



Land use assessment	
L. Hussey, J. Suprock, J. Dobies	5/8/09
Status - DRAFT	

Technical Memorandum

Kansas City North/South Corridor AA/DEIS

Subject: Land Use Assessment - Revised
Date: 5/8/09

This technical memorandum provides a land use assessment for the proposed Kansas City 14-mile light rail corridor.

In order to prepare recommendations to Congress for the New Starts budget each fiscal year, FTA undertakes a formal evaluation of all projects applying for New Starts funding. To assess the proposed LRT alignment's viability relative to FTA New Starts land use criteria KCATA in cooperation with the cities of Kansas City and North Kansas City requested an evaluation of land use and land use policies.¹ The purpose of this technical memorandum is to document the conclusions of the land use assessment.

A workshop was held in Kansas City on January 20, 2009 to present the preliminary findings. Appendix A includes a brief summary of the work session and the slide show that was used to present the findings. Input from the work session was used to revise the assessment.

FTA's project recommendation is based on ratings for two main assessment criteria – project justification and financial commitment.

Five criteria contribute to the development of the project justification rating:

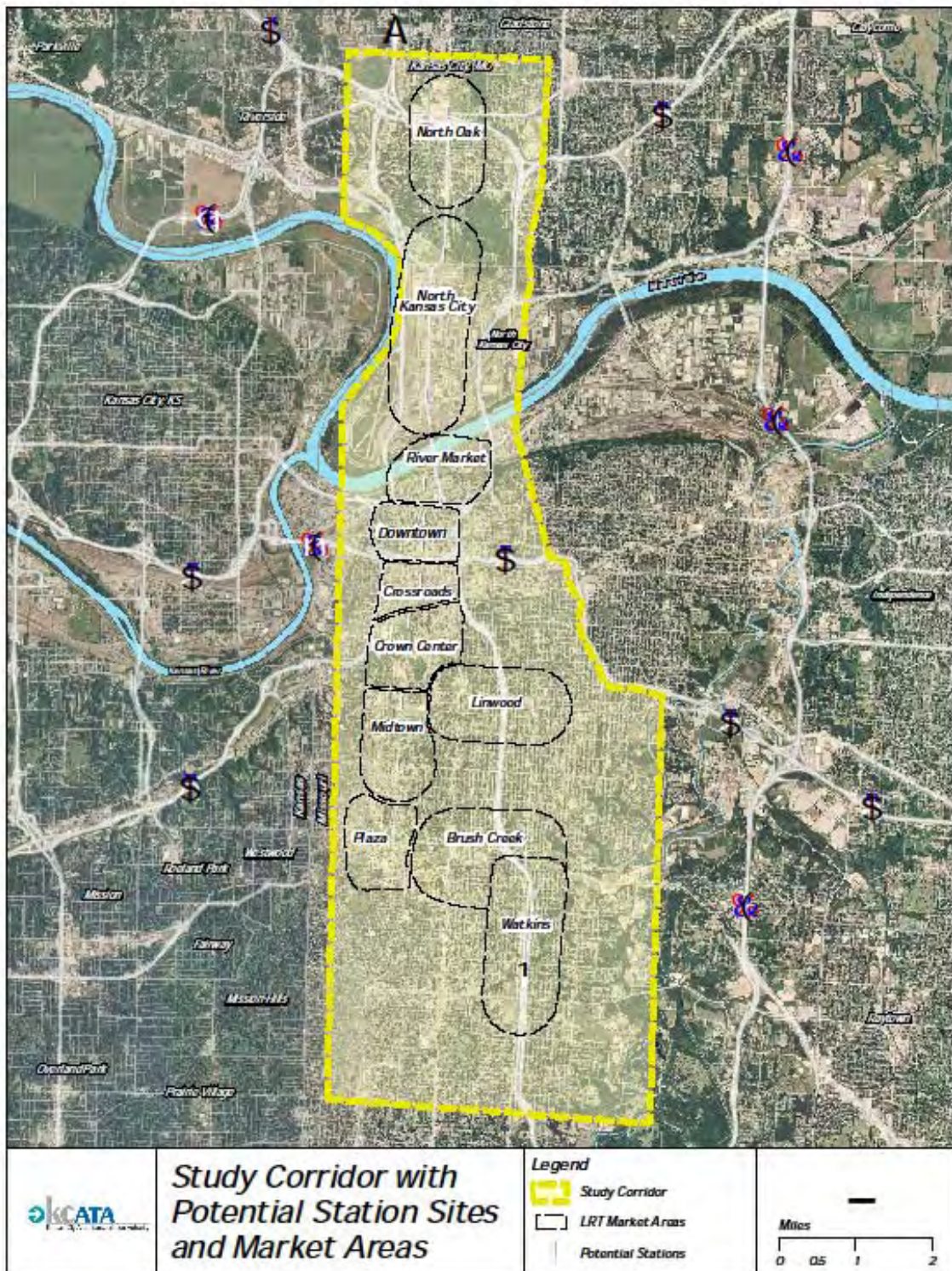
- Mobility Improvements
- Environmental Benefits
- Operating Efficiencies
- Cost-Effectiveness
- Transit-Supportive Land Use

The Transit-Supportive Land Use criterion is regarded as one that project sponsors can improve the project rating by effecting land use and development related policies. A strategy for positioning the Kansas City project for a better New Starts rating involves encouraging Kansas City and North Kansas City to enact land use policies that address FTA's intent to create transit supportive development along the alignment.

The assessment is based on the FTA land use evaluation process. The alignment was broken down into eleven discrete Market Areas. The LRT alignment and the market areas are shown in Figure 1 on the following page. The project team provided an assessment of *the Existing Land*

¹ The assessment was conducted by Cambridge Systematics, a Subconsultant on the consultant team. The individuals assigned to the project are very familiar with FTA land use assessment procedures and as FTA contractors have prepared multiple land use assessments for New Starts projects.

Figure 1. Kansas City Light Rail Alignment and Market Areas



Use, Transit – Supportive Plans and Policies, and Performance and Impacts of Land Use Policies. These are the three sub-criteria employed by FTA in the assessment.

Appendix B contains tables 3 through 5 from FTA's land use assessment guidelines. These tables convey FTA's guidance on how the land use categories are rated. Table 5 is a summary of the quantitative elements used in the FTA evaluation.

Appendix C contains the Quantitative Land Use tables developed for the corridor. These tables show population, employment and densities for the alignment and the eleven market areas.

General Assessment: In their current conditions, none of the market areas provide a strong case for benefiting greatly from, or supporting, a light rail line. However, many of the market areas are in flux, or could easily be redeveloped to become more transit-supportive, or transit-oriented. Proposed and existing plans and policies are an improvement over previous plans, but do not offer incentives that will be specific to transit-related development. It appears in some market areas that the local governments are looking to a transit investment as a catalyst for development, but have not considered the policies and incentives that must be in place to make this happen. The region does not have a growth management strategy, nor do any of the municipalities.

Based on the analysis of existing land use, current comprehensive and development plans and other information developed during the project the following conclusions were reached.

Overall Rating: Medium-Low

- Existing land use: Medium-Low
- Transit-Supportive Plans and Policies: Medium (stronger if proposed zoning changes are adopted)
- Performance and Impacts of Land Use Policies: Medium-Low

Appendix D provides additional detail and discussion of each of the market areas' rating for the three FTA sub-criteria.

Key Points:

- Overall the alignment ranks Medium-High for employment served, with over 230,000 jobs, but it ranks in the Low-Medium category for population density with less than 5,000 population per square mile.
- Parking policy in the downtown area rates poorly in the assessment. Downtown Kansas City has approximately 4.0 parking spaces per 1,000 SF of development. Current practice appears to continue this trend in development. Parking cost is in the Low-Medium rating.
- Most of the station areas were historically developed in an urban pattern with zero-setback buildings, a grid street network, and a general availability of pedestrian facilities. This provides a solid framework for future redevelopment.
- All of the station areas contain considerable opportunities for redevelopment, in the form of vacant parcels, surface lots, and vacant or underutilized buildings. While this detracts from

the pedestrian environment it also provides the potential for significant future development if market forces are supportive.

- Positive transit-supportive land use examples are seen in the redeveloping River Market area, the new Power and Light District downtown, market-driven adaptive reuse in the Crossroads, older mixed-use neighborhoods in the Midtown district, and Country Club Plaza.
- Market conditions in the Linwood Boulevard area do not appear to support development at this time, even with the introduction of transit.
- The Brush Creek and Watkins areas consist of largely auto-oriented development and are unlikely to change significantly.
- The Kansas City's planning documents recognize and promote the idea of mixed-use, pedestrian-friendly development in the majority of the station areas.
- Adoption of proposed changes to the city zoning code to allow mixed-use development and include the concept of transit-supportive overlays is required in order to improve the "plans and policies" rating.

Appendix A
January 20, 2009 Meeting Summary with
Presentation Handout



Project Management	
L. Bergman J. Dobies	1/26/09
Final	

North/South Corridor Land Use and New Starts Review
1/20/09

A special workshop was held to discuss the assessment of land use and development policies in the North/South Corridor. The purpose of the assessment was to discuss how this project would rate from the federal viewpoint based on land use and development rating criteria used in FTA's New Starts program. Laurie Hussey, who performed the high-level review of the Kansas City project, is hired by FTA frequently to review projects based on the New Starts criteria for land use and development.

