

PANAMA CANAL AUTHORITY		VARIATION	PAGE 1 OF 6
1. REQUEST FOR PROPOSAL No.:	2. CONTRACT No.:	3. DATE:	
76161	CMC-221427	August 4, 2014	
		4. VARIATION No.:	
		111	

5. ISSUED BY:

PANAMA CANAL AUTHORITY
Employer's Representative
Locks Project Management Division
Building 740, Corozal
Panama, Republic of Panama

6. NAME AND ADDRESS OF CONTRACTOR (INCLUDE PHYSICAL & POSTAL ADDRESS)	7. CONTRACTOR'S TELEPHONE NUMBER:
Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	507-316-9900
	8. CONTRACTOR'S FACSIMILE NUMBER:

9. VARIATION:

The contract referred to in item No. 2 is hereby varied as set forth in item 10, entitled "DESCRIPTION OF VARIATION".
YES. NO. The contractor shall send a copy, duly signed, of this Variation to the Employer's Representative/Contracting Officer.

	9 A. THIS VARIATION IS EXECUTED ON THE BASIS OF: (Specify the legal authority). <u>THE VARIATION DESCRIBED IN ITEM 10 IS HEREBY INCORPORATED AND MADE A PART OF THE CONTRACT.</u>
	9 B. THE CONTRACT REFERRED TO IN ITEM NO. 2, IS VARIED TO INCORPORATE ADMINISTRATIVE CHANGES (such as the paying office, account numbers, etc.).
X	9 C. THIS BILATERAL AGREEMENT IS SIGNED AND INCORPORATED INTO THE CONTRACT REFERRED TO IN ITEM NO. 2 OF THIS FORM, ON THE BASIS OF: (Specify the legal authority) Volume III, Conditions of Contract, Sub-Clause 1.16 [Entire Agreement], 4th Paragraph
	9 D. OTHER. (Specify manner and the legal authority).
	9 E. ACCOUNT NUMBER (If required):

10. DESCRIPTION OF THE VARIATION (List in accordance with the order of the Contract. If additional space is required, use blank sheets).

See Variation Agreement Enclosed

Except for the variation(s) herein specified, all other terms and conditions of the Contract remain unchanged.

11. NAME AND TITLE OF THE PERSON AUTHORIZED TO SIGN (Type or print)	12. NAME AND TITLE OF THE EMPLOYER'S REPRESENTATIVE/CONTRACTING OFFICER (Type or print)		
Giuseppe Quarta Contractor's Representative	Jorge de la Guardia, Employer's Representative		
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
	8/8/14		4/VIII/2014
(Authorized signature)		(Employer's Representative/Contracting Officer's signature)	

This Variation Agreement Number 111, is dated as of the 4th day of August 2014 and made

Between:

Autoridad del Canal de Panama, Building 740, Corozal, Panama, Republic of Panama (hereinafter called the "**Employer**") on the one part,

and

Grupo Unidos por el Canal S.A., of Building 22B, Brujas Road, Cocoli, Panama, Republic of Panama, a corporation organised under the laws of the Republic of Panama, registered under microjacket number 682266, document number 1683284 of the Mercantile Section of the Public Registry Office of the Republic of Panama (hereinafter called the "**Contractor**" and together with the Employer, the "**Parties**") on the other part.

Whereas:

- a) The Employer and the Contractor are party to Contract CMC-221427 for the Design and Construction of the Third Set of Locks, dated August 11, 2009 (as the same has been or may be varied, amended, supplemented or otherwise modified (the "**Contract**")).
- b) Following extensive negotiations, the Employer and the Contractor have entered into the MOU pursuant to which the Employer and the Contractor have agreed to certain matters with a view to facilitating completion of the Works but without prejudice to each Party's rights and remedies under the Contract or otherwise, and to use their respective good faith best efforts to negotiate and agree a variation agreement to the Contract and any additional definitive documentation by the Effective Date (as defined in the MOU and as extended from time to time by mutual agreement of the Parties).
- c) Pursuant to Variation Agreement No. 048 dated September 10, 2012 the Employer agreed to certain revised payment arrangements in respect of items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices on the terms set out in Variation Agreement No. 048.
- d) The Contractor has requested through RFV No 254, dated July 31, 2014, that the Employer agrees that the progress payments for the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices be amended as set out in RFV No 254, dated July 31, 2014.
- e) Accordingly, the Employer has responded through letter IAE-UPC-2174 dated July 31, 2014, indicating to the Contractor that the Employer has agreed that the progress payments for the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and



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Design and Construction of the Third Set of Locks

Prices be amended as set out in RFV No 254, dated July 31, 2014, subject to the parties agreeing a formal variation to reflect such revised arrangements.

