Kansas City Area Transportation Authority
COMPREHENSIVE SERVICE ANALYSIS

The Metro

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in association with

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K.C. Consulting
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Background

- Cities are dynamic areas that are always changing; transit systems also change to keep pace.
- KCATA has not conducted a comprehensive service analysis since 1995.
- This project is designed to improve service based on current needs.

Overall Project Approach

1. Identify operational changes that will improve efficiency.
2. Improve service.
3. Minimize the impact of service reductions, if required.

Work Tasks and Outcomes

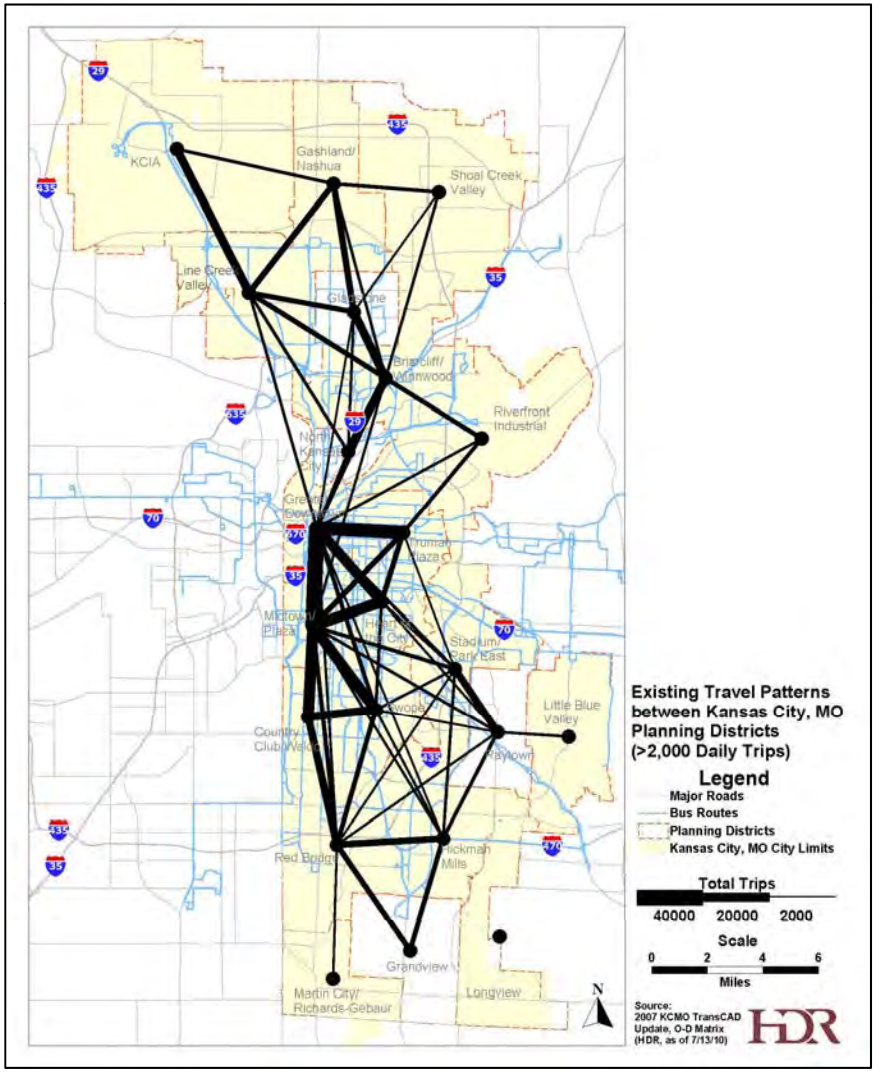
Work Task	Outcome
1. Assess Existing Conditions	Develop foundation for subsequent tasks.
2. Conduct Market Analysis	Determine where transit can be most effective.
3. Analyze Existing Service	Determine factors that increase costs. Identify strengths and weaknesses of existing service.
4. Establish Priorities/ Develop Service Scenarios	Develop service improvement options and impacts.
5. Develop Recommendations	Most effective transit plan for the whatever levels of funding are available.

