

# AWI Investor Day 2022 THE POWER OF FOCUS

March 3, 2022



Explanatory Note: This version includes a typographical correction to slide 65 which now shows the correct adjusted EBITDA guidance that was issued on February 22, 2022.

### **Safe Harbor Statement**

Our disclosures in this presentation, including without limitation, those relating to future financial results market conditions and guidance, the impacts of COVID on our business, and in our other public documents and comments contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Those statements provide our future expectations or forecasts and can be identified by our use of words such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "outlook," "target," "predict," "may," "will," "would," "could," "should," "seek," and other words or phrases of similar meaning in connection with any discussion of future operating or financial performance. Forward-looking statements, by their nature, address matters that are uncertain and involve risks because they relate to events and depend on circumstances that may or may not occur in the future. As a result, our actual results may differ materially from our expected results and from those expressed in our forward-looking statements. A more detailed discussion of the risks and uncertainties that may affect our ability to achieve the projected performance is included in the "Risk Factors" and "Management's Discussion and Analysis" sections of our reports on Form 10-K and 10-Q filed with the U.S. Securities and Exchange Commission ("SEC"). Forward-looking statements speak only as of the date they are made. We undertake no obligation to update any forward-looking statements beyond what is required under applicable securities law.

In addition, we will be referring to non-Generally Accepted Accounting Principles ("GAAP") financial measures within the meaning of SEC Regulation G.

A reconciliation of the differences between these measures with the most directly comparable financial measures calculated in accordance with GAAP are included within this presentation and available on the Investor Relations page of our website at www.armstrongceilings.com.

The guidance in this presentation is only effective as of the date given, March 3, 2022 and will not be updated or affirmed unless and until we publicly announce updated or affirmed guidance.



### **Basis of Presentation Explanation**

our U.S. Retirement Income Plan based on quidelines established by the Pension Benefit Guaranty Corporation.

- References to "AWI", "Armstrong", "the Company", "we", "us", "our" are to Armstrong World Industries, Inc.
- A glossary of terms is included in the appendix which may help the reader understand terms that are specific to AWI or the building products industry.
- Results throughout this presentation are presented on a normalized basis.
- We remove the impact of certain discrete expenses and income in certain measures including adjusted net sales, adjusted EBITDA, diluted adjusted earnings per share ("EPS") and adjusted free cash flow ("FCF"). The Company excludes certain acquisition related expenses (i.e. changes in the fair value of earn-outs, deferred compensation accruals<sup>(1)</sup>, impact of adjustments related to the fair value of inventory and deferred revenue) for recent acquisitions. The Company excludes all acquisition-related amortization from adjusted earnings from continuing operations and in calculations of adjusted diluted earnings per share. Examples of other excluded items include plant closures, restructuring actions and related costs, impairments, separation costs, environmental site expenses and related insurance recoveries, endowment level charitable contributions, and certain other gains and losses. The Company also adjusts for our U.S. pension plan (credit) expense<sup>(2)</sup>.
- Our tax rate may be adjusted for certain discrete items which are identified in the footnotes.
- Investors should not consider non-GAAP measures as a substitute for GAAP measures.

All figures throughout the presentation are in \$ millions, except per share data. Average Unit Value (AUV) figures are shown as actuals. Some totals may not foot due to rounding.



The deferred compensation accruals are for cash and stock awards that will be recorded over the vesting period, as such payments are subject to the sellers' and employees' continued employment with the Company.
 U.S. pension (credit) expense represents the actuarial net periodic benefit cost expected to be recorded as a component of earnings from continuing operations. For all periods presented, we were not required to and did not make cash contributions to

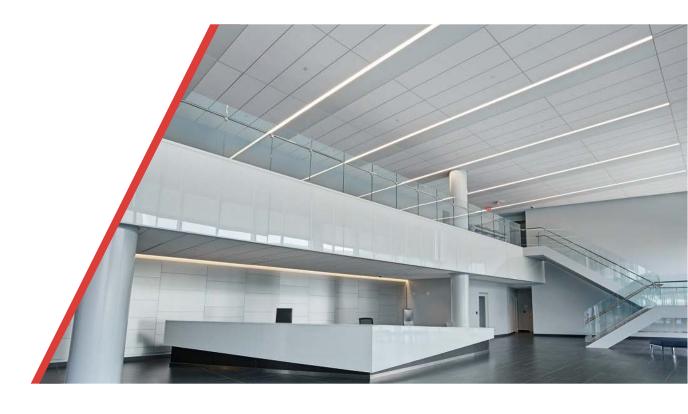
## **Agenda**

01	The Power of Focus	Vic Grizzle President & CEO
02	Segment Overview	<b>Mark Hershey</b> SVP, Americas
03	Healthy Spaces	<b>Nick Taraborelli</b> VP, Mineral Fiber
04	Digital Initiatives	Jill Crager SVP, Sales Operations
06	Financial Overview	Brian MacNeal SVP & CFO
07	Q&A	All



# **The Power of Focus**

VIC GRIZZLE, CEO





### **AWI Leadership**

### Proven leadership and experience supporting a winning culture – combined 100 years with AWI

#### **Executive Leadership**



Vic Grizzle
President & CEO
Joined in 2011



Brian MacNeal SVP & CFO Joined in 2014



Mark Hershey SVP, Americas Joined in 2011



**Jill Crager**SVP, Sales Operations
Joined in 1998



Austin So SVP, General Counsel & Secretary Joined in 2022



Ellen Romano SVP, HR Joined in 1983



Dawn Kirchner-King VP & CIO Joined in 2015

#### **Additional Speakers**



Nick Taraborelli VP, Mineral Fiber Joined in 2001



Theresa Womble
Director, Investor Relations
Joined in 2021



### Poised to Accelerate Value Creation for All Stakeholders

### What You Will Hear Today



We've created a uniquely focused building products company built on strong fundamentals with an improving competitive position.



Our enhanced ability to compete sustains and strengthens the existing value drivers of AUV growth, Architectural Specialties growth and manufacturing productivity.



Secular tailwinds plus growth initiatives add a new growth dimension of Mineral Fiber Volume growth.



### **Armstrong World Industries Overview**

- Leader in the design & manufacture of innovative commercial and residential ceiling and wall solutions
- For more than 160 years, we have built our business on trust and integrity

#### **Full Year 2021 Consolidated Results**

Net Sales

\$1,107M

Adj. Diluted EPS\*

\$4.36

Adj. EBITDA\*

\$372M

Adj. Free Cash Flow\*

\$190M

Market Cap<sup>(1)</sup>

\$5.5B



Segment 1: **Mineral Fiber** 

\$818M

**Net Sales:** 

Adj. EBITDA\*: \$331M

**Joint** Venture<sup>(2)</sup>





Segment 2:

**Architectural Specialties** 

Net Sales:

Adj. EBITDA\*:

\$40M \$288M



2800 **Employees** 



Operating **Facilities** 



#### M&A Activity 2017- 2021

















Non-GAAP measure. Reconciliations provided in the appendix of this presentation.

As of 12/31/2021, rounded

Worthington Armstrong 50/50 Joint Venture ("WAVE")

### **Armstrong World Industries – Our Why**

### Making a positive *difference* in the spaces where we...









learn



heal



play

It matters to us, and it matters to our customers



### Sustainability at the Heart of Our Why and Our Strategy

### **Our Approach**

Three Pillars guide our sustainability program, with specific goals and 2030 targets. Delivering on these aspirations drives value for our customers, our employees, our communities and our shareholders<sup>(1)</sup>.



#### **Thriving People and Communities**

Our workforce will be safe, diverse, inclusive and fulfilled, and we will actively contribute to our local communities.

### **Our Sustainability Goals**



#### **Healthy Planet**

All our electricity sources will be renewable, and we will dramatically reduce carbon, waste and water impacts of our products and solutions.



#### **Healthy and Circular Products**

We are committed to responsible sourcing & providing transparency in our products. In addition, we will design our products to minimize waste & pollution; support recycling, repurposing or reuse; & contribute to the regeneration of natural systems.



### **Uniquely Positioned to Win in an Attractive Category**



### **Attractive Category**

Ceilings & specialty walls is unique within the building products industry.

**Consolidated industry structure** with exposure to diverse end markets

**Large installed base** (est. at ~38B ft<sup>2</sup>) generates stable and repeating repair and remodel demand<sup>(1)</sup>

**Highly specified**, high-value products with few cost-effective substitutes

Customers demonstrate brand loyalty; reward performance, service and innovation

Ceilings are an integral part of evolving solutions to meet increasing demand for **healthy indoor spaces** 



### Why We Win

AWI is advantageously positioned to win in this category.

Strongest and most trusted brand

Broadest, most innovative product portfolio

**Specification leadership** through deep and long-standing relationships with architects and designers

Large manufacturing scale with strong exclusive distribution partners

**Operational excellence** supporting **best-in-class** service and quality

A culture that fosters **empowerment, innovation, teamwork** and execution across functional areas





### **Creating a Uniquely Focused Building Products Company**

### 2016

- Separated from Armstrong Flooring to focus on ceilings and specialty walls
- Launched Sustain<sup>™</sup> product line



**Armstrong**Flooring



#### 2018

- Initiated quarterly cash dividend
- Initiated comprehensive digitalization effort
- Completed 2 Architectural Specialties ("AS") acquisitions



PLASTERFORM

Architectural Castings

#### 2020

- Launched new Healthy Spaces portfolio
- · Expanded sustainability efforts
- Completed 3 AS acquisitions







#### 2017

- Embarked on Architectural Specialties ("AS") expansion with Tectum acquisition
- Announced sale of non-Americas business to become Americas focused



#### 2019

- \$150M accelerated share repurchase with proceeds from non-Americas business sale
- Completed 2 AS acquisitions





#### 2021

- Launched kanopi<sup>TM</sup> digital platform
- Issued inaugural sustainability report
- Completed Living Lab



Today, we are an Americasfocused ceilings & specialty walls company with a growing portfolio serving an expanding addressable market



### **Delivering on 2018 Strategic Imperatives**

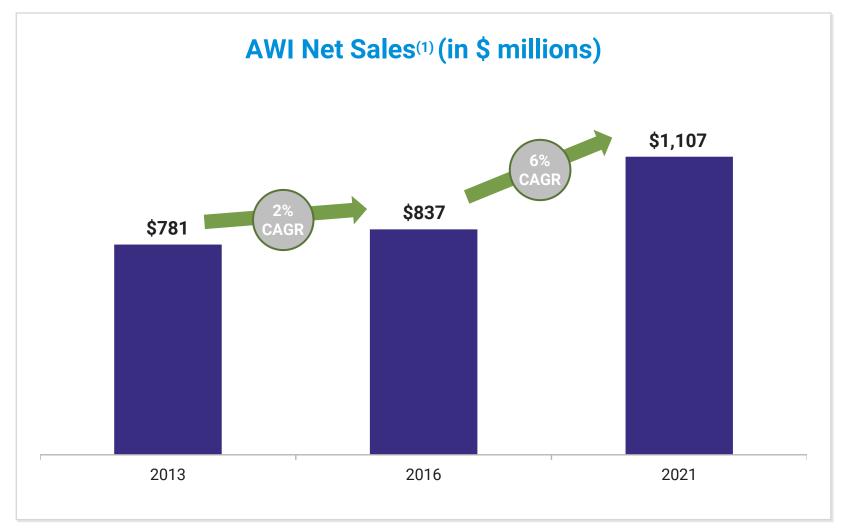
Strong execution across all imperatives despite COVID challenges

