

## MEMORANDUM

To: Amy Doll, ICF WAM

From: Justin Falango, DKP

Date: January 15, 2010

Subject: Policy Options Memorandum (Deliverable 5a)  
Riverfront Crossings District – Iowa City, Iowa

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This memorandum presents a summary of development policy options with regard to planning and urban design issues within the Riverfront Crossings District of Iowa City. These address specific local issues while serving as a case study for other communities who are hoping to use smart growth approaches as part of their recovery from natural disasters, such as the flooding which occurred in Iowa City in 2008. The policies summarized in this memo dovetail with those already outlined in the *Final Transportation Policy Options Memorandum* of January 6, 2010 and the *Final Market Overview Memorandum* of December 11, 2009. These policy options were explored and refined following the Iowa City Smart Growth Workshop from November 11 -13, where feedback from stakeholders, city staff, and the community was gathered.

### **POLICY OPTIONS**

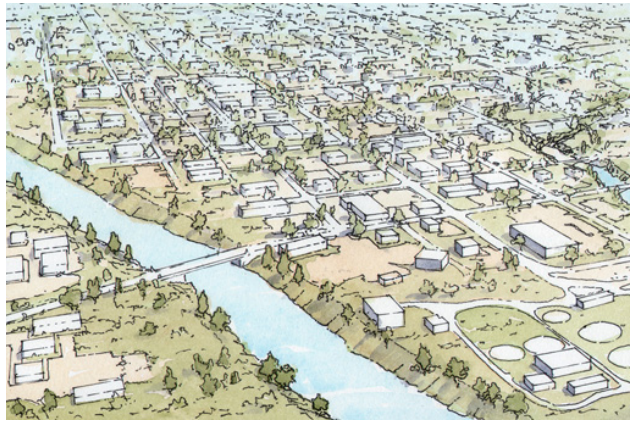
*These policy options were explored in depth during the workshop and all generally supported by the community and the City.*

#### **Create a Resilient Riverfront Park System**

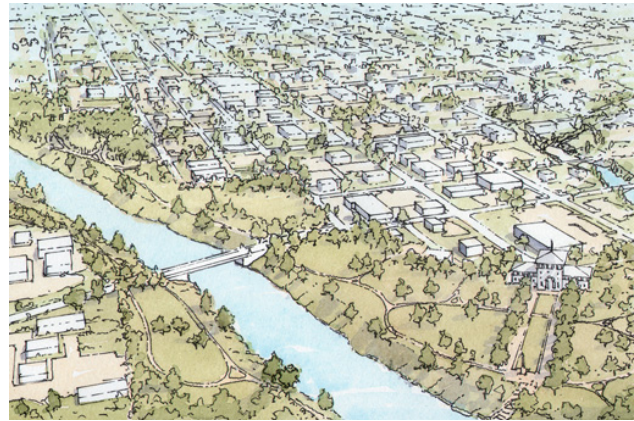
The mechanisms of absorption and evapotranspiration makes trees essential in mitigating stormwater runoff and even hasten the drying of waterlogged earth after major floods. Careful grading and landscaping of the floodplain into a riverfront park system, planted with native trees, shrubs, and grasses that can survive standing water will provide some degree of protection during floods. These newly created park spaces will serve as a community amenity which will evolve and improve over time. They may contain recreational facilities, walking/biking trails, designated fishing areas, ornamental/food gardens, and preserve areas.

The community was very excited about creating a system of new park spaces along the riverfront and making use of flood-prone areas for civic purposes. Sixty percent of respondents to the exit questionnaire chose the riverfront park system as one of five ideas they were most excited about – the largest number recorded. Polling at the closing presentation also showed that eighty-two

percent of attendees thought that a riverfront park system was a good idea, and almost half said they would use such a park system on at least a weekly basis.



Existing Conditions



Areas along the river are transformed into a park system

### **Enhance Ralston Creek**

Committing to protect and enhance natural flow-ways, and in particular Ralston Creek, would ensure that no new water channelization would occur, and that restoration of open waterways would become a citywide priority. Where waterways have been previously diverted into culverts or underground pipe systems, such as along portions of Ralston Creek, the City might consider daylighting these segments, with the goal of restoring the water and its banks to a more natural state. This has been done successfully in a number of cities across the country. In addition to improving water quality and reducing the effects of future flood events, open creeks and streams can serve as active community amenities.

