streetcars in the boomtown







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River Rail -Little Rock & North Little Rock





Benefits of Streetcar Projects

- Economic Development
- Environmental Benefits
- Mixed Use Developments
- Return to Traditional Housing Densities
- Walkable Neighborhoods
- Enhanced tourism and convention activity
- Reduced auto traffic at activity centers
- Sense of Community



River Rail 101



Phase 1

\$20.5 million capital cost \$4.2 million local share Opened November 2004

New Real Estate
Investment:
\$400+ million



Real Estate Investment

- Portland
 - \$3 billion for \$54 million
- Little Rock
 - -\$400 million for \$20 million
- Tampa
 - -\$1.2 billion for \$48 million



Economic Development

Major Projects

18 floor condominium tower, opened 2007 \$75M
20 floor condominium tower, opening 2009-\$80 M
8 floor Hampton Inn Hotel, opening 2009-\$20 M
7 floor Doubletree Condomium Project-\$35 M
260 Unit Enclave Development-\$25 M
Arkansas History Center-\$22 M
Creghan Irish Pub/Offices-\$20 M
Arkansas Travelers Ballpark-\$35 M
Capital Hotel Renovation-\$24 M
4 more restaurants, two office bldgs announced in 2008



TOPICS

- Benefits of Recent Streetcar
 Projects
- Planning Principles for River
 North Streetcar Project
- Construction Issues
- Funding & Operating







River Rail 101

- Led by 3 Mayors
- No special tax or fund
- 80% Federal funding—piecemeal
- 3.4 miles
- 5 Replica Streetcars
- 1 New Trolley Barn
- 11 Platforms



River Rail 101



Operates 7 days a week 7:30 am-midnight- Mon-Sat

Fare: \$1.00

Annual Budget: \$650,000





Streetcar Rebirth-Recent Projects

- Portland
- Seattle
- Tacoma
- San Francisco
- Little Rock
- Memphis
- Kenosha
- Tampa
- Canal Street –New Orleans



On The Drawing Board

- Tucson
- LA
- St Louis
- Dallas
- Birmingham
- Grand Rapids

- Cincinnati
- Columbus
- Atlanta
- Boise
- Oklahoma City
- MANY MORE

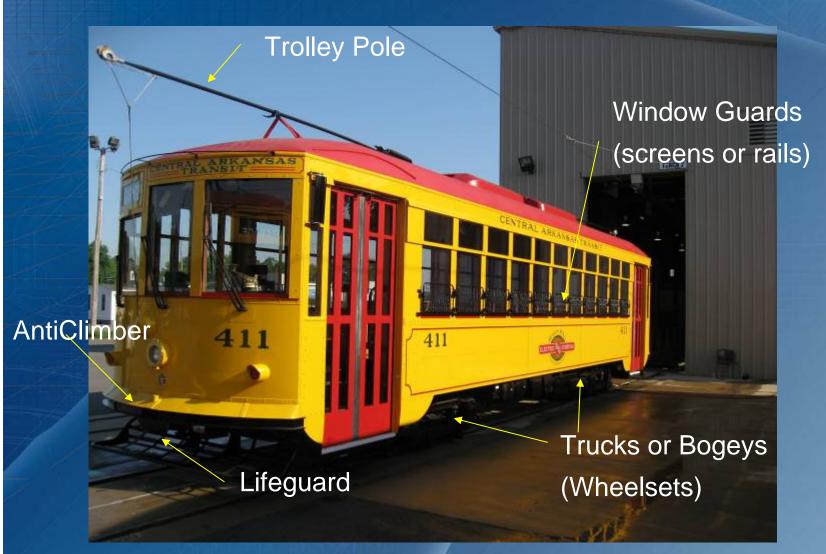


Urban Rail & Fixed Guideway Modes

- Streetcars/trolleys
- Light Rail—DART, Houston
- Heavy Rail-BART, Washington Metro
- Commuter Rail-Austin
- Bus Rapid Transit-San Antonio, Pittsburg, Eugene



