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Reinventing Urban Park Space in Lewiston/ Auburn

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in partnership with Grow L+A

Executive Summary

This report proposes a plan to create an innovative urban park space in the downtown Lewiston/Auburn area. While maintaining a need to generate revenue, this proposed park space is simultaneously grounded in the pre-existing plans and initiatives of community stakeholders. To gain initial inspiration for the project, various examples of successful and vibrant parks were researched and analyzed. After a specific site location was decided upon, it became important to meet with distinguished members of the Lewiston/Auburn community who could provide relevant and specialized knowledge regarding current development in the area, urban planning theory, as well as address certain local needs. Bates students were surveyed to gather data concerning the present use of green space and the future desires regarding recreation and entertainment from a younger demographic. Subsequently, informal interviews were carried out with adults in Simard-Payne and Bonney Park in an attempt to understand the pre-existing patterns of use in the area. This report proposes additions and alterations to the current riverfront space in a way that first looks at short-term possibilities and then suggests potentially larger undertakings, which make most sense later down the road. Initially, accessibility and attractability can be improved in the Simard-Payne Park through beautification and restructuring. This plan includes changes to the Railroad bridge through the introduction of various botanical aspects, historical elements and cultural acknowledgments (See Appendix). The second phase of development in the report details the revenue generating potential of a rock wall as well as a zip line across the Androscoggin. In conclusion, this project provides a comprehensive and tangible plan to develop further installments and

receive funding in order to advocate for and advance innovative park space in the community.

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Introduction

This project, grounded in the Lewiston/Auburn community, recognizes the importance of urban park space as a focal point where recreation, culture, and history converge. Lewiston and Auburn were once thriving mill cities, able to sustain their economy through manufacturing output. However, with the eventual dissolution of the industry, beginning in the middle of the twentieth century, these two cities struggled to remain beacons of development and ideal locations for settlement. Now, in the 21st century the coupling of investment with revitalization plans look to remake Lewiston and Auburn into flourishing cities and urban centers of recreation, culture, industry, and settlement. The pre-existing revitalization plans already underway to achieve this end include the Riverfront Master Plan, the Androscoggin River Greenway Plan, Bates Mill-5 renovation, and the development plans of Museum L-A. These plans respectively increase access to the river - a valuable community resource - provide space for local industry, foster trail development, and enhance the attraction to and display of the area's rich history. Despite this hopeful and forward-thinking context, the organization Grow L+A identified the need to draw a younger generation and outsiders to the Lewiston/Auburn area. While there are currently development plans underway or completed with respect to restaurants, accommodations, and mill restoration, Grow L+A recognizes the revitalization and reinvention of current urban park space as a means to attract outsiders and generate revenue for the Lewiston/Auburn community.

A respect for the place and context in which this project is centered motivates and rationalizes the incorporation of several elements into a plan for innovative park space in Lewiston/Auburn. These two cities offer historical and culturally diversity, a diversity that deserves recognition and integration into development plans. Grounding development within the

history and culture of the community establishes the ideal framework for successful innovation (Layton et, al, 2011, 11). By incorporating culture and history, those living within the closest proximity to the park gain a sense of empowerment and belonging through the strengthening of community ties and the bridging of social capital. At the same time, outsiders can gain an understanding and appreciation for the rich history and diversity of the two cities. In addition, this community boasts an incredible natural landmark in the Androscoggin River, a source of both natural power and beauty. Centering our project around this space provides a wealth of opportunity for recreation and attraction, ultimately making the area a veritable destination. Finally, this project incorporates the community by respecting the wishes and ideas of pre-existing actors. The collaboration with previously developed and accepted plans enhances the visibility, awareness, and impetus behind all initiatives.

Methodological Approach

In order to cater to the need of generating revenue and attracting outsiders to the Lewiston/Auburn community, this project looks to create an innovative park space. In order to understand what characteristics define an innovative park space, preliminary research was conducted on pre-existing innovative urban parks. We explored websites on urban parks, which included The High Line, Mill City, and The Bridge of Flowers (Appendix B). The High Line, located in New York City, provides an innovative park space incorporating an old railway with benches and greenery, emphasizing the importance of incorporating the history of a place into a community green space. At Mill City in Minnesota, developers built a museum into the ruins of an old flourmill in order to combine the history of the mill building with the culture and history of the place. The Bridge of Flowers in Shelburne Falls, Massachusetts utilizes the extensive

greenery and flowers along the walkway to draw tourists to the area. These park spaces each provided inspiration for innovative ways to create a park space along the Androscoggin River.

While completing preliminary research, potential locations were considered that would best fit the needs of our project. Originally, park spaces along Lincoln Street, as well as near the Great Falls were considered. However, after exploring these different options, Simard-Payne Park, Bonney Park and the connecting pedestrian bridge became the ideal location due to the current renovation initiatives already underway in this area, as well as the availability of space for ample revitalization opportunities.

Following the determination of a location, we engaged in conversations with local stakeholders. When this project began, we were unaware of the current initiatives in the planning phase or in progress with respect to recreation and development along the Androscoggin River. After conversations, it became apparent that two noteworthy plans already existed, the Riverfront Master Plan, and the Museum L-A development plan (Appendix B1). The Riverfront Master Plan incorporates renovation plans for Simard-Payne Park, where potential additions could be made to the greenery, walkways, seating, and creation of an amphitheater by the river. In addition to this revitalization effort, Museum L-A also has renovation plans for an old mill building along the Androscoggin River, where the museum plans to increase the size of the museum, as well as install a café, and educational outdoor classroom. Given these current plans, we narrowed the focus and location of our project to the pedestrian bridge, and the immediately surrounding park space in both Lewiston and Auburn. This location offers space for new installments and improvements, while providing support for current plans in progress. Therefore, this location offered the opportunity for collaboration with local stakeholders in a unique space with close proximity to a natural landmark.

Next, in order to gain insight into the local perspective, and to further ground our project in local context, we began a series of interviews with community stakeholders in Lewiston/Auburn. Local actors interviewed included Al Minoan, David Hediger, Rachel Desgrosseillers, Qamar Bashir, and Jonathan LaBonte (Appendix D). Each conversation provided information about the progress of current plans as well as articulated the needs of the respective development/revitalization plans. As a result, we gained a better understanding of what aspects to emphasize in our vision of revitalized urban park space in order to cater to the needs of the local community, as well as outsiders and tourists.

With a sufficient background and an understanding of local needs and pre-existing examples of urban park space, our attention then turned to project logistics and what elements to include in the chosen location. Grow L+A emphasized a need to draw a younger generation to Lewiston/Auburn. In order to understand what aspects need to be added to the park spaces in Lewiston/Auburn, we created and carried out a survey of the Bates students. This provided information from a target population that for the most part, did not originally come from the Lewiston/Auburn area. The survey asked questions about where students spend their time recreationally, particularly inquiring whether they use current park spaces or the Androscoggin River. Further, the survey probed students to provide aspects they would wish to see in a revitalization project in Lewiston/Auburn (Appendix B2). This method of data collection allowed us to gauge the potential demand of our target audience, as well as provide guidance and eventual support for the ideas of our project.

The information gathered from these results narrowed the focus of our project to particular initiatives such as enhancing the Railroad Bridge, potential for events and seasonal activities in Bonney Park, and significant recreational development such as a rock wall climbing

gym and a zip line across the Great Falls. With this general framework for the development of the park space, we researched the logistics needed to compile a well rounded, informative, and complete deliverable. These logistics included funding options, vegetation for the bridge, Somali fabrics, lighting fixtures, bench construction, historical information about the river, as well as design specifics and costs for the rock wall and zip line. In order to obtain these logistics, we reached out to experts in various fields and completed online research (Appendix D). The researched and recommended components are central aspects in our vision of urban park space and can be used by Grow L+A when implementing this project in the future.

After collecting the needed research and data, we created visual aids, deliverables, and renderings of our vision of an innovative park space to present to Grow L+A and the community. We conducted two presentations in order to carry out the purpose of our project, to promote advocacy, and make more visible the necessary participation and support needed for development in Lewiston/Auburn.

Results and Discussion

Survey:

Information collected from the survey administered to Bates students showed that out of all those who participated, almost half of them spend their recreational time in the downtown area (Figure 1). However, the same proportion of the students do not use the current park spaces available in Lewiston/Auburn even though many of the parks are located in the downtown area (Figure 2). Further, when asked more directly how often one spends time recreationally along the river, approximately 54% students responded either once a month or never (Figure 3). These results show that students often do not spend time down near the river or in the current park

spaces. The conclusions drawn for the Bates survey help to support our initiatives and emphasize the need for awareness of the current spaces. A new innovative plan connected to current park spaces, as well as the river, will help attract a younger demographic to the downtown area.

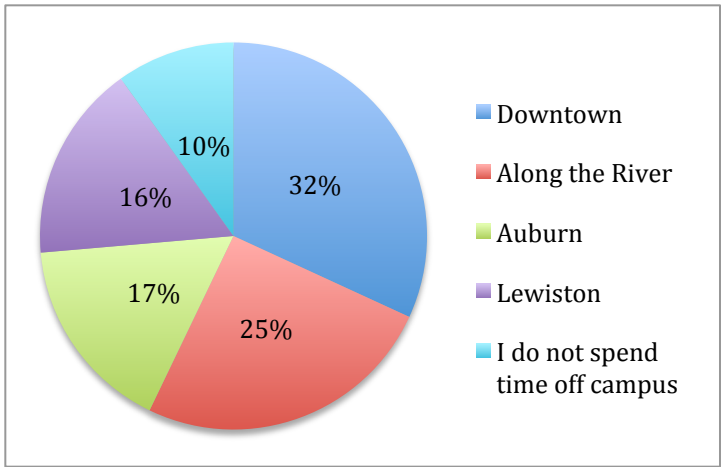

Figure 1: Where students spend most of their time recreationally besides Bates campus

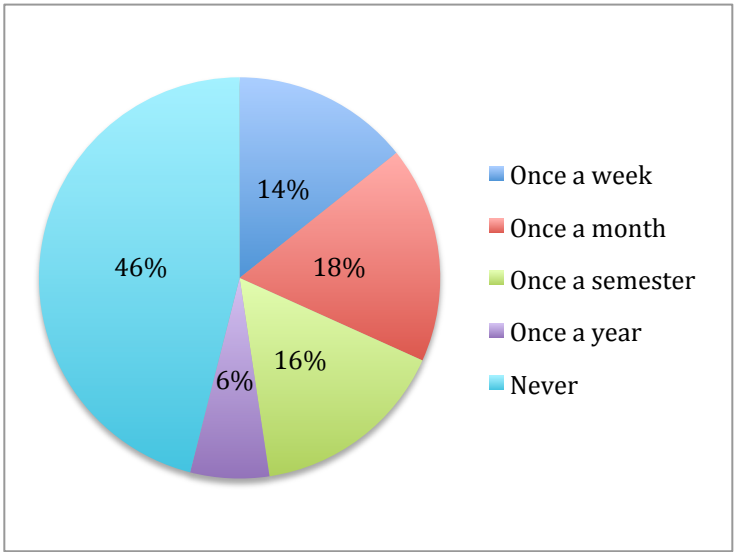

Figure 2: How often students spend time in the current park spaces

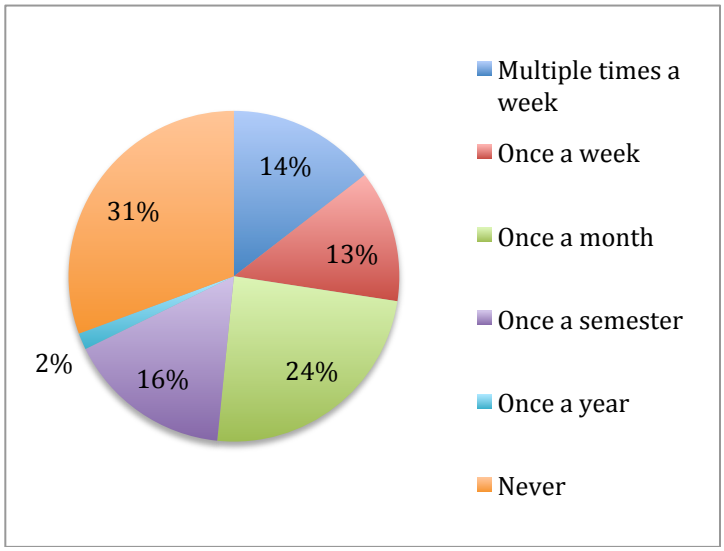

Figure 3: How often students spend time down by the Androscoggin River

In order to assess the most successful local businesses and recreational activities in generating revenue, the survey asked students how they spend money recreationally in Lewiston/Auburn. Over eighty percent of students spend money at restaurants, while only four percent spend it for recreation on the river (Figure 4).

