Section 3: Funding Plan and Cash Flow Analysis

Final Report - Prepared by: WSP

Yuba-Sutter Transit Next Generation Transit

Facility Marysville, California

Yuba-Sutter Transit

wsp

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CASH FLOW ANALYSIS

Introduction

The following documentation provides the key assumptions and findings for the cash flow analysis in support of evaluation of the three identified site locations for the Yuba-Sutter maintenance and operations facility. The draft analysis is provided for planning purposes only, as the cost estimates will continue to be refined between now and the construction period; the funding and financing sources and amounts will also be updated accordingly.

Timing

The Cash Flow model is a forecast of funding and capital costs over a 25-year period. Timing assumptions for expenditures were broken down into the following categories:

Land Acquisition	2021
Soft Costs	2021 - 2025
Construction	2023 - 2025
General Contracting	2023 - 2025
Contingency	2023 - 2025
Owners Contingency	2023 – 2025
TIFIA Loan Repayment (optional)	2027 – 2046

Construction costs, general contracting, contingency, and owners contingency cost apply strictly to the three years of facility construction, while soft costs, including final design and contractor procurement, are assumed to commence two years prior to the start of construction. For each of the sites a scenario assuming a TIFIA loan to offset the funding gap was assessed as an alternative to grant funding from a federal program or a 5339 competitive award.

Escalation

The analysis assumes a 3% cost escalation based on the historical high end of the range of the consumer price index (CPI). All project costs are estimated in 2019 dollars and escalated by 3% annually through 2022, when construction services are anticipated to be procured. Land acquisition costs were established in 2021 and no escalation is applied.

Funding

The analysis assumes funding from a combination of federal, state, and local sources including discretionary grants. Grant amounts are based on prior awards for comparable projects and are subject to change. For purposes of the current cash flow analysis USDOT's Transportation Infrastructure Finance and Innovation Act (TIFIA) financing is assumed when there is an identified funding gap for construction costs.

Bus Fleet and Infrastructure

The revenue vehicle fleet is currently 51 vehicles with a fleet expansion plan assuming a revenue vehicle target of 69 by 2040. The existing diesel and gasoline fueled vehicles are assumed to be slowly phased

out and replaced with battery electric buses (BEBs) as existing vehicles are retired. Figure 1 below illustrates the assumed timeline for vehicle replacement and expansion.

Figure 1: Vehicle Fleet Replacement Assumptions (Revenue Vehicles Only)

Vehicle Type	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2040
Diesel/Gasoline	51	51	51	50	50	50	54	54	54	54	47	40	26	26	-
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BEB	-	-	2	2	2	4	4	4	4	4	14	29	43	43	69
Total	**51**	**51**	**53**	**52**	**52**	**54**	**58**	**58**	**58**	**58**	**61**	**69**	**69**	**69**	**69**

While costs associated with vehicle purchases are not assumed in the cash flow analysis, the installation of bus charging and fueling infrastructure follows the fleet expansion timeframe, during the construction period.

Essential components for operating and maintaining BEB, including BEB charging stations, are implemented the year that additional buses join the fleet. The amount of bus infrastructure purchased corresponds to the needs of the new buses.

Facility Costs

The capital costs for the three proposed facilities, sites 3, 7, and 12 are aggregated in supporting analysis using preliminary designs and unit cost assumptions based on current pricing.

General Contracting, Contingency, and Soft Costs

Included in the facility capital costs are assumptions for general contracting costs, risk contingency, and soft costs. Costs include:

- General Contractor's General Conditions is fixed at 10% of the total facility costs.
- General Contractor's Contractor Fee is fixed at 8% of the total facility costs.
- Contingency costs for design are fixed at $500,000.
- Contingency costs for construction are fixed at 10% of the total facility costs plus the fees paid to the General Contract.
- The Owners Contingency costs are fixed at 10% of the total facility costs plus the fees paid to the General Contractor and costs incurred for Contingency of both design and construction.
- The Soft Costs are fixed at 15% of the total facility costs plus the fees paid to the General Contractor and costs incurred for Contingency of both design and construction.

