

Program 1: Housing Legislation and Enforcement

Objectives:

1. To promote the understanding of the legal systems and exchange the experience in the preparation and implementation of laws and regulations related to housing development.

Subjects to be studied:

1. The framework of the housing legal systems
2. Legislation and enforcement of housing laws and regulations

Action plans:

1. Texts of housing laws and regulations should be exchanged in the first half of 2000.
2. A seminar to address the preparation and implementation of housing laws and regulations should be organized in the first half of 2000.
3. A joint report of the Comparative Study of the Housing Legal Systems in China and U.S. should be completed before the end of 2000.

Implementing agencies for the Chinese side:

Department of Housing and Real Estate, Ministry of Construction (HRE)
Housing and Land Administration, Shanghai

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private industry; and
Other government agencies.

Facilitators for the Chinese side:

Department of Restructuring and Legal affairs, Ministry of Construction
Department of Legal Affairs on Agriculture, Resources and Environmental Protection, Legal
Affairs Office of the State Council
Shanghai Development Research Institute, Development Research Center of the State Council
Research Institute of Housing and Real Estate Laws and Regulations, Shanghai

Coordinator for the Chinese side:

Mme Xie Jiajing, Director General, HRE

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 2: Housing Market Management

Objectives:

1. To promote the understanding of the operation and management of the housing market;
2. To promote the exchange and cooperation of the various actors in the housing sector;
3. To establish the market monitoring system which suits the situation in China;
4. To improve the management of property transfer, leasing, consulting service and property management in China.

Subjects to be studied:

1. Housing market operation approaches and methods used by the government to regulate market,
2. The role of the private sector and individuals in the housing market and their relationship with the government;
3. Housing transaction and property titling;
4. Functions of housing estate developer associations and intermediate consulting agencies and their relationship with the government.

Action plans:

1. Both sides intend to exchange texts of the relevant management rules and contract in 2000.
2. Joint research should start in early 2000 and a research report should be completed by late 2000.
3. Training courses, experts and business meetings for the Chinese and U.S. experts should be organized.

Implementing agencies for the Chinese side:

Department of Housing and Real Estate of the Ministry of Construction (HRE)
Housing and Land Administration of Shanghai Municipal Government

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private industry; and
Other government agencies.

Facilitators for the Chinese side:

Housing and Real Estate Administration of Nanjing Municipal Government
Real Estate Research Center of Shanghai Academy of Social Sciences
China Property Assessors' Institute
Title Research Division of China Housing and Real Estate Research Institute

Coordinator for the Chinese side:

Mme Xie Jiajin, Director General, HRE

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 3: Housing Taxation System

Objectives:

1. To study the features and differences between the Chinese and U.S. housing taxation systems;
2. To promote housing development through the improved taxation system in China.

Subjects to be studied:

1. The state of the housing taxation system and its characteristics;
2. Regulation of the housing market by the taxation system;
3. Varieties and rates of taxes and regulations on tax reduction or exemption for the housing construction, consumption and circulation.

Action Plan:

A joint research group should be set up in mid-2000 to exchange information and visits, and hold seminars to complete the following reports.

- Comparative Study of Housing Taxation Systems in China and the U.S.
- Proposals on the Taxation Policies Aiming to Expand Effective Housing Supply and Demand in China

Implementing agencies for the Chinese side:

Department of Housing and Real Estate of the Ministry of Construction (HRE)
Department of Taxation System of the Ministry of Finance
Department of Local Taxation of the State Administration of Taxation Affairs

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private industry; and
Other government agencies.

Facilitators for the Chinese side:

Housing and Land Administration of Shanghai Municipal government
Finance Research Institute of the Ministry of Finance
Real Estate Institute of Shanghai Finance and Economy University

Coordinator for Chinese side:

Mme Xie Jiajin, Director General, HRE

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 4: Housing Policy and Community Development

Objective:

To exchange the experience and practice in formulating and implementing policies for housing and community development, especially those for low-income families.

Subjects to be studied:

1. Housing policies for low-income families, including financing, taxation, land and subsidy policies;
2. Measures and methods for providing housing for low-income families;
3. Management of low-income housing and strategies for the community development at different times.

Action Plans:

1. Both sides intend to exchange information of various policies related to housing and community development in the first half of 2000.
2. Study tours by officials and experts should be organized in 2000.
3. A joint study report for the findings of the tours should be written in 2001.

Implementing agencies for the Chinese side:

Department of Housing and Real Estate of the Ministry of Construction (HRE)

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private industry; and
Other government agencies.

