## Automotive Industries Pension Plan Checklist Item #26

Does the application describe the plan's experience with certain critical assumptions, including a disclosure for each of the 10 plan years immediately preceding the application that separately identifies:

- total contributions,
- total contribution base units,
- average contribution rates,
- withdrawal liability payments, and
- the rate of return on plan assets?

#### See section 6.03.

The application filed on behalf of the Automotive Industries Pension Plan includes an Actuarial Certification of Plan Solvency under ERISA Section 305(e)(9)(c)(i) and IRC Section 432(e)(9)(C)(i). This certification is attached as Document No. 7.1 to Checklist Item #7. A supplemental report titled Application under ERISA Section 305(e)(9) and IRC Section 432(e)(9) – Additional Information is provided as Document No. 26.1. Exhibit I of the supplementary report provides the total contributions, total contribution base units, average contribution rates, withdrawal liability payments and rates of return for the 10 plan years immediately preceding the suspension application.

Exhibit I of the report is based on upon our interpretation of the requirements under Revenue Procedure 2016-27, Section 6.03.

# **Automotive Industries Pension Plan**

Application under ERISA Section 305(e)(9) and IRC Section 432(e)(9) – Additional Information





100 MONTGOMERY STREET, SUITE 500, SAN FRANCISCO, CA 94104 T 415 263 8200, www.segalco.com

September 15, 2016

Board of Trustees Automotive Industries Pension Plan Alameda, CA

Dear Trustees:

As requested by the Trustees and required by ERISA Section 305(e)(9) and Internal Revenue Code (IRC) Section 432(e)(9) (taking into account regulation §1.432(e)(9)-1 and Revenue Procedure 2016-27), we have performed additional projections required as part of the application for proposed benefit suspensions permitted under ERISA Section 305 and IRC Section 432 because of the Plan's critical and declining status. These projections are in addition to our certification that the proposed suspensions of benefits are reasonably estimated to enable the Plan to avoid insolvency within the meaning of ERISA Section 4245 and IRC Section 418E, assuming the suspensions of benefits continue indefinitely and both the benefit accrual reductions and other plan changes become effective upon the proposed July 1, 2017 suspension effective date.

These projections were performed in accordance with the Multiemployer Pension Reform Act of 2014 (MPRA). The attached exhibits outline the projections performed in accordance with the regulations. These projections have been prepared based on the Actuarial Valuation as of January 1, 2016, the Actuarial Certification of Plan Status as of January 1, 2016 under IRC Section 432, and the Actuarial Certification of Plan Solvency under ERISA Section 305(e)(9)(c)(i) and IRC Section 432(e)(9)(C)(i) of Proposed Benefit Suspensions as of July 1, 2017, in accordance with generally accepted actuarial principles and practices and a current understanding of the law. The actuarial calculations were completed under the supervision of Paul C. Poon, ASA, MAAA, EA.

Board of Trustees Automotive Industries Pension Plan September 15, 2016 Page 2

Segal Consulting ("Segal") does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which the certification is based reflects Segal's understanding as an actuarial firm. Due to the complexity of the statute and the significance of its ramifications, Segal recommends that the Board of Trustees consult with legal counsel when making any decisions regarding compliance with ERISA and the Internal Revenue Code.

Sincerely,

Segal Consulting, a Member of the Segal Group

Redacted by the U.S. Department of the Treasury

By:

JTim Biddle

Senior Vice President

PXP/hy

Redacted by the U.S. Department of the Treasury

Paul C. Poon, ASA, MAAA, EA Vice President & Associate Actuary

# September 15, 2016 APPLICATION UNDER ERISA SECTION 305(E)(9) AND IRC SECTION 432(E)(9) – ADDITIONAL INFORMATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. ("Segal"), has performed actuarial projections under ERISA Section 305(e)(9) and Internal Revenue Code Section 432(e)(9), taking into account regulation §1.432(e)(9)-1 and Revenue Procedure 2016-27, for the Automotive Industries Pension Plan based on participant data as of December 31, 2015 and asset values as of June 30, 2016 in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board of Trustees to assist in meeting filing and compliance requirements under federal law, in particular the application requirements for a benefit suspension. This certification may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The measurements shown in this actuarial certification are not applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; differences in statutory interpretation; differences in methodology, changes in plan provisions and changes in applicable law. Due to the legal requirements for this certification, it does not include an analysis of such future measurements.

This certification is based on the January 1, 2016 actuarial valuation, dated June 7, 2016, the Actuarial Certification of Plan Status as of January 1, 2016 under IRC Section 432, dated March 30, 2016, and the Actuarial Certification of Plan Solvency under ERISA Section 305(e)(9)(C)(i) and IRC Section 432(e)(9)(C)(i) of Proposed Benefit Suspensions as of July 1, 2017, dated September 9, 2016. The information described in Exhibit I is based on information provided by the Fund Office and auditor. This certification reflects the changes in the law made by the Multiemployer Pension Reform Act of 2014 (MPRA), taking into account regulation §1.432(e)(9)-1 and Revenue Procedure 2016-27. Additional assumptions required for the projections (including those under MPRA), and sources of financial information used are summarized in Exhibit VIII. A summary of the proposed benefit suspensions is included in the Actuarial Certification of Plan Solvency referenced above.