Construction Costs Incurred

When estimating the construction costs, soft costs are distributed over the full design and construction period. Total facility costs and additional fees for general contracting and contingency is incurred over a three-year construction period spanning from 2023 to 2025. Total construction costs are the total of the facility costs and additional fees, excluding soft costs.

Land Acquisition

Land acquisition costs for a new facility are estimated based on the cost of procuring the land from current owners. The costs are assumed to be:

- $900,000 for site 3, based on the current list price,
- $2,800,000 for site 7, based on estimated price per square foot ($3 per square foot, 21 acres), and

- $5,830,000 for site 12, based on the midpoint of the quoted asking price range per square foot assuming the purchase of at least 10 acres from the total of 17.42 acres available on two parcels.

Land acquisition costs are assumed to be incurred during the first year of the project in 2021.

Cash Flow Analysis

The following summary tables provide the resulting cash flow analysis for the three identified sites. Capital costs are incurred in the estimated year of expenditure, with consideration for cost escalation. Funding sources are based on preliminary assumptions on various federal, state, and regional programs as outlined in the funding and financing options analysis. With funding gaps anticipated in the primary construction years from 2023-2025, and potential opportunities to leverage ongoing annual funding sources, a federal low interest loan program such as TIFIA can meet both the capital delivery schedule and address near term funding requirements.

For each site there are two scenarios to demonstrate the range of funding and financing options:

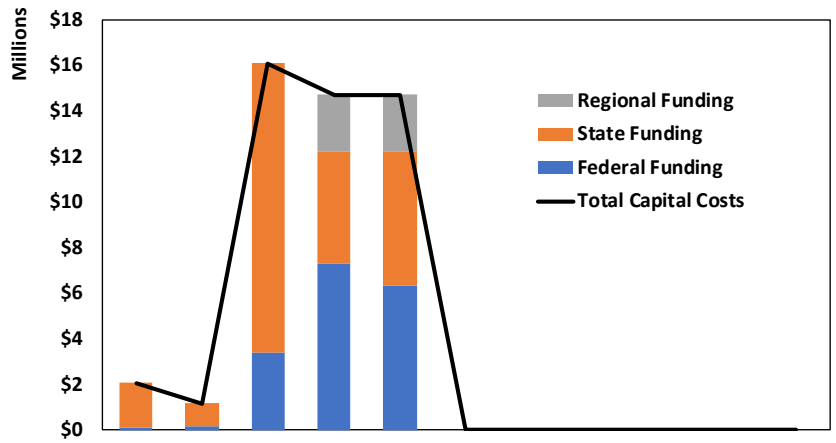
> **Optimistic Competitive Funding Scenario**: Assumes that Yuba-Sutter Transit receives sufficient funding through the Section 5339 Competitive program to eliminate funding gaps during the construction period. As a result, there is no need to issue debt through a program such as the TIFIA program. Note that for each site, the total award through Section 5339 Competitive program exceeds $10 million ($14 - $19 million depending on the site). While it is unlikely that Yuba-Sutter Transit would receive more than $10 million through this program, this scenario is meant to be illustrative to show the best case scenario in which financing is not needed. Other funding sources such as USDOT's Better Utilizing Investments to Leverage Development (BUILD) program or additional Section 5307 formula funds could also be used to eliminate the funding gap if Section 5339 Competitive funding awards are lower what is shown in this scenario.
>
> **TIFIA Financing Scenario:** Assumes that Yuba-Sutter Transit is unable to secure additional funding through the Section 5339 Competitive program, and other competitive and formula programs are not sufficient to eliminate the funding gap during the construction period. As such, the agency would issue a TIFIA loan to address the funding gaps during the construction period. In this scenario, State Transit Assistance (STA) and Local Transportation Fund (LTF) revenues would be used to pay debt service and demonstrate debt service coverage (1.55) for 20 years (2027 – 2046).

