Transit-Oriented Development

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1 Introduction: Opportunity for Transit-Oriented Development in Iowa City

Background

In September of 2008, the City of Iowa City made available several projects for the Field Problems course at the Department of Urban and Regional Planning at the University of Iowa. One such project was to explore the potential for a transit-oriented development (TOD) in Iowa City. Our Field Problems team chose this project and consulted with the Department of Planning and Community Development of Iowa City. Both the Iowa City Central District Plan and the Johnson County Council of Governments (JCCOG) Long Range Multi-Modal Transportation Plan call for the evaluation of TOD in this area (Iowa City Central District Plan, 33; JCCOG Multi-Modal Transportation Plan, Section I: 7).

Proposed Inter-City Rail Services

The desire to establish TOD in Iowa City stems from the expectation that Amtrak service would be coming to Iowa City in the near future (Franke et al.). The proposed Amtrak route was to originally provide service from Chicago, Illinois, to the Quad Cities along either the Burlington Northern Santa Fe Railway or the Rock Island District Railway (Franke et al.). However, upon hearing news of this proposal, passenger rail enthusiasts and other interested parties saw an opportunity for Amtrak to come to Iowa City as well (Franke et al.). The future Amtrak service would run on the Iowa Interstate Railroad, a Class 2 freight railroad. Amtrak has conducted feasibility studies for this potential and determined that an Iowa City stop would be feasible based on projected ridership (see Figure 1) (Franke et al., 3, 4, 14).

In addition to establishing Amtrak service, there is interest in re-establishing some type of passenger service between Cedar Rapids and Iowa City (Pates and Hoekstra).

Figure 1: Dual photo of Amtrak and Freight Train- Amtrak (top) will need to enter negotiations with various freight carriers (bottom) in order to coordinate both passenger rail and freight service on the Iowa Interstate Railroad. Image (top), available at: http://www.america2050.org/2007/10/senate-notes-to-increase-funding.html. Image (below), available at: http://www.jccog.org/documents/railfeasibilityreport.pdf

Passenger service on the Cedar Rapids and Iowa City Railway (CRANDIC) began in 1904, but was discontinued in 1953 (“History: Timeline”). The CRANDIC railroad is a Class 3 short line (JCCOG Multimodal Transportation Plan, Section I: 1). There are many workers who commute daily along Interstates 80 and 380, and the provision of commuter rail service could ease demand placed on the aging interstate
highway system. As of 2009, many believe Amtrak service is all but certain, pending redevelopment of the area including station facilities, overnight holding areas for trains, and overnight parking areas for riders (Franke et al.). The prospects of commuter services are much less certain, due to the fact that this would involve significant coordination with relevant governments in Cedar Rapids and Linn County, along with the uncertainty of federal funding for its operations. It should be noted that passenger service on existing rail infrastructure would require extensive negotiations with CRANDIC service operators and the freight providers that currently utilize the railroads (see Figure 2).

Certain characteristics of Iowa City make the prospect for Amtrak service a logical one. The presence of the University of Iowa attracts people to Iowa City for a variety of reasons. Foremost among those reasons is education. With approximately 30,000 students attending the university each year, there are significant influxes of residents to the city (Franke et al., 3). Many of these students come from out of state, including Illinois and the Chicago area (Franke et al., 3). For many students, Amtrak service could be a desirable alternative to driving an automobile or riding a bus, depending on future fuel costs and economic conditions.

In addition to students, many alumni, university supporters, and parents visit Iowa City to attend various events. Iowa athletic events, concerts, graduation ceremonies, registration days and college visits are some of the many reasons why the university attracts other people besides students. For example, on at least six weekends during football season, thousands of people, supporters of both Iowa and opposing institutions, flock to Iowa City to attend the football games, participate in traditional activities associated with college football, and enjoy other amenities of the area. While supporters will come from all across the country, those living in areas served by Amtrak could arrive by passenger rail in the future.

**JCCOG Multi-Modal Transportation Plan**

Relating to TOD, the Johnson County Council of Governments (JCCOG) has explored the feasibility of passenger rail in the Iowa City area, determining that TOD would be attainable in Iowa City within the next six to twelve years (JCCOG Multi-Modal Transportation Plan, Section I, 6). In addition to studying the feasibility of TOD, they also outlined the costs of implementing passenger rail along the CRANDIC line. In contrast to the price tag of $400 million for adding extra capacity to Interstate 380, the cost of adding passenger service to CRANDIC would be $70 million (JCCOG Multi-Modal Transportation Plan, Section I, 7).

![Figure 2: Map of CRANDIC and LAIS between Amana, Iowa City, and Cedar Rapids. The provision of commuter rail service on the CRANDIC line between Cedar Rapids and Iowa City would help alleviate the need for additional capacity on Interstates 80 and 380, also known as the Technology Corridor; Image available at: Cedar-Iowa River Rail Transit Project Feasibility Study, pg. 2; http://www.jsog.org/documents/railfeasibilitreport.pdf]
Iowa City Central District Plan

"Promote the Central District as an attractive place to live by encouraging reinvestment in residential properties throughout the district and by supporting new housing opportunities....

...f. Explore opportunities and plan actively for the creation of new transit-oriented residential areas between the Iowa River and Gilbert Street in concert with efforts to establish a commuter rail line and Amtrak station in this area."

-Iowa City Central District Plan, pg. 20

If transit-oriented development is to take place in Iowa City, the most likely area for it to occur is in the Central District. Transit-oriented development, as described within Iowa City's Central District Plan, refers to "high-density, mixed-use residential and commercial districts designed to facilitate transit use and maximize access to public transit systems," (see Figure 3) (Iowa City Central District Plan, 33). The Central District is seen as an ideal location for TOD due to its proximity to downtown, its integrated bus transit network, and the presence of the aforementioned IAIS and CRANDIC railroads that increase potential for passenger or commuter rail (Iowa City Central District Plan, 33).

Project Overview

The target TOD area lies in an Iowa City neighborhood that varies in terms of level of investment and types of land uses. The following section outlines the target site, current land uses, and weaknesses that need to be addressed by the City of Iowa City.

Proposed TOD Site

In the area known as the South Gilbert Street Commercial Corridor, the proposed site for TOD in Iowa City is located just south of the Downtown District. It is delineated on the south along Highway 6; on the east along South Gilbert Street; on the west along the Iowa River; and on the north along the Iowa Interstate Railroad. In addition, there is a logical transit/pedestrian corridor connection running north along Clinton and Dubuque Street. The Old Rail Depot, to be incorporated into a future station area, is located just south of Wright Street on the Iowa Interstate Railroad (see Figures 4 and 5) (Iowa City Central District Plan, 51).

Current Zoning and Land Uses

The TOD site is currently zoned mainly for commercial, industrial, and public land uses (Iowa City Central District Plan, 46). The commercial uses include smaller neighborhood businesses, automotive repair facilities, landscaping and home repair, franchise restaurants, and convenience stores. An industrial user is the City Carton facility just south of Benton Street. The various public institutions include Johnson County administrative buildings, the National Guard Armory, and the wastewater treatment plant.
Site Constraints and Weaknesses

High intensity industrial uses in the area will be incompatible with a future TOD. The local recycling corporation, City Carton, maintains a facility immediately south of Benton Street. City Carton is currently in negotiation with Iowa City to move their operation, with access to freight service as one of their priorities. Along the river and south of City Carton lies a wastewater treatment plant. Iowa City plans to relocate this facility. The University of Iowa also has some maintenance and storage structures in the area that will need to be addressed before TOD can be realized.

There are numerous land-intensive commercial uses in the area that will be incompatible with TOD objectives. Aero Rental and Nagle Lumber both use considerable space in the area south of Kirkwood Avenue. The Pleasant Valley Garden Center is located on the southeast corner of the TOD target area. There are also numerous auto repair shops in the area east of South Gilbert Street. While these do not lie within the delineated boundaries of the TOD, they should still be called into question as being incompatible with the retail nature of TOD.

The aforementioned land uses are incompatible with TOD because they are very vehicle-intensive and land-intensive. The unloading of recyclable goods at City Carton requires personal vehicles, as does the purchase of bulk materials at Nagle Lumber and Pleasant Valley, or the rental of large items at Aero Rental. Ideally, future commercial development in the TOD will be compact and conveniently located near housing, and also geared towards retail.

There are many other site constraints outside of specific land uses and businesses. The area is not conducive to pedestrian and bike traffic. There is presently little to no streetscape improvement near the station area that would allow pedestrians to feel comfortable walking around the area. In addition, many sidewalks are in a state of disrepair, possessing cracks, vegetation invasion, and differing elevations between slabs. The station area may also present brownfield issues due to the presence of automotive businesses, a dry cleaning operation, the recycling center, and the railroad.

A much more recent and troubling problem arose during June of 2008, when the Iowa River rose above its banks and flooded areas of Iowa City, including a portion of the TOD area (Iowa City Central District Plan, 46). Any future high-value development would need to avoid areas directly adjacent to the river or Ralston Creek, a local tributary of the Iowa River (see Figure 6).

Client Goals and Project Objectives

The client expressed an interest in minimal financial involvement on the part of the city to promote TOD, preferring private developers to take the lead in project development with the city assuming an enabling role. Research has been done to enumerate possible initiatives, given city financial support, to promote TOD.