Strategic Imperative	Outcomes Since 2018		
Revitalize Mineral Fiber (MF) category through innovation and new paths to market	Product Vitality index up from 28% to ~40%	Multiple new product lines introduced	
Accelerate Architectural Specialties (AS) through acquisitions & organic growth	5 Acquisitions	66% increase in AS Net Sales	
Embark on digital transformation	Launched kanopi by Armstrong and ProjectWorks®	Invested in plant automation to enhance reliability & productivity	
Generate strong cash flow & pursue balanced capital allocation program	Avg. FCF margin* of 22%	Approx. \$250M in acquisitions and over \$650M of dividends & share repurchases	



### Doing What We Said We Would Do: Changing our Top-Line Trajectory

### Strong execution on key value drivers



### **Results Driven by**

Like-for-like pricing above inflation

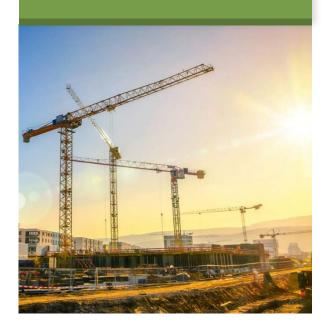


- Mix up to higher value products
- Double-digit growth in Architectural Specialties



### **Macro Trends Provide Additional Opportunity for AWI**

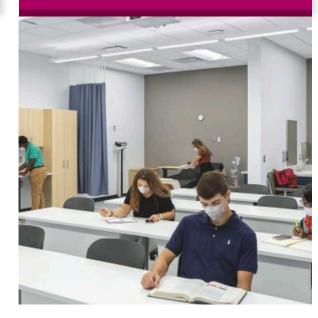
Economic recovery from pandemic recession



Focus on safety and indoor environmental quality



Increased government funding for education / infrastructure



Demand for sustainable solutions





### **Investing in Industry Leading Growth Initiatives**

#### **Initiatives**







### **Driving**

 New Products and applications

- Solutions to meet secular shift to healthy sustainable spaces
- New channels to access new demand

### **Outcomes**

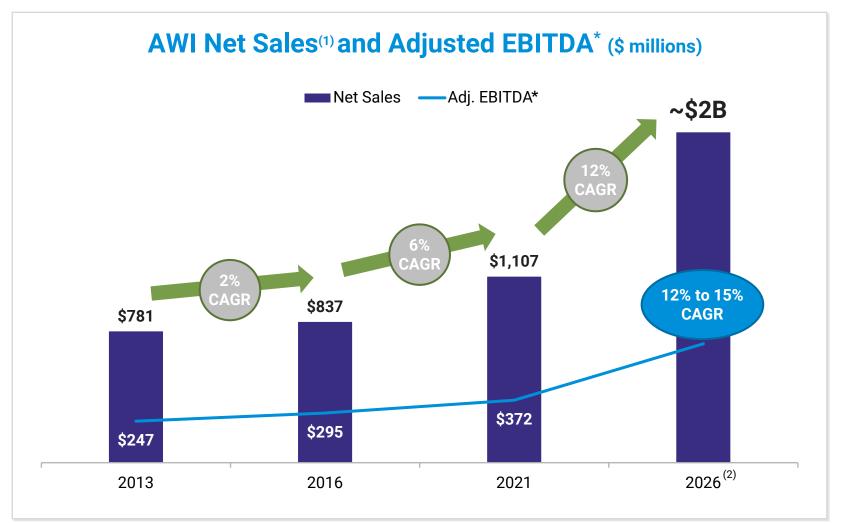
- Improved competitive advantage
- Enhanced Mineral Fiber AUV growth
- Mineral Fiber volume growth

Sustained double-digit AS growth



### **Tailwinds and Growth Initiatives Accelerating Top Line Growth**

### **Expecting strong sales growth at attractive margins**



### **Results Accelerated by**

Mineral Fiber volume growth

#### **Ongoing benefits**



- Like-for-like pricing above inflation
- High-value product mix
- Double-digit Architectural Specialties growth
- Manufacturing scale and productivity



Non-GAAP measure. Reconciliations provided in the appendix of this presentation.

<sup>1)</sup> AWI Net Sales represents AWI on a Continuing Operations (Americas, ceilings only) basis.

Based on internal company estimates.

# **Segment Overview**

Mark Hershey, SVP Americas





### **Foundations and Focus to Accelerate Growth**

### What you will hear today



Together, our segments offer a **total value proposition** that differentiates AWI in the industry.



Our segments share strategic initiatives and enablers that directly support our value drivers and growth strategy.



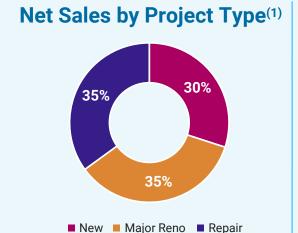
Our growth initiatives are **designed to improve our entire business** and **elevate our historic growth rates** by generating sustained AUV growth, mineral fiber volume growth and profitable AS growth.



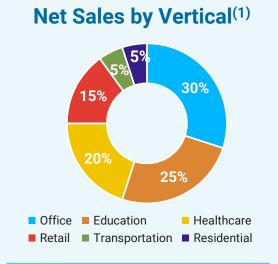
### **Segments Serve Diverse Projects and End Markets**

#### **Mineral Fiber**

\$819M 2021 Net Sales



41% 2021 Adj. EBITDA\* Margin



#### Key **Attributes**

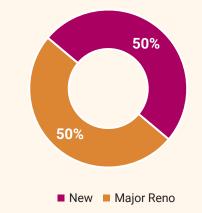
- Consistent AUV improvement
- Consistent manufacturing productivity ~3% annually
- Diverse verticals and project types lessens cyclicality
- Equity Earnings contribution from WAVE JV

### **Architectural Specialties**

\$288M

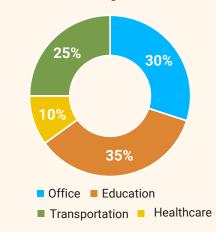
2021 Net Sales





14% 2021 Adj. EBITDA\* Margin

#### **Net Sales by Vertical**<sup>(1)</sup>



Kev

- Leveraged to major renovation and new construction
- High design, custom projects for statement spaces
- **Attributes** Lower capital requirements
  - Strong growth and margin expansion opportunities

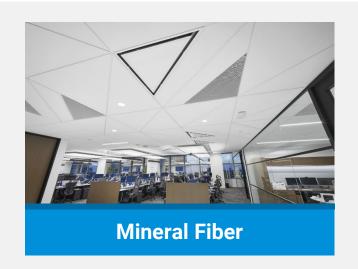


Non-GAAP Measure. Reconciliations provided in the appendix of this presentation.

Based on internal company estimates.

### **Complementary Segments Support Our Winning Formula**

A unique value proposition for our customers differentiates AWI in the industry









### **Complementary Segments Provide Total Solutions**

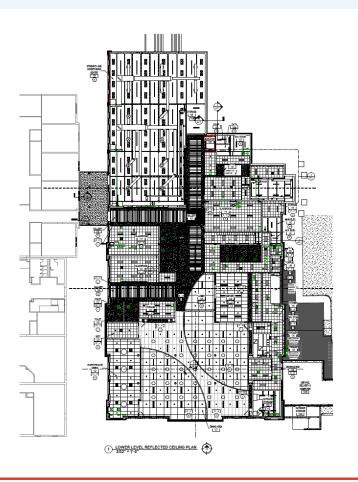
### **Selling more products into more spaces**

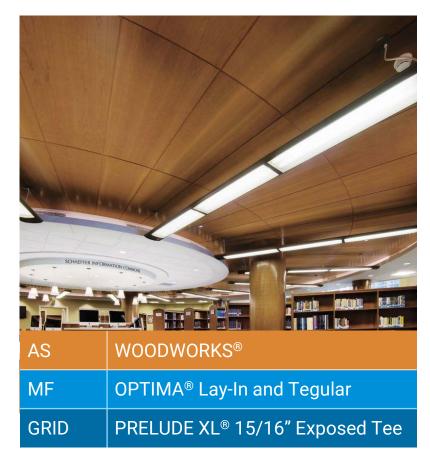
Selling innovative solutions to solve for complexity

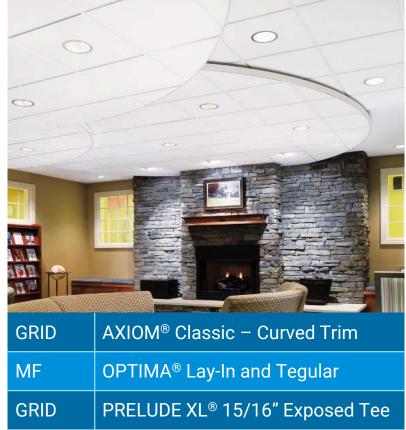
Project: St. Mary's Episcopal School – Windland Smith Rice Building

Location: Memphis, TN

**Architect: Fleming Architects** 







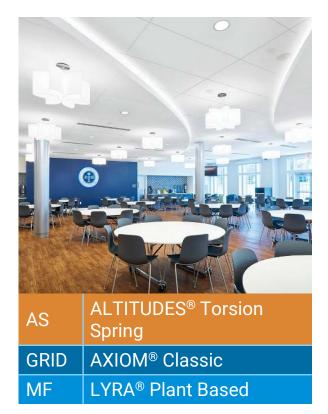
### **Complementary Segments Strengthen Customer Relationships**

Capabilities and loyal customer relationships provide repeat opportunities

**Project: St. Mary's Episcopal School** 

Location: Memphis, TN

**Architect:** Fleming Architects









Same campus, same architect, completely new project



### **Our Segments Share Key Growth Initiatives to Accelerate Value Drivers**

Reinforcing and strengthening our winning formula

**Initiatives** 

**Key Objectives** 

**Expected Outcomes** 









 Lead in developing solutions for healthier indoor environmental quality...a secular tailwind for renovation  Mineral Fiber volume growth



 Efficiently access and serve latent demand through differentiated channels & tools  Profitable Architectural Specialties growth

### **Innovation at the Core of AWI**

### R&D capabilities & competencies provide a strong foundation for our value drivers

#### **Organization - Structure**



**80 FTEs**Scientists, PHDs,
Engineers, Project Mgrs.



# **Technical Expertise**Fire, Acoustics, Seismic, Sustainability, Installation, etc.



Testing & Analytics
Compliance, Speed,
Insights and learnings



~6,000 tests
Certified Testing Facility
(UL, NavLab)(1)

