

# Metro Rail Operations

Operations Committee  
July 16, 2009

# Metro Rail – April Weekday Boardings

	May 2008	May 2009	
– Blue Line	78,527	80,175	+2.1%
– Green Line	38,829	38,301	-1.4%
– Gold Line	21,919	24,550	+12.0%
– Red/Purple Lines	137,876	154,355	+12.0%
– Total Rail System	267,151	297,381	+11.3%



# Metro Gold Line Eastside Extension

- Limited testing / Train Operator familiarization in June
- Ventilation Tests have been successfully completed
- Software modifications to the Ventilation and Emergency Management Panels is expected to be completed in July
- System Component tests expected to be completed in July
- SCADA testing is ongoing and expected to be complete for ROD
  - Ventilation
  - Train Control
  - Traction Power
- 26 AnsaldoBreda vehicles conditionally accepted
- Full Pre-Revenue Testing Expected to begin in August



# Eastside Peer Review Conducted During the Week of June 29th



Metro

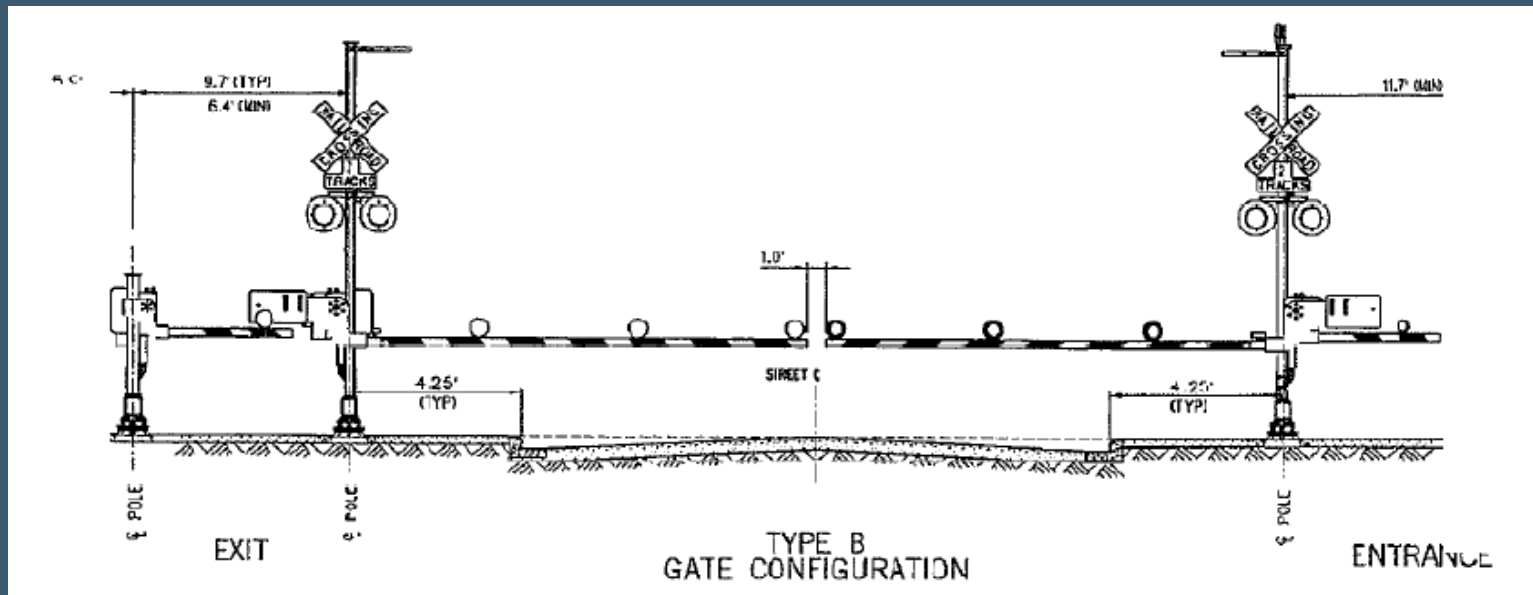
# Metro Gold Line Eastside Extension Implementation of Photo Enforcement



- Photo Enforcement to occur at 14 Intersections throughout alignment
- Enforces prohibition of illegal left-turns across the guideway
- Installation to take place during the summer and fall of 2009

# Metro Gold Line Eastside Extension

## Four Quadrant Gate Feasibility Study at 23 Crossings



- Implementation of Quad Gates will have impacts on adjacent properties, traffic and utilities
- City, County and CPUC approvals and environment clearances will be required
- Implementation of the Quad Gates will take approximately four years to complete

# Metro Gold Line Eastside Extension Rail Safety Ambassador Observations



- Rail Ambassadors have been advising the community of rail safety at specific intersections throughout the alignment.
- Rail Ambassadors have made a number of observations to enhance safety that are currently being evaluated. These include,
  - a. Extra signage;
  - b. Limiting right-of-way fence heights;
  - c. Extending pipe railing to deter jay walkers.