- f) As a condition to the Employer permitting the amendments to the progress payments referred to in sub-paragraph (d) above and the effectiveness of the amendments specified in this Variation Agreement No. 111, the Contractor shall provide the VO No. 111 Bond Issuer Confirmation in the form set out in Appendix 1 to this Variation Agreement No. 111 no later than 5 Business Days after the date of this Variation Agreement No. 111.
- g) Therefore, subject to the terms of this Variation Agreement No. 111, the Parties have agreed to a variation to the Contract as hereinafter stated, but not further or otherwise.

THE PARTIES HEREBY AGREE AS FOLLOWS:

The Employer and the Contractor agree to vary the Contract as follows:

1. In this Variation Agreement No. 111, the words and expressions shall have the same meanings as are respectively assigned to them in the Contract, save as amended below or as expressly stated.
2. It is agreed that this Variation Agreement No. 111 and the modifications contained herein are approved and dated in writing by the authorized representatives of the Contractor and the Employer and in doing so the Parties acknowledge and identify that this is done in accordance with Sub-Clause 1.16 [*Entire Agreement*] of the Contract.
3. This Variation Agreement No. 111 is without prejudice to the merits of any claims and defenses that either Party may have against the other relating to the Contract (as to which both Parties' positions are fully reserved) or otherwise. Both Parties continue to reserve all rights, remedies and defenses related hereto, as set forth at clause 9 of the MOU and clause 9 of the MOU is hereby incorporated by reference. Without prejudice to the generality of the foregoing, the Parties' rights, remedies and defenses with respect to delay-related issues are expressly reserved. The Contractor agrees and acknowledges that it shall not make any claims against the Employer arising directly out of this Variation Agreement No. 111.
4. Save in relation to breaches of, or failure by either Party to comply with, the terms of this Variation Agreement No. 111, the Parties agree that they shall have no claims for additional time or money or any other relief or entitlement of any kind as a direct consequence of this Variation Agreement No. 111.
5. Further, the Contractor's obligations as to the progress of the Works and to complete the Works and comply with the Contract remain in all respects unaffected and nothing within this Variation Agreement No. 111 is intended to be a waiver or relaxation of the Contractor's obligations under the Contract, save only as



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expressly stated herein. The Contract shall remain fully effective as varied herein and the Contract shall have effect as though the provisions contained in this Variation Agreement No. 111 had been originally contained in the Contract, but notwithstanding the generality of the foregoing and for the avoidance of doubt, the provisions relating to payment for the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices as set out in paragraph 8 of this Variation Agreement No. 111 shall only apply as from the date of this Variation Agreement No. 111.

6. This Variation Agreement No. 111 shall be governed by the Laws of the Republic of Panama and is deemed to be incorporated into and form an integral part of the Contract.
7. The Parties agree to amend Sub-Clause 1.1 [*Definitions*] of the Contract as follows:

The Parties agree to add the following definitions to Sub-Clause 1.1.6 [*Other Definitions*] of the Contract (which shall be added in proper alphabetical order but without any number):

"Variation Agreement No. 111" means Variation Agreement Number 111, dated the 4th day of August, 2014 between the Employer and the Contractor.

"VO No. 111 Bond Issuer Confirmation" means a written confirmation (or rider, amendment or modification, as applicable), in the form set out in Appendix 1 to Variation Agreement No. 111 and otherwise acceptable to the Employer, from each of (i) the issuer of the Performance Bond, (ii) the issuer of the Payment Bond and (iii) the issuer of the Plant and Material Security, in each case consenting to the modifications to the Contract made pursuant to the terms of Variation Agreement No. 111 and confirming the continuing validity of such bonds notwithstanding such modifications.

8. Subject to paragraph 9 of this Variation Agreement No. 111, the Parties hereby agree to amend item (4) following to the proviso to Sub-Clause 14.5.1 [*Plant and Materials Intended for the Works*] of the Contract as follows:
 - (a) in lines 3 and 4 delete "[as more particularly explained and clarified in Appendix 3 to Variation Agreement No. 048]" and replace with "as more particularly explained and clarified in Appendices 2-4 to Variation Agreement No. 111 "; and
 - (b) in sub-paragraph (A), in line 1 delete "20%" and replace with "25%"; and
 - (c) in sub-paragraph (B), in line 1:
 - (i) delete "16.4%" and replace with "8.2%";



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Design and Construction of the Third Set of Locks

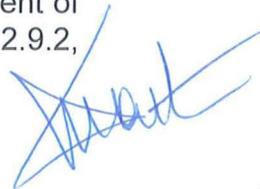
(ii) delete ", 2.3.3.2.9.2"; and

(iii) after "2.3.3.2.10.2" insert "and 8.4% of item 2.3.3.2.9.2".

