Safety and Operations Committee

Board Information Item III-A

April 28, 2022

Silver Line Phase 2

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

Action	Information	MEAD Number: 202351	Resolution: Yes	No

TITLE:

Silver Line Phase 2 Update

PRESENTATION SUMMARY:

Staff will present the Board with the status of the Silver Line Phase 2 project including progress on activities leading to Operational Readiness (ORD)

PURPOSE:

Staff will present the Board with the status of the Silver Line Phase 2 project including progress on activities leading to Operational Readiness (ORD)

DESCRIPTION:

Capital Rail Constructors, a joint venture of **Clark Construction Group LLC** and **Kiewit Infrastructure South Co**., is the design-build contractor for Package A of the Silver Line Phase 2 (mainline and stations), and **Hensel Phelps Construction Company** is the design-build contractor for Package B (Dulles Rail Yard). Major subcontractors and consultants under these entities include **Mass. Electric Construction Company**, **Parsons Corporation**, **Dewberry**, **Systra**, and **M.C. Dean**.

Major consultants and contractors supporting Metro's efforts on the project include **Mott MacDonald**, **Gannett Fleming**, **HNTB**, and **Cubic Transportation Systems**.

Key Highlights:

- As part of Metro's ongoing review of the Silver Line Phase 2 project, several quality issues were identified in earlier briefings to the Board. Several of these issues are currently being remediated and Metro is in continuing discussions with MWAA to reach mutal agreeement on a path forward towards resolution of all these issues including funding of future maintenance costs associated with these issues.

- On November 4, 2021, the Airports Authority announced that Substantial Completion had been achieved on Package A (Mainline and Stations) effective October 25, 2021. On December 1, 2021, the Airports Authority

announced that Substantial Completion on Package B (Yard) had been achieved effective October 29, 2021. Substantial Completion is a contractual milestone between the Airports Authority and their contractors; WMATA is not involved in this determination. As noted in earlier briefings, satisfactory resolution of all pending quality issues must occur prior to Substantial Completion, Operational Readiness, or at the very latest prior to acceptance/start of revenue service.

- With the announcement of Substantial Completion, Metro is continuing to review punch lists and associated remediation and reviewing the reports associated with ongoing Operational Readiness testing and Systems Performance Demonstration activities towards determining the Operational Readiness Date (ORD). Metro is in communication with MWAA regarding the critical project issues that must be resolved before Metro can declare ORD. Once ORD has been declared, Metro will then proceed with pre-revenue activities for approximately 90 days.

- As the intended future owner and operator, Metro determines when all the conditions necessary for Metro acceptance have been satisfied, and whether Phase 2 of the project is accepted into the Adopted Regional System (ARS).

- Metro will establish a revenue service date after all identified deficiencies have been resolved to meet acceptance standards.

Background and History:

Silver Line Phase 2 will extend the Metrorail system into Loudoun County, Virginia, and provide 11.4 miles of new track from the current terminus at Wiehle-Reston East Station, through the Washington Dulles International Airport, to a terminus in Loudoun County. It includes six new Metrorail stations (Reston Town Center, Herndon, Innovation Center, Washington Dulles International Airport, Loudoun Gateway, and Ashburn), and a new Service & Inspection yard at Dulles.

Metro's role and responsibilities for the design-build phase of the Silver Line Phase 2 project are as defined in the Cooperative Agreement executed between the Airports Authority and Metro on August 7, 2013.

The Board of Directors amended the Adopted Regional System (ARS) to incorporate the Dulles Metrorail Extension (Silver Line) subject to the fulfillment of certain "ARS Contingencies" adopted in Resolution 2012-24. Additional conditions precedent for acceptance are established in Article 6 of the Cooperative Agreement.

Discussion:

Construction of the Silver Line Phase 2 is nearing completion. Facility construction is complete, and systems installations and testing are well advanced.

