

***OUTSTATE MICHIGAN TROWEL TRADES  
PENSION PLAN***

***Actuarial Valuation Report  
For Plan Year Commencing  
January 1, 2021***

June 18, 2021

Board of Trustees  
Outstate Michigan Trowel Trades Pension Plan

Dear Trustees:

We have been retained by the Board of Trustees of the Outstate Michigan Trowel Trades Pension Plan to perform annual actuarial valuations of the pension plan. This report presents the results of our actuarial valuation for the plan year beginning January 1, 2021. The valuation results contained herein are based on current plan provisions summarized in Appendix A, the actuarial assumptions and methods listed in Appendix B and on financial statements audited by Benda, Grace, Stulz & Company, P.C. Participant data was provided by TIC International. While we have reviewed the data for reasonableness in accordance with Actuarial Standards of Practice No. 23, we have not audited it. The data was relied on as being both accurate and comprehensive.

This report has been prepared in order to (1) assist the Trustees in evaluating the current actuarial position of the plan, (2) determine the minimum required and maximum deductible contribution amounts under Internal Revenue Code §431 and §404, (3) provide the fund's auditor with information necessary to comply with Accounting Standards Codification 960, and (4) document the plan's certified status under Internal Revenue Code §432 for the current year and provide the basis to certify such status for the subsequent year. In addition, information contained in this report will be used to prepare Schedule MB of Form 5500 that is filed annually with the IRS and could be used to calculate employer withdrawal liability. We are not responsible for the use of, or reliance upon, this report for any other purpose.

We have prepared this report in accordance with generally accepted actuarial principles and practices and have performed such tests as we considered necessary to assure the accuracy of the results. The results have been determined on the basis of actuarial assumptions that, in my opinion, are appropriate for the purposes of this report, are individually reasonable and in combination represent my best estimate of anticipated experience under the plan. Actuarial assumptions may be changed from previous valuations due to changes in mandated requirements, plan experience resulting in changes in expectations about the future, and/or other factors. An assumption change does not indicate that prior assumptions were unreasonable when made. For purposes of current liability calculations, assumptions are prescribed by regulation or statute. By relying on this valuation report, the Trustees confirm they have accepted the assumptions contained in the report.

The results are based on my best interpretation of existing laws and regulations and are subject to revision based on future regulatory or other guidance.

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, 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.

United Actuarial Services, Inc. does not provide, nor charge for, investment, tax or legal advice. None of the comments made herein should be construed as constituting such advice. I am not aware of any direct or material indirect financial interest or relationship that could create a conflict of interest that would impair the objectivity of our work.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. I am available to respond to any questions you may have about this report.

**UNITED ACTUARIAL SERVICES, INC.**

Enrolled Actuary

A handwritten signature in black ink that reads "Paul Wedding". The signature is written in a cursive, flowing style.

Paul Wedding, ASA, EA, MAAA  
Consulting Actuary

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***PART I: SUMMARY OF RESULTS***

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**5 - YEAR SUMMARY OF VALUATION RESULTS**

<i>Actuarial Study as of January 1,</i>	<i>2021</i>	<i>2020</i>	<i>2019</i>	<i>2018</i>	<i>2017</i>
PPA funded status	Safe	Safe	Safe	Safe	Safe
Improvements restricted*	Yes	Yes	Yes	Yes	Yes
Funded ratio					
<i>Valuation report (AVA)</i>	90.9%	88.3%	88.8%	88.9%	90.7%
<i>Valuation report (MVA)</i>	91.5%	87.7%	81.5%	90.9%	84.8%
<i>PPA certification (AVA)</i>	89.7%	89.1%	88.1%	90.1%	90.7%
Proj. year of insolvency	None	None	None	None	None
Credit balance (\$ 000)	16,025	16,073	15,598	14,526	13,161
Date of first projected funding deficiency (with extension)					
<i>Valuation report</i>	None	None	12/31/28	None	None
<i>PPA certification</i>	None	None	12/31/28	None	None
Net investment return					
<i>On market value</i>	9.47%	14.31%	-6.05%	14.86%	8.98%
<i>On actuarial value</i>	7.95%	5.49%	4.78%	4.86%	3.17%
Asset values (\$ 000)					
<i>Market</i>	76,374	71,404	63,661	68,969	61,272
<i>Actuarial</i>	75,836	71,897	69,397	67,378	65,534
Accum. ben. (\$ 000)	83,440	81,412	78,153	75,833	72,258

Year	Assets (Actuarial)	Assets (Market)	Accumulated Benefits
2017	65,534	61,272	72,258
2018	67,378	68,969	75,833
2019	69,397	63,661	78,153
2020	71,897	71,404	81,412
2021	75,836	76,374	83,440

\* Benefit improvement restrictions due to fund having amortization extension. Restrictions in place until 1/1/2038 when bases with amortization extension have been fully amortized

**5 - YEAR SUMMARY OF DEMOGRAPHICS**

<i>Actuarial Study as of January 1,</i>	<i>2021</i>	<i>2020</i>	<i>2019</i>	<i>2018</i>	<i>2017</i>
<b>Participant counts</b>					
<i>Active</i>	332	329	337	343	333
<i>Inactive vested</i>	507	492	495	502	520
<i>Receiving benefits</i>	468	468	461	456	447
<i>Total</i>	1,307	1,289	1,293	1,301	1,300
Average entry age	32.1	32.3	32.5	33.1	32.8
Average attained age	44.4	44.7	45.0	45.2	45.4

Year	Active	Inactive Vested	Retirees
2017	333	520	447
2018	343	502	456
2019	337	495	461
2020	329	492	468
2021	332	507	468

<b>Hours worked in prior plan year (thousands)</b>					
<i>Expected hours valuation</i>	474	473	467	458	417
<i>Expected hours PPA cert</i>	475	475	450	450	450
<i>Actual hours worked</i>	494	524	524	518	517

Year	Expected Hrs-Valuation	Expected Hrs-PPA Cert	Actual Hrs
2017	417	450	517
2018	458	450	518
2019	467	450	524
2020	473	475	524
2021	474	475	494

## **CHANGES FROM PRIOR STUDY**

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### ***Changes in Plan Provisions***

The plan provisions underlying this valuation are the same as those valued last year.

### ***Changes in Actuarial Assumptions and Methods***

The actuarial assumptions and methods used in this valuation differ from those used in the prior valuation in the following respects:

- The assumed mortality rates were changed from 100% of the PRI-2012 Blue Collar Mortality Table to 100% for males and 95% for females of the PRI-2012 Blue Collar Mortality Table and the mortality projection scale was updated from MP-2019 to MP-2020. These changes were made because we wanted to reflect the latest mortality improvement data available.
- The assumed credited hourly contribution rate was increased \$0.06 to reflect a pro-rated portion of the negotiated increase effective June 1, 2020.
- The assumed retirement rates were changed according to the schedule in Appendix B to represent our best estimate of future retirement patterns based on recent plan experience.
- The assumed withdrawal rates were changed according to the schedule in Appendix B to represent our best estimate of future withdrawal patterns based on recent plan experience.
- The pop-up load on liabilities for retirees receiving a joint and survivor form of benefit was eliminated and was replaced with actual pop-up amounts should the spouse predecease the participant.
- The age for continuing inactive vested participants assumed to be deceased and not valued was increased from age 70 to age 74. Participants assumed deceased under age 74 prior to January 1, 2021 are still assumed to be deceased.
- The current liability interest rate was changed from 2.95% to 2.43%. The new rate is within established statutory guidelines.

The projection assumptions used in this valuation differ from those used in the prior valuation in the following respects:

- The future return on fund assets used for projection purposes was decreased from 7.25% to 6.75% for the first 10 years. The long-term return on fund assets for projection purposes and the ERISA rate of return assumption used to value liabilities remains at 7.75%. This provides our best estimate of the future rate of net investment return based on the Plan's current investment policy, asset allocation and a survey of capital market assumptions.



*Summary of Results  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

**HISTORY OF MAJOR ASSUMPTIONS**

<i>Assumption</i>	<i>Actuarial Study as of January 1,</i>				
	<i>2021</i>	<i>2020</i>	<i>2019</i>	<i>2018</i>	<i>2017</i>
Future rate of net investment return	7.75%	7.75%	7.75%	7.75%	7.75%
Mortality table	PRI-2012	PRI-2012	RP-2006	RP-2006	RP-2006
<i>Adjustment</i>	100%M/95%F	100%	105%	105%	115%
<i>Projection scale</i>	MP-2020	MP-2019	MP-2018	MP-2017	MP-2016
Future expenses	\$240,000	\$240,000	\$240,000	\$240,000	\$260,000
Average future hourly contribution rate*					
<i>Credited</i>	\$4.39	\$4.32	\$4.19	\$4.20	\$3.95
<i>Non-credited</i>	<u>2.22</u>	<u>2.22</u>	<u>2.22</u>	<u>2.22</u>	<u>2.22</u>
<i>Total</i>	\$6.61	\$6.54	\$6.41	\$6.42	\$6.17
Average future annual hours					
<i>Vested</i>	1,550	1,550	1,500	1,450	1,450
<i>Non-vested</i>	1,200	1,200	1,200	1,150	1,150
Assumptions used for projections					
<i>Return, first 10 yrs</i>	6.75%	7.25%	7.25%	7.25%	7.25%
<i>Annual hours (000)</i>	475	475	475	450	450

\* Actual average derived from application of assumptions specified in Appendix B.

**EXPERIENCE VS. ASSUMPTIONS**

*Comparing the prior year's experience to assumptions provides indications as to why overall results may differ from those expected*

Actuarial assumptions are used to project certain future events related to the pension plan (e.g. deaths, withdrawals, investment income, expenses, etc.). While actual results for a single plan year will rarely match expected experience, it is intended that the assumptions will provide a reasonable long term estimate of developing experience.

The following table provides a comparison of expected outcomes for the prior plan year with the actual experience observed during the same period. This display may provide insight as to why the plan's overall actuarial position may be different from expected.

<i>Plan Year Ending December 31, 2020</i>	<i>Expected</i>	<i>Actual</i>
<b>Decrements</b>		
<i>Terminations</i>		52
<i>less: Rehires</i>		15
<i>Terminations (net of rehires)</i>	25.6	37
<i>Active retirements</i>	8.6	3
<i>Active disabilities</i>	1.7	-
<i>Pre-retirement deaths</i>	3.8	3
<i>Post-retirement deaths</i>	18.4	19
<i>Monthly benefits of deceased retirees</i>	\$ 11,147	\$ 6,314
<b>Financial assumptions</b>		
<i>Rate of net investment return on actuarial value</i>	7.75%	7.95%
<i>Administrative expenses</i>	\$ 240,000	\$ 241,939
<b>Other demographic assumptions</b>		
<i>Average retirement age from active (new retirees)</i>	61.6	57.5
<i>Average retirement age from inactive (new retirees)*</i>	61.1	61.3
<i>Average entry age (new entrants)</i>	32.3	33.1
<i>Hours worked per vested active</i>	1,550	1,560
<i>Hours worked per non-vested active</i>	1,200	1,167
<i>Total hours worked (valuation assumption)</i>	473,950	494,064
<i>Total hours worked (PPA certification assumption)</i>	475,000	494,064
<b>Unfunded liability (gain)/loss</b>		
<i>(Gain)/loss due to asset experience</i>		\$ (144,644)
<i>(Gain)/loss due to liability experience</i>		(440,799)
<i>Total (gain)/loss</i>		\$ (585,443)

\* Expected average based on the average for the total group of participants.

**PLAN MATURITY**

*Measures of plan maturity can play a part in understanding risk and a plan's ability to recover from adverse experience*

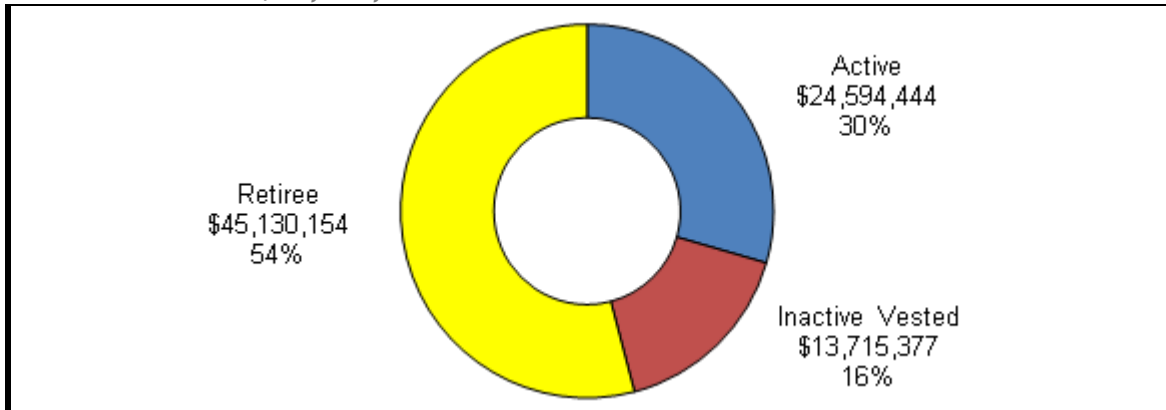
When a new pension plan is first established, its liabilities are typically limited to active plan participants. However, as people become vested and retire, a plan begins to develop liabilities attributable to nonactive participants (retirees and inactive vested participants). The process of adding nonactive liabilities (often referred to as "maturing")

is a natural outgrowth of the operation of the plan. As a plan matures, its liabilities tend to balloon in relation to its contribution base, making it more difficult to correct for adverse outcomes by increasing contribution rates or reducing future benefit accruals.

Headcount ratios show the number of retiree or inactive participants supported by each active participant. While there is no hard and fast rule, we generally consider a plan to be mature if each active is supporting more than 1 retiree or more than 2 nonactives. A negative net cash flow (benefits payments and expenses greater than contributions) can also be an indicator of a mature plan. A negative cash flow, when expressed as a percentage of assets, in excess of the assumed rate of return on fund assets may not be sustainable in the long term.

<i>Actuarial Study as of January 1,</i>	<i>2021</i>	<i>2020</i>	<i>2019</i>	<i>2018</i>	<i>2017</i>
Retiree/active headcount ratio	1.41	1.42	1.37	1.33	1.34
Nonactive/active headcount ratio	2.94	2.92	2.84	2.79	2.90
Cash flow					
<i>Contr.-ben.-exp. (\$000)</i>	(1,713)	(1,275)	(1,179)	(1,314)	(1,249)
<i>Percent of assets</i>	-2.24%	-1.79%	-1.85%	-1.91%	-2.04%

**Liabilities of Actives, Retirees, and Inactive Vesteds**  
**Total Liabilities: \$83,439,975**



**UNFUNDED VESTED BENEFITS/EMPLOYER WITHDRAWAL LIABILITY**

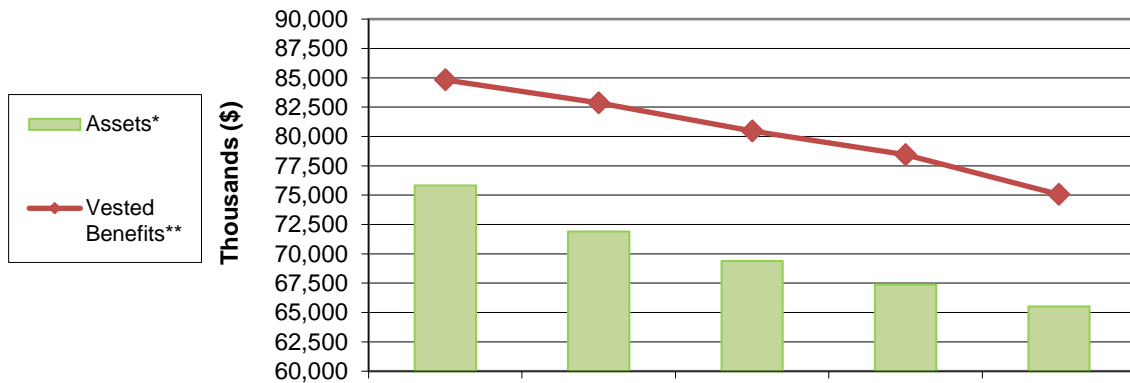
*An employer withdrawing during the coming year may have withdrawal liability*

The following table shows a history of the plan's unfunded vested benefits (UVB) required to compute a specific employer withdrawal liability under the presumptive method. If all unfunded vested benefits since the inception of the Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) are zero (\$0) or less, there will be no withdrawal liability assessed to a withdrawing employer. Otherwise, an employer may be assessed withdrawal liability payments pursuant to MPPAA. The display does not reflect adjustments for prior employer withdrawals.