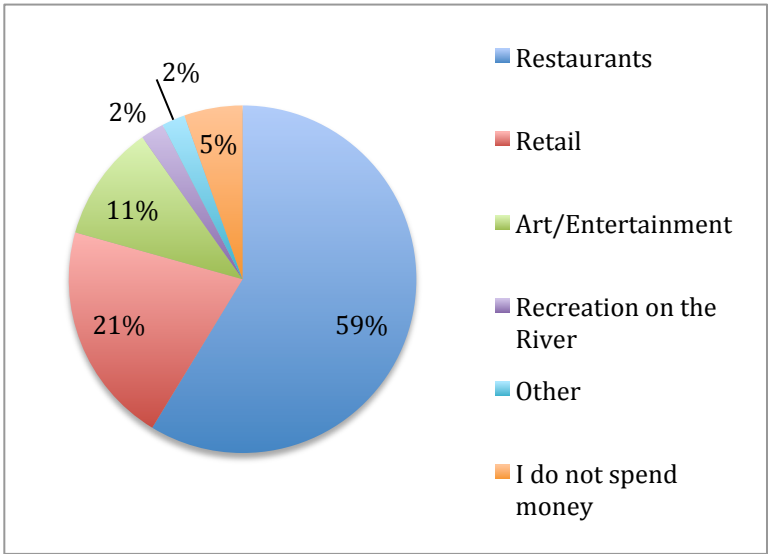

Figure 4: Where students spend the most money recreationally

Given these results, there seems to be either a lack of awareness of or attraction to recreational opportunities along the river. When probed further for a list of installments or improvements they would like to see along the river, students suggested the continuation of the bike and walking path along the river, more benches and outlooks, additional events in parks along the river, increased outdoor recreation opportunities, as well as more detailed and accessible information outlining events happening in the Lewiston/Auburn community. Many of these suggestions are either currently being implemented or have become incorporated into our vision of revitalized urban park space. Therefore, these results and suggestions received from the survey help to support our ideas, a well as the current plans in the community to revitalize the riverfront.

In order to understand how the community uses the current park spaces by the river, we observed usage and had informal conversations with locals visiting Simard-Payne Park, the pedestrian bridge, and Bonney Park (Appendix B4). The majority of people used the space to walk from Lewiston to Auburn or vice versa. Only 1-2 people sat down and spent time in the park areas. One community member talked about how he always drove past Simard-Payne Park on his way to work but never explored the space. After stopping one day, he now brings his dog to the park almost everyday. This conversation led to the recognition that there is limited signage around the park, hindering and limiting usage. Others wanted to see more seating in the park and along the waterfront. Overall, we received the impression that the park spaces by the river do not serve as a destination. Thus, there needs to be an emphasis on increasing awareness within the community of current park spaces. This can be achieved through the addition of visible signage and an open corridor design, included in the Riverfront Master Plan. Awareness can also be achieved through events and other uses of the park, bringing in more foot traffic and allowing

people to see the park space and associate it with something they enjoy. Input from Bates students and local community members provided ideas for needed aspects to include when creating a new park space in order draw both locals and outsiders to the area.

Interviews:

In addition to collecting information from members of Lewiston/Auburn community, users of the park space, and Bates students, we conducted a series of interviews with local stakeholders (Appendix D). Each stakeholder offered a unique perspective and input with respect to a park revitalization effort. Following are brief accounts of each interview, detailing the respective insight or perspectives gained from each conversation.

Al Manoian, an Economic Development Specialist from the City of Auburn, explained current paradigms of urban development, which include new urbanism and economics of place. He supports the idea of having a zip line in Lewiston/Auburn and helped brainstorm a location for this recreational installment.

David Hediger, from the City of Lewiston, explained The Riverfront Master plan and the different stages that are involved in this particular redevelopment plans. He emphasized that development and actualization of plans take time. Redevelopment does not happen immediately, but can occur over a large time span because of many influential factors involved. Large development plans take longer to reach completion, and thus advocacy and support for these plans is necessary to ensure continued progress. Lastly, from this conversation we gained an awareness of preexisting revitalization plans in the Lewiston/Auburn area. With this awareness, the project took a slight turn towards greater collaboration with and advocacy for current initiatives already underway in the community.

Rachel Desgrosseillers, the Director of Museum L-A, gave us a tour of the new Museum L-A building by the Androscoggin River and discussed the renovation plans for the site and what they are looking to create for the community. She helped to reaffirm the need for support and advocacy for current plans. With community support, it will allow for development plans to be completed sooner and for the sustainability of a local business. We learned the importance of collaborating with leading community stakeholders and organization. Rachel's ideas for the Museum L-A site illuminated the importance of a collaboration of plans, in order to create and area where people will have a diversity of ways to enjoy and learn about the Lewiston/Auburn community. She also emphasized the importance of education combined with preserving the history of a place. Lewiston/Auburn has a very deep culture and history that has formed a very unique area. An innovative park space where people can sit and enjoy the Androscoggin River, while also learning about the history and culture that surrounds them will create an environment that many people can enjoy.

In a conversation with Jonathan LaBonte, Mayor of Auburn, he offered enthusiastic support for a zip line and encouraged the consideration of the Continental Mill as a potential site for a rock wall climbing gym. This location provides a large area for a rock wall and also incorporates the history of Lewiston, as the wall would reside in an old mill. Further, Jonathan emphasized the importance of an installment to park space in Auburn. This addition would ensure foot traffic across the bridge and make the downtown corridor between Lewiston and Auburn a destination. He provides us with information about potential areas where an amphitheater could be constructed in downtown Auburn. Lastly, the creation of innovative park space in Lewiston/Auburn requires some means of financing for recommended improvements to pre-existing park space and for the construction proposed revenue-generating installments.

Jonathan offered various organizations, both public and private, that could potentially provide funding.

Finally, we wanted to include the diversity of cultures present in the Lewiston/Auburn community. In particular, we wanted to gain a greater understanding of the Somali community and to determine what aspects of their culture could be incorporated into revitalized park space. Qamar Bashir works for the City of Lewiston and maintains a strong connection to the Somali culture in Lewiston. She helped to brainstorm aspects of the Somali culture that could be incorporated, as well as improvements that would draw a greater volume of the Somali community to the riverfront park areas.

Outcomes and Implications

Given our aforementioned contact with community leaders, Bates students and local residents, as well as independent research regarding successful revitalization of green space, it becomes possible to establish more concrete plans. Given our findings we propose certain installations and enhancements directed mainly towards the areas of and between Simard-Payne Park in Lewiston and Bonney Park in Auburn. We have decided to prioritize our proposed park improvements into three distinct phases. The first phase concentrates on making Simard-Payne Park a more inviting public space. The second phase focuses on increasing the use of Bonney Park through seasonal activities and events. Building off of the Riverfront Master Plan, this second phase begins to highlight some of the revenue generating potential within these park spaces. The third phase suggests two specific recreational development ideas that will help transform Lewiston/Auburn into a destination and generate significant revenue for the two cities.

Throughout these phases the history of the Lewiston/Auburn community is considered and promoted whenever possible.

Phase 1: Simard-Payne Park becomes a more visible, inviting and functional green space. Improving and highlighting the connection between Lewiston & Auburn via the Railroad Bridge.

Immediate Improvements:

- Provide portable soccer nets to facilitate and enhance the quality of recreational activity.
- Introduction of temporary barbeques during summer months to promote use of park space.
- Further coordination with musical and artistic organizations in the community in hopes of hosting future concerts, outdoor film screenings and temporary art exhibits within the park (Appendix D).
- Continued commitment towards improving signage directing pedestrian and vehicular traffic towards park.

Enhanced Railroad Bridge:

- Beautification and natural camouflage through the introduction of Virginia Creeper Ivy growing allowing trusses of bridge as well as potential vertical gardens originating from the bridge railing. Prior to implementation, structural feasibility needs to be further assessed. It should be mentioned that there may be effects to the iron frames, but any effects seem negligible (Appendix E1, E4).
- Creation of wildflower garden leading up to Railroad Bridge in Bonney Park. Currently this space contains various shrubs and vegetation that are not aesthetically pleasing. Similar in some ways to the highline, this plot of land would contain a myriad of colorful

flowers and grasses that are all native to Maine, and in some cases edible (Appendix E2-E3).

- Various banners whose color and design symbolize certain immigrant populations that either settled in the Lewiston/Auburn area in the past, or currently choose to make this area their home. These represented populations could include French-Canadians, Irish and Somalis.
- Installation of LED floodlights along Railroad Bridge, to illuminate the structure during evening hours. This change would incentivize foot traffic throughout the day/night and perhaps compliment a lit Great Falls in the near future (Appendix F).
- Loom beam benches placed on the bridge, as a project coordinated in part by USM sustainable design class. Benches constructed from old mill beams add a cultural/historical asset to the bridge, which also promotes prolonged use of the space (Appendix D).
- Remodeling both outlook points on the Railroad Bridge to include historical panels. Panels would include both text and images tracing the history of the Androscoggin River. The first panel would showcase how the river was used by the paper mill industry during the early 1900s - log drives. The next panel would depict the eventual foam and pollution that came as a byproduct to the heavy manufacturing output the river sustained. Finally, the last panel would highlight the sizeable cleanup efforts made on the Androscoggin River throughout the past few decades - bald eagle soaring over the river. This installment could be linked either explicitly or simply thematically to the planned heritage trail (Appendix J).

Phase II: As an extension of the Riverfront Master Plan, this phase highlights a newfound focus on seasonal activities and events within Bonney Park in Auburn. In particular, Phase II looks to improve pedestrian flow through the downtown riverfront, with an emphasis on promoting movement between the various park spaces.

Winter Ice Skating in Bonney Park:

- Temporary flooded ice skating space along riverfront in Bonney Park.
- Acknowledges the significance of hockey in the Lewiston/Auburn community.
- Provides needed space for wintertime recreation.
- Potential for tournaments, winter carnivals and for other revenue generating possibilities.

Historic Box Car Cafe:

- Seasonal snack and beverage box car situated near Railroad Bridge.
- Further celebrates the railways presence and storied history in Lewiston/Auburn.
- Capitalizes on existing as well future events within the downtown riverfront parks.
- Goods vary based on seasonality - hot chocolate and beaver tails in the winter, ice cream and hot dogs/sandwiches in the summer.
- Various vendors can utilize this boxcar based on availability.

Great Falls Amphitheater:

- Constructed towards the end of Bonney Park, just past Main Street.
- Underutilized green space that already has natural bowl shape for sound dampening capabilities and easier implementation.
- Architecturally unique and source of pride; seating mimics the natural tiers of the Great Falls, with final tier being the dam.

- Along with Festival Plaza and a potential third performance space in Simard Payne Park, the Great Falls amphitheater would make full day music festivals viable.

Phase III: Revenue generating park recreation; transforming Lewiston/Auburn into a destination while accentuating and utilizing the history and natural assets of the area.

Rock Wall Climbing Gym:

- Rock climbing and bouldering have experienced significant growth in popularity over the last decade. What seems to be propelling this growth is the appeal to a broad audience, and the fact that climbing offers a refreshing and fun form of recreation. Central to any climbing gym's success is its ability to create various levels of extreme thrill seeking exercise, which serves to target the entire family (Appendix H).
- Placing a climbing gym in one of Lewiston's historic mill buildings provides another opportunity to celebrate the history of the city, and could also help to spearhead other development projects along the river.
- Potential annex off of Museum L-A's new home in historic yarn factory. Rachel Desgrosseillers of Museum L-A has expressed interest in a possible collaboration.
- Second potential site in neighboring Continental Mill. This 562,396 sq. foot space would be developed and leased to enable mixed use (Appendix K). Both Lincoln Jeffers and Jonathan LaBonte have expressed enthusiasm regarding this option.
- Minimum of 30 vertical feet required for belaying and competitive climbing gym.

Zip Line across the Great Falls:

- Provides user with unique urban zip lining experience over the beautiful and historic Great Falls (Appendix I).
- Significant research is still required: the gradient from one side of the river to the other must be calculated, ownership of landing sites secured, and concerns regarding liability and other various economic questions must all be answered.
- Tom Carey and Jim Sysco, the respective developer and engineer of WOWZA Zip Lines in Rumford are two potential local contacts. Together, Tom and Jim have created a zip line that successfully spans across the Rumford Falls Collaboration with WOWZA Zip Lines might prove mutually productive and beneficial (Appendix I).
- This rather long-term recreation project is daunting to any developer, but it also provides the greatest opportunity to transform Lewiston/Auburn into a recreation destination. Other smaller recreational activities could complement zip lining (rock climbing, play white water, canoe canal tours, etc.), and create an all day outdoor experience in downtown Lewiston/Auburn.

