Albuquerque Rapid Transit (ART)

Proposed Concept of Operations

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What is a Concept of Operations?

What is Bus Rapid Transit?

Why Bus Rapid Transit in Albuquerque?

Concept of Operations for Albuquerque Rapid Transit
What is a Concept of Operations (ConOps)?
What is Bus Rapid Transit?

- Larger Vehicles
- Enhanced Stations
- Priority Treatments
- Transit Way
- Safe Access
- Better Service
Benefits of Bus Rapid Transit

- Higher Capacity
- Improved Reliability
- Faster Service
- Legibility
- Leverage Investment
ART Project Goals

- Improved Service
- Revitalized Corridor
- Better Quality of Life
ART Operating Environment
Transit Signal Priority (TSP) System

1. Opticom IR emitter sends a secure, encoded priority request to the intersection.

2. Opticom detector receives IR signal and relays the request to Opticom phase selector.

3. Opticom phase selector validates request from the radio/GPS unit and alerts the traffic control system to request a green traffic signal.

1. Opticom GPS vehicle equipment transmits vehicle speed, direction and turn signal status to GPS intersection.

2. As vehicle enters radio range, the Opticom radio/GPS unit relays the request to Opticom phase selector.
General Intersection Operations
Transit Signal Priority

- GPS Technology
- Block Signals
- Detection Logic
- Queue Jumps
- Peer-to-Peer Communication
ART Station Door Deactivation
Bi-Directional Detection Logic
Part Time Warning Signs

Not to Scale
Proposed Stakeholder Coordination

Implementation Roles and Responsibilities for ART Transit Signal Priority

Contractor*
- Contractor begins construction
- Purchase TSP equipment from Vendor
- Install GPS receivers on traffic signals¹

Vendor
- Provide TSP equipment
- Assist with Implementation

ABQ Ride**
- Develop Interdepartmental Agreement

City Traffic
- Develop signal timing plans and TSP parameters

Consultant
- Testing and Implementation Support

¹ Timing shall occur with installation of new or upgraded signals
² Traffic Operations Center (TOC)
* Contractor must be involved through validation
** ABQ ride is ordering buses with TSP equipment installed
Proposed TSP Implementation

Category 1 – Bench Testing
Category 2 – Field Test (No Service)
Category 3 – Simulated Service
Category 4 – Fine Tuning
QUESTIONS?