

**METRO-DADE TRANSIT AGENCY
MDTA Metromover Extensions Transfer Analysis**

**FINAL
Technical Memorandum Number 2
Metromover Fare Policy Alternatives**



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Prepared for
Metro-Dade Transit Agency



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TECHNICAL MEMORANDUM NUMBER 2

Fare Policy Alternatives

Technical Memorandum Number 2 analyzes the impacts of the proposed transfers between Metrobus and the new legs of the Metromover scheduled to begin operation in late May 1994. Alternate bus/mover fare transfer policies will be developed and assessed.

FARE IMPACTS

Technical Memorandum Number 1, "Current Operating Characteristics of Metrobus Service into/within the Central Business District", discussed the current MDTA fare policy concerning bus to mover and mover to bus transfers. Current policy would result in an additional \$0.25 charge for bus passengers transferring from truncated routes to the new Metromover extensions at the Omni or Brickell Stations. This increase would create an inequity between bus to mover and rail to mover transfers, since rail to mover transfers are free at the Government Center and Brickell rail stations.

Fare policy alternatives have been developed with four goals in mind:

- Equity across modes for Metromover transfers;
- Continuity in terms of existing fare policy;
- Continuity in terms of cost for a given trip;
- Use of existing fare equipment.

The four alternatives presented here vary in terms of the importance attached to each of these goals.

Figure 1 presents the existing "Inbound" fare policy without the Metromover extensions as well as four alternate fare policies with the operating extensions. Figure 2 presents the same scenarios in the "Outbound" direction. Both Figures represent full fare scenarios. Discounted fares for the elderly, disabled and students are \$0.60 for Metrobus and Metrorail fares, \$0.10 for transfers between Metrobus and Metrorail, and also \$0.10 for payment of the Metromover fare.

FIGURE 1
BUS/MOVER TRANSFER ALTERNATIVES
(INBOUND MOVER FROM OMNI OR BRICKELL)