Segal Consulting does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretations on which this certification is based reflect Segal's understanding as an actuarial firm. Based on discussions with legal counsel, it is our understanding that the proposed benefit suspensions satisfy the requirements for such as set forth in MPRA.

This certification was based on the assumption that the Plan was qualified as a multiemployer plan for the year.

# Application Under ERISA Section 305(e)(9) and IRC Section 432(e)(9) for the Automotive Industries Pension Plan – Additional Information

EIN 94-1133245/ PN 001

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I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial certification is complete and accurate. The assumptions and methodology used, with the exception of those specifically identified and described in the certifications referenced above, are prescribed by law in regulation 1.432(e)(9)-1 (Exhibits II, III, IV and V for the required sensitivity analyses).

Redacted by the U.S. Department of the Treasury

Vice President & Associate Actuary Enrolled Actuary No. 14-06069

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**EXHIBIT I**Past Experience for Certain Critical Assumptions

Year	Total Contributions	Total Contribution Base Units (months)	Average Monthly Contribution Rate	Withdrawal Liability Payments	Rate of Return on Plan Assets
2006	\$30,011,983	75,015	\$400.08	\$2,736,447	14.03%
2007	28,578,123	71,943	397.23	6,472,440	7.58%
2008	26,678,110	65,874	404.99	9,634,101	-28.08%
2009	22,786,327	55,385	411.42	5,128,397	23.35%
2010	21,362,299	52,392	407.74	9,557,144	12.97%
2011	19,750,361	48,940	403.56	4,265,906	0.37%
2012	19,650,664	46,993	418.16	19,044,204	13.17%
2013	19,994,799	46,296	431.89	8,566,118	19.81%
2014	21,517,370	46,771	460.06	6,788,280	6.15%
2015	21,011,374	45,564	461.14	8,600,901	0.20%
verage Trend l	From 2006 to 2015	-5.39%	_		_

Note: The average hourly contribution rates are estimated based on total contributions divided by the total contribution base units for the year.

# EXHIBIT II Development of Projected December 31, 2016 Assets

The actual change in Market Value of Assets from January 1, 2016 through June 30, 2016 is shown below. Contribution income, benefit payments, and administrative expenses for the period beginning January 1, 2016 and ending June 30, 2016, and the value of assets as of June 30, 2016 was based on an unaudited financial statement provided by the Fund Office. The value of assets was reduced by the withdrawal liability payments receivable.

	Pla	Plan Year Beginning January 1, 2016				
	From January 1, 2016 Through June 30, 2016	Projected from July 1, 2016 Through December 31, 2016	Total for Plan Year			
1. Market Value at beginning of						
period	\$1,192,990,400	\$1,158,927,465	\$1,192,990,400			
2. Contributions	10,747,934	10,835,864	21,583,798			
3. Withdrawal liability payments*	927,542	927,542	1,855,084			
4. Benefit payments	67,119,171	69,390,987	136,510,158			
5. Administrative expenses	1,221,722	1,545,000	2,766,722			
6. Investment earnings	22,602,482	<u>26,821,853</u>	49,424,335			
7. Market Value at end of period:						
(1)+(2)+(3)-(4)-(5)+(6)	1,158,927,465	1,126,576,737	1,126,576,737			

Note: Investment earnings based on actual experience for the six-month period ended June 30, 2016 and an annual return of 4.75% for the remaining six months of the Plan Year.

<sup>\*</sup> The expected withdrawal liability payments for the Plan Year was assumed to be payable ratably throughout the year.

#### **EXHIBIT III**

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 1.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(1) and Revenue Procedure 2016-27 6.04(1)

The projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2042.

