

**Metro**Los Angeles County  
Metropolitan Transportation AuthorityOne Gateway Plaza  
Los Angeles, CA 90012-2952213.922.2000  
metro.net**SYSTEM SAFETY AND OPERATIONS COMMITTEE  
JULY 18, 2013****SUBJECT: 550 CNG BUS CONTRACT****ACTION: APPROVE CONTRACT MODIFICATION****RECOMMENDATION**

- A. Authorize the Chief Executive Officer to negotiate and execute a contract modification to Contract No. OP33202869 with New Flyer of America, Inc., in the not-to-exceed amount of \$3,500,000 for the installation of upgraded ADA and enhanced safety provisions.
  
- B. Increase the Capital Life-of-Project (LOP) budget from \$304,942,450 to \$308,442,450 to reflect this \$3,500,000 modification.

**ISSUE**

This action authorizes New Flyer of America to provide upgraded wheelchair accommodations and safety enhancements as part of the 550 bus buy and directs Metro staff to investigate upgrading wheelchair accommodations on part of the existing bus fleet.

**DISCUSSION**

These buses are part of Metro's bus fleet replacement plans for FY13-FY15. During this period, Metro is scheduled to retire buses that were purchased between 1998 and 2001; these 550 new buses will replace buses that are past 12 years of age and 500,000 miles during FY13-15.

The Board approved contract OP33202869 in January 2013. The buses procured in this solicitation had conventional "Q'Straint" wheelchair securement straps, the same ADA securement equipment that is in use in the majority of Metro's bus fleet.

Metro policy currently allows wheelchair patrons to choose whether or not they wish to have their wheelchair secured or unsecured. Approximately 90% of our wheelchair riders choose to ride unsecured. The result is a significant number of claims resulting from patron being ejected from wheelchairs or wheelchairs tipping. Wheelchair patrons are refusing to be secured because of the delay of up to four minutes or more that can be created as operators struggle to complete the securement process with the existing

equipment. Unfortunately, this delay sometime leads other passengers to make remarks that embarrass the wheelchair users or Operators. Some wheelchair riders are also uncomfortable with the invasion of their personal space as drivers complete the securement process. Current ADA equipment does require a certain level of manual dexterity that can be challenging for some Operators.

If this change is approved, New Flyer would provide two “Q’Pod” securement locations, and would also provide two “Rear Facing” securement positions. See attached seating layout.

The revised ADA seating and securement configuration would provide more options for passengers to secure wheelchairs and mobility devices. The Q’Pod’s are expected to simplify and expedite the securement process, while the rear facing securement positions allow passengers to back their mobility device against a rear facing securement barrier; this is a safer configuration for those passengers who choose to ride unsecured. While rear facing barriers are less common in the US, these passive restraint options are the preferred device in much of Europe and Canada. On many fleets outside the USA, rear facing wheelchair/mobility device securement is the sole system provided. There has also been a substantial volume of research in the U.S. that has concluded that the rear facing configuration is safe. The configuration proposed for Metro will allow passengers the option of riding forward using the Q’Pod securement, or rear facing with passive securement with an optional, conventional four point securement system. Rear facing passive securement is becoming more common in the U.S. with major systems such as San Francisco Muni, AC Transit, and Seattle Metro all including this option in recent bus purchases.

This change will result in the reduction of two passenger seats on each bus. While this reduces the total amount of passenger seating, there will be a corresponding increase in the amount of standee space available for passengers.

As a higher percentage of the fleet is equipped with this type of ADA securement, it is the intent of Metro staff to recommend rescinding the policy that currently allows wheelchair riders to ride unsecured in a forward facing position. The new recommended policy would be to require securement for mobility devices in the forward facing position, but would allow riders choosing to face rearward to ride in an unsecured position. If the recommendations of this report are adopted, staff will begin reviewing the feasibility of retrofitting portions of the existing fleet with upgraded securement equipment.

Further investigation will be required to determine if this configuration can be installed on buses in the existing fleet. Metro will ask the providers of restraint systems to work with the bus builders to determine if a similar configuration can be retrofit, and provide an estimate of any associated costs. Staff will report back to the Board on the results of the investigation.