Streetcar/Trolley Terms

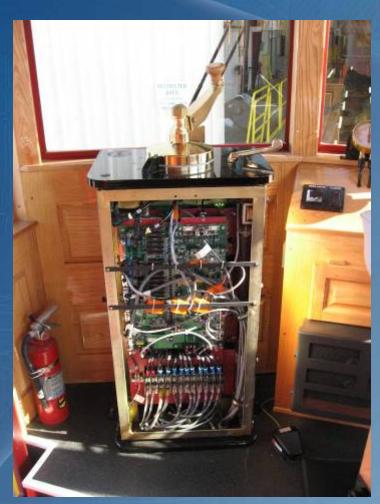




Controllers



Electro-mechanical



Solid State



What kind of Streetcar?

Restored (Vintage) cars

Replica (new) cars with some refurbished components

Modern Cars



Modern Streetcars

Portland, Tacoma

Made in Czech Republic (Oregon Mfr In Progress)

Articulated—it bends



Restored Streetcar

- Kenosha Wisconsin, San Francisco "PCC"
 Cars
- Single-ended





Replica Streetcar

Little Rock (Tampa & Charlotte)



New Body Made in Iowa Refurbished Milan Wheels and Motors



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Vehicle Capital Costs

Restoration

- May involve volunteers
- \$500,000 to \$2 million per car
- Constant care and feeding

Replica

- \$800,000 to \$1 million per car
- 25-50 year life cycle
- ADA Compatible

Modern

- \$1.2 million-\$ 2 million per car
- 25-50 year life cycle
- ADA Compatible





Developers on River Rail

- "We felt the first thing to do would be to develop along the planned rail system and grow from there. It connects Little Rock and North Little Rock so it breaks down that barrier automatically".
- "It's more than a contributing factor. It identifies and gives a sense of place to the area."
 - Paul Esterer, First Security Vanadis



