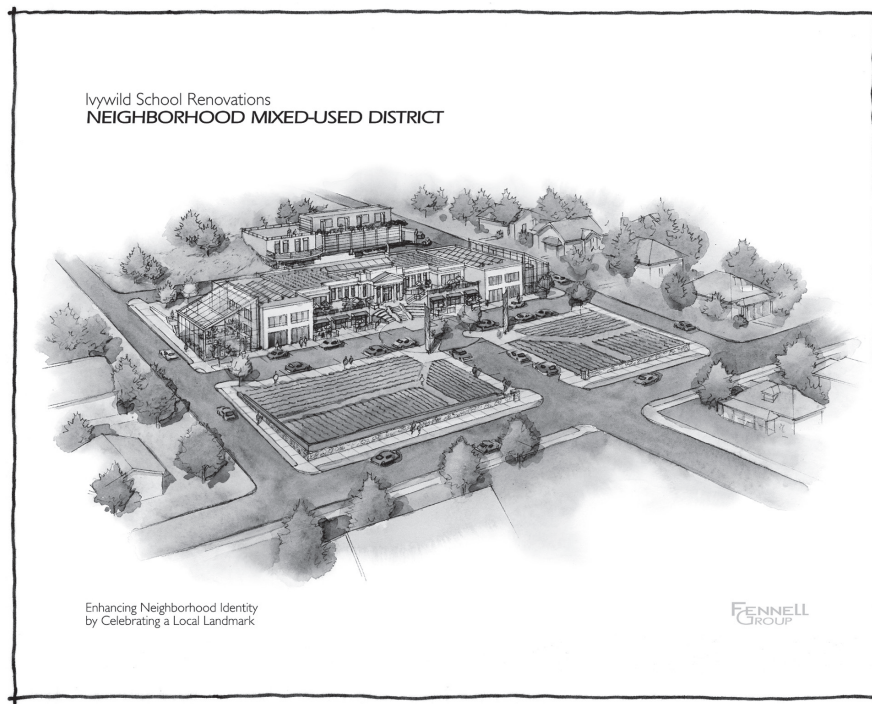


CASE STUDY

Ivywild School: Creating a Symbiosis District

By: Jim Fennell *with interviews by Christina Brodsky*



Original rendering of the concept: symbiosis at Ivywild.

How Beer Can Change the World

We always knew that somehow beer could change the world, and now there's proof: It's happening at Ivywild! We're also learning that there's actually a relationship between the brewing process and the whole notion of symbiosis.

“Historically, when something was American-made, it was recognized for its quality: Concern for our neighbors, pride, and heart went into making it. These notions of community, self-respect, and passion were intertwined with our values which, like the heirlooms we produced, were worth passing down to our children. This is where we need to be.”

—JIM FENNELL

When considered carefully, the environmentally responsible design and construction process for buildings is similar in many ways to brewing great beer. And what is unique about the sustainable design and construction field—a trait it shares with the brewing industry (and what attracted me to the brewing industry)—is the aspect of *craftsmanship*. We hear terms related to this all the time: craft beer or craft brewing. But what do these really mean?

Craftsmanship seems to be resurging in the United States in many fields. We are seeing it in beer brewing, wine making, artisanal cheese making, fabric and paper making, and the creation of many other products that come from personal vision and skill. Almost any craftsperson would agree that a “craft” product is significantly different from something that is mass produced: like the difference between a custom home based on environmental, functional, and cultural symbiosis and a housing development with houses that ignore the compass, the locale, and each other. Further, the crafting process and symbiosis design are geared toward creating something that’s uniquely connected to a specific place.

As for beer, obviously there’s the aspect of beer that’s associated with just having fun and connecting with people, too. When I was in architectural school, I served as president of our student chapter of the American Institute of Architects. One of my responsibilities was to organize the “after” parties for our school’s lecture series. As I learned what I was supposed to do, one of the first things I asked my dean was: “Hey, can we have money for a keg?” He replied, “What you need a keg for? Why do you need a keg after the lecture?” Of course, I was thinking: “If we don’t have beer, who’s going to show up?”

Well, we got the money for the keg—and after that we typically served beer after each lecture in the series. It was always a great time. People enjoyed raising their glasses to the lecturer in appreciation for his or her presentation and its message. We felt connected.

It’s very interesting to think about symbiosis within the context of Ivywild and Bristol Brewing Company, our cornerstone business in the district. Bristol’s masthead actually has three terms: Quality. Purity. Sanity. Now consider the three-part concept of symbiosis: Functional, Environmental, Cultural. Seems like a perfect match! The concept of symbiosis aligns well with the specific philosophy of Bristol Brewing, and this alignment speaks to the similarities between craft brewing (and other craft industries) and the sustainable design and construction industry as a whole. The symbiosis district at Ivywild, with Bristol Brewing and all our high-quality tenants, represents a movement toward a new, more personal, more localized form of excellence that’s starting to emerge in our society.

Many believe that a high level of craftsmanship can be achieved only on a small scale. Typically, if a large brewing company that specializes in mass production is asked to do a specialty beer or ale, it has to create a smaller operation, perhaps in smaller facilities using smaller equipment. The scale has to shrink dramatically to get the kind of attention that you need to create a specialty beer. In terms of scale, the whole idea of symbiosis is similar to this concept of craft. We discussed regional climate-based design standards, microclimates, specific locale, and neighborhood environments throughout this book because it is necessary to reduce the level of scale, and to customize designs for the environment, in order to make symbiosis work.

So how can beer change the world? It changes the world because our world has gotten away from localized systems and has moved toward national and global systems. When we look at a craft brewery like Bristol, it gets us back to a hands-on approach and working closer to home. The large systems we take as a given are often about self preservation and are failing to serve us (as we say over and over in this book).

It's clear that global and national systems are seriously different from craft operations; they tend to be one-size-fits-all, universal systems. Instead, we are proposing that we look at everything that works at a neighborhood level—every single individual locale, microclimate, local industry, local environment, local culture—and make these local systems successful. This is where beer and “building Ivywild” come together to change the world: by making people more prosperous, healthier, and happier; by creating success at the local level.

Applying Symbiosis in a Real-World Project

Bristol Brewing Company and The Blue Star moved into the Ivywild neighborhood in 1999. Their locations at 1645–1647 South Tejon Street are just about one block from the Ivywild Elementary School. Mike Bristol, owner of Bristol Brewing, and Joe Coleman, owner of The Blue Star, had been in the Ivywild area for more than 10 years, so they were very well established in the neighborhood. They had become important businesses (and social amenities) in the neighborhood and were embraced by many of the neighbors.

When they began seeking to expand their operations, they both wanted to remain in the neighborhood area because they had such a vested interest there and were already embedded in the community. I had worked with Mike and

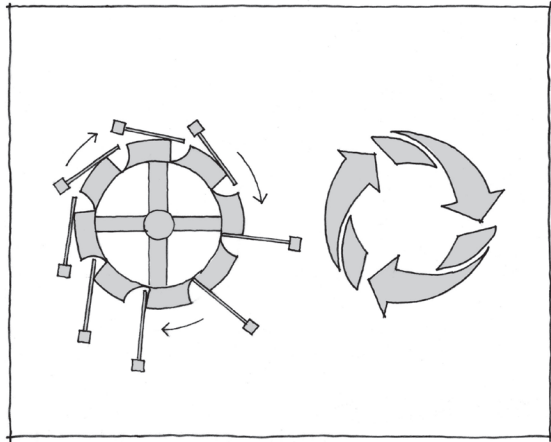
Joe on the design and construction of their current facilities and was very familiar with the operations of both businesses. When we learned about the Ivywild Elementary School closure, we began to discuss how our businesses and the concept of symbiosis could fit onto the school property.

Gradually we realized that the empty Ivywild School building and property were an opportunity to create a real-life, working example of symbiosis. It could be a neighborhood infill redevelopment that allowed businesses to reuse the byproducts of their operations and activities with the goal of eliminating waste and enhancing efficiencies. We could do building modifications that were environmentally responsible—fitting the local climate—and rally a neighborhood and community around a cool idea. Further, by adding housing to the equation, we could provide a commonsense approach to urban living that offered people a place to live and work that was an alternative to suburban development and strip malls.

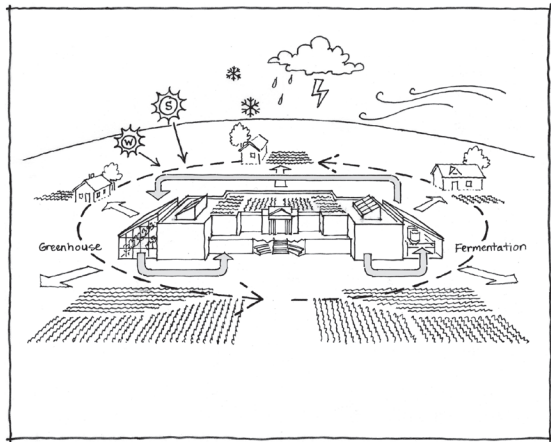
Applying symbiosis to buildings was something I had been evolving for more than 25 years—ever since I was in architectural school. It was based on honoring the local climate and culture and aligning businesses that could exchange byproducts. Basically, *symbiosis* is the idea of creating a perpetual living machine; that is to say, our homes, office buildings, and other structures can be like perpetual machines. But rather than being in constant motion, they are in constant balance with their local climate or environment. When we achieve that level of balance in an initial design, we can continue that balance through the life of a facility. Ultimately, these buildings will operate without any need for energy from outside sources. Ivywild is designed to ultimately operate in this way by responding to the local climate and by repurposing the byproducts of the

brewery and the other businesses and offices to benefit everyone in the district.

Although examples of symbiosis do exist, such as the functional symbiosis in the large industrial complex in



Perpetual machines are designed to maintain constant motion.



Perpetual living machines balance environmental, functional, and cultural concerns between natural and built environments.

Kalundborg, Denmark; in the big agricultural operations near Portland, Oregon; and in examples of environmental symbiosis within sustainable building designs, Ivywild represents the first known neighborhood model using the three-part concept of symbiosis that implements environmental, functional, and cultural symbiosis at the same time with a clear philosophy of how they fit together and why they are all critical to a new way of living. Mike Bristol recalls the conceptualization of the Ivywild project:

Jim and I, for years over beers and while we were skiing, have talked about some way to use those byproducts. It just seemed to make sense. When you talk about byproducts of spent grains, there are still great things in it; when you talk about the value of heat, and then look at how much heat we generate, there's plenty of uses for that heat, not to mention the huge amounts of [grey] water we generate

At that time I started to believe that Ivywild could actually happen. After realizing that the ideas I had been developing for so long would now be embodied in some level of reality, I knew it was time to put the philosophy of symbiosis design in writing. I was going to need help.

Lola Scobey had been our director of communications at Fennell Group since 2007. In addition to serving clients as a certified sustainability advisor, she had a unique interdisciplinary background in philosophy, psychology, and culture. (Not to mention formerly being an award-winning journalist in the music business, with some cool résumé

items like writing the first national concert review on Bonnie Raitt.) Before joining Fennell Group, she co-founded and ran a successful small business that pioneered in music therapy for children. With our diverse perspectives, I knew the two of us would have a more balanced approach toward defining the concept of symbiosis and showing how it can shape the structure of our society.

“You know,” Lola said one day while we were finalizing the book outline, “ever since high school I’ve wanted to take on cutting-edge, ‘future ready’ projects. I really love this notion of neighbors having a big vision for themselves that comes from going local—taking care of our planet in a way that creates a new future ... putting all that inside a terrific neighborhood Just writing about it makes *me* feel good.”

At that point I knew we were off and running with this book, moving toward sitting down with people over a beer and this book to talk about building Ivywild and symbiosis with others who are looking to create something good and something important.

This case study proved to be an essential part of the story. Although it started out as a simple chronology of the project, it kept expanding (like the book) and eventually required months of information gathering and interviews. Christina Brodsky, who had been working with Bristol Brewing on its media projects, was instrumental in helping to organize the interviews and documentation. We knew that the case study, being a real-life story, would better communicate the benefits of symbiosis and could offer useful resources to entrepreneurs and small businesses who might want to pursue it.

After reading this case study, many business owners who are passionate about finding a better way might consider relocating their businesses to appropriate places

within their neighborhoods, aligning themselves with other like-minded business owners and creating symbiosis: an *Ivywild* district of their own. The information presented in this case study can help people streamline their approval process with governmental agencies, lenders, and design professionals. They will have the benefit of seeing the Ivywild process, from start to finish, demonstrated here. Typically, navigating the governmental review process takes an astonishing amount of time. Having information about the process in advance, creators of other Ivywild districts can shave time off their schedules and lower their development costs. It will be easier to build in a new way.