These two scenarios are meant to illustrate the range of options. In reality, as the project nears the construction period the agency is likely to identify a solution that is a hybrid of these two scenarios (e.g., some mix of competitive funding and TIFIA financing to eliminate the funding gap).

Site 3 Cash Flow Analysis

Optimistic Competitive Funding Scenario

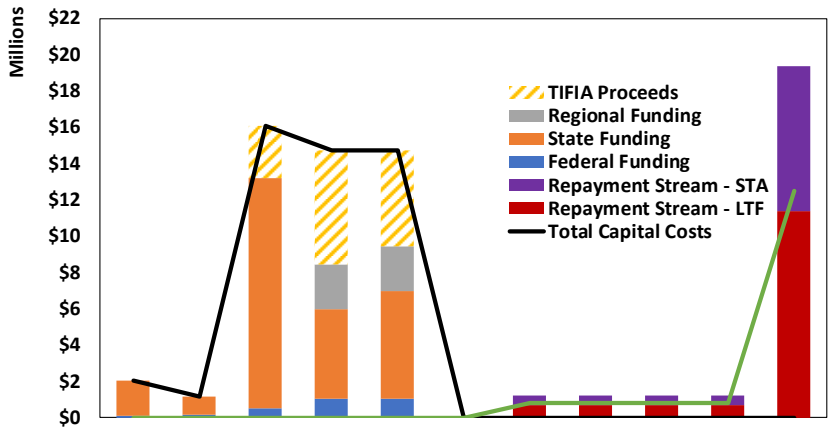
Site 3 Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		0.9	-	-	-	-	-	-	-	-	-	-	0.9
Soft Costs (design)		1.1	1.1	1.1	1.1	1.1	-	-	-	-	-	-	5.7
Construction		-	-	13.6	13.6	13.6	-	-	-	-	-	-	40.7
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	1.4	-	-	-	-	-	-	-	-	1.4
Total Capital Costs		**2.0**	**1.1**	**16.1**	**14.7**	**14.7**	**-**	**-**	**-**	**-**	**-**	**-**	48.7
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	2.9	6.3	5.3	-	-	-	-	-	-	14.4
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		0.1	0.1	0.5	0.5	0.5	-	-	-	-	-	-	1.7
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**2.0**	**1.1**	**16.1**	**14.7**	**14.7**	**-**	**-**	**-**	**-**	**-**	**-**	**48.7**
Funding Gap/Surplus													
Annual Funding Balance		-	-	-	-	-	-	-	-	-	-	-	-
Cumulative Amount		-	-	-	-	-	-	-	-	-	-	-	-

TIFIA Financing Scenario

Site 3 - TIFIA Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		0.9	-	-	-	-	-	-	-	-	-	-	0.9
Soft Costs (design)		1.1	1.1	1.1	1.1	1.1	-	-	-	-	-	-	5.7
Construction		-	-	13.6	13.6	13.6	-	-	-	-	-	-	40.7
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	1.4	-	-	-	-	-	-	-	-	1.4
Total Capital Costs		**2.0**	**1.1**	**16.1**	**14.7**	**14.7**	**-**	**-**	**-**	**-**	**-**	**-**	48.7
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	-	-	-	-	-	-	-	-	-	-
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		0.1	0.1	0.5	0.5	0.5	-	-	-	-	-	-	1.7
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**2.0**	**1.1**	**13.2**	**8.5**	**9.5**	**-**	**-**	**-**	**-**	**-**	**-**	**34.3**
Funding Gap/Surplus													
Annual Funding Balance		-	-	*(2.9)*	*(6.3)*	*(5.3)*	-	-	-	-	-	-	***(14.4)***
Cumulative Amount		-	-	*(2.9)*	*(9.1)*	*(14.4)*	*(14.4)*	*(14.4)*	*(14.4)*	*(14.4)*	*(14.4)*	*(14.4)*	***(14.4)***

