

2013 SMS REPORT August 2014







ONE PLANET ACTION PLAN We're using a Crive Manuel Action Plan to help us like within a fair share of the earth's resources

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01. Foreword

We are happy to publish the third 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 third 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.

Field AIA LEED AP

Corky Bradley AIA LEED AP

Rebecca Spears AIA LE



LINCOLN ELEMENTARY SCHOOL Achieved LEED Gold in January 2013



02. Introduction

About RB+B Architects

Celebrating our 60th anniversary in 2013, 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 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 tracking 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 landfil
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 crosscutting 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.

2013 CONCENTRATION AREAS

Concentration Area #1: Develop firmwide sustainable design goals and metrics for projects.

Objective: Establish baseline level of sustainability for projects.

Approach: Develop "RB+BSustainable Design Guide" to capture design goals and metrics.

Principles: All, with an emphasis on Zero Carbon.

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 Sustainable Design Guide" 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.

GREELEY-EVANS SCHOOL DISTRICT 6 Engage Learning Center

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04. Ongoing Initiatives

2013 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 2013 along with detailed cost and savings information for each project. 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

Reduce, Reuse, Recycle: The Inside Scoop on Designing Flexible Space The Green Schools Summit featured this presentation by Brianne. One of the lessons learned shared by Brianne was that ease of classroom layout change is critical; operable partitions are cumbersome to move (and create acoustical issues) and furniture children can move themselves boosts self-esteem in age groups that have limited ability to impact their environment. Changing atmosphere in the classroom also helps keeps students engaged. A School Flexibility Survey conducted by RB+B of 12 Colorado Front Range schools revealed many insights such as classroom use patterns and a preference for shared small group learning spaces with large doors so the classrooms can be made larger as needed.

Help Stop the 2030 Repeal | Ken signed a letter drafted by the AIA to help let the U.S. Senate know that we support continuing to make federal buildings more sustainable and back policies that help save energy.

Climate Wise Focus Group Luncheon | Jayne attended a focus group luncheon for Platinum ClimateWise members to address questions such as:

- ClimateWise is a service provider and resource to businesses. What type of role should it play as a community leader, catalyst, and convener?
- What does the program success and growth mean for the future of ClimateWise in Northern Colorado?
- Aside from helping to reduce carbon emissions and save businesses money, what kind of resource should ClimateWise aspire to be for our business community?
- How aggressively should we pursue new services?

Education

Green in Action: Engaging Employees and Sustainability in Wellness Initiatives | Jayne went to this program by Sarah Morales, Employee Well Being Coordinator, and John Drigot, Sustainability Coordinator from UC Health. They shared their strategies in engaging employees at University of Colorado Health North (formerly Poudre Valley Health System). "More companies are turning to

employee wellness and sustainability engagement to increase the productivity and satisfaction of their employees." Sarah and John gave examples of programs they have led that foster employee wellness and promote increased environmental stewardship.

Business Innovation Fair | Jayne attended the Jumpstarting Culture Change and Regional Perspective on Waste Reduction seminars at this fair hosted by ClimateWise.

AlA National Convention | Many staff attended the convention held in Denver. The convention focused on Leadership for Architecture, Leadership Beyond.

Red Hot Skins - Crafting the Thermal Envelope | Eleanor and Brianne attended this seminar put on by the AIA Building Envelope Council. The seminar focused on the means and goals of energy engineering with respect to the building envelope.

CEFPI World Conference | Matt, Brianne. and Ken attended the 2013 CEFPI World Conference in Indianapolis, IN. The theme of the conference was "Raising the Game - A call for Leadership, Creativity and Passion." The theme "builds on this strong reputation of sports, competition and winning. In order to succeed in sports, it takes dedication, passion and a desire to succeed. This same attitude must permeate the way we tackle the planning, design and construction of educational facilities."

Early Childhood Education Design Conference | Josh attended the ECE conference in Denver. The conference brought together "nationally recognized experts and thought leaders to highlight best practices and cutting edge research in designing, developing and managing high performance learning environments for early childhood education."