### **Key Competencies**



**Codes & Standards** 



**Testing & Analytics** 



**Material Science** 



**Project Execution** 









New Structures: Innovation Labs & Ventures

### **Outcomes**

**Broad Product Portfolio** 

**Specification Strength** 

**New Product Launches** 

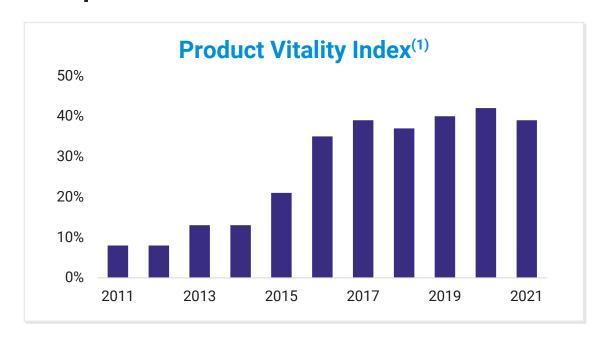
**Design Solutions** 

**Intellectual Property** 

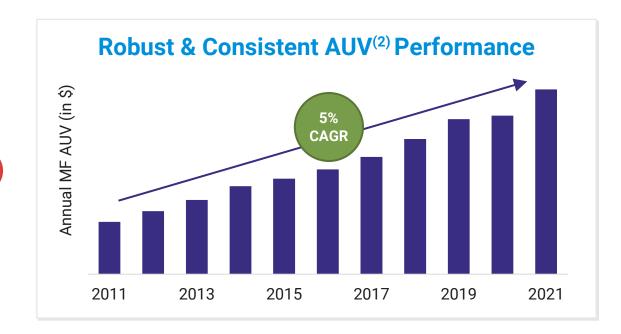


### **Innovation Supports Consistent Mineral Fiber AUV Growth**

### New products and features rewarded in the market







2x

Product launch rate during pandemic



Market-driven innovation



Robust processes with agile mindset



Creating highly specified high-value products

Product Vitality Index represents the percent of total sales from products introduced in the last 5 years.

<sup>2)</sup> US and Canada Mineral Fiber Commercial only.

### **Comprehensive Range of Innovation Further Differentiates AWI**

Unrivaled product development to meet customer needs with higher value products

#### **History of Market Driven Innovation**



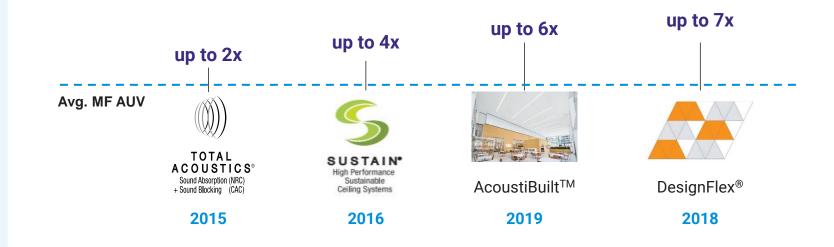
**Aesthetics** 



**Fire Safety** 



**Acoustics** 



#### **Intensified Focus Areas**



**Healthy & Sustainable** 



**Installation Efficiencies** 



**Design Trends** 



**Healthy Spaces** 



Grid - SimpleSoffits™



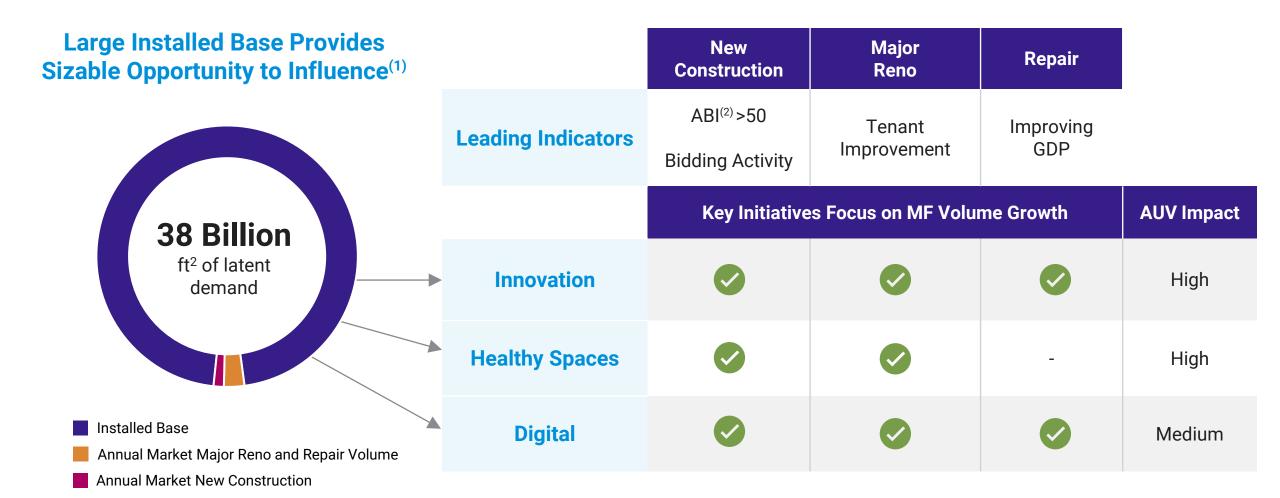
AS - Metal



AS - Tectum®



### Initiatives to Benefit Mineral Fiber AUV Performance and Volume Growth



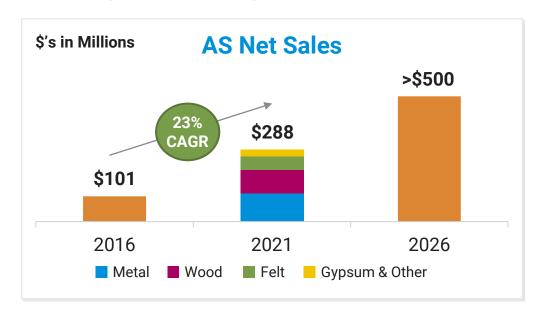
### Leading Indicators provide momentum for growth through our key initiatives



<sup>2)</sup> Architectural Billings Index ("ABI"). A figure above 50 indicates increasing construction activity.

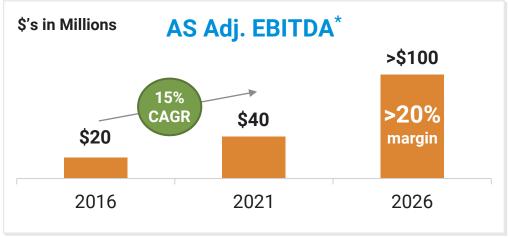
### **Architectural Specialties: Driving Profitable Growth**

Building and scaling a broad portfolio of specialty ceiling and wall products and design capabilities



### **Primary Sales Drivers**

- Deeper market penetration
- Leverage channel partners
- Improve project speed and design through digital tools and innovation
- Inorganic growth through both future M&A and partnerships



### **Primary EBITDA Growth Drivers**

- Scaling and leveraging the full AS network
- Manufacturing optimization and efficiency through LEAN principles
- Targeting >20% EBITDA margin



### **Acquisition Synergies in Action**

### Maximizing category value from recent acquisitions

#### **AS - Metal Category**

Five complementary acquisitions to add capabilities and obtain scale to meet growing demand for these performance attributes and aesthetics

>20%

3 Year Net Sales CAGR for AS Metal

Leveraging AWI scale & channels to grow product category

>20%

2021 EBITDA\* Margin for Total AS Metal

Enabling network efficiencies, adding design capabilities and broadening the portfolio for growth

Using a disciplined **business development** approach to pursue differentiated & specifiable solutions that further product breadth and expand margins



# **Healthy Spaces**

Nick Taraborelli, VP Mineral Fiber





### **Healthy Spaces: A Catalyst for Growth**

### **What You Will Hear Today**



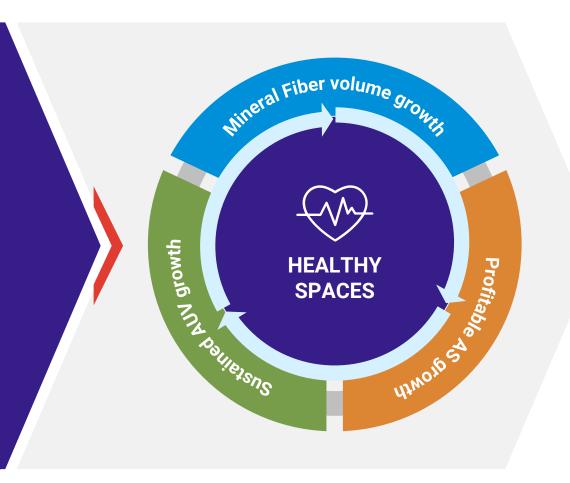
Healthy spaces is a long-term secular shift accelerated by COVID & sustainability awareness.



Ceilings are an essential, integral part of the solution for healthy indoor spaces.



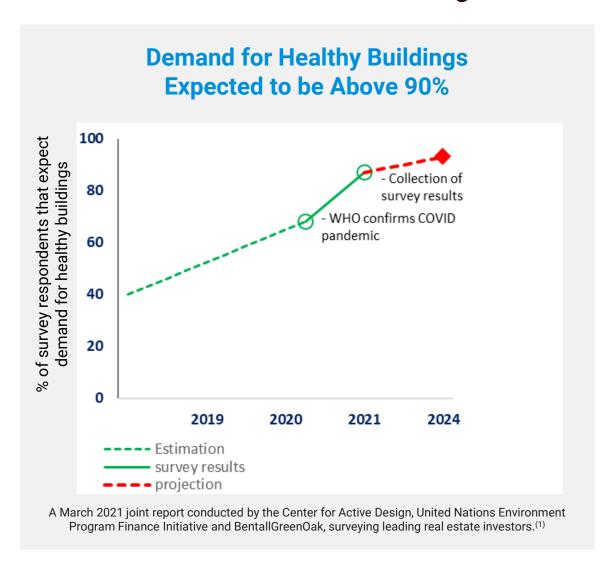
AWI is uniquely positioned to lead in developing the ceiling solutions necessary to meet this step-change opportunity.