Next Steps

Given the outcomes and interpretations, the following next steps would be necessary to achieve the ends of this project, a revitalization of park space and the advocacy for current initiatives. First, with respect to the recommended installations for the bridge, a collection of grant possibilities has been compiled (Appendix G). The state of Maine funds three of the grants highlighted, either through the Maine Department of Transportation or the Maine Department of Conservation. These grants particularly cater to improvements in outdoor recreation or to

development projects for the community. The remaining two proposed grants, from the National Trust Preservation Fund and the Preserve America Grant Program, provide funding for technical expertise, research, and planning. However, it should be noted that these programs require that the applicator become a member of each respective program. Thus, these grants offer funding sources as the project begins to progress and may require financial support.

Another step that would work towards the end of attracting outsiders to the Lewiston/Auburn community would be the creation of a marketing plan. An effort to advertise the exciting new recreational, cultural, and historical installments to the cities, would ensure the generation of revenue. In addition to advertising, the bundling or coupling of various recreational activities in the area may prove beneficial for multiple stakeholders. For example, pairing a day at the rock wall, with a zip line tour, or an evening at a local restaurant or brewery would make Lewiston/Auburn into a destination. The coupling of various activities in the area would attract a wider audience and support multiple local businesses. In addition pairing activities may help make a day in Lewiston/Auburn more affordable, permitting an increase usage by local residents. Finally, a marketing plan could cater activities such as the rock wall to a college-aged constituency, working with the Bates College Outing Club or similar organizations to promote a "college night". Therefore, we recommend that either a future capstone group or some other actor within or associated with Grow L+A take on a marketing scheme for the new additions to the community.

As new recreational activities and revitalization plans are implemented, we think it would be valuable to have evaluations to gauge the response of changes. Throughout its development, this project valued the perspectives and opinions of the target populations. The continued inclusion of these perspectives would ensure success and usage of the initiatives. For example, in

order to best include cultural representations of the diverse community, an open discussion with residents may provide the best pool of ideas, perspectives, and information. Moreover, having a system of evaluation after the usage of the zip line or rock wall could improve the pricing, marketing, and other aspects of revitalization efforts. Through these steps we hope to ensure the economic and social success of this project.

Turning from the end of revenue generation to the goal of advocating for local initiatives, it is important in the short-term to support and collaborate with pre-existing projects. First, the Riverfront Master Plan proposed change to take place in Lewiston in the years to come. To ensure the affect of these changes, which will take time to be realized it is imperative for an organization such as Grow L+A to reassure the community of progress and to aid in the achievement of such progress. Moreover, aspects of the Riverfront Master Plan would bolster the generation of revenue for park revitalization plans, and thus Grow L+A and the community would benefit from such collaboration. For example the creation of a corridor from downtown Lewiston to Simard-Payne Park hopes to bring increased foot traffic to this urban park space. Once here, local residents and visitors will be in closer proximity to installments such as the rock wall, walking bridge, and zip line. Thus, support for the Riverfront Master Plan would prove fruitful for multiple stakeholders.

Another initiative worth mentioning is the Museum L-A development plan in the new site. Much like the Riverfront Master Plan, the revitalization of this location along the river would augment revenue generation of sites highlighted in our project proposal. Rachel envisioned exciting, innovative, and grand plans for the ample space acquired by Museum L-A. However, the organization currently lacks funding. Despite this financial position, these plans deserve

reverence and collaboration. Therefore, working with Rachel and in partnership with her ideas would be beneficial for both parties and the Lewiston/Auburn community.

Thus, in handing this project over to Grow L+A, we believe that the steps outlined above would ensure revenue generation in collaboration with the identity and needs of Lewiston and Auburn. A reverence and advocacy for plans in progress should supplement the pursuit of innovative park spaces.

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Appendix A

Literature Review

When planning an innovative urban park space, the need to gain a rationale behind the decisions that are made becomes undeniably crucial in order to gain legitimacy and foster support from the community at large. Much like science and art, the theories and practices of urban development and city planning change, reflecting the political, economic and cultural norms and predilections of the times. As more and more scholarly literature is published showing the interconnectedness between urban park space, social capital, sustainability and economic development, research is getting increasingly specialized while at the same time becoming more interdisciplinary and multilateral. Research and theory can be used to answer the question at the heart of this project, why does a post-industrial city like Lewiston, Maine need an innovative urban park space, and what will make it successful?

While the incorporation of public space, and more specifically park space into the fabric of a city has been deemed important for quite some time now, only in the past couple of decades have academics and professionals begun to examine more specifically and quantitatively the benefits that such space provides. Following World War II, the attention of politicians, economists and urban planners turned to the suburbs, meaning that their commitment to the urban public sphere, especially park space began to recede (Harnik 2006). It wasn't until 1972 and the founding of the Trust for Public Land that the notion urban conservation of green space began to gain some traction. Soon, smaller neighborhood associations started to raise awareness through park activism and obtain funding for the preservation of certain areas. This newfound optimism and paradigm shift soon spread to larger industrial cities, which, on the heels of fiscal

decline, desperately needed a new way to increase the vitality, vibrancy and livability of their downtown neighborhoods. From there came the need to explore more concretely how and why green space has the potential to compliment city systems (Harnik 2006). Now there is an increasing compilation of empirical studies that aim to highlight the ways in which green space and natural assets – within urban contexts – contribute to quality of life and regeneration strategies aiming to strengthen the identity of a community while at the same time improving its attractiveness to outsiders and potential investors (McInroy 2000; Baur 2010; Chiesura 2004). Therefore, scholarly work reflects a general trend in development planning to refocus on green space in urban settings, as these spaces are valuable assets to the community for a host of reasons.

When planned properly, outdoors public spaces are not only aesthetically pleasing, but also promote social interaction, and eventually social integration (Kuo, et al 1998; De Sousa 2003). In many cases, natural parks exist with specific intent of bridging the gap between nature and urbanity by creating points of contact, while at the same time providing a haven in which city dwellers can relax or participate in active or passive forms of recreation (Baur 2010; Coleman 2003). If a green space is thoroughly successful though, it can become a crucial local everyday resource and a fully functioning, visible focal point where community involvement and regeneration is fostered. McInroy (2000) goes further with this idea, claiming that public space has the ability to embody elements of civic democracy by serving as sites where citizens exercise their sense of belonging. When green spaces are managed in a diversified manner, so as to fulfill the needs and expectations of all segments of the population – in terms of age, gender and socioeconomic considerations – the site is rendered accessible and inclusive (Chiesura 2004). With low-income communities of ethnic diversity already experiencing an overall shortage of park space and services in the US, there is a tremendous burden put on urban parks to be places

where people of different backgrounds can come together in peace to meet, play and learn from one another (Coleman 2003; Lawson 2007). Thus, park spaces provide value to a community in the creation of space for social interactions and in fostering a sense of unity.

Scholars further recognize the importance of park space through an economic lens, assessing the monetary benefits brought to a community as a byproduct of park space. Calculating economic value that public green space brings is at once multifaceted and highly contingent on the methods used by the researchers. Firstly, much of the economic value associated with open space can be categorized as either use or nonuse. The use values of a certain resource can be consumptive or non-consumptive but usually tend to cover recreational activities such as sports, hiking, picnicking and observing nature (Fausold 1996). Economists tend to use the concepts of consumer surplus, willingness to pay and travel cost in order to calculate concrete, quantitative value figures. While respondents to a certain survey may state their willingness to pay for certain activities in a hypothetical situation, it is also possible that they are asked to write what they would pay simply to maintain the existence (non-use) of a certain space (Fausold 1996; Harnik 2009).

Many empirical studies have sought to estimate the effect that proximity to green space has on residential property, more specifically by examining hedonic value. A common theme that came out of many of such studies was the discovery that if an open space was carefully integrated into the neighborhood, the property value of real estate within the vicinity increases at a level significant in various regressions (Fausold 1996). Anderson and West (2006) use a hedonic analysis to estimate this very effect in specific neighborhoods in St. Paul, Minneapolis. Based on the data from their econometric model, they were able to ascertain that urban residents in relatively dense neighborhoods place substantial value on proximity to open space, evidenced

by increase in sale price of property. Since open public spaces are usually tax-exempt, the enhancement value gained from rising property taxes can be important for resurgent cities (Harnik 2009).

The health benefits related to public park space that are derived from physical activity are well documented and have even been extrapolated to determine resident's collective economic savings due to reduced healthcare costs (Harnik 2009). Lately, medical, psychological and recreation researchers have acknowledged the restorative and stress reducing qualities of activities conducted in natural settings as well as the "natural tranquilizer" function of various elements when embedded within an urban system (Baur 2010; Van den Berg et al. 1998). Such findings show that people perceive the feelings and emotions evoked in green space as vital contributions to their well-being. These emotional and psychological benefits in turn play an important role in the quality of life and therefore the goal of sustainable development (Chiesura 2004; Prescott-Allen 1991).

Many have sought to investigate the strength of the relationship between the amount of park space in people's living environment and their perceived health and mental well-being (Maas et al. 2006; White et al. 2013). Maas et al. (2006) analyze the effect green space has on general perceived health within subgroups categorized by age and socioeconomic background. Their findings, while significant in that they correlated green space with health in urban areas, are rather unconvincing and biased. White et al., (2013) extrapolate on these previous findings by expanding their research to study more specifically mental and psychological distress, as well attempt to control for time-invariant heterogeneity – personality. After running regressions with the data they gained through the use of both a GHQ (general health questionnaire) as well as a life-satisfaction assessment, the researchers' data suggests that individuals are happier when

living in urban areas with greater amounts of green space. Although the benefits to a single person may be marginal, when aggregated among the community, the health benefits become important (White et al. 2013).

Renowned architect, Jan Gehl (1971) has long been a proponent of utilizing public space between buildings, as a means of facilitating social interaction and community cohesion. He makes the case that the life between buildings in public space is both more relevant as well as more interesting to look at in the long run than any combination of concrete, monolithic building forms. When outdoor areas are of high quality, necessary activities take place with approximately the same frequency as those of poor quality. Additionally, if a public space is constructed in a way that encourages use, a wide variety of optional activities will also occur because the place, as well as the situation invites people to sit, relax, eat and play. Extrapolating this notion to the wider city system, Gehl concludes that a living city, is one in which people can interact with one another, and therefore is always stimulating because of the richness of experience (Gehl 1971).

Thus, the scholarly recognition of the many functions of park space has come to inform and guide the characteristics of recent development in urban settings. In the post-industrial era, cities are increasingly turning their attention to revitalization efforts. After incredible economic prosperity early in the twentieth century, and a succeeding regression of such prosperity, cities are now searching for a way to develop in order to return to a time of such prosperity. Most recently, development efforts reflect the aforementioned importance of park space and the local, natural environment. In particular, scholars highlight two initiatives in urban development that increasingly look to respect and incorporate urban green space (Hebbert 2003; O'Hara 2001; Southworth 2003; Trudeau 2013). Trudeau (2013) champions the first of these initiatives, New

Urbanism, which emerged in the 1980s and provides a particular growth model for cities that balances economic, environmental, and social implications. New Urbanism grew especially after World War II to minimize the environmental impact of growth and create a greater sense of community as suburban and urban centers expanded. New Urbanism thus represents a shift in the development paradigm, offering new solutions to urban growth (Southworth 2003).

With respect to environmental implications, New Urbanism realigns the form of development to no longer prioritize a model solely intended for economic growth with little to no regard for the environmental impact. Rather, New Urbanism now places development within an environmental discourse, using the natural environment to structure growth rather than to be ignored by growth (Hebbert 2003). As a result, New Urbanism strengthens the relationship between urban infrastructure and its' natural surrounding (Trudeau 2013). Given this rationale and development paradigm, Hebbert (2003), the recommends the creation of walkable neighborhoods, increased green space, and a mix of activities available to residents. New Urbanism then reflects an increased reverence for green space and in particular park space by reordering priorities in development efforts to better equate the natural environment with economic growth.