CSU Institute for the Built Environment Annual Meeting | Tiffany attended the annual meeting to keep informed of their progress in 2013 and explore ways we can partner together!

IDAP Overview | Joe, Corky, and Matt attended this program sponsored by the City of Fort Collins and Colorado Green Building Guild. The training provided information about the general structure of the new Integrated Design Assistance Program, how to participate and how it fits into the Architecture 2030 Challenge.



Lights Out Lunch (2011-Present)

In 2013, we continued the Lights Out Lunch initiative, but project deadlines and lack of task lighting interrupted its full implementation.

Project Savings: Possible 85 kWh/mo = \$10 in 2013

Energy Consumption

2013 saw a 63% electricity consumption reduction and a natural gas consumption increase of 26% from our 2008 baseline. Our overall energy consumption was 24% higher in 2013 than in 2012 and 19% better than in 2008. We continued our practice of purchasing "Green Energy" through the City of Fort Collins to offset our electrical usage.

Project Cost: \$387.95 Project Savings: \$2.93 (from 2011)



Divert to Dirt (2008-Present)

In 2013, we continued divert to dirt and updated our waste signage to reduce contamination.

Project Cost: \$1,200

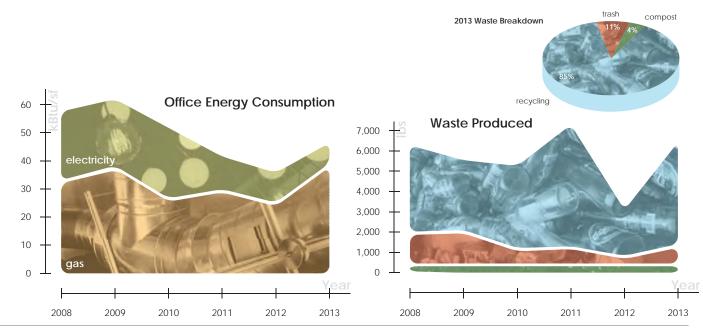
Recycling Teams (2010-Present)

In 2013 recycling teams changed as project teams moved desks around the office. This created the perfect opportunity to revamp our recycling team efforts, and remind staff to participate.

Project Cost: 1 hour/week

Landfilled Waste

In 2013, we reduced our landfill waste to only 703 pounds! This is a increase from our 2012 low, but is still a 65% improvement over our 2008 baseline.







Sustainable Transportation

In 2013, we saved 448 gallons of gasoline and 9,506 miles by using alternative transportation for business. *Project Cost: 3 hours tracking Project Savings: \$5,371*

ROAD Challenge (2010-present)

In 2013 we had 100% participation, with all 20 employees using alternative transportation at least once during the year. We saved over 150 gallons of gasoline by using alternative transportation methods.

Project Cost: 3 hours tracking Project Savings: ~\$525 to employees

ATmo (2011-present)

In 2013, we aimed to have 100% Alternative Transportation month (ATmo) participation and to reduce our carbon emissions by 1 ton. We were incredibly successful meeting both ambitious goals! *Project Cost: 2 hours*

Sustainable Materials

Green Cleaning (2008-present)

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

Project Cost: \$100/year

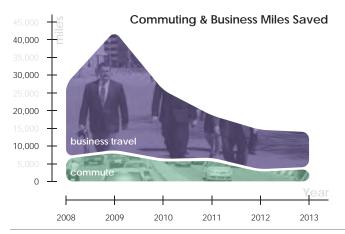
Project Material Re-use

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. A few examples from 2013 are:

- Hanna Elementary reused snow fence at main entrance, entryway into each classroom (alcoves), circulation areas.
- O'Dea Elementary Entry reused wood doors and SAT ceiling panels.

GoTo Meetings

We continue to use GoTo as the standard when scheduling meetings. Miles saved by using GoTo Meetings are not accounted for in the chart below.









