PURPOSE AND SCHEDULE

Why Change?

- Customer convenience
- Administrative costs
- Equipment at end of life
- Bus Rapid Transit (BRT)

Sequence

- Presented to TPPB – 6/18/21
- Public Info Meeting – 7/21/21
- Public Hearing – 8/02/21
- TPPB Direction – 8/16/21 (approx.)
- Release RFP – late 2021
- Implementation in 2022 - 2023

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FARE-FREE

- Garnered recent attention
- Chapel Hill is largest US city to date
  - Fare revenues were <10% of budget
  - Studying resuming fares
- Kansas City has committed to it
- Europe has more examples
  - Estonia
  - Aubagne, France
  - Luxembourg
- Results have been mixed

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FARE-FREE TYPICAL IMPACTS

Benefits

- Reduce barriers
- Increase ridership
- Reduce administrative costs

Challenges

- Loss of operating revenue
- Ridership gain often from biking/ walking
- Additional service for capacity
- Increased security challenges

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Fare-Free In Madison

Strong Existing Ridership
- Fares make up large budget share (25%)
- Limited capacity
- Need more service

Offsetting cost opportunity
- Pass programs could go lump sum ($6.5m)
- Reduce cost of collection ($0.5m)
- Net gap from $7.5m to over $17.4m

Fare-free period in summer 2020 led to security complaints.

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FARE-FREE IN MADISON

- Not recommended by staff
- Seek other methods to reduce barriers
- Additional funding would be better spent enhancing service

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FARE SYSTEM TYPES

- Traditional Farebox
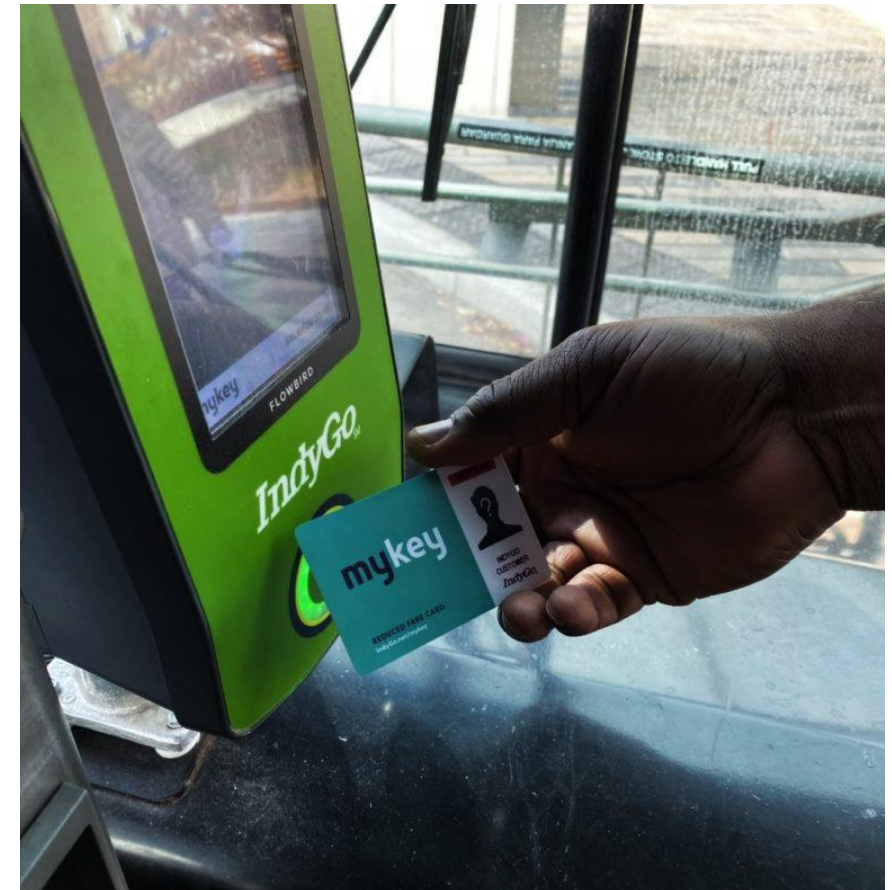
- Account Based

- Proof of Payment

TRADITIONAL FAREBOX

- Current method (no incremental cost)
- Handle cash and passes in one device
- Cash collection slows the bus
- Requires passes to be pre-purchased
- Limited tap cards or mobile payments
- Expensive machine prone to issues
- **Won't work on BRT**

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ACCOUNT BASED FARE COLLECTION

- Balances stored in cloud database

- Uses smaller fare validator device

- Can read tap cards and mobile devices

- Rear door entry possible to speed entry

- Can manage account virtually

- Enables various new equity strategies

- No cash collection on the bus
  - Speeds boarding times
  - **Equity concerns that must be mitigated**

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PROOF OF PAYMENT

- **Only realistic for BRT**
- Users pay before boarding, at a station
- No barrier to entry, just enter and sit
- Fastest boarding process
- Can include Account-Based features
- Fare inspectors check tickets
  - Randomized onboard the bus
  - Labor increases cost of collection ($0.5-1.0m)
  - **Prone to profiling concerns**

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PROOF OF PAYMENT
(CONT.)