ALTERNATIVES WITH METROMOVER EXTENSIONS IN PLACE

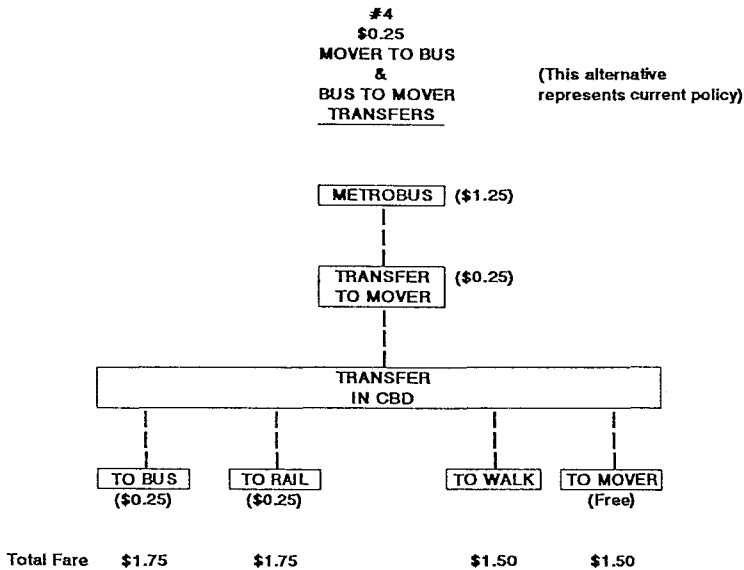
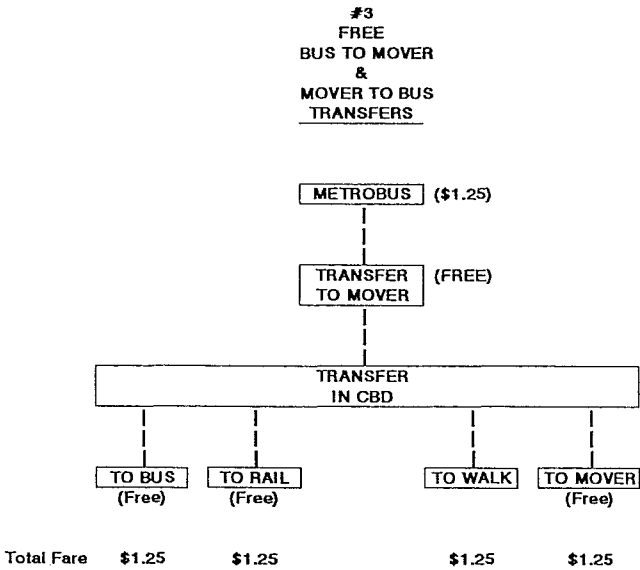
