

2015 SMS REPORT

September 2016



TIVOLI BREWING TAP HOUSE
Awarded ASID Colorado Crystal Award

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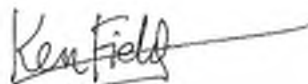
01. Foreword

We are happy to publish the fourth annual report of RB+B's Sustainability Management System. The SMS document was produced in April of 2011 by RB+B's G:REEN Team with input from the entire office. In our fourth year of implementation, it has been a valuable tool in guiding our office processes as well as the design of our buildings and their environments.

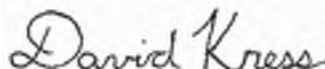
We understand that as humans we affect the quality of all life on our planet. We believe we must think globally and act where we can have the most impact. It is a natural extension of our beliefs and practice to implement the RB+B SMS and participate in the AIA 2030 Commitment.

Our SMS annual report has helped us to document our vision and chart a course for action around each of the three areas of our business: Internal Operations, Internal Process + Technology, and External Product Offerings. We have identified things we are already doing well, as well as areas we will target for growth. With this report, we have provided a benchmark both for ourselves and for our industry to measure growth against. As we move forward, the SMS annual report will help us to tell our story, hold ourselves accountable, and celebrate our positive impact on the world around us. We firmly believe that sustainable design, as we practice it, will positively affect ourselves and the lives of the people who use our buildings.

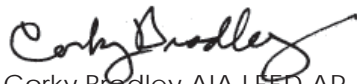
There is a lot of work to be done and we have set some challenging targets. The SMS and this report are important guides to keep us on track to reach them. However, achieving these targets is not the end of the process. It is only a step as we seek to further understand and broaden our role in the world of education and sustainability.



Ken Field AIA LEED AP



David Kress AIA LEED AP



Corky Bradley AIA LEED AP



Rebecca Spears AIA LEED AP



WIBBY BREWING

crafting tasteful lagers

WIBBY BREWING
Longmont, Colorado



02. Introduction

About RB+B Architects

Over the course of our 63 year history, RB+B has designed many public buildings and award winning schools. With a focus on the integrated design process, we strive for sustainability in every building project. RB+B works closely with clients to implement sustainable building practices. We are involved with several LEED projects in Colorado and are committed to the future of sustainable building as a registered member of The AIA 2030 Commitment.

In addition to sustainability in our design products, RB+B is committed to long-term change throughout our business organization. As a member of the City of Fort Collins Climate Wise Program since 2007, our goal is to not only reduce our carbon footprint through energy, transportation, and waste initiatives, but also to educate and challenge our staff to live and work in a sustainable way. The development of the Sustainability Management System (SMS) has helped to move us toward these goals as well as track our progress.

Within the SMS, RB+B has adopted the One Planet Living Framework. This framework is a global initiative developed by BioRegional® which outlines a vision of a sustainable world. As a commitment to this vision we have implemented their One Planet Action Plan. This plan helps us to embed sustainability in our organization's culture and mission.

One Planet Living Framework

One Planet Living is a vision of a sustainable world where people lead healthy, happy lives within their fair share of the Earth's resources. We are demonstrating our commitment to this vision by implementing this One Planet Action Plan.

Mission Statement

"RB+B incorporates sustainable design practices in every project no matter what size or budget, designing buildings that are responsive to the natural environment while meeting the user's needs. As we believe in being responsible environmental stewards, we are also committed to incorporating sustainable practices into our daily operations."



ONE PLANET ACTION PLAN

We're using a One Planet Action Plan to help us live within a fair share of the earth's resources

Zero carbon	making buildings more energy efficient and delivering all energy with renewable technologies
Zero waste	reducing waste, reusing where possible, and ultimately sending zero waste to landfill
Sustainable transport	encouraging low carbon modes of transport to reduce emissions, reducing the need to travel
Sustainable materials	using sustainable and healthy products, such as those with low embodied energy, sourced locally, made from renewable or waste resources
Local and sustainable food	choosing low impact, local, seasonal and organic diets and reducing food waste
Sustainable water	using water more efficiently in buildings and in the products we buy, tackling local flooding and water course pollution
Land use and wildlife	protecting and restoring existing biodiversity and natural habitats through appropriate land use and integration into the built environment
Culture and heritage	reviving local identity and wisdom; supporting and participating in the arts
Equity and local economy	creating bioregional economies that support fair employment, inclusive communities and international fair trade
Health and happiness	encouraging active, sociable, meaningful lives to promote good health and well being