- Require ticket equipment at all stops
  - $10-20k each if not dispensing cards
  - $40-60k each if dispensing cards
  - Prone to maintenance issues
- Challenges with Pass Programs
  - Billed per ride
  - Users will forget to tap, Metro can't bill
- Local routes would still use farebox

FARE TYPE RECOMMENDATION

- Staff recommends an **Account-Based** system on **all** Metro services
- Mitigation for cash collection required
- Allows uniform system for all
- All door boarding on all routes
- Allows new techniques (discussed later)

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CASH COLLECTION

- Cash On Board
- Equity Mitigations
- Recommendation

CASH COLLECTION

- Goal to eliminate cash on board

- Cash collection is costly and slow

- <10% of current riders use cash on board

- Account-based collection relies on users loading money to their account

- Unbanked may have no other option

- **This is an important equity issue**

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GENERAL CASH MITIGATIONS

- Post pay/negative account balance – bill users **after** their rides
  - Mitigate reload location issues
  - Would need to be a lower bound
  - **Works only when the card itself has value**

- Half fare program for low income users
  - Offsets the extra hassle of having to reload
  - Encourages protecting fare cards
  - Often requires registration so that lost half fare cards can be disabled
  - Currently exists, but limited in number

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CASH MITIGATION: RETAIL NETWORK

- Retailers use gift card networks
- Can buy new cards
- Can use cash to re-load at checkout
- May not have retailer in all areas
- Limited to store hours
- Charges a commission of 5-10%

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CASH MITIGATION: KIOSKS

- Install machines to reload accounts
- Machines are expensive
  - $10-20k each if not dispensing cards
  - $40-60k each if dispensing cards
- Maintenance challenges
  - Failure rate is high
  - Frequent source of customer complaints
- Available 24/7

CASH MITIGATION: ON-BUS

- Could continue current cash policy
- Would slow the bus and reduce benefits
- Need to maintain expensive cash collection equipment on board
- User likely would not accrue benefits of account based system

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CASH COLLECTION RECOMMENDATION

- Create half fare low income program w/ post-pay/negative balance

- Leverage robust retail network

- Continue cash on board for local routes
  - No benefits of account based system
  - Phase out over 5 years @ farebox end of life

- No cash on BRT
  - Include a <u>few</u> reload kisoks, not all locations

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Other Strategies

- Fare Capping
- Mobile Payments
- ID Integration
- Transfer Periods
- Contactless Credit Cards
- Paratransit and Social Services

FARE CAPPING

- Users pay $2 per ride, up to cap
- Limit can be daily, weekly, or monthly
- Weekly caps drive weekend ridership
- Replaces need for passes
- Cap typically set at pass rate
- Benefit those who can't afford pass
- Lessens the sunk cost mentality of pass
- Slight reduction in expected revenue

https://transitcenter.org/video/the-fare-capping-chronicles/

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MOBILE PAYMENTS

- Gaining significant attention

- Limited use among heavy users

- Two different variables to explore

- Variable 1: Integration with Account

- Variable 2: Validation Method

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MOBILE PAYMENTS: ACCOUNT INTEGRATION

- Open Payments
  - Use your phone as Apple Pay or Google Wallet
  - No new app to install
  - No ability to purchase passes
  - No account-based benefits

- Closed system
  - Dedicated App mimics phone as a fare card
  - Can accrue benefits of account based system
  - Requires installing new app and adding payment info

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MOBILE PAYMENTS: VALIDATION TYPE

- Visual Validation
  - App creates an moving or time-stamped image
  - Show phone to driver, who validates
  - Works only at front door, won't work for BRT

- Barcode Validation
  - App creates a barcode that is read by validator
  - Reader is often finicky and time consuming

- NFC Validation
  - Uses NFC chip on phone to act as tap card
  - Not available on lower end and older phones

OTHER TECHNIQUES

- Integrate existing ID's as tap cards
  - Pass partners can manage user accounts
  - No additional media to distribute
- Single use cards for social services
  - Paper card with tap functionality
  - Relatively expensive (50 cents each)
- Transfer periods
  - Charges once for all taps within 2 hr period
  - Eliminates transfer slips
- Allow non-cash payment on paratransit
- Contactless Credit Cards

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Recommendation Summary

- Account Based System
- All door tap readers on all routes
- Unlimited half fare + negative balance for low income w/ registration
- Retail reload network
- Limited to no Kiosks
- Cash on board
  - Local only
  - Does not accrue benefits
  - Phase out over 5 years

- Weekly + daily fare capping
- Mobile payments:
  - Custom App with NFC card emulation
  - Open mobile payments (Apple + Google)
  - No option for those without either capability
- Integrate with other ID cards
- Implement 2 hour transfer periods
- Limited single use paper cards
- Integrate with paratransit
- Open payments w/ contactless cards

NEXT STEPS/REMAINING DETAILS

- Additional integrations?
  - Bikeshare
  - Parking
  - Zipcar
- Prepare Vendor Request for Proposals
- Implement 2022/2023

QUESTIONS & COMMENTS
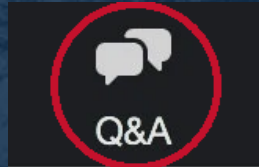
Please submit your questions using the Zoom 'Q&A' tool.

To submit general feedback, please use the 'Chat' feature at the bottom of your screen or email us any time at *mymetrobus @cityofmadison.com*. All feedback will be given to the TPPB for consideration.