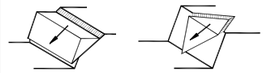
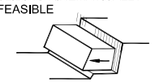
A3

SECTOR W3
BELOW PIT ACCESS ROAD
- PLANAR SLIDING AND WEDGE FAILURE ON MUDDY BRECCIA CONTACTS AND SHEARED ZONES, KINEMATICALLY FEASIBLE



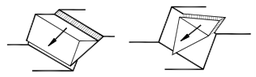
SECTOR W3
ABOVE PIT ACCESS ROAD
- CIRCULAR FAILURE IN RESIDUAL TO HIGHLY WEATHERED MATERIAL FEASIBLE

SECTOR NE1 AND NE 2
BELOW PIT ACCESS ROAD
- NO KINEMATIC SIMPLE FAILURE MECHANISM FEASIBLE.
- COMPLETE FAILURE VIA BLOCK SLIDING KINEMATICALLY FEASIBLE



SECTORS NE1 AND NE2
ABOVE PIT ACCESS ROAD
- CIRCULAR FAILURE IN FILL MATERIAL AND RESIDUAL TO HIGHLY WEATHERED MATERIAL FEASIBLE.

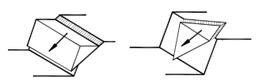
SECTOR W2
BELOW PIT ACCESS ROAD
- PLANAR SLIDING AND WEDGE FAILURE ON MUDDY BRECCIA CONTACTS AND SHEARED ZONES, KINEMATICALLY FEASIBLE