Local/Sustainable Food

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 Krazy Karl's.



60th Anniversary Party

For our office's 60th Anniversary party, we catered the event with the help small, local businesses who also source food/materials from other small, local businesses.



Culture & Heritage

Culture Elements

Odell Expansion | One of the more unique aspects of the latest expansion is the new brewhouse. The brewhouse has become a showcase space for Odell and is really their heart and soul. Visually, the design team was able to work with Odell's sales and marketing teams to craft details that would make the building unique to Odell's brand. Graphic elements from their labels were woven throughout the building. Metal detailing showcases cutouts of hops and other materials used in the brewing process. Glass from old beer bottles was integrated into the restroom sinks. There is a "surprise and delight" element as one walks through the space and discovers each intricate detail. Discovery becomes part of the patron's experience and people look for and expect those details to surface while they are there.





Health and Happiness

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 2013, employees reported 395 hours of volunteering for their favorite organizations:

- Ben Basalay Larimer County
 Emergency Services
- BrianneSmith-RB+BG:REEN | team, Partners Mentoring Youth
- Corky Bradley Drive Electric NoCo
- David Kress Church, Stepping Stones, MVHS Trash Pickup, ARNG Trail Crew
- Denise Pozvek Colorado State University, Front Range Community College, ASID, AIA Box City
- Derek Young ARNG Trail Crew



- George Brelig ARNG Trail Crew
- Jason Coats NoCo Rebuilding Network, Partners Mentoring Youth
- Jayne Kafka FoCo Derby Girls, RB+B G:REEN | team, Partners Mentoring Youth
- Joe Hosek Liberty Commons
 School
- Jordan Caylor Partners Mentoring Youth
- Josh McGarvey Partners Mentoring Youth
- Kate Penning USGBC
- Matt Arabasz Poudre School District, RB+B G:REEN | team, City of Fort Collins, Partners Mentoring Youth
- Rebecca Spears RB+B G:REEN | team, ARNG Trail Crew, FOCOcafe.org, Pro Cycling Tour, Tour de Fat, Partners Mentoring Youth
- Tiffany Carlson Larimer Humane Society, RB+B G:REEN | team, MOCA Masks, USGBC, Partners Mentoring Youth
- Office collected boxes for AIA Box City
- Adopted a family for Christmas

SuperStars Challenge

After a one-year hiatus, RB+B again participated in the Partners Mentoring Youth annual SupserStars Sports Challenge. We were successful both in the events, and in fundraising. We took 3rd place overall in the competition!

RB+B H²0 (Happy Hour Outing)

A monthly happy our 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.

Sponsorships/Donations

RB+B donates and sponsors many local events and non-profit organizations.

Summer Picnic

The picnic, held in August, featured local meats and stiff competition on the volleyball court!

Gingerbread House Design

For the second year in a row the office took a time out near the holidays to design gingerbread houses - except this year they were castles!

Young Architects Awards Gala

RB+B submitted nominations for Josh and Brianne for Young Architect of the year. The Young Architects Award is given to individuals who have shown exceptional leadership and made significant contributions to the profession in an early stage of their architectural career.











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.

One of the benefits of becoming a Platinum partner is that we get to be featured in advertorial campaigns such as the banner to the right. We were also featured in Northern Colorado Business Magazine as a Platinum partner.



Some of the requirements for maintaining platinum partner status are submitting a greenhouse gas baseline (61 tons) and hosting two challenges each year. Our 2013 challenges included ATmo and Meeting the 2030 Challenge.

Join Climate Wise. It's easy. It's fun.

City of Fort Collins Climate Wise Program.



Climate Wise benefits your business.