03. Our Top Priorities

After a firm-wide workshop and development of our SMS in 2011, we identified five principles we believed would have the greatest impact. In order of priority, those Principles were:

1. Zero Carbon
2. Health and Happiness
3. Zero Waste
4. Sustainable Materials
5. Culture and Heritage

In organizing our thoughts into the One Planet Living Framework, several cross-cutting intentions emerged that we desired to incorporate into our sustainability initiatives:

1. Communication
2. Education
3. Building Instruction Manual
4. Consultant Contracts

These priority principles and cross-cutting intentions were a great starting point for implementing our SMS. The G:REEN|team created a database with each item we hoped to accomplish in 2011. We soon realized that this itemization and tracking system was cumbersome. In 2012 we revised our thought process and developed Concentration Areas. Each year the concentration areas are updated to reflect previous years' accomplishments and goals moving forward.

2015 CONCENTRATION AREAS

Concentration Area #2: Implement sustainable design goals and track/report project data.

Objective: Improve office-wide documentation of sustainable design features and outcomes for reference in future designs, marketing, and AIA 2030 Commitment reporting.

Approach: Utilize "RB+B Design Opportunities Checklist" to set quantifiable goals and then capture outcomes in the RB+B Project Database.

Principles: All, with an emphasis on Zero Carbon.

Concentration Area #3: Broadly engage staff in sustainability efforts.

Objective: Maximize staff participation in sustainability efforts.

Approach: The collective staff will brainstorm initiatives through periodic workshops, the G:REEN team will organize, manage, and champion them, and individual staff members will implement them, according to their individual expertise and passion.

Principles: All, with an emphasis on Health and Happiness.



CONSERVATORY GREEN ECE-8 SCHOOL
*Awarded AIA Colorado North Chapter,
Citation Award*





04. Ongoing Initiatives



2015 was a great year for continuing to implement our SMS. We were able to accomplish many projects related to our Concentration Areas and some additional projects.



The following pages provide a detailed look into the ongoing projects in 2015, along with cost and savings information for some projects. We begin with a highlight of accomplishments that correspond to our cross-cutting intentions and move into projects that encompassed every petal of the One Planet Living Framework. We then turn our focus to our AIA 2030 Commitment and City of Fort Collins Climate Wise information.



Communication

A4LE (Formerly CEFPI) National Conference | Brianne, along with Dr. Ann LaPlante (former principal of Summit Elementary), presented The Summit Elementary Success Story: How An Open Plan School Actually Delivers 21st Century Learning. The presentation focused on Summit as a fascinating example of how school design and curriculum development, in conjunction with a high level of community involvement, can transform the way students learn and interact.



Craft Brewer's Conference | Ben, along with Matt Bailey of Odell Brewing Company, presented Brewhouse Expansion Considerations. The presentation included information on Sizing Equipment, Supplier partnerships, Building expansion considerations, Technology Musts, and Lessons Learned.



UNC Sustainability Presentation | Jayne and Tiffany presented to a UNC class, Business & the Environment, about how our business approaches sustainability when it comes to people, planet, and profits. They communicated to the students that it is not only cost effective, but feels good to implement sustainability initiatives within the office and in our designs.



CSU Urban Sustainability Tour | Jayne presented RB+B's internal sustainability practices and design philosophy to the class. This was part of a ClimateWise initiative to introduce the class to sustainability initiatives happening within small businesses and governmental groups in the City of Fort Collins.



Education

Business Innovation Fair | Jayne and Rebecca attended the ClimateWise Business Innovation Fair where they rolled out ClimateWise 2.0.



Electricity for Dummies | Travis Pofahl of RJ McNutt & Associates presented to the team about the fundamentals of electricity, system selection, configurations, and one-lines.



Mechanical System Selection| Tom Segelhorst from Integrated Mechanical presented “Choosing Mechanical Equipment” to the firm.

USGBC Green Schools Summit | Ashley H, David, Denise, and Tiffany all attended the Green Schools Summit in Denver. The Green Schools Summit is an annual education and networking event hosted by USGBC Colorado. It is Colorado’s only conference dedicated to bringing together green building industry professionals, school decision makers, educators, and parents.