Facilitators for the Chinese side:

Department of General Affairs of the Ministry of Finance
Shanghai Municipal Housing Relief Program Office
Shanghai Municipal Housing Reform Office
Beijing Municipal Housing Reform Office
Tianjin Municipal Housing Reform Office
Chongqing Municipal Housing Reform Office

Coordinator for the Chinese side:

Mme Xie Jiajin, Director General, HRE

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 5: Housing Finance Policy

Objectives:

1. To compare the housing finance systems in China and U.S.
2. To submit suggestions on the further reform of China's present housing finance system and housing finance operation mechanism

Subjects to be studied:

1. Housing financing institutions and their operation;
2. Channels of housing financing and the financing supervision and regulation system;
3. Housing finance market and the government's regulation;
4. The role of housing policy in housing finance system.

Action Plans:

1. Both sides intend to exchange information in the first half of 2000;
2. The Chinese side intends to send an expert group to the U.S. to study the organization and operation of the housing finance institutions;
3. A joint research group should be set up to make a comparative study of the housing finance system in China and the U.S., and conduct an analysis on the current situation of the housing finance system in selected cities in China. Two reports, Comparative Study of Housing Finance System in China and the U.S. and Policy Proposals on Establishing and Developing Housing Finance System in China should be completed before the end of the study.

Implementing agencies for the Chinese side:

Department of Housing and Real Estate of the Ministry of Construction (HRE)
Department of Monetary Policy of The People's Bank of China
Urban Development Information Center of Shanghai Municipal Government

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private industry; and
Other government agencies.

Facilitators for the Chinese side:

Department of General Affairs of the Ministry of Finance
Finance Research Bureau of the People's Bank of China
Department of Real Estate Credit Loans of the Industrial and Commercial Bank of China
Department of Real Estate Credit Loans of the Construction Bank of China
Central Provident Fund Management Center of Shanghai Municipal Government
Housing and Land Administration of Shanghai Municipal Government

Coordinator for the Chinese side:

Mme Xie Jiajin, Director General, (HRE)

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 6: Housing Mortgage Loans, Guarantees, Insurance and Mortgage Securitization

Objectives:

1. To promote the understanding of the mortgage systems and the exchange and cooperation of the financial institutions in the mortgage sector between China and U.S.;
2. To explore the feasibility of launching a pilot project on mortgage securitization in China and to put forward policy proposals;
3. To study the operation pattern of housing mortgage guarantee and insurance systems in China.

Subjects to be studied:

1. Housing mortgage procedures and risks prevention measures;
2. The mechanism of housing mortgage loan guarantee and insurance;
3. The operation of secondary market for mortgage loan guarantee and insurance;
4. Mortgage securitization in U.S.

Action Plans:

1. Study visit and seminars should be organized in the first half of 2000 and 2000;
2. The U.S. Parties intend to conduct training course for the Chinese professional staff;
3. The following reports should be completed:
 - (1) The Establishment of Housing Mortgage Guarantee Institutions in China
 - (2) Designing China's Housing Mortgage Insurance Packages
 - (3) The Feasibility of Mortgage Securitization in China
 - (4) Policy Proposals on the Improvement of Housing Mortgage Market in China

Implementing agencies for the Chinese side:

Department of Housing and Real Estate of the Ministry of Construction (HRE)
Department of Monetary Policy of the People's Bank of China
Housing and Real Estate Institute of Policy Research Center of the Ministry of Construction
(focusing on Guarantee)
Shanghai Urban Development Information Center (focusing on Securitization)

Implementing agencies for the U.S. Side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private Industry; and
Other government agencies.

Facilitators for the Chinese side:

Finance Research Bureau of the People's Bank of China
Department of General Affairs of the Ministry of Finance
Department of Real Estate Credit Loans of the Industrial and Commercial Bank of China
Department of Real Estate Credit Loans of the Construction Bank of China
Institute of Surveying and Designing Research of the Ministry of Construction

Coordinator for the Chinese side:

Mme Xie Jiajin, Director General

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 7: Housing Statistical Indicator System and Housing Demands Forecast

Objectives:

1. To compare the similarity and difference of the housing statistics systems in China and U.S.;
2. To put forward the theoretical basis and practical methods for formulating China's medium-term and long-term plans of housing development;
3. To provide technical support for policy-making in regard to housing development;
4. To promote the theoretical study among the research institutions.

Subjects to be studied:

1. Indicator systems, methods and channels for collecting data of housing investment, construction, marketing, leasing and stock.
2. Theories and methodologies for housing demand forecast.

Action Plans:

1. A joint group should be set up to exchange the information in the first half of 2000.
2. A study tour to the U.S. should be organized in the second half of 2000.
3. Further meetings and/or seminars should be arranged along with the progress of this study.
4. A proposal should be made to improve the housing statistics systems in China before the end of the study.