Sarah Harris, a recent college graduate and longtime Colorado Springs resident, said about Ivywild:

I came from a construction management program, and I think in school it’s so typical to learn those traditional building systems. But that’s not the way of the future. I think a lot of people are looking for new ways to build and new ways to create. So a class about Ivywild that embodied a sustainable system that is new and innovative and exciting would be an excellent way of getting people involved. Ivywild is going to influence the whole community in terms of building, really.

Original Proposal to Purchase Ivywild

The Request for Proposals (RFP) to purchase the old Ivywild school building from the school district was published

in the summer of 2009. Kris Odom, the contracting officer for Colorado Springs School District No. 11, recalled:

Well, I think we can go back to when the board of education decided to close those schools back in February 2009 and Ivywild was one of those schools we decided to close. You know, that particular community is very well integrated into their community and they're very protective and they were mad. They really didn't want to see that school close because generations and generations of people went through there. A lot of the neighborhood is four generations deep and have been in the same home, so when we closed the school the following summer in July of '09, we issued an RFP to try to repurpose the school because what we didn't want is a community with an empty building. That was the fear of [the school] board. They wanted to do something good for the community.

During the process of purchasing the school, there were numerous conversations with the school district staff, particularly the Deputy Superintendent and Chief Financial Officer, Glenn Gustafson, and the Contracting Officer, Kris Odom. We received great support from Val Baughman and the folks at the district's facilities department; they were very supportive and helped us all along the way.

Originally, we partnered with Pikes Peak Community Foundation (PPCF) to purchase the school. In the end, the PPCF decided to withdraw. Rather than let the deal die, we went back to the school district to ask if we could still do the project, even if it was limited to Bristol Brewing, The Blue Star, and Fennell Group.

The history should probably reflect that the [Pikes Peak] Community Foundation, when the school first closed, tried to buy Ivywild School with Jim, Joe, and Mike's help kind of in the background. But our board didn't want to pay what the school board wanted. So we went through the process, we were almost under contract at the school board meeting, and [then] my board said "we really don't want to pay that much for the building." Because a lot of what we were doing is community impact development, philanthropic work, all of that sort of stuff, and this was more of a development project But it worked out really well, and we went through a lot of negotiations with the school board Mike, Joe, and Jim were able to step in and say we're a viable partner to take this from where it is to the finished product. All of these other players can be complementary and sort of supplementary partners. (Michael Hannigan, Pikes Peak Community Foundation)

I didn't even know about all this until after it happened, but Joe Coleman called Kris Odom. He basically tracked her down and said, "Hey, we really wanted to buy the school from you guys," and was very insistent about saying, "How do we get this done, who should we talk to?" (Joe even went to a commencement and found DII superintendent Dr. Gledich and talked with him.) Who knows, if he hadn't done that, the whole project could have fallen apart. Perhaps the school district would not have worked with us. All of these pieces were important.

Kris Odom recalls being contacted by Joe:

In 2009, I got a call from Joseph Coleman. When he called me I was like "who is Joseph Coleman?" and it wasn't until he said that he owned The Blue Star but I was like, "I know the Blue Star but I don't know who you are."

He said, "Is that building available?" and I said, "You know, it is and we haven't decided how we were going to repurpose it." The board was very particular about how they wanted to repurpose it and working with the Board of Education is not like working with another business entity. We're talking seven different personalities that may have different passions or different things they are going to advocate for. I told him one of the things you have to guarantee is how you are going to repurpose it and

they might have a problem with it becoming a brewery.

He said that, as a matter of fact, Bristol was going to relocate; they were expanding and needed a new location. I said, "You know, maybe since you're already in that community—you're accepted and embraced by that community—it won't be that hard or that far of a stretch."

Joe also talked about preserving the artwork; that's another thing if you've been in there ... [the old school] had a lot of artwork in the bathrooms and in the hallways. It was done by an art teacher; it's a part of their culture. I was up at the school and I can tell you that I got numerous calls from family members and community members who said, "If you ever decide to tear down that building or resell it, could I get in and get my child's handprints, or my grandchild's, or my great so-and-so's handprints?"

Joseph said, "You know, I don't think that's going to be a problem." Saving the school and the artwork was the common thread.

School District Approval of Sale

Getting school district approval was the first real milestone. We had to get the school district's approval to sell us

the property before we could do anything else. And we had to get a majority vote from the school board.

During the early discussions with the district, I attended an informal school board meeting with Michael Hannigan and Doug Quimby from PPCF. I provided a basic overview of symbiosis and a copy of a rendering of the concept. Later, after PPCF had withdrawn from the proposal, Mike Bristol and I attended another informal meeting of the school board. At that time we detailed functional symbiosis: specifically how the brewery would contribute its byproducts of grey water and spent grain as irrigation, compost and fertilizer in the greenhouse and gardens. We mentioned having an ongoing relationship with PPCF, which had expressed an interest in continuing as a partner and in assisting with community and educational programs.

As we were promoting the project to the school board, we were spreading the word through the neighborhood and to city officials as well. Mike and Joe were talking with neighbors in the brewery and restaurant. There were even scheduled events at the brewery to present details of the concept. Many neighbors were in favor of the ideas to repurpose the school and pledged their support. Several volunteered to speak at the formal meeting of the school board. We had many informal conversations with city leaders who also commended the project. Everyone felt it was very important to have the support of neighbors and city officials moving forward to the formal meeting with the school board.

So when the day arrived to hear the school board discuss the sale of the school (and vote on it), Mike, Joe, and I remained in the background. None of us made presentations; the decision would be made based on earlier ground-work and, most importantly, the opinions of the neighbors who would be speaking during the meeting.

It was an emotional presentation. Many of the neighbors stood up and spoke. One couple from the neighborhood, Don Taylor and Kristy Emerson, were actually teachers in School District 11. They spoke in favor of the project. Jan Martin, a Colorado Springs City Council member, came and made a presentation in support of the project. An Ivywild neighbor and lifelong resident, Kristy, recalls:

I went to the school board meeting and I was very nervous because I had to speak just a little bit. I was nervous because I heard there might be opposition and I know that when Bristol first started here there was opposition in the neighborhood so I was kind of worried that there would be opposition there, and there wasn't. Everyone was shaking their heads and smiling and seemed to be supportive of Ivywild being used rather than being torn down.

In the end, there was really only one school board member who was against the sale of the school. It wasn't that he was against our project or the concept; in fact, he actually clarified his position and stated that he liked the concept. He just did not want to close the school and he did not want to sell it, so he opposed the sale of the school. Another board member also voted against the sale of the school. During the presentation, this board member spoke out in favor of the concept, actually proposing a motion—and then in the end he switched sides and voted “no” on his own motion. We all speculated that perhaps he was just providing moral support for the other “nay” vote. Ultimately, the sale was approved by a vote of five to two.

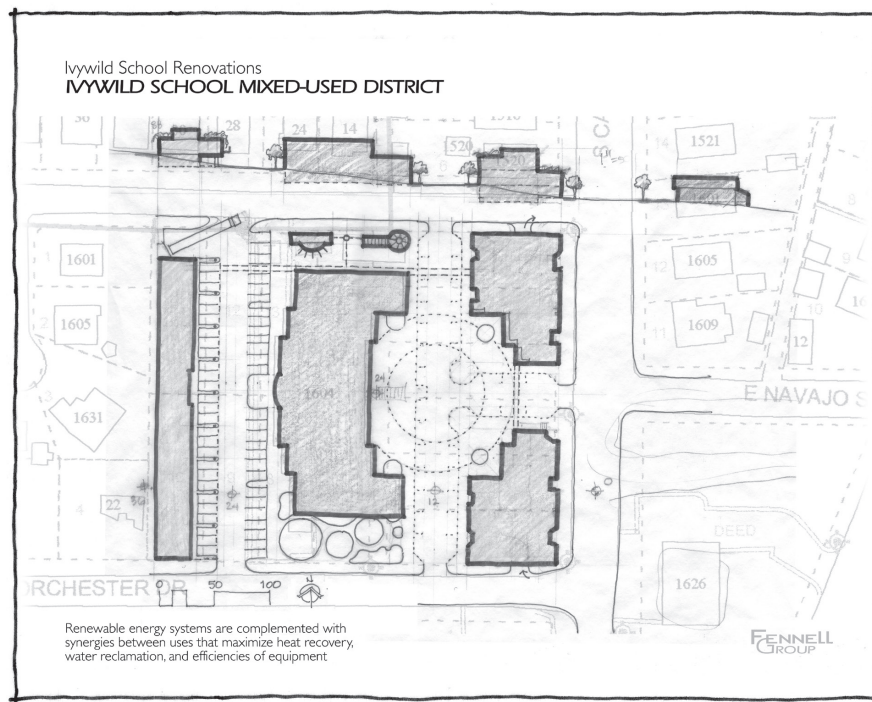
School board members who voted in favor of the sale of the Ivywild School were Al Loma, Sandra Mann, LuAnn Long, Janet Tanner, and Tom Strand. Board members voting against sale were Bob Null and Charles Bobbit. The approval was made official at the 7:00 PM meeting on June 9, 2010.

People could see it was a good thing to do. The school was being purchased by civic-minded neighborhood-based business owners rather than by outside developers. The neighborhood's best interests were a major focus for the project and, in the end, neighbors would have great facilities and useful services all within walking distance. Plus, with Bristol Brewing remaining in the neighborhood, ev-

eryone could continue their visits to the tasting room to enjoy fresh beer!

Planning Process (Development Plan)

In 2008, Fennell Group was selected by the Colorado Springs Fire Department to design LEED® Platinum fire stations for them. In fact, one of those projects was funded and scheduled for construction concurrently with the construction of Ivywild. The first person we contacted was Steve Cox, a friend mentioned many times in this book because of his support and invaluable contributions of insight and experience. Steve was actually the deputy fire chief when we first met, and was later promoted to fire chief. He served as



An early site plan study of future phases in which gardens would move to roofs.

interim city manager in 2010 prior to inauguration of Colorado Springs' new "strong mayor" form of government. Following the transition to the new mayoral system, Steve was appointed chief of staff, and later in 2011 was made the chief of the city's Office of Economic Vitality and Innovation.

Steve was the first person to hear a presentation of the concept of symbiosis at Ivywild—while we were gaining support prior to the school board meeting—and we asked Steve his opinion about how best to navigate the process. Steve immediately saw its value and thought it would be a great project for the neighborhood and community. He suggested we begin by building support in the neighborhood and with council members. Later on, this support base helped us get through the process with the school district. Next, we approached the planning approval process based on Steve's recommendations. He suggested that we first contact the city planner for the neighborhood, Ryan Tefertiller.

We launched the application process at our first meeting in July 2010, when Mike Bristol, Joe Coleman, and I sat down with Steve and Ryan. We had the large rendering and the overall vision for the project established and we described the entire concept of symbiosis—the process and implementation.

They loved the idea, agreeing that it would be a great way to reinvigorate the neighborhood and serve as a model for the community. Ryan outlined the planning process and submissions required to obtain the necessary approvals to do a project like this. We had successfully accomplished many planning submissions before, so Fennell Group did all of the work in house with assistance from our consultants: civil engineers Robert Palmer and Woody Bryant, our landscape architect Matt Spidell, our land sur-

veyor Chris Thompson, and our electrical engineer Mark Bankson. We made the original submissions in October 2010. City Planning approved the development plan in March of 2011.

This was a very intense process that required six individual submissions to the planning department.

1. *The Development Plan*: Basically like a map with all of the boundaries and topography indicated, the development plan had to be generated, verified, and certified by a licensed surveyor. Surveying sounds like an easy process, but it was relatively complicated. Several things were critical to the survey, such as verifying old records and field-verifying the location of the building, the slope of the land, and so on. It took weeks to get this accomplished.

Web link:

<http://builddivywild.com/resources/dpo1.pdf>

2. *Vacation of Public Right-of-Way (ROW)*: When the old school site was originally created back in the late 1800s, a block was created and divided into a series of lots with an alley right down the center. Even though the school was actually built over the alley, the alley was still recorded on county maps. When the school district sold the property, the title had to be free of all issues or encumbrances. Although pragmatically the alley was a nonissue, because a building had been built over it long ago, we were required to complete the process and provide the documentation for vacating a

public right-of-way. This sounds simple, but it took weeks to complete and added more time and effort to the project.

Web link:

<http://buildivwild.com/resources/row01.pdf>

3. *Non-Use Variance*: This variance was perhaps the most demanding application to prepare, because we had to provide a detailed analysis justifying why the project did not need the full amount of parking required by the city zoning code. We demonstrated that the variety of multiple uses with differing hours of peak-parking demand would create gaps or overlaps in the use of parking areas. We won with the argument that providing 100 percent of the required parking for every use 100 percent of the time was unnecessary.