Participants

Tom Patterson	Crown Center/MainCor
Diane Burnett	MainCor
Bob Langenkamp	KCMO City Planning
Shannon Jaax	KCMO City Planning
Mike Smith	City of North Kansas City
Kite Singleton	RTA
Tom Gerend	MARC
Dick Jarrod	KCATA
Jared Gulbranson	KCATA
Danny O'Conner	KCATA
Dave Kocour	URS
Laurie Hussey	Cambridge Systematics
Brian Comer	HNTB
Kyle Kroner	HNTB
Julia Suprock	HNTB
Ken Kinney	HNTB
John Dobies	HNTB
Lindsey Bergman	HNTB

Meeting Summary

Hussey explained the New Starts land use criteria and how they are used – Ratings are based on a 1 to 5 scale, 5 being the highest. In order for FTA to approve the proposed project, FTA requires a 3 to 5 average for both cost and land use. Cost effectiveness must have at least a medium rating for FTA to approve the project. Ratings for the project get stricter at the project progresses from planning to design. Projects are reevaluated at the beginning of each stage.

The group also discussed existing Kansas City demographics and land use and the ratings prepared by Hussey and the Consultant Team.

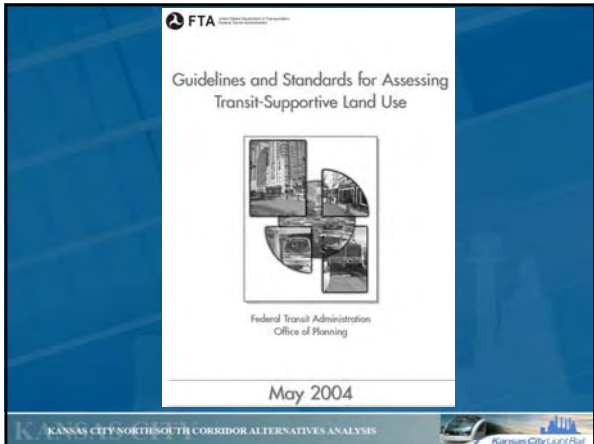
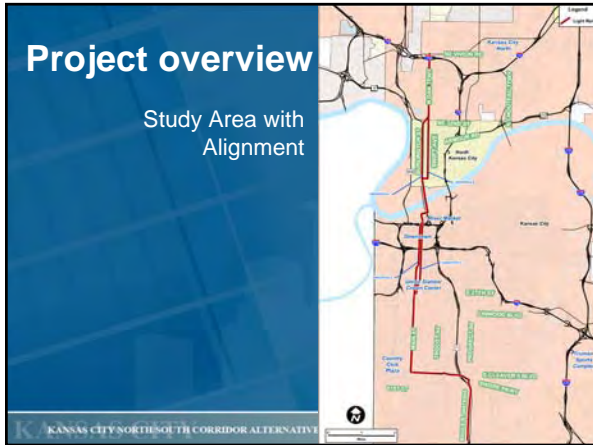
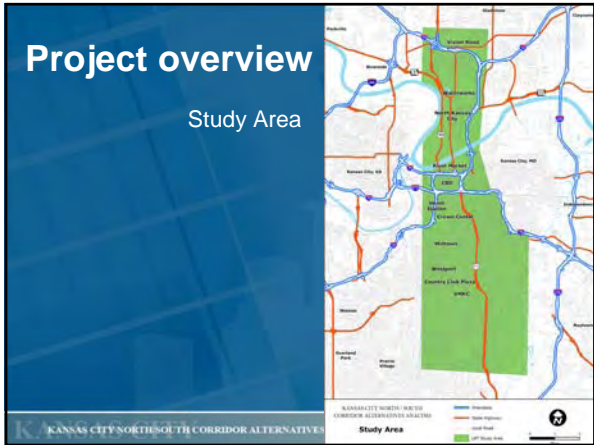
Hussey expressed the opinion that the project would not receive an acceptable (Medium) rating. There was much discussion about actions that could be taken to improve the rating. These include enacting land use and development policies that permit and even encourage transit supportive development and higher densities, addressing parking policies and practices that result in abundant inexpensive parking in the CBD and preparing station area development plans that encourage transit oriented development within one-half mile of stations.

The attached PowerPoint slide show provides additional information from the meeting.

KC / LRT / TOD / FTA

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

- ## Agenda
- Project overview
 - New Starts land use criteria
 - Evaluation criteria
 - Chicago heavy rail rehabilitation
 - Charlotte light rail transit
 - Kansas City: Demographics
 - Kansas City: Land use ratings
 - Kansas City: Land use policy environment
- KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



Land Use Ratings

- 5 = High
- 4 = Medium – high
- 3 = Medium
- 2 = Low – medium
- 1 = Low

New Starts Evaluation Criteria

Land Use Rating Category and Associated Factors	
I. EXISTING LAND USE	
a.	Existing Land Use
II. TRANSIT-SUPPORTIVE PLANS AND POLICIES	
a.	Growth Management
b.	Transit-Supportive Corridor Policies
c.	Supportive Zoning Regulations Near Transit Stations
d.	Tools to Implement Land Use Policies
III. PERFORMANCE AND IMPACTS OF POLICIES	
a.	Performance of Land Use Policies
b.	Potential Impact of Transit Investment on Regional Land Use
IV. OTHER LAND USE CONSIDERATIONS (Optional)	
Exceptional Examples	

Factor Assessments

- Different standards: PE, final design
- “Average” rating for stations

“High” Overall Rating

- High population, employment densities
- Pedestrian-friendly environment
- Plans, policies: demonstrated performance

Existing Land Use

- Population, employment: ½ mile of stations
- Total CBD employment
- High trip generators (5,000 – 10,000 daily trips)

Quantitative FTA Rating Guide

Rating	Existing Land Use				Corridor Policies and Station Area Zoning				
	Station Area Development		Parking Supply		Station Area Development		Parking Supply		
	Emp. served by system ²	Avg. pop. density (persons/sq. mi.)	CBD typical cost/day ²	CBD spaces per employee ²	CBD comm. FAR ²	Other comm. FAR ²	Residential DU/acre	CBD spaces per 1,000 sq. ft.	Other spaces per 1,000 sq. ft.
High (5)	< 250,000	> 15,000	> \$16	< 0.2	> 10.0	> 2.5	> 25	< 1	< 1.5
Medium-High (4)	175,000 – 250,000	10,000 – 15,000	\$12 – 16	0.2 – 0.3	8.0 – 10.0	1.75 – 2.5	15 – 25	1 – 1.75	1.5 – 2.25
Medium (3)	125,000 – 175,000	6,667 – 10,000	\$8 – 12	0.3 – 0.4	6.0 – 8.0	1.0 – 1.75	10 – 15	1.75 – 2.5	2.25 – 3.0
Low-Medium (2)	75,000 – 125,000	3,333 – 6,667	\$4 – 8	0.4 – 0.5	4.0 – 6.0	0.5 – 1.0	5 – 10	2.5 – 3.25	3.0 – 3.75
Low (1)	< 75,000	< 3,333	< \$4	> 0.5	< 4.0	< 0.5	< 5	> 3.25	> 3.75

Station Area Development Character

- Human-scale facades
- Street-, sidewalk-oriented entrances
- Street furniture, trees
- Narrow roads, low travel speeds
- Mix of uses
- Minimal parking

Transit-Supportive Plans, Policies

- Regional, state policies
- Local jurisdictional acceptance
- Land conservation, management
- Transit-supportive corridor policies
- Conceptual plans

Transit-Supportive Plans, Policies

- To increase station area development: planned densities
- To improve pedestrian facilities
- To reduce parking

Supportive Zoning Regulations

- To enter PE: “aggressive efforts...to revise existing zoning”
- During PE: conceptual plans, policy changes
- Allow, encourage density

Regulatory, Financial Incentives

- Density bonuses
- Streamlined approval processes
- TIF zones, transit-oriented loans

Performance of Policies

- Not necessarily corridor-specific
- “Neo-traditional,” “New Urbanist” developments
- Station area development proposals

Chicago Transit Authority (CTA): Brown Line Rehabilitation



Summary of Key Findings

SUMMARY OF KEY FINDINGS		FTA Rating
1. Existing Land Use	<ul style="list-style-type: none"> The project serves densely developed neighborhoods that originally developed around the rapid transit line. Existing development is highly urban in character, with a fine-grained mix of uses. Parking is limited to on-street or small surface lots in most station areas. Employment and access to transit are both high in the Chicago CBD. 	High
2a. Growth Management	<ul style="list-style-type: none"> Regional growth management policies have not been adopted. However, initiatives have been undertaken by public agencies, citizen groups, and the business community to address regional growth issues and coordinate transportation and land use. The regional planning agency is undertaking a multi-year effort to develop a comprehensive plan for the region. 	Medium