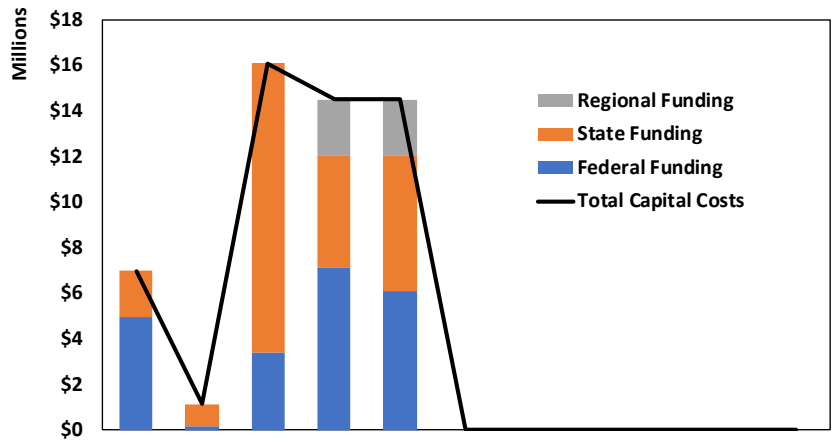
Site 3 TIFIA Details

YOE $ Millions *year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
TIFIA Request		(14.4)										
TIFIA Share of Construction Costs		32%										
Interest		0.80%										
Total TIFIA Cost		15.6										
TIFIA Repayment (years)		20										
Annualized Repayment		0.8										
TIFIA Repayment	-	-	-	-	-	-	(0.8)	(0.8)	(0.8)	(0.8)	(12.5)	**(15.6)**
Annual Funding Balance	-	-	(2.9)	(6.3)	(5.3)	-	-	-	-	-	-	**(14.4)**
Debt Service Coverage Ratio	1.55											
Total Repayment Funds to Meet DSCR	-	-	-	-	-	-	1.2	1.2	1.2	1.2	19.4	**24.2**
Repayment Stream - STA	-	-	-	-	-	-	0.5	0.5	0.5	0.5	8.0	**10.0**
Repayment Stream - LTF	-	-	-	-	-	-	0.7	0.7	0.7	0.7	11.4	**14.2**
Total Repayment Streams	-	-	-	-	-	-	1.2	1.2	1.2	1.2	19.4	**24.2**
DSCR CHECK	-	-	-	-	-	-	*1.55*	*1.55*	*1.55*	*1.55*	*1.55*	***1.55***
Gap to be Covered by TIFIA	-	-	2.9	6.3	5.3	-	-	-	-	-	-	**14.4**
TIFIA Proceeds Applied	-	-	(2.9)	(6.3)	(5.3)	-	-	-	-	-	-	**(14.4)**
TIFIA Repayment	-	-	-	-	-	-	(0.8)	(0.8)	(0.8)	(0.8)	(12.5)	**(15.6)**
Total Repayment Streams	-	-	-	-	-	-	1.2	1.2	1.2	1.2	19.4	**24.2**
Final Balance	-	-	-	-	-	-	0.4	0.4	0.4	0.4	6.9	**8.6**