### **Healthy Space Environment Increasingly In Demand**

### Macro trends and COVID accelerating the advancement



#### **Macro Trends**

3B ft<sup>2</sup>... **Building Health** & Wellness WELL registered space increase in 2021, up 200% from 2020<sup>(2)</sup> 3 days **Work From Home** in the office per week based on hybrid model<sup>(3)</sup> 25% **Building Design/** increase in ft<sup>2</sup> per employee **Space Plan** expected<sup>(4)</sup> \$190B **Federal Stimulus** 



2) International Well Building Institute

Harvard Business Review

) Zippia estimates

"ESSER": Elementary Secondary School Emergency Relief Fund

Comprised of recently passed US legislation: CARES Act, Consolidated Appropriations Act and the American Rescue Plan

in Education funding (ESSER5) to be

used before Sept. 2024<sup>(6)</sup>

### **Drivers of Healthy Spaces Demand by Key Verticals**

### Opportunities across multiple verticals for increasing renovation rates



#### **HEALTHCARE**

Inova Women's and Children's Hospital

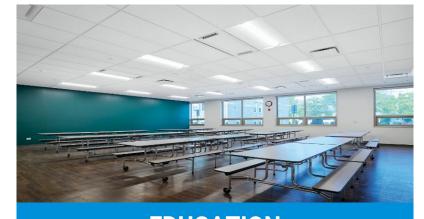
- Emerging needs for additional containment spaces with optionality
- Different acuity levels require diverse attributes
- Acoustical privacy to support HIPPA requirements



#### **OFFICE**

**Subaru Corporate Headquarters** 

- Hybrid schedules drive need for flexibility
- Need to attract workers with increased office amenities escalating
- Facility managers rank healthy buildings as top priority<sup>(1)</sup>



#### **EDUCATION**

St. Francis Xavier Cafeteria

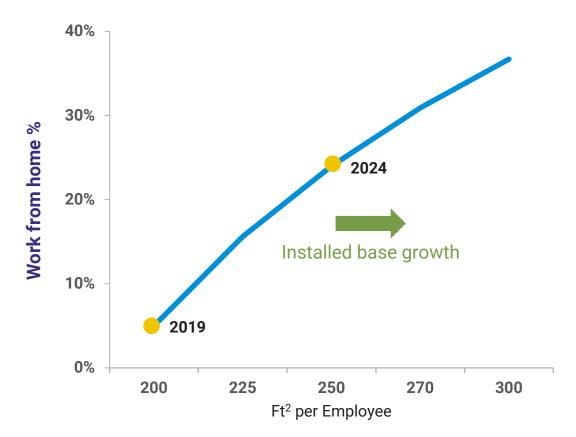
- Increased awareness of health and safety for students and teachers by parents & school officials
- Approx. \$190B in ESSER funding through 2024 with 54% of K-12 schools needing replacement or repair of HVAC systems<sup>(2)</sup>
- Cleaner air essential



### **Need for Space per Employee Offsets Work from Home Increase**

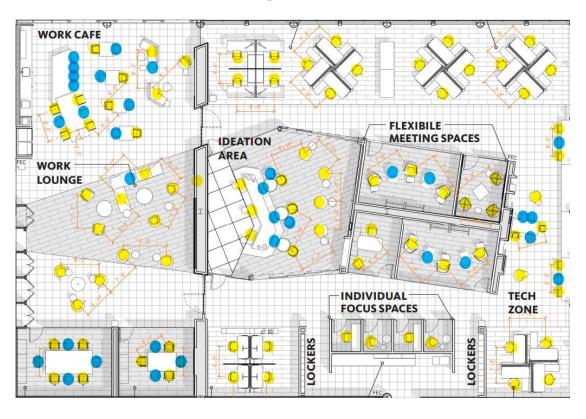
### Space per worker increases drive renovation

### Work from Home % vs Office Square Feet per Employee



Blue line maintains ~13B ft<sup>2</sup> of office space<sup>(1)</sup> in the U.S

# Gensler Office Design - Social Distancing is Intentional



Note: Ft<sup>2</sup> per worker at 315 ft<sup>2</sup> vs traditional 235 ft<sup>2</sup> a 34% increase



### **Why Ceilings Matter**

### Ceilings support a holistic approach to Indoor Environmental Quality (IEQ)

#### **Healthy Buildings Thought Leaders**



Defines a **healthy building** as a space that supports the physical, psychological, and social health and well-being of people<sup>(1)</sup>



Good ventilation and air quality, a comfortable temperature, low noise levels, and natural light are all components of a "healthy" building<sup>(2)</sup>

#### IWBI<sup>(3)</sup> WELL Building Standard



Air



Thermal Comfort



Water



Sound



Nourishment



Materials



Light



Mind

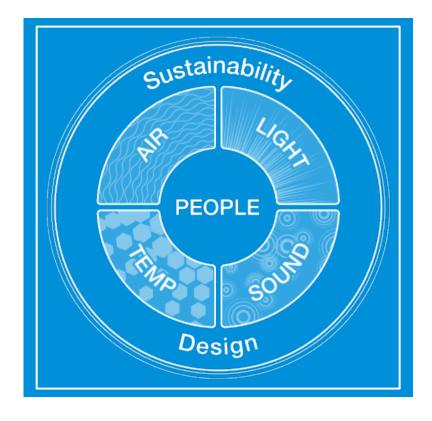


Community

Movement

#### Influenced by Ceilings

# AWI redefining the role of the ceiling for future state of IEQ





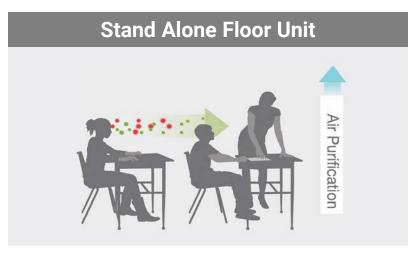
## Ceilings an Essential Part of the Healthy Spaces Solution

#### **Air Flow Examples**

#### **Recently Completed Study**(1)

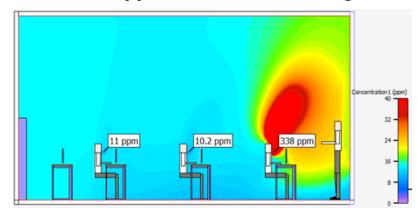
Two VidaShield UV24<sup>TM</sup> units in the ceiling reduced exposure to airborne viruses and bacteria by 22%\*

In-ceiling placement delivered approximately 14% lower exposure than floor placement with equivalent airflow measures

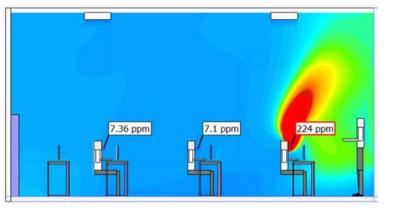




#### No supplemental Air Cleaning



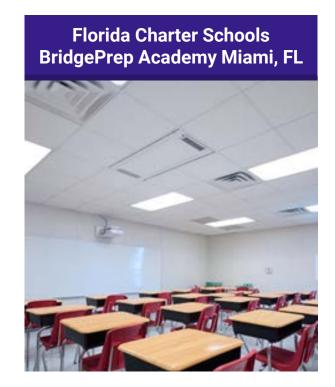
#### Two VidaShield UV24<sup>TM</sup> Units

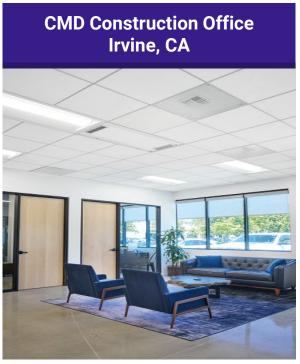


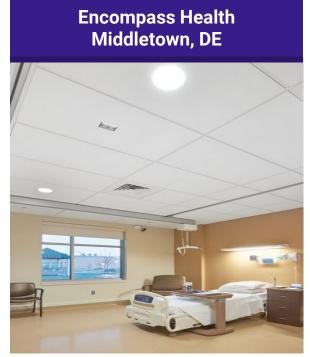
\*A simulation study performed by JB&B showed that VidaShield UV24 reduced inhaled particle concentration by 22% versus no in room air filtration; Simulation based on 8600CF room with 3 ACH from natural ventilation and 2 VidaShield units. Results of real-world applications will vary and are dependent upon a wide range of factors, conditions and assumptions

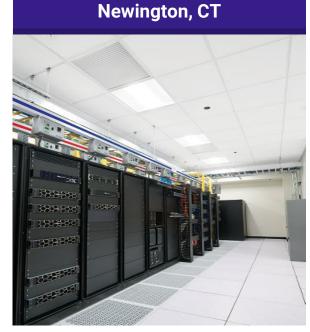


## **Recent Wins Demonstrate Healthy Spaces Demand Across Verticals**









**CT-Dot Data Center** 



## Did VidaShield help parents feel more secure about sending kids back to school?

Absolutely, yes. It's one thing for me to tell you that there's a new unit (helping to filter the air), but with these new VidaShield systems, you can see something in place. It's a sense of comfort.

- A Facilities Manager





## Healthy Spaces Potential to Unleash Volume Growth at Higher AUV

# Secular Shift Drives Sizable Volume Opportunities<sup>(1)</sup>

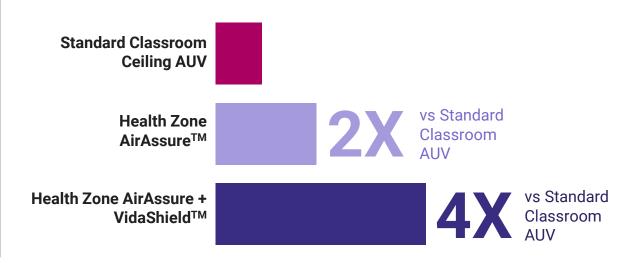
Annual renovation rate volume

Typical Rate



Healthy Spaces drives \$200M to \$350M market opportunity

## Meaningful AUV Upside from Healthy Spaces Solutions



#### **Keys to Building the Market Opportunity**



Ceilings integrated in IEQ



Government Stimulus



Innovation Skills – Building out the team



Influential Partnership



Selling Skills in HVAC



Codes and Standards

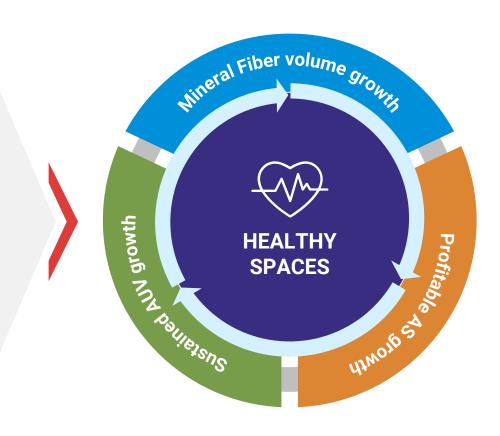


## **AWI Uniquely Positioned to Lead Healthy Spaces Solution**

#### **Using the Power of Focus to extend leadership**

#### Poised to win and lead this catalyst for growth

- The Healthy Buildings renovation renaissance has started
- Ceilings are a critical piece of a Healthy building design
- Our trusted **brand**, **experience** and **innovation** in key verticals and our **financial strength** to invest for growth will allow us to win

