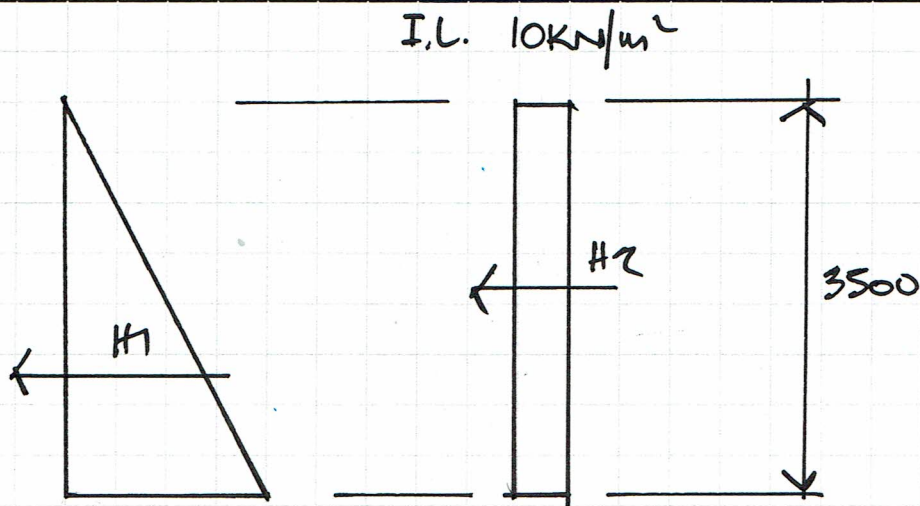


APPENDIX 3

TEMPORARY WORKS



$$Y = 18 \text{ kN/m}^3 \quad K_0 = 0.50 \quad P_p = 3.50 \quad \mu = 0.40$$

DEAD LOAD WALLS OVER (WITHOUT EXTENSION) = $6 \times 4.6 = 27.6 \text{ kN/m}$

$$\text{TOTAL H} = (18 \times 0.5 \times 3.5^2 / 2) + (0.5 \times 10 \times 3.5 / 2) = 64 \text{ kN/m}$$

LATERAL RESISTANCE DUE TO BASE FRICTION = $27.6 \times 0.4 = 11 \text{ kN/m}$

NETT LATERAL FORCE TO PROP = $64 - 11 = \underline{53 \text{ kN/m}}$ SLS

P_{PASSIVE} REQ TO RESIST / BALANCE 53 kN/m

$$P_p = 18 \times 3.5 \times \frac{D^2}{2} \quad D^2 = \sqrt{\frac{(53 \times 2)}{(18 \times 3.5)}} = 1.30 \text{ m}$$

Say 1.40 m

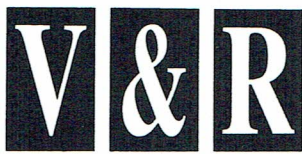
Props @ max 2.50 m c/c.

