Alaska Ironworkers Pension Plan

Actuarial Certification of Plan Solvency of Proposed Benefit Suspensions as of July 1, 2018

Prepared by:

Mark C. Olleman

FSA, EA, MAAA

Josh Goodwin

ASA, EA, MAAA

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
Seattle WA 98101-2605

Tel +1 206 624 7940
Fax +1 206 623 3485

milliman.com

Issued December 6, 2017

Actuarial Certification of Plan Solvency of Proposed Benefit Suspensions as of July 1, 2018 of the Alaska Ironworkers Pension Plan

This Actuarial Certification of Plan Solvency for the Alaska Ironworkers Pension Plan (the "Plan") has been completed in accordance with our understanding of IRC §432(e)(9)(C)(i) (including §1.432(e)(9)-1 and Revenue Procedure 2017-43). The results are contained in this report, including a summary of the underlying actuarial assumptions.

Purpose of the Report

The Plan was certified as "critical and declining" for the plan year beginning July 1, 2017. The Trustees have chosen to pursue benefit suspensions which are allowed to such plans under §432. We have completed our analysis of the Trustees' proposed benefit suspensions and determined that the proposed suspensions of benefits would likely enable the Plan to avoid insolvency (as defined in IRC §418E) assuming they continue indefinitely and occur no later than July 1, 2018. In addition, we have also completed the analysis required to satisfy §432(e)(9)(D)(iv) (taking into account §1.432(e)(9)-1 and Revenue Procedure 2017-43) which requires that the proposed suspension does not materially exceed the level necessary to avoid insolvency.

Limited Distribution

Milliman's work is prepared solely for the internal business use of the Trustees of the Plan, and may not be provided to third parties without our prior written consent. We understand this will be provided to Treasury and posted on their website. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a release, subject to the following exceptions:

- The Plan may provide a copy of Milliman's work, in its entirety, to the Plan's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.
- The Plan may distribute certain work product that Milliman and the Plan Sponsor mutually agree is appropriate as may be required by the Pension Protection Act of 2006.

Third party recipients of Milliman's work product should engage their own qualified professionals for advice appropriate to their specific needs.

Reliance

In preparing the report, we relied on our July 1, 2016 Actuarial Valuation, and, without audit, information (some oral and some in writing) supplied by the Plan's administrator and auditor. This information includes, but is not limited to, plan documents and provisions, participant data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The results depend on the integrity of this information. If any of this information is incomplete or inaccurate, our results may be different and our calculations may need to be revised.

Limited Use

Actuarial computations presented here were prepared to meet the requirement set forth in IRC §432(e)(9) (taking into account §1.432(e)(9)-1 and Revenue Procedure 2017-43).

Determinations for other purposes may be significantly different than the results in this report. Other calculations may be needed for other purposes, such as judging benefit security at termination.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

Certification

In our opinion, each assumption used (other than those assumptions mandated directly by the Internal Revenue Code and its regulations) is individually reasonable (taking into account the experience of the Plan and reasonable expectations).

On the basis of the foregoing, we hereby certify that to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Respectfully submitted,

[redacted]

Mark C. Olleman, FSA, EA, MAAA
Principal and Consulting A[redacted]
Enrolled Actuary Number [redacted]

December 6, 2017
Date

Josh Goodwin, ASA, EA, MAAA
Consulting Actuary
Enrolled Actuary Number [redacted]

Table of Contents

A. Summary of Key Information and Results

The following summary shows the results of the tests required to certify that the proposed suspensions meet the requirements set forth by the law.

1. Key Information

a.	Projected year of insolvency without consideration of proposed suspension	Year Ending June 30, 2032
b.	Proposed effective date of suspension of benefits	July 1, 2018
c.	End of extended period	June 30, 2048
d.	Projected funded percentage (under IRC §432(j)(2)) at end of extended period	110.7%*
e.	Number of Plan active participants (based on July 1, 2016 actuarial valuation)	153
f.	Is the proposed suspension in combination with a partition?	No

** See Exhibit G of report titled: Additional Information for Proposed Benefit Suspensions as of July 1, 2018.*

2. Limitation on Aggregate Size of Suspension

a. We certifiy that the proposed suspension is reasonably estimated to enable the Plan to avoid insolvency.

   i. The solvency ratio is projected on a deterministic basis to be at least 1.0 for each plan year throughout the extended period (see Exhibit D).

   ii. The Plan's projected funded percentage at the end of the extended period exceeds 100% and the Plan's solvency ratio and available resources are not projected to decrease at any time during the last five years of the extended period (see Exhibit D).