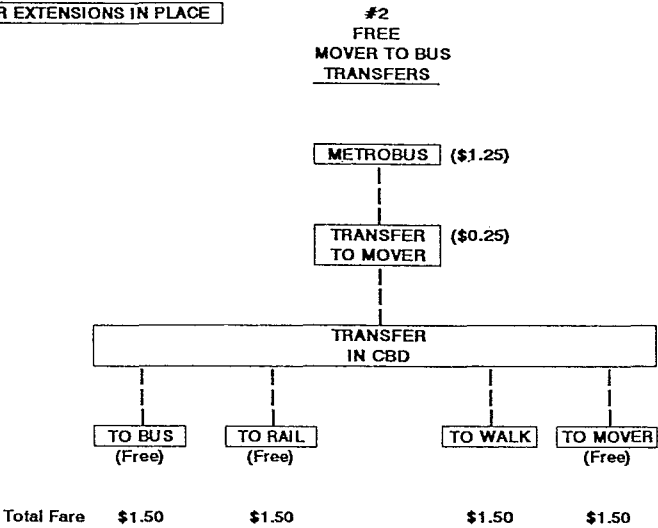
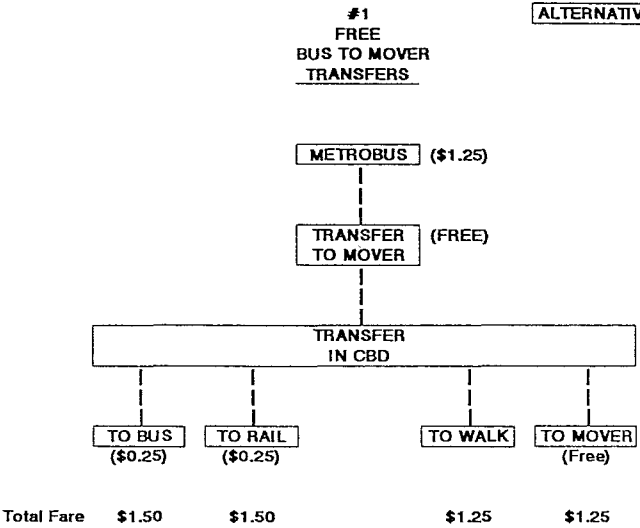
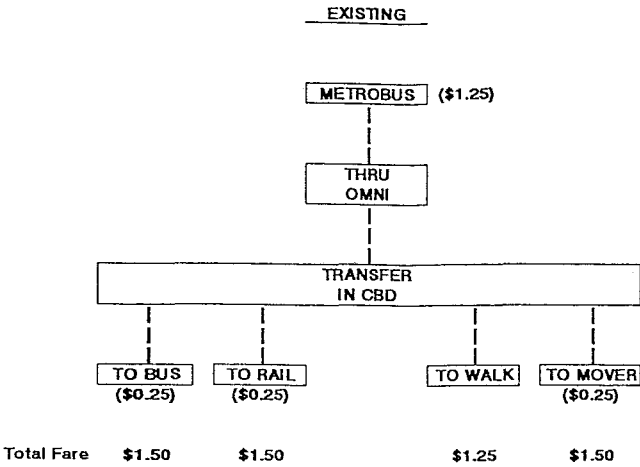
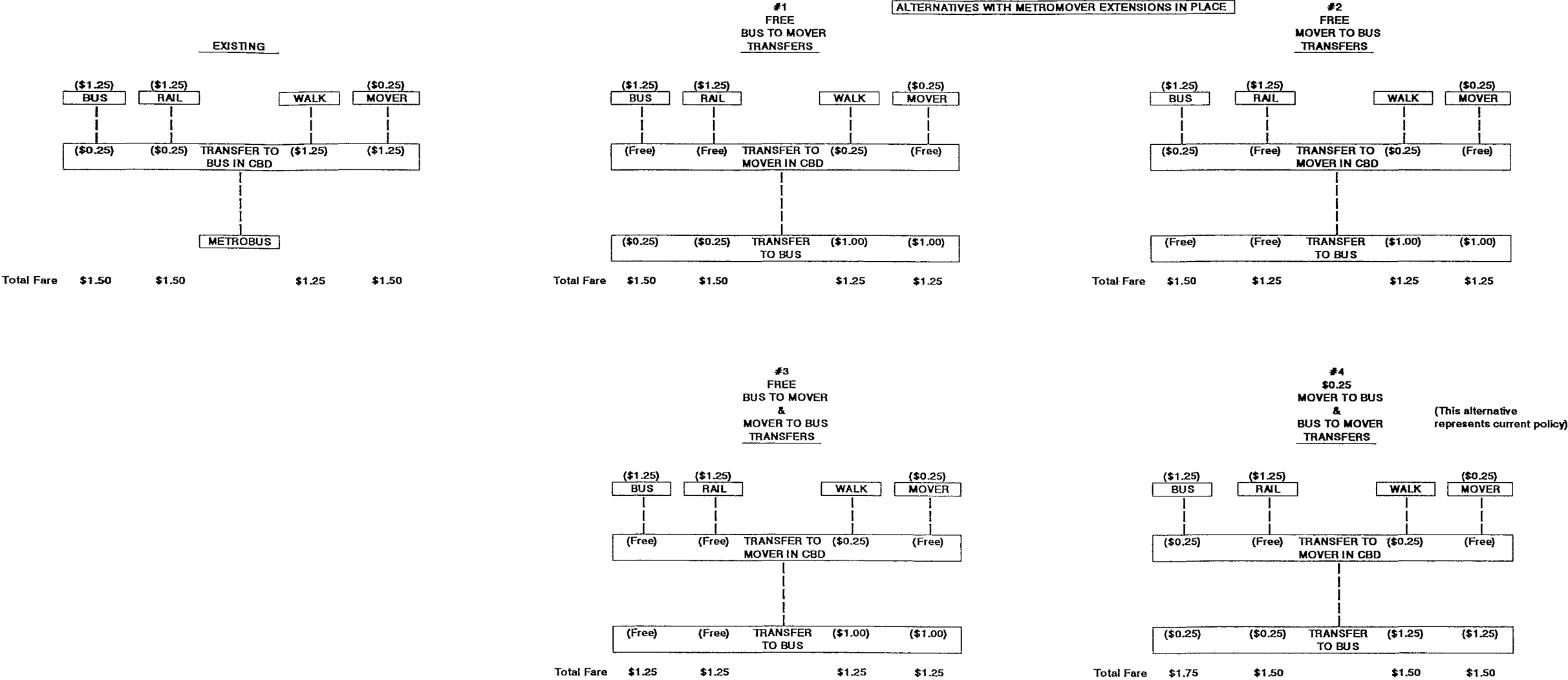