Framing TOD in Iowa City

As previously mentioned, transit-oriented development refers to “high-density, mixed-use residential and commercial districts designed to facilitate transit use and maximize access to public transit systems” (Iowa City Central District Plan, 33). However, based on case studies examined, TOD tends to be very context-specific with some unifying themes (Dittmar et al., 6-7).

Examples of TOD differ from city to city. Some cities have a long history of transit dependency, while others have constructed transit infrastructure from the ground up. Some examples are from America’s largest cities, while others are located in mid-sized cities and even suburbs. In some cases, such as Boston or Chicago, TOD was facilitated by already existing transit infrastructure. Boston and Chicago have historically been transit-oriented, even in their commuter-based suburbs. In contrast, cities like Denver and Atlanta have adopted TOD policies despite their lack of rail transit infrastructure until relatively recently (TCRP Report 102).

For Iowa City, determining the scale and intensity of development is important when creating TOD policy. The currently defined site is not large in scale, nor should it be developed at a density much greater than what is located in the downtown already. Special considerations should also be taken in terms of accommodating future Amtrak service. The inclusion of a TOD will affect the neighborhoods beyond the immediate transit and commuter rail services area. The city will need to overcome any negative perceptions associated with living near rail service by creating an inviting neighborhood with attractive amenities (TCRP Report 102). The notion of creating an identity or “place” can work further in Iowa City’s favor. With the higher
Figure 4: Map from the Johnson County Council of Governments identifying Potential TOD sites (green) with identified study area overlaid (red). Image available at https://www.jccog.org/documents/Carrer-Rail/Chapter.pdf

Figure 6: TOD Site Constraints: Susceptibility to flooding– In June 2008 the Iowa River reached major flood stage, inundating the target TOD area (left); the area prior to the flood of 2008 (right). Images available at www.Johnson-County.com: http://www.johnson-county.com/website/jcmap/viewer.htm
densities, increased foot traffic, and shopping opportunity, a TOD can be an attractive place for travelers and residents. TOD policies are seen as very progressive, and cater to major demographics in Iowa City, in particular the student populations and young professionals.

**Addressing Private Sector Concerns**

Because TOD is an uncommon investment opportunity, developers and financiers may be unsure whether they will receive a good return on their investment, especially in unique TOD contexts such as potential TOD in Iowa City. Even in larger communities, there is a significant amount of risk involved when investing in TOD, especially when a developer considers the alternatives. Less risky alternatives include any type of proven real estate commodity, such as suburban tract housing or strip mall commercial property. The fact that TOD is uncommon nationwide, and the results are mixed, generates a large amount of uncertainty when a developer weighs it in contrast to proven and more traditional methods of development (TCRP Report 102, 101).

"Developers and, perhaps more importantly, those who often bankroll projects--lenders--know that they can make a nice profit building single family tract housing and sprawling subdivisions oriented to highways...TOD, on the other hand, has a spotty track record, and in some parts of the country, is virtually nonexistent."

Case Studies

The first course of action was to investigate TOD across the country. After conducting an in depth literature review and internet research, the *Transportation Cooperative Research Program Report 102* was identified as the best compendium of case study research. Because the document was published in 2004, the research team attempted to contact Gwen Chrisholm, staff officer for the Trannportation Research board to enquire about additional case studies prepared since 2004, but at completion, had not yet received a response. Many different factors were considered, including city size and demographic characteristics; history of transit facilities and ridership; type, scale and intensity of development; presence or lack of local corporate figurehead or "white knight"; and the importance of municipal involvement. The team wanted to assess how TOD has succeeded (or failed) in other jurisdictions. Ideally, either a comparable situation to Iowa City would be found during the research, or useful elements across all situations could be applied to Iowa City.

After gathering information, the team sifted through the information in order to find the most important factors that would influence the development of TOD in Iowa City. There are some important questions to be answered before the City of Iowa City can begin development:

- From a financial standpoint, what does Iowa City need to do to entice developers to the TOD target area?
- From a regulatory standpoint, what type of zoning does Iowa City need to adopt or change?
- What are developers looking for in terms of limiting risks to their returns and increasing their rewards?

Real Estate Market Analysis

The course that development takes within TOD is incredibly important in determining the vitality and success of the area. Of interest to the prospect of TOD in Iowa City are the demands for residential units, commercial activities and office space. Included in a detailed market analysis would be detailed maps of parcels of land in the station area. Land and property values, vacancies, and development potential are...
some of the factors examined to help gauge land availability for new development.

Zoning and Administrative Policies

Given the client's interest in non-fiscal ways to promote TOD, an examination of conventional land use regulation procedures was performed.

Building Political and Institutional Support for TOD

Given the intersection of regulation and transit provision, the importance of political and institutional support for TOD was evaluated.

Perform Site Improvements and Assist with Development

Finally, the condition of the site with regards to design, ownership and potential environmental issue was identified as important considerations for TOD development. Additionally, research was conducted to identify existing plans for the area other than the 2008 Central District Plan so as to trace the recent history of planning in the area.

Figure 7: Wright Street photo by Angela McConville, March 2008

Figure 8: Study area photos by Angela McConville, March 2008
Encouraging TOD via the Private Sector: Case Study Lessons

The following section summarizes case study lessons and private-sector survey responses from TCRP Report 102: Transit-Oriented Development in the United States: Experiences, Challenges and Prospects. Specifically, this section details factors influencing private-sector involvement in the TOD process and identifies key elements associated with successful TOD projects (TCRP Report 102).

Case Studies: Background & Methodology

The TCRP Report 102: Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects is a summation and analysis of TOD planning techniques sponsored by the Transportation Research Board, a leading entity in transportation innovation and progress (TCRP Report 102, Foreward). The report contains extensive information about TOD projects across the country, including detailed case studies of TODs in Boston, Washington, Miami, Chicago, Southern California and the state of New Jersey (TCRP Report 102, Foreward). Of those case studies, many are unique in terms of their level and diversity of transit service, the size of development, and their surrounding municipal/regional contexts (TCRP Report 102). The TOD case study areas vary in historic levels of transit use: some cities have a history of transit service dating back to the turn of the century, while others have had to manufacture their services in modern times (see Figure 7) (TCRP Report 102, 183, 355).

Beyond identifying key elements of successful TODs in the United States via case study analysis, the Transportation Research Board also sought to identify private-sector concerns surrounding TOD involvement (TCRP Report 102, 83-97). Accordingly, contributors to the TCRP Report 102 conducted "a series of one-on-one phone interviews...with 35 real-estate developers from across the United States who have been involved with projects near transit stations" (TCRP, Report 102, 83). All of the developers surveyed were headquartered in large American metro areas, including Portland, Boston, the Bay Area, Chicago, and New York (TCRP Report 102, 83).

In addition to surveying developers, the contributors also solicited information from local lenders in the Bay Area, Philadelphia, Chicago, and Los Angeles metro areas (TCRP Report 102, Foreward, 84). These investor and developer interviews were conducted in a conversational manner to allow for more detailed descriptions of specific TOD practices and developer/investor concerns (TCRP Report 102, 84).
Factors Inhibiting Private Sector TOD

As previously stated, "developers...know that they can make a nice profit building single family tract housing...and subdivisions oriented to highways" (TCRP 102, 101). When evaluating the market for TOD, however, potential returns on investment are more difficult to accurately predict, particularly when there are no adequate project comparables (TCRP Report 102, 95). Such uncertainty directly impacts the ability of developers to secure "conventional debt financing" (TCRP Report 102, 97). As noted in the TCRP Report 102, "loan decisions...are governed by fundamentals, not urban planning concepts" (TCRP Report 102, 97).

Beyond market uncertainties, however, several other factors are important to developers and investors when considering creation of a transit-oriented development (TCRP Report 102, 86-87). Listed in order of importance in the graph (at left, Figure 4), addressing these factors provides an essential step for public entities who wish to effectuate TOD via the private-sector (TCRP Report 102, 87, 99-116).

Given the importance of addressing these concerns, the following section outlines suggested actions that the City of Iowa City can take to promote private development around transit stations.

Suggestions for Promoting Private Sector TOD

After evaluating the TCRP Report 102's case study lessons (see pages 13-14) and survey responses, it is suggested that Iowa City take the following action steps to support TOD efforts via the private market:

Action Items for the City of Iowa City:

- Demonstrate Real Estate Market Demand
- Establish TOD-Supportive Zoning and Administrative Policies
- Build Political and Institutional Support for TOD
- Perform Site Improvements & Assist with Development Preparation (TCRP Report 102, 87, 99-116, Table 20.1).
Demonstrate Real Estate Market Demand

"The presence of market demand is without question the overriding factor [in the private sectors's decision to go forward with transit-oriented development]" (TCRP Report 102, 86). As such, Iowa City must be able to demonstrate existing demand not only for transit service, but for the various land uses that promote TOD (TCRP Report 102). These land uses may include mixed-use developments that accommodate high-density residential, low-intensity commercial and retail opportunities, and large amounts of office space or other employment opportunities (TCRP Report 102). By demonstrating adequate market demand, a potential developer/investor may be more willing to approach the municipality with a proposal (TCRP Report 102).