Site 12 Cash Flow Analysis

Optimistic Competitive Funding Scenario

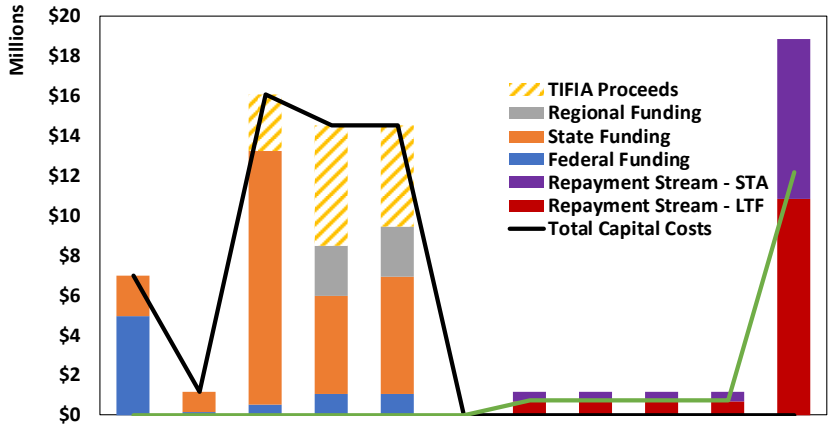
Site 12 Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		5.8	-	-	-	-	-	-	-	-	-	-	5.8
Soft Costs (design)		1.1	1.1	1.1	1.1	1.1	-	-	-	-	-	-	5.7
Construction		-	-	13.4	13.4	13.4	-	-	-	-	-	-	40.1
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	1.6	-	-	-	-	-	-	-	-	1.6
Total Capital Costs		**7.0**	**1.1**	**16.1**	**14.5**	**14.5**	**-**	**-**	**-**	**-**	**-**	**-**	53.2
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	2.9	6.0	5.0	-	-	-	-	-	-	14.0
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		5.0	0.1	0.5	0.5	0.5	-	-	-	-	-	-	6.6
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**7.0**	**1.1**	**16.1**	**14.5**	**14.5**	**-**	**-**	**-**	**-**	**-**	**-**	**53.2**
Funding Gap/Surplus													
Annual Funding Balance		-	-	-	-	-	-	-	-	-	-	-	-
Cumulative Amount		-	-	-	-	-	-	-	-	-	-	-	-

TIFIA Financing Scenario

Site 12 - TIFIA Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		5.8	-	-	-	-	-	-	-	-	-	-	5.8
Soft Costs (design)		1.1	1.1	1.1	1.1	1.1	-	-	-	-	-	-	5.7
Construction		-	-	13.4	13.4	13.4	-	-	-	-	-	-	40.1
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	1.6	-	-	-	-	-	-	-	-	1.6
Total Capital Costs		**7.0**	**1.1**	**16.1**	**14.5**	**14.5**	**-**	**-**	**-**	**-**	**-**	**-**	53.2
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	-	-	-	-	-	-	-	-	-	-
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		5.0	0.1	0.5	0.5	0.5	-	-	-	-	-	-	6.6
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**7.0**	**1.1**	**13.2**	**8.5**	**9.5**	**-**	**-**	**-**	**-**	**-**	**-**	**39.2**
Funding Gap/Surplus													
	Annual Funding Balance	-	-	*(2.9)*	*(6.0)*	*(5.0)*	-	-	-	-	-	-	***(14.0)***
	Cumulative Amount	-	-	*(2.9)*	*(8.9)*	*(14.0)*	*(14.0)*	*(14.0)*	*(14.0)*	*(14.0)*	*(14.0)*	*(14.0)*	***(14.0)***