Further, New Urbanism has social ramifications, enhancing the sense of community within an urban setting (Trudeau 2013). This development paradigm does so by first maintaining awareness of the local historical context (Hebbert 2003). Although the title of this recent development movement implies the "new" and "innovative", it also implies the "old" (Hebbert 2003). In other words, growth respects prior development. For example, New Urbanism works to incorporate industrial historical landmarks into revitalization plans. By interweaving history of a place, this paradigm then celebrates the locale and garners a greater sense of community

(Trudeau 2013). Scholarly work from Trudeau (2013) further recognizes the social benefits of New Urbanism. New Urbanism enhances the sense of community by promoting space for social interactions. Greater awareness for the natural environment creates enhanced space for neighborhood interactions and exchanges and decreases social segregation). As a result of both of these characteristics of New Urbanism, this development paradigm provides space and infrastructure for celebration of local history and the strengthening of community relationships.

Scholars identify a second initiative of recent urban development as Economics of Place (Layton, Pruitt, and Cekola 2011; Wyckoff and Adelaja 2011). This initiative particularly arose at the turn of the twenty-first century, and much like New Urbanism critiqued and revised previous development models. Earlier in the twentieth century, heightened economic activity suggested the success of urban revitalization efforts. As a result, environmental degradation and little regard for citizen wellbeing accompanied growth. Thus, when cities began to compete over the attraction of a younger, working generation, changes to the development paradigm were necessary. Research completed by Wyckoff and Adelaja (2011) revealed that this sector of the population particularly values a walkable downtown, as well as access to cultural, social, and entertainment opportunities. Economics of Place thus respectively reflects these articulated preferences, establishing a model of development that attracted visitors and settlers, but within the limits and context of the setting.

In particular, Economics of Place suggests new amenities and aspects for urban revitalization, aspects that recognize the importance of sustained economic activity, but do so while maintaining a reverence for the locale and it's citizenry (Turner 2002; Wyckoff and Adelaja 2001). Following Wyckoff and Adelaja (2001) these new aspects reflect many of the same aspects of New Urbanism: proximity to green space, recreational opportunities,

architectural design, built amenities, and natural characteristics. Economics of Place then filters greater attention and efforts of urban development towards physical and cultural aspects of the landscape. Only through doing so, can a community revitalize itself while also attracting outsiders and visitors to bring in economic revenue. Turner (2002) highlights a few particular examples of this revitalization paradigm, which include, hosting festivals, concerts, and fairs balance revenue enhancement and public space provision. These arts and cultural revitalizations not only enhance a place, but also do so with respect to the community as these shows can be grounded in locale talent (Markusen and Gadwa 2009). Thus, this development model makes a Place rather than a place, a destination point with a community rather than a GPS location (Wyckoff and Adelaja 2001).

Scholars highlight another characteristic of 20th century development in a greater reverence for the perspective of the local citizenry (O'Hara 2001; Turner 2002). This greater reverence encourages community participation throughout the planning process. O'Hara (2001) tracks the progression of community participation. Previously, the majority of city revitalization efforts prioritized tourism, abdicating significant public control to the private domain. As a result, previous models of development often neglected to involve local residents as decision makers. It is difficult to justify the inclusion of actors and the creation of space for activities that will not provide revenue. The consultation of solely private interests and perspectives greatly limits the purpose and accessibility of new public spaces. According to Turner (2002), privatization of revitalization efforts tends to keep like-minded people together generating ideas. Therefore, particularly since the 1970s, urban development has evolved to incorporate the community and local stakeholders (Duffy and Hutchinson 1997).

However, current processes of urban development now adapt to the challenge of achieving a balance between attracting outsiders and creating an area oriented towards the local citizenry (Turner 2002). While oriented towards the local citizenry and a consequent involvement of this constituency, development initiatives not only prove more sustainable, but also produce remarkable results thanks to the energy of local actors. With respect to local actors, they gain a sense of ownership and investment in the project (McInroy 2000). Further, the movement away from top-down solutions achieves remarkable sustainable results through the creation of vital social capital (Duffy and Hutchinson 1997). Thus, the incorporation of the community in the process of urban development not only benefits the community, but also the revitalization effort itself.

With this recognition of community involvement, scholars then tackled the logistics of how this can be achieved. First, the needs of residents and already known users of urban space must be identified by development efforts (Lawson 2007). Leaders of urban development can hear these needs by increasing accessibility to decision-making structures, blending different ideas and perspectives together throughout a project (Duffy and Hutchinson 1997). In particular, this blending takes place at forums, site visits, within work groups, and committees, where the needs of local constituents can be articulated and heard (DeSousa 2003). As a result, urban development can better balance revenue generation with *public* opinion in *public* space (Turner 2002). Thus, words such as participation, incorporation, and consultation have come to describe recent successful urban development efforts.

Appendix B

Detailed Methods

B1

See website to learn more about the Riverfront Master Plan:
http://www.riverfrontislandmasterplan.com

See website to learn more about the future Museum L-A building:
http://www.museumla.org/Future-Museum

B2

Survey Questions asked to Bates students

1. In what parts of Lewiston/Auburn do you spend most of your time recreationally besides Bates campus?
2. How often do you use the current park space in Lewiston/Auburn?
3. How often do you spend time down by the Androscoggin River?
4. Do you spend money in Lewiston/Auburn recreationally? If so, where?
5. Are there any installments (improvement plans) you wish to see along the Androscoggin River or in Lewiston/Auburn?
6. How much do you consider park space when deciding where to live?
7. How often would you use a rock wall if it was available in Lewiston/Auburn?
8. How often would you use a zip line if it was available in Lewiston/Auburn?
9. What other attractions would you like to see in Lewiston/Auburn?

B3

Website of urban park spaces used as inspiration for our project

1. Highline, NY: http://www.thehighline.org
2. Mill City, MN: http://www.millcitymuseum.org
3. Bridge of Flowers, MA: http://www.bridgeofflowersmass.org

B4

Informal conversations with community members in Simard-Payne Park

Date: November 6, 2013, 1:40-3:30pm
Weather: Sunny day, 50 degrees

Observations: 54 adults on foot, 8 children on foot, 7 adults biker/skateboarders, 1 child on bike, only 2 sat on benches

Questions asked:

1. How frequently do you come to the space?
2. How did you find out about the space?
3. Do you have any improvement ideas for the space?

Appendix C

Additional figures of survey results collected from Bates students

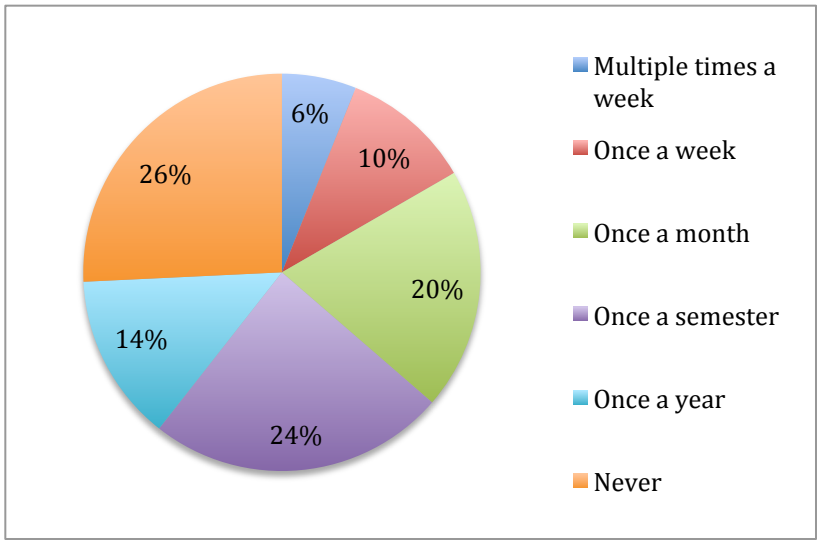


Figure C1: How often students will use a rock wall in Lewiston/Auburn

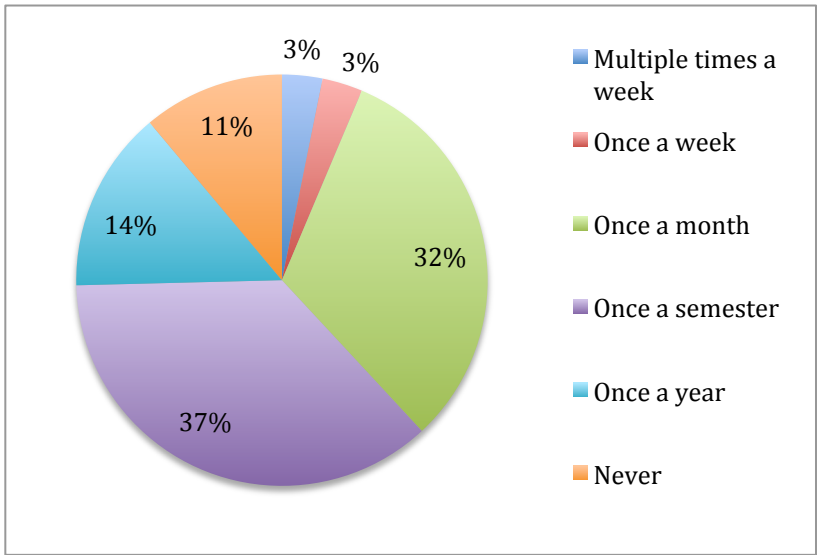


Figure C2: How often students will use a zip line in Lewiston/ Auburn

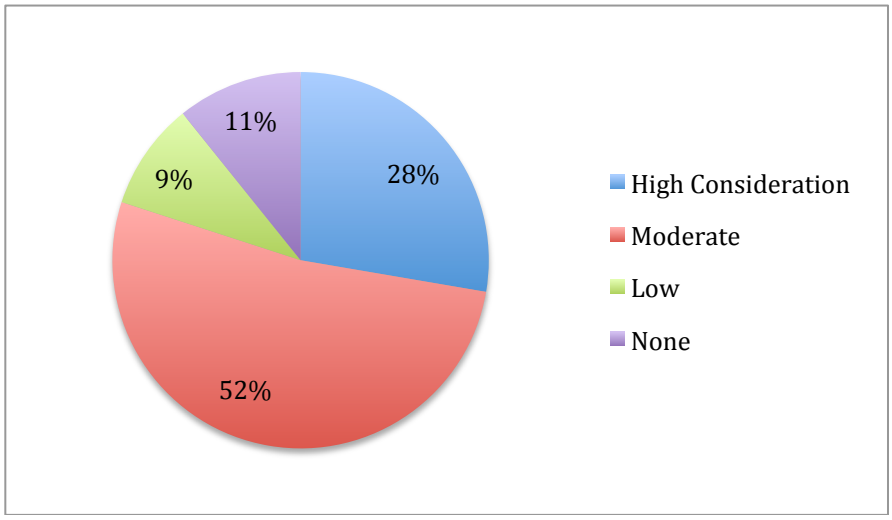


Figure C3: How much students will consider available park space when deciding where to live

Appendix D

Contact Information for the community members we have been in contact with over the semester. This information can be used to contact those necessary to move forward with the project in the future.

Name: Qamar Bashir
Email: qbashir@ccmaine.org
Information: Qamar is a prominent Somali leader in the Lewiston community. During our meeting she suggested temporary soccer nets be added to Simard-Payne Park, and sighted the colorful Somali clothes/fabrics as one way to represent their African heritage.

Name: Ann Gibbs
Email: ann.gibbs@maine.gov
Information: Botanist that recommended species of vines to creep on the structure of the bridge. Her insights ensured that proposed species in our plan would not be invasive to the area.

Name: David Hediger
Email: dhediger@lewistonmaine.gov
Information: David is a member of the Lewiston City Planning office, and worked closely with other members of the Lewiston/Auburn community to develop the Riverfront Master Plan. He can serve as a great reference to remain connected with the progression of the Riverfront Master Plan.

Name: Matt Hutton
Email: mhutton@meca.edu
Information: a contact for the loom beam benches. Teaches a course called Design: A Sustainable Approach. Interested in integrating this project into the curriculum.

Name: Jonathan LaBonte
Email: jlabonte@androscogginlandtrust.org
Information: As mayor of Auburn and chair of the Androscoggin Land Trust, Jonathan has an extensive knowledge regarding current riverfront revitalization, funding possibilities, and other relevant community organizations. He has expressed particular interest in the rock climbing gym, and believes the Continental Mill to be excellent potential location.

Name: Jason Libby
Email: jason.c.libby@gmail.com
Information: Jason is the Commissioner for the Maine Historic Preservation, and was very receptive of our bridge improvement ideas. He will be a useful contact when working to get permission to grow ivy up the iron beams, and make other alterations to the Railroad Bridge.

Name: Alan Manoian
Email: amanoian@auburnmaine.gov
Information: Economic Development Specialist for the City of Auburn. Alan possesses an extensive knowledge base of urban revitalization, and played arole in the redevelopment of Lowell, MA. He especially liked the idea of connecting the two cities of Lewiston and Auburn with a zip line over the Great Falls. Alan planned to visit the WOWZA Zip Line site in Rumford this fall. He was hopeful of learning more about the economic feasibility and engineering behind a zip line from Tom Carey (WOWZA owner) and Jim Sysco (engineer).