- Operational cost savings
- Positive public recognition
- Peer networking opportunities
- Reduced greenhouse gas emissions
- Join forward-thinking business leaders

A Top 50 Innovative Government Program by Harvard University. (970) 221-6700 fcgov.com/climatewise

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AIA 2030 Commitment

"In December of 2005, the AIA adopted a Sustainable Architectural Practice Position Statement that set the profession on a trajectory toward carbon neutrality. It calls for a 70 percent reduction from the current level of fossil fuel consumption used to construct and operate new and renovated buildings by the year 2015 and further reductions of remaining fossil fuel consumption by 10 percent or more in each year with the ultimate goal of zero fossil fuel consumption by the year 2030.

The AIA 2030 Commitment program is the AIA's cornerstone effort to demonstrate the progress AIA members are making toward reducing the operational energy use of their designs, while encouraging other architects to do the same. The program is a voluntary call for action for member firms to join and demonstrate progress toward the industry's widely adopted 2030 targets in both how the firms operate and how they design. To date, more than 270 firms have made the commitment, ranging in size from the sole practitioner to the multi-national practice." AIA 2030 Commitment

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

For projects in design in 2013, RB+B reported 688,802 gross square feet of whole building/ addition projects, compared to 944,139 in 2012 and 550,021 GSF in 2011.

Our Predicted Energy Use Intensity (PEUI) Reduction from the National and Regional Site Energy Use Intensity (EUI) was 9.3% in 2013 compared to 33.3% in 2012 and 36.8% in 2011. The project with the highest PEUI percent reduction from average was Prairie Heights Middle School with a predicted 66.7% reduction. In 2012, the PSD elementary renovations had the highest predicted reduction at 40%. In 2011, the project with the highest PEUI percent reduction was the Windsor Readiness Center at 75.9%.

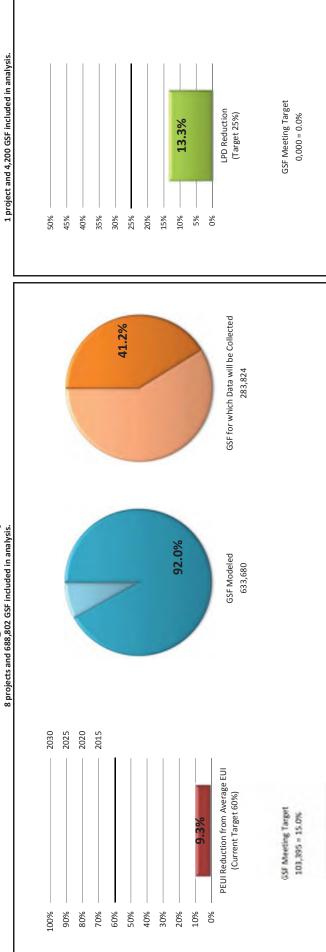
In 2013, RB+B reported 4,200 gross square feet of interior only projects compared to 111,065 GSF in 2012 and 127,749 gross square feet in 2011.

Our Lighting Power Density (LPD) Reduction from ASHRAE was 13.3% in 2013 compared to 25.6% in 2012 and 20.7% in 2011. The only reported interior only project, the Equinox Brewing Remodel, had a reduction of 13.3% compared to Burlington Elementary's 30.8% in 2012. In 2011 it was the Fairmont School in Denver with a 27.2% reduction.





Interior-Only Projects



05. Concentration Areas

Concentration Area #1: Develop firmwide sustainable design goals and metrics for projects.

Objective: Establish baseline level of sustainability for projects.

Approach:Develop "RB+B DesignOpportunitiesChecklist" to capturedesign goals and metrics.

Principles: All, with an emphasis on Zero Carbon.

Explanation: The "RB+B Design Opportunities Checklist" will create a roadmap for our project teams by capturing our goals, strategies and resources to reach our goals, and metrics for measuring our success. The "RB+B Design Opportunities Checklist" will incorporate RB+B content as well as interpret the work of industry leading environmental organizations and environmental rating systems such as LEED (USGBC), Green Globes (GBI), Energy Star (DOE), The National Center for Craftsmanship, The Living Building Challenge, and The 2030 Challenge / AIA Commitment in a way that is meaningful to our design practice.

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.