Web link:

<http://buildivwild.com/resources/nv01.pdf>

4. *Waiver of Replat*: This submission basically required a plat or a drawing of the property showing its lots and blocks. The waiver was a request for an administrative action waiving the requirement to replat the property. The waiver was issued.

Web link:

<http://buildivwild.com/resources/wr01.pdf>

5. *Zoning Change*: This application was truly the key to being able to move forward with the project. The zoning had to be changed

from residential (R-1-6000) to a Planned Unit Development (PUD) to allow the project to be built.

Web link:

<http://buildivwild.com/resources/pud01.pdf>

6. *Other*: There was also a submission to update the Ivywild Master Plan, but this was approved administratively and did not require approval of the planning commission or city council.

Web link:

<http://buildivwild.com/resources/mp01.pdf>

Ryan recalled, “We helped Jim and his team put together the right submittals to address the zoning and the physical standards and the vesting of the whole project, so a few other agencies were highly involved, like engineering and drainage. They were looking to do some unique sustainable-type approaches with their drainage at Ivywild: the pervious paving, porous landscape detention, etc.”

Want to visualize the amount of paperwork that was generated during this submission process? Imagine the large cardboard boxes from Office Depot filled with 10 reams of copy paper. We loaded a box like that and delivered it to the planning department—and that was only the first submission. We had three rounds of submissions.

Typically, when a planning submission is made, it is not automatically rubber-stamped. Plan reviewers read every single word and check every calculation. Sometimes they may change the requirements or request that something be added to one of the planning or engineering drawings. It may take a month between submissions to respond to comments, because every discipline on the design team—

planning, engineering, landscape architecture, etc.—must read the comments, research them, and provide updated drawings with responses to each comment.

For the second submission, we delivered another large box filled with documentation and resubmitted it. This time there were additional comments and new requirements, so a third submission followed, in still another big box. All in all, quite a bit of paper was used, which was constantly tugging at our recycling sensibilities.

The magnitude of this kind of submission process may seem daunting, but it was a necessary part of the process. In fact, from a design professional's standpoint, if it weren't for the requirements of regulatory agencies, many owners might not even hire designers. They might be more reluctant to spend their money on design. So, planning submissions are actually a fortuitous requirement for the design profession, because it guarantees designers will have work to do! (Of course, the reviews also protect owners by ensuring that the work is checked and meets legal requirements.)

Neighborhood Meeting

As part of the planning process, we were required to conduct an open meeting with the neighborhood. After we had our initial meeting with the city planning department, and after we filed the application and paid the fees, the planning department sent postcards to all neighboring property owners. The postcards outlined what we were requesting and invited neighbors to participate in a public meeting. We contacted School District 11 and asked if we could hold the neighborhood meeting in the old Ivywild School gymnasium. They agreed and in November of 2010 we made a presentation to about 50 people from the

neighborhood. It felt good to be meeting right where we wanted to create the Ivywild district.

Kristy added:

I was invited to the neighborhood meeting, so that was my chance to go back to Ivywild and visit. It was just haunting, there were ghosts coming through the halls, it was very exciting. It's going to be interesting because the greenhouse is going to be on the south side; that's where I went to kindergarten with my favorite teacher Mrs. Hakes. And the brewery will be on the north side which is my other favorite teacher; that was Mrs. Durgy in the sixth grade. From one end to the other it'll be full of all kinds of wonderful things.

I remember we had to bring in a torpedo heater because it was so cold in the gymnasium. Of course, all of the heat and water had been turned off in the building when it was closed, and we were just trying to keep the place warm enough for our meeting to take place. We even teased everyone that if they needed a restroom they'd just have to hold it.

Perhaps it was because we were all cold and everybody was wearing coats and gloves that folks seemed ambivalent at the beginning and were relatively quiet, displaying little emotion. About halfway through, though, one neighbor, Christine Koldenhoven, spoke up in favor of the project. She pointed out the community efforts and contributions of Bristol Brewing Company and The Blue Star. Plus she

loved the beer! Another neighbor piped up, saying that she loved the smell of hops. After that, the meeting was overtly positive. One of the local media even called it a “love fest.”

It was a wonderful experience because everyone, with the exception of maybe two people, who were really only against the school closure in the first place, loved the project. Naturally, there were a few folks who just needed to have clarifications. Once we answered their questions, they were very satisfied and very pleased. Again, the couple of people who were unhappy weren’t necessarily unhappy with our project, they mainly were just unhappy that the school had been closed. There was nothing we could do about that except try to give them something exceptional in its place. Our goal was to repurpose the school, keeping it alive and vibrant and still part of the neighborhood, and to have activities established in the school that provided tangible benefits to the neighborhood. Almost everybody at the meeting was very excited.

Ryan observed,

There’re two things that made this project unique and so much easier to get through the process: one is that the owners were embedded in the neighborhood already and had this track record of adjusting concerns and issues in the past; and second, it wasn’t a clearing of a site with something entirely new being built. It was a vacant historic school that, if Mike and Joseph and Jim didn’t come in and do their project, could sit vacant and become blighted and a real eyesore for years.

If someone reading this book is a business major with an idea for a great business that could work in an Ivywild district, how important is it that you be established in your neighborhood? For businesses to be successful in a neighborhood district, the owners really need to put down roots. When someone wants to establish themselves with a business that’s vested in their neighborhood, they will eventually spread deep roots throughout their community. This is one of the core foundations for a neighborhood’s stability and sustainability.

Somebody may move into a community and say, “Hey, I want to start an Ivywild district,” and that would be great. Still, they may garner less support than if they had been in the neighborhood for 10 years, had a viable business there, and had started to make contributions back to the community that their neighbors can see.

Letter to California Resident

Every property owner near the school received a postcard from city planning, even absentee property owners. One of the owners actually lived in California. She sent a lengthy letter to Ryan, asking, “Hey, what is up with this? What are you guys doing? What is this all about?” We drafted a letter in reply and included with the letter the same color rendering presented to Steve, Ryan, and others. The caption on the rendering read “Ivywild School: Enhancing Neighborhood Identity by Celebrating a Local Landmark Inspired by Dream City 2020” plus a note: “A local program to create a stronger, more vibrant community, the Ivywild Neighborhood Center represents a highly sustainable self-reliant development that strengthens neighborhood identity and creates a stronger sense of community.” We also sent a complete copy of the development plan and all back-up data.

After receiving our package, Jessica Hayes cordially replied to Ryan, saying, “It sounds like these guys have thought of everything, because they have certainly answered all of my questions.” And Jessica asked very good questions: about noise, trash pickup, traffic—all the things neighbors would typically want to know. We considered these things thoroughly in advance of starting the design, which highlights another advantage of Bristol Brewing Company and The Blue Star having been in the neighborhood for the previous 10 years. Traffic patterns were basically already established. They were part of neighborhood life and people were familiar with them on a daily basis. Neighbors knew what to expect. It was a huge advantage to be able to eliminate unknowns like this due to having a positive history in the neighborhood.

Finding a Lender

Every part of the approval process took weeks or even months to work out, and many of these were running in parallel. Even though we depict a linear sequence in this case study, many things were overlapping or happening simultaneously. We might have one process under way that took a year, so in the meantime we started four others and tried to balance all of these to run concurrently. By doing this, we finally got to the point in the process when we were confident that the project would be moving forward: that was when we had the approvals from the Planning and Zoning Department.

If the zoning department had said, “No way, we’re not going to allow this kind of development,” or if the neighbors had said, “No, we really don’t like this kind of project and don’t want it in our neighborhood,” then obviously it would have been pointless to pursue funding for the project. On the one hand, we didn’t want to talk to lenders pre-

maturely, but on the other hand, we needed to be confident that the project could be funded. Our first call was to the Small Business Administration (SBA).

To be on the safe side, Mike Bristol had begun informal conversations with the local SBA office early in the planning process, just to ensure that funding would at least be considered. Mike was referred to the SBA by Dan Rundgren at Wells Fargo. Douglas Adams, the executive director of the Pikes Peak Regional Development Corporation, and his crew at the PPRD office were extremely helpful. They assisted us in plowing through the paperwork and getting it all approved. As Doug noted, “It is much easier and far safer for the project if any issues are addressed up front rather than trying to correct situations that could affect SBA participation once the project is underway.”

Doug indicated that the SBA program was a good match for businesses that were expanding and that could have a positive economic impact on their area. Plus, given the economic downturn in 2010, the Ivywild project would qualify for savings under the American Recovery and Reinvestment Act—to the tune of more than \$27,000. So, the early contact paid off.

Planning Commission Presentation

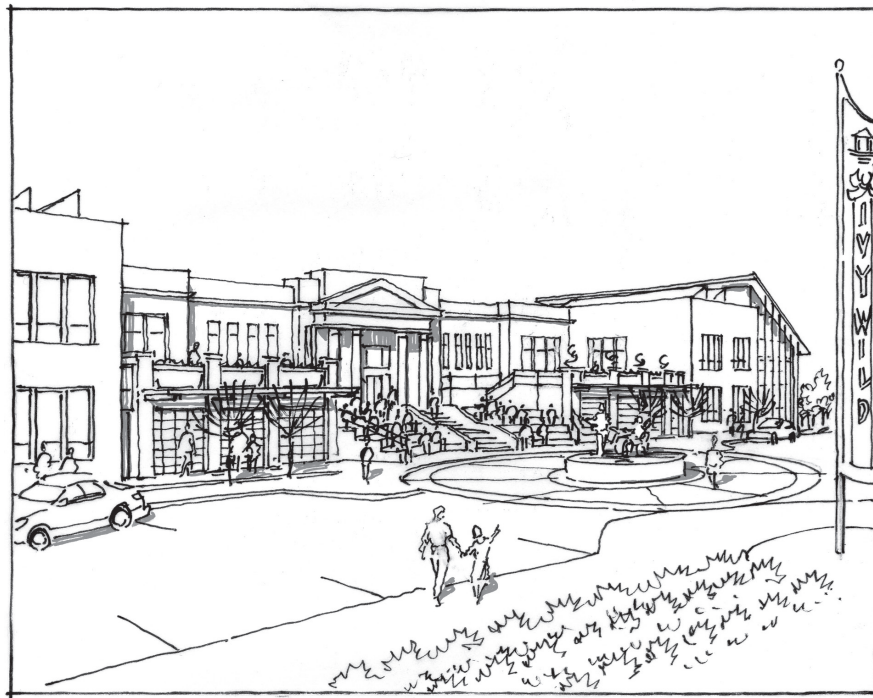
The approval process had required us to make those six submissions to the planning department and then take five to the City Planning Commission. The planning staff gave us their complete support. They went to the planning commission and presented our five requests, recommended approval, and stated justifications for the approval.

The planner, Ryan Tefertiller, who was such an integral part of this whole process, stood up in front of the planning commission and said, “I have never seen a project

that more closely tracks with the goals of our community development plan than this one. It's like this project was written for our plan." We could not have asked for a better endorsement and display of support based on how Ivywild's symbiosis-based design reflected what our city's culture was really seeking. At the level of city planning, everyone saw the value of the concept and, in effect, replied, "You know, this really is the direction we need to go for development in our community. It is designed from a viewpoint that values our neighborhoods."

All of the five applications were presented individually and considered individually. Eight commissioners—Stroh, Cleveland, Gonzalez, Suthers, Butcher, Butlak, Magill, and

Ham—voted. Every application was approved unanimously, except one. One commissioner, Gonzalez, had an issue with the non-use variance. This had to do with parking requirements and exceptions for parking. Within the city zoning ordinance was a requirement for on-site parking, which defined the actual number of parking spaces required on the site (called "off-street" parking.) We argued that it was neither appropriate nor aesthetically acceptable to have a sea of asphalt in front of the old school as though it were a big-box retail store. We really wanted the neighborhood to have Ivywild as a viable public space—walkable and pedestrian-oriented—and to have a plaza and gardens adjacent to the entrance.

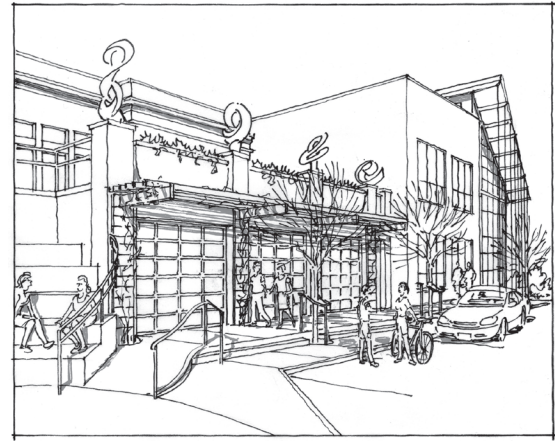


Proposal to create a public space with parallel parking, street trees, and a central plaza.

