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附錄　試驗完後體試體之觀察

水平地表

（1）試驗完試體沿裂縫剝開前：

於承載試驗結束後，觀察圖 1、圖 2 可發現水平地表的破壞面往基腳左右各延伸約 13~16cm，深度為 5cm，恰好在觀察窗範圍內。

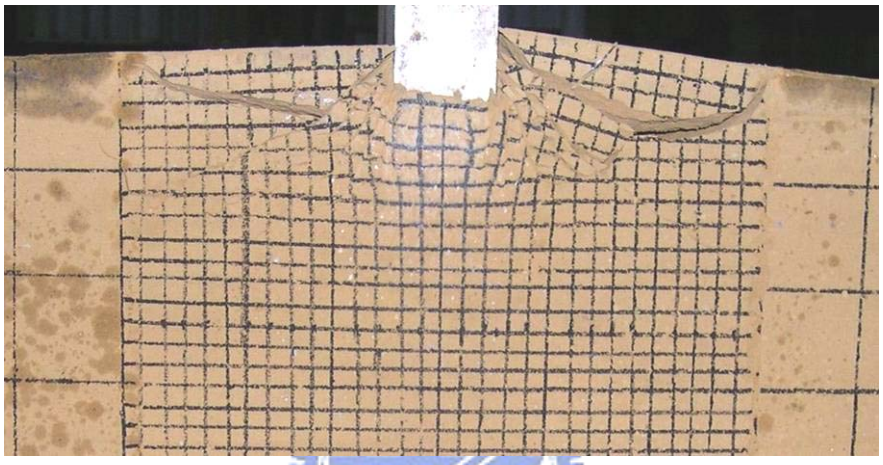

圖 1　No.0-1 於實驗完後的觀察窗面近照

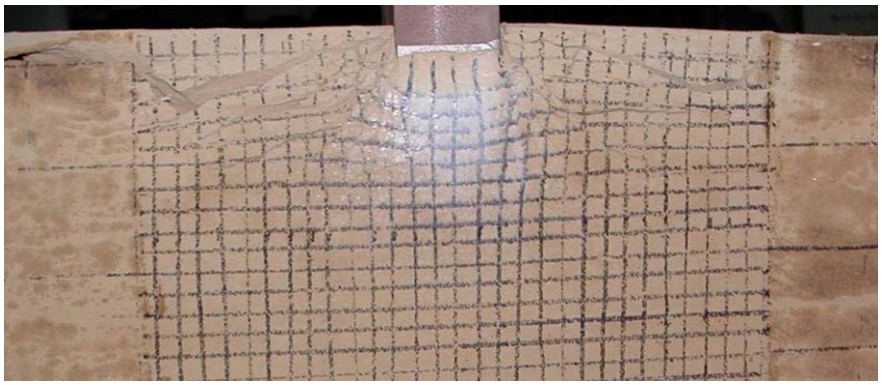

圖 2　No.0-3 實驗完後的觀察窗面近照

（2）**試驗完試體沿裂面剝開後：**

於承載試驗完後沿兩旁的破壞面撥開觀察裂縫，破壞面前後一致(圖 3)，且撥開後可以看到水平地表的主動區呈一等腰三角形狀，如圖 4 所示