Zero Carbon

Lights Out Lunch (2011-Present)

In 2015, we continued the Lights Out Lunch initiative on occasion. Project deadlines and lack of task lighting interrupted monthly implementation.

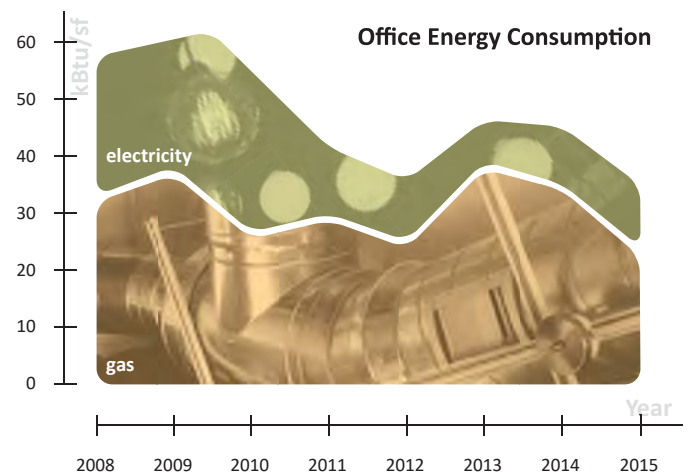
Project Savings: Possible 85 kWh/mo = \$93 in 2015

Energy Consumption

Our energy consumption went down by 16% compared to 2014, but was still 28% higher than our lowest year, 2013. In 2015, we used a total of 19,401 kWh. Electricity consumption in 2015 may be attributed to cooler June temperatures which reduced the need for summer cooling. Our natural gas consumption went down from 2,154 therms in 2014 to 1,729 therms in 2015. We continued our practice of purchasing “Green Energy” through the City of Fort Collins to offset our electrical usage.

Project Cost: \$495

Project Savings: \$0



Lose-A-Watt Challenge

The office learned about the City of Fort Collins Lose-a-Watt Challenge through an in-office presentation. Each employee was sent home with one (or multiple) energy conservation kits and asked to participate. “The WorkWise Challenge encourages these employees to participate in the Lose-A-Watt competition by installing a Home Conservation Kit and then telling us about it on this website.” <http://lose-a-watt.com/workwise-challenge/what-is-the-workwise-challenge/>



Zero Waste

Divert to Dirt (2008-Present)

We continued the Divert to Dirt program with great success! Each week Gallegos Sanitation picks up a 65 gallon drum full of our compostable materials including food scraps, napkins and paper towels, and other commercially compostable items.

Project Cost: \$1,080

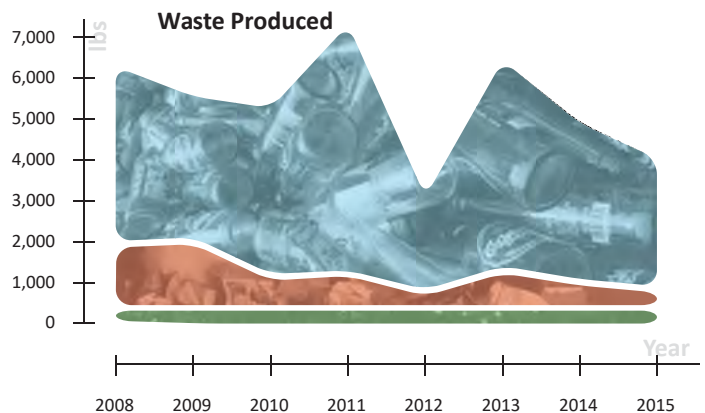
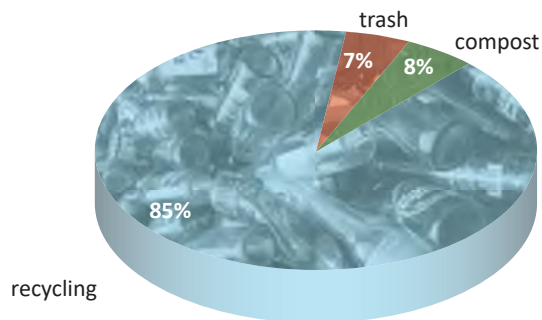
Recycling Teams (2010-Present)

In 2015 recycling teams changed as project teams moved desks and the number of staff fluctuated. This created the perfect opportunity to remind staff about the benefits of participation and guidelines for Single-stream Recycling.