Implementing agencies for the Chinese side :

Department of Housing and Real Estate of the Ministry of Construction (HRE)
Department of Fixed Assets Investment of the State Statistics Bureau
China Building Technology Development and Research Institute

Implementing agencies for the U.S. side:

Department of Housing and Urban Development, with the assistance of:
Department of Commerce;
Private Industry; and
Other government agencies.

Facilitators for the Chinese side:

Information Center of the Ministry of Construction
Housing and Land Administration of Shanghai Municipal Government

Coordinator for the Chinese side:

Mme Xie Jiajin, Director General, HRE

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 8: Evaluation and Standards for Housing Performance

Objectives:

1. To promote the technical cooperation between the Chinese and U.S. performance institutions and carry out the domestic and international evaluation services;
2. To prepare a Chinese standard for the evaluation of housing performance which complies with the international standard to provide qualitative and quantitative evaluation on housing performance in China.

Subjects to be studied:

1. The role of housing performance evaluation in improving the housing quality, regulating housing markets and promoting industrialization;
2. The U.S. indicator system, standards, evaluation procedures, as well as testing items, methods, instruments, and equipment.

Action plans:

1. The U.S. parties should facilitate a group of Chinese experts who intend to visit U.S. organizations in charge of housing evaluation, standards, codes, and procedures on testing, evaluation and certification, and work out a detailed cooperation program with the U.S. partners in 2000;
2. Technical training courses concerning evaluation methods, standards, and testing should be organized in 2000;
3. Seminars on the Evaluation Standards for Commercial Housing Performance in China should be arranged in 2001.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Housing and Urban Development, with the assistance of private Industry and such other government agencies as:

Building and Fire Research Laboratory, National Institute of Standards and Technology (NIST),
Department of Commerce;
National Evaluation Service.

Facilitators for the Chinese side:

Department of Science and Technology, Ministry of Construction
Department of Prospecting and Designing, Ministry of Construction
Department of Standards and Norms, Ministry of Construction
Department Housing and Real Estate, Ministry of Construction

Coordinator for the Chinese side:

Mme Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 9: Housing Products Evaluation and Certification System and Its Standards

Objectives:

1. To promote the technical cooperation between the Chinese and U.S. evaluation institutions;
2. To establish the technical evaluation and certification systems for housing products and construction materials in China;
3. To carry out technical evaluation services for housing products and construction materials.

Subjects to be studied:

1. Evaluation and certification management including evaluation methods and announcement systems;
2. Liabilities of both evaluation and evaluated parties, term of validity, and follow-up services, etc.

Action Plans:

1. The U.S. partners should facilitate a group of Chinese experts who intend to visit the U.S. evaluation organizations to study their operation and management and identify a detailed cooperation program in early 2000.
2. Training courses should be organized in the second half of 2000.
3. The National Evaluation and Certification Standard on Housing Products in China should be made in 2001.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Housing and Urban Development, with the assistance of private Industry and such other government agencies as:

Building and Fire Research Laboratory, National Institute of Standards and Technology (NIST),
Department of Commerce;
National Evaluation Service.

Facilitators for the Chinese side:

Department of Science and Technology of Ministry of Construction
Department of Standards and Norms of Ministry of Construction
Relative research institutes and manufacturers

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 10: Housing Technologies

Objectives:

1. To apply and spread the research findings under this Memorandum of Understanding through demonstration projects in China;
2. To encourage U.S. enterprises with advanced housing technologies to cooperate with their Chinese partners in the joint development of markets in China.

Areas of Cooperation:

1. Technologies of Housing Structure Systems
 - Technologies of steel structure
 - Technologies of wood structure
 - Technologies of concrete block structure
2. Technologies of energy-efficiency in buildings
 - Technologies of energy-efficiency of building envelopes (outer wall insulation, roof insulation and waterproof, windows)
 - Technologies of energy-efficiency of heating and air-conditioning systems (independent heating and air-conditioning systems)
3. Technologies of disaster prevention for housing buildings
 - Anti-seismic technologies
 - Fireproof technologies
 - Waterproof technologies
4. Technologies of intelligent management of residential areas (technologies of home network communication)
 1. Technologies of environmental protection in residential areas
 - Technologies of solid waste collection and disposal
 - Technologies of waste water treatment

Action Plans:

1. The U.S. parties should facilitate a group that intends to visit the U.S. and investigate U.S. housing technologies and infrastructure industries, identify cooperation areas, partners, methods and make detailed cooperation programs in early 2000.
2. Seminars, training courses, and exhibitions should be organized in 2000 and 2001 to develop bilateral communication. Consistent with the laws of the United States and China, related U.S. technologies should be introduced through joint ventures, demonstration houses or demonstration projects.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Housing and Urban Development, with the assistance of private Industry and such other government agencies as:

National Institute of Standards and Technology (NIST), Department of Commerce;
National Oceanic and Atmospheric Administration (NOAA), Department of Commerce;
Federal Emergency Management Administration;
Department of Energy;
Forest Products Laboratory, Department of Agriculture;
Environmental Protection Agency.