   Based on the results summarized in 2a above, the proposed suspension of benefits satisfies that it is reasonably estimated to enable the Plan to avoid insolvency.

b. We certify that the proposed suspension does not materially exceed the level that is necessary to avoid insolvency, as required under regulation §1.432(e)(9)-1(d)(5)(iii)(A).

   i. The Plan would fail one or more of the tests listed in 2a if the dollar amount of the proposed benefit suspension for each participant and beneficiary were 2% smaller. Exhibit E demonstrates that if the suspension is reduced by "two percent of the amount of the participant's or beneficiary's periodic payment determined without regard to the reduction proposed in the application," it will no longer be sufficient to enable the Plan to satisfy the requirement to avoid insolvency under §1.432(e)(9)-1(d)(5)(i)(A). Exhibit E shows a 24.5% reduction; this is two percent smaller than a 26.5% reduction. The projection in Exhibit E does not satisfy the requirement in §1.432(e)(9)-1(d)(5)(ii)(3) since the Plan's funded percentage at the end of the extended period does not exceed 100%* and during some of the last five years of the extended period the Plan's available resources is projected to decrease. Therefore, as specified in §1.432(e)(9)-1(d)(5)(iii)(A) "an alternative, similar but smaller suspension of benefits would not be sufficient to enable the Plan to satisfy the requirement to avoid insolvency under paragraph (d)(5)(i)(A)." Note that it is not necessary to specifically test a suspension that is smaller by “five percent of the amount of the reduction in the periodic payment” since the regulation allows the use of whichever reduction is greater.

* It can be demonstrated that the Plan’s funded percentage at June 30, 2048 (the end of the extended period) with a 24.5% suspension does not exceed 100% as follows. The Plan’s assets at June 30, 2048 with the 24.5% suspension are projected to be $23,920,884 as shown in Exhibit E. The Plan’s liabilities at June 30, 2048 with the 26.5% suspension are projected to be $30,805,596 as shown in Exhibit G of our report titled “Additional for Proposed Benefit Suspension as of July 1, 2018”. Since the ratio of $23,920,884 to $30,805,596 is less than 100%, and a 24.5% suspension will provide larger liabilities at June 30, 2048, the Plan’s funded percentage at June 30, 2048 with a 24.5% suspension will also be less than 100%.

ii. The PBGC did not issue an order partitioning the Plan.

Because of the the results in 2b, the proposed suspension of benefits satisfies the requirement that the proposed suspension does not materially exceed the level that is necessary to avoid insolvency.

The proposed suspension satisfies the limitations on aggregate size of suspension set forth in regulation §1.432(e)(9)-1(d)(5).

B. Development of Projected June 30, 2018 Market Value of Assets

The table below shows the actual change in the market value of assets from July 1, 2016 through September 30, 2017 and projected market value of assets from October 1, 2017 through June 30, 2018. The calculations are based on the following information:

- The market value of assets as of July 1, 2016 is based on June 30, 2016 financial statements from the Plan's auditor.
- The market value of assets as of July 1, 2017 is based on preliminary June 30, 2017 financial statements from the Plan's auditor.
- Employer contributions benefit payments and administrative expenses through September 30, 2017 and market value of assets as of as of September 30, 2017 are based on unaudited financial statements provided by the Plan administrator.
- Estimated employer contributions from October 1, 2017 through June 30, 2018 are based on 9/12ths of the assumed contribution of $2,687,750 (based on an hours assumption of 165,000 and bargained contribution rate of $13.75/hours) for the 2017/2018 plan year.
- Estimated benefit payments from October 1, 2017 through June 30, 2018 are based on 9/12ths of the expected benefit payments produced for the 2017/2018 plan year during the July 1, 2016 actuarial valuation.
- The administrative expenses from October 1, 2017 through June 30, 2018 are based on the $520,000 administrative expense assumption disclosed in the July 1, 2016 actuarial valuation, increased by a cost of living adjustment of 2.5% (to get from the 2016/2017 plan year to the 2017/2018 plan year) and multiplied by 9/12ths.
- Investment returns through September 30, 2017 were forced to make the market value of assets on September 30, 2017 match the administrator's unaudited financial statements.
- Investment returns from October 1, 2017 through June 30, 2018 are based on an assumed return of 3.08% during that period.

