

Case (4) Renovation of existing buildings/green in sites (ReNOA Akabane)

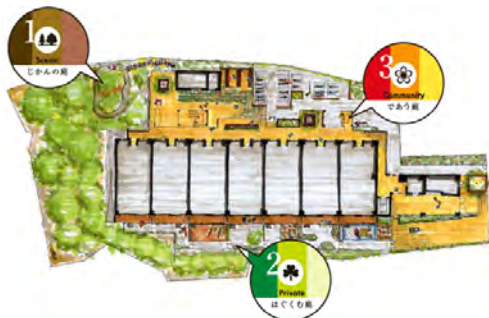
- Renovation utilizing the structure of existing buildings. It reduces environmental loads including carbon oxide mission by introducing energy saving facilities.
- Careful due diligence (detailed research) has been carried out in advance. Free design method that enables tenants participate in design activities starting with the skeleton stage has been introduced after verifying endurance.
- Participatory management activities of the green in site is implemented from the points of view of biodiversity and community formation.

Name: ReNOA Akabane

Location: Kita Ward, Tokyo City

Contractor: ReBITA Inc.

Category: Condominium



Floor plan



Exterior of the condominium

Source: Home page of ReBITA Inc.

[Efforts for improving the environmental performance]

ReNOA Akabane (ReBITA Inc.) was formerly a company house built in 1992 and renovated to condominium in 2009.

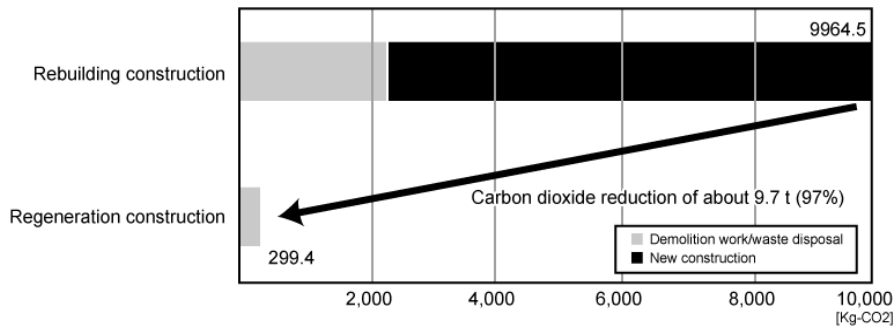
The contractor first purchased the existing building and the site, let a third-party research organization carry out due diligence and diagnosed the deterioration status of the building and its facilities, and examined the structure. It was confirmed that the skeleton itself could endure for about eighty years by taking measures like coating with paint that prohibit neutralization. So the renovation plan was formed. Existing research results on renovation say that renovation utilizing the structure reduces the carbon oxide emission caused by producing materials of the structure, construction and the like by about 97 percents when compared with the case of rebuilding.

The followings are the three key points of renovation:

① Free design: Free design method has been adopted. Tenants participate in discussions on design. The infill (partition, interior, etc.) parts can be planned freely starting with the skeleton stage depending on the life style and family structure of the tenants.

② Total electrification: Trunk lines have been renovated to make the total electrification standard specification of all households. Facilities with high energy saving performance (e.g. EcoCute) are introduced.

③ Regeneration/maintenance of wood in the site: Existing green land that occupied 29 percents of the total site area were in disrepair because of insufficient care. So renovation for regeneration and maintenance has been carried out. After the diagnosis of the tree doctor, native trees that are part of the wood spread over this site and adjacent shrines/temples are protected while exotic plants are partly replaced with native ones. So planting caring about biodiversity is now underway. Community spaces like community garden are laid out and utilized for forming and growing communities of tenants.



Comparison of the carbon dioxide emission between rebuilding and regenerating constructions (only structure part evaluated)

Source: editor-in-chief Shuichi Matsumura "Conversion [Plan/Design] Manual] 9/2003

[Relation with stakeholders]

(1) Tenant	(2) Constructor	(3) Seller of existing building/site
<p>Hearing of sellers indicate the following motives of purchase: (a) drastic reduction of utility costs by introducing energy saving facilities, (b) free design system that enables participating in designing after checking the state of the structure, and (c) improved amenity and formation of excellent communities based on the wood maintained in the site. Detailed due diligence ensures that the endurance and inhabitable period of time of the building compares favorably with those of a new building.</p>	<p>Though the selling price of the ReNOA Akabane is higher than the signed price of the used condominiums in the neighborhood by about 15 percents, all tenants have signed i the month ot was constructed. There are other merits including decrease in the business period from obtaining the land to selling, reduction of the waste disposal costs due to demolition of existing buildings and ensuring advantage over competitors in obtaining land/building is expected.</p>	<p>Contractors who utilize existing buildings do not have to pay the demolition cost of the existing building and construction cost of the new one. So this contractor can bear more expenses for obtaining land and building than those who deal in selling new condominiums. From the point of view of the seller of existing building/land, this indicates the possibility to sell at a price that reflects the residual value of the existing building in addition to the price of land.</p>

* Workshop on Sustainable Property, "Sustainable Property Analyzed from the Actions of the Multi- stakeholder," June/2009.