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▲ Community center almost completed in December 2015.



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Rendering of the project during the finalization of the design performed alongside the construction. ▶

Following the earthquakes of spring 2015, EDA initiated a reconstruction program to support the villages of the Taksindu VDC located in the Solokumbu district.

Following a first reconnaissance mission performed in May 2015, another one month mission was led by an engineer and an architect in September 2015 to survey the damages in the 9 villages of the VDC and to secure buildings when required. Together with the beneficiaries, the reconstruction program was designed. The team guided EDA to a first major project nobody could have imagined.

Chhulemu was the most affected village where half of the 33 houses had to be rebuilt. Beneficiaries asked for a new community center to hold Buddhist ceremonies, social gatherings and classes, therefore eliminating the need for big two-level houses. Smaller one-level houses are cheaper to build and are less vulnerable to earthquakes.

Only local construction techniques were used for the project. With the support of Canadian construction professionals and local builders, earthquake-resistance improvements were incorporated to these construction techniques. The school-construction site has allowed the beneficiaries to learn these earthquake-resistance techniques in order to integrate them in the reconstruction of their own homes.

COMMUNITY CENTER IN CHHULEMU, NEPAL EMERGENCY AND DEVELOPMENT ARCHITECTS

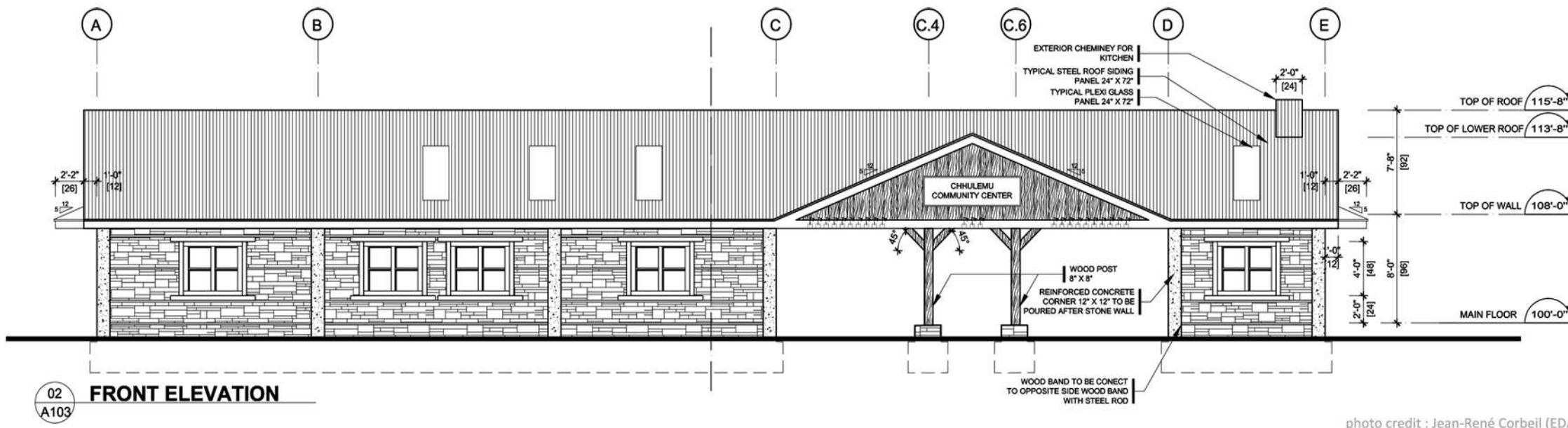


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The project is above all a capacity building project. Capacity building is the key of the EDA reconstruction program for Nepal.

The 9 Taksindu villages are essentially composed of houses. About a third of them needed to be rebuilt after the earthquakes. Because of the biannual rainy seasons and because of the sub-zero temperatures during winter, the priority for the villagers was the reconstruction of their house. However, the financial assistance of the federal government was not going to happen fast enough and the province of Solokumbu was not a priority for major NGOs.



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▲ Front elevation of the community center.

Workers performing an earthquake-resistance detail.

◀ Training on site.



