Kansas City Area Transportation Authority
COMPREHENSIVE SERVICE ANALYSIS
Project Update: 1/26/11

The Metro

Nelson|Nygaard
consulting associates

in association with

HDR Engineering
K.C. Consulting
ETC Institute

Project Overview

Task	Status
1. Assess Existing Conditions	Complete
2. Conduct Market Analysis	Complete
3. Analyze Existing Service	Nearly Complete
4. Develop and Evaluate Service Scenarios	Just Began
5. Develop Recommendations	To Come

Today's presentation focuses on Tasks 2 and 3.

Market Analysis

Transit demand largely driven by three factors:

1. Population and employment densities
   - For transit to be successful, there must be sufficiently high numbers of people who live and work nearby.
2. Socio-economic characteristics
   - Some socio-economic groups have a higher "propensity" to use transit than others:
     - For example, those with low incomes, senior citizens, minorities, those without automobiles, etc.
3. Travel flows
   - The places that transit goes must also be the places that people travel to and from.

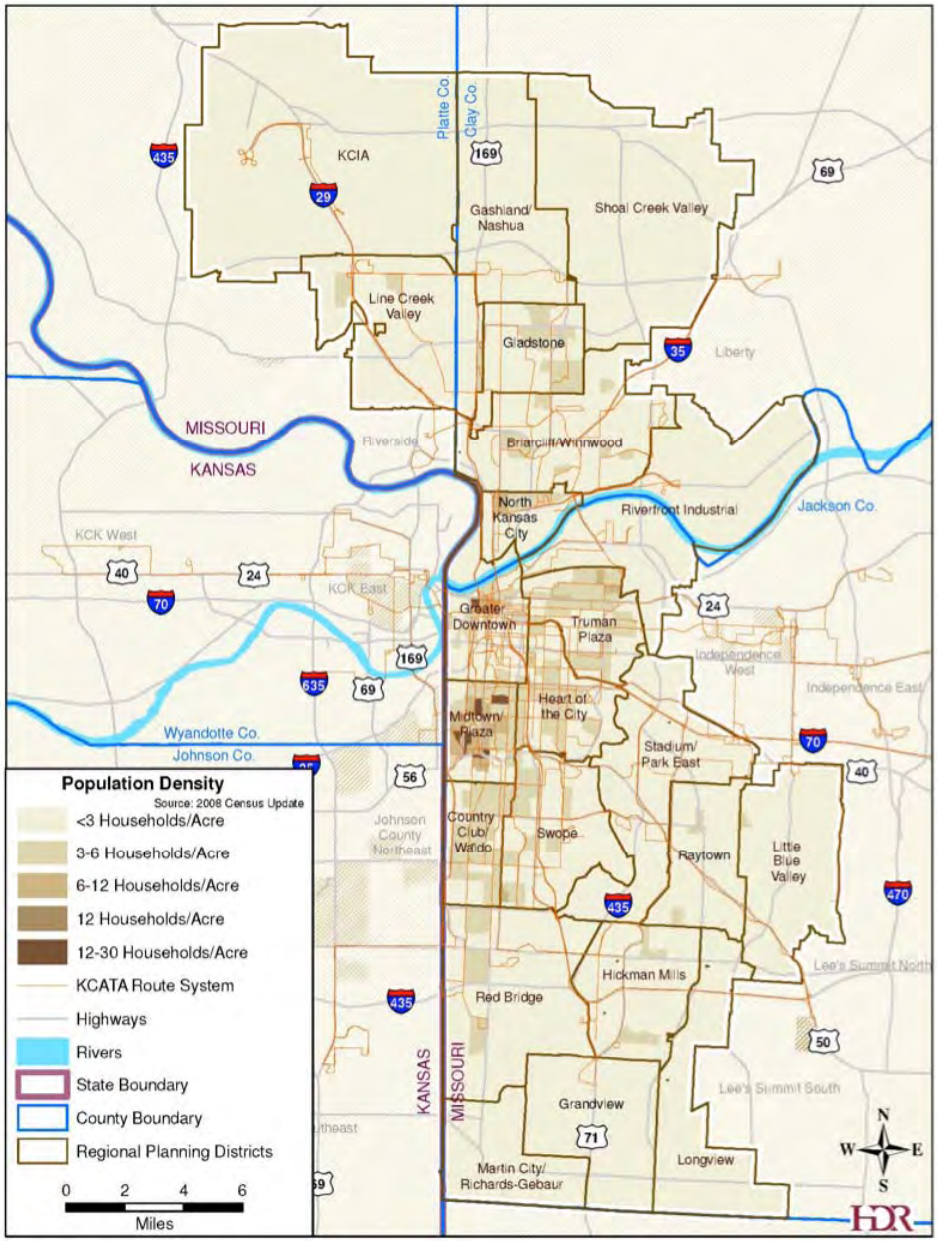
Population Density

Population densities are highest south of the river:

- Greater downtown
- Midtown/Plaza
- Country Club/Waldo
- Truman Plaza
- Heart of the City

Densities are lowest in outer neighborhoods:

- Most of the Northland
- Little Blue Valley
- Longview
- Martin City/Richards-Gebaur