# Metro Gold Line Eastside Extension

## Evaluation of Additional Safety Enhancements



Safety Enhancements under evaluation:

- Addition of delineators and bollards to control pedestrian and motorist traffic;
- Additional traffic signalization, such as “Red” right arrows to deter right turns at 1<sup>st</sup>/Indiana;
- Placement of pedestrian barriers for the full length of the street running section to deter jay walkers.



# The Number of Bicycles are exceeding Capacity and are blocking doors and aisle ways





# Trains are being filled with Other Items



# Bike Policy Change Will Make Metro Safer and Easier to Ride

- **Current Policy**
  - Time Restrictive & Confusing →
  - With no bike restrictions clearly identified
    - Doors are blocked
    - Passengers are inconvenienced
  - Is not supportable
- **Proposed Policy**
  - No Time Restrictions
  - Limits 2 Bikes Per Car (Not Train)
  - Will be supported via LASD / LAFD
  - Will incorporate Marketing Media Support
    - Train Graphics
    - Handouts
    - Website

WEEKDAYS 6:30 → 8:30 AM		
Metro Blue Line	Long Beach → 7th/Metro	
Metro Gold Line	Sierra Madre Villa → Union Station	
Metro Green Line	Norwalk → Marine	
Metro Red Line	Union Station ↔ Wilshire/Vermont (both directions)	
WEEKDAYS 4:30 → 6:30 PM		
Metro Blue Line	7th/Metro → Long Beach	
Metro Gold Line	Union Station → Sierra Madre Villa	
Metro Green Line	Marine → Norwalk	
Metro Red Line	Union Station ↔ Wilshire/Vermont (both directions)	

# Matrix of Key Rail Properties Bike Policy

Rail Property	Mode	Peak	Non-Peak	Comments	Policy Date
LA Metro	LRT HRT	No No	Yes Yes	Reverse Commute OK	2002
SF Muni	LRT	No	No	Operational Safety Issues No Bikes At All	Current
Bart	HRT	Some Restrictions	Yes	Schedule Restrictions/ Car Restrictions	Current
CTA	HRT	No	Yes	Bike Racks inside Stations	Current
MBTA	Commuter	No	Yes		Current
MBTA	Subway	No	Yes		Current
NJ Transit	LRT	No	Yes	No bikes on Holidays	Current
Tri Met	LRT	Yes	Yes	Growing Pains Now, tightening restrictions	Current
MTA-NY	HRT	Yes	Yes	Not that many bikes	Current

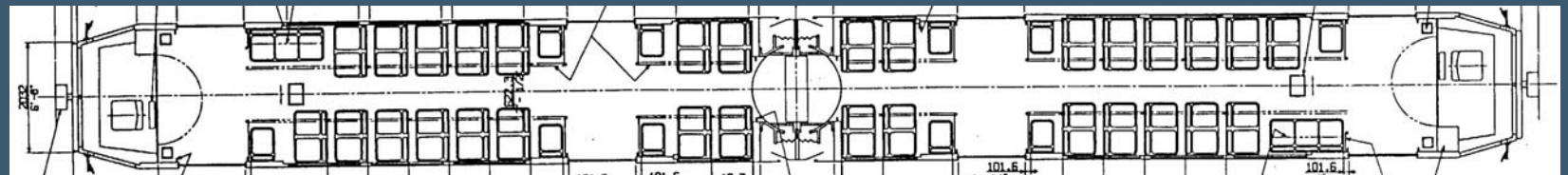


# Seat Removal is Only Feasible on Subway Cars



Breda 650  
FINAL DRAFT (Not Issued for Production)  
01.14.09

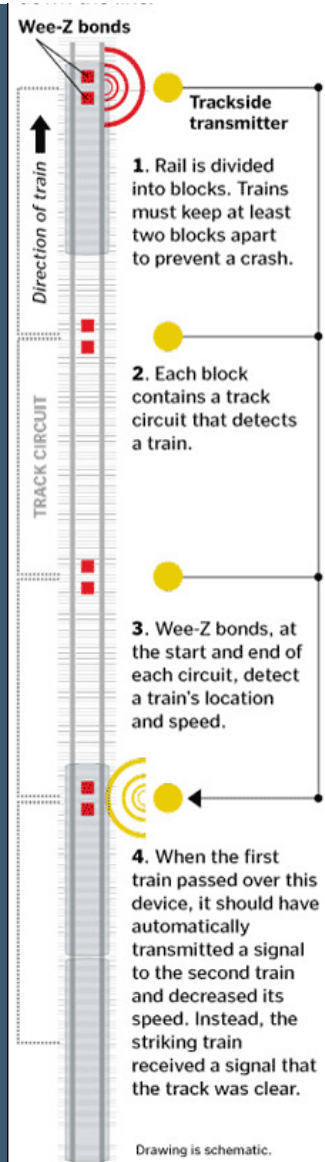
# On Light Rail Vehicles the Center Articulated Section is the only feasible option for locating bikes