Name: Josh Vink
Email: josh.vink@laarts.org
Information: Interim Executive Director of L/A Arts. He is excited to make connections and collaborate with community partners. Interested in getting involved with project and believes it could potentially be a good fit for L/A Arts.

Appendix E

Botanical information for the additions to the pedestrian bridge

E1

Virginia Creeper (*Parthenocissus quinquefolia* (L.) Planch.)

Robert H. Mohlenbrock
@ USDA NRCS PLANTS

Description:

Virginia creeper is a native, woody, deciduous vine that climbs to a height of 60 feet on trees, poles or other structures, or forms a blanket of foliage up to 12 inches high along the ground. Stems are orange brown, finely hairy with branched tendrils that end in adhesive discs. The leaves are alternate and compound with 5, or rarely 3, leaflets that turn bright red in autumn. The leaflets are pointed, coarse- toothed and grow to 6 inches long. Inconspicuous green flowers borne in clusters during the spring are followed by a cluster of 1⁄4-inch bluish black berries. There are 12,000 to 19,000 seeds per pound.

Adaptation and Distribution:

Virginia creeper is found throughout the eastern half of the United States. It prefers moist, well-drained soils but will grow in drier soils and conditions including coastal dune areas. Virginia creeper is fairly shade tolerant, however it is often found along more open clearing borders, fencerows and stream banks. It is also salt tolerant.

Establishment:

Seeds should be drilled 3/8 inches deep in the fall or, preferably, in the spring after stratification. Virginia creeper can also be propagated from hardwood cuttings or layering. Literature suggests germination rates vary between 20 and 50% with optimum density for erosion protection at 10 plants per square foot. For restoration, partial cover, and wildlife plantings, it is often planted other species at densities of 1 plant or less per square foot.
Management:

As Virginia creeper will grow in low fertility and droughty conditions maintenance for this species is minimal. Once Virginia creeper is well established, it grows quickly

Uses:

Helps with erosion control because of its open canopy structure, energetic growth, and above ground rooting and sprouting habits. It provides cover for many small birds and mammals, as well as food for other mammals and birds. It also can act as an ornamental because it possesses attractive foliage.

See websites for additional information on Virginia Creeper:
http://plants.usda.gov/plantguide/pdf/pg_paqu2.pdf

Plant Materials <http://plant-materials.nrcs.usda.gov/>
Plant Fact Sheet/Guide Coordination Page <http://plant-materials.nrcs.usda.gov/intranet/pfs.html>
National Plant Data Center <http://npdc.usda.gov>

E2

Edible Flowers

Alpine Cress, *Arabis alpina*
Grows in the Maine. Likes to grow in damp gravel and screes. The young leaves and flowers are a good substitute for cress. They are edible raw or cooked and are often mixed with greens as a flavoring.

Basswood, *Tilia tomentosa*
Blossom is edible and makes a well known tea. Flowers are delicate and have a honey flavor

Bee Balm, *Monarda punctata*
Flowers related to the mint family. Intense and aromatic. Leaves can be used to make tea.

Blueweed, *Echium vulgare*
Naturalized in most of the United States. Blossoms start out pink and turn blue. Leaves can be cooked and served like spinach. Flowers can be added to salads.
Many more can be found at this website

See website for additional information about edible flowers:
http://www.eattheweeds.com/ediblewildflowers/

E3

Native Maine Wildflowers and Grasses

Alpine Cress
Fiddleheads
Lupine Wildflower
Ditch Lillies
Buttercups
Black Eyed Susans
Purple Asters
Ox-eye sunflowers
Joe pye weed
Canada wild rye
Little blue stem

See websites for additional information about Native Maine wildflowers and grasses:
1. http://uswildflowers.com/wfquery.php?State=ME
2. http://www.wildflowerfarm.com/index.php?p=page&page_id=ME

E4

Examples and images of vertical garden boxes that can be placed on the bridge:
http://www.archiexpo.com/prod/streetlife/steel-pedestrian-bridges-51161-926696.html

Appendix F

Lighting options for the pedestrian bridge connecting Simard-Payne Park and Bonney Park

LED Compact Floodlight

Image: Example of LED lighting on a walking bridge
http://www.esl-spectrum.com/project_gallery/category/11

PDF of specs for LED Compact Floodlights, http://www.kimlighting.com/content/products/literature/literature_files/kl_ledcf_lit.pdf, accessed November 2013.

LED Compact Floodlight

The CFL1 is designed for broad illumination with the fixture relatively close to the lighted surface maintaining excellent uniformity throughout its beam pattern. Recommended distance from the lighted surface is 3' to 15' depending on lamp and wattage.

LED: Three 9 LED modules with a total 27 LEDs configured in a rectangular array comprised together as one module. Available in 3500K, 5100K and 580 nm Amber. Emitters are directly attached to the electronic driver.

LED Driver: Universal voltage, 120 through 277V electronic driver, rated for 45W. -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

Die-Cast Housing: The LED Compact Floodlight housing and door frame are precision die-castings with integral cooling ribs that dissipate heat allowing the electrical components to operate well below their allowable limits.

Ordering Information

1 Fixture	2 Electrical Module[1]	3 Finish
CFL1	27L4KUV 27L5KUV 27L2KUV	BL Black DB Dark Bronze LG Light Gray SG Stealth Gray® PS Platinum Silver WH White

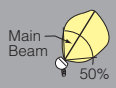
EXAMPLE: Fixture CFL1 (1) / Electrical Module 27L5KUV (2) / Finish BL (3)

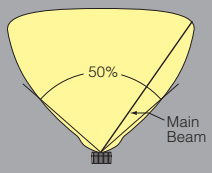
The CFL1 Compact Floodlight is also available with the following sources:

- 50W to 70W Pulse Start Metal Halide
- 50W to 70W High Pressure Sodium
- 60W Incandescent
- 150W Halogen
- 13W to 42W Compact Fluorescent

Refer to Architectural Floodlights catalog or www.kimlighting.com for additional CFL1 details, fixture options, and mounting options.

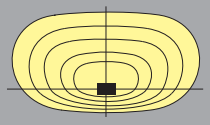
[1] 27L = 27 LEDs, 32.4W 4K = 4000 Kelvin, 5K = 5000 Kelvin, 2K = 580 nm Amber, UV = Universal voltage 120 through 277V electronic driver





The LED CFL1 Wide Flood beam pattern illuminates surfaces that are more horizontal than vertical, or wider areas when wall mounted.

Lumen Output:
Approx. 2,100 lumens



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Architectural Floodlight

PDF of specs for Architectural Floodlights, http://www.kimlighting.com/content/products/psg/psg_files/kim_afl_psg.pdf, accessed November 2013.

Architectural Flood

AFL10

ARCHITECTURAL FLOODLIGHTS

FEATURES

- Seven beam patterns *(AFL11 Wide Flood, AFL12 Vertical Flood, AFL13 Medium Flood, AFL14 Narrow Flood, AFL15 Spot, AFL16 Narrow Spot, and AFL17 Horizontal Spot)* generate high efficiencies and outstanding uniformity of illumination
- Die-cast housing with integral cooling ribs allows the electrical components to operate well below their allowable limits
- Interchangeable optics, a variety of mounting options and standard heavy duty swivel allow flexibility for fine-tuning projects on the job site

ORDERING INFORMATION (Example)

AFL13	70PMH277	DB	A-33	JBR-24

FIXTURE

AFL11	Wide Flood
AFL12	Vertical Flood
AFL13	Medium Flood
AFL14	Narrow Flood
AFL15	Spot
AFL16	Narrow Spot
AFL17	Horizontal Spot

FIXTURE FINISH

BL	Black
DB	Dark Bronze
LG	Light Gray
SG	Stealth Gray™
PS	Platinum Silver
WH	White
CC	Custom Color*

*Consult representative

ELECTRICAL MODULE

70PMH	70W PMH[1]	**70HPS**	70W HPS
100PMH	100W PMH	**100HPS**	100W HPS
150PMH	150W PMH[1]	**150HPS**	150W HPS
Voltages		Voltages	
120	120V	**120**	120V
208	208V[24]	**208**	208V[24]
240	240V[24]	**240**	240V[24]
277	277V	**277**	277V
347	347V	**347**	347V
480	480V	**480**	480V

PMH = Pulse Start Metal Halide
HPS = High Pressure Sodium

FIXTURE OPTIONS

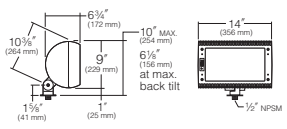
HDS	Heavy Duty Swivel[2,3]
A30	120V Photocell[4]
A31	208V Photocell[4]
A32	240V Photocell[4]
A33	277V Photocell[4]
A34	480V Photocell[4]
A35	347V Photocell[4]
BD	Barn Doors[2,5]
FH	Fixed hood[2]
FS	Full Shield[2,6]
GL4	Grid Louver[2,7]
AFL-LS	Polycarbonate Lens Shield[8,9]
CFA1-XX	Color Filter Assembly[10]

MOUNTING OPTIONS

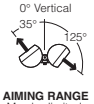
JBR-2	Brass in-grade Architectural J-box, (2) ½″ NPT in bottom[11,12]
JBR-3	Brass in-grade Architectural J-box, (2) ¾″ NPT in bottom[11,12]
JBR-21	Brass in-grade Architectural J-box, (2) ½″ NPT in sides, (2) ½″ NPT in bottom[11,12]
JBR-24	Brass In-grade Architectural J-box, (4) ½″ NPT in sides, (2) ½″ NPT in bottom[11,12]
JBR-30	Brass in-grade staked J-box[12,13]
SM18	Stanchion Mount[2,13]
J-27N	Surface Mount[2,14]
WM	Wall or Ceiling Mount[2]
JB1	Architectural J-box[2,15]
WM1	Wall Mount[2,15,16]
WEB	Wall Embedment Bracket
SPM-X	Side Pole Mount[2,17,18]
TM2	Twin Mount[2,19]
PT	Post Top Mount[2]
PT2	Twin Post Top Mount[2,20]
SMT	Surface Mount Tenon[21]
SM2	Stanchion Mount Tenon[22]
WM2	Wall Mount Tenon[2,16,23]
SPT-X	Side Pole Mount Tenon[2,17,23]
M2B	Twin Mount Tenon[2,19,23]
M3E	Triple Mount Tenon[2,19,23]

[1] G-12 socket available for T-6 bi-pin lamps, consult factory.
[2] Specify finish, **BL** - Black, **DB** - Dark Bronze, **LG** - Light Gray, **SG** - Stealth Gray, **PS** - Platinum Silver, **WH** - White.
[3] **CAUTION:** Recommended for vandal resistant requirements.
[4] **CAUTION:** Use only where adjacent lighting will not affect operation of photocell.
[5] **CAUTION:** Not recommended for ground mounted fixtures in vandal prone areas.
[6] **CAUTION:** Do not use where leaves and trash can collect inside shield.
[7] Glare control for **AFL15** and **AFL16** only.
[8] Not for use with **GL4** or **CFA1** options.
[9] **CAUTION:** Use only when vandalism is anticipated.
[10] Where **XX** is **15** Deep Straw, **05** Rose Tint, **27** Medium Red, **69** Brilliant Blue, **91** Primary Green.
[11] All side taps provided with plugs.
[12] **CAUTION:** Fixture stem and swivel must not contact soil or standing water. Provide drainage away from J-box.
[13] To assure a rigid installation, must be set in concrete (by others).
[14] Surface mount can be connected to conduit or outdoor cord with waterproof cord seal (by others).
[15] **CAUTION:** J-box must be installed high enough to avoid contact with soil or standing water.
[16] Can be used with optional **WEB** Wall Embedment Bracket
[17] **X** is pole diameter, 3″, 3½″, 4″, 5″, 6″ for round pole. Omit **X** for square poles.
[18] Field drilling of poles is required.
[19] **CAUTION:** Approved for mounting to poles with steel tenons only.
[20] Not for use with **SMT**, **SPT**, **WM2**, **M2B**, or **M3E** options.
[21] Not for use with **PT2**, **M2B**, or **M3E** options. May be wall mounted if horizontal fixture adjustment not required. For wall mounting with horizontal fixture adjustment, use **WM2.**
[22] **CAUTION:** Multiple top-mounts must not be used in locations where people can climb on fixtures or mounting arms. To assure rigid installation, stanchion must be set in concrete (by others).
[23] Not for use with **PT2** option.
[24] Constant wattage isolated ballast is required on all 208V and 240V Canadian orders.
NOTE: *Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply probe start Metal Halide ballasts with its luminaires, effective January 1, 2009. Contact Kim Lighting for availability of replacement ballasts for warranty service claims. (Visit www.aboutlightingcontrols.org or the Library of Congress website for more details).*