	Year Beginning January 1					
	2016*	2017	2018	2019	2020	
1. Market Value at beginning of year	\$1,158,927,465	\$1,120,930,032	\$1,075,183,330	\$1,046,030,236	\$1,020,428,812	
2. Contributions	10,835,864	22,300,208	22,946,915	23,612,375	23,612,375	
3. Withdrawal liability payments	927,542	1,770,284	1,724,241	1,682,096	1,528,096	
4. Benefit payments	69,390,987	114,993,452	97,295,905	98,035,911	99,085,851	
5. Administrative expenses	1,545,000	3,148,975	3,205,416	3,261,424	3,323,792	
6. Investment earnings	21,175,147	48,325,233	46,677,071	50,401,440	51,544,197	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,120,930,032	\$1,075,183,330	\$1,046,030,236	\$1,020,428,812	\$994,703,837	
8. Available resources: (1)+(2)+(3)-(5)+(6)		\$1,190,176,782	\$1,143,326,141	\$1,118,464,723	\$1,093,789,688	
9. Solvency ratio: (8) ÷ (4)		10.350	11.751	11.409	11.039	
	2021	2022	2023	2024	2025	
Market Value at beginning of year	\$994,703,837	\$966,366,986	\$939,364,994	\$909,396,835	\$878,679,981	
2. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375	
3. Withdrawal liability payments	1,528,096	1,528,096	1,528,096	1,463,863	1,260,964	
4. Benefit payments	100,252,100	101,953,295	103,265,498	104,301,843	105,255,990	
5. Administrative expenses	3,386,595	3,447,778	3,509,623	3,571,157	3,632,797	
6. Investment earnings	50,161,373	53,258,609	51,666,491	<u>52,079,907</u>	50,200,335	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$966,366,986	\$939,364,994	\$909,396,835	\$878,679,981	\$844,864,869	
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$1,066,619,086	\$1,041,318,289	\$1,012,662,333	\$982,981,824	\$950,120,859	
9. Solvency ratio: (8) ÷ (4)	10.639	10.214	9.806	9.424	9.027	

<sup>\*</sup> For the period July 1, 2016 through December 31, 2016 and with an assumed annual investment return of 3.75% over that period.

#### **EXHIBIT III (continued)**

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 1.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(1) and Revenue Procedure 2016-27 6.04(1)

		Year	Beginning January	1	
	2026	2027	2028	2029	2030
Market Value at beginning of year	\$844,864,869	\$808,213,724	\$768,511,408	\$727,954,895	\$685,075,738
2. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375
3. Withdrawal liability payments	1,260,964	1,260,964	1,260,964	1,249,588	1,239,796
Benefit payments	105,977,606	106,743,070	106,959,229	106,680,887	106,210,095
5. Administrative expenses	3,694,798	3,756,618	3,818,087	3,879,343	3,940,322
5. Investment earnings	<u>48,147,920</u>	<u>45,924,033</u>	<u>45,347,464</u>	42,819,110	40,151,663
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$808,213,724	\$768,511,408	\$727,954,895	\$685,075,738	\$639,929,156
Available resources: (1)+(2)+(3)-(5)+(6)	\$914,191,330	\$875,254,478	\$834,914,124	\$791,756,625	\$746,139,251
. Solvency ratio: (8) ÷ (4)	8.626	8.200	7.806	7.422	7.025
	2031	2032	2033	2034	2035
. Market Value at beginning of year	\$639,929,156	\$592,773,836	\$544,511,767	\$494,254,205	\$442,238,598
. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375
. Withdrawal liability payments	1,217,664	565,916	347,308	287,020	-
. Benefit payments	105,339,265	104,177,985	102,793,936	101,213,175	99,542,320
. Administrative expenses	4,000,730	4,060,712	4,120,543	4,179,808	4,238,670
. Investment earnings	<u>37,354,636</u>	35,798,336	32,697,234	29,477,982	26,140,029
. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$592,773,836	\$544,511,767	\$494,254,205	\$442,238,598	\$388,210,012
. Available resources: (1)+(2)+(3)-(5)+(6)	\$698,113,101	\$648,689,752	\$597,048,141	\$543,451,774	\$487,752,332
. Solvency ratio: (8) ÷ (4)	6.627	6.227	5.808	5.369	4.900

## **EXHIBIT III (continued)**

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 1.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(1) and Revenue Procedure 2016-27 6.04(1)

	Year Beginning January 1					
	2036	2037	2038	2039	2040	
1. Market Value at beginning of year	\$388,210,012	\$333,242,119	\$276,612,988	\$218,198,339	\$158,084,831	
2. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375	
3. Withdrawal liability payments	-	-	-	-	-	
4. Benefit payments	97,836,892	95,796,204	93,767,730	91,539,104	89,312,212	
5. Administrative expenses	4,297,436	4,355,928	4,413,957	4,471,719	4,528,884	
6. Investment earnings	23,554,060	19,910,626	16,154,662	12,284,940	8,300,507	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$333,242,119	\$276,612,988	\$218,198,339	\$158,084,831	\$96,156,618	
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$431,079,012	\$372,409,192	\$311,966,069	\$249,623,935	\$185,468,829	
9. Solvency ratio: (8) ÷ (4)	4.406	3.888	3.327	2.727	2.077	
	2041	2042				
1. Market Value at beginning of year	\$96,156,618	\$32,319,678				
2. Contributions	23,612,375	23,612,375				
3. Withdrawal liability payments	-	-				
4. Benefit payments	87,057,749	84,709,833				
5. Administrative expenses	4,586,076	4,642,830				
6. Investment earnings	4,194,510	N/A				
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$32,319,678	Insolvent				
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$119,377,427	\$51,289,223				
9. Solvency ratio: (8) ÷ (4)	1.371	0.605				

## **EXHIBIT IV**

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 2.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(2) and Revenue Procedure 2016-27 6.04(2)

The projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2037.