9. The Parties agree that the amendment of the Contract and the Employer's agreement to the Contractor's request as set out in and in accordance with paragraph 8 of this Variation Agreement No. 111 is subject to the Contractor delivering to the Employer no later than 5 Business Days after the date of this Variation Agreement No. 111 the VO No. 111 Bond Issuer Confirmation in the form set out in Appendix 1 to this Variation Agreement No. 111, failing which the amendments set out in paragraph 8 above shall be of no effect and void.
10. If the Contractor fails to comply with paragraph 9 above within the time period specified therein, then any amounts paid by the Employer to the Contractor in accordance with paragraph 8 above shall become immediately due and payable by the Contractor to the Employer and the Employer shall be entitled, at its sole and absolute discretion, to:
- (a) deduct the full amount of any such amounts paid by the Employer to the Contractor in accordance with paragraph 8 above in the next Interim Payment Certificate; and/or
 - (b) require payment of the full amount of any such amounts paid by the Employer to the Contractor in accordance with paragraph 8 above (or any part thereof not deducted in accordance with sub-paragraph (a) above) from the Contractor, in which case the Contractor shall within 21 days of written request from the Employer make payment of such amount(s) to the Employer and/or the Employer may recover such amount(s) as a debt due from the Contractor to the Employer. Payment of any amount(s) due from the Contractor to the Employer pursuant to this sub-paragraph (b) shall be made by electronic transfer of funds to the bank account nominated by the Employer,

and the payments in respect of the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices shall continue in accordance with the Contract as if the amendments set out in paragraph 8 above had never been made.

11. The Contractor may submit to the Employer one extraordinary application for payment in a form acceptable to the Employer of an amount that the Contractor considers it is entitled to be paid for items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices pursuant to item (4) following the proviso to Sub-Clause 14.5.1 [*Plant and Materials Intended for the Works*] for the period up to August 31, 2014 only. Subject to the Contractor's compliance with the terms of item (4) following the proviso to Sub-Clause 14.5.1 [*Plant and Materials Intended for the Works*], the Employer shall make payment of the amount which the Employer considers is due for items 2.3.3.1.9.2, 2.3.3.2.9.2,



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Design and Construction of the Third Set of Locks

2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices within 5 days of receipt of the Contractor's extraordinary payment application provided for in this paragraph 11.

12. The Parties acknowledge and agree that the Employer's rights in relation to the processing of Interim Payments including but not limited to under Sub-Clause 14.6 [*Issue of Interim Payment Certificates*] and Sub-Clause 14.7 [*Payment*] remain unaffected by this Variation Agreement No. 111.

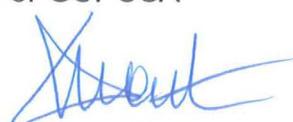
13. Each Party shall from time to time (at its own cost) do, perform, sign, execute and deliver all such acts, deeds, documents and things (or procure the doing, performance, signing, execution or delivery of them) to give full effect to this Variation Agreement No. 111 and secure the full benefit of the rights, powers and remedies conferred upon it in this Variation Agreement No. 111.

In Witness whereof the Parties hereto have caused this Variation Agreement No. 111 to the Contract to be executed on the 4th day of August of the year 2014 by their duly authorized representatives.

For ACP


Jorge de la Guardia
Employer's Representative

For GUPCSA


Giuseppe Quarta
Contractor's Representative

APPENDIX 1

VO NO. 111 BOND ISSUER CONFIRMATION

[Letterhead of Zurich]

_____, 2014

Autoridad del Canal de Panama
Edificio 740, Corozal
Panama, Republica de Panama

Reference: Contract No. CMC-221427, Design and Construction of the Third Set of Locks, Panama Canal

Confirmation regarding certain amendments to the Contract (as defined below)

Dear Sirs:

