

Paula M. Blas

Office of the Speaker

Judith T. Won Pat, Ed. D.

SI

Eddie Baza Calvo Governor

Ray Tenorio Lieutenant Governor

April 5, 2013

Date

Time

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Honorable Judith P. Won Pat, Ed.D. Speaker I Mina'trentai Dos Na Liheslaturan Guåhan 155 Hesler Place Hagåtña, Guam 96910

Dear Speaker WonPat,

Pursuant to Section 4 of Public Law 31-279, the Board of Trustees of the Government of Guam Retirement Fund (the "Fund") hereby submits its report analyzing the feasibility of retirement fund reforms including but not limited to the following:

- 1. Exhibit A Actuarial Analyses of Early Retirement Incentive Programs;
- 2. Exhibit B Actuarial Analyses of the issuance of a Pension Bond; and
- 3. Exhibit C Actuarial Analyses of Other Retirement Reforms.

Although the Fund worked with its actuary, financial advisors, and legal counsel to determine the impact of the reforms, the Fund, *does not* take a position on any of the reforms.

The Fund's Board of Trustees (the "Board") remains steadfast in protecting the Fund for the benefit of its members and their beneficiaries. They realize, however, that the Government of Guam's overall fiscal health is of concern, since the government's ability to make future contributions will eventually affect the Fund. Accordingly, the Board is willing to meet with members of the Governor's Office and the Legislature to ensure an understanding of the effects of the reforms.

Should you have any questions or to schedule a meeting to discuss please feel free to contact me at 475-8900.

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incerely. Paula M. Blas Director

Cc: Honorable Eddie B. Calvo, Governor Honorable Benjamin J.F. Cruz, Senator

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Trustees:

Joe T. San Agustin Chairman

Wilfred P. Leon Guerrero,Ed.D. Vice-Chairman Investment Committee, Chairman

Antolina S. Leon Guerrero Secretary

Gerard A. Cruz Treasurer Audit & Operations Committee, Chairman

George A. Santos Members' & Benefits Committee Chairman

Katherine T.E. Taitano

James R.F. Duenas

424 Route 8 Maite, Guam 96910 Tel: 671.475.8900 Fax: 671.475.8922 www.ggrf.com

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			Actuarial Accrued Liability (in millions)	Employer Contrib Rate	Estimated DB/DC Contrib (in millions)	Estimated Year 1 DB Contrib (in millions)	Estimated Year 1 Benefit Payments (in millions)	Year 1 DB Cash Flow (in millions)
Actuarial Valuation as of 9/30/12		\$2,811.4	30.03%	\$ 141.3	\$ 124.3	\$ (195. <b>3</b> )	\$ (71.1)	
Individual Impact			Net Change		Cash Flow after Change			
1.	Exclu	ide non-base pay	\$ (82.3)	(1.55%)	\$ (7.3)	\$ 116.7	\$ (195.3)	\$ (78.7)
2.	Redu incre	iced future annual ments by 50%	(64.8)	(1.15%)	(5.4)	118.9	(195.0)	(76.1)
3.	Elimi incre	nate future annual ments	(129.6)	(2.30%)	(10.8)	113.5	(194.6)	(81.1)
4.	Incre for sa years	ase the averaging period alaries from 3 years to 5 s	(32.2)	(0.69%)	(3.2)	121.1	(195.3)	(74.2)
5.	Decr from	ease the disability benefit 66 2/3% to 50%	(5.1)	(0.15%)	(0.7)	123.6	(195.3)	(71.7)
6.	Redu future to 1.3	uce the benefit rate for e service from 2.0%/2.5% 75%	(0.0)	(0.94%)	(4.4)	119.9	(195.3)	(75.5)
7.	Incre contr from	ease the employee ribution rate by 0.5% (e.g. 9.5% to 10.0%)	(0.0)	(0.17%)	(0.8)	123.5	(195. <b>3</b> )	(71.9)
8.	Hard mem	freeze of DB, move bers into DC	(250.0)	(3.65%)	(17.2)	99.2	(195.3)	(96.2)
Combined Impact		Net Change		Cash Flow after Change				
1 + 4		Exclude non-base pay and increase averaging period	\$ (102.6)	(2.02%)	\$ (9.5)	\$ 114.5	\$ (195.3)	\$ (80.9)
1+6		Exclude non-base pay and reduce benefit rate	(82.3)	(2.39%)	(11.2)	112.7	(195.3)	(82.6)
4 + 6		Increase averaging period and reduce benefit rate	(32.2)	(1.59%)	(7.5)	116.8	(195.3)	(78.5)
1 + 4	+6	Exclude non-base pay, increase averaging period, and reduce benefit rate	(102.6)	(2.83%)	(13.3)	110.6	(195.3)	(84.7)

