FRANKLIN FALLS AT ODELL PARK

Balancing Preservation & Progress Through Permaculture



Urban Permaculture Design Solutions:

An Experiential Design Charrette For an Advanced Permaculture PDC Franklin, NH • April 30, May 17-20, May 20-22

A transformational, multi-day session, where PDC graduates come together to generate resilient and community-orientated ideas for the revitalization of a section of the historic Franklin downtown, which is presently underutilized. Professional permaculture planners, designers, and educators will guide the effort through a design charrette.

The charrette process blends the broad experience of PDC graduates with local citizens' detailed knowledge of their community to produce a conceptual plan, which applies permaculture ethics and principles. The charrette provides an overall framework where final solutions can be developed, with emphasis towards a design that incorporates the use of low energy solutions, repurposed materials, and the multifunctional use of interior and exterior spaces within a historic portion of downtown Franklin.

Through a unique site analysis process, participants will identify regenerative solutions to address present issues with storm water, urban biodiversity and habitat loss, and the lack of outdoor, community gathering spaces. This collaborative effort builds on the Plan NH work, which was done in 2006.









Process:

- I. Goals articulation
- 2. Teams assigned to the following categories:
- Access and circulation
- Buildings and infrastructure
- Legal & Zoning
- Soils, water, vegetation & wildlife
- 3.A&A Summary (Analysis and assessment)
- 4. Context Map
- 5. Conceptual Design
- 6. Patch Designs & Perspective Drawings

Local Facilitator

Todd Workman <toddworkman I@gmail.com>

Participants

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INSTRUCTORS: Steve Whitman Lauren Chase Rowell

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Goals Articulation - Visioning the Future

Franklin Falls at Odell Park is a unique and special place that is grounded in geology and the premise that "form follows function." The rugged and courageous people of the area, defined by what they made and what they offered, have weathered and thrived through many transitions using their individual ingenuity, creativity, hard work and strong sense of community. With the strength and strong will of its citizens and the economic, cultural and historic life blood that runs through the rivers, the land, and the natural heritage of this place, Franklin is a self-sufficient community that has and will continue to cultivate its food, energy, services, recreation, and community pride.

Permaculture is what our ancestors called "common sense", including frugality, independence, and resilient systems and now includes things such as renewable energy alternatives, local food economies, and regenerating the natural environment. Permaculture, defined as the conscious design and maintenance of diverse, stabile, and resilient natural ecosystems, harmoniously integrated with people in order to provide their food, energy, shelter and other needs in a sustainable way, is what has defined Franklin Falls at Odell Park's past and will help to define its future. Rooted in the principle of the triple bottom line (planet, profit and people) and the three permaculture ethics (earth care, fair share, people care), Franklin Falls thrives and supports its ecology, economy, and the community in the following way:

Ecology

- Regenerates and sustains biologically diverse landscapes that support the health of all living things.
- Celebrates, honors, and protects the land, rivers, and natural heritage of the area.

Economy

- Creates opportunities for learning skills and jobs that support the stability and resiliency of the community.
- Favors a creative versus a consumptive economy
- Offers accessible and dynamic living and working opportunities that support multi-generational and diverse populations.

Community

- Fosters renewed connections to history and all the people who have called this place home.
- Recognizes that the human community is embedded within a larger natural community and that the people in this area have a deep relationship and connection with the land and natural heritage.
- Encourages opportunities for face-to-face interaction and relationship building.
- Establishes a clear sense of identity, place and community.

The town of Franklin is in the midst of another transition as there is an urgent need to work with the positive energy that has been generated around saving valuable historic buildings and protecting the natural heritage at Franklin Falls at Odell Park, and to contribute to the economic stability of the greater City of Franklin. Town surveys and charettes have been completed in recent years and provided a foundation for the vision and design for Franklin Falls at Odell Park, which now includes practical and applicable details and definitions. The citizens of Franklin are in the best position to carry forward the vision and design that has been laid out by simply starting right where they are, and allowing their continual pro-active and hard working approach lead them to phase-in and transition their community while being flexible and adaptive along the way. The vision and design for Franklin Falls at Odell Park is a reflection of the creative, independent lifestyle the community has embraced since its beginnings. In the hands of the community, the vision and design will take form and be another important transition where the people and the land of Franklin thrive yet again.

The vision and design for Franklin Falls at Odell Park includes:

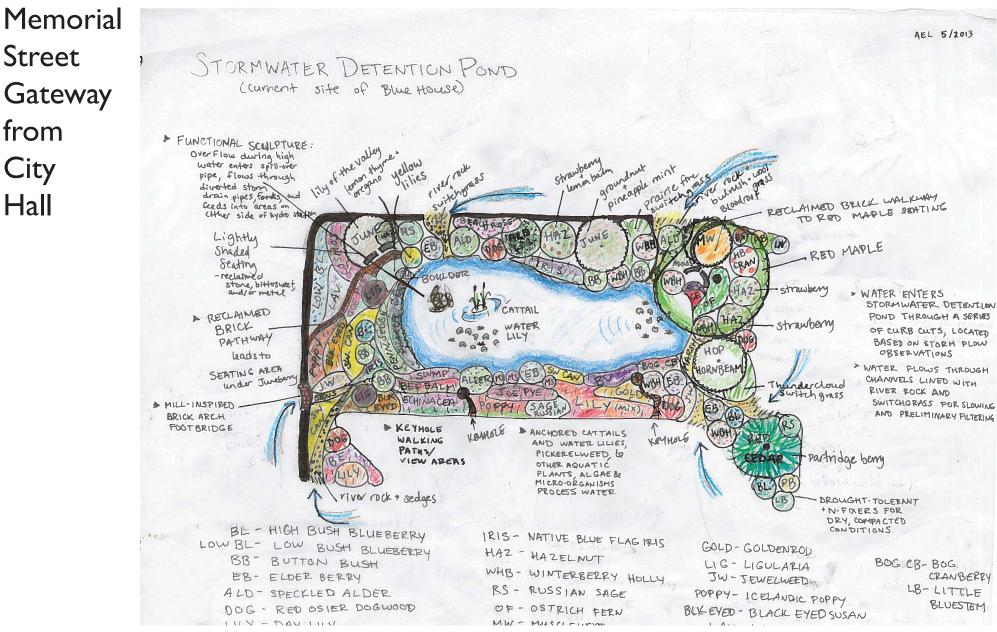
- Community gathering spaces
- Multi-use access, circulation, and connections
- Offices and workspace that supports a creative economy
- Small scale food hub including a farmers market and restaurant
- Educational establishments
- · Gardens and landscapes that support biodiversity