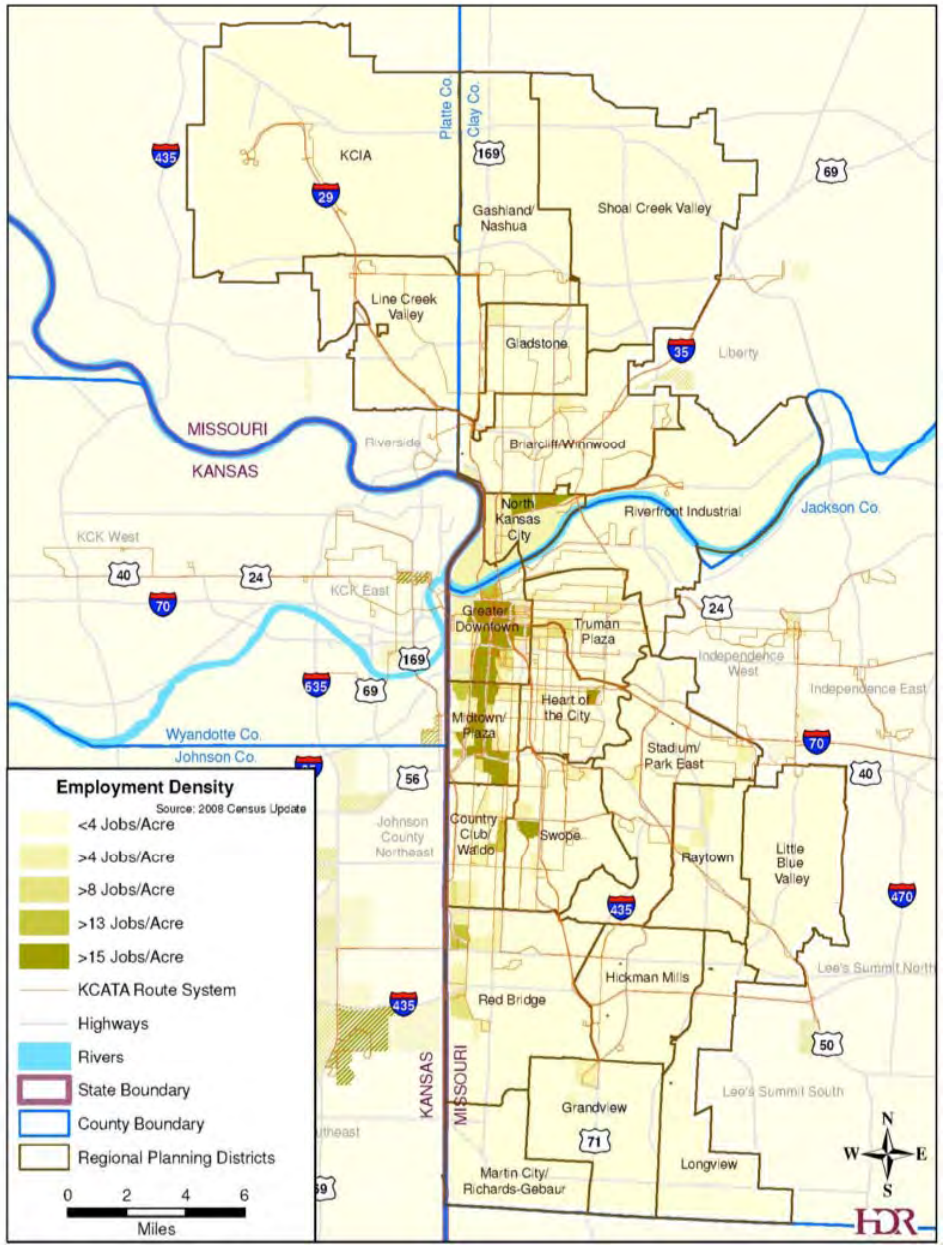
Employment Density

Employment densities are highest in:

- Greater downtown
- Midtown/Plaza
- Country Club/Waldo
- Truman Plaza
- Heart of the City
- Parts of Red Bridge & Swope
- North Kansas City