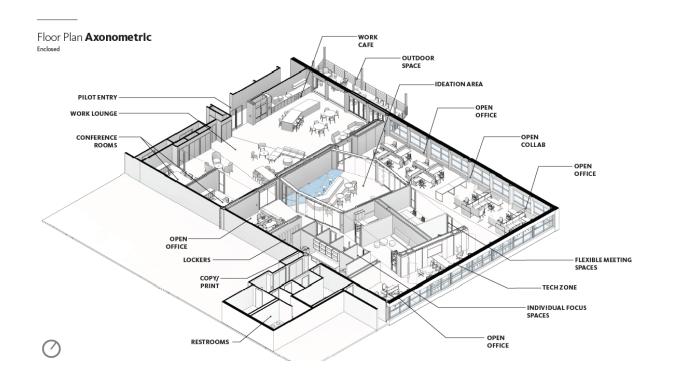




## AWI Invests in 1<sup>st</sup> Healthy Space Living Lab of the Future

#### **Building 402 Living Lab Space**

Location: Armstrong headquarters, Lancaster, PA





















**WELL Health-Safety Approved -Credits from AWI Solutions** 

**Innovation Credit**: New interventions that address health and wellbeing in novel ways

Partnering to build the healthy spaces of the future



# **Digital Initiatives**

Jill Crager, SVP Sales Operations





## **AWI Investing in Digitalization to Enable Further Growth**

#### What you will hear today



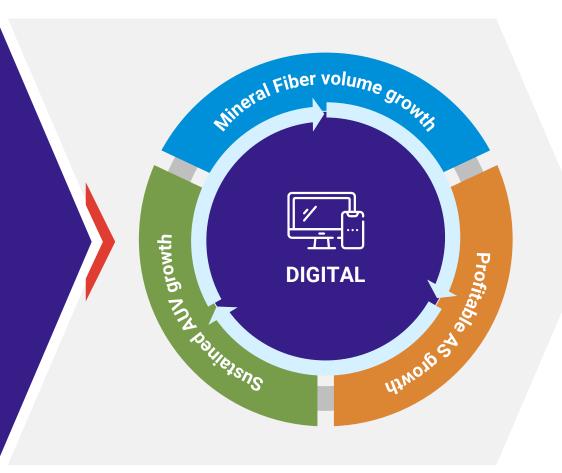
We seek to reach new untapped and underserved markets and create demand.



We are developing differentiated solutions to support specification win rate and AUV growth.

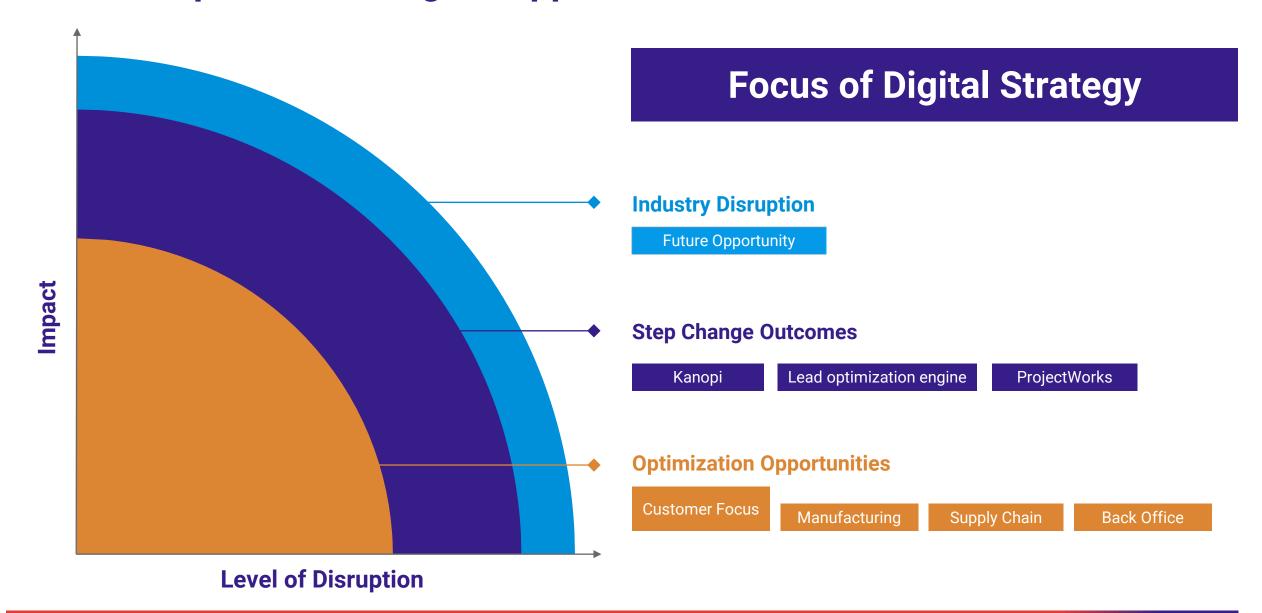


We are deploying digital tools to efficiently and effectively scale both MF and AS segments.





## **Balanced Spectrum of Digital Opportunities**





## **Digital Investments Supporting Volume Growth and AUV**

### **Step-change projects strengthen Mineral Fiber and Architectural Specialties segments**

				Growth I	mpact	
	Overview	Strategic Rationale	Investment Intensity	Volume	AUV	Key stakeholders
<b>♦ kanopi</b> By Armstrong Cellings	Digital platform to deliver end-to-end ceiling solutions	Access largely untouched demand from small to medium sized businesses and residential	High	Repair and Remodel	Medium	Facility managers, small business owners, DIY
Lead Optimization Engine	Tools to improve lead generation and closure rates	Leverage new technologies to increase sales efficiency	High	Major Reno and New	Medium	Internal sales, distribution
<b>P</b> rojectWorks <sup>™</sup>	Automated design service to provide fast, accurate and complete designs with full bill of materials	Deepen customer relationships, strengthen AWI specification, lowers construction costs	Low	New and Major Reno	High	Designers, architects, contractors, owners

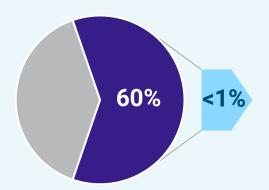


## Kanopi: Sparking Demand in a Hidden Market





Installed base of 38 Billion ft<sup>2</sup>



Accessing 50 to 75 bps of underserved market volume drives \$150M to \$200M of opportunity

#### kanopi Orders Show Strong Ramp



#### Existing Friction

- Underserved market doesn't know: What to buy, where to buy, how much to buy, how to install...think it's expensive
- Facility Manager Survey Results: "Buying Ceiling tiles is hard, so I deprioritize"

#### **AWI's Differentiated Solution**

- End-to-end solution from demand generation to installation
- Reinventing the customer journey making it "easy" for the potential customer
- kanopi is the cost-efficient way to serve and scale the underserved market

#### **Target Market**

- Facility managers, small business owners, DIY community
- Repair & remodel

#### **Current Status: Ramping monthly**

- Sales into 50 states
- Repeat customer growth of 108% vs prior year
- Order value increased 95% vs prior year
- Installation services expanding



## **Kanopi Personas and Sample Verticals**





The Coordinator

Job Title: General Contractor

Needs a direct way to access a variety of SKUs & source orders from AWI.





Developer

Acoustical drywall contractor



The Peacekeeper

Job Title: Owner

Seeking to decrease noise levels in his space.

#### **Sales vertical examples:**

Tech/engineering

A Restaurant

Corporate office

Bowling alley



Law office



The Refresher

Job Title: Office Manager

Looking for a variety of options for a new / updated ceiling.

#### **Sales vertical examples:**

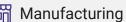
Car dealer

(n) Dental office

Hotel

Fitness facility

(Churches





#### The Community Builder

Job Title: Business Owner/ Facility Manager

Wants to keep her facility safe and help create a healthier space.

#### Sales vertical examples:

Assisted living

Laboratory

Medi-spa

♣ Medical center

Wedding venue



#### The Optimizer

Job Title: School Administrator/ Facility Manager

Needs a quick and efficient way to place and receive orders directly.

#### **Sales vertical examples:**

High school cafeteria

Private school

Elementary classroom 🔠 Pre-school



#### The Bootstrapper

Job Title: Small Business Owner

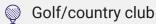
Seeking a simple and affordable way to upgrade/refresh.

#### **Sales vertical examples:**

Jewelry store



Home goods store



Insurance office



## **Lead Optimization Engine Tool Driving Sales Efficiencies**



Drives productivity of sales team allowing them to focus on more opportunities

#### Solving For

- Time spent on qualifying leads
- Sales team scope and coverage missing untracked market

#### **AWI's Differentiated Solution**

- Aggregates multiple data sources to analyze and score leads
- Expanding reach from **TOP** opportunities to **ALL** opportunities
- **Drives sales productivity** on smaller jobs making entire salesforce more productive
- Delivering more sales from existing demand

#### **Target Market**

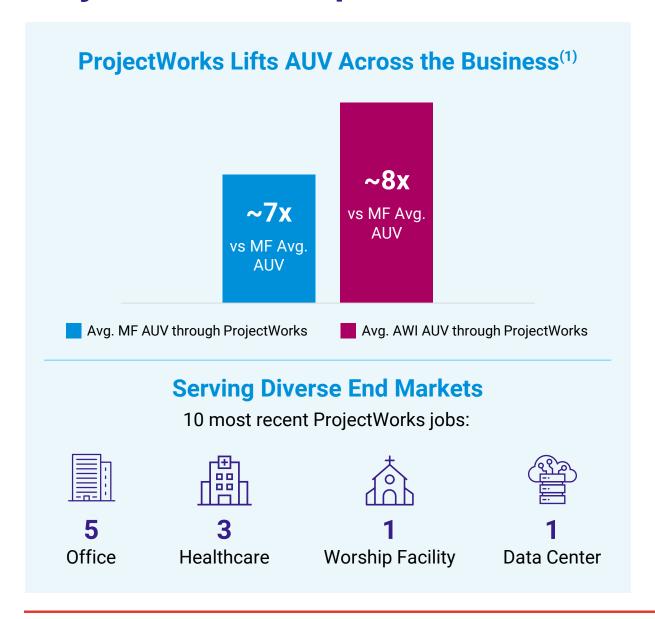
- New Construction, Major Renovation
- Smaller jobs that sales team would not typically capture

#### **Current Status: Enabling Growth**

- Volume growth from untracked market
- 50% sales productivity increase
- Tool-generated leads typically have AUV increase of 20% per project vs non-tool-generated leads



## ProjectWorks®: Rapid and Efficient Designs for AWI & Customers



#### Existing Friction

 Ceiling layouts are increasingly complex and understanding all of the components takes significant time, expertise and energy to figure out

#### **AWI's Differentiated Solution**

- Automated Bill-of-Materials for clear and accurate scope of products, quantities, and pricing across product portfolio
- Speed and Accuracy to reduce waste throughout the project timeline- from design to bidding to installation

#### **Key Stakeholders**

- Design Service Architects & Designers
- PreConstruction Distributors & Contractors