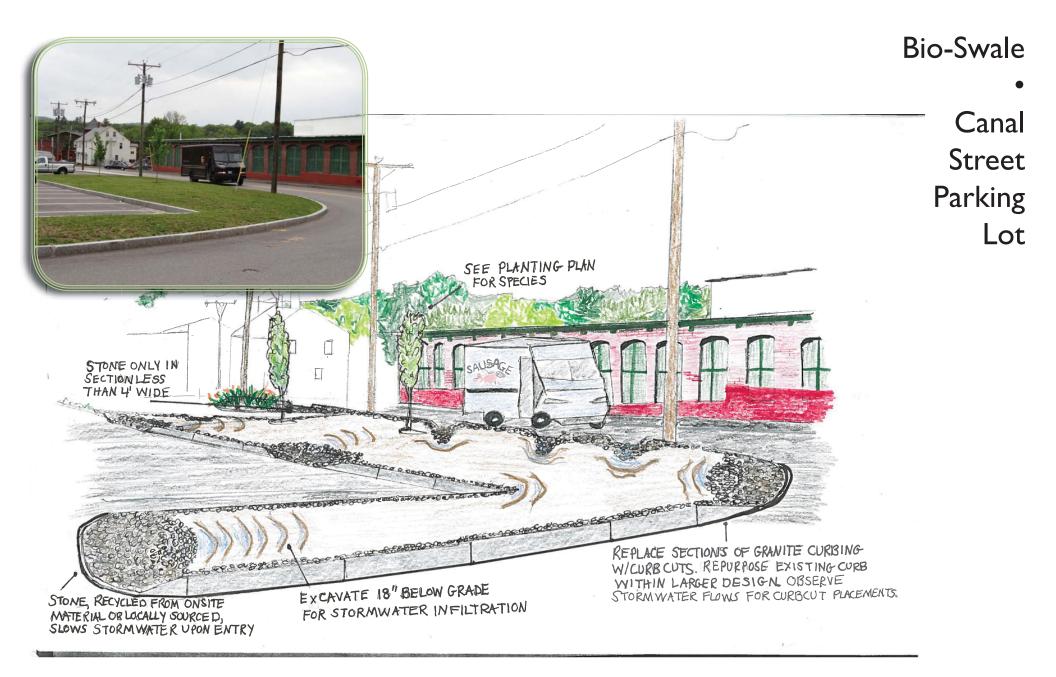
Sample Logos

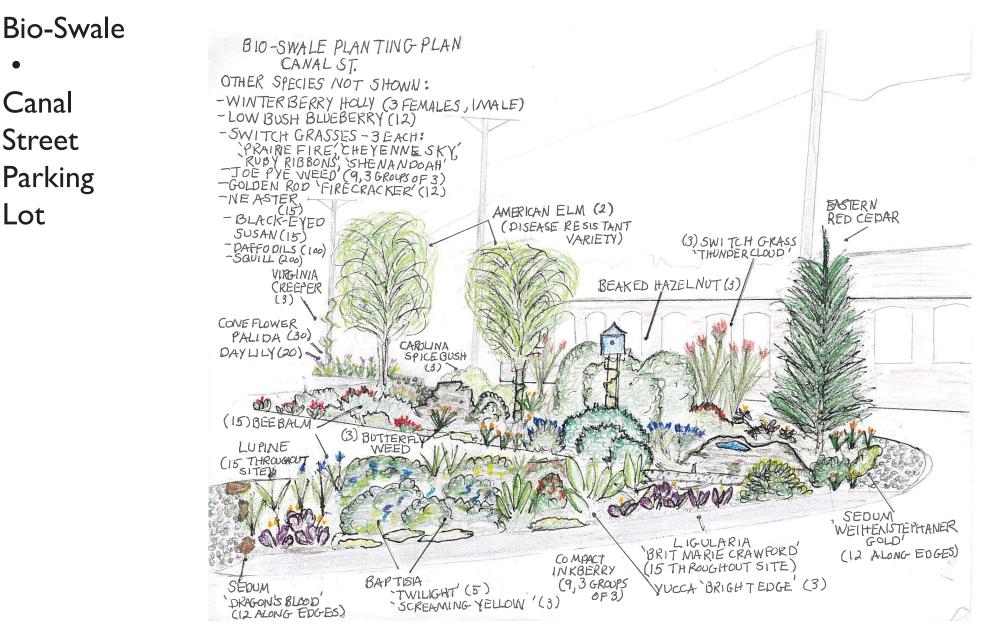






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Riverbend Mill Parking Area

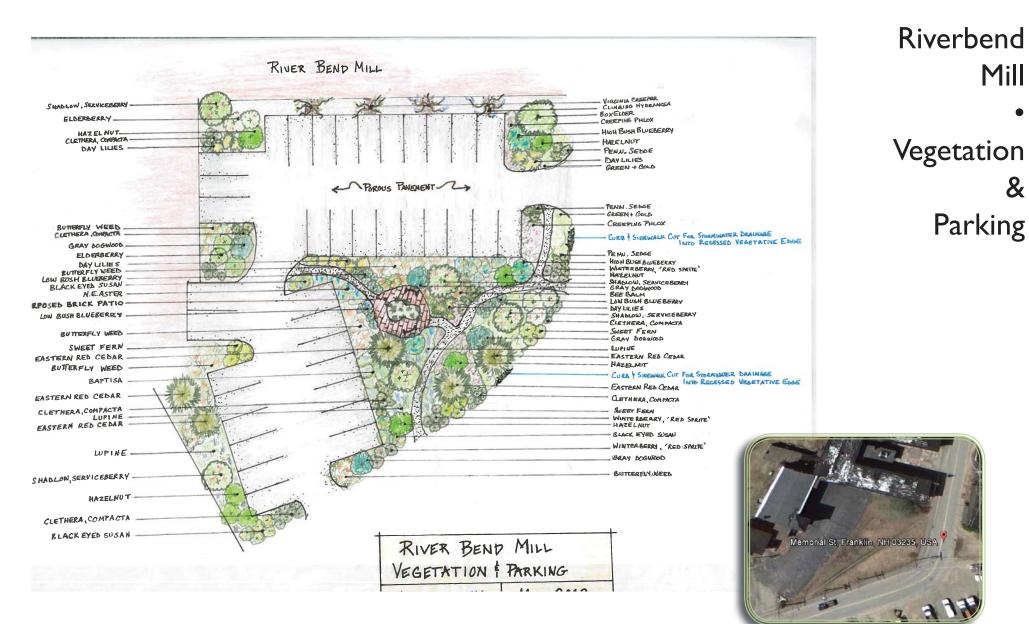
> East View

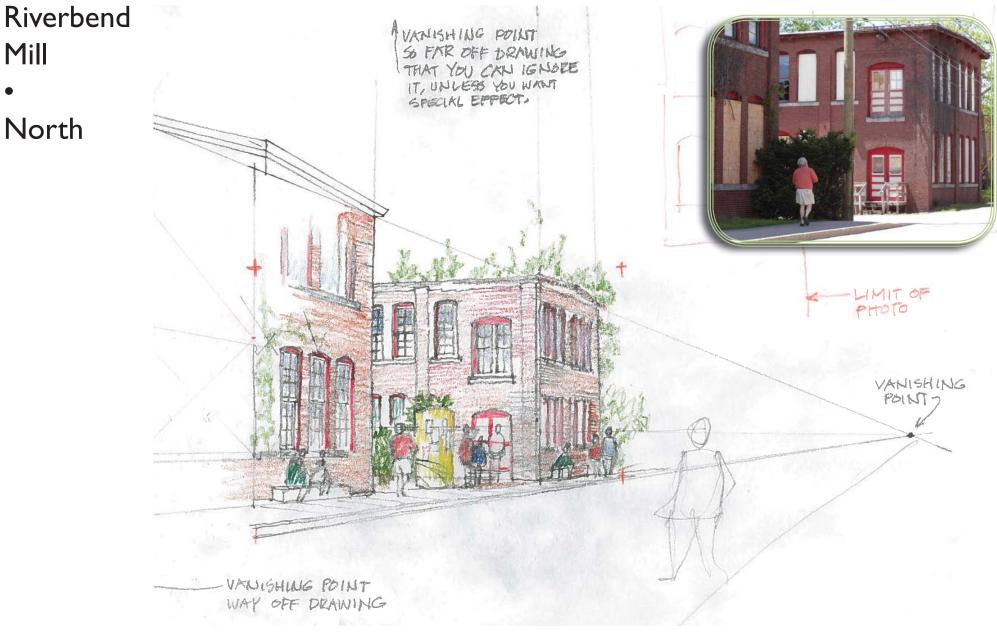


