

TABLE 1
CONCRETE PIPES : LIMITATIONS ON DEPTH OF COVER. (DEPTHS UP TO 6m)

PIPE DIAMETER. (mm)	100	150	225	300	375	450	525	600
TRENCH WIDTH (MAX) (mm)	650	700	800	900	1150	1250	1350	1450
TRENCH WIDTH (MIN) (mm)	450	500	600	700	950	1050	1150	1250
BEDDING CLASS	A	B	A	B	A	B	A	B
CONCRETE (S & S)								
CLASS-N.	*	*	*	*	*	*	3.0	2.0
CLASS-M.								x
CLASS-H.								x

x - NOT USABLE AT ANY DEPTH FOR THAT BEDDING CLASS.
- NO ENTRY INDICATES PIPES NOT NORMALLY AVAILABLE.
* - NO LIMITS TO MAXIMUM COVER.

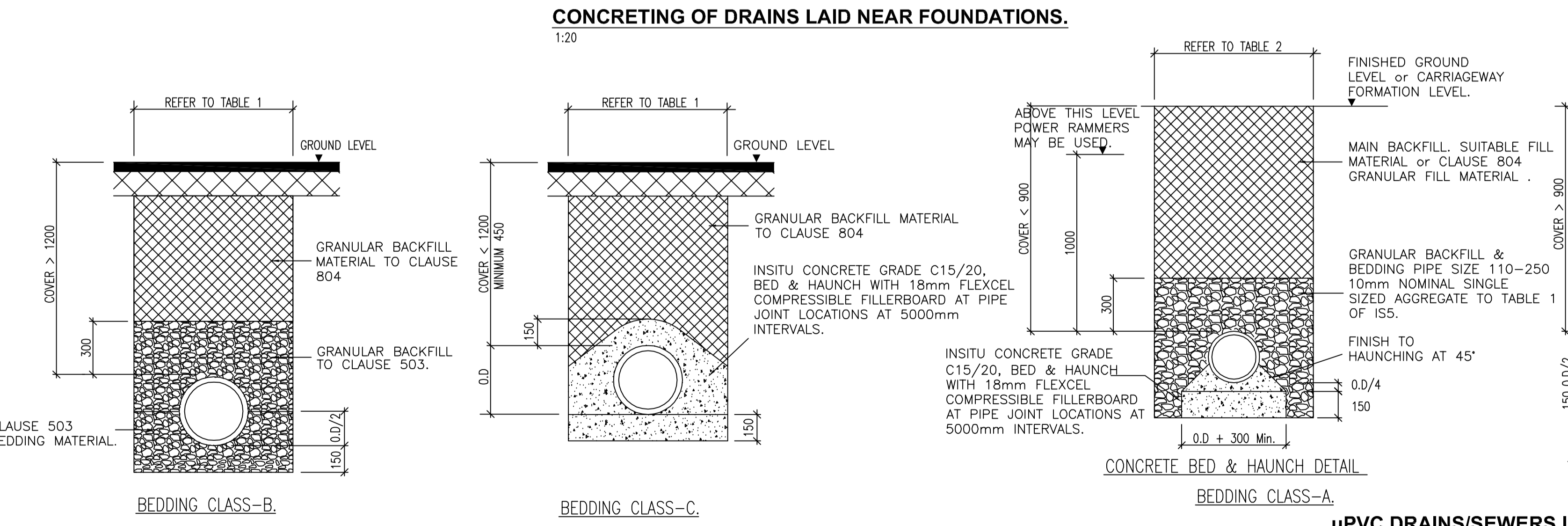
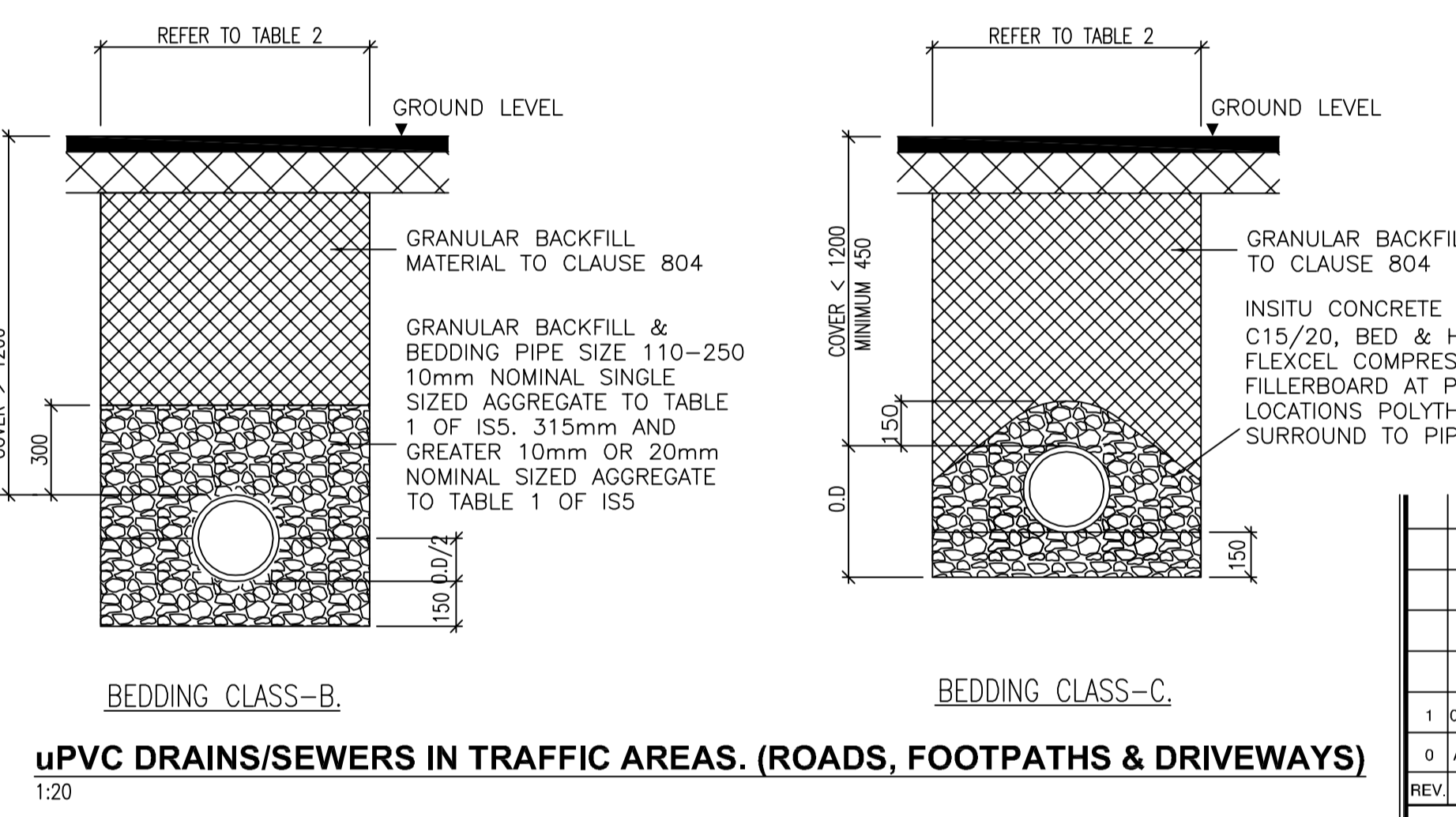
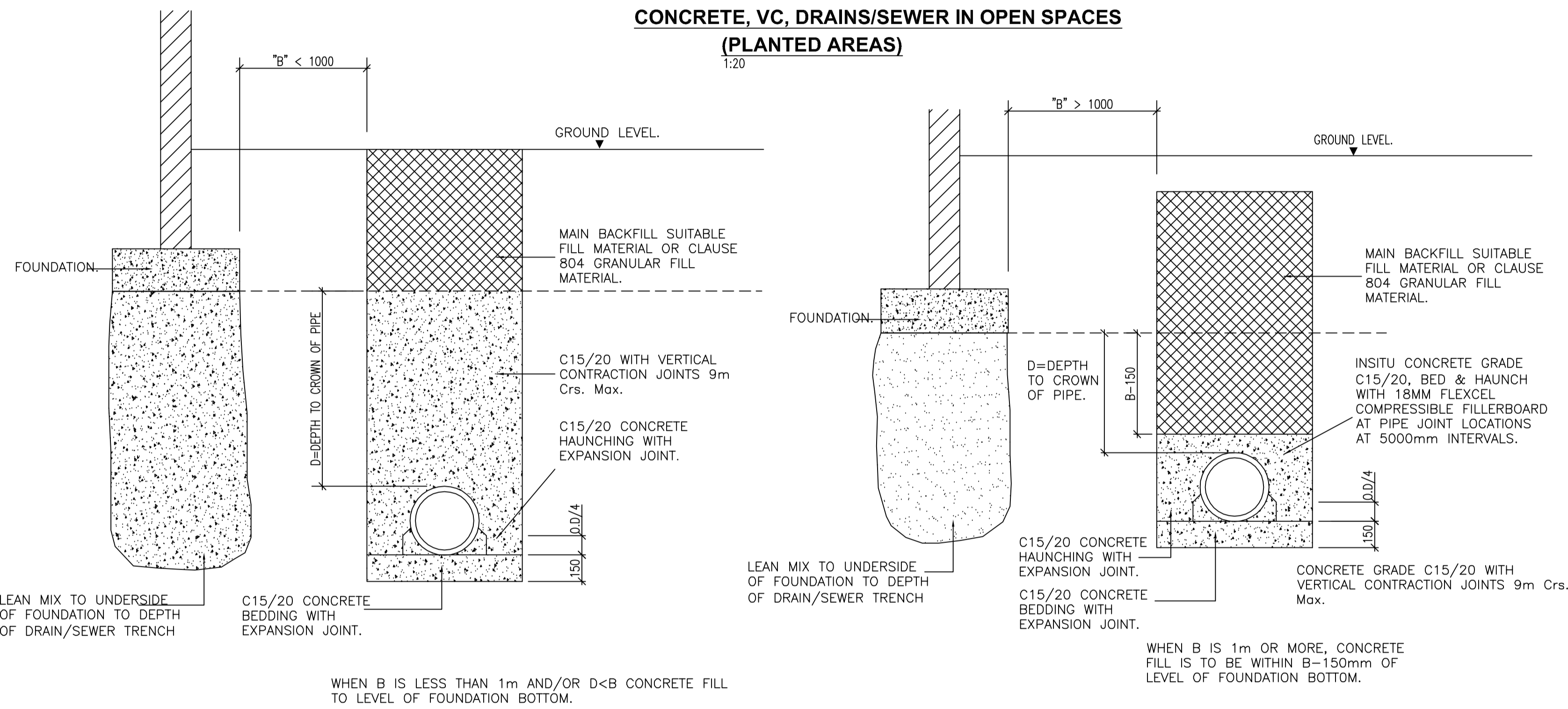