North Little Rock Before & After





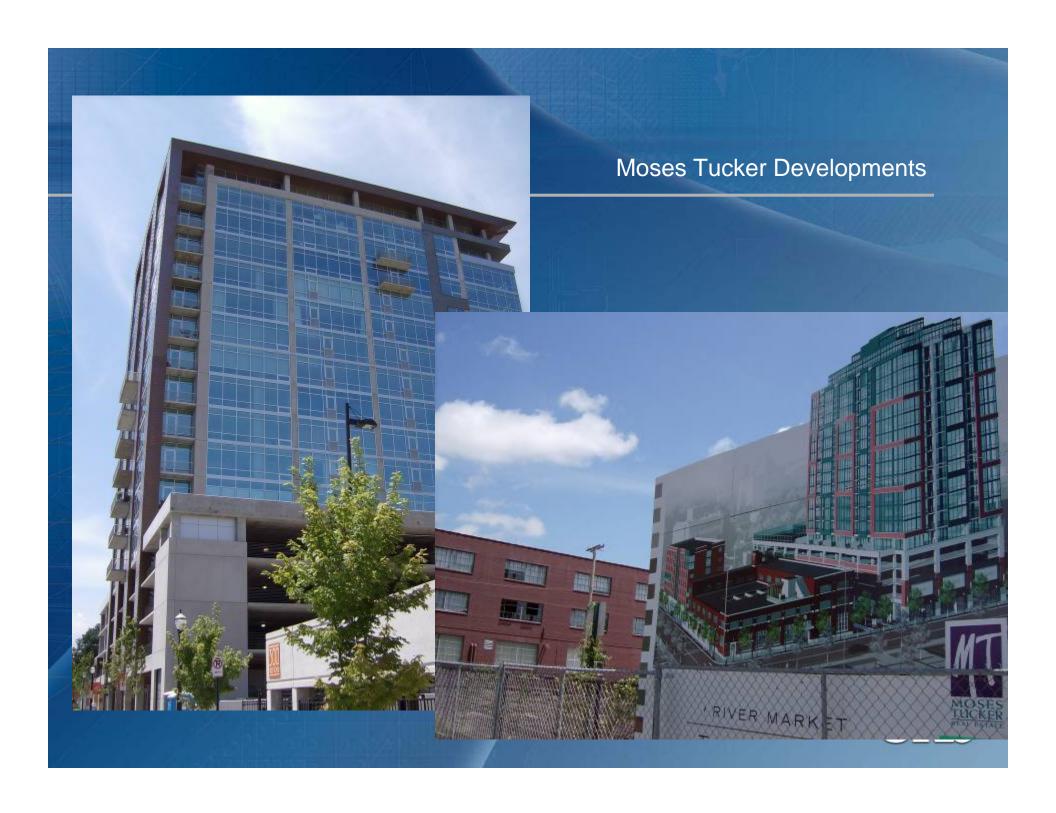


Developers on River Rail

Jimmy Moses, developer of two high-rise condos worth \$150 million, a hotel, apartments, other commercial properties on the River Rail streetcar line:

 "It's by design. It really is a link for the major anchors now, so it's easy to see why that would make a good location to build housing"





Developers on River Rail

• "It just made sense to be in the middle of all the things there. The streetcar is one piece of the puzzle".

