



INTERMODAL RAIL TRANSIT SYSTEMS

ENSURING OUR ECONOMIC AND
TRANSPORTATION FUTURE

INTERMODAL TRANSIT



- Seamless movement of passengers from one mode of transit to another through a central hub
- Transit modes include Light Rail, Commuter Rail, Modern Streetcar, Bus, Bus Rapid Transit and Intercity Bus

WHY RAIL TRANSIT?

- Provides safe, energy-efficient transportation
- Generates economic development
- Enhances quality of life
- Ensures regional economic competitiveness



WHY NOW?

- Protect our economic and transportation future - high fuel costs and time spent in traffic
- Ensure OKC metropolitan area remains regionally competitive – businesses, jobs and residents
- Strong public support for rail transit



QUALITY OF LIFE BENEFITS

- Affordable transportation options
- Reduces traffic and congestion
- Improves air quality – lowers emissions and ozone levels
- Offers urban residents a non-auto dependent lifestyle choice
- Provides commuters an efficient transportation alternative

ECONOMIC BENEFITS

- Stimulates economic development
- Raises property values
- Increases local and state tax revenues
- Enhances business, retail and entertainment districts
- Accelerates urban renewal and core area revitalization
- Attracts new residents and businesses

TRANSIT WILL SPUR ECONOMIC GROWTH

Milwaukee Journal Sentinel – February 20, 2010

“Economic development is about people. The better we move people, the more business we generate.”

“Economic success in the 21st century requires making our region attractive to an educated workforce. Corporations have discovered that a good transit system is essential to recruiting such talent.”

“Good transit is not a partisan issue.”

TRANSIT ORIENTED DEVELOPMENT



Downtown Plano: Before and After



- Urban Renewal
- Core Revitalization
- Residential Development
- Retail Development
- Commercial Development

- Increased Business Revenue
- Increased Property Values
- Increased Tax Revenues
- Improved Quality of Life

Denver Union Station Master Plan



SIGNIFICANT FISCAL IMPACT

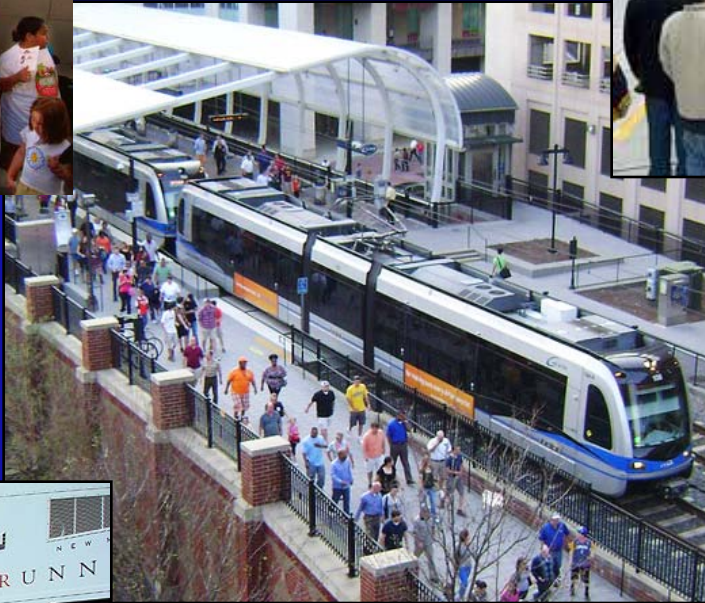
Potential Fiscal Impacts of Existing and Proposed Transit-oriented Development in the Dallas Area Rapid Transit Service Area Annual Estimates at Buildout

Description	Value
Announced Value	\$ 4,902,800,000
Announced Value Attributable to DART	\$ 4,255,700,000
Cities	
Taxable Property Value	\$ 2,843,779,000
Property Tax Revenues	\$ 16,785,000
Taxable Retail Sales	\$ 665,552,000
Sales Tax Revenues	\$ 6,656,000
Total Revenue to Cities	\$ 23,531,000
Counties	
Taxable Property Value	\$ 2,842,259,000
Property Tax Revenues	\$ 6,593,000
School Districts	
Taxable Property Value	\$ 2,904,207,000
Property Tax Revenues	\$ 46,380,000
Community College Districts	
Taxable Property Value	\$ 2,736,047,000
Property Tax Revenues	\$ 2,306,000
Hospital District	
Taxable Property Value	\$ 2,633,261,000
Property Tax Revenues	\$ 6,688,000
State of Texas	
Sales Tax Revenues	\$ 41,597,000
Total State and Local Tax Revenues	\$ 127,095,000*

* Includes local property taxes and state and local sales taxes. Sources: Dallas Central Appraisal District, Media reports, Chambers of Commerce, Developers, DART, Authors' estimates.

**From: Center for Economic Development and Research
University of North Texas 2007**

PUBLIC SUPPORT



OKC SUPPORT



Q10: In the future, which of the following ways would you prefer to travel in Central Oklahoma? (choose three*)

	Response Total	Response Percent*
Rail	1146	63 %
Car	1074	59 %
Bus	619	34 %
Bike	512	28 %
Walk	277	15 %
Carpool	199	11 %
Other	67	4 %
Total Respondents	1817	
Skipped Question	76	

Q11: What are your top three priorities for the transportation system within Central Oklahoma? (choose three*)

	Response Total	Response Percent*
Develop passenger rail	1003	56 %
Maintain roads and bridges	891	50 %
Improve public bus system	619	35 %
Add more bicycle paths/bike lanes	582	33 %
Add more sidewalks/walking paths	469	26 %
Expand interstate rail (Amtrak)	451	25 %
Improve interchanges on interstates	241	14 %
Add lanes to interstates	233	13 %
Improve traffic signals/intersections	227	13 %
Increase transportation services for elderly and disabled	226	13 %
Add lanes to roads	206	12 %
Total Respondents	1782	
Skipped Question	111	

BACK OF THE PACK

- Oklahoma City ranked **last** out of 50 largest metropolitan areas as best prepared for \$4 gasoline ¹
- Oklahoma City ranked **84th** out of 100 metropolitan areas in serving the transit needs of its workforce ²
- **Cause: Lack of effective transit system**

1 From: Major US Cities Preparedness for an Oil Crisis: Which Cities and Metropolitan Areas are Best Prepared for \$4 a Gallon Gasoline and Beyond. A Study by Warren Karlenzig of Common Current. March 2008

2 From: Missed Opportunity: Transit and Jobs in Metropolitan America. A Study by the Brookings Institute. May 2011

2012 TRANSIT RIDERSHIP

Atlanta	131,126,600
Denver	86,659,700
Dallas	69,414,200
St. Louis	47,218,700
San Antonio	47,147,100
Salt Lake City	42,806,000
Austin	35,672,800
Charlotte	26,411,600
Phoenix	24,525,100
Tucson	20,225,300
Kansas City	16,506,500
Cincinnati	16,356,900
Memphis	10,305,700
Oklahoma City	2,934,700
Birmingham	2,892,100

COMPETITIVE EDGE



REGIONAL ADVANTAGE

“Competition is intensifying between cities and regions to create the amenities and the business climate that will attract highly skilled workers.”

