Los Angeles County Metropolitan Transportation Authority

Metro Orange Line Express Bus Study

SFV Governance Council

April 4, 2007

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Orange Line Express Study

Study Objectives

- Increase Orange Line operating speeds
- Attract new Orange Line riders
- Achieve Operating efficiencies

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Summary Transitway Statistics

- 14 Metro Orange Line Stations
- Seven (7) Park / Ride lots
- 14.3 one-way route miles
- Two lane roadway
- Passing lanes provided at stations
- Signal Priority System (Traffic signals are coordinated to accommodate scheduled passing times of Orange Line vehicles – one vehicle every 3 minutes or more).

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Summary of Orange Line Resources

- Twenty-eight articulated buses in service
- 101,500 annual revenue service hours
- Fifty Metro Orange Line bus operators
- 21,428 Weekday ridership

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Current Metro Orange Line Service Statistics

- Average Weekday Headways equal 4 minute Peak, 10 minute off-peak and 20 minute night service.
- Average Weekend Headways equal 10.5 minutes all day and 20 minute night service.
- Span of Service equals 21 hours (4am until 1am next day).

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Light Rail vs Metro Orange Line

Service Type	Psgr. Trip Length	Avg. MPH
Metro gold line	7.55 miles	22.3
Metro blue line	7.36 "	21.5
Metro green line	6.71 "	34.6
Metro orange line	6.31 "	20.0

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Metro Gold Line Express Statistics

Express and all-stop service

15 minute all-stop and 30 minute express headways. (Combined 6 minute headway)

- 4 express trips in each direction during both AM & PM peaks
- Skips 7 of 13 stops including terminals
- Saves 5 minutes travel time
- Express trips have less riders than all-stop
- Safety Gates provided at grade crossings
- Trains given total priority over autos.
- To date - no significant increase in Gold Line Patronage

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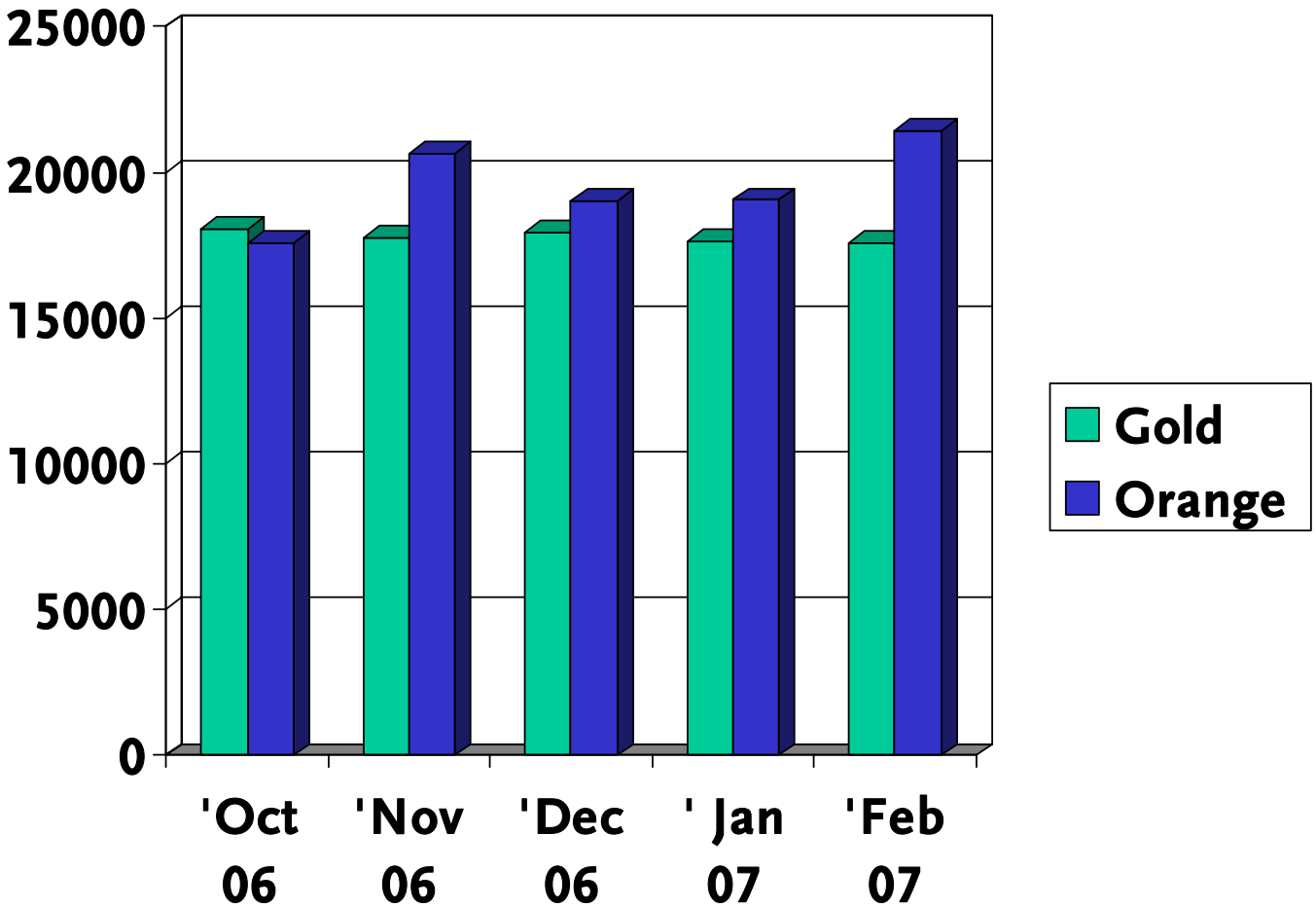
Gold Line vs Metro Orange Line