		From July 1, 2016 through June 30, 2017	From July 1, 2017 through September 30, 2017	Projection from October 1, 2017 through June 30, 2018	Total for 2017/2018 Plan Year
1.	Market value of assets (beginning of year)	$ 49,524,313	$ 49,259,700	$ 49,312,981	$ 49,259,700
2.	Employer contributions	2,147,339	544,047	1,701,563	2,245,610
3.	Withdrawal liability payments	0	0	0	0
4.	Benefit payments				
	a. Current retirees and beneficiaries	n/a	1,700,505	5,293,118	6,993,623
	b. Terminated vested participants	n/a	66,844	200,531	267,375
	c. Current actives	n/a	13,649	40,946	54,595
	d. New entrants	0	0	0	0
	e. Total	7,405,265	1,780,998	5,534,596	7,315,594
5.	Administrative expenses	713,440	174,036	399,750	573,786
6.	Investment returns	5,706,753	1,464,268	1,451,788	2,916,056
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 49,259,700	$ 49,312,981	$ 46,531,985	$ 46,531,985

C. Deterministic Projection of Current Plan without Proposed Suspension

The table shows the plan-year-by-plan-year market value of assets projection to insolvency. The plan years ending June 30, 2018 through June 30, 2032 are shown.

	Plan year beginning July 1	2017*	2018	2019	2020	2021	2022	2023	2024	2025
1.	Market value of assets (beginning of year)	$ 49,312,981	$ 46,531,985	$ 43,154,717	$ 40,126,157	$ 37,068,824	$ 34,284,504	$ 31,392,422	$ 28,280,696	$ 24,965,571
2.	Employer contributions	1,701,563	2,268,750	2,268,750	2,268,750	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	5,293,118	6,798,737	6,599,683	6,423,824	6,244,920	6,062,897	5,877,722	5,689,425	5,498,047
	b. Terminated vested participants	200,531	340,110	424,578	545,991	646,616	705,951	813,779	919,368	952,069
	c. Current actives	40,946	145,706	176,431	222,132	279,353	336,186	414,803	467,900	500,937
	d. New entrants	0	0	0	0	0	1,936	3,898	5,916	8,141
	e. Total	5,534,596	7,284,553	7,200,692	7,191,947	7,170,889	7,106,970	7,110,202	7,082,609	6,959,194
5.	Administra ive expenses	399,750	546,325	559,983	573,983	588,332	603,041	618,117	633,570	649,409
6.	Investment returns	1,451,788	2,184,860	2,463,365	2,439,847	2,362,401	2,205,428	2,004,093	1,788,553	1,562,154
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 46,531,985	$ 43,154,717	$ 40,126,157	$ 37,068,824	$ 34,284,504	$ 31,392,422	$ 28,280,696	$ 24,965,571	$ 21,531,622
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 52,066,581	$ 50,439,270	$ 47,326,849	$ 44,260,771	$ 41,455,393	$ 38,499,392	$ 35,390,898	$ 32,048,180	$ 28,490,816
	Solvency ratio (8) / (4e)	9.41	6.92	6.57	6.15	5.78	5.42	4.98	4.52	4.09

** This column is comprised of the 9 months between October 1, 2017 and June, 30 2018. The value in "Market value of assets (BOY)" is as of September 30, 2017 and all cashflows are for 9 months.*

	Plan year beginning July 1	2026	2027	2028	2029	2030	2031
1.	Market value of assets (beginning of year)	$ 21,531,622	$ 17,953,600	$ 14,299,365	$ 10,480,704	$ 6,510,108	$ 2,373,222
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0
4.	Benefit payments						
	a. Current retirees and beneficiaries	5,303,693	5,106,457	4,906,407	4,703,665	4,498,425	4,290,939
	b. Terminated vested participants	983,742	1,002,911	1,029,651	1,058,975	1,091,727	1,136,611
	c. Current actives	551,526	578,857	636,306	669,653	704,498	748,097
	d. New entrants	12,864	16,847	21,041	25,549	30,520	36,711
	e. Total	6,851,825	6,705,072	6,593,405	6,457,842	6,325,170	6,212,358
5.	Administrative expenses	665,644	682,285	699,342	716,826	734,746	753,115
6.	Investment returns	1,326,947	1,120,622	861,586	591,572	310,531	16,834
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 17,953,600	$ 14,299,365	$ 10,480,704	$ 6,510,108	$ 2,373,222	Insolvent
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 24,805,425	$ 21,004,437	$ 17,074,109	$ 12,967,950	$ 8,698,392	n/a
	Solvency ratio (8) / (4e)	3.62	3.13	2.59	2.01	1.38	n/a

D. Deterministic Projection of Proposed Suspension

The table shows the plan-year-by-plan-year market value of assets projection to avoid insolvency. The plan years ending June 30, 2018 through June 30, 2048 are shown.

