



Board Report

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Agenda Number: 15.

CONSTRUCTION COMMITTEE MAY 20, 2026

SUBJECT: K-LINE'S NEW TRACTION POWER SUBSTATION PROJECT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING a Life-of-Project (LOP) budget for the K-Line new Traction Power Substation (TPSS) Support project (Project) in the amount of \$38,450,000; and
- B. AUTHORIZING the Chief Executive Officer to negotiate and execute project-related agreements, including contract and task order modifications, up to the authorized LOP.

ISSUE

A LOP budget for the Project is required to execute contracts and pursue completion of the Project. Establishing the LOP budget after bids are received is based on lessons learned and best management practices regarding establishing final budgets, when adequate information is available. Approval of the LOP at this time is required to meet funding deadlines set by external grant partners and will maintain the Project schedule.

BACKGROUND

Revenue service of the K-Line started in October 2022, which provided a connection between the Aviation Station on the C-Line, the upcoming LAX people-mover, downtown Inglewood, Crenshaw Boulevard, and the MLK Station on the E-Line. The original K-Line design allocated a total of 10 TPSS units for the project. However, during construction of the project, two of these TPSS units, Number 4 and Number 7, were removed and reclassified as future installations. A nominal amount of infrastructure was installed for these future installations.

At present, the K Line operates with 2-car trains at 7-minute headways. This Project is to install the two TPSS units to provide adequate traction power, enabling operations of up to 3-car trains at 5-minute headways.

DISCUSSION

In April 2023, Metro received \$35,161,000 in Transit and Intercity Rail Capital Program (TIRCP) Cycle 6 General Fund New Project Funding to support two additional TPSS units on the K-Line.

The future TPSS unit Number 4 site is located approximately at the intersection of North Cedar Avenue and West Florence Avenue in Inglewood, CA. This site has been graded and is immediately adjacent to the Metro right-of-way. Overlaps are in place on the Overhead Contact System (OCS) in preparation for the new TPSS unit. Further descriptions of the site and its contents are provided in the following sections.

The future TPSS unit Number 7 site is located at the Northeast intersection of West 60th Street and Crenshaw Boulevard. This site has been graded but is separated from the Metro right-of-way by Crenshaw Boulevard. In addition, the overlaps for the OCS are located in a cut, as the tracks descend to the North portal of the UG3 tunnel. As part of the competitive procurement, Metro has required the awardee to procure the two new TPSS units from Siemens Corporation as a single source to maintain uniformity with the other eight existing TPSS units on the K-Lines. Ratings for the various TPSS unit equipment are listed below:

TPSS unit number 4, Utility Voltage: 16.4 kV (source would be Southern California Edison) TPSS unit number 7, Utility Voltage: 34.5 kV (source would be LA Dept. of Water and Power).

DETERMINATION OF SAFETY IMPACT

The installation of two new TPSS units will have a significant safety impact by:

- Providing a more reliable power source, which ensures that trains operate smoothly and reduces the risk of power-related disruptions.
- Enhancing the overall electrical safety of the system, minimizing potential hazards associated with outdated or overloaded power sources.
- Supporting emergency response efforts by ensuring that power is available for critical systems during emergencies, including lighting and communication systems.
- Improving redundancy in the power supply, which increases resilience against power failures that could compromise passenger safety.
- Facilitating more efficient energy distribution, which can lead to faster emergency responses and support for emergency egress routes.

FINANCIAL IMPACT

Funds required for the remainder of FY26 is included in the FY26 budget.

Since this is a multi-year Project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs for future years.

Impact to Budget

The sources of funds for the project are identified in Attachment A. The local funds (Proposition A 35%) are eligible for rail operations and capital and may be replaced with available and eligible funds at the time of expenditure.

