



**“GreenLine” Vision and Approach
for the Chicago-Iowa City
High-Speed Intercity Passenger Rail Program**

“GreenLine” Vision and Approach

1. Introduction

In 2009, the states of Illinois and Iowa, in concert with their local partners, committed to implementing green and sustainable principles into the Chicago-Iowa City Intercity Passenger Rail Program (Program) and developed a vision statement (see Attachment A). This document expands that vision into an approach to implement green and sustainable principles into the Program, including commitments from both communities and host railroads, the BNSF Railway Company (BNSF) and Iowa Interstate Railroad, Ltd (IAIS). Illinois Department of Transportation (Illinois DOT) and Iowa Department of Transportation (Iowa DOT) have termed this concept the “GreenLine”.

There are multiple definitions of green and sustainable principles. Sustainability is the act of balancing the environmental, community, and economic needs of the built and natural environments for present and future generations. This document will focus on how the “GreenLine” will promote environmental stewardship, community enhancement, and economic growth.

Sustainability is inherent in the Program. Consistent with the Midwest Regional Rail Initiative (MWRRI), the Program connects Chicago’s Union Station with other major population centers in the Midwest, in this case, the Quad Cities (Moline, Illinois) and Iowa City, Iowa, using existing railroad right-of-way. These stations act as regional transportation hubs, that integrate commuter rail, light rail, bus rapid transit, bicycle and pedestrian trails as mobility options. The Program adopted an incremental development approach, pooling equipment and working with Amtrak as the service provider. This includes developing the corridors and service levels on a phased and incremental approach as the opportunities, ridership demands, and funding become available. Beyond the inherent sustainable qualities of the Program, the “GreenLine” concepts that will be incorporated into the Program are described in the following sections.

2. Environmental Stewardship

Environmental stewardship is the careful and responsible management of natural and cultural resources for the benefit of present and future generations. The “GreenLine” approach promotes environmental stewardship.

2.1 Minimize Effects of Climate Change

The “GreenLine” vision statement asserts that, “...both states will seek out opportunities to pilot new sustainable practices.” To that end, one opportunity identified is train equipment.

Section 305 of Public Law 110-432, the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) requires Amtrak to:

...establish a Next Generation Corridor Equipment Pool Committee, comprised of representatives of Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad operators.

In January, 2010, the Next Generation Corridor Equipment Pool Committee (NGEC) was formed, as mandated. The mission statement of this committee, as stated in the by-laws, is:

The purpose of the Committee shall be to design, develop specifications for, and procure standardized next-generation corridor equipment.

This committee understands that the success of the work of the Committee will lead to significant and sustainable job creation with the results being an improved economy, more efficient, reliable, safe, and environmentally sound national intercity passenger rail system as an integral part of the nation's vast transportation network.

In order to remain on the cutting edge of green technology and assist in the guidance of the development of efficient, cost-effective, and environmentally friendly rolling stock, Iowa and Illinois sit jointly on the Executive Board of this federally mandated committee. In addition, both states maintain positions on the Technical Sub-Committee-Core Team.

The host railroads, BNSF, IAIS, and Amtrak (also the service provider) have the option of using equipment and operations that could reduce greenhouse gas emissions. Equipment that could be considered includes:

- GenSet locomotives
- Fuel cell locomotives
- NextGen locomotives (hybrid/solar)
- Use of clean fuels (biofuels)
- Rail car seats with recycled materials
- Solar power use in rail cars

The Renewable Energy Group (REG) supports the use of biodiesel fuels on the "GreenLine" and offers their expertise towards permanent utilization in the locomotives. REG is the nation's leading biodiesel provider and are headquartered in Ames, Iowa. REG recently began testing biodiesel blends on the IAIS. Preliminary data suggest that 10 percent and 20 percent blends of soybean oil based biodiesel fuel with ultra low sulfur diesel reduced partial combustion products (particularly total hydrocarbons), reduced soot emissions, but increased NO_x emissions. No significant performance or maintenance issues were observed during the trials, suggesting that these biodiesel blends are viable substitutes for petroleum diesel. For more information on REG and their biodiesel testing, see Attachment B.

The host railroads could use sustainable practices in operations; these practices include:

- Reduction of engine idling
- Energy management

- Alternative energy supply
- Solar-powered switches
- Technology/communication enhancements
- Recycling of all waste
- Recycled water/washing facilities
- Use of soy or biobased lubricants
- Environmentally friendly cleaners and degreasers
- Oil/fuel recycling
- HAZMAT/caustic solvents management
- Sustainable vegetation control
- Use of recycled material dinnerware

University of Northern Iowa National Ag-Based Lubricants Center (NABL) supports the use of biobased lubricants in the construction and operation of the “GreenLine”. NABL has built one of the most comprehensive lubricants research and testing facilities, which is currently being leveraged to provide support for additional growth within this new industry. See the NABL letter of support in Attachment B.

New or rehabilitated rail stations will be needed at Geneseo and Moline, Illinois and Iowa City, Iowa. These cities are pursuing construction of buildings that are U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certified. LEED is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

The communities could implement the following at their stations, to meet LEED certification:

- Design and construction to LEED standards
- Utilities use “clean energy”
- Solar panels
- Wind turbines
- Green roof
- Permeable paving
- Solar lighting or controls
- Stormwater management
- Sustainable landscapes
- Water conservation
- Recycling of all waste
- Maximize indoor air quality
- Interior greenscape
- Environmentally friendly cleaners and degreasers

By implementing LEED certified buildings, the communities will benefit from reduced electricity costs, reduced heating/cooling costs, reduced water costs, reduced sewage costs, reduced waste disposal costs, and other reduced operational costs. The benefits to the environment are reduced greenhouse gas emissions, reduced air contaminant emissions, conservation of fresh water, improved health, improved productivity, improved resiliency, and improved safety.

2.2 Maximize Environmental Stewardship

Both the railroads and the communities of Geneseo, Moline and Iowa City will incorporate sustainable construction practices that maximize environmental stewardship.

The host railroads and communities could use the applicable sustainable construction practices, including:

- Life cycle cost analysis
- Environmental impact minimization
- Preservation of historic, scenic, and aesthetic resources
- Construction waste management plan
- Spills and clean up protocols
- Dust control
- Geotextile mats
- Use of recycled materials
- Sustainable materials selection
- Specification of locally-produced products to reduce transportation impacts
- Composite/concrete ties
- Low emission construction equipment

3. Community Enhancement

Communities can enhance the areas in which they live, work and play by incorporating sustainable practices. The “GreenLine” approach is committed to supporting community enhancement.

3.1 Compact Community Form

Built projects must be sensitive to the communities and the existing landscape to minimize visual impact and retain community cohesion. As discussed above, the station facilities can be designed as LEED-certified buildings and incorporate sustainable concepts such as permeable paving, solar-powered lighting and controls, stormwater management, and sustainable and native landscapes. However, the current proposed plan is to use existing stations at Geneseo and Iowa City, preserving these historic buildings.

3.2 Integrated Mobility Planning

Inherently, this Program connects high speed rail, intercity rail, commuter rail, light rail, bus rapid transit, pedestrian and bicycle trails, and even water taxi. The communities have the option of employing an integrated team (including civil engineers, urban design architects, landscape architects,

urban planners, and environmental staff) to design the station facilities and surrounding integrated mobility options. Public input could be collected during design charrettes. The ultimate goal is to create a zone that favors pedestrians and bicyclists; respects the neighborhood fabric; creates a walkable, lively mix of uses and activities near transit; and increases density closer to the station. The communities could choose to implement the following:

- Integrated team design process
- Public involvement, including design charrettes
- Flexible design and collaborative decision-making
- Transit-oriented development
- Urban planning for route selection
- Urban design and aesthetic enhancements
- Connection to public transit
- Connection to bicycle or pedestrian networks
- Connection to intercity bus “feeder” service
- Bicycle parking
- Solar-charging stations
- Hybrid or electric car charging stations
- “Zipcar” type service

3.3 High Performance Infrastructure

Implementing best management practices during site selection, streetscape, pavement, utilities, stormwater management, landscape, and construction practices provides the agency with high performance infrastructure. Benefits of implementing high performance infrastructure are urban heat island effect mitigation (avoidance of dark-colored, heat-absorptive pavements); improved air quality (planting urban trees, encouraging walking); improved water quality, hydrology, and aquatic ecosystem health (reduction, control and treatment of stormwater); enhanced ecological health and productivity (sustainable landscapes); reduced noise pollution (use of trees and berms); reduced waste (recycling of most waste); improved energy performance (energy efficient lights); reduced use of potable water (native landscape); improved public health, safety and quality of life (aesthetics and amenities). The “GreenLine” will implement high performance infrastructure where possible.

4. Economic Growth

Pursuing high economic growth objectives without considerations to the environment threatens sustainability. The relationship between economic growth and sustainability can be positive. The “GreenLine” approach could provide equitable access and economic health to the region.

4.1 Equitable Access

The aim of the “GreenLine” is to provide comprehensive, reliable, efficient and accessible services for all passengers. The “GreenLine” would make transportation accessible to persons with physical disabilities

or economic disadvantages, and making access to transportation equitable for persons of varying socioeconomic backgrounds.

4.2 Economic Health

Transit projects normally use public funds, and providing opportunities for disadvantaged and small businesses addresses the community (social) and economic aspects of sustainability. Consciously developed projects that support these businesses fall into this category. The communities and the railroads have the option to hire minority consultants and minority contractors.

5. Specific Community Commitments

5.1 City of Moline

The City of Moline has been actively working to create jobs, expand Moline's tax base, and return the vibrancy to Moline's downtown since 1989 through Renew Moline, Inc., an award-winning, non-profit economic development organization. One of Renew Moline's keystone projects is the Moline Centre Plan, including the Amtrak station, a transit oriented development. (See <http://www.renewmoline.com/plan.shtml>). The City of Moline proposes housing the Amtrak station in an existing industrial building in the existing Centre Station, a terminal for the Rock Island County Metropolitan Mass Transit District (MetroLINK) metropolitan bus service and Channel Cat Water Taxi. Centre Station was strategically placed for future development as a passenger rail hub. The City plans to purchase an existing building immediately adjacent to the track, the O'Rourke building, and adapt it as a mixed-use development, with the ground floor renovated as the station. The City provided schematics and plans for the proposed station. These are included in Attachment A. In addition, the City provided a checklist of those concepts that they are committed to or that are potential for including in the station (see Attachment C).

The Amtrak station would be located within the Green Enterprise Zone (GEZ) in Moline, an innovative concept focused on achieving energy efficiency and deploying advanced renewable energy systems in an area targeted for sustainable economic development. Through partnerships between local government, non-profits, academic institutions, and the private sector, the GEZ is a model for how to link energy innovation to economic development and provide companies with opportunities to differentiate themselves by locating in a setting powered by on-site green energy systems. See Attachment C for more information on the GEZ.

The City of Moline provided a station cost estimate for consideration of inclusion in the application included a line item for "renewable energy and energy efficiency improvements." It is anticipated that the funding could support the following:

- Enhanced LEED commissioning (a significant cost for a project of this scope)
- Enhanced refrigerant management
- Integration of lighting and thermal comfort system controls

- Installation of 91 kW photovoltaic system to off-set 13% of building energy consumption (in conjunction with private grant from Illinois Clean Energy Community Foundation).
- Upgrades in building systems to optimize energy performance (targeting 40% for new construction/36% for O'Rourke renovation as a goal, though realistic to achieve 30% for new construction/26% for O'Rourke renovation)
- Showers and changing rooms to encourage bike usage

The specific renewable energy and energy efficiency elements will need to be refined as the project progresses and would be analyzed during the Tier 2 Project Level NEPA. The City of Moline is actively pursuing funding under the ICECF Renewable Energy Program and expects the station to achieve at a minimum LEED silver certification with the potential gold certification.

5.2 City of Iowa City

The City of Iowa City is planning a smart growth approach for the Riverfront Crossings District. The City envisions transforming Riverfront Crossings District into a walkable, transit-friendly neighborhood that features a mix of housing, storefront retail and office space, entertainment and recreational facilities, and public open space and trails. The Riverfront Crossings area is currently the focus of significant community interest, not only because of its close proximity to downtown Iowa City and the University of Iowa campus, but also because of the potential introduction of Amtrak passenger rail service linking Iowa City and Chicago; possible future light rail service from the area through the heart of the University of Iowa campus and downtown Iowa City to Coralville, and eventually North Liberty and Cedar Rapids; discussions about relocating the Hancher / Voxman / Clapp performing arts facilities to this area; as well as a desire to reclaim the riverfront in response to recent flooding.

The Riverfront Crossings District includes the reuse of the existing station building. Iowa City commits to incorporating the following sustainable concepts into the station:

- Design and construction to LEED standards
- Transit-oriented development
- Connection to public transit
- Stormwater management
- Water conservation
- Sustainable landscapes
- Sustainable construction practices and specifications
- Waste recycling
- Integrated team design process
- Minority consultants/contractors

See the checklist in Attachment D for a listing of commitments and the potential for green concepts.

The anticipated reuse of the old Train Depot as an Amtrak Train Station means that the area around Wright Street is a prime location for infill development and redevelopment of existing sites. Wright Street itself has the potential to become a busy mixed-use node of shops, restaurants, and pubs, which

would serve as the “gateway” to Iowa City for those arriving by train. See Attachment D for the Riverfront Crossings District information.

5.3 Funding

The communities will enter into an Agreement in Principle (AIP) with Iowa and Illinois DOTs regarding the funding of the station construction and redevelopment. The Program Application cost estimates include redevelopment estimates (station building acquisition, platform construction, and temporary shelter construction). The communities will be asked for a 20 percent match. The costs for incorporation of the sustainable concepts would be developed during preliminary engineering and final design during Tier 2 Project Level analysis. Moline and Iowa City are experienced with construction to LEED standards and have committed to fund sustainable concepts determined during future design.

6. Letters of Support

The “GreenLine” Approach is supported not only by biofuels and biolubricant researchers, as described above, but also by the Governor of Iowa and the IAIS. See Attachment E for the letters of support.

6.1 Governor of Iowa

Governor Chester J. Culver supports the Program and its “GreenLine” approach. In his letter, Governor Culver writes:

Both states are further committed and actively working to implement service on this corridor that expands the green and sustainable principles inherent in passenger rail transportation and strongly advocated by [Secretary Ray LaHood] and the Administration. We have developed a vision to proactively seek innovative and sustainable solutions to our transportation needs. As such, we are seeking opportunities to pilot new, sustainable practices such as testing new equipment that can use bio-fuels, supporting smart growth practices, and using recycled materials on construction projects.

6.2 IAIS

Mr. Dennis Miller, President and CEO of IAIS, is supportive of the “GreenLine approach”. He writes,

We are also a proponent of creating the “GreenLine” concept because we, at Iowa Interstate Railroad, have been doing “Green” things for a long time. Our assistance in conjunction with the University of Northern Iowa’s development of soy based grease products for rail, building a locomotive slug unit, testing bio-diesel fuel, and purchasing fuel efficient high horsepower units are just a few of the items we have been involved in [over] the past several years. There are numerous items a passenger rail train could incorporate to further improve the environment and maintain the green status.

Attachment A

“GreenLine” Vision



Vision

The states of Illinois and Iowa are committed to implementing passenger rail service between Iowa City and Chicago that expands the green and sustainable principles inherent in passenger rail transportation by adding the Chicago-Quad Cities-Iowa City corridor to the national network.

Studies have shown that, on a passenger-mile basis, passenger rail service requires approximately 19 percent less energy than air travel and approximately 25 percent less energy than passenger car travel. The average intercity passenger train also produces 60 percent fewer CO₂ emissions per passenger-mile than the average passenger car and half the greenhouse gas emissions of an airplane. These statistics alone are enough to demonstrate the environmental benefits of passenger rail; however, Illinois and Iowa intend to expand those benefits by utilizing green and sustainable practices in all aspects associated with this “GreenLine” passenger rail service between Iowa City and Chicago.

Iowa and Illinois envision “GreenLine” actions that involve train equipment, operations, construction, stations, and the rail lines themselves. Examples of potential actions include:

Train Equipment:

- **Locomotives**
 - Our intent is to procure locomotives that will run on a minimum blend of 20 percent bio-diesel (B-20). This fuel should reduce particulate matter and greenhouse gas emissions. As documented in the attached letter, the Renewable Energy Group has committed to providing some infrastructure to support this effort and a desire to partner with us.
 - Our intent is to also seek opportunities to work with manufacturers to utilize or test highly fuel efficient locomotives (i.e. Genset) and/or hybrid powered locomotives.

- As documented in the attached letter, we are partnering with the National Ag-Based Lubricants Center (NABL) at the University of Northern Iowa to identify appropriate substitution of bio-lubricants for petroleum based lubricants on locomotives and rolling stock.
- Rail cars
 - In a manner that is compatible with Midwest passenger rail equipment fleets, we will develop specifications that will push manufacturers to identify opportunities to utilize recycled material in car construction, provides for maximum energy efficiency and other areas of green practices.

Operations:

- Food service utilizing locally grown food products
- Plates, cups, utensils manufactured with recycled material
- Recycling of all waste
- Use of soy lubricants on rail line

Construction (rail line and stations):

- Recycling of historic station buildings as is planned for Iowa City and Geneseo.
- Use of recycled materials (e.g. rubber, fly-ash). Many ties will be replaced as part of this project and we intend to work with the host railroads to identify opportunities to utilize ties made with recycled materials as appropriate.
- In order to reduce emissions from construction equipment used on the rail line and stations, our intent is to require the use of very-low sulfur diesel in the construction equipment as appropriate and practicable. This practice has been utilized successfully by the Illinois Department of Transportation in the reconstruction of the Dan Ryan Expressway in Chicago.

Stations

- Design and rehabilitation/construction to LEED platinum design standards
- Built in city centers with context sensitive design principles
- Implement transit-oriented development actions surrounding stations. Iowa City has committed (see attached letter) to developing the area surrounding the station using these principles and is receiving assistance from EPA's Smart Growth Implementation Assistance Program.
- Connected to public transit, bicycle and pedestrian networks
- Connected to intercity bus "feeder" service
- Parking for bicycles
- Solar charging stations/plug-ins for hybrid/electric vehicles
- "Zipcar" type service
- Powered with "clean energy" (involve utilities)
- Develop Internet based and related tools to build "a community" of riders, communities and other stakeholders to maximize ridership.

Transformational Program Tools

- **Use of methodologies that analyze and develop the rail service within the framework of sustainability.**
- **Use “sustainable return-on-investment” practices to monetize non-financial elements and to allow for open and transparent accounting.**

Both states are committed to utilizing new and existing initiatives and programs to support this effort. In addition, both states will seek out opportunities to pilot new sustainable practices in this effort whether that involves testing new equipment that can utilize biofuel, supporting neighborhood smart growth practices, or any other activity. This effort will involve extensive partnerships with local communities, Iowa Interstate, BNSF, Amtrak, equipment manufacturers, community groups, and many others. Long-term goals for this initiative include operation of the line with zero fossil fuels, with zero waste and with zero net carbon footprint.