“Studies show that business locations near high quality urban settings with clean, efficient rail transportation are a priority for young knowledge workers who are choosing a job.”

“It is the ability to attract talent that creates regional advantage: Those that have the talent win, those that do not lose”...Richard Florida, Professor of Regional Economic Development at Carnegie Mellon University

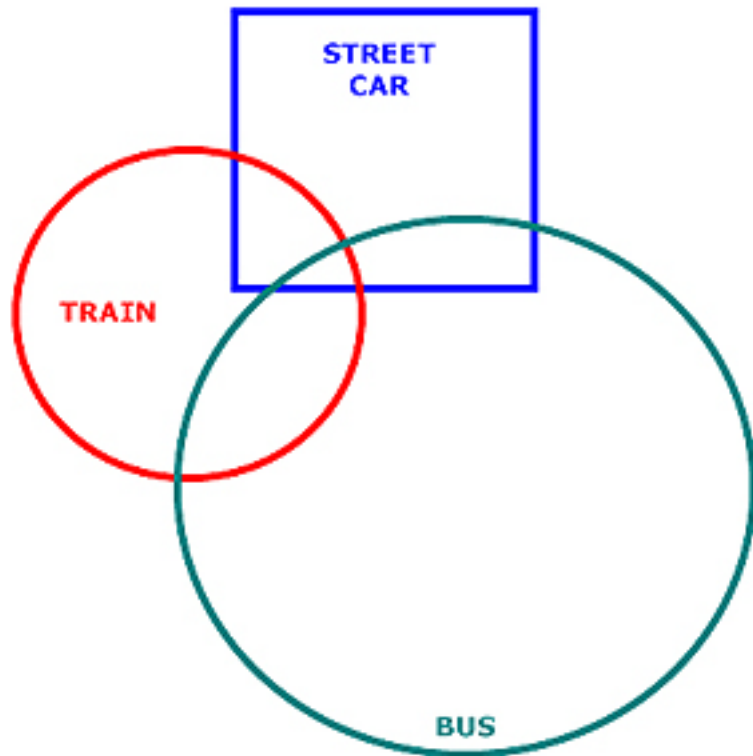
From Southeastern Wisconsin Coalition for Transit Now

INTERMODAL TRANSIT SYSTEMS



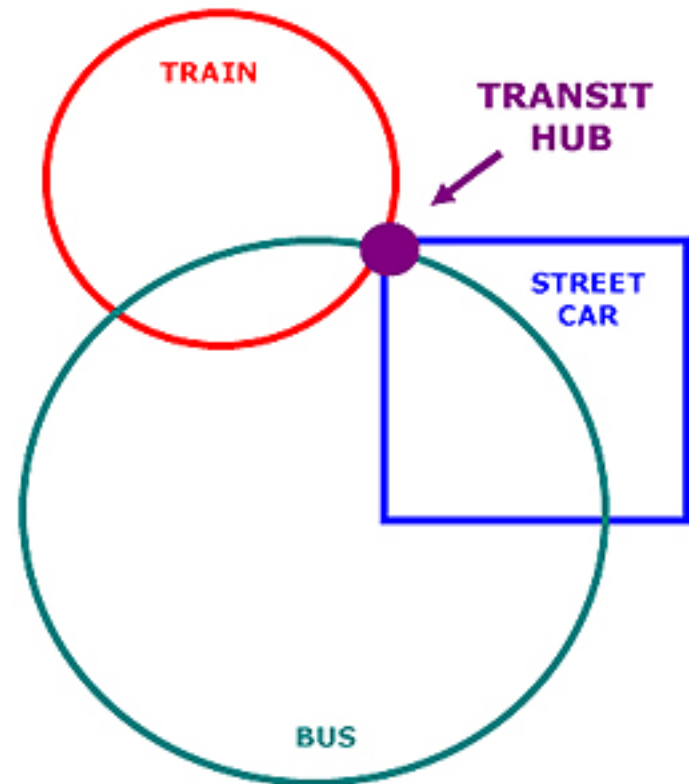
- Movement of passengers from one mode of transit to another, typically taking place at a hub designed for such purposes
- Intermodal hub is the foundation of the system

MULTIMODAL VS. INTERMODAL



MULTIMODAL TRANSIT SYSTEM

"Multimodal transportation. The movements of passengers or freight within a set of transport modes offering connections between a set of origins and destinations. Although intermodal transportation is possible, it does not necessarily occur."



INTERMODAL TRANSIT SYSTEM

"Intermodal transportation. The movements of passengers or freight from one mode of transport to another, commonly taking place at a terminal specifically designed for such a purpose."

LIGHT RAIL vs. COMMUTER RAIL



- **Light Rail:** Electric powered trains operating on new dedicated tracks

\$60-\$80 million per mile



- **Commuter Rail:** Diesel-electric powered trains operating on existing freight tracks

\$15-\$20 million per mile

DALLAS (DART)



LIGHT RAIL



COMMUTER RAIL



ENHANCED BUS



DALLAS UNION STATION

DART RIDERSHIP

FISCAL YEAR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Light Rail	17,892,532	19,437,603	18,965,249	17,799,186	22,302,390
Bus (including charter)	44,689,864	45,211,199	43,103,738	37,990,589	37,212,930
Commuter Rail	2,475,970	2,746,992	2,789,030	2,469,215	2,425,335
HOV	37,600,950	48,094,550	51,033,100	50,108,277	48,045,576
Paratransit	688,939	737,027	750,763	772,675	790,350
Vanpool	492,202	697,210	880,678	924,600	985,046
Total Ridership*	103,840,457	116,924,581	117,522,558	110,064,542	111,761,627

* Number of Passenger Trips

SALT LAKE CITY (UTA)