We refer to (i) the Design and Build Contract for the Third Set of Locks on the Panama Canal (as amended, modified, varied or supplemented, the "Contract") tendered under RFP #76161 between you, as owner and Employer thereunder (the "Owner") and Grupo Unidos por el Canal, S.A., as contractor (the "Contractor"); (ii) the performance bond, Bond no. 08960193, dated August 7, 2009, in an amount of USD 400,000,000.00, issued in the Owner's favor in respect of the Contract (as amended, supplemented or otherwise modified from time to time, the "Performance Bond"); (iii) the payment bond, Bond no. 08960194, dated August 7, 2009, in an amount of USD 50,000,000.00, issued in the Owner's favor in respect of the Contract (as amended, supplemented or otherwise modified from time to time, the "Payment Bond"); and (iv) the advance payment bond in respect of Plant and Material Security, Bond no. 09098907, dated December 20, 2012, in an amount of USD 150,000,000.00, issued in the Owner's favor in respect of the Contract (as amended, supplemented or otherwise modified from time to time, the "P&M Bond" and, together with the Performance Bond and the Payment Bond, the "Bonds"). Unless otherwise specified, capitalized terms used herein have the respective meanings specified in the Contract.

We have been provided with a copy of Variation Agreement No. 111, dated August 4, 2014 ("Variation Agreement No. 111") to the Contract, executed by the Owner and the Contractor, which provides for certain amendments to the Contract relating to the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices.

The undersigned, as Surety under and as defined in the Bonds, hereby consents to the amendments to the Contract relating to the locks and WSB valves included in items 2.3.3.1.9.2, 2.3.3.2.9.2, 2.3.3.1.10.2 and 2.3.3.2.10.2 of the Schedule of Project Elements and Prices pursuant to the aforementioned Variation Agreement No. 111 and

Variation Agreement No. 111



confirms to you, as Owner and beneficiary under the Bonds, the continued validity of the Bonds in the respective amounts originally stated therein, notwithstanding such amendments to the Contract and the terms of Variation Agreement No. 111.

Nothing in this confirmation letter is intended to or shall waive, alter, amend or otherwise affect any of the terms or conditions of the Bonds, other than as stated herein.

ZURICH AMERICAN INSURANCE
COMPANY, as Surety under the Bonds

By: _____
Name:
Title:

ACCEPTED:

AUTORIDAD DEL CANAL DE PANAMA,
as Owner under the Contract and beneficiary under the Bonds referred to above

By: _____
Name:
Title:



Appendix 2 Variation 111

RFV 254 - Appendix 1 - Sub-Clause 14.5 - Plant and Materials Intended for the Works Breakdown Atlantic Lock Valves

2.3.3.1.9.1 Lock Valves - Provide and deliver all complete Lock Valves to the Site 49,467,422

	Price for "Fabricate and Delivery"	(A)		49,467,422	
2.3.3.1.9.2	All other Lock Valves and Bulkhead work - including installation, testing, overhead and profit.	(B)		24,151,234	
(B.1)	"Overhead and Profit" on Fabricate and Delivery	25%	x	49,467,422	= 12,366,856
(B.2 = B - B.1)	Remaining amount for Installation, Testing and its "Overhead and Profit"				11,784,379
(B.3)	"Overhead and Profit" on Installation and Testing	11,784,379	/	1.25	2,356,876
(B.4)	Remaining amount for Installation and Testing				9,427,503
(B.5)	"Other Lock Valves and Bulkhead Works"				0
(B.6)	"Dry and Wet Testing"	(Test Factor)	4%	x	49,467,422 = 1,978,697
(B.7)	Remaining amount for Installation				7,448,806
2.3.1.11	Total Price for Fabricate, Deliver, Installation, Testing, Overhead and Profit".	(C = A + B)			73,618,656
	Direct Cost for Fabricate, Deliver, Installation, Testing (Do not include Ovh. & Profit).	(D = A + B.4)			58,894,925



Breakdown Atlantic Lock Valves		\$	%		
(B.7)	Installation	7,448,806	30.8%		Equiv. fab. & Delivery
(B.6)	Test	1,978,697	8.2%		
(B.5)	Other Valves and Bulkhead Works	0	0.0%		
(B.1 + B.3)	Overhead & Profit (Equiv. 25% of Direct Costs)	14,723,731	61.0%		Equiv. Direct Costs 25.0%
	Total Installation, Tests, Recess Closure, Overhead & Profit	24,151,234	100.0%		
(A + B.4)	Total Direct Cost	58,894,925	100.0%		
(B.1 + B.3)	Total Overhead and Profit	14,723,731	25.0%		
(A + B)	Total Price	73,618,656	125.0%		

RFV 254 - Appendix 1 - Sub-Clause 14.5 - Plant and Materials Intended for the Works
Breakdown Atlantic WSB Valves