In accordance with IRC Section 432(e)(9)(A) and PBGC Technical Update 10-3, the impact of reducing adjustable benefits is reflected by adding the unamortized portion of the value of affected benefits (VAB) to the most recent year's unfunded vested benefits pool. An employer who is assessed withdrawal liability will be assessed a portion of the UVB and the VAB.

**Presumptive Method (\$ 000)**

December 31,	2020	2019	2018	2017	2016
Vested benefits interest	7.75%	7.75%	7.75%	7.75%	7.75%
Vested benefits	81,209	79,048	76,459	74,263	70,726
less: Asset value*	75,836	71,897	69,397	67,378	65,534
UVB	5,373	7,151	7,062	6,885	5,192
Unamortized VAB	3,603	3,807	3,996	4,171	4,334
UVB + VAB	8,976	10,958	11,058	11,056	9,526



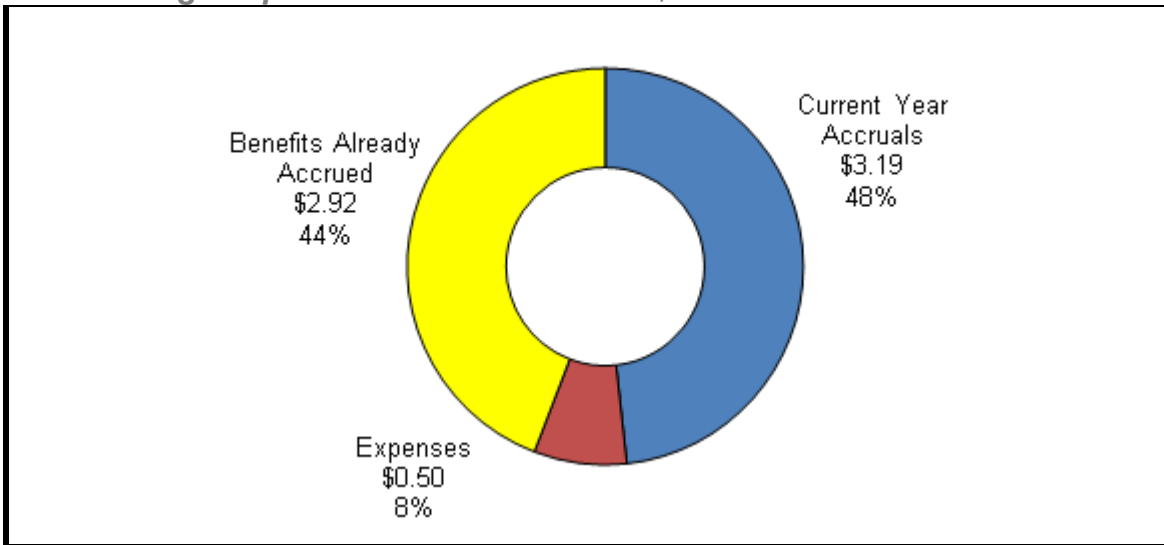
\* Actuarial value  
 \*\* Includes VAB

**CONTRIBUTION ALLOCATION**

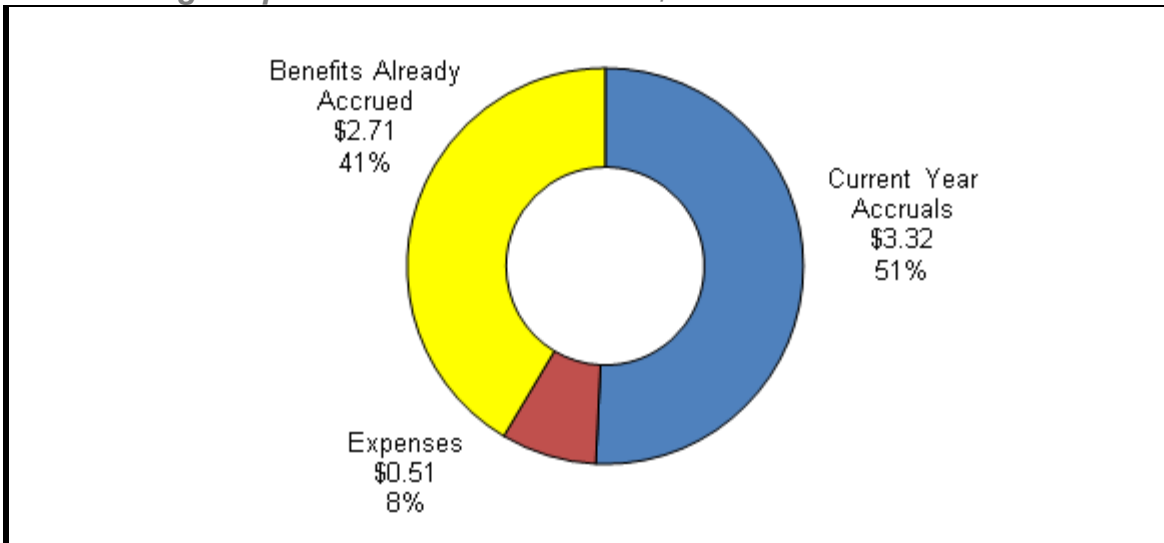
*These graphs show how the contributions are being spent*

The following allocation charts illustrate how the expected contribution rate for the coming plan year will be “spent” to pay for benefits being earned in the current year, plan expenses, and funding of past unfunded liabilities.

**Contribution Allocation as of January 1, 2021**  
**Total Average Expected Contribution Rate \$6.61**



**Contribution Allocation as of January 1, 2020**  
**Total Average Expected Contribution Rate \$6.54**

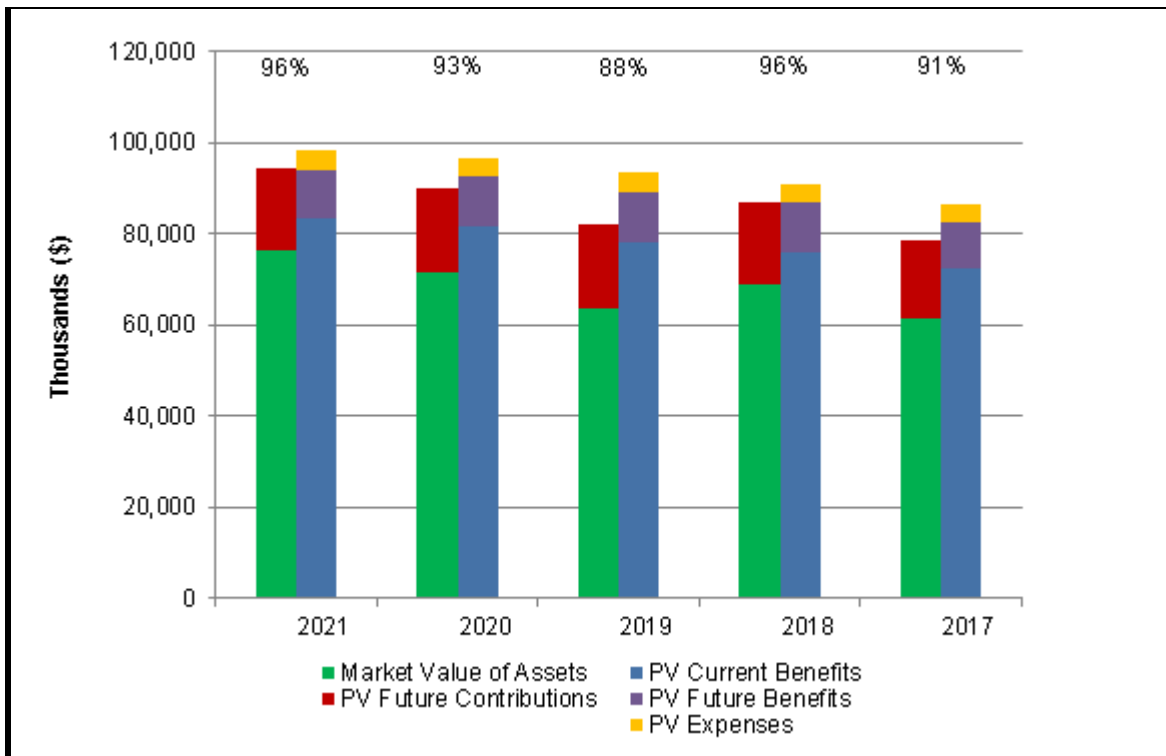


**ULTIMATE FUNDED STATUS**

*Ultimate funded status is an indicator of the ability of current participants to pay for their own benefits*

An actuarial valuation deals primarily with the ability of the plan to meet Internal Revenue Code requirements now and in the near future. As such, it is heavily focused on current plan assets and liabilities. But it is also important to keep in mind the true purpose of the plan funding—that is, to accumulate sufficient assets to pay the benefits that the plan has promised to its participants. The chart below looks at this long-term funding adequacy. To the current plan assets, we add the present value of all future contributions expected to be made for the current plan participants. To the value of the plan’s liabilities for benefits that have been previously earned, we add the present value of future benefits the current plan participants are expected to earn and the present value of future administrative expenses the plan is expected to pay. Ideally these ultimate asset and liability values will be approximately equal.

An ultimate funded status of less than 100% could be an indication of generational shifting (i.e. the need for one generation of participants to fund the benefits of the preceding generation) and/or a reliance on the continued addition of new participants in order to fund benefits.



### **FUNDING STANDARD ACCOUNT PROJECTION**

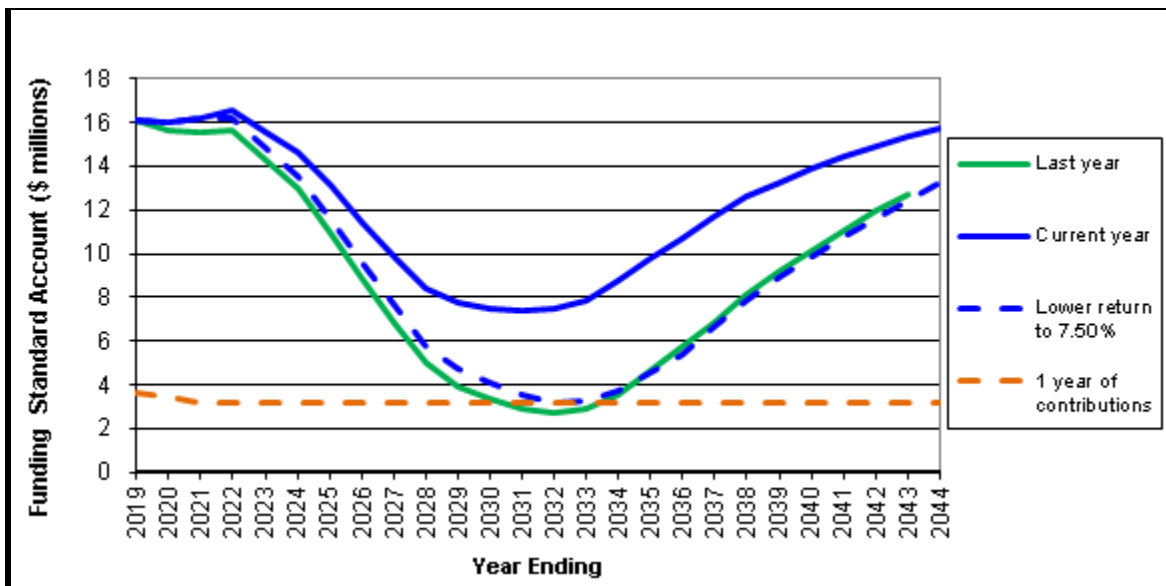
*The funding standard account projection is a major driver of PPA status*

The funding standard account (FSA) was established by ERISA as a means of determining compliance with minimum funding standards. The FSA is hypothetical in the sense that it does not represent actual assets held by a custodian.

Rather, a positive FSA balance (called a “credit balance”) means that the plan has exceeded minimum funding standards on a cumulative basis, while a negative balance (called a “funding deficiency”) means that the plan has fallen short of such standards.

Actuaries must project the plan’s FSA each year in order to determine PPA status. If a funding deficiency is projected in a future year, the plan could be forced into yellow (endangered) or red (critical) status depending how far into the future the first projected funding deficiency is. The plan’s FSA projection appears below. These projections are based on the assumptions summarized in the “Actuarial Assumptions used for Projections” section of Appendix B. An additional blue dashed line has been added to illustrate the impact of a lower potential asset return of 7.50% for year 11 and thereafter. This reflects the median long term expected asset return in recent studies by UAS.

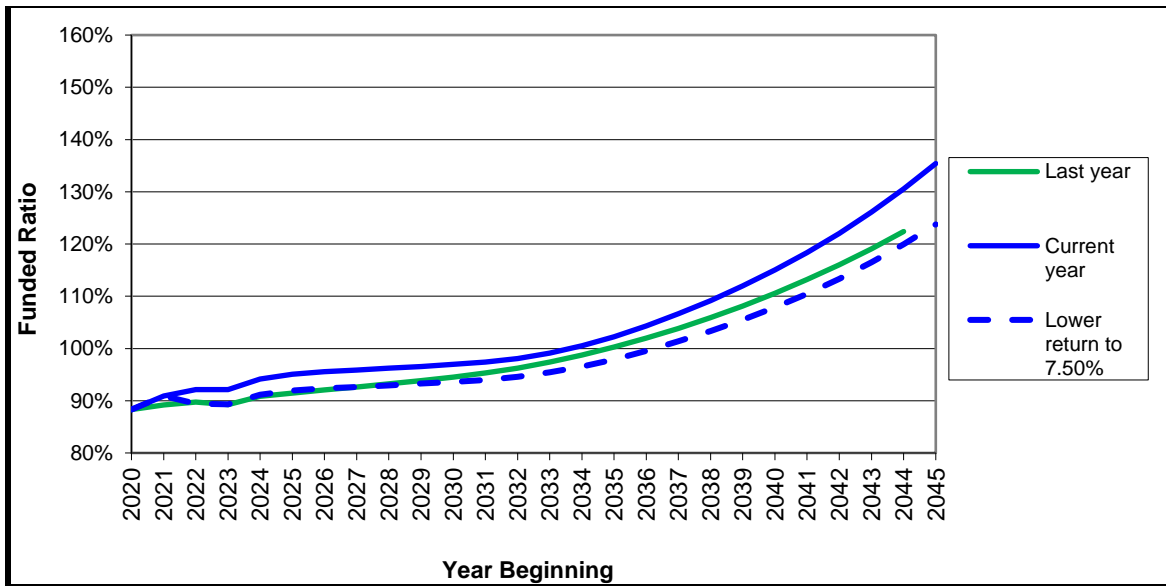
As a rule of thumb, UAS recommends in non-Critical status year that plans maintain a projected credit balance of at least one year’s contributions (shown as an orange dotted line in the graph below) in each future year. Maintaining a “cushion” in the Funding Standard Account helps minimize the risk of a surprise funding deficiency at the end of a non-Critical status plan year. Such a deficiency could trigger an excise tax payable directly by employers. If the Plan is in Critical status at the start of plan year, it is protected from these excise taxes so long as scheduled progress has been satisfied in at least one of the past three plan years.



**FUNDED RATIO PROJECTION**

*The plan's funded ratio is a major driver of PPA status*

The funded ratio is defined as the actuarial value of plan assets divided by the plan's liabilities for accrued benefits. Along with the funding standard account projection, funded ratio is one of the two major drivers of PPA funded status. In order for a plan to enter the green zone (also called "safe" or "not endangered or critical") the funded ratio must be at least 80%. An insolvency, which is the plan year when the plan would run out of money, occurs if the funded ratio is projected to be 0%. In order for a plan to enter critical and declining status, an insolvency needs to be projected within 20 plan years of the PPA certification (it may need to be within 15 years under certain conditions). The projection of the funded ratio appears below. These projections are based on the assumptions summarized in the "Actuarial Assumptions used for Projections" section of Appendix B. An additional blue dashed line has been added to illustrate the impact of a lower potential asset return of 7.50% for year 11 and thereafter. This reflects the median long term expected asset return in recent studies by UAS.