In addition to Dynamic Testing Readiness, the project will advance through several milestones moving towards the start of revenue service. The milestones are defined and summarized as follows:

- Dynamic Testing Readiness – determination that the contractor has completed the work in accordance with the contract documents which renders the project safe and capable of supporting dynamic testing. This determination is supported by documentation of the following: final alignment and track configuration; operational traction and third rail power; completion of prerequisite automatic train control static testing; activation of contractor start-up railroad safety procedures; and verification of train, track and structure clearances.

- Substantial Completion (SC) – the work is substantially complete. System Performance Demonstration is complete. All conditions of substantial completion have been met, and the project is ready for operational readiness testing. Conditions to substantial completion include performance of contractor inspections and tests, delivery of record documents and spare parts, completion of training and contractor safety certification, correction of all defects that materially adversely impact the operations of the Project, and provision of Operations and Maintenance (O & M) manuals and punch list completion schedule.

- Operational Readiness Date (ORD) – the date on which Metro determines that the Project is sufficiently complete for Metro to commence simulated rail service. A key condition of operational readiness is the successful completion of operational readiness testing conducted by Metro.

Between ORD and acceptance, Metro has provisional care, custody and control of the project, and performs activities in preparation for revenue service. These activities include verification that conditions precedent for acceptance have been met; simulated service; emergency drills; safety certification; mobilization of stations and yard; rekeying all facilities; providing escorts to support contractor punch list completion; control right-of-way operations; and performance of preventive maintenance inspections.

Metro's acceptance determination is supported by the completion of certain ARS Acceptance Tasks, verification that all conditions precedent for acceptance have been met, and Metro's determination that Phase 2 is eligible and ready for Metro Acceptance.

The conditions precedent for acceptance of Phase 2 into the ARS as established in the Cooperative Agreement are summarized as follows:

- Condition 1. Punch List – all punch list work completed to Metro's satisfaction. If not completed, Metro has the right to complete punch list items at the Airports Authority's expense.

- Condition 2. Property Transfers – the Airports Authority shall have transferred to Metro the appropriate property interests as indicated in the approved Right-of-Ways plans.

- Condition 3. Spare Parts and Training – Metro shall have received all spare parts, O&M manuals, and necessary training.

- Condition 4. Record Deliverables – record deliverables have been received by Metro.

- Condition 5. Assignment of Warranties – all warranties have been assigned to Metro, and all documentation necessary to enforce the warranties has been provided to Metro.

- Condition 6. Permits – the Airports Authority shall have obtained for Metro all land use and permitting approvals necessary for Metro's operations.

- Condition 7. Payments – the Airports Authority shall have paid Metro all funds due and owing.

- Condition 8. Safety and Security – project has achieved certification by the Metro Chief Safety Officer.

- Condition 9. Insurance – Metro shall have received all certificates of insurance.

- Condition 10. Storm Water Management – the Airports Authority shall have obtained maintenance agreements as required.

Hiring of staff continues and is proceeding on schedule. Updates on the status of the project and key activities leading up to Metro declaring Operational Readiness and future actions for Metro acceptance and start of passenger sevrices are detailed in the attached presentation.

FUNDING IMPACT:

There is no direct funding impact for presenting this update.	
Project Manager:	Neil Nott
Project Department/Office:	Capital Delivery/Project Implementation and Planning (CAPD/PICO)

TIMELINE:

Previous Actions	August 2013 – Metro and the Airports Authority executed the negotiated Cooperative Agreement that provides for Metro support throughout the design-build phase of the Silver Line Phase 2 project.
Anticipated actions after presentation	Board approval of Service Plan and Title VI Equity Analysis and Acceptance of Silver Line Phase 2

Silver Line Phase 2 Update

Safety and Operations Committee
April 28, 2022

Purpose

- Update on progress towards achieving Operational Readiness Date (ORD)
- Update on hiring activities to support Silver Line Phase