FIGURE 2
BUS/MOVER TRANSFER ALTERNATIVES
(OUTBOUND MOVER TO OMNI OR BRICKELL)



As can be seen in the existing scenario, bus passengers travel directly to the Central Business District (CBD) without the need to transfer. Inbound patrons wishing to transfer to another bus or to rail pay an additional \$0.25 transfer fee on the originating bus. Passengers wishing to ride the Metromover system pay a full fare \$0.25. Note that throughout this Technical Memorandum where reference is made to paying the \$0.25 Metromover fare, it is also implied that the payment of this fare can also be made by using the monthly Metropass, or paying a discounted \$0.10 fare for the elderly, disabled and students.

In the outbound direction, existing passengers board their Metrobus at one of many CBD stops, pay a fare of \$1.25 and travel directly out of the CBD. Metromover riders pay \$0.25 to ride the mover, and pay an additional full fare of \$1.25 to transfer to Metrobus. Bus to bus, and rail to bus transfers are \$0.25.

Alternatives one through four assume the operation of the Metromover extensions, and the truncation of Omni and Brickell corridor bus routes. An option within each alternative (not shown in the figures) is a three transfer trip including a mover to mover transfer. A three transfer trip can occur because the operating plan for the Metromover extension does not include through service direct from Omni to Brickell. For example, a bus rider coming into the Omni station and wishing to transfer to a Brickell corridor route would first transfer to a CBD-bound Metromover, then transfer to a Brickell bound Metromover car, then transfer to Metrobus at the Brickell Station. This option is not presented in the figures because it does not affect fare issues; mover to mover transfers are free. It does affect passenger convenience.

Alternative #1

Alternative #1 "Free Bus to Mover Transfers" maintains equity both inbound and outbound between bus and rail. This alternative does not change the total fare paid by bus passengers, but does change current transfer policy.

Inbound

In this alternative in the inbound direction from bus to mover to walk, upon request, a free magnetic encoded bus to mover transfer is given to the passenger on the originating bus. This transfer is used to enter the mover station through a turnstile. Should a passenger wish

to transfer to another bus or to Metrorail at the Government Center or Brickell rail stations, a \$0.25 bus or rail transfer would need to be purchased on the originating bus.

Outbound

For the walk to mover to bus option in the outbound direction of Alternative #1, passengers walking up to the mover would pay the \$0.25 fare to enter the mover station, and also press the transfer button on the mover turnstile to receive a mover to bus upgrade transfer. This upgrade transfer can only be issued after paying the \$0.25 mover fare, and only one transfer can be issued per full mover fare paid. The upgrade transfer media is then given to a Metrobus operator along with \$1.00 into the farebox to board any Metrobus. Elderly, disabled and student Metrobus passengers with proper identification can use the upgrade transfer and pay \$0.50 to board a Metrobus. Metrobus drivers will need to recognize three transfer options:

- a bus to bus transfer, which will not require further cash payment;
- a rail to bus transfer, which will not require further cash payment;
- a mover to bus upgrade transfer, which will require a \$1.00 (\$0.50 for discounted fares) cash payment along with the transfer.

Inbound or outbound bus to mover to bus movements would cost a total of \$1.50. A bus passenger would purchase a \$0.25 bus transfer and receive a magnetic mover transfer (upon request) on the originating bus. The rider would use the magnetic transfer to gain entry to the mover, and then transfer to Metrobus.

Fare Media/Equipment

An issue with this alternative is the potential for bus passengers requesting a mover transfer and giving it away or selling it at a reduced cost. Passengers coming in from the western routes may request a transfer and then may use it as part of their normal lunch time movement. These abuses should have a minor impact on the system's overall fare revenue, since the value of the mover transfer is only \$0.25.

The new turnstile equipment purchased for the Metromover extension stations is capable of handling these transactions for both inbound and outbound movements. The turnstile

equipment at the existing inner and outer loops stations is not capable of issuing the mover to bus upgrade transfer. New turnstiles are scheduled for placement throughout 1994. Currently the core Metromover stations (outer and inner loops) are scheduled to have at least one of the new turnstiles in place by the end of September 1994, with the entire system upgraded by the end of November. The new Metromover turnstiles will not have the capability of accepting dollar bills.

Magnetic encoded bus to mover transfers would be issued to bus drivers similar to the bus to rail transfers currently used.

Alternative #2

Alternate #2 "Free Mover to Bus Transfers" maintains neither the existing fare for CBD oriented bus passengers nor the equity between bus and rail users. It also necessitates a change in current transfer policy.

Inbound

In the inbound direction from bus to mover to walk a bus passenger would pay the \$1.25 fare on the originating bus, and then upon transferring at a mover station pay the full mover fare of \$0.25, for a total trip cost of \$1.50. This cost is \$0.25 greater than a passengers' existing fare previous to the required transfer to the Metromover system. A second transfer to bus or rail would be free using a mover to bus/rail transfer issued on the originating bus upon request.

Outbound

In the outbound direction of Alternative #2, passengers walking up to the mover and transferring to bus pay a total of \$1.25 and follow the same fare payment method as in the outbound direction for Alternative #1.