Attachment B

REG Letter of Support and Biodiesel Testing

NABL Letter of Support



Biodiesel locomotive test leads railroad industry

Iowa Interstate Railroad and Renewable Energy Group® partner to demonstrate B10 and B20 use in Iowa rail line locomotive

(AMES, Iowa) Sept. 15—The Iowa Interstate Railroad Ltd. (IAIS) based in Cedar Rapids, Iowa recently announced it has begun testing B10 and B20 biodiesel blends. Biodiesel is supplied by Renewable Energy Group (REG), a nationwide biodiesel producer and marketer.

As part of the study, REG, IAIS and Kansas University are measuring wear and tear on movable engine parts, horsepower ratings, and emissions.

“We hope this biodiesel blend demonstration will serve as the tipping point for the rail industry’s use of renewable fuels. We expect to find reduced diesel particulate matter and carbon emissions as well as improved lubricity with the use of biodiesel,” explained REG’s vice president of customer and service technical, Myron Danzer. “We appreciate Iowa Interstate’s industry leadership and look forward to continuing to help reduce our nation’s dependence on foreign oil in partnerships like this one.”

In June 2009, IAIS began using a B10 blend in the Council Bluffs Yard. The blend level was increased to B20 beginning in September. In December, the locomotive will switch back to straight diesel fuel to complete the comparative analysis. After every fuel change, an engine analysis is done.

“This partnership is fitting as IAIS serves several of the biodiesel plants in the REG network by transporting large volumes of our REG-9000™ biodiesel nationwide. For IAIS to burn the biodiesel they haul is a prime example of “going green,” Danzer added.

IAIS President & CEO Dennis H. Miller added, “Our company has been looking at biodiesel as an alternative to diesel fuel for some time. This could open the door for over 600 other railroads to have another source of fuel to use in their locomotives that burns cleaner and is environmentally friendly. It is also another value added market to Iowa farmers and the Ag industry by providing another use for their products.”

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For more information, please contact Renewable Energy Group’s Alicia Clancy at (o) 515-239-8118; (m) 515-450-9692 or alicia.clancy@regfuel.com

Iowa Interstate Railroad Ltd.: Dennis H. Miller, President & CEO, at (319) 298 5422 or DHMiller@IAISRR.com

About Renewable Energy Group®

Renewable Energy Group® (REG®) is a leader in the biodiesel industry by offering a complete biodiesel solution. Committed to redefining quality, Renewable Energy Group markets REG-9000™ biodiesel, which exceeds ASTM quality specifications, through existing nationwide diesel infrastructure, including more than 20 terminal locations.



August 4, 2010

Governors Culver and Quinn,

I am writing this letter in support of the Green Line program which aims to implement passenger rail service between Iowa City and Chicago that expands the green and sustainable principles inherent in passenger rail transportation.

This sustainable and progressive program utilizes green aspects of passenger travel between your states from locally grown food served on board to an in-depth recycling and reuse program to biodiesel-powered locomotives.

Renewable Energy Group (REG) is the nation's leading biodiesel producer and marketer having sold approximately 28 percent of all biodiesel consumed in the U.S. in 2009. The biodiesel we produce helps to reduce carbon emissions by more than 78 percent, supports Midwestern agriculture, helps reduce our nation's dependency on foreign oil and supports more than 200 green collar jobs in Iowa and Illinois.

Our operations are headquartered in Ames, Iowa with one of our network biodiesel refineries located in Danville, Illinois; Seneca, Illinois and another located just west of Iowa City in Newton, Iowa. REG also markets biodiesel from the Kinder Morgan terminal in Chicago. We have strong biodiesel blend partnerships with petroleum distributors in both Iowa and Illinois.

REG has pledged our support for this program in our enthusiasm for sustainable rail travel as well as human capital, physical resources and biodiesel fuel. Renewable Energy Group looks to provide the Green Line with the following:

- Use of our 10,000 gallon fuel tank to help the Iowa City rail yard provide a B20 biodiesel blend until permanent infrastructure is put in place.
- Technical expertise to help ensure the successful testing and permanent utilization of biodiesel blends in the locomotive along the Green Line.
- Consistent, competitively priced supply sources for high quality biodiesel made in Iowa and Illinois by our local green collar workers at BQ-9000 Producer plants which follow strict quality production guidelines.
- Assistance in facilitating partnerships between the biodiesel industry and current Green Line advocates.

If you have questions about our support or our business, please contact Alicia Clancy at alicia.clancy@regfuel.com or at 515-239-8118. We urge your strong and swift support of this program in order to help advance the use of biofuels in the rail industry, to offer a sustainable mode of transportation and to continue your states' economic support of the renewable fuels industry.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Stroburg".

Jeff Stroburg
CEO and Chairman

REG-9000 biodiesel is marketed through large petroleum companies and fuel distributors, and is utilized by on-highway fleets, municipalities, and power generator, mining, military, home heating and agriculture applications.

REG-9000 biodiesel is produced by REG network production facilities consisting of state-of-the-art, proprietary multiple-feedstock technology. Renewable Energy Group offers procurement and risk management, production operations, and technology services in addition to alternative feedstock research and commercialization.

To learn more about Renewable Energy Group, Inc. please visit www.regfuel.com

About Iowa Interstate Railroad Ltd.

Founded in 1984, IAIS is a regional rail carrier operating over 600 miles between Omaha, Nebraska, and Chicago, Illinois, with connections to all major Class 1 carriers. Its headquarters are located in Cedar Rapids, Iowa

Performance and emissions testing of biodiesel blends as fuel for Green Line Rail operations

Objective

To validate and quantify equipment and operational performance and emissions characteristics of various biodiesel blends against conventional petro diesel fuels in a real world setting and conditions.

Description

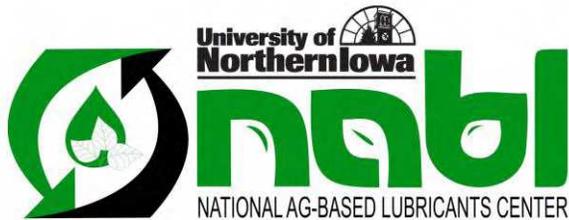
The project will provide measureable results that biodiesel fuels could be used as a fuel alternative by American railway operators. In the field testing over 6 months: two biodiesel blends (10% blend, and 20% blend) will be tested on a full-scale locomotive and performance and emissions levels evaluated using standard protocols analysis: the relative benefits of biodiesel compared to petro diesel will be compared and quantified. The time line performance and emissions measures will be at 2 month intervals. Two months at B0, 2 months at B10, and 2 months at B20.

Results

A comprehensive analysis and report of the findings will be made public and available for review.

Partners

- Biodiesel supply
 - Renewable Energy Group
- Locomotive
 - Iowa Interstate Railroad
- Underwritten locomotive engine warranty
 - FRA grant
- University partner to conduct research
 - University of Northern Iowa
 - Iowa Central Community College



UNI-NABL
360 Westfield Ave.
Tech 1 Level 3
Waterloo, Iowa 50701

Phone: 319-233-3812
www.uni-nabl.org

July 29, 2010

Governor Chet Culver
State Capitol
Des Moines, IA 50319

Governor Culver,

With nearly 20 years of experience as the national leader in biobased lubricants research, the University of Northern Iowa's National Ag-Based Lubricants (NABL) Center has served as a cornerstone of the biobased lubricants industry. NABL has built one of the most comprehensive lubricants research and testing facilities, which is currently being leveraged to provide support for additional growth within this new industry. Since NABL's inception in 1991, the Center has successfully developed and commercialized over 40 bio-lubricant products.

Biobased lubricants frequently bring to the table important environmental benefits, including increased biodegradability, decreased plant and water toxicity, and the fact that biobased products are manufactured from renewable, agriculturally-produced materials, such as soybean oil and other agricultural crop oils.

The NABL Center would like to encourage you to consider the use of biobased lubricants in the construction and operation of the proposed Green Line. Using these products would contribute to the environmental benefits inherent in well-managed rail transportation, on top of the lubrication performance benefits which may be realized.

Best regards,

Wes James
Assistant Director
National Ag-Based Lubricants Center
University of Northern Iowa

Attachment C

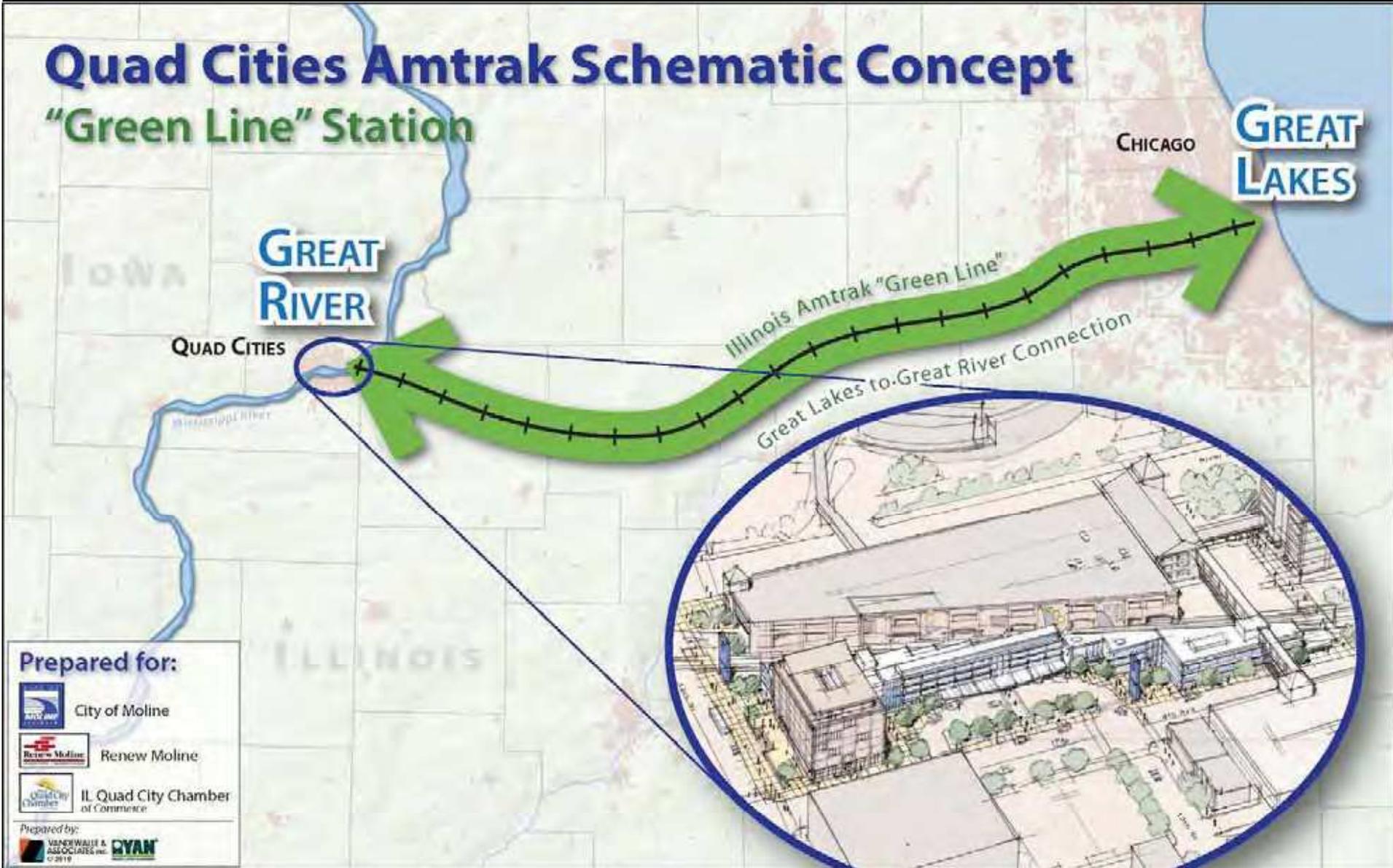
City of Moline Amtrak Station Plans

Green Enterprise Zone

“GreenLine” Checklist

Quad Cities Amtrak Schematic Concept

"Green Line" Station



Prepared for:



City of Moline



Renew Moline



IL Quad City Chamber of Commerce

Prepared by:



Urban Housing Infill and Adaptive Reuse 15

As in the Main Street District, a primary focus should be the rehabilitation and adaptive reuse of loft apartments. Increasing the housing density is not only key to reinvigorating 5th Avenue economics, but bringing rapid transit to the Quad Cities.

The Centre Station Redevelopment Zone is a key part of the West Gateway District. Residential development that is planned will be pedestrian to the transit center. This will increase the livability and density options for the entire West Gateway District.

12th Street Housing Zone

12th Street Improvements 13 8

The Master Plan calls for the reconfiguration of the entry into the downtown at 5th Avenue. The former bus transfer site is proposed for assisted living. The area around this site should be targeted for residential new construction infill. The intersection of 12th Street and 5th Avenue should be significantly enhanced with streetscape lighting and wayfinding signage extending to 14th Street. As much as possible, first floor retail/commercial should be encouraged with businesses that complement and serve the new residential neighborhood being created.



Existing Centre Station Area

Assisted Living Housing 10 12

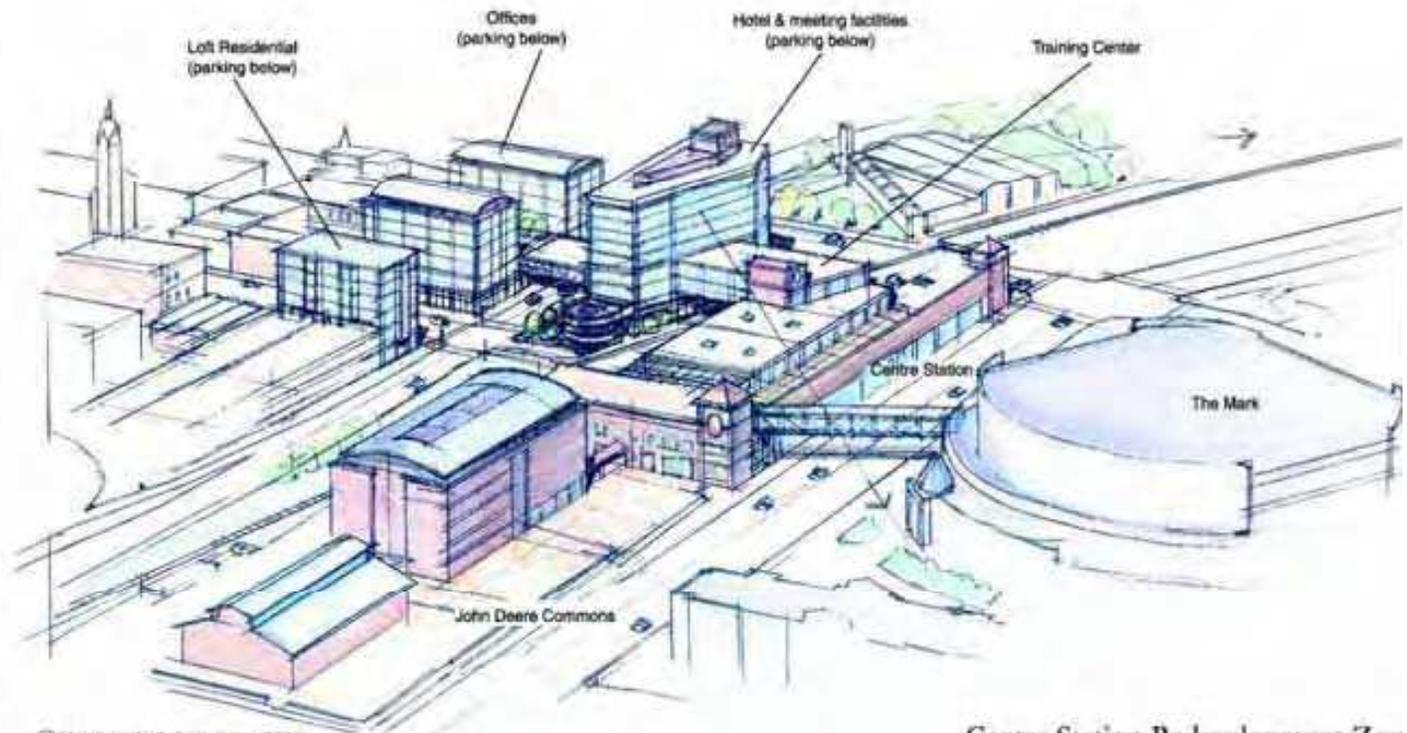
Assisted living is a long-term care alternative for seniors who need more assistance than is available in a retirement community, but who do not require the medical and nursing care provided in a nursing facility. Residents in assisted living housing are still active members of the community. Businesses along 5th Avenue and within the proposed Centre Station Redevelopment Zone will give residents access to restaurants, convenience stores, pharmacies, and retail shops within walking distance of their homes. Additionally, the nearness of Centre Station lends

mobility for residents with access to current bus service and, in the future, access to the regional rapid transit system.

Located at the triangular parcel formed by 4th Avenue, 12th Street, and 5th Avenue Place is MetroLINK's former bus transfer site. A developer that specializes in assisted living housing should be recruited to this site. To make this a more appealing redevelopment site, the leg of 5th Avenue that currently connects 5th Avenue to 4th Avenue should be vacated.