	Plan year beginning July 1	2017*	2018	2019	2020	2021	2022	2023	2024	2025
1.	Market value of assets (beginning of year)	$ 49,312,981	$ 46,531,985	$ 44,666,502	$ 43,246,993	$ 41,932,680	$ 41,038,860	$ 40,175,597	$ 39,253,970	$ 38,289,442
2.	Employer contributions	1,701,563	2,268,750	2,268,750	2,268,750	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	5,293,118	5,418,653	5,245,341	5,089,580	4,932,164	4,773,111	4,612,480	4,450,382	4,286,940
	b. Terminated vested participants	200,531	282,406	350,768	443,038	520,024	568,525	649,976	732,069	760,457
	c. Current actives	40,946	108,073	131,783	167,648	211,580	254,801	315,447	357,617	385,410
	d. New entrants	0	0	0	0	0	1,936	3,898	5,916	8,141
	e. Total	5,534,596	5,809,132	5,727,892	5,700,266	5,663,768	5,598,373	5,581,801	5,545,984	5,440,948
5.	Administrative expenses	399,750	546,325	559,983	573,983	588,332	603,041	618,117	633,570	649,409
6.	Investment returns	1,451,788	2,221,224	2,599,616	2,691,186	2,745,780	2,725,650	2,665,791	2,602,525	2,538,630
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 46,531,985	$ 44,666,502	$ 43,246,993	$ 41,932,680	$ 41,038,860	$ 40,175,597	$ 39,253,970	$ 38,289,442	$ 37,350,215
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 52,066,581	$ 50,475,634	$ 48,974,885	$ 47,632,946	$ 46,702,628	$ 45,773,970	$ 44,835,771	$ 43,835,426	$ 42,791,163
	Solvency ratio (8) / (4e)	9.41	8.69	8.55	8.36	8 25	8.18	8.03	7.90	7.86

** This column is comprised of the 9 months between October 1, 2017 and June, 30 2018. The value in "Market value of assets (BOY)" is as of September 30, 2017 and all cashflows are for 9 months.*

	Plan year beginning July 1	2026	2027	2028	2029	2030	2031	2032	2033	2034
1.	Market value of assets (beginning of year)	$ 37,350,215	$ 36,424,402	$ 35,627,814	$ 34,856,079	$ 34,124,275	$ 33,429,729	$ 32,759,017	$ 32,167,116	$ 31,649,778
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	4,122,329	3,956,702	3,790,172	3,622,878	3,455,012	3,286,788	3,118,465	2,950,334	2,782,701
	b. Terminated vested participants	788,130	803,781	824,040	848,625	876,002	912,184	914,681	919,861	918,918
	c. Current actives	425,387	448,484	494,252	522,876	553,731	590,023	607,370	630,542	657,265
	d. New entrants	12,864	16,847	21,041	25,549	30,520	36,711	43,721	51,129	59,180
	e. Total	5,348,710	5,225,814	5,129,505	5,019,928	4,915,265	4,825,706	4,684,237	4,551,866	4,418,064
5.	Administrative expenses	665,644	682,285	699,342	716,826	734,746	753,115	771,943	791,241	811,023
6.	Investment returns	2,476,041	2,499,011	2,444,612	2,392,450	2,342,966	2,295,609	2,251,779	2,213,269	2,180,147
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 36,424,402	$ 35,627,814	$ 34,856,079	$ 34,124,275	$ 33,429,729	$ 32,759,017	$ 32,167,116	$ 31,649,778	$ 31,213,338
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 41,773,112	$ 40,853,628	$ 39,985,584	$ 39,144,203	$ 38,344,994	$ 37,584,723	$ 36,851,353	$ 36,201,644	$ 35,631,402
	Solvency ratio (8) / (4e)	7.81	7.82	7.80	7.80	7 80	7.79	7.87	7.95	8.06