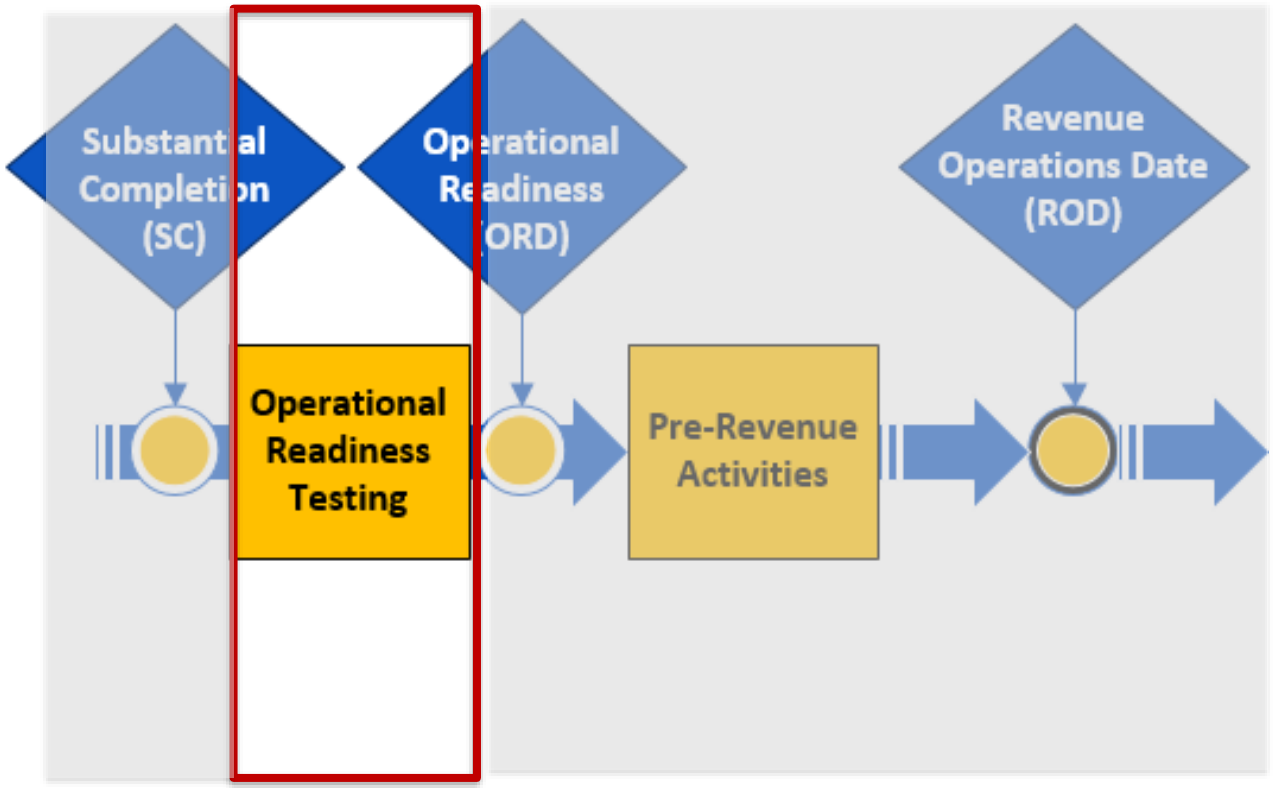
Activities leading to ORD

- Punch List Status:
  - Package A – 85% completed (4,664 of 5,487 complete)
  - Package B – 97% completed (2,469 of 2,545 complete)
- Operational Readiness Testing/Systems Performance Demonstration:
  - Package A – 88% completed (74 of 84)
  - Package B – 87% completed (53 of 61)
- Nine tests proposed by Airports Authority to be completed after ORD but prior to Acceptance (Emergency Drills, Thermal Imaging)

WMATA Updates: Critical Items

- ORD: Orange Boots: MWAA proceeding with corrective action
- ORD: Certificates of Occupancy: Mainline is complete, awaiting conditional occupancy permits for some Yard facilities
- ORD: ATC Safety Documentation for the Yard: MWAA made first submission and WMATA provided comments that require resolution
- ORD: Completion of Phase 1 of Safety Certification process for the Mainline and Yard: Seven Open Items for the Mainline and 13 Open Items for the Yard
- Heat Tape: Airports Authority developing remediation plan for the Mainline, probable that WMATA will need to implement operational mitigation
- 36 Additional Open Items: 16 Open Items for the Mainline and 20 Open Items for the Yard, won't impact ORD, some required prior to acceptance

