Planning and Managing Park-and-Ride

Tuesday, September 19, 2017
2:00-4:00 PM ET
Purpose


Learning Objectives

At the end of this webinar, you will be able to:

• Understand how to use TCRP Report 192: A Guidebook on Planning and Managing Park-and-Ride as a resource to better plan and manage park-and-ride facilities
• Discuss why transit agencies provide park-and-ride, and describe different approaches to developing and operating park-and-ride
• List key considerations (pro and con) when deciding whether to charge for parking at a park-and-ride facility
• Identify the potential community impacts of park-and-ride and discuss how to engage the community as a good neighbor
TCRP REPORT 192: A GUIDEBOOK ON PLANNING AND MANAGING PARK-AND-RIDE

Moderator: Katherine Turnbull

Presenters: Linda Cherrington | Paul Ryus | Michael Walk | Kathryn Coffel

Texas A&M Transportation Institute
Kittelson & Associates, Inc.
Kathryn Coffel Consulting, LLC
TCRP Panel

Maribeth Feke, Greater Cleveland Regional Transit Authority – Panel Chair
Darcy Cleaver, Port Authority of Allegheny County
Peter Fahrenwald, Regional Transportation Authority, Chicago
Hal Johnson, Utah Transit Authority
Peter Martin, CDM Smith
R.J. Palladino, New Jersey Transit
Young Park, Tri-County Metropolitan Transportation District of Oregon
Stephen Salin, Dallas Area Rapid Transit
Raymond Santiago, Golden Gate Bridge Highway and Transportation District
Robert Patrick Schmitt Jr., Washington Metropolitan Area Transit Authority
Ken Cervenka, Federal Transit Administration
Richard Weaver, American Public Transportation Association
Dianne S. Schwager – TRB Senior Program Officer
Webinar Agenda and Presenters

- **Introduction to the Guidebook**
  - Linda Cherrington

- **Strategic Planning for Park-and-Ride**
  - Paul Ryus

- **Operating Park-and-Ride**
  - Michael Walk

- **Charging for Parking**
  - Kathryn Coffel

- **Park-and-Ride and the Community**
  - Linda Cherrington
Introduction to the Guidebook

Linda Cherrington
Texas A&M Transportation Institute
Introduction to the Guidebook

Project Goals and Guidebook Purpose

• Create a **single resource** for improved strategies and best practices to plan and manage park-and-ride facilities

• Explore **all aspects** of park-and-ride planning and management

• Present a **logical process**

• Identify **best practices**

• Include case study **examples**
What is Park-and-Ride?

• Parking location, drop-off point, or transfer point for transit

• Nexus of parking and transit makes park-and-ride unique

• Design and characteristics vary according to need

• May serve a variety of transit modes
Why Provide Park-and-Ride?

- Provide alternatives to driving alone
- Attract nontraditional riders to transit
- Concentrate demand for transit
- Increase productivity for transit service
- Provide access to rail and commuter bus
- Provide a convenient/safe meeting for carpool and vanpool
- Reduce vehicle miles traveled and emissions
- Manage parking shift from central city
- Relieve parking burdens in neighborhoods near transit
Guidebook Development

- Comprehensive literature review
- State of the practice scan and assessment
- Mini-case studies to document current practices and trends
- 16 full or targeted-interest case studies:
  - Planning and management trends
  - Best practices
  - Strategies for implementation

The literature review, state-of-the-practice scan, and case studies are documented in a companion report, TCRP Web-Only Document 69.
State of the Practice Scan

• Data collected on-line
• Targeted 186 transit agencies from 2014 APTA infrastructure database
• 83 transit agencies responded
• Mostly large urban transit agencies
• All sizes of park-and-ride programs represented – ranged from < 300 spaces to over 50,000 spaces

Transit modes
• Local bus
• Commuter bus
• Bus rapid transit
• Light rail
• Commuter rail
• Heavy rail
• Ferry
• Vanpool
How to Use the Guidebook