	Plan year beginning July 1	2035	2036	2037	2038	2039	2040	2041	2042	2043
1.	Market value of assets (beginning of year)	$ 31,213,338	$ 30,847,776	$ 30,557,889	$ 30,342,534	$ 30,213,331	$ 30,172,599	$ 30,224,426	$ 30,378,833	$ 30,657,237
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	2,615,870	2,450,206	2,286,134	2,124,080	1,964,494	1,807,910	1,654,962	1,506,362	1,362,856
	b. Terminated vested participants	925,141	924,300	927,804	916,364	903,810	888,254	868,797	846,253	821,487
	c. Current actives	689,757	725,796	758,976	798,111	838,271	878,935	911,804	929,381	944,004
	d. New entrants	68,289	79,524	93,512	107,885	123,068	139,373	159,906	180,309	201,366
	e. Total	4,299,057	4,179,826	4,066,426	3,946,440	3,829,643	3,714,472	3,595,469	3,462,305	3,329,713
5.	Administra ive expenses	831,298	852,081	873,383	895,217	917,598	940,537	964,051	988,152	1,012,856
6.	Investment returns	2,152,293	2,129,519	2,111,954	2,099,954	2,094,008	2,094,337	2,101,427	2,116,361	2,140,157
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 30,847,776	$ 30,557,889	$ 30,342,534	$ 30,213,331	$ 30,172,599	$ 30,224,426	$ 30,378,833	$ 30,657,237	$ 31,067,325
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 35,146,833	$ 34,737,715	$ 34,408,960	$ 34,159,771	$ 34,002,242	$ 33,938,898	$ 33,974,302	$ 34,119,542	$ 34,397,038
	Solvency ratio (8) / (4e)	8.18	8.31	8.46	8.66	8.88	9.14	9.45	9.85	10.33

	Plan year beginning July 1	2044	2045	2046	2047
1.	Market value of assets (beginning of year)	$ 31,067,325	$ 31,612,981	$ 32,302,900	$ 33,132,240
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0
4.	Benefit payments				
	a. Current retirees and beneficiaries	1,225,226	1,094,262	970,638	854,874
	b. Terminated vested participants	796,696	768,060	739,381	711,455
	c. Current actives	956,327	964,504	975,638	988,876
	d. New entrants	223,634	247,600	275,342	306,295
	e. Total	3,201,883	3,074,426	2,960,999	2,861,500
5.	Administrative expenses	1,038,177	1,064,132	1,090,735	1,118,004
6.	Investment returns	2,173,217	2,215,976	2,268,575	2,330,670
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 31,612,981	$ 32,302,900	$ 33,132,240	$ 34,095,907
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 34,814,864	$ 35,377,326	$ 36,093,239	$ 36,957,407
	Solvency ratio (8) / (4e)	10.87	11.51	12.19	12.92

E. Deterministic Projection of 2.00% Smaller Suspension

The table shows the plan-year-by-plan-year market value of assets projection to insolvency. The plan years ending June 30, 2018 through June 30, 2048 are shown.

	Plan year beginning July 1	2017*	2018	2019	2020	2021	2022	2023	2024	2025
1.	Market value of assets (beginning of year)	$ 49,312,981	$ 46,531,985	$ 44,553,964	$ 43,014,682	$ 41,570,604	$ 40,536,026	$ 39,521,704	$ 38,436,991	$ 37,297,431
2.	Employer contributions	1,701,563	2,268,750	2,268,750	2,268,750	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments	-								
	a. Current retirees and beneficiaries	5,293,118	5,521,342	5,346,105	5,188,849	5,029,833	4,869,070	4,706,612	4,542,564	4,377,043
	b. Terminated vested participants	200,531	286,743	356,316	450,780	529,543	578,855	662,286	746,138	774,832
	c. Current actives	40,946	110,878	135,102	171,693	216,609	260,842	322,827	365,795	393,956
	d. New entrants	0	0	0	0	0	1,936	3,898	5,916	8,141
	e. Total	5,534,596	5,918,963	5,837,523	5,811,322	5,775,985	5,710,703	5,695,623	5,660,413	5,553,972
5.	Administrative expenses	399,750	546,325	559,983	573,983	588,332	603,041	618,117	633,570	649,409
6.	Investment returns	1,451,788	2,218,517	2,589,474	2,672,477	2,717,239	2,686,921	2,616,527	2,541,922	2,465,928
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 46,531,985	$ 44,553,964	$ 43,014,682	$ 41,570,604	$ 40,536,026	$ 39,521,704	$ 38,436,991	$ 37,297,431	$ 36,172,478
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 52,066,581	$ 50,472,927	$ 48,852,205	$ 47,381,926	$ 46,312,011	$ 45,232,407	$ 44,132,614	$ 42,957,844	$ 41,726,450
	Solvency ratio (8) / (4e)	9.41	8.53	8.37	8.15	8.02	7.92	7.75	7.59	7.51