LIGHT RAIL

SALT LAKE CITY INTERMODAL HUB



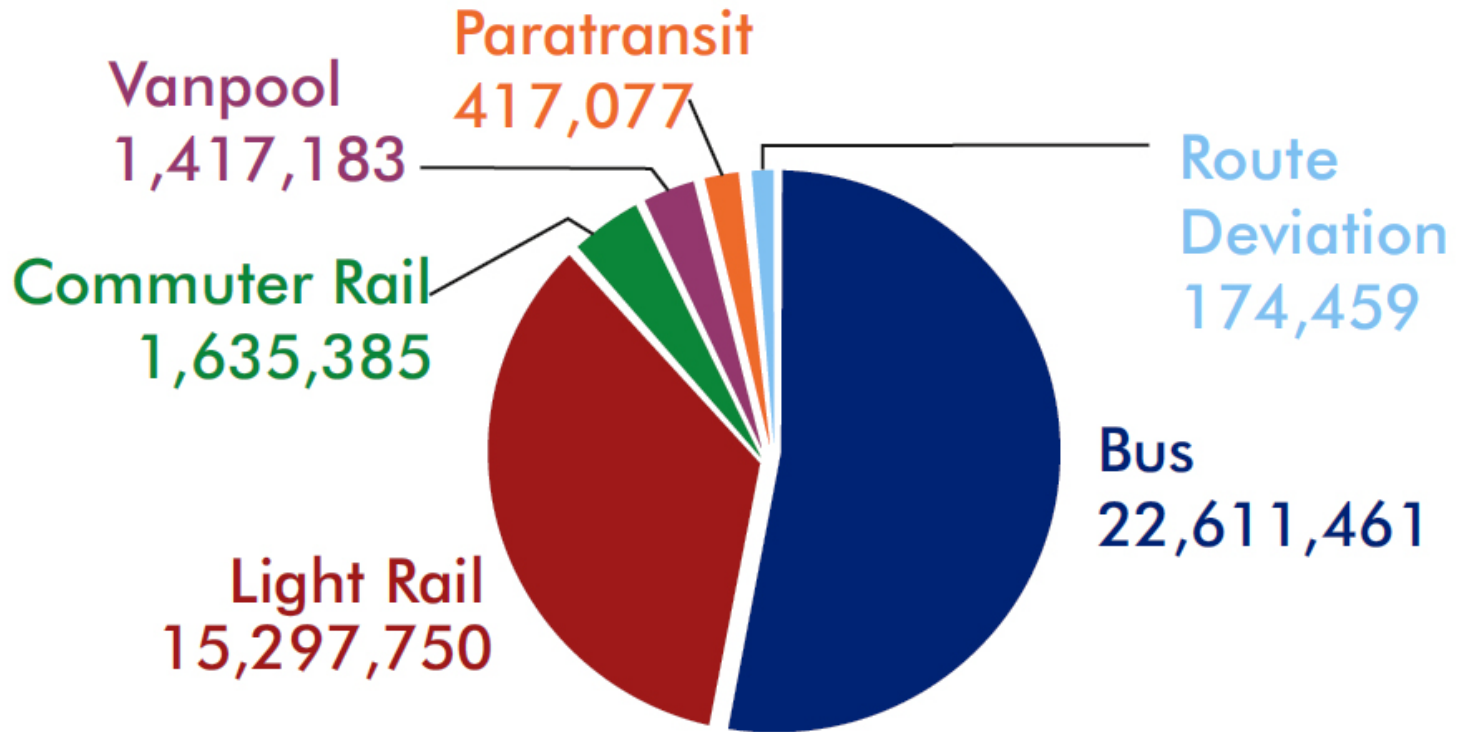
COMMUTER RAIL



ENHANCED BUS

UTA SYSTEM RIDERSHIP

Ridership By Mode 2011



Total Ridership 41,553,315

LESSONS FROM SALT LAKE CITY

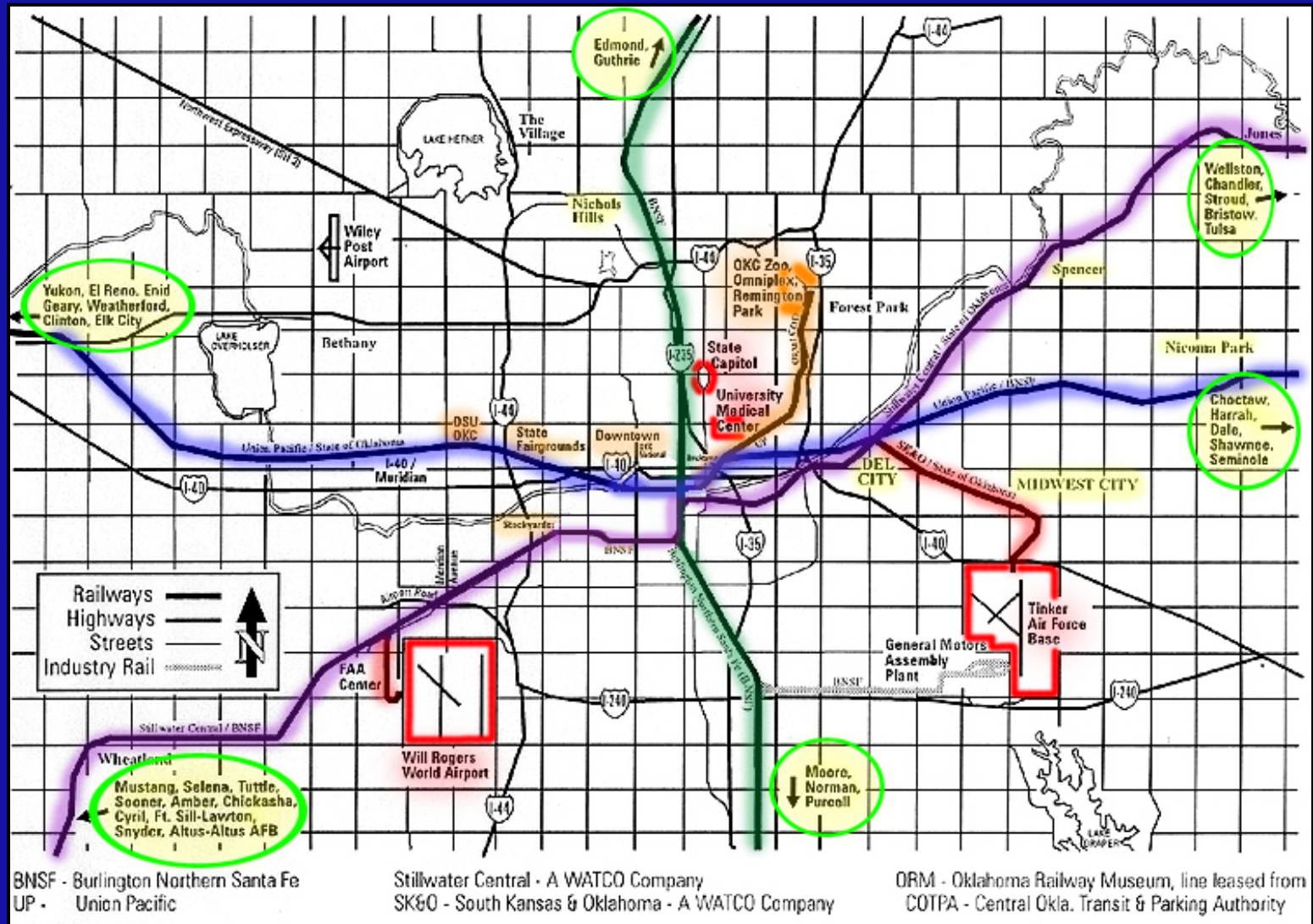
"Salt Lake City's light rail streetcar and its integration with a commuter rail system serving outlying areas of the City and suburbs was particularly important to spurring private development."