Establish TOD-Supportive Zoning and Administrative Policies

As "the front lines of TOD, organizing the financial, physical, and human resources needed to build projects around transit stations," private-sector developers and investors "usually require and expect supportive public policies that allow them to do so" (TCRP Report 102, 83). In general, creating TOD-supportive policies may be the easiest, least costly and most effective way for the public sector to encourage TOD (TCRP Report 102, 86-87). This is because "changes in zoning are squarely within the purview of local government," and, as demonstrated by the previous graph, they are among the most important factors that developers consider when evaluating potential TOD (TCRP Report 102, 86-87). Section 4 of this report will describe these methods in more detail, but the following list provides some of the reasons why Iowa City should address zoning and administrative policies in order to effectuate TOD via the private sector:

- The "time and effort associated with seeking a change in zoning is only justified when there is a large potential return associated with a major development. Small projects need the proper zoning to be already in place" (TCRP Report 102, 86).
- "Planning doctrine that holds that buildings near transit stops must be vertically mixed" is disfavored by developers, who prefer that "the private sector [be allowed] to make decisions about when it is appropriate to mix uses with the same building." (TCRP Report 102, 88).
- "Below code parking standards are another trait of TOD that some developers believe affects their ability to secure financing" (TCRP Report 102, 95). "One developer commented that 'a couple of lenders pulled out when they found out there was no parking lot.'" (TCRP Report 102, 95). Many lenders may establish lending decisions around a model of 'suburban development' and may be 'reluctant to lend to projects with parking ratios below industry standards." (TCRP Report 102, 96).

Build Political and Institutional Support for TOD

Although supportive zoning and administrative policies are important to private developers when considering TOD, these "supportive land use designations are most important when they reflect clear community sentiment" (TCRP Report 102, 86). Establishing community support for TOD via planning or visioning processes "creates a margin of certainty [for the developer]" (TCRP Report 102, 86). As such, it is recommended that the City of Iowa City take actions to build "political and institutional" support for TOD at the federal, state and local levels (TCRP Report 102, 102-103, Table 20.1). Section 5 of this report will outline these suggested actions in further detail.

Perform Site Improvements & Assist with Development Preparation

In addition to the benefits afforded to a developer from "a strong degree of public commitment," site or "infrastructure improvements like undergrounding utilities and upgrading road access are likely to make TODs all the more attractive to lending institutions" (TCRP Report 102, 97). Therefore, to entice TOD via the private sector, the City of Iowa City should consider making necessary capital improvements to the proposed TOD site (TCRP Report 102, 97).

Further, the City should consider assisting with development preparation efforts (TCRP Report 102, 105). For example, the City should consider performing necessary land assemblage efforts: "Developers indicated that the cost and risk of negotiating to assemble land is ordinarily too great to justify the reward; they believe that much more TOD would happen if their public sector could deliver pre-assembled parcels" (TCRP Report 102, 105).

Case Study Lessons

The following section outlines lessons from the case studies within the TCRP Report 102 that informed the aforementioned suggestions (TCRP Report 102, Table 20.1).
Key Elements of TOD Projects in the United States

Boston
TCRP Report 102
Case Study Lessons

New Jersey
TCRP Report 102
Case Study Lessons

Washington, DC
TCRP Report 102
Case Study Lessons

Miami-Dade
TCRP Report 102
Case Study Lessons

Chicago
TCRP Report 102
Case Study Lessons

- **Leadership**: "Public sector leadership is needed to promote TOD, even in a strong market" (TCRP Report 102, 202). "Part of leadership is helping to make projects work financially. In Boston, this has involved creating zoning: making infrastructure improvements; and providing predictability and transparency in the form of plans, guidelines and permissible uses and densities" (TCRP Report 102, 202).

- **Inclusive Public Processes**: Before committing to a TOD project, the "city must solicit broad-based support" (TCRP Report 102, 205).

- **Creative Financing**: Government leaders "spearheaded federal legislation that allowed the use of Interstate Highway funds for transit" (TCRP Report 102, 184).

- **Progressive Zoning Policies**: Boston negotiated a "parking agreement" with the EPA to freeze the number of allocated spaces in Boston at 1973 levels, promoting alternatives to auto transportation (TCRP Report 102, 185).

- **Leadership**: In New Jersey, "the places that have been most successful in turning around neighborhoods bordering train stations have generally been small and have powerful elected officials and small planning departments" (TCRP Report 102, 216). Such political support for TOD may be possible in NJ, because mayors don't have term limits and can arguably implement long-term redevelopment plans more easily (TCRP Report 102, 210). Local mayors in NJ, for example, have used their political power to "aggressively pursue public-private partnerships," use "condemnation powers to assemble land," and "enter into equity agreements in lieu of collecting taxes," to create TOD (TCRP Report 102, 214).

- **Institutional Support**: Strong state-level financial, technical and political support for TOD exists in New Jersey via the state's Office of Smart Growth and Transit Village Initiative (TCRP Report 102, 210-211).

- **Early Planning Efforts**: "VMA/TA's joint development program was the first to receive marketing and planning " (TCRP Report 102, 216). Metrorail service opened. Two entities, Montgomery and Arlington Counties, embraced TOD as part of their long-range future and continued to refine their planning and implementation strategies to create transit-oriented communities around major rail stops" (TCRP Report 102, 259).

- **Permissive & Enabling Legislation**: "Older suburban downtowns like Bethesda and Silver Spring are also undergoing a TOD facelift. Progressive city and county policies, including density bonuses and flexible parking codes, have encouraged TOD in these areas" (TCRP Report 102, 260).

- **Bold Policies Sensitive to Markets**: "The market is also crucial. In the case of Columbia in the District of Columbia, Columbia's own residential and commercial growth, making them desirable for residential and commercial growth, making them desirable for high-density development even without subway services" (TCRP Report 102, 259).

- **Institutional Coordination & Streamlining**: Under a County-charter system of government, the county governs transit and land use around stations. This system allows the county to streamline policies and procedures, making it easier to implement TOD (TCRP Report 102, 277).

- **Resisting Alternative Modes**: Despite this novel system of governance, a traditionally auto-oriented populace is reluctant to ride transit even with large-scale residential development in the station area (TCRP Report 102, 277).

- **Importance of Public Sector Investment**: "Transit amenities and vacant adjacent sites alone will not ensure reinvestment in the absence of compelling market factors. For better or worse, big government subsidies also seem necessary to turn around neighborhoods like Overtown" (TCRP Report 102, 277).


- **Photo**: "Photo by Allan S. Berle, Available at Trainnet.org: http://www.trainnet.org/libraries/18003/CHICAGUE.JPG"

- **Photo**: "Photo by Allan S. Berle, Available at Trainnet.org: http://www.trainnet.org/libraries/18003/CHICAGUE.JPG"

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- **Photo**: "Photo by Allan S. Berle, Available at Trainnet.org: http://www.trainnet.org/libraries/18003/CHICAGUE.JPG"
The following table provides a summary of key elements from case studies found within the TCRP Report 102. For further information about these projects and the lessons they provide for successfully effectuating transit-oriented development, see TCRP Report 102, Chapters 10-20 and Table 20.1.

