

## TG26 - Open Building Implementation



We are indebted to Stephen Kendall who in the name of both Joint Coordinators has sent in the following report which gives an interesting and graphic view of the directions which this Group is currently taking.

Task Group TG26 - Open Building Implementation held its second official meeting in Washington, DC, at the National Building Museum from 3rd to 5th November 1997. Twenty four Task Group members came, from the US, Canada, Japan, Taiwan, Finland and the Netherlands. On Sunday 2nd November many members participated in a guided tour of Washington's Mall, surrounding neighbourhoods, the Frank Lloyd Wright Pope/Leighy House (one of his Usonian houses), and a presentation concerning current "neo-traditional" trends in urban design in the US, given by CHK, a local architecture and planning firm.

The Task Group met on Monday 3rd November to introduce new members and to exchange reports on activities, research, and project implementation which had taken place since the last meeting in Delft in May 1997.

These included:

- Dr. Seiji Sawada who reported on conferences he had attended in Shanghai and Dessau, Germany, and who focused attention on the massive housing problems - rehabilitation and new construction - faced in both countries. He indicated that keen interest was shown in both locations to develop connections with the Task Group.
- Architect Joop Kapteijns reported on research work he was conducting at the OBOM Office at the TU Delft on "The Building Knot", a project to develop an abstract description of building parts and their arrangements compatible with modern information technology, as a way to stimulate

prefabrication of building parts.

- Dr. Seiichi Fukao showed a video and reported on the latest experimental work at the NEXT 21 Project in Osaka, in which one dwelling unit was renovated as a demonstration of advanced technical and organisational strategies.
- Mr. Seiji Kobata from the Housing and Urban Development Corporation in Tokyo gave a report on many innovative projects under HUDC's direction.
- Mr. Karel Dekker presented information on a project called "Sustainable and Open Redesign of Real Estate".
- Professor Paul Rutten from TU Eindhoven presented his work on "CORIP, Consumer Related Industrial Processes."



The TG26 Workshop in full swing

## Studies in Teams

On Tuesday 4th November the Task Group was joined by twenty five local architects, developers, contractors and engineering consultants. In the morning, Dr. Stephen Kendall introduced the local guests and explained how the next two days were to be organised - focusing on a workshop format. Four teams consisting of local professionals and visiting TG members were organised to conduct Open Building design/cost studies of actual housing projects brought by the local architects. As an introduction, detailed case studies of Open Building projects were presented by members of the Task Group: NEXT 21 (Seiichi Fukao), the Voorburg Rehab Project in the Netherlands (Karel Dekker), and the Matura Infill System (an advanced residential fit-out product now on the market in Europe) (Age van Randen).

At lunch, the four teams met to become familiar with each team's project. The aim was to produce design/cost/logistics studies of real local projects - following Open Building principles - for presentation the next day at a public Open Building Symposium.

## The four projects were:

### Team 1: Office To Residential Conversion Project

(Universal South; Connecticut Avenue at Florida Avenue, Washington, DC; presently being redesigned for new offices, it was previously studied for conversion to residential; multi-storey parking structure in core.)

#### *Local Design Team*

Architect

3D/I  
John Gardner, VP  
Reed Kiefer, AIA

General Contractor:

George Robinson, Davis Construction Corporation

Developer:

Matt Birembaum, Development Director, Avalon Properties

TG26 MEMBERS:

Mr. Kobata (HUDC/Tokyo)  
Ms. Johanna Hankonen (Finland)  
Mr. Rob Geraedts (The Netherlands)  
Mr. Seiji Sawada (Japan)  
Mr. Nils Larsson (Canada)

## TEAM 2: New Multifamily Rental Project

(King Street Metro / Alexandria: presently in schematic design phase.)

### *Local Design Team*

Architect	KCF-SHG, Incorporated John Murphey Maynard Ball Cheryl Brown Mariela Buendia-Coccochano Frank Mangin Don Posson Steve Sveda
General Contractor:	Mark Eames, Project Manager, Clark Construction
TG26 MEMBERS:	Mr. Seiichi Fukao (Tokyo) Mr. Fritz Scheublin (HMG, The Netherlands) Mr. Pertti Lahdenperä (Finland) Ms. Ulpu Tiuri (Finland) Mr. Ype Cuperus (The Netherlands)

## TEAM 3: New High Rise Residential Building In Baltimore

(University client plans to build an 18 storey apartment building.)