"The linked rail and streetcar system helped inspire growth that also included people moving to downtown Salt Lake City about as fast as the city could handle."

"Our ridership has doubled projections. Rail transit is making a huge difference in both where people concentrate their economic investments, but also in relieving congestion and providing a pretty clear path to what our future of surface transportation will be."

*Comments by Salt Lake City Mayor Ralph Becker at
2012 OKC Mayor's Economic Development Roundtable*

OKC METRO AREA RAIL NETWORK



FOUNDATION OF A COMMUTER RAIL SYSTEM

COMMUTER RAIL

Salt Lake City



Minneapolis



Albuquerque

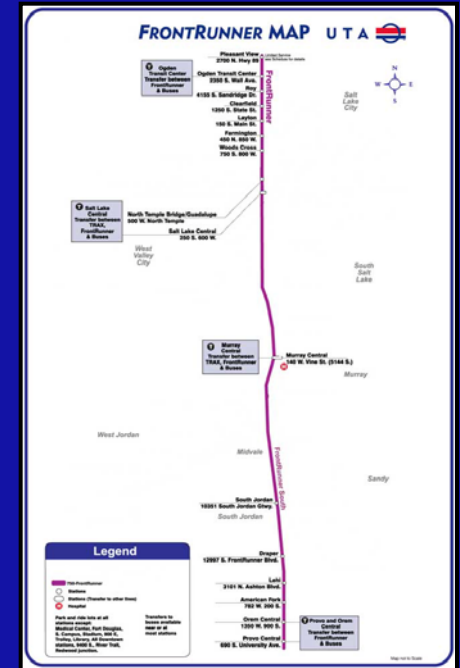
Affordable...Comfortable...Efficient

MODERN LOCOMOTIVES



- Advanced diesel-electric engines
- Higher horsepower and torque
- Increased acceleration
- Improved fuel efficiency
- Reduced emissions – meets EPA Tier 2
- Greater safety standards
- Quieter operation

UTA FRONTRUNNER



- Connecting Salt Lake City, Provo and Ogden
- Intermodal Hub in downtown Salt Lake City
- Directly serves Hill Air Force Base
- 2011 Ridership: 1,600,0000

NEW MEXICO RAIL RUNNER



- Connecting Albuquerque, Belen, Los Lunas, Bernanlillo and Santa Fe
- Intermodal Hub in downtown Albuquerque
- 2011 Ridership: 1,200,0000

MINNEAPOLIS NORTHSTAR



- Connecting Minneapolis, Coon Rapids, Elk River, Big Lake
- Intermodal hub in Minneapolis near Target Field Stadium
- Trains carry one-and-a-half lanes of traffic at peak periods
- System will generate \$4.5 billion in economic development

INTERMODAL TRANSIT HUBS

DENVER



MINNEAPOLIS



ANAHEIM

CORNERSTONE OF RAIL TRANSIT SYSTEM

INTERMODAL TRANSIT HUBS

- Central link for entire transit system
- Connect commuter rail, light rail, and bus transit components
- Provide efficient passenger transfer between transit modes
- Enhance economic development in the Core

Denver Union Station and FasTracks Commuter Rail Development

Denver Post - February 6, 2010

"The station redevelopment project and construction of rail lines could create 10,000 good-paying jobs throughout the metro area."

"Numerous private developers are already beginning to plan projects based on the repositioning of Union Station as a transit center."

"This project will cause many businesses to move to Denver because the companies know their employees will not have to sit in traffic and will be home for dinner and home life."