 John Gilbert, Senior VP of Bormasado Group, Houston TX

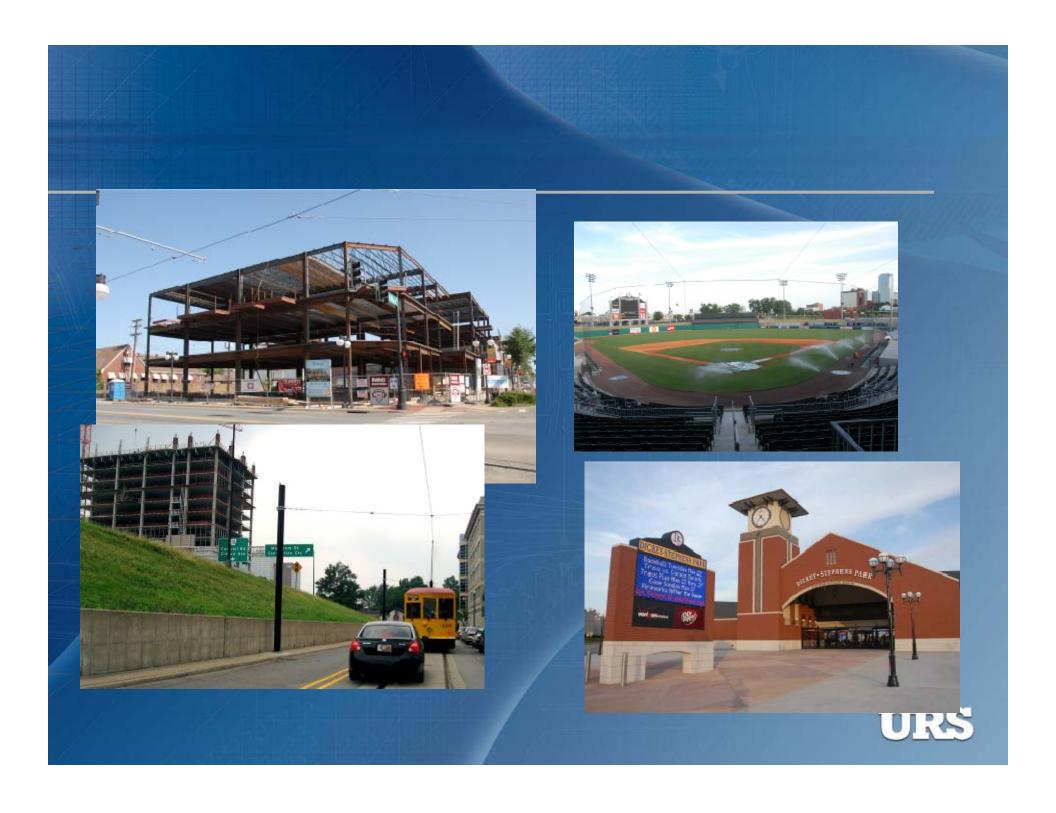


Bormasado Development 260 Units adjacent to Alltel Arena platform











Planning & Design

- Keep it Simple and Inexpensive
- Minimize Loss of On Street Parking
- Minimize Construction Impacts
- Blend Into Neighborhoods
- Support a Pedestrian-Oriented Environment
- Single Track Loops, Contra Flow, Double Track on One Street?
 - Switches & Special Curved Track=\$\$\$\$\$



Streetcars Fit in the Existing Cityscape







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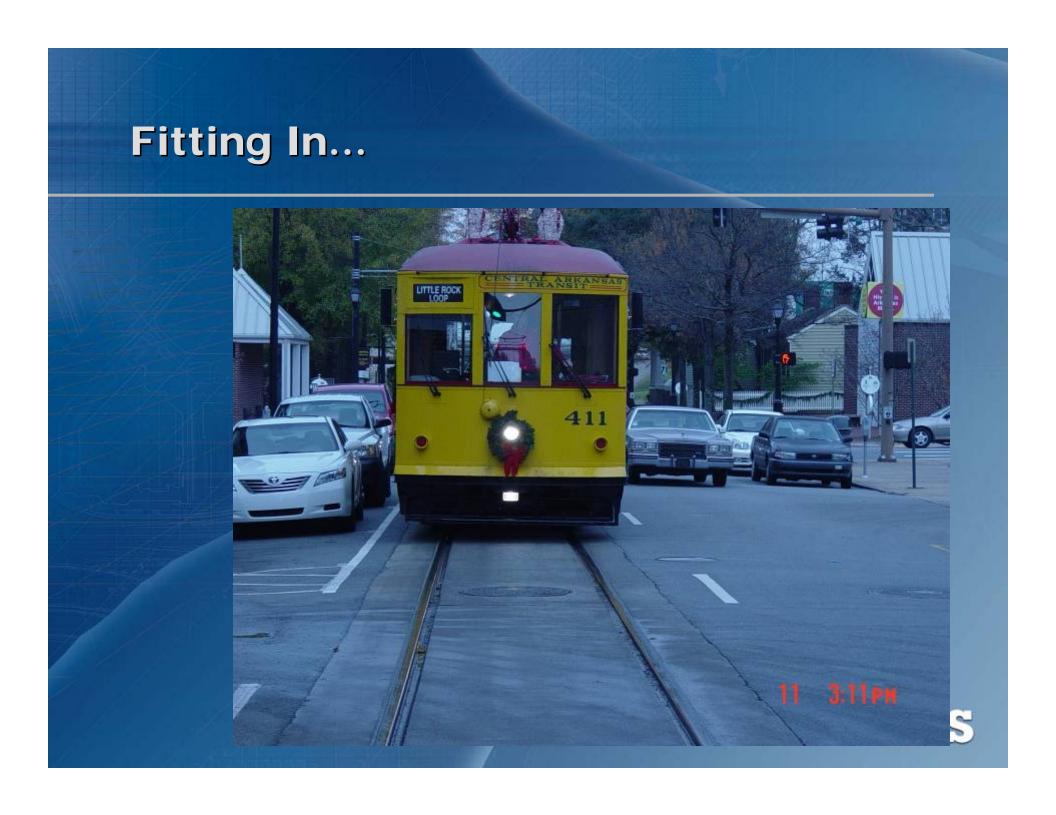
Fitting in...