Mill

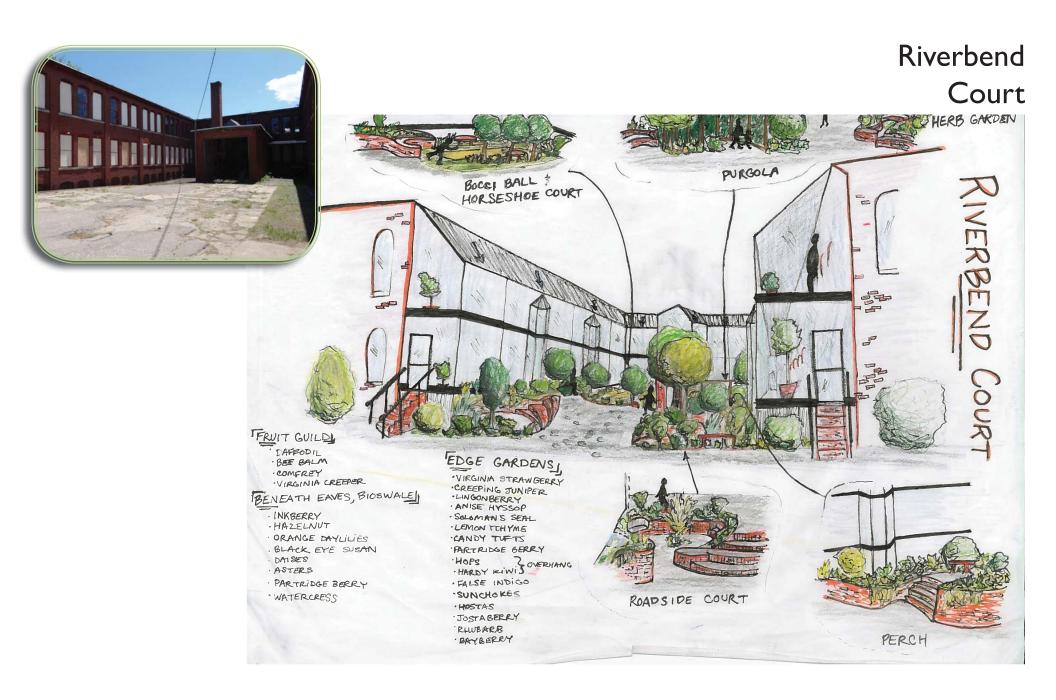
East

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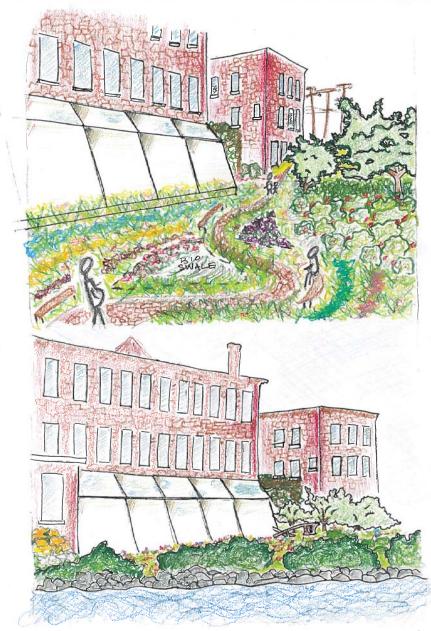
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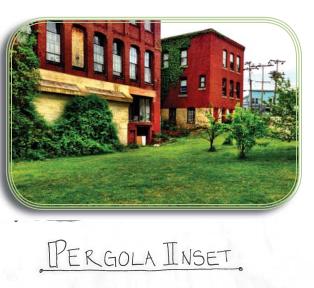