Ms. Paula M. Blas April 3, 2013 Page **3** 

1 + 4 + 6 Exclude non-base pay from the determination of average annual earnings; increase the averaging period for salaries from 3 years to 5 years; and reduce the benefit rate for future service from 2.0%/2.5% to 1.75%

The results are based upon the actuarial valuation as of September 30, 2012, and rely upon the data, assumptions and methods reflected in that report. Changes were assumed to be effective as of September 30, 2012, unless otherwise indicated. All caveats, including limitations on use and distribution, described in that valuation also apply to this letter.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. If you have any questions, please call me at (415) 394-3716.

Sincerely,

Rich Wright, FSA, MAAA

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# **EXHIBIT C**

# 🗳 Milliman

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April 3, 2013

Ms. Paula M. Blas Director Government of Guam Retirement Fund 424 Route 8 Maite, Guam 96910

### Estimated Impact of Various Pension Reforms as of September 30, 2012

Dear Ms. Blas:

As requested, we have estimated the impact of various pension reforms on the results of the actuarial valuation as of September 30, 2012. The reforms reviewed are listed below. The estimated impacts of the reforms on the actuarial accrued liability and the contribution rate are shown in Exhibit 1.

1. Exclude non-base pay from the determination of average annual earnings

Active members were permitted to elect prior to March 29, 1993, to include non-base pay in pension earnings. Non-base pay may include unused annual leave paid in a lump sum upon retirement. Non-base pay would continue to be included in pension earnings for the three years following the valuation date. For subsequent years, it would be excluded from pension earnings used to determine the average annual earnings. This change would affect active members who had elected to include non-base pay in pension earnings.

2. Reduce future automatic annual increments by 50%

The annual increments applied to increase benefits for service and disability retirees and survivors would be reduced by 50%, effective immediately for current and future retirees/survivors, as indicated below.

	ANNUAL INCREASE			
ANNUAL ANNUITY	CURRENT	REVISED		
Retirees/Survivors				
\$0 - \$3,500	\$600	\$300		
\$3,500 - \$6,300	400	200		
\$6,300 - \$10,100	300	150		
Over \$10,100	200	100		
Disability Retirees				
\$0 - \$3,000	\$300	\$150		
\$3,000 - \$6,000	250	125		
\$6,000 - \$10,000	200	100		
Over \$10,000	100	50		

Ms. Paula M. Blas April 3, 2013 Page **2** 

3. Eliminate future automatic annual increments

The annual increments applied to increase benefits for service and disability retirees and survivors (listed in (2) above) would be eliminated, effective immediately for current and future retirees/survivors.

4. Increase the averaging period for salaries from 3 years to 5 years

The average annual earnings used to determine pension benefits would be calculated using the average of a member's five highest annual salaries effective immediately, but would not be less than the average of the member's three highest annual salaries at the time of the change. This change would affect active members.

5. Decrease the disability benefit from 66 2/3% to 50% for future disabled members

The DB plan currently provides a disability benefit equal to 66 2/3% of the member's average earnings. This would be reduced to 50% of average earnings for all future disabled members. Members currently disabled would not be affected.