<table>
<thead>
<tr>
<th>Location</th>
<th>Case Study Lessons</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas</td>
<td>TCRP Report 102</td>
<td>- LEADERSHIP: &quot;Similar to other places in the United States, each suburban jurisdiction had an enlightened and involved city leadership that invested time, money, and political capital to achieve TOD&quot; (TCRP Report 102, 317). - LEADERSHIP: Despite this lack of coordination with the city of Dallas, TOD has been successful in Dallas based largely on a few progressive developers. The presence of developers that are experienced with TOD reduces the requirements on the city to facilitate such development (TCRP Report 102, 317). - TOD &amp; PLACEMAKING: TOD funds have been able to reitalize or even create a new civic core&quot; (TCRP Report 102, p. 318). - TOD &amp; PLACEMAKING: Developers are finding that it is quite profitable to invest in TOD when looking at the Mockingbird Station example (TCRP Report 102, 318). - Photo by RACTOD, Available at: <a href="http://www.flickr.com/photos/12204408@N03/1435190002/">http://www.flickr.com/photos/12204408@N03/1435190002/</a></td>
</tr>
<tr>
<td>Colorado</td>
<td>TCRP Report 102</td>
<td>- LEADERSHIP: &quot;Denver is pursuing long term TOD by identifying station areas and making necessary capital improvements (TCRP Report 102, 350). - BOLD POLICIES SENSITIVE TO MARKETS: Boulder has a very low supply of developable land due to its strict growth management provisions. This creates the perfect context for transit-oriented development requiring regulation of TOD rather than promotion efforts (TCRP Report 102, 350). - BOLD POLICIES SENSITIVE TO MARKETS: TOD in the Roaring Fork Valley is still at the early stages, but shows a potential model for development in rural and environmentally sensitive areas, as opposed to the typical urban context (TCRP Report 102, 350). - Photo by MHGau, available at: <a href="http://www.flickr.com/photos/mhgau/4659957670/">http://www.flickr.com/photos/mhgau/4659957670/</a></td>
</tr>
<tr>
<td>Portland</td>
<td>TCRP Report 102</td>
<td>- LEADERSHIP: As the national example for transit-oriented Development, Portland is continuing to improve its TODs by raising requirements for developers by further reducing parking standards, increasing site design standards and incorporating an increasing diversity of uses (TCRP Report 102, 379). - SHARED VISIONS: Portland has been able to provide good transit by citing it as a solution to numerous goals beyond merely transporting those unable to transport themselves. Tapping into financing programs for emissions reductions, growth management, urban renewal and many other initiatives has given transit in Portland the support to succeed (TCRP Report 102, 379). - EARLY PLANNING EFFORTS: &quot;The earliest decisions on the planning and design of light-rail systems shape the opportunities for TOD. Portland's approach to the design location and planning for major transit investments has evolved with each rail line in order to leverage opportunities for TOD&quot; (TCRP Report 102, 379). - Photo by Impression That I Get, available at: <a href="http://www.flickr.com/photos/tha_impression_that_i_get/2046647674/">http://www.flickr.com/photos/tha_impression_that_i_get/2046647674/</a></td>
</tr>
<tr>
<td>San Francisco</td>
<td>TCRP Report 102</td>
<td>- LACK OF REGIONAL COORDINATION: Many planning officials realize the necessity of focusing regional planning efforts, but the municipalities themselves have cooperated little in effectively implementing TOD policies on a unified front (TCRP Report 102, 407). - LACK OF REGIONAL COORDINATION: Reluctance to engage in joint development and attachment to traditional parking standards has reduced the ability of the BART commuter rail service to implement TOD (TCRP Report 102, 409). - PERMISSIVE AND ENABLING REGULATIONS: &quot;Despite a fragmented institutional landscape and a tendency for localities to compete for rather than coordinate land use, the Bay Area has nonetheless become on of the most progressive regions of the country at seeking to incentivize TOD-like growth&quot; (TCRP Report 102, 407). - Photo Available at: Grand Boulevard, El Camino Real, <a href="http://www.grandboulevard.net/tod/tod2.html">http://www.grandboulevard.net/tod/tod2.html</a></td>
</tr>
<tr>
<td>S. California</td>
<td>TCRP Report 102</td>
<td>- RESISTING ALTERNATIVE MODES: Planners in S. Cal. see TOD as a way to accommodate growth and reduce congestion, but an ingrained auto culture persists. Rail extensions have done little to ease vehicle travel impacts (TCRP Report 102, 440). - VALUE CAPTURE: &quot;Benefit-assessment financing has been introduced in Los Angeles, constituting one of the United State's few examples of transit-related value capture. Creative financing among multiple parties has given rise to successful bus-based TOD's like the City Heights Urban Village in central San Diego&quot; (TCRP Report 102, 440). - BOLD POLICIES SENSITIVE TO MARKETS: &quot;Population and employment growth, traffic congestion, and changing demographics are expected to increase the demand for high-density, mixed-use projects in [S. Cal]. Transit stations are natural habitats to direct these to. To date, local governments and transit agencies in [S. Cal] have been fairly proactive in making sure this is the case, and all signs indicate that this pro-TOD stance will continue in years to come&quot; (TCRP Report 102, 437). - Photo by L. Wad, Available at: <a href="http://www.flickr.com/photos/hericcad/3137261237/in/set-72157607022238469/">http://www.flickr.com/photos/hericcad/3137261237/in/set-72157607022238469/</a></td>
</tr>
</tbody>
</table>

Table 1: Continued
3 Demonstrating Real Estate Market Demand for TOD in Iowa City

Based on case study research, demand for the type of development generally found in TODs (including high density residential, retail and office space) is the primary determinant of TOD success (TCRP Report 102, 84).

Background

TOD is a novel concept for an Iowa-City-sized community in the modern era. There is a long-standing tradition of personal automobile transportation, free parking and low levels of congestion in this community that provide little incentive to utilize public transportation for most residents, despite the progressive and quasi-metropolitan character of the area. Transit-oriented living requires residents to reinvent daily routines and transportation habits that have been in place, in most cases, since birth. The potential for TOD relies on providing a high quality of life that will draw residents willingly from their suburban car-based routines into more urban travel and living patterns. This switch will hinge principally on the provision of a high level of transportation service throughout the community, but also on the affordability of housing for commuters, urban design and public amenities, controlled externalities from student housing, and accessible service retail and cultural attractions in the South Gilbert Street Commercial Corridor.

Methodology

The methodology for this analysis was drawn largely from the online publication Creating Transit Station Communities in the Central Puget Sound Region: A Transit-Oriented Development Workbook produced by the Puget Sound Regional Council (Puget Sound Regional Council). The Puget Sound publication advocates three levels of market analysis: Regional, Transit Corridor-Segment and Station Area. These three levels of analysis are intended to determine projected demand for retail, commercial space and residential units that could be accommodated in the station area. The Downtown Iowa City Market Niche Analysis produced in 2007 by Marketek Inc. provided the basis for the regional and corridor-segment levels of analysis (see Figure 9).

![Figure 11: Marketek Downtown Iowa City Market Niche Analysis cover](http://www.igov.org/site/CMSc2/file/planning/canDev/marketSurvey.pdf)

The station area analysis was performed by a personal examination of the area. This section evaluates the strengths and weaknesses of the site to host development forecasted by qualitatively evaluating the potential for high density urban development in the area, and by quantitatively analyzing current development and land supply. Real
estate data were collected from the Iowa City Assessor's web page. Although the South Gilbert Street Commercial Corridor is strikingly distinct from the generally accepted downtown area, consultation with Iowa City planning staff confirms the applicability of the study to the station area (Howard). Additionally, city staff expressed confidence in the numbers despite failures in credit markets that have arisen since the study was released.

**Downtown Development Potential**

High levels of demand for dense commercial and housing are necessary for successful TOD development (TCRP Report, 102). Nationwide, recent years have seen increasing demand by young professionals to live close to downtown and near centers of employment and entertainment. These changing lifestyle preferences, combined with a growing rejection of auto-oriented living due to volatile fuel prices and environmental concerns, create an ideal culture for TOD across the country. The quantitative impact of these trends on projected housing, retail and office demand in the proposed station area can be seen in the Marketek analysis of Iowa City.

**Housing Demand**

Based on strong growth patterns in Iowa City, Marketek projects demand for over 22,000 new residential units in the greater Iowa City area by 2017. Downtown Iowa City is projected to capture 16.5% of this demand --approximately 1,400 owner-occupied units and over 2,200 rental units (Marketek, 2).

**Retail Demand**

Over the last half century, retail business has drifted from downtown storefronts to outlying shopping centers. Businesses in dense areas suffer a competitive disadvantage from limited parking, expensive rents, and inconvenient vehicle access for inventory deliveries. However, the strong business climate in downtown Iowa City shows potential for increasing retail development. For the greater Iowa City area, Marketek projects demand for 381,190 square feet of retail by 2012 and 413,097 square feet by 2017. Downtown can potentially capture 282,644 square feet of this growth (Marketek, 2).

**Office Demand**

Iowa City and Cedar Rapids (a mid-sized town thirty miles to the north) comprise an economic region known locally as the Technology Corridor. This area is rich in white collar jobs with corporations such as Aegon, Rockwell Collins, ACT, and NCS Pearson. Based on this healthy business economy, as of 2007, there was a growing annual demand for office space in the Technology Corridor.

Jobs within the corridor as a whole are anticipated to increase by more than 3,500 annually through 2014. Given this projection, Marketek concludes existing office space is only available for six months of office-based employment growth. Downtown Iowa City could capture 17.5% of projected demand in the corridor, or about 353,199 square feet by 2014. One specific deficiency in downtown development is a lack of large office space (over 5,000 square feet) (Marketek, 3). Such spaces present a competitive niche for new development if downtown Iowa City can provide them.

**Total Development Potential**

The projected potential development forecast by Marketek paints a favorable picture of future downtown development. Table 1 summarizes total demand for various land uses. Given the breakdown of housing preferences developed by Marketek (Table 1), these levels of demand would translate into the square footage of roughly seventy-five Writer's Square buildings, or roughly nine square blocks developed with four-story buildings and short setbacks. This estimate is based on the approximate sizes for various units also noted in Table 1. The Writer's Square building is a good comparison because it represents a size and layout that might be suitable for the identified TOD area.