SUMMARY OF KEY FINDINGS (continued)		FTA Rating
2b. Transit-Supportive Corridor Policies	<ul style="list-style-type: none"> Project-specific station area plans are not being developed, since there is little land available for development. The City of Chicago, however, has a number of programs to encourage reinvestment and redevelopment of existing urban neighborhoods such as the Ravenswood Corridor. The City of Chicago and CTA have developed guidelines in support of transit-oriented and pedestrian-friendly development. CTA has undertaken initiatives to improve pedestrian and bicycle access to stations. Parking policies for downtown Chicago include a "transit-first" orientation. 	Medium-High
2c. Supportive Zoning Regulations Near Transit Stations	<ul style="list-style-type: none"> Existing zoning ordinances appear to permit development at densities that are generally transit-supportive and allow a fine-grained mix of uses. The City of Chicago has adopted design guidelines in recent years to improve the pedestrian-friendliness of neighborhood commercial districts. The City of Chicago will undertake a comprehensive overhaul of its zoning ordinance, including zoning in support of transit, in the near future. Zoning bonuses are available in the CBD for the provision of pedestrian amenities and transit connections. Parking requirements in the CBD are minimal and allow reductions for direct connections to transit stations. 	High

2d. Tools to Implement Land Use Policies	<ul style="list-style-type: none"> The City of Chicago has developed a broad array of programs to encourage reinvestment and redevelopment of existing urban neighborhoods, many of which apply to the Ravenswood Corridor. The Regional Transportation Authority (RTA) and CTA have developed guidelines and conducted outreach activities in support of transit-oriented development. CTA will participate in the upcoming rezoning process. 	Medium-High
3a. Performance of Land Use Policies	<ul style="list-style-type: none"> Some significant redevelopment projects are occurring just north of downtown. In other corridor neighborhoods, however, there is little opportunity for large-scale redevelopment. Where opportunities do exist, new development or rehabilitation in station area neighborhoods appears to be in keeping with the current scale of development and transit-supportive design principles. 	Medium-High
3b. Potential Impact of Transit Investment on Regional Land Use	<ul style="list-style-type: none"> The Ravenswood expansion project may help to facilitate urban population growth by increasing transit capacity in an already desirable area where transit service is heavily used. The overall impact on land use from a regional perspective, however, is likely to be small, as the corridor is largely built-out and opportunities for additional development are incremental. 	Low-Medium


Information Requested: Documentation Supporting Land Use Criteria

REGIONAL PLANS OR POLICIES that promote increased development, with development and redevelopment in established urban centers and activity centers, and/or development areas from primary activity centers

The City of Charlotte and Mecklenburg County are committed to transit-oriented development and growth. The following policies and actions by Charlotte and Mecklenburg County encourage higher density development in transit corridors and centers, and encourage development in the wedge between transit corridors.

Centers and Corridors

In 1994, the City of Charlotte and Mecklenburg County adopted a growth strategy, "Centers and Corridors" (Attachment 1). This growth strategy is designed to increase development density in transit corridors and centers, as well as a number of key nodes or "nodes" in a series of managing growth and reducing sprawl in Mecklenburg County and the greater region. The South Transit Corridor is one of the five high-density corridors identified in the Centers and Corridors report.



2015 Plan: Planning for Our Future

The "Centers and Corridors" concept was reworked in the 2015 Plan: Planning for Our Future (Attachment 2), adopted by City and County governing bodies in November, 2015. The document outlines the desired urban form for the Charlotte-Mecklenburg Corridor, its intent, and performance-oriented development in urban centers. The plan also highlights the importance of strong community design in the transformation of Charlotte-Mecklenburg into a more urban community.

2025 Integrated Transit/Land Use Plan

The 2025 Plan of October 1995 (Attachment 3) is an extensive technical analysis of the transit and land use concepts articulated by the Centers and Corridors vision and the 2015 Plan. The 2025 Integrated Transit and Land Use Plan includes general urban form and recommendations and program modifications to policies and regulatory tools that can be used to implement the vision of transit and land use vision. A key objective of the plan, that has shaped subsequent policy, is to target about half of all future higher density housing and office employment to transit-oriented areas. Additional recommendations in the plan call for updating Charlotte-Mecklenburg's General Development Policies.

General Development Policies

The General Development Policies (GDP) (Attachment 4) set forth planning principles for Charlotte-Mecklenburg and serve as the growth management policy for the City. They also are the basis for the development of more specific plans. The GDP was first

CONCENTRATION OF DEVELOPMENT AROUND ESTABLISHED ACTIVITY CENTERS AND REGIONAL TRANSIT

Summary of Transit Station Area Principles (Adopted 2001)

KANSAS CITY

Information Requested: Documentation Supporting Land Use Criteria

CONCENTRATION OF DEVELOPMENT AROUND ESTABLISHED ACTIVITY CENTERS AND REGIONAL TRANSIT

adopted in 1990 and was recently updated to fully incorporate the Centers and Corridors vision (page 26).

The first element of the GDP update, Transit Station Area Principles, was adopted by the Charlotte City Council in 2001. It focuses on general policies for station area development. The policies allow a much higher density and intensity of development in station areas than the current land use plan. For areas, which typically will be low use residential, office, retail or suburban. The Transit Station Area Principles are discussed below and on pages 28-30.

The next phase of the GDP update included policies for Residential Location and Design, focusing on higher density housing and South Transit/Midtown City Centers. These policies were adopted by the City Council in November, 2003.

This update revises previous policies which allowed for approval of higher density housing, and includes much of this development to occur within transit-oriented areas. This includes transit-oriented areas, which typically will be primarily adopted GDP or higher density housing might not qualify under the updated GDP or may qualify for a lower density.

REGIONAL PLANS OR POLICIES that concentrate development around major transit facilities

Transit Station Area Principles

The Transit Station Area Principles section of the General Development Policies was adopted by the Charlotte City Council in November, 2001 (Attachment 2). These principles provide direction for development and redevelopment properties around rapid transit stations. The policies focus on land use, mobility and community design, and apply to the area within a one-half mile radius of an identified rapid transit station. It is intended to:

- The principles set the framework for high-density residential development that will be transit-oriented.
- The principles provide the basis for Station Area Plans, in the principles are applied to specific station areas.
- The principles also provide the basis for some TOD zoning districts.

The numerous updates to the Transit Station Area Principles Amendments to the City Council's strong commitment to transit-oriented development. The following is a brief summary of these principles.

KANSAS CITY

Information Requested: Documentation Supporting Land Use Criteria

CONCENTRATION OF DEVELOPMENT AROUND ESTABLISHED ACTIVITY CENTERS AND REGIONAL TRANSIT

Summary of Transit Station Area Principles (Adopted 2001)

Parking

- Reduce regulatory parking requirements in station areas and establish parking maximums.
- Minimize large surface parking lots (greater than two acres) for private development, especially within a mile of stations. Instead of surface lots, well-designed parking decks are preferred.
- Encourage shared parking facilities.

COMMUNITY DESIGN

Use urban design to enhance the community identity of station areas and making them attractive, safe and convenient places.

Building and Site Design

- Design buildings to front on public streets or on open spaces, with attached walk-backs and walkways and have a street level instead of expensive blind walls.
- Locate building entrances to maximize the walking distance between the transit station and the building.
- Locate surface parking, with the exception of on-street parking to the rear of buildings and where necessary, provide pedestrian paths through surface parking to stations.
- Design parking structures to include active uses on the ground floor street frontage.
- Typically limit building heights to 120 feet, with the tallest and most intensely developed structures located near the transit stations and buildings adjacent to established neighborhoods located to limit new structures.
- Screen sensitive elements, such as dumpsters, loading docks, service entrances, and outdoor storage, from the transitway.
- Take safety and security concerns into account during design.

Streetscape

- Design the streetscape to encourage pedestrian activity.
- Include elements such as street trees, pedestrian scale lighting, and benches as streetscape design.
- Place art/literature/signage where possible.

Open Space

- Establish public open spaces that act as development catalysts and serve as focal points around transit stations.
- Design open spaces to be centers of activity that include uses such as benches, fountains, and public art.
- Convert unnecessary buildings into the open spaces.

KANSAS CITY

Information Requested: Documentation Supporting Land Use Criteria

PARKING POLICIES

Policies to reduce parking requirements or site parking in station areas, and policies establishing maximum allowable parking for new development in areas served by transit

The Charlotte City Council adopted Transit Station Area Principles (Attachment 2) that will be reduced parking in station areas, with considerations of parking maximums within a half-mile walking distance of transit stations.

These policies will be implemented through transit-oriented zoning districts that include parking caps for new development, as shown in the following table. The TOD zoning districts (adopted on October 20, 2005) have parking maximums for all development types, but there are no maximums for retail uses.

USE	Minimum/Maximum Number of Parking Spaces
Residential	No Minimum Maximum of 2 parking spaces per dwelling unit
Office	No Minimum Maximum of one (1) parking space per 200 square feet of office space. Minimum developments and retail uses developments of 10,000 square feet may have parking spaces as per office (2:100)
Restaurant/ Nightclub	Minimum of one (1) parking space per 100 square feet of restaurant/ nightclub space, but no more than one (1) space per 75 square feet
Hotel	No Minimum Maximum of one (1) space per 200 square feet
All Other Non-Residential Use	No Minimum Maximum number of parking spaces permitted is listed on the minimum amount required in Table 12.02, per use/development use. Note: parking maximums may be exceeded by up to a total of 10% of the maximum parking required, but not exceed 15 (150) spaces for further details.