Market Rate Housing & Mixed-Use Development

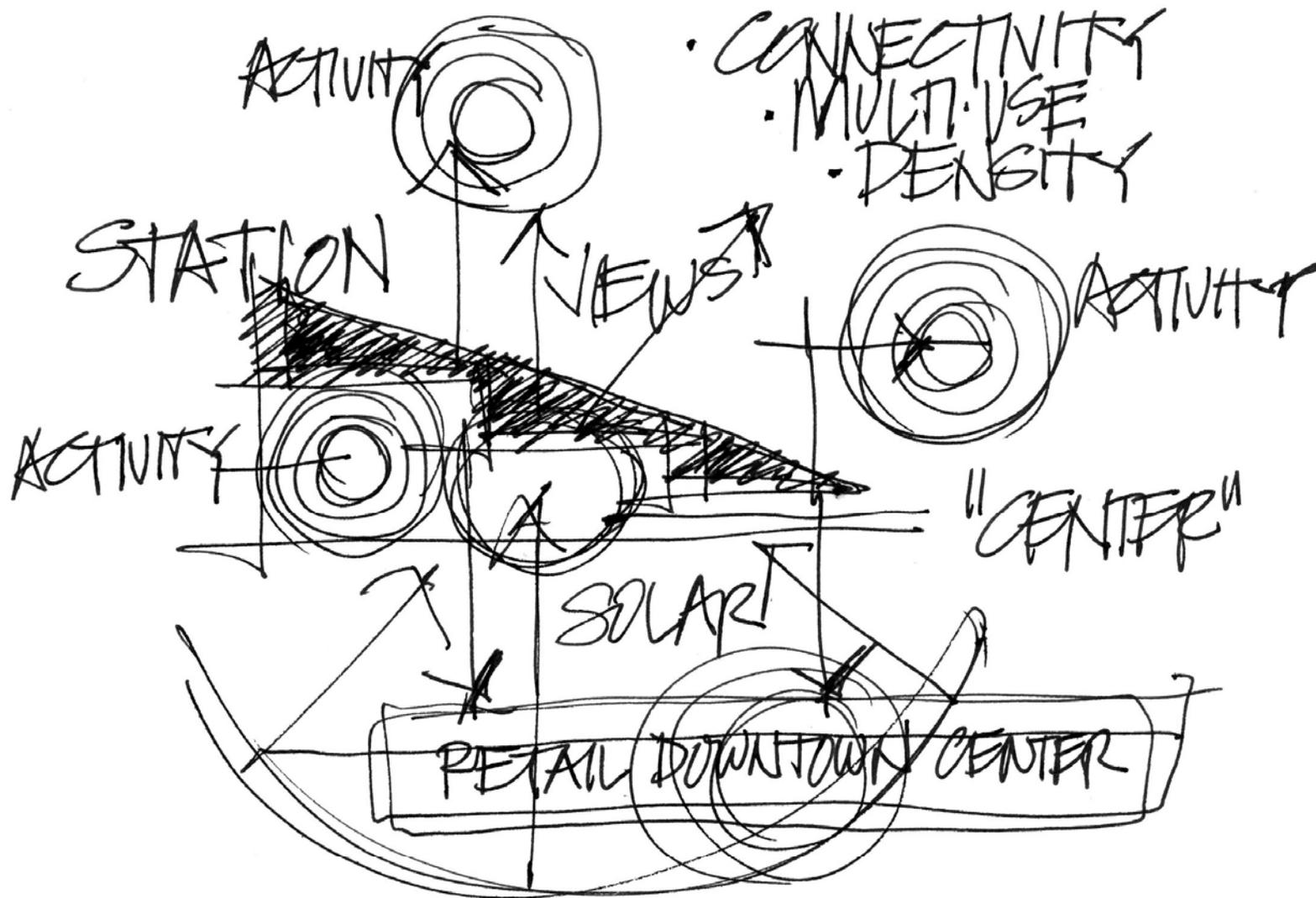
A diversity of housing opportunities needs to be provided to take advantage of different housing markets. With the senior assisted living project, there should be market opportunities for senior housing in adjacent blocks. This type of housing should be geared to seniors who can afford independent living in an urban neighborhood. This would be an example of market-rate housing mixed with subsidized housing within the same neighborhood. The same concept of meeting mixed markets applies to loft conversion projects and other sites rec-