Assess Transit Market

- Effective service requires matching service design with market demand and community priorities.
- To ensure that this will be the case, we will:
  A. Conduct a market analysis
  B. Interview stakeholders
  C. Conduct a trade-off survey

Conduct Market Analysis

- Assess population, employment and socio-economic characteristics that impact transit demand.
- Describe and map characteristics.
- *Describe the implications for transit.*



Outcome: Understand market demand, determine critical markets and identify potential short-term changes.

Conduct Stakeholder Interviews

- Cost-effective and efficient way to:
  - Determine interests, visions, and goals of a broad cross-section of the community.
  - Ensure that the ultimate product reflects these desires.

Outcome: Clear understanding of how KCATA is perceived, major concerns and issues, and desired transit outcomes.

Conduct Preference Survey

- Service design has implicit and explicit trade-offs.
- Use trade-off survey to determine riders and residents preferences:

A	Provide service to more areas, but buses would come less frequently	B	Provide service to fewer areas, but buses would come more frequently
A	Improve existing services	B	Extend service to areas currently without service
A	Increase service frequency, but operate for a shorter time frame	B	Decrease service frequency but operate for a longer time frame.
A	Provide less frequent service in order to provide more weekend and evening service	B	Provide less weekend and evening service in order to provide more weekday service

Analyze Existing Performance

- Two ways to reduce operating costs:
  - Improve efficiency, and/or
  - Reduce service
- Achieving operating efficiencies reduces need for service cuts.
- To consider both, we will:
  A. Review ATU contract.
  B. Identify factors that increase operating costs.
  C. Compile and process ridership data.
  D. Conduct route-by-route evaluations.

Identify Factors that Increase Costs

Implicit and Explicit System Priorities:

- Providing transit service requires trade-offs associated with ridership, costs, and productivity.
- Some markets can be more effectively served than others.
- Often service trade-offs are not understood or fully considered.
- The explicit identification of trade-offs supports better decisions relative to costs and productivity.

Identify Factors that Increase Costs

Matching Services to Markets:

- Transit can be provided in many ways—ranging from high volume BRT services to low volume Flex services.
- For transit to be most effective, service types need to match demand.
- We work to:
  - Evaluate market requirements.
  - Identify where mismatches occur.
  - Determine how to balance service, productivity, and demand.

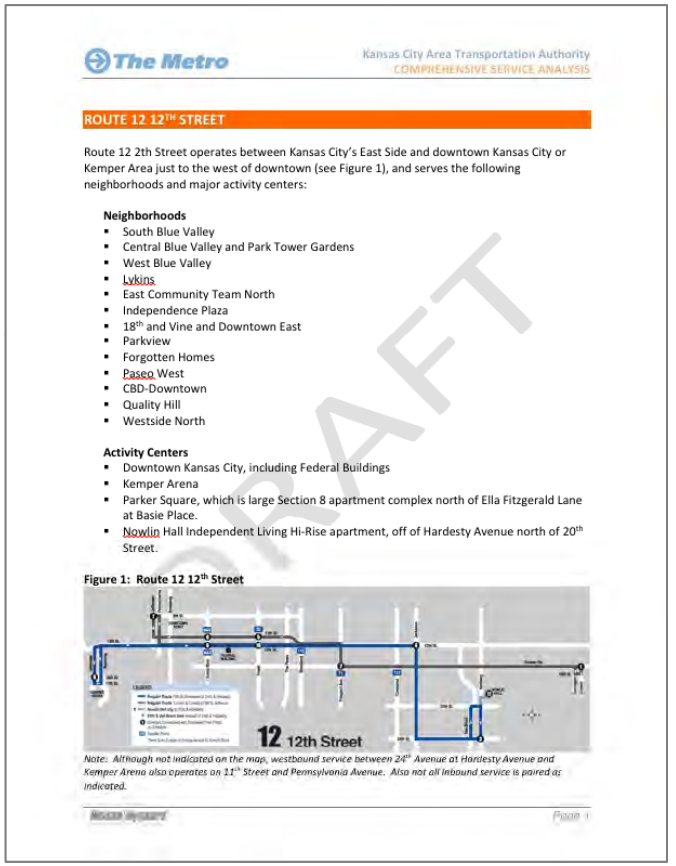
Conduct Route-by-Route Evaluations

- Successful service redesign requires a thorough understanding of existing services– specifically, what works well and what doesn't.
- Each route will be examined based on:
  - How well it serves its intended markets.
  - How well it works within the overall system.
  - Potential changes that may improve route performance and responsiveness to community needs.