	Year Beginning January 1					
	2016*	2017	2018	2019	2020	
Market Value at beginning of year	\$1,158,927,465	\$1,115,283,326	\$1,058,600,049	\$1,018,493,857	\$981,710,690	
2. Contributions	10,835,864	22,300,208	22,946,915	23,612,375	23,612,375	
3. Withdrawal liability payments	927,542	1,770,284	1,724,241	1,682,096	1,528,096	
4. Benefit payments	69,390,987	114,993,452	97,295,905	98,035,911	99,085,851	
5. Administrative expenses	1,545,000	3,148,975	3,205,416	3,261,424	3,323,792	
6. Investment earnings	15,528,441	37,388,658	35,723,974	39,219,697	40,080,734	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,115,283,326	\$1,058,600,049	\$1,018,493,857	\$981,710,690	\$944,522,253	
8. Available resources: (1)+(2)+(3)-(5)+(6)		\$1,173,593,501	\$1,115,789,763	\$1,079,746,601	\$1,043,608,104	
9. Solvency ratio: (8) ÷ (4)		10.206	11.468	11.014	10.532	
	2021	2022	2023	2024	2025	
Market Value at beginning of year	\$944,522,253	\$904,498,138	\$865,295,008	\$822,823,048	\$779,097,520	
2. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375	
3. Withdrawal liability payments	1,528,096	1,528,096	1,528,096	1,463,863	1,260,964	
4. Benefit payments	100,252,100	101,953,295	103,265,498	104,301,843	105,255,990	
5. Administrative expenses	3,386,595	3,447,778	3,509,623	3,571,157	3,632,797	
6. Investment earnings	38,474,108	41,057,472	39,162,690	39,071,233	36,854,490	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$904,498,138	\$865,295,008	\$822,823,048	\$779,097,520	\$731,936,563	
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$1,004,750,238	\$967,248,303	\$926,088,546	\$883,399,363	\$837,192,553	
9. Solvency ratio: (8) ÷ (4)	10.022	9.487	8.968	8.470	7.954	

<sup>\*</sup> For the period July 1, 2016 through December 31, 2016 and with an assumed annual investment return of 2.75% over that period.

**EXHIBIT IV** 

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 2.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(2) and Revenue Procedure 2016-27 6.04(2)

	Year Beginning January 1						
	2026	2027	2028	2029	2030		
Market Value at beginning of year	\$731,936,563	\$681,614,349	\$627,928,058	\$572,735,325	\$514,856,084		
2. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375		
3. Withdrawal liability payments	1,260,964	1,260,964	1,260,964	1,249,588	1,239,796		
4. Benefit payments	105,977,606	106,743,070	106,959,229	106,680,887	106,210,095		
5. Administrative expenses	3,694,798	3,756,618	3,818,087	3,879,343	3,940,322		
6. Investment earnings	34,476,852	31,940,059	30,711,244	27,819,025	24,790,865		
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$681,614,349	\$627,928,058	\$572,735,325	\$514,856,084	\$454,348,703		
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$787,591,955	\$734,671,129	\$679,694,554	\$621,536,971	\$560,558,799		
2. Solvency ratio: (8) ÷ (4)	7.432	6.883	6.355	5.826	5.278		
	2031	2032	2033	2034	2035		
. Market Value at beginning of year	\$454,348,703	\$391,473,668	\$326,632,653	\$259,361,397	\$189,891,611		
. Contributions	23,612,375	23,612,375	23,612,375	23,612,375	23,612,375		
. Withdrawal liability payments	1,217,664	565,916	347,308	287,020	-		
. Benefit payments	105,339,265	104,177,985	102,793,936	101,213,175	99,542,320		
. Administrative expenses	4,000,730	4,060,712	4,120,543	4,179,808	4,238,670		
. Investment earnings	<u>21,634,921</u>	<u>19,219,391</u>	15,683,539	12,023,803	8,239,402		
. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$391,473,668	\$326,632,653	\$259,361,397	\$189,891,611	\$117,962,398		
Available resources: (1)+(2)+(3)-(5)+(6)	\$496,812,933	\$430,810,638	\$362,155,332	\$291,104,786	\$217,504,718		
9. Solvency ratio: (8) ÷ (4)	4.716	4.135	3.523	2.876	2.185		

Application Under ERISA Section 305(e)(9) and IRC Section 432(e)(9) for the Automotive Industries Pension Plan – Additional Information

EIN 94-1133245/ PN 001

## **EXHIBIT IV** (continued)

Projections of Plan's Solvency Ratio Assuming the Annual Rate of Return is 2.00% Lower than Used in the Actuarial Solvency Certification: Regulation 1.432(e)(9)-1(d)(5)(vi)(B)(2) and Revenue Procedure 2016-27 6.04(2)