Shared parking alternatives

The Charlotte Zoning Ordinance currently allows the joint use of up to 10% of required parking spaces for two or more uses located on the same or adjacent parcels, if the uses of operations are not substantially conflicting.

Minimum minimum cost for parking in areas served by transit

The City of Charlotte is not currently mandating minimum cost for parking in areas served by transit, but is using other tools (such as parking maximums) to manage parking demand.

Parking taxes

The City of Charlotte is not currently taxing for parking tax concept, and is instead using other tools (such as parking maximums) to manage parking.

KANSAS CITY

Information Requested: Documentation Supporting Land Use Criteria

ZONING ORDINANCES THAT PROMOTE TRANSIT-ORIENTED DEVELOPMENT DENSITY IN TRANSIT STATION AREAS

The Pedestrian Overlay District (PED) (Attachment 5) is designed to allow a mixture of uses in station areas developed in a pedestrian-friendly manner. The development standards for this district allow a significant increase over the standard development standards in station areas. The district is designed to be more walkable than other districts. For example, there is an increase in FAR for the district and taller building heights are allowed. Implementation of the PED is complete for the East Downtown portion of the Downtown neighborhood. The PED regulations include setbacks that encourage street-level activity in the commercial area, such as siting use to a former structure on East Downtown.

Recent changes to zoning ordinances to allow or encourage transit-supportive density/transit-oriented zoning

The City Council adopted three new Transit Supportive zoning districts designed specifically for transit station areas in October, 2005. This new ordinance was based on the Transit Station Area Principles, adopted by City Council in November, 2001 (Attachment 2). This document provided direction to staff in developing the TOD zoning ordinance. The principles:

- allow transit supportive uses;
- stress the importance of a maximumized use of regulatory, well-organized land use within walking distance of the transit stations;
- encourage pedestrian friendly features and pedestrian friendly uses;
- address the need for an integrated pedestrian, bicycle, and street network;
- encourage reduced parking requirements; and
- stress the need for urban design to enhance the community identity of station areas and to make them attractive, safe, and convenient places through building and site design, streetscape elements, and open spaces.

In addition, the Joint Development Principles and Policy Guidelines was adopted by local governing bodies and the Metropolitan Transit Commission in April of 2003 (Attachment 3). This document provided another framework for drafting the Zoning Ordinance. Like the Transit Station Area Principles, the document encourages and promotes transit supportive development at transit stations. Specifically:

- it outlines the specific program, strategies, and tools that can be used to implement the Principles and the Station Area Plans.
- One of the key strategies in this document is the proactive siting of station areas to the appropriate TOD zoning district. The specific districts will be determined by the station area plan recommendations.

KANSAS CITY

Information Requested: Documentation Supporting Land Use Criteria

OUTREACH TO GOVERNMENT AGENCIES AND THE COMMUNITY IN SUPPORT OF LAND USE PLANNING

The local district council of the Urban Land Institute sponsored a symposium on transit-oriented development along the South Transit Corridor. This conference, held in April, 2002, included speakers from Portland, Denver, and San Diego, in addition to local real estate experts.

Efforts are ongoing to engage representatives of the development and business community to dialogue about transit supportive development. Discussions have been held with representatives of the local ULI District Council, Charlotte Chapter Land Use Committee, Charlotte Apartment Association, and Majority Membership of the Charlotte Chamber.

During public discussions of the proposed Transit Station Area Principles, prior to its adoption, a business and development committee was designed to review and give input. Multiple committees have been engaged to review and give input on station area plans along the South Corridor, on proposed transit zoning districts, and on implementation strategies for transit supportive development.

Public outreach materials and brochures

CATs has used a number of techniques to ensure public involvement and cooperation of public input into the decision-making process. See Attachment 17 for an updated sampling of public involvement materials used on this project.

REGULATORY AND FINANCIAL INCENTIVES TO PROMOTE TRANSIT-SUPPORTIVE DEVELOPMENT

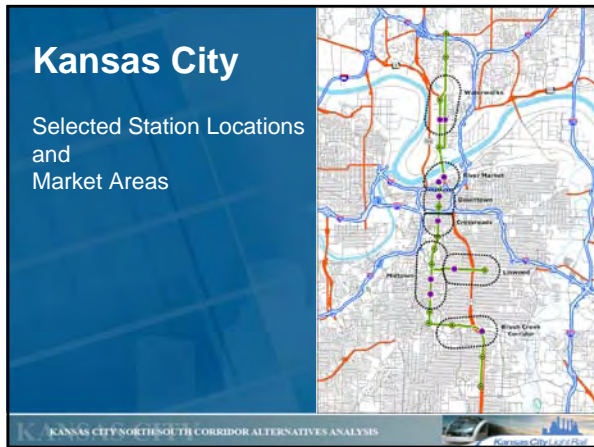
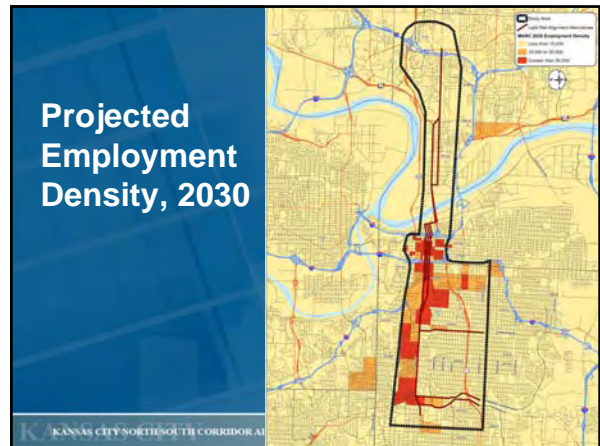
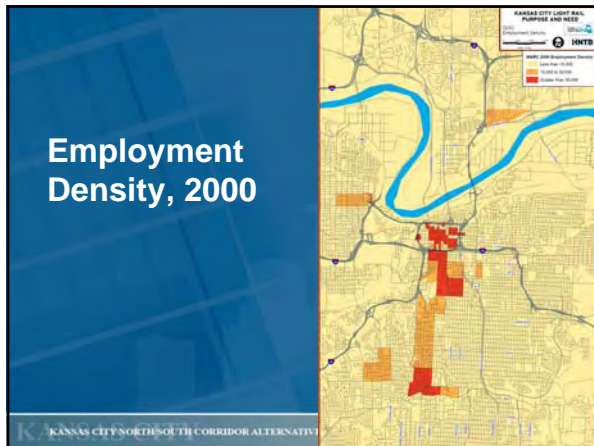
Overview of Incentives

During the spring of 2003, the Charlotte City Council, Mecklenburg Board of County Commissioners, Metropolitan Transit Commission, and Charlotte-Mecklenburg Board of Education joined to adopt Development Policies and Policy Guidelines (Attachment 2). The principles provide a framework for local government to promote transit supportive development around rapid transit stations. The Joint Development Principles and Policy Guidelines is a comprehensive approach to implementing transit-oriented development in station areas. One of the key strategies that is discussed in this section is the South Corridor Incentive Program, a \$50 million program to encourage transit-oriented development that will make station areas more pedestrian-friendly and attractive to economic development.

Regulatory incentives (i.e. density bonuses, streamlined processing of development applications) for developments near transit

The Joint Development Principles and Policy Guidelines outlines a range of regulatory incentives to be applied to the transit station areas. A key component of Charlotte's regulatory strategy in public sector incentives of design to transit-oriented zoning to allow, and ensure that transit-oriented development occurs around transit. Changing

KANSAS CITY



- ## New Starts Land Use Assessment
- Current conditions
 - None of the market areas provide strong case for benefiting / supporting LRT
 - Future conditions
 - Many market areas in flux
 - Could be redeveloped to be more transit-supportive
- KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

- ## New Starts Land Use Assessment
- Proposed planning efforts
 - Improvements over previous plans
 - Lack incentives specific to transit-supportive development / economic development
 - Region / municipalities lack growth management strategy
- KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

- ## New Starts Land Use Assessment
- Overall Rating: Medium-low
 - Existing land use: medium – low
 - Transit-supportive plans and policies: medium? (stronger if proposed zoning changes are adopted)
 - Performance and impacts of land use policies: medium - low
- KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

New Starts Land Use Assessment

- Most station areas: developed in urban patterns
- All stations: considerable opportunities for redevelopment
- Transit-supportive areas: River Market, Power & Light District, downtown, Crossroads, Midtown
- Brush Creek, Watkins: auto-oriented, change unlikely
- City plans (FOCUS): mixed-use, pedestrian-friendly
- City plans: must have proposed changes