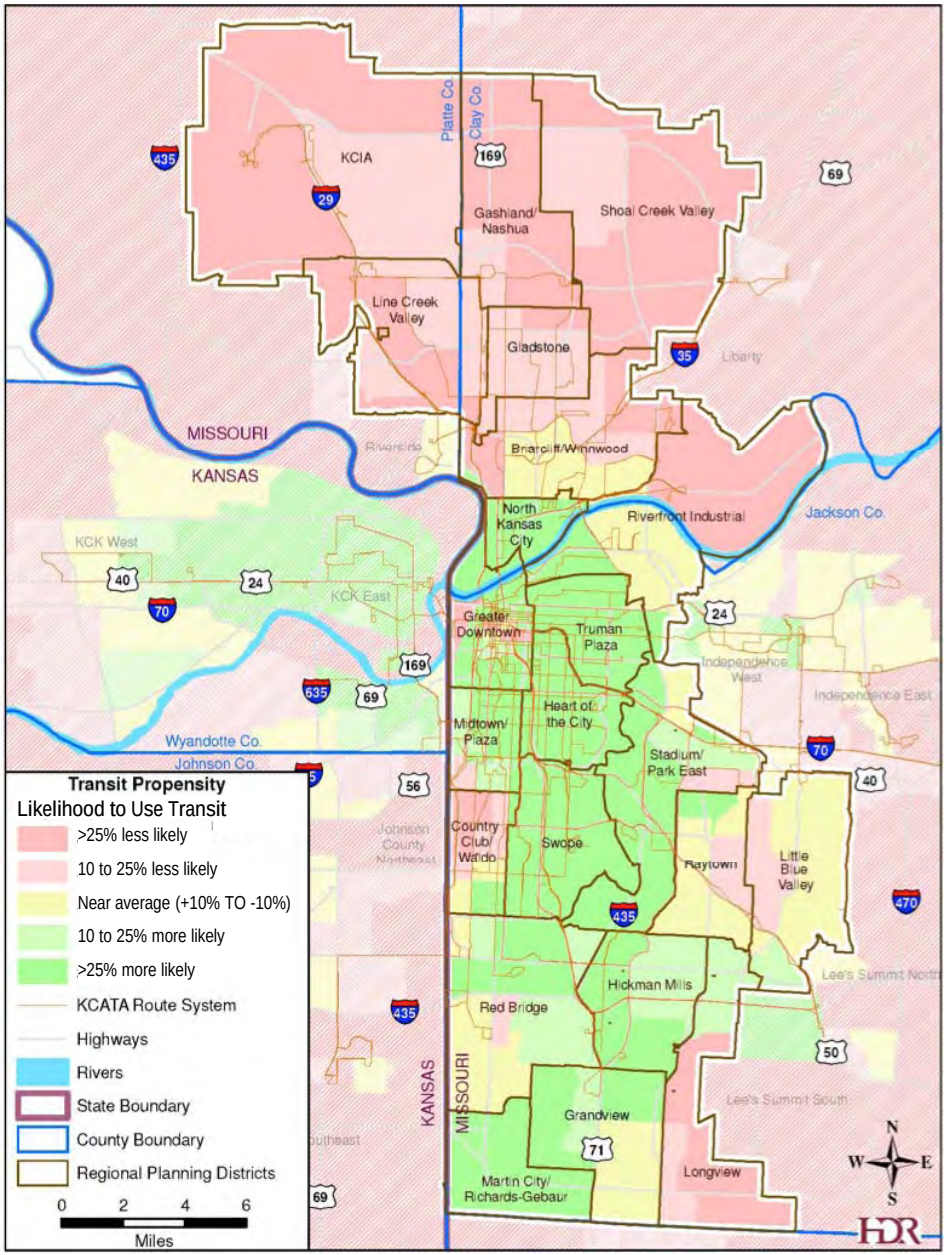
Densities are lowest in Kansas City's:

- Northland neighborhoods
- Eastern neighborhoods
- Southern neighborhoods



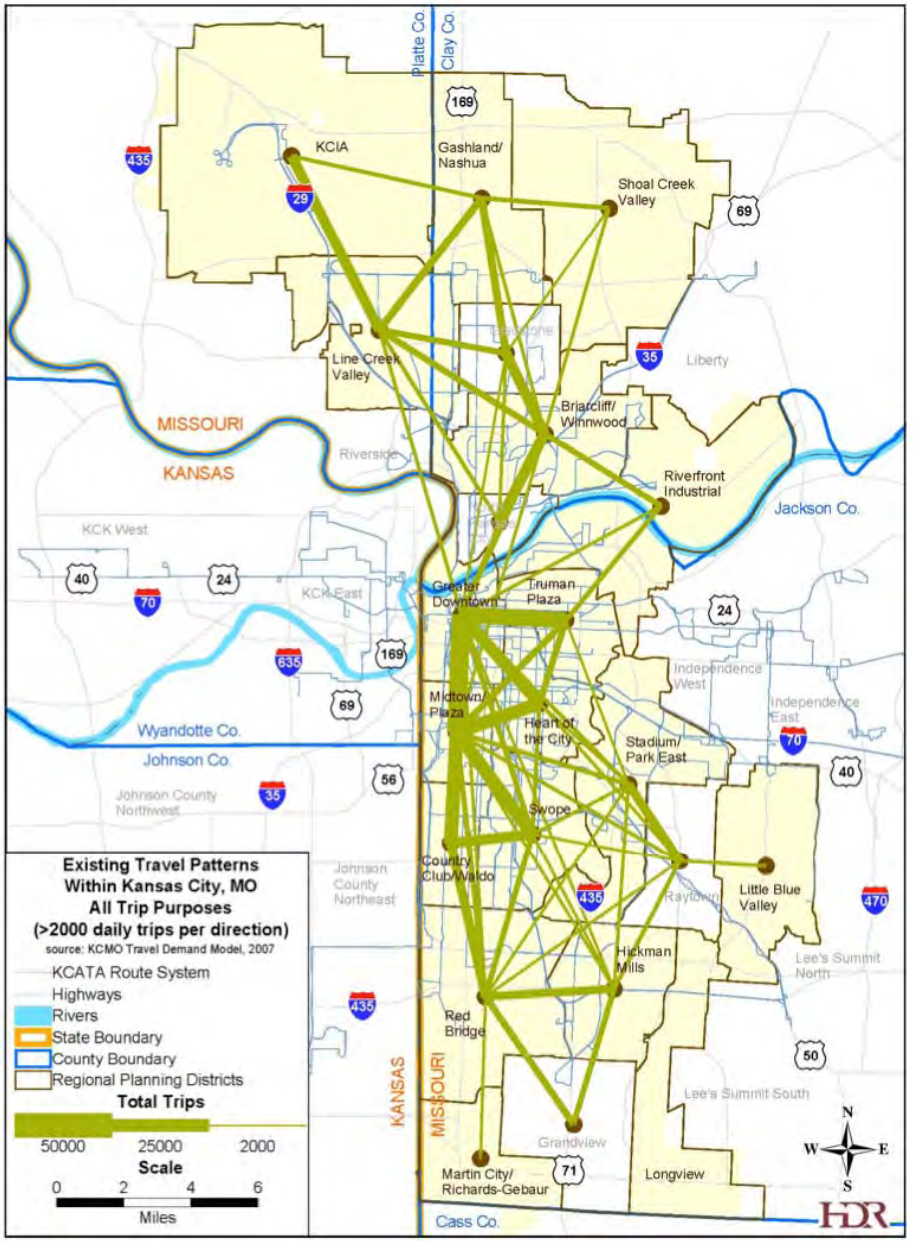
Socio-Economic Characteristics

- ***Propensity to use transit related to proportions of:***
  - Minorities
  - Low income residents
  - Households without autos
  - Seniors & persons with disabilities
- ***Propensity of KC's residents to use transit is:***
  - Highest south of the river.
  - Much lower in the Northland.
- ***Areas with high transit propensity and limited service are:***
  - Martin City/Richards-Gebaur
  - Hickman Mills