EQUITY PLATFORM

In 2022, Metro successfully completed the K Line, which is currently operating at limited capacity with longer headways. The purpose of this project is to provide sufficient traction power to support 3-car train operations at 5-minute headways. Communities of color make up the majority of the population in the Project area. Metro has identified a significant portion of this project area as Equity Focus Communities (EFCs). EFCs are identified by three criteria: low-income households earning less than \$75,000 per year, Black, Indigenous, or People of Color populations and households that do not have a car. Consequently, these communities are expected to benefit significantly from the Project, which aims to maximize the K Line's full operational capacity.

VEHICLE MILES TRAVELED OUTCOME

Vehicle Miles Traveled (VMT) and VMT-per-capita in Los Angeles County are lower than national averages, the weakest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

As part of these ongoing efforts, the two new TPSS units support three-car trains and are expected to significantly reduce VMT. This initiative directly supports Metro's systemwide strategy to decrease VMT by investing in platform extensions that will accommodate three-car Metro rail trains. This enhancement is essential for increasing transit capacity, allowing more passengers to travel during peak times and special events.

As part of the Transit and Intercity Rail Capital Program grant process, Metro used the California Air Resources Board Benefits Calculator Tool to analyze VMT for this project as part of Metro's Los Angeles Metro Light Rail CORE Capacity & System Integration grant application Appendix A, *Quantification of Greenhouse Gas & Co-Benefit Criteria Air Pollutant Reductions*. The result of this analysis was that there was no impact, as the item did not exceed any greenhouse gas (GHG) threshold. This impact conclusion is based on GHG reductions of 232,422 metric tons, with over 750 million VMT expected to be reduced over the project's lifetime.

By facilitating increased ridership with two new TPSS units, Metro aims to make public transportation a more appealing option for commuters and event attendees.

Metro's Board-adopted VMT reduction targets build on the successes of current investments, and the platform extensions align seamlessly with those goals.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This action supports the following goals from Metro's Strategic Plan:

- Goal 1 - Provide high-quality mobility options: Supports capacity improvements.
- Goal 2 - Deliver projects on time and on budget: Accelerates project delivery through integrated procurement
- Goal 3 - Enhance safety and security: Addresses voltage concerns related to three car trains.
- Goal 4 - Manage resources responsibly: Ensures fiscal discipline and leverages grant funding effectively.

ALTERNATIVES CONSIDERED

The Board may choose not to move forward with the establishment of an LOP budget. This is not recommended as the State has a set and tight deadline to spend the grant funding. If the Board does not approve the Recommendation, the following consequences may occur:

- Extensive schedule delays with no assurance of better pricing without significant de-scoping of the Project;
- No guarantee that the current bidders (or any others) will provide better bids in response to future solicitation with the variable market conditions that have been prevalent in recent years;
- Loss of State grant funding.

NEXT STEPS

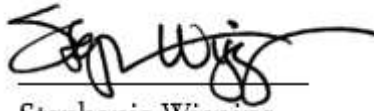
Upon Board approval of the Recommendation, staff will move the Project forward into design and construction.

ATTACHMENT

Attachment A - Funding and Expenditure Plan

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ATTACHMENT A
K LINE TPSS #4 #7
LOP ADOPTION
Funding/Expenditure Plan
(Dollars in Millions)

FULL USE OF TIRCP FUNDING + LOCAL FUNDING

Capital Project No. 204815	Prior Spent	FY26	FY27	FY28	FY29	FY30	TOTAL	% of Total
<i>USES OF FUNDS</i>								
Construction			6.42	12.16	7.00	0.72	26.30	68.4%
Professional Services	0.28	1.10	1.95	1.66	2.50	0.55	8.03	20.9%
Project Contingency						4.13	4.13	12.0%
Total Life of Project Cost:	0.28	1.10	8.37	13.82	9.49	5.39	38.45	100%
<i>SOURCES OF FUNDS</i>								
Transit and Intercity Rail Capital Program (TIRCP)	0.28	1.10	8.37	13.82	9.49	2.10	35.16	91.4%
Proposition A 35% ¹						3.29	3.29	8.6%
Total Life of Project Funding:	0.28	1.10	8.37	13.82	9.49	5.39	38.45	100%