We proposed creating a small street with parallel parking that would have the appearance of a public street and provide the experience of public space, even though it sat on private property. This meant that a portion of the required parking would be on site and the remainder on an adjacent site (also owned by Mike and Joe). But Commissioner Gonzalez simply did not agree with this approach. His position was that we needed a large asphalt parking lot in front of the building. So he voted against the non-use variance. The other commissioners supported our proposal to create more public space. Overall, only a few questions were asked during the presentation and, with the exception of the parking discussion, all of the commissioners embraced the renovation of Ivywild School through the concept of symbiosis.

For a neighborhood infill project to succeed, it must reinforce the established value system of the neighborhood. Most neighborhoods don't want large expanses of asphalt parking in the middle of their neighborhood, for example. People like the idea of finding creative ways to accommodate parking and to encourage walking. A symbiosis project is ideally suited for creating this type of environment and the benefits associated with it.

Here's the principal idea we were trying to communicate to the commissioners: A symbiosis project has multiple and diverse activities that affect parking requirements. Multiple users provide opportunities to overlap operating hours and to share parking spaces. The district was planned to have a variety of uses that had differing hours of operation, with parking demand peaks that offset one another. So, it would be unnecessary—in fact, wasteful—to provide 100 percent of the required parking 100 percent of the time.



Art is combined with architectural features and landscaping.

We actually modeled the parking requirements for every single use. We identified the peak demands of each activity and demonstrated that they offset the inactive times of other uses. There was really no need to provide 100 percent of the parking on site for every business all the time. It would likely be underutilized and just waste valuable public space. Despite Commissioner Gonzalez's concerns, based on more traditional thinking about parking, we saw great benefits to the neighborhood in creating viable public space rather than in concentrating all the parking on site.

City Council Presentation: Approval of DP

After we received planning commission approval, they recommended approval to the Colorado Springs City Council. We made a formal presentation to the council on March 22, 2011. Ryan began the presentation and did a terrific job. He reiterated his statements to the planning commission about how this project truly represented the city's comprehensive plan to the letter, and how it was a perfect example

of the preferred direction the city was seeking with infill developments and with land development in general.

Then I presented the graphics for the project. At this point we'd made the presentation many times and had addressed most every issue imaginable, fielding questions from the planning department, from the planning commission, from neighbors, and from the media. By this time, we had a very thorough and tight presentation. Plus, we'd held informal conversations with almost all of the city council members, so they were acquainted with the ideas. We went through everything and described the concept with all of the details, and at the end—I'll always remember this—when we asked if there were any questions, no one had *any* questions. Not a single one! Everyone was nodding and smiling. Including us.

When we sat back down, several council members made supportive comments. In fact, Councilwoman Jan Martin began by commending everyone involved for their creativity. She reiterated confidence and support—her strong endorsement of the project and the concept of symbiosis. She believed the project was a great direction for our community and that it addressed many concerns that neighborhoods all over the city were experiencing. Many aspects of the city's urban design process appeared broken and needed to be fixed. The concept of symbiosis addressed and defined a new process that considered and promoted neighborhood values.

The city council voted unanimously to approve Ivywild. With council approval, the development plan was done. With the development plan done, the door was open to proceed with gaining approval from the building department and going back to lenders for concrete discussions about loans.

Council members who voted to approve Ivywild were:

Lionel Rivera—Mayor	Bernie Herpin—District 4
Larry Small—Vice Mayor	Tom Gallagher—At-Large
Scott Hente—District 1	Jan Martin—At-Large
Darryl Glenn—District 2	Randy Purvis—At-Large
Sean Paige—District 3	

10 to 1: Finding a Local Lender

Knowing that the project would qualify for SBA funding meant we also knew we would have to find another lender to partner with the SBA. The standard model for the SBA 504 loan program is for SBA to provide 40 percent of the loan, for a bank to provide 50 percent, and for the borrower to provide 10 percent. The SBA approval had required volumes of paperwork. They asked us for every bit of financial information we had: our tax returns for the past three years, personal and business financial statements, bank and investment account statements, and more. Having already compiled all of this information, we had the data needed to begin talking with local lenders.

Our project was originally approved with the standard 50/40/10 split before final construction costs were obtained and final bank approval was given. In the end, the division of loan amounts and equity ended up being 45.56 percent for the bank, 30.11 percent for the SBA, and 24.34 percent for the borrower (which included approximately 15.82 percent of the equity coming from the Urban Renewal Fund).

During an early meeting with the SBA, Joe Coleman said, “Well, if this is anything like our first project, we'll have to talk to 10 lenders.” In 1998, when Bristol Brewing Company combined its operation into the same facility with The Blue Star, Mike and Joe had gone through a

protracted loan process, and talked to at least 10 lenders to put the deal together. We knew that obtaining funds for Ivywild would be equally challenging.

Ultimately, two local lenders teamed up so that they could spread the risk. That was based on the economy at the time. If we had started the project five years earlier, we could have hit one out of the park with any of the lenders. In that strong economy before 2008, lenders were very confident and lending money to projects like ours without any problem. Unfortunately, Ivywild was launched during the depths of a recession and everyone was squeamish. It was tough finding a lender. But, in the end, Five Star and Central Bank saw the long-term value and agreed to partner.

Tony LeVeque, vice president at Central Bank, commented:

Five Star has management here and we are completely located here so it's all local people. As a community bank we're going to understand the project in our community better than maybe one of those larger national banks.

I have to compliment those three guys for the vision and persistence they have; the process was amazing ... they never let that falter. There's a lot of times they could've thrown their hands up and quit, but rather they took a step back, got their arms around whatever the problem was, and resolved it knowing that they wanted this project to come to the end.

An outstanding article in the *Colorado Springs Business Journal* explains how these two competing banks aligned to help finance the project: <http://csbj.com/2011/04/01/competing-banks-find-common-ground-at-ivywild/>

Like so many things about Ivywild, it was having relationships in the community that opened many possibilities. One of the banking officers at Five Star Bank, Mike League, knew one of the officers at Central Bank. They had worked together before and already had an established relationship. In informal meetings, they'd be talking and exploring options: "Hey, this looks like a great project for the community, but as individual banks, we would have a hard time assuming all of the risk. Would you be able to help us out with it?" It's a great story about how local businesses came together to do something positive for the local area. So the "10 to 1" was just about talking to 10 lenders in order to find the one who would do the project. In reality it was 10 to 2.

Certainly it helped that Mike and Joe had some very well-established relationships throughout the community and with several lenders and good business credibility in the area. And I had actually worked with both Mike League and Tony LeVeque on earlier projects as well. All this helped in getting the approvals and loans. It's very doubtful that Ivywild could have happened without these established relationships. That's one of the themes of this book: A symbiosis project needs civic- and community-minded entrepreneurs who've made a commitment to put down roots in their community. Those people tend to get out and get to know other people in the community who share the same values. That's how an Ivywild district can come together and why it's a great part of the story.

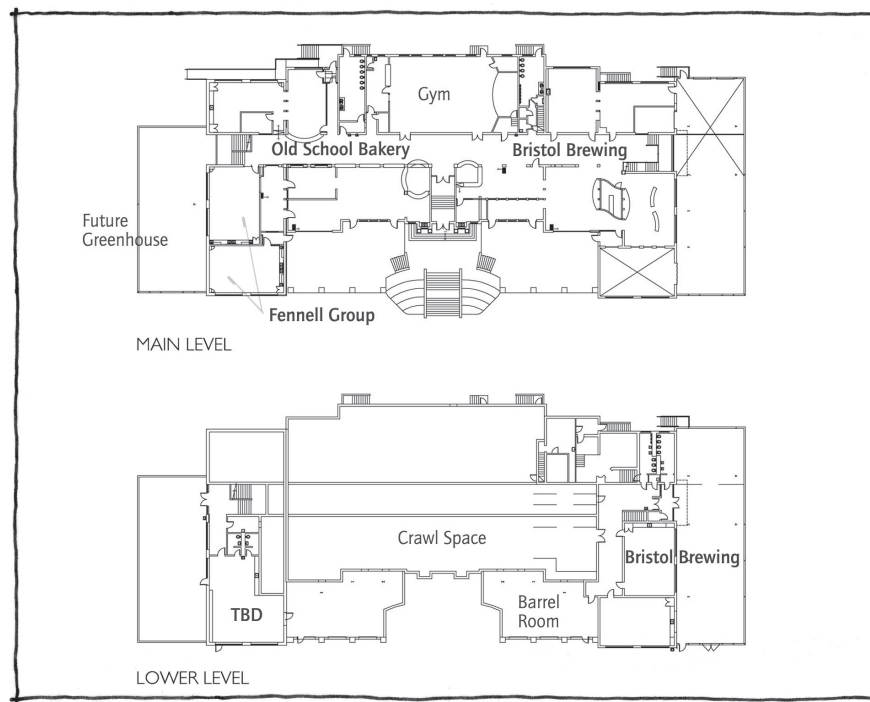
Design Documentation Process

Design documentation is the part of the design process immediately preceding the bidding process. So what we were really trying to do was to specifically define what would be included in the construction contract and how this information could be conveyed to keep costs to a minimum. What was our budget? What can we afford to create in this first phase of development?

Instead of just talking about symbiosis, we were putting symbiosis concepts into the actual design: into the building layout, materials, and details of the design. The primary goal was to satisfy the requirements of the largest anchor tenants Bristol Brewing Company and Old School Bakery (owned

by The Blue Star). The brewery occupied the most space and was the user that currently really needed to expand its operations. Our goal was to make their process as efficient and streamlined as possible so that the construction process would be fun and smooth and economical in terms of saving people's time, effort, and cost. As architects and planners, we wanted to reinforce the broad general concepts by defining space layouts, building systems, equipment, details, and so on to ensure ongoing successful operations for the brewery and bakery. Of course, Fennell Group designed our new office space as well—and that was a blast!

Our office space was shaping up beautifully to illustrate some important principles of symbiosis. When we re-



Ivywild School floor plans.

moved the school's old ceilings in our future office space, we were delighted to find cool-looking exposed open-web steel joists and a galvanized steel roof deck. We chipped the old plaster off the walls and found old-style clay block on one of the partitions. This is an attractive material with lasting value, and we elected to restore it. A connection from our office to the greenhouse was planned to give us exposure to fresh air and live plants during the work day. We designed an opening in the south wall of the old school so our staff could access a balcony within the greenhouse overlooking the garden areas. We were particularly excited about having an exterior south-facing wall, because it would receive solar gain during the winter. The thermal mass of the thick, old brick walls conversely have a cooling effect in the summer. We placed a recording thermometer in the office and discovered that during the hottest days of the summer (reported by the weather service at the Colorado Springs Airport), the temperature in our office remained in the low 80s.

In the design plans, the greenhouse was located at the opposite end of the school from the brewery. This was to provide the maximum amount of sunlight and also to buffer the uninsulated two-story exterior masonry wall of the old school. I was especially excited about locating the greenhouse here. It's great to grow food and to have an educational tool, but there was an added benefit for our office because it was located adjacent to the greenhouse. We would receive the bulk of the passive solar heating, which would make our offices extremely comfortable during the winter while using very little energy.

The brewery includes a large tasting room and all the components a craft brewery needs for brewing, packaging, and distributing beer statewide. We provided the spaces that

Mike and Joe needed to accommodate all of their customers, staff, goods, and services. These operations were receiving raw materials at one end and distributing beer, bread, coffee, juices, and other delectable items on the other. There were requirements for cold storage, dry storage, fermentation areas, packaging and bottling, servicing, and customer service—all the things needed for their operations.

Floor plans located uses in adjacent spaces whenever they had a strong functional relationship and needed proximity. This process began with an understanding of what each user would be doing in each space. We identified the flow of goods, services, and people and defined access and circulation for the highest efficiency possible.

Bristol Brewing has always maintained highly sustainable practices, and had already established relationships with farmers who took away spent grain to be used as feed for farm animals. Even though excess grain could be exported from Ivywild, the intent was to repurpose as much of the byproducts as possible from the brewing operations on site. By composting spent grains on site, we would not have to export and would reduce the impacts of transportation. We created higher efficiencies using the concept of functional symbiosis. The reuse of rinse water for irrigating gardens was an important aspect of this and was factored into the process as well. There was also an aspect of heat recovery that used air exchanges to reclaim and recirculate heat.

Larry Stebbins with Pikes Peak Urban Gardens explains:

Early on in the discussions, Jim Fennell, the architect, and Joseph and Mike wanted to have a greenhouse that could be sustainable

using wasted heat from the brewery, using grey water to help grow great organic vegetables, and using part of the building on the south side that normally wouldn't be used for other things. This is a way of capturing wasted energy and actualizes the whole idea of things that weren't being used before now being used to produce food. I think that's exciting.

But the best part is not that it's going to produce food but that it's going to be used as an education tool to show people all around town and in other cities how they can do this and really find an economical use for what is typically a waste product—and make it beneficial for all.