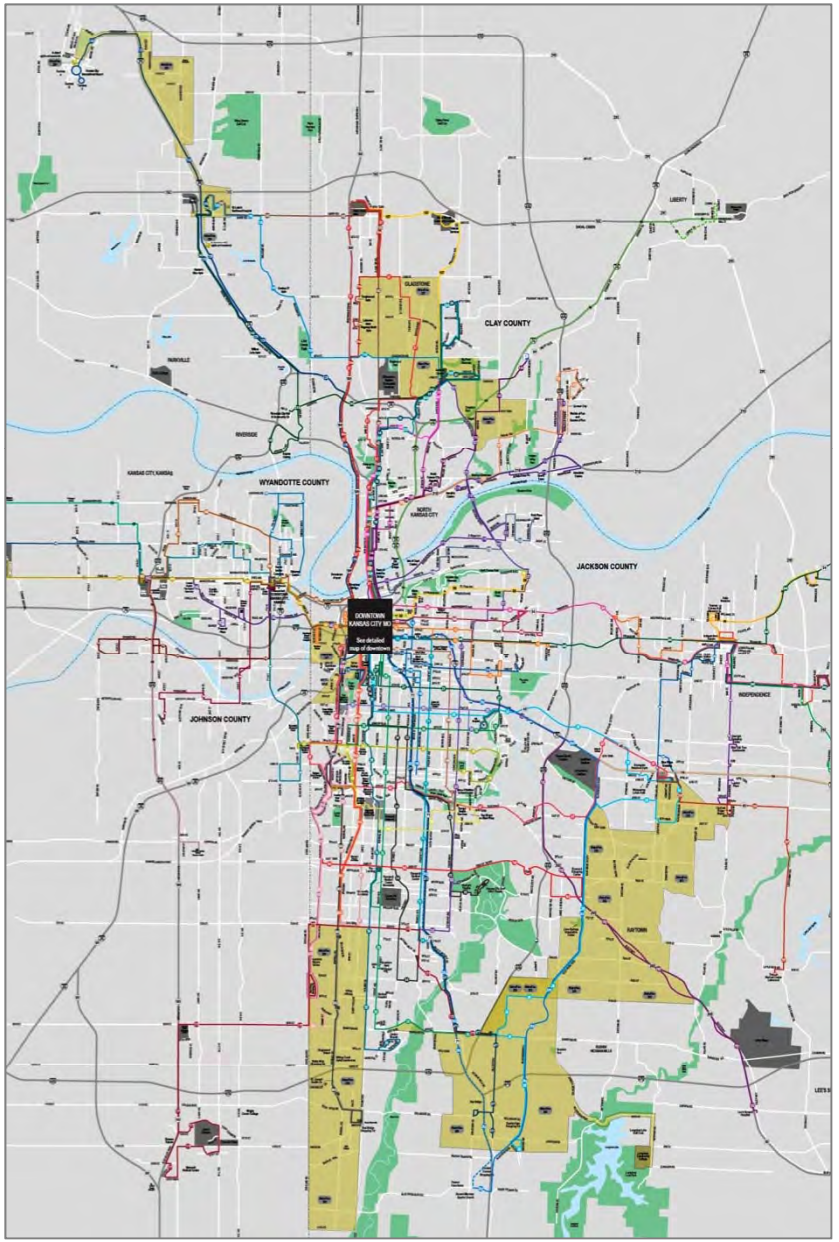
Travel Flows

- ***The heaviest travel flows are to and from:***
  - Greater downtown
  - Midtown/Plaza
  - Country Club/Plaza
  - Heart of the City
- ***Northland travel flows are:***
  - Lower and more dispersed
  - *More oriented toward trips within the Northland than to areas south of the river*