• Cover-to-cover or subject specific research
• Tracks life-cycle of park-and-ride facilities
• Information specific to the processes of:
  • Planning
  • Designing
  • Constructing
  • Operating
  • Maintaining
Guidebook Organization

- Chapter 1: Introduction
- Chapter 2: Park-and-Ride Overview
- Chapter 3: Strategic Planning
- Chapter 4: Financial Planning
- Chapter 5: Design and Implementation
- Chapter 6: Operating Park-and-Ride
- Chapter 7: Charging for Parking
- Chapter 8: Park-and-Ride and the Community
- Chapter 9: State of Good Repair and Asset Management
- Chapter 10: Transit-Oriented Development
Strategic Planning for Park-and-Ride

Paul Ryus
Kittelson & Associates, Inc.
Strategic Planning for Park-and-Ride

- Master & Long-Range Planning
- Project Planning
- Estimating Demand for Parking
- Facility Types and Ownership
- Decision Making – Owned vs Shared
Master & Long-Range Planning

• Evaluates park-and-ride potential and/or policies over a longer timeframe and at multiple sites

• Examples:
  • Regional park-and-ride plan
  • Long-range plan for existing park-and-rides
  • Park-and-ride policies and operations practices
  • Element of fixed guideway transit planning
  • Element of roadway corridor planning
Project Planning

- Addresses a specific site
- Can occur on an ad-hoc basis or as an outcome of a master plan
- Keys to effective planning:
  - Identification of need
  - Evaluation of alternatives
  - Project selection
  - Implementation

Case Study Finding:
In 2014, UTA adopted a Park-and-Ride Lot Master Plan that covers planning, design, maintenance, marketing, and opportunities for innovation.
Estimating Demand for Parking

- Varies according to multiple factors
  - Location
  - Congestion
  - Costs
  - Transit service levels
- Demand estimation models
- Right-sizing facilities
- Rider catchment areas

Source: Holguin-Veras et al., 2012a.
Facility Types and Ownership

The transit agency:

- Owns and operates lots
- Owns lots and contracts some or all operations and management
- Leases space from a private or public entity
- Shares the use of parking operated by other entities
- Shares ownership and operations responsibility with multiple entities
Decision Making - Owned vs Shared

- Levels of control
- Investments required
- Flexibility
- Uncertainty

Case Study Findings – Owner-Operator Arrangements:
- The transit agency owns and operates lots: BART and Houston METRO
- The transit agency owns lots and contracts all operations and management: CTA and Metra
- The transit agency leases space from private or public entities: NJ TRANSIT and Sound Transit
Operating Park-and-Ride

Michael Walk
Texas A&M Transportation Institute
Operating Park-and-Ride

- Park-and-Ride: A Customer Touch-Point
- Managing a Park-and-Ride
- Regulating Facility Use
- Utilities and Maintenance
- Security and Enforcement
- Operations Approaches: In-House vs Contracting
- Managing Demand for Parking: Performance Metrics
- Strategies to Reduce or Shift Demand

Other topics in Guidebook: Risk Management, Notable Contracting Practices, and Customer Service
Park-and-Ride: A Customer Touch-Point

• Park-and-rides are a touch point between transit agencies and customers
• Should be managed with the resources and attention paid to any other transit service or amenity
Managing a Park-and-Ride

• Must ensure high-quality customer experience
• Clear lines of responsibility, program ownership, and processes
• Applies in both in-house and contracted environments
Regulating Facility Use

- Setting rules
- Designated spaces (e.g., accessible spaces, carpool only, electric vehicles only)
- Maximum durations
- Authorized uses
- Displaying rules
- Enforcing rules
- Modifying rules (as needed)
Utilities and Maintenance

- Electricity and lighting
  - Solar lighting
  - Electric vehicle charging stations
- Cleaning, sweeping, litter removal
- Trash removal
- Facility upkeep
- Snow and ice removal
- Customer waiting areas
- Employee break room
- Restrooms

**Case Study Finding:**
Reduction in maintenance costs is best done by being strategic - NJ TRANSIT uses low-maintenance, native planting as much as possible
Security and Enforcement