WITH STANDARD SWIVEL

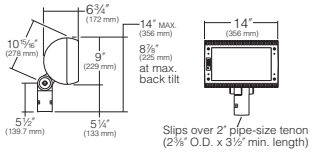


SIDE FRONT



AIMING RANGE
May be limited by selected mounting option

WITH OPTIONAL HEAVY DUTY SWIVEL



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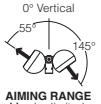
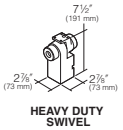


AIMING RANGE
May be limited by selected mounting option



HEAVY DUTY SWIVEL

KIM LIGHTING

781

Architectural Flood

AFL20

ARCHITECTURAL FLOODLIGHTS

FEATURES

- Seven beam patterns *(AFL21 Wide Flood, AFL22 Vertical Flood, AFL23 Medium Flood, AFL24 Narrow Flood, AFL25 Spot, AFL26 Narrow Spot, and AFL27 Horizontal Spot)* generate high efficiencies and outstanding uniformity of illumination, and can be used individually or in combination to illuminate any object from 10° to 150°
- Interchangeable optics, a variety of fixture and mounting options, and multi-function swivel allow flexibility for fine-tuning projects on the job site

ORDERING INFORMATION (Example)

AFL23	250PMH277	DB	A-33	SMT

FIXTURE

AFL21	Wide Flood
AFL22	Vertical Flood
AFL23	Medium Flood
AFL24	Narrow Flood
AFL25	Spot
AFL26	Narrow Spot
AFL27	Horizontal Spot

FIXTURE FINISH

BL	Black
DB	Dark Bronze
LG	Light Gray
SG	Stealth Gray[14]
PS	Platinum Silver
WH	White
CC	Custom Color*

*Consult representative

ELECTRICAL MODULE

250PMH	250W PMH	250HPS	250W HPS
400PMH	400W PMH	400HPS	400W HPS

Voltages		Voltages	
120	120V	120	120V
208	208V[15]	208	208V[15]
240	240V[15]	240	240V[15]
277	277V	277	277V
347	347V	347	347V
480	480V	480	480V

PMH = Pulse Start Metal Halide
HPS = High Pressure Sodium

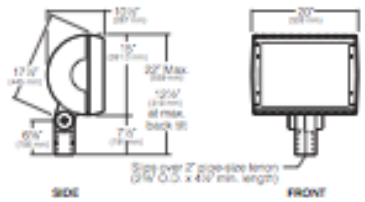
FIXTURE OPTIONS/ACCESSORIES

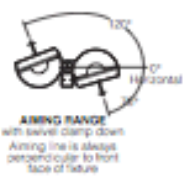
A-30	120V Photocell[2]
A-31	208V Photocell[2]
A-32	240V Photocell[2]
A-33	277V Photocell[2]
A-34	480V Photocell[2]
A-35	347V Photocell[2]
BD2	Barn Doors[3,5]
FH2	Fixed hood[3]
FS2	Full Shield[3,4]
GL8	Grid Louver[3,6]
GL9	Grid Louver[3,6]
AFL-LS2	Polycarbonate Lens Shield[7,8]
CFA2-XX	Color Filter Assembly[9]

MOUNTING OPTIONS

SM2	Stanchion Mount Tenon[3,10]
SMT	Surface Mount Tenon[3,11]
WM2	Wall Mount Tenon[3,12]
WEB	Wall Embedment Bracket
SPS2	Side Pole Mount Tenon for Square Poles[3]
SPR2-X	Side Pole Mount Tenon for Round Poles[3,13]
MTM-2B	Twin Mount Tenon[3,14]
MTM-3E	Triple Mount Tenon[3,14]

[1] **CAUTION:** Use only where adjacent lighting will not affect operation of photocell.
[2] Specify finish, **BL** - Black, **DB** - Dark Bronze, **LG** - Light Gray, **SG** - Stealth Gray, **PS** - Platinum Silver, **WH** - White.
[3] **CAUTION:** Not recommended for ground mounted fixtures in vandal prone areas.
[4] **CAUTION:** Do not use where leaves and trash can collect inside shield.
[5] Glare contaol for **AFL24** only.
[6] Glare contaol for **AFL25** and **AFL26** only.
[7] **CAUTION:** Use only when vandalism is anticipated.
[8] Not for use with **GL8**, **GL9**, or **CFA2** options.
[9] Where **XX** is **15** Deep Straw, **05** Rose Tint, **27** Medium Red, **69** Brilliant Blue, **91** Primary Green.
[10] **CAUTION:** Multiple top-mounts must not be used in locations where people can climb on fixtures or mounting arms. To assure rigid installation, stanchion must be set in concrete (by others).
[11] Not for use with **MTM-2B**, or **MTM-3E** options. May be wall mounted if horizontal fixture adjustment not required. For wall mounting with horizontal fixture adjustment, use **WM2**.
[12] Can be used with optional **WEB** Wall Embedment Bracket.
[13] **X** is pole diameter, 3", 3½", 4", 5", 6" for round pole. Omit **X** for square poles.
[14] **CAUTION:** Approved for mounting to poles with steel tenons only.
[15] Constant wattage isolated ballast is required on all 208V and 240V Canadian orders.
NOTE: *Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply probe start Metal Halide ballasts with its luminaires, effective January 1, 2009. Contact Kim Lighting for availability of replacement ballasts for warranty service claims. (Visit www.aboutlightingcontrols.org or the Library of Congress website for more details).*





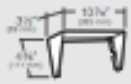
KIM LIGHTING

Architectural Floodlight Options

CFL ACCESSORIES & MOUNTING OPTIONS

BD-CFL Barn Doors

FH-CFL Fixed Hood

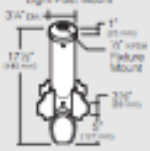


FS-CFL Full Shield

J-25N Surface Mount

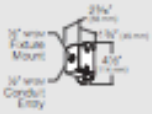
JW Architectural Wall Mount

EP17 Landscape Light Post Mount



CFL & AFL10 MOUNTING OPTIONS

J-27N Surface Mount

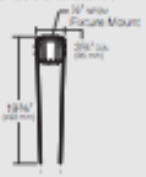


JB1 Architectural Junction Box

SM18 Stanchion Mount

JBR-2, JBR-3, JBR-21, JBR-24 Brass In-Grade Architectural Junction Box

JBR-30, JBR-32 Brass In-Grade Slaked Architectural Junction Box

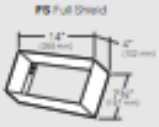


AFL10 ACCESSORIES & MOUNTING OPTIONS

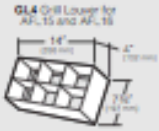
BD Barn Doors

FH Fixed Hood

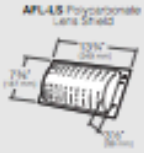
FS Full Shield



GL4 Grill Louver for AFL15 and AFL18

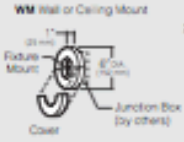


AFL-LS Polycarbonate Lens Shield

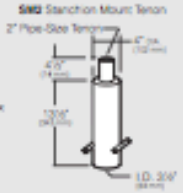


CFA1-XX Color Filter Assembly

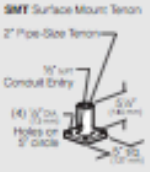
WM Wall or Ceiling Mount



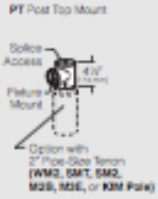
SM2 Stanchion Mount Tenon



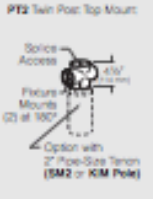
SMT Surface Mount Tenon



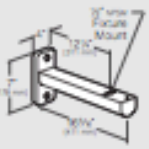
PT Post Top Mount



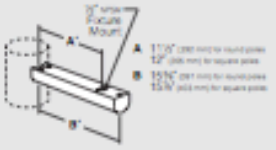
PT2 Twin Post Top Mount



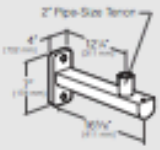
WM1 Wall Mount
Component EPA: 0.3



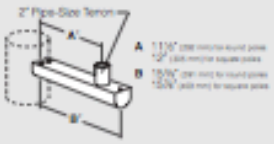
SPM Side Pole Mount
Component EPA: 0.3



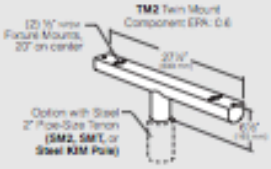
WM2 Wall Mount
Component EPA: 0.3



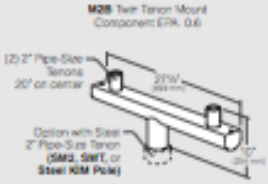
SPT Side Pole Tenon
Component EPA: 0.3



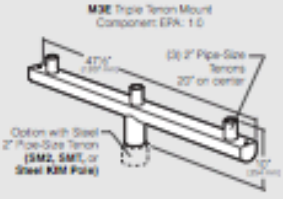
TM2 Twin Mount
Component EPA: 0.6



M2B Twin Tenon Mount
Component EPA: 0.6



M3E Triple Tenon Mount
Component EPA: 1.0



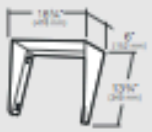
KIM LIGHTING

Architectural Floodlight Options

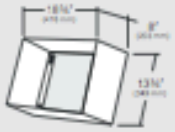
AFL20 ACCESSORIES & MOUNTING OPTIONS

BD3 Barn Doors

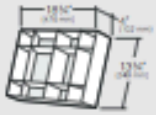
FH2 Fixed Hood



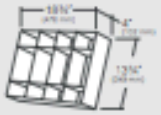
FS2 Full Shield



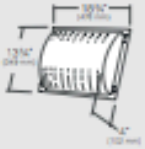
GL8 Grill Louver for AFL24



GL9 Grill Louver for AFL25 and AFL26

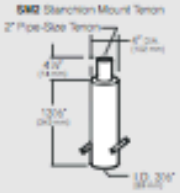


AFL-LS2 Polycarbonate Lens Shield



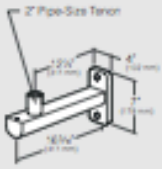
CFA2-XX Color Filter Assembly

SM2 Stanchion Mount Tenon

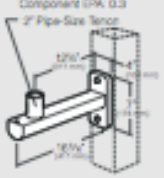


SMT Surface Mount Tenon

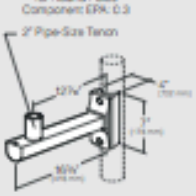
WM2 Wall Mount
Component EPA: 0.3



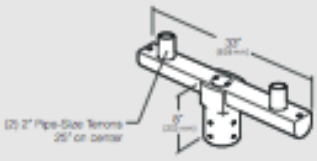
SPS2 Side Pole Mount Tenon for Square Poles
Component EPA: 0.3



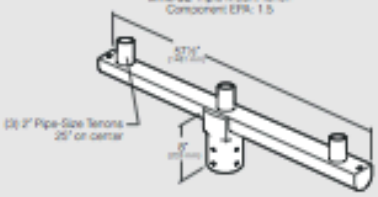
SPR2 Side Pole Mount Tenon for Round Poles
Component EPA: 0.3



MTM-2B Twin Mount Tenon
Component EPA: 1.0



MTM-3E Triple Mount Tenon
Component EPA: 1.5



KIM LIGHTING

785

Philips Color Kinetics Bridge Lighting

Offers innovative, dynamic, and highly reliable LED lighting solutions for all types of bridges, whether new or historic, utilitarian or iconic, modest or monumental. The Philips Color Kinetics LED lighting fixtures can stand up to the harshest environments, offering superior light output, long useful source life, highly reliable operation, simple commissioning, and digital control. When properly specified and deployed, LED lighting solutions can be significantly more energy efficient and cost effective than comparable conventional lighting solutions, consuming less power to deliver the same level of light and offering tens of thousands hours of low maintenance operation.