MODERN STREET CARS

Atlanta



Tucson



Dallas

Cincinnati



IMPORTANT "LAST MILE" COMPONENT

STREETCAR SYSTEM PLAN



**CRITICAL TO EFFECTIVENESS
OF RAIL TRANSIT SYSTEM**

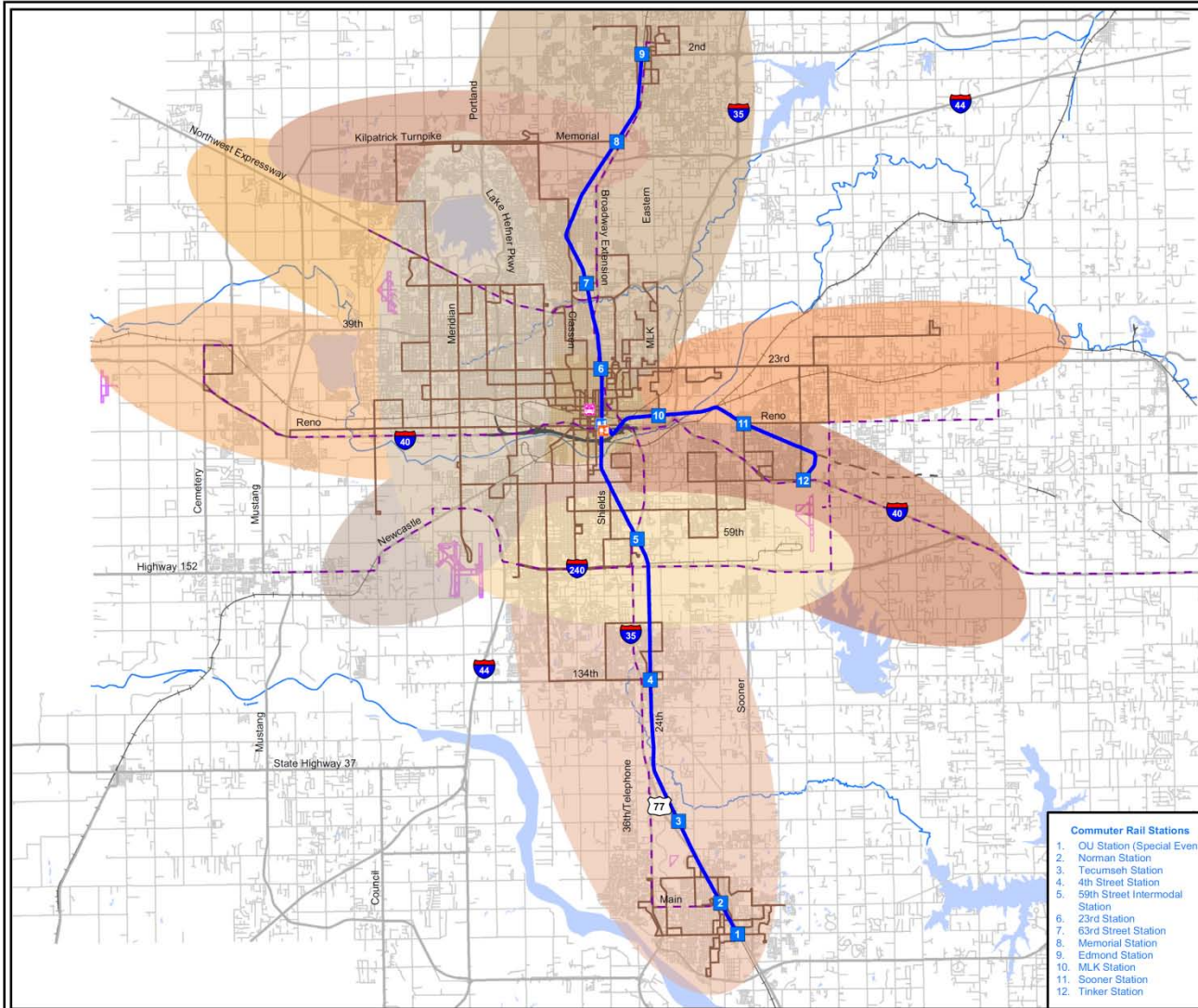
MAKING RAIL TRANSIT WORK

- Political and public commitment
- Establish Regional Transit Authority (RTA)
- Create Regional Transit District (RTD) and dedicated funding source
- Develop intermodal hub and commuter rail, modern streetcar and bus transit systems

FIRST STEPS

Central Oklahoma Transportation & Parking Authority
Fixed Guideway Study

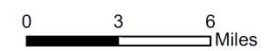
Figure 6.2
Commuter Rail Routes
in the System Plan



Legend

- Commuter Rail Stations
- Modern Streetcar Stations
- Intermodal Center
- Downtown Transit Center
- Santa Fe Station
- Commuter Rail
- Enhanced Bus Service
- Express Bus Service
- Future I-44 Crosstown
- 23rd Corridor
- Airport Corridor
- Central Corridor
- Edmond Corridor
- I-240 Corridor
- Kilpatrick Corridor
- Midwest City/Tinker Corridor
- Norman Corridor
- Northwest Corridor
- Westside I-44 Corridor
- Yukon Corridor

- #### Commuter Rail Stations
1. OU Station (Special Event)
 2. Norman Station
 3. Tecumseh Station
 4. 4th Street Station
 5. 59th Street Intermodal Station
 6. 23rd Station
 7. 63rd Street Station
 8. Memorial Station
 9. Edmond Station
 10. MLK Station
 11. Sooner Station
 12. Tinker Station



Carter-Burgess

2005 FIXED GUIDEWAY STUDY

BIG STRIDES

- OKC developing 4.5 mile - \$110 million downtown modern street car system through MAPS 3
- ACOG completed Intermodal Hub Study
- OKC acquired Santa Fe Station through MAPS 3
- OKC redeveloping Santa Fe Station with \$28.4 million in FTA, MAPS 3, ODOT, ACOG funding
- ACOG completed Commuter Corridor Analysis for OKC to Edmond, Norman and Midwest City
- ACOG developed framework for Regional Transit Authority and Regional Transit District
- OKC metro area cities authorized Regional Transit Authority Task Force to create RTA