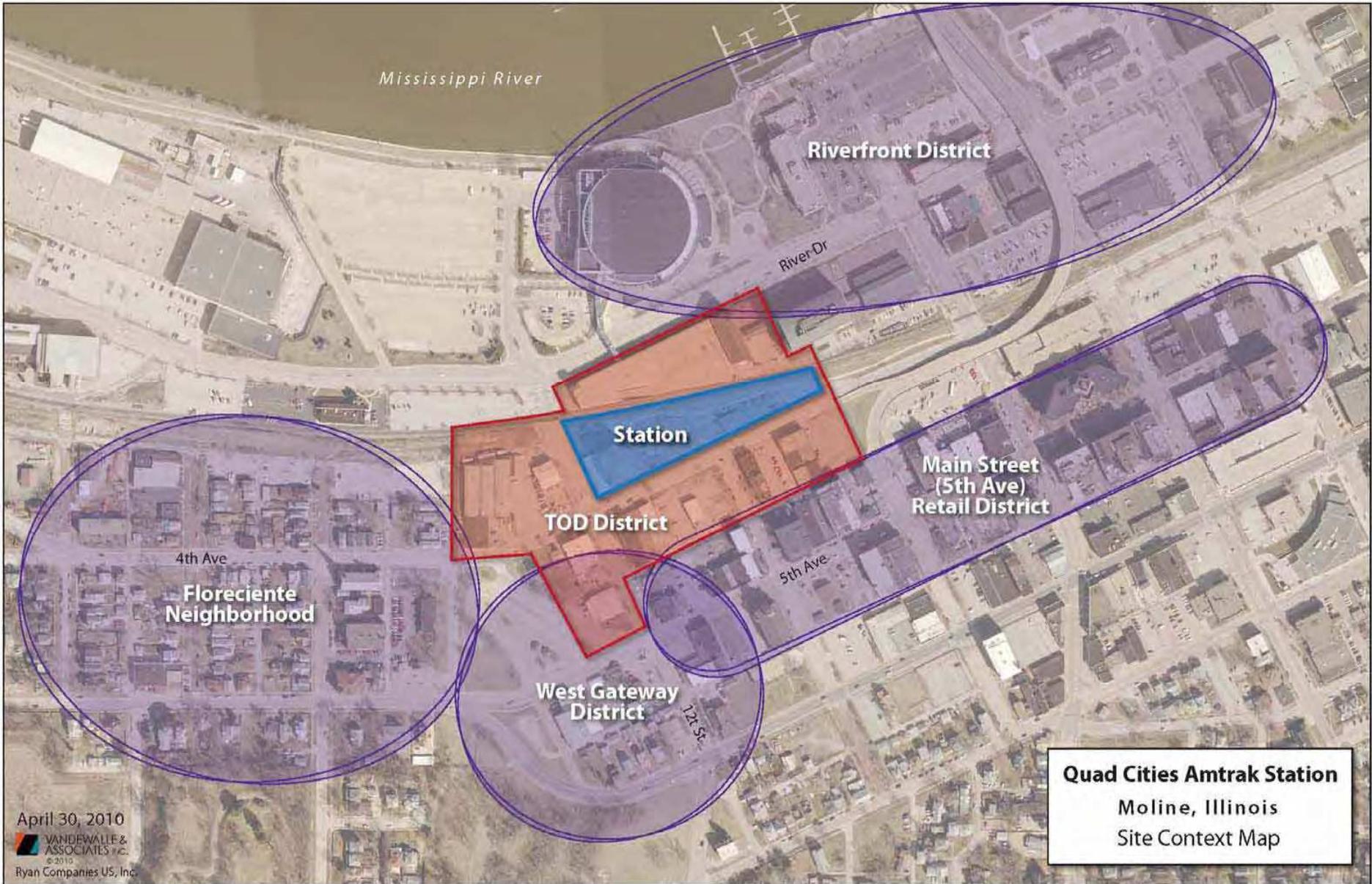


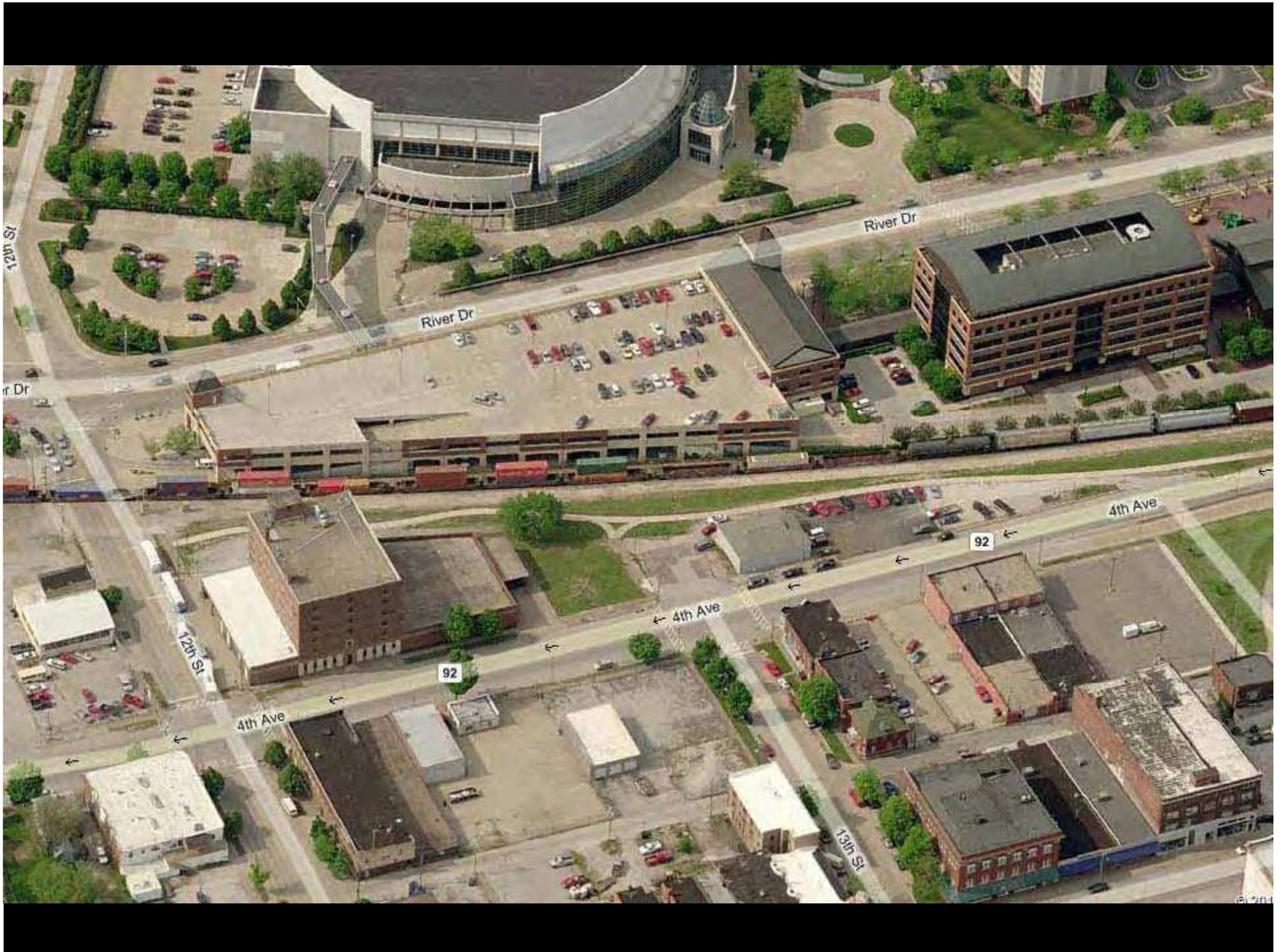
Centre Station Redevelopment Zone

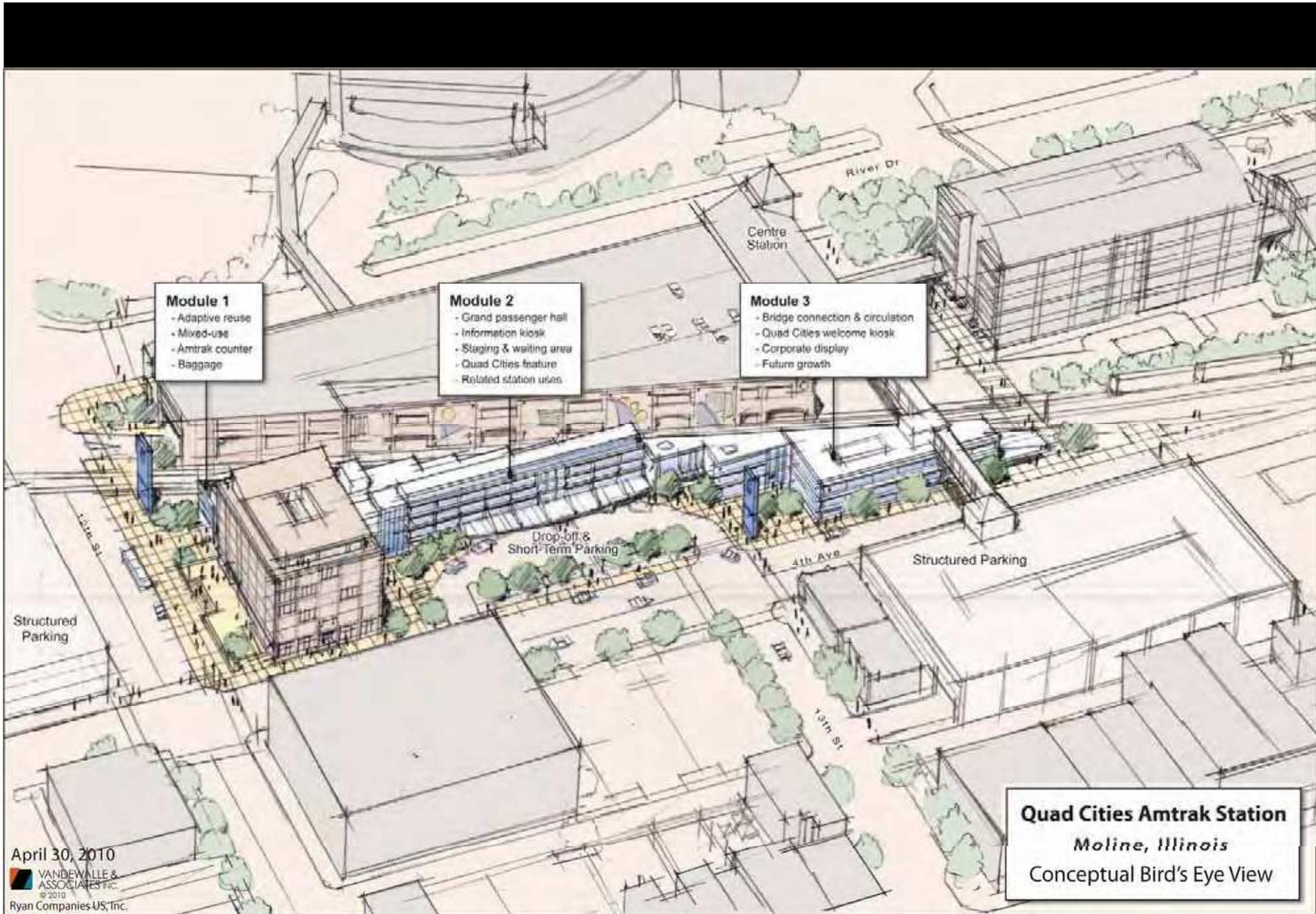




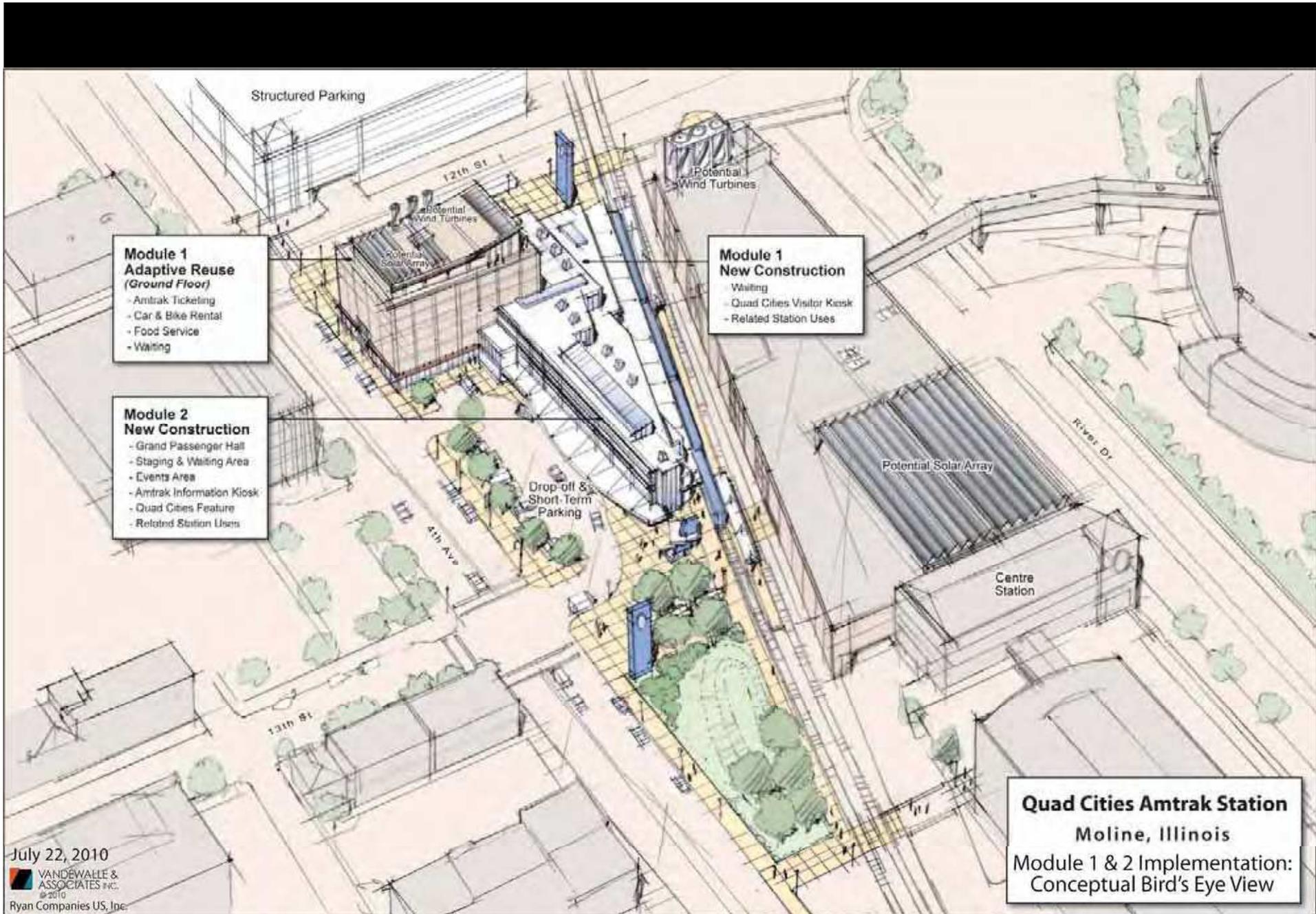










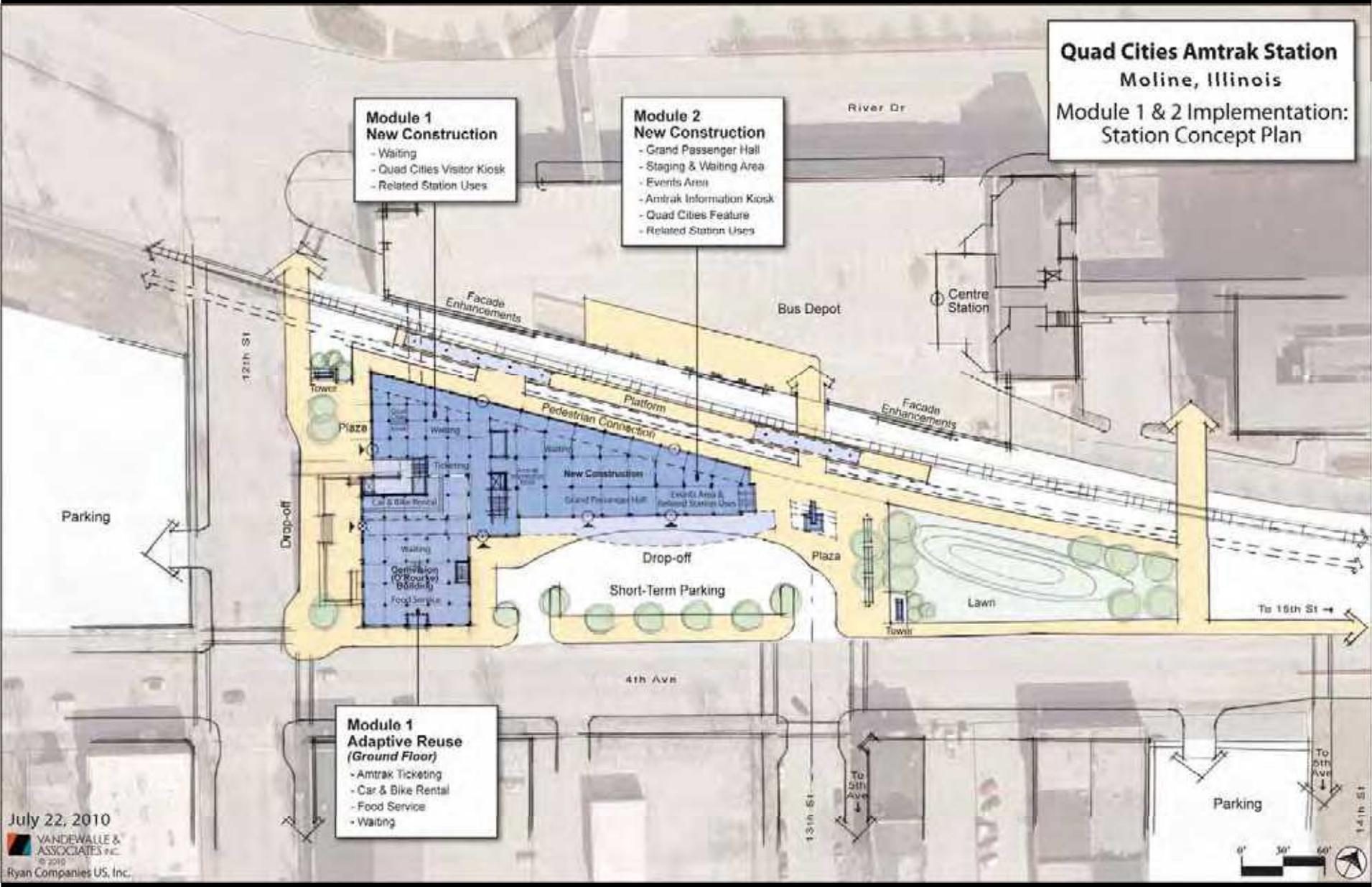


**Quad Cities Amtrak Station
Moline, Illinois
Module 1 & 2 Implementation:
Station Concept Plan**

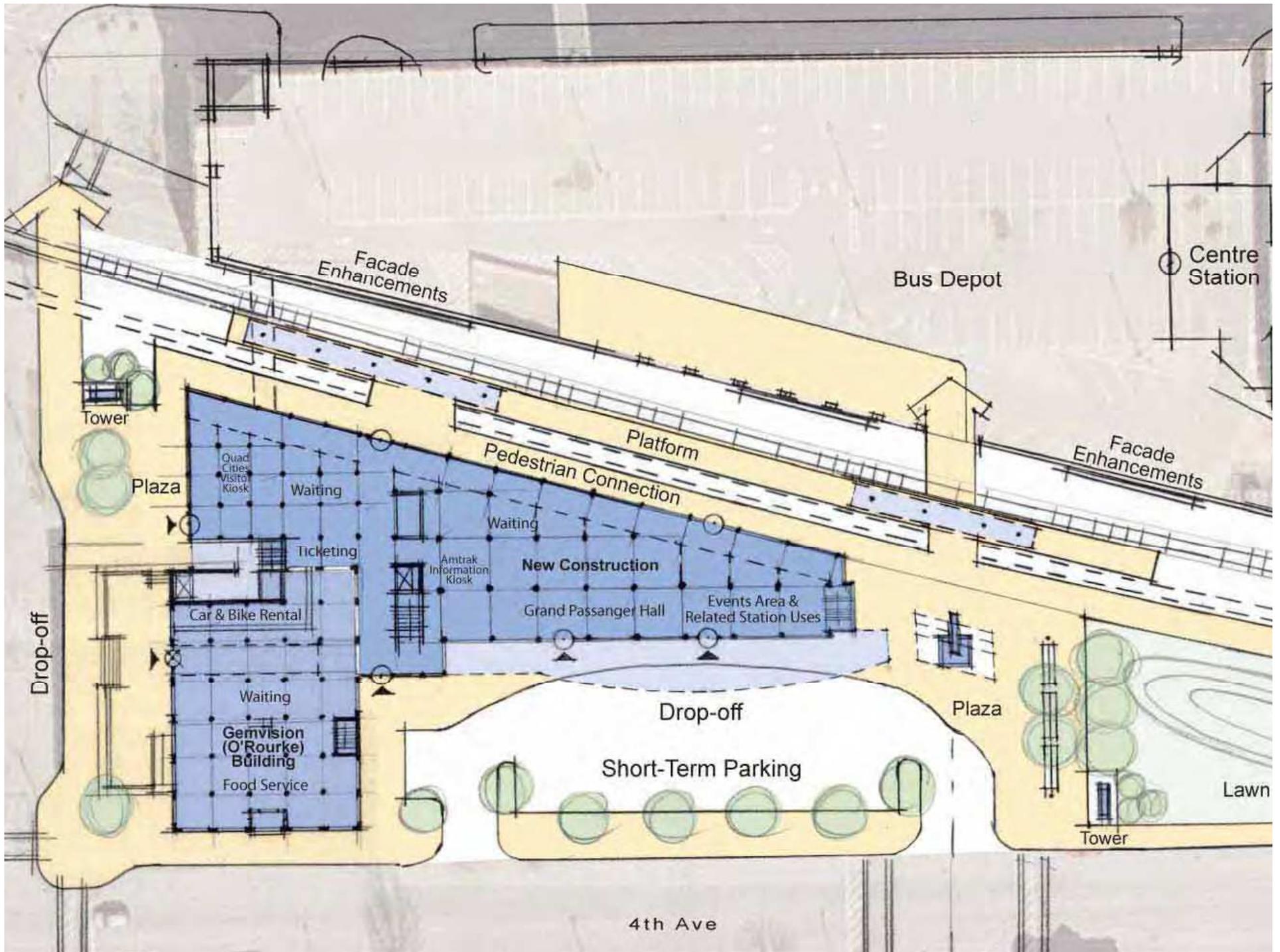
- Module 1
New Construction**
- Waiting
 - Quad Cities Visitor Kiosk
 - Related Station Uses

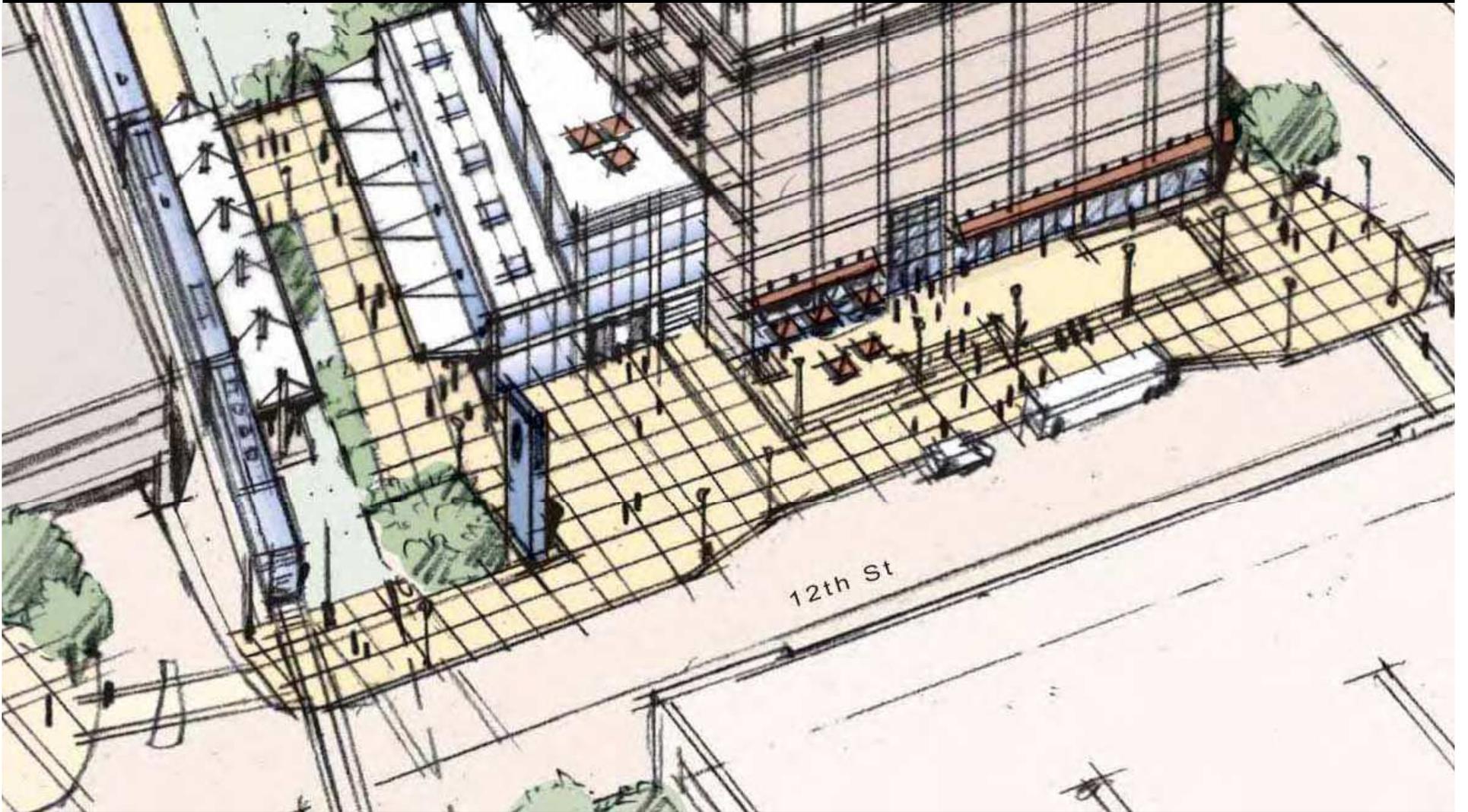
- Module 2
New Construction**
- Grand Passenger Hall
 - Staging & Waiting Area
 - Events Area
 - Amtrak Information Kiosk
 - Quad Cities Feature
 - Related Station Uses

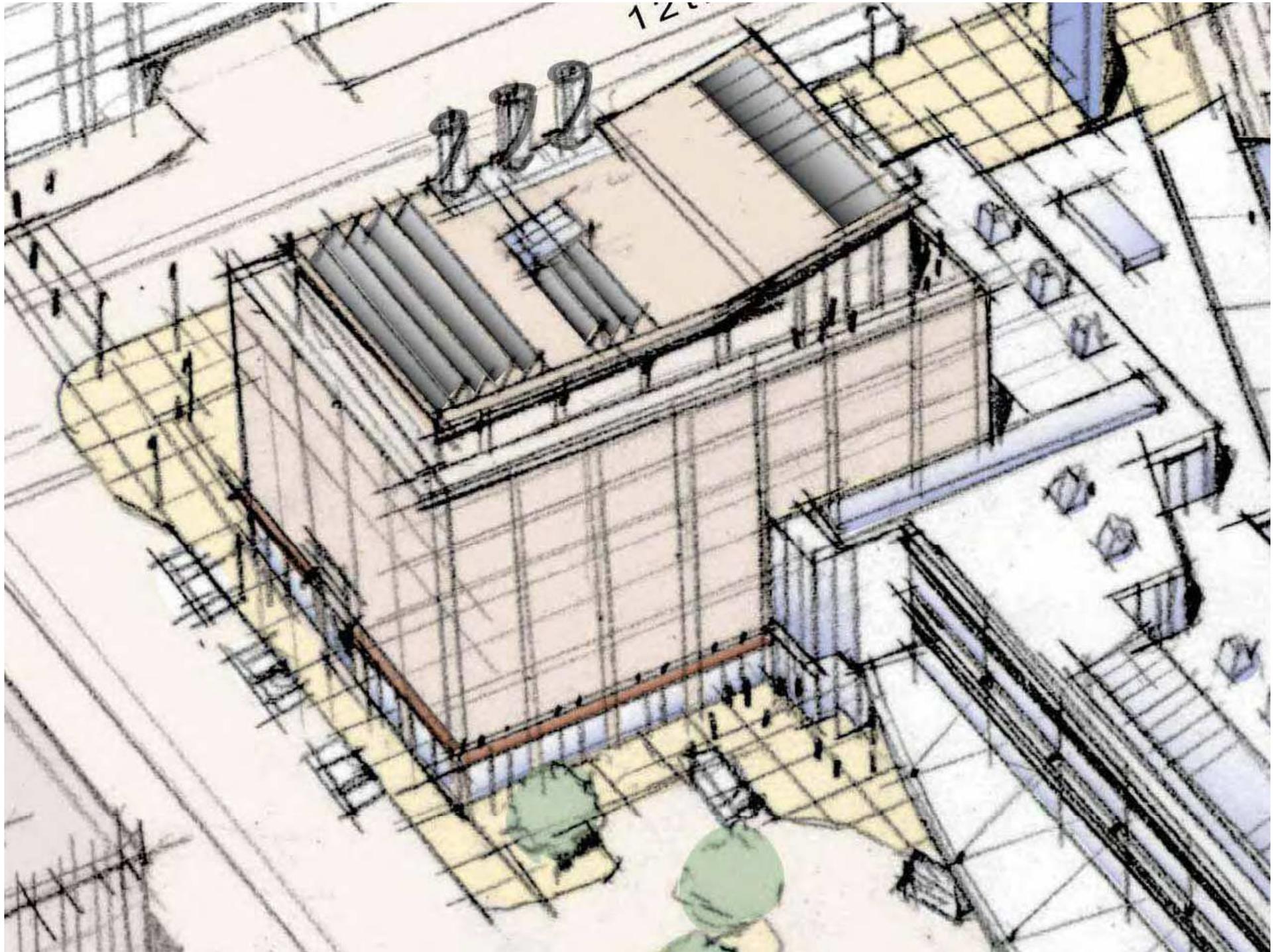
- Module 1
Adaptive Reuse
(Ground Floor)**
- Amtrak Ticketing
 - Car & Bike Rental
 - Food Service
 - Waiting



July 22, 2010
VANDEWALLE & ASSOCIATES INC.
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Ryan Companies US, Inc.