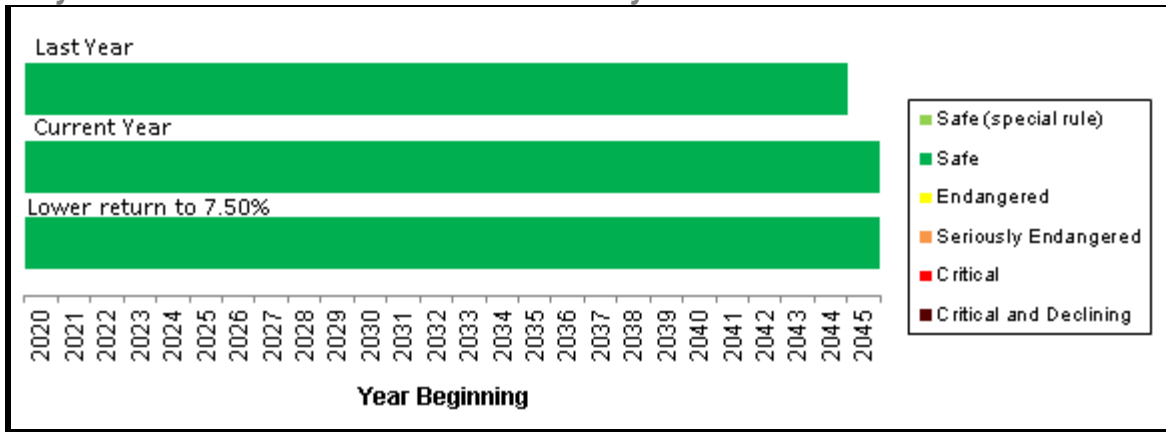
## PPA STATUS PROJECTIONS

*A plan that is not in green (i.e. safe) zone is subject to additional requirements and restrictions*

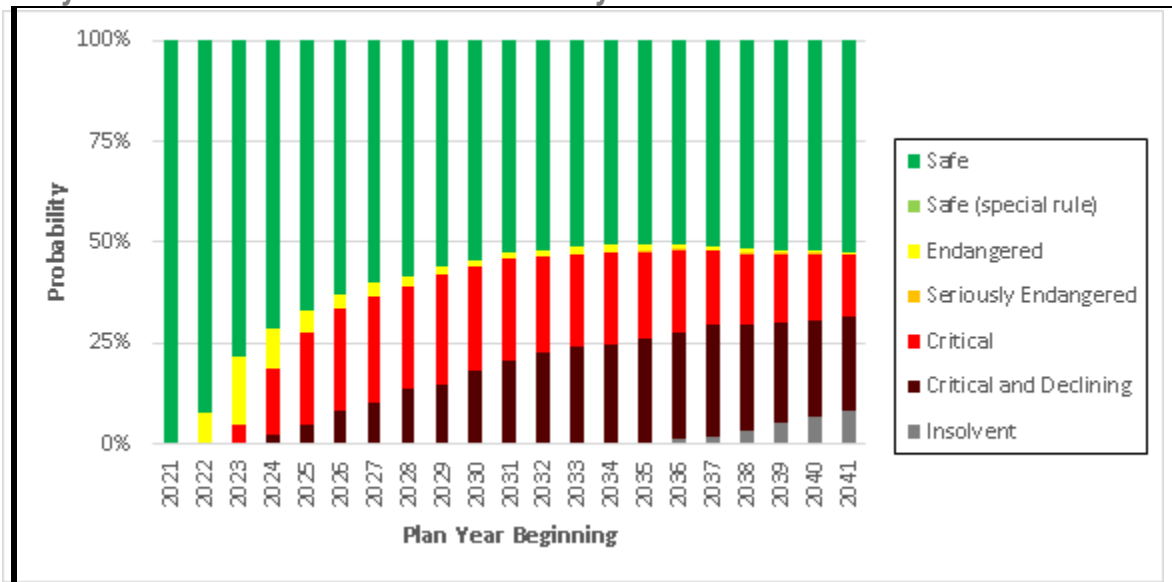
The following graphs show *deterministic* and *stochastic* projections of PPA status based on the assumptions summarized in the “Actuarial Assumptions used for Projections” section of Appendix B. The

deterministic projection shows the expected status for each future year. The stochastic projection shows the estimated probability of being in each status in each future year. The projections are based on the current plan and do not assume any changes in plan provisions or contribution rates, even if the plan moves to a worse PPA zone.

### Projected PPA Status – Deterministic Projection



### Projected PPA Status – Stochastic Projection\*



\* Distribution of returns based on the mean and standard deviation of the Plan's investment portfolio. Mean for years 1-10 based on short-term expectations, years 11-20 based on long-term expectations.

### SENSITIVITY ANALYSIS AND SCENARIO/STRESS TESTING

*Sensitivity analysis along with scenario and stress testing can help Trustees gauge a plan's key risks*

*Sensitivity analysis* studies the funding impact to the plan when a given assumption changes. *Scenario testing* studies the funding impact from actual experience for one or more possible outcomes. *Stress testing* studies the funding impact from poor experience. The sensitivity analysis

along with the scenario and stress testing below can be used to gauge a plan's key risks from investments and hours.

Currently, the plan is projected to be 100% funded by 2034, is projected to have no unfunded vested benefits in 2032, and projects no funding deficiencies. In the table below we use these results to perform scenario and stress testing on the investment return assumption by assuming asset returns for the 2021 plan year of 10.00%, 6.75%, 3.00%, and 0.00%. We also perform a sensitivity analysis on the future hours assumption by showing the effect of varying it by  $\pm 5\%$ . Lastly, we examined the impact of a lower long term return assumption of 7.50% at the baseline hours.

**Key Funding Statistics (without rate increases) and Non-Credited Rate Increase Needed on June 1, 2022 to Project No Funding Deficiencies**

Sensitivity Analysis Assumptions	Funding Stats	Scenario and Stress Testing: Return for 2021-22 PY (6.75% for 2022-30 and 7.75% Thereafter)			
		10.00%	6.75%	3.00%	0.00%
<u>5% Lower Hours</u> 451,250 in 2021 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2030 2032 None None	2035 2033 None None	2040 2038 None None	2046 2044 2032 45¢
<u>Baseline Hours</u> 475,000 in 2021 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2029 2032 None None	<b>2034</b> <b>2032</b> <b>None</b> <b>None</b>	2039 2036 None None	2043 2041 2033 21¢
<u>5% Higher Hours</u> 498,750 in 2021 and thereafter	100% Funded: No UVB: Proj. Deficiency: Increase:	2028 2032 None None	2033 2032 None None	2037 2035 None None	2041 2039 None None
<u>Lower long-term</u> 6.75% return for 10 yrs and 7.50% thereafter Baseline hours	100% Funded: No UVB: Proj. Deficiency: Increase:	2033 2032 None None	2037 2035 None None	2042 2040 2032 24¢	2049 2046 20320 72¢

***SENSITIVITY ANALYSIS AND SCENARIO/STRESS TESTING (CONT.)***

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If the contributions above were credited instead of non-credited, the amounts required to avoid projected funding deficiencies would need to be about 276% higher than the non-credited amounts shown above. For example, at the baseline hours of 475,000 hours and a return of 0.00% for 2021, the credited increases needed to avoid projected funding deficiencies would need to be 58¢ in 2022 instead of 21¢ in 2022.

More action can be taken in any funding result to provide an even bigger “cushion” against future losses. There are other possible solutions besides the provided contribution rate increase schedule shown above, including different lengths of contribution rate increases. Benefit reductions could also be added to lower or eliminate the necessary contribution rate increases.

All actions taken to eliminate projected funding deficiencies need to be in place until the credit balance projection is past its low point. This is about 11 years out. Asset gains or strong hours could speed up this timeframe.

***PART II: SUPPLEMENTAL STATISTICS***

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***PARTICIPANT DATA RECONCILIATION***

The participant data reconciliation table below provides information as to how the plan's covered population changed since the prior actuarial study. Such factors as the number of participants retiring, withdrawing and returning to work have an impact on the actuarial position of the pension fund.

<i>Participants Valued As</i>	<i>Active</i>	<i>Inactive Vested</i>	<i>Receiving Benefits</i>	<i>Total Valued</i>
January 1, 2020	329	492	468	1,289
Change due to:				
<i>New hire</i>	43	-	-	43
<i>Rehire</i>	15	(11)	-	4
<i>Termination</i>	(52)	25	-	(27)
<i>Disablement</i>	-	(1)	1	-
<i>Retirement</i>	(3)	(7)	10	-
<i>Death</i>	-	(3)	(19)	(22)
<i>Cash out</i>	-	(1)	-	(1)
<i>New beneficiary</i>	-	-	7	7
<i>Certain pd. expired</i>	-	-	-	-
<i>Data adjustment*</i>	-	13	1	14
Net change	3	15	-	18
January 1, 2021	332	507	468	1,307

\* Inactive vested data adjustment: Addition of 13 inactive vested previously thought to be inactive non-vested and 1 deferred beneficiary for a participant previously assumed to be deceased; less 1 participant now over age 74 and assumed to be deceased.

Receiving benefits data adjustment: Addition of 1 new retiree previously assumed to be deceased.

***HOURS WORKED DURING PLAN YEAR***

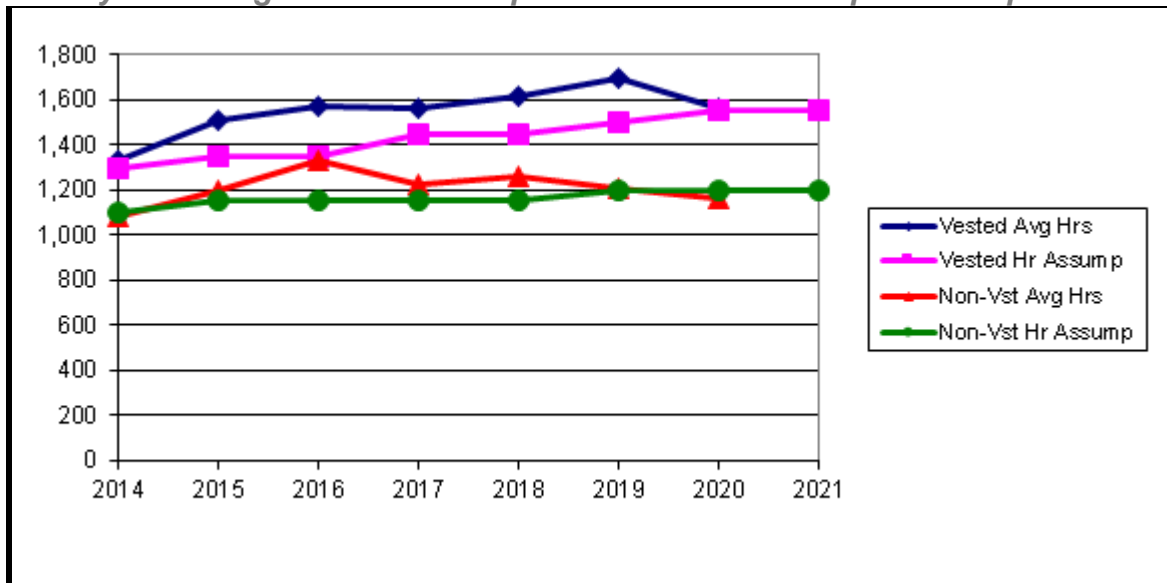
***Hours Worked Per Participant***

<b><i>Plan Year Ending December 31, 2020</i></b>	<b><i>Number</i></b>	<b><i>Hours Worked</i></b>	<b><i>Average Hours Worked</i></b>
Actives			
<i>Vested</i>	239	372,769	1,560
<i>Non-vested, continuing</i>	57	75,289	1,321
<i>Non-vested, new entrant</i>	36	33,244	923
Total active	332	481,302	1,450
Others	105	12,762	122
Total for plan year	437	494,064	1,131

***History of Total Actual and Expected Hours Worked (Thousands)***

<b><i>Plan Year Ending December 31,</i></b>	<b><i>2021</i></b>	<b><i>2020</i></b>	<b><i>2019</i></b>	<b><i>2018</i></b>	<b><i>2017</i></b>
Expected hours valuation	477	474	473	467	458
Expected hours PPA cert	475	475	475	450	450
Actual hours worked	n/a	494	524	524	518

***History of Average Actual and Expected Hours Worked per Participant***



**CONTRIBUTIONS MADE DURING PLAN YEAR**

*Employer Credited Contributions Reported in Employee Data*

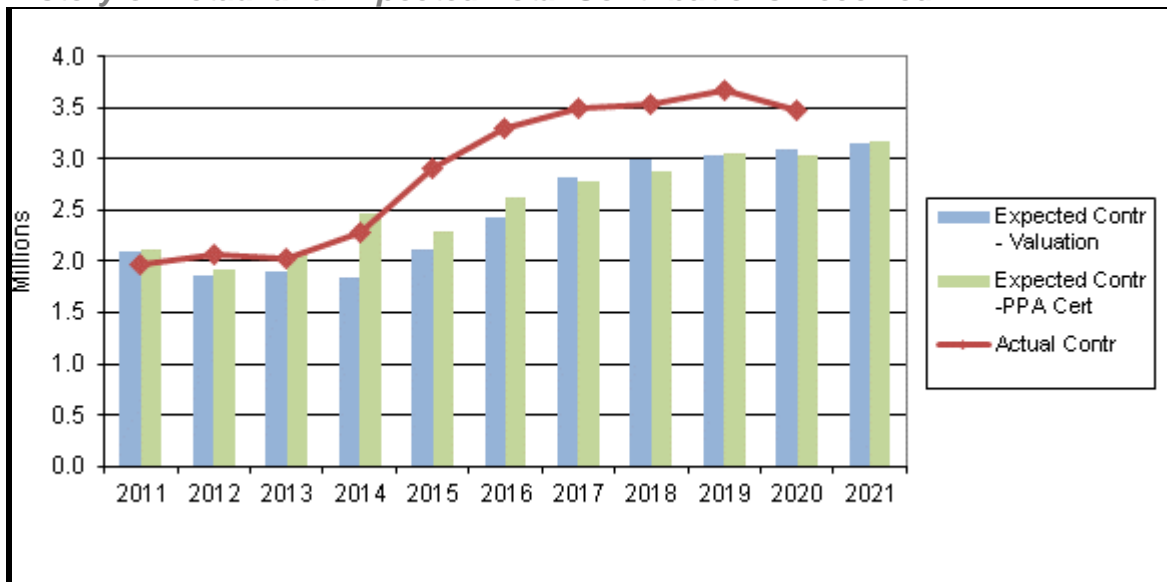
<i>Plan Year Ending December 31, 2020</i>	<i>Number</i>	<i>Credited Contributions Reported</i>
<b>Actives</b>		
<i>Vested</i>	239	\$ 1,626,521
<i>Non-vested, continuing</i>	57	327,978
<i>Non-vested, new entrant</i>	36	146,298
<b>Total valued as active</b>	<b>332</b>	<b>2,100,797</b>
<b>Others</b>	<b>105</b>	<b>56,978</b>
<b>Total for plan year</b>	<b>437</b>	<b>\$ 2,157,775</b>
<b>Average credited hourly contribution rate</b>		<b>\$ 4.37</b>

*Comparison with Audited Employer Contributions*

Employer credited contributions reported in data	\$ 2,157,775
Adjusted total employer contributions reported*	\$ 3,254,598
Total audited employer contributions	\$ 3,478,677
Percent reported	94%

\* Adjusted to reflect the non-credited contributions of \$2.22 per hour worked.

*History of Actual and Expected Total Contributions Received*



*Supplemental Statistics  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

**ACTIVE INFORMATION**

**Active Participants by Age and Service as of January 1, 2021**

<b>Age</b>	<b>Years of Service</b>										<b>Total</b>	
	<b>&lt;1</b>	<b>1-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40+</b>		
< 25	-	19	2	-	-	-	-	-	-	-	-	21
25-29	-	18	5	-	-	-	-	-	-	-	-	23
30-34	-	15	13	2	1	-	-	-	-	-	-	31
35-39	-	8	7	4	3	2	-	-	-	-	-	24
40-44	-	11	14	5	12	16	-	-	-	-	-	58
45-49	-	6	5	7	10	18	2	-	-	-	-	48
50-54	-	6	11	5	8	15	12	7	-	-	-	64
55-59	-	4	3	1	6	11	4	5	1	1	-	36
60-64	-	1	3	1	5	5	1	2	-	1	-	19
65-69	-	-	1	-	-	-	-	-	1	-	-	2
70+	-	-	-	1	-	-	-	-	-	-	-	1
<b>Totals</b>	-	88	64	26	45	67	19	14	2	2	-	327
Unrecorded DOB	-	5	-	-	-	-	-	-	-	-	-	5
<b>Total Active Lives</b>	-	93	64	26	45	67	19	14	2	2	-	332



***INACTIVE VESTED INFORMATION***

*Inactive Vested Participants by Age as of January 1, 2021*

<i>Age Group</i>	<i>Number</i>	<i>Estimated Monthly Deferred Vested Benefits*</i>	
< 30	-	\$	-
30-34	5		1,232
35-39	16		4,096
40-44	55		17,247
45-49	76		30,120
50-54	111		41,527
55-59	109		42,812
60-64	83		25,804
65-69	41		8,413
70+	11		1,246
Totals	507		172,497
Unrecorded birth date	-		-
Total inactive vested lives	507	\$	172,497

\* Amount payable at assumed retirement age as used in the valuation process.