Conduct Route-by-Route Evaluations

Each route evaluation will be a 5 to 15 page document that contains:

- Route description, service type, and markets served.
- Service characteristics.
- Ridership characteristics.
- Financial and performance statistics.
- Overall assessment of the route's strengths and weaknesses.
- Initial list and description of potential improvements.



The Metro — Kansas City Area Transportation Authority
COMPREHENSIVE SERVICE ANALYSIS

ROUTE 12 12TH STREET

Route 12 2th Street operates between Kansas City's East Side and downtown Kansas City or Kemper Area just to the west of downtown (see Figure 1), and serves the following neighborhoods and major activity centers:

Neighborhoods

- South Blue Valley
- Central Blue Valley and Park Tower Gardens
- West Blue Valley
- Lykins
- East Community Team North
- Independence Plaza
- 18th and Vine and Downtown East
- Parkview
- Forgotten Homes
- Paseo West
- CBD-Downtown
- Quality Hill
- Westside North

Activity Centers

- Downtown Kansas City, including Federal Buildings
- Kemper Arena
- Parker Square, which is large Section 8 apartment complex north of Ella Fitzgerald Lane at Basie Place.
- Nowlin Hall Independent Living Hi-Rise apartment, off of Hardesty Avenue north of 20th Street.

Figure 1: Route 12 12th Street

Note: Although not indicated on the map, westbound service between 24th Avenue at Hardesty Avenue and Kemper Arena also operates on 11th Street and Pennsylvania Avenue. Also not all inbound service is paired as indicated.

These route evaluations will provide the information needed to justify many difficult decisions.

Develop Service Redesign Options

Identify changes to effectively reconfigure service:

- Based on:
  - Market analysis
  - Preference survey
  - Finding of route evaluations
- Potential changes will include:
  - Route re-alignments
  - Revise spans of service
  - Balance service frequencies
  - Improve service coordination and transfers
  - Reduce service duplication and route competition.
  - Change service types (i.e., small bus, MetroFlex, etc.)
- *Major focus areas will be improved efficiency and cost reduction.*

Determine Impacts

We will project impacts using an array of evaluation criteria:

- Ridership.
- Annual operating costs and fare revenue.
- Service frequencies and vehicle requirements.
- Capital costs, where applicable.
- Operating personnel levels.
- Paratransit service.
- Service productivity measures, such as cost per passenger and passengers per vehicle service hour.
- Environmental justice, service to major activity centers, and other qualitative factors.

Develop Recommendations

- ***Work collaboratively with KCATA to develop service recommendations based on:***
  - Ridership and costs.
  - Productivity measures.
  - Consistency with service guidelines.
- ***Collaborative process:***
  - Ensure input from all involved departments (Transportation, Planning, Marketing, Finance, etc.).
  - Ensures that all issues are fully addressed.
  - Produces clear, appropriate recommendations.
  - Develops buy-in from the staff who will be responsible for implementation.

Develop Recommendations

Recommendations will consist of a wide variety of changes to:

- Improve efficiency.
- Improve productivity.
- Minimize the impact of service reductions.
- Improve service in many areas.
- ***Develop a stronger and sustainable system.***

Initial Observations

- "Look and feel" of system is excellent—well maintained buses and facilities provide strong positive image.
- KCMO service area is challenging in terms of size, shape, and geography, and operating environments.
- KCATA's "radial grid" service design is well suited to the operating environment.
- Initial opportunities for improvement:
  - Service is generally scheduled efficiently, but improvements are possible.
  - Reconfigure service to reduce redundancy in some areas.
  - Make better use of transit hubs and park and ride lots.
  - Simplify downtown circulation.
  - Strengthen the service hierarchy; make greater use of MAX as "system backbone."

Work-to-Date/Key Milestones

- Work-to-Date
  - Conducted kick-off meeting and fieldwork
  - Reviewed and documented related studies
  - Compiled initial review of all KCMO routes with KCATA staff
  - Produced draft public participation plan
  - Produced draft preference survey
  - Market analysis underway
  - Currently processing and summarizing KCATA ridership data
  - Have begun route evaluations
- Upcoming Milestones
  - Complete assessment of existing conditions: Mid August
  - Complete market analysis: End of August
  - Conduct route evaluations: July – November
  - Develop service scenarios: November - February
  - Produce recommendations February - April