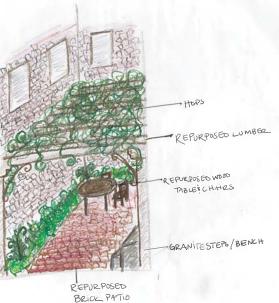
Riverbend Court



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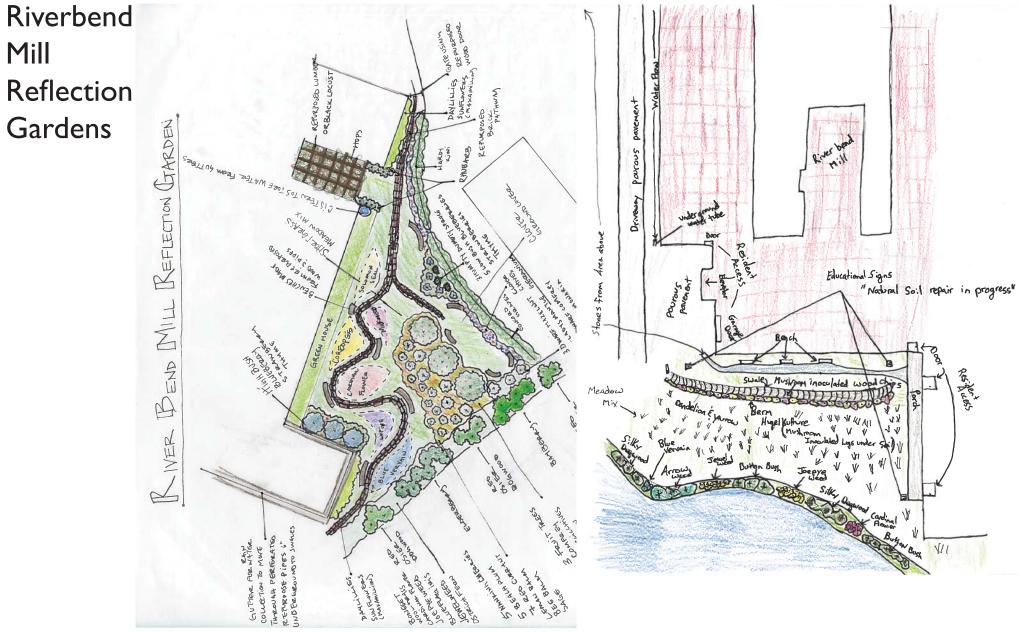


Riverbend Mill Reflection Gardens

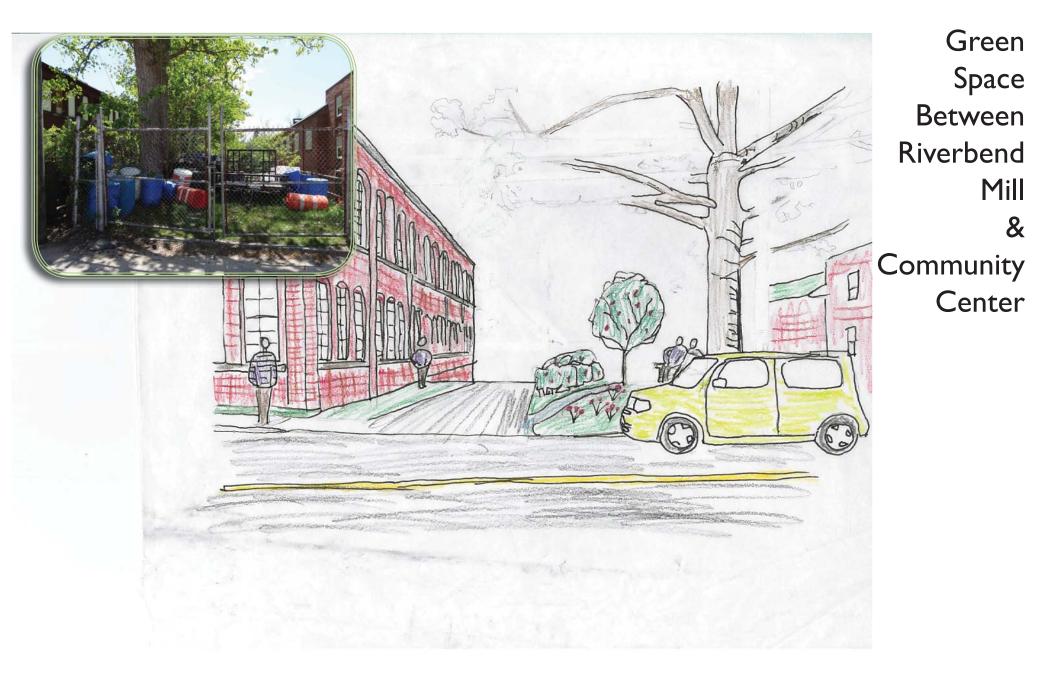
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Green Space Between Riverbend Mill & Community Center

<u>Shreb</u> High Orsh Bluebeny(2) Elderberry (1)

Herbaceous Woodland Sunflower (6 Bunches) Goat's Rue (5)

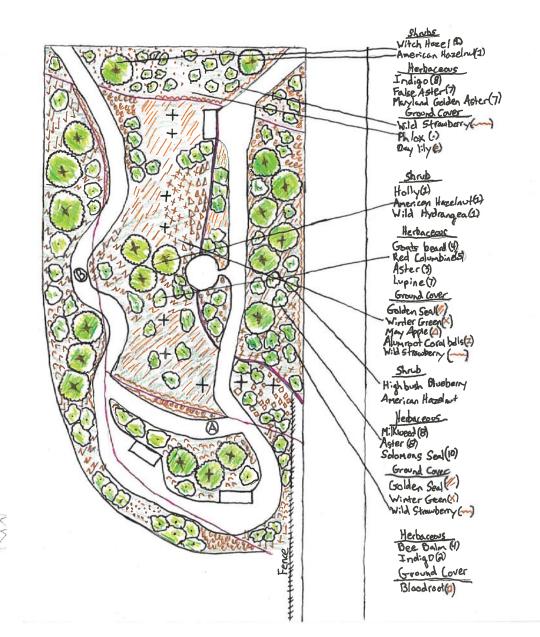
Ground Cover Mountain Wood Somel (A) Wild Stromberry (A) Day Lity (E) Campion (1)