Market Analysis Conclusions

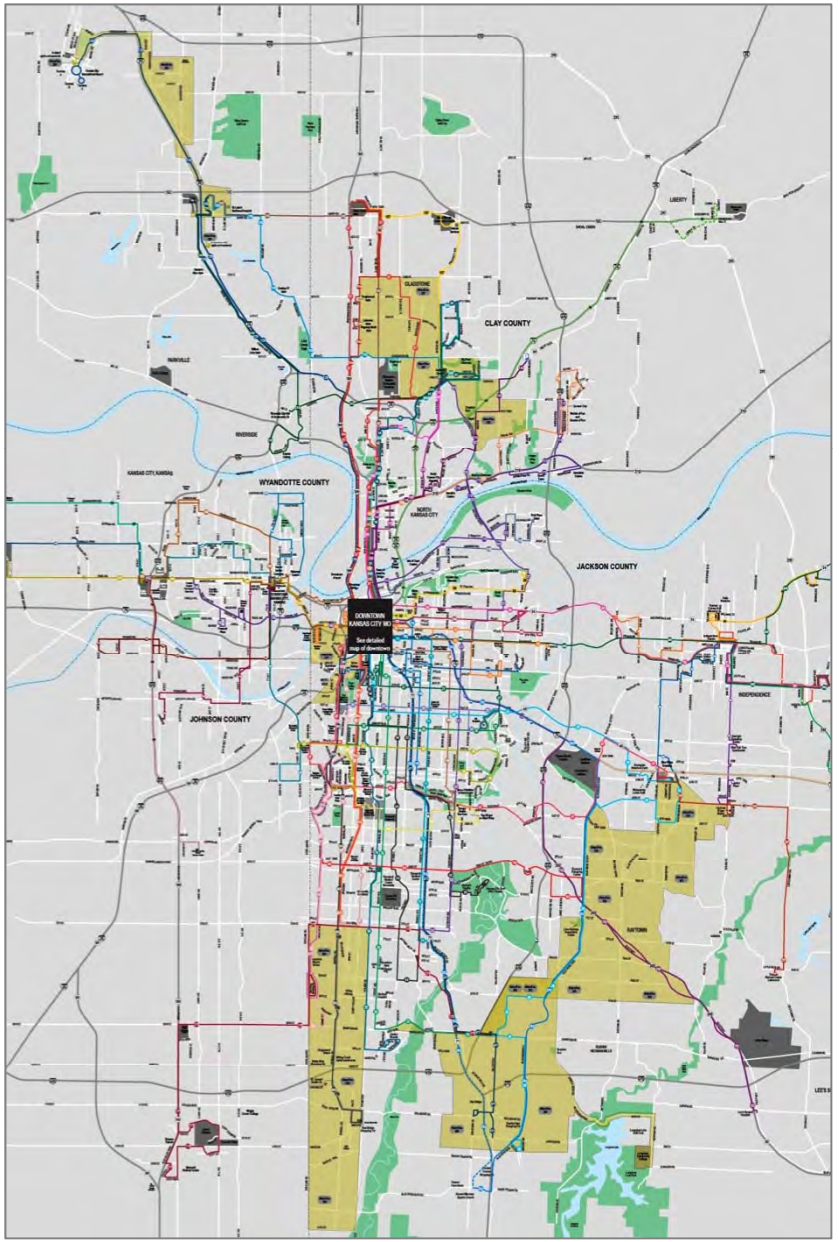
- ***Transit demand is much higher south of the river than north.***
- ***Systemwide, KCATA's services are generally well matched to demand:***
  - The highest levels are demand are in the inner core; this is where the highest concentrations of service are.
  - The lowest levels of demand are in the Northland and KC's eastern neighborhoods; this is where less service is provided.



Market Analysis Conclusions

Still, there are some mismatches:

- Martin City/Richards-Gebaur, and Hickman Mills, where transit propensity is high, but transit service is limited.
- The Northland, where most service is focused on downtown, but demand is higher for intra-Northland service.

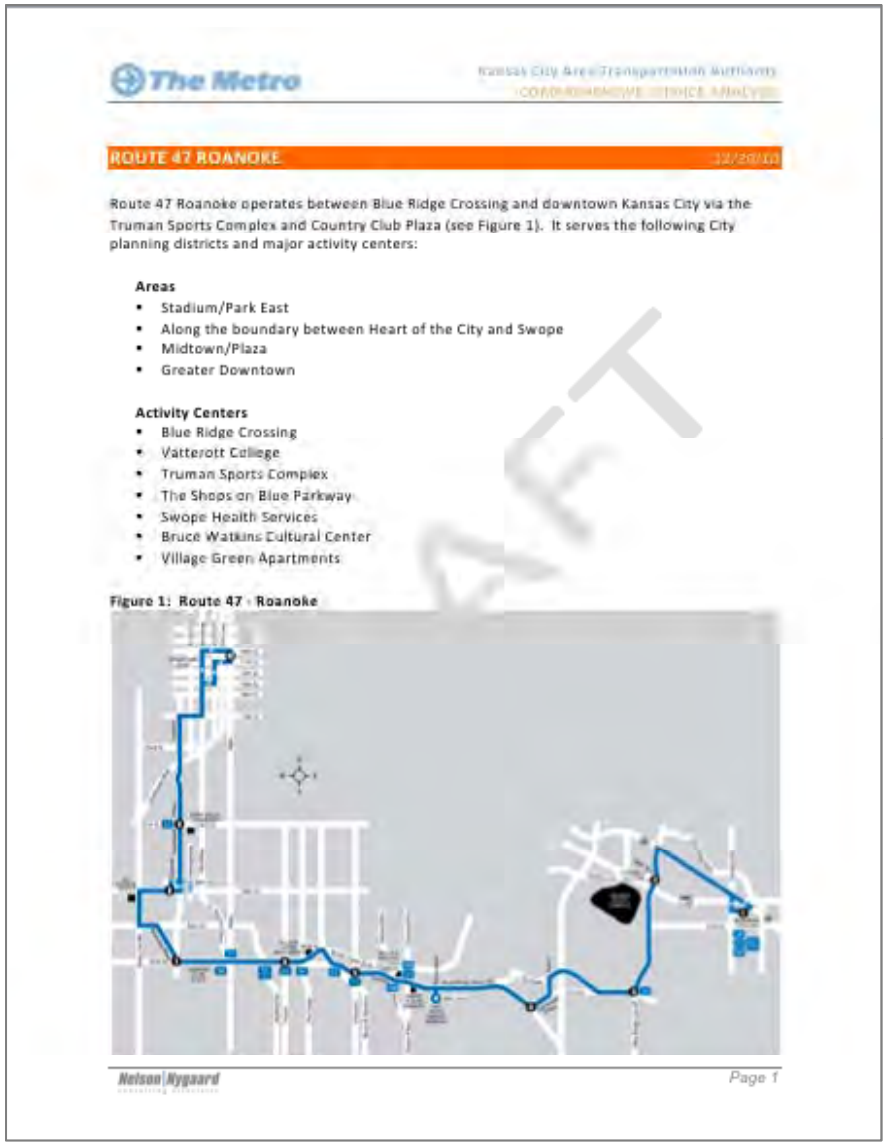


Analyze Existing Service

- ***Two focus areas:***
  1. Service design
     - Ensure that service is attractive, convenient, and well matched to demand.
     - Provide a basic level of service throughout Kansas City.
     - Ensure that service is designed so that it can be scheduled efficiently.
  2. Scheduling efficiency
     - Reduce operating costs by scheduling service more efficiently.