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		Year Beginning January 1				
	2036	2037				
1. Market Value at beginning of year	\$117,962,398	\$43,965,777				
2. Contributions	23,612,375	23,612,375				
3. Withdrawal liability payments	-	-				
4. Benefit payments	97,836,892	95,796,204				
5. Administrative expenses	4,297,436	4,355,928				
6. Investment earnings	4,525,332	<u>327,514</u>				
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$43,965,777	Insolvent				
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$141,802,669	\$63,549,738				
9. Solvency ratio: (8) ÷ (4)	1.449	0.663				

#### **EXHIBIT V**

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years: Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(1) and Revenue Procedure 2016-27 6.04(3)

The projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2042.

	Year Beginning January 1					
	2016*	2017	2018	2019	2020	
Market Value at beginning of year	\$1,158,927,465	\$1,126,576,737	\$1,091,086,927	\$1,071,578,216	\$1,055,152,361	
2. Contributions	10,835,864	21,528,803	21,386,821	21,245,775	20,100,628	
3. Withdrawal liability payments	927,542	1,770,284	1,724,241	1,682,096	1,528,096	
4. Benefit payments	69,390,987	114,993,452	97,295,905	98,035,911	99,085,851	
5. Administrative expenses	1,545,000	3,148,975	3,205,416	3,261,424	3,323,792	
6. Investment earnings	<u>26,821,853</u>	59,353,529	57,881,549	61,943,609	63,422,619	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,126,576,737	\$1,091,086,927	\$1,071,578,216	\$1,055,152,361	\$1,037,794,061	
3. Available resources: (1)+(2)+(3)-(5)+(6)		\$1,206,080,378	\$1,168,874,122	\$1,153,188,272	\$1,136,879,912	
O. Solvency ratio: (8) ÷ (4)		10.488	12.014	11.763	11.474	
	2021	2022	2023	2024	2025	
. Market Value at beginning of year	\$1,037,794,061	\$1,016,966,126	\$996,832,061	\$972,916,018	\$947,555,245	
2. Contributions	19,017,204	17,992,176	17,022,398	16,104,891	15,236,837	
Withdrawal liability payments	1,528,096	1,528,096	1,528,096	1,463,863	1,260,964	
4. Benefit payments	100,252,100	101,953,295	103,265,498	104,301,843	105,255,990	
5. Administrative expenses	3,386,595	3,447,778	3,509,623	3,571,157	3,632,797	
6. Investment earnings	62,265,460	65,746,736	64,308,583	64,943,473	63,095,183	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,016,966,126	\$996,832,061	\$972,916,018	\$947,555,245	\$918,259,443	
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$1,117,218,226	\$1,098,785,357	\$1,076,181,516	\$1,051,857,088	\$1,023,515,433	
9. Solvency ratio: (8) ÷ (4)	11.144	10.777	10.422	10.085	9.724	

<sup>\*</sup> For the period July 1, 2016 through December 31, 2016.

#### **EXHIBIT V** (continued)

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years: Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(1) and Revenue Procedure 2016-27 6.04(3)

	Year Beginning January 1						
	2026	2027	2028	2029	2030		
Market Value at beginning of year	\$918,259,443	\$885,251,880	\$848,273,354	\$809,658,056	\$767,735,608		
2. Contributions	14,415,572	13,638,572	12,903,453	12,207,957	11,549,948		
Withdrawal liability payments	1,260,964	1,260,964	1,260,964	1,249,588	1,239,796		
Benefit payments	105,977,606	106,743,070	106,959,229	106,680,887	106,210,095		
5. Administrative expenses	3,694,798	3,756,618	3,818,087	3,879,343	3,940,322		
5. Investment earnings	60,988,306	<u>58,621,626</u>	<u>57,997,601</u>	55,180,237	52,131,50		
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$885,251,880	\$848,273,354	\$809,658,056	\$767,735,608	\$722,506,443		
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$991,229,486	\$955,016,424	\$916,617,285	\$874,416,495	\$828,716,538		
2. Solvency ratio: (8) ÷ (4)	9.353	8.947	8.570	8.197	7.803		
	2031	2032	2033	2034	2035		
. Market Value at beginning of year	\$722,506,443	\$674,169,919	\$623,748,263	\$570,113,915	\$513,426,018		
2. Contributions	10,927,406	10,338,419	9,781,178	9,253,973	8,755,184		
Withdrawal liability payments	1,217,664	565,916	347,308	287,020			
Benefit payments	105,339,265	104,177,985	102,793,936	101,213,175	99,542,320		
5. Administrative expenses	4,000,730	4,060,712	4,120,543	4,179,808	4,238,670		
5. Investment earnings	<u>48,858,401</u>	<u>46,912,705</u>	<u>43,151,645</u>	<u>39,164,094</u>	34,943,484		
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$674,169,919	\$623,748,263	\$570,113,915	\$513,426,018	\$453,343,69		
Available resources: (1)+(2)+(3)-(5)+(6)	\$779,509,184	\$727,926,248	\$672,907,851	\$614,639,193	\$552,886,013		
9. Solvency ratio: (8) ÷ (4)	7.400	6.987	6.546	6.073	5.554		

