CENTRAL TEXAS
Regional Mobility Authority

September 28, 2016
AGENDA ITEM #15

Discuss, consider and take appropriate action on the Mobility Authority's involvement in a study on the viability of urban cable in Central Texas

Strategic Plan Relevance:	Regional Mobility
Department:	Engineering
Contact:	Mike Heiligenstein, Executive Director Jeff Dailey, Deputy Executive Director
Associated Costs:	$5,250
Funding Source:	General Fund
Action Requested:	Direction on CTRMA participation in a feasibility assessment of urban cable in Central Texas

Summary:

Following the Wire One Austin presentation by Jared Ficklin at the September 7, 2016 Board Meeting, CTRMA Board Members expressed an interest in exploring the viability of urban cable in Central Texas. The Wire One proposal includes lines running along the Guadalupe and 1st Street corridor from Martin Luther King on the north to Slaughter Lane on the south. Subsequently, staff in coordination with the City of Austin (COA), Capital Metropolitan Area Transit Authority (CapMetro), and Capital Area Metropolitan Planning Organization (CAMPO) developed a plan to jointly collaborate in a feasibility assessment to be performed by the Texas A&M Transportation Institute. The cost of the assessment is estimated to be $15,750. CapMetro and COA have indicated that they would each contribute 1/3 of the amount necessary to fund the study with the remaining 1/3 to be funded by CTRMA. Therefore, the CTRMA contribution is estimated to be approximately $5,250.00.

Staff requests Board direction as to whether the Mobility Authority should participate in a feasibility assessment for urban cable in Central Texas similar to the concept presented by Wire One Austin at the September 7, 2016 Board Meeting.

Backup provided: Draft Scope of Work for feasibility assessment

DRAFT

High Level Feasibility Assessment of Proposed Concept for "The Wire"

Background & Introduction - Gondolas are most often associated with the ferrying of tourist traffic to and around locations such as ski resorts, historical sites and other attractions. They have not generally been utilized as a transit option to serve commuters along with buses and rail. However, this is changing with recent growth in the utilization of gondolas as a commuting mode. In 2004 the City of Medellin, Colombia opened the Metrocable facility, which features three routes serving area travelers who would otherwise face commutes of upwards of two and a half hours. The Colombian City of Manizales soon followed suit with a similar system, and the city of La Paz, Bolivia recently opened a regional gondola network that is touted as the most extensive in the world.

There are gondola applications in the US that serve primarily non-tourist traffic. The Roosevelt Island Tram in New York City was originally developed as a stopgap measure to accommodate Roosevelt Island traffic in advance of the opening of the F line subway stop in 1989. In spite of the opening of that subway stop, the tram is still in operation and currently carries over 2 million commuters and tourists a year. In Portland, the Portland Aerial Tram provides expedited access to the Oregon Health & Science University, the largest employer in Portland, with a 3 minute gondola trip that might otherwise take upwards of 45 minutes by car. The Portland Tram sees average daily ridership of about 3,700 and recently carried its 10 millionth rider.

"The Wire" is proposed as a gondola-based mass transit option for the Austin area. The proposal includes lines running along the Guadalupe and 1st Street corridor from Martin Luther King on the north to Slaughter Lane on the south. Stops along these lines would be elevated, surface based (similar to bus stops), or incorporated into existing structures such as buildings. **Purpose of the Proposed Research -** The CTRMA has requested that the Texas A&M Transportation Institute (TTI) conduct an independent, high level feasibility assessment of the proposed concept for "The Wire". The TTI research team will assess the feasibility and fatal flaw analysis, identify opportunities and challenges. The team will also identify areas of additional study and analysis if needed to determine feasibility. TTI proposes the following scope:

Task 1 –Review Literature and Document Similar Applications

The research team will first conduct a literature review to identify and document gondola applications in the US and abroad. This literature review will provide background on other systems with a focus on the particular context of each project. The research team will identify factors unique to Austin that may impact the feasibility of a commuter-based gondola application in this region. As gondolas use for mass transit is uncommon in the US, the research team will also gather information on domestic gondola applications in tourist locales and in support of special venues. Specifically, the research team will identify:

- US and international gondola applications;
- Challenges / barriers facing development;
- Performance and operational characteristics of existing systems.