All of these factors went into the careful analysis needed for the design documentation process.

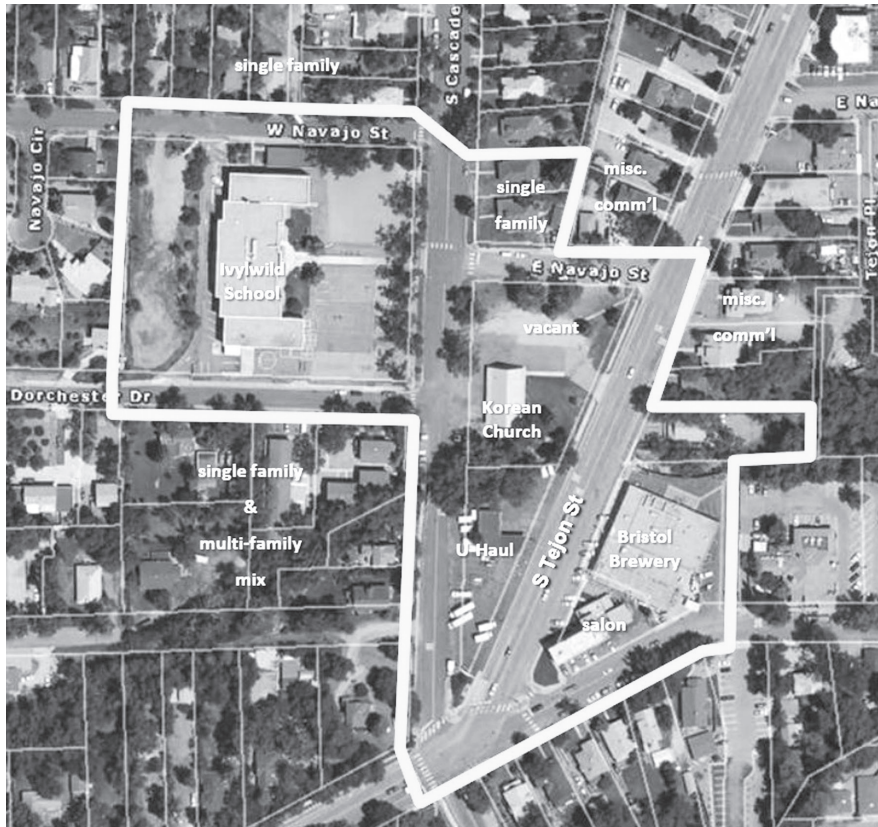
Urban Renewal

The urban renewal process took more than a year to conclude. I had long-standing working experience with the Urban Renewal Authority (URA) and know their senior consultant, Chuck Miller, fairly well. I first asked Chuck about the feasibility of the project not long after we discovered that the school was for sale. Chuck and I had several “sidebar” conversations during the early stages of Ivywild’s conceptual design. We were already working with the URA on the design of the Downtown Arts District and would also discuss other project ideas whenever

we got together. Around the spring of 2010, we began talking seriously about the prospect of using the urban renewal process at Ivywild. We had gotten far enough through the steps of planning approval that we felt confident we were moving forward, so we opened formal discussions at that time.

The biggest challenge was that Mike, Joe, and I knew very little about how the URA funding process really worked. We had to take the time to learn and understand the nuances of how the authority operates. I wouldn't say the URA was shrouded in secrecy, yet the details of its process and operations were relatively unknown to the general public, and it was difficult to find specific information on procedures and costs. Our discussions were superficial in the beginning and it took literally months to truly understand what they were bringing to the table and how we could interface with it: what the process to be designated an urban renewal area would include and how URA fees would be structured.

Chuck Miller and Jim Rees, the URA senior staffers, suggested that we present the Ivywild concept to the URA board of directors for consideration under the URA program. We once again took our renderings and once again presented the concept of symbiosis at Ivywild, this time to the URA board at its regular session on September 16, 2010. Board members present at the initial meeting were Michael Collins, Dottie Harman, Scott Hente, Jim Kin, John Olson, Judy Noyes, Rosemarie Venezia, Susan Wood-Ellis, Clay Benson, Chuck Miller, and Jim Rees. The concept and project were warmly received, so we submitted a formal application. Next, the URA board voted unanimously to accept the project pending a blight study. That made generating a blight study the first step.



Map indicating the boundaries of the urban renewal area.

Rees adds:

It's always a challenge to try to determine how much money the project is actually going to generate through the improvements so that we can decide how much we can actually apply to help the project get going. Then you have to identify items that qualify under state law. There are requirements.

You can't just put money into everything that's done there. Our participation has to be mostly about public benefit—utilities, sidewalks, curb and gutter—those things that the public is going to use and enjoy are what we can contribute to. That was a bit of a challenge—looking at things very, very carefully to make sure that they qualify.

The blight study was performed by an independent third-party consultant hired by the URA. *Blight*, in this case, refers to both visual and functional elements, such as unsightly overhead power lines, a lack of street curbing, or a need for additional storm water systems. The URA consultant identified and documented several conditions in the Ivywild area allowing the project to qualify for the program. An “urban renewal” area was ultimately defined by the study; actually, the boundaries of that area within the city extend beyond the school site to the five-point intersection where Cheyenne Road meets Tejon Street.

The urban renewal area includes all properties on both sides of Tejon Street between Navajo Street and Cheyenne Road except a triangular-shaped property owned by U-Haul Corporation. We contacted adjacent property owners to determine if they wanted to be included in the study area. In the end, it turned out that all properties within the area were owned by Mike Bristol, Joe Coleman, or Ivywild School, Inc., except for one parcel. So it was relatively easy to create an irregular shape for the URA area.

Later Rees reflected on the project:

Talking to Jim Fennell and the other owners down there, this is just a classic. I think it fits really well with the mission of the Authority: to take an existing historic structure and repurpose it in a way that will benefit the neighborhood, benefit the community, and hopefully spread throughout that whole area of

that whole south end of town and set a whole revitalization.

Just taking a school that’s been vacant for a long time and rehabbing it in some of the uses that were being proposed—a greenhouse idea, the brewery, just the expansion of a local business—I remember some of our board members like Judy Noyes, for example, saying “This is a really great use of urban renewal dollars: just to try and rehab a neighborhood.” From there, the project really has taken off.

The board couldn’t be more excited. We had unanimous approval from the Urban Renewal and we took it to City Council and I think we’ve had backing of some of the county commissioners. You couldn’t really ask for a better marriage between the public and the private sector. It’s a great example, and I think we can hopefully use that on more of our projects as we move forward, especially in the South Nevada area. [The project was] taking existing structures and trying to save them as much as possible. Urban renewal over the years has had some bad connotations associated with it, especially back in the 1960s and ’70s where it was pretty much a

slash-and-burn approach to redevelopment. But now it's much more selective about what stays and what has to be removed. And I think this project is a good lesson about how you can take an existing structure and take it and use it in a way that is going to be beneficial.

City Block-Grant Process

When we first started talking to the URA, Jim Rees and Chuck Miller mentioned that we should also explore trying to get block-grant funding. As business owners (and not land developers), we didn't know much about block grants. So we contacted Steve Cox.

Steve, who's very knowledgeable about what makes a city work, elaborated on why building from the neighborhood up makes sense:

There's a neighborhood that already had an identity, if you will. It was Ivywild, which was not originally part of the city of Colorado Springs. It was its own entity, and I think the advantage there was that you had an older neighborhood, quite frankly rundown, but it already had an identity and it had a name. When you said "Ivywild neighborhood," people could identify with that. This project took a vacant property, and what's neat about the Ivywild school project is that it's an example of building structures in a way that they can live for a century and then be

repurposed and reused over time. One of the problems with modern development, I think, is that we are kind of on a 30-year facility cycle.

Cox referred us to Bob Cope in the city's Economic Development Division, and Bob referred us to Valerie Jordan, who actually ran the block-grant program. Bob Cope explained,

We've been working on similar redevelopment projects in the area and we've been working on them for some time. Because of the economy and other things, they were taking a long time to come out of the ground. ... This project surfaced and it appeared it would be the first one to come out of the ground. This being the first and a very exciting project, it's going to be a catalyst for those others. We see it as accelerating the whole redevelopment and revitalization of that corridor.

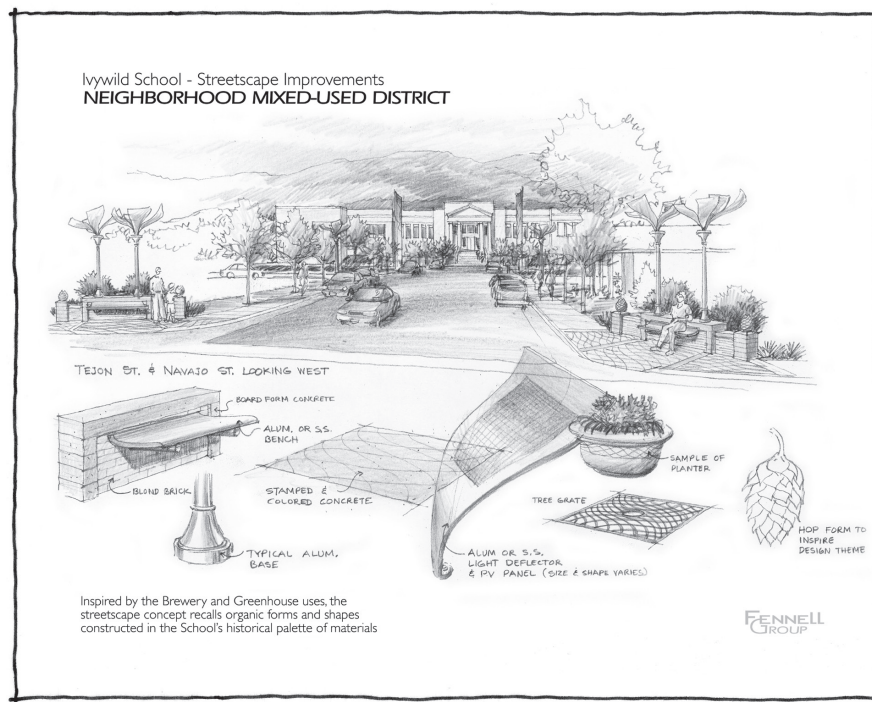
We learned that block grants are essentially federal funding available for qualified projects within what are called "neighborhood strategy areas." A neighborhood would have to be designated as a study area for a proposed project in that neighborhood to be eligible for funding. These grants are not large amounts of money, but are adequate to do small streetscape improvements, for example, which was exactly what we were able to do. When I first met with Valerie, she discussed the process and requirements, but we couldn't get an application process started immediately

because there were so many players who had to be briefed. Numerous city agencies had to be given an opportunity to review the project and make comments. Ultimately, approval of the streetscape project took nearly two years.

We spoke months later with Aimee Cox, who had previously worked for the Parks and Recreation Department. Aimee was transferred to the Economic Development Division during the Ivywild process; she was able to get the streetscape improvements for Navajo Street included and eligible for block-grant funding. Aimee explains:

I like to scan what's going on in the community and that project was so

fascinating, and so dialed-in to what that neighborhood was doing, and then knowing that I had resources at my disposal that I can put into that project if I could figure out creatively how to do it. We had community development block-grant funds, and Ivywild had already been designated as a neighborhood strategy area, so when I saw the Ivywild project, part of that included an entrance on Navajo. I said, "We can help do that. We can use the CDBG funds to make



Proposed improvements along Navajo Street.

those improvements on Navajo to also benefit pedestrians and the neighborhood, and also do the beautification that becomes the entryway to this great new development.”

Navajo is the street that connects the Ivywild School to Tejon Street (Colorado Springs’ “main” street.) It extends about half a city block in length and is an extremely important entrance corridor—the main entrance to the school. This would be a visitor’s first impression and set the tone for the visual quality of the entire project. The corridor was considered blighted and the block grant is paying for improvements like new paving and curb and gutter. We were able to work with Aimee, Valerie, Beth Diana, and City Engineer Mike Chaves to establish a palette of materials for the streetscape that are consistent with those being used at the school.

The vision has always been to create a consistent visual district. Now, with the entry streetscape, when people drive, bike, or walk into the area they will recognize it as a unique and special place.

Aimee continued, “It’s a neat concept. I like beer. I like music. I like sustainability. I loved the garden concept. The fact that you could build on what they were doing ... it was almost modular, even, that we could do this in phases.”

Roundabout

As we began looking at the years ahead, and how overall urban renewal funding would be spent on infrastructure, we coordinated with adjacent projects being planned. The city had a design for a roundabout at the five-point intersection just south and east of the Ivywild site, at the inter-

section of Cheyenne Road. We had studied how integrating the same palette of materials and site furnishings into the roundabout and intersection designs could further the continuity throughout the Ivywild district.