1. Funding sources subject to change based on availability and eligibility of funds at the time of expenditure.

PARTIAL USE OF TIRCP FUNDING + LOCAL FUNDING

Capital Project No. 204815	Prior Spent	FY26	FY27	FY28	FY29	FY30	TOTAL	% of Total
<i>USES OF FUNDS</i>								
Construction			6.42	12.16	7.00	0.72	26.30	68.4%
Professional Services	0.28	1.10	1.95	1.66	2.50	0.55	8.03	20.9%
Project Contingency						4.13	4.13	12.0%
Total Life of Project Cost:	0.28	1.10	8.37	13.82	9.49	5.39	38.45	100%
<i>SOURCES OF FUNDS</i>								
Transit and Intercity Rail Capital Program (TIRCP)	0.28	1.10	8.37				9.74	25.3%
Proposition A 35% ¹				13.82	9.49	5.39	28.71	74.7%
Total Life of Project Funding:	0.28	1.10	8.37	13.82	9.49	5.39	38.45	100%

1. Funding sources subject to change based on availability and eligibility of funds at the time of expenditure.

K-LINE'S NEW TRACTION POWER SUBSTATION (TPSS)



Metro

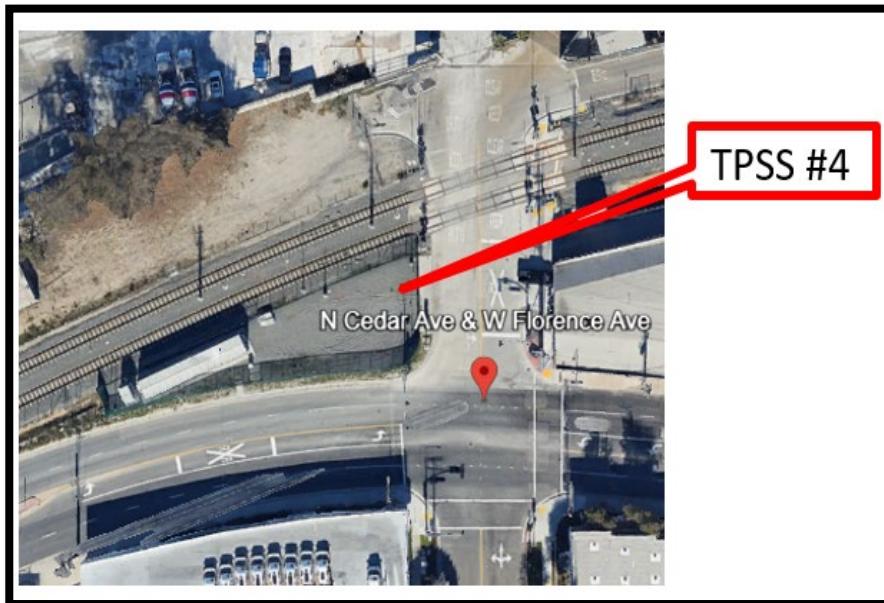
Note: The image above represents a typical TPSS structure.
The actual appearance of the installed TPSS may vary.

K-LINE'S NEW TRACTION POWER SUBSTATION (TPSS)



RECOMMENDATION

- A. ESTABLISHING a Life-of-Project (LOP) budget for the K-Line's two (2) new Traction Power Substations (TPSS) support project (Project) in the amount of \$38,450,000; and
- B. AUTHORIZING the Chief Executive Officer to negotiate and execute project-related agreements, including contract and task order modifications, up to the authorized LOP.