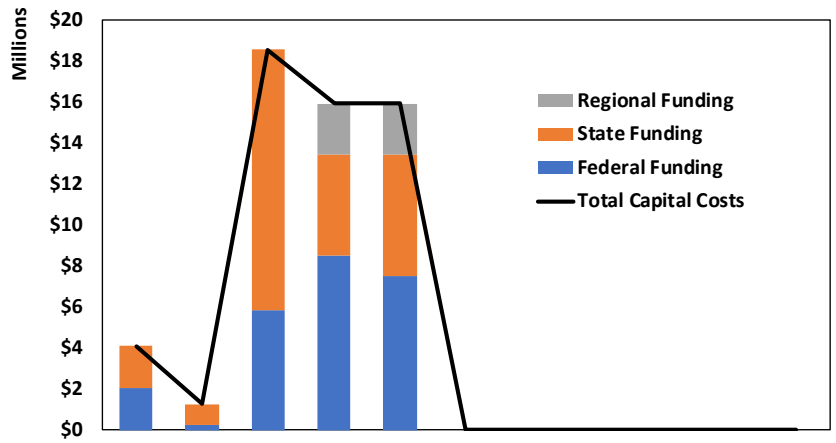
Site 12 TIFIA Details

YOE $ Millions *year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
TIFIA Request		(14.0)										
TIFIA Share of Construction Costs		31%										
Interest		0.80%										
Total TIFIA Cost		15.2										
TIFIA Repayment (years)		20										
Annualized Repayment		0.8										
TIFIA Repayment	-	-	-	-	-	-	(0.8)	(0.8)	(0.8)	(0.8)	(12.1)	**(15.2)**
Annual Funding Balance	-	-	(2.9)	(6.0)	(5.0)	-	-	-	-	-	-	**(14.0)**
Debt Service Coverage Ratio	1.55											
Total Repayment Funds to Meet DSCR	-	-	-	-	-	-	1.2	1.2	1.2	1.2	18.8	**23.5**
Repayment Stream - STA	-	-	-	-	-	-	0.5	0.5	0.5	0.5	8.0	**10.0**
Repayment Stream - LTF	-	-	-	-	-	-	0.7	0.7	0.7	0.7	10.8	**13.5**
Total Repayment Streams	-	-	-	-	-	-	1.2	1.2	1.2	1.2	18.8	**23.5**
DSCR CHECK	-	-	-	-	-	-	*1.55*	*1.55*	*1.55*	*1.55*	*1.55*	***1.55***
Gap to be Covered by TIFIA	-	-	2.9	6.0	5.0	-	-	-	-	-	-	**14.0**
TIFIA Proceeds Applied	-	-	(2.9)	(6.0)	(5.0)	-	-	-	-	-	-	**(14.0)**
TIFIA Repayment	-	-	-	-	-	-	(0.8)	(0.8)	(0.8)	(0.8)	(12.1)	**(15.2)**
Total Repayment Streams	-	-	-	-	-	-	1.2	1.2	1.2	1.2	18.8	**23.5**
Final Balance	-	-	-	-	-	-	0.4	0.4	0.4	0.4	6.7	**8.3**

Site 7 Cash Flow Analysis

Optimistic Competitive Funding Scenario

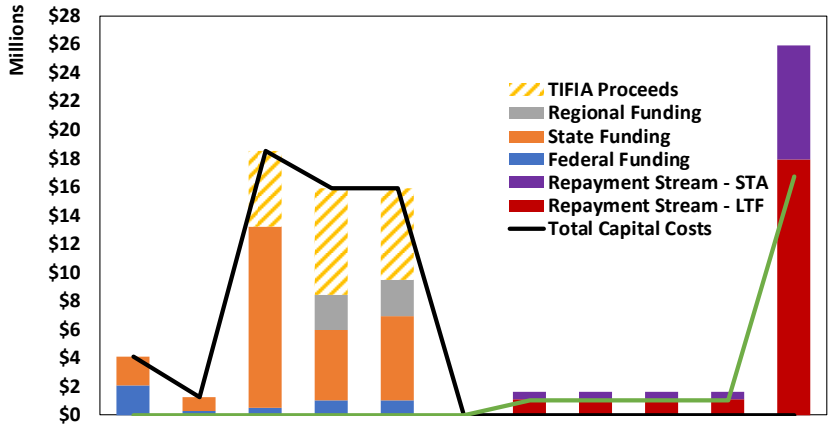
Site 7 Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		2.8	-	-	-	-	-	-	-	-	-	-	2.8
Soft Costs (design)		1.3	1.3	1.3	1.3	1.3	-	-	-	-	-	-	6.3
Construction		-	-	14.6	14.6	14.6	-	-	-	-	-	-	43.9
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	2.6	-	-	-	-	-	-	-	-	2.6
Total Capital Costs		**4.1**	**1.3**	**18.5**	**15.9**	**15.9**	**-**	**-**	**-**	**-**	**-**	**-**	55.7
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	5.3	7.5	6.5	-	-	-	-	-	-	19.2
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		2.1	0.3	0.5	0.5	0.5	-	-	-	-	-	-	3.8
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**4.1**	**1.3**	**18.5**	**15.9**	**15.9**	**-**	**-**	**-**	**-**	**-**	**-**	**55.7**
Funding Gap/Surplus													
Annual Funding Balance		-	-	-	-	-	-	-	-	-	-	-	-
Cumulative Amount		-	-	-	-	-	-	-	-	-	-	-	-