** This column is comprised of the 9 months between October 1, 2017 and June, 30 2018. The value in "Market value of assets (BOY)" is as of September 30, 2017 and all cashflows are for 9 months.*

	Plan year beginning July 1	2026	2027	2028	2029	2030	2031	2032	2033	2034
1.	Market value of assets (beginning of year)	$ 36,172,478	$ 35,049,238	$ 34,039,966	$ 33,041,485	$ 32,068,688	$ 31,118,052	$ 30,174,703	$ 29,293,685	$ 28,469,642
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	4,210,220	4,042,240	3,873,217	3,703,286	3,532,638	3,361,494	3,190,114	3,018,802	2,847,870
	b. Terminated vested participants	802,795	818,694	839,431	864,366	892,138	928,961	931,433	936,615	935,642
	c. Current actives	434,706	458,097	504,712	533,660	564,771	601,565	619,003	642,292	669,329
	d. New entrants	12,864	16,847	21,041	25,549	30,520	36,711	43,721	51,129	59,180
	e. Total	5,460,585	5,335,878	5,238,401	5,126,861	5,020,067	4,928,731	4,784,271	4,648,838	4,512,021
5.	Administrative expenses	665,644	682,285	699,342	716,826	734,746	753,115	771,943	791,241	811,023
6.	Investment returns	2,390,489	2,396,391	2,326,762	2,258,390	2,191,678	2,125,997	2,062,696	2,003,536	1,948,498
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 35,049,238	$ 34,039,966	$ 33,041,485	$ 32,068,688	$ 31,118,052	$ 30,174,703	$ 29,293,685	$ 28,469,642	$ 27,707,596
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 40,509,823	$ 39,375,844	$ 38,279,886	$ 37,195,549	$ 36,138,119	$ 35,103,434	$ 34,077,956	$ 33,118,480	$ 32,219,617
	Solvency ratio (8) / (4e)	7.42	7.38	7.31	7.26	7.20	7.12	7.12	7.12	7.14

	Plan year beginning July 1	2035	2036	2037	2038	2039	2040	2041	2042	2043
1.	Market value of assets (beginning of year)	$ 27,707,596	$ 26,996,024	$ 26,338,558	$ 25,732,598	$ 25,188,222	$ 24,706,267	$ 24,289,210	$ 23,945,094	$ 23,693,425
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0	0	0	0	0	0
4.	Benefit payments									
	a. Current retirees and beneficiaries	2,677,638	2,508,491	2,340,869	2,175,223	2,012,022	1,851,823	1,695,286	1,543,154	1,396,197
	b. Terminated vested participants	941,976	941,212	944,724	933,073	920,177	904,244	884,387	861,404	836,157
	c. Current actives	702,239	738,521	771,991	811,570	852,056	892,830	925,799	943,247	957,720
	d. New entrants	68,289	79,524	93,512	107,885	123,068	139,373	159,906	180,309	201,366
	e. Total	4,390,142	4,267,748	4,151,096	4,027,751	3,907,323	3,788,270	3,665,378	3,528,114	3,391,440
5.	Administra ive expenses	831,298	852,081	873,383	895,217	917,598	940,537	964,051	988,152	1,012,856
6.	Investment returns	1,897,368	1,849,862	1,806,019	1,766,092	1,730,465	1,699,251	1,672,813	1,652,097	1,637,977
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 26,996,024	$ 26,338,558	$ 25,732,598	$ 25,188,222	$ 24,706,267	$ 24,289,210	$ 23,945,094	$ 23,693,425	$ 23,539,606
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 31,386,166	$ 30,606,306	$ 29,883,694	$ 29,215,973	$ 28,613,590	$ 28,077,480	$ 27,610,472	$ 27,221,539	$ 26,931,046
	Solvency ratio (8) / (4e)	7.15	7.17	7.20	7.25	7.32	7.41	7.53	7.72	7.94