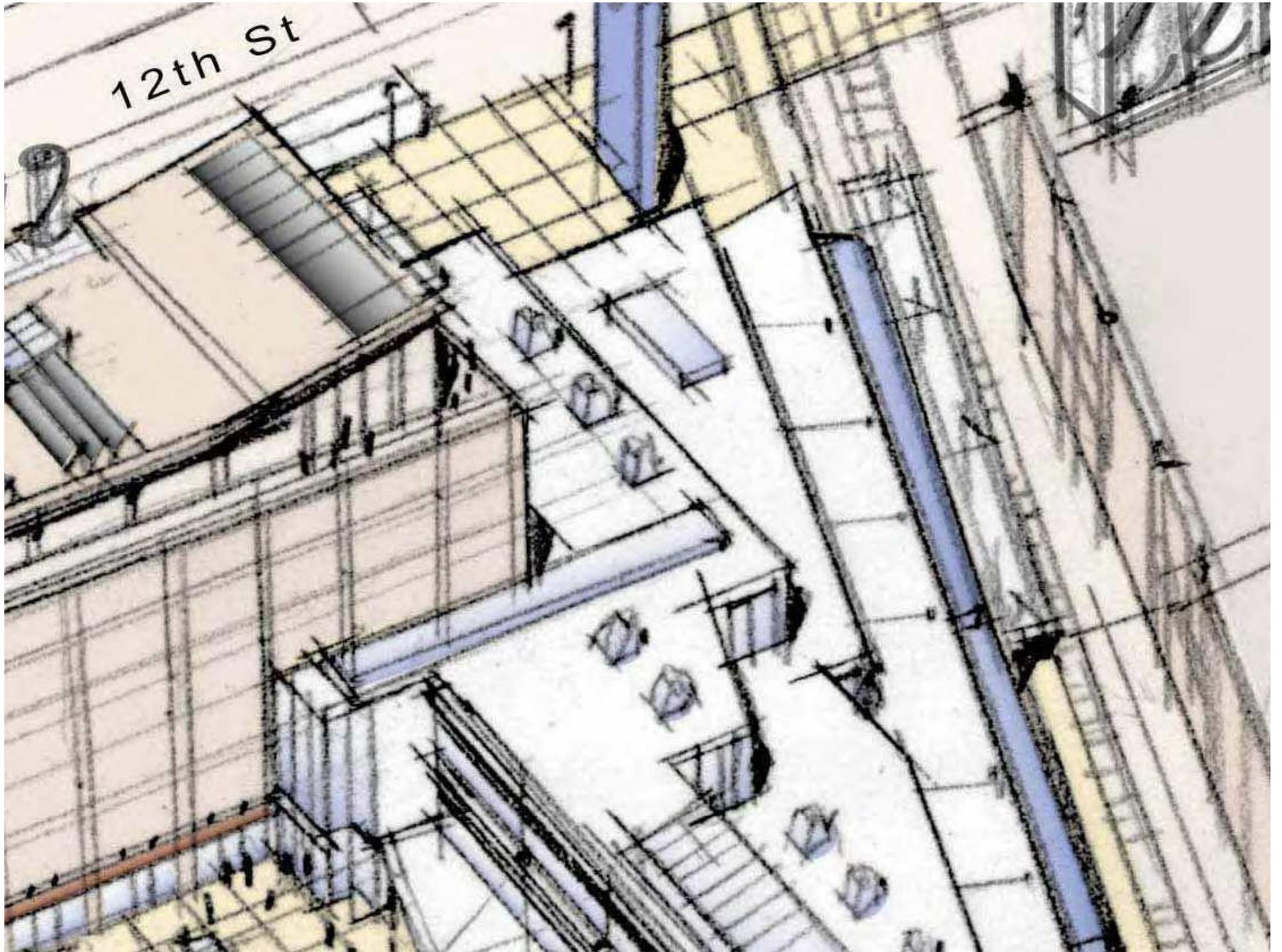




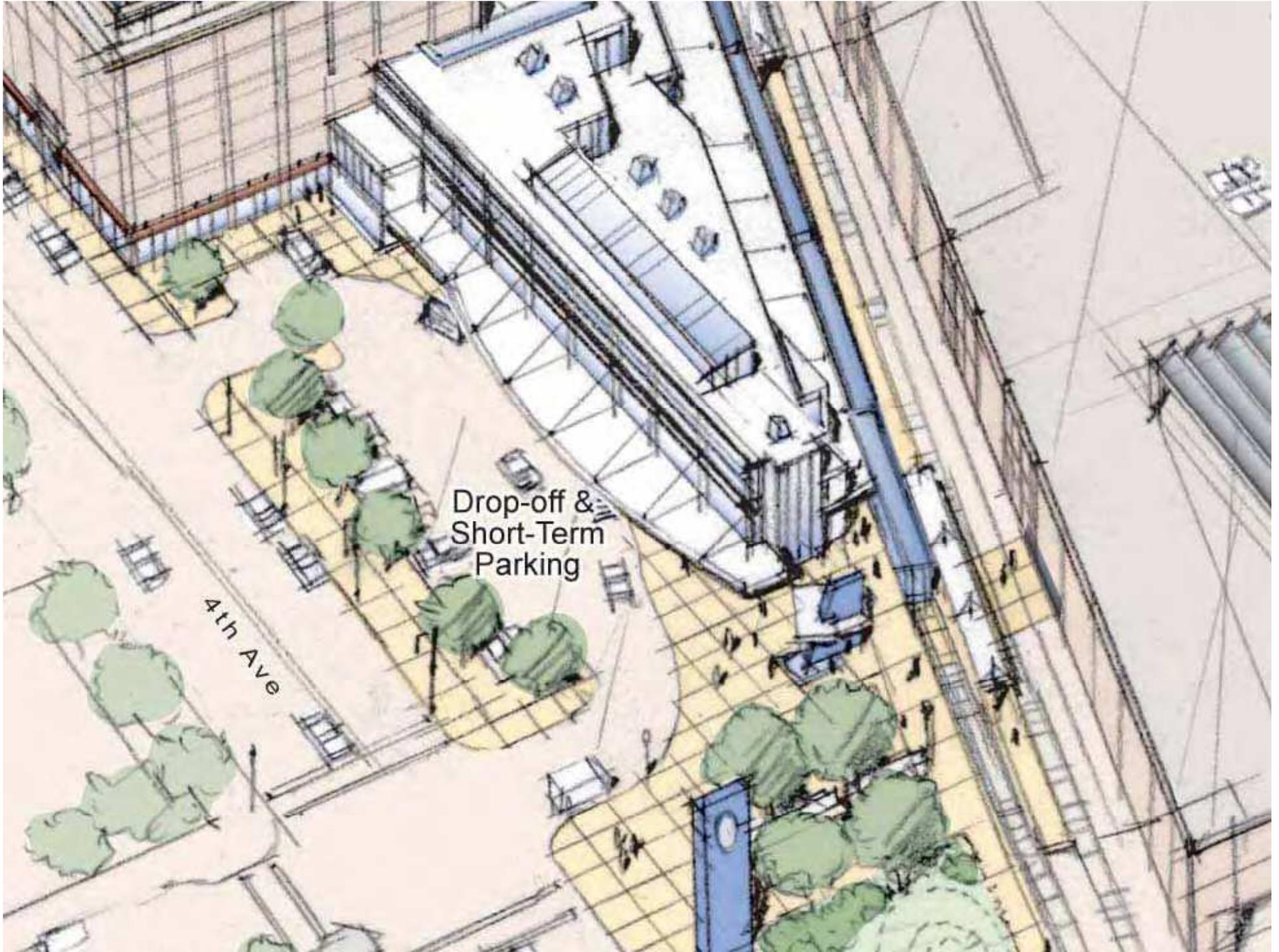






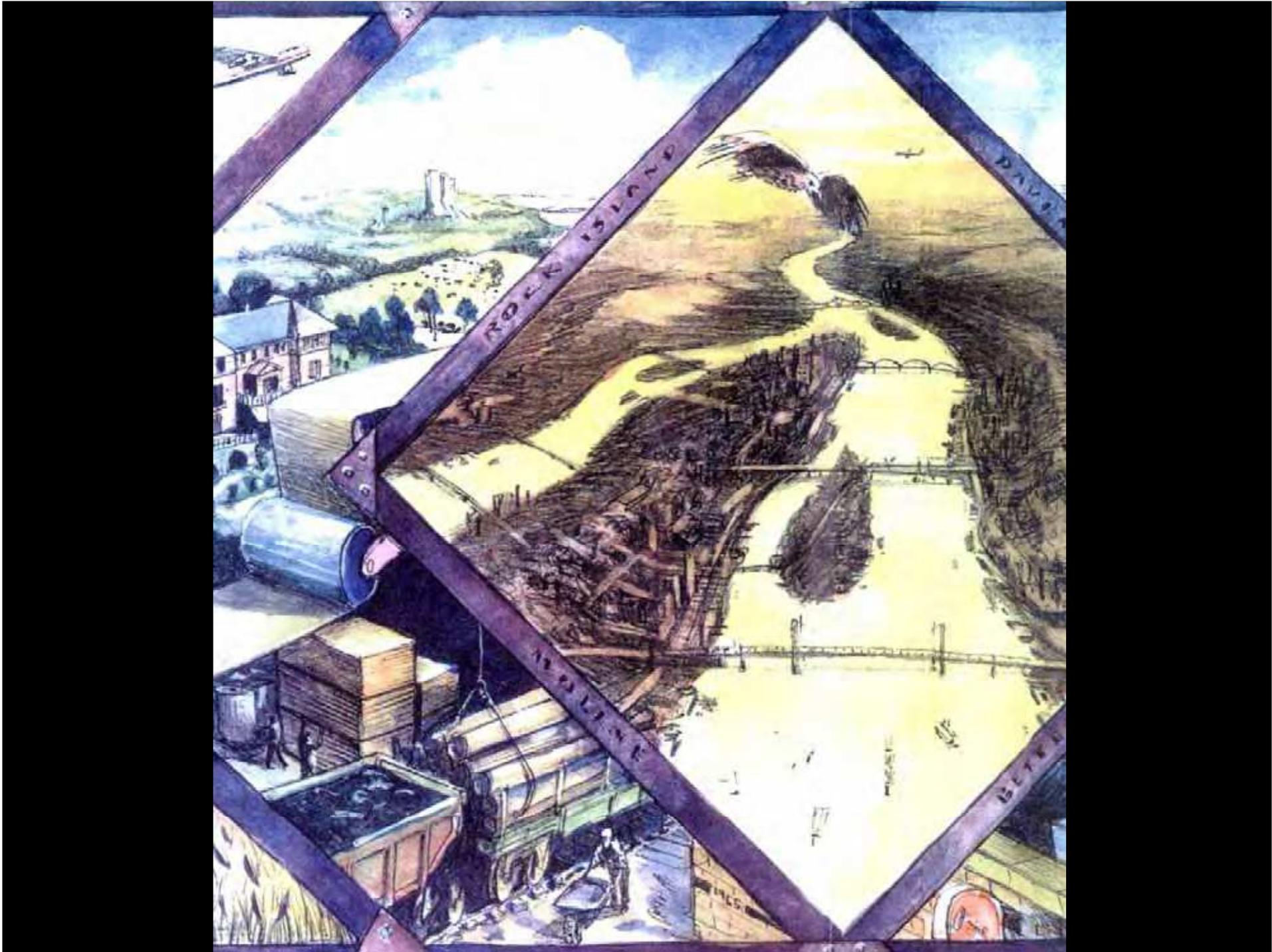


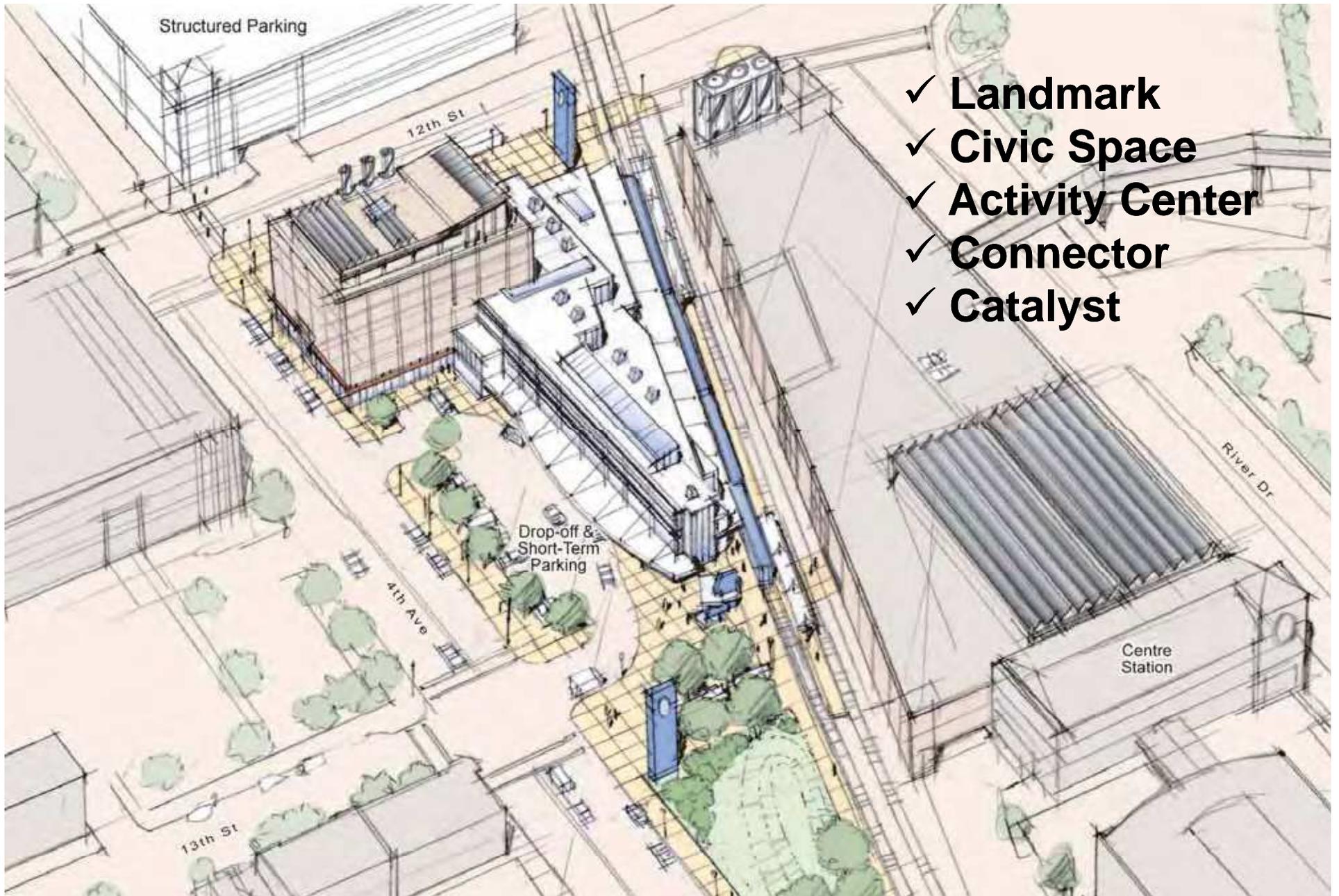








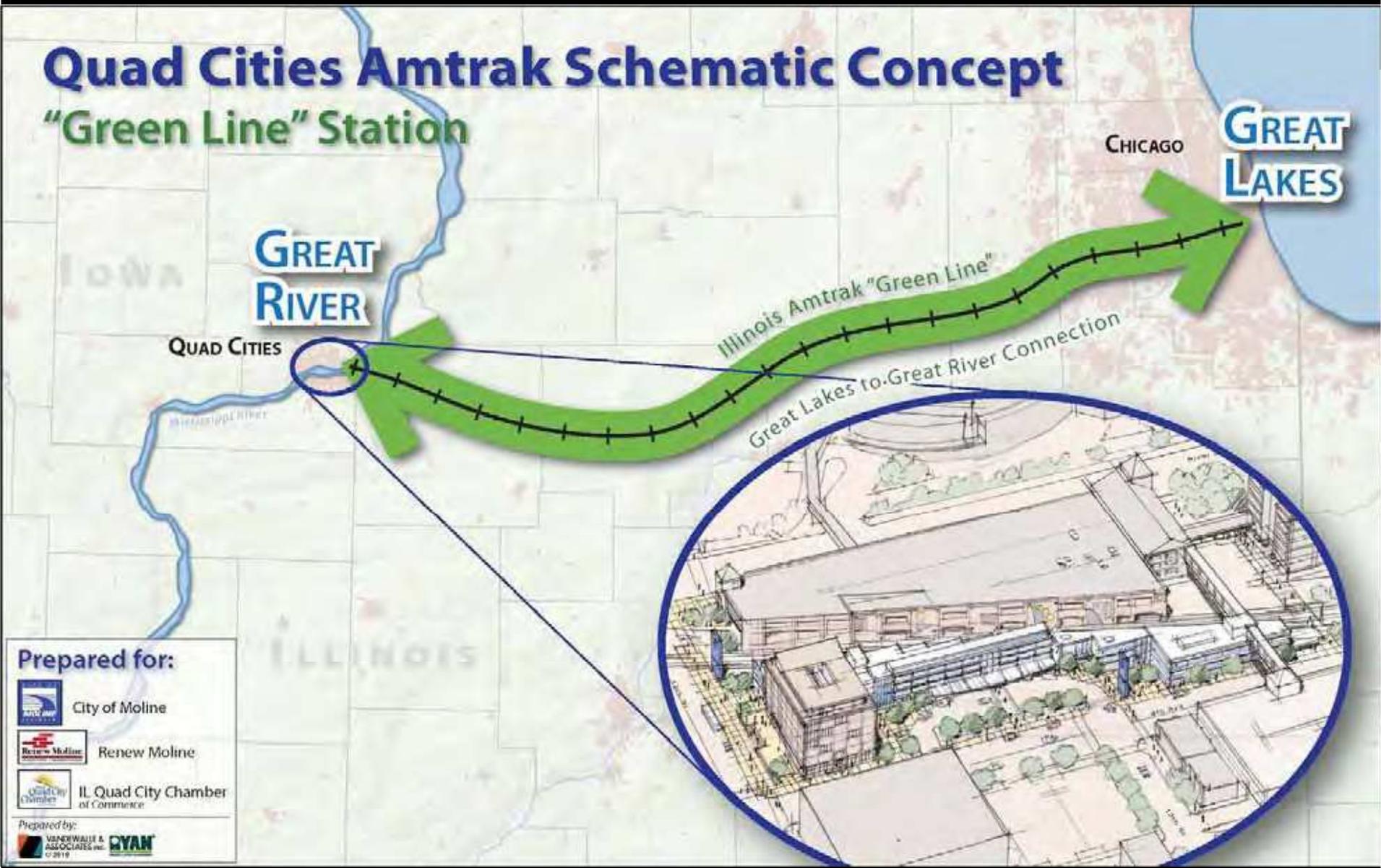




- ✓ Landmark
- ✓ Civic Space
- ✓ Activity Center
- ✓ Connector
- ✓ Catalyst

Quad Cities Amtrak Schematic Concept

"Green Line" Station



Prepared for:

-  City of Moline
-  Renew Moline
-  IL Quad City Chamber of Commerce

Prepared by:
VANDERWALL & ASSOCIATES INC. QYAN
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RENEW MOLINE MOLINE CENTRE PLAN

Renew Moline puts considerable emphasis on "working to make Moline a better place to live, work, play and do business" by coordinating closely with the City of Moline to implement its Moline Centre Plan. Browse this page to discover the plan's redevelopment districts and vision for downtown Moline.

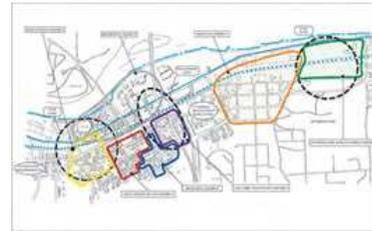
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Moline Centre Plan



Moline Centre Plan District Map



Moline Centre Current Projects Plan

Project Name	Project Value	Key Features
WIU Quad Cities Riverfront Campus	\$400+ Million	5,000 Student Campus, Specialties in technology oriented business, health care, and education. Community economic impact: \$10 Million.
KONE Centre	\$100 Million	High rise including U.S. headquarters of KONE, retail, office, and high-end residential.
Transit Oriented Development	\$100 Million	Private retail-use development including corporate office center. Adaptive reuse, high-end housing, parking deck, and office space.
Amtrak Station	\$20 Million	Expansion of existing Center building to include Amtrak, future high end retail and expanded parking. Regional transportation hub that connects to Chicago.
E3 Initiative	\$23 Million	Focus on education, entrepreneurship, and environment. Mixed-use residential, office, and campus supportive retail. Midwest technological Property Institute.
FlexTech	\$55 Million	Flexible office and tech space. Space to grow companies in the innovation economy.
I-74 Corridor and Bridge	\$600 Million	New 8 lane bridge span. Bridge like path will connect Illinois Great River Trail with Iowa's Mississippi River Trail.
Enterprise Lofts	\$10 Million	Part of urban living initiative. Includes units geared for home based businesses. 60 apartments and ground-floor retail.
West Gateway	\$3 Million	Community health care center. Serving Pleasanton Neighborhood. Multi-purpose Mainline to house market, outdoor entertainment, and community events.

PLANNING GOAL

The first Moline Centre Plan was developed by three consultants and adopted by the Moline City Council in 1991. Renew Moline immediately put one of those consultants, Vandewalle and Associates, on retainer to assist in the implementation of the plan.

The Moline City Council adopted the updated Moline Centre Plan in 2001.

The goal of the Moline Centre Plan Update is to develop a visionary plan that guides the economic redevelopment of Moline Centre by building on momentum generated throughout the implementation of the previous plan. The plan will focus on analyzing traffic and traffic circulation, parks and recreational facilities, community facilities, housing, preservation, economic development, land use, neighborhood revitalization, and various business districts to determine the best approach for future land use.

"Moline Centre" is the area bounded approximately by 12th and 34th Streets and the Mississippi River and 6th Avenue. This coincides with Moline's downtown Tax Increment Finance (TIF) District.

REDEVELOPMENT DISTRICTS

The Master Plan Update focuses on the redevelopment of five core districts:



■ Riverfront District

This district encompasses the John Deere Commons, Bass Street Landing area, and the Caxton Block including the Water Treatment Facility and Waterfront Marinas.



■ West Gateway District

This district is a distinctive entrance into downtown Moline. The area is characterized by the adjacent Florencia Neighborhood. Centre Station, Velie Park, and the new El Mercado development lie within this district.



■ Main Street District

This district includes areas along fifth avenue, the historic main street. Heritage Plaza is an anchor. Need to be a connection between this district and the John Deere Commons.



■ LeClaire Web Support District

This district encompasses the John Deere Commons, Bass Street Landing area, and the Caxton Block including the Water Treatment Facility and Waterfront Marinas.



■ Municipal District

This district is focused along 17th Street and its many civic buildings including City Hall, City Annex, Emergency Services Building, county court facilities, post office, and public library.

The Moline Centre Plan also focuses on two adjacent districts, which include:

■ Mixed-Use District

This district encompasses the John Deere Commons, Bass Street Landing area, and the Caxton Block including the Water Treatment Facility and Waterfront Marinas.

■ Riverside Park Redevelopment District

This district encompasses all of the current Riverside Park and Ben Butterworth Parkway.

ADDITIONAL BACKGROUND

Since the adoption of the original Moline Centre Plan, the City and its private sector redevelopment partner, Renew Moline, have collaborated with [Vandewalle & Associates](#) to revitalize the Moline Riverfront. Through a combination of public and private sector investment, the riverfront has truly undergone a renaissance. Where once empty factory buildings sat, community members and visitors can now tour the John Deere Pavilion, shop at new stores, and walk along the river path.