Project Cost: 1 hour/week per team

Landfilled Waste

In 2015, we reduced our landfill waste to only 275 pounds! This figure is a tie with 2012 for the lowest amount of landfill waste produced. Our recycling waste was also the lowest since 2012. These low figures might be attributed to projects going to a paperless (digital) format and the higher workload which led to less cleaning of storage areas.



HANNA ELEMENTARY SCHOOL
A4LE Rocky Mountain Chapter, Peak Design Award, Merit





Sustainable Transportation

NEW! Bike Friendly Business

In 2015 RB+B earned the Silver Bicycle Friendly Business (BFB) designation from the League of American Bicyclists.

"Bikes are good for businesses and their employees. Through our Bicycle Friendly Business (BFB_{SM}) program, employers are recognized for their efforts to encourage a more welcoming atmosphere for bicycling employees, customers, and the community."

www.bikeleague.org/business

Attributes of a BFB (From the League of American Bicyclists):

- Encouragement
- Engineering
- Education
- Evaluation & Planning

ROAD Challenge (2010-present)

In 2015 we had 73% participation, meaning that 16 employees used alternative transportation at least once during the year. We saved 58 gallons of gas by using alternative transportation to commute to work. This is considerably lower than years past, presumably because our reporting method (Expense Reports) was not easy to use and therefore people didn't report their days. 2016 will see a new method of tracking to try and prevent underreporting.

Project Cost: 3 hours tracking

Project Savings: \$658 personal savings, \$0 savings to the office

As far as alternative transportation for business goes, we saved 1,348 gallons of gasoline. This is our highest savings yet! It's most likely attributed to frequent, out of town site visits. This translates to 24,494 miles worth of savings that could have been reimbursed to the employees.

Project Cost: 3 hours tracking

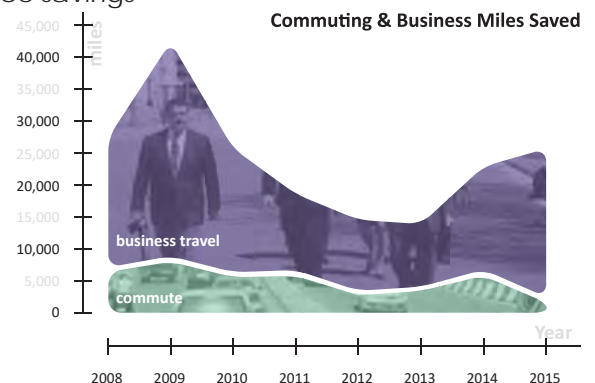
Project Savings: \$175 personal savings, Over \$13,000 office savings

ATmo (2011-present)

In 2015, we had almost 90% participation in Alternative Transportation month (ATmo). Our goal for the month was to reduce our carbon emissions by 1 ton. It was a tough year for ATmo as we only reduced carbon emissions by 44% of our goal.

Project Cost: 2 hours, \$50 gift certificate to winner

Project Savings: ~\$90 personal savings, \$0 savings to the office



GoTo Meetings and Skype

We continued to use GoTo Meeting as the standard when scheduling meetings, but also added Skype to the mix. Using GoTo Meeting and Skype allows us to host meeting that may have otherwise required a lot of travel. Miles saved by using these programs are not accounted for in the chart.

Green Cleaning (2008-present)

We continue our green cleaning products purchasing policy to improve indoor air quality in the office.

Project Cost: \$100/year



Sustainable Materials

Project Material Re-use & Recycled Content

We make every effort to have the work that comes out of our office reflect our commitment to sustainable materials. Often, we include sustainable, upcycled, or repurposed materials in our designs.

Almost all of the interior finish products we use have some percent of recycled content, including tack wall fabric, ceiling tiles, porcelain tile, solid surface, plastic laminates and some carpets and resilient flooring.

Other Sustainable Products

Sustainable products are also products that are made from natural materials, like Forbo Bulletin Board, which we use on almost every project as tack wall and tack board.