Service Design

- ***All KC fixed-route services have been examined in detail.***
- ***Examination of MetroFlex services nearing completion.***



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ROUTE 47 ROANOKE

Route 47 Roanoke operates between Blue Ridge Crossing and downtown Kansas City via the Truman Sports Complex and Country Club Plaza (see Figure 1). It serves the following City planning districts and major activity centers:

Areas

- Stadium/Park East
- Along the boundary between Heart of the City and Swope
- Midtown/Plaza
- Greater Downtown

Activity Centers

- Blue Ridge Crossing
- Vatterott College
- Truman Sports Complex
- The Shops on Blue Parkway
- Swope Health Services
- Bruce Watkins Cultural Center
- Village Green Apartments

Figure 1: Route 47 - Roanoke

Nelson Nygaard

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Service Design Opportunities

	Improve Service	Reduce Costs
Develop Key Corridor Network		
▪ MAX routes (existing and new)	√	
▪ 71 Prospect	√	
▪ 142 North Oak to Northland	√	
▪ Key East-West Routes	√	
Extend MAX Northward		
▪ To Northland	√	
▪ To Airport	√	
Develop New Transit Hubs		
▪ Country Club Plaza	√	√
▪ Hickman Mills	√	√
▪ Northland/Vivion & North Oak	√	√
▪ North Kansas City	√	√
Improve Downtown Circulation	√	?
Reduce Service Duplication	√	√

Service Design Opportunities

	Improve Service	Reduce Costs
Improve Corridor/Area Services		
▪ Country Club Plaza – Crown Center - Downtown	√	√
▪ I-29/Airport	√	
▪ 40 Highway/Blue Ridge Crossing	√	√
▪ Eastern neighborhoods	√	√
Improve Express Services		
▪ Boardwalk Square	√	
▪ Antioch Center	√	√
Provide Simpler, More Convenient Service		
▪ Increase evening frequencies on key routes	√	
▪ Consolidate two weak routes into one strong route	√	√
Revise Service Frequencies		
▪ Increase/decrease to better match demand	√	√
Adjust Span of Service		
▪ Shorter or longer based on demand	√	√
Adjust Vehicle Types		√

Service Design Examples

Independence Avenue/Truman Road Corridor:

- Existing service is relatively complicated and duplicative
  - Four routes have multiple branches and variants
  - Three routes partially duplicate each other in KC
  - Two routes duplicate Independence local routes

Service Design Examples

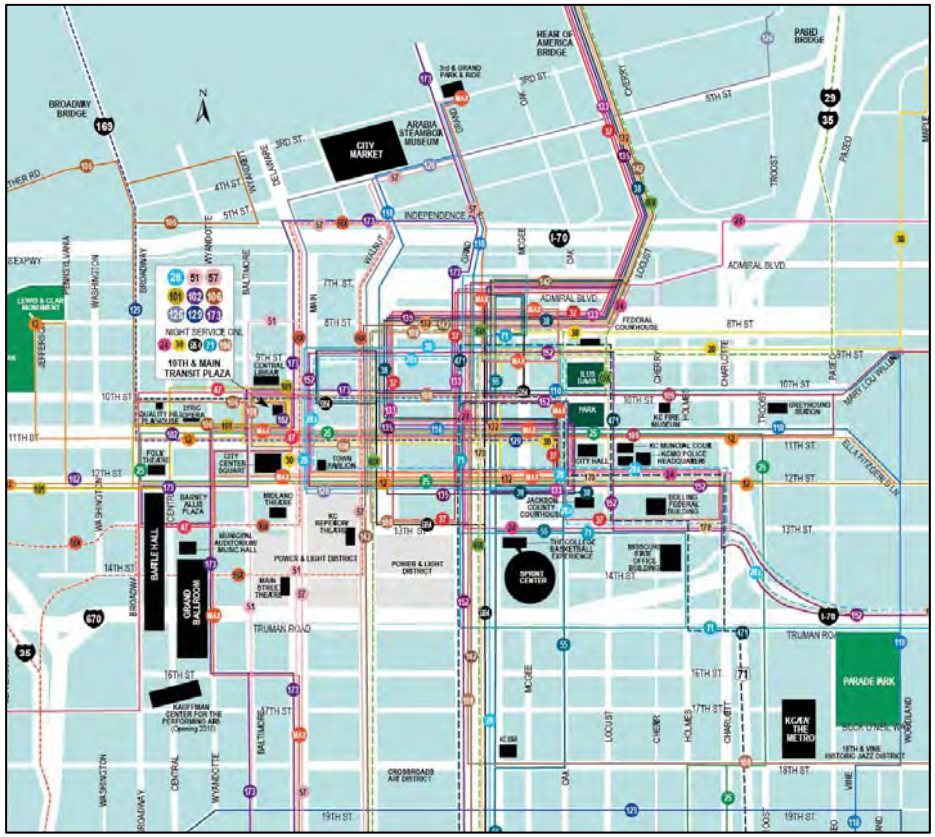
Independence Avenue/Truman Road Corridor:

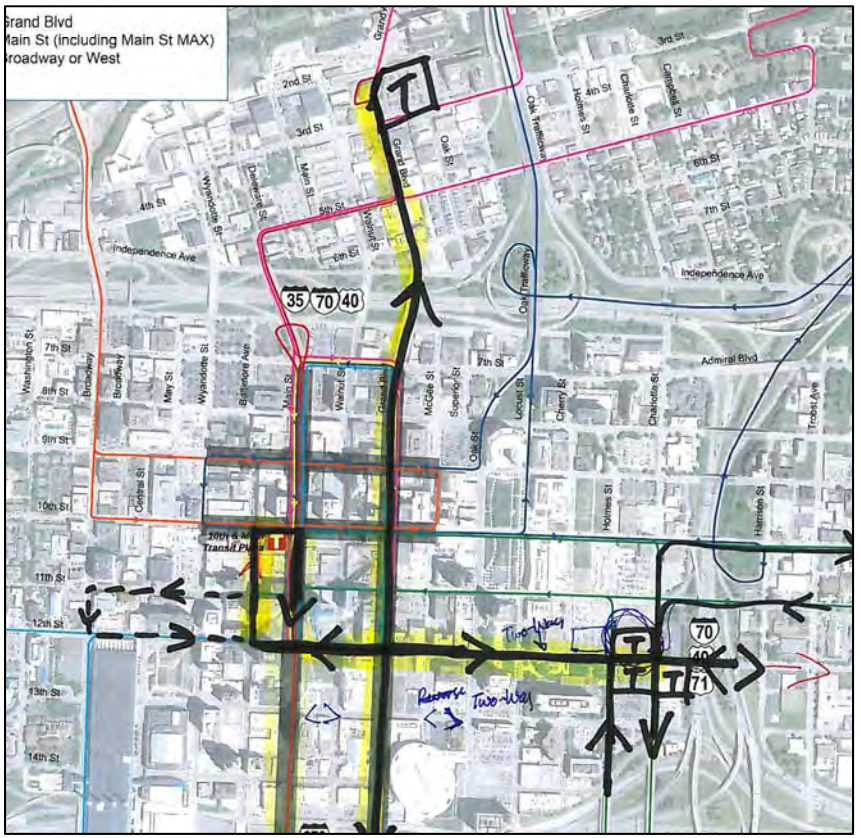
- Service could be restructured to:
  - Make service easier to understand
  - Provide faster service
  - Provide more frequent service where demand is highest
  - Reduce operating costs (due to much less duplication)

Service Design Examples

Improve downtown circulation:

- Develop transit emphasis corridors
- Make service easier to understand, simpler and faster
- Improve service within downtown
- Improve connections