2.3.3.1.10.1	WSB Valves - Provide and deliver all complete Lock Valves to the Site				39,791,946			
	Price for "Fabricate and Delivery"	(A)			39,791,946			
2.3.3.1.10.2	All other Lock Valves and Bulkhead work - including installation, testing, overhead and profit.	(B)			19,380,573			
(B.1)	"Overhead and Profit" on Fabricate and Delivery	(Overhead & Profit)	25%	x	39,791,946	= 9,947,987	51.3%	
(B.2 = B - B.1)	Remaining amount for Installation, Testing and its "Overhead and Profit"					9,432,587	61.1%	
(B.3)	"Overhead and Profit" on Installation and Testing	(Instal., Test, Ovh. & Profit)	9,432,587	/	(Overgrossed Ovh. & Profit)	1.25	1,886,517	9.7%
(B.4)	Remaining amount for Installation and Testing					7,546,069		
(B.5)	"Other Lock Valves and Bulkhead Works"					0	0.0%	
(B.6)	"Dry and Wet Testing"	(Test Factor)	4%	x	(Fabricate and Delivery)	39,791,946	= 1,591,678	8.2%
(B.7)	Remaining amount for Installation					5,954,391	30.7%	
2.3.1.11	Total Price for Fabricate, Deliver, Installation, Testing, Overhead and Profit".	(C = A + B)				59,172,519		
	Direct Cost for Fabricate, Deliver, Installation, Testing (Do not include Ovh. & Profit).	(D = A + B.4)				47,338,015		

Breakdown Atlantic Lock Valves		\$	%	
(B.7)	Installation	5,954,391	30.7%	Equiv. fab. & Delivery
(B.6)	Test	1,591,678	8.2%	
(B.5)	Other Valves and Bulkhead Works	0	0.0%	
(B.1 + B.3)	Overhead & Profit (Equiv. 25% of Direct Costs)	11,834,504	61.1%	Equiv. Direct Costs
	Total Installation, Tests, Recess Closure, Overhead & Profit	19,380,573	100.0%	25.0%
(A + B.4)	Total Direct Cost	47,338,015	100.0%	
(B.1 + B.3)	Total Overhead and Profit	11,834,504	25.0%	
(A + B)	Total Price	59,172,519	125.0%	

RFV 254 - Appendix 1 - Sub-Clause 14.5 - Plant and Materials Intended for the Works
Breakdown Pacific Lock Valves

2.3.3.2.9.1	Lock Valves - Provide and deliver all complete Lock Valves to the Site				49,467,427			
<hr/>								
	Price for "Fabricate and Delivery"	(A)			49,467,427			
<hr/>								
2.3.3.2.9.2	All other Lock Valves and Bulkhead work - including installation, testing, overhead and profit.	(B)			23,672,717			
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(B.1)	"Overhead and Profit" on Fabricate and Delivery	(Overhead & Profit)	25%	x	(Fabricate and Delivery) 49,467,427	=	12,366,857	52.2%
(B.2 = B - B.1)	Remaining amount for Installation, Testing and its "Overhead and Profit"						11,305,860	61.8%
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(B.3)	"Overhead and Profit" on Installation and Testing	(Instal., Test, Ovh. & Profit)	11,305,860	/	(Overgrossed Ovh. & Profit) 1.25		2,261,172	9.6%
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(B.4)	Remaining amount for Installation and Testing						9,044,688	
<hr/>								
(B.5)	"Other Lock Valves and Bulkhead Works"						0	0.0%
<hr/>								
(B.6)	"Dry and Wet Testing"	(Test Factor)	4%	x	(Fabricate and Delivery) 49,467,427	=	1,978,697	8.4%
<hr/>								
(B.7)	Remaining amount for Installation						7,065,991	29.8%
<hr/>								
2.3.1.11	Total Price for Fabricate, Deliver, Installation, Testing, Overhead and Profit".	(C = A + B)					73,140,144	
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	Direct Cost for Fabricate, Deliver, Installation, Testing (Do not include Ovh. & Profit).	(D = A + B.4)					58,512,115	

Breakdown Atlantic Lock Valves		\$	%		
(B.7)	Installation	7,065,991	29.8%	Equiv. fab. & Delivery	
(B.6)	Test	1,978,697	8.4%		
(B.5)	Other Valves and Bulkhead Works	0	0.0%		
(B.1 + B.3)	Overhead & Profit (Equiv. 25% of Direct Costs)	14,628,029	61.8%	Equiv. Direct Costs	25.0%
Total Installation, Tests, Recess Closure, Overhead & Profit		23,672,717	100.0%		
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(A + B.4)	Total Direct Cost	58,512,115	100.0%		
(B.1 + B.3)	Total Overhead and Profit	14,628,029	25.0%		
(A + B)	Total Price	73,140,144	125.0%		