To realize TOD, a significant portion of this development must be captured in the site area. For this to happen, the specific site constraints and weaknesses presented in the project overview must be addressed, development encouraged in the station area, niche areas such as large office space provided and complications (such as commercial delivery vehicle access) overcome.
<table>
<thead>
<tr>
<th>Total Housing Demand (Units)</th>
<th>3640</th>
<th>Potential Commercial Development (sq ft)</th>
<th>636,843</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Demand Makeup (examples drawn from Iowa City in parentheses)</td>
<td></td>
<td>Total Potential Real-estate Development</td>
<td>3,381,699</td>
</tr>
<tr>
<td>Single Family Detached</td>
<td>18.6%</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Condominium or Townhome (Elk Run Condominiums)</td>
<td>27.6%</td>
<td>1,200</td>
<td>1,205,568</td>
</tr>
<tr>
<td>Low-Rise Apartment (2 bedroom units in 319 E. Court Apartment Building)</td>
<td>10.7%</td>
<td>1,023</td>
<td>398,438</td>
</tr>
<tr>
<td>High Rise Apartment (Mid-Size Unit in Plaza Towers)</td>
<td>19.0%</td>
<td>1,000</td>
<td>691,600</td>
</tr>
<tr>
<td>Loft Housing (similar to units in Vogel House)</td>
<td>16.5%</td>
<td>750</td>
<td>450,450</td>
</tr>
<tr>
<td>Other</td>
<td>7.7%</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Potential High Density Housing Development (sq ft)</td>
<td></td>
<td>Floor Area of Writer's Square Building (sq ft)</td>
<td>45,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equivalent floor area (number of Writer's Square Buildings)</td>
<td>75</td>
</tr>
</tbody>
</table>

Calculations to visualize the magnitude of development projected by Marketek. Using the example floor areas from various Iowa City projects that exhibit the expressed types of housing, the demand projected by Marketek is equivalent to 75 Writer's Square buildings or about 9 standard Iowa City Blocks built to four stories. [Floor areas retrieved from www.neumanmonson.com, www.elkruncondos.com, and www.iowacityrent.com] Marketek study available at http://www.igeo.org/site/CMSsec/file/planning/conDev/marketSurvey.pdf. Photo (bottom right) – Writer’s Square mixed use building located at 301 E. Market St., Iowa City, available at http://iowacity.iowassessors.com/parcel.php?gid=127569.
Station Area Analysis

"The ability of the station area to capture a greater share of development is... largely influenced by the site planning and design, the quality of the amenities provided, and the infrastructure linkages that help to create a vibrant mixed-use community."  
-Economics Research Associates  
International Real Estate Analysis Firm

In the interest of promoting TOD in the South Gilbert Street Commercial Corridor, the city must address several site constraints presented in the project background. This area is the location of the historic depot building identified to host Amtrak service, which has excellent access to the CRANDIC line and significant potential for redevelopment. Currently, the area is separated from the existing downtown, but it has been targeted as the growth area for downtown development. Successful TOD will hinge on drawing a significant level of projected downtown development to the area.

Given that success in TOD's nationally has been based on providing high densities of trip attractors, for TOD to be successful in Iowa City, the station area must absorb a significant portion of the urban development projected for the downtown area. The potential to host this development is based on the advantage of development in the TOD area compared with available real estate in the existing downtown. The South Gilbert Street Corridor has several limitations and strengths that govern the development potential of the area at urban densities. Many of these weaknesses can be mitigated and strengths improved through city involvement.

Barriers to Development

Because of the heavy reliance on pedestrian travel in urban development, barriers to TOD in the study area include the physical barrier imposed by Highway 1, a distance of 1/3 miles (15-20 minute walk) from the Train Depot to the established downtown, conflicting land use requirements of regional rail and TOD, and generally a low standard of streetscape investment or coordinated urban design (see Figure 10).

Crossing the busy five-lane Highway 1 presents a considerable barrier to pedestrian travel from the rail area to employment, academic and entertainment attractions downtown. Additionally, in a city where a 10-minute drive covers the entire length of the town, a 15-minute walk may be considered too onerous for transit users.

Aesthetically, there is limited continuity with downtown to create a secure pedestrian corridor from the station to downtown. Discontinuous sidewalks, scant street life, and little visual connectivity with the downtown will discourage pedestrian travel. Further, limited service retail, a distinctly auto-dependent atmosphere, low level of transit service currently, and the potential for site contamination paint a bleak picture of the current development environment.

Finally, because the depot will be serving travelers to Chicago, who will likely stay overnight, the need to store vehicles nearby and carry luggage to the station must be addressed. It should be noted that large parking lots, while necessary for regional rail in Iowa City, directly undermine the density and walkability objectives of TOD. Efforts should be taken to provide offsite parking with transit connectivity to the station area.

Opportunities for Development

Strengths of the area that are conducive to TOD include the existing transit infrastructure, low levels of existing development, well maintained historic architecture and recent investment in high-quality university and county government buildings.

The site was selected based on the presence of the existing Rock Island Railroad Depot building that has been selected to host Amtrak service to Chicago. Additionally, the CRANDIC railroad runs through the site area, providing the possibility of local commuter rail service to the area. If these rail services are realized, property values stand to increase significantly in the area. For example, the proximity to transit was found to increase downtown commercial property values by 60% as compared to automobile accessed property downtown (TCRP Report 120, 165). This potential provides a strong incentive to begin planning for the area well in advance of the imposition of rail service.

Current development in the area is largely low density, single-story commercial, and land-intensive retail. These sites could potentially be acquired at prices far below those typically paid for projects at these densities. Additionally, the city is in nego-
tions with the City Carton recycling center to vacate the property and is preparing for the North Wastewater Treatment facility to open up for urban development. This low level of development and large supply of land provides easy acquisition of property for higher density development associated with TOD. A formal real estate analysis was conducted and is presented later in this paper.

In addition to the supply of land, there are several historic structures in the area. Clinton Street is lined with many historic homes, an historic railroad hotel, and the striking court house building, while South Dubuque street hosts several quaint storefronts that add an attractive historical context to the area. These historical structures can provide a unique identity to the area that will distinguish it from competing development locations (Marketek, p. 37).

Finally, the University of Iowa and Johnson County government are actively developing property in the area including one building project pursuing LEED silver accreditation. These projects will bring jobs and investment to the TOD area and pave the way for private sector investment. This initial redevelopment has already increased the pedestrian traffic and general aesthetics of the area, improving upon these two prerequisites for retail development.

Conclusions

Based on the Marketek findings, it appears that there is sufficient development potential to create TOD in the station area. To realize TOD, however, the city must take an interest in directing development to the area through transit-oriented land use regulations, promoting high-level transit services in the area, improving streetscape design and generally addressing developer's apprehensions about developing in an area with little investment.

Figure 12: End of Harrison Street, overlooking Ralston Creek. March 2009 images by Angela McConville
Figure 13: TOD Site Constraints and Weaknesses; Photos by Joel Donham
4 Establishing TOD-Supportive Zoning and Administrative Policies

The regulatory tools granted to municipalities by state legislatures play a significant role in shaping development patterns across the landscape. They help segregate land into logical uses for the purposes of organizing property, protecting important resources, and directing growth. This section discusses the various zoning methods prevalent in many TOD’s in the United States and describes a TOD zoning ordinance applicable to Iowa City.

Background

In the same manner that zoning policy shapes an entire city, zoning policy should be used to guide the course of development in a TOD (Greenberg, 59). As previously stated, TOD exists in different forms from city to city, and is facilitated by local zoning ordinances. There are two main ways for zoning to play a role in shaping TOD: a customized approach and a standardized approach. They both depend on certain conditions of the TOD area, namely, size, development intensity, and transit integration (Greenberg 64-65).

The customized approach is one where the governing jurisdiction views TOD as beyond the capabilities of a normal land use ordinance. In a customized approach, the municipality clearly identifies TOD areas, illustrates the reasons why such an area requires intensive planning efforts along with significant time and monetary investment, and produces a land use plan that they believe can best facilitate a high-density, transit- and pedestrian-friendly development. The customized approach is applicable for large scale projects, especially those where a transit station is directly integrated into the area. In the case studies the team researched, the customized method was used when the projects were of a particularly large scale, or was integrated with an on-site transit station (Greenberg, p. 64-65).

In contrast to a customized approach, the standardized approach allows existing zoning controls to determine development. In determining the target TOD site, the jurisdiction may feel that a specific site plan is unnecessary and that the real estate market demand and the developers will shape it into a desirable product. This method is more appropriate for small scale TOD’s and those that do not integrate with major transit stations. To stimulate development in a desired way, a municipality can grant bonuses to developers who want to build at a higher density, or grant variances to avoid certain requirements outlined within local zoning ordinances. In a standardized approach, there are no specific plans created for the purposes of TOD (Greenberg, p. 64-65).

Example of a TOD-Supportive Zoning Plan

While it was difficult to find a truly comparable TOD in an area similar to Iowa City, there are examples of regulatory measures that Iowa City could learn from in designing a specific plan for their own future TOD. One example, Austin's TOD ordinance, contains elements applicable to the Iowa City environment.

Austin, Texas

The type of zoning measure that Austin has adopted is useful to Iowa City due to the acknowledgement that development should occur at different intensities across the community. The Austin ordinance is a great model for Iowa City, not only because it provides the city with elements to identify as important for the target area, but because these elements can be incorporated into a TOD zone that can be utilized in the future, in the event that Iowa City seeks to support TOD elsewhere.

Austin's TOD ordinance identifies four distinct districts: neighborhood center, town
center, regional center, and downtown. The neighborhood center is the least dense area, while downtown is the densest. The use of these districts depends on their location in relation to the downtown area ("Summary of TOD Ordinance", p.2).

Furthermore, Austin also identifies different zones within a TOD. These are known as gateway, midway, and transition zones. These zones are dependent on development and its proximity to a transit station. The gateway zone immediately surrounds the transit station, while the transition zone is further away, and acts as a "transition" between high density TOD development and more traditional urban neighborhoods ("Summary of TOD Ordinance", 2).