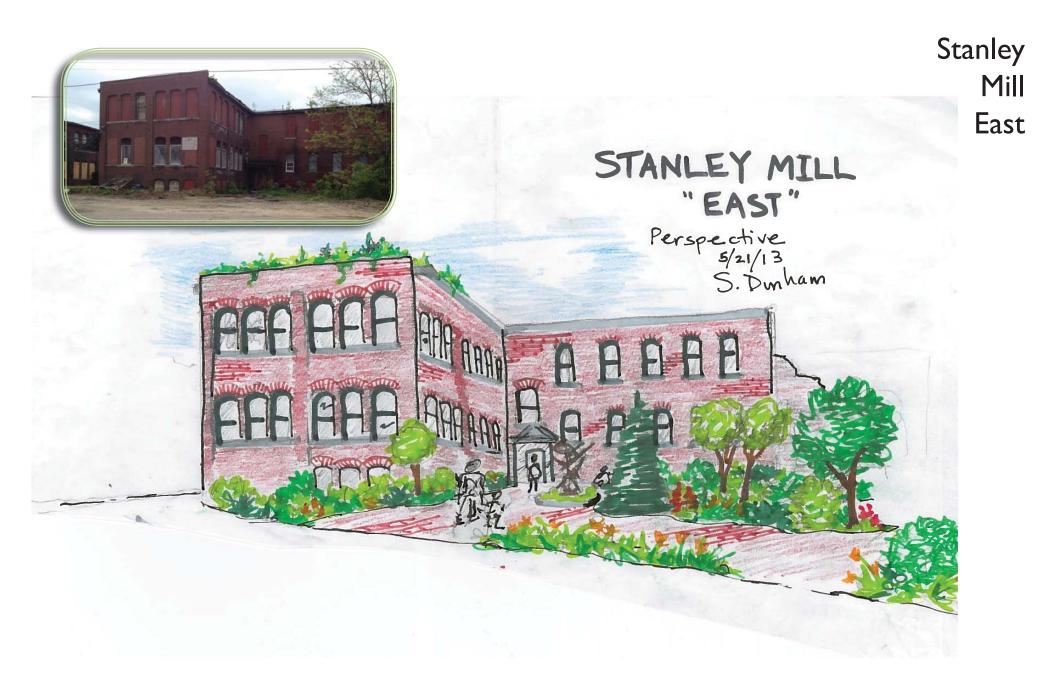
(B) Shalk

High Bush Blueberry(2) Elderberry (2) American Hazelnut (2)

Herbarcous Rhubarto (3) Aster (3) Red Columbine (6) Woodland Sunflower (8) Ground Cover

Phlox67 Day Lily(C) Campion (M) Alumroot Coral belis(2) Wild Strawberry (m)







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A. Stanley Mill South Wall

The 10' sandy shoulder that ran the length of the Stanley Mill has been dug down 36" and replaced with 30" of top soil. A 6" depression has been left to help capture storm water that ran down Memorial St. Three courses of recycled brick have been used to create the 8" curb that protects pedestrians from the depressed area, with every fourth brick of the first course removed to allow storm water to enter the bed. This part of the mill is included in the Armory-Stanley Mill food edible forest garden. Trellises for hops are hung alternating with espalier pear trees with a Siberian pea shrub at each end of the hop/pear forest to provide much needed nitrogen. Low bush blueberry, wild strawberry and lingonberry act as ground covers within the depressed shoulder bed.

Plants:

Hops (25) Dwarf Espalier Pear Tree (5) Siberian Pea Shrub (2) Low Bush Blueberry (7) Wild Strawberry (7) Lingonberry (7) B. Courtyard & Demonstration Green Roof & Food Hub/Farmer's Market Loading Zone/Courtyard

As visitors cross north on Memorial St at the crosswalk, they first experience a section of the Franklin urban edible forest garden.Wisteria growing from the forest garden leads the eye to the lower flat roof of the Stanley Mill. This section of the mill provides a fantastic demonstration site for the intensive green roof used on top of the Stanley Mill building. An informational sign describes the different types of green roofs, their applications, and how they are utilized in the Franklin Mills. The Courtyard is made of recycled brick from the demolished section of the Stanley Mill and provides farmers and food producers easy access to the weekly farmer's market and food hub. All food producers are required to delivery their goods by 2pm each day so that the courtyard can be used by the community and businesses for activities including educational outreach, cooking/food demonstrations, additional seating for the restaurant and a beer garden for the brewery.

Forest Garden Plants: Hazelnut (1) Bush Cherry (3) Wild Strawberry (3) Low Bush Blueberry (3) Various Types of Daylilies (5) Wisteria (3)

Demonstration Green Roof Plants: Black Mulberry (1) Compact Inkberry (3) Comfrey (3) Black Eyed Susan (3) Hosta (3) Chocolate Joe Pye Weed (3) Goldenrod (3) Baptisia (3)

C. Edible Forest Garden

The edible forest garden is located between the Armory food hub and farmer's market and the Stanley Mill restaurant, brewery, and coffee roasters, creating a center point for food production and continuing the food theme from inside the two buildings back outdoors where it all begins. The forest garden is made of native edible perennials, perennial nectary plants that blend into native dense forest vegetation found along the river bank and the Historic Mill Trail and Ruins site.

Plants:

Hazelnut (5) Low Bush Blueberry (5) High Bush Blueberry (3) Huckleberry (3) Wild Strawberry (9) Grapes (3) Beach Plum (3) American Cranberry (9) Butterfly Weed (3) Aster (3) Violets (9) Dandelion (7) See Plants in Section D.