圖 3　No.0-1 水平地表裂縫剝開後的試體

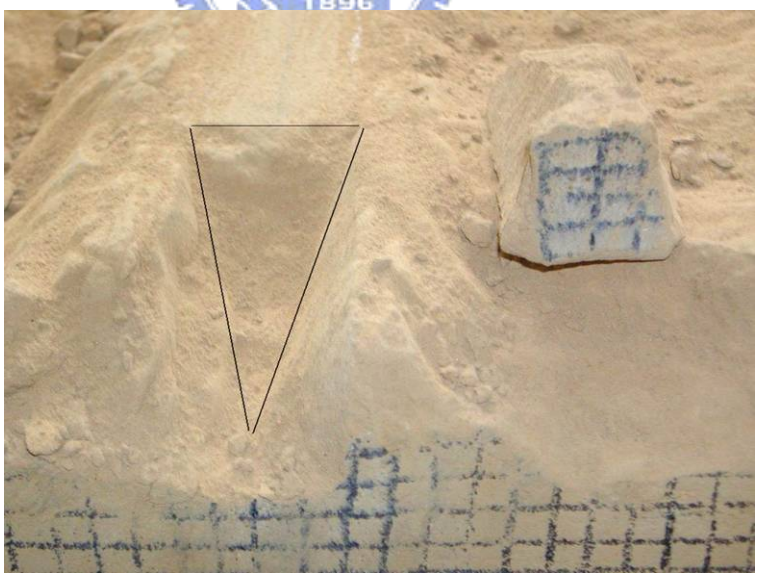

圖 4　No.0-3 水平地表主動區

傾斜地表具 10 度邊坡

（1）.試驗完試體沿裂縫剝開前：

基腳左側

觀察圖 5、圖 6 可發現傾斜地表 10 度邊坡的破壞面往邊坡面延伸約 15cm，深度約為 5cm。

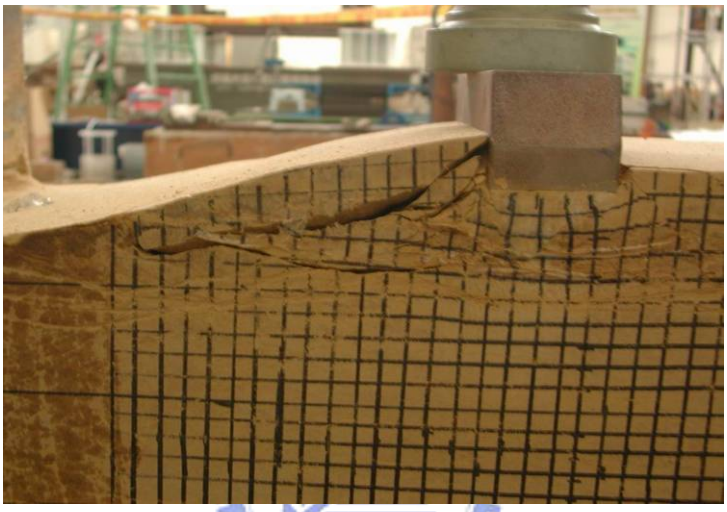

圖 5　No.10-2 於實驗完後的觀察窗面左邊近照

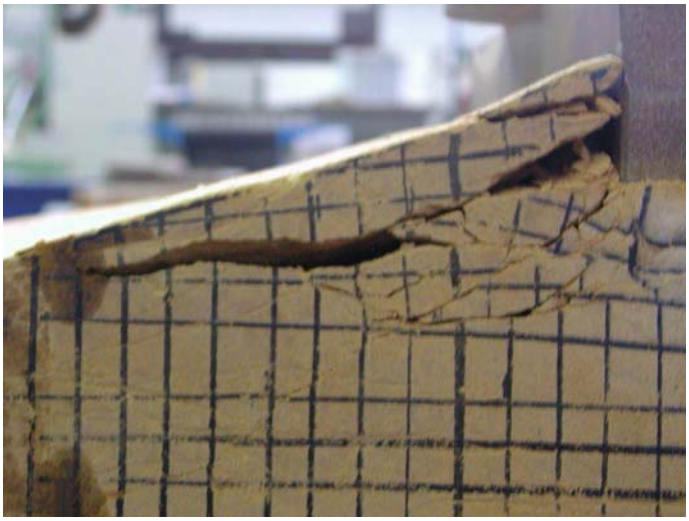

圖 6　No.10-3 於實驗完後的觀察窗面左邊近照

基腳右側

傾斜地表 10 度邊坡左側也有因應力集中的產生斜向裂縫，方向約 45 度(圖 7、圖 8)