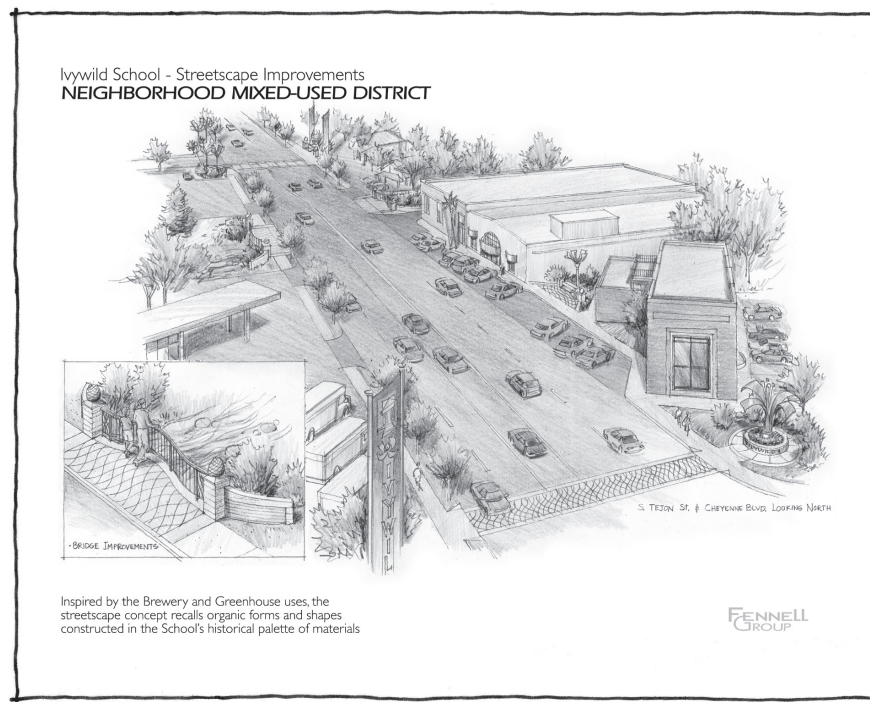
City Council Presentation—Approval of URA Plan

The urban renewal plan required city council approval and we actually had to go before the council a couple of times just for this. Once we finalized with the URA staff the properties to be included in the area, a map of the area was submitted to the council and the council members voted to approve it. The council members did ask questions, but they did not have any significant concerns. They simply verified how the urban renewal funding would be spent over time.

The primary purpose of the urban renewal program is to take tax money generated by the project and put it back into the project. As Jim Rees mentioned earlier, this funding is to be spent on infrastructure improvements that benefit the public. The council was interested in seeing what the infrastructure improvements would include, so we developed a special set of renderings that showed the proposed streetscape improvements: the addition of public art, paving, lighting, street furniture, and other related amenities.

Bob Cope elaborated,

The property tax revenue generated could be used to fund items such as façade improvements, signage improvements, landscaping, and art. I would fully support the concept. Generally, special improvement districts are voluntary (or at least a majority



URA funds could be used for paving, landscaping, art, and other improvements.

of the property owners vote for its formation). For Ivywild, this could be another tool to be leveraged against what is already in place, including Urban Renewal, CDBG funds, and most importantly private-sector investment.

During final approval of Ivywild's urban renewal plan, the new mayor of Colorado Springs, to our complete surprise, put the approval process on hold. Our new mayor was Steve Bach, who was sworn in under Colorado Springs' new strong-mayor form of government in the spring of 2011. It took us about two months to figure

out what was going on. Nobody really understood why the mayor had halted the process, and we had not had an opportunity to make a presentation to him about the Ivywild concept. Thus, he had not heard our perspective on Ivywild aside from what may have been reported in the media. The only briefings he received were from his staff. Thankfully, his staff had good background information on the project and had supported the project from the beginning.

We finally learned that the mayor was objecting to the fee structure being charged by the Urban Renewal Authority for the project. Local media reported that the URA had a fixed-fee structure regardless of the scope of the project.

If we had approached the URA with a \$50 million construction project, the fees would have been virtually the same as if we had proposed a \$4 million project, which we were doing.

City staff were briefing the mayor regularly on their discussions with the URA board. Ultimately, the URA agreed to lower its fees to an amount that seemed equitable for the scale of the Ivywild project. So, the process was actually working in our favor. With the fees in line with the scope, the mayor was comfortable with moving ahead and supported the URA proposal to the city council.

Related newspaper article on January 25, 2012: <http://www.gazette.com/articles/closed-132359-tussle-authority.html>

Building Department

Gaining the approval of the building department was difficult. It was a challenge, and frankly it's still puzzling to understand why. Ours was a lengthy process. As an architectural office, our practice was to attempt to schedule a meeting with the plan-review officials in advance of submission. By requesting a preliminary meeting and review, we hoped to receive direction about navigating the process that would save time for everyone. Yet this time the officials were reluctant to allow a presubmission meeting. They preferred that we make our submittal, let them reject it, and then have us respond to all their comments rather than clear the way with advanced guidance so that we could to minimize comments, rework, and turnaround time.

We persisted and finally reached a point where they allowed us to have initial conversations with a plan-review official, and we were able to make a submission based on

those recommendations. Because our project combined renovations and new construction (i.e., additions to the main school building and the construction of a new, free-standing warehouse), the building department told us to submit the project as a “core and shell,” which included the exterior walls, corridors, restrooms, and basic electrical and mechanical services. Tenant improvements (TIs), or modifications to the interiors for specific users, were to follow in subsequent submissions.

Therefore, we made the submission of the core and shell for the school building and warehouse as directed. But after we made the submission, the building department decided—after we had already developed drawings and specification following their specific direction—that they wanted us to split the submission into two separate submissions, one for the school building and a second for the warehouse. Sounds simple, maybe, but this required a tremendous amount of work on our part to backtrack and separate the single submission in two separate submissions.

To separate one set into two meant there would be duplication and redundancy. The original single set of drawings was consistent and coherent, so when we had to remove portions, we had to create ways to cover what was missing. It created issues for the engineering consultants because they had to go back and perform additional calculations. All this extra work was challenging and definitely delayed the project. From start to finish, the building department review process took six months.

Grey-Water System

The first time we mentioned a grey-water system (reusing rinse water from the brewery to irrigate the greenhouse and gardens) to the building department, we were told that

we would need approval from the State of Colorado. After researching the requirements and working with a manufacturer experienced in Colorado, we learned that we had to meet health standards and satisfy certain health issues related to using grey-water systems. Furthermore, we had to satisfy state requirements for water rights. As convoluted as the process seemed, we knew it was the right thing to do. After holding preliminary discussions with the governor's Energy Office and reviewing the July 2011 newsletter article on grey water by Kye Lehr, the Colorado State Plumbing official, we felt that we could get an application granted and began documenting the required information.

Subsequently, we included a grey-water system in the building design and on our drawings. After all, the grey-water system and on-site reclamation and reuse of water are essential to the concept of functional symbiosis.

Bristol added,

Water in the brewing process is just such a key and living in Colorado we know that the water is a limited resource. So, for us as brewers, from a process point of view, it makes the most sense to try to utilize water as best we can. We have different levels of that: we want to simply use less to start with if we can, but there's only so much that we can do in that regard, so on the back end, it is how we can reuse water that really creates a circle in that symbiotic relationship.

Not long after we made the submission to the Pikes Peak Regional Building Department, I received a phone

call from a plumbing inspector, Tim Crippen, who seemed very irritated and said abruptly, "We do not allow the use of grey water, and I am not going to approve it!" I remember feeling stunned by his resistance and unwillingness even to discuss what we were proposing.

That call meant we had to request a meeting with the director of the building department, Henry Yankowski; senior plumbing official Jim Vernon; and building official Bob Croft. They were much more supportive and relaxed. They expressed their concerns about grey-water usage and confirmed that to install a grey-water system we would need to have the system approved by both the local health department and the local purveyor of water. The local purveyor was Colorado Springs Utilities (CSU) and the local health authority was the El Paso County Department of Environmental Health. We approached both of these entities.

Jim Vernon added:

We all thought it was a very good idea and of course, the grey water was the main portion of that concept. We talked with El Paso County Health Department, [and] the city purveyor [Colorado Springs Utilities] to get an idea about how they felt. Many of us have never spoken about grey water before. The idea was to generate some interactivity with these departments to find out what they were going to do with grey water.

I'm excited that we get to address grey water through this project. That hasn't been

addressed before [now] I have the ability to address the state plumbing board and discuss those issues and maybe find some proactive ways to move forward with grey water. We can start to look at the issues and find conservative ways to be proactive.

We began our contact with the health department by making an inquiry to Mark Lowderman, the El Paso County Assessor. We had made a presentation to Mark's office several months earlier in conjunction with Jim Rees from the Urban Renewal Authority. At that time we were exploring the implications of designating the area as an urban renewal area and any impacts that designation might have on the county's assessment of the property value. Mark was very excited about Ivywild and had offered to help us as we moved forward through the process.

Mark suggested that I call Sally Clark, an El Paso County commissioner, and have Sally introduce us to Kandi Buckland, director of the health department. Sally called Kandi and said, "Hey, this is a great community project, let's make this happen." Kandi then sent an e-mail to Mike McCarthy and Mike set a meeting with Tom Gonzales and Heather Drissel. Tom was director of the Environmental Health Division at El Paso County. Heather was unit manager of the engineering section for the State of Colorado Water Quality Control Division.

During the meeting, Mike, Tom, and Heather all expressed their support for the concept and pledged to help us get the project approved. In fact, as we were leaving the meeting, Mike Bristol asked if phasing in the project or changing or expanding the system later would be a

problem. They said, "For this project, absolutely not, no problem." They recognized the unique qualities of Ivywild and how it was doing something very different from what other projects were doing. They had a sense of pride about being part of what the Ivywild project represents for the community.

What we learned was that as long as we had a subsurface drip irrigation system in place—and that was part of the food-growing plans that included the greenhouse—then the water reuse remained a local code issue. State approval would not be required. Approval would be required at the state level only if we extended the grey-water irrigation system beyond our property. We could get the permits for the greenhouse immediately, so, elated, we targeted this first.

As entrepreneurs seek to establish their own Ivywild districts, they will likely encounter quite a few of these kinds of approval requirements. We hope it's helpful to hear the story of Ivywild to inform folks about what they may encounter. Who could have guessed that one water part of the project would be controlled by the local health department and another part of the project by the state health department? This case study can help people enter into the process of creating an Ivywild district with the understanding that they may have to deal with more than one entity on more than one level—then it may be less of a shock! Everyone will know that their development (or pieces of it) may very well require approval from multiple agencies.

I hope I'm getting across how excited everyone was about the project. It often took a presentation or explanation, but once they understood and had asked a few questions, almost everyone pledged their support for Ivywild.

This really reinforced the success of the overall concept. It gave us energy and kept us motivated about the importance of making a presentation of the overall vision of symbiosis many times to many groups. In every presentation, it was vitally important to identify all of the benefits for the neighborhood and for the overall community. This helped people to understand they were doing the right thing and to feel good about doing it.

The next concrete step for grey-water approval was to submit required paperwork to the El Paso County Health Department. They were already planning to approve it based on the meeting we had had earlier, and they were approving it with the understanding that we were meeting their requirements for subsurface irrigation.

The fact is that the brewery is largely self-monitored and is also committed to the public health. If the brewery uses bad water and as a result makes bad beer, then it goes out of business. So, the brewery makes sure all of its water meets very high standards. The brewery already monitors grey water in its process as a way of maintaining high standards. The health department officials acknowledged this and said, in essence, “Hey, you guys are doing a great job. We do not even need to come in and inspect your facilities because we already know that your standards are higher than ours.”

Public health requires constant vigilance. We don’t have any illusions that we can build Ivywild—that we can build a sustainable development—and then walk away. We are committed to the long term. It is a journey for us. We will put the systems in place and we will work on an ongoing basis to see those systems evolve. Our goal is to do what we said in the vision statement: to emulate the healthy functioning of a closed-loop ecosystem.

The health department recognized the economic, environmental, and social benefits of this kind of project. They talked about public welfare and health—their primary responsibility. They took very seriously the idea of maintaining public health. They saw Ivywild as a very positive project for public health.

On February 7, 2012, Fennell Group submitted an application for a grey-water system for Colorado Springs Fire Station 21. The application was reviewed by Mike and Tom and approved as an “experimental system,” as permitted by the county’s regulation. The permit was issued by El Paso County (EPC) on February 10, 2012. EPC stated that ours was the first grey-water permit issued in the county and that we were the first large or commercial facility in the state approved to use grey water. So, the Ivywild project, which was delayed in order to finalize the Urban Renewal Authority requirements, actually paved the way for Fire Station 21 and was the first project presented to EPC for approval. The Ivywild process opened the door for others to include similar systems in their facilities. This was very gratifying.