Metro

# WMATA Accident and Metro Implications

- Metro has similar systems as WMATA on its Red/Purple Lines
- WMATA Investigation is ongoing
- Automatic Train Protection is the mode of protection employed to prevent such accidents
- Metro has over 250 Track Circuits on the Red/Purple Line and 1,700 throughout its total rail system
- All of the inspections for these circuits are current and confirmed by CPUC audit conducted during the week of July 6<sup>th</sup>.



# Actions Taken

- **Senior Management/Engineering Team review of track circuit inspection logs**
- **Deployment of Train Operation Communications to remain vigilant**
- **Maintaining communications with NTSB, Alstom, WMATA for information that may pertain to Metro**



# Safety Vigilance Through Training

- **Rule 2020 Alertness**
  - Keep fully alert at all times
  - Sleeping prohibited
  - Do not operate if fatigued or ill
  - Report fatigue or illness to proper authority
- **Rule 2027 Electronic Devices**
  - Must power off while operating equipment
  - Keep out of sight while operating
  - Electronic devices include:
    - cell phones, personal stereos, video games, TVs, computers, etc.



# Rail Operations Control Alarms

- Ongoing investigation reveals an interest in Agencies with Automatic Train Control to provide back up alarms at Rail Operation Control Centers
- Similar alarms are indicated to Operator on his/her console
- Metro is investigating the feasibility of implementing warnings to Controllers at ROC at this time

# LRV Industry Review

- Made available to Industry Tuesday, July 14<sup>th</sup>
- Advertised in the following publications
  - July 20 issue of Passenger Transport
  - July 20 in the Engineering News Report and the Transit Talent publications
- Industry Review Comments requested by August 3<sup>rd</sup>
- September RFP Release
- November Proposals Due
- Anticipated Award May/June of 2010
- NTP of July of 2010
- Best Value Method is proposed
- Base Order for 113 Light Rail Vehicles Plus Options

# Basis for 113 LRVs For 2020

## Existing Fleet

VEHICLE TYPE	Blue	Expo	Green	Gold	Total	Accum
SUMITOMO P865	54 (RETIRED)				54	54
SUMITOMO P2020	15 (RETIRED)				15	69
SIEMENS P2000		16	36		52	121
ANSALDOBREDA 2550 BASE				50	50	171
<b>SUBTOTAL - ORIGINAL 171 CAR FLEET</b>	<b>0</b>	<b>16</b>	<b>36</b>	<b>50</b>	<b>171</b>	

## New Cars

NEW CARS - EXPOSITION TO SANTA MONICA		52			52	52
NEW CARS - GOLD LINE TO AZUSA				50	50	102
NEW CARS - SYSTEM SERVICE IMPROVEMENTS	11				11	113
<b>SUBTOTAL NEW CARS - MEASURE R (APPROX.), SERV. IMP.</b>	<b>11</b>	<b>52</b>	<b>0</b>	<b>50</b>	<b>113</b>	
<b>TOTAL - BY LINE</b>	<b>80</b>	<b>68</b>	<b>36</b>	<b>100</b>	<b>284</b>	

## Weekday Peak Period

Scheduled Headway (Minutes)	6	6	6	6		
Cars per Train	3	3	2	3		
<b>Total by Line</b>	<b>80</b>	<b>68</b>	<b>36</b>	<b>100</b>	<b>284</b>	

# Options

- 69 - Replacement of Blue Line Cars which will reach 30 years in age by 2020
- 52 -Potential Replacement of Gold and Green Line Cars due to age and high mileage
- 50 and 50 to reserve Metro's ability to sustain fleet over the course of 10 years of planning and other Measure R Projects including Crenshaw, LAX Connector & Regional Connector.