6. Reduce the benefit rate for future service from 2.0%/2.5% to 1.75%

The DB plan currently provides a benefit of 2.0% of average annual earnings for the first 10 years of credited service and 2.5% of average annual earnings for each year of credited service in excess of 10. Members would accrue 1.75% for each year of future service, in addition to the benefit already accrued under the current formula at the date of the change. This change would affect active members.

7. Increase the employee contribution rate by 0.5%

Members currently contribute 9.5% of base pay and 10.5% of non-base pay that is included in pension earnings. The contribution rate would immediately increase by 0.5% (e.g., from 9.5% to 10.0% of base pay). This change would affect active members.

8. Hard freeze of DB plan and move all employees to DC plan

No further benefits would accrue under the DB plan, effective immediately. The DB plan benefit payable for active members would be the current accrued benefit. All DB plan members would be transferred into the DC plan. This change would affect active members.

The estimated impact of each reform if it were adopted independently is shown in Exhibit 1. If multiple reforms are adopted, the combination of the impact may differ from the sum of the individual reforms. As such, we are also showing the estimated impact of the following combined reforms.

- 1 + 4 Exclude non-base pay from the determination of average annual earnings and increase the averaging period for salaries from 3 years to 5 years
- 1+6 Exclude non-base pay from the determination of average annual earnings and reduce the benefit rate for future service from 2.0%/2.5% to 1.75%.
- 4 + 6 Increase the averaging period for salaries from 3 years to 5 years and reduce the benefit rate for future service from 2.0%/2.5% to 1.75%

## **EXHIBIT B**

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April 2, 2013

Ms. Paula M. Blas Director Government of Guam Retirement Fund 424 Route 8 Maite, Guam 96910

## Effect of Pension Bond on Actuarial Valuation as of September 30, 2012

Dear Ms. Blas:

As requested, we have estimated the effect of the issuance of a pension bond on the results of the actuarial valuation as of September 30, 2012. For this analysis, we have assumed a pension bond of \$200 million, \$300 million, or \$500 million. We have assumed that the bond would be included as a plan asset as of June 30, 2013, and have discounted the value of the bond back to the date of the actuarial valuation using the actuarial interest rate of 7.0%.

	No Bond	\$200M	\$300M	\$500M	Element-
	(in millions)	(in millions)	(in millions)	(in millions)	
Financial Status					
Actuarial accrued liability	\$2,811.4	\$2,811.4	\$2,811.4	\$2,811.4	
Actuarial value of assets	<u>1,328.8</u>	<u>1,518.9</u>	<u>1,613.9</u>	<u>1,804.0</u>	
Unfunded actuarial accrued liability	\$1,482.7	\$1,292.6	\$1,197.5	\$1,007.4	
Security ratio	47.26%	54.02%	57.41%	64.17%	
Required Contribution per GCA §813	37				
Unfunded actuarial accrued liability	24.01%	20.93%	19.39%	16.31%	
Government DB normal cost	2.39%	2.39%	2.39%	2.39%	
Expected government DC contribs	<u>3.62%</u>	3.62%	3.62%	3.62%	
Total DB and DC contribution	30.03%	26.95%	25.41%	22.33%	
Change in contribution rate		(3.08%)	(4.62%)	(7.70%)	
Expected DB and DC contribution	\$ 141.3	\$ 126.8	\$ 119.6	\$ 105.1	
Change in expected contributions		(14.5)	(21.7)	(36.2)	

Ms. Paula M. Blas April 2, 2013 Page **2** 

## COMMENTS

The above results are based upon the actuarial valuation as of September 30, 2012, and rely upon the data, assumptions and methods reflected in that report. All caveats, including limitations on use and distribution, described in that valuation also apply to this letter. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions, please call me at (415) 394-3716.