Polling results showed that only six percent of closing presentation attendees were against the use of taxpayer dollars to protect and enhance Ralston Creek. Thirty percent of respondents to the exit questionnaire cited the enhancement of Ralston Creek as among the most exciting ideas presented. Informally, many community members and workshop participants told the design team that Ralston Creek was a missed opportunity for trails and recreational use.



Ralston Creek could become a centerpiece to the Riverfront Crossings District.

### **Establish Community Gardens in the Riverfront Crossings District**

The floodplain and other lands that are to remain unbuilt in its vicinity are ideally suited to be planted with community gardens. Such areas, whether managed as allotment gardens (in which residents lease individual plots for their own consumption) or Community Supported Agriculture (CSA, in which residents subscribe to a weekly supply of produce cultivated by a farmer) can help the community become less dependent on the industrial food supply. Increasing access to organic produce is not only beneficial to the community's health, but also reduces the use of pesticides and fertilizers that harm the watershed of the Iowa River. Increasing access to local, seasonal produce helps reduce greenhouse gas emissions caused by the long-range transport of food, and strengthens the local economy. Minimizing the distance from farm to table also improves taste and maximizes the healthful concentrations of certain vitamins and minerals in produce. Urban agriculture will help give new purpose to previously developed parcels while maintaining constant activity within these new public spaces.

The idea of establishing community agriculture within the district seemed to resonate with some community members. It came up in many of the stakeholder meetings and through informal conversations throughout the workshop. The majority (fifty-seven percent) thought that in-town agriculture was a good idea when polled during the closing presentation. However, only a dedicated few (thirteen percent), said they would use such gardens, while another thirty percent would consider it.



### **Create New Mixed-Use Zoning with Design Provisions for Riverfront Crossings**

An alternative to overhauling the zoning ordinance completely is to amend it to create the possibility for a greater mix of uses within the Riverfront Crossing District. This could be implemented either as a Mixed-Use Overlay District or as distinct new zone (MU-X), which would allow it in turn to be applied elsewhere in the city. The new zoning designation would allow for a more intense and tightly woven mix of housing, office and retail uses but with strict design controls akin to those described in Form-Based Codes below. The area just south of Burlington Street and immediately east of the university would be an ideal location for such a zone to be implemented. Market demand for housing, especially for students, and proximity to the heart of the city and transit indicate a justification for more substantial new construction which provides housing over retail. Flexible loft spaces which can accommodate a number of uses are also particularly attractive and can easily adapt to changing market conditions over time.

Over fifty-two percent of exit questionnaire respondents cited this as one of the top five ideas they were most excited about.



## Draft and Adopt a Form-Based Code

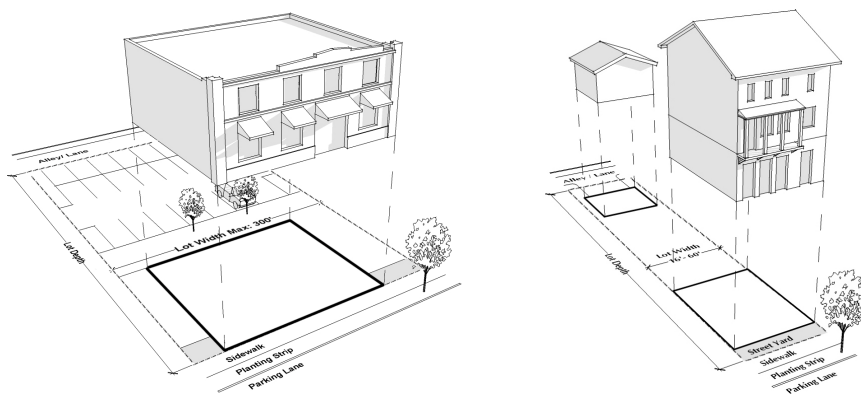
A Form-Based Code is a land development regulatory tool that places primary emphasis on the physical form of the built environment with the end goal of producing a specific community character. In contrast, conventional zoning controls land use through abstract regulatory statistics, which can result in physical environments that are very different from the intended character. The root principle of Form-Based Coding is that design is more important than land use. Simple and clear graphic prescriptions for building height, orientation, placement on its site, and building elements (such as placement of doors, windows, etc.) are used to control development. Land use is not ignored in form-based coding, but it is regulated using broad parameters that can better respond to market economics, while also restricting certain undesirable combinations of uses.