In addition to ADA upgrades, an additional safety enhancement is the provision of enhanced curb-side lighting that is activated when buses make right hand turns. These side lights will help illuminate the area to the right of the bus anytime a bus turn signal is activated and the bus is moving less than 15 mph (the system would disable at higher speeds such as during lane changes). Curb-side lighting enhancements should also improve pedestrian awareness of buses when they are preparing to make right hand turns.

Authority to negotiate and execute this contract modification is necessary to avoid any risks to the delivery schedule of the pilot vehicles and subsequent production buses. Production of the pilot buses are already getting underway and the materials required for these changes will need to be ordered prior to the September Board cycle to avoid delays.

### **DETERMINATION OF SAFETY IMPACT**

This new configuration will significantly increase the safety of wheelchair patrons riding our buses. The installation of the Q'Pod will make securing wheelchairs in the forward facing position significantly easier for the operator and result in less delay. Passengers wishing to ride facing forward can choose the Q-Pod position knowing that it will not cause a significant delay to everyone on the bus.

Passengers choosing to ride unsecured will be asked to use the rear facing position which research and experience has proven to be safe. A reduction in incidents, injuries and claims is expected as the new equipment is placed into service and our policy is changed.

Enhanced curbside lighting is expected to improve safety by better illuminating the right side of the bus during turns and during boarding/egress. They are also expected to make the bus more visible to pedestrians as buses prepare to make right hand turns.

### **FINANCIAL IMPACT**

The amount of this contract modification is \$3,500,000. Upon board approval, funds will be added to the LOP budget for project 201056, 550 CNG Bus Buy in Cost Center 3320, Vehicle Technology.

Since this is a multi-year contract/project, the Cost Center Manager, Project Manager, and General Manager, Strategic Vehicle and Infrastructure Delivery will ensure that costs are budgeted in future years, including any option exercised.

The federal funding for this action is dependent on the timely and favorable resolution of federal Section 13(c) protective arrangements that may be impacted by the California Public Employees' Pension Reform Act of 2013. Project delays may occur or alternative funding sources will have to be identified if the federal 13(c) issues are not resolved promptly.

## Impact to Budget

The sources of funds for this project are Prop C 40%, TDA Article 4, Measure R 35% (bus capital), Prop 1B PTMISEA, CMAQ, and Federal Bus Capital (Refer to Attachment A, Funding/Expenditure Plan).

## ALTERNATIVES CONSIDERED

Staff considered using conventional Q'Straint securement positions. This approach is not recommended because of the difficulty to use this securement system for our operators and its distinct unpopularity among wheelchair users. Fewer than 10% of our current 85,000 monthly wheelchair riders choose to be secured with this conventional system. This results in a high rate of wheelchair incidents and claims.

Staff considered ADA alternative securement devices that are similar to Q'Pod. There are new competing systems that are commercially available, but these new systems have only been available for a few months and there is only limited in-service experience with these new ADA systems. It is recommended that alternate securement devices be tested in limited quantities prior to committing to these new ADA systems on a major bus order.

Staff considered only providing "Q'Pod" securement positions (and no rear facing securement options). This approach is not recommended because although the Q-Pod does reduce the time needed for proper securement many of our riders prefer the independence of riding unsecured. Maintaining the freedom of choice for our riders with disabilities is also important. Wheelchair users who like to be independent and do not want to draw attention to themselves will be able to board and position themselves without assistance from the operator. Providing both active and passive restraint choices for our customers with disabilities improves safety and better meets the varied needs of this group of customers.

Staff considered not installing curbside safety lights. This action would save approximately \$255,000 but is not recommended because cornering lights are expected to enhance both vehicle and pedestrian safety.

Staff considered deferring this action until September to allow additional time to complete audit review and negotiations with New Flyer. This is not recommended as production on the pilot buses is already getting underway and the materials required for these changes will need to be ordered prior to the September Board cycle to avoid any production delays.

## NEXT STEPS

If this action is approved, staff will issue Notice to Proceed to the recommended proposer. Staff will also initiate contact with potential suppliers to determine if a similar configuration can be retrofit in some of the existing fleet.