D. Historic Mill Trail and Ruins

Most of the rear section of the Stanley Mill building, due to its weakened foundation and increasing pressure on the eroding river banks, has been removed. Any sound brick or building material removed from the Stanley Mill has been recycled back into the Stanley Mill Courtyard, the River Bend Mill Parking lot, Stanley Mill Courtyard East and the Armory's raised garden beds. Instead of removing the entire structure, certain sections have been left standing and reinforced to ensure safety. These sections have been left to create The Historic Mill Trail, a unique urban/wooded space that tells the history of the Franklin mills through the use of plaques placed on sections of the ruins and art created from old mill equipment. The forge stack has also been left standing to act as the main focal and entrance point to the trail. The trails leading to the Armory and weaving behind the Stanley Mill are made of crushed concrete repurposed from the demolition. In addition to the Historic Mill Trail and providing vertical growing space for the breweries' hops, the trail and ruins lead us from the Armory's and Stanley Mills focus on food back to our roots. The Historic Mill trail brings us back 200 years to the beginning of the mills, and as you move farther east down the trail you leave the mills behind and enter the mix deciduous forest. The mills provided for the people of Franklin for many years, but it was the natural resources that brought the people to Franklin in the first place. A plaque placed on the trail will remind visitors of such.

Plants:

Black Hills Spruce (3) White Oak (3) Eastern White Pine (3) Woodland phlox (15) Solomon Seal (15) Christmas & Ostrich Fern (15 each) Black Birch (5) Hazelnut (5) Hops (17) Wild Strawberry (9) Common Juniper (5) Low Bush Blueberry (7) High Bush Blueberry (7)

E. Forever Wild/Erosion Control Zone

This area is highly sensitive due to erosion and not open to the public. In order to combat the erosion problem many large native trees species such as spruce, pine and oak have been planted to protect the river bank from heavy rains and snow. The invasive species that were plaguing the river banks have been removed and aggressive native ground covers introduced. A berm was also created at the crest of the river bank to slow any water running towards the river. The historic Mill Trail runs into the forever wild zone with plants overlapping.

Plants:

Yellow Arch Angel (13) Green & Gold (13) See Plants in Section D.

The Stanley Mill Courtyard



F. Storm Water Catchment

Located on the north side of the

Stanley Mill is a 1,000 gallon water

catchment system. The majority

of storm water to fall on the

Stanley Mill is absorbed by the

intensive green roof. The water

shed off the greenhouse is used

in the greenhouse for watering

and passives solar heating. This

stormwater catchment system is

used to store water that's been shed

from the rooftop seating area of the

building (see section G.). The water

located in strategic low areas of the

travels through a system of pipes and

gutters and is received in the holding

tanks to be used to water the forest

is channeled through small drains

roof. From the drains the water

garden. During particularly rainy

periods, the tanks are allowed to

Some future possibilities for this

catchment system are small scale

storm water/gray water filtration,

and larger scale water catchment

moving water around the Franklin

system capable of storing and

Mills.

hydroponics for vegetables, grain, and

fish production, passive solar heating,

slowly drain into the forest garden.

G. Rooftop Patio Seating

The larger rear square section of the Stanley Mill rooftop has been converted into outdoor seating

converted into outdoor seating for the restaurant and brewery. Pergolas made from reclaimed wood and steel from the demolition cover the seating areas and provide vertical growing space for the restaurant and brewery. A removable impermeable cloth is used as needed to keep patrons safe from the elements. The rooftop patio also contains a permanent covered bar, seating for up to 35 people, viewscapes of the ruins, intensive greenroof and greenhouse, rivers, Odell Park, Franklin Falls and downtown. Large potted plants are used to enclose the seating area and give the patio the feeling of being in a dense garden, and the drains mentioned in section F. manage stormwater.

Plants for Pergolas: Grapes (3) Hardy Kiwi (3) Maypop (3)

Decorative/Nectary Potted Plants: Assorted Annuals (30) including: Canna Lilies, Amaranth, Celosia, Cleome, Cosmos, Cupflower, Lantana, Verbena, Violets, and Nasturtium. Stanley Mill rooftop, an intensive greenroof has been included on the longer rectangular rooftop south of the rooftop patio. The greenroof is an efficient strategy for dealing with stormwater, but it also provides additional growing space for the restaurant and brewery. The green roof has been utilized by the restaurant to grow fresh herbs and annual vegetables for use in their kitchen. The depth of soil is 8" but raised garden beds have been added to make growing space for annual root vegetables. In addition to the herbs and annual vegetables, perennial fruits have been added to the areas sectioned off by pathways. Cover cropping is utilized over winter to ensure that water absorbed by the soil is being filtered and utilized efficiently. Small perennial fruit trees help to complete the Stanley Mill biodiverse greenroof.

H. Intensive Greenroof

Due to the reconstruction of the

Perennial Plants & Trees: Tart Cherry Tree (2) Quince (2) Raspberry (3) Blackberry (3) Mint (1)

Annual Plants: Chenopodiaceaes Cruciferaes Apiaceaes Asteraecea Cucurbitaceaes Alliaceaes Leguminosaes

I. Greenhouse

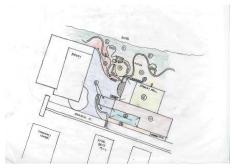
Along the southern most edge of the rooftop a 20' X 60' greenhouse provides a subtropical climate for year round food production. Built over the greenroof, the greenhouse has ample growing space along the ground level; the addition of shelves on each side of a main path that runs through the center of the greenhouse adds even more growing space. The greenhouse is heated with passive 25' solar water tubes on the southeast side of the greenhouse. The tubes are filled with filtered stormwater shed from the greenhouse and water stored in the water catchment system mentioned in section F.To maintain a subtropical climate throughout the colder months a photovoltaic panel and electric heating system and heavy insulation on the north, east, and west sides are included in the greenhouse construction. Future possibilities for the greenhouse include extending the passive solar tubes through the building to provide the mill building with passive heat, exclusive tropical planting, hydroponic vegetable, grain, and fish production, storm water filtration, and an educational demonstration site

Plants:

Dwarf Banana (2) Dwarf Plantain (2) Dwarf Lemon (2) Dwarf Lime (2) Dwarf Mulberry (1) Figs (2) Dates (2) Dwarf Orange (1) Dwarf Grapefruit (1) Dwarf Pomegranate (1) See Annual Plants in Section