A sustainable product is also one that is easy to maintain and does not use a lot of chemicals or power to keep up, such as vinyl tiles and polished concrete. Although these products might use energy up front upon installation or in the manufacturing process, their ease of maintenance and longevity contribute to its sustainability.

We also specify no VOC (Volatile Organic Compounds) paints and adhesives and no formaldehyde in products.

RB+B specifies ENERGY STAR appliances and energy-efficient LED lighting with controls and operable solar shades to minimize glare and save energy.

Also, when possible, specify local products, within 500 miles.



Local/Sustainable Food

Community Supported Agriculture

2015 was the second year that RB+B was host to CSA shares through Spring Kite Farm in Fort Collins. We offered employees the option to buy their own shares, split shares with others, and have the shares delivered directly to the office with an additional delivery fee. It was exciting to see what the shares contained each week and to have the fresh produce delivered directly!

Lunch Presentations & Break

Whenever possible, we purchase food from locally owned businesses for lunch presentations and office meetings. Some of our favorites include the Food Co-op, Backcountry Provisions, and Silver Grill.

Healthy Foods Potluck

In July, the wellness committee hosted a healthy foods potluck.

"With so many different diets, eating plans, and government guidelines to follow, it's hard to find consensus on what you should and should not eat. The simplest way to find the healthiest nutritional equation for you is to eat real, unprocessed foods and cook your meals at home. That way you know exactly what is going into the food you put into your body. And remember, everyone is different and has different needs for their health, so find what works for you!"



Culture & Heritage

Culture Elements

CSU Agricultural Education Center | The Ag Ed Center features cultural elements such as CSU Ram's Horn and FFA Logos in the 4,000 SF terrazzo floor.

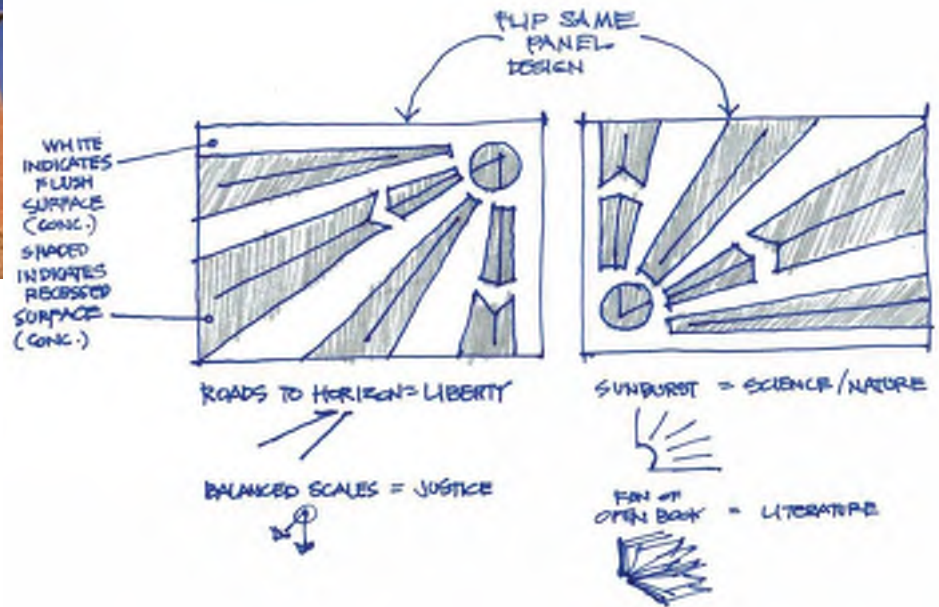


PRAIRIE HEIGHTS MIDDLE SCHOOL
Evans, Colorado



joint venture with Hord, Coplan, Macht

Prairie Heights Middle School | The middle school's precast concrete panels (pictured left) feature traditional forms and materials which are inviting and inclusive to the students and community. These panels were inspired by words on the exterior of the historic Greeley High School.



Health and Happiness

RB+B Living by Design Wellness Committee

The Wellness Committee, formed in 2014, improved office wellness through a number of initiatives in 2015:

Biggest Loser Challenge

The wellness team hosted our very own, 8 week RB+B Biggest Loser Challenge beginning in January. Each week participants weighed in for a chance to win the grand prize of \$100!