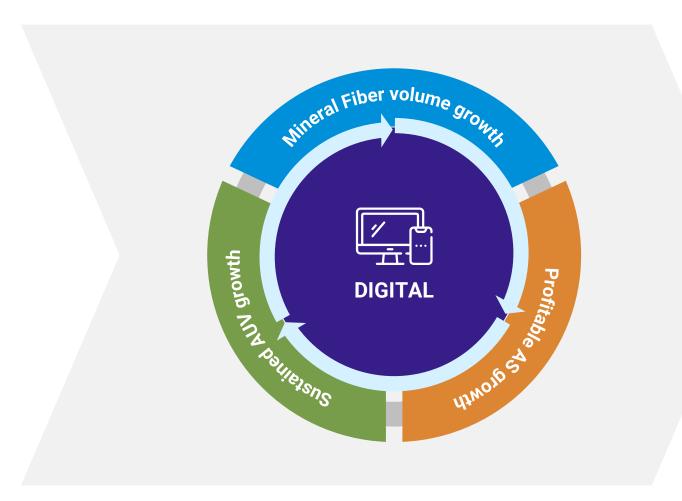
#### **Current Status: Increasing Adoption**

- **Expanding capabilities** for project sizes, complexities and product breadth for all segments, including WAVE
- 1,000+ projects scoped
- 2x projects processed with service in 2021 vs 2020





## **Digital Initiatives Ramping Up Value for AWI**



#### **Business Impacts**

- kanopi increases the renovation rate with facility managers, small business owners and DIY community, creating new demand
- Lead optimization engine drives productivity and supports AUV by converting, tracking and closing more opportunities
- ProjectWorks supports increasing specification win rates and creating speed and efficiency for customers



# **Financial Overview**

Brian MacNeal, CFO





#### **Sound Investment Thesis**

#### What you will hear today



We're continuing to **focus on AUV** to sustain our strong margin profile, while investing in key initiatives to drive **mineral fiber volume growth**.



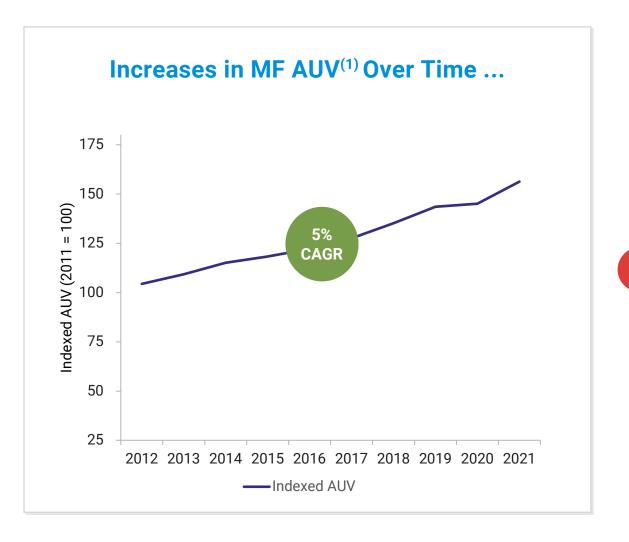
The AS segment is growing through strategic acquisitions and investments in capabilities to consolidate a fragmented market and solidify leadership in specialty ceilings and walls.

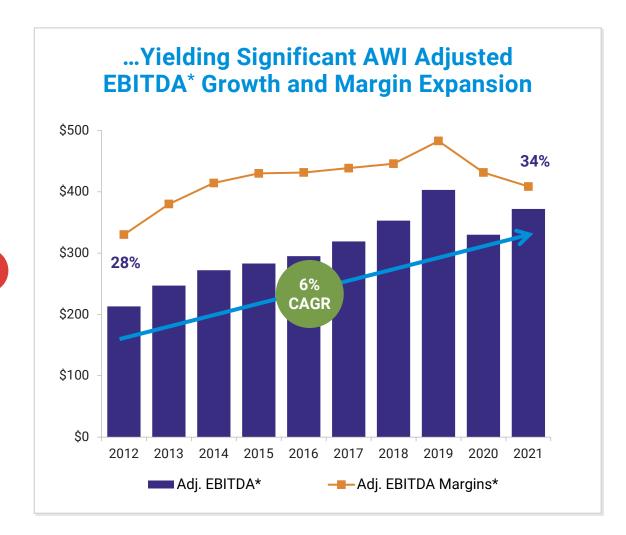


Clear capital allocation priorities are supported by a healthy, flexible balance sheet and strong cash flow generation to create sustainable value for all stakeholders.



## **Consistent Ability to Grow AUV & Expand Margins**



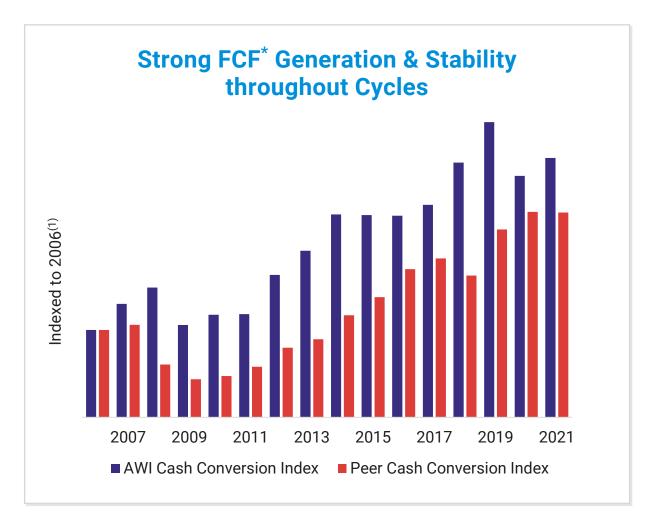


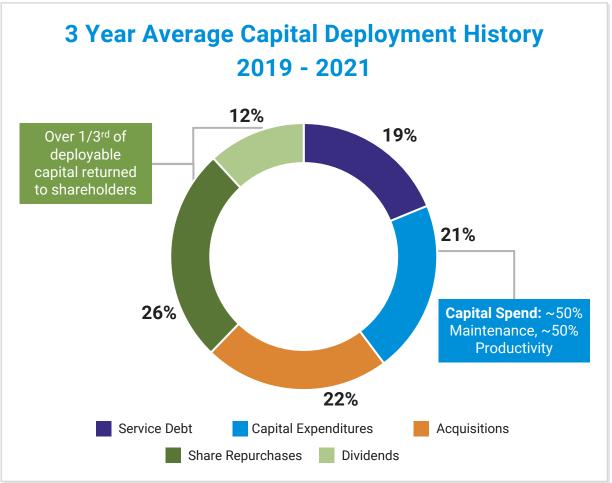
#### Continuous price/mix & productivity supports EBITDA margin expansion





## Peer-Leading Free Cash Flow Enables Value Creating Capital Allocation





#### FCF\* growth accelerates to 15-20% and funds all capital allocation priorities

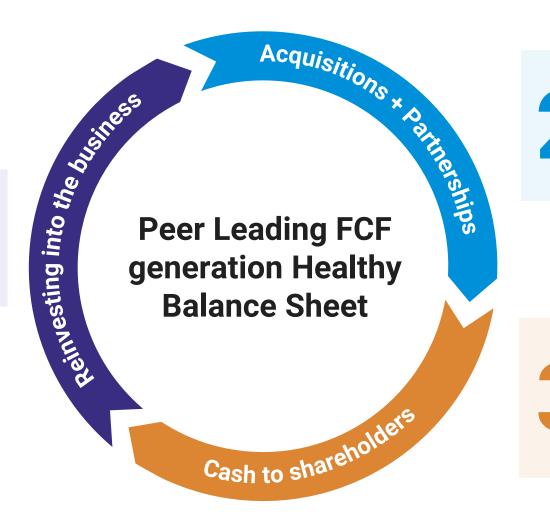




## **Balanced and Disciplined Capital Allocation Strategy**

Strong, consistent cash flow generation allows commitment to all three priorities

Targeting our highest returning investments.
Plenty of opportunity to grow in the Americas.

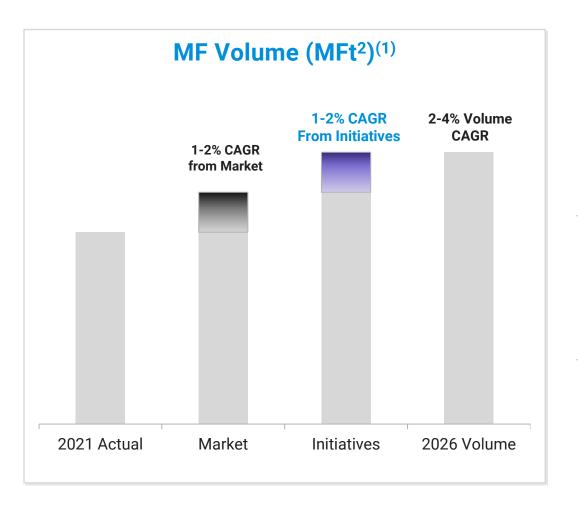


Consolidating AS market via new partners and avenues of growth.

Rewarding shareholders with both a stable, increasing dividend and share repurchases<sup>(1)</sup>.

#### **Investments in Initiatives Drive Mineral Fiber Volume Growth**

#### **Mineral Fiber Volume Growth to Strengthen Value Creators**



#### **Mineral Fiber Volume Growth Drivers**



#### **Innovation**

New products and applications



#### **Healthy Spaces**

Solutions to meet secular shift to healthy sustainable spaces



#### **Digital**

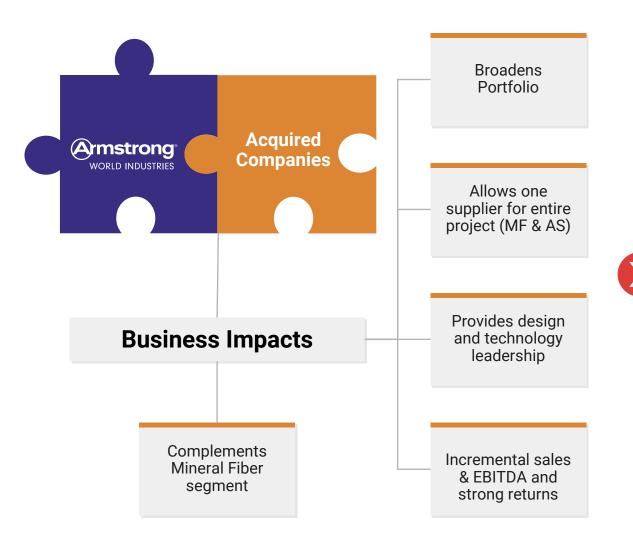
New channels to access new demand

Market volume continues to recover and strategic initiatives accelerate volume growth