Water - $B_m \text{ max} = \frac{53 \times 2.5^2}{8} = 41.4 \text{ kNm}$

$$Z_{\text{req}} = 41.4 / 0.23 = 180 \text{ cm}^3$$

Prop - $W_{\text{cd}} = 53 \times 2.5 = 133 \text{ kN}$ $L = 5.00$

152 UC 30 Z = 222 cm³
PROM ST 152 UC 30 OR DOUBLE
SLIMLITE



VINCENT & RYMILL

Project

SPENCER RISE
T. WORKS

Portion

LATERAL PROPPING TO BASEMENT

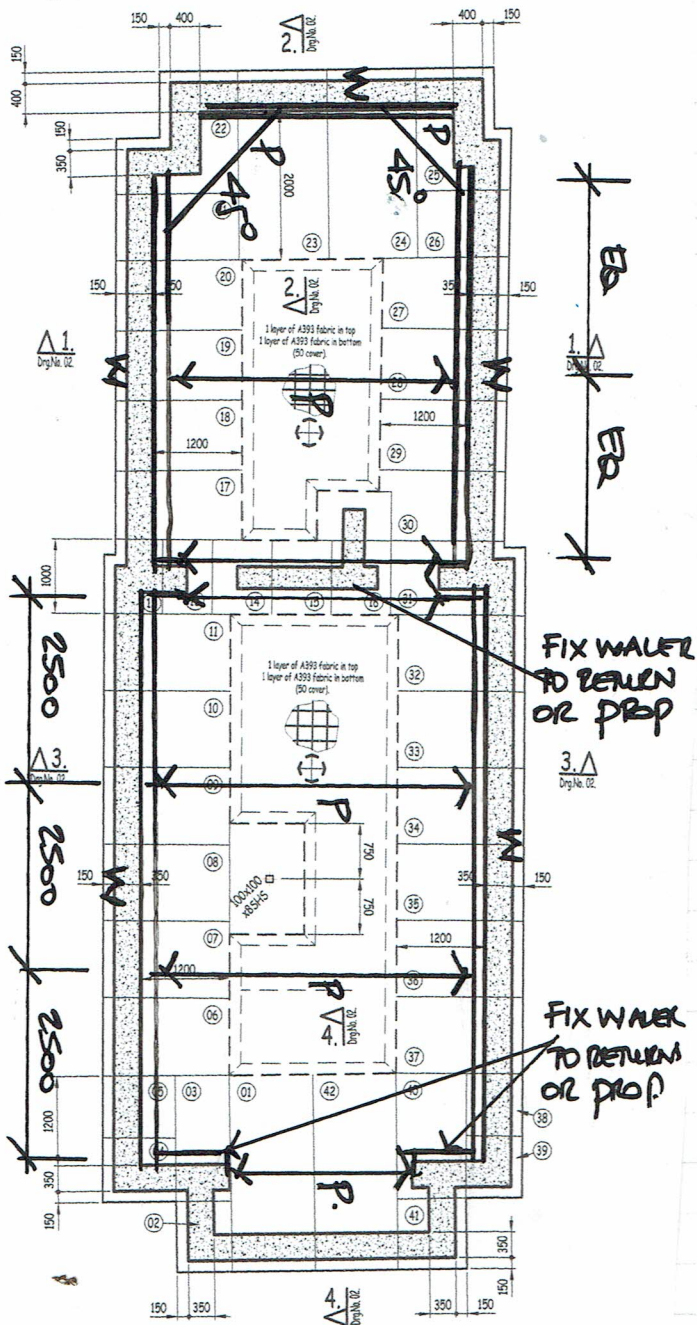
Job No. 18806

Sheet No. TW2

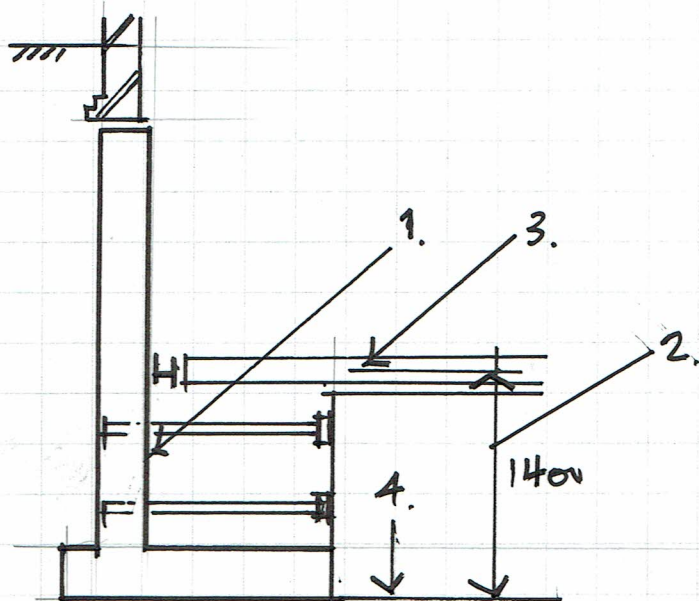
Made by: TV

Date: MARCH 2018

Checked by:



W = WALKER 152 UC 30. BOLTED TO CONCRETE WALLS AT 1.0m \varnothing . 350x100x10 PLATES WELDED TO FLANGE AGAINST WALL 2NO 20 \varnothing RESIN FIXINGS TO WALL. FLANGE PACKED TO WALL WITH SEMIDRY SAND/CUT PACK.
 P = 152 UC 30 OR 2NO SUNLITES TOGETHER.



Proposed Basement Plan Showing.
Proposed Underpinning Plan.

(Scale 1:50 at A1)

1. COMPLETE UNDERPIN WALLS & BASES
BASE OF WALL PROPPED AGAINST CENTRAL BAND.
2. REDUCE INTERNAL LEVELS TO 1400
ABOVE FORMATION.
3. INSERT LATERAL PROPPING. TIGHTEN
& CHECK
4. REDUCE TO FORMATION