### Modifying Iowa City’s Zoning Plan

When considering a customized or standardized approach, the target TOD in Iowa City seems to exist somewhere in between the situations described as ideal examples of customized and standardized projects. On one hand, TOD in Iowa City will not be a large scale development, lending credence to the idea that standardized zoning methods may accomplish the city’s goals.

On the other hand, TOD in Iowa City will incorporate a major station in the form of Amtrak service. While this station by itself cannot be considered transit due to the fact that it is intercity rail, ideally there will be logical connections with local university and municipal bus transit systems. In addition, the possibility of future commuter rail will increase the need for a more customized plan for Iowa City.

Iowa City has already taken steps towards a more customized plan. The recently adopted Central District Plan contains a land use plan map for the South Gilbert Street Commercial Corridor (Iowa City Central District Plan, 51). Any future customized plan would certainly need to be more detailed, but this is a foundation to build from.

When looking at utilizing elements within Austin’s ordinance and applying them to the local TOD policy, regional planning efforts should consider adopting some type of TOD ordinance that can be utilized in other parts of Johnson County. As the MPO representing Johnson County, JCCOG should not focus on the exact densities outlined by the Austin ordinance, but rather the fact that any future ordinance is structured in a similar manner. Because the target area is adjacent to the Near Southside District, a logical extension of downtown, planning efforts should embrace the idea that this area should be developed at a higher commercial and residential density than neighborhoods to the south of Highway 6 or on the periphery of Iowa City, but similar to or slightly less than densities present in the downtown. Ideally, JCCOG would create their own definitions of TOD districts organized in a similar manner to Austin’s ordinance. Having a regional zoning ordinance would go a long way in recognizing that there are other players that could make TOD successful. Future commuter rails would service both Coralville and North Liberty, and TOD can be seen as desirable for these areas, particularly given the lower emphasis on growth control in those municipalities.

### Streamlining the Permit Review Processes

One regulatory concept that Iowa City or JCCOG should consider adopting for quicker results in realizing TOD is the streamlining of any permit review processes. Clearing the red tape that confounds even traditional developments is important to the developer. Not only does it reduce the time between initial development plans and breaking ground, but it adds more certainty to the development equation (TCRP Report 102, 112).

This seems counterintuitive to something discussed earlier in this report. On one hand, the developer wants minimal time spent in the review process. On the other hand, he or she sees active planning efforts as essential in determining the success of a project, and thus a developer's return on investment. Both can be considered essential in public-sector participation, an important factor when a developer considers investment in TOD. However, active planning efforts and products, such as the existence of specific site plans, increase the certainty of a project, thus increasing a developer's willingness to invest (TCRP Report 102, p. 112). Active planning efforts can also directly affect the time it takes for a proposal to be reviewed and approved. If a municipality or regional authority invests a considerable amount of time in thoroughly planning a TOD target area and produces a detailed, concise land use plan for TOD, then the developer has a clearer objective with which to comply with and the review process becomes more streamlined by default.
Figure 14: State of Planning in the Proposed TOD Site - Current Zoning Map. Adapted in February 2009 from city document available at: [http://www.iowacounty.gov/site/CMS32/file/planning/urban/NewZoning-Map-Nov-06.pdf](http://www.iowacounty.gov/site/CMS32/file/planning/urban/NewZoning-Map-Nov-06.pdf); Photo of Dubuque Street near the Rock Island Station (top right) by Joel Donham
Figure 15: Iowa City Central District Plan, Proposed Land Use Plan, pg. 51. Available at: http://www.ic.gov/site/CMS22/Files/planning/urban/centralPlan/CentralPlanLayoutA.pdf. Photo of a typical TOD. Available at: http://www.raisesthehammer.org/images/transit_oriented_development.jpg
Building Political and Institutional Support for TOD

Background

Fundamentally, TOD relies on a high level of transit service to attain its density and mobility goals. Research reveals the power of political support in providing a high level of transit service by attracting federal and state funds that have proven invaluable in permitting a level of transit service that makes TOD possible. Additionally, evolving sustainable development programs such as the Iowa Department of Economic Development's Green Streets program provides state-level support for the land-development component of TOD. Advocacy at the federal and state levels can help leverage funds and legislation to promote TOD interests.

Advocacy Planning at the Federal, State, and Local Levels

Based on the prominence of transit in the lives of Bostonians and their support for transit-based living, there is strong political support and advocacy for transit. Governor Sargent in the 1970s spearheaded federal legislation for the use of a state's allotment of federal highway funds for transit projects (TCRP Report 102, 184). Under governors Dukakis and Weld, Boston was able to use interstate highway funds for rail transit projects. (Ibid.) Through this support, the Metropolitan Boston Transportation Association was able to create a high-quality, car-free lifestyle and one of the strongest transit-based communities in the country.

In addition to federal highway funds, significant fiscal support is available through State programs. The Iowa Green Streets Initiative, for example, funds affordable housing that incorporates a wide array of environmental considerations including transit connectivity, infill development, and other TOD interests (IDED). Strong legislative leadership has strengthened and expanded state programs like these in New Jersey, and this support has provided a strong base for TOD in that state (TCRP Report 102, 211).

Finally, but perhaps most fundamentally, Iowa City could gain significant political clout for transit projects necessary to leverage this kind of fiscal support. Iowa City Transit serves 7.6% of commuting trips (Census.gov, American Fact Finder 2007: Iowa City). While commendable for such a small town, when compared to Boston where the commute by transit rate is 32.5% (Census.gov, American Fact Finder 2007: Boston), it is clear there are some gains to be made in order to create a significant transit population in Iowa City.
Despite the potential addition of an entirely new mode of transit in the form of CRANDIC commuter rail service, ridership forecasts from the CRANDIC feasibility study predict only a small increase in transit ridership; the forecasted additional service would increase transit ridership by less than 1% (R.L. Banks and Assoc., p.3-4). This modest increase may prove insufficient to inspire the cultural change needed to promote TOD as it exists in more transit-oriented communities.

Examination of existing infrastructure and rail traffic reports indicates a potential for additional CRANDIC stops south of Highway 6 in the Waterfront area (Figure 14). Transit service could potentially also be run on the Iowa Interstate Railroad serving locations from Hills in the west to the Proctor & Gamble area in the east, linking existing concentrations of housing (Figure 15), employment and attractions. Such service has the potential to create a city-wide transit rail infrastructure that could create a vibrant transit system, which in turn would increase development interest around rail stops as has been seen in many New Jersey Communities. “The most important thing the public sector can do, as shown by New Jersey’s experiences, is to provide frequent, convenient, reliable, and safe public transit services. This, as much as anything, will ensure a continued market demand for living and running a business near stations” (TCRP Report 102, p 210).

An option for the city is to investigate the potential for running local transit service south of Highway Six and along the Iowa Interstate Railroad in order to provide a higher level of rail transit services that could create interest in TOD from private sector consumers and developers.

**Promoting Institutional Coordination**

Coordination of transit and land use planning agencies has proven beneficial in the pursuit of TOD.

> “Institutional coordination and streamlining are especially crucial to TOD implementation when multiple agencies govern different elements of land development and transit-service delivery.”

- TCRP Report 102, pg.5-9

Gains in the level of transit service, as well as leadership in land development, may be found by amalgamating existing transit providers and integrating potential rail transit into a unified transit system. Currently, Iowa City Transit, Coralville Transit and the University of Iowa Cambus system serve the same general area yet are institutionally distinct. Efficiencies in the provision of transit services and improvements in the legibility of the Johnson County transit system could be achieved by integrating these systems into one cohesive transit authority that could also run, or contract for, potential CRANDIC service.

Such an arrangement could also create opportunities for leadership in land development. Nationally, transit authorities have proven pivotal in advocating for and facilitating TOD. Railroad rights of way often include significant underutilized property around stations. Transit Authorities have used these holdings to promote TOD through ground lease programs, air development rights transfers, joint development, and other cooperative development arrangements (TCRP, p.26).
Figure 18: Potential transit rail stops serve future high-intensity land uses at Proctor and Gamble, the Coral Ridge area, and the Waterfront Area south of Highway 6. JCCOG Long Range Multi-modal Transportation Plan, Section 1, Page 4. Image Available at http://www.jccog.org/documents/CarrierRailChapter.pdf
Figure 19: The potential rail transit station locations serve high residential densities north of the Proctor and Gamble site, and South of Highway 6, as demonstrated by the Johnson County Population Distribution map above. Map Source: http://factfinder.census.gov/.
Performing Site Improvements & Assisting with Development Preparation Efforts

A transit-oriented development neighborhood is not an island. For some people it is a destination or a home, for others it will become a well-designed pass-through to their intended end. Unless a person lives, works and shops solely within the TOD, the TOD will encompass only one segment of any given trip. In the case of Iowa City, the TOD is proposed to converge around a historical railroad depot stop with disembarking or embarking passengers from a commuter and an inter-city rail line. Getting these passengers to, from, through and around requires significant transportation network improvements, especially in the immediate vicinity. For Iowa City, this necessitates real investment in publicly-owned, TOD-ready infrastructure.