TIFIA Financing Scenario

Site 7 - TIFIA Sources & Uses



YOE $ Millions	*year*	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-2046	Total
Capital Costs													
Land Acquisition		2.8	-	-	-	-	-	-	-	-	-	-	2.8
Soft Costs (design)		1.3	1.3	1.3	1.3	1.3	-	-	-	-	-	-	6.3
Construction		-	-	14.6	14.6	14.6	-	-	-	-	-	-	43.9
Bus Fleet		-	-	-	-	-	-	-	-	-	-	-	-
Charging/Fueling Infrastructure		-	-	2.6	-	-	-	-	-	-	-	-	2.6
Total Capital Costs		**4.1**	**1.3**	**18.5**	**15.9**	**15.9**	**-**	**-**	**-**	**-**	**-**	**-**	55.7
Funding Sources													
BUILD		-	-	-	-	-	-	-	-	-	-	-	-
5339 Formula		-	-	-	0.3	0.3	-	-	-	-	-	-	0.5
5339 Competitive Award		-	-	-	-	-	-	-	-	-	-	-	-
Lo No Award		-	-	-	-	-	-	-	-	-	-	-	-
VW Mitigation Award		-	-	-	-	-	-	-	-	-	-	-	-
TIRCP Award		-	-	-	-	-	-	-	-	-	-	-	-
SCCP Award		-	-	-	-	-	-	-	-	-	-	-	-
LCTOP Award		-	-	1.2	0.4	0.4	-	-	-	-	-	-	2.0
LTF		-	-	3.0	3.0	3.0	-	-	-	-	-	-	9.0
STA Award		2.0	1.0	1.0	1.5	1.5	-	-	-	-	-	-	7.0
SGR Award		-	-	-	-	1.0	-	-	-	-	-	-	1.0
SACOG Transformative		-	-	-	2.5	2.5	-	-	-	-	-	-	5.0
SACOG Local Match		-	-	-	-	-	-	-	-	-	-	-	-
SACOG Other		-	-	-	-	-	-	-	-	-	-	-	-
5307		2.1	0.3	0.5	0.5	0.5	-	-	-	-	-	-	3.8
5311		-	-	-	0.3	0.3	-	-	-	-	-	-	0.6
Caltrans		-	-	7.5	-	-	-	-	-	-	-	-	7.5
Total Funding Sources		**4.1**	**1.3**	**13.2**	**8.5**	**9.5**	**-**	**-**	**-**	**-**	**-**	**-**	**36.4**
Funding Gap/Surplus													
Annual Funding Balance		*-*	*-*	*(5.3)*	*(7.5)*	*(6.5)*	*-*	*-*	*-*	*-*	*-*	*-*	***(19.2)***
Cumulative Amount		*-*	*-*	*(5.3)*	*(12.8)*	*(19.2)*	*(19.2)*	*(19.2)*	*(19.2)*	*(19.2)*	*(19.2)*	*(19.2)*	***(19.2)***