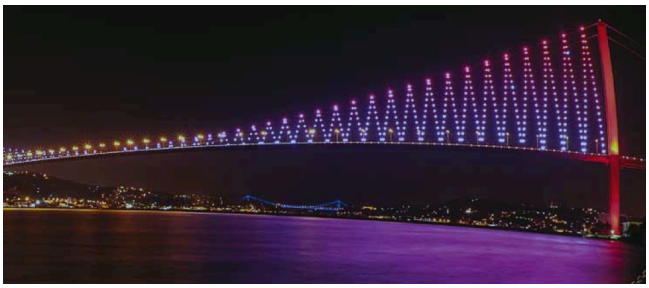
ArchiPoint iColor Powercore is a daylight visible, exterior rated LED point of light ideally suited for bridge lighting. These versatile, rugged fixtures can be deployed in grids or long runs to display intricately designed effects, graphics, and even large-scale video.

ArchiPoint iColor Powercore fixtures combine high intensity output with the efficiency and cost effectiveness of Powercore technology in a low profile housing that allows for installation in spaces too tight for conventional spotlights.

ArchiPoint iColor Powercore produces color changing light at a level of intensity that far exceeds the threshold for visibility in direct sunlight. Tested to comply with ANSI road vibration standards for lighting equipment, ArchiPoint iColor Powercore fixtures are tough enough to stand up to weather, traffic, corrosion, and the many other challenges that bridge environments can present.

Pedestrian bridges and passageways present opportunities for unusual form factors, innovative way finding schemes, and intimate viewer experiences that can't be achieved on massive automobile and railroad bridges. At night, they also present special challenges for ensuring the safety of passersby. Intelligent LED lighting solutions from Philips Color Kinetics can transform any structure's daylight design into a memorable nighttime viewing experience, while delivering the light levels required to keep public walkways inviting and secure.

Because of their rugged construction, long useful source life of up to 50,000 hours and more, ultra reliable low maintenance operation, and their ability to natively display millions of colors and color changing effects, LED lighting fixtures from Philips Color Kinetics are the perfect, cost effective choice for giving new life to historic bridges.



See link to PDF of Philips Color Kinetics Bridge Lighting for additional information:
http://www.colorkinetics.com/ls/guidesbrochures/PCKLEDforBridges.pdf

Appendix G

Funding possibilities for the project

National Trust Preservation Fund

1. Projects to encourage preservation at the local level by providing seed money for preservation projects
2. Grants help to stimulate public discussion, enable local groups to gain the technical expertise needed, introduce the public to preservation concepts and techniques, and encourage financial participation by the private sector
3. Project should relate to the following issues:
    a. Building sustainable communities does historic preservation support economic, environmental, and cultural sustainability?
    b. Reimagining historic sites use innovative, replicable strategies that create new models for historic site interpretation
    c. Promoting diversity and place
    d. Protecting historic places and public lands
4. Logistics: Applications due February 1, June 1, October 1
    a. Must become a forum member of the national trust to apply
    b. Work must begin within six months of award date
    c. $2,500-$5,000
    d. Website of grant: http://www.preservationnation.org/resources/find-funding/preservationfundsguidelineseligibility.html#EligibleApplicants

Preserve America Grant Program

1. Projects that view historic properties as educational and economic assets, use historic assets for economic development and community revitalization
2. Grants to help support preservation efforts through heritage, tourism, education, and historic preservation planning
3. Projects that will be funded are:
    a. Research and documentation
    b. Education and Interpretation
    c. Planning
    d. Marketing
    e. Training
4. Logistics:
    a. Must apply to be a "Preserve America Community"
    b. Designated Preserve America Communities, State Historic Preservation
5. Offices, Certified Local Governments that have applied for Preserve America Community
    a. $20,000-$250,000 with a required 1:1 match
    b. Website of grant: http://www.nps.gov/history/hps/hpg/preserveamerica/index.htm

Maine Department of Transportation

1. Quality Communities (Transportation Enhancement and Safe Routes to School)
    a. Apple deadline July 1
    b. Grants for bicycle and pedestrian improvements, environmental improvements, scenic, historic, and other quality community improvements
    c. Fund new pedestrian/bike facilities with an emphasis on transportation value

Maine Department of Conservation

1. Maine Trails Fund
        i. Grants awarded for:
    b. Maintenance and restoration of existing recreational trails
    c. Development/rehabilitation of trail side/head facilities and linkages
    d. Projects that look to enhance tourism and economic development
    e. Projects with aesthetic and cultural benefits
        i. Website of grant: http://www.maine.gov/dacf/parks/grants/maine_trails_fund.html
2. Land and Water Conservation Fund
        i. Grants awarded for:
    b. Outdoor recreation to meet community needs
    c. Projects that serve a broad range of users
    d. Assistance to local governments in the development of public outdoor recreation space
        i. Grants provide up to 50% of allowable costs for approved projects
        ii. Website of grant: http://www.maine.gov/dacf/parks/grants/land_water_conservation_fund.html

Appendix H

Rock wall Information: Rates, Marketing/Promotional Deals, and Existing Climbing Gyms

Climbing Gym Rates		
	Adult:	Student/under 18:
Day pass (nonmembers)	$13.50	$11
10 visit punch pass	$121.25	$91.75
Annual membership	$480	$133 (semester pass)

Table H1: average climbing gym rates, derived from 7 northern New England climbing gyms.

This table provides a guide for general climbing gym rates in Maine, New Hampshire, and Vermont. Equipment rental fees are not included in the day pass and 10 visit punch pass rates. Most gyms offer such equipment rentals (shoes, harness, carabineer, ropes, and chalk bag) for an additional $7.

Marketing/Promotional Deals

1. Up to four immediate family members living in the same household, $250 (3 months), $770 (1 year). [Vertical Dreams Inc.]
2. $2 night, everyone climbs for $2 on Thursdays from 3:00pm10:00pm [Maine Bound]
3. Introductory pass (for the first timer) $28, includes basic rope handling instruction, orientation, equipment & pass [Maine Rock Gym]

Existing New England Rock wall Gyms

1. Evolution Rock: rock + fitness. 10 Langdon Ave, Concord, NH 03301. http://www.evorock.com/
2. Green Mountain Rock Climbing Centers. 223 Woodstock Ave., Rutland, VT 05701 &68 E Woodstock Road, Hartland, VT 05073. http://vtclimbing.com/Home.html
3. Indoor Ascent: explore your vertical world. 47 Broadway, Dover, NH 03820. http://www.indoorascent.com/
4. Maine Bound. 5795 Maine Bound Adventure Center, 46 Sebago Road, UMaine-Orono, ME 04469, http://umaine.edu/mainebound/indoorrockclimbingcenter/
5. Maine Rock Gym. 127 Marginal Way Portland ME 04101. http://www.merockgym.com/index.html
6. Petra Cliffs. 105 Briggs St., Burlington, Vermont 05401. http://www.petracliffs.com/
7. Vertical Dreams Inc. Waumbec Mill Building. 250 Commercial Street, Manchester, NH 03101. http://www.verticaldreams.com/index.php?page=home&location=1

Appendix I

Zip line Information: Existing Zip Lines, Material and Site Specs, Cost, and Zip Line Construction/Professional Installation

Information on WOWZA Zip Lines in Rumford

Jim Sysco, an engineer from Newry has installed the secure zip line in Rumford. He and Tom Carey (WOWZA Zip Lines) are great local contacts to make. Prior to any serious action on the Great Falls zip line, it would be worthwhile to head upstream to Rumford and check out their operation.

Alan Manoian, Economic Development Specialist for the City of Auburn, can serve as a liaison. He planned on visiting the Rumford zip line this fall, and expressed the possibility of WOWZA setting up a similar operation downriver here in Lewiston/Auburn.

Contact Information:
Tom Carey: tscareylaw@gwi.net

Zip Lines in Northern New England:

1. Alpine Adventures. Lincoln, New Hampshire 0325, http://www.alpinezipline.com
2. Bretton Woods Canopy Tour. Mount Washington Resort Route 302, Bretton Woods, NH 03575, http://brettonwoods.com/activities/canopy_tour/overview
3. Loon Mt. Zipline Adventure. 60 Loon Mountain Rd, Lincoln NH 03251, http://www.loonmtn.com/info/winter/advctr.aspx
4. Ziplines at Sunday River. 15 South Ridge Road, Newry, ME 04261, http://www.sundayriver.com/EventsActivities/WinterActivities/Ziplines.html

Material & Site Specs:

Ideal grade from start to end of zip line is 8-10 percent, which insures that users reach the end without stalling half way on the cable. Five-eights cable with 60,000-pound tension. Cable must have safety factor of 10-to-1 (cable is ten times stronger than user's weight).

Cost:

Subject to vary depending on how long of a cable is required to complete the zip line, and what sort of landing platforms are installed. Numbers worked up by Jim Sysco and WOWZA Zip Lines suggest that one zip line can cost as much as $100,000. Insurance and liability costs range from 8-12 percent of gross revenue. http://www.rumfordfallstimes.com/node/22631

Zip Line Construction/Professional Installation:

1. Adventure Solutions. http://www.adventuresolutionsus.com/outdoor/products
2. Experiential Resources. http://experientialresources.net

Appendix J

Historical images of Lewiston/Auburn and the Androscoggin River. These can be used for historical panels on the outlooks of the Railroad Bridge. Current images of the bridge and surrounding park spaces were photographed by Robi Jaffrey.

US National Archives images of Androscoggin River

Image of the Great Falls on the Androscoggin River
http://www.flickr.com/photos/usnationalarchives/3751555835/in/set-72157621806586940

Image of the pollution in the Androscoggin River
http://www.flickr.com/photos/usnationalarchives/3751556641/in/set-72157621806586940

Image of the pollution in the Androscoggin River
http://www.bethelhistorical.org/A_River's_Journey.html

