



23<sup>rd</sup> July, 2010

Mr Ryan Bennett  
Senior Environmental Planner  
Sydney Ports Corporation  
PO Box 25, Millers Point  
Sydney NSW 2000

RE: Pipe supports replacement

Dear Ryan,

Following our phone discussion, I am sending you information on a modification that has been introduced to this project.

The original scope of the project assumed that the third support or 'hanger and clamp' support would be hung from either one of the two existing beams owned by Qenos and Sydney Ports. Following Qenos agreement that Origin could use their beam, our structural engineer carried out the calculations and has just confirmed that neither of these structures can safely bear the additional load and, as a consequence, has designed a similar PI structure or beam to be used instead. The attached drawings show the new PI structure that Origin will need to install. This structure is planned to be anchored to the concrete structure of the berth using the same chemical anchoring system described in the Review of Environmental Factors (REF). The installation of this new structure will follow the same methodology and will require the same equipment as the other two supports already included in the submitted documentation. Furthermore, this addition to the project will not increase the time required to complete the project. As a consequence, it is not expected to generate additional impacts to the environment to those already included in the REF.

Attached drawings:

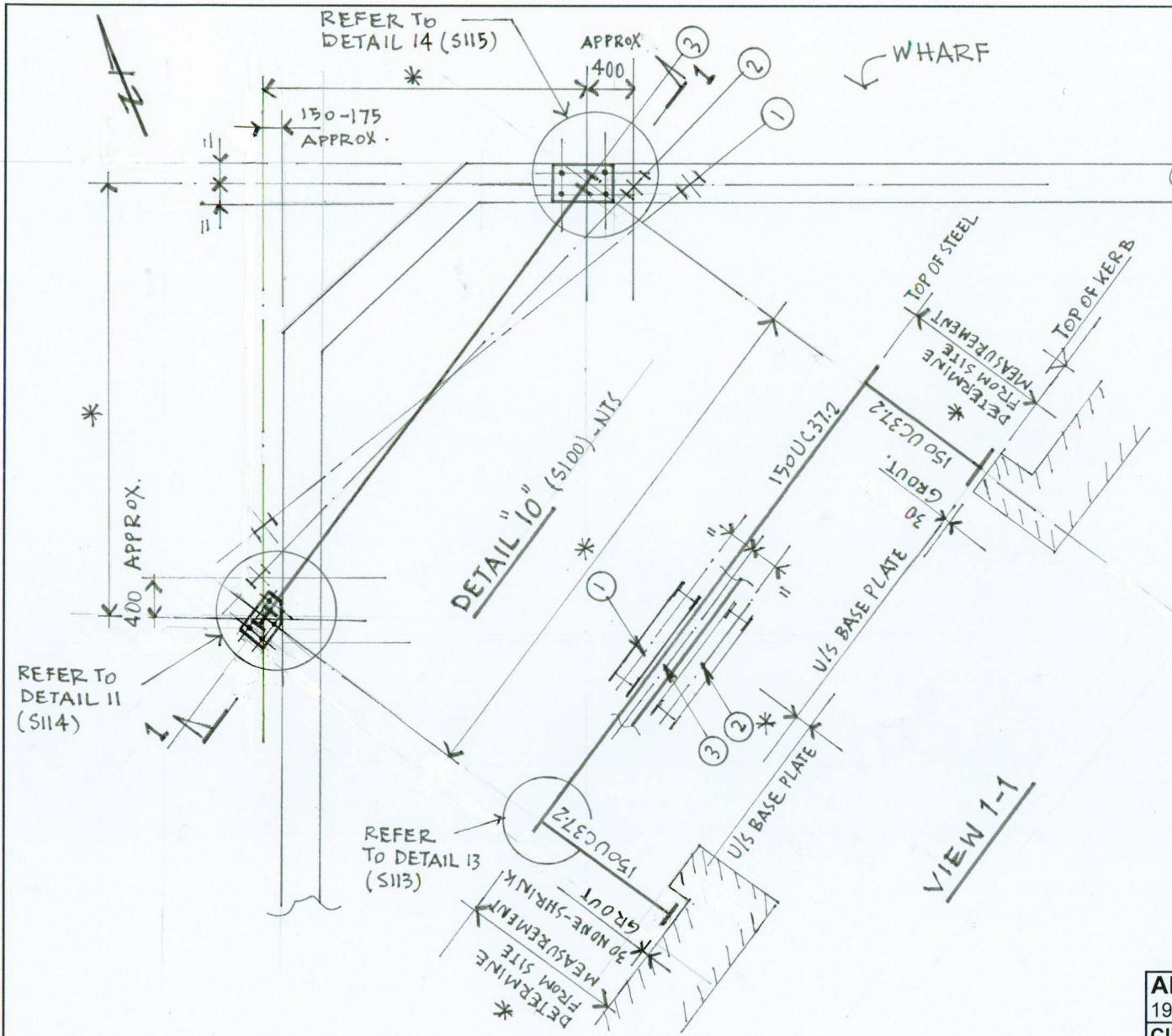
ORIG102A – S100 Rev. B replaces drawing ORIG102A – S100 Rev. A already submitted  
ORIG102A – S112 Rev. A is a new drawing indicating the new beam location and dimensions