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Waterworks	MEDIUM-LOW: Industrial and manufacturing facilities, some smaller scale retail. Pockets of multi-family, single family and senior housing. Grid street system east of the alignment, but few yards and large industrial facilities west.	MEDIUM-LOW: North Kansas City Master Plan calls to maintain current uses, but improve appearance. Design guidelines support pedestrian orientation of buildings. Residential districts do not allow mixed-use through commercial districts allow residential on above-ground floors. No effort yet to make this area transit-friendly, or create destination.	LOW: No plans to support new development in station area.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
River Market	MEDIUM: Transitioning from railroad and industrial uses to mixed-use retail and residential development. Steep grade down to the river makes pedestrian access difficult. Lots of sites available for redevelopment with some recently completed projects.	MEDIUM: Kansas City Master Plan calls for new mixed-use development, support and enhancement of River Market, live-work loft development and revitalization of open space. Second Street Infrastructure and Development Plan recommends TOD with integrated parking. Current zoning includes manufacturing and residential, and only allows mixed-use development through special permit. Proposed zoning changes will include mixed-use development as well as reductions in parking requirements near transit. City has financial incentive program to encourage development, but not specific to station area. New regulatory tools will be available to help guide development in transit-friendly manner.	MEDIUM: Redevelopment opportunities exist, and plans in progress will support additional transit-friendly development. Recent new development and redevelopment has largely been multi-family residential with some mixed-use. Several large projects are in the planning or construction stages. Projected residential and retail demand is moderate; office demand is small.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Downtown	MEDIUM: Civic, office and commercial space surrounded by surface parking lots and aging parking structures. There is an entertainment district in the area, with a new arena, and a number of restaurants. Office vacancy rates are high. 2005 employment of 70,000 rates at the top end of the "low" range for a CBD (employment served) although if combined with Crossroads and Midtown this borders between a "medium" and "medium" rating.	MEDIUM: Recent public investment in infrastructure, tax abatement and TIF programs have spurred development. FOCUS Kansas City calls for continuation of mixed-use development, implementation of multi-modal transit, a new special benefits district, and the creation and implementation of urban design guidelines. The Downtown Land Use and Development Plan calls for the conversion of parking lots to new uses, anchor development parcels, mixed-use development at key locations. Current zoning does not allow mixed-use development without a permit and commercial zones FARS (2-4) are low for a downtown area. Proposed zoning changes would allow mixed-use development.	MEDIUM: Significant parcels of land and vacant buildings exist for redevelopment. While long-term office growth is forecast, the current office market is weak and absorption has been negative for the past seven years. Recent development of entertainment district will support transit ridership, and add activity to area, and residential development also has been occurring, primarily through the adaptation of historic, but grade-scale office buildings.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Crossroads	MEDIUM-LOW: Currently undergoing transition from storage and transfer facilities to artist studios, galleries and live-work loft spaces. Transition has been spurred by private market, driven by low real estate prices. Existing structures include commercial and industrial, interspersed by parking lots. Grid street system, sidewalks, and zero-network buildings support pedestrian traffic.	MEDIUM: FOCUS Kansas City promotes further development as studios, galleries, live-work spaces. Kansas City Downtown Corridor Study recommends the reduction of surface parking lots to improve conditions and identifies the area for mixed-use residential and live-work, streetscape improvements. Current zoning allows manufacturing, commercial and urban redevelopment designation, which allows limited mixing of uses. New zoning proposal would allow for mixed-use and transit-supportive development.	MEDIUM: Significant parcels of land exist for redevelopment. Policies and plans moderately support that development, but market assessment notes that changes to parking policies are needed to free up land. Potential for high growth is projected in this area.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Midtown	MEDIUM: Residential and mixed-use development, including retail, office and industrial. Development type varies from pedestrian and transit-friendly, to suburban in design with large setbacks and parking lots out front. Parking is currently limited, and residents and retailers are concerned that transit will remove more parking and negatively impact area (e.g. more people parking on residential streets, not enough parking for patrons of shops).	MEDIUM: FOCUS Kansas City calls for light rail stops to promote higher-density development, encourage redevelopment and mixed-use development, and improve the streetscape. The Main Street Corridor Plan identifies areas for mixed-use nodal development and generally encourages development of a more urban character (contextual infill would allow buildings up to three to six stories in most locations along Main St.) while discouraging big-box and auto-oriented uses. The plan includes design guidelines to promote pedestrian-scaled buildings. The area is currently zoned for a mixture of residential and commercial uses, with some "open-zoning" parcels that could allow out-of-scale development.	MEDIUM: Significant parcels of land as well as vacant and underutilized buildings exist for redevelopment. There has been modest residential growth since 2000, projections are for the highest growth of any market area.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Brush Creek Corridor	LOW: Troost station includes a mix of small-scale auto-oriented retail, vacant land, institutional, and multi- and single-family residential properties, on a grid system. Swoop station includes only very modest development in the immediate station area with some nearby single-family residential neighborhoods.	LOW: FOCUS Kansas City recommends developing light rail stations with accessible connectors to support the area's non-profits and institutions. The Brush Creek Corridor Plan recommends mixed-use development in the station area. Current zoning is residential and commercial. Commercial zoning allows housing on higher-than-ground floors. The proposed zoning changes do not include mixed use. Zoned densities fall in the "medium-low" range and commercial in the "medium" range although existing built densities are not close to this level.	LOW: Significant parcels of land exist for redevelopment, but market forces do not support that development. Forecasts show residential decline although there may be replacement of older housing stock. Commercial and retail potential is very limited.

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



New Starts Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Watkins*	MEDIUM-LOW		

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



KANSAS CITY



DEVELOPMENT ORDINANCE

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



Transit-supportive elements of proposed Development Code

- Overlay districts
- "D" Downtown districts
- Expanded participation in development review
- Minimums and maximums
- Parking requirement reductions
- Bicycle parking requirements

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS




FOCUS Plan

- "Support compact and mixed-use patterns of development that reduce long commutes, retain open spaces, and minimize costs for public services and facilities, particularly along transit corridors. Implement flexible or reduced parking standards, integrated with transit, and actively promote higher density development, where appropriate, along existing or proposed transit corridor."
- "Develop standards and systems that accommodate the automobile, transit, bicycles, and pedestrians..."
- "Use transit-oriented development guidelines and pedestrian-oriented development guidelines..."
- Economic Development and Incentive Policy (2007)

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS



North Kansas City: 18th Avenue and Burlington



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay

Policy:


- Offer parcel assembly assistance
- Reduce parking requirements
- Coordinate existing circulation and access patterns

Improvements:

- Streetscaping and landscape buffering
- Bike lanes, sidewalks, and signalized crossings

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

North Kansas City: 18th Avenue and Swift



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay

Policy:

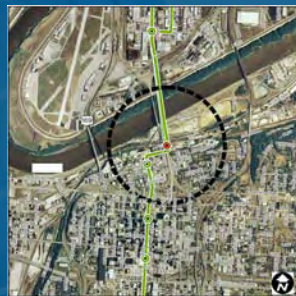
- Implement wayfinding and branding

Improvements:

- Coordinate adaptive re-use
- Reduce parking requirements
- Streetscaping and landscape buffering
- Bike lanes, sidewalks, and signalized crossings

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

Kansas City: 1st Street and Riverfront



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay
- Leverage DX designation

Policy:


- Offer incentives for TOD

Improvements:

- Infrastructure investment: sidewalks, landscaping, lighting
- Targeted roadway and sidewalk upgrades in existing industrial areas

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

Kansas City: 3rd Street and Riverfront



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay
- Leverage DX designation

Policy:


- Offer incentives for TOD: parking reductions for pedestrian-friendly amenities

Improvements:

- Infrastructure investment: sidewalks, landscaping, lighting
- Targeted roadway and sidewalk upgrades in existing industrial areas

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

Kansas City: 9th Street and Grand



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay
- Leverage DX designation
- Update existing area plans to reflect new development

Policy:


- Ensure pedestrian-friendliness of urban design standards
- Incentivize pedestrian amenities

Improvements:

- Landscaping, street furniture, lighting, branding

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

Kansas City: 18th Street and Grand



Recommendations:

Planning:

- Work with neighborhood groups and existing smaller-scale retailers to retain unique character

Policy:

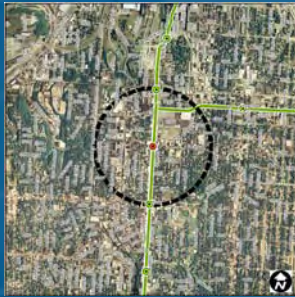
- Map Neighborhood Character Overlay District
- Actively coordinate transition of industrial buildings towards adaptive re-use

Improvements:

- Landscaping, street furniture, lighting, branding

KANSAS CITY NORTH-SOUTH CORRIDOR ALTERNATIVES ANALYSIS

Kansas City: Armour and Main



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay

Policy:

- Work with residents towards creating a nodal pattern of development

Improvements:

- Implement infrastructure and landscaping improvements in the Main Street Corridor Streetscape Master Plan



Kansas City: 39th and Main



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay

Policy:

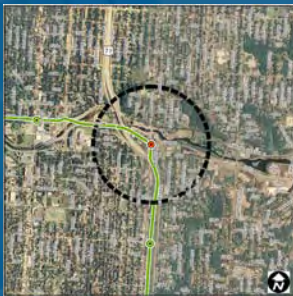
- Work with residents towards creating a nodal pattern of development