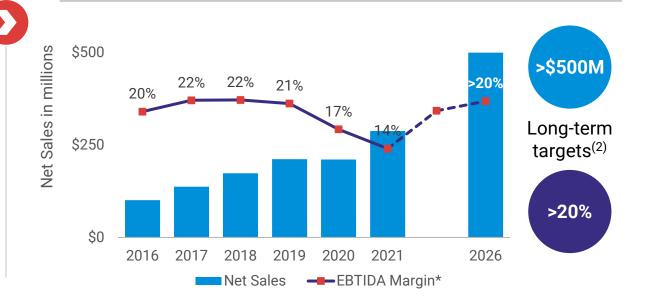
## **Architectural Specialties - Growing Through Acquisitions**

#### Targeting companies with unique capabilities or competitive advantages



	Pre-Synergies	Post-Synergies
2020 Acquisitions <sup>(1)</sup>	9.6x	6.5x
All Acquisitions	9.1x	7.1x

#### **Expand leadership** in specialty ceilings and walls

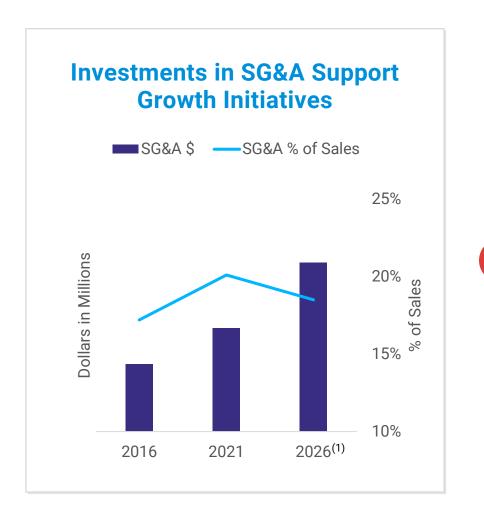


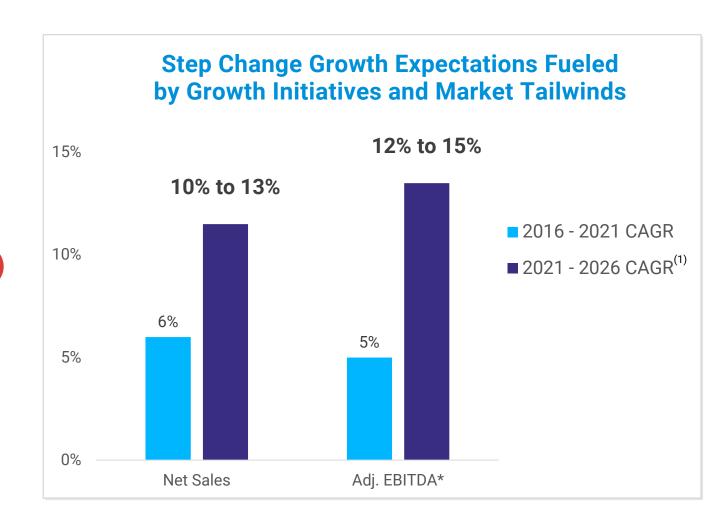
Non-GAAP Measure. Reconciliations provided in the appendix of this presentation.

<sup>1)</sup> Due to date of acquisition and COVID Impacts, the 2020 Acquisition post-synergies are based on future expected results.

Based on internal company estimates.

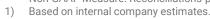
## **Near-Term Investments Drive Long-Term Results**





#### Leveraging investments to drive double-digit sales and EBITDA growth







## Consistent Strategic Priorities Enabling Shareholder Value Creation

#### Value Creation Model(1)

10% - 13%

**Net Sales Growth** 

5% - 10% prior

12% - 15% Adjusted EBITDA\* Growth

>10% prior

15% - 20% Adjusted Diluted EPS\* Growth

15 - 20% prior

15% - 20% Adjusted FCF\* Growth

10% - 15% prior

#### **Key Assumptions**

- Mineral Fiber volume growth of 2% to 4% and AUV growth of 5% to 8%
- Architectural Specialties Growth of >10% organically
- Acquisitions incremental to growth
- Target 1-3 Acquisitions annually

- 3% annual MF mfg productivity
- 60% incremental margins from Mineral Fiber volume growth
- SG&A percent of sales below 20%
- 20%+ AS EBITDA Margins
- 40%+ MF EBITDA Margins
- 50/50 WAVE equity earnings grows double digit

- Decreasing debt levels
- Share repurchases continue<sup>(2)</sup>...at a minimum offsetting dilution
- Stable tax rate

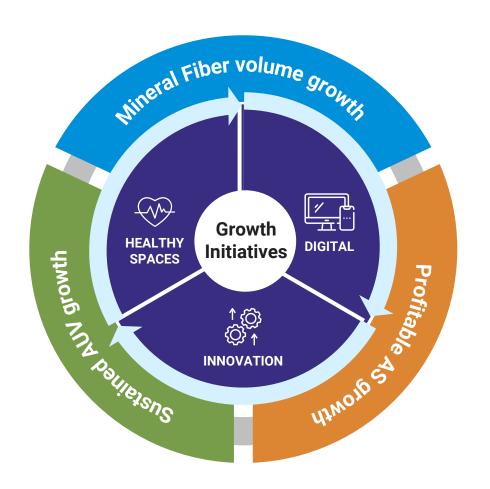
- Stable levels of CapEx: \$90 to 100M split ~50/50% between maintenance and return-seeking
- Stable cash tax rate of ~25%
- Balanced Capital allocation: 95% to 100% of net income
- ROIC expands from ~20% to >25%

Non-GAAP measure.

Represents internal company estimates of a 5-year CAGR.

<sup>2)</sup> Future dividend payments and share repurchase authorizations are subject to approval from the Board of Directors.

## **What You Heard Today**



Building on our strengths to elevate our growth potential

Leveraging secular tailwinds to drive mineral fiber volume growth beyond COVID recovery

**Accelerating Value Creation** 



# Q&A



## **Appendix**



## **Glossary and Acronyms**

#### The following words and phrases are defined here for use throughout the presentation:

Architects and Designers ("A&D"): These people are heavily involved in the design and planning of commercial construction.

Architectural Billings Index ("ABI"): An economic indicator for nonresidential construction activity. A number greater than 50 indicates improving levels of activity.

Architectural Specialties ("AS"): One of two operating segments of AWI.

Average Unit Value ("AUV"): The sales dollars per square foot of material. Comprised of like-for-like pricing and mix benefits.

Generally Accepted Accounting Principles ("GAAP"): A common set of accounting principles, standards and procedures issued by the Financial Accounting Standards Board ("FASB").

Installed Base: A measure of square feet of ceilings that have been sold and are in use in the U.S. The company estimates the installed base for ceilings at approximately 38 billion square feet.

Major Renovation: Major renovation is construction activity wherein an existing structure is being restored, repaired or remodeled.

Mineral Fiber manufacturing Productivity: Armstrong's ability to lower its Cost of Goods Sold through efficiency, reliability and process change. Expressed as a percent improvement versus the prior year's cost base.

Mineral Fiber ("MF"): One of two operating segments of AWI.

New Construction: New construction is considered constructing a new building or structure from the ground up.

Product Vitality Index: Percent of total sales from products introduced in the last 5 years.

Repair & Remodel: Restoring or repairing and existing structure, replacing the old with the new.

Specification: Architects and designers detailing the specific features and benefits of a product to be used in construction. For the ceilings market our sales reps work with architects and designers 6 to 18 months prior to installation of the ceiling.

Synergies: A synergy is created when the combined value of the two firms is higher than the pre-acquisition value of both firms combined. Armstrong creates synergies both through top-line sales growth and bottom-line cost efficiencies.

"WAVE": Worthington Armstrong Joint Venture, a 50/50 joint venture between Worthington Industries, Inc. and Armstrong World Industries, inc. formed in 1992.

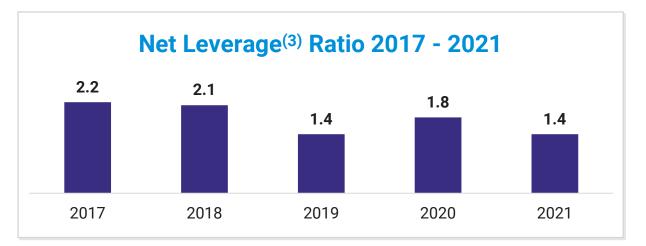


# Strong Balance Sheet and Liquidity Position Supporting Growth and Capital Allocation Priorities

#### **AWI Capital Structure**(1)

\$'s in Millions	Amount
Cash & equivalents	\$98
Revolver Availability	\$335
Term Loan A	\$468
Principal Debt Outstanding	\$634
Net Debt <sup>(2)</sup>	\$533
Net Leverage <sup>(3)</sup>	1.4X
Average Cost of Debt	2.1%





#### Health of balance sheet provides flexibility to support growth investments



Net Debt is comprised of current and long term debt less cash and cash equivalents.



<sup>3)</sup> As defined by the terms of our credit agreement.

<sup>4)</sup> Liquidity is comprised of cash and cash equivalents and availability on our revolving credit facility.

## 2022 Guidance<sup>(1)</sup>

## Double-digit growth on both top and bottom line

	2021 Actual	2022 Guidance	Current Guidance
Net Sales	\$1,107	\$1,215 - \$1,255 10% - 13% YoY	<ul> <li>MF AUV 8 - 10% positive like-for-like pricing &amp; mix benefits</li> <li>Market recovery and benefits from growth initiatives expected to drive MF volume up 2% - 4%</li> <li>AS &gt;10%; guidance does not include any future acquisitions</li> </ul>
Adjusted EBITDA*	\$372	\$410 - \$430 10% - 16% YoY	<ul> <li>Higher than average AUV fall through, continued price over inflation</li> <li>Manufacturing productivity and improved earnings from WAVE</li> <li>Investing to support growth initiatives</li> <li>AS margin expansion</li> </ul>
Adjusted Diluted EPS*	\$4.36	\$5.00 - \$5.20 15% - 19% YoY	<ul> <li>\$25 million of interest expense</li> <li>25% book tax rate</li> <li>\$66 million depreciation, \$16 million amortization, of which ~\$8 million of acquisition amortization is excluded</li> <li>~48 million average diluted shares outstanding</li> </ul>
Adjusted Free Cash Flow*	\$190	\$215 - \$235 13% - 24% YoY	<ul> <li>\$90-\$100 million of Cap Ex</li> <li>\$20 - \$25 million of cash interest expense</li> <li>Cash tax rate 20% - 25%</li> </ul>

Armstrong WORLD INDUSTRIES

Non-GAAP measure. See appendix for reconciliation to nearest GAAP measure.