### *Local Design Team*

Architect	Bennett, Frank, McCarthy Ralph Bennett Hord, Coplan, Macht David Hunter
Mechanical Engineer	Shadi Makarechi, P.E: Engineering Design Group, Inc.
General Contractor	James Owens; Whiting/Turner Construction Company
TG26 MEMBERS:	Mr. Karel Dekker (The Netherlands) Mr. Tomonari Yashiro (Japan) Mr. Komatsu (Japan) Mr. Pekkanen (Finland) Mr. Kahri Esko (Finland)

## TEAM 4: New Live/Work Loft / New Town Center

(Project at the Kings Ranch, Rockville, now in master planning phase and concept drawings for buildings; town center residential over retail.)

### *Local Design Team*

Architects	CHK, Architects/Planners: John Torti Sami Kirkdil Williams and Dynerman Alan Dynerman
General Contractor	John Bellingham: Monarc Construction
Developer	Jon Cox: Holladay Group Development Company
TG26 MEMBERS:	Ms. Li-Chu Lin (Taiwan) Mr. Willem Langalaan (Canada) Mr. Iwashita (Japan) Mr. Paul Rutten (The Netherlands)

The teams worked until late in the night, having moved from the National Building Museum where work started to each of the local architecture offices, where work continued on the drawings and cost studies until late in the evening.

5th November was the public Open Building Symposium. In the morning, Task Group members presented a broad range of projects to the more than 30 registered guests. This included a review of Japanese developments toward Open Building over the past decades; a review of developments in The Netherlands; and a review of activity in Finland. This was followed by a detailed presentation of the basis for the development of infill systems, with particular reference to the Matura Infill System and its current status in practice.

Following a lunch, everyone - more than sixty people - gathered in the Great Hall of the Building Museum for three hours of presentation and discussion of the work of the four teams. The work was presented by the teams one-by-one, with each giving an assessment of the adoption of open building principles in the architectural design, construction organisation, and development economics of their projects. Following the team discussions, a plenary meeting offered the opportunity to sum up the workshop and lessons learned.

### **Summary**

What was perhaps most interesting was the endorsement of Open Building practice, by the developers on one of the teams. They could immediately see the advantages to a building owner in the separation of base building and fit-out. Several of the teams suggested that if an infill system such as Matura were available it would be used. Most of the local architects were quick to adjust to the rules of open building and could adjust their building designs accordingly. Since several of the projects are currently in design development, it is realistic to believe that some of the lessons learned could be applied.

The Open Building Symposium was supported by financial contributions from local, national, and international organisations in the housing and building industry. These included 3D/International, The Canadian Green Building Information Council and Natural Resources Canada; Monarc Construction, Inc.; The Clark Construction Group; Bensonwood Homes, Inc.; Global Link (international consultants to the homebuilding industry); Wieland, Inc.; IBACOS; Avalon Properties, Inc.; and the Holladay Corporation.

The Symposium was co-organised with the Washington Building Congress and the Washington DC Chapter of the American Institute of Architects, both of whom advertised to their members. Design professionals could earn much valued " Continuing Education Learning Units" by coming to the lecture. CADRE Corporation, a non-profit research organisation at the University of Maryland School of Architecture, assisted with the project accounting. Other support and contributions came from US Business Interiors and the Cafritz Company.

### **An Experiment**

This three day activity - the second for the Task Group - was in part an experiment in how to organise a Task Group meeting. The workshop format model - organising Task Group members and local professionals in teams - was new. The objective was to raise and sharpen issues related to implementing Open Building projects in the local situation. The means to this objective consisted of working together - international open building experts and local professionals - in designing, estimating, and assessing open building principles and practices applied to real, local projects.

The objectives were met. 50 professionals from around the world worked together on four real projects.

In the process:

- Local architects learned to understand more fully the issues involved in designing floor plates and facades in an open way, dealing with the technical design of plumbing, heating and air-conditioning and cable distribution, aided by engineering consultants.
- Housing developers learned how development economics and marketing would be aided by

- applying a separation of base building and fit-out.
- Contractors saw how to apply construction estimating and logistics principles already used in office building projects to residential construction.
- Finally, the Task Group members worked together for the first time, and did so with local counterparts, supplementing the normal delivery of reports and technical papers.

Proceedings are being prepared and will be available in January or February 1998.

**Stephen Kendall and Karel Dekker**  
**Joint Coordinators TG26**