Popular demand put the government of Japan into a position that made it necessary for them to look around for a better system than that traditionally used to develop housing in the quantity and quality acceptable to a more demanding population.

The Council of Forest Industries of B. C., along with the Canadian government saw in this trend a possible way of diversifying the Canadian lumber market by promoting the use of our normal surfaced dimension along with North American style timber frame construction for the Japanese market. The progress since October 1972, when the technical promotion began, has been phenomenal; though due to the world wide recession the predictions on actual housing starts has necessarily been revised downward.

In assessing the progress we should understand that there is very heavy government (Japanese) involvement in all aspects of this change resulting in the need for some considerable change in approach on our part, nonetheless what has been accomplished is truly remarkable remembering that this whole concept was entirely new.

In a few words, they have accepted, approved and translated our grading rule with very minor changes making it possible for our surfaced construction lumber to be virtually accepted as it is in North America, translated and distributed our timber frame construction booklet, made it possible for a builder to build in timber frame or traditional as long as he has had a prescribed amount of training in the timber frame method.

The Council and the federal and provincial governments have cooperated in building two townhouses in Tokyo to demonstrate timber frame and construction methods. In addition they have conducted training programs with some Japanese carpenters attending our vocational schools to learn the rudiments first hand. The program brought to Vancouver in 1974 some 1500 interested Japanese businessmen for a personal look at our industry and housing. Conducted tours were handled through the Council. This is, of course, a continuing program and in 1974 we opened an office in Tokyo presently staffed with a Canadian architect as Manager who had spent some years in Japan and a native Japanese architect whom it is planned will open a branch office in Osaka. Further expansion is planned with a grading expert slated to go to Japan about September.

The Japanese have dubbed the timber frame building system "the 2 x 4 method" primarily due of course to the predominance of the 2 x 4 in the system and also to differentiate it from the traditional 4 x 4 system.

The traditional Japanese house contains about 10% less lumber than our system but due to the time involved, the skills necessary and the cost it is quite apparent that a change was necessary if housing goals were to be met. Comparing factors between North America and
Japan we find that the time necessary to build an equivalent house is 700 hours in North America against 2500 hours in Japan, costs are approximately double.

The Japanese traditional building method differs from the "2 x 4 method" in a number of ways. First the sizes and types of timbers, the "2 x 4 method" using standard surfaced timbers nominally 2" thick by 4, 6, 8, 10 and 12 inches wide and overall different dimensions necessary are very minimal, in prefabrication probably 30 different specifications whereas the traditional house could have 10 or more times as many. The use of nails in the "2 x 4 method" is a big change in approach as the traditional building is primarily a tongue and groove, mortice and tenon jointing method.

It is estimated that Japan must build 30 million housing units by 1985 with approximately 60% of these being single family dwellings of timber construction. Japanese authorities predict at least 250,000 houses per year in the 2 x 4 method before 1980. This only takes care of 10% of the housing market but represents approximately 2 billion board feet of dressed dimension lumber. Over the long haul the Ministry of Construction predict that 1/3 of all houses will be built with the "2 x 4 method" either on site or by prefabrication with an overall reduction in actual cost of 20%.

Presently there are a number of built in costs which we, are sure, be modified as time goes along. One of these, the rule calling for the regrading and restamping of all North American dimension, with a staff of over 300 inspectors they are even now finding it basically impossible to more than sample shipments with the result that they have made available paper grade labels that can be applied by the importer, wholesaler or retailer, theoretically according to our grade stamp. The labels are available at 3 yen each and the whole program depends on the honesty of the individual. We are endeavoring to have them accept our grade stamp without going through this traditional procedure and feel sure they will move toward this soon because for one thing the cost of the reinspection increases the cost of the dressed dimension some 15,000 to 30,000 yen per cubic metre (424 FBM).

Another area having a direct bearing on cost is the traditional Japanese distribution pattern for lumber as indicated by the following diagram supplied by the Japanese Ministry of Agriculture and Forestry. It is anticipated that changes in this accepted flow will come about before the "2 x 4 method" gets into full swing.

The future appears good for this market and certainly the development of this market by the Council has been extremely rewarding to all of those involved.