## 2021 Adjusted Diluted Earnings per Share Reconciliation

For the Twelve Months Ended December 31,

CONSOLIDATED	2021	Per Diluted Share
Earnings from continuing operations before	\$185	\$2.00
income taxes, As Reported	\$100	\$3.86
Add/(Less): Income tax expense (benefit), as reported	57	
Earnings (Loss) from continuing operations before	<b>¢</b> 242	
income taxes, As Reported	\$243	
(Less)/Add: RIP (credit) expense (1)	-	
Add: Acquisition-related impacts (2)	10	
Add: Acquisition-related amortization (3)	21	
(Less): Net environmental (recoveries)	-	
(Less): Gain on sale of idled China plant facility	-	
Add: Accelerated depreciation from closed facility	-	
Add: Charitable contribution - AWI Foundation (4)	-	
Adjusted earnings from continuing operations	¢27 <i>4</i>	
before income taxes	\$274	
(Less): Adjusted income tax expense (5)	(65)	
Adjusted net income from continuing operations	\$209	\$4.36
Diluted Shares Outstanding (6)	47.9	
Adjusted Tax Rate (7)	24%	

<sup>(1)</sup> RIP (credit) expense represents the entire actuarial net periodic pension expense (credit) recorded as a component of earnings from continuing operations. For all periods presented, we were not required to and did not make cash contributions to our RIP.



<sup>(2)</sup> Represents the impact of acquisition-related adjustments for the fair value of acquired inventory and deferred revenue, changes in fair value of contingent consideration and deferred compensation & restricted stock expenses.

<sup>3)</sup> Represents the intangible amortization related to acquired entities, including customer relationships, developed technology, software, trademarks and brand names, non-compete agreements and other intangibles.

<sup>4)</sup> Donation to the AWI Foundation.

<sup>(5)</sup> Adjusted income tax expense is calculated using the adjusted tax rate multiplied by the adjusted earnings from continuing operations before income taxes.

<sup>(6)</sup> Shares are as-reported. 2020 shares outstanding for the twelve months ended December 31, 2020 include anti-dilutive common stock equivalents which are excluded from U.S. GAAP.

<sup>(7)</sup> The tax rate for the three and twelve months ended December 31, 2020 excludes the first quarter pension annuitization and the gain on the sale of our idled China facility.

## **2022 Adjusted EBITDA Guidance Reconciliation**

	Consolidated					
	For the Year Ending December 31, 2022					
	Low	to	High			
Net Income	\$232	to	\$241			
Add: Interest expense	22		26			
(Less): RIP credit (1)	(5)		(5)			
Add: Income tax expense	76		79			
Operating Income	\$325	to	\$340			
Add: RIP expense (2)	5		5			
Add: Depreciation	65		68			
Add: Amortization	16		17			
Adjusted EBITDA	\$410	to	\$430			

<sup>1)</sup> RIP credit represents the actuarial net periodic benefit expected to be recorded as a component of other non-operating income. We do not expect to be and do not plan to make cash contributions to our U.S. Retirement Income Plan based on guidelines established by the Pension Benefit Guaranty Corporation.

<sup>2)</sup> RIP expense represents only the service cost related to the U.S. pension plan that is recorded within Operating Income. For all periods presented, we were not required to and did not make cash contributions to our U.S. Retirement Income Plan.



## 2022 Adjusted Diluted EPS Guidance Reconciliation

	Consolidated									
		For the Year Er	nding Dec	ember 31, 2022						
	Low	Low Per Diluted Share <sup>(1)</sup> to High Per Diluted Share								
Net income	\$232	\$4.87	to	\$241	\$5.05					
Add: Interest expense	22			26						
(Less): RIP credit (2)	(5)			(5)						
Add: Income tax expense	76			79						
Operating income	\$325		to	\$340						
Add: RIP expense (3)	5			5						
(Less): Interest expense	(22)			(26)						
Add: Acquisition related amortization (4)	8			8						
Adjusted earnings before income taxes	\$316		to	\$328						
(Less): Income tax expense (5)	(79)			(82)						
Adjusted net income	\$237	\$5.00	to	\$246	\$5.20					

<sup>1)</sup> Adjusted EPS guidance for 2022 is calculated based on an adjusted effective tax rate of 25% and based on 47.7 million of diluted shares outstanding.



<sup>2)</sup> RIP credit represents the actuarial net periodic benefit expected to be recorded as a component of other non-operating income. We do not expect to be required to make, nor do we plan to make cash contributions to our U.S. Retirement Income Plan based on guidelines established by the Pension Benefit Guaranty Corporation.

<sup>3)</sup> RIP expense represents only the service cost related to the U.S. pension plan and is recorded as a component of operating income. We do not expect to be required to make, nor do we plan to make cash contributions to our U.S. Retirement Income Plan based on guidelines established by the Pension Benefit Guaranty Corporation.

<sup>4)</sup> Represents the intangible amortization related to acquired entities, including customer relationships, developed technology, software, trademarks and brand names, non-compete agreements and other intangibles.

<sup>5)</sup> Adjusted income tax expense is based adjusted earnings before income tax.

## **2022 Free Cash Flow Guidance Reconciliation**

	Consolidated					
	For the Year Ending December 31, 20					
	Low	to	High			
Net cash provided by operating activities	\$210	to	\$230			
Add: Return of investment from joint venture	95		105			
Adjusted net cash provided by operating activities	\$305	to	\$335			
Less: Capital expenditures	(90)		(100)			
Adjusted Free Cash Flow	\$215	to	\$235			

## 2018 - 2021 Adjusted Free Cash Flow Reconciliation

		For the Yea	r Ending	
Consolidated	2018	2019	2020	2021
As Reported net cash provided by operating activities	\$203	\$183	\$219	\$187
Net cash (used for) provided by investing activities	\$310	(\$89)	(\$141)	(\$14)
Net cash provided by (used for) operating and investing activities	\$513	\$94	\$78	\$173
Add: Acquisitions, net	22	56	165	1
(Less)/Add: Payments (proceeds) related to sale of international, net(1)	(272)	66	(20)	12
(Less)/Add: Net environmental (recoveries) expenses	(27)	5	(12)	(1)
Add: Litigation, net	-	23	-	-
Add: Net Payments to WAVE for portion of proceeds from sale of international business	-	-	13	-
(Less): Proceeds from sale of idled China plant facility	-	-	(22)	-
Add: Charitable contribution - AWI Foundation (2)	-	-	10	-
Add: Arktura deferred compensation (3)	-	-	-	5
Adjusted Free Cash Flow	\$236	\$244	\$212	\$190



<sup>1)</sup> Includes related income tax payments

Donation to the AWI Foundation.

Contingent compensation payments related to the acquisition

## 2016 - 2021 AS Adjusted EBITDA Reconciliation

	For the Year Ending							
Architectural Specialties Segment	2016	2017	2018	2019	2020	2021		
Operating Income, Reported	\$19	\$28	\$34	\$36	\$22	\$4		
Add: Acquisition-related impacts(1)	-	-	-	-	3	10		
Add: Depreciation & Amortization	1	2	4	9	11	27		
Adjusted EBITDA from Continuing Operations	\$20	\$30	\$38	\$45	\$36	\$40		

Represents the impact of acquisition-related adjustments for the fair value of acquired inventory and deferred revenue, changes in fair value of contingent consideration and deferred compensation & restricted stock expenses.



## 2021 Mineral Fiber Adjusted EBITDA Reconciliation

	For the Year Ending
Mineral Fiber Segment	2021
Operating Income, Reported	\$261
Add: Depreciation & Amortization	70
Adjusted EBITDA	\$331



## **AWI Adjusted EBITDA Reconciliation 2012 - 2021**

	For the Year Ending									
Consolidated	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Earnings (Loss) from continuing operations, reported	\$159	\$127	\$79	\$58	\$99	\$221	\$190	\$242	(\$84)	\$185
Add/(Less) Income tax expense (benefit), as reported	\$76	\$71	\$69	\$37	\$51	\$2	\$53	\$57	(\$43)	\$57
Earnings (Loss) before tax, reported(1)	\$235	\$199	\$148	\$95	\$151	\$222	\$243	\$299	(\$127)	\$243
Add: Interest/Other income and expense, net(1)	\$50	\$67	\$50	\$62	\$38	\$33	\$7	\$18	\$382	\$17
Less: Historical AFP and non-Americas impact (2)	(\$104)	(\$79)	\$5	-	-	-	-	-	-	-
Operating Income, Reported (3)	\$181	\$186	\$203	\$157	\$189	\$255	\$249	\$317	\$255	\$260
Add: Armstrong Flooring, Inc. separation expenses	-	-	-	34	34	-	-	-	-	-
Add: Non-cash impact of U.S. Pension	-	-	-	15	13	(5)	6	5	6	5
Add: WAVE Pension Settlement	-	-	-	-	-	-	-	1	-	-
Add: Litigation Expense	-	-	-	-	-	-	7	20	-	-
Add: Cost Reduction Initiatives	-	-	-	-	-	7	8	-	-	-
Add: Unallocated Corporate costs, pre-Armstrong Flooring, Inc.	(16)	11	12	20	4	8	6			
and net Proforma International Allocations, other (4)	(10)	11	12	20	4	0	6	-	-	-
Add: Acquisition-related impacts (5)	-	-	-	-	-	-	-	-	3	10
(Less)/Add: Environmental (recoveries)	-	-	-	-	-	(15)	(1)	1	(6)	-
Add: WAVE FSA (6)	-	-	-	-	-	-	-	4	-	-
(Less): AWI Portion of WAVE's (gain)loss on AWI's sale of its								(21)		
non-Americas International Businesses	-	-	-	-	-	-	-	(21)	-	-
Add: Foreign Exchange Movements	-	-	-	1	-	-	-	-	-	-
(Less): Gain on sale of idled China plant facility	-	-	-	-	-	-	-	-	(21)	-
Add: Charitable contribution - AWI Foundation (7)	-	-	-	-	-	-	-	-	10	-
Operating Income, Adjusted	\$165	\$197	\$215	\$227	\$240	\$250	\$275	\$328	\$246	\$275
Add: Depreciation & Amortization	48	50	57	56	55	67	78	75	84	97
Adjusted EBITDA from Continuing Operations	\$213	\$247	\$272	\$283	\$295	\$317	\$353	\$403	\$330	\$372

<sup>1) 2012</sup> as reported figures include results of our former Resilient Flooring, Wood Flooring reportable segments ("Armstrong Flooring, Inc.") which were excluded from our results of continuing operations effective April 1, 2016. 2013-2014 as reported figures include results from Armstrong Flooring, Inc. and the results of our former EMEA and Pacific Rim reportable segments ("non-Americas International Businesses"), which were excluded from continuing operations effective December 31, 2017.



<sup>2)</sup> Includes discontinued operations adjustments related to Armstrong Flooring, Inc and our non-Americas International Businesses.

<sup>3) 2012</sup> as reported figures include results of our non-Americas international businesses.

<sup>4)</sup> Includes adjustments to corporate costs and geographic allocations of corporate support functions due to the separation of Armstrong Flooring, Inc and the sale of our non-Americas International businesses.

<sup>5)</sup> Represents the impact of acquisition-related adjustments for the fair value of acquired inventory and deferred revenue, changes in fair value of contingent consideration and deferred compensation & restricted stock expenses.

<sup>(</sup>i) WAVE Fresh Start Accounting asset impairment charge due to sale of our non-Americas International Businesses

<sup>)</sup> Donation to the AWI Foundation