Inbound or outbound bus to mover to bus movements would cost a total of \$1.50. The free mover to bus transfer would be issued on the originating bus and would be acceptable only on routes where a mover trip would be necessary to transfer to the other bus route. For example a passenger who rides in on route 10 into the Omni Station could use their mover to bus transfer only for routes originating from the CBD or the Brickell Station.

A rail to mover to bus movement would cost \$1.50 in the inbound direction, but would only cost \$1.25 in the outbound direction. This is due to the existing free rail to mover transfer in the fare control areas of both the Government Center and Brickell Metrorail Stations. This creates an inequity between modes.

Fare Media/Equipment

An issue with this alternative is the tremendous potential for abuse of full fare media issued in order to allow a free mover to bus transfer. For example, even with the stated safeguards, a passenger on Metrobus coming into Omni could request a free mover to bus transfer, use the Metromover into the CBD and sell the transfer up to any value less than the full \$1.25 value of the transfer to a passenger boarding a Metrobus in the CBD.

Similar to Alternative #1, this option would require turnstile machines capable of issuing upgrade transfers. This equipment is in place on the two extension, but is not scheduled for placement on the existing inner and outer loop stations until the end of 1994.

Alternative #3

This alternative combines the positives (and negatives) of Alternatives 1 & 2. While all movements are treated equally (no total fare including transfers would total more than \$1.25), there would be a significant loss of transfer revenue to the system. Further, the disadvantages of both Alternatives 1 & 2 would be compounded in Alternative 3.

In this alternative an inbound Metrobus passenger would pay their original \$1.25 fare and request a free magnetically encoded bus to mover transfer and a mover to bus/rail transfer, transfer free to Metromover, and then transfer free to Metrobus or Metrorail. The potential for abuse of the free mover to bus/rail transfer is tremendous in that the transfers have full fare value. The same issues hold true in the outbound direction.

Alternative #4

This alternative assumes that all existing transfer policies will remain in effect. While this alternative offers the potential for increased transfer revenues, this is offset by the inequities between bus and rail, and the double negative of requiring transfers to the mover system and charging extra for that newly required movement.

Inbound

In the inbound direction from bus to mover to walk, a originating passenger on Metrobus pays the \$1.25 fare and then pays the full fare \$0.25 to enter the Metromover Station, for a total fare of \$1.50. Should the passenger wish to transfer to another bus or to Metrorail at Government Center or Brickell, a \$0.25 bus or rail transfer would need to be purchased on the originating bus, bringing the total cost to \$1.75. This trip would originally have cost only \$1.50 previous to the required mover transfer.

Outbound

In the outbound direction a walk to mover to bus movement costs a total of \$1.50, paying full fares on both mover and bus. A bus to mover to bus trip costs a total of \$1.75, whereas a rail to mover to bus trip is only \$1.50 due to the free rail to mover transfer.

Fare Media/Equipment

No changes in current fare equipment or media would be necessary under this alternative.