Weekday Boardings



Orange Line Express Bus Service Considerations

Orange Line Express Bus Concept

- –Peak period only Express trips (8 minute Express and 8 minute all-stop headways – combined 4 minutes)
- –Bi-directional service
- –Skip 5 stops in each direction (De Soto, Woodley, Woodman, Tampa & Laurel Canyon)
- –Monday through Friday operation

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Orange Line Express Stations Selection

Stations	Express	Parking
Warner Center	Yes	No
Canoga Station	Yes	Yes
De Soto Station	No	No
Pierce College	Yes	Yes
Tampa Station	No	No
Reseda Station	Yes	Yes
Balboa Station	Yes	Yes
Woodley Station	No	No
Sepulveda Station	Yes	Yes
Van Nuys Station	Yes	Yes
Woodman Station	No	No
Valley College Sta.	Yes	No
Laurel Canyon Sta.	No	No
No. Hollywood Sta.	Yes	Yes

Concerns and Constraints

- Travel time from end to end could be reduced by 4 minutes - (Only 7% of existing passengers ride end to end.)
- Travel time savings of 4 minutes may be insufficient to encourage passengers to wait for the express trips.
- Wait time at non express stations could increase by 4 minutes (21% of riders board at these stops)

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Concerns and Constraints Cont'

- Signal Priority cannot accommodate headways of 3 minutes or less. (2nd trip through intersection is assessed additional wait time penalty).
- Benefits of faster trip times may be off-set by longer wait times at non-express stations.
- Service delays may result in 16 minute gaps in service to non-express stations.
- Unbalanced passenger loads may result.
- Metro Gold Line customer complaints dramatically increased - 72 express related complaints received in 3 months.

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Concerns and Constraints (continued)

- Travel time savings is restricted by 10 mph "Slow Order"
- Skipping stops at major intersections will complicate bus movements through stations.
- Travel time savings should equal 20% or more of one-way route miles or equal to the average headway

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Express Service Principals

- Meaningful time savings accomplished through skipping up to 8 successive stations. (MTA Staten Island Railway)
- Dedicated Express tracks allow trains to freely pass at any point on the line and operate at normal speeds through stations and railroad right-of-way.
- Gated crossing allow for a safe and fast operations

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Orange Line Express Study

Next Steps

1. Evaluate and modify " Slow Order" to both preserve safety & improve speed for all Metro Orange Line trips.
2. Refine Signal priority to maximize speed & minimize service delays
3. Monitor and adjust to ridership growth & changing travel patterns.
4. Operate Orange Line service in a manner compatible with its operating environment and consistent with system capabilities.

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