**RETIREE INFORMATION**

**Benefits Being Paid by Form of Payment as of January 1, 2021**

Form of Payment	Number	Monthly Benefits Being Paid			
		Total	Average	Smallest	Largest
Life only*	160	\$ 120,102	\$ 751	\$ 31	\$ 4,305
Joint & survivor	186	221,379	1,190	26	5,371
Disability	27	32,957	1,221	102	3,245
Beneficiaries	95	35,021	369	17	2,229
<b>Totals</b>	<b>468</b>	<b>\$ 409,459</b>	<b>\$ 875</b>	<b>\$ 17</b>	<b>\$ 5,371</b>

**Retirees by Age and Form of Payment as of January 1, 2021**

Age Group	Form of Benefits Being Paid				
	Life Only*	Joint & Survivor	Disability	Beneficiaries	Total
< 40	-	-	-	2	2
40-44	-	-	-	-	-
45-49	-	-	2	1	3
50-54	-	-	2	1	3
55-59	9	10	9	1	29
60-64	26	22	14	5	67
65-69	35	47	-	10	92
70-74	27	37	-	19	83
75-79	28	33	-	10	71
80-84	20	16	-	25	61
85-89	10	16	-	16	42
90-94	5	4	-	5	14
95+	-	1	-	-	1
<b>Totals</b>	<b>160</b>	<b>186</b>	<b>27</b>	<b>95</b>	<b>468</b>

\* Includes retirees receiving life and certain benefits.

**RETIREE INFORMATION (CONT.)**

**Age of Participants Retired During Last 5 Plan Years**  
 (excludes beneficiaries and disability retirements)

Age at Retirement	Plan Year Ending December 31,				
	2020	2019	2018	2017	2016
> 55	-	-	-	-	-
55	4	2	1	1	3
56	-	-	2	1	-
57	-	2	-	-	-
58	-	4	1	2	2
59	-	1	1	1	2
60	-	-	1	-	-
61	-	1	1	1	1
62	4	4	4	4	1
63	-	1	2	1	1
64	-	-	1	3	-
65	1	3	2	2	1
66+	1	1	-	2	1
<b>Totals</b>	<b>10</b>	<b>19</b>	<b>16</b>	<b>18</b>	<b>12</b>
Average retirement age	60.2	61.0	61.4	63.6	60.7

***PART III: ASSET INFORMATION***

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**MARKET AND ACTUARIAL FUND VALUES**

Asset information extracted from the fund's financial statements audited by Benda, Grace, Stulz & Company, P.C.

**Market/Actuarial Value of  
Fund Investments  
as of December 31,**

	2020	2019	2018
Invested assets			
<i>Common stock</i>	\$ 7,518,718	\$ 7,079,338	\$ 13,175,636
<i>Common collective trusts</i>	25,610,003	6,138,306	4,588,685
<i>Hedge fund of funds</i>	2,934,577	3,101,498	5,379,585
<i>Mutual funds</i>	23,094,280	42,546,171	28,173,545
<i>Real estate funds</i>	7,237,874	7,373,450	6,945,334
<i>Limited partnership</i>	8,816,962	4,020,351	4,382,465
<i>Cash</i>	964,063	897,090	774,832
<i>Other</i>	20,714	23,532	25,040
	76,197,191	71,179,736	63,445,122
Net receivables*	176,529	223,855	215,749
Market value	\$ 76,373,720	\$ 71,403,591	\$ 63,660,871
Fund assets - Actuarial value			
<i>Market value</i>	\$ 76,373,720	\$ 71,403,591	\$ 63,660,871
<i>less: Deferred investment gains and (losses)</i>	537,360	(493,186)	(5,735,784)
Actuarial value	\$ 75,836,360	\$ 71,896,777	\$ 69,396,655
Actuarial value as a percentage of market value	99.30%	100.69%	109.01%

\* Equals receivables, less any liabilities

*Asset Information*  
*Outstate Michigan Trowel Trades Pension Plan*  
*January 1, 2021 Actuarial Valuation*

***FLOW OF FUNDS***

Asset information extracted from the fund's financial statements audited by Benda, Grace, Stulz & Company, P.C.

<i>Plan Year Ending</i> <i>December 31,</i>	<i>2020</i>	<i>2019</i>	<i>2018</i>
Market value at beginning of plan year	\$ 71,403,591	\$ 63,660,871	\$ 68,968,880
Additions			
<i>Employer contributions</i>	3,478,677	3,680,160	3,535,500
<i>Net investment income*</i>	6,680,898	9,016,820	(4,136,755)
<i>Other income</i>	2,182	1,299	7,651
	10,161,757	12,698,279	(593,604)
Deductions			
<i>Benefits paid</i>	4,949,689	4,746,432	4,485,083
<i>Net expenses*</i>	241,939	209,127	229,322
	5,191,628	4,955,559	4,714,405
Net increase (decrease)	4,970,129	7,742,720	(5,308,009)
Market value at end of plan year	\$ 76,373,720	\$ 71,403,591	\$ 63,660,871
Cash flow			
<i>Contr.-ben.-exp.</i>	(1,712,951)	(1,275,399)	(1,178,905)
<i>Percent of assets</i>	-2.24%	-1.79%	-1.85%
Estimated net investment return			
<i>On market value</i>	9.47%	14.31%	-6.05%
<i>On actuarial value</i>	7.95%	5.49%	4.78%

\* Investment expenses have been offset against gross investment income.

**INVESTMENT GAIN AND LOSS**

**Investment Gain or Loss**  
**Plan Year Ending December 31, 2020**

Expected market value at end of plan year		
Market value at beginning of plan year	\$	71,403,591
Employer contributions and non-investment income		3,480,859
Benefits and expenses paid		(5,191,628)
Expected investment income (at 7.75% rate of return)		5,467,486
		75,160,308
Actual market value at end of plan year		76,373,720
less: Expected market value		75,160,308
Investment gain or (loss)	\$	1,213,412

**History of Gains and (Losses)**

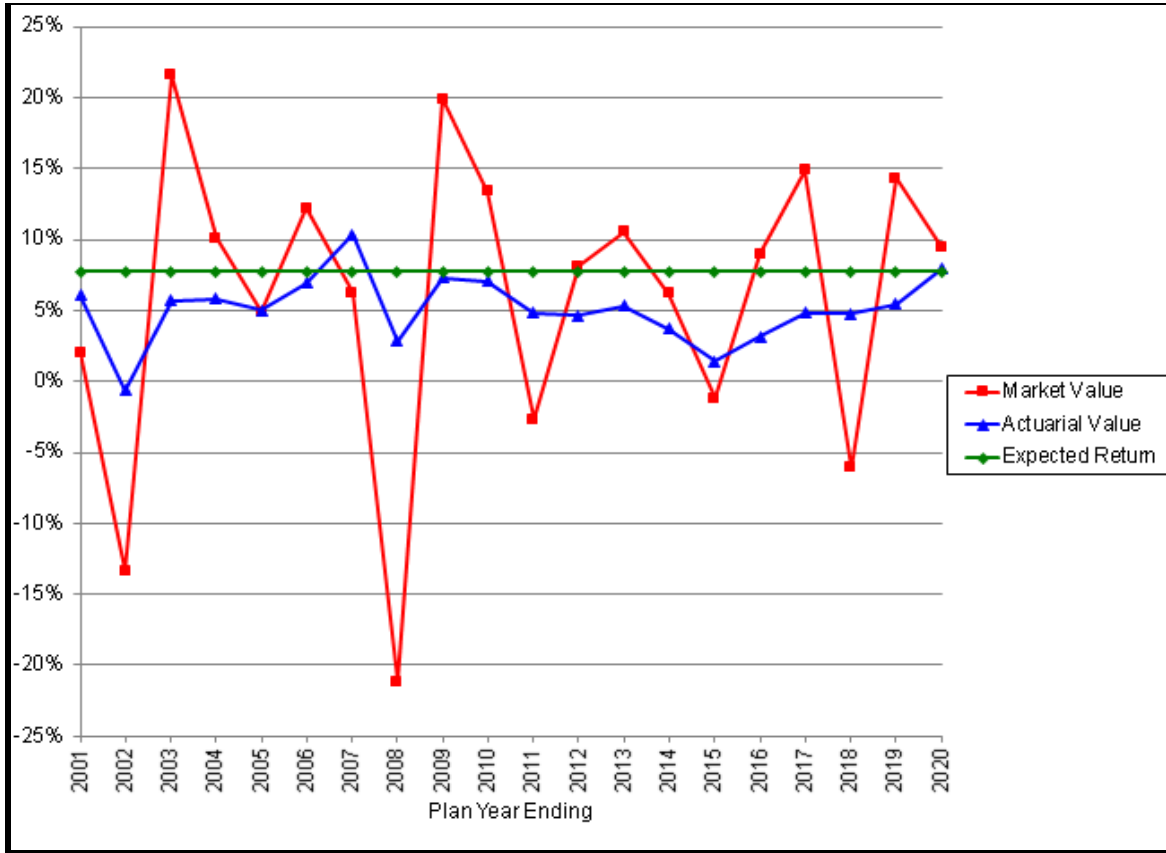
Plan Year Ending December 31,	Investment Gain or (Loss)	Amount Recognized This Year
2020	\$ 1,213,412	\$ 242,682
2019	4,132,474	826,495
2018	(9,436,457)	(1,887,291)
2017	4,308,646	861,729
2016	696,256	139,251
Total	\$ 914,331	\$ 182,866

**Deferred Investment Gains and (Losses)**

Plan Year Ending December 31,	Amount of Gain or (Loss) Deferred as of December 31,			
	2020	2021	2022	2023
2020	\$ 970,730	\$ 728,047	\$ 485,365	\$ 242,682
2019	2,479,484	1,652,990	826,495	-
2018	(3,774,583)	(1,887,291)	-	-
2017	861,729	-	-	-
Totals	\$ 537,360	\$ 493,746	\$ 1,311,860	\$ 242,682

***RATE OF RETURN ON FUND ASSETS***

***Historical Rates of Net Investment Return***



The following table shows average rates of return over various periods calculated on a geometric average basis. These statistics may not be appropriate for evaluating a Plan's rate of return assumption as such assumption is forward-looking whereas the statistics are historical. Furthermore, these statistics do not reflect the internal rate of return actually experienced by the Fund over these periods.

***Average Rates of Net Investment Return (geometric average)***

<i>Period</i>	<i>Return on Market Value</i>		<i>Return on Actuarial Value</i>	
	<i>Period Ending December 31,</i>		<i>Period Ending December 31,</i>	
	<i>2020</i>	<i>2019</i>	<i>2020</i>	<i>2019</i>
One year	9.47%	14.31%	7.95%	5.49%
5 years	8.03%	5.85%	5.24%	3.93%
10 years	6.04%	6.41%	4.61%	4.52%
15 years	5.71%	5.41%	5.37%	5.18%
20 years	5.39%	5.48%	5.12%	5.05%



***PART IV: ENROLLED ACTUARY'S REPORT***

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*Enrolled Actuary's Report  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

***NORMAL COST/ACTUARIAL LIABILITY***

<b><i>Normal Cost as of January 1,</i></b>	<b><i>2021</i></b>	<b><i>2020</i></b>
Benefit accruals	\$ 1,465,235	\$ 1,512,683
Anticipated administrative expenses (beg. of year)	231,047	231,047
<b>Total normal cost</b>	<b>\$ 1,696,282</b>	<b>\$ 1,743,730</b>
<b><i>Unfunded Actuarial Liability as of January 1,</i></b>	<b><i>2021</i></b>	<b><i>2020</i></b>
Actuarial liability		
<i>Participants currently receiving benefits</i>	\$ 45,130,154	\$ 44,989,147
<i>Inactive vested participants</i>	13,715,377	12,030,383
<i>Active participants</i>	24,594,444	24,392,931
	83,439,975	81,412,461
 <i>less: Fund assets (actuarial value)</i>	 75,836,360	 71,896,777
<b>Unfunded actuarial liability (not less than 0)</b>	<b>\$ 7,603,615</b>	<b>\$ 9,515,684</b>

***ACTUARIAL LIABILITY RECONCILIATION/PROJECTION***

***Reconciliation of Unfunded Actuarial Liability***

Expected unfunded actuarial liability as of December 31, 2020		
<i>Unfunded actuarial liability as of January 1, 2020</i>	\$	9,515,684
<i>Normal cost (including expenses)</i>		1,743,730
<i>Actual contributions</i>		(3,478,677)
<i>Interest to end of plan year</i>		737,806
		8,518,543
Increase (decrease) due to:		
<i>Experience (gain) or loss</i>		(585,443)
<i>Plan amendment</i>		-
<i>Change in actuarial assumptions</i>		(329,485)
<i>Change in actuarial method</i>		-
		(914,928)
Net increase (decrease)		(914,928)
Unfunded actuarial liability as of January 1, 2021	\$	7,603,615

***Projection of Actuarial Liability to Year End***

Actuarial liability as of January 1, 2021		
	\$	83,439,975
Expected increase (decrease) due to:		
<i>Normal cost (excluding expenses)</i>		1,465,235
<i>Benefits paid</i>		(5,715,879)
<i>Interest on above</i>		(107,935)
<i>Interest on actuarial liability</i>		6,466,598
		2,108,019
Net expected increase (decrease)		2,108,019
Expected actuarial liability as of December 31, 2021	\$	85,547,994

*Enrolled Actuary's Report  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

**FUNDED RATIOS**

<i>Present Value of Accumulated Benefits/ Funded Ratios Actuarial Study as of January 1,</i>	<i>2021</i>	<i>2020</i>
Present value of vested accumulated benefits		
<i>Participants currently receiving benefits</i>	\$ 45,130,154	\$ 44,989,147
<i>Inactive vested participants</i>	13,604,239	11,919,500
<i>Active participants</i>	22,474,495	22,139,782
Total	81,208,888	79,048,429
Nonvested accumulated benefits	2,231,087	2,364,032
Present value of all accumulated benefits	\$ 83,439,975	\$ 81,412,461
Market value of assets	\$ 76,373,720	\$ 71,403,591
Funded ratios (Market value)		
<i>Vested benefits</i>	94.0%	90.3%
<i>All accumulated benefits</i>	91.5%	87.7%
Actuarial value of assets	\$ 75,836,360	\$ 71,896,777
Funded ratios (Actuarial value used for PPA)		
<i>Vested benefits</i>	93.4%	91.0%
<i>All accumulated benefits</i>	90.9%	88.3%
Interest rate used to value benefits	7.75%	7.75%

***FUNDING PERIOD***

The funding period is the approximate number of years that would be required to completely fund the unfunded entry age normal actuarial liability if future plan experience occurs according to the assumptions. The funding period is an indicator of the long term financial soundness of the plan. Historically, funds often targeted a maximum funding period of up to 20 years. Today, asset losses are being paid off over a maximum of 15 years and are the primary driver for ERISA minimum funding. An ultimate target of no more than 10 years is recommended. A lower, more conservative funding period target can be chosen. As the funding period drops, the risk of having future funding issues also diminishes.