	Plan year beginning July 1	2044	2045	2046	2047
1.	Market value of assets (beginning of year)	$ 23,539,606	$ 23,485,021	$ 23,535,658	$ 23,683,734
2.	Employer contributions	2,612,500	2,612,500	2,612,500	2,612,500
3.	Withdrawal liability payments	0	0	0	0
4.	Benefit payments				
	a. Current retirees and beneficiaries	1,255,229	1,121,063	994,402	875,781
	b. Terminated vested participants	810,880	781,715	752,510	724,087
	c. Current actives	969,855	977,845	988,757	1,001,812
	d. New entrants	223,634	247,600	275,342	306,295
	e. Total	3,259,598	3,128,223	3,011,011	2,907,975
5.	Administrative expenses	1,038,177	1,064,132	1,090,735	1,118,004
6.	Investment returns	1,630,691	1,630,491	1,637,323	1,650,628
7.	Market value of assets (end of year) (1) + (2) + (3) - (4e) - (5) + (6)	$ 23,485,021	$ 23,535,658	$ 23,683,734	$ 23,920,884
8.	Available resources (1) + (2) + (3) - (5) + (6)	$ 26,744,619	$ 26,663,881	$ 26,694,745	$ 26,828,859
	Solvency ratio (8) / (4e)	8.20	8.52	8.87	9.23

F. Projected Total Contribution Base Units and Average Contribution Rates

The table below shows the assumed contribution base units (hours) and contribution rate used for projecting the solvency of the proposed benefit suspensions.

Plan Year Beginning July 1	Total Contribution Base Units (Hours)	Contribution Rate (Hourly)	Plan Year Beginning July 1	Total Contribution Base Units (Hours)	Contribution Rate (Hourly)
2017	163,317	13.75	2033	190,000	13.75
2018	165,000	13.75	2034	190,000	13.75
2019	165,000	13.75	2035	190,000	13.75
2020	165,000	13.75	2036	190,000	13.75
2021	190,000	13.75	2037	190,000	13.75
2022	190,000	13.75	2038	190,000	13.75
2023	190,000	13.75	2039	190,000	13.75
2024	190,000	13.75	2040	190,000	13.75
2025	190,000	13.75	2041	190,000	13.75
2026	190,000	13.75	2042	190,000	13.75
2027	190,000	13.75	2043	190,000	13.75
2028	190,000	13.75	2044	190,000	13.75
2029	190,000	13.75	2045	190,000	13.75
2030	190,000	13.75	2046	190,000	13.75
2031	190,000	13.75	2047	190,000	13.75
2032	190,000	13.75	2048	190,000	13.75

Total estimated hours for the plan year July 2017 through June 2018 are 39,567 + 123,750 = 163,317. There are estimated to be 39,567 hours for July 2017 through September 2017 based on employer contributions of $544,047 divided by the contribution rate of $13.75 per hour. We are estimating 123,750 hours for October 2017 – June of 2018 based on 9/12ths of the 165,000 hours assumption for the 2017/2018 plan year.

G. Actuarial Assumptions

The data and actuarial assumptions used are the same that were used in the Actuarial Certification for the Plan Year beginning July 1, 2017 unless otherwise specified below. The calculations are based on our current understanding on IRC §432 including regulation §1.432(e)(9)-1 and revenue procedure 2017-43.

Investment Return

Plan Year Beginning July 1	Return
2017*	3.08%
2018	4.99%
2019	6.09%
2020	6.52%
2021	6.84%
2022-2026	6.94%
2027+	7.18%

** The 2017 entry is the return for the 9 months from October 1, 2017 through June 30, 2018.*

Refer to Exhibit H of our report titled "Additional Information for Proposed Benefit Suspensions as of July 1, 2018" included with item 26, for evidence supporting these assumptions.

Administrative Expenses

The annual administrative expense assumption is $520,000 for the year beginning July 1, 2016. This is based on the expenses incurred during the 2015/2016 plan year. The administrative expenses are assumed to increase at a rate of 2.5% per year.

Activity Assumption

The assumed hours worked for each plan year are summarized in Exhibit F of this report. This assumption was provided by the Trustees and is their best estimate for future industry activity. The hours are assumed to be spread evenly over the active population.

The hours assumption has been extensively discussed by the Trustees and is the result of a careful and deliberate process. Most recently that process took place at the Trust meeting of July 12, 2017. The current hours level is at an historic low and is far below the 10 year average of 227,278. The Trustees believe the current historic low is not the proper indicator of the future. Although it is difficult to predict the future, the current assumption represents the Trustees best estimate of when and how much hours will increase based on the following:

The Trustees are either associated with the Union or the Contractors and depend heavily on that knowledge in making their estimates of the future. In addition to the historic trends mentioned above, current events were also evaluated. The 2021 projection represents the best and most current good faith prediction of when the work will trend up. Most of the hours worked are on publically funded jobs.

So, while Alaska is looking at an economic slowdown due to the drop in oil prices the outlook for the construction jobs paid in whole or part by federal money hasn't changed as a result of the Alaska economy. The amount of union ironwork does not directly mirror the local economy.