Should you have any queries, do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read "Roberto Ferrari", written over a horizontal line.

Roberto Ferrari  
Project Engineer  
Origin Energy LPG



- NOTES:**
1. ALL DIMENSIONS AND LEVELS SHALL BE VERIFIED (BY THE CONTRACTOR) PRIOR TO SHOP DETAILING AND FABRICATION
  2. ORIENTATION OF NEW STRUCTURE (3) SHALL BE VERIFIED AND APPROVED BY ORIGIN ENERGY PRIOR TO FABRICATION.
  3. STRUCTURES' DESIGNATIONS:
    - (1) MARITIMES' PIPE SUPPORT (PAINTED WHITE) (EXIST.)
    - (2) GENOS/ORICA PIPE SUPPORT (GALV.) (EXIST.)
    - (3) PROPOSED ORIGIN ENERGY'S PIPE SUPPORT (GALV.) - NEW
  4. NEW STRUCTURE SHALL BE INSTALLED WITH EQUAL GAPS BETWEEN THE MARITIMES' AND GENOS STRUCTURES.

Rev. No.	Date	Description	Initials
A	20-Jul-10	Issued for Review	BH
Revisions			

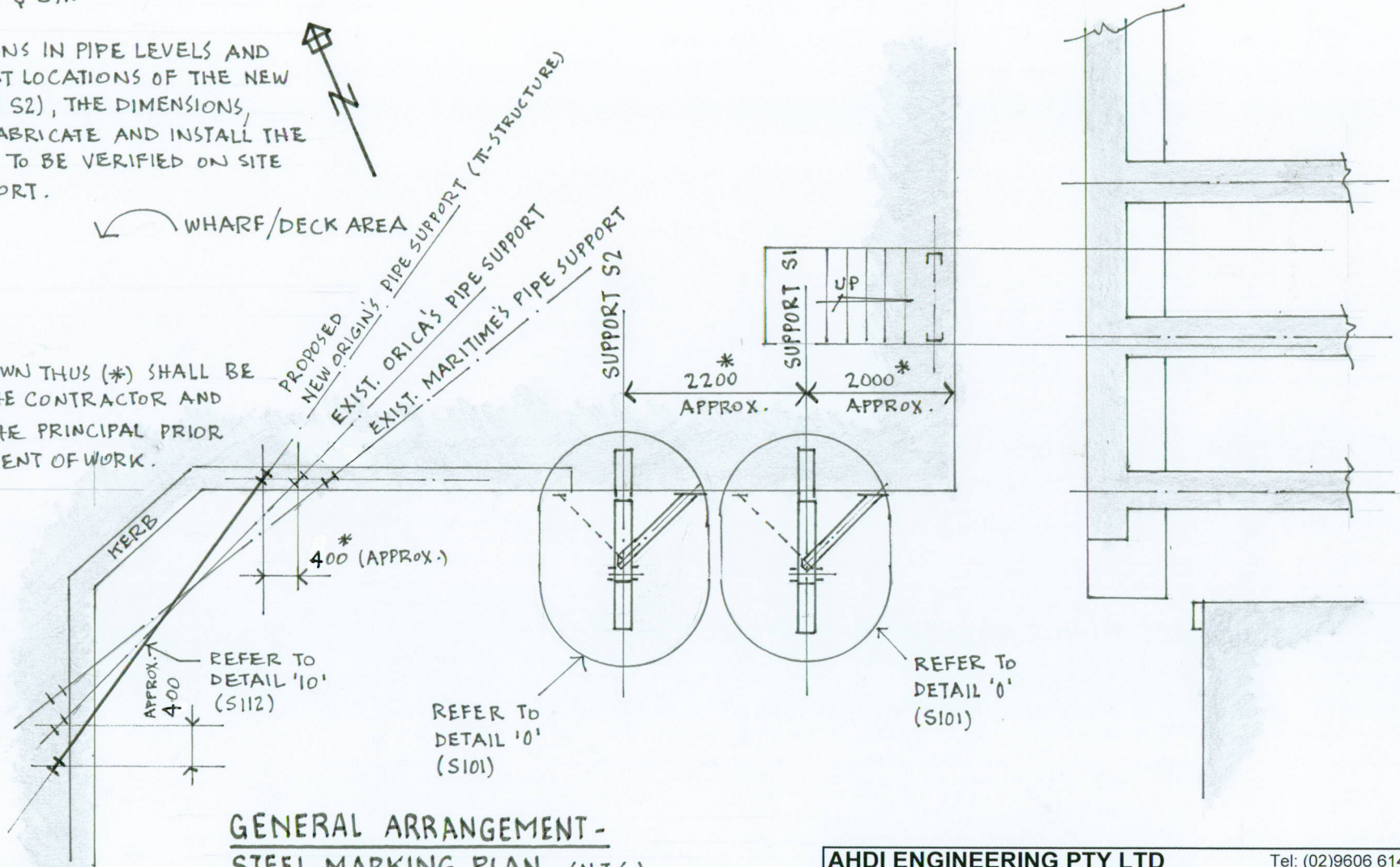
<b>AHDI ENGINEERING PTY LTD</b>		Tel: (02)9606 6142	
195 Anthony Road, Leppington NSW 2179		Fax: (02)9606 6142	
<b>Client:</b>	Origin Energy		
<b>Project:</b>	Port Botany Terminal Pipe Supports Replacement		
<b>At:</b>	Port Botany		