Sincerely,

Rich Wright, FSA, MAAA

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## **GOVERNMENT OF GUAM RETIREMENT FUND** Alternative Early Retirement Incentive Plans (ERIPs)

Years of Service (YOS)	Current			
AS 61 10/1/13	Fidii	ERIFA		
Hired prior to 10/1/81				
Age 60 or more – Non-Uniformed				
Less than 10 YOS	Not eligible	Not eligible	Not eligible	
10 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Less than age 60 – Non-Uniformed				
Less than 20 YOS	Not eligible	Not eligible	Not eligible	
20-21 YOS and below age 57	Reduced Ret (3%)	Reduced Ret (3%)	Reduced Ret (3%)	
22-24 YOS or age 57-59 with 20-24 YOS	Reduced Ret (3%)	Unreduced Ret	Purchase years to get to Unreduced Ret <sup>2</sup>	
25 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Age 55 or more – Uniformed				
Less than 10 YOS	Not eligible	Not eligible	Not eligible	
10 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Loss than ago 55 – Uniformed				
Less than 20 YOS	Not eligible	Not eligible	Not eligible	
20-21 YOS and below age 52	Reduced Ret (3%)	Reduced Ret (3%)	Reduced Ret (3%)	
22-24 YOS	Reduced Ret (3%)	Unreduced Ret	Purchase years to get	
or age 52-54 with 20-24 YOS			to Unreduced Ret	
25 or more YUS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Hired on and after 10/1/81				
Age 65 or more Non-Uniformed <sup>1</sup>				
Less than 15 YOS	Not eligible	Not eligible	Not eligible	
15 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Less than are $65 - Non-Uniformed^{1}$				
Less than 25 YOS	Not eligible	Not eligible	Not eligible	
25-26 YOS and below age 62	Reduced Ret (3%)	Reduced Ret (3%)	Reduced Ret (3%)	
27-29 YOS	Reduced Ret (3%)	Liproduced Bet	Purchase years to get	
or age 62-64 with 25-29 YOS			to Unreduced Ret <sup>2</sup>	
30 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Age 60 or more – Uniformed				
Less than 15 YOS	Not eligible	Not eligible	Not eligible	
15 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	
Less than age 60 – Uniformed				
Less than 25 YOS	Not eligible	Not eligible	Not eligible	
25-26 YOS and below age 57	Reduced Ret (3%)	Reduced Ret (3%)	Reduced Ret (3%)	
27-29 YOS or age 57-59 with 25-29 YOS	Reduced Ret (3%)	Unreduced Ret	Purchase years to get to Unreduced Ret <sup>2</sup>	
30 or more YOS	Unreduced Ret	Unreduced Ret	Unreduced Ret	

<sup>1</sup> Age 60 if hired between 10/1/81 and 8/21/84.

<sup>2</sup> Members within 3 years of unreduced retirement age are assumed to purchase the number of years from 10/1/13 to their unreduced retirement age without regard to years of service.

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## GOVERNMENT OF GUAM RETIREMENT FUND Estimated Costs of Alternative Early Retirement Incentive Plans (ERIPs)

	Ës	timated Costs as of 9/30 (in Millions)	/12
	Current Plan	ERIP A	ERIP B
Employees eligible for ERIP	n/a	411	411
Reported Payroll (2011/12 FY)	\$ 457.0	\$ 457.0	\$ 457.0
ERIP employees	0.0	(23.3)	(23.3)
Assumed backfill	0.0	11.7	11.7
Estimated Payroll after ERIP	\$ 457.0	\$ 445.3	\$ 445.3
Actuarial Accrued Liability (AAL)	\$ 2,811.4	\$ 2,856.6	<b>\$</b> 2,866. <b>5</b>
Actuarial Value of Assets	1,328.8	<u>    1,328.8</u>	1,341.5
Unfunded Accrued Liability (UAAL)	\$ 1,482.7	\$ 1,527.8	\$ 1,525.0
Estimated Change in UAAL	0.0	45.2	42.3
Security Ratio	47.26%	46.52%	46.80%
Employer contribution rate	30.03%	31.96%	31.88%
Estimated contribution (DB and DC)	\$ 141.3	\$ 146.6	\$ 146.2
Change in contribution	0.0	5.2	4.9