Explanation: Documenting sustainable design features and outcomes for individual projects will bring more rigor to our internal capture organizational process, knowledge, facilitate organizational improvement, and allow us to explain our progress to others. Each project team will set design and performance goals using the "RB+B Design Opportunities Checklist," employ analytical tools to ensure performance goals will be met ("Sefaira" software, for example), document final design solutions in the RB+B Project Database (in "Ajera" software), and track real performance (subjectively world through post-occupancy evaluations at the 11-month walk-through and objectively through collection of utility data for five years).

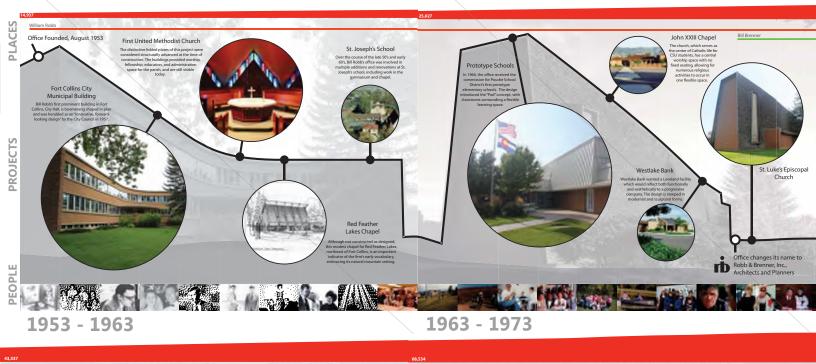
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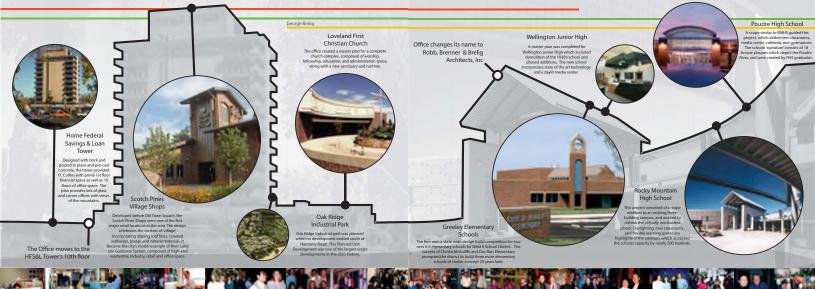
Explanation: Broadly engaging staff in sustainability efforts affords the firm the opportunity to harness different perspectives and skills, improve communication, and reward innovation. The G:REEN team will identify job role opportunities so that individual employees are able to use their excitement about a specific topic for the advancement of the firm (i.e. Job Captain and Sustainable Materials Researcher). The G:REEN team will identify ways to recognize individual accomplishments.

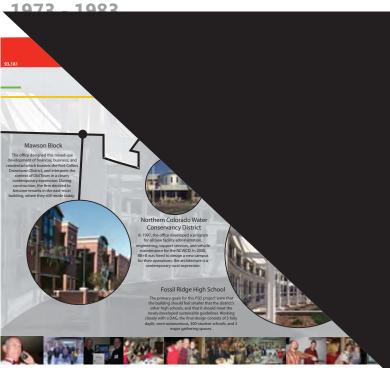




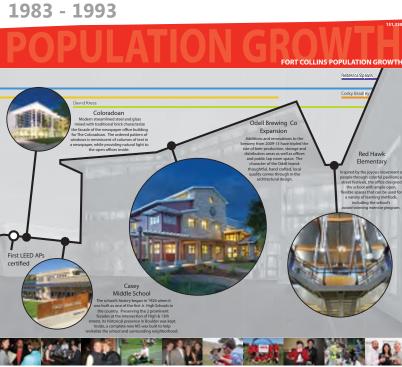
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1993 - 2003



2003 - 2013

COLORADO ARMY NATIONAL GUARD READINESS CENTER Officially Achieved LEED Platinum in January 2013