<b><i>Funding Period Calculation</i></b>		
<b><i>Actuarial Study as of January 1,</i></b>	<b><i>2021</i></b>	<b><i>2020</i></b>
Unfunded actuarial liability		
<i>Actuarial liability</i>	\$ 90,488,458	\$ 88,897,003
<i>less: Fund assets (actuarial value)</i>	75,836,360	71,896,777
	14,652,098	17,000,226
Funds available to amortize unfunded		
<i>Anticipated contributions (beg. of yr.)</i>	3,033,471	2,983,924
<i>less: Normal cost (including expenses)</i>	848,573	878,888
	\$ 2,184,898	\$ 2,105,036
Funding period (years)	9	12

**CURRENT LIABILITY**

Current Liability is determined in a manner similar to the value of accrued benefits, but using an interest rate assumption within an acceptable range determined by the IRS. The current liability is used in the determination of the maximum deductible employer contribution and full funding limit under the Internal Revenue Code. For plans in critical status, it may also be used to determine eligibility for financial assistance under the America Rescue Plan. It is not used for any other purpose.

<i>Current Liability as of January 1,</i>	<i>2021</i>	<i>2020</i>
Vested current liability		
<i>Participants currently receiving benefits</i>	\$ 73,583,407	\$ 70,489,817
<i>Inactive vested participants</i>	30,078,036	25,115,496
<i>Active participants</i>	54,458,651	49,467,165
	158,120,094	145,072,478
Nonvested current liability		
<i>Inactive vested participants</i>	251,723	229,647
<i>Active participants</i>	5,352,936	5,353,478
	5,604,659	5,583,125
<b>Total current liability</b>	<b>\$ 163,724,753</b>	<b>\$ 150,655,603</b>
Market value of assets	\$ 76,373,720	\$ 71,403,591
Current liability funded ratio (Market value)	46.6%	47.4%
Interest rate used for current liability	2.43%	2.95%

***Projection of Current Liability to Year End***

Current liability as of January 1, 2021	\$ 163,724,753
Expected increase (decrease) due to:	
<i>Benefits accruing</i>	4,067,776
<i>Benefits paid</i>	(5,715,879)
<i>Interest on above</i>	29,399
<i>Interest on current liability</i>	3,978,511
Net expected increase (decrease)	2,359,807
Expected current liability as of December 31, 2021	<b>\$ 166,084,560</b>

*Enrolled Actuary's Report  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

**FUNDING STANDARD ACCOUNT**

<i>Funding Standard Account Plan Year Ending December 31,</i>	<i>2021 (Projected)</i>	<i>2020 (Final)</i>
<b>Charges</b>		
<i>Prior year funding deficiency</i>	\$ -	\$ -
<i>Normal cost (including expenses)</i>	1,696,282	1,743,730
<i>Amortization charges (see Appendix C)</i>	5,899,036	6,264,192
<i>Interest on above</i>	588,637	620,614
<b>Total charges</b>	<b>8,183,955</b>	<b>8,628,536</b>
<b>Credits</b>		
<i>Prior year credit balance</i>	16,025,134	16,072,999
<i>Employer contributions</i>	3,137,477	3,478,677
<i>Amortization credits (see Appendix C)</i>	3,551,556	3,453,863
<i>Interest on above</i>	1,638,772	1,648,131
<i>ERISA full funding credit</i>	-	-
<b>Total credits</b>	<b>24,352,939</b>	<b>24,653,670</b>
<b>Credit balance (credits less charges)</b>	<b>\$ 16,168,984</b>	<b>\$ 16,025,134</b>

***FUNDING STANDARD ACCOUNT WITHOUT AMORTIZATION EXTENSION***

The Funding Standard Account on the previous page has been developed using an amortization extension approved by the IRS under §412(e) or §431(d) of the Code. We are required to report the dollar difference between the minimum required contribution with extension and without extension on the Schedule MB.

<i>Funding Standard Account Plan Year Ending December 31,</i>	<i>2021 (Projected)</i>	<i>2020 (Final)</i>
<b>Charges</b>		
<i>Prior year funding deficiency</i>	\$ -	\$ -
<i>Normal cost (including expenses)</i>	1,696,282	1,743,730
<i>Amortization charges (see Appendix C)</i>	4,717,310	5,005,540
<i>Interest on above</i>	497,053	523,068
<b>Total charges</b>	<b>6,910,645</b>	<b>7,272,338</b>
<b>Credits</b>		
<i>Prior year credit balance</i>	8,118,137	7,476,064
<i>Employer contributions</i>	3,137,477	3,478,677
<i>Amortization credits (see Appendix C)</i>	3,551,556	3,453,863
<i>Interest on above</i>	1,025,980	981,871
<i>ERISA full funding credit</i>	-	-
<b>Total credits</b>	<b>15,833,150</b>	<b>15,390,475</b>
<b>Credit balance (credits less charges)</b>	<b>\$ 8,922,505</b>	<b>\$ 8,118,137</b>



*Enrolled Actuary's Report  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

***FULL FUNDING LIMIT***

<b><i>Projection of Assets for Full Funding Limit</i></b>	<b><i>Market Value</i></b>	<b><i>Actuarial Value</i></b>
Asset value as of January 1, 2021	\$ 76,373,720	\$ 75,836,360
Expected increase (decrease) due to:		
<i>Investment income</i>	5,688,173	5,646,528
<i>Benefits paid</i>	(5,715,879)	(5,715,879)
<i>Expenses</i>	(240,000)	(240,000)
Net expected increase (decrease)	(267,706)	(309,351)
Expected value as of December 31, 2021*	\$ 76,106,014	\$ 75,527,009

\* Ignoring expected employer contributions (as required by regulation).

<b><i>Full Funding Limit as of December 31, 2021</i></b>	<b><i>For Minimum Required</i></b>	<b><i>For Maximum Deductible</i></b>
ERISA full funding limit (not less than 0)		
<i>Actuarial liability</i>	\$ 85,547,994	\$ 85,547,994
less: <i>Assets (lesser of market or actuarial)</i>	75,527,009	75,527,009
plus: <i>Credit balance (w/interest to year end)</i>	17,267,082	n/a
	27,288,067	10,020,985
ERISA full funding limit without extension (not less than 0)		
<i>Actuarial liability</i>	85,547,994	n/a
less: <i>Assets (lesser of market or actuarial)</i>	75,527,009	n/a
plus: <i>Credit bal. w/o ext. (w/int. to year end)</i>	8,747,293	n/a
	18,768,278	n/a
Full funding limit override (not less than 0)		
<i>90% of current liability</i>	149,476,104	149,476,104
less: <i>Assets (actuarial value)</i>	75,527,009	75,527,009
	73,949,095	73,949,095
Full funding limit (greater of ERISA limit and full funding override)		
<i>With amortization extension</i>	\$ 73,949,095	\$ 73,949,095
<i>Without amortization extension</i>	\$ 73,949,095	n/a

***MINIMUM REQUIRED CONTRIBUTION AND FULL FUNDING CREDIT***

<b><i>Minimum Required Contribution Plan Year Beginning January 1, 2021</i></b>	<b><i>Without Extension</i></b>	<b><i>With Extension</i></b>
Minimum funding cost		
<i>Normal cost (including expenses)</i>	\$ 1,696,282	\$ 1,696,282
<i>Net amortization of unfunded liabilities</i>	1,165,754	2,347,480
<i>Interest to end of plan year</i>	221,806	313,390
	3,083,842	4,357,152
Full funding limit	73,949,095	73,949,095
Net charge to funding std. acct. (lesser of above)	3,083,842	4,357,152
less: <i>Credit balance with interest to year end</i>	8,747,293	17,267,082
	-	-
Minimum Required Contribution (not less than 0)	\$ -	\$ -
Effect of extension		\$ -

<b><i>Full Funding Credit to Funding Standard Account Plan Year Ending December 31, 2021</i></b>	<b><i>Without Extension</i></b>	<b><i>With Extension</i></b>
Full funding credit (not less than 0)		
<i>Minimum funding cost (n.c., amort., int.)</i>	\$ 3,083,842	\$ 4,357,152
<i>less: full funding limit</i>	73,949,095	73,949,095
	-	-
	\$ -	\$ -

***MAXIMUM DEDUCTIBLE CONTRIBUTION***

The maximum amount of tax-deductible employer contributions made to a pension plan is determined in accordance with Section 404(a) of the Internal Revenue Code. For a multiemployer pension plan, Section 413(b)(7) of the Internal Revenue Code and IRS Announcement 98-1 provide that, if anticipated employer contributions are less than the deductible limit for a plan year, then all employer contributions paid during the year are guaranteed to be deductible. If anticipated employer contributions exceed the deductible limit, the Trustees have two years from the close of the plan year in question to retroactively improve benefits to alleviate the problem.

***Maximum Deductible Contribution  
Plan Year Beginning January 1, 2021***

Preliminary deductible limit		
<i>Normal cost (including expenses)</i>	\$	1,696,282
<i>10-year limit adjustment (using "fresh start" alternative)</i>		1,039,831
<i>Interest to end of plan year</i>		212,049
		2,948,162
Full funding limit		73,949,095
Maximum deductible contribution override		
<i>140% of vested current liability projected to December 31, 2021</i>		224,558,767
<i>less: Actuarial value of assets projected to December 31, 2021</i>		75,527,009
		149,031,758
Maximum deductible contribution*	\$	149,031,758
Anticipated employer contributions	\$	3,137,477

\* Equals the lesser of the preliminary deductible limit and the full funding limit, but not less than the maximum deductible contribution override.

*Enrolled Actuary's Report  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

***HISTORY OF UNFUNDED VESTED BENEFITS***

***Presumptive Method***

<i>December 31,</i>	<i>Vested Benefits Interest Rate</i>	<i>Value of Vested Benefits</i>	<i>Asset Value*</i>	<i>Unfunded Vested Benefits</i>	<i>Unamortized Portion of VAB</i>
2001	7.75%	35,711,260	42,043,457	(6,332,197)	
2002	7.75%	41,469,062	42,019,063	(550,001)	
2003	7.75%	44,155,894	44,222,751	(66,857)	
2004	7.75%	46,823,836	46,750,441	73,395	
2005	7.75%	49,771,921	48,751,674	1,020,247	
2006	7.75%	52,458,661	51,652,635	806,026	
2007	7.75%	54,442,221	56,252,948	(1,810,727)	
2008	7.75%	55,965,916	52,505,644	3,460,272	
2009	7.75%	58,437,048	59,619,259	(1,182,211)	
2010	7.75%	60,298,308	62,314,914	(2,016,606)	
2011	7.75%	62,119,705	63,493,973	(1,374,268)	
2012	7.75%	64,442,727	64,296,033	146,694	
2013	7.75%	66,810,445	65,246,057	1,564,388	
2014	7.75%	69,883,900	65,444,610	4,439,290	
2015	7.75%	71,846,693	64,749,401	7,097,292	
2016	7.75%	70,725,805	65,534,133	5,191,672	4,333,777
2017	7.75%	74,263,436	67,378,323	6,885,113	4,171,034
2018	7.75%	76,459,232	69,396,655	7,062,577	3,995,678
2019	7.75%	79,048,429	71,896,777	7,151,652	3,806,733
2020	7.75%	81,208,888	75,836,360	5,372,528	3,603,144

\* Actuarial value

***TERMINATION BY MASS WITHDRAWAL***

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If all employers were to cease to have an obligation to contribute to the plan, the plan would be considered “terminated due to mass withdrawal.” In this event, the Trustees would have the option of distributing plan assets in satisfaction of all plan liabilities through the purchase of annuities from insurance carriers or payment of lump sums. If assets are insufficient to cover liabilities, a special actuarial valuation pursuant to Section 4281 of ERISA would be performed as of the end of the plan year in which the mass withdrawal occurred. If the Section 4281 valuation indicates the value of nonforfeitable benefits exceeds the value of plan assets, employer withdrawal liability would be assessed.

The ERISA Section 4281 valuation described above uses required actuarial assumptions that are typically more conservative than those used for valuing an on-going plan. In order to illustrate the impact of the mass withdrawal assumptions, we performed an illustrative Section 4281 valuation as if mass withdrawal had occurred during the prior plan year. The value of assets used below is market value without any adjustments for outstanding employer withdrawal liability claims.

As required by regulation, interest rates of 1.62% for the first 20 years and 1.40% for each year thereafter and the GAM 94 Basic Mortality Table projected to 2030 were used.

***Illustrative Section 4281 Valuation  
as of December 31, 2020***

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Value of nonforfeitable benefits		
<i>Participants currently receiving benefits</i>	\$	79,224,304
<i>Inactive vested participants</i>		35,009,343
<i>Active participants</i>		72,609,441
<i>Expenses (per Section 4281 of ERISA)</i>		1,021,770
		187,864,858
<i>less: Fund assets (market value)</i>		76,373,720
Value of nonforfeitable benefits in excess of (less than) fund assets	\$	111,491,138

**ASC 960 INFORMATION**

The following displays are intended to assist the fund's auditor in complying with Accounting Standards Codification 960. The results shown are not necessarily indicative of the plan's potential liability upon termination.

<i>Present Value of Accumulated Benefits Actuarial Study as of January 1,</i>	<i>2021</i>	<i>2020</i>
Present value of vested accumulated benefits		
<i>Participants currently receiving benefits</i>	\$ 45,130,154	\$ 44,989,147
<i>Expenses on parts. currently rec. benefits</i>	2,143,682	2,136,984
<i>Other participants</i>	36,078,734	34,059,282
<i>Expenses on other participants</i>	1,713,740	1,617,816
	85,066,310	82,803,229
Present value of nonvested accumulated benefits		
<i>Nonvested accumulated benefits</i>	2,231,087	2,364,032
<i>Expenses on nonvested benefits</i>	105,977	112,292
	2,337,064	2,476,324
Present value of all accumulated benefits	\$ 87,403,374	\$ 85,279,553
Market value of plan assets	\$ 76,373,720	\$ 71,403,591
Interest rate used to value benefits	7.75%	7.75%

***Changes in Present Value of Accumulated Benefits***

Present value of accumulated benefits as of January 1, 2020	\$	85,279,553
Increase (decrease) due to:		
<i>Plan amendment</i>		-
<i>Change in actuarial assumptions</i>		(345,136)
<i>Benefits accumulated and experience gain or loss</i>		1,051,420
<i>Interest due to decrease in discount period</i>		6,609,165
<i>Benefits paid</i>		(4,949,689)
<i>Operational expenses paid</i>		(241,939)
Net increase (decrease)		2,123,821
Present value of accumulated benefits as of January 1, 2021	\$	87,403,374

## *APPENDICES*

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***PLAN HISTORY***

***Origins/Purpose***

The Outstate Michigan Trowel Trades Pension Plan was established January 1, 1972 as a result of a merger between the Pension Plans of the Outstate O.P.C.M.I.A. (which was established May 1, 1963) and the Michigan Highway Construction Industry Cement Masons' Pension Plan (which was established September 1, 1965).

The Pension Plan is managed under the provisions of the Labor Management Relations Act by a Board of Trustees consisting of an equal number of representatives from Labor and from Management.

The purpose of the Pension Plan is to provide Normal and Early Retirement Benefits, Joint and Survivor Benefits, Total and Permanent Disability Benefits, Vested Benefits and Death Benefits.

***Employer Contributions***

The Pension Plan is financed entirely by contributions from the employers as specified in the applicable Collective Bargaining Agreements. Following is a history of recent hourly contribution rates in effect for each local and craft.

<i>Local</i>	<i>Craft</i>	<i>Hourly Contribution Rate*</i>	<i>Effective Date</i>
Benton Harbor/St. Joe	D0	\$ 7.47	June 1, 2020
Big Rapids	E0	\$ 6.97	June 1, 2020
Flint	F0	\$ 7.47	June 1, 2020
Grand Rapids/Muskegon	H1	\$ 7.37	June 1, 2020
Highway Construction Zone 1	H0	\$ 6.30	June 1, 2020
Highway Construction Zone 2	H0	\$ 6.30	June 1, 2020
Kalamazoo/Battle Creek	I0	\$ 7.42	June 1, 2020
Lansing/Jackson	J0	\$ 7.47	June 1, 2020
Lapeer	K0	\$ 7.47	June 1, 2020
Saginaw	M0	\$ 6.97	June 1, 2020
Traverse City	N0	\$ 6.97	June 1, 2020
Upper Peninsula	O0/P0	\$ 4.72/\$ 7.62	June 1, 2020
Southwest	P0	\$ 7.17	June 1, 2020
Lansing/Jackson	P0	\$ 7.27	June 1, 2020
Flint	P0	\$ 7.62	June 1, 2020
Saginaw/Bay City	P0	\$ 7.62	June 1, 2020

\* These rates include \$2.22 of non-credited contribution.