#### **EXHIBIT V** (continued)

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years: Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(1) and Revenue Procedure 2016-27 6.04(3)

	Year Beginning January 1					
	2036	2037	2038	2039	2040	
1. Market Value at beginning of year	\$453,343,695	\$390,990,055	\$325,399,243	\$256,333,172	\$183,754,342	
2. Contributions	8,283,279	7,836,810	7,414,406	7,014,770	6,636,674	
3. Withdrawal liability payments	-	-	-	-	-	
4. Benefit payments	97,836,892	95,796,204	93,767,730	91,539,104	89,312,212	
5. Administrative expenses	4,297,436	4,355,928	4,413,957	4,471,719	4,528,884	
6. Investment earnings	31,497,408	<u>26,724,511</u>	21,701,209	16,417,224	10,861,790	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$390,990,055	\$325,399,243	\$256,333,172	\$183,754,342	\$107,411,711	
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$488,826,947	\$421,195,447	\$350,100,902	\$275,293,446	\$196,723,922	
9. Solvency ratio: (8) ÷ (4)	4.996	4.397	3.734	3.007	2.203	
	2041	2042				
Market Value at beginning of year	\$107,411,711	\$27,063,362				
2. Contributions	6,278,957	5,940,521				
3. Withdrawal liability payments	-	-				
4. Benefit payments	87,057,749	84,709,833				
5. Administrative expenses	4,586,076	4,642,830				
6. Investment earnings	<u>5,016,519</u>	<u>N/A</u>				
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$27,063,362	Insolvent				
3. Available resources: (1)+(2)+(3)-(5)+(6)	\$114,121,111	\$28,361,053				
9. Solvency ratio: (8) ÷ (4)	1.311	0.335				

#### **EXHIBIT VI**

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years Reduced By 1.00% (-6.39%): Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(2) and Revenue Procedure 2016-27 6.04(4)

The projected Market Value of Assets and Solvency Ratio for the Plan Years beginning January 1, 2016 through December 31, 2041.

	Year Beginning January 1						
	2016*	2017	2018	2019	2020		
Market Value at beginning of year	\$1,158,927,465	\$1,126,576,737	\$1,090,853,116	\$1,070,869,463	\$1,053,714,496		
2. Contributions	10,835,864	21,301,250	20,937,105	20,579,185	19,264,176		
3. Withdrawal liability payments	927,542	1,770,284	1,724,241	1,682,096	1,528,096		
3. Benefit payments	69,390,987	114,993,452	97,295,905	98,035,911	99,085,851		
4. Administrative expenses	1,545,000	3,148,975	3,205,416	3,261,424	3,323,792		
5. Investment earnings	26,821,853	<u>59,347,271</u>	57,856,322	61,881,086	63,306,613		
6. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,126,576,737	\$1,090,853,116	\$1,070,869,463	\$1,053,714,496	\$1,035,403,738		
7. Available resources: (1)+(2)+(3)-(5)+(6)		\$1,205,846,568	\$1,168,165,368	\$1,151,750,407	\$1,134,489,589		
8. Solvency ratio: (8) ÷ (4)		10.486	12.006	11.748	11.450		
	2021	2022	2023	2024	2025		
Market Value at beginning of year	\$1,035,403,738	\$1,013,411,648	\$991,888,847	\$966,377,743	\$939,200,889		
2. Contributions	18,033,195	16,880,874	15,802,186	14,792,426	13,847,190		
3. Withdrawal liability payments	1,528,096	1,528,096	1,528,096	1,463,863	1,260,964		
3. Benefit payments	100,252,100	101,953,295	103,265,498	104,301,843	105,255,990		
4. Administrative expenses	3,386,595	3,447,778	3,509,623	3,571,157	3,632,797		
5. Investment earnings	<u>62,085,315</u>	65,469,303	63,933,734	64,439,857	62,461,740		
6. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$1,013,411,648	\$991,888,847	\$966,377,743	\$939,200,889	\$907,881,997		
7. Available resources: (1)+(2)+(3)-(5)+(6)	\$1,113,663,748	\$1,093,842,143	\$1,069,643,240	\$1,043,502,732	\$1,013,137,987		
8. Solvency ratio: (8) ÷ (4)	11.109	10.729	10.358	10.005	9.625		

<sup>\*</sup> For the period July 1, 2016 through December 31, 2016.