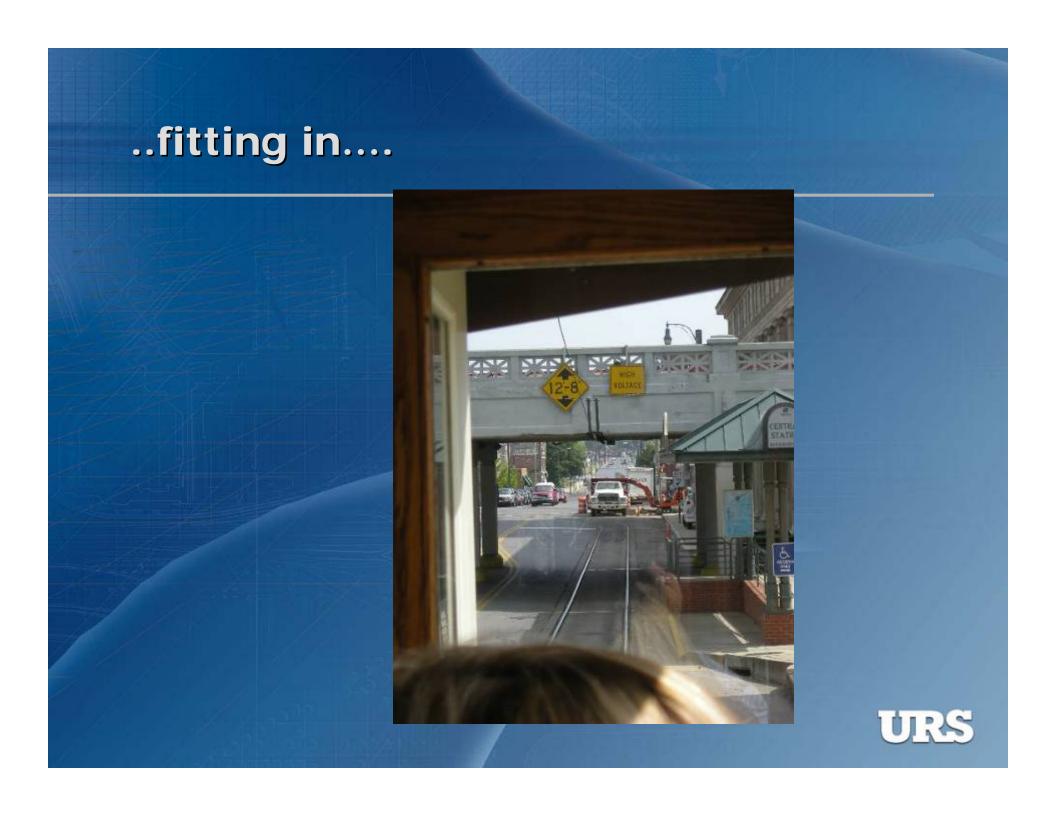










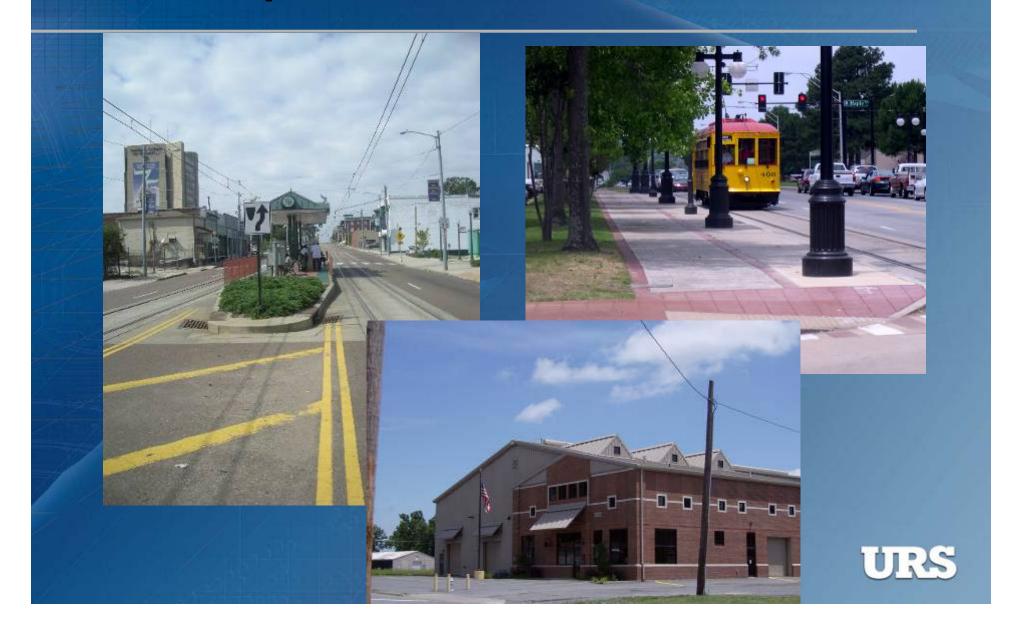


..REALLY fit in...





and Improve it....



Low-Impact Construction

SHALLOW EXCAVATION
(18"-24")
AVOID UTILITIES
MAINTAIN TRAFFIC
TWO BLOCKS-TWO WEEKS

(Trackbed and rails)





Low-Impact Construction....

SHALLOW EXCAVATION
(18"-24")

AVOID UTILITIES

MAINTAIN TRAFFIC

TWO BLOCKS-TWO WEEKS
(Trackbed and rails)





Operating Revenue and Expenses

- \$50 to \$80 per vehicle hour
 - Little Rock--\$500,000 annual
- Farebox Recovery
 - **8%-25%**



Federal Funding (Capital Only)

- New Starts/ Small Starts
- Project must go through 2 year planning process (minimum) for Environmental Impact, Alternatives Analysis, and development of Cost Effectiveness Index (CEI)
- Stacked Deck—against you



FY2008 Small Starts "Streetcar" Earmarks

Mountain Links BRT	Flagstaff	\$6.2
Livermore BRT	Livermore CA	8.0
Metro Rapid Bus System Gap	LA	0.3
Wilshire Blvd Bus Only	LA	10.9
Perris Valley Line	Riverside CA	50.0
Mid City Rapid	San Diego CA	21.7
Mason Corridor BRT	Ft Collins CO	11.7
Commuter Rail Improvements	Fitchburg MA	30.0
Troost Corridor BRT	KC MO	0.1
Streetcar Extension	Portland	50.0
Pioneer Parkway BRT	Springfield OR	0.3
Bellevue BRT	King County WA	11
Pacific Highway South BRT	King County WA	0.3
TOTAL FY 2008		\$200 M

Federal Funding

- Other Federal Funds
 - STP
 - CMAQ
 - Livable Communities



Local, State, Private Funding