One major new federal project is the Eielson Air Force Base outside of Fairbanks which will receive two squadrons of the new F-35 Lightening II Joint Strike Fighters. Their arrival is scheduled to begin in 2020 with construction of new facilities to be ongoing. The project includes hangers, fueling, fuel storage, runway upgrades etc. The Air Force has also announced that this project will add 2,765 airmen, civilian contractors, and families. So there will also be housing, and all the related infrastructure (housing, water, sewer, roads, etc.) that go with a major population expansion. The media has reported that the project will inject 453 million dollars into the local economy. The work will not be complete for a number of years. This new project is a significant factor in the Trustees estimate of hours to be worked in 2021. The board believes that the most significant uptick from this massive project will likely fall in 2021 and that the projected increase in contributory hours is a reasonable estimate of the impact.

Projections of what will happen after the Eielson Air Force Base work ends are difficult. At that point, many other current construction projects will be completed and many other new construction projects will be started. It is not possible to make a precise prediction as to what the total hours will be on a year by year basis. Therefore, the Trustees are comparing the 190,000 hour level to the historic 10 year average of 227,278 and believe it is reasonable to expect the work being completed will be replaced by enough new work to maintain the 190,000 hours level into the future.

In summary, it is difficult to accurately predict future events such as the number of hours of union ironwork in Alaska. However, it is reasonable to assume the up and down pattern of the past is likely to continue, that the historically low level of 2016 is not the best indicator of the future, and that the work near Fairbanks is likely to increase the total contributory hours to average something in the range of 190,000 hours starting in 2021 or thereabouts. After that date the Trustees have assumed overall projects will maintain that level although it is still somewhat less than the historic 10 year average.

Participant Data

The participant data used for the suspension of benefits work is the same data used for the July 1, 2016 Actuarial Valuation. Additional information was supplied by the administrator to calculate the PBGC guarantee benefits.

New Entrant Profile

New entrants are assumed to have a demographic profile consistent with new hires over the last six plan years. Consistent with the current plan population the new entrants are assumed to be 98% male. The following table shows the distribution of new entrants by entry age.

	New Entrants for Years ending June 30							Percent of New Entrants
Age Range	2016	2015	2014	2013	2012	2011	Totals	in Age Bracket
Below 24	6	7	2	2	0	3	20	21%
25-29	6	11	2	2	2	2	25	27%
30-34	5	5	0	0	3	2	15	16%
35-39	1	5	0	1	0	0	7	8%
40-44	5	3	2	0	2	0	12	13%
45-49	2	1	0	1	0	0	4	4%
50-54	2	0	0	1	0	0	3	3%
55-59	0	0	1	1	3	2	7	7%
60-64	0	0	0	0	0	1	1	1%
65-69	0	0	0	0	0	0	0	0%
Total	27	32	7	8	10	10	94	

Financial Data

As summarized in Exhibit B, the September 30, 2016 unaudited financial statements produced by the Plan administrator were used. A projection (again summarized in Exhibit B) was completed to produce a market value of assets as of June 30, 2018.

Benefit Payment Projections

Current participants and beneficiaries were modeled using a closed group model. New entrants were modeled using an open group model.

H. Proposed Benefit Suspensions

The application filed on behalf of the Alaska Ironworkers Pension Plan sets forth the following proposed benefit suspension to be effective July 1, 2018. The suspension is expected to continue indefinitely.

This application proposes that 26.5% of the participant's or beneficiary's benefit earned as of July 1, 2016 be suspended. The proposed suspension does not provide for different treatment of participants and beneficiaries other than as a result of the application of the individual limitations of §432(e)(9)(D)(i), (ii) and (iii).

The following summarizes the individual limitations.

- §432(e)(9)(D)(i) – No suspension will result in reducing a participant's or beneficiary's benefit below 110% of the PBGC guaranteed benefit.
- §432(e)(9)(D)(ii) –No suspensions can be made for participants and beneficiaries above the age of 80 as of the end of the month of the effective date of the suspension (July 31, 2018). The suspension is reduced by a factor for participants and beneficiaries above the age of 75 but younger than 80 as of the end of the month of the effective date of the suspension. The factor is calculated by determining how many months the participant or beneficiary has until age 80 (as of the end of the month of the effective date of the suspension) and dividing that amount by 60.
- §432(e)(9)(D)(iii) – No benefits based on disability can be suspended.