# **EXHIBIT A**



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April 2, 2013

Ms. Paula M. Blas Director Government of Guam Retirement Fund 424 Route 8 Maite, Guam 96910

### Estimated Costs of Early Retirement Incentive Plans (ERIPs)

Dear Ms. Blas:

As requested, we have estimated the costs of the following alternative Early Retirement Incentive Plans (ERIPs). Enclosed are the following exhibits:

Exhibit 1 – Summary of the ERIP provisions for employees in various age and service categories Exhibit 2 – Estimated costs of the alternative ERIPs

#### **ERIP PROVISIONS**

For the purpose of this study, we have assumed the following regarding each of the alternative ERIPs. If the actual ERIP varies from these assumptions, the actual cost will vary as well.

- Eligibility Only employees who are within 3 years of unreduced retirement are eligible. Since the effective date for the purpose of this study is 10/1/13, this means that eligibility is restricted to those employees who would be eligible for unreduced early retirement between 10/1/13 and 10/1/16.
- Effective Date We have assumed an effective date of 10/1/13. Only employees who meet the age and service requirements as of that date are assumed to be eligible for the ERIP.
- Benefit Effective Date We have assumed a benefit effective date of 10/1/13. All employees eligible for the ERIP are assumed to remain employed between 10/1/12 and 9/30/13, and then retire with the enhanced ERIP benefits as of 10/1/13. Note that this has the effect of eliminating the ERIP benefit for any employee with 29 years of service as of 10/1/12 (or 24 years for employees hired prior to 10/1/81) since they will be assumed to earn an additional year of service and be eligible for unreduced benefits without the ERIP at 10/1/13.
- ERIP A Eliminates the early retirement reduction factor (1/4% per month) for any employee eligible to retire for reduced early retirement (i.e. employees hired prior to 10/1/81 with at least 20 but less than 25 years of service and employees hired after 10/1/81 with at least 25 but less than 30 years of service). Employee must be eligible for unreduced retirement within 3 years. Employees may not purchase additional years of service. Employees who are already eligible for unreduced early retirement receive no enhanced benefits.

Ms. Paula M. Blas April 2, 2013 Page 2

ERIP B No change to the early retirement reduction factors. Employees who are eligible to retire with reduced early retirement benefits and who are within 3 years of unreduced retirement may purchase the additional years (up to 3) needed to reach the age or service requirement for unreduced early retirement. This includes employees hired prior to 10/1/81 with at least 20 but less than 25 years of service and employees hired after 10/1/81 with at least 25 but less than 30 years of service.

Employees are only permitted to purchase the number of years of service needed to reach the unreduced retirement requirement. No excess years may be purchased and employees who are already eligible for unreduced early retirement may not purchase additional years of service. Employees who are already eligible for unreduced early retirement receive no enhanced benefits. The employee contributions for the purchased service must be made prior to 10/1/13.

Employer contributions for the purchased service must also be made prior to 10/1/13. The contribution rate for this service will be the rate required for FY 2014 applied to the years of purchased service.

## ASSUMPTIONS

The assumptions made for the ERIP include the following:

- 1. All employees who would benefit from the ERIP are assumed to elect to participate in the ERIP and will retire as of 10/1/13.
- 2. Employees who are already eligible for unreduced retirement are not assumed to participate in the ERIP and will retire in accordance with the actuarial assumption for retirement.
- 3. The total GovGuam payroll is assumed to be reduced by 50% of the payroll attributed to the employees assumed to participate in the ERIP. This is less than 100% because it is assumed that at least one-half of the ERIP positions will be backfilled by employees at the same or lower average compensation rate.

### COMMENTS

These estimates reflect the same data, actuarial methods, and actuarial assumptions used in the actuarial valuation as of September 30, 2012. All caveats and limitations described in that valuation report also apply to this letter. The actual cost of the ERIP will likely differ from these estimates due to actual experience that differs from the assumptions made.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. If you have any questions, please call me at (415) 394-3716.

Sincerely,

Rich Wright, FSA, MAAA

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