Wellness Kit

The office-sponsored wellness kit was established in November and features items to stay well and get well at work including Emergen-C, zinc, throat lozenges and herbal teas for cold and flu season.

September Active Days Challenge

The wellness committee also hosted the September Active Days Challenge as a way to get employees to stay active in the month of September - even as the days get shorter and the weather gets cooler. The challenge ran from September 1st to September 30th and featured incentives for the top three most active participants.

We followed the American Cancer Society's guidelines for physical activity:

- Moderate activity is anything that makes you breathe as hard as you do during a brisk walk. During moderate activity, you will notice a slight increase in your heart rate and breathing, but you probably won't break a sweat.
- Vigorous activity is performed at a higher intensity. These activities produce an increased heart rate, sweating, and breathing rate.

For each day the participant engaged in at least 30 minutes of continuous, moderate to vigorous physical activity, they got a point.

Personal Volunteering (2012-present)

We wish to encourage active participation in volunteer activities directly related to enriching the quality of life and opportunities for the communities in which we live and work. In 2015, employees reported 377 hours of volunteering for their favorite organizations:

- Ben Basalay - Larimer County Emergency Services; Poudre School District; Fort Collins Baseball Club (coaching); Northern Colorado Youth Hockey (coaching)
- Brianne Smith - RB+B G:REEN | team
- David Kress - AIA
- Denise Pozvek - Figure Skating Club
- Derek Young - Poudre School District
- Eleanor Burke - Downtown Business Association
- Jayne Kafka - FoCo Roller Derby, RB+B G:REEN | team, RB+B Living by Design, Society for Design Administration
- Kate Penning - USGBC
- Ken - A4LE
- Matt Arabasz - Poudre School District, RB+B G:REEN | team
- Rebecca Spears - RB+B G:REEN | team, Trail Crew
- Tiffany Carlson - RB+B G:REEN | team, HeRD of Wyoming

Office-Wide Volunteering Efforts

- In May, a group of RBBers participated in the Loveland Spring Waterway Cleanup. We put on our gloves and brought tools to help pick up debris leftover from the 2013 flood of the Big Thompson River.
- In September, we participated and took first place in Partners Mentoring Youth's annual SuperStars Sports Challenge to raise money for their organization - The office matched the total raised by employees for a lump sum donation of over \$2,000!
- For the third year in a row, we adopted a family through Poudre School District for Christmas. The mother and her five children were very happy!
- RB+B also donates to and sponsors many local events and non-profit organizations.

RB+B H2O (Happy Hour Outing)

A monthly happy hour to enjoy a brew (or two) with coworkers.

Project Share (2012-present)

Project share helps generate a more inclusive and informed environment in our office culture and allows for creative input from staff on current projects. Project shares are each month during break.

Eagles Game

This year the office rented a suite to watch an Eagles game!

Other Parties

Other happiness boosters included our Summer Picnic at Boyd Lake and our Holiday Party at Ken's house.



City of Fort Collins Climate Wise Program

RB+B joined Climate Wise in 2007 and worked our way up the ranks to be recognized as a Platinum Partner in 2011 at the annual EnvirOvation event.

In 2015, ClimateWise2.0 was introduced. 2.0 works on a badge system for Partners to recognize achievements in energy, waste, water, transportation and social responsibility.

RB+B has maintained our Platinum Partner status by earning 4 out of the 5 badges. Next year we'll strive to earn points toward the water badge!



THE COOKING STUDIO

AIA 2030 Commitment



"The AIA 2030 Commitment is a growing national initiative that provides a consistent, national framework with simple metrics and a standardized reporting format to help firms evaluate the impact design decisions have on an individual project's energy performance." www.aia.org/practicing/2030Commitment

RB+B signed on to the AIA 2030 Commitment program in January of 2010 and submitted our first report in March of 2012.

Whole Building/Addition Projects (projects with HVAC upgrades)

Predicted Energy Use Intensity (PEUI) is kBtu/sf/year. This is the unit used for analyzing the predicted energy use in building. The reduction figures are relative to either the National Average based on location and building type, the PEUI determined by the design code, or the modeled PEUI.