## **EXHIBIT VI (continued)**

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years Reduced By 1.00% (-6.39%): Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(2) and Revenue Procedure 2016-27 6.04(4)

	Year Beginning January 1						
	2026	2027	2028	2029	2030		
1. Market Value at beginning of year	\$907,881,997	\$872,643,933	\$833,225,681	\$791,918,670	\$747,077,936		
2. Contributions	12,962,355	12,134,060	11,358,694	10,632,873	9,953,433		
4. Withdrawal liability payments	1,260,964	1,260,964	1,260,964	1,249,588	1,239,796		
4. Benefit payments	105,977,606	106,743,070	106,959,229	106,680,887	106,210,095		
5. Administrative expenses	3,694,798	3,756,618	3,818,087	3,879,343	3,940,322		
6. Investment earnings	60,211,022	57,686,412	<u>56,850,647</u>	53,837,034	50,575,952		
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$872,643,933	\$833,225,681	\$791,918,670	\$747,077,936	\$698,696,700		
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$978,621,539	\$939,968,751	\$898,877,899	\$853,758,823	\$804,906,795		
9. Solvency ratio: (8) ÷ (4)	9.234	8.806	8.404	8.003	7.578		
	2031	2032	2033	2034	2035		
Market Value at beginning of year	\$698,696,700	\$646,965,609	\$592,826,622	\$535,196,043	\$474,217,885		
2. Contributions	9,317,408	8,722,026	8,164,688	7,642,965	7,154,579		
4. Withdrawal liability payments	1,217,664	565,916	347,308	287,020	-		
4. Benefit payments	105,339,265	104,177,985	102,793,936	101,213,175	99,542,320		
5. Administrative expenses	4,000,730	4,060,712	4,120,543	4,179,808	4,238,670		
6. Investment earnings	47,073,832	44,811,767	40,771,904	36,484,841	31,942,851		
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$646,965,609	\$592,826,622	\$535,196,043	\$474,217,885	\$409,534,325		
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$752,304,874	\$697,004,607	\$637,989,979	\$575,431,060	\$509,076,645		
9. Solvency ratio: (8) ÷ (4)	7.142	6.691	6.206	5.685	5.114		

## **EXHIBIT VI (continued)**

Projections of Plan's Solvency Ratio Assuming the Industry Level Assumption Continues Under the Same Trend (-5.39% -- See Exhibit I) as the Plan Experienced Over the Past 10 Years Reduced By 1.00% (-6.39%): Regulation 1.432(e)(9)-1(d)(5)(vi)(C)(2) and Revenue Procedure 2016-27 6.04(4)

	Year Beginning January 1					
	2036	2037	2038	2039	2040	
1. Market Value at beginning of year	\$409,534,325	\$342,138,129	\$271,133,184	\$196,256,016	\$117,441,303	
2. Contributions	6,697,402	6,269,438	5,868,821	5,493,803	5,142,749	
4. Withdrawal liability payments	-	-	-	-	-	
4. Benefit payments	97,836,892	95,796,204	93,767,730	91,539,104	89,312,212	
5. Administrative expenses	4,297,436	4,355,928	4,413,957	4,471,719	4,528,884	
6. Investment earnings	28,040,729	22,877,751	17,435,698	11,702,307	5,664,640	
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	\$342,138,129	\$271,133,184	\$196,256,016	\$117,441,303	\$34,407,597	
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$439,975,021	\$366,929,389	\$290,023,747	\$208,980,407	\$123,719,808	
9. Solvency ratio: (8) ÷ (4)	4.497	3.830	3.093	2.283	1.385	
	2041					
Market Value at beginning of year	\$34,407,597					
2. Contributions	4,814,127					
4. Withdrawal liability payments	-					
4. Benefit payments	87,057,749					
5. Administrative expenses	4,586,076					
6. Investment earnings	<u>N/A</u>					
7. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	Insolvent					
8. Available resources: (1)+(2)+(3)-(5)+(6)	\$34,635,648					
9. Solvency ratio: (8) ÷ (4)	0.398					

# EXHIBIT VII - (Regulation 1.432(e)(9)-1(d)(5)(vi)(D) and Revenue Procedure 2016-27 6.05) Projection of Funded Percentage

The projected Market Value of Assets and Funded Percentage for the Plan Years beginning January 1, 2016 through 2063.