***Reciprocity***

The Trustees have entered into Money Follows the Man Reciprocity Agreements with the Trustees of several other Pension Plans. The Trustees have also entered into a Pro-Rata Reciprocity Agreement with the Operative Plasterers' and Cement Masons International Association of the United States and Canada, the Michigan BAC Pension Plan, and the Michigan Laborers' Pension Plan.



**SUMMARY OF PLAN PROVISIONS**

<b>Plan year</b>	The 12-month period beginning January 1 and ending the following December 31.
<b>Participation</b>	12 consecutive month period with 500 hours.
<b>Year of service</b>	Plan Year with at least 500 hours.
<b>Break in service</b>	Plan Year with less than 500 hours.
<b>Active participant</b>	A participant who has not become a retired, deceased or disabled participant and who has not suffered a permanent break in service and who <i>has</i> accrued at least one year of service in either the current plan year at the time of reference or in either of the two preceding plan years.
<b>Inactive participant</b>	A participant who has not become a retired, deceased or disabled participant and who has not suffered a permanent break in service and who has <i>not</i> accrued at least one year of service in either the current plan year at the time of reference or in either of the two preceding plan years.
<b>Normal retirement benefit</b>	
<i>Eligibility</i>	Age 65 or 5 <sup>th</sup> anniversary of participation, if later.
<i>Monthly amount</i>	Accrued benefit as of January 1, 1976; plus 3.60% of contributions for the period January 1, 1976 through December 31, 2003; plus 1.70% of contributions for the period January 1, 2004 through May 31, 2008; plus 1.70% of credited contributions thereafter. Payable for life.  No future service credit is given for less than 300 hours of work in plan years 1976-2010. No future service credit is given for less than 500 hours of work in plan years 2011 and after. This requirement does not apply during participant's initial or last year of participation before retirement.
<b>Early retirement benefit</b>	
<i>Eligibility</i>	Age 55 and 10 years of service. Retired from active status
<i>Monthly amount</i>	Normal, reduced by ½ of 1% for each month under age 62 (reduction is calculated from age 58 if participant has 25 or more years of service). Payable for life.

***SUMMARY OF PLAN PROVISIONS (CONT.)***

<p><b>Total and permanent disability benefit</b> <i>Eligibility</i></p> <p><i>Monthly amount</i></p> <p style="text-align: center;"><i>or</i></p> <p><i>Single sum amount</i></p>	<p>Disabled while active.</p> <p>10 + years of service: 75% of normal payable until the earlier of age 65, recovery or death. Normal at age 65.</p> <p>Less than 10 years of service: Greater of 75% of contributions for which participant received any special or future service credit or the single sum actuarial equivalent of the basic vested benefit.</p>
<p><b>Vested benefit</b> <i>Eligibility</i></p> <p><i>Monthly amount</i></p>	<p>Terminated. 5 years of service.</p> <p>Deferred normal or early, if eligible. Payable for life.</p>
<p><b>Vested early benefit</b> <i>Eligibility</i></p> <p><i>Monthly amount</i></p>	<p>Terminated. 10 years of service.</p> <p>Normal reduced by an actuarial equivalent factor for each month under age 65.</p>
<p><b>Optional forms of payment</b></p>	<ul style="list-style-type: none"> <li>• Joint and 50% survivor (with popup)*</li> <li>• Joint and 75% survivor (with popup)*</li> <li>• Joint and 100% survivor (with popup)*</li> <li>• Life with 10 years guaranteed</li> </ul> <p>* Effective June 1, 2016, inactive vested participants who retire will no longer receive the “pop up” feature.</p>
<p><b>Pre-retirement single sum death benefit</b> <i>Eligibility</i></p> <p><i>Single sum amount</i></p>	<p>Death of active, disabled, or inactive vested participant who is ineligible for surviving spouse benefit and who has not yet received any retirement benefits.</p> <p>75% of contributions payable to beneficiary of active or disabled participant. 50% of contributions payable to beneficiary of inactive vested participant.</p>

***SUMMARY OF PLAN PROVISIONS (CONT.)***

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**Pre-retirement surviving spouse benefit**

*Eligibility*

Death of vested participant with eligible spouse.

*Monthly amount*

75% of participant's joint and 75% survivor benefit (50% of participant's joint and 50% survivor benefit for inactive vested participants). Payable to spouse for life beginning at earliest retirement age of participant. Spouse may elect single sum death benefit.

**Post-retirement death benefit**

*Eligibility*

Death of participant receiving normal, early or vested benefits. Not eligible if receiving joint and survivor.

*Single sum amount*

Pre-retirement single sum death less benefits paid to participant. Payable to beneficiary.

***HISTORICAL PLAN MODIFICATIONS***

<b>Special and future service credit/Retiree increase</b>	
<i>Effective date</i>	January 1, 1998
<i>Adoption date</i>	August 18, 1997
<i>Provisions</i>	The special and future service credit was increased from 3.30% to 3.45% and the lives receiving benefits received a 4½% increase.
<b>Vesting eligibility</b>	
<i>Effective date</i>	January 1, 1998
<i>Adoption date</i>	August 18, 1997
<i>Provisions</i>	Eligibility for vesting changed from a 5/10 year graded scale to 100% after 5 years of vesting service for active participants who earn at least one hour of service on or after January 1, 1998.
<b>Special and future service credit/Retiree increase</b>	
<i>Effective date</i>	January 1, 1999
<i>Adoption date</i>	May 6, 1998
<i>Provisions</i>	The special and future service credit was increased from 3.45% to 3.55% and the lives receiving benefits received a 3% increase.
<b>Special and future service credit/Retiree increase</b>	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	The special and future service credit was increased from 3.55% to 3.60% and the lives receiving benefits received a 2% increase.

***HISTORICAL PLAN MODIFICATIONS (CONT.)***

<b>Early retirement benefit</b>	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	The early retirement benefit was improved by changing the plan so that the early retirement reduction factor is calculated from age 60 if the participant has 25 or more years of service. If the participant does not meet the 25-year requirement, the reduction factor is calculated from age 62.
<b>New optional forms</b>	
<i>Effective date</i>	January 1, 2000
<i>Adoption date</i>	January 20, 2000
<i>Provisions</i>	Joint and 75% survivor, joint and 100% survivor and life with 10-years certain annuities were added as optional forms of payment under the plan.
<b>Early retirement benefit</b>	
<i>Effective date</i>	January 1, 2001
<i>Adoption date</i>	January 23, 2001
<i>Provisions</i>	The early retirement benefit was improved by changing the plan so that the early retirement reduction factor is calculated from age 58 if the participant has 25 or more years of service. If the participant does not meet the 25-year requirement, the reduction factor is calculated from age 62.
<b>Special and future service credit/Retiree increase</b>	
<i>Effective date</i>	January 1, 2004
<i>Adoption date</i>	December 20, 2002
<i>Provisions</i>	The special and future service credit was changed from 3.60% to 1.70% for accruals on and after January 1, 2004.

***HISTORICAL PLAN MODIFICATIONS (CONT.)***

<b>Pre-retirement surviving spouse benefit</b>	
<i>Effective date</i>	January 1, 2007
<i>Adoption date</i>	June 12, 2008
<i>Provisions</i>	The Plan's Qualified Pre-Retirement Survivor Annuity Benefit (QPSA) was increased from 50% to 75%. Further, the age reduction has been eliminated.
<b>Disability benefit</b>	
<i>Effective date</i>	January 1, 2011
<i>Adoption date</i>	October 27, 2010
<i>Provisions</i>	Disability benefits retroactive to the date of disablement have been eliminated. The disability benefit has also been lowered from 100% to 75% of the participant's accrued benefit, for disabilities beginning on or after January 1, 2011.
<b>Benefit accrual and service year</b>	
<i>Effective date</i>	January 1, 2011
<i>Adoption date</i>	October 27, 2010
<i>Provisions</i>	The hours requirement for a year of service and benefit accrual was increased from 300 to 500 hours.
<b>Early Retirement Reduction Factor</b>	
<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	For inactive participants retiring on or after June 1, 2016, the early retirement factor was changed from ½ of 1% for each month before age 62 to an actuarial equivalent factor for each month before age 65.

***HISTORICAL PLAN MODIFICATIONS (CONT.)***

<b>Pre-Retirement Survivor Annuity</b>	
<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The 75% Pre-Retirement Survivor Annuity for surviving spouses was replaced with a 50% Pre-Retirement survivor annuity for inactive vested participants.
<b>Single sum death benefit</b>	
<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The pre-retirement single sum death benefit payable following the death of an inactive participant was eliminated for inactive vested participants.
<b>“Pop-Up” on Joint and Survivor</b>	
<i>Effective date</i>	June 1, 2016
<i>Adoption date</i>	April 18, 2016
<i>Provisions</i>	The “Pop-Up” feature on Joint and Survivor Benefits was eliminated for inactive vested participants.
<b>Single sum death benefit</b>	
<i>Effective date</i>	October 1, 2018
<i>Adoption date</i>	December 5, 2018
<i>Single sum amount</i>	A pre-retirement single sum death benefit payable following the death of an inactive vested participant was added to the plan, payable immediately to the beneficiary at 50% of contributions.

**ACTUARIAL ASSUMPTIONS**

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The following assumptions are used throughout this report except as specifically noted herein.

<b>Valuation date</b>	January 1, 2021
<b>Interest rates</b>	
<i>ERISA rate of return used to value liabilities</i>	7.75% per year net of investment expenses
<i>Unfunded vested benefits</i>	7.75% per year net of investment expenses
<i>Current liability</i>	2.43% (in accordance with Section 431(c)(6) of the Internal Revenue Code)
<i>Lump sum disability benefit</i>	<p>417(e) lump sum segment rates in effect 1 month before the valuation date. As of December 1, 2020, the segment rates were:</p> <ul style="list-style-type: none"> <li>• 0.51% for payments scheduled in the first five years out,</li> <li>• 2.26% for payments in the next 15 years out,</li> <li>• 3.01% for payments scheduled more than 20 years out.</li> </ul>
<b>Operational expenses</b>	
<i>Funding</i>	\$240,000 per year excluding investment expenses.
<i>ASC 960</i>	A 4.75% load was applied to the accrued liabilities for 2021 and 2020.
<b>Loading for pop-up feature</b>	<p>Liabilities for non-retired active participants' benefits to be paid after retirement increased 0.8%.</p> <p>Retirees receiving a joint and survivor form of benefit have pop-up amounts provided by the administrator.</p>



**ACTUARIAL ASSUMPTIONS (CONT.)**

<b>Mortality</b>	<p><i>Assumed plan mortality</i></p> <p>The PRI-2012 Blue Collar Mortality Tables for employees and healthy annuitants projected forward using the MP-2020 projection scale. For male annuitants, a 100% multiplier was used. For female annuitants, a 95% multiplier was used.</p>																		
<b>Current liability</b>	<p>Separate annuitant and non-annuitant rates based on the RP-2000 Mortality Tables Report developed for males and females as prescribed by Section 431(c)(6) of the Internal Revenue Code.</p>																		
<b>Withdrawal</b>	<p>T-5 Turnover Table from The Actuary's Pension Handbook (less GAM 51 mortality) – specimen rates shown below. Assumed rate during second year of employment is 30%*, 25% during third year, and 10% during the fourth and fifth years.</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Withdrawal Rate</u></th> </tr> </thead> <tbody> <tr><td style="text-align: center;">25</td><td style="text-align: center;">.0772</td></tr> <tr><td style="text-align: center;">30</td><td style="text-align: center;">.0722</td></tr> <tr><td style="text-align: center;">35</td><td style="text-align: center;">.0628</td></tr> <tr><td style="text-align: center;">40</td><td style="text-align: center;">.0515</td></tr> <tr><td style="text-align: center;">45</td><td style="text-align: center;">.0398</td></tr> <tr><td style="text-align: center;">50</td><td style="text-align: center;">.0256</td></tr> <tr><td style="text-align: center;">55</td><td style="text-align: center;">.0094</td></tr> </tbody> </table> <p>* All newly reported participants are considered to have already worked their first year of employment.</p>	<u>Age</u>	<u>Withdrawal Rate</u>	25	.0772	30	.0722	35	.0628	40	.0515	45	.0398	50	.0256	55	.0094		
<u>Age</u>	<u>Withdrawal Rate</u>																		
25	.0772																		
30	.0722																		
35	.0628																		
40	.0515																		
45	.0398																		
50	.0256																		
55	.0094																		
<b>Disability</b>	<p>1964 OASDI Disability Table for males. Specimen rates shown below:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Disability Rate</u></th> </tr> </thead> <tbody> <tr><td style="text-align: center;">25</td><td style="text-align: center;">.0009</td></tr> <tr><td style="text-align: center;">30</td><td style="text-align: center;">.0011</td></tr> <tr><td style="text-align: center;">35</td><td style="text-align: center;">.0015</td></tr> <tr><td style="text-align: center;">40</td><td style="text-align: center;">.0022</td></tr> <tr><td style="text-align: center;">45</td><td style="text-align: center;">.0036</td></tr> <tr><td style="text-align: center;">50</td><td style="text-align: center;">.0061</td></tr> <tr><td style="text-align: center;">55</td><td style="text-align: center;">.0101</td></tr> <tr><td style="text-align: center;">60</td><td style="text-align: center;">.0163</td></tr> </tbody> </table>	<u>Age</u>	<u>Disability Rate</u>	25	.0009	30	.0011	35	.0015	40	.0022	45	.0036	50	.0061	55	.0101	60	.0163
<u>Age</u>	<u>Disability Rate</u>																		
25	.0009																		
30	.0011																		
35	.0015																		
40	.0022																		
45	.0036																		
50	.0061																		
55	.0101																		
60	.0163																		

**ACTUARIAL ASSUMPTIONS (CONT.)**

<b>Future retirement rates</b>	According to the following schedule:																								
<b>Active lives</b>	<table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th colspan="2" style="text-align: center;"><u>Retirement Rates:</u></th> </tr> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>&lt;25 yrs svc</u></th> <th style="text-align: center;"><u>25+ yrs svc</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">55-57</td> <td style="text-align: center;">.03</td> <td style="text-align: center;">.20</td> </tr> <tr> <td style="text-align: center;">58</td> <td style="text-align: center;">.06</td> <td style="text-align: center;">.45</td> </tr> <tr> <td style="text-align: center;">59-60</td> <td style="text-align: center;">.06</td> <td style="text-align: center;">.20</td> </tr> <tr> <td style="text-align: center;">61</td> <td style="text-align: center;">.10</td> <td style="text-align: center;">.50</td> </tr> <tr> <td style="text-align: center;">62-64</td> <td style="text-align: center;">.40</td> <td style="text-align: center;">.50</td> </tr> <tr> <td style="text-align: center;">65+</td> <td style="text-align: center;">1.00</td> <td style="text-align: center;">1.00</td> </tr> </tbody> </table> <p>Resulting in an average expected retirement age of 60.1.</p>		<u>Retirement Rates:</u>		<u>Age</u>	<u>&lt;25 yrs svc</u>	<u>25+ yrs svc</u>	55-57	.03	.20	58	.06	.45	59-60	.06	.20	61	.10	.50	62-64	.40	.50	65+	1.00	1.00
	<u>Retirement Rates:</u>																								
<u>Age</u>	<u>&lt;25 yrs svc</u>	<u>25+ yrs svc</u>																							
55-57	.03	.20																							
58	.06	.45																							
59-60	.06	.20																							
61	.10	.50																							
62-64	.40	.50																							
65+	1.00	1.00																							
<i>Inactive vested lives</i>	Age 55, or the earliest eligible retirement age if later.																								
<i>Disabled lives</i>	Disability benefit assumed payable until the earlier of age 65, recovery or death. Then normal retirement benefit commences.																								
<b>Future hours worked</b>																									
<i>Vested lives</i>	1,550 hours per year, 0 after assumed retirement age																								
<i>Non-vested lives</i>	1,200 hours per year, 0 after assumed retirement age																								
<b>Future hourly contribution rate</b>	Individual's average credited rate contributed for the most recent plan year adjusted for any rate changes in the past year and for non-credited contributions. The credited rate cannot be lower than the lowest negotiated rate or higher than the highest negotiated rate.																								
<b>Age of participants with unrecorded birth dates</b>	Based on average entry age of participants with recorded birth dates and same vesting status.																								
<b>Marriage assumptions</b>	80% assumed married with the male spouse 3 years older than his wife																								
<b>Optional form assumption</b>	All non-retired participants assumed to elect the life annuity with 2 years certain form of benefit.																								
<b>Inactive vested lives over age 74</b>	Continuing inactive vested participants age nearest 74 and older are assumed deceased and are not valued. Participants assumed deceased under age 74 prior to January 1, 2021 are still assumed to be deceased.																								