Since joining in 2010, RB+B has reported:

	Number of	Gross Square	
Year	Projects	Feet	PEUI Reduction
2011	15	550,021	36.8%
2012	12	944,139	33.3%
2013	8	688,802	9.3%
2014	19	1,109,752	20%
2015	22	756,361	43.1%

Projects with Highest PEUI Reduction

2011	Windsor Readiness Center	75.9%
2012	PSD Elementary Renovations	40%
2013	Prairie Heights Middle School	66.7%
2014	Prairie Heights Middle School	66.7%
2015	Oak Street Restroom Building	100% (Net-zero!)

Interior Only Projects (projects with lighting upgrades only)

Lighting Power Density (LPD) is the installed lighting watts/square foot. The reduction percentage is relative to either the National Average based on location and building type, the LPD determined by the design code, or the modeled LPD.

Since joining in 2010, RB+B has reported:

Year	Number of Projects	Gross Square Feet	LPD Reduction
2011		127,749	20.7%
2012		111,065	25.6%
2013		4,200	13.3%
2014		4,200	13.3%
2015		55,621	

Projects with Highest LDP Reduction

2011	Fairmont School	27.2%
2012	Burlington Elementary School	30.8%
2013	Equinox Brewing Remodel	13.3%
2014	Equinox Brewing Remodel	13.3%
2015	Fort Collins Readiness Center	45%

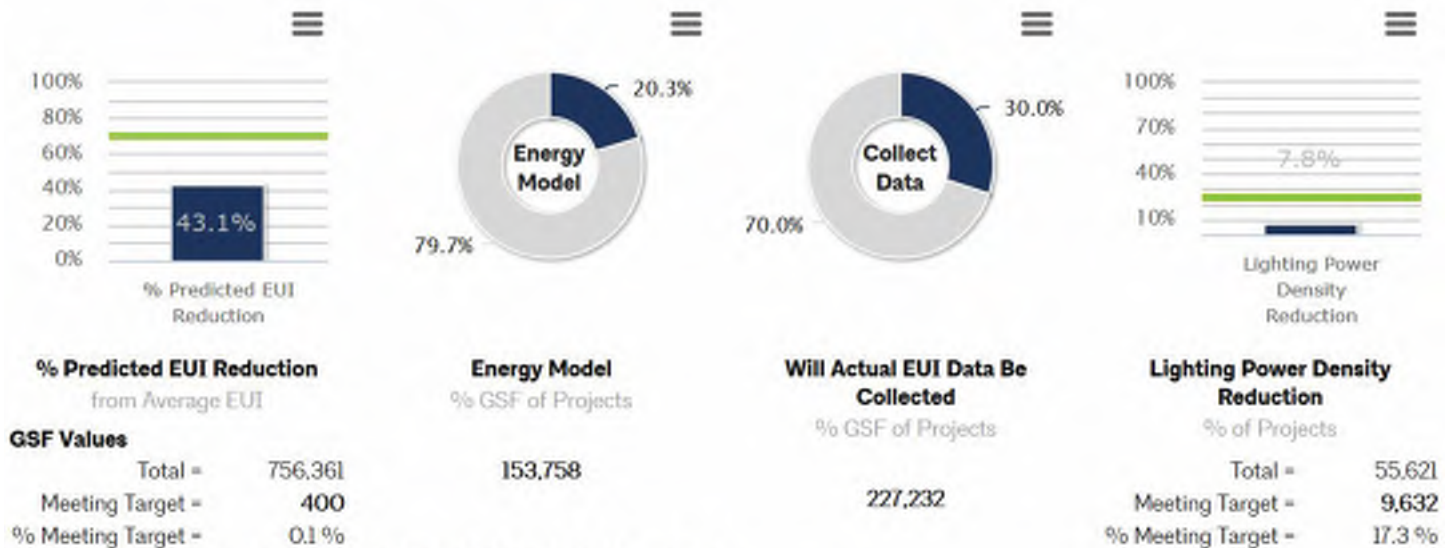
The following page includes a graphic with our 2015 data and a summary of our data over the years.

The AIA 2030 Commitment 2015 Progress Report has not been published as of the writing of this report. It will be available in the future at:

www.aia.org/practicing/2030Commitment

2015 SUSTAINABILITY REPORT

24 Projects And 811,982 GSF Included In Analysis.



Interior-Only Projects: 2 projects and 55,621 GSF included in analysis.

Non-Residential and Residential Projects: 22 projects and 756,361 GSF included in analysis.