Summary of the Near Southside Plan

What are the existing plans? Along with the Neighborhood Redevelopment and Commercial and Residential Urban Revitalization Plans, the Near Southside Design Plan, adopted in December of 1995, was intended to be a catalyst for considerable improvements south of Burlington Street, extending all the way to the railroad depot. This area was envisioned to be the natural extension of an already successful downtown Iowa City. Despite the fact that the Near Southside District is situated within a short walk of the heavily utilized pedestrian mall, it lacked, and still lacks, a sense of identity and unified purpose. With the assistance of interested stakeholders, a consultant firm produced a design plan that includes recommendations still relevant to today’s desires and a transit-oriented outlook, yet this plan needs to be improved and broadened in various ways, as stated in this section of the report.

The Design Plan lays out eight principles for a preferred outcome: integration of public space, improved pedestrian and bicycle infrastructure, influence on local zoning regulations, correct application of mixed-use development, addition of public art, continuity from Downtown, focus on security and safety measures, and an acknowledgement of environmental impacts. These matters of interest not only show an effort to improve the visual appearance of the area, but concede that the non-motorist experience is important, a relevant notion in transit-oriented development (Near Southside Design Plan, 1).

The Near Southside Design Plan divides the district into five enclaves based on a perceptible concentration of parcel ownerships and/or land uses. In the plan, each area was given its own identity with subtle changes in suggested streetscape or furnishing styles, was assigned amenities appropriate for existing uses (such as parking or public space), and relayed important challenges within each (for example, the lack of control over University property). Detailed elements, harking back to the eight indicated principles, were applied to each individual area within the plan’s visionary process, as well as coalescing district-wide design components.

Current Barriers to Plan Implementation

What has been done so far to realize these identified areas of concern? A major portion of the Near Southside Design Plan is dedicated to conveying an overall mental image of the area as it existed in 1995. Given this snapshot description, other than recent changes (within the last five years) that have occurred in the Downtown Extension enclave area, not much has transpired to put the district nearer to its ultimate goals. The impetus behind the recent development can be scrutinized as well. The path of the tornado of 2006 ran right through this area and compromised, or ruined, several buildings. This opened up a relatively less complicated opportunity to redevelop the damaged parcels, but all else remains quite untouched. This perpetual idling includes nearly all the parcels that had explicitly dedicated future land uses
attributed to them in the Near Southside Design Plan.

What has been the reason for such inertia? There is no easy explanation. It could be a combination of factors, several already touched upon in earlier sections of this report. The lack of interest in public advocacy may be one but, as a formulated response to the Near Southside Design Plan, there seems to be a major communication barrier between the city and the developer. Improvements need to be made to the plan itself to convey its ideas to prospective entrepreneurs. Improvements include, but are not limited to: enhanced visuals and maps, inclusion of the potential transit-oriented development opportunities, improved cost estimation, and the creation of a sense of permanence (i.e. an overt expression of the city’s devotion to the neighborhood itself, such as more concrete event horizons).

Options for Modifying the Plan to Better Support TOD

How can we promote TOD? Before identifying modification strategies, a planner needs to understand what the overall role of a TOD is in the transit network. The planner also needs to appreciate the complexities of transit and commuter traffic itself. Here in Iowa City, the ultimate goal is to promote the use of future passenger rail in order to realize its potential on the land surrounding it. The goal is to have people live in the TOD, others work in the TOD, and capture rail riders who will patronize the TOD. This means that the rail network needs to be utilized to, at least, expected capacity and operate at minimal loss, or it will be labeled as a failure in the eyes of local residents. In a time where constituent approval of government is low and the health of the economy is questionable, frivolous spending of tax revenues becomes a personal matter to an individual. If TOD goes forward, the city will spend a considerable amount on transportation, and it needs to remember that future distribution of funds depends on constituents’ belief in the success of prior projects. Therefore, any negative outcomes should be avoided. Iowa City should begin to apply some concepts that will broaden ridership. Unfortunately, many of the following initiatives are not without significant financial investment.

1. **Mitigate Time Cost:** Transit use is heavily influenced by relative travel times using an automobile. The suggested rule of thumb is that if a potential transit user can save at least ten minutes of travel time between home and the office, then this is enough of an incentive to consider utilization of the alternative transit mode. Time costs are important and if the automobile is faster, then there is little incentive to make a switch.

2. **Proximity:** Increase development densities in close proximity to the station. "Employment densities at trip ends have more influence on ridership than population densities at trip origins..." (TCRP 128, 7). Creating more employment at terminals calls for im-
provements in addition to improvement of and around terminals.

3. Extensiveness of Service: As a transit network links to more job centers, educational opportunities, and cultural facilities, transit use increases. “In multidestinal networks, a rail line is a feeder to buses, just as buses are feeders to the rail line…” (TCRP 128, 18). This requires an appreciation of the constellation of transit, as well as pedestrian, connections that distribute travelers around the city.

4. Reliability: In order to be able to use transit effectively, the bus or train needs to arrive at the predicted time. In order for commuter rail and transit to be flexible, they need to have good frequency levels all day. Transit becomes more appealing if services are so frequent that riders do not need schedules. This makes transit more convenient and familiar to use.

5. Quality: Although not the first concern of mass transit providers, the quality of accommodations can be the final appeal to bring in the remaining potential transit users. These persons are often willing to pay more for a better experience: comfortable seats, internet access, friendly staffpersons, more personal space, clean accommodations, and large sheltered stops can be the deciding factor.

6. Information: If information is complete and understandable then it leads to a trip that becomes comfortable and familiar to a first-time user. A rider will not want to repeat a trip if schedule, route and destination information are not clear.

7. Access for all Individuals: Transportation of all modes is required to be accessible to all persons. This includes, but is not limited to: shelter accommodations, street-scape configuration, and signage.

Making transit and the commute via rail appealing to residents helps increase ridership and increase the legitimacy of the investment, while at the same time initiating interest in living within, or in the vicinity of, a transit-oriented development. “Current transit users and those precluded to use transit seek out ‘TOD,’” (TCRP 128, 12). It follows that if there is an increased interest in living within a TOD, the developers will take notice.

Figure 21: The image (right) shows the Near Southside District shaded with bus marks. This area has been identified as in need of street and pedestrian upgrades in order to adequately serve residents and visitors. Image by Angela McConville, March 2006; Original aerial image available at www.johnson-county.com: http://www.johnson-county.com/website/jcmap/viewer.htm
Figure 22: The Near Southside Design plan detailed different "enclaves" in terms of geography or ownership. Note the large presence of university and government parcels that continues today. Iowa City Near Southside Design Plan pg. 21; Image edited by Angela McConville, March 2009, from original image available at: http://www.igeo.org/site/CMSSite/file/planning/urban/nearsouthsidedtsplan.pdf
**Who are the users of a TOD?** In adapting existing plans to reflect transit-oriented development interests, the users need to be identified and provided for. This will constitute a complete design for mobility that serves all consumers. These parties include: the potential TOD resident, the rail passenger, the motorist and the non-motorist.

**The Potential TOD resident:** Potential residents of TODs have similar, and identifiable, characteristics and desires. These have been discovered through studies of TOD households. Some common attitudes of those living in a TOD are: considers the convenience of transit, less likely to own a car, environmentally conscious, creative class worker, comes from a culture familiar with dense living, appreciates good urban design elements, and has employment near a transit or rail stop. It cannot be stressed enough that, according to TCRP #128, no matter how close one lives to a transit stop, if their employment is not near a stop on a line, or if the walking portion of the travel becomes too far, they won't use it.

**The Rail Passenger:** Movement from the station to the desired destination and movement from the point of departure to the station itself are the focus for the rail traveler upon arrival in Iowa City. This means that their major concern will be intermodal transportation options: bus, demand-responsive, pedestrian and bicycle. The convenience of commercial establishments or services of interest to a commuting public should be identified as well. These could include: dry cleaners, child care centers, coffee shops, cafes, or drug stores.

**The Motorist:** The Near Southside has been tagged with a network of streets dedicated to a through-put of cars from Burlington Street to Benton and the county buildings to the south. There is the occasional purpose-related visit to the district, but this is concentrated in the Post Office, Courthouse, or University parcels. The lure of commercial establishments has different requirements for the motorist than the rail passenger. Automobiles broaden options. These could include stores that produce large or heavy goods, such as grocery or electronic stores. The introduction of these types of stores also invites the need for more parking, so the decision as to whether or not to lure the auto-centric driver to a TOD should be evaluated.

**The General Non-Motorist:** Because potential TOD residents could fall
Figure 24: Ownership of Site Parcels—The map above displays the fragmentation of ownership in the station area. In the interest of attracting large-scale development, the City may consider engaging in land assemblage activities to provide large developable lots. Ownership data: Iowa City Assessors website http://iowacity.iowassessors.com/. February 2009, GIS image by Angela McConville.

Figure 25: The (above-right) image displays the prevalence of publicly owned parcels in the TOD target area and the Near Southside. These parcels represent an opportunity for redevelopment into high-value commercial or retail property conducive to TOD. February 2009 image by Angela McConville; Original data available at: http://iowacity.iowassessors.com/
into this category, pedestrian and bicyclist connectivity in the area would be a focus of possible investment in the TOD region. These may be day-trippers or persons walking through the area to access adjacent neighborhoods: those who self-select to walk to their destination. Iowa City needs to acknowledge a "captive" audience of pedestrians, those who do not drive for various reasons:

- The Impaired: Physical Barriers to Driving
- The Elderly: Choose Not to Drive
- The Young: Not Old Enough to Drive
- The Poor: Financial Difficulty of Driving
- The Unauthorized: No License to Drive

The presence of people in such groups highlights the need to design streets and walkways to accommodate the "universal design" concept, access for all. In the end, nearly all trips involve walking, to some degree.