圖 7　No.10-2 於實驗完後的觀察窗面右邊近照

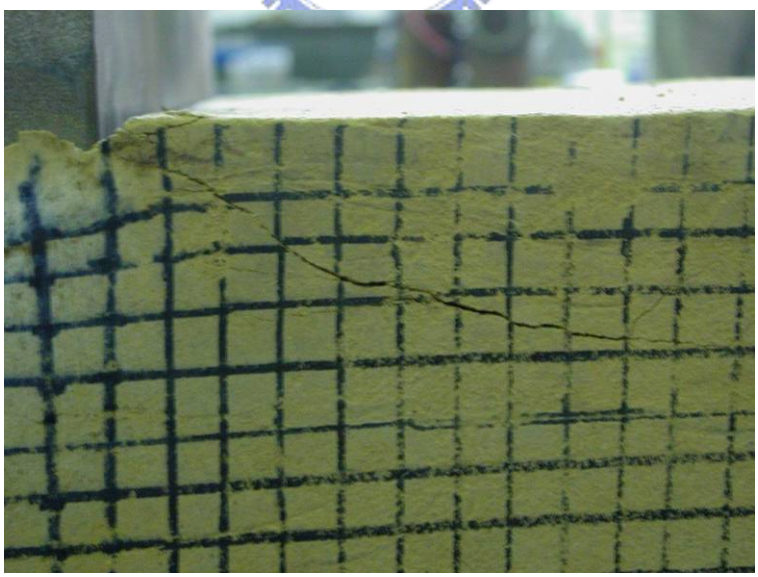

圖 8　No.10-3 於實驗完後的觀察窗面右邊近照

（2）**實驗完試體沿裂面剝開後：**

由圖 4.9、4.10 可以發現 10 度邊坡基腳右側裂縫也有裂至地表面的趨勢，並可以沿裂面剝起一大塊，類似水平地表破壞狀況，因此在傾斜地表 10 度邊坡在基腳右邊也有發展類似水平地表的裂縫，但在其發展完全前，左側主要破壞面已形成，因此右側的覆土提供的承載力無法完全發揮。

圖 9　No.10-2 裂縫剝開後的試體

圖 10　No.10-3 度裂縫剝開後的試體

傾斜地表 20 度邊坡

（1）試驗完試體沿裂縫剝開前：

觀察圖 11、圖 12 可發現傾斜地表 20 度邊坡的破壞面往邊坡面延伸約 15cm，深度約為 5cm~6cm，而觀察圖 13 在基腳右側也可發現一斜向裂縫，但可以發現延伸的比較淺。

