Planning and Development Committee

Strategies to Improve Passenger Flow on Platforms and at Stations

December 1, 2005
This is the companion piece to the rail car pilot interior reconfiguration evaluation. Presented last month to the P&D Committee.

This presentation outlines a series of low-cost strategies to improve passenger flow on the platform and between the trains and the platform.
Station platforms at major Metrorail stations are frequently congested causing delays and long boarding times at the heavy stations.

The APTA Peer Review recommended implementing passenger flow strategies to maximize train through-put and improve station dwell time.

Many transit systems have successfully implemented passenger flow solutions to improve passenger flow and train dwell time.
Strategies for Improved Platform Flow

1. Platform Markings
   - Create marker on platform at each door indicating door entrances
   - Add signage on platform to improve flow at congestion points
   - Begin with a Pilot Program at Union Station, Gallery Place and Metro Center

2. Escalators Flow at Major Transfer Points
   - Perform station review of escalator flow
   - Establish Escalator Direction Protocol
   - Develop new flow patterns to accommodate passenger flow and platform crowding

3. Passenger Flow onto the Rail Car
   - Develop a better system-wide door closing regime
   - Includes better instructions for improving the boarding and alighting process
Current Passenger Patterns

Metro Center
Red Line train to Glenmont

Gallery Place-Chinatown
Green Line train to Branch Ave.

Two videos of current platform/door crowding
How Other Transit Properties use Signage to Enhance Passenger Flow and Dwell Times

- Contacted similar transit properties to find out how they use signage to manage passenger flow and train dwell times

- Found that the most successful strategies include:
  - Platform markings to indicate train door locations
  - Permanent and temporary signage to encourage desired behavior, particularly at transfer stations and during capacity surges
  - Announcements/staff intervention to fortify message

- Researched platform marking designs in use at other transit systems
Implementing a Pilot Program at WMATA

- Plan and develop a three-month pilot program for Union Station, Gallery Place-Chinatown and Metro Center
- Obtained program concept approvals from Operations, Safety, Metro Police, Rail, Plant and Customer Services
- Implement, evaluate and refine the program to maximize its effectiveness
- Plan, develop and obtain approval for a system-wide program based on lessons learned from the pilot
Suggested Platform Markings
Suggested Platform Markings
Escalator Flow Improvements

- Revised each escalator and passenger flow to determine specific protocol
  - By time of day and day of week
  - Changes at specific stations for special events
  - Procedures for changes when an escalator is out of service
- Revised passenger movements between trains at major transfer locations where over 200,000 riders transfer on a daily basis
  - L’Enfant Plaza: evaluation complete, new pattern implemented
  - Gallery Place: evaluation underway, new pattern being tested
  - Metro Center: evaluation will be undertaken in January
- Identify other locations for study
Escalator Flow Improvements

- Develop “Stand-to-the-Right” program - communication program for our customers consisting of
  - “Stand-to-the-Right” stickers on all escalators
  - Station and system announcements
  - Reinforcement by Rail Supervision
L’Enfant Plaza Photos

Before

Blue/ Orange Line - Lower Level
Central Escalators up to Greenbelt/ Mt Vernon Square Platform

After
L’Enfant Plaza Photos

Before

After

Blue/ Orange Line - Lower Level
Central Escalators up to Branch Avenue/ Huntington Platform
Boarding and Alighting Improvements

- Develop a new and different system-wide door closing regime to create employee and customer focus on moving on and off the train
  - Announcement and messaging for passenger flow
    - Prepare to exit announcements
    - Exit quickly and first
    - Do not block the doors
    - Move to the center of the train
  - Change voice and chime regiment to be used for door closing
  - Implement system-wide program for employee training and customer communication
  - Interior car signs to communicate message to customer
  - Elderly and Disabled seating will be incorporated into the new rail car pilot reconfiguration design
Project Schedule

December
Present to Planning and Development Committee

November/January
Implement Escalator Direction Protocols

February 2006
Implement new system-wide Boarding and Alighting Procedures
Implement customer communications program

February 2006 – April 2006
Implement Platform marking/signage Demonstration Project

Spring 2006
Report on progress to Planning and Development Committee