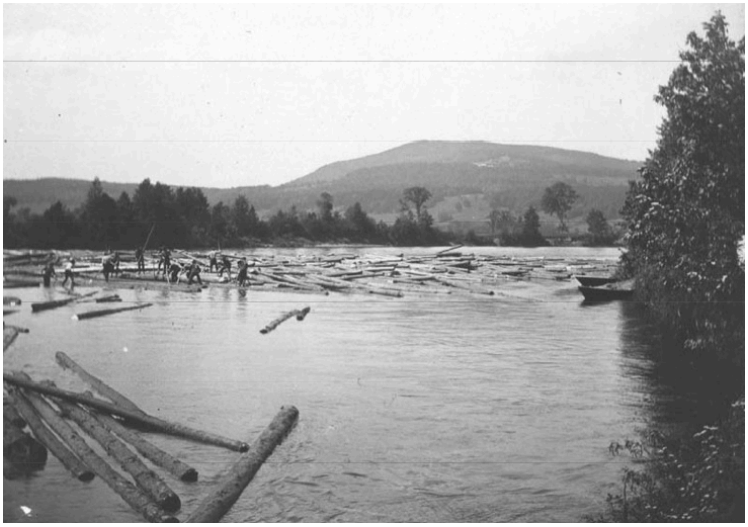


Image of the logs in the Androscoggin River
Photo taken from Museum L-A

Image of the logs in the Androscoggin River
Photo taken from Museum L-A

Image by Robi Jaffrey

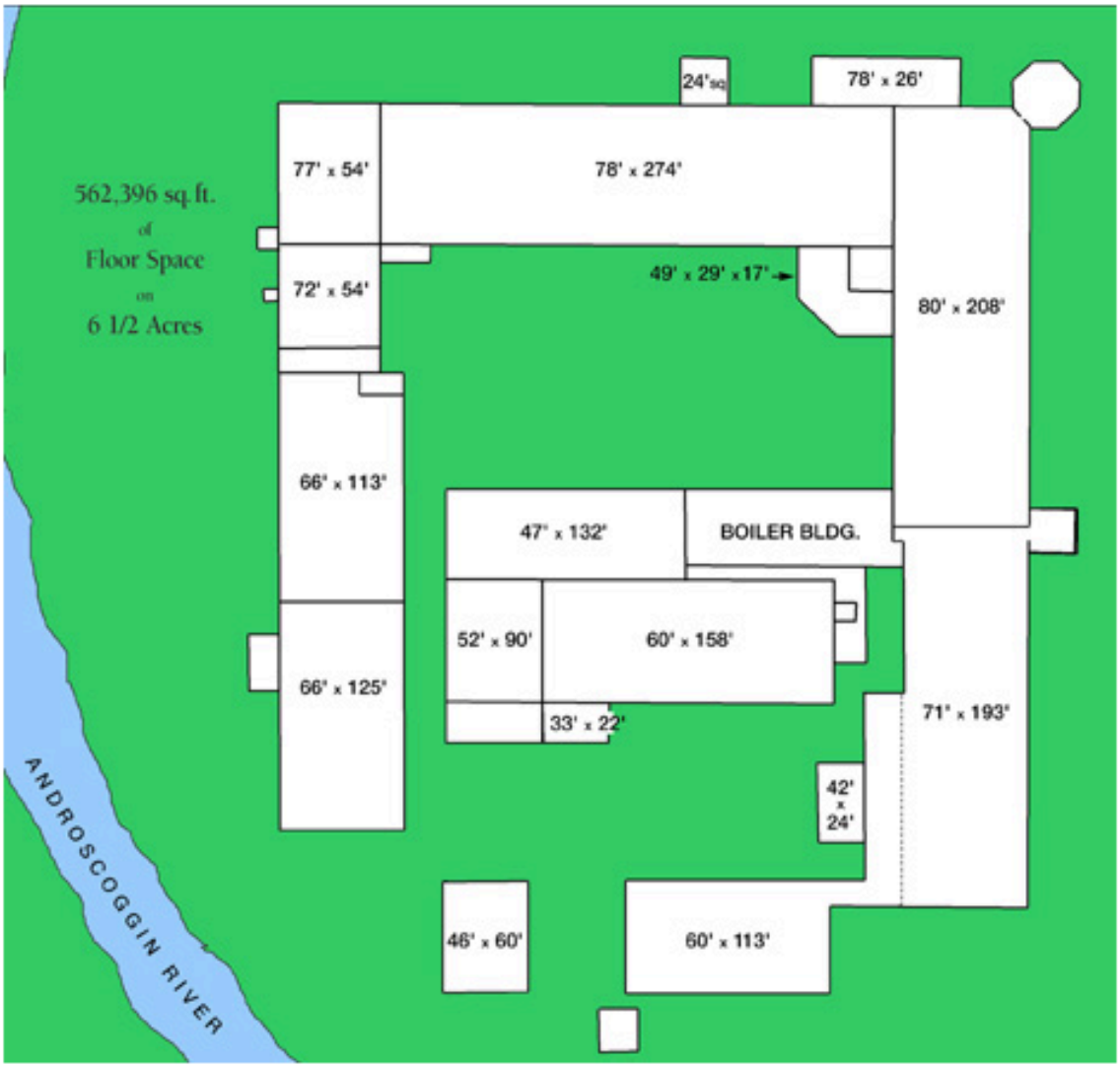
Image by Robi Jaffrey

Image by Robi Jaffrey

Appendix K

Floor plans of the Continental Mill in Lewiston, Maine. The mill is a potential site for the rock wall in the future.

http://www.millspaceforlease.com/confloorplan.htm, accessed December 2013.



Appendix L

Deliverables

1. Booklet: Riverfront Park Revitalization in Downtown Lewiston-Auburn - Created by Matt Mosca

Riverfront Park Revitalization
in Downtown Lewiston-Auburn

Great Falls along Androscoggin River, between Lewiston & Auburn

Railroad Bridge, connecting Lewiston & Auburn

Significance of Parks & Green Space

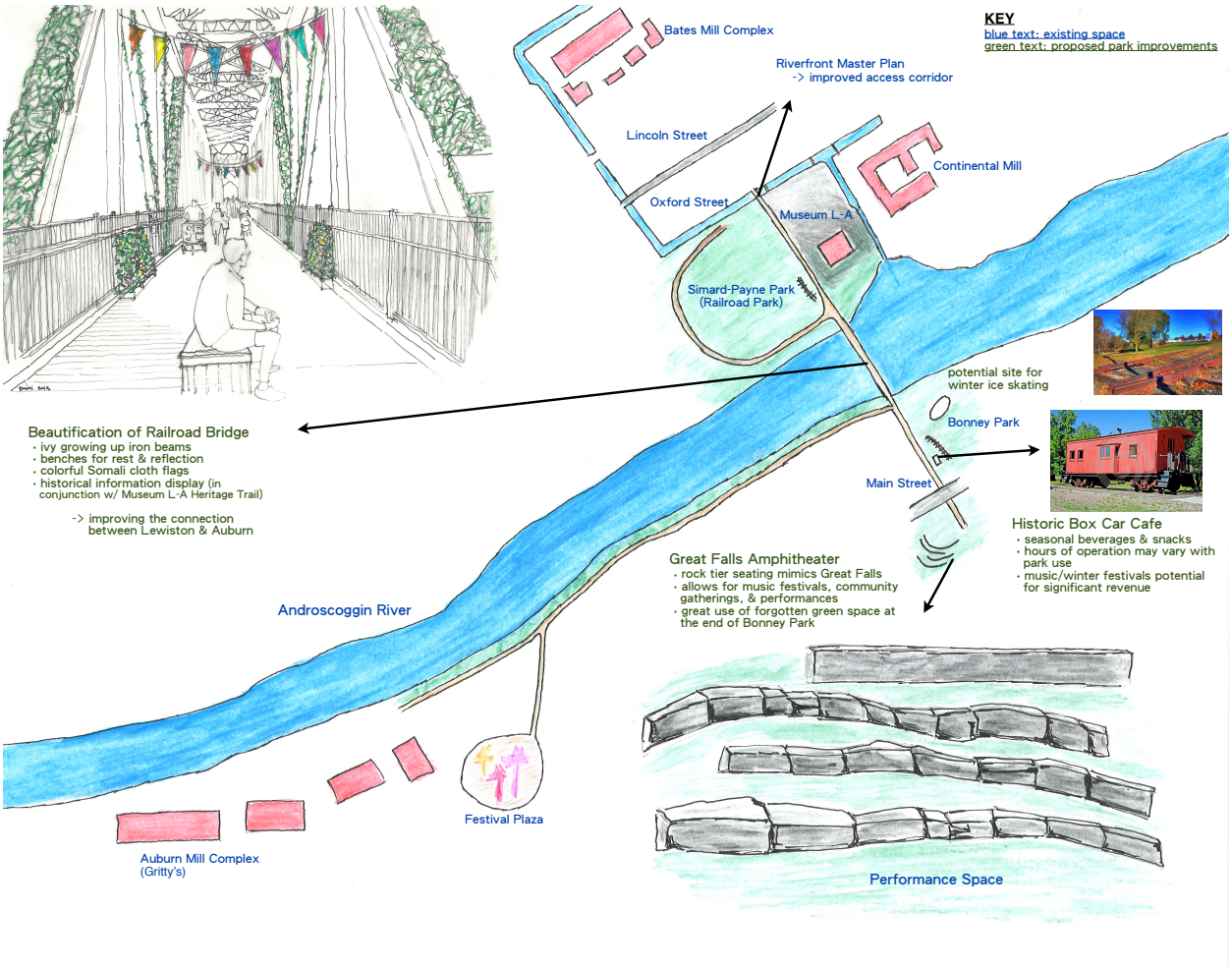
- provide an inviting and safe community gathering space
- a site for reflection, recreation, and interaction
- bring events to the community -> concerts & celebrations

Great Falls Ballon Festival, an annual summer event at Simard-Payne Park

- parks & public space help make urban settings more livable
  -> reduce exurban sprawl, and bring new residents into the city
- can encourage conversations between people and nature

Simard-Payne Park & Bonney Park: heart of L-A

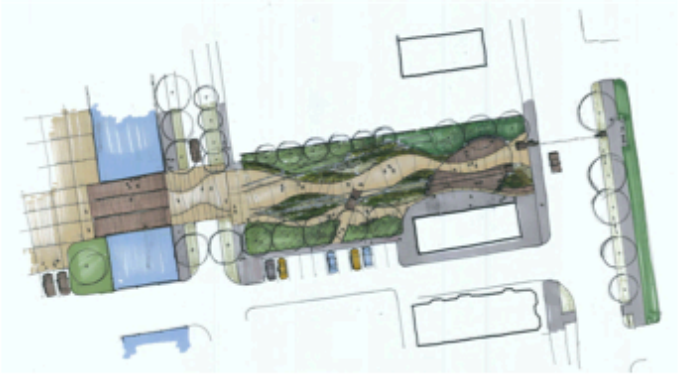
- last large green space in Downtown L-A
- parks border both sides of the Androscoggin River
- quiet sheltered space with minimal periphery vehicular traffic
- site of annual events: Great Falls Ballon Festival & Dempsey Challenge
- many exciting revitalization plans are already in progress!
- improve existing park space VS starting from scratch elsewhere


KEY
blue text: existing space
green text: proposed park improvements
Bates Mill Complex
Riverfront Master Plan
-> improved access corridor
Lincoln Street
Continental Mill
Oxford Street
Museum L-A
Simard-Payne Park
(Railroad Park)
potential site for
winter ice skating
Bonney Park
Main Street
Beautification of Railroad Bridge
• ivy growing up iron beams
• benches for rest & reflection
• colorful Somali cloth flags
• historical information display (in conjunction w/ Museum L-A Heritage Trail)
-> improving the connection between Lewiston & Auburn
Androscoggin River
Great Falls Amphitheater
• rock tier seating mimics Great Falls
• allows for music festivals, community gatherings, & performances
• great use of forgotten green space at the end of Bonney Park
Historic Box Car Cafe
• seasonal beverages & snacks
• hours of operation may vary with park use
• music/winter festivals potential for significant revenue
Festival Plaza
Auburn Mill Complex
(Gritty's)
Performance Space

Current L-A Riverfront Revitalization

I. Riverfront Master Plan

- in the process of creating a pedestrian friendly corridor for improved access to Lewiston side of Simard-Payne Park



- proposal for closer proximity to Androscoggin River
  -> continuing River Walk
- make better use of green space

II. Museum L-A

- plan to combine new age architecture with old yarn factory mill, creating 3-story 50,000 ft^2 space
  -> cafe, banquet room
- increased access & interaction with River
  -> outdoor classroom
- Heritage Trail

As Riverfront Revitalization Progresses

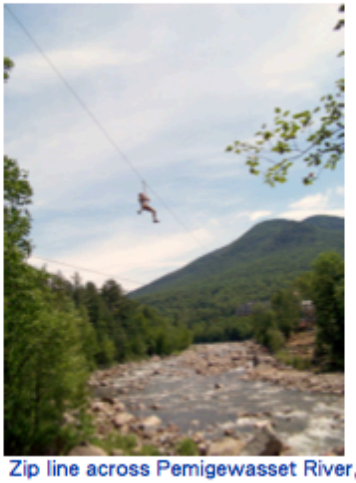
II. Zip-Line Across the Great Falls

a) Collaboration with WOWZA Zip Lines:
- i. located upriver in Rumford, ME
- ii. secure zip line across Rumford Falls in place
- iii. Tom Carey, "the man with the plan" has met resistance in Rumford, and the project is currently at standstill

Zip line through the mist of Pennacook Falls

b) Costs & Insurance:
- i. instillation rough estimate of $100,000 per zip line
- ii. low end insurance cost $10,000-$14,000 (based on number of users)
- iii. user fees range from $20-$50 & $80-$100

c) L-A Becomes a Destination!
- i. unique zip-lining experience over Great Falls, in urban setting
- ii. potential for Androscoggin Zip-Line "punch pass" (LA,Rumford,Sunday River)
- iii. night time zips across lit up Falls?



Zip line across Pemigewasset River, Loon Mt, Lincoln NH

~ significant revenue generating possibilities & an attraction for visitors

As Riverfront Revitalization Progresses:
revenue generating park recreation becomes feasible!

I. Rock Wall Climbing Gym

a) Potential Location Sites:
- i. annex off of Museum L-A
- ii. part of Continental Mill redevelopment
- iii. Great Falls "recreation destination development"
  - -> play white water, zip line, canoe canal tours, etc.

Evolution Rock Climbing Gym, built in old industrial park, Concord, NH

b) Site Specs:
- i. must be > 30 vertical feet
- ii. could easily be paired with another development project
  - i.e. only vertical space required

c) Marketing:
- i. bundle packages
  - e.g. climb, paddle, & pint
- ii. after school, team building, and summer programs
- iii. excellent winter activity
- iv. highly appealing to Bates students

This booklet was created as an additional deliverable for Grow L+A

By Matthew Mosca, with help from Lucy Brennan, Cat Dioli, & Rohan Jaffrey.

References

Farin, Bruce. "Imagine zip lining through the mist of Pennacook Falls", *Rumford FallsTimes.* March 30, 2012 http://www.rumfordfallstimes.com/node/22631

Evolution Rock. Discussion with Hilary Harris (Founder & General Manager) October 17, 2013.

Museum L-A. Discussion with Rachel DesGrosseilliers (Executive Director) October 29, 2013.

Riverfront Master Plan. Discussion with David Hediger (Lewiston City Planner) October 9, 2013.

http://www.ru

2. Pedestrian Bridge Drawings: drawings of the bridge and outlook
   - Created by Arthur Dioli, Olson Lewis + Architects, Manchester-by-the-Sea, MA