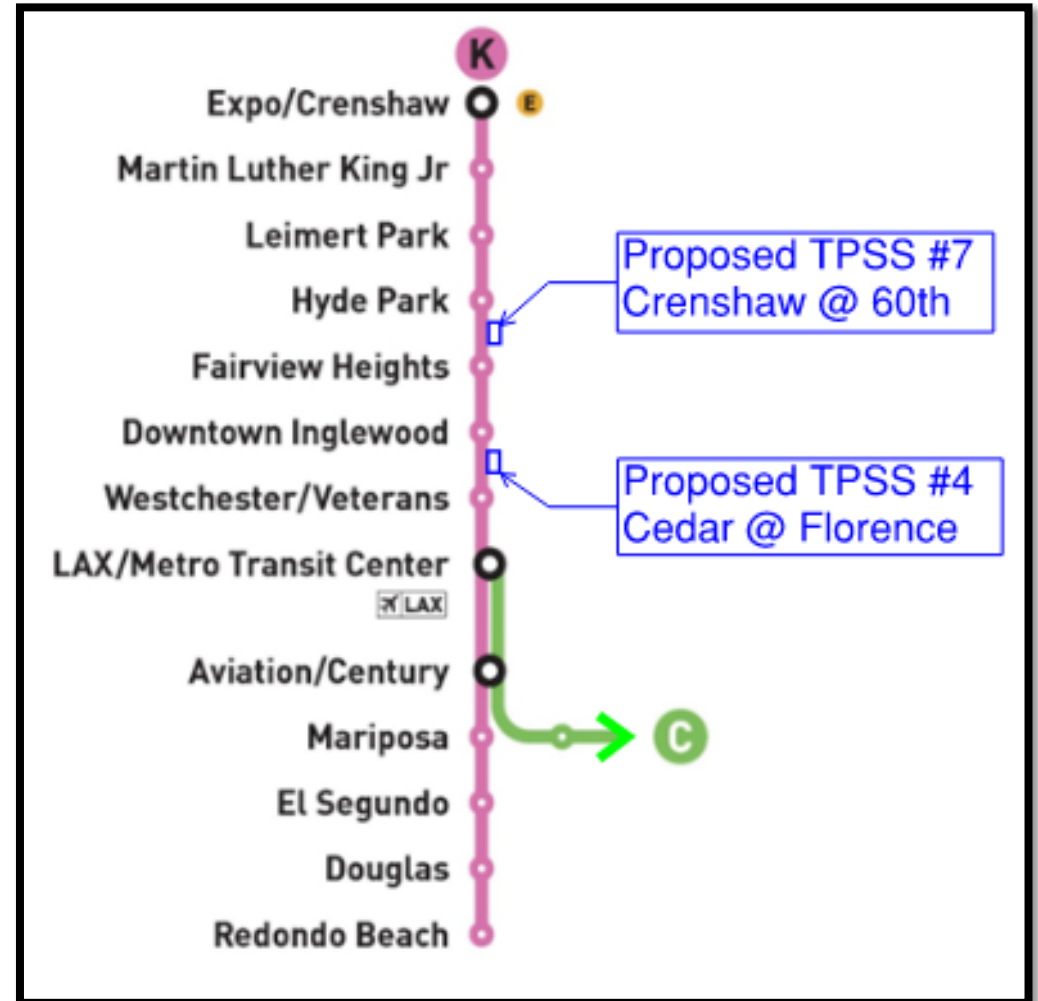
K-LINE'S NEW TRACTION POWER SUBSTATION (TPSS)



BACKGROUND

Revenue service of the K-Line started in October 2022, which provided a connection between the Aviation Station on the C-Line, the upcoming LAX people-mover, downtown Inglewood, Crenshaw Boulevard, and the MLK Station on the E-Line.

At present, the K Line operates with 2-car trains at 7-minute headways, powered by eight (8) TPSS units. This Project is to install an additional two (2) TPSS units to provide adequate traction power, enabling operations of up to **3-car trains at 5-minute headways**.



K-LINE'S NEW TRACTION POWER SUBSTATION (TPSS)



NEXT STEPS

Following Board approval of the recommendation, staff will finalize the procurement process for the design-build team and award the construction contract.