## **ATTACHMENTS**

- A. Funding/Expenditure Plan
- B. Procurement Summary
- C. Contract Modification and Change Order Log
- D. Revised ADA Seating Layout and Curbside Cornering Light Configuration
- E. List of Proposed Changes

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Arthur T. Leahy  
Chief Executive Officer

**550 CNG BUS CONTRACT  
FUNDING/EXPENDITURE PLAN**

In Thousands	FY13	FY14	FY15	Total	% of Total
<b>Uses of Funds</b>					
Acquisition	\$25,932.6	\$134,162.8	\$134,913.7	<b>\$295,009.1</b>	95.6%
Professional Services	77.7	388.7	388.7	<b>\$855.1</b>	0.3%
Labor	186.6	932.9	932.9	<b>\$2,052.4</b>	0.7%
Travel	85.5	427.6	427.6	<b>\$940.7</b>	0.3%
Spare Parts	554	2,770.30	2,770.30	<b>\$6,094.6</b>	2.0%
Contingency	1,051.0	1,554.80	884.8	<b>\$3,490.60</b>	1.1%
<b>Total Project Cost</b>	<b>\$27,887.4</b>	<b>\$140,237.1</b>	<b>\$140,318.0</b>	<b>\$308,442.5</b>	<b>100%</b>

In Thousands	FY13	FY14	FY15	Total	% of Total
<b>Sources of Funds</b>					
BOS		\$2,000.0	\$2,000.0	<b>\$4,000.0</b>	1.3%
Prop C 40%	\$13,370.0		\$2,930.0	<b>\$16,300.0</b>	5.4%
TDA Article 4		\$40,500.0	\$22,730.0	<b>\$63,230.0</b>	20.5%
Measure R 35%			\$15,272.5	<b>\$15,272.5</b>	4.9%
Prop 1B PTMISEA	\$14,517.4	\$50,567.1	\$97,385.5	<b>\$162,470.0</b>	52.6%
CMAQ		\$22,170.0		<b>\$22,170.0</b>	7.2%
Federal Bus Capital		\$25,000.0		<b>\$25,000.0</b>	8.1%
<b>Total Project Funding</b>	<b>\$27,887.4</b>	<b>\$140,237.1</b>	<b>\$140,318.0</b>	<b>\$308,442.5</b>	<b>100%</b>

## PROCUREMENT SUMMARY

550 CNG Bus Contract  
Modification No. 1

1.	<b>Contract No.: OP33202869</b>			
2.	<b>Contractor: New Flyer of America, Inc.</b>			
3.	<b>Mod. Work Description: Configuration Changes of Base Vehicles</b>			
4.	<b>The following data is current as of :</b>			
5.	<b>Contract Completion Status –</b>		<b>Financial Status -</b>	
	Award Date	2/1/13	Award Amount	\$302,094,178
	NTP	2/1/13	Total Contract Modification Authority (CMA)	\$30,209,148
	Orig. Complete Date	7/31/15	Value of mods. issued to Date (Including this action)	\$3,500,000
	Current Est. Comp Date	7/31/15	Remaining CMA	\$26,709,148
6.	<b>Contract Administrator: Joe Marzano</b>		<b>Telephone Number: (213) 922-7014</b>	
7.	<b>Project Manager: John Drayton</b>		<b>Telephone Number: (213) 922-5882</b>	

**A. Contract Action Summary**

This contract change was handled in accordance with the LACMTA approved procedures for contract modifications.

On February 1, 2013, Contract No. OP33202869 was awarded to New Flyer of America, Inc. in the amount of \$302,094,178 for 550 forty-foot CNG transit buses exclusive of contract Options for up to 350 additional buses for a total of 900 buses.

Attachment C shows that no modifications have been issued to date to add and/or delete work, and no modifications are currently in negotiation.

The proposed modification is for an amount not to exceed \$3.5 million.

**B. Cost/Price Analysis**

Staff is in the process of completing an audit of proposed costs and will negotiate a fair and reasonable price based upon the audit findings. An Independent Cost Estimate (ICE) was developed by staff prior to receipt of a formal price proposal from the Contractor. The ICE is \$4.48 million. The proposed cost of \$3,165,025 is \$1.3 million or 29% less than the ICE.