1506 River Drive, Moline, IL 61265
info@renewmoline.com

Tel: 309.762.9190

Fax: 309.762.9123

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WIU QUAD CITIES RIVERFRONT CAMPUS



- Project Value: \$80+ Million
- 5,000 Student Campus
- Specialize in technology oriented business, health care, and education
- Community economic impact: \$50 Million

KONE CENTRE



- Project Value: \$50 Million
- High rise including U.S. headquarters of KONE, mixed-use retail, office, and high-end residential

TRANSIT ORIENTED DEVELOPMENT



- Project Value: \$45 Million
- Private mixed-use development including corporate office center
- Adaptive reuse high-rise building, 125,000 square feet, providing class A and B office space

AMTRAK STATION



- Project Value: \$20 Million
- Expansion of existing Centre Station to include Amtrak, future light rail stop and expanded parking
- Regional transportation hub that connects to Chicago

Contact Information:

Renew Moline
 Jim Bowman
 Executive Director
 (309) 762-9194
 jbowman@renewmoline.com

City of Moline
 Ray Forsythe
 Economic Development Director
 (309) 797-0708
 rforsythe@moline.il.us



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CURRENT RIVERFRONT PROJECTS

Moline, Illinois

E3 INITIATIVE



- Project Value: \$23 Million
- Focus on education, entrepreneurship, and environment
- Mixed-use: residential, office, and campus-supportive retail
- Midwest Intellectual Property Institute

FLEXTech



- Project Value: \$5 Million
- Flexible office and tech space
- Space to grow companies in the innovation economy

I-74 CORRIDOR AND BRIDGE



- Project Value: \$850 Million
- New 8-lane bridge span
- Bridge bike path will connect Illinois' Great River Trail with Iowa's Mississippi River Trail

ENTERPRISE LOFTS



- Project Value: \$10 Million
- Part of urban living initiative
- Includes units geared to home-based businesses
- 90 apartments and ground-floor retail

WEST GATEWAY



- Project Value: \$3 Million
- Community health care center
- Serving Floreciente Neighborhood
- Multi-purpose Mercado to house market, outdoor entertainment, and community events



Mississippi River

MISSISSIPPI RIVER TECHNOLOGY CORRIDOR

INFRASTRUCTURE CONNECTIONS
 (Transit • Fiber Optics • Power)

Edgewater Neighborhood

MOLINE CENTRE

Floreciente Neighborhood



PROJECT SUCCESS

CENTRE STATION

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PROJECT HISTORY

Completed in April of 1998, Centre Station is the final major component in the John Deere Commons development. It is a twelve-bay, 12,000 square foot terminal and bus staging hub for local transportation needs, including [MetroLINK's](#) metropolitan bus service and Channel Cat Water Taxi.

The main floor retail commons/lobby includes a community meeting room and banquet facility with sound and projection equipment. The Centre Station gift shop adorns the main floor selling travel amenities and acts as the advance ticket sales and information depot for MetroLINK customers.

Centre Station is also home to the 911 emergency dispatching center.

PHYSICAL DESCRIPTION

The showpiece for the Centre Station project is the corner clock tower that overlooks River Drive. The stone and brick site is a 350 space parking facility that connects to the [i wireless Center](#) via a glass and steel crosswalk. This crosswalk was an addition to the facility after completion and patrons to return to their cars after i wireless Center events.

What makes the facility unique is that of which it utilizes space. The Mid-Coast Fine Arts Gallery is fully enclosed inside Centre Station's lobby area. An estimated 300,000 viewers see the displayed pieces yearly. The gallery features two artists for two months at one time. The works are sale while on exhibit. Check them out [here](#).

Centre Station was strategically placed on River Drive and 4th Avenue for a reason. MetroLINK sponsored the *Quad Cities "Smart Growth" Project* to address the future transportation needs of the Quad Cities region. The thought was that early planning would increase the chances for Moline to invest in and implement a balanced set of redevelopment policies. The hope for the project is to make Centre Stations a passenger rail hub with connections to other area communities.

NEWS ARTICLES

- [Midcoast Fine Arts Gallery](#) (in Centre Station)
- [QC MetroLink](#)



Centre Station Today

1506 River Drive, Moline, IL 61265
info@renewmoline.com

Tel: 309.762.9190

Fax: 309.762.9123

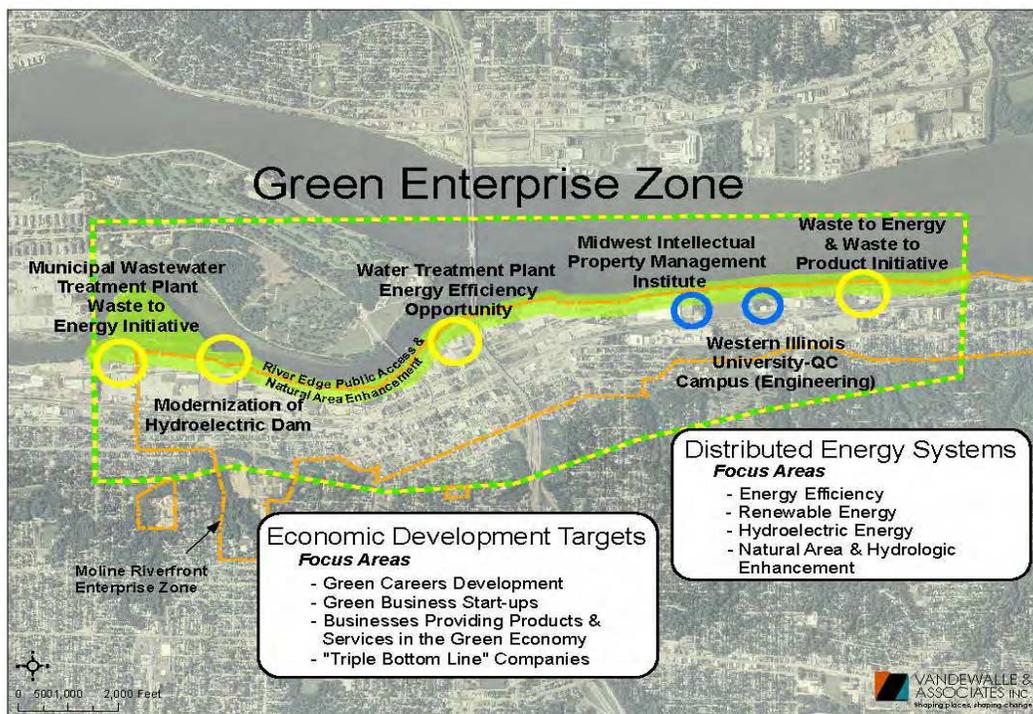
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MOLINE GREEN ENTERPRISE ZONE: GREEN ENERGY, GREEN JOBS, GREEN BUSINESSES

Green Energy: Efficient, Renewable, and Redundant

The Green Enterprise Zone (GEZ) in Moline, Illinois, is an innovative concept focused on achieving energy efficiency and deploying advanced renewable energy systems in an area targeted for sustainable economic development. Through partnerships between local government, non-profits, academic institutions, and the private sector, the GEZ is a model for how to link energy innovation to economic development and provide companies with opportunities to differentiate themselves by locating in a setting powered by on-site green energy systems.

The proposed GEZ includes a number of community assets, facilities, and companies that create unique opportunities to launch renewable energy systems in addition to the current power supply. The GEZ will integrate these systems into a distributed energy system that will disperse gas and electricity throughout the GEZ as energy demand continues to grow. Businesses that locate in the GEZ will not only be using a portion of locally-generated green energy, but will be ensured a higher level of energy reliability than can be provided by the standard electricity grid alone. Robust incentives will be layered with existing successful economic development programs in Moline to stimulate private companies and large energy users to participate in energy efficiency and renewable energy initiatives. By creating the conditions to achieve a critical mass of renewable energy systems, green job opportunities will be created and green energy services and technologies will be spawned in the GEZ in Moline.



Background on Renew Moline

The Green Enterprise Zone concept is being led by Renew Moline (Renew), a 501(c)(3) non-profit economic development entity focused on the physical revitalization and economic strength of Moline, Illinois in partnership with the City of Moline. Renew is a public/private partnership consisting of businesses and individuals working with the City of Moline to create jobs, expand Moline's tax base, and bring vibrancy to Moline's downtown. Through Renew's efforts, Moline has achieved enormous success in revitalizing its downtown and waterfront areas. This success is continuing with ongoing projects including a new Amtrak Station and surrounding Transit Oriented Development, the KONE Centre building (a new downtown office building), the Western Illinois University-Quad Cities Riverfront Campus (WIU), and the Midwest Intellectual Property Management Institute (IPI), among others.

Renew has demonstrated a unique ability to create successful public/private partnerships in which the region's largest corporations work in close coordination with the City to make projects happen. This success has been widely recognized and Renew has received national awards for its successful and innovative approaches to economic development. The Green Enterprise Zone is Renew's next major initiative. Renew and its partners recognize that one of the keys to Moline's continued economic development success will be the City's ability to position itself as a renewable energy leader. As a city in the heart of the world's most productive biomass region, Moline's economy has always been closely tied to agriculture and as the agriculture industry places new focus on renewable biobased energy, Moline has the potential to be a center point within this emerging sector. Many of Renew Moline's civic, corporate, and university partners are already green technology leaders giving Moline an enhanced opportunity in building a green economy. The Green Enterprise Zone will harness and build on Moline's potential to create a focal point for renewable energy and energy efficiency innovation.

The Vision for the Green Enterprise Zone

The Green Enterprise Zone will build on current successes and redevelopment momentum. Green Enterprise Zone incentives will dovetail with incentives in the Quad Cities Enterprise Zone and City of Moline incentives such as Tax Increment Financing (TIF). Additionally, the City of Moline's Green Team has undertaken citywide initiatives to reduce energy consumption in municipal buildings, "green" their fleet vehicles, and pave the way for green development such as Leadership in Energy and Environmental Design (LEED)-certified commercial and residential buildings. In addition, a "green" Amtrak rail line will connect Chicago to Moline in 2012. This Amtrak line will be constructed using "green" construction methods, and the Amtrak stations along the line will aim for LEED Certification at the Platinum level.

While there are multiple projects that are pursuing "green" components such as LEED certification and a solar array for the KONE building and LEED certification for the new campus buildings at WIU, a comprehensive integration of green initiatives is needed to maximize benefits from these efforts. This unified approach to green development initiatives will include mechanisms for incentives and enforcement. A grant from the Illinois Clean Energy Foundation would provide support to define these incentives.

The Green Enterprise Zone will leverage multiple sources of green energy, innovative energy efficiency initiatives, and partnerships with key businesses and institutions to create a district that attracts companies and creates jobs as a result of its energy leadership. For decades, cities, states, and federal agencies have utilized special districts such as business improvement districts, tax increment finance districts, and empowerment zones to catalyze economic development by targeting resources and incentives to a defined geographic area. The GEZ adds another layer to this thinking by offering businesses incentives and technical assistance to make efficiency improvements and implement renewable energy technologies, which will lead to economies of scale in expanding the use of renewable energy technologies, and create a critical mass of energy innovation in the GEZ. Further, by utilizing local assets with the potential to generate green power, businesses within the GEZ boundaries are offered access to energy which is locally-sourced, reliable, redundant and green, creating an added incentive for companies that need reliable power or have an interest in using greener business practices. If successful, this model could be expanded to include an innovative regional green zone effort along the Mississippi River corridor.

Green Enterprise Zone: Energy Initiatives

Energy Efficiency Initiatives

Redevelopment efforts in downtown Moline will be most successful if they include utilization of existing building stock in addition to establishing new real estate and energy infrastructure. Initiatives to improve energy efficiency in the Green Enterprise Zone include:

- Evaluate and upgrade all existing buildings within the GEZ to improve energy efficiency. A comprehensive program to optimize building functions such as lighting, HVAC systems, and solar/air exchange systems would be required in this district, if supported by funding.
- Upgrade the technology of the Water Treatment Plant and Wastewater Treatment Plant. Water treatment plants are high energy users. Recently, the North Slope Wastewater Plant and the Water Treatment Plant have undergone installation of high efficiency boilers, variable frequency motor drives, and some high lift pump motor improvements. However, more energy efficiency improvements could be made and could save thousands of dollars in energy costs for the public sector.
- Approve zoning and building codes that support green building standards and environmental protection. Identify additional incentives that could be provided by the City to developers and businesses that utilize energy efficiency improvements.
- Conduct energy audits of all city-owned buildings and implement policies for temperature control. (underway)
- Install LEDs in all streetlights and fluorescent lights in all City offices. (underway)

- Continue to “green” the City’s fleet vehicles, including the addition of more hybrid and biodiesel vehicles. Currently, the City uses E85 fuel in 50 vehicles and a 20% blend of soybean diesel in 64 trucks and 45 pieces of off-road equipment. This innovative use of alternative fuels was recognized by the Illinois EPA.(underway)

Renewable Energy Initiatives

Advancements in renewable energy technology provide an opportunity to create a concentrated and comprehensive energy district with a critical mass of renewable energy technologies and an efficient grid system to distribute these renewable sources. Initiatives to create sources of renewable energy in the Green Enterprise Zone include:

- Install a critical mass of renewable technologies including solar panels, building scale wind turbines, fuel cells, and biogasification systems.
- Modernize the hydroelectric dam with new engineering technology to provide a zero-emissions reliable and redundant power source specific to the Quad City region.
- Incorporate fuel cell technology into the hydroelectric dam power storage system.
- Utilize a waste-to-energy opportunity at the Wastewater Treatment Plant by installing a biogasification system to capture methane generation for energy use.
- Install infrastructure powered by renewable sources, such as zero carbon streetlights powered by solar panels.
- Separate food waste from waste collection and utilize it as a power source.

Distributed Power from Renewable Sources

Building-scale renewable energy systems work most efficiently when infrastructure is concentrated to maximize energy distribution. Development of renewable energy mini-grids will modernize the distribution of power so that the source of power is in close proximity to power users. Combined source systems such as linked power generation from the hydroelectric dam and captured methane from the wastewater treatment plant, along with 24-hour storage to utilize renewable energy during peak hours, would be an innovative prototype for a technology-enhanced public facility. Initiatives to be assessed that could develop distributed power include:

- Install combined heat and power systems to capture the maximum energy generation.
- Implement biogasification systems.

River’s Edge Public Access and Natural Areas Enhancement

The Green Enterprise Zone is unique due to its scenic location on the Mississippi River. The Mississippi River is a working river, an active shipping and transportation corridor, and a plant and animal habitat along the migratory bird flyway. Green initiatives for the river’s edge include:



- Implement stormwater Best Management Practices to collect runoff from new development, and thus reduce pollution that enters the Mississippi River.
- Upgrade existing water treatment facilities to improve water quality, including elimination of gaseous Chlorine and installation of UV disinfection technologies.
- Expand river edge programming, such as bicycle and walking paths, boating access, and opportunities for the public to observe nature. Providing walking paths along the river will also enhance mobility for individuals who live and work in the downtown.
- Identify critical areas for land acquisition in order to enhance riverfront opportunities for redevelopment. Work with the US Army Corps – Rock Island District on river edge projects geared towards water quality and habitat improvements.

Green Jobs: Tech-led Economic Development in Green Industries

A key goal of the Green Enterprise Zone is to create jobs in green technology industries. With local green initiatives underway, corporate partners pursuing green practices, and unique research and product commercialization efforts already taking place in the City, Moline is well positioned to develop green economy start-ups and new businesses. The GEZ will complement these existing initiatives to help create a critical mass of economic activity focused on green industries. Some of the ways the GEZ will create green jobs and tie-in to ongoing related initiatives include:

- **Partnering with MidAmerican Energy** to expand renewable sources of energy to enforce and enhance power redundancy and reliability of the existing grid, as energy use continues to increase in downtown Moline.
- **Partnering with Western Illinois University-Quad Cities (WIU)** and the growth of their engineering, business, and environmental studies curriculums at the new riverfront campus. With WIU's research expertise, students, and programs related to energy and engineering, the university will play an important role in establishing the GEZ.
- **Partnering with Deere & Company**, a triple bottom-line corporation, to modernize manufacturing operations in the GEZ. Deere & Company is a key partner with Renew Moline and an important part of Moline's economy, identity, and history. Deere & Company is also on the forefront of renewable energy technology and industrial energy efficiency and is currently searching for opportunities to advance their energy goals as a company. Deere & Company currently owns over 1.4 million square feet and leases over 70,000 square feet in downtown Moline.
- **Recruiting "Triple-Bottom Line" Companies** to Moline's GEZ. Companies that strive for triple-bottom line returns – social, environmental, and economic – do not operate in a vacuum. As part of their company's mission and competitive advantage, triple-bottom line

companies want high visibility of their efforts to demonstrate their value-added products and efforts to a new generation of consumers. The GEZ will also be a place to organize sources of venture capital that targets climate change businesses. The GEZ will be a center for collaboration in the region of like-minded companies in the new economy that act on their commitment to responsible energy consumption.

- **Partnering with the Midwest Intellectual Property Management Institute (IPI)** which is a non-profit/private sector partnership with Moline's largest corporate players to release their unused patents to entrepreneurs who will utilize them to develop products and start businesses. IPI will create economic growth by using regional strengths in technology, biotechnology, bioagriculture, and metal manufacturing. Spin-off work on active patents will create start-ups and expand existing businesses in Moline and the Midwest region.
- **Creating opportunities for green economy businesses** that provide products and services, such as installation of building-scale windmills, solar panels, and biogasification systems, as well as retrofitting buildings and infrastructure to distribute renewable power.
- **Launching waste-to-energy and waste-to-product initiatives** utilizing the Midland Davis metal scrap yard and paper recycling site and the Wastewater Treatment Plant on the Mississippi River.
- **Creating a collaboration group for Cleantech Leaders in the Quad Cities** to provide networking opportunities, shared deal flow, and capital infusion to support Cleantech entrepreneurs, investors, and start-up businesses.

Additional Potential Funding Sources

As part of the Green Enterprise Zone initiative, Renew will leverage existing partnerships and funding resources in the pursuit of additional funding. Potential funding sources include:

GEZ-Wide Potential Funding Sources

- DOE EERE EECBG Programs
- DOE/Treasury Payments for Specified Energy Property in Lieu of Tax Credits
- Non-DOE: Illinois Clean Energy Foundation
- Non-DOE: State Clean Energy Rebates

Modernization of Hydroelectric Dam

- DOE EERE Wind & Hydropower Technologies Program – Competitive Solicitations Issued Periodically

Waste-to-Energy and Product (Midland Davis Site)

- DOE EERE Industrial Technologies Program

Municipal Wastewater Treatment Plant – Waste-to-Energy Initiative

- Potential for EPA Funding for WWTP Upgrades
- Low Interest Loans from Illinois EPA

Water Treatment Plant Energy Efficiency Opportunity

- Potential for EPA Funding for Treatment Plant Upgrades
- Low Interest Loans from Illinois EPA

Local Revenue Sources

- Tax Increment Financing Districts

MOLINE GREEN ENTERPRISE ZONE: GREEN ENERGY, GREEN JOBS, GREEN BUSINESSES

Scope of Work to Complete the Strategic Plan and Advance the Project

Renew Moline developed the preliminary concept for the Green Enterprise Zone and has begun laying the groundwork for the project. Renew believes that this concept has enormous potential to advance their goals of creating jobs and encouraging economic development in Moline, particularly along the Mississippi waterfront. In order to advance the project, Renew needs to create a detailed strategic implementation plan for the GEZ that moves the project forward.

The following scope of work outlines the approach Renew Moline is proposing to undertake to launch the GEZ and to complete the planning, strategy development, and preliminary engineering work needed to move forward. This multi-faceted work program will result in a detailed plan that includes technical and economic assessments and evaluations needed to advance the different components of the GEZ concept, as well as overall project management, partnership building, and funding strategies. Completion of this project will result in an integrated plan that is driven by the unique local assets in Moline and within the proposed GEZ.