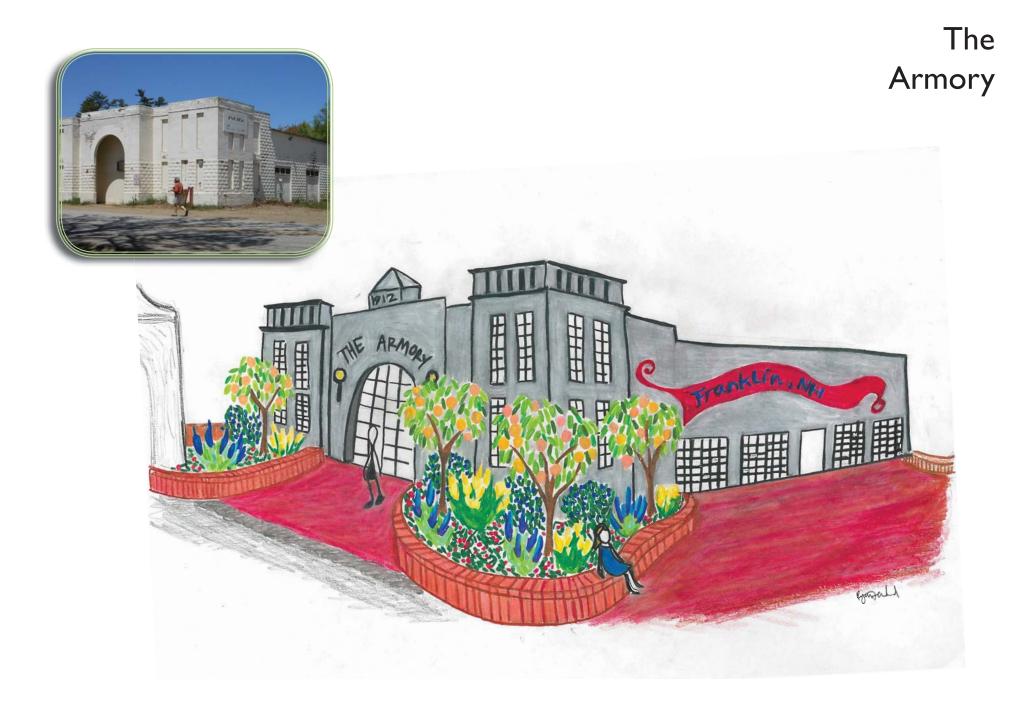




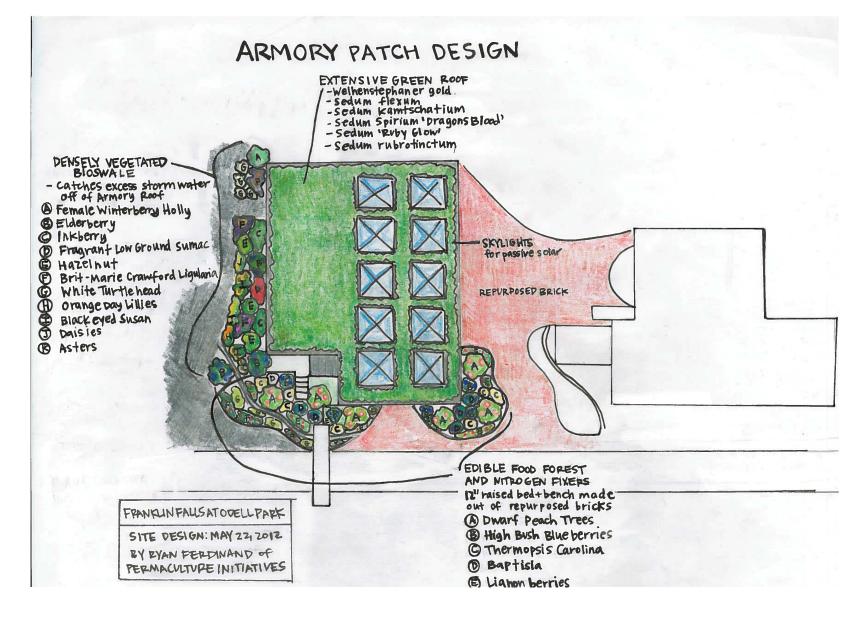
The Stanley Mill Courtyard



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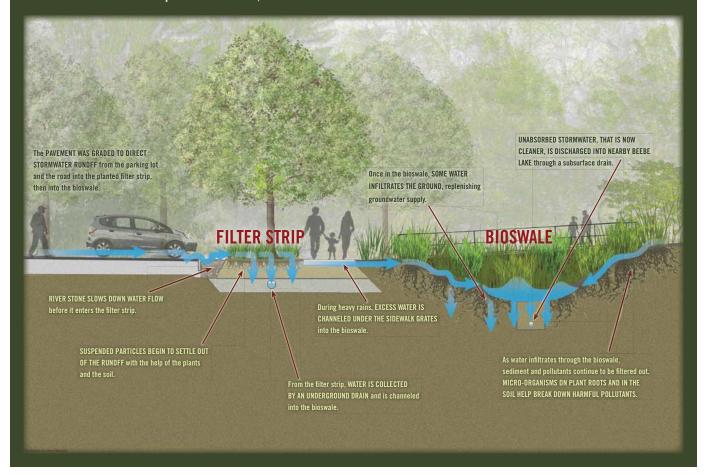


The Armory



ADDITIONAL RESOURCES

A Ditch that Cleanses Water THE LANDSCAPE IN FRONT OF YOU IS DESIGNED TO REMOVE SILT AND POLLUTION FROM SURFACE WATER RUNOFF. Instead of channeling stormwater from the parking lot into a drainage pipe, the FILTER STRIP and BIOSWALE work together as a "LIVING DRAIN" to capture stormwater, so that it leaves cleaner than when it entered.



Bio-Swale Information and Photos From Cornell University

ADDITIONAL RESOURCES





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ADDITIONAL RESOURCES



GreenGrid Extensive (4-inch)



Home :: Design :: Features

Installation Ownership

Features

GreenGrid Vegetative Green Roof System – Pre-vegetated system with True Modular benefits

GreenGrid Shallow Depth Modules - 4.25 inches

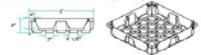
Module Size: 2 ft x 2 ft x 4.25 in.

Weight: Approximately 26 to 30 ib/sf fully vegetative at maximum water-holding capacity

US65: intended for functional and/or designed vegetative green roof applications. Excellent tool for managing stormwater and integrales well into new or existing buildings.

Plants: Succulent ground covers and water-conserving accent plants.