MAPS 3 MODERN STREETCAR



MODERN TRANSIT PROJECT

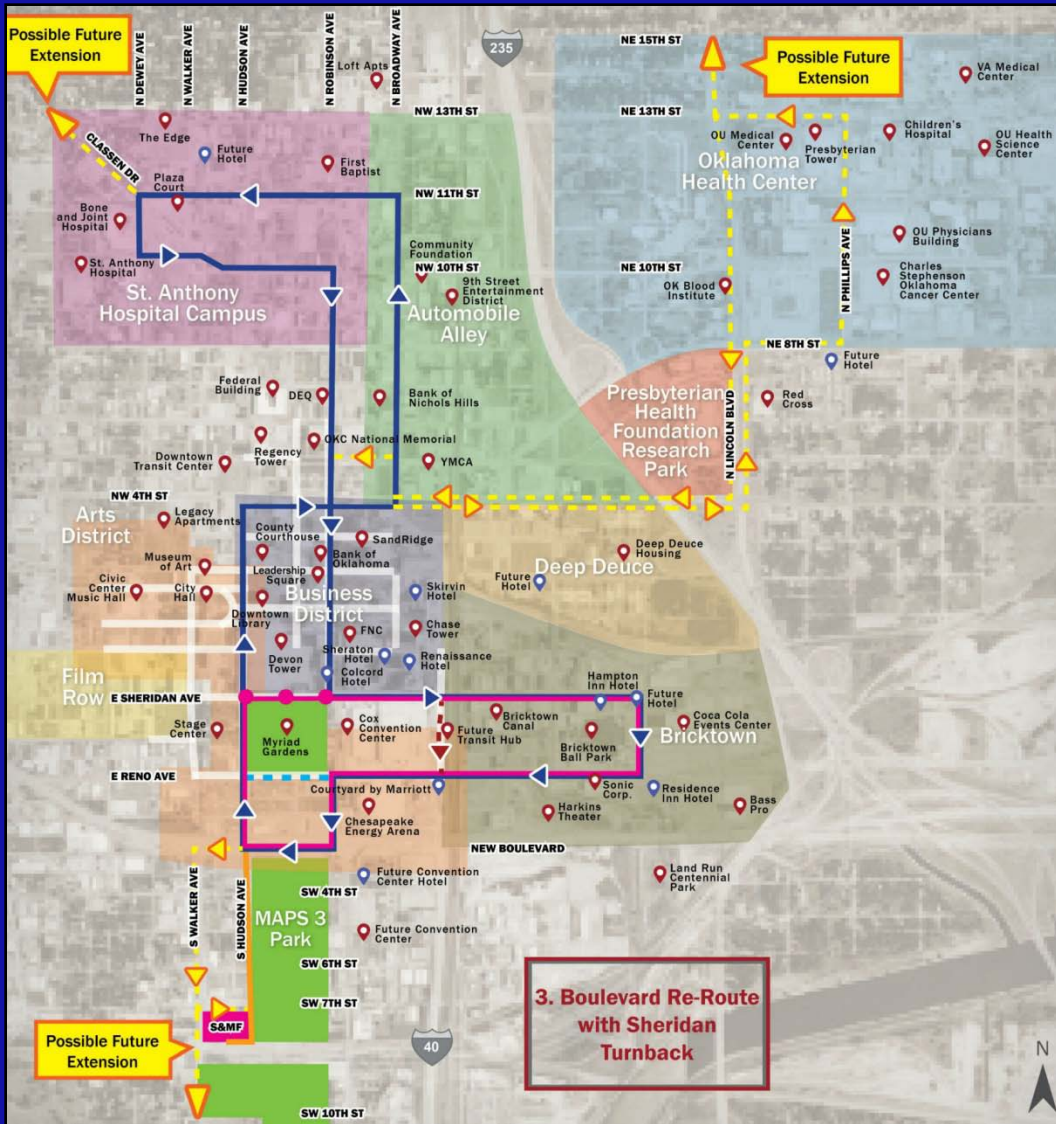
MAPS3

www.okc.gov/maps3

OKC OKLAHOMA CITY



STREETCAR SYSTEM – PHASE 1



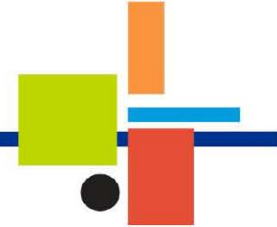
CONNECTING:

- HOUSING
- EMPLOYMENT
- RETAIL
- ENTERTAINMENT
- PUBLIC FACILITIES

SERVING:

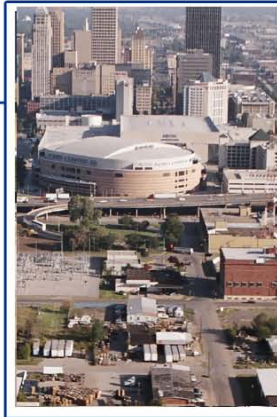
- DEEP DUECE
- BRICKTOWN
- SANTA FE STATION
- NEW CENTRAL PARK
- CHESAPEAKE ARENA
- NEW CONVENTION CENTER
- MYRIAD GARDENS
- CBD
- OKLAHOMA MEMORIAL
- ST. ANTHONY'S
- HERITAGE HILLS
- AUTOMOBILE ALLEY

IN SEARCH OF A HUB



ASSOCIATION OF CENTRAL OKLAHOMA GOVERNMENTS

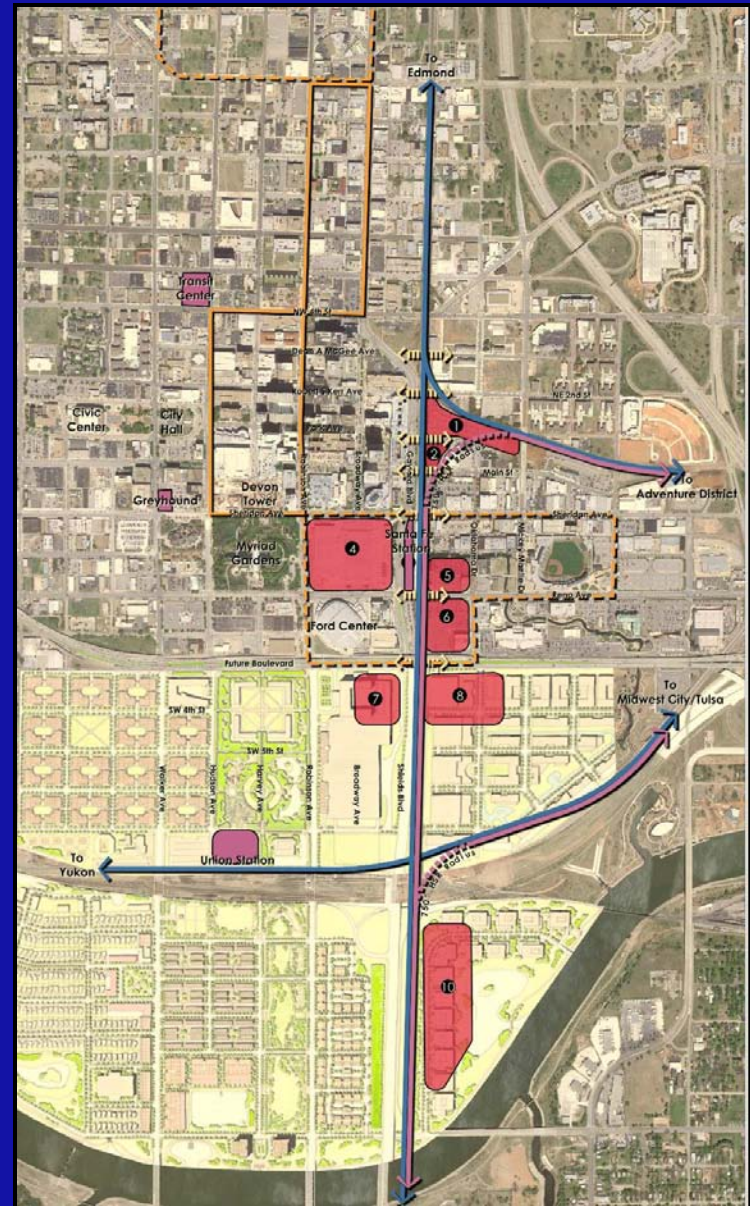
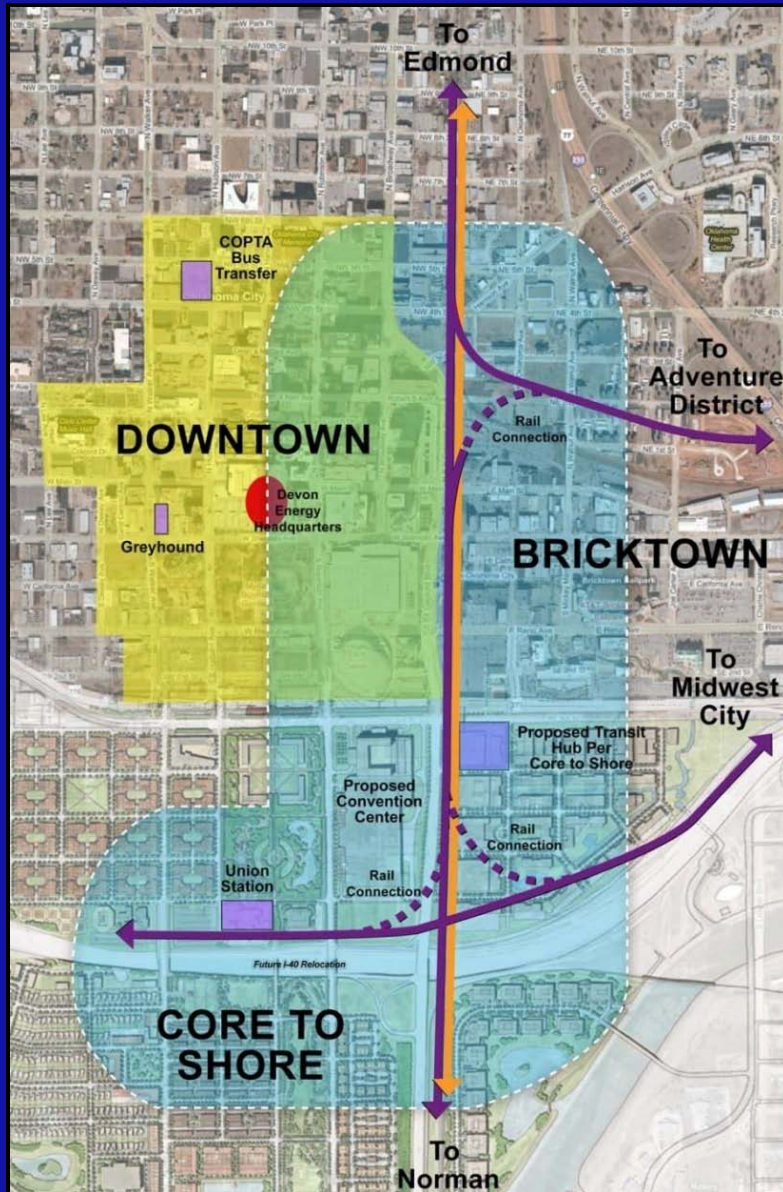
JACOBS[®]