RFV 254 - Appendix 1 - Sub-Clause 14.5 - Plant and Materials Intended for the Works
Breakdown Pacific WSB Valves

2.3.3.2.10.1	WSB Valves - Provide and deliver all complete Lock Valves to the Site				39,791,946				
Price for "Fabricate and Delivery"		(A)			39,791,946				
2.3.3.2.10.2	All other Lock Valves and Bulkhead work - including installation, testing, overhead and profit.	(B)			19,380,573				
(B.1)	"Overhead and Profit" on Fabricate and Delivery	(Overhead & Profit)	25%	x	39,791,946	= 9,947,987	51.3%		
(B.2 = B - B.1)	Remaining amount for Installation, Testing and its "Overhead and Profit"						61.1%		
(B.3)	"Overhead and Profit" on Installation and Testing	(Instal., Test, Ovh. & Profit)	9,432,587	/	(Overgrossed Ovh. & Profit)	1.25	1,886,517	9.7%	
(B.4)	Remaining amount for Installation and Testing								
(B.5)	"Other Lock Valves and Bulkhead Works"						0	0.0%	
(B.6)	"Dry and Wet Testing"	(Test Factor)	4%	x	(Fabricate and Delivery)	39,791,946	= 1,591,678	8.2%	
(B.7)	Remaining amount for Installation							5,954,391	30.7%
2.3.1.11	Total Price for Fabricate, Deliver, Installation, Testing, Overhead and Profit".	(C = A + B)							59,172,519
	Direct Cost for Fabricate, Deliver, Installation, Testing (Do not include Ovh. & Profit).	(D = A + B.4)							47,338,015

Breakdown Atlantic Lock Valves		\$	%		
(B.7)	Installation	5,954,391	30.7%	Equiv. fab. & Delivery	
(B.6)	Test	1,591,678	8.2%		
(B.5)	Other Valves and Bulkhead Works	0	0.0%		
(B.1 + B.3)	Overhead & Profit (Equiv. 25% of Direct Costs)	11,834,504	61.1%	Equiv. Direct Costs	25.0%
Total Installation, Tests, Recess Closure, Overhead & Profit		19,380,573	100.0%		
(A + B.4)	Total Direct Cost	47,338,015	100.0%		
(B.1 + B.3)	Total Overhead and Profit	11,834,504	25.0%		
(A + B)	Total Price	59,172,519	125.0%		