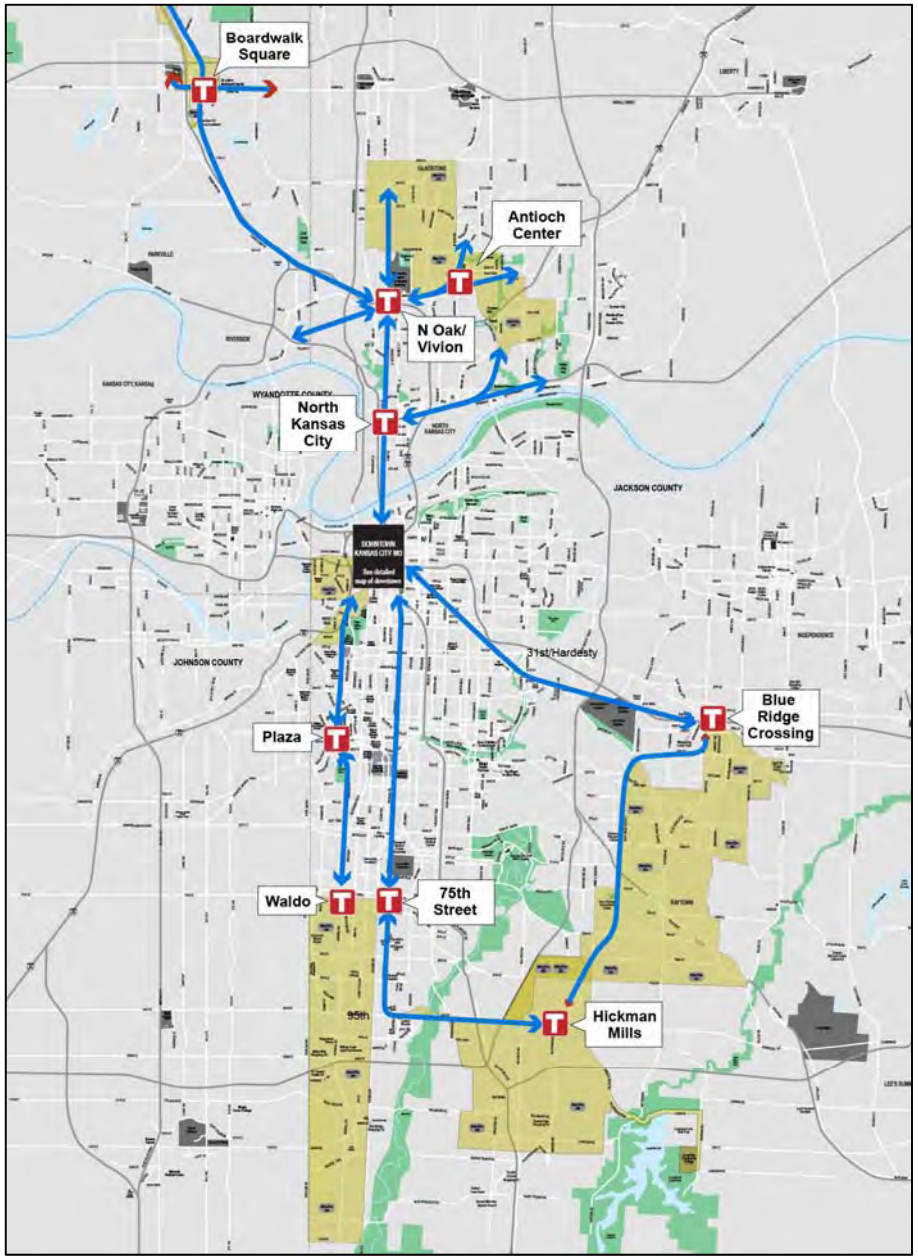


Service Design Examples

Transit Hubs could:

- Provide focal points for service in outlying areas
- Facilitate travel outside of downtown (especially in the Northland)
- Facilitate transfers
- Simplify service
- Reduce costs

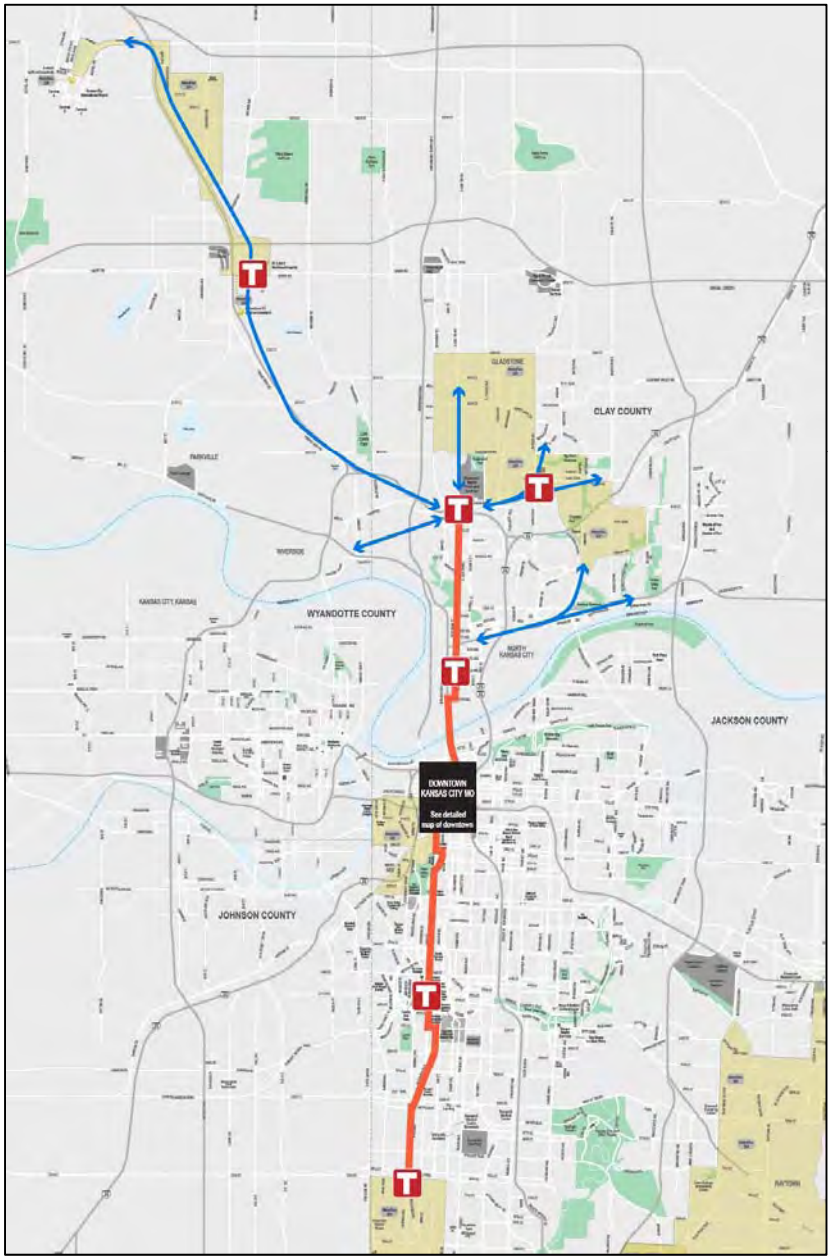
Trade-off would be more frequent service with transfers versus less frequent one-seat service



Service Design Examples

Main Street MAX to Northland could:

- Provide strong Northland transit spine
- Improve service between Northland, Downtown, Crown Center, and Plaza
- Provide a structure for more more effective and efficient service within Northland



Schedule Efficiency Opportunities

Service is generally well scheduled. However, there are opportunities to reduce costs:

	Improve Service	Reduce Costs
Adjust Vehicle Types		√
Split Long Routes in Two	√	√
Implement Street Relief		√
Implement Car Relief		√

Next Steps

- *Develop service scenarios (January - March)*
  - *Packages of inter-related service changes designed to:*
    - *Reduce operating costs/improve efficiency*
    - *Also incorporate cost-neutral service improvements*

- *Evaluate service scenarios (Spring)*
- *Solicit public input (Spring/early Summer)*
- *Develop recommendations (Summer)*