Intermodal Transportation Hub Study

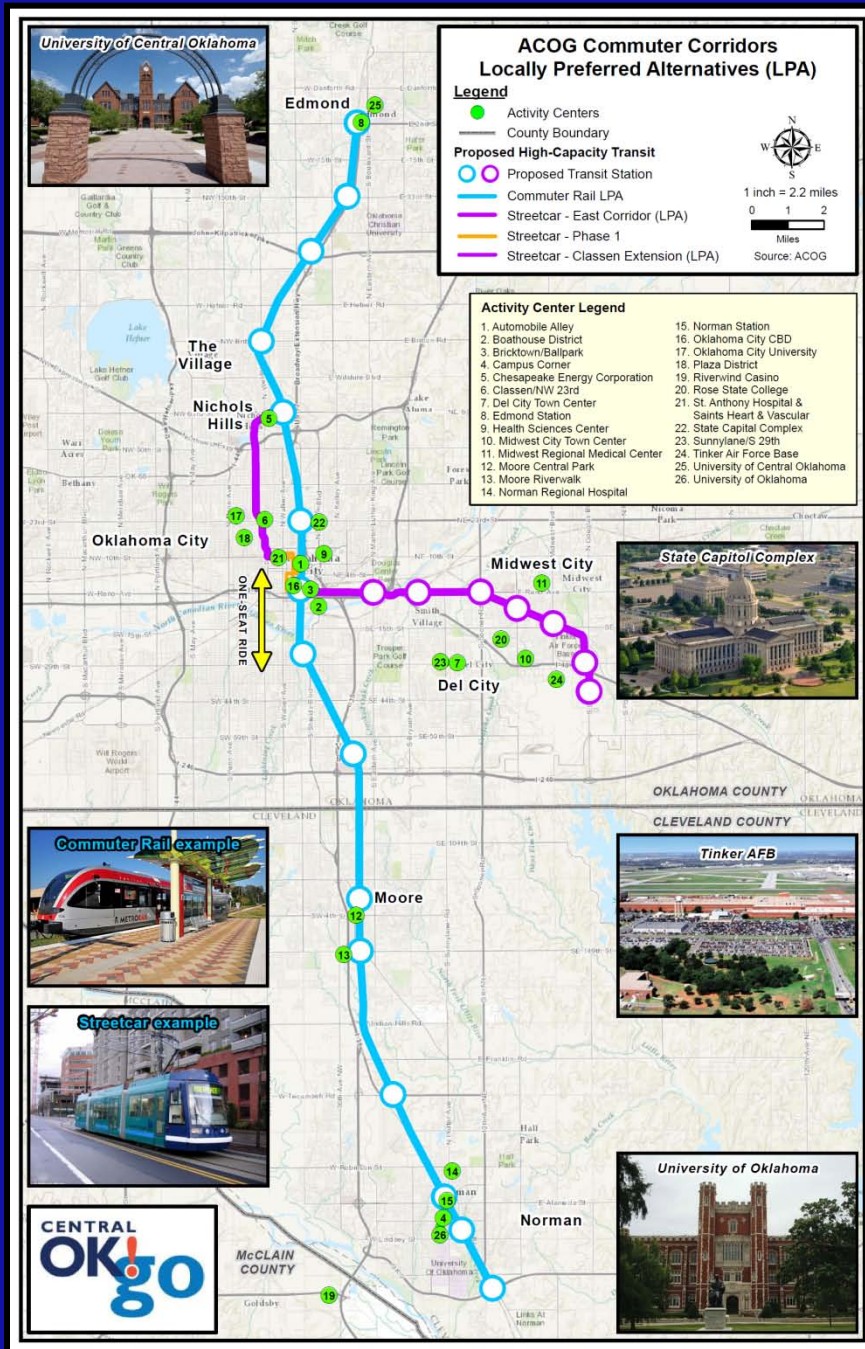
for Central Oklahoma

STRATEGIC LOCATION



SANTA FE INTERMODODAL STATION





COMMUTER CORRIDORS STUDY

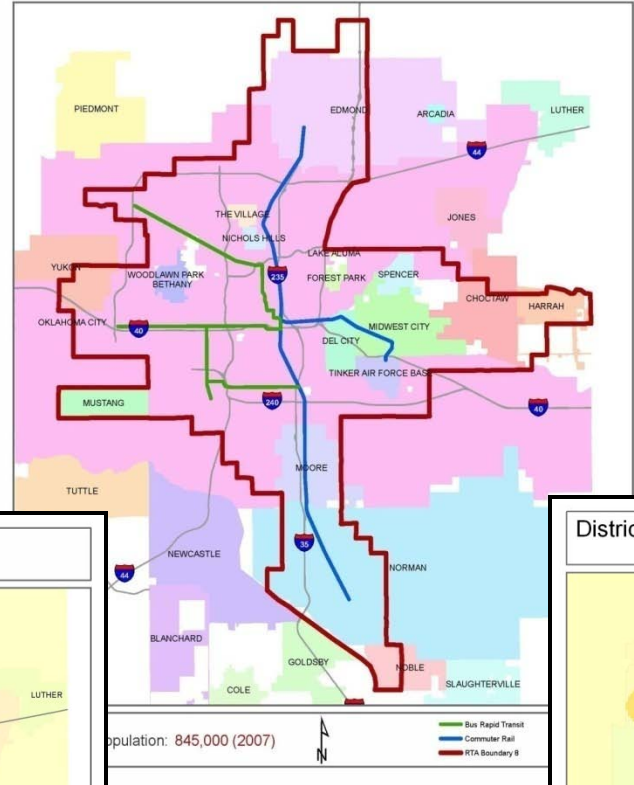
LOCALLY PREFERRED ALTERNATIVES (LPA)