**ACTUARIAL ASSUMPTIONS (CONT.)**

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<b>QDRO benefits</b>	Benefits to alternate payee included with participant's benefit until payment commences
<b>Section 415 limit assumptions</b>	
<i>Dollar limit</i>	\$230,000 per year
<i>Assumed form of payment for those limited by Section 415</i>	Qualified joint and 100% survivor annuity
<b>Benefits not valued</b>	None

***RATIONALE FOR SELECTION OF ACTUARIAL ASSUMPTIONS***

---

The non-prescribed actuarial assumptions were selected to provide a reasonable long term estimate of developing experience. The assumptions are reviewed annually, including a comparison to actual experience. The following describes our rationale for the selection of each non-prescribed assumption that has a significant effect on the valuation results.

<b>ERISA rate of return used to value liabilities</b>	<p>Future rates of return were modeled based on the Plan's current investment policy asset allocation and composite, long-term capital market assumptions taken from Horizon Actuarial's 2020 survey of investment consultants.</p> <p>Based on this analysis, we selected a final assumed rate of 7.75%, which we feel is reasonable. This rate may not be appropriate for other purposes such as settlement of liabilities.</p> <p>Due to the special rules related to withdrawal liability for a construction industry plan and the nature of the building trades industry, we believe the valuation interest rate is also appropriate for withdrawal liability purposes.</p>
<b>Mortality</b>	<p>The PRI-2012 Blue Collar Mortality Tables for employees and healthy annuitants projected forward using the MP-2020 projection scale was chosen as the base table for this population. The blue collar table was chosen based on the industry of plan participants.</p> <p>Finally, multipliers of 100% for males and 95% for females were applied in order to more closely match projected deaths to actual post-retirement death experience. The period of actual data studied to develop this multiplier was from January 1, 2016 to December 31, 2020 for this plan, blended with a study of deaths for larger plans in similar industries.</p>
<b>Retirement</b>	<p>Actual rates of retirement by age were studied for the period January 1, 2016 to December 31, 2020. The assumed future rates of retirement were selected based on the results of this study.</p>
<b>Withdrawal</b>	<p>Actual rates of withdrawal by age were studied for the period January 1, 2016 to December 31, 2020. The assumed future rates of withdrawal were selected based on the results of this study.</p>
<b>Future hours worked</b>	<p>Based on review of recent plan experience.</p>

**ACTUARIAL ASSUMPTIONS USED FOR PROJECTIONS**

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The assumptions used for the credit balance, funded ratio and PPA zone projections are the same as used throughout the report with the following exceptions.

<b>Assumed return on fund assets</b>	
<i>Current year projections</i>	6.75% for the first 10 years (1/1/2021-12/31/2030)* 7.75% thereafter
<i>Prior year projections</i>	7.25% for the first 10 years (1/1/2020-12/31/2029)* 7.75% thereafter
	* For PPA certification projections, the 6.75%/7.25% short-term assumption is used for years prior to the certification date only; the 7.75% long-term assumption is used for all years following the certification date.
<b>Expenses</b>	
<i>Current year projections</i>	\$240,000 per year excluding investment expenses.
<i>Prior year projections</i>	\$240,000 per year excluding investment expenses.
<b>Future total hours worked</b>	
<i>Current year projections</i>	475,000 for the plan year ending 2021 and thereafter
<i>Prior year projections</i>	475,000 for the plan year ending 2020 and thereafter
<b>Contribution rate increases</b>	
<i>Current year projections</i>	6¢ effective June 1, 2020
<i>Prior year projections</i>	None
<b>Plan changes since prior year</b>	None
<b>Open group projections</b>	
<i>Current year projections</i>	Stable population assumed with new entrants replacing active participants as they withdraw, retire or die. New entrants are based upon entry age of actual new entrants over the last 5 years.
<i>Prior year projections</i>	Projected normal costs and benefit payment amounts are adjusted using the open group percentage increases from the January 1, 2019 Actuarial Valuation.

***ACTUARIAL ASSUMPTIONS USED FOR PROJECTIONS (CONT.)***

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**Stochastic modeling**

1000 trials. Future returns are modeled using an expected return of 7.47% for the first 10 years and 8.34% thereafter and a standard deviation of 12.73%, which is representative of the plan's investment portfolio. The preceding expected returns are one year values which are not representative of longer-term geometric average returns as considered when setting the ERISA return assumption.

*Appendix B - Actuarial Assumptions and Methods  
Outstate Michigan Trowel Trades Pension Plan  
January 1, 2021 Actuarial Valuation*

**ACTUARIAL METHODS**

<b>Funding method</b> <i>ERISA Funding</i>	Traditional unit credit cost method, effective January 1, 2015.
<i>Funding period</i>	Individual entry age normal with costs spread as a level dollar amount over service
<b>Population valued</b> <i>Actives</i>	Participants in the plan who accrued a year of service during the preceding plan year and who had non-reciprocity hours during the preceding plan year
<i>Inactive vested</i>	Vested participants with no non-reciprocity hours during the preceding plan year or vested participants who had reciprocity hours during the preceding plan year
<i>Retirees</i>	Participants and beneficiaries in pay status as of the valuation date.
<b>Asset valuation method</b> <i>Actuarial value</i>	Smoothed market value with phase-in effective January 1, 1999. Each year's gain (or loss) is spread over a period of 5 years. The actuarial value is limited to not less than 80% and not more than 120% of the actual market value of assets in any plan year.
<i>Unfunded vested benefits</i>	For the presumptive method, actuarial value, as described above, is used
<b>Pension Relief Act of 2010</b>	<ul style="list-style-type: none"> <li>• 10-year smoothing was elected with respect to the loss incurred during the plan year ended in 2008.</li> <li>• The 130% cap on actuarial value of assets was elected for the plan year beginning in 2009.</li> </ul>
<b>Effective date of amortization extension</b>	January 1, 2010

**Appendix C - Minimum Funding Amortization Bases**  
**Outstate Michigan Trowel Trades Pension Plan**  
**January 1, 2021 Actuarial Valuation**  
**Bases Shown: With Extension**

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2021 Outstanding Balance	1/1/2021 Amortization Payment
				Years	Months		
<b>Charges</b>							
1/1/1978	Initial Unfunded		45	2	0	101,645	52,716
1/1/1979	Amendment		45	3	0	80,534	28,874
1/1/1980	Amendment		45	4	0	78,796	21,956
1/1/1987	Amendment		35	1	0	66,421	66,421
1/1/1988	Amendment		35	2	0	47,294	24,536
1/1/1989	Amendment		35	3	0	58,392	20,932
1/1/1989	Method		34	2	0	47,765	24,777
1/1/1990	Amendment		35	4	0	308,979	86,100
1/1/1991	Assumption		35	5	0	213,046	49,192
1/1/1993	Amendment		35	7	0	241,445	42,672
1/1/1993	Assumption		35	7	0	94,086	16,630
1/1/1995	Assumption	535,520	35	9	0	254,026	37,349
1/1/1996	Assumption	1,210,310	35	10	0	626,033	85,614
1/1/1997	Amendment	318,428	35	11	0	177,578	22,808
1/1/1997	Assumption	83,931	35	11	0	46,803	6,011
1/1/1998	Amendment	892,619	35	12	0	531,856	64,651
1/1/1999	Amendment	807,784	35	13	0	510,241	59,090
1/1/1999	Assumption	2,846,312	35	13	0	1,797,821	208,208
1/1/2000	Assumption	763,910	35	14	0	508,186	56,379
1/1/2001	Amendment	1,524,278	35	15	0	1,062,023	113,399
1/1/2001	Assumption	55,139	35	15	0	38,410	4,102
1/1/2002	Assumptions	1,518,437	35	16	0	1,102,285	113,734
1/1/2002	Experience Loss	1,645,461	20	1	0	120,831	120,831
1/1/2003	Assumptions	299,355	35	17	0	225,482	22,559
1/1/2003	Experience Loss	7,932,235	20	2	0	1,182,249	613,183
1/1/2005	Experience Loss	1,612,524	20	4	0	482,457	134,437
1/1/2006	Experience Loss	2,125,905	20	5	0	789,791	182,372
1/1/2007	Experience Loss	1,832,215	20	6	0	808,213	161,026
1/1/2008	Assumptions	34,081	20	7	0	17,299	3,058
1/1/2009	Amendment	146,878	20	8	0	83,869	13,416
1/1/2009	Experience Loss	7,556,829	20	8	0	4,314,956	690,262
1/1/2012	Experience Loss	1,912,754	15	6	0	1,025,112	204,238
1/1/2013	Experience Loss	2,106,787	15	7	0	1,272,844	224,956
1/1/2014	Experience Loss	2,056,465	15	8	0	1,372,654	219,583
1/1/2015	Assumptions	1,449,529	15	9	0	1,052,724	154,776



**Appendix C - Minimum Funding Amortization Bases**  
**Outstate Michigan Trowel Trades Pension Plan**  
**January 1, 2021 Actuarial Valuation**  
**Bases Shown: With Extension**

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2021 Outstanding Balance	1/1/2021 Amortization Payment
				Years	Months		
1/1/2015	Experience Loss	3,402,303	15	9	0	2,470,923	363,288
1/1/2016	Experience Loss	4,002,646	15	10	0	3,125,228	427,391
1/1/2017	Assumptions	236,918	15	11	0	196,976	25,297
1/1/2017	Experience Loss	3,415,873	15	11	0	2,839,988	364,737
1/1/2018	Assumptions	940,061	15	12	0	825,738	100,377
1/1/2018	Experience Loss	2,272,247	15	12	0	1,995,912	242,624
1/1/2019	Amendment	19,336	15	13	0	17,827	2,065
1/1/2019	Experience Loss	1,807,282	15	13	0	1,666,287	192,976
1/1/2020	Assumptions	523,298	15	14	0	503,648	55,876
1/1/2020	Experience Loss	1,625,413	15	14	0	1,564,375	173,557
<b>Total Charges:</b>						<b>35,949,048</b>	<b>5,899,036</b>

**Credits**

1/1/2009	Combined Credits	17,613,296	14	2	0	3,767,604	1,954,075
1/1/2010	Experience Gain	598,728	15	4	0	229,429	63,930
1/1/2011	Amendment	976,701	15	5	0	451,647	104,289
1/1/2011	Assumptions	197,776	15	5	0	91,450	21,118
1/1/2011	Experience Gain	602,507	15	5	0	278,604	64,334
1/1/2012	Assumptions	339,642	15	6	0	182,018	36,266
1/1/2015	Method	5,058,551	10	4	0	2,482,646	691,781
1/1/2016	Amendment	2,611,164	15	10	0	2,038,776	278,812
1/1/2016	Assumptions	4,940	15	10	0	3,859	527
1/1/2017	Amendment	2,009,662	15	11	0	1,670,853	214,586
1/1/2019	Assumptions	226,125	15	13	0	208,485	24,145
1/1/2021	Assumptions	329,485	15	15	0	329,485	35,181
1/1/2021	Experience Gain	585,443	15	15	0	585,443	62,512
<b>Total Credits:</b>						<b>12,320,299</b>	<b>3,551,556</b>

*Appendix C - Minimum Funding Amortization Bases  
 Outstate Michigan Trowel Trades Pension Plan  
 January 1, 2021 Actuarial Valuation  
 Bases Shown: With Extension*

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2021 Outstanding Balance	1/1/2021 Amortization Payment
				Years	Months		
<b>Net Charges:</b>						<b>23,628,749</b>	<b>2,347,480</b>
<b>Less Credit Balance:</b>						16,025,134	
<b>Less Reconciliation Balance:</b>						0	
<b>Unfunded Actuarial Liability:</b>						<b>7,603,615</b>	

**Appendix C - Minimum Funding Amortization Bases**  
**Outstate Michigan Trowel Trades Pension Plan**  
**January 1, 2021 Actuarial Valuation**  
**Bases Shown: Without Extension**

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2021 Outstanding Balance	1/1/2021 Amortization Payment
				Years	Months		
<b>Charges</b>							
1/1/1993	Amendment		30	2	0	97,892	50,783
1/1/1993	Assumption		30	2	0	38,156	19,790
1/1/1995	Assumption	535,520	30	4	0	154,291	42,985
1/1/1996	Assumption	1,210,310	30	5	0	420,947	97,202
1/1/1997	Amendment	318,428	30	6	0	128,400	25,587
1/1/1997	Assumption	83,931	30	6	0	33,829	6,744
1/1/1998	Amendment	892,619	30	7	0	406,038	71,760
1/1/1999	Amendment	807,784	30	8	0	406,172	64,970
1/1/1999	Assumption	2,846,312	30	8	0	1,431,081	228,930
1/1/2000	Assumption	763,910	30	9	0	418,091	61,469
1/1/2001	Amendment	1,524,278	30	10	0	897,277	122,707
1/1/2001	Assumption	55,139	30	10	0	32,448	4,439
1/1/2002	Assumptions	1,518,437	30	11	0	951,796	122,237
1/1/2003	Assumptions	299,355	30	12	0	198,219	24,099
1/1/2007	Experience Loss	1,832,215	15	1	0	195,649	195,649
1/1/2008	Assumptions	34,081	15	2	0	7,017	3,639
1/1/2009	Amendment	146,878	15	3	0	43,758	15,683
1/1/2009	Experience Loss	7,556,829	15	3	0	2,250,755	806,896
1/1/2012	Experience Loss	1,912,754	15	6	0	1,025,112	204,238
1/1/2013	Experience Loss	2,106,787	15	7	0	1,272,844	224,956
1/1/2014	Experience Loss	2,056,465	15	8	0	1,372,654	219,583
1/1/2015	Assumptions	1,449,529	15	9	0	1,052,724	154,776
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1/1/2020	Assumptions	523,298	15	14	0	503,648	55,876
1/1/2020	Experience Loss	1,625,413	15	14	0	1,564,375	173,557

**Appendix C - Minimum Funding Amortization Bases**  
**Outstate Michigan Trowel Trades Pension Plan**  
**January 1, 2021 Actuarial Valuation**  
**Bases Shown: Without Extension**

Date Established	Source of Change in Unfunded Liability	Original Amount	Original Period	Remaining Period		1/1/2021 Outstanding Balance	1/1/2021 Amortization Payment
				Years	Months		
<b>Total Charges:</b>						<b>28,042,051</b>	<b>4,717,310</b>
<b>Credits</b>							
1/1/2009	Combined Credits	17,613,296	14	2	0	3,767,604	1,954,075
1/1/2010	Experience Gain	598,728	15	4	0	229,429	63,930
1/1/2011	Amendment	976,701	15	5	0	451,647	104,289
1/1/2011	Assumptions	197,776	15	5	0	91,450	21,118
1/1/2011	Experience Gain	602,507	15	5	0	278,604	64,334
1/1/2012	Assumptions	339,642	15	6	0	182,018	36,266
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1/1/2019	Assumptions	226,125	15	13	0	208,485	24,145
1/1/2021	Assumptions	329,485	15	15	0	329,485	35,181
1/1/2021	Experience Gain	585,443	15	15	0	585,443	62,512
<b>Total Credits:</b>						<b>12,320,299</b>	<b>3,551,556</b>
<b>Net Charges:</b>						<b>15,721,752</b>	<b>1,165,754</b>
<b>Less Credit Balance:</b>						8,118,137	
<b>Less Reconciliation Balance:</b>						0	
<b>Unfunded Actuarial Liability:</b>						<b>7,603,615</b>	

**SUMMARY OF PPA AND MPRA RULES**

**Background**

All multiemployer pension plans in effect on July 16, 2006 are required to engage an actuary to annually certify their status under the Pension Protection Act of 2006 (“PPA”). Such certification must be filed with the government by the 90<sup>th</sup> day of the plan year.

This Appendix D provides a high-level summary of some of the rules related to PPA, which were further modified in 2015 by the Multiemployer Pension Reform Act of 2014 (“MPRA”). Please seek advice from your actuary or Fund Counsel for more detailed information.

**PPA Status Criteria**

The table below summarizes the criteria for each PPA status. Projected deficiencies are calculated as of the last day of each plan year and are based on contribution rates codified in bargaining agreements and, if applicable, wage allocations.