Facilitators for the Chinese side:

Department of Science and Technology, Ministry of Construction
Department of Prospecting and Designing, Ministry of Construction
Department of Standards and Norms, Ministry of Construction
Department of Urban Construction, Ministry of Construction
Science and Technology Development Promotion Center of Ministry of Construction
Relative research institutes and manufacturers

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 11: Housing Products

Objectives:

1. To promote the exchange and cooperation between the Chinese and U.S. enterprises through technology introduction and joint ventures;
2. To promote the use of new products in China through demonstration projects, and improve the Chinese standardization system for housing products.

Areas of Cooperation:

1. Wall materials (construction blocks, pre-cast panels)
2. Partition wall system (gypsum board, light-steel skeleton system, pre-finishing technology)
3. Insulation materials (extruded EPS board, fiberglass, self-foaming polyurethane)
4. Waterproof materials (pitch tile, waterproof sealing glue, underground waterproof materials)
5. Sanitary equipment (toilet washing tank fitting)
6. RTA kitchen furniture
7. Windows (wood-plastic window, aluminum-plastic window, fiberglass window, window hardware)
8. Painting (inner wall and outer wall painting)
9. Elevators for residential buildings
10. Centralized ventilation systems
11. Independent home heating and hot water systems

Action Plans:

1. The Chinese side should facilitate a group of U.S. manufacturers who intend to visit China to identify cooperation contents, partners and ways of implementation to carry out detailed programs in early 2000.
2. Seminars, exhibitions, feasibility and marketing studies should be organized for the introduction of U.S. products and pilot joint ventures for some products and facilities should be organized in 2000.
3. Evaluation of the ventures should be done in 2001 for future cooperation.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Commerce, with the assistance of private Industry and such other government agencies as:

Department of Housing and Urban Development;
Department of Energy;
Forest Products Laboratory, Department of Agriculture;
Environmental Protection Agency.

Facilitators for the Chinese side:

Relative bureaus. under the National Committee of Economy and Trade
Department of Science and Technology, Ministry of Construction
Relative research institutes and manufacturers

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development

Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 12: Housing Construction Technologies

Objectives:

1. To promote the exchange and cooperation of the Chinese and U.S. enterprises through technical seminars and discussions;
2. To encourage the U.S. enterprises to work with their Chinese partners in the establishment of joint ventures and the joint development of technologies and products to be used in China.

Areas of Cooperation:

1. Technologies of cast-in-place concrete
 - High strength concrete
 - Light weight concrete
 - Rebar connection
 - Concrete agitation and pumping
 - Concrete additive
 - Test and evaluation standards for concrete quality control
2. Construction technologies of steel structure
 - Welding and quality control
 - Selection and reprocessing of the steel materials and weather impact on the structure
3. Construction technologies of wood structure
 - Prospect of wood structure housing
 - Selection and processing of the wood materials and weather impact on the structure
4. Construction tools
 - Especially motorized hand-tools

Action Plans:

1. Mutual visits and Technical seminars should be organized in 2000 to identify cooperation contents, partners and methods and make detailed cooperation programs.
2. Pilot projects using these technologies should be launched in late 2000.
1. Evaluation of the pilot projects should be done in 2001 for future cooperation.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Commerce, with the assistance of private Industry and such other government agencies as:

Department of Housing and Urban Development;
National Institute of Standards and Technology (NIST);
Federal Emergency Management Administration;
Department of Energy;
Forest Products Laboratory, Department of Agriculture;
Environmental Protection Agency.

Facilitators for the Chinese side:

Department of Construction Administration, Ministry of Construction
Department of Science and Technology, Ministry of Construction
Relative research institutes and manufacturers

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and
Urban Development

Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 13: Product Distribution System

Objectives:

1. To learn and introduce the U.S. methods of financing, organizing and managing the large-scale housing project markets as well as the after-sale and information service systems;
2. To promote the cooperation between the Chinese and U.S. supermarket groups to establish Sino-U.S. supermarkets and chain-stores in China;
3. To develop jointly and introduce the computer network management systems for the distribution of housing products.