Association of Central
Oklahoma Governments

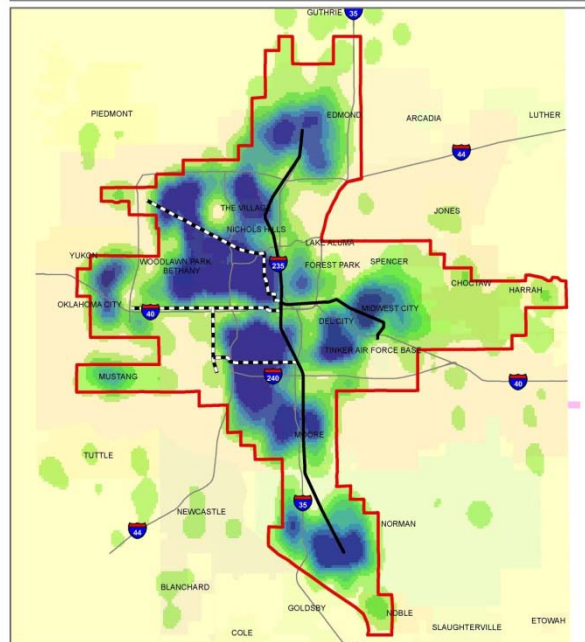
REGIONAL TRANSIT DISTRICT

District Model - Scenario 2
Urbanized Area District



Population: 845,000 (2007)

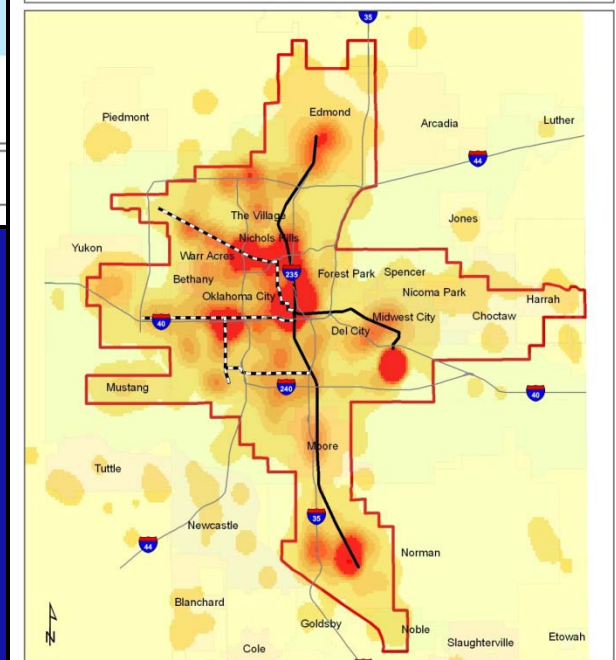
District Model - Draft Scenario 2
Urbanized Area District (population density)



The Regional Transit Authority Boundary is set to coincide with the smoothed versions of the Oklahoma City and Norman Urbanized Areas. The urbanized areas are designated by the US Census.



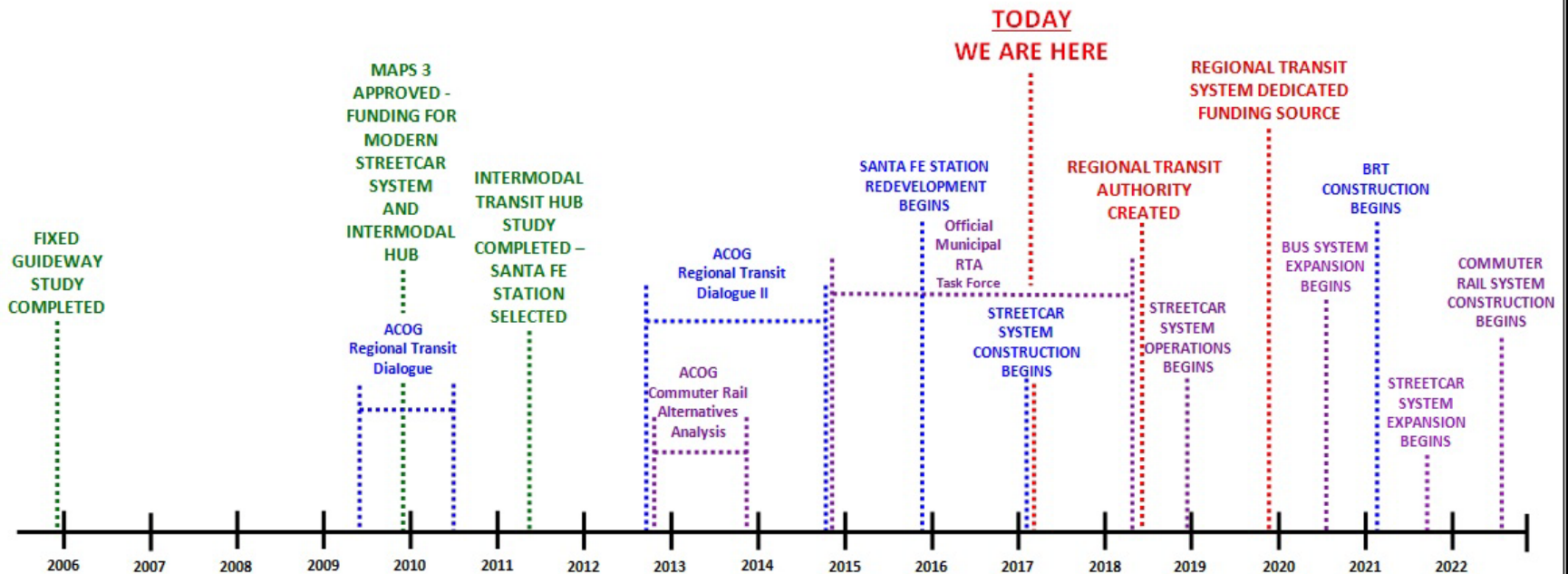
District Model - Draft Scenario based on Urbanized Area
Employment Density



Darker areas represent higher employment density.



HYPOTHETICAL TIMELINE



REGIONAL TRANSIT SYSTEM TIMELINE