圖 11　No.20-1 於實驗完後的觀察窗面左邊近照

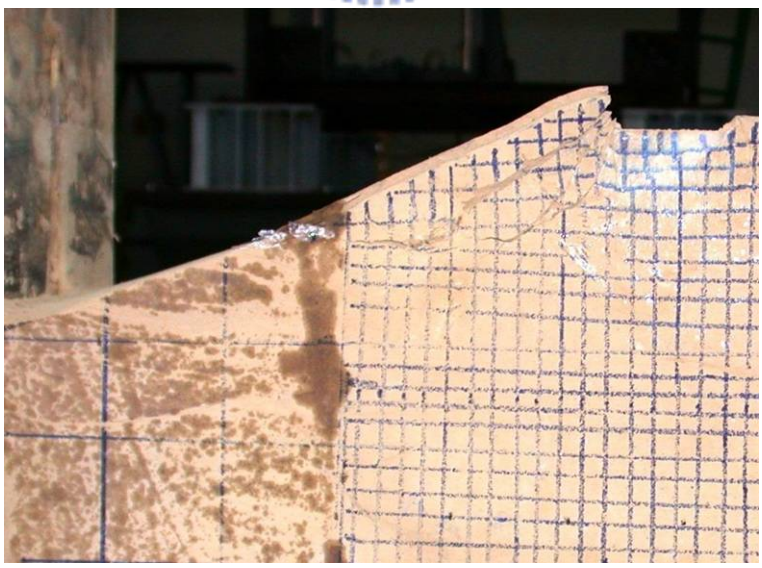

圖 12　No.20-2　於實驗完後的觀察窗面左邊近照

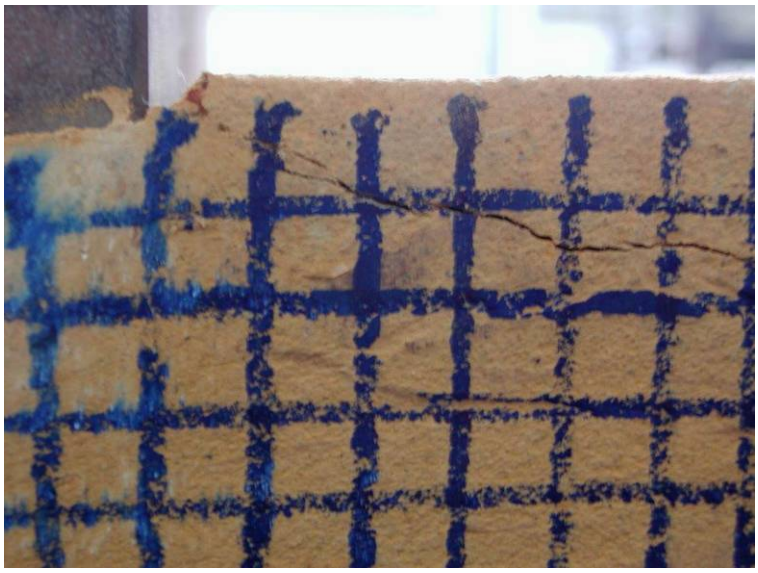

圖 13　No.20-3　於實驗完後的觀察窗面右邊近照

（2）**試驗完試體沿裂面剝開後：**

由圖 14 可以發現 20 度邊坡基腳右側不能沿裂縫撥開，因此就本研究的膠結不良軟弱砂岩而言，在邊坡角度大於 20 度以上，基腳右半邊的試體幾乎無法提供承載力。

圖 14　No.20-2 於實驗完後沿裂縫破壞面撥開狀

傾斜地表 30 度邊坡

（1）試驗完沿裂縫剝開前：

觀察圖 15、圖 16 可發現傾斜地表 30 度邊坡的破壞面往邊坡面延伸約 15cm，深度較前述兩種模擬邊坡狀況深，約為 8~10cm。