Schedule: Operational Readiness Testing

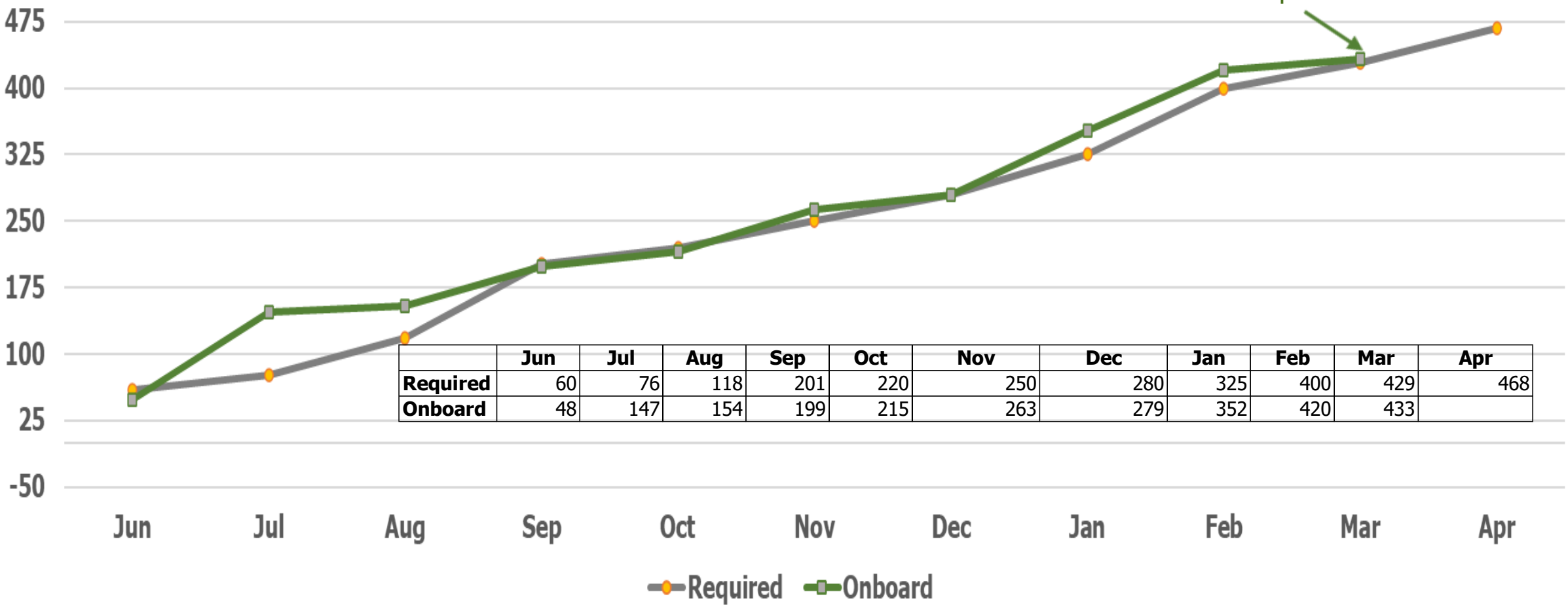


- Metro is now undertaking testing and related Operational Readiness activities towards declaring ORD
- Until Metro declares ORD, Airports Authority/Contractor retain project custody
- No fixed duration for Metro to declare ORD, as it depends on testing not completed prior to Substantial Completion

