily travel distance of the residences is reduced. Furthermore, it will upgrade the level of
 the local economy and achieve the goal of real sustainable development.
- Thirdly, a series of techniques methods are used to reach the goal of zero carbon, zero polluted water and zero waste gradually, such as;
 - To reach the target of 65% energy saving: the technology planning of thermal environment adjustment and construction energy saving, the implementation of series energy saving methods during the construction process and usage of solar power thermal technique in scale;

To implement the rainwater collection and waste water reuse for the landscape techniques: grass planting grid, drainage and storage board, pervious brick and bentonite waterproof blanket, etc. To carry on the feasibility study of biomass power inside the project

13 - ASSETS

The land area of this project is about $830,000 \, \text{M}^2$, and the building area is about $960,000 \, \text{M}^2$. The implementation of 65% construction g energy saving causes the incremental cost of 68 million RMB (the incremental cost per square meter is $100 \, \text{RMB /m}^2$); the application of solar energy water heating technique causes the incremental cost of RMB5.91 million (RMB10,000/ one solar power heater/one house, for 591 families); the use of water and maintenance of landscape water cause the incremental cost of about RMB3.6 million. The area of the creative office park inside this project is $390,500 \, \text{M}^2$, and the floor area ratio is 1. The predicted investment is RMB1.3 billion.

14 - REVENUE STREAMS

The development process of this project is planned to be six phases. During the prior phase, all the investments are raised by the company, which include self-asset and the bank loans. The sales income expected to start from the grand opening of this project in Aug 2008 will be used to support the post phases. Concerning both short term and long term benefits, the latter development will take the strategy of combining renting and selling, and thus achieving the sustainable development of the project, the enterprise and society.

15 - ACHIEVEMENTS

(1) Successfully applied for 2006 Guangzhou construction science project-'Technology integration of building energy efficiency and microclimate adjustment for residence community in Guangzhou' with South China University of Technology and Guangzhou Institute of Building Science;

Evaluating institute: Construction Commission of Guangzhou Municipality

Date of Registration: 19th December, 2006

(2) The Hills Project is chosen as one of the first batch of Circular Economy demonstration project of Guangdong Province.

Evaluating institutes: Economic and Trade Commission of Guangdong Province, Development and Reform Commission of Guangzhou, Bureau of Environmental Protection of Guangzhou, Bureau of Science and Technology of Guangzhou, Bureau of Finance of Guangzhou, Bureau of Foreign Economy and Trade of Guangzhou, Bureau of Audit of Guangdong Province

Date of Registration: 28th August, 2006

The implementation plan is passed in the discussion meeting arranged by Economic and Trade Commission of Guangdong Province on 11th July, 2008.

(3) The Hills project is successfully registered as a certified experimental unit project of LEED-ND community.

Evaluating institute: U.S. Green Building Council (USGBC);

Date of Registration: 30th, May 2007

It is expected to pass the pre-certification of USGBC in August 2008

(4) The Hills project is chosen as the 'Building Energy Efficiency Demonstration Project of Guangzhou' Evaluating institute: Building Energy Efficiency office of Guangzhou;

Date of Registration: 11th, December 2007

16 - KEY DATES

 On 15th August 2005, the "The Hills Green Development Strategy Forum" was conducted which marked the start of sustainable development research of the project.

- In May 2006, the "One Planet Living" community forum was conducted, and The Hills "Sustainable Action Plan Outline" was complied which marked the constant progress of the project.
- On 12th, June 2007, China Merchants Real Estate Development Company signed strategic cooperation agreement with Bioregional, and the zero carbon research and the updating and auditing of the sustainable action of the Hills was started.
- On 28th, August 2006, the project is chosen as the first batch of Circular Economy demonstration project of Guangdong Province;
- On 30th, May 2007, the project was successfully registered as a certified experimental unit project of LEED-ND community.

17 - IMPACTS

- As being positioned as a new turning point of the mature traditional real estate industry in this area, in this project, CMPD, Guangzhou has been making efforts on exploring, summarizing and promoting the sustainable development model and methods in this business through the way of cooperation with the government and environmental protection institutes from overseas and domestics. It presents that as a company with strong social responsibility and historical mission, CMPD has been contributing on the issues of improving urban environment, driving industries upgrade, providing employment opportunities, and decelerating global warming.
- By promoting the concept of 'One Planet Living' community and sustainable lifestyle, and applying a
 serious of sustainable techniques, the aim of influencing the lifestyle ideologies and behaviours of
 human beings is to reach the goal of reducing the ecological footprint inside the project and the
 surrounding area to close to one earth level, and further more to bring positive influence to the urban
 ecological systems.
- There are 70% of the products in the Hills are under the size of 90 M²" which are mainly provided for the medium and low income families in the city. The promotion of sustainable lifestyle concept and providing of sustainable services in the project will help to reduce the living costs effectively.

18 – SUSTAINABILITY

- In the specific market environment, CMPD has promoted the research and practice of the project in respect of sustainable habitation development by combing the strengths from the government, enterprise and related organizations from overseas and domestics.
- The goal of all the consumed energy inside the project will be provided by renewable resources gradually. And the feasibility study of biomass power generation for the Hills is carrying on.
- The strategy of protecting the original ecological environment on the land and constructing a 'One Planet Living' community will bring positive influence to improving the sustainability of the environment.
- A replicable business model of sustainable habitation project will be developed based on a standardized green techniques hub and an operational management process which is to be formed during the practice of this project.

19 - LESSONS LEARNED

- It is difficult to implement the energy saving techniques on the residential projects because the related outcome is not as evident as of the public buildings. The solution is to build up a mature green techniques hub and determine an energy saving system scheme by choosing applicable green techniques and balancing the economy issue at the early stage of the project.
- It took a huge amount of time on the examination of the design drawings. As the result is omitted, the relative standards should be formed and the common mistakes have to be marked on the design briefs in the future.
- The designers pursued the aesthetics appearance and high ratio of open windows in the designs of the houses. It has caused extra cost on energy saving by implementing additional measures to reach the anticipated energy saving target in the following stage.

 Energy saving trainings should be conducted for the project companies. The course of green technology training will be tailor-made according to the different climate conditions and energy saving requirements in various areas.

20 - REFERENCES

One main reference website: www.gzcmpd.com

Four web links:

 OPL website reported the BedZed strategic cooperation agreement signed between the project and BioRegional

http://www.bioregional.com/oneplanetliving/china

http://www.bioregional.com/oneplanetliving/china/jinshan

Panyu Daily: One Planet Living in Jinshan

http://pyrb.dayoo.com/html/2007-07/12/content_34284627.htm

- Sina.com News: China Merchants Real Estate--- Be the most successful municipal operator http://bj.house.sina.com.cn/news/2005-12-27/2118112600.html
- Guangdong Construction News reported the Tiger Apartment: It is a responsibility to change the colour of land back to green

http://www.ycwb.com/gb/content/2006-01/13/content_1054946.htm

USA Newsweek reported the Tiger Apartment: Feeling The Cool Breeze

http://www.singtaonet.com/ed_china/200711/t20071120_672826.html

http://www.newsweek.com/id/70956/page/1