Now that some of the major qualities desired by users within a transit-oriented development have been identified, the Design Plan can now be configured to fit those requirements.

**Proposed Plan Implementation Strategies**

**Redefine the north-south and east-west connections.** In the original Design Plan, Clinton Street is the major corridor connecting the downtown with our study area. In order to increase capacity during peak periods (i.e., after the commuter train arrives in the morning and before it leaves at the end of the day), open up Dubuque Street, along with Clinton, as a major "pedestrian" collector. Expanding connectivity to the neighborhoods to the east should also be addressed in the design plan to create congruence with elements of the central district plan.

**Develop a qualitative and quantitative evaluation of the current status of the pedestrian and bicycle network.** A suggested method would be to adopt a Pedestrian and Bicycle Level of Service (LOS) and performance evaluation similar to the Motor Vehicle LOS. This could be critical in locating areas to increase investment and areas with serious deficiencies. Linda Dixon, in a review of the Gainesville Mobility Plan, provides a well-respected scheme of criteria and ranking (TRR 1538). Some of the variables are: Conflicts, Motor Vehicle LOS, Maintenance, Presence of Transportation Demand Management Programs, and Multimodal Links. Many of the same are reflected in the ideals of complete streetscapes below.
Adopt The Four “Cs” of Complete Streetscapes in a TOD. Paying attention to these elements, while focusing on the principles of “universal design,” could improve level of service rankings (as defined above) and promote TOD for persons of all abilities.

1. **Contact**
   a. Curbs and Drives
   b. Crosswalks
   c. Transit Facilities
2. **Comfort**
   a. Sidewalk/Bike Lane Width
   b. Defined Space Conflicts
   c. Feeling of Safety
   d. Route Choice

3. **Compliance**
   a. ADA Regulations
   b. Neighborhood Groups

4. **Consistency**
   a. Performance Criteria
   b. Expansion into Surrounding Neighborhoods
   c. Preservation of Improvements

**Redirect the traffic.** With the introduction of a train stopping at the station to pick up and distribute persons, solutions to potential traffic queues will need to be examined. In the example design the group created for this area, available in SketchUp at the online 3D Warehouse: [http://sketchup.google.com/3dwarehouse/search?q=author%3Aherkygirl&styp=m&cres=1](http://sketchup.google.com/3dwarehouse/search?q=author%3Aherkygirl&styp=m&cres=1), Clinton and Dubuque become one-ways to allow for this queue, as well as for the following other reasons. First, one-way streets would create a more predictable traffic flow for easier crosswalk navigation and to ease congestion at the corners meeting Burlington. Second, this creates two lanes in the same direction which opens up the future opportunity for a bus rapid transit lane.
It also allows for one curbside of the road to be exclusively on-street parking and the other curbside to be exclusively bike lane. Limiting on-street parking promotes bike safety.

**Use visualization techniques to plan for design.** Street cross-sections, virtual reality demonstrations in massing and design, and clear mapping strategies all need to be included in an updated plan. Visual elements are good ways to communicate ideas, show prospective variations, and convey a message to interested stakeholders. In a recent issue of *Planning* magazine, Emily Talen argues for the increased use of these visual tools by planners, citing the growing interest in broadening the domain of techniques planners are qualified to use (Talen, 38).

**Create a new TOD-appropriate parking scheme.** This could include: re-evaluation of the reasons behind existing parking minimums, and using on-street demand-pricing to encourage a constant vacancy rate of 15%. These ideas are derived from a recent article outlining Professor Donald Shoup's book, *The High Cost of Free Parking*, which encourages public entities to assess all of the land devoted to parking and price it at what it is really worth, just as is done with commercial and residential parcels (Stephens, 8). Parking strategies, such as limiting lots to the block interior, can reduce the sense of auto-domination, excessive curb cuts for drive access, and impassable parking lots.

**Create an atmosphere of permanence.** Rail infrastructure, by design, is static. Make the passenger rail service an enduring entity and the developers will begin to take it seriously. Bus transit does not typically have transit-oriented development associated with the stops. Why? Because of its ability to adjust services to changing demand, it does not typically have high-cost permanent facilities and capital. In order for TOD to fully effectuate, developers need to be confident that their land value capture will grow with the addition and maintenance of the commuter and inter-city rail line.

**Identify viable uses.** Even though this permanent structure will be guaranteed to investors in the plan, what gets incorporated into the transit-oriented development should not be dependent on the transit itself. If a use is viable at the location without the transit component, drawing in from various customer-bases, it can respond to changing conditions if the transit does not succeed.
Conclusion

In the current political and economic climate, Transit-Oriented Development will not materialize in Iowa City due to the following:

- The rail network proposed to run through the depot area is, technically, not "transit." The Amtrak line is "inter-city rail" and the Cedar Rapids to Iowa City route is "commuter rail." Neither of which are transit. "Transit" can be identified by a circuiterous service, a set of intra-city fixed-routes, that serve to distribute people within the city. The introduction of a regular bus service through the area could constitute development around the subsequent bus stops and, by proxy, the rail station would be included in the mix. But then the question will be whether the product is rendered as "transit-adjacent," "transit-proximate," or "transit-oriented."

- There is a lack of political impetus behind TOD. Good-looking plans, on their own merit, are not going to effectuate TOD. Given the identification of the right stakeholders, incentives might. These possibilities were highlighted in the previous sections. With the fiscal tightening-of-the-belt, financially enticing developers to this prime Iowa City location may be a good way to stimulate new construction. Transit alone will not stimulate real estate investment when market conditions are not supportive.

- There is a lack of collective business and prospective resident groups lobbying to see specifically TOD happen. Despite the presence of many vocal supporters of the rail connections themselves, do not postulate that this support automatically engages people into advocating for this very unique style of development near the node. Currently, these regional groups are only concerned about establishing the increased function of the rail network and are not concerned about the surrounding uses. This type of support may stem from concerned subgroups within, but it needs to be encouraged and stimulated first. No successful TOD has ever been created without a sophisticated advocacy network of the constituent and business communities. This is a factor that is missing in Iowa City.

- There is no clear delegation of an operating authority, nor an attempt to focus on the problem of how to coordinate the authorities that already exist. These are the companies, private and public, that provide the complex network of transit, commuter and inter-city services. After all, it may become a great feat to convince the bus transit provider to make enough buses available at the peak hours of the day (during the morning and evening commute) to distribute the disembarking passengers once they arrive in the city and to collect the passengers that are leaving at the end of the day.

- A design has not yet been proposed as the future "look" of the TOD. Infrastructure investment and visualization can create a new appeal to allure investors and developers. Old plans exist, and insubstantial mentions of the buzzword "TOD" appear within them, but none has a strong, creative, permanent, decisive voice for this type of development.

Transit-Oriented Development will not materialize in Iowa City without the following actions:

- A regional multimodal transit authority needs to be established to oversee the rail and transit and to direct the expected "traffic" of riders and users efficiently and effectively.

- Legislative support for specifically TOD needs to be enhanced and visual to the public.

- Business-owners need to see a capacity for success in such a development and need to partner with their potential clients to create an organized collection of proponents.

- Officials within the City of Iowa City need to elicit a sense of permanence. If they appear confident in the continuation of services into the long-term, business-owners will not be as apprehensive about taking a chance on TOD. They want to know that there will be "life" in that area and that it will exist into the future. Infrastructure investment can help.

- The Planning department should be pro-active and not reactive on the design for the TOD. The TOD should be a connected vision, and not fragmented from parcel to parcel. This connectivity can be as simple as a continuous design of the pedestrian and bicycle infrastructure. Allowing each individual developer to have free reign is not suggested for a successful TOD-typical outcome.

- Planning, by itself, is not sufficient to effectuate TOD, but the existing plans should not be ignored. The Near Southside plans should be updated prior to the arrival of the rail service. The press coverage of the update could encourage potential TOD residents and businesses to gather and form an alliance. This may also be best done by employing highly visual depictions of the area, as completed in Section 6.

- Complete more extensive existing housing, office and retail demand analysis to determine what types of each could and should be attracted to the station area. There are expectations of the amenities provided in a TOD. Prospective residents require these to function in the lifestyle that they desire. If these are missing, they will not reside there. The same rule applies to businesses.

- Incentive schemes need to be drawn up to bring these identified land uses to the TOD. The City cannot be withdrawn from the market but instead should use existing connections and methods that would increase influence with the forces-that-be to encourage the desired outcome: TOD. As identified in the prior sections, some of these tactics can be recycled from experiences elsewhere.

- Understand that TOD for a small Iowa city is a unique endeavor. The more that you appreciate the fact that no comparables exist, the more that the City realizes that it is embarking on a trend-setting mission. Treat this as such, and continue to do research, establish a best-practice, and make Iowa City a template for others.
Works Cited


Howard, Karen. Personal interview. 10 March 2009.


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