- On-site security
  - Dedicated personnel
  - Roaming security

- Remote security
  - Closed-circuit television (CCTV)
  - Call boxes

- Security inspections such as crime prevention through environmental design (CPTED)

- Parking regulation enforcement
Operations Approaches: In-House vs Contracting

- Contracted – **contractor manages all functions** and transit agency staff manages contract
- Mixed – transit agency **contracts some services and tasks** while directly providing others
- In-house – highest level with transit agency staff providing **full support**
- Guidebook contains some notable practices for contracting
# Decision-Making for Operations

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Conducive to In-House Operations</th>
<th>Conducive to Contracted Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision and goals for SOV parking</td>
<td>Working to decrease or maintain SOV as a mode of access. Working to increase park-and-ride access from bicycles, walking, high-occupancy vehicles, and other modes.</td>
<td>Working to increase or capitalize on SOV as a mode of access. Priority is to keep parking utilization rates high.</td>
</tr>
<tr>
<td>Policies and approach to charging for parking</td>
<td>Prefer not to have a fee or to keep fees limited in application and purpose, or local conditions are not conducive to charging for parking.</td>
<td>Fees are (or should) be in place at all facilities, if possible. Fees are a critical part of the revenue stream.</td>
</tr>
<tr>
<td>In-house capacity for facility operations and maintenance</td>
<td>Existing resources are adequate or are flexible enough to meet park-and-ride needs.</td>
<td>Existing resources are limited or are inflexible to meet park-and-ride needs.</td>
</tr>
<tr>
<td>Demand for parking</td>
<td>Parking demand is low or moderate.</td>
<td>Parking demand is high.</td>
</tr>
</tbody>
</table>
Managing Demand for Parking: Performance Metrics

- Utilization rate: % of spaces occupied
- Daily cost per space
- Access mode share

<table>
<thead>
<tr>
<th>Transit Agency</th>
<th>Daily Cost per Space (Surface Lots)</th>
<th>Daily Cost per Space (Structured Parking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calgary Transit</td>
<td>$2.33</td>
<td>$6.21</td>
</tr>
<tr>
<td>BART</td>
<td>$1.28 average for all spaces</td>
<td></td>
</tr>
<tr>
<td>TriMet</td>
<td>$1.00 to $2.00 average for all spaces</td>
<td></td>
</tr>
</tbody>
</table>
Strategies to Reduce or Shift Demand

- Availability information
- Regulations
- Midday or short-term parking
- Maximize space
- Drive-alone alternatives
Charging for Parking

Kathryn Coffel
Kathryn Coffel Consulting, LLC
Charging for Parking

- Reasons to Charge for Parking
- Challenges with Implementing Parking Fees
- Setting the Amount of Parking Charges
- Equity Concerns: Title VI Analysis
- Methods of Collecting Fees
- Elements of Success and Emerging Technologies
Reasons to Charge for Parking

Charging can:

• Manage demand among park-and-ride facilities
• Encourage drop-offs, carpools, and non-auto access
• Equitably allocate the cost of services to users of services
• Generate funds dedicated to improving access/security
• Recover/offset the costs of operations and maintenance

Case Study Finding:
WMATA funds its park-and-ride program entirely from parking fee revenue and covers expenses, such as personnel, facility maintenance, and fare collection equipment/labor
Challenges with Implementing Parking Fees

Considerations include:

- May discourage ridership in low demand areas
- Fees may result in unacceptable “hide-and-ride”
- Logistics related to shared use facilities or facility design
- Local and regional expectations or requirements
- Cost of program outweighs the revenue and benefits of fees
Setting the Amount of Parking Charges

Considerations include:

- Revenue generation and cost recovery objectives
- Fees according to service (e.g. reserved spaces)
- Regional expectations
- Market and patron demographics
- Central business district (CBD) parking costs and roundtrip fares

Case Study Finding:
BART is able to charge market rates at the facility closest to downtown San Francisco
Equity Concerns: Title VI Analysis

- Title VI programs
- Title VI documentation
- Title VI and parking fees
Methods of Collecting Fees