Gaining approval from the purveyor of water, CSU, was running concurrently with the county review. We met with two CSU officials, Bruce McCormick and Bill Davis, to discuss the process with them. They carefully reviewed their internal bylaws and city ordinances and crafted a proposal that would allow the use of a grey-water system. The proposal was to install a second water meter on the grey-water line, to establish an augmentation rate, and to invoice an additional amount for it. It means we will be buying the water twice, but it’s necessary because the city has an ordinance against using water more than once. So, by metering the grey water and reselling it to us, CSU was able to satisfy the city ordinance and meet its inter-

nal requirements. We were actually paying an augmented rate—albeit a rate lower than that for potable water—to reuse grey water.

Another important factor was the conceptualization of our symbiosis district as one single stand-alone building. That was viewed differently for various reasons. The utility department had an issue with considering multiple buildings as one single building, perhaps due to generating income from individual metering. But for grey-water usage, considering the district as one building actually helped with the approval. This was our reason for considering the project as a single building from the beginning. Public safety departments play a role in this as well. Buildings need to have individual addresses, for example, so that firefighters, paramedics, and police officers can respond to a specific location.

In the design, it's important to consider whether creating a district as a single building can help avoid potential issues. Our goal was to establish a district-wide infrastructure that essentially links everything together. This could only happen by considering the entire development as a single, stand-alone building.

Bidding Process

As I've mentioned earlier, the owners of Bristol Brewing Company and The Blue Star, like our architectural office, have a long history of working in the community. At Fennell Group we have many long-standing relationships with people in the construction industry and wanted to use a bidding process that allowed everyone who might have an interest in this type of innovative project to participate. So, we went through the process of prequalifying contractors. We published an announcement through local media invit-

ing interested contractors to submit statements of qualifications. That made it an open bidding process. We then reviewed all of these statements for the bidder's qualifications and quality of work and created a short list, which narrowed the list down to five or six qualified construction firms.

These general contractors were all firms that we know and where we have prior working relationships with at least one of the owners. That fact inspired confidence that we were on the way to finding a good contractor. We invited the six firms to submit bids. They all participated through the first few weeks of the bid period. The first firm to withdraw was G. E. Johnson, a large firm which said that, due to its overhead, it would have difficulty being competitive. About a week prior to the bid deadline, a second contractor, Colorelli Construction, withdrew, citing basically the same thing: its overhead would make it difficult to be competitive with the other bidders. Eventually, we had four bidders going into the final week. On bid day, three firms submitted bids. Bryan Construction did not; they were interested and had requested information, but just prior to bidding they decided to withdraw. At the bid opening, we had three contractors: Murphy Constructors, Daniel-Barry Construction, and Elder Construction.

Just before we opened the bids, Mike Bristol asked the bidders if they'd like a beer, mentioning a "Laughing Lab," the brewery's flagship ale. Obviously apprehensive—knowing that only one of the three would be successful and perhaps because of the competitive nature of the construction industry—the bidders declined to have a beer together. Kevin Murphy even chided Tom Elder, saying, "You may not be *'laughing'* after they open the bids!"

Laura Long opened the bids and read each item aloud, just as is done in a public forum. In every phase, we want-

ed Ivywild to be a transparent process. Murphy Constructors was the apparent low bidder, although its price was only \$300 under that of the second-lowest bidder, Daniel Barry. Wow, only \$300! Elder's bid was the highest.

Murphy was selected and we were very comfortable with Murphy because of its track record and experience in successfully renovating historical structures. Chuck and Kevin Murphy's firm had recently completed the renovations of the Spa Building in Manitou Springs and had a long list of other impressive projects.

Value Engineering Process

Although Murphy's bid was the lowest, it still exceeded our budget. When building designs (drawings, specifications, and engineering data) are sent out to the building contractors, and the contractors give a price, there is always a possibility the bid is going to be higher than the budget. The value engineering process comes into play when the contractor's bid is higher than the amount of money available for the project. During the design of Ivywild, Mike, Joe, and I wanted to include as much as possible in the initial design. We undoubtedly included too much. It can be hard to hold back when owners (and designers) are excited about their new spaces and equipment and furnishings, etc. Plus we were excited to demonstrate symbiosis at Ivywild and wanted to include as many systems as possible in Phase I. As an architect, you want to bring these valuable elements to reality and let people see how they work!

A major reason for being over budget was a last-minute change by the structural engineer that led to an exorbitant and unaccountably high cost for the greenhouse. Literally on the day the bidding documents were printed, we received drawings from the structural engineer

specifying aluminum structural shapes that were available only as custom items from the mill. The problem was they did not tell us they had made this change. So we were not aware of the high material cost until we received the bids. The high cost of the greenhouse structure meant that we would have to remove the greenhouse from Phase I.

There were other items, including matching the school's original doors, that we had to forego as well. We had to go through a process with the contractor and its subcontractors to identify opportunities to adjust or change the design to reduce the cost. This process is called *value engineering*.

Chuck Murphy, the president of Murphy Constructors, explained,

Value engineering is really working closely with the architect and with the owner and letting them play—especially the owners—a role to see how their money is being spent. So they really see the bids and they participate in a dialogue with the architect and contractor to see how they want it done and where they want it done. There's a certain amount of trust that's required in order for that to work properly. It works well and in this case ... I think it's working very well. We like to do it because I can't remember the truth let alone the lie, so it's much easier just to show and have an open book and let

everyone look at everything. There are no secrets at all in my office, about anything, so it works real well if you're willing to give the effort to participate in that way.

Core-and-Shell versus Tenant-Finish Approach

The building department had required us to separate the construction project into two pieces. This actually ended up being valuable in obtaining approvals for each business individually and for managing costs and scheduling for each tenant. At Ivywild, the division of the project was required primarily because the old school had a particular type of occupancy associated with it. The building was considered an educational use or “E” occupancy.

The building department’s initial concern was to remove educational occupancy from the building and convert it to something else. We were proposing a multi-use development—multiple occupancy types within a single building—and that created complexities for the review process. The building department suggested that we submit the project as a core and shell, meaning that the interiors would be done later (after another review process). The initial project would be limited to literally the outside shell and the main structural elements and building systems, like heating and cooling systems, bathrooms, fire sprinklers, primary electrical service, and so on. It would get the overall project weather-tight and secure so that individual businesses could do their necessary interior work.

The tenant interior (TI) work includes the things individual businesses need to operate, such as interior lighting; finishes for walls, ceilings, and floors; and any

special plumbing or electrical services for equipment and appliances. In the brewery, for example, the tenant finish includes all of the brewery equipment, installation of the tasting room bar, and all of the interior floor, wall, and ceiling finishes. Final electrical connections, lighting, and mechanical ductwork are established during this portion of the work as well.

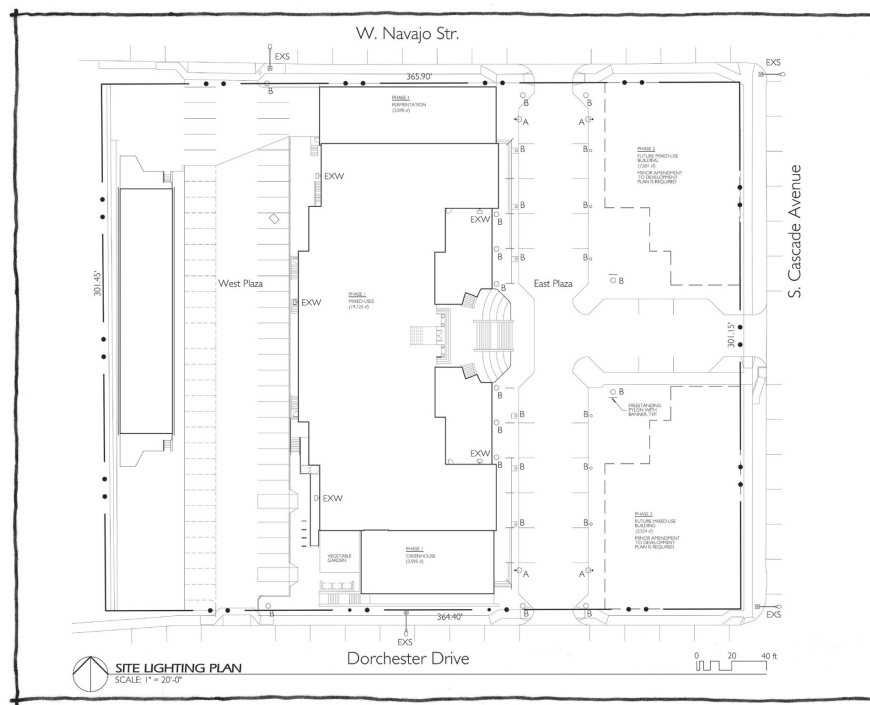
The bakery design is loaded with specialized equipment: refrigeration, mixers, ovens, and exhaust hoods, to name just a few. All of the sinks have to be connected to the plumbing system and (like the brewery) all electrical connections, lighting, and mechanical ductwork have to be established. The floor, walls, and ceilings must receive approval from the local health department, which specifies certain finishes for ease of cleaning.

Our office space has been relatively simple, as the finishes were restored from the original. There was very little TI work for us. Most of it was covered under the core-and-shell contract.

The Contract for Construction

Typically, when someone hires a general contractor, they hire an architect to lead a team of engineering consultants who develop drawings and written specifications for all of the work required on the site: new buildings and additions. There were both in our case.

Details of the design are provided in the construction drawings. As the architect and planner, Fennell Group developed a package for the contractor that defined its work. This included renovations of the old school building plus three new additions: the fermentation area on the north side, terraces on the east, and the greenhouse on the south. (The greenhouse was removed from the contract



Site plan of the Ivywild School.

during value engineering and designated to be built under a separate contract.) It also included the freestanding warehouse addition on the west and all of the site work for the 2.5-acre property, such as parking, access drives, sidewalks, landscaping, a central plaza, and so on.

Chuck Murphy commented on the construction drawings,

We deal with an awful lot of agencies and agendas, and there's lots of engineering that goes into the buildings. They're required to do soil tests, foundation designs, engineering

designs, mechanical and landscape designs, people need to design the sprinkler systems It goes on and on, but at the same time, the result is great, and I think the end result here is going to be spectacular.

I think all of it will come together. There will be a greenhouse and waste reusing and recycling. I'm a big believer in that and I always have been. I built a warehouse of recycled materials. I wasn't in any hurry. I

got a lot of stuff I wouldn't have wanted to go to the dump or the landfill And so we're recycling a lot of things here at Ivywild and making good use of all those elements.

Symbiosis Integrated into the Design

Somewhere along the line, probably during a presentation or more likely while brainstorming over Bristol ales, I told everybody, “Architecture is not about sex, it’s about love.” Seriously. Architecture is created to go beyond functionality and to express something to someone. It’s intended for someone we care about, someone we love—usually our children. It’s a message about what is important to us.

Architecture stimulates the senses, and while it is most obviously a visual art, it engages all of our senses, even though some of that connection may be outside our awareness. The less-known human senses, such as the ability to sense spatial volumes and scale, often grab our attention, even when we don’t know exactly why.

I propose that architecture also makes an inherent expression of morality. We understand when a building is doing “the right thing,” such as being environmentally responsible, for example. This is really where environmental symbiosis begins. At Ivywild, we focused primarily on the functional aspects initially, but there was a strong place where we saw the environmental and moral aspects coming together as well—sensitivities toward the climate and specifically the microclimate at the site and its immediate surroundings.

Our old school building was a beautiful example of classical revival architecture that was popular in the United States in the early 1900s, especially among public

buildings. It had at its main entrance two pairs of large columns in the Doric style supporting a pediment with ornamental filigree. Everything on the walls, windows, doors, and friezes, was developed symmetrically and mirrored on either side of the main entrance. The two wings of the school were more austere, lacking ornamentation, and represented the dogma of modernism in U.S. architecture during the 1950s. Modernism, which is discussed in the body of this book, seemed to have tried to trump the historical at Ivywild, and dominate to express its intent: to say that science, technology, and intellect are greater than intuition, spirituality, and divine intervention. It also promoted a more global or international aesthetic that disparaged the local. All that sense of worldview aside, however, what is really exciting about the old school building is its *type* of construction: the abundance of large, thick, load-bearing masonry walls that we could use for energy storage as thermal mass.

These thermal mass walls were where we began the process to create environmental symbiosis. When planning the building additions, we noted that the existing configuration of the school was oriented along a north-south line. It stretched linearly along a north-south axis. This was exactly the opposite of the optimum orientation for buildings in our climate (which is discussed in Chapter 9). So, we had to find ways to overcome the inherent energy inefficiencies of having large east-west exposures and a very small southern exposure.