Appendix 3 Variation 111

RFV 254 - TABLE OF ACTIVITIES BREAKDOWN WITH THE CORRESPONDING PROPOSED CHANGES ON PERCENTAGES

CURRENT							
Valves			Budget	Valves			Budget
Rates	Code	Description	\$132,791,175	Code	Description	\$132,312,663	
			\$73,618,656			\$73,140,144	
70/30	A-21480	A_LH Culvert Valves: Fabricate Valves with Factory Acc	\$31,335,788	P-22720	P_LH Culvert Valves: Fabricate Valves with Factory Ac	\$31,592,273	
70/30	A-21500	A_LH Culvert Valves: Deliver Valves	\$13,429,624	P-22740	P_LH Culvert Valves: Deliver Valves	\$13,539,545	
70/30	A-21600	A_LH Equalization Valves: Fabricate Valves with Factor	\$3,291,407	P-22840	P_LH Equalization Valves: Fabricate Valves with Factor	\$3,034,926	
70/30	A-21620	A_LH Equalization Valves: Deliver Valves	\$1,410,603	P-22860	P_LH Equalization Valves: Deliver Valves	\$1,300,683	
70/30	A-40800	A_Entrance/Ocean WW: Install Trashrack, and Plant M	\$408,362	P-40980	P_Entrance/Ocean WW: Install Mechanical - Trashrack	\$412,741	
70/30	A-41120	A_LH4: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,896,972	P-41240	P_LH4: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,917,313	
70/30	A-41460	A_LLC: Install Mechanical - 2nd Embeds, Equip and Sy	\$803,244	P-41580	P_LLC: Install Mechanical - 2nd Embeds, Equip and Sy	\$811,857	
70/30	A-41640	A_LH3: Install Mechanical - 2nd Embed Parts/Maint Sup	\$2,255,939	P-41840	P_LH3: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,917,313	
70/30	A-41960	A_LMC: Install Mechanical - 2nd Embeds, Equip and Sy	\$803,244	P-42160	P_LMC: Install Mechanical - 2nd Embeds, Equip and S	\$811,857	
70/30	A-42180	A_LH2: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,896,970	P-42420	P_LH2: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,917,311	
70/30	A-42520	A_LUC: Install Mechanical - 2nd Embeds, Equip and Sy	\$803,245	P-42700	P_LUC: Install Mechanical - 2nd Embeds, Equip and Sy	\$811,858	
70/30	A-42680	A_LH1: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,896,970	P-42920	P_LH1: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,917,311	
70/30	A-42940	A_Gatun WW: Install Trashrack, and Plant Mechanical S	\$1,100,441	P-43220	P_Apprch WW: Install Trashrack and Plant Mechanical	\$1,112,241	
70/30	A-60140	A_Locks & Site: Perform Pre-commissioning and Comm	\$32,664	P-60140	P_Locks & Site: Perform Pre-commissioning and Comm	\$33,015	
Proportional	A-N9100	A_Overhead & Profit Lock Valves WS	\$12,253,181	P-N9100	P_Overhead & Profit Lock Valves WS	\$12,009,898	
			\$59,172,519			\$59,172,519	
70/30	A-21540	A_WSB Conduit Valves: Fabricate Valves with Factory A	\$27,854,362	P-22780	P_WSB Conduit Valves: Fabricate Valves with Factory	\$27,854,362	
70/30	A-21560	A_WSB Conduit Valves: Deliver Valves	\$11,937,584	P-22800	P_WSB Conduit Valves: Deliver Valves	\$11,937,584	
70/30	A-43120	A_WSB-LC: Install Mechanical- Valves, Embedded Part	\$3,178,160	P-43440	P_WSB-LC: Install Mechanical- Valves, Embedded Par	\$3,178,160	
70/30	A-43300	A_WSB-MC: Install Mechanical- Valves, Embedded Par	\$3,178,160	P-43640	P_WSB-MC: Install Mechanical- Valves, Embedded Pa	\$3,178,160	
70/30	A-43500	A_WSB-UC: Install Mechanical- Valves, Embedded Part	\$3,178,160	P-43840	P_WSB-UC: Install Mechanical- Valves, Embedded Par	\$3,178,160	
Proportional	A-N9200	A_Overhead & Profit WSB valves WS	\$9,846,093	P-N9200	P_Overhead & Profit WSB valves WS	\$9,846,093	
			\$61,365,475			\$61,130,246	
			\$12,253,181			\$12,009,898	
			19.97%			19.65%	
			\$49,326,426			\$49,326,426	
			\$9,846,093			\$9,846,093	
			19.96%			19.96%	