	Year Beginning January 1					
	2017	2018	2019	2020	2021	
1. Value of Plan assets	\$1,126,576,737	\$1,091,879,546	\$1,074,017,425	\$1,060,175,521	\$1,046,752,658	
2. Unit credit accrued liability	1,287,549,615	1,267,432,316	1,264,071,242	1,259,608,833	1,253,643,046	
3. Funded Percentage: $(1) \div (2)$	87.5%	86.1%	85.0%	84.2%	83.5%	
	2022	2023	2024	2025	2026	
1. Value of Plan assets	\$1,031,223,406	\$1,017,861,588	\$1,002,177,426	\$986,635,198	\$968,743,674	
2. Unit credit accrued liability	1,245,964,756	1,235,875,984	1,223,620,783	1,209,311,257	1,192,869,724	
3. Funded Percentage: (1) ÷ (2)	82.8%	82.4%	81.9%	81.6%	81.2%	
	2027	2028	2029	2030	2031	
1. Value of Plan assets	\$948,788,699	\$926,580,636	\$904,739,736	\$881,528,539	\$857,049,050	
2. Unit credit accrued liability	1,174,401,290	1,153,724,331	1,131,257,762	1,107,394,259	1,082,254,598	
3. Funded Percentage: (1) ÷ (2)	80.8%	80.3%	80.0%	79.6%	79.2%	
	2032	2033	2024	2035	2036	
1. Value of Plan assets	\$831,611,664	\$806,769,869	\$781,212,008	\$755,253,311	\$728,722,371	
2. Unit credit accrued liability	1,056,165,627	1,029,366,070	1,002,049,177	974,385,361	946,433,232	
3. Funded Percentage: (1) ÷ (2)	78.7%	78.4%	78.0%	77.5%	77.0%	
	2037	2038	2039	2040	2041	
1. Value of Plan assets	\$703,633,677	\$678,659,614	\$653,796,861	\$629,262,229	\$605,079,969	
2. Unit credit accrued liability	918,211,799	890,053,202	861,950,262	834,120,998	806,576,121	
3. Funded Percentage: (1) ÷ (2)	76.6%	76.2%	75.9%	75.4%	75.0%	
	2042	2043	2044	2045	2046	
1. Value of Plan assets	\$581,305,998	\$559,440,579	\$538,229,828	\$517,820,684	\$498,253,357	
2. Unit credit accrued liability	779,371,367	752,627,384	726,395,953	700,812,120	675,899,225	
3. Funded Percentage: (1) ÷ (2)	74.6%	74.3%	74.1%	73.9%	73.7%	

# EXHIBIT VII - (Regulation 1.432(e)(9)-1 (d)(5)(vi)(D) and Revenue Procedure 2016-27 6.05) (continued) Projection of Funded Percentage

	Year Beginning January 1					
	2047	2048	2049	2050	2051	
1. Value of Plan assets	\$479,606,970	\$462,019,816	\$445,616,004	\$430,487,560	\$416,671,218	
2. Unit credit accrued liability	651,718,205	628,387,497	606,008,126	584,648,148	564,315,579	
3. Funded Percentage: (1) ÷ (2)	73.6%	73.5%	73.5%	73.6%	73.8%	
	2052	2053	2054	2055	2056	
1. Value of Plan assets	\$405,263,666	\$395,298,981	\$386,902,872	\$380,109,505	\$375,002,370	
2. Unit credit accrued liability	545,091,000	526,907,437	509,849,542	493,902,891	479,101,161	
3. Funded Percentage: (1) ÷ (2)	74.3%	75.0%	75.9%	77.0%	78.3%	
	2057	2058	2059	2060	2061	
1. Value of Plan assets	\$371,648,647	\$370,067,506	\$370,300,779	\$372,391,509	\$376,356,858	
2. Unit credit accrued liability	465,457,313	452,932,460	441,505,958	431,153,737	421,821,731	
3. Funded Percentage: (1) ÷ (2)	79.8%	81.7%	83.9%	86.4%	89.2%	
	2062	2063				
1. Value of Plan assets	\$382,243,074	\$391,005,406				
2. Unit credit accrued liability	413,479,989	406,074,745				
3. Funded Percentage: (1) ÷ (2)	92.4%	96.3%				

# EXHIBIT VIII Actuarial Basis

Unless noted otherwise, the projections in this report are based on the data, assets, and assumptions described in the Actuarial Certification of Plan Solvency under ERISA Section 305(e)(9)(C)(i) and IRC Section 432(e)(9)(C)(i) of Proposed Benefit Suspensions as of July 1, 2017, dated September 9, 2016.

Historical contribution amounts, contribution base units, and rates of return shown in Exhibit I were extracted from the January 1, 2016 actuarial valuation report.

For purposes of the projection of assets and liabilities for calculation of funded percentages: projected assets are the values used for the deterministic solvency projection for the proposed suspension in the Actuarial Certification of Plan Solvency under ERISA Section 305(e)(9)(C)(i) and IRC Section 432(e)(9)(C)(i), projected liabilities following the proposed benefit suspension are estimated by discounting the projected future benefit payments at each year at the 7.25% valuation interest rate.

Segal Consulting ("Segal") does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which the certification is based reflects Segal's understanding as an actuarial firm. Due to the complexity of the statute and the significance of its ramifications, Segal recommends that the Board of Trustees consult with legal counsel when making any decisions regarding compliance with ERISA and the Internal Revenue Code.

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