Work Element 1: Develop Energy Efficiency Improvement Initiative and Building-Scale Renewable Energy Strategy

The proposed district includes a large number of older commercial buildings that are solid structures but lack modern energy efficient systems and features. Installing new HVAC systems, higher quality windows, efficient lighting systems, and better insulation could save an enormous amount of energy in the GEZ. Rather than individual property owners making these improvements on a piecemeal basis, the GEZ will launch a comprehensive effort to integrate modern energy efficiency systems into the buildings in the district.

- **Task 1.1:** Create an inventory of all the buildings within the GEZ that includes the age of the structure, the businesses currently in the building, the total energy consumption of the building, and its overall efficiency.
- **Task 1.2:** Contact and meet with individual property owners and companies who own buildings have the greatest potential to save energy by integrating new efficiency systems. Work with these owners to develop a strategy, complete assessments, and fund improvements.
- **Task 1.3:** Leverage Tax Increment Financing (TIF) district funds combined with state and federal programs to develop and launch financing strategies or special incentives that assist companies and property owners in the GEZ in implementing energy efficiency improvements or deploying renewable energy deployment.

- **Task 1.4:** Evaluate opportunities to install building-mounted wind and solar energy systems on buildings in the GEZ and work with property owners to implement renewable projects. Develop relationships with manufacturers of medium-scale, building-mounted renewable systems and negotiate agreements on purchasing systems.
- **Task 1.5:** Create a database of all available state and federal programs focused on building efficiency and medium-scale renewable energy systems and work with property owners to pursue these resources.

Work Element 2: Hydroelectric Dam Modernization Analysis and Implementation Plan

Moline's history and economy is closely tied to the Mississippi and the River continues to be a source of commerce, energy, and transportation. The proposed GEZ includes an operating hydroelectric dam that is owned by the local utility and currently generating power that is sent into the grid. As a highly-reliable, carbon-neutral energy source already in the GEZ, part of the project will focus on improving and modernizing the dam, and on capturing its power for use within the GEZ.

- **Task 2.1:** Perform a technical assessment of the dam to determine whether new technologies and upgrades could be made to the facility to increase efficiency or output from the dam.
- **Task 2.2:** Coordinate with the utility to determine whether the power generated by the dam could be distributed exclusively to users within the GEZ providing a direct source of uninterrupted green power rather than going into the larger grid.
- **Task 2.3:** Analyze the feasibility of integrating an electrolysis system with the dam to produce and store hydrogen during off-peak hours, which would then be utilized to generate fuel cell electricity in the GEZ during peak demand times.

Work Element 3: Feasibility Assessment and Project Plan for a Wastewater Treatment Plant Gasification System

Another underused potential asset within the proposed Green Enterprise Zone is the wastewater treatment plant that processes wastewater from the City of Moline. Many communities nationwide and around the world have launched projects that capture and utilize waste gas generated from wastewater treatment facilities as a carbon-neutral, non-fossil fuel replacement for natural gas.

- **Task 3.1:** Start Discussions with the wastewater utility to discuss potential improvements to the treatment plant in the GEZ.
- **Task 3.2:** Perform a technical assessment and economic feasibility analysis of installing a gasification system at the wastewater treatment facility to generate a biogas that would be distributed throughout the GEZ as thermal energy source.

- **Task 3.3:** Identify the appropriate gasification technology for the project and begin discussions with technology providers to lay the groundwork for implementing a system.
- **Task 3.4:** Evaluate the feasibility of integrating a reformation system with the gasification system that would harvest the hydrogen from biogas to be used for fuel cell electric power.

Work Element 4: Feedstock Assessment and Project Plan for Solid Waste Gasification System

The Green Enterprise Zone includes a company that is operating a collection and processing site for waste material. By separating bio-based materials and expanding this operation to harvest additional materials, the site has the potential to utilize solid waste gasification to produce a biogas that would be used by companies in the GEZ.

- **Task 4.1:** Perform a technical assessment and economic feasibility analysis of installing a gasification system utilizing food waste, wood waste, and other waste biomaterials harvested from the region.
- **Task 4.2:** Conduct a feedstock study determining the availability of waste biomass in the region and the economics of harvesting this material for gasification
- **Task 4.3:** Identify technology providers who could construct a gasification system on the site and identify potential sources of funds to enhance the financial viability of the project.

Work Element 5: Industrial Efficiency Strategy for Deere & Company Facility

The Deere & Company factory on the west side of the proposed Green Enterprise Zone is another unique asset of this area. The state-of-the-art plant is part of Deere & Company's seeding group and manufactures planting equipment. As a very large heavy industrial facility, the factory uses an enormous energy load and is a strategic target for high impact industrial energy efficiency improvements.

- **Task 5.1:** Initiate discussions with the factory manager and with corporate Deere & Company people to discuss energy improvements, waste energy recovery systems, and installation of renewable energy systems at the plant.
- **Task 5.2:** Conduct an energy audit of the plant and identify potential measures to reduce energy use, capture wasted energy, and/or install renewable systems at the facility.

Work Element 6: River's Edge Public Access and Natural Areas Enhancement

The Green Enterprise Zone is unique due to its gorgeous location on the Mississippi River. The Mississippi River is a working river, an active shipping and transportation corridor, and a plant and animal habitat along the migratory bird flyway. Green initiatives for the river's edge include:

- **Task 6.1:** Create a stormwater management plan for the River corridor as it passes the site and identify Best Management Practices (BMPs) that could be implemented collect runoff from new development, and thus reduce pollution that enters the Mississippi River.
- **Task 6.2:** Develop a plan for expanded river edge programming including signage and displays on the River's ecological and economic importance to the City.
- **Task 6.3:** Develop a plan for expanded riverfront recreational activities including bicycle and walking paths, boating access, and opportunities for the public to observe nature.

Work Element 7: Partnership Building and Company Recruitment

There are a number of companies, individuals, and organizations that are currently located in the Green Enterprise Zone and in Moline that will be partners in the project. Renew Moline has built strong partnerships with the leading public sector and private sector companies and institutions in the region, and many of these partners have a strong interest in green energy systems and are likely to be interested in playing a role in the GEZ Concept.

As part of the project, Renew will engage these and other potential partners to identify their interest and potential role in the project. Further, Renew will develop a Project Management Team that includes representatives from partnering organizations who will provide leadership and technical guidance on implementation.

In addition to building partnership to implement the project, one of the central goals of launching the GEZ is to recruit businesses and attract new employment to the area by offering companies the opportunity to locate in an area powered by reliable sources of on-site green energy. The idea is that companies with a need for backup power systems or with an interest in marketing potential of using green power will potentially be interested in locating in the GEZ. Renew will develop relationships with potential tenants in the GEZ and launch a recruitment effort narrowly focused on regional companies that may be uniquely suited to this area or uniquely interested in the Green Zone concept. This will involve developing white papers, graphics, and other communication materials as well as person-to-person contacts.

- **Task 7.1:** Work with Deere & Company to identify potential energy efficiency improvements or new energy technologies for the factory located in the GEZ and create a technical plan and funding strategy to implement those improvements.
- **Task 7.2:** Work with Western Illinois University to identify opportunities to integrate their research, expertise, and programs into the GEZ concept and to coordinate on green energy initiatives in Moline.
- **Task 7.3:** Identify companies in the Quad Cities region and throughout the upper Midwest that may have an interest in locating in the GEZ or that may play a role in the initiative and open dialogues with these companies.

- **Task 7.4:** Develop targeting communications material and graphics to showcase the GEZ concept and to market the GEZ to companies.

Work Element 8: Funding Strategy

As a model project that demonstrates a new approach to integrating community economic development strategy with renewable energy and energy efficiency strategies, the Green Enterprise Zone will require funding support from multiple sources to achieve full-scale implementation. As part of the planning and strategy development process, Renew Moline will identify and pursue state and federal funding opportunities to help advance the project. This will require tracking opportunities and developing contacts development within agencies and grant writing to specific programs.

- **Task 8.1:** Open a dialogue with the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and other state and federal agencies with potential interest in the project to discuss funding opportunities that would support implementation of the project.
- **Task 8.2:** Develop a white paper on the project as a whole and create more narrowly-focused white papers on different components of the initiative targeted to specific funding opportunities.
- **Task 8.3:** Track federal grant programs related to community-scale energy efficiency and renewable energy development and write grants pursuing opportunities suited to the project.

Project Budget

Renew Moline will contract with engineering firms and/or equipment manufacturers to complete the technical assessments and financial feasibility analyses included in the components of this scope of work. Renew's staff and economic development consultants will manage the development of partnership, outreach to companies, create and implement the funding strategy, and manage overall project coordination. The total budget needed for the next steps of technical assessment, partnership building, preliminary design, and project planning and management is \$300,000. Renew is requesting a commitment of \$300,000 from the Illinois Clean Energy Foundation for the project.

Moline's Green Enterprise Zone Strategic Plan Development Project Budget Project Budget		
Work Element 1	Develop GEZ-Wide Energy Efficiency Improvement Initiative and Building-Scale Renewable Energy Strategy	\$45,000
Work Element 2	Hydroelectric Dam Modernization Analysis and Implementation Plan	\$40,000
Work Element 3	Feasibility Assessment and Project Plan for a Wastewater Treatment Plant Gasification System	\$55,000
Work Element 4	Feedstock Assessment and Project Plan for Solid Waste Gasification System	\$55,000
Work Element 5	Industrial Efficiency Strategy for Deere & Company Facility	\$30,000
Work Element 6	River's Edge Public Access and Natural Areas Enhancement	\$35,000
Work Element 7	Partnership Building and Company Recruitment	\$25,000
Work Element 8	Funding Strategy	\$15,000
Total Cost		\$300,000

GreenLine – Iowa City to Chicago

Community Sustainable Commitments and Potential Actions at Stations

Community Name: City of Moline, Illinois

Commitment	Potential	Concept	Explanation
✓	<input type="checkbox"/>	Design and construction to LEED standards	Committed to achieving LEED certification. Work group formed to review schematic design from LEED perspective. Determined that LEED Silver certification is reasonable to attain with Gold certification achievable if budget allows.
✓	<input type="checkbox"/>	Transit-oriented development	Site occupies a prime downtown location at west end of John Deere Commons and across the street from the i-wireless Center, a 12,000 seat civic arena. Viewing station as an economic development strategy and have development TOD plan for surrounding area. In addition, the adaptive reuse of O'Rourke will be a multi-use development with the upper floors incorporating office and/or residential uses. The floor will include food and beverage and supportive retail, such a bike shop potentially, and car rental.
✓	<input type="checkbox"/>	Connection to public transit	Project will be integrated into the existing Centre Station, the transportation hub for local bus service, Channel Cat Water Taxi, Greyhound and Burlington Trailways. Bus services offers connection to the Quad Cities International Airport. Station will also incorporation car rental and taxi service.
✓	<input type="checkbox"/>	Connection to bicycle or pedestrian networks	Forwarding email from Shawn Christ with City of Moline providing information on bike/trail network. Direct connection to Great River Trail along the Mississippi River.
✓	<input type="checkbox"/>	Connection to intercity bus "feeder" service	See above.
✓	<input type="checkbox"/>	Bicycle parking	
<input type="checkbox"/>	<input type="checkbox"/>	Solar charging stations	Not discussed up to this point.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hybrid or electric car charging stations	Hybrid cars to be integrated into rental car fleet. Pursuing electric cars as well.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	"Zipcar" type service	Pursing opportunity.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Utilities use "clean energy"	To be explored as design and engineering progresses.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Permeable paving	Being considered for short term parking area associated with drop-off area.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar powered lighting or controls	Lighting controls to be explored as project progresses.
<input type="checkbox"/>	<input type="checkbox"/>	Stormwater management	
<input type="checkbox"/>	<input type="checkbox"/>	Sustainable landscapes	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sustainable specifications	Crucial to securing LEED credits under Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality sections.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water conservation	Goal of reducing water consumption by 35% as compared to standard construction (LEED credit).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sustainable construction practices	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Integrated team design process	Established Design/Build Management Team (DBMT) with representation from the City of Moline, MetroLINK, Chamber/Rail Coalition, Renew Moline, planning/design consultants, developers, corporations and other stakeholders. Active in all phases of the project and responsible for communicating information to the public. For summary of process see: http://www.renewmoline.com/RenewMolineDevelopmentProcess.htm
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Public involvement, including design charettes	See above.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flexible design and collaborative decision-making	See above.
<input type="checkbox"/>	<input type="checkbox"/>	Urban planning for route selection	

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Urban design and aesthetic enhancements	Schematic design incorporates two plaza areas and green space to benefit all of downtown Moline. Established vision for inspiring, contemporary architectural style for new construction. Plans conform to the adopted Moline Centre Master Plan for downtown. http://www.moline.il.us/departments/planning/economic/pdf/MolineCentreMasterPlan.pdf
<input type="checkbox"/>	<input type="checkbox"/>	Minority consultants	
<input type="checkbox"/>	<input type="checkbox"/>	Minority contractors	
<input type="checkbox"/>	<input type="checkbox"/>	Recycling of all waste	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximize indoor air quality	Goal of achieving 13 out of 15 points under Indoor Environmental Air Quality LEED credits. Possibility of 15/15 points if budget allows.
<input type="checkbox"/>	<input type="checkbox"/>	Interior greenscape	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Environmentally friendly cleaners and degreasers	To be explored as maintenance and operations discussions progress.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preserve historic, scenic, and aesthetics	Adaptive reuse of O'Rourke Building (former Sears warehouse) listed as a contributing structure in the Moline Downtown Commercial Historic District included on the National Register of Historic Places. The City of Moline and Moline Historic Preservation Commission will be entering into a MOU to articulate the Commission's role in reviewing architectural and engineering drawings. In addition, the project will aesthetically complement the John Deere Commons to the east.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar panels	Pursuing private grant through the Illinois Clean Energy Community Foundation's Renewable Energy Program for a 91kW photovoltaic system. Goal is to off-set 13% energy consumption to maximize the points under the On-Site Renewable Energy LEED credits.

<input type="checkbox"/>	<input type="checkbox"/>	Wind turbines	Concept of incorporating small scale demonstration wind turbines, but funding source yet to be identified.
<input type="checkbox"/>	<input type="checkbox"/>	Green roof	
Others:			
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		

Attachment D

City of Iowa City Riverfront Crossings District

“GreenLine” Checklist

RIVERFRONT CROSSINGS DISTRICT: SMART GROWTH APPROACH FOR LONG-TERM COMMUNITY RECOVERY

IOWA CITY, IOWA

PREPARED FOR THE EPA AND FEMA

WA 4-47: DELIVERABLE 6D
EPA CONTRACT EP-W-05-025

APRIL 12, 2010

This document is meant to illustrate the application of some ideas and policy options which were developed during a workshop for the Riverfront Crossings District of Iowa City in November 2009. In conjunction with the Development Policy Options Memo, Transportation Policy Options Memo and Market Overview Memo, the plans and renderings contained herein demonstrate the potential transformation of several focus areas in Riverfront Crossings, using smart growth techniques, while remaining sensitive to floodprone areas.





Iowa City's Riverfront Crossings District

TABLE OF CONTENTS

Page 2	Riverfront Crossings - Location of Focus Areas
Page 4	Train Depot Area Detail Focus Area Master Plan View of Existing Conditions View of Potential Improvements
Page 8	Benton Street & South Capitol Street Area Detail Focus Area Master Plan View of Existing Conditions View of Potential Improvements
Page 12	South Gilbert Street & Kirkwood Avenue Area Detail Focus Area Master Plan View of Existing Conditions View of Potential Improvements
Page 18	End of South Clinton Street Area Detail Focus Area Master Plan View of Existing Conditions View of Potential Improvements

RIVERFRONT CROSSINGS - FOCUS AREAS

The map on page 3 indicates the locations of the four focus areas within the Riverfront Crossings District which were studied in greater detail through plans and perspective illustrations. The drawings are meant to serve as food-for-thought about potential growth and improvement of these sites using smart growth principles.

Train Depot - The anticipated reuse of the old Train Depot as an Amtrak Train Station means that the area around Wright Street is a prime location for infill development and redevelopment of existing sites. Wright Street itself has the potential to become a busy mixed-use node of shops, restaurants, and pubs, which would serve as the “gateway” to Iowa City for those arriving by train.

Benton Street / South Capitol Street - Sitting at a prominent spot at the end of Capitol Street and adjacent to the river, the current City Carton Recycling site has the potential to accommodate new mixed-use development, and serve as a formal entrance to a new Riverfront Park.

South Gilbert Street / Kirkwood Avenue - Serving as a main north-south link through Riverfront Crossings, South Gilbert Street could become a more walkable, mixed-use corridor over time.

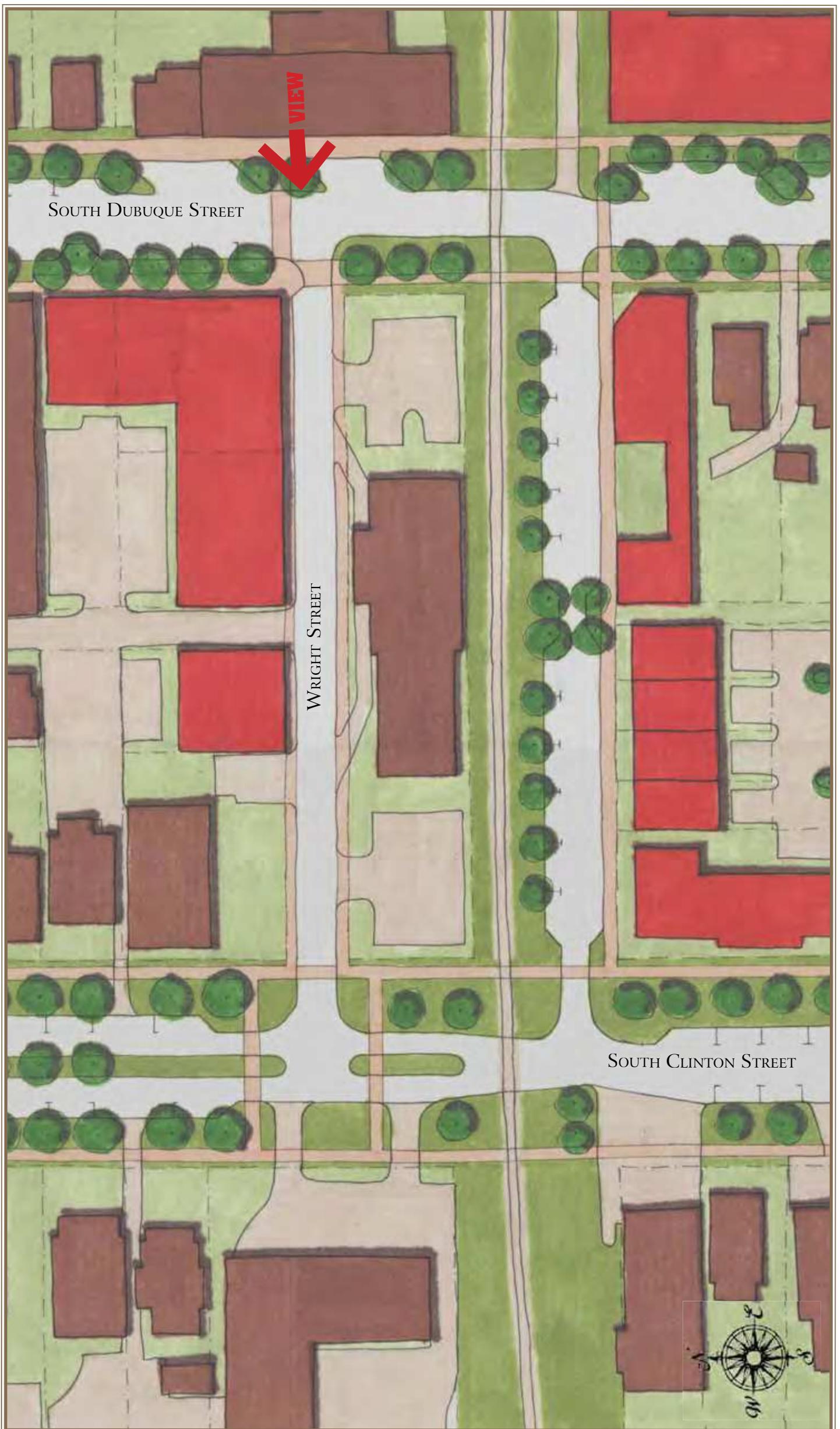
End of South Clinton Street - The future relocation of the North Wastewater Treatment Plant, currently at the end of South Clinton Street, opens up this prominent site for the creation of a grand riverfront park with a variety of recreational facilities.