Task 2 – Assess Demand & Capacity

Most gondola applications in the United States serve a small area or a specific location; not a metropolitan region. Gondolas are now being proposed as an alternative mode for work and other trip purposes, but more analysis is needed on potential demand for these types of services in the Austin area. This task will entail an assessment of potential regional demand. The team will investigate existing passenger capacity, gondola speeds/travel times, dwell times, and headways of other gondola applications and determine a range of potential demand an Austin implementation may generate.

The research team will not collect data for this effort and will not develop a travel demand model. Rather, the research team will rely on existing analyses, reports, and data available from the Capital Area Metropolitan Planning Organization (CAMPO) Regional Travel Demand Model.

Task 3 – Preliminary Environmental Scoping Assessment

A project of the size and scope proposed should include environmental scoping assessment early in the planning phase. Environmental scoping is intended to identify major environmental issues and effects early, and begin to identify the appropriate National Environmental Policy Act (NEPA) class of action. The system's unique design and operation relative to other transit modes means that impact assessment and possible mitigation strategies used for other transit modes may not be applicable.

For this task, the research team will conduct a concept-level preliminary scoping assessment of the proposed regional gondola system to initiate the early identification of potential environmental issues. The concept-level preliminary scoping process will be consistent with US Department of Transportation NEPA practices and will use desktop resources to assess potential social, economic and environmental effects of the proposed project, "the Wire".

Task 4 – Assess Engineering Feasibility and Safety Issues

The team will conduct a preliminary assessment of potential engineering and safety issues associated with developing a regional gondola system in the Austin metropolitan area, with a specific focus on:

- The placement and potential location of supporting pylons,
- Potential impact of wind on supporting structures, cable cars and cables;
- Requirements associated with the certification of required equipment and infrastructure;
- Various safety issues

Task 5 – Assess Funding and Financing Issues

The objective of this task will be to examine potential costs (capital and operating/maintenance) associated with developing a mass transit gondola system in the US and to identify possible funding and financing sources for development. Specifically, the team will:

- Document and assess potential capital and operating costs for the proposed system as provided by the developer and design team;
- Identify capital and operating costs associated with similar applications identified in Task 1;
- Identify and document funding sources and financing mechanisms utilized in the development of existing gondola systems identified in Task 1;
- Identify and document other potential sources of federal, state and local funding.

Task 6 – Final Reporting

The research team will provide a report and presentation that summarizes key findings form the major research tasks and will outline areas of analysis for a subsequent feasibility assessment of "The Wire" concept for application in the Austin area.

General Timeline, Budget & Benchmarks

(Project Weeks from Notice to Proceed)

	Task	1	2	3	4	5	6	7	8	9	% of Total	Budget	Hours
1	Literature Review										15.50%	$2,450	23
2	Demand & Capacity										10.80%	$1,700	16
3	Environmental Issues										11.50%	$1,810	17
4	Engineering and Safety										10.80%	$1,700	16
5	Funding and Financing										15.50%	$2,450	23
6	Final Report										35.80%	$5,640	53
												$15,750	

Task	Start Date	Finish Date	Activities
1	Week 1	Week 3	Conduct literature review, develop case studies
2-5	Week 3	Week 5	Conduct analysis
2-5	Week 3	Week 3	Meet with concept designers for technical details
2-5	Week 5	Week 5	Synthesize findings
6	Week 6	Week 7	Draft report, internal review by research team
6	Week 8	Week 8	Submit to sponsor for feedback
6	Week 9	Week 9	Finalize report and send to sponsor