When proper urban form is in place, a greater integration of building uses is natural and comfortable. Buildings are aligned and oriented close to the street, shaping the space of the street. The street is a coherent space, with buildings of compatible scale and character on both sides of the street. This agreement of building form across the street-space contributes to a clear public realm and street identity. Buildings oversee the street-space with active fronts. This overview of the street-space contributes to vital and safe public space. Property lines are physically defined by buildings, walls or fences. Land should be clearly public or private – in public view and under surveillance or private and protected. Vehicle storage/parking, (excluding on-street parking), mechanical equipment and service areas are kept away from the street-space.

The Form-Based Code would allow by-right development of property in congruence with specific Urban Standards. A Form-Based Code should include the following components:

### ***Building Form Standards***

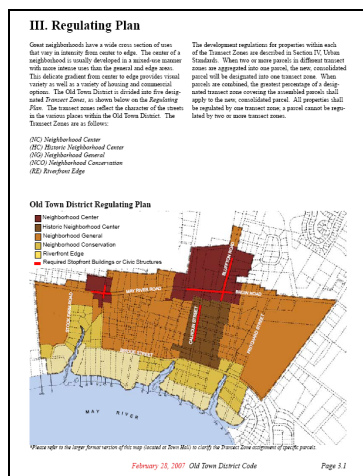
Each Transect Zone assigned to the Regulating Plan is tied to unique Development Standards, which include Building Form. Building Form Standards regulate elements of private building development such as Orientation, Private Frontages, Massing, and Parking. These elements serve as the foundation for functional streets, neighborhoods, and cities by shaping street-oriented, mixed-use, pedestrian-oriented buildings. The intent of the Building Form Standards is to shape public space - its specific physical and functional character.



### ***Regulating Plan based on mixed-use Transect Zones***

A Regulating Plan serves as a tool to guide future development and implement the community's vision for the future. A Regulating Plan has a function similar to a Future Land Use Map, in that it defines the desired future character for each parcel within a defined area. A Regulating Plan differs from a Future Land Use Map in that it uses Transect Zones instead of Land Use categories to define the desired future character of a place. The Rural-to-Urban Transect is a function of an area's specific physical characteristics, from the most natural and undeveloped areas to the most intensely-developed areas. Each Transect Zone has a unique set of urban design qualities related to density, intensity and physical form, including building orientation and height, sidewalk configuration, and streetscape standards. Once a particular area's Transect is determined, the City is better equipped to make appropriate design recommendations for that area. Transect Zones should be used as a tool to add predictability and objectivity to the development process.

The Regulating Plan for the Riverfront Crossings District can be used to focus the most intense development on high ground within the study area, and to assign low-intensity or natural land uses to more low-lying and flood-prone parcels in the district. By clustering intensity on the high-ground area around existing and planned transit stops, the area will quickly become a walkable district.



Many community members and stakeholders were familiar with form-based coding and its potential advantages in Riverfront Crossings. Forty percent of the community members who responded to the exit questionnaire supported it as one of the top five ideas – on par with interest in Mixed-Use Zoning.

### **Seek a Range of Affordable Housing Types and Diverse Businesses in Riverfront Crossings**

Throughout the workshop in November, participants from all walks of life expressed a desire for the City to adopt policies which promote a range of housing and business types within Riverfront Crossings. There was concern that the district could become too student-oriented, with a lack of diversity that would discourage other groups from living or setting up new businesses in the area. Affordability was also a key issue, and the community wanted to ensure that new growth wouldn't mean pricing people out.

### **Encourage Small-Scale Sustainable Energy Production**

Small-scale energy production includes solar, wind, and geothermal systems that can be implemented on the scale of the individual parcel. It provides businesses and homeowners with an opportunity to meet a large portion of their energy needs through renewable energy sources while reducing reliance upon the main power grid. Solar panels and geothermal systems are appropriate for buildings and sites of all sizes while wind generation would be more effective on large buildings or sites. Small-scale energy production should be encouraged and could be incentivized through property tax breaks and city funding.