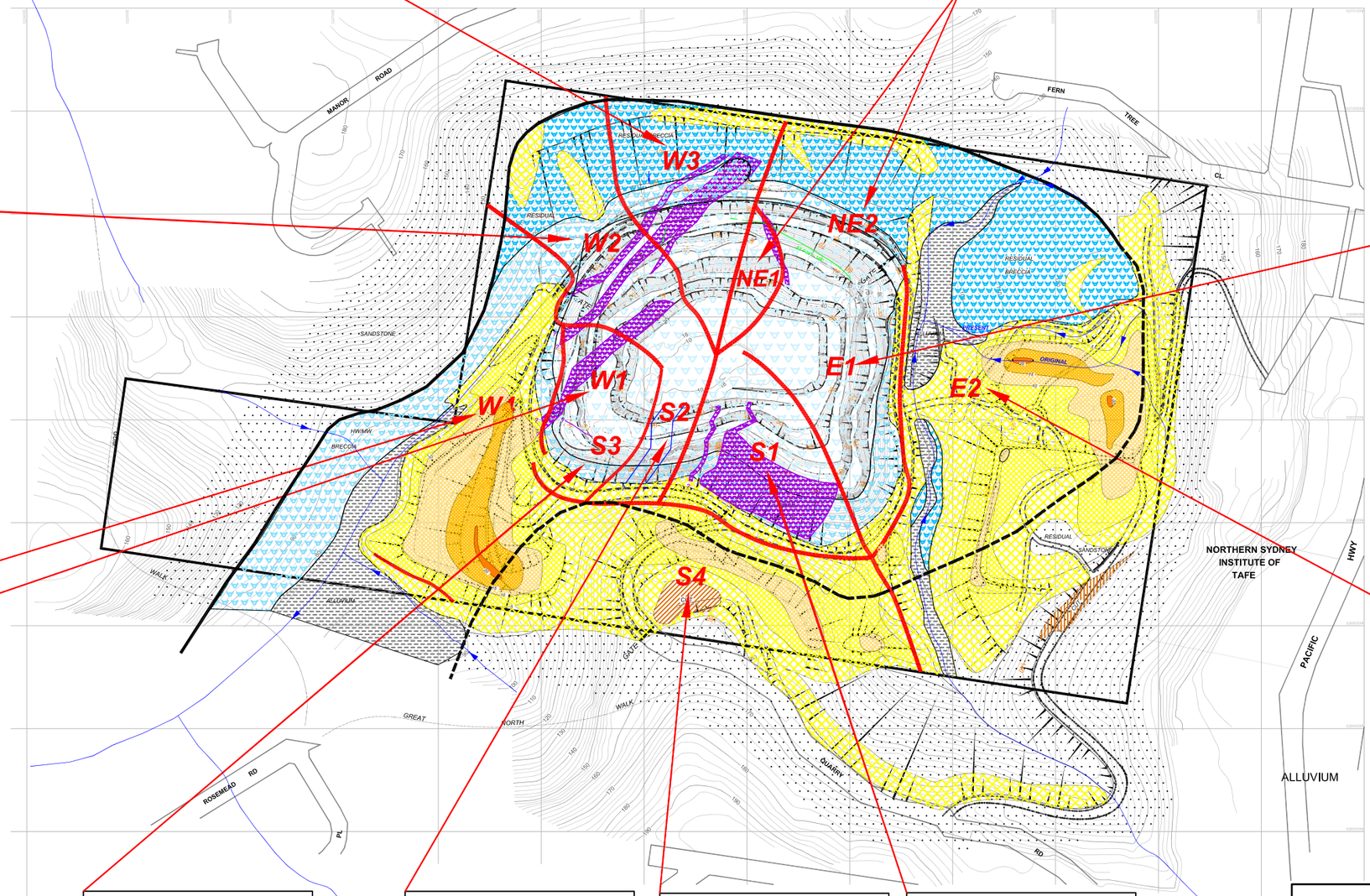


SECTOR W2
ABOVE PIT ACCESS ROAD
- CIRCULAR FAILURE IN RESIDUAL TO HIGHLY WEATHERED MATERIAL FEASIBLE

SECTOR W4
- CIRCULAR FAILURE IN FILL MATERIAL FEASIBLE

SECTOR W1
- PLANAR SLIDING AND WEDGE FAILURE ON MUDDY BRECCIA CONTACT AND SHEARED ZONES, KINEMATICALLY FEASIBLE

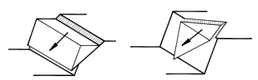




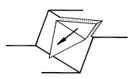
SECTOR E1
- NO KINEMATIC FAILURE MECHANISM FEASIBLE

SECTOR E2
- CIRCULAR FAILURE IN FILL MATERIAL FEASIBLE

SECTOR S3
- PLANAR FAILURE ON BEDDING AND WEDGE FAILURE BETWEEN AND BEDDING AND JOINTS KINEMATICALLY FEASIBLE

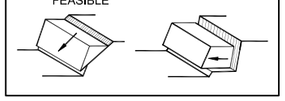


SECTOR S2
- WEDGE FAILURE BETWEEN BEDDING AND JOINTS KINEMATICALLY FEASIBLE



SECTOR S4
- CIRCULAR FAILURE IN FILL MATERIAL FEASIBLE

SECTOR S1
-PLANAR SLIDE FAILURE ON BEDDING PARTINGS AND COMPLEX FAILURE VIA BLOCK SLIDING KINEMATICALLY FEASIBLE



NOTE:
- SUBSURFACE GEOLOGICAL INTERPRETATION INDICATIVE ONLY.
- LOCATION OF DIATREME - SANDSTONE CONTACT FROM BRANAGAN AND PACKHAM, 2000, AND CHARACTERISTICS OF CONTACT BASED ON INTERPRETATION OF BH HQ1 (THIS INVESTIGATION) AND BH103 (COFFEY'S 1990).
- ONLY MAJOR GEOLOGICAL STRUCTURES MAPPED IN THE PIT BY PSM (THIS STUDY). ORIENTATION ON THE EAST WALL ARE FROM COFFEY'S DATA.

LEGEND
- FILL 0-5m
- FILL 5-10m
- FILL 10-15m
- FILL 15-20m
- FILL >20m
- MAJOR SHEARED ZONES
- CONTACT BETWEEN DIATREME AND HAWKESBURY SANDSTONE
- ALLUVIUM
- RESIDUAL VOLCANIC BRECCIA
- HW/MW VOLCANIC BRECCIA
- SW/FR VOLCANIC BRECCIA
- MUDDY BRECCIA
- SANDSTONE

DISCLAIMER:
THIS DRAWING IS INDICATIVE ONLY AND SHOULD NOT BE SCALED FOR CONSTRUCTION PURPOSES.

REV	REVISION DESCRIPTION	DATE	DRAWN	CHCKD.	CORR.
1	Depth of Fill shown	20.12.06	MM	PC	PSM1059.TR1

PSM
Pells Sullivan Meynink Pty Ltd
PO Box 173
Terrigal NSW 2260

Telephone: (02) 4384 7055
Facsimile: (02) 4384 7066
Email: terrigal@psmtoo.com.au
Web: www.psmsyd.com.au

ITEM	SIGNATURE	DATE
DRAWN	MM	20/11/2006
DESIGNED	PC	20/11/2006
CHECKED	DA	21/11/2006
CORRESPONDENCE		

0 50 100 200m
1 : 5000 @A3

TITLE:
Hornsby Shire Council
Former CSR Quarry Hornsby & Associated Lands

GEOLOGICAL PLAN WITH INSTABILITY MECHANISMS

DRAWING NO: PSM1059-2
REV: 1