

PROGRESS REPORT II

Kunde Hospital Rebuild (Main Block – no. 2)



Figure 1: Completion of reconstruction of outer stone masonry wall of the main block (no.2)

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Background:

The massive earthquake of 7.8 magnitudes struck in Nepal on 25th April 2015, followed by series of aftershocks caused major structural damages at the buildings of Kunde Hospital. A team of Nepali structural engineers carried out a thorough assessment of the buildings in August 2015 and designed a plan to rebuild the outer stone masonry wall following seismic resistant codes.

The Sir Edmund Hillary Foundation – Canada is funding the construction of the largest block (main block - no. 2) of Kunde hospital. Reconstruction of the main block started on 1st of June 2016. Progresses made up till 20th June 2016 were covered in the first progress report. This report covers the accomplishments made following the first progress report up to this date.

The construction of the outer stone masonry wall of the main building (Block 2) has been completed with some works remaining in gable part. Now, some of the remaining works of the main building are 1) construction of patient's waiting room (this new structure will be build out of aluminum connecting the clinic at the front); 2) Interior works of X-ray room (X-ray room has been shifted at the back near the drug store); and 3) painting. The remaining works will be resumed once the required materials such as aluminum, paints and radiation proofing materials reach the site. Arrangements will be made soon to procure these materials in Kathmandu.

Glimpses of accomplishments so far

1. Sill tie below window level



Figure 2: A sill tie made out of iron rod and cement mortar has been placed below the window level to bind the construction materials together to make it earthquake resistant

2. Lentil tie above the level of doors and windows



Figure 3: A lentil tie made out of iron rod and cement mortar has been placed above doors and windows level to make the masonry wall more stable



Figure 4: Builders setting up lentil tie around the main building

3. Extension and reconstruction of X-ray/ultrasound/drug store room at the back of the building



Figure 5: The drug store/X-ray/ultrasound room at the back of the building has been extended and reconstructed



Figure 6: Back view of the reconstruction of stone masonry wall of the main building along with the attached drug store/X-ray/ultrasound room



Figure 7: Completion of reconstruction of drug store/X-ray/ultrasound room

4. Completion of outer stone masonry wall adopting earthquake resistant construction methods

Plywood, insulation and plain sheet are used in the gable instead of stones

Lentil tie above the level of doors and windows

Sill tie placed below the window level

DPC layer above ground level



Figure 3: A three-layer tie beam (DPC, Sill and Lentil) has been incorporated in the newly reconstructed stone masonry wall to make it earthquake resistant. Further, vertical rods of 16 mm diameter have been placed at a distance of 8 feet throughout the building.

Expansion gap



Figure 4: An expansion gap of 2" has been made in the wall at a gap of 12 feet excluding in areas where there are doors. The expansion gap will help in releasing pressure during movements of the building.



Figure 10: Dr. Kami thanking the construction team after completion of the outer stone masonry wall of the main building



Figure 11: Patients waiting at the hospital complex on immunization day after the completion of reconstruction works

5. Chairs made from reusing wood used to support the building during construction



Figure 6: Carpenter making chairs from reusing wood used for supporting the building during construction



Figure 5: New chairs ready for patients outside the hospital