Seventy-five percent of closing presentation attendees were in favor of providing incentives for the use of renewable energy sources within the district. Thirty percent also ranked it as one of the five most exciting ideas presented.

### **Encourage Innovative Stormwater Management**

Integrating rainwater best management practices into new private development helps reduce or eliminate many of the problems associated with uncontrolled rainwater runoff. The creation of multi-purpose landscapes will help to reduce impacts on potable water supplies, increase the survival rate of landscape areas during extended droughts, provide important awareness to area residents, and establish a leadership position in environmental stewardship.

A series of small, integrated devices can be used to reduce concentrated runoff, collect water for use in landscaping, and cleanse stormwater prior to large accumulated discharge into Ralston Creek and the Iowa River. This helps to maintain regional environmental health while minimizing maintenance costs associated with uncontrolled erosion and sedimentation. By starting management techniques at the source, better control (and more environmentally compatible design) can occur at the end of the pipe. Hydrological continuity can be maintained more fully by increasing the effectiveness of pervious areas, reducing impervious areas through increased tree canopy along streets and the inclusion of landscape areas that support infiltration, and innovative engineering practices.

Many best management practices can perform double duty neatly fitting into civic spaces, and in fact, providing amenity resources for area residents. Application of rainwater best management practices appropriate to the urban condition in which they are located will assure that these

engineering solutions do not look out of place or character with the surrounding environment. Within the context of a Form-Based Code, individual features may be assigned to specific Transect Zones, thus integrating stormwater management techniques directly with intended development patterns and street design. The site's natural environmental conditions should also inform the site-specific design. By providing a connected network of rainwater management elements, a multitude of purposes (landscape design, recreation space, place-making) can be served while providing benefit to the drainage network. Providing water management elements as visible landscape features also helps to make connections between the natural and the built environments. Additional benefit to area residents can be gained by including rainwater management practices that harvest rainwater for irrigation or other non-potable water uses.

Examples of features which should be encouraged within a holistic stormwater management approach include:

- Rain Barrels
- Cisterns and Underground Water Storage Vaults
- Pervious Paving Surfaces
- Rain Gardens
- Rainwater Planters
- Recessed Greens
- Roof Gardens
- Bioretention Basins
- Exfiltration Trenches
- Cleansing Bio-topes



Over eighty-four percent of participants at the closing presentation agreed that innovative stormwater management techniques, like the ones described above, should be used and encouraged in Riverfront Crossings.

### **Create a Network of Green Streets in Riverfront Crossings**

Green Streets provide rainwater quality treatment and quantity control. Streetside rainwater catchment devices such as rainwater planters provide a location to collect, cleanse and infiltrate concentrated rainwater at its source. This greatly aides in managing total impacts associated with concentrated rainwater, and helps to avoid stormwater overflows.

Rainwater planters along Green Streets work by intercepting rainwater before it has a chance to accumulate in larger concentrated flows. This water is generally still in the form of diffuse sheetflow across a paved area. Breaks in curbs between the sidewalk and street allow water to accumulate in small, controlled landscape depressions. Water can then collect to a managed depth and be stored for a period of time. Alternatively, planters may be designed in a series, and



successive planters can accept water from those above providing a treatment/collection train for accumulated water.

Planters can be designed for specific rainwater fall amounts, aiding in stormwater master planning and management from a regulatory perspective. These rainwater management elements can be designed for specific catchment areas, and be tailored for specific conditions. Plantings may vary, but should be water tolerant, and appropriate for the urban condition in which the planter is located. Like rain gardens, rainwater planters along Green Streets can become a cherished and effective part of a functional, yet aesthetic landscape. These planters, which occupy a small area, can provide a significant level of service.

When asked if Green Streets should be pursued in Riverfront Crossings, an overwhelming ninety-one percent of participants generally agreed. Overall, environmental considerations in improving the district were of very high importance to the community.



### Transformation to a Green Street



Before



After

### Improve Streetscapes within Riverfront Crossings & Plant More Trees

Through design, the city streets of Iowa City can become some of its best assets, facilitating a walkable environment, complementing the efforts of developers and entrepreneurs, and adding value to adjacent properties. General streetscape improvements can be done in conjunction with the development of a green streets network. Travel lanes can be narrowed to slow traffic, providing more space within the right-of-way for other improvements. Different types of on-street



parking can be introduced where not currently allowed. A palette of distinct transect-appropriate street sections and design elements could also be integrated directly within a form-based code. Design elements such as crosswalks, sidewalk widths, paving materials, street trees, street furniture and lighting fixtures would all be selected and adapted for the each unique street type, based on the functions it's intended to serve.