- On-site staff (in-house or contracted)
- Self-service on-site
- Self-service online and via smartphone
Elements of Success and Emerging Technologies

- Elements of Success
  - Enforcement
  - Coordination with other providers
  - Managing spillover
  - Customer relations

- Emerging Technologies
  - Mobile payment
  - Dynamic pricing

Case Study Finding:
Denver RTD tracks parking fees by license plate number. Payment can be made by smartphone. Enforcement uses license plate readers.
Park-and-Ride and the Community

Linda Cherrington
Texas A&M Transportation Institute
Park-and-Ride and the Community

- Potential Community Impacts
- Real-time Parking Information
- Community Engagement
- Adjacent Land Uses
- Transit-Oriented Development (TOD)
Potential Community Impacts

• Environmental justice
• Noise and lighting effects
• Traffic congestion
• Spillover parking

Case Study Finding:
LA Metro conducts area assessment of off-site traffic impacts to learn whether surrounding streets can provide adequate access for proposed park-and-ride sites
Real-time Parking Information

- Live information about parking availability
- Presented via multiple sources
  - Online
  - Variable message signs
  - Apps
  - Twitter
  - Radio
- Manages customer expectations and capacity constraints

Case Study Finding:
- DART uses variable message signs at popular park-and-ride locations
- MARTA provides real-time parking availability on their website
Community Engagement

- New facilities
  - Incorporating public feedback
  - Marketing new facilities
- Expansion of existing facilities
  - Detailed data of need/demand
  - Assessment of impacts/benefits to neighbors
- Sharing with the community
  - Shared parking for weekends
  - Community events
- Ongoing communication
Adjacent Land Uses

- Consideration of adjacent uses
- Enhanced transit service
- Local business partnerships
- Catalyst for joint-development

Case Study Findings:
- Greater Cleveland Regional Transportation Authority (GCRTA) features nearby amenities in park-and-ride signage
Transit-Oriented Development (TOD)

- Return on investment
- Partnership benefits
- Opportunities

Case Study Finding:
Homes and offices near BART stations sell and rent at a premium compared to locations farther from transit, and the land adjacent to BART stations is becoming increasingly valuable for TOD.
Questions?

Katherine Turnbull
Moderator
Today’s Participants

• Katherine Turnbull, Texas A&M Transportation Institute, k-turnbull@tti.tamu.edu
• Linda Cherrington, Texas A&M Transportation Institute, l-Cherrington@tti.tamu.edu
• Kathryn Coffel, Kathryn Coffel Consulting, LLC, Kathryn.Coffel@gmail.com
• Paul Ryus, Kittelsson & Associates, Inc., PRYUS@kittelson.com
• Michael Walk, Texas A&M Transportation Institute, m-walk@tti.tamu.edu
Panelists Presentations


After the webinar, you will receive a follow-up email containing a link to the recording
Get Involved with TRB

- Getting involved is free!
- Join a Standing Committee (http://bit.ly/2jYRrF6)
  - Networking opportunities
  - May provide a path to become a Standing Committee member
- For more information: www.mytrb.org
  - Create your account
  - Update your profile

97th TRB Annual Meeting: January 7-11, 2018
Take Part in the *Careers in Motion* Networking Fair

The *Careers in Motion* Fair is a networking event planned to support expansion of the multi-modal transportation workforce. The event will provide an opportunity for prospective employers from a wide range of sectors to meet with young to seasoned professionals interested in working for their organizations.

Event attendees will be conference registrants whose careers and professional interests span across multiple transportation-related disciplines. Hiring managers will be onsite to network and offer career information and advice. TRB’s Young Members Council will coordinate professional development programming and content.

The *Careers in Motion* initiative helps serve the mission of TRB’s new Diversity and Inclusion Task Force—to facilitate making diverse and inclusive involvement a core value for TRB staff, volunteers, contract awardees, projects, and the transportation communities TRB serves.

*January 7, 2018 | 10:00 a.m. – 2:00 p.m.* | Table Fee: $1,250