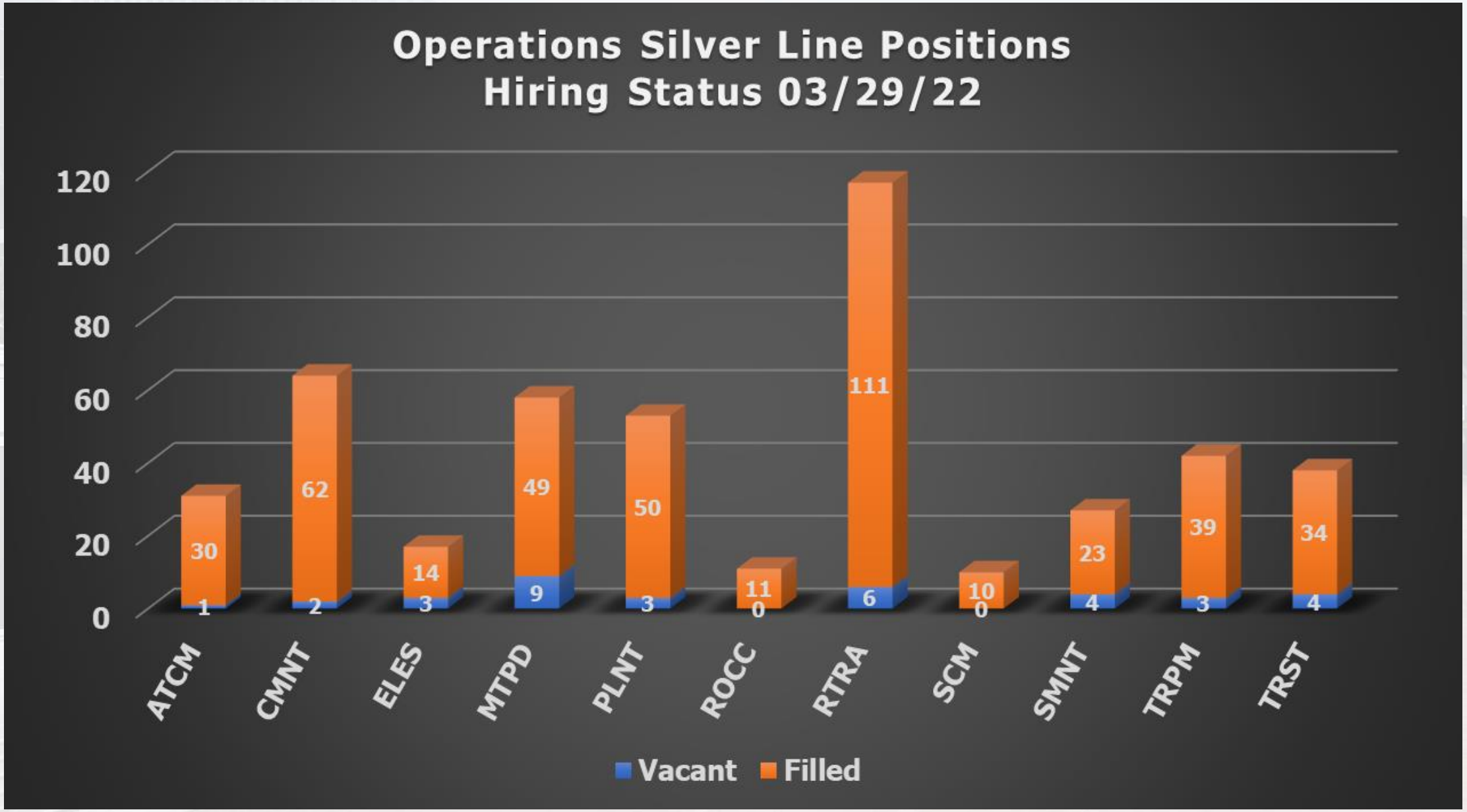
Preparation for Passenger Service and Update on Hiring

Operations Silver Line Phase 2 Hiring
As of March 29, 2022

28 In background for Rail Transportation



	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Required	60	76	118	201	220	250	280	325	400	429	468
Onboard	48	147	154	199	215	263	279	352	420	433	


Operations Silver Line Positions
Hiring Status 03/29/22
120
100
80
60
40
20
0
30
1
62
2
14
3
49
9
50
3
11
0
111
6
10
0
23
4
39
3
34
4
ATCM
CMNT
ELES
MTPD
PLNT
ROCC
RTRA
SCM
SMNT
TRPM
TRST
Vacant
Filled