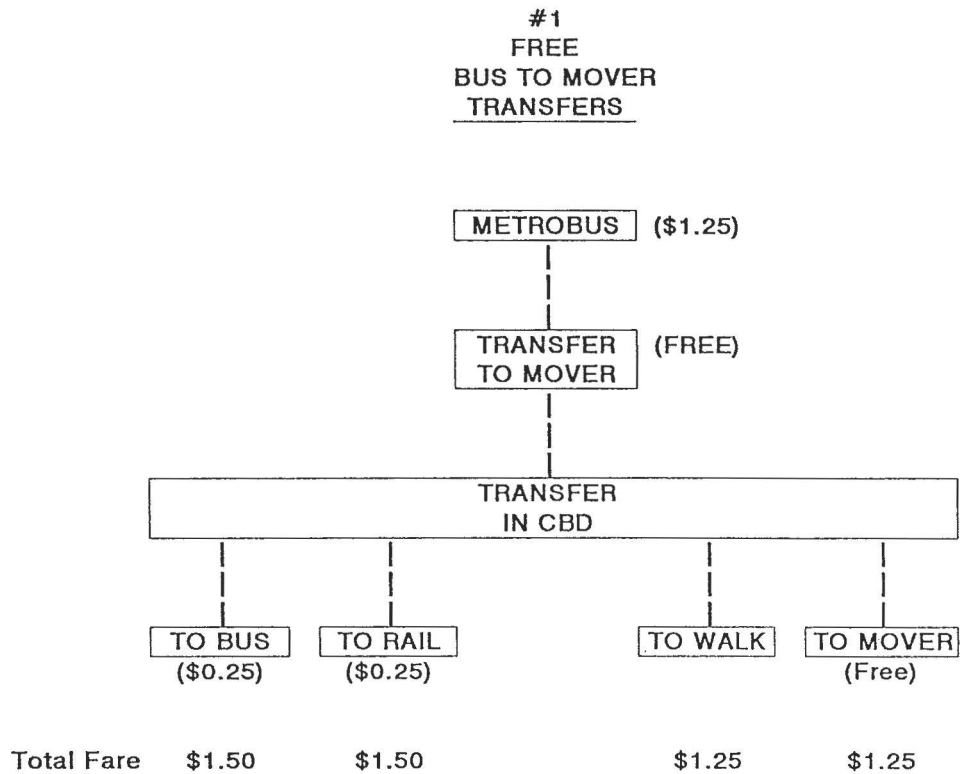
RECOMMENDED ALTERNATIVE

Alternative #1 "Free Bus to Mover Transfers" (see Figure 3) is the preferred alternative for implementation. Alternative #1 maintains the same total fare for bus passengers as before the opening of the extensions. Further, this alternative treats bus and rail equally with regard to free transfers to the mover. Only a small potential for fare misuse exists, and this is only at the fare value of \$0.25.

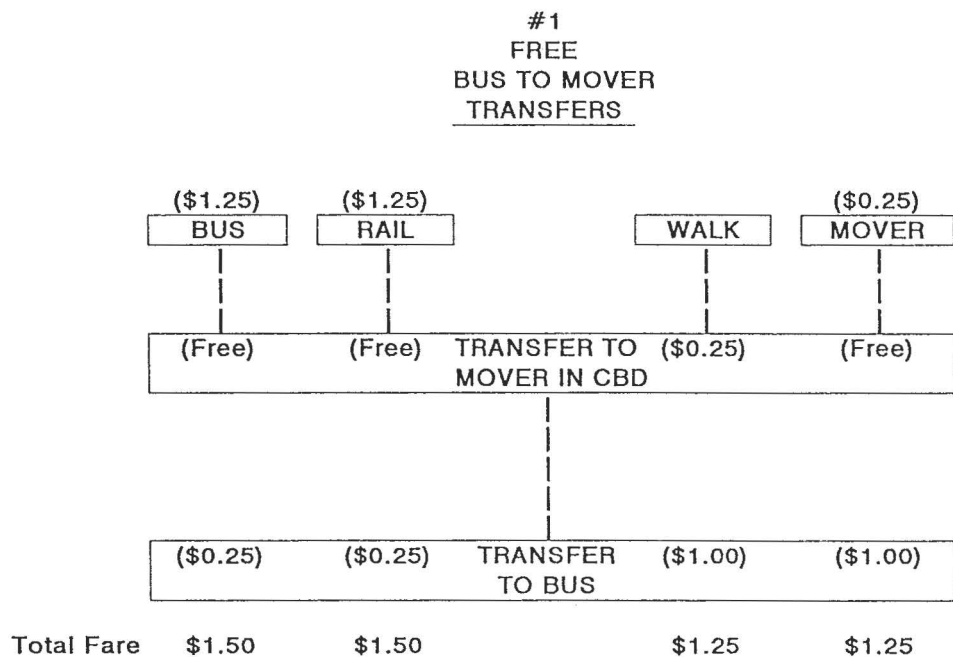
While Alternative #1 creates the need to upgrade the fare turnstile equipment at the inner and outer loop Metromover Stations in order to allow for issuing mover to bus upgrade transfers, it would have been necessary to upgrade the turnstiles to have comparable equipment within the Metromover system.

It is envisioned that a portion of existing cash paying bus passengers will switch to a Metropass for the added convenience and ease of boarding. Passengers paying their fare on Metrobus using any of the monthly Metropasses should not be issued a free bus to mover transfer, since Metropass is valid on all modes. This will lessen the impact of abusing the free transfers.