GreenGrid Semi-Intensive (6-inch)



GreenGrid Intensive (8-inch)



GreenGrid Intermediate Depth Modules – 6 Inches Module Size: 2 ft x 2 ft x 6 in. Weight: Approximately 39 to 44 lb/sf fully vegetative at maximum

weight. Approximately 35 to 44 to sharp vegetable at maxim water holding capacity

USES: intended for designed vegetative green roof applications or functional vegetative green roofs applications where loading is required to combat against wind loads. Excellent tool for managing stormwater and integrates well into new or existing buildings where there's ample structural support.

Plants: Succulent ground covers, conventional perennials and grasses, native fortis and grasses. When irrigated, this patiet of plant material increases.

GreenGrid Maximum Depth Modules - 8 inches Module Size: 2 ft x 2 ft x 8 in.

Weight: Approximately 52 to 58 lb/sf fully vegetative at maximum water-holding capacity

USES: Intended for rootfop garden applications or for functional and/or designed vegetative green root applications where the additional loading is required to protect against wind loads. Excellent tool for managing stormwater and integrales well into new or existing buildings where there's substantial structural support. Plants: Succulent ground covers, conventional perennials and grasses, native forts and grasses. When irrigated, this pallet of plant material increases.

Back to Decion



Green Roof Info and Photos from NH Projects





Next Steps

- Todd Workman will be meeting with several of Franklin's community leaders including the Mayor, City Manager & City Council, Odell Park Realty & Advisory Group, the FBIDC (Franklin Business Industrial Development Corporation) and the Director of Planning & Zoning. Todd along with members of the Design Team will also make a presentation to The Choose Franklin group.
- A website and Facebook page will be established to track the project from inception to reality.
- "Founding members" of the Urban Permaculture Design Team will be kept up to date and with the intention of having those who would like to involved with implementation when the day arrives.

Odell Park Realty & Advisory Group

This non-profit will be the will be the catalyst that will act as the redevelopment authority and bridge the gap between the public and private sector

Who We Are:

Odell Park Realty & Advisory Group is downtown Franklin Fall's economic development company. We lead the charge for positive and sustainable economic growth in downtown Franklin while protecting past investments. Because a vigorous downtown is a prerequisite for a healthier city, we're working to keep downtown Franklin working as the economic, social and cultural centerpiece of the entire region.

What We Do:

We are working in partnership with local government, the private sector, and the philanthropic sector to support and develop specific real estate projects in downtown Franklin.

- We help local business leaders, entrepreneurs, developers and economic development professionals identify business and real estate development opportunities that are realistic and make sense for downtown Franklin (Sectors such as retail and service business, restaurant, arts and entertainment, recreation, housing, office, lodging, and destination attractions).
- We call stakeholders together on a regular basis and recommit them to the community vision. We bring a fresh perspective and new energy to local challenges and force the community to think creatively about new economic opportunities. We integrate newcomers, maintain momentum, keep the focus on the vision

and the goals articulated in the plan, partner, collaborate, and convince skeptics.

- We begin with action that demonstrates success quickly and starts to bring tourists to town and shows residents there is a reason to be optimistic. We use a comprehensive package of strategies and tools rather than a piecemeal approach.
- Identify barriers to revitalization and a potential means of overcoming this barrier. Use a proactive approach, think creatively about new economic opportunities, inject a new dose of energy into the community, invigorate volunteers and donors, and communicate success.
- Integrate local development efforts with local, regional, state, and federal economic development programs. Minimize duplication of effort and coordinate public and private sector resources being directed towards common goals.
- Provide financing assistance for building owners to meet City code requirements and support the renovation and improvements of the downtown buildings.
- Economic restructuring: Identify and take advantage of opportunities as they arise. Shift to a different mix of economic activities. Identify and promote new economic functions for the downtown in relation to local and regional markets. Establish programs to strengthen and recruit businesses.

Why Downtown Franklin Falls?

Research shows that a healthy and vibrant downtown boosts the economic health and quality of life in a community. Specifically, it creates jobs, incubates small businesses, reduces sprawl, protects property values, and increases the community's options for goods and services. An aesthetically pleasing downtown that is full of activity, particularly pedestrian activity, conveys a positive and attractive image of the community, which in turn attracts more visitors. And, it serves as a symbol of community pride and history.

Lifestyle Segmentation

Historic Franklin Falls has grown up between the downtown and the three rivers. We've always been an outdoor town, but now we're bringing the outdoor experience back into the spotlight, and dropping it right into the heart of the city (bike trails, kayak & water sports, hunting & fishing outfitters, snowmobiling, and cross country skiing).

This is the largest adaptive reuse project in Franklin's history, turning the downtown into a vibrant micro-urban centerpiece. Our movement is focused on environmentally conscious living and quality of life measures. We desire a downtown that is walkable, locally sustainable and has a distinctive sense of place. We encourage pedestrians and bicycle facilities along with car reduced transportation. As a homegrown, un-homogenized city we take pride in preserving our historic storefronts. Creating an optimal mix of building and space uses will enable us to become an economically vibrant mixed-use commercial district.

Funding

Odell Park Realty will be established in 2013 with the mission of implementing the blueprint for riverfront and downtown development. Odell Park Realty plays the integral role in redevelopment and revitalization of downtown Franklin Falls. The non-profit will be initially capitalized with \$ from local foundations, financial institutions, and other sources.

Example Projects being entertained:

- New England's largest interconnected mountain bike trail system (Partnership with NEMBA New England Mountain Bike Association)
- In-river modifications for sustainable white water park
- Winch based water sports park
- Indoor mountain bike park (Highland Mountain Bike Park collaboration)
- Resilience (locally sourced eatery)
- Year round farmers market and food hub
- Local winery & Hard Cider (Hermit Woods)
- Opera House & Regency Theatre (nightlife)
- Ram Dass heritage site
- Holistic Health Care Center
- Satellite campus (sustainability & holistic health)
- Sporting goods & outfitters
- Design built mix of stores & business (using RFP process)
- Edible parks with "permaculture "design features
- Riverside park with industrial machinery (in lieu of sculpture)
- Inn at Odell Park (Boutique Inn & small scale conference center)
- Improved civic spaces (Odell Park, City Hall Plaza, Riverside Park, & Towne Greene)
- Historic façade restoration project (matching grants)
- Co-working office park
- Special events & festivals (Arts, recreational, cultural)
- Integrated senior housing
- Legacy projects