	<b><u>Proposal Amount</u></b>	<b><u>MTA Estimate</u></b>	<b><u>Negotiated Amount</u></b>
1.	\$3,165,025	\$4,487,450	TBD

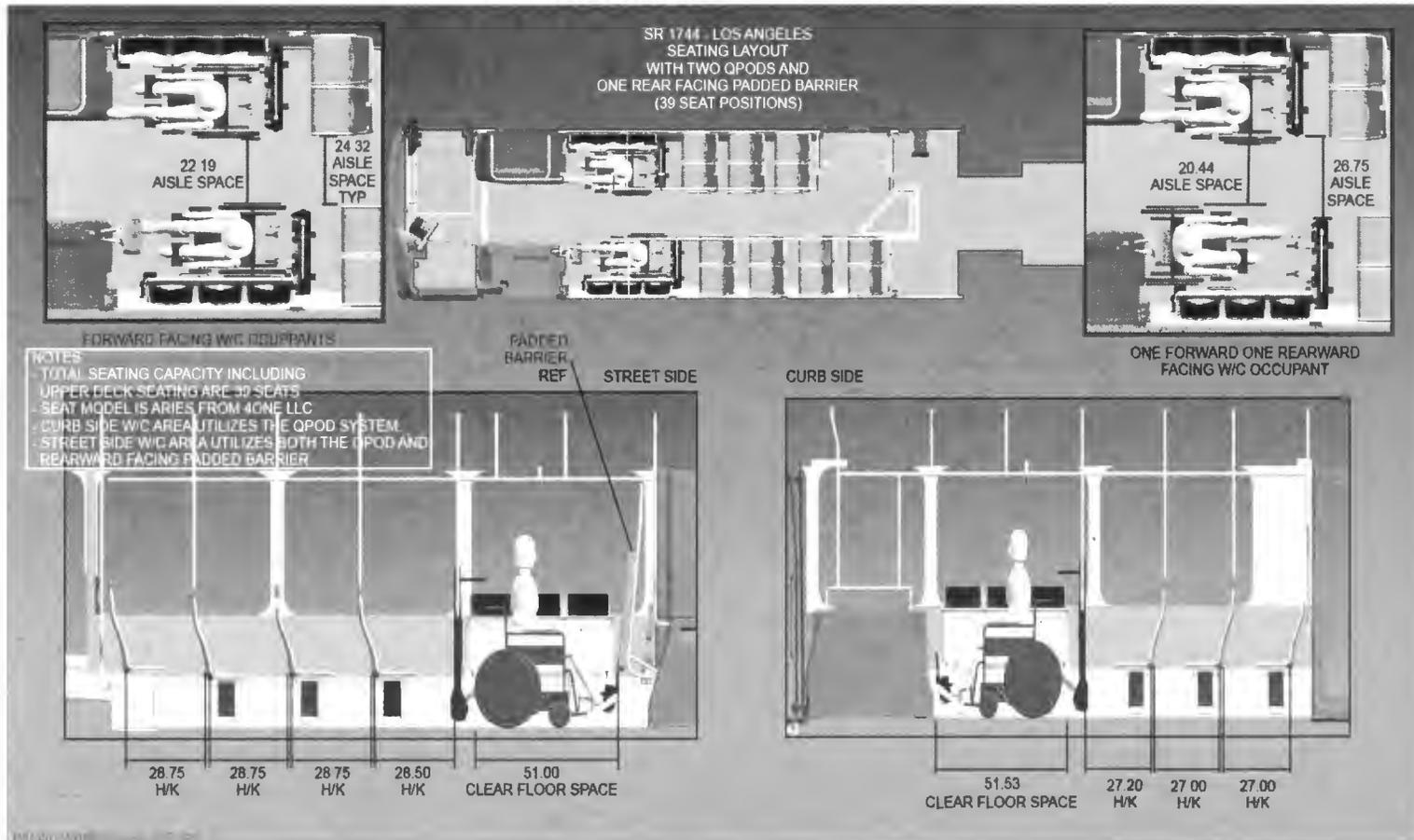
**C. Disadvantaged Business Participation**

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. The Federal Transit Administration (FTA) requires that each Transit Vehicle Manufacturer (TVM) submit for approval an annual percentage overall goal. The TVM goal is based on the amount of federal funding to be received by the TVM for the transit vehicle contracts during the fiscal year. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA. Therefore, compliance with the DBE requirements is monitored at the federal level.