FIGURE 3
RECOMMENDED BUS/MOVER TRANSFER ALTERNATIVE
(INBOUND MOVER FROM OMNI OR BRICKELL)



RECOMMENDED BUS/MOVER TRANSFER ALTERNATIVE
(OUTBOUND MOVER FROM OMNI OR BRICKELL)



It is recommended that the magnetic encoded bus to mover free transfers issued by Metrobus operators, and the mover to bus upgrade transfers issued at the mover turnstiles, should only be valid for the day they are issued.

Due to the current implementation schedule for installing the necessary turnstile equipment, it is recommended that as part of the opening promotional campaign for the Metromover extensions, free fares should be offered on the entire Metromover system until such time as at least one new turnstile (capable of issuing upgrade transfers) is in place at each of the Metromover station entrances. The current schedule calls for at least one new turnstile to be in place at each station entrance by the end of September 1994. The loss of cash revenue for the four month period through September 1994 would be approximately \$95,000.

If free fares are offered on the Metromover system, then MDTA must take steps to ensure that passengers boarding Metrorail at the Government Center and Brickell stations do not enter the Metromover area for free and then pay only a \$1.00 upgrade to gain access to the rail station. This can be done either by changing the upgrade turnstiles to require \$1.25 or by blocking off the upgrade area and forcing passengers to use the regular Metrorail turnstiles.

Implementation of a Monthly Metromover Pass

In conjunction with the opening of the new Metromover extensions, as well as with the proposed revisions to the current Metromover fare policy, there has been recent discussion on the issue of introducing a monthly Metromover-only pass. This idea has been analyzed in greater detail in draft Technical Memorandums completed by CUTR for a Work Order on MDTA fare policies and strategies.

The existing monthly Metropass allows unlimited rides for one month on Metrobus, Metrorail, and the Metromover. The cost of the Metropass is \$60, discounted to \$30 for the elderly, disabled and students. For individuals not using Metrobus or Metrorail on a regular basis but wishing to use the Metromover regularly, the cost of a Metropass would be exorbitant in comparison to the \$0.25 one-way fare of the Metromover. This alternative offers the creation of a lower priced monthly Metromover-only pass.

According to the 1993 Metromover onboard survey results, 48 percent of the Metromover respondents used Metropass as their method of fare payment. Only 36 percent of

Metromover riders paid by cash. Approximately 72 percent of the patrons rode the Metromover five or more days per week.

Using the monthly Metropass 48-trip breakeven point as a guide, the cost for a monthly Metromover-only pass would equate to \$12.00. The average user of the monthly Metromover-only pass is not envisioned to use Metromover for only 48 trips per month.

Frequent users of the extended Metromover system might include business and professional firms with significant movements within the Central Business District, couriers, and users of perimeter parking lots. MDTA has been approached by the Miami-Dade Community College to purchase monthly Metromover-only passes to allow for off-campus perimeter parking for students, faculty and administrative employees.

It is recommended that MDTA create a magnetically encoded monthly Metromover-only pass priced at one of the following two options. If MDTA's policy is to offer a monthly Metromover pass as merely a convenience to its patrons, then the cost should be set at \$15.00 per month. This equates to 60 trips in one month in order to break even in comparison to the cash \$0.25 fare. This is a reasonable cost for frequent users of the system. It is also expected that many organizations will have many users of one pass.

On the other hand, if MDTA's intention in offering this pass is to encourage increased usage of the system by existing riders, attract new riders, market the opening of the extensions and new origins and destinations served, and reduce downtown congestion, then the pass can be more reasonably priced at \$10.00 per month. This equates to 40 trips in one month in order to break even.

Due to the recommended low price of the pass, it is further recommended that the pass not be discounted. The elderly, disabled and students will still be eligible for the discounted \$0.10 cash Metromover fare.

The existing Metromover turnstiles and the turnstiles for the Metromover extensions are capable of reading a magnetically encoded monthly Metromover-only pass. Passes can be sold at the Government Center and downtown area pass/token outlets.

The monthly Metromover-only pass can be implemented in approximately six months, including an introductory marketing campaign. This would allow for introduction in September 1994 when the free Metromover fares are scheduled to be discontinued.