Among stakeholders and community members, there was a strong desire to examine streetscape design and slow traffic to make Riverfront Crossings more attractive and safe for pedestrians. Streets which were mentioned repeatedly in Stakeholder Meetings, and which also ranked highest for improvement among participants when polled at the closing presentation, included: 1) Burlington Street, 2) Gilbert Street, 3) Dubuque Street, and 4) Clinton Street. Burlington Street in particular is seen as a crucial corridor which currently feels like a barrier between Riverfront Crossings and Downtown.

Over seventy percent of closing presentation participants felt that the City should pursue a more vigorous tree planting program in the district, while less than five percent were against the idea.



Existing Conditions along South Gilbert Street (looking south from Kirkwood Avenue)



Potential Streetscape Improvements

## **Brand Riverfront Crossings as a “Green District”**

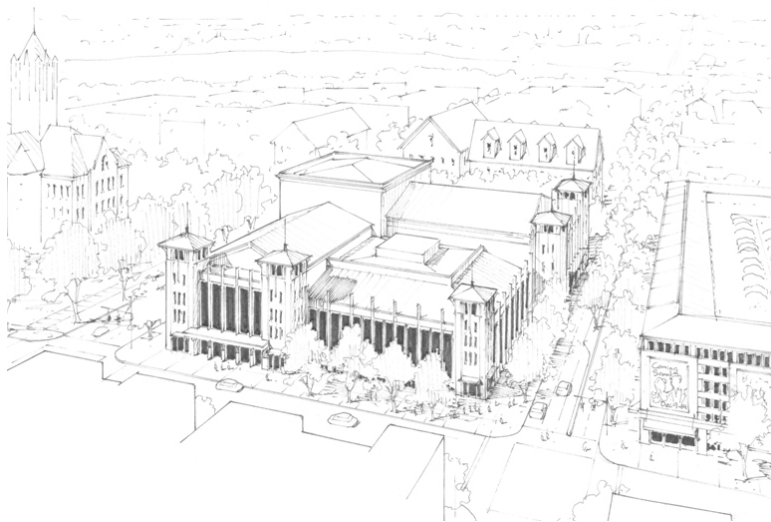
The desire to give the district a strong identity, and a pervasive interest in all things “green” observed during the workshop, lead to the idea of actually branding Riverfront Crossings as a “Green District”. The introduction of green streets, renewable small-scale energy production, walkable blocks, access to transit, and innovative stormwater management within the district all would conspire to substantiate the green designation. Grassroots work could dovetail with professional marketing assistance to identify branding strategies and determine the nature and extent of the campaign.

## **Establish an Updated, Design-Driven Vision for Riverfront Crossings**

Motivating public and private investment requires compelling, detailed visualization. When the built environment is discussed in very concrete, vivid ways, leaders can grasp the benefits of integrating the many components in new ways. Words and pictures—not just words—are necessary; a community’s “vision” must be made visual if it is to find consensus and fruition. A detailed, design-driven vision document, generated with intense public involvement, could be the tool that brings about the willingness to make hard but wise choices in future budgets, public and private, for long-term benefit of all.

The design-driven vision document tool helps unite policy choices and placemaking. To discuss parks, for example, it’s human nature to ask, what will the park look like, what will its character be? What special places could be restoration or conservation areas, where might we stroll, where will there be shade on hot days and sunlit areas on the first warm days of spring? Too often this level of visualization is put off until later, but it is needed early on. This level of vision is not easily found in the legal tools of day to day planning, but it can establish a mental picture around which citizens and investors can rally.

At the closing of the November Workshop, community members showed their interest in continuing the discussion of Riverfront Crossing’s future, by supporting the undertaking of a more detailed planning process and creating a new design-driven vision for the District. Polling results indicate that eighty-five percent of closing presentation participants were in favor.