- Portland first phase used non federal funds
- Private 501c3 organization-developer
- Parking Revenue-bonding
- Other local fees and financing
- Naming Rights (see Tampa)
- TIF
- Joint Development Strategies



Support Organizations

- Railvolution
 - October 27-29 San Francisco
 - www.railvolution.com
- American Public Transportation Association (VIA member)
 - Rail Conferences, Advocacy help, Vintage Trolley Task Force
- Reconnecting America
 - Gloria Ohland
 - One Day Workshop---Next workshop March in LA
- Community Streetcar Coalition

(also New Starts Working Group)

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Streetcars or Trolleys?

- Interchangeable Terms
- Street-running, Grass Running, Separate Guideway, etc
- Single Track, Double Track
- Powered by Overhead Electric Wires
- Top Speed around 30 mph
- Passenger loading from sidewalks or simple platforms



Design Basics

- Vehicle Length—40'-70'
- Trackbed Width-10' Desired
- Overhead Clearance-18' Desired
- Turning Radius=50' minimum
- Boarding Platform-40' length
- ADA Vehicles and Boarding Areas
- Weight—30,000-50,000 lbs



Kenosha—Before and After





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RIVER NORTH STREET TROLLEY ROUTE



Capital Cost

- Recent Projects –Wide Range
 - \$3 million per mile-Kenosha
 - \$8 million per mile-Little Rock
 - \$20 million per mile-Portland, Tampa
- Variables—
 - Frills
 - Utilities
 - Subsurface issues
 - Structures