Improvements:

- Implement infrastructure and landscaping improvements in the Main Street Corridor Streetscape Master Plan



Kansas City: Prospect and Swope



Recommendations:

Planning:

- Encourage mix of uses through TOD overlay zone

Policy:

- Offer parking reductions to complement park-and-ride
- Encourage site design that facilitates visual access to Brush Creek

Improvements:

- Improve pedestrian facilities through sidewalk network completion, lighting, street furniture, wayfinding



Summary

- Preliminary results of transit-supportive land use work:
 - KC is well-positioned to support transit
 - Existing policies
 - Existing plans
 - Existing and future land use
 - NKC is working to become more transit-supportive
 - Evaluating modification of existing policies and plans



Appendix B

FTA Guidance on Land Use Category Ratings

Table 3. Land Use Rating Categories, Factors, and Supporting Factors

Land Use Rating Category and Associated Factors	Supporting Factors
I. EXISTING LAND USE	
a. Existing Land Use	<ul style="list-style-type: none"> • Existing corridor and station area development • Existing corridor and station area development character • Existing station area pedestrian facilities, including access for persons with disabilities • Existing corridor and station area parking supply
II. TRANSIT-SUPPORTIVE PLANS AND POLICIES	
a. Growth Management	<ul style="list-style-type: none"> • Concentration of development around established activity centers and regional transit • Land conservation and management
b. Transit-Supportive Corridor Policies	<ul style="list-style-type: none"> • Plans and policies to increase corridor and station area development • Plans and policies to enhance transit-friendly character of corridor and station area development • Plans to improve pedestrian facilities, including facilities for persons with disabilities • Parking policies
c. Supportive Zoning Regulations Near Transit Stations	<ul style="list-style-type: none"> • Zoning ordinances that support increased development density in transit station areas • Zoning ordinances that enhance transit-oriented character of station area development and pedestrian access • Zoning allowances for reduced parking and traffic mitigation
d. Tools to Implement Land Use Policies	<ul style="list-style-type: none"> • Outreach to government agencies and the community in support of land use planning • Regulatory and financial incentives to promote transit-supportive development • Efforts to engage the development community in station area planning and transit-supportive development
III. PERFORMANCE AND IMPACTS OF POLICIES	
a. Performance of Land Use Policies	<ul style="list-style-type: none"> • Demonstrated cases of development affected by transit-supportive policies • Station area development proposals and status
b. Potential Impact of Transit Investment on Regional Land Use	<ul style="list-style-type: none"> • Adaptability of station area land for development • Corridor economic environment
IV. OTHER LAND USE CONSIDERATIONS (Optional)	
Exceptional Examples	<ul style="list-style-type: none"> • Historic, environmental, community preservation, etc.

Table 4. Ratings Applied in Assessment of Land Use Criterion

I. EXISTING LAND USE							
a. Existing Land Use							
Phase of Project Development under Assessment	Land Use Assessment Ratings						
Preliminary Engineering and Final Design	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center; vertical-align: top;">HIGH</td> <td style="vertical-align: top;">Current levels of population, employment, and other trip generators in station areas are sufficient to support a major transit investment. Most station areas are pedestrian-friendly and fully accessible.</td> </tr> <tr> <td style="text-align: center; vertical-align: top;">MEDIUM</td> <td style="vertical-align: top;">Current levels of population, employment, and other trip generators in station areas marginally support a major transit investment. Some station areas are pedestrian-friendly and accessible. Significant growth must be realized.</td> </tr> <tr> <td style="text-align: center; vertical-align: top;">LOW</td> <td style="vertical-align: top;">Current levels of population, employment, and other trip generators in station areas are inadequate to support a major transit investment. Station areas are not pedestrian-friendly.</td> </tr> </table>	HIGH	Current levels of population, employment, and other trip generators in station areas are sufficient to support a major transit investment. Most station areas are pedestrian-friendly and fully accessible.	MEDIUM	Current levels of population, employment, and other trip generators in station areas marginally support a major transit investment. Some station areas are pedestrian-friendly and accessible. Significant growth must be realized.	LOW	Current levels of population, employment, and other trip generators in station areas are inadequate to support a major transit investment. Station areas are not pedestrian-friendly.
	HIGH	Current levels of population, employment, and other trip generators in station areas are sufficient to support a major transit investment. Most station areas are pedestrian-friendly and fully accessible.					
	MEDIUM	Current levels of population, employment, and other trip generators in station areas marginally support a major transit investment. Some station areas are pedestrian-friendly and accessible. Significant growth must be realized.					
	LOW	Current levels of population, employment, and other trip generators in station areas are inadequate to support a major transit investment. Station areas are not pedestrian-friendly.					
Ratings based on assessment of the following: <ul style="list-style-type: none"> • Existing corridor and station area development; • Existing corridor and station area development character; • Existing station area pedestrian facilities, including access for persons with disabilities; and • Existing corridor and station area parking supply. 							

Table 4. Ratings Applied in Assessment of Land Use Criterion (continued)

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES		
a. Growth Management		
Phase of Project Development under Assessment	Land Use Assessment Ratings	
Preliminary Engineering and Final Design	HIGH	Adopted and enforceable growth management and land conservation policies are in place throughout the region. Existing and planned densities and market trends in the region and corridor are strongly compatible with transit.
	MEDIUM	Significant progress has been made toward implementing growth management and land conservation policies. Strong policies may be adopted in some jurisdictions but not others, or only moderately enforceable policies (e.g., incentive-based) may be adopted regionwide. Existing and/or planned densities and market trends are moderately compatible with transit.
	LOW	Limited consideration has been given to implementing growth management and land conservation policies; adopted policies may be weak and apply to only a limited area. Existing and/or planned densities and market trends are minimally or not supportive of transit.
	Ratings based on assessment of the following: <ul style="list-style-type: none"> • Concentration of development around established activity centers and regional transit; and • Land conservation and management. 	

Table 4. Ratings Applied in Assessment of Land Use Criterion (continued)

III. PERFORMANCE AND IMPACTS OF LAND USE POLICIES		
a. Performance of Land Use Policies		
Phase of Project Development under Assessment	Land Use Assessment Ratings	
Preliminary Engineering	HIGH	Transit-supportive housing and employment development is occurring in the corridor. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM	Station locations have not been established with finality, and therefore development would not be expected. Moderate amounts of transit-supportive housing and employment development have occurred in other, existing transit corridors and station areas in the region.
	LOW	Other, existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
Final Design	HIGH	A significant number of development proposals are being received for transit-supportive housing and employment in station areas. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM	Some development proposals are being received for transit-supportive housing and employment in station areas. Moderate amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	LOW	A limited number of proposals for transit-supportive housing and employment development in the corridor are being received. Other, existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
	Ratings based on assessment of the following: <ul style="list-style-type: none"> • Demonstrated cases of development affected by transit-oriented policies; and • Station area development proposals and status. 	

Table 5. Quantitative Element Rating Guide¹

Rating	Existing Land Use						Corridor Policies and Station Area Zoning					
	Station Area Development			Parking Supply			Station Area Development			Parking Supply		
	Emp. served by system ²	Avg. pop. density (persons/sq. mi.)	CBD typical cost/day ³	CBD spaces per employee ⁴	CBD comm. FAR ⁵	Other comm. FAR ⁶	Residential DU/acre	CBD spaces per 1,000 sq. ft.	Other spaces per 1,000 sq. ft.			
High (5)	< 250,000	> 15,000	> \$16	< 0.2	> 10.0	> 2.5	> 25	< 1	< 1.5			
Medium-High (4)	175,000 – 250,000	10,000 – 15,000	\$12 – 16	0.2 – 0.3	8.0 – 10.0	1.75 – 2.5	15 – 25	1 – 1.75	1.5 – 2.25			
Medium (3)	125,000 – 175,000	6,667 – 10,000	\$8 – 12	0.3 – 0.4	6.0 – 8.0	1.0 – 1.75	10 – 15	1.75 – 2.5	2.25 – 3.0			
Low-Medium (2)	75,000 – 125,000	3,333 – 6,667	\$4 – 8	0.4 – 0.5	4.0 – 6.0	0.5 – 1.0	5 – 10	2.5 – 3.25	3.0 – 3.75			
Low (1)	< 75,000	< 3,333	< \$4	> 0.5	< 4.0	< 0.5	< 5	> 3.25	> 3.75			

¹ This table is intended as a rough guide for assigning land use ratings for factors in which quantitative data are given primary consideration. The ranges shown were developed based on an analysis of land use characteristics and assigned ratings for New Starts projects rated for Fiscal Years 1999 through 2002. Measures of parking supply are the most commonly reported measures but may not be available for every project.

² Entire line with a no-transfer ride from the New Starts project stations (including the CBD), even if the New Starts project is an extension not located in CBD.

³ CBD core (not fringe parking).

⁴ Average across CBD.

⁵ CBD core area.

⁶ Elsewhere in corridor (typical for commercial districts).