Areas of Cooperation:

1. Supermarkets and chain stores
2. Computer distribution networks
 - The central market network system
 - The network system for commodity circulation centers
 - The network system for the regional centers and distribution centers
 - The chain-stores network system

Action Plans:

1. The U.S. parties should facilitate a visit of Chinese experts to investigate the U.S. housing-product markets to understand the market operation system and the computer management systems and identify cooperation contents, partners and methods and make detailed cooperation programs in 2000.
2. Training courses, seminars and technical exchanges should be organized in 2000.
3. Joint ventures of supermarkets and chain-stores for housing products should be set up in 2001.
4. The computerized network for housing products should be set up in 2002.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

The Departments of Commerce and Housing and Urban Development, with private Industry.

Facilitators for the Chinese side:

Department of Science and Technology, Ministry of Construction
Relative enterprises

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Program 14: Human Resources Training and Technology Exchange

Objectives:

1. To establish a Sino-U.S. human resources training center to carry out long-term cooperation in technology and management;
2. To promote the technical exchange and cooperation between the Chinese and U.S. enterprises so as to cultivate qualified technical and management personnel;
3. To provide international information services of human resources.

Action Plans:

1. The training program including the operation of the center, courses and curriculums, and financial arrangement should be discussed and defined in 2000.
2. Training courses, seminars, technical meetings and exhibitions should be organized after the establishment of the center.

Implementing agency for the Chinese side:

The Housing Industrialization Office, Ministry of Construction

Implementing agency for the U.S. side:

Department of Commerce, with the assistance of private Industry and such other government agencies as:

Department of Housing and Urban Development;
Employment and Training Administration, Department of Labor.

Facilitators for the Chinese side:

Department of Science and Technology, Ministry of Construction
Relative parties

Coordinator for the Chinese side:

Mme. Nie Meisheng, Director, Housing Industrialization Office, Ministry of Construction

Coordinators for the U.S. side:

Mme. Carla Koppell, Deputy Assistant Secretary, Department of Housing and Urban Development
Mr. Alan Bowser, Deputy Assistant Secretary, Department of Commerce

Category of Housing Technologies and Products

Chinese think we don't need this Abstract from Detailed Cooperation Agreements on Sino-U.S. Housing Cooperation (Housing Industrialization Section)

- 2.1 Housing Technologies
 - 2.1.1 Technologies of Housing Structure System
 - Technologies of steel structure
 - Technologies of wood structure
 - Technologies of concrete block structure
 - 2.1.2 Technologies of energy-efficiency in building
 - Technologies of energy-efficiency of building envelope (outer wall insulation, roof insulation and waterproof, windows)
 - Technologies of energy-efficiency of heating and air-conditioning system (independent heating and air-conditioning system)
 - 2.1.3 Technologies of preventing housing from adversities
 - Anti-seismic technologies
 - Fireproof technologies
 - Waterproof technologies
 - 2.1.4 Technologies of intellectual management of residential area (technologies of family network communication)
 - 2.1.5 Technologies of environmental protection of residential area
 - Technologies of trash collection and treatment of residential area
 - *Technologies of waste water treatment of residential area*
- 2.2 Housing Products
 - 2.2.1 Wall material (construction blocks, pre-cast panel)
 - 2.2.2 Partition wall system (gypsum board, light-steel skeleton system, pre-finishing technology)
 - 2.2.3 Insulation material (extruded EPS board, fiberglass, self-foaming polyurethane)
 - 2.2.4 Waterproof material (pitch tile, waterproof sealing glue, underground waterproof material)
 - 2.2.5 Sanitary equipment (toilet washing case fittings)
 - 2.2.6 RTA Kitchen furniture
 - 2.2.7 Windows (wood-plastic window, aluminum-plastic window, fiberglass window, window hardware)
 - 2.2.8 Paintings (inner wall and outer wall painting)
 - 2.2.9 Housing elevator
 - 2.2.10 Centralized ventilation system
 - 2.2.11 Independent family-use heating and hot water system

- 2.3 Housing Construction Technologies
 - 2.3.1 Technologies of cast-in concrete
 - High strength concrete
 - Light weight concrete
 - Rebar connection
 - Concrete agitation and pumping
 - Concrete additive
 - Concrete standard of quality control and evaluation
 - 2.3.2 Construction technologies of steel structure
 - Welding and quality control
 - Influence of material selection, re-processing and weather
 - 2.3.3 Construction technologies of wood structure
 - Outlook of wood structure housing
 - Influence of material selection, processing and weather
 - 2.3.4 Construction tools
 - Especially motorized hand-tools