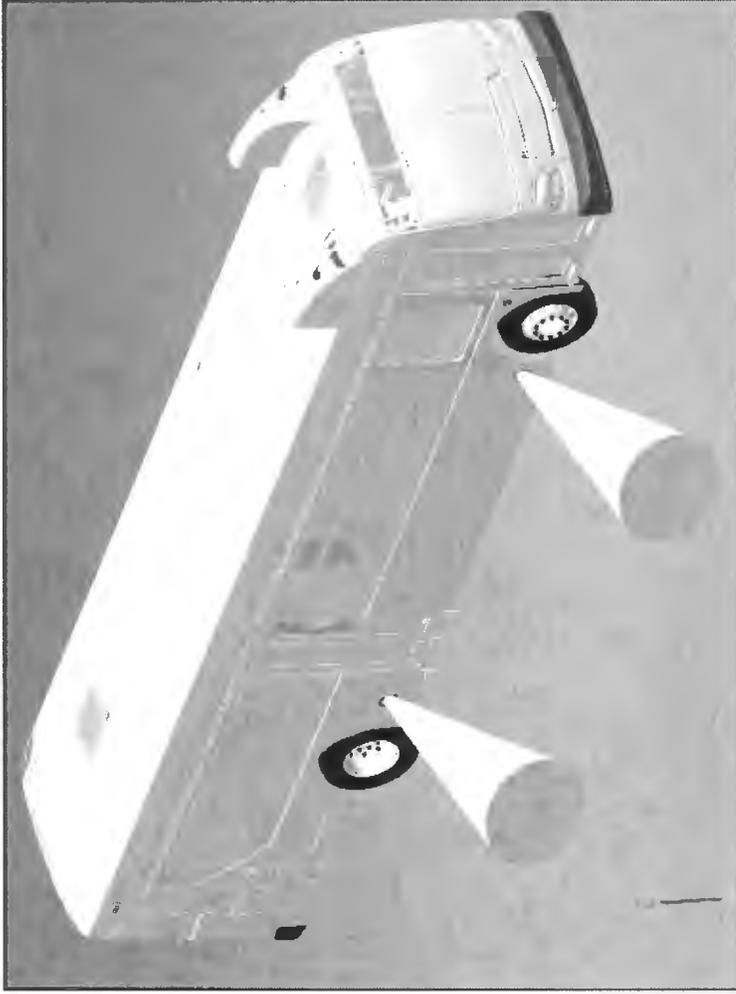
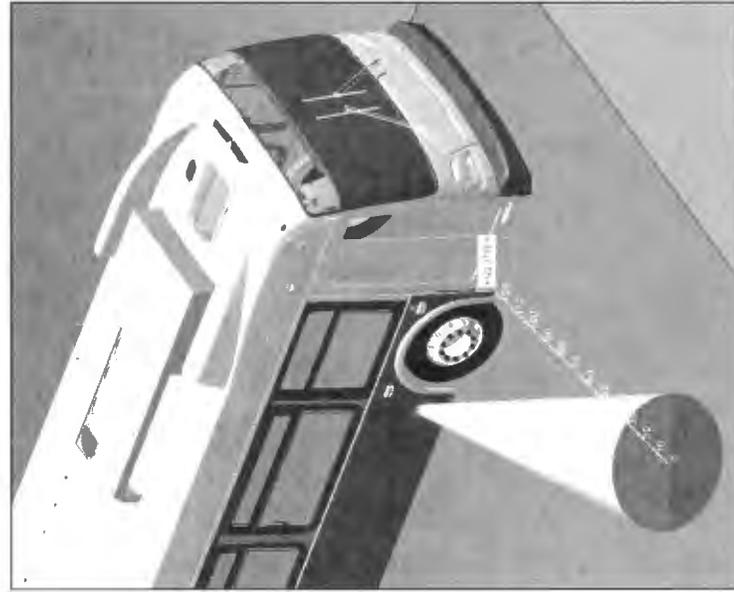
Contract Modification / Change Order Log