Appendix C

Quantitative Land Use Data Tables

KANSAS CITY, MISSOURI LIGHT RAIL ALTERNATIVES ANALYSIS			
Population and Employment – Metropolitan Area, CBD, and Corridor			
Item	Base Year (2000)	Forecast Year (2030)	Growth (%)
Metropolitan Area			
Total Population	1,596,029	2,102,759	31.7%
Total Employment	1,133,612	1,714,068	51.2%
Study Corridor			
Total Population	173,441	160,098	-8%
Total Employment	287,689	376,435	31%
Population – Percent of Metropolitan Area	11%	8%	---
Employment – Percent of Metropolitan Area	25%	22%	---
Corridor Land Area (sq. mi.)	44.5	44.5	---
Population Density (persons per sq. mi.)	3,898	3,598	---
Employment Density (jobs per sq. mi.)	6,465	8,459	---
Total All Station Market Areas			
Housing Units	37,531	47,322	26%
Population	78,278	85,700	9%
Employment	214,081	277,809	30%
Land Area (square miles)	16.47	16.47	---
Housing Unit Density (units per sq. mi.)	2,279	2,873	---
Population Density (persons per sq. mi.)	4,753	5,203	---
Employment Density (persons per sq. mi.)	12,998	16,868	---
Station Area 1: North Oak			
Housing Units	4,469	5,955	33%
Population	9,989	12,135	21%
Employment	6,231	9,341	50%
Land Area (square miles)	4.49	4.49	---
Housing Unit Density (units per sq. mi.)	995	1,326	---
Population Density (persons per sq. mi.)	2,225	2,703	---
Employment Density (persons per sq. mi.)	1,388	2,080	---
Station Area 2: North Kansas City			
Housing Units	2,523	2,604	3%
Population	4,558	4,685	3%
Employment	16,089	16,491	2%
Land Area (square miles)	2.92	2.92	---
Housing Unit Density (units per sq. mi.)	864	892	---
Population Density (persons per sq. mi.)	1,561	1,604	---
Employment Density (persons per sq. mi.)	5,510	5,648	---

*Source: Mid-America Regional Council (MARC) Population Forecasts

LAND USE (QUANTITATIVE) TEMPLATE			
KANSAS CITY, MISSOURI LIGHT RAIL ALTERNATIVES ANALYSIS			
Population and Employment – Metropolitan Area, CBD, and Corridor (Continued)			
Item	Base Year (2000)	Forecast Year (2030)	Growth (%)
Station Area 3: River Market			
Housing Units	1,044	2,434	133%
Population	2,076	4,009	93%
Employment	3,054	3,894	28%
Land Area (square miles)	0.97	0.97	---
Housing Unit Density (units per sq. mi.)	1,076	2,509	---
Population Density (persons per sq. mi.)	2,140	4,133	---
Employment Density (persons per sq. mi.)	3,148	4,014	---
Station Area 4: Downtown			
Housing Units	2,311	4,918	113%
Population	3,933	6,772	72%
Employment	69,103	87,700	27%
Land Area (square miles)	0.95	0.95	---
Housing Unit Density (units per sq. mi.)	2,433	5,177	---
Population Density (persons per sq. mi.)	4,140	7,128	---
Employment Density (persons per sq. mi.)	72,740	92,316	---
Station Area 5: Crossroads			
Housing Units	145	1,734	1096%
Population	692	3,663	429%
Employment	27,955	34,029	22%
Land Area (square miles)	0.93	0.93	---
Housing Unit Density (units per sq. mi.)	156	1,865	---
Population Density (persons per sq. mi.)	744	3,939	---
Employment Density (persons per sq. mi.)	30,059	36,590	---
Station Area 6: Crown Center			
Housing Units	1,074	2,160	101%
Population	2,026	3,703	83%
Employment	28,056	40,539	44%
Land Area (square miles)	1.14	1.14	---
Housing Unit Density (units per sq. mi.)	942	1,895	---
Population Density (persons per sq. mi.)	1,777	3,248	---
Employment Density (persons per sq. mi.)	24,611	35,561	---
<i>*Source: Mid-America Regional Council (MARC) Population Forecasts</i>			

LAND USE (QUANTITATIVE) TEMPLATE			
KANSAS CITY, MISSOURI LIGHT RAIL ALTERNATIVES ANALYSIS			
Population and Employment – Metropolitan Area, CBD, and Corridor (Continued)			
Item	Base Year (2000)	Forecast Year (2030)	Growth (%)
Station Area 7: Midtown			
Housing Units	5,378	7,336	36%
Population	9,463	12,078	28%
Employment	19,145	25,300	32%
Land Area (square miles)	1.29	1.29	---
Housing Unit Density (units per sq. mi.)	4,169	5,687	---
Population Density (persons per sq. mi.)	7,336	9,363	---
Employment Density (persons per sq. mi.)	14,841	19,612	---
Station Area 8: Linwood Boulevard			
Housing Units	5,143	4,230	-18%
Population	12,105	9,084	-25%
Employment	6,062	9,028	49%
Land Area (square miles)	2.01	2.01	---
Housing Unit Density (units per sq. mi.)	2,559	2,104	---
Population Density (persons per sq. mi.)	6,022	4,519	---
Employment Density (persons per sq. mi.)	3,016	4,492	---
Station Area 9: Country Club Plaza			
Housing Units	6,133	8,040	31%
Population	9,377	11,546	23%
Employment	22,161	29,395	33%
Land Area (square miles)	1.23	1.23	---
Housing Unit Density (units per sq. mi.)	4,986	6,537	---
Population Density (persons per sq. mi.)	7,624	9,387	---
Employment Density (persons per sq. mi.)	18,017	23,898	---
Station Area 10: Brush Creek Corridor			
Housing Units	4,211	3,555	-16%
Population	10,653	7,906	-26%
Employment	7,640	10,161	33%
Land Area (square miles)	2.15	2.15	---
Housing Unit Density (units per sq. mi.)	1,959	1,653	---
Population Density (persons per sq. mi.)	4,955	3,677	---
Employment Density (persons per sq. mi.)	3,553	4,726	---
Station Area 11: Bruce R Watkins Corridor			
Housing Units	5,100	4,356	-15%
Population	13,406	10,119	-25%
Employment	8,585	11,931	39%
Land Area (square miles)	2.88	2.88	---
Housing Unit Density (units per sq. mi.)	1,771	1,513	---
Population Density (persons per sq. mi.)	4,655	3,514	---
Employment Density (persons per sq. mi.)	2,981	4,143	---

*Source: Mid-America Regional Council (MARC) Population Forecasts

Appendix D
Kansas City North/South Corridor
Proposed 14-Miles Light Rail Alignment
Land Use Assessment

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
North Oak	<p>LOW: Single family residential with limited retail commercial and office development. Significant undeveloped areas due to topography and parkland.</p> <p>Residential development is low density with curvilinear street pattern with limited access to North Oak.</p>	<p>MEDIUM-LOW: <i>The North Oak Corridor Land Use & Development Plan</i>² adopted in 2006 includes references to upgraded transit, BRT and the potential for light rail in the future, and a strategy to “create a multi-modal transportation environment.” However the Plan does not anticipate significant changes in the character of the development and allows that development at the intersection of North Oak and Vivion Road is likely to remain auto-oriented.</p>	<p>LOW: No plans to support new transit oriented development in station areas.</p>

² North Oak Corridor Land Use and Development Plan, August 2006, City Planning and Development Department.

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
North Kansas City	<p>MEDIUM-LOW: Industrial and manufacturing facilities, some smaller scale retail. Pockets of multi-family, single family and senior housing. Grid street system east of the alignment, but rail yards and large industrial facilities west.</p> <p>Viable walkable downtown area is just to the east of the alignment.</p>	<p>MEDIUM-LOW: <i>North Kansas City Master Plan</i> calls to maintain current uses, but improve appearance. Design guidelines support pedestrian orientation of buildings.</p>	<p>LOW: No plans to support new development in station areas.</p>

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
River Market	<p>MEDIUM: The area transitioned from railroad and industrial uses to mixed-use retail and residential development years ago. Steep grade down to the River makes pedestrian access difficult. Lots of sites available for redevelopment with some recently completed projects.</p> <p>Mixed use area is small but viable, and pedestrian friendly.</p>	<p>MEDIUM³: <i>Kansas City Master Plan</i> calls for new mixed-use development, support and enhancement of River Market, live-work loft development and revitalization of open space. <i>Second Street Infrastructure and Development Plan</i> recommends TOD with integrated parking. Current zoning includes manufacturing and residential, and only allows mixed-use development through special permit. Proposed zoning changes will include mixed-use development as well as reductions in parking requirements near transit. City has financial incentive program to encourage development, but not specific to station areas. New regulatory tools will be available to help guide development in transit-friendly manner.</p>	<p>MEDIUM: Redevelopment opportunities exist, and plans in progress will support additional transit-friendly development. Recent new development and redevelopment has largely been multi-family residential with some mixed-use. Several large projects are in the planning or construction stages. Projected residential and retail demand is moderate; office demand is small.</p>

³ River Market, Downtown, and Crossroads ratings for “Plans and Policies” could potentially be medium-high if new zoning proposals are adopted.