We also needed to add insulation to the building. In 1916 insulation was not widely used, and in the 1950s it was still not considered very important. Energy was relatively cheap and buildings generally did not use insulation as extensively as we do today. So we located the brewery

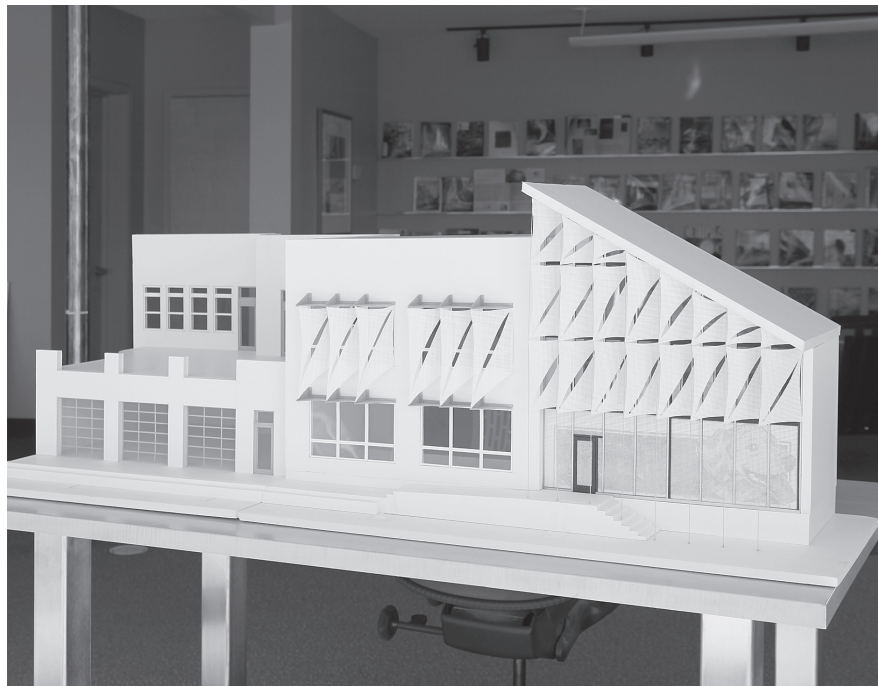
at the north end, as a way to protect the building from the northern exposure. In the south end of the building, we located other uses that could most benefit from the direct southern exposure.

By placing the brewery's fermentation addition, which has a byproduct of heat, on the north side, we created a substantial insulating layer on that exposure and made use of the large existing thermal mass walls. In the winter we knew the masonry walls would absorb the heat generated by the brewery process. In the summer the heat captured in that space would be exhausted passively through clerestory windows, which would provide daylighting as well.

Due to budget constraints, we were only able to install the backup steel framing for the brewery's clerestory windows. These windows will be installed sometime during the first or second year of the building's operation.

The east-facing exposure of the fermentation addition is predominantly made of insulated glass. It is designed with an exterior shading system that blocks summer sun, but allows winter sun into the space. The plan includes coiling insulating blankets on the interior, which can be lowered during winter nights to hold in the heat.

We created a number of study sketches early during the design process for the shading system, but (again because



Study model of the Ivywild School built by Allison Haynes, an intern at Fennell Group and architectural student at the University of Oregon.

of budget limits) we had to remove the shading devices from the core-and-shell construction contract. We added the roof extension as a change order during construction and made a plan to install the cable mesh shading devices during the summer of 2013. Obviously, in juggling budget and desirable features, there has to be flexibility and creativity; we intend to implement systems over a period of several years to get the desired results.

At the south end, we worked to maximize winter solar gain on the large south-facing thermal mass walls by creating a Trombe wall or literally a greenhouse effect. This is why growing food and harvesting solar heat gain are so integrated in environmental symbiosis. We essentially get free heat while providing space to sustain plants over the winter by creating a greenhouse on the south side of the old school. As discussed, the greenhouse was initially delayed, with construction now planned for the spring of 2013. This is the target date for completion of the construction of Phase 1.

Mesh shading was designed for almost every surface exposed to summer sun, including the roof. The intent is to block summer sun from entering the interiors during the mechanical cooling season, about 75 days prior to the summer solstice till 75 days past the summer solstice. We want to block the sun from entering the interiors by using inexpensive exterior shading devices.

Other key design features of environmental symbiosis include designing Bristol's warehouse facilities to be built into the hillside. Early in the design process, in an effort to maximize the amount of buildable area, we decided the warehouse could be built along the west side of the property and lowered into the slope. This allows the entire west wall of the warehouse, accommodating distributing operations such as bottling, keg filling, packaging and cold stor-

age, to benefit from having a large thermal-mass retaining wall that helps to temper the space. This wall serves to retain the earth and as a foundation to support two upper floors planned to be built in Phase 2.

Several renewable energy systems have been designed into the project as well. When the project opens, it is scheduled to have an electric vehicle (EV) charging station. The charging station has been located at Fennell Group's office on Tejon Street. It was actually fabricated in late 2010 to take advantage of federal and state incentive programs for renewable energy systems. Designed completely of aluminum structural sections with bolted connections, it was made to be easily dismantled and moved to Ivywild just prior to the opening of the facility. The system is designed with a roof-mounted solar array that produces 240 V, 30 A to match the specifications of Nissan's EV, the Leaf. Fennell Group took delivery of its Leaf during the summer of 2012. The charging station is available for Fennell Group's company vehicle and will be extended to patrons of Ivywild as well.

While designing the EV station, we installed solar thermal hot-water panels on the roof of Fennell Group's office. These thermal panels are designed for relocation to Ivywild to help generate domestic hot water. We've also explored using performance-based contracts to purchase additional thermal panels. After exploring the use of ge-exchange at Ivywild, we've determined it's feasible as a long-term investment. However, we're deferring the ge-exchange system until Phase 2 in order to seek funding either through a performance contract or through contributions from the businesses at Ivywild.

All of the passive systems and renewable energy systems were carefully considered during the value engineering process. Once we understood the complete construc-

tion cost associated with each system, we made decisions, based on costs, about how best to schedule implementation of the systems. Phasing of a project in response to budget constraints is both an art and a science practiced by a symbiosis design team.

Appraisal

After working through the value-engineering process with Murphy Constructors, we achieved a design within the project budget. The design then had to be appraised to ensure that its value would constitute an adequate asset for the amount being borrowed.

Following industry standards, before making the loan our lender was required to assess the appraised value of the property being purchased. Whether you are borrowing money to buy a house or a commercial building (or a symbiosis district), you must get an appraisal from a qualified appraiser before the bank will actually make the loan. An appraiser has to say, “Yes, this building or property is in fact worth what is being paid for it.”

We went through this process with the bank’s appraiser, providing the documents we had prepared, including all architectural and engineering drawings and the approved development plan. We outlined for the appraisers the type of construction and basically everything they needed to know to establish a value for the finished product. During the appraisal process, it may be necessary to assist the appraisers in understanding the value of certain features. It is important to be sure they understand the currently accepted ways to value a property that has green features and has been built using sustainable design practices.

We were very pleased with the results of our appraisal. All of the financial information has already been made

public, because the owner of the property was a school district and because there was a contribution of funding from the Urban Renewal Authority. The asking price from the school district was \$1.2 million. The cost of the construction, core and shell, was another \$2 million, and the tenant interior improvements were an additional \$500,000. With equipment and furnishings, the total project cost was approximately \$4 million.

The appraised value of the project came in at \$5.9 million, so this was a great starting position. One reason the project was valued above the amount invested was because the owners acted as the developer, rather than hiring a developer or purchasing the property from a developer. This avoided a substantial markup on the property. If we had approached this project through a traditional developer-led model, we would not have been able to make the project work financially. Of course, future phases will add equitable value as they are implemented.

Closing

In a preconstruction meeting with the contractor just prior to the closing, one of our owners, Joe Coleman, spoke up and said, “Hey, Murphy, we want you to break ground 30 minutes after we sign the closing documents.” Chuck Murphy laughed, but acknowledged that with the building permit in hand, he could literally start moving dirt on the day of the closing or within a few days afterward.

Months later, Murphy said jokingly, “Well, that’s pretty typical of Joe [Coleman]; he’s very impetuous, you know, and very anxious and so I wasn’t surprised.” But Joe took the lead in showing how much we were all looking forward to getting Ivywild underway.

The date of the closing was March 21, 2012. Two conference rooms were filled with people from School District 11, the title company, the lenders, the URA, and Mike, Joe, and me.

Seller:

School District Number Eleven
Kristine Odom, Executive Director

Seller's Attorney:

Caroleen (Lee) F. Jolivet, Esq.
Mulliken Weiner Karsh Berg & Jolivet PC

Buyer's Attorney:

Brian T. Murphy, Esq.

Title Insurer and Escrow Service Provider:

Land Title Guarantee Company
Dixie Powers, Senior Licensed Commercial Closing Agent
Don Whitmore, Chief Title Officer

Lender:

Central Bank & Trust
Tony LeVeque

Urban Rebeval Authority:

Chuck Miller
Jim Rees
Private Investor for URA (wishes to remain anonymous)

Kris Odom was there representing School District 11. When everything was finalized and she had handed over the keys, she broke out her personal camera and took pho-

tos of the exchange. She offered everyone congratulations and reiterated the district's support for and excitement about the project. Glenn Gustafson, deputy superintendent and CFO of School District 11, offered his support as well. Glenn later said,

The Ivywild transformation from a historic elementary school to an innovative microbrewery/community center is not only a perfect example of public/private partnership, but also an example of creating a unique community asset wrapped in the envelope of green technology and a private business. This project will ensure that the Ivywild building will not only remain an asset for generations to come but will also ensure that the Ivywild neighborhood community will be connected to each other through this facility. We could not be more pleased with the outcome of this project.

After the closing, and after we'd enjoyed a couple of days of taking ownership of the school building, there was an informal celebration party on Thursday, March 22, 2012, at the Ivywild gym. About 300 folks attended, including neighborhood residents and others who had been involved in the project. There was something special about having the brewery present and serving Bristol beer officially in the school for the first time. It was symbolic when we raised our pint glasses. It symbolized the way we had all agreed to pursue this idea at this location and how im-

portant it was to the neighborhood. And, with this party, we were formally kicking off construction.

Amanda Bristol expressed her excitement at the Ivywild Closing Party: “I want this building to be a place where the public can come, where the community can come and be comfortable; experience this beautiful space ... I love old buildings and just couldn’t stand the thought of this building being boarded up at some point. It’s the foundation; it’s the centerpiece of this neighborhood.”

Amanda with Matt Ward and her creative team at Bristol Brewing have documented the energy and excitement of the closing party with a very cool video that is modeled after “School House Rocks!” It truly captures the vibe of the evening and the wonderful support of the neighborhood.

Jeff Moore, a Colorado Springs resident, added, “Just to have somewhere this cool in town just brings so much cachet to the city. It’s almost a dream come true for a lot of people. For me, it’s a place to hang out with really good friends and drink really good beer.”

Construction

Construction on the Ivywild Project officially began on the day of the closing party, March 22, 2012. Earlier that day, we issued a Notice to Proceed to Murphy Constructors to begin work renovating Ivywild School. Mobilization of the contractor and the beginning of work and light demolition was the next step in an effort that had begun nearly three years earlier. That was when Mike Bristol, Joe Coleman, and I first envisioned a revitalization of an old school into a brewery, restaurant, and design offices—into a new neighborhood hub of cultural activities that create an informal place for a community to gather and grow together.

Randi Hitchcock, a resident who has seen the daily transformation of Ivywild commented: “It just changes every day. It’s been great to see it start as just a school with the playground, basketball hoops and tons of trees to clearing it out ... which was a little hard at first ... but just seeing it change over time into what it is going to be. It’s amazing.” Ryan added, “It could and should be replicated across the city, across the state, across the country. Great infill, sustainable, great mixed-use project, walkable; it’s got a little bit of everything that we planners, design professionals, advocates for sustainability, would hope to see. It’s all there in one project. So from the first time I was briefed on the project through the whole process, I felt honored to be able to be the staff member who got to work on it and guide it through the process.”

Yes, the Ivywild district model really can be replicated across the city, state, and nation. We want this idea to spread! One way it spreads is when people who read this book and understand how to put the pieces together—whether it’s a brewery with all of its byproducts or a different anchor user—actually decide to create a successful project in their own neighborhood.

Obviously, our focus is the model of a brewery as an anchor linked to synergies with the bakery, café, design office, and other businesses. But other kinds of businesses also work. As long as every business and activity has synergies with the others, so they’re able to balance and repurpose their byproducts, a district designed in the Ivywild style will help keep its businesses profitable, help preserve the local environment, and bring its neighborhood people together into a tighter-knit community.

Wow! So it turns out beer really can change the world!