TABLE 2
TRENCH WIDTH FOR uPVC SEWERS

NOMINAL PIPE SIZE (mm)	WIDTH OF TRENCH (mm)	
	MIN.	MAX.
110	450	600
160	450	600
200	600	700
225	600	700
250	600	700
315	700	850
355	750	900
400	800	950
450	850	1000



1	07.12.12	ISSUED FOR PLANNING PERMISSION	LK	DC	JMC	TM	DW
0	AUG/12	ISSUED FOR CLIENT COMMENT	RK	DC	JMC	TM	DW
REV	DATE	REVISION DESCRIPTION	DRN	PROV	COVER	APP	

PURPOSE OF ISSUE - PRELIMINARY UNLESS INDICATED

TENDER CLIENT APPROVAL CONSTRUCTION AS-BUILT REVISED

Client: **EIRGRID**

Project: **Ballyragget 110kV Substation**

Contract: **LAOIS KILKENNY REINFORCEMENT PROJECT**

Drawing Title: **DRAINAGE DETAILS SHEET 2 OF 2 BALLYRAGGET 110 KV STATION**

Production Unit: **Civil Building and Environmental**

ESB International
ESBI Energy Innovation

ESBI Engineering Solutions, Stephen Court, 18-21 St. Stephen's Green, Dublin 2, Ireland. Tel: +353 (0)1 703 8000 Fax: +353 (0)1 703 7186
Email: marketing@esbi.ie Web: www.esbi.ie
ESBI Engineering Solutions is a trading name of ESBI Engineering & Facility Management Limited.
Registered Office: as above Registered in Ireland No. 155249

DRAWN	PRODUCED	VERIFIED CIVIL	VERIFIED ELECTRICAL	APPROVED	APPRO DATE
L.Kiernan	D.Cody	J.MacCarthy	T.Malone	D.Walsh	07.12.2012

CLIENT REF: **TC207433** No. of Sheets: **1** SIZE: **A1** SCALE: **shown**

DRAWING NUMBER: **PE610-D003-004-003-001** SHEET REV

COPYRIGHT © ESBI ENGINEERING & FACILITY MANAGEMENT LIMITED.
All rights reserved. No part of this work may be modified or reproduced or copied in any form or by any means - graphic, electronic or mechanical, including photocopying, recording, taping or information-and-retrieval system, or used for any purpose other than its designated purpose, without the written permission of ESBI Engineering & Facility Management Ltd.