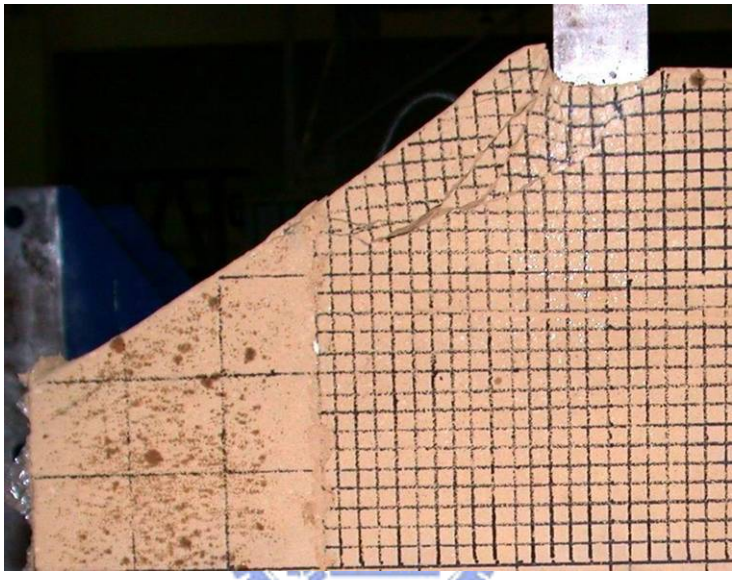

圖 15　No.30-1 於實驗完後的觀察窗面左邊近照

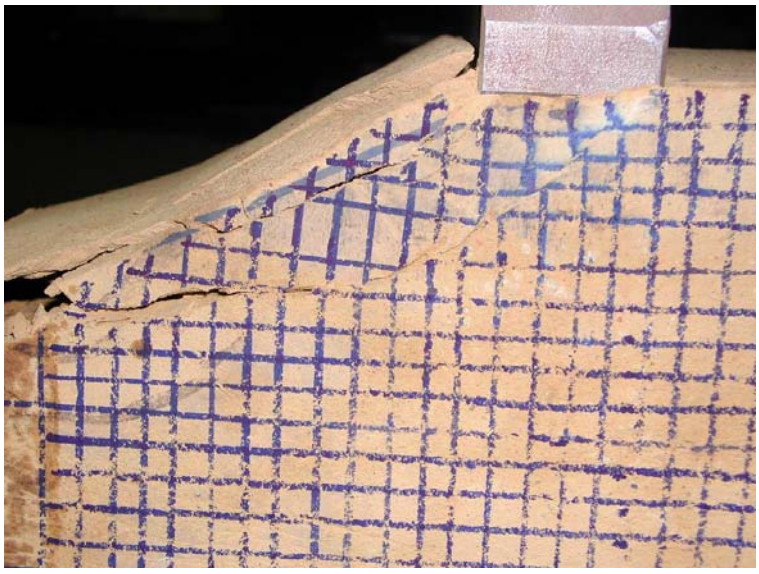

圖 16　No.30-2 於實驗完後的觀察窗面左邊近照

（2）**試驗完試體沿裂面剝開後：**

由圖 4.17、圖 4.18 可以發現 30 度邊坡再沿裂縫剝開後均可顯發現一明顯到三角形主動區，且已經可以完整撥離試體，在其他邊坡角度的情形下並不能將此主動區完整與試體分離，因此可以佐證破壞滑動面是延主動區右方往邊坡滑動。

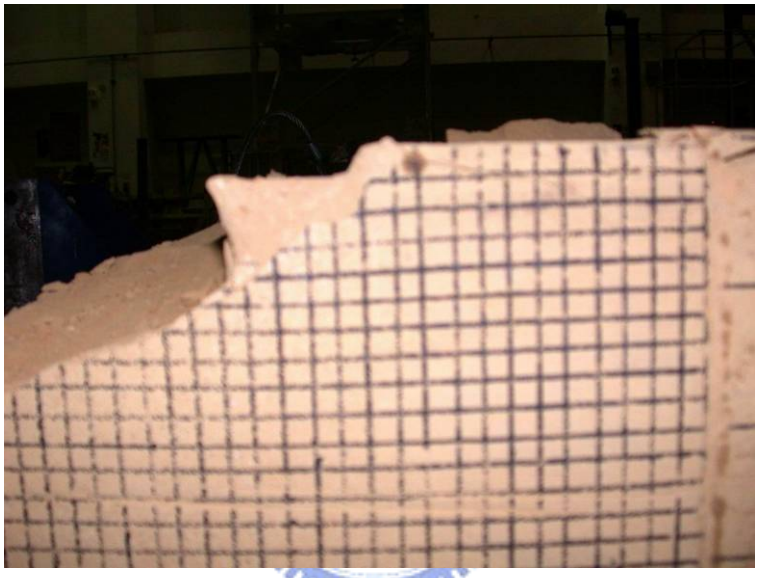

圖 17　No.30-1 於實驗完後沿裂縫破壞面撥開發現的主動受壓區

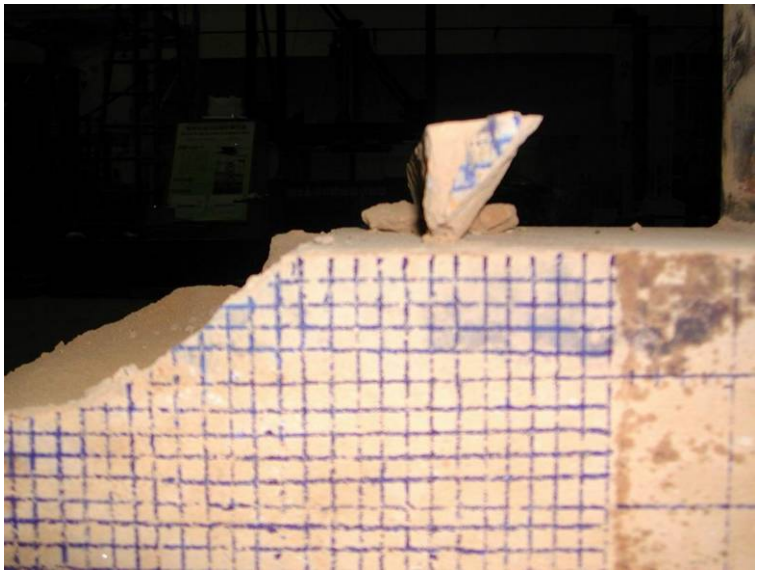

圖 18　No.30-2 於實驗完後沿裂縫破壞面撥開發現的主動受壓區