<b>PPA Status</b>	<b>Getting In</b>	<b>Getting Out</b>
Safe (“green zone”)	A plan is safe if it is not described in any of the other statuses. Generally, a plan that is at least 80% funded and has no projected funding deficiencies in the current year or next 6 years is safe.	A plan leaves safe status when it is certified as being in another status
Safe (“green zone”) special rule	Beginning in 2015, a plan that would otherwise be endangered, but was safe for the prior year, remains safe if it is projected to return to safe within 10 years	A plan leaves safe status when it is certified as being in another status
Endangered (“yellow zone”)	A plan is endangered if it is <u>not</u> in a worse status <u>and</u> it is described in one of the following: <ul style="list-style-type: none"> <li>• Funded percentage is less than 80%, or</li> <li>• Projected funding deficiency in the current year or next 6 years.</li> </ul>	A plan leaves endangered status when it no longer meets the requirements to be classified as endangered or when it enters a worse status
Seriously endangered (“orange zone”)	A plan is seriously endangered if it is <u>not</u> in a worse status <u>and</u> it meets <u>both</u> of the following: <ul style="list-style-type: none"> <li>• Funded percentage is less than 80%, <u>and</u></li> <li>• Projected funding deficiency in the current year or next 6 years.</li> </ul>	A plan leaves seriously endangered status when it no longer meets both of the requirements listed or when it enters a worse status

**SUMMARY OF PPA AND MPRA RULES (CONT.)**

<b>PPA Status</b>	<b>Getting In</b>	<b>Getting Out</b>
<p>Critical (“red zone”)</p>	<p>A plan is critical if it is not in critical and declining status and is described in one or more of the following:</p> <ul style="list-style-type: none"> <li>• Projected funding deficiency (<u>not</u> recognizing extensions) in the current year or next 3 years (next 4 years if funded at less than 65%), or</li> <li>• Funded percentage is less than 65%, <u>and</u>, inability to pay nonforfeitable benefits and expenses for next 7 years, or</li> <li>• (1) Contributions are less than current year costs (i.e. “normal cost”) plus interest on any unfunded past liabilities, <u>and</u>, (2) value of vested benefits for non-actives is greater than for actives, <u>and</u>, (3) projected funding deficiency (<u>not</u> recognizing extensions) in the current year or next 4 years, or</li> <li>• Inability to pay all benefits and expenses for next 5 years.</li> </ul> <p>A plan with a 5-year amortization extension under IRC Section 431(d) that previously emerged from critical status in 2015 or later will re-enter critical status <u>only</u> if it is described in one of the following:</p> <ul style="list-style-type: none"> <li>• Projected funding deficiency in the current year or next 9 years (<u>including</u> amortization extensions), or,</li> <li>• Projected insolvency within the next 30 years</li> </ul> <p>If a plan is certified as safe or endangered status but projected to be critical within the next 5 years, the Trustees have the <u>option</u> of electing to have the plan treated as critical status immediately.</p>	<p>A plan emerges from critical status when it meets all of the following:</p> <ul style="list-style-type: none"> <li>• No longer meets any of the critical status tests, and,</li> <li>• No projected funding deficiencies in the current year or next 9 years, and,</li> <li>• No projected insolvencies in the next 30 years</li> </ul> <p>A plan with a 5-year amortization extension under IRC Section 431(d) emerges from critical status when it meets both of the following:</p> <ul style="list-style-type: none"> <li>• No projected funding deficiencies in the current year or next 9 years, and,</li> <li>• No projected insolvencies in the next 30 years</li> </ul>

**SUMMARY OF PPA AND MPRA RULES (CONT.)**

<i>PPA Status</i>	<i>Getting In</i>	<i>Getting Out</i>
Critical and declining (“deep red zone”)	Beginning in 2015, a plan is in critical and declining status if: <ul style="list-style-type: none"> <li>• It satisfies one or more of the critical status criteria, and,</li> <li>• It is projected to become insolvent within the next 15 years (20 years if the plan has a ratio of inactive participants to active participants that exceeds 2 to 1 or if the funded percentage of the plan is less than 80%)</li> </ul>	A plan leaves critical and declining when it no longer satisfies the criteria. Status cannot change to safe, endangered, or seriously endangered unless the plan also meets the critical status emergence rules (see above).

**Restrictions for Non-Safe Zone Plans**

The Trustees of a plan that is not in safe zone face a number of restrictions in plan improvements that can be adopted and bargaining agreements that can be accepted.

<i>Period</i>	<i>Endangered/Critical Restrictions</i>
Date of first certification through adoption of funding improvement/rehabilitation plan (“plan adoption period”)	<ul style="list-style-type: none"> <li>• No reduction in level of contributions for any participants</li> <li>• No suspension of contributions</li> <li>• No exclusion of new or younger employees</li> <li>• No amendment that increases the <u>liabilities</u> of the plan by reason of any increase in benefits, change in accrual, or change in vesting unless required by law</li> </ul>
After adoption of a funding improvement/rehabilitation plan until end of funding improvement/rehabilitation period	<ul style="list-style-type: none"> <li>• Cannot be amended so as to be inconsistent with funding improvement/rehabilitation plan</li> <li>• No amendment that increases benefits, including future accruals, unless actuary certifies as being paid for with contributions not contemplated in funding improvement/rehabilitation plan and still expected to meet applicable benchmark after considering the amendment</li> </ul>

**Additionally, critical, and critical and declining status plans cannot pay benefits greater than the single life annuity once the initial red zone notice is sent unless the benefit is eligible for automatic cash-out.**

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***SUMMARY OF PPA AND MPRA RULES (CONT.)***

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***Employer Surcharges for Critical Status Plans***

When a non-critical plan enters critical status, employers must pay the plan a surcharge equal to 5% of their bargained contributions (the amount increases to 10% after the end of the plan year). The surcharges cannot be used to accrue benefits. Surcharges will generally commence about 5 months into the initial critical plan year.

Once the Trustees have adopted a rehabilitation plan, each set of bargaining parties is asked to adopt one of the schedules contained in such rehabilitation plan. Surcharges cease to apply to contributions made under a CBA where the bargaining parties have adopted a schedule. If this can be accomplished within the first 5 months of the initial critical year, then surcharges can be avoided altogether.

***Special Critical/Critical and Declining Status Tools***

The Trustees of a plan that is in critical status have the ability (as the result of collective bargaining) to cut “adjustable benefits” that, for the most part, cannot be reduced under other circumstances. Adjustable benefits include early retirement subsidies, optional forms of payment, disability benefits, and death benefits. Normal retirement benefits are never adjustable benefits.

The Trustees of a critical and declining plan may apply to the Treasury Department for approval to suspend certain payments under MPRA (suspensions are benefit cuts that will be restored once they are no longer needed). The suspensions may affect even those participants who are already in pay status. However, certain protections apply to participants who are age 75 or older or are disabled. Furthermore, no one’s benefit can be reduced below 110% of the amount guaranteed by the PBGC. While not officially repealed with ARPA (see below), benefit suspensions have effectively been eliminated for existing deeply troubled plans in favor of the special financial assistance program.



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**SUMMARY OF ARPA RULES**

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**Overview**

The American Rescue Plan Act (ARPA) was passed in March 2021. The multiemployer pension plan relief is found in Subtitle H of this legislation providing options for eligible multiemployer plans to receive special financial assistance and all multiemployer plans to elect funding relief. The PBGC premium is also scheduled to increase to \$52 in 2031.

**Special Financial Assistance**

A multiemployer plan is eligible for the special financial assistance program if:

- The plan is in critical and declining status in any plan year beginning in 2020 through 2022 using 2020 certification assumptions;
- A suspension of benefits has been approved with respect to the plan under MPRA as of the date of the enactment of the law;
- The plan is certified to be in critical status, has a current liability funded percentage of less than 40%, and has a ratio of active to inactive participants which is less than two to three in any plan year beginning in 2020 through 2022; or
- The plan became insolvent after December 16, 2014, and has remained insolvent and has not been terminated as of the date of the enactment of the law.

The PBGC may give priority consideration for special financial assistance to select eligible plans that also meet one of the following:

- The plan is insolvent or is likely to become insolvent within five years;
- The PBGC projects the plan will have more than \$1 billion in liability to the PBGC without special financial assistance;
- A suspension of benefits has been implemented with respect to the plan under MPRA as of the date of the enactment of the law; or
- The PBGC deems that other similar circumstances warrant priority consideration to be appropriate for the plan.

An eligible plan must submit an application to the PBGC for special financial assistance by December 31, 2025. Plans without priority consideration may have to wait until as late as April 2023 before they can apply.

The amount of special financial assistance to be provided by the PBGC shall be the amount required for the plan to pay all benefits due through the last day of the plan year ending in 2051 without any further reductions. For this determination, the actuary will use the assumptions from the plan's 2020 PPA certification except that an interest rate limit may apply. The special financial assistance will be paid by the PBGC in a single, lump sum payment as soon as practicable upon approval of the application. It must be invested in investment-grade bonds. The PBGC may apply other conditions. One of these conditions is already certain; the plan will be deemed in critical status through the 2051 plan year end.

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***SUMMARY OF ARPA RULES (CONT.)***

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***Funding Relief Provisions***

There are a few options for funding relief which are available to every multiemployer plan.

**Temporary Delay of PPA Status**

Multiemployer plans are allowed to temporarily delay the plan's certification of endangered, critical or critical and declining status. The plan sponsor of a multiemployer plan can choose to designate to have its zone status remain the same for the first plan year beginning on or after March 1, 2020 or the next succeeding plan year. A notice of this election is required unless this election places the plan in safe status.

If a plan was in endangered or critical status for the plan year preceding the plan year for which it has chosen to delay updating its zone status, it will not be required to update its funding improvement plan or rehabilitation plan until the following plan year.

**Temporary Extension of Funding Improvement and Rehabilitation Periods**

A plan which is in endangered or critical status for a plan year beginning in 2020 or 2021 (after applying any elected delay in PPA status) can elect to extend its funding improvement or rehabilitation period by five years.

**Adjustments to the Funding Standard Account Rules**

The plan may elect one or both of the following if, as of February 29, 2020, it is projected to have sufficient assets to pay expected benefits and expenses through the end of the applicable extended period:

- Extend select experience losses in either or both of the first two plan years ending after February 29, 2020 from 15 years to 30 years from the year in which the loss occurred. Such losses must be attributable to investment experience, contribution shortfall, employment reduction or retirement rate experience; and
- Extend the smoothing of the loss attributable to the investment losses in either or both of the first two plan years ending after February 29, 2020 from five years to up to ten years for the determination of the actuarial value of assets. The actuarial value of assets, however, cannot exceed 130% of the market value.

The Treasury must rely on plan sponsors' calculations of plan losses unless calculations are clearly erroneous. Restrictions on plan amendments that increase benefits apply.

***PBGC Premium***

The PBGC premium will increase to \$52 per participant for the plan year beginning in 2031 and increased each year thereafter by a wage inflation rate.

## **GLOSSARY OF COMMON PENSION TERMS**

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### **Benefits**

**Accrued Benefit:** A benefit that an employee has earned (or accrued) through past participation in the plan. It is the amount payable at normal retirement age.

*Why it matters: Under the law, Accrued Benefits generally may not be reduced by plan amendment (note that special rules allowing for limited reduction and/or suspension of accrued benefits apply to critical status, critical and declining status and insolvent plans).*

**Actuarial Equivalence:** Given a set of actuarial assumptions, when two different sets of payment scenarios have an equal present value.

**Early Retirement Reduction Factor:** A retirement benefit that begins before normal retirement age may be reduced. The plan document defines the amount of the reduction by formula or a table of factors. This reduction may or may not be actuarially equivalent, but its present value can be no less than actuarially equivalent to the benefit payable at normal retirement age.

**Benefit Crediting (Accrual) Rate:** A general reference to the calculation of the amount of monthly retirement benefit earned per dollar contributed or per year or hour worked.

### **Assets**

**Market Value of Assets:** This is the fair value of all assets in the fund on an accrued, not cash basis. The market value of assets matches the value in the plan audit.

**Actuarial Value of Assets:** The amount of assets recognized for actuarial valuation purposes. Recent changes in market value may be partially recognized (there are variations allowed on the exact recognition). Generally the actuarial value is limited to not be less than 80% or more than 120% of the market value.

*Why it matters: Many funding calculations use this “smoothed” asset value method to lessen the impact of volatility in the market value of plan assets.*

**Assumed Rate of Return:** Long term assumption of the rate of return on assets based upon the diversification mix of invested assets.

*Why it matters: This assumption is used in calculating the present values discussed in the Liabilities section below. The Assumed Rate of Return has an inverse relationship with plan liabilities. In other words, a lower Assumed Rate of Return increases liabilities, while a higher Assumed Rate of Return decreases plan Liabilities.*

## **GLOSSARY OF COMMON PENSION TERMS (CONT.)**

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### *Liabilities*

**Present Value of Accrued Benefits:** The discounted value of benefit payments due in the future but based only on the current Accrued Benefits of each participant. The value is based on actuarial assumptions including an assumed rate of investment return.

*Why it matters: This liability is one of the primary factors in determining a plan's annual PPA funded status (see Funded Ratio).*

**Present Value of Vested Benefits:** The discounted value of Accrued Benefits that are considered vested (non-forfeitable). Benefits that are not vested include those of participants who have not satisfied the plan vesting requirement (usually five years of service). In addition under the law some death and temporary disability benefits are also considered non-vested regardless of service because they are not considered protected benefits.

*Why it matters: This liability is the primary driver of a plan's Employer Withdrawal Liability.*

**Actuarial (Accrued) Liability:** For inactive members this is the same as the Present Value of Accrued Benefits above. For active members this depends on the cost method selected by the actuary. Under the accrued benefit or traditional unit credit cost method this is also the same as the Present Value of Accrued Benefits. Under other cost methods (including most commonly entry age normal) this represents an alternate allocation of projected benefit cost over the working lifetime of active members. Under the entry age normal cost method, the active Actuarial Liability is larger than the Present Value of Accrued Benefits.

**Unfunded Actuarial Liability:** The Actuarial Liability less the Actuarial Value of Assets.

**Current Liability:** This is similar to the Present Value of Accrued Benefits, but uses a statutory, significantly lower, interest rate (equivalent to an expected rate of return on a bond only-type portfolio) and statutory mortality tables. The lower interest rate means that Current Liability tends to be significantly higher than the Present Value of Accrued Benefits. This number has very little impact on multiemployer plans.

**Normal Cost:** The present value of all benefits that are expected to accrue or to be earned under the plan during the plan year. The way in which a benefit is considered to be earned varies with the actuarial cost method.

**Risk:** The potential of future deviation of actual results from expectations derived from actuarial assumptions.

## **GLOSSARY OF COMMON PENSION TERMS (CONT.)**

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### **Funding**

**Funded Ratio (Funded Percentage):** Actuarial Value of Assets divided by the Present Value of Accrued Benefits. This is one of two key measures used to determine a plan's annual PPA funded status. This may also be referred to as PPA Funded Ratio. This must be greater than 80% to avoid endangered status.

**Credit Balance:** The accumulated excess of actual contributions over legally required minimum contributions as maintained in the funding standard account. The funding standard account is maintained by the actuary in the valuation process and reported annually in schedule MB to the Form 5500 filing. A negative credit balance is known as an accumulated funding deficiency. Prior to PPA, an accumulated funding deficiency caused an immediate excise tax (waiver under PPA if certain conditions are met). After PPA, a current or projected funding deficiency is one of the key measures used in determining the annual PPA status. It can eventually trigger an excise tax levied on contributing employers.

### **Withdrawal Liability**

**Unfunded Vested Benefits (UVB):** Present Value of Vested Benefits less the value of plan assets determined on either an actuarial or market value basis. The selection of asset measurement is part of the withdrawal liability method of the Plan.

**Employer Withdrawal Liability (EWL):** An employer that withdraws from a multiemployer plan is liable for its proportionate share of Unfunded Vested Benefits, determined as of the date of withdrawal.

*Why it matters: If a contributing employer leaves the plan while it has Unfunded Vested Benefits liability, that employer's allocated share of Employer Withdrawal Liability is either assessed, as applicable, or reallocated among the plan's remaining active employers if the presumptive method is used. A construction employer withdrawing from a construction industry plan will not be assessed unless they continue performing work within the jurisdiction of the CBA or restart such work within a period of 5 years. Small amounts (under \$150,000) are generally reduced or eliminated pursuant to the "de minimis rule."*