TRAIN DEPOT AREA

Wright Street offers the opportunity for transit-oriented development clustered around the Train Depot. New mixed-use buildings and streetscape improvements create a gateway neighborhood for Iowa City to those arriving by train. Just south of the tracks, a new one-way street running between South Clinton and South Dubuque Streets has been introduced. This street has been shown lined with townhomes and apartments, within close walking distance of the station.

In the plan on the opposite page, existing structures are shown in brown, while new buildings are shown in red. The red arrow indicates the location of the 3D views on pages 6 and 7.





Above - View of existing conditions looking west down Wright Street.

Right - Potential for streetscape improvements and infill around the Train Depot.



BENTON STREET & SOUTH CAPITOL STREET AREA

Sitting at the end of South Capitol Street, on axis with the Old Capitol Building, the largely floodprone site of the City Carton Recycling facility has been envisioned as a grand entrance to the new riverfront park, and a prime location for new residences and mixed-use buildings on the higher ground. South Capitol Street itself is shown as a boulevard with parallel parking on both sides and a green median down the center. A gateway to the park just south of Benton Street relates to the architecture of the Old Capitol Building. The axis of Capitol Street continues south in the form of a pedestrian mall, joining with walking and bike trails along the river. The plaza just beyond the gateway is flanked by several pavilions/civic buildings and a fountain which can be viewed down Capitol Street from the north. Community gardens, cafes around the plaza, and residences along the pedestrian mall ensure steady activity within the park, and the security that comes with it.

In the plan on the opposite page, new structures are shown in red.
The red arrow indicates the location of the 3D views on pages 10 and 11.





Above - View south across Benton Street to the current City Carton Recycling site.

Right - View showing the potential for more intense, mixed-use development of the higher ground. A formal entrance to the riverfront park terminates South Capitol Street, which has been transformed into a tree-lined boulevard.

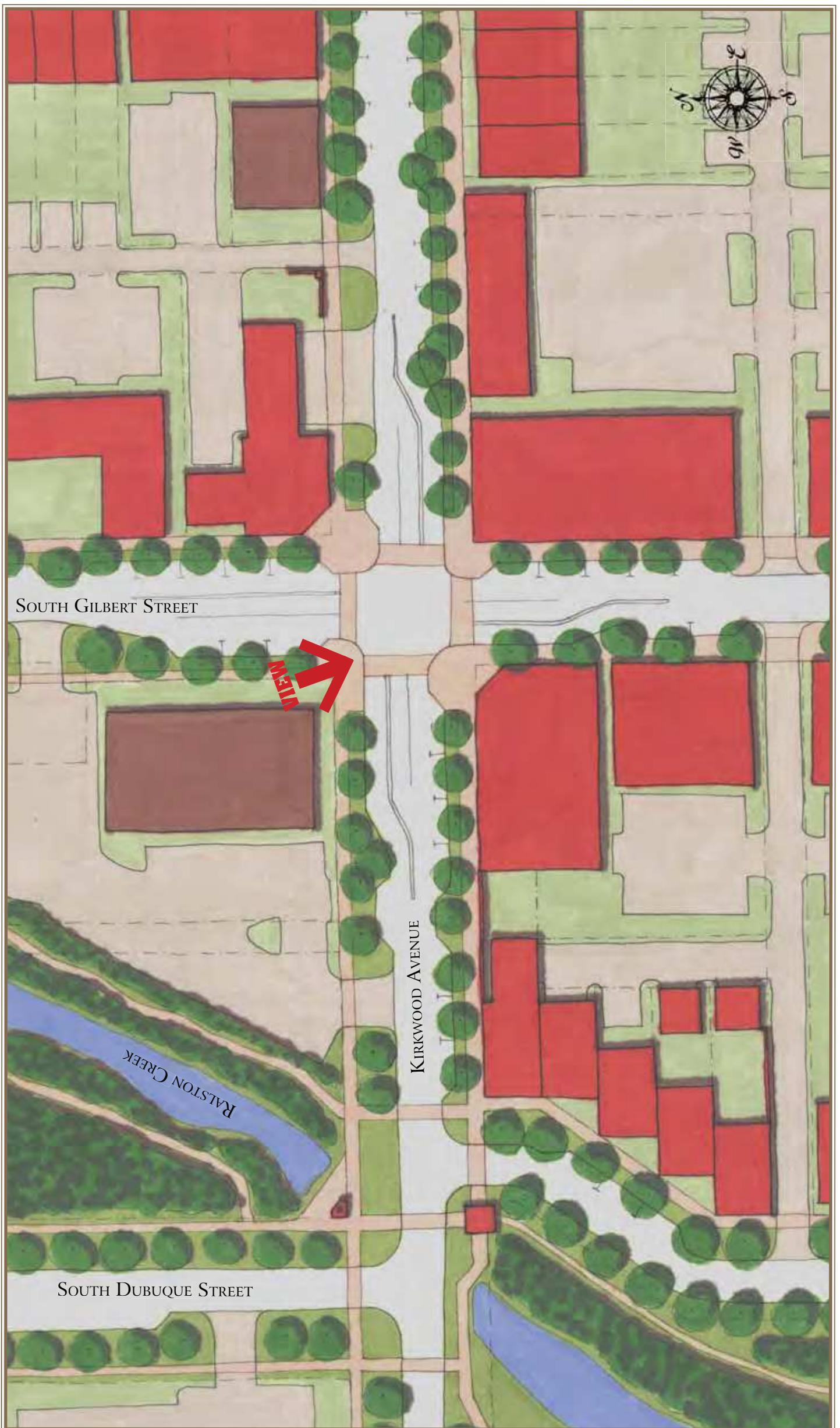


SOUTH GILBERT STREET & KIRKWOOD AVENUE AREA

At the four corners of this key intersection, new mixed-use development takes advantage of the location. On-street parking and a reduced number of travel lanes on South Gilbert helps slow traffic, while streetscape improvements provide the proper setting for new restaurants and shops. A conventional gas-station at the northeastern corner of the intersection is replaced by a new commercial building along the sidewalk, with a gas canopy at the rear.

The banks of Ralston Creek have been restored. A trail system along the creek connects with sidewalks on Kirkwood Avenue. A new street extending south from Kirkwood along the creek provides greater public access to the waterway and adds value to new residences which front it.

In the plan on the opposite page, existing structures are shown in brown, while new buildings are shown in red. The red arrow indicates the location of the 3D views on pages 14 through 17.





Above - Current view of South Gilbert Street looking south at Kirkwood Avenue.

Right - Potential for mixed-use infill and streetscape improvements, with reduced travel lanes, on-street parking and wider sidewalks.

Over - The architectural character of new mixed-use buildings can range from very traditional, page 16, to more modern, page 17.





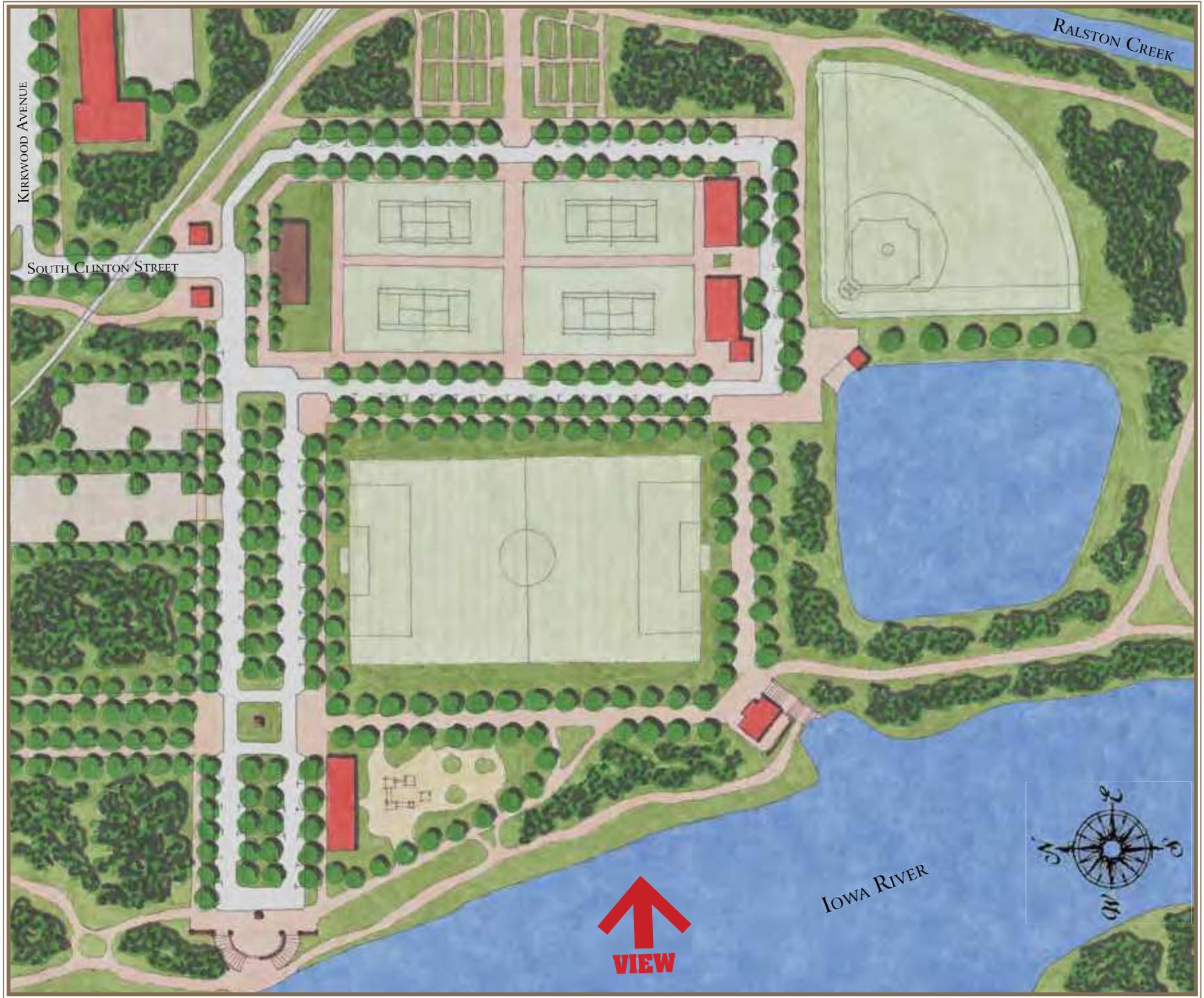


END OF SOUTH CLINTON STREET AREA

With the anticipated relocation of the North Wastewater Treatment Plant, a new riverfront park has been envisioned for this prominent site between the Iowa River and Ralston Creek. Situated at the end of South Clinton Street, the park will become not only a great recreational amenity for city residents, but also a buffer for future flood events. Native tree plantings throughout the park will help to absorb excess water, while restoring the riverfront to a more natural condition.

A network of streets within the park is lined with parking, and provides a framework for playing fields, a playground, gardens, and various community buildings and pavilions. The existing brick structure which now serves as the front office of the wastewater treatment plant has been re-imagined and renovated as an entry building from South Clinton Street. The existing dry retention area on the site could be permanently filled and made into a large pond. Several stairways and lookouts over the river compliment the extensive new trail system. A monument marks the visual termination of South Capitol Street and the pedestrian mall to the north.

In the plan on the opposite page, existing structures are shown in brown, while new buildings are shown in red. The red arrow indicates the location of the 3D views on pages 20 and 21.





Above - Existing view across the Iowa River over the site of the North Wastewater Treatment Plant.

Right - Transformation of the riverfront site into a grand park with recreational facilities, walking/biking trails, connections to the river and Ralston Creek, community gardens, and restored woodland.



GreenLine – Iowa City to Chicago

Community Sustainable Commitments and Potential Actions at Stations

Community Name: Iowa City

Commitment	Potential	Concept	Explanation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design and construction to LEED standards	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Transit-oriented development	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Connection to public transit	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Connection to bicycle or pedestrian networks	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Connection to intercity bus ‘feeder’ service	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bicycle parking	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar charging stations	We will consider
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hybrid or electric car charging stations	We will consider
<input type="checkbox"/>	<input checked="" type="checkbox"/>	‘Zipcar’ type service	We will consider
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Utilities use ‘clean energy’	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Permeable paving	We will consider
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar powered lighting or controls	We will consider
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Stormwater management	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sustainable landscapes	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sustainable specifications	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water conservation	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sustainable construction practices	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Integrated team design process	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Public involvement, including design charettes	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flexible design and collaborative decision-making	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Urban planning for route selection	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Urban design and aesthetic enhancements	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Minority consultants	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Minority contractors	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Recycling of all waste	Well, maybe not <u>all</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximize indoor air quality	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Interior greenscape	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Environmentally friendly cleaners and degreasers	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preserve historic, scenic, and aesthetics	Not necessarily on historic bldg., but on ancillary structures
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar panels	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wind turbines	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green roof	
Others:			
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>		

Attachment E

Letters of Support

Iowa Governor Culver

IAIS



CHESTER J. CULVER
GOVERNOR

OFFICE OF THE GOVERNOR

PATTY JUDGE
LT. GOVERNOR

August 05, 2010

Honorable Ray LaHood, Secretary
U.S. Department of Transportation
1200 New Jersey Ave. S.E.
Washington, DC 20590

RE: Iowa/Illinois HSIPR Grant Request for Chicago to Iowa City Passenger Rail Service

Dear Secretary LaHood:

On behalf of the State of Iowa and the Iowa Department of Transportation (DOT), I am writing in support of a High-Speed Intercity Passenger Rail (HSIPR) Program competitive grant application. This application will be submitted jointly between Iowa DOT and Illinois DOT on August 6, 2010.

The HSIPR grant application is for new and enhanced passenger rail services from Chicago, Illinois to Iowa City, Iowa via the Quad Cities. HSIPR funding would support continued environmental impact analyses, track infrastructure construction and improvements, layover facility construction, equipment acquisition and station improvements to implement service. HSIPR funding, made available through the FY 2010 DOT Appropriations Act, would fund up to eighty percent of this project. The remaining funding necessary for match will be provided by the Iowa DOT and Illinois DOT.

Iowa has been an active and dedicated partner with the other Midwestern states in both the long-standing Midwest Regional Rail Initiative and the more recent Midwest High-Speed Rail Steering Group. The Chicago to Iowa City route is an important element of the vision to further develop the Chicago Hub regional intercity passenger rail concept, long supported by the Midwest Regional Rail Initiative. The concept includes passenger rail corridors that serve the multi-state Midwestern region along with passenger rail connections to the East and West Coast, the Gulf Coast and Canada.

The Chicago Hub vision is supported by eight Midwestern states and the City of Chicago as documented in a Memorandum of Understanding (MOU) finalized in July 2009; I am proud to have joined my Midwest partners in signing that MOU. To advance and support the Midwestern efforts, the Midwest High-Speed Rail Steering Group was formed last year and is working together to provide guidance, leadership, and advocacy

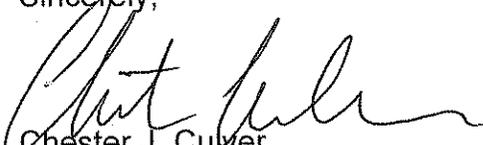
in support of the Region's long-range high-speed and intercity passenger initiatives. Iowa and the other Midwest states understand the importance of and are strongly committed to approaching passenger rail solutions from a regional perspective.

This project's success would be the important first step in initiating passenger rail service across Iowa and would allow Iowa to fulfill its vision for expanded passenger rail service as documented in the 2009 State Rail Plan, State Transportation Plan and the Midwest Regional Rail Initiative planning documents. The states of Iowa and Illinois are committed to implementing passenger rail service between Chicago and Iowa City, as evidenced by Illinois Governor Quinn and I signing a two-state MOU in July 2009 pledging to work together to make this route a reality.

Both states are further committed and actively working to implement service on this corridor that expands the green and sustainable principles inherent in passenger rail transportation and strongly advocated by you and the Administration. We have established the proposed Chicago to Iowa City service as the "GreenLine" and developed a vision to proactively seek innovative and sustainable solutions to our transportation needs. As such, we are seeking opportunities to pilot new, sustainable practices such as testing new equipment that can use bio-fuels, supporting smart growth practices, and using recycled materials on construction projects.

The implementation of this HSIPR project would help create jobs, improve our nation's transportation infrastructure and assist in providing transportation alternatives to the citizens of Iowa and the Midwest, all within the framework of livable, sustainable practices and communities. I ask that this application be given your full consideration.

Sincerely,



Chester J. Culver
Governor of Iowa

Cc: Nancy Richardson, Iowa Department of Transportation



August 1, 2010

Ms. Tammy Nicholson
Iowa Department of Transportation
Ames, IA

Dear Tammy;

I am writing to you to memorialize my commitment to the passenger rail project that will operate over Iowa Interstate Railroad tracks within the State of Iowa. I have been a supporter of this project from the start since we do have the capacity to operate this service under the conditions outlined over the past several years. The Chicago to Iowa City lane is one that should generate ridership and be able to operate on time and schedule within our existing freight train operations. We also are a proponent of creating the "Green Line" concept because we, at Iowa Interstate Railroad, have been doing "Green" things for a long time. Our assistance in conjunction with the University of Northern Iowa's development of soy based grease products for rail, building a locomotive slug unit, testing bio-diesel fuel, and purchasing fuel efficient high horsepower units are just few of the items we have been involved in our the past several years. There are numerous items a passenger rail train could incorporate to further improve the environment and maintain the green status.

A handwritten signature in black ink, appearing to read "Dennis H. Miller".

Sincerely,
Dennis H. Miller
President and CEO
Iowa Interstate Railroad, LTD.