PROPOSAL							
Valves			Budget	Valves			Budget
Rates	Code	Description	\$132,791,175	Code	Description	\$132,312,663	
			\$73,618,656			\$73,140,144	
70/30	A-21480	A_LH Culvert Valves: Fabricate Valves with Factory Acc	\$31,335,788	P-22720	P_LH Culvert Valves: Fabricate Valves with Factory Ac	\$31,592,273	
70/30	A-21500	A_LH Culvert Valves: Deliver Valves	\$13,429,624	P-22740	P_LH Culvert Valves: Deliver Valves	\$13,539,545	
70/30	A-21600	A_LH Equalization Valves: Fabricate Valves with Factor	\$3,291,407	P-22840	P_LH Equalization Valves: Fabricate Valves with Factor	\$3,034,926	
70/30	A-21620	A_LH Equalization Valves: Deliver Valves	\$1,410,603	P-22860	P_LH Equalization Valves: Deliver Valves	\$1,300,683	
70/30	A-40800	A_Entrance/Ocean WW: Install Trashrack, and Plant M	\$323,568	P-40980	P_Entrance/Ocean WW: Install Mechanical - Trashrack	\$320,087	
70/30	A-41120	A_LH4: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,503,079	P-41240	P_LH4: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,486,905	
70/30	A-41460	A_LLC: Install Mechanical - 2nd Embeds, Equip and Sy	\$636,456	P-41580	P_LLC: Install Mechanical - 2nd Embeds, Equip and Sy	\$629,607	
70/30	A-41640	A_LH3: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,787,508.42	P-41840	P_LH3: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,486,905	
70/30	A-41960	A_LMC: Install Mechanical - 2nd Embeds, Equip and Sy	\$636,456	P-42160	P_LMC: Install Mechanical - 2nd Embeds, Equip and S	\$629,607	
70/30	A-42180	A_LH2: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,503,077	P-42420	P_LH2: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,486,903	
70/30	A-42520	A_LUC: Install Mechanical - 2nd Embeds, Equip and Sy	\$636,457	P-42700	P_LUC: Install Mechanical - 2nd Embeds, Equip and Sy	\$629,608	
70/30	A-42680	A_LH1: Install Mechanical - 2nd Embed Parts/Maint Sup	\$1,503,077	P-42920	P_LH1: Install Mechanical - 2nd Embed Parts/Maint Su	\$1,486,903	
70/30	A-42940	A_Gatun WW: Install Trashrack, and Plant Mechanical S	\$871,942	P-43220	P_Apprch WW: Install Trashrack and Plant Mechanical	\$862,559	
70/30	A-60140	A_Locks & Site: Perform Pre-commissioning and Comm	\$25,882	P-60140	P_Locks & Site: Perform Pre-commissioning and Comm	\$25,603	
Proportional	A-N9100	A_Overhead & Profit Lock Valves WS	\$14,723,731	P-N9100	P_Overhead & Profit Lock Valves WS	\$14,628,029	
			\$59,172,519			\$59,172,519	
70/30	A-21540	A_WSB Conduit Valves: Fabricate Valves with Factory A	\$27,854,362	P-22780	P_WSB Conduit Valves: Fabricate Valves with Factory	\$27,854,362	
70/30	A-21560	A_WSB Conduit Valves: Deliver Valves	\$11,937,584	P-22800	P_WSB Conduit Valves: Deliver Valves	\$11,937,584	
70/30	A-43120	A_WSB-LC: Install Mechanical- Valves, Embedded Part	\$2,515,356	P-43440	P_WSB-LC: Install Mechanical- Valves, Embedded Par	\$2,515,356	
70/30	A-43300	A_WSB-MC: Install Mechanical- Valves, Embedded Par	\$2,515,356	P-43640	P_WSB-MC: Install Mechanical- Valves, Embedded Pa	\$2,515,356	
70/30	A-43500	A_WSB-UC: Install Mechanical- Valves, Embedded Part	\$2,515,356	P-43840	P_WSB-UC: Install Mechanical- Valves, Embedded Par	\$2,515,356	
Proportional	A-N9200	A_Overhead & Profit WSB valves WS	\$11,834,504	P-N9200	P_Overhead & Profit WSB valves WS	\$11,834,504	
			\$58,894,925			\$58,512,115	
			\$14,723,731			\$14,628,029	
			25.00%			25.00%	
			\$47,338,015			\$47,338,015	
			\$11,834,504			\$11,834,504	
			25.00%			25.00%	

Appendix 4 Variation 111

RFV 254 - VARIANCES ON THE MAJOR ELEMENTS OF COSTS (OVERHEADS, INSTALLATION AND TESTS & OTHER VALVES AND BULKHEADS WORKS

A.) SUMMARY OF APPENDIX 3 TO VARIATION No. 48 (Based upon Overhead 20%)

Details	Total	Direct	OVH %	Fabricate & Deliver	Install	Tests
Atlantic						
Locks Valves	73,618,656	61,365,475	12,253,181	49,467,422	7,913,348	3,984,706
WSB Valves	59,172,519	49,326,426	9,846,093	39,791,946	6,358,802	3,175,679
Pacific						
Locks Valves	73,140,144	61,130,246	12,009,898	49,467,427	7,789,244	3,873,575
WSB Valves	59,172,519	49,326,426	9,846,093	39,791,946	6,358,802	3,175,679
Totals	265,103,838	221,148,573	43,955,265	178,518,741	28,420,196	14,209,638
	120%	100%	20%	80.7%	12.9%	6.4%

B.) SUMMARY OF PROPOSED PERCENTAGES (Based upon Overhead 25%)

Details	Total	Direct	OVH %	Fabricate & Deliver	Install	Tests
Atlantic						
Locks Valves	73,618,656	58,894,925	14,723,731	49,467,422	7,448,806	1,978,697
WSB Valves	59,172,519	47,338,015	11,834,504	39,791,946	5,954,391	1,591,678
Pacific						
Locks Valves	73,140,144	58,512,115	14,628,029	49,467,427	7,065,991	1,978,697
WSB Valves	59,172,519	47,338,015	11,834,504	39,791,946	5,954,391	1,591,678
Totals	265,103,838	212,083,070	53,020,768	178,518,741	26,423,580	7,140,750
	125%	100%	25%	80.7%	12.5%	3.4%