

## SUN VALLEY SUBDIVISION

### ANTIPOLO CITY, RIZAL , REGION IV-A, PHILIPPINES

#### Reinforced Soil Walls and Slope Reinforcement

##### Problem

On September 26, 2009, the Philippines was devastated by a tropical storm Ondoy (or Ketsana, international name), with a record-breaking amount of rainfall that left damages on agriculture, lives, and properties in affected regions. One of the hardest hit areas was the province of Rizal.

Sun Valley Subdivision, a residential community located in the mountainous landscapes of Antipolo City, Rizal has been affected. Typhoon Ondoy caused a landslide about 15 meters in height below a portion of its major service road.

##### Solution

After soil investigation and analysis, Maccaferri engineers designed a mechanically-stabilized earth (MSE) wall system composed of Terramesh System units and gabions.

The structural integrity of the MSE wall was verified using Maccaferri's internal design software and was approved by the contractor's (Piedras Negras) engineers. Terramesh units and gabions provide a porous facing, and naturally blends with the green landscape of Sun Valley.

**Client:** Piedras Negras Construction and Development Corporation

**Designer / Consultant:** -

**Contractor:** Piedras Negras Const. & Dev't. Corp.

**Products used (Qty.)**

- Terramesh	3,750 cu.m.
- Gabion	630 cu.m.
- MacTex Non-woven Geotextile	4,170 sq.m.

**Date of construction:** 01/2010 - 02/2010



October 2009 - Existing Site Condition



October 2009 - Existing Site Condition





November 2009 - During Construction



November 2009 - During Construction



January 2010 - Near Completion



February 2010 - Project Completed

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