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Downtown	<p>MEDIUM: Civic, office and commercial space surrounded by surface parking lots and aging parking structures. There is an entertainment district in the area, with a new arena, and a number of restaurants. Office vacancy rates are high. 2005 employment of 70,000⁴ rates at the top end of the “low” range for a CBD (employment served) although if combined with Crossroads and Midtown this borders between a “medium-low” and “medium” rating.</p>	<p>MEDIUM: Recent public investment in infrastructure, tax abatement and TIF programs have spurred development, <i>FOCUS Kansas City</i> calls for continuation of mixed-use development, implementation of multi-modal transit, a new special benefits district, and the creation and implementation of urban design guidelines. The <i>Downtown Land Use and Development Plan</i> calls for the conversion of parking lots to new uses, anchor development parcels, mixed-use development at key locations. Current zoning does not allow mixed-use development without a permit and commercial zoned FARs (2.2 – 4) are low for a downtown area. Proposed zoning changes would allow mixed-use development.</p>	<p>MEDIUM: Significant parcels of land and vacant buildings exist for redevelopment. While long-term office growth is forecast, the current office market is weak and absorption has been negative for the past seven years. Recent development of entertainment district will support transit ridership, and adds activity to area, and residential development also has been occurring, primarily through the adaptation of historic but obsolete office buildings.</p>

⁴ Updated estimates of CBD employment are lower, in the range of 50,000 to 60,000.

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Crossroads	<p>MEDIUM-LOW: Currently undergoing transition from storage and transfer facilities to artist studios, galleries and live-work loft spaces. Transition has been spurred by private market, driven by low real estate prices. Existing structures include commercial and industrial, interspersed by parking lots. Grid street system, sidewalks, and zero-setback buildings support pedestrian traffic.</p>	<p>MEDIUM: <i>FOCUS Kansas City</i> promotes further development as studios, galleries, live-work spaces. <i>Kansas City Downtown Corridor Study</i> recommends the reduction of surface parking lots to improve conditions and identifies the area for mixed-use residential/retail and live-work, streetscape improvements,. Current zoning allows manufacturing, commercial and urban redevelopment designation, which allows limited mixing of uses. New zoning proposal would allow for mixed-use and transit-supportive development.</p>	<p>MEDIUM: Significant parcels of land exist for redevelopment. Policies and plans moderately support that development, but market assessment notes that changes to parking policies are needed to free up land. Potential for high growth is projected in this area.</p>

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Crown Center	<p>MEDIUM: Dominated by Crown Center, a mixed-use development with 2.2 million square feet of office space, 300,000 square feet of retail, two hotels and more than 230 condominiums. The remainder of the market area includes office buildings, surface parking areas, institutional uses, and parks and open space. Pedestrian-friendliness is compromised by wide roadways and internally-oriented buildings, although most buildings are connected via skywalk systems. Union Station is adjacent to Crown Center; the Station houses a science museum, a post office and several restaurants. The transportation function is very limited.</p> <p>The area includes the Hospital Hill medical center with several major medical institutions. Hospital Hill is separated from Crown Center by significant topography and a parkway virtually precluding pedestrian traffic between the two sub-areas.</p>	<p>MEDIUM: <i>FOCUS Kansas City</i> calls for light rail stops to promote higher-density development, encourage redevelopment and mixed-use development, and improve the streetscape. The <i>Main Street Corridor Plan</i> identifies areas for mixed-use nodal development and generally encourages development of a more urban character (contextual infill would allow buildings up to three to six stories in most locations along Main St.) while discouraging big-box and auto-oriented uses. The plan includes design guidelines to promote pedestrian-scaled buildings. The area is currently zoned for a mixture of medium density residential, light industrial, higher-density commercial, and an urban renewal district. The proposed zoning would allow for mixed-use development.</p> <p>Crown Center maintains a master plan for completion of the area's development. This plan includes a significant increase in residential and office development.</p>	<p>MEDIUM: Surface parking lots provide limited opportunities for further development; otherwise the station area is mostly built-up or reserved as parkland. Housing capacity is expected to double by 2030, and population is forecasted to grow by 50% for the station area.</p> <p>The Crown Center Redevelopment Corporation has historically been cooperative with transit and has continued to support the light rail initiative.</p>

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Midtown	<p>MEDIUM: Residential and mixed-use development, including retail, office and industrial. Development type varies from pedestrian and transit-friendly, to suburban in design with large setbacks and parking lots out front. Parking is currently limited, and residents and retailers are concerned that transit will remove more parking and negatively impact area (e.g. more people parking on residential streets, not enough parking for patrons of shops).</p>	<p>MEDIUM: <i>FOCUS Kansas City</i> calls for light rail stops to promote higher-density development, encourage redevelopment and mixed-use development, and improve the streetscape. The <i>Main Street Corridor Plan</i> identifies areas for mixed-use nodal development and generally encourages development of a more urban character (contextual infill would allow buildings up to three to six stories in most locations along Main St.) while discouraging big-box and auto-oriented uses. The plan includes design guidelines to promote pedestrian-scaled buildings. The area is currently zoned for a mixture of residential and commercial uses, with some “open-zoning” parcels that could allow out-of-scale development.⁵</p>	<p>MEDIUM: Significant parcels of land as well as vacant and underutilized buildings exist for redevelopment. There has been modest residential growth since 2000; projections are for the highest growth of any market area.</p>

⁵ Densities not identified – more information here could potentially support a “medium-high” rating.

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Linwood Boulevard	MEDIUM-LOW: Sparse retail, single and dispersed multi-family housing, and vacant lots. Past decade has been characterized by under-investment, and many residential properties are poorly maintained. Grid streets and sidewalks support pedestrian traffic.	MEDIUM-LOW: <i>FOCUS Kansas City</i> identifies this area as a potential mixed-use center. Current zoning includes residential, commercial, manufacturing, urban redevelopment, and planned unit development districts. Commercial zoning allows housing on higher-than-ground floors. Zoned residential and commercial densities fall roughly within the “medium” range although existing building stock does not reach these densities. Plans call for mixed-use centers at selected intersections, working to unify existing neighborhoods elsewhere.	LOW: Significant parcels of land exist for redevelopment, but market forces do not support that development and there has been very limited private investment recently.

Market Area	Existing Land Use	Transit-Supportive Plans and Policies	Performance and Impacts of Land Use Policies
Country Club Plaza	<p>MEDIUM-HIGH: Anchored by County Club Plaza, a 15-block district with more than 150 shops and dozens of restaurants. Country Club Plaza is very pedestrian-friendly and offers a place for many outdoor activities and cultural events throughout the year. Nearby are a number of other cultural and historical sites, and desirable residential areas.</p> <p>The commercial area is surrounded on all sides by relatively high density multi-family residential. Much of the residential development is upper-middle to high income.</p> <p>The pedestrian character outside of the Plaza is mixed and the area is bisected by wide roadways which discourage pedestrian traffic.</p>	<p>MEDIUM: FOCUS Kansas City identifies this area as one in need of maintenance and enhancement of the current environment, with additional mixed-use development and transit service to define the area. Current zoning includes high-density commercial and residential, and pockets of an urban renewal district, not to exceed 12 stories. Proposed zoning would allow for mixed-use development in the commercial and urban redevelopment zones.</p> <p>The Country Club Plaza remains auto-oriented with an adequate supply of free parking.</p>	<p>MEDIUM: Housing, population and employment are all projected to grow by 20 to 30 percent by 2030 for the station area. Proposed zoning changes and plans should promote transit-supportive development.</p>

Market Area	Existing Land Use	Transit Supportive Plans and Policies	Performances and Impacts of Land Use Policies
Brush Creek Corridor	<p>LOW: Troost station includes a mix of small-scale auto-oriented retail, vacant land, institutional, and multi- and single-family residential properties, on a grid system. Swope station includes only very modest development in the immediate station area with some nearby single-family residential neighborhoods.</p>	<p>MEDIUM - LOW: <i>FOCUS Kansas City</i> recommends developing light rail stations with accessible connections to support the area's non-profits and institutions. The <i>Brush Creek Corridor Plan</i> recommends mixed-use development in the station area. Current zoning is residential and commercial. Commercial zoning allows housing on higher-than-ground floors. The proposed zoning changes do not include mixed use. Zoned densities fall in the "medium-low" range and commercial in the "medium" range although existing built densities are not close to this level.</p>	<p>LOW: Significant parcels of land exist for redevelopment, but market forces do not support that development. Forecasts show residential decline although there may be replacement of older housing stock. Commercial and retail potential is very limited.</p>
Watkins	<p>LOW: Predominately low-density single-family residential with some auto-oriented commercial. Streets are on a grid system generally with sidewalks, but accessing residential neighborhoods to the east of the alignment will require a long (600') crossing of an expressway.</p>	<p>LOW: Current and proposed zoning includes low-density residential, and some commercial use.</p> <p>A suburban style commercial retail development is planned for the area of 59th to 63rd streets west of Prospect Avenue.</p>	<p>LOW: Residential areas are unlikely to be redeveloped. There is significant development capacity along the Prospect Ave. commercial corridor but this must be supported by land use policies and market forces, neither of which are currently in evidence.</p>