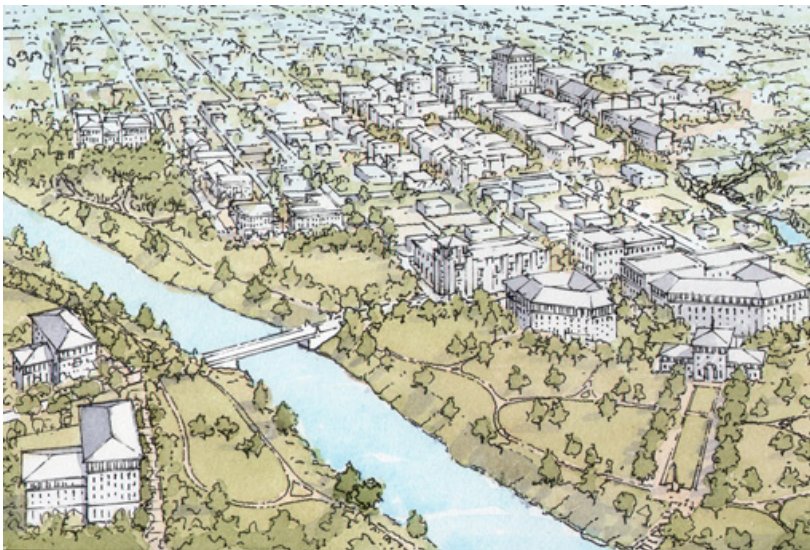
A schematic drawing for how the new Hancher Center, if located in Riverfront Crossings, could be integrated into the existing urban fabric. Drawings such as this one will help establish a long-term vision for new civic buildings within the district.

## **ADDITIONAL POLICY OPTIONS**

*These additional policy options were either not explored in great detail during the November Workshop, or were generally found to be of less interest to City staff and the community.*

### **Create a Program for the Transfer of Development Rights (TDR)**

One option to facilitate the transformation of flood-prone parcels to public green spaces is through the creation of a Transfer of Development Rights (TDR) Program. Parcels within the lower lying development rights “sending area” would be evaluated for their potential or current value based on zoning regulations. A development right “receiving area” would be established on the high ground where greater density is desired and where property owner would be able to purchase the rights to supplement future development projects. Over time this program will clear the floodplain and alleviate the impacts of future flood events on homes and businesses.



Development shifts away from flood-prone areas and toward strategic locations in Riverfront Crossings which sit on higher ground.

### **Implement an Urban Forestry and Carbon Offsetting Program**

Residents of cities with intact tree canopies can attest to the multiple benefits of tree-lined streets and public spaces. These reduce the regional problem of urban heat islands by lowering temperatures and preventing the heating up of pavement and roofs. Trees accomplish this not only by providing shade but also through evapotranspiration. When native trees are planted along streets, parks, and private lots, these also create valuable habitat for native fauna. Thus, even urban areas can become almost as species-rich and biodiverse as the natural environment that they have replaced. Trees also improve air quality, both by filtering particulate matter and by metabolizing and absorbing invisible pollutants.

As the nation and each community begins to tackle the enormous challenge of mitigating climate change, urban forests should be seen as a way to sequester carbon dioxide and other greenhouse gasses. Iowa City could become a leader in this effort through the creation of a citywide Carbon Offsetting Program. Local business and property owners would buy credits from the City, which would in turn directly fund the planting of new trees within the community.



How does the City carve out areas for new planting? There is already much “low hanging fruit” in the form of empty planting strips, swales, and other unplanted areas in the public rights-of-way which could receive saplings and appropriate ground cover. If one quantifies the number of easy-to-plant sites, it is easy to quantify the carbon sequestration potential of rights-of-way on a city-wide basis. Such efforts would enable the city to achieve global and national goals of greenhouse gas reduction while adding value and livability to the public realm at the local level.

## Draft and Adopt a set of Architectural Design Standards

Architectural Design Standards for the Riverfront Crossings District can be created and adopted in coordination with the Form-Based Code or as a standalone document. The goal of the Architectural Standards is to promote a coherent and pleasing architectural character that is complementary to the best local traditions and helps enhance a distinct sense of place. The standards govern a building's architectural elements regardless of its building form standards and set the parameters for allowable materials, configurations, and construction techniques. Equivalent or better products than those specified are always encouraged and may be submitted to the City for approval.