Mod. No.	Description	Status (Approved or Pending)	Cost	Remarks
1	ADA and Safety Configuration Modifications. See Attachment C for details.	Pending	\$3,500,000	
Subtotal – Approved Modifications			\$0	
Subtotal – Pending Changes / Modifications			\$3,500,000	
<b>Total Mods and Pending Changes (including this change</b>			<b>\$3,500,000</b>	
Prior CMA Authorized by the Board (including base award and other modifications)			\$30,209,148	
Increased CMA for this recommended action			\$0	
<b>Total CMA including this action</b>			<b>\$30,209,148</b>	
<b>Remaining CMA for Future Changes</b>			<b>\$26,709,148</b>	

Revised ADA Seating Layout: Q'Pods plus Rear Facing Securement Positions



**Enhanced Cornering Lights**



Contemplated Configuration Changes to 550 CNG Bus Buy

Item	Change	Description	Cost
1.	QPod and Rear Facing Securement	An improved restraint system and wheelchair area configuration will be implemented as recommended by Metro ADA Advisory Committee. This includes two QPod forward facing securement systems and two rear facing restraints.	\$3.5M
2.	Updated ADA Area Color Scheme	The wheelchair securement area will incorporate blue flooring and additional decals to clearly identify its use. The first row of four forward facing fixed seats plus a 1P flip-up seat will be designated as reserved priority seating for disabled and senior passengers. The reserved priority seating will use special ADA blue fabric with "person with a cane" graphic on the seat back.	\$0
3.	Sunrise/Sunset Seating Fabric	Sunrise/Sunset pattern passenger seat fabric is designed for common use in both buses and rail cars to create a seamless experience of the riding public with Metro brand. The Sunrise/Sunset fabric will replace the "Rainbow" fabric currently used in buses.	-\$619k
4.	Improved Stop Request for Wheelchair Passengers	An improved stop request button will be provided as requested by Metro Operations for enhanced accessibility and ease of use by wheelchair passengers.	\$0
5.	Additional Pre-Production Buses	In addition to the "Pilot" and "First Article" buses specified for Metro's review, Metro will allow New Flyer to build three additional "Pre-production" buses prior to the start of serial production. One bus will be used to accelerate required system testing such as HVAC pull-down. The second and third buses will be produced just prior to the start of serial production, and will be used by New Flyer to validate manufacturing procedures.	\$0
6.	Kidde Fire Suppression	Upgraded fire suppression system from Kidde. The Kidde system has improved design fire sensors, is fully certified, and comes with an extended 12 year warranty against false discharges.	\$0
7.	Hannover Destination Sign	Destination signs recommended by New Flyer with extended 8 year parts/labor warranty. System will also include an interior forward/rearward view AVA signage in rear of bus at no cost.	\$0
8.	Enhanced ISL-G Engine System	New Flyer and Cummins-Westport are working jointly to provide the latest improvements in engine configuration including system enhancements to help ensure improved reliability of the propulsion system over existing buses.	\$0

9.	Improved Engine Compartment Cooling	Improved engine compartment air flow through improved Cooling Fan cycles and ventilated engine compartment door will be provided. This will help to improve reliability of the propulsion system over existing buses.	\$0
10.	Integral Transmission Cooler	The transmission cooler will be upgraded to an integrated system as part of New Flyer's new standard for design with Allison transmissions. This simplifies the cooling lines and reduces failure points improving reliability.	\$0
11.	Improved Driver's Side Window	New Flyer will provide a larger driver's window without a frame for the leading edge on movable glass section as part of New Flyer's standard design. This improved configuration offers better visibility out of the driver window with reduced blind spots.	\$0
12.	Cornering Lights	Buses will include a safety enhancement as recommended by Metro Safety to provide side cornering lights for curbside of bus. This will aide with pedestrian visibility for right-hand turns.	\$255k
13.	New Flyer Connect System	Vehicle health monitoring system with remote diagnostic capability will be included to improve availability of the buses.	\$0
14.	Production Schedule – Delivery at 8 buses per week.	New Flyer had proposed delivery of 10 buses per week, but this rate of production resulted in production breaks that were more difficult for Metro to support, especially during the "Make-Ready" process after buses arrive.	\$0