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Schematic detail of the exterior column with earthquake-resistance improvement. ▶

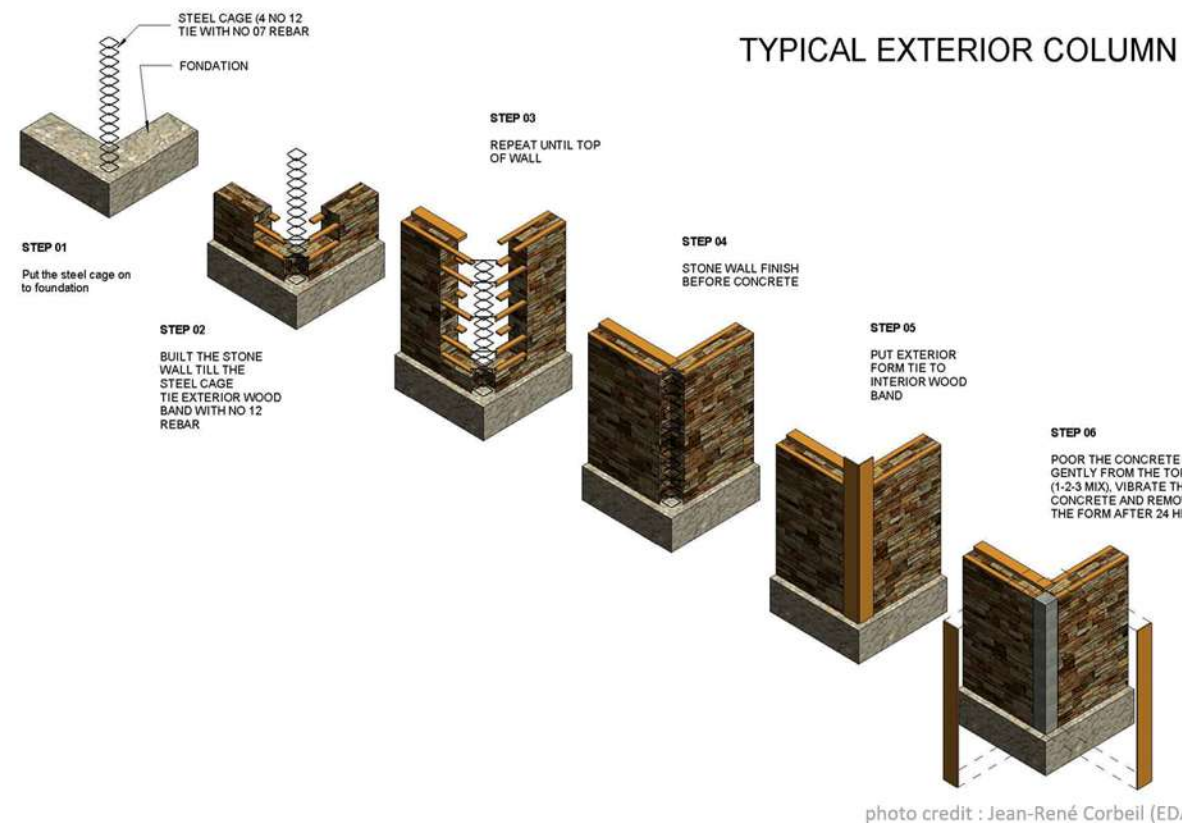


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In order to support the reconstruction of the houses with limited financial resources and time, EDA aimed to build a "model building" combining traditional construction techniques with earthquake-resistance improvements. The construction phase would serve as a work training program where beneficiaries could learn how to incorporate these improvements in the reconstruction of their own house.

These improvements would allow the houses to resist more efficiently to future earthquakes.

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▲ Panoramic view of the construction site.

◀ Detail of the ground floor.



Building under construction. ▶



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The houses of the Taksindu villages are traditionally built with local stones and mud mortar. Walls are covered with a mixture of mud and lime and then painted. The roofs are made of wood beams and metal sheet coverings. Ground floors are made of stones spiked down into the ground. Doors and windows are made by local carpenters with unique local features. Concrete and metal bars are rarely used because of their cost and because all the material must be carried on shoulders as most of the remote mountain villages can only be reached by foot.

All these construction techniques were respected. Concrete and metal bars were only incorporated for exterior corner columns poured together with a horizontal spandrel beam encircling the building. The supply of these materials, together with roof sheeting, glass and hardware, was facilitated by the late improvement of a district road; therefore reducing the required shoulder carrying.

Otherwise, all the construction materials (stone, wood, mud) were gathered locally. All the stone came for the destruction of large stones when the site was first graded.

Local skilled carpenters and masons were hired. The rest of the workforce was composed of beneficiaries who could learn earthquake-resistance techniques while making some money.

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