<b>New PI Structure - Views</b>			
<b>Prep. By</b>	B. Hanna	<b>Drawing No.</b>	ORIG102A-S112
<b>Date</b>	20-Jul-10	<b>Revision</b>	A

**NOTES:**

1. FOR ALL TECHNICAL NOTES REFER TO DRAWINGS S110 & S111

2. DUE TO VARIATIONS IN PIPE LEVELS AND DIFFERENCES AT LOCATIONS OF THE NEW SUPPORTS (S1 & S2), THE DIMENSIONS, REQUIRED TO FABRICATE AND INSTALL THE SUPPORTS NEED TO BE VERIFIED ON SITE FOR EACH SUPPORT.

(\* ) DIMENSIONS SHOWN THUS (\* ) SHALL BE VERIFIED BY THE CONTRACTOR AND APPROVED BY THE PRINCIPAL PRIOR TO COMMENCEMENT OF WORK.



**GENERAL ARRANGEMENT - STEEL MARKING PLAN (N.T.S.)**

EXIST. PIPES & SUPPORTS ARE NOT SHOWN FOR CLARITY.

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**Client:** Origin Energy  
**Project:** Port Botany Terminal  
 Pipe Supports Replacement  
**At:** Port Botany

**General Arrangement - Steel Marking Plan**

**Prep. By:** B. Hanna **Drawing No.:** ORIG102A-S100  
**Date:** 7-Jun-10 **Revision:** B.A

Rev. No.	Date	Description	Initials
B	20.07.10	ORIGIN'S PI-STRUCTURE ADDED	BH
A	7-Jun-10	Issued for Review	BH
Revisions			