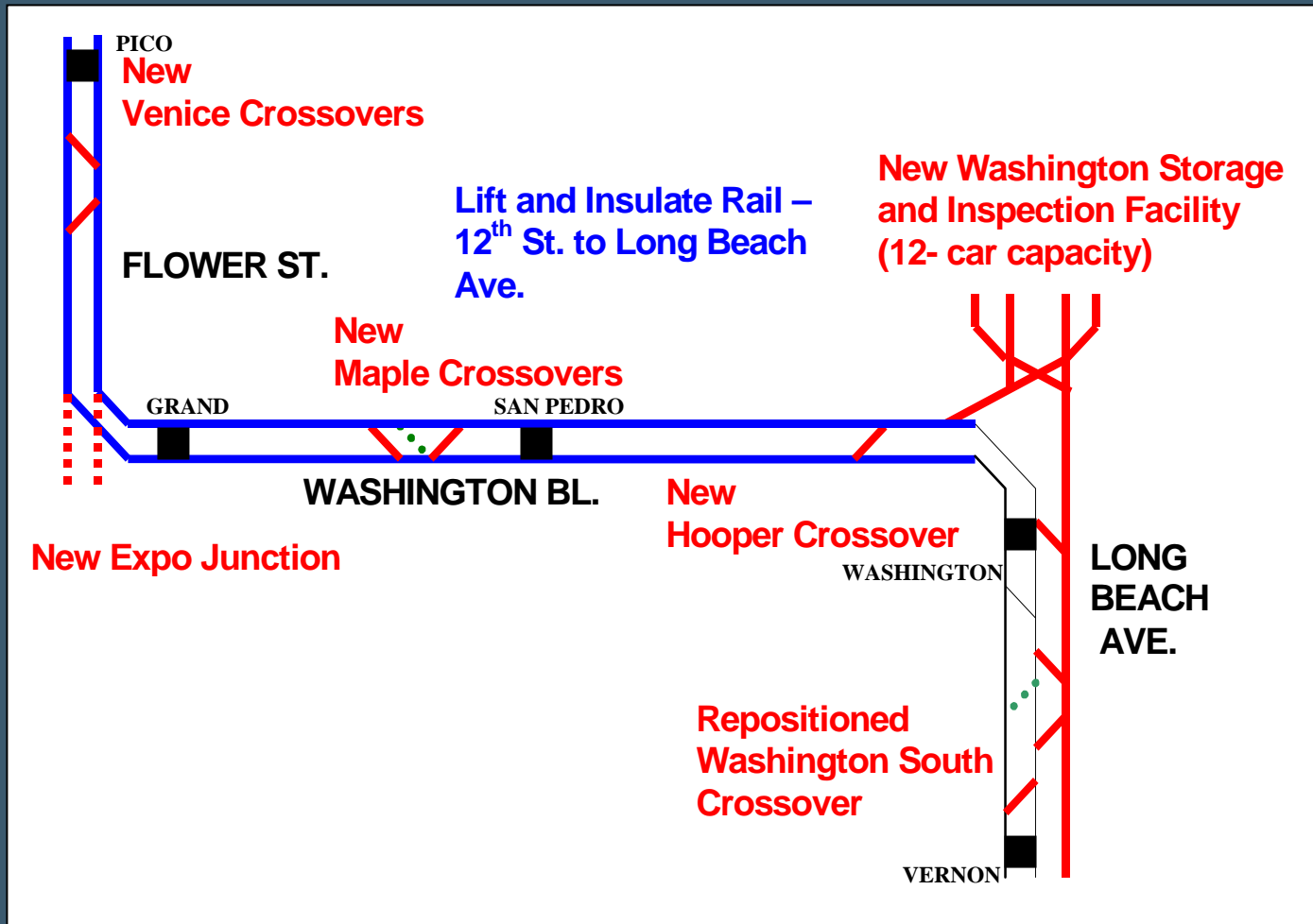
# Blue Line Grade Crossing Rehabilitation

- Manville St. -June 5-7 (completed)
- Gage Ave. -July 10-12 (completed)
- Elm St. – August 21-23

17 of the 25 crossings included in this project have been completed.



# Exposition Line / Blue Line Update



# Exposition Line / Blue Line Update

Phase 1 - Rail Insulation work started on June 28. Work is completed at night, between 9pm and 4am, Sundays thru Thursdays. Trains run every 30 minutes, single tracking between Washington and 7<sup>th</sup> St./Metro Center.

Phase 2 – Special Track, Overhead Catenary and associated work will require up to 26 weekend closures of the Blue Line, between Vernon Station and 7<sup>th</sup> St./Metro Center, in various station combinations:

- Grand - 7<sup>th</sup>/Metro Center
- San Pedro - 7<sup>th</sup>/Metro Center
- Washington - 7<sup>th</sup>/Metro Center

Closures will require bus bridge service, starting at 9:00pm Friday and continue through close of service on Sunday (1:00am Monday).





# Exposition Line / Blue Line Update

Phase 3 – 12-car Storage and Inspection Facility. Design is currently at 60%, with the construction plan to follow. Significant Track, Overhead Catenary and Signal work will require numerous closures of the Blue Line, between Vernon Station and San Pedro Station, in various station combinations:

- Washington - Grand
- Vernon - San Pedro



Closures will require bus bridge service, starting at 9:00pm Friday and continue through close of service on Sunday (1:00am Monday).

# Special Events

- **Michael Jackson Memorial Event**  
July 7 – Blue, Red, Purple & Gold Lines