Site 7 TIFIA Details

YOE $ Millions *year*	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031-2046**	**Total**
TIFIA Request		(19.2)										
TIFIA Share of Construction Costs		38%										
Interest		0.80%										
Total TIFIA Cost		20.9										
TIFIA Repayment (years)		20										
Annualized Repayment		1.0										
TIFIA Repayment	-	-	-	-	-	-	(1.0)	(1.0)	(1.0)	(1.0)	(16.7)	**(20.9)**
Annual Funding Balance	-	-	(5.3)	(7.5)	(6.5)	-	-	-	-	-	-	**(19.2)**
Debt Service Coverage Ratio	1.55											
Total Repayment Funds to Meet DSCR	-	-	-	-	-	-	1.6	1.6	1.6	1.6	25.9	**32.4**
Repayment Stream - STA	-	-	-	-	-	-	0.5	0.5	0.5	0.5	8.0	**10.0**
Repayment Stream - LTF	-	-	-	-	-	-	1.1	1.1	1.1	1.1	17.9	**22.4**
Total Repayment Streams	-	-	-	-	-	-	1.6	1.6	1.6	1.6	25.9	**32.4**
DSCR CHECK	-	-	-	-	-	-	*1.55*	*1.55*	*1.55*	*1.55*	*1.55*	***1.55***
Gap to be Covered by TIFIA	-	-	5.3	7.5	6.5	-	-	-	-	-	-	**19.2**
TIFIA Proceeds Applied	-	-	(5.3)	(7.5)	(6.5)	-	-	-	-	-	-	**(19.2)**
TIFIA Repayment	-	-	-	-	-	-	(1.0)	(1.0)	(1.0)	(1.0)	(16.7)	**(20.9)**
Total Repayment Streams	-	-	-	-	-	-	1.6	1.6	1.6	1.6	25.9	**32.4**
Final Balance	-	-	-	-	-	-	0.6	0.6	0.6	0.6	9.2	**11.5**

FUNDING OPTIONS

Yuba-Sutter Transit Next Generation Transit Facility

Marysville, California

Prepared by: WSP

Yuba-Sutter Transit

wsp

January 2021

Introduction

The purpose of this memorandum (memo) is to identify and evaluate the universe of funding and financing options that may potentially be available to support Yuba-Sutter Transit's new base operations, maintenance and administration facility. Options considered include federal, state, and regional/local/other funding sources.

Funding and Financing Options

This section describes the universe of funding and financing options in detail. Throughout this document, it is important to note the difference between funding sources and financing sources. Funding is a monetary resource that is available to pay for capital investments when needed, whereas financing is a tool that facilitates borrowing against future revenues to convert them into current funding when needed. The borrowed funds must then be repaid with interest in the future.

This section is structured as follows:

- Federal funding and financing options;
- State funding and financing options;
- Regional, local, and other funding and financing options.

Each section begins with a summary table comparing key components of each option, including an explanation of the likelihood that the option would provide funding to the project. The summary table is followed by a detailed description of each option, organized by administering entity or agency.

1. Federal Funding and Financing Options

Table 1: Existing Potential Federal Funding and Financing Options

Funding Program	Administering Agency	Eligibility				Funding Potential
		O & M Facility	*Vehicle Charging Infrastructure*	*Battery Electric Bus (BEB)*	*Hydrogen Fuel Cell Bus*	
BUILD	USDOT	✔	✔	✔	✔	Moderate to Low, the program is flexible but highly competitive.
TIFIA Loans	USDOT	✔	✔	✔	✔	Moderate, peer agencies have recently had success using the TIFIA RPI program to finance similar projects; lengthy application process.
CIG – Small Starts	FTA		✔	✔	✔	Low unless project can be coupled with new BRT service.
Section 5307: Urbanized Area Formula Grants	FTA	✔	✔	✔	✔	High to moderate, the program is flexible; may require agency to identify additional funding to support O&M.
Section 5311: Formula Grants for Rural Areas	FTA	✔	✔	✔	✔	High, the program is flexible.
Section 5339: Bus and Bus Facilities Discretionary Grant	FTA	✔	✔	✔	✔	High; the project is well-aligned with program objectives regardless of whether zero-emissions investments are included.
Section 5339: Bus and Bus Facilities Formula Funds Grant	FTA	✔	✔	✔	✔	
Section 5339 (c): Low or No Emission Vehicle Program	FTA		✔	✔	✔	Moderate, assuming project includes ZEB investments including charging infrastructure; the program is highly competitive.

New Market Tax Credits	US Department of the Treasury	✔	✔			Moderate if linkage between facility and community development is clearly demonstrated.
Opportunity Zones	US Department of the Treasury	✔	✔			Low to moderate, would require the agency to identify a private investor.

The federal funding and financing options described and evaluated in this section include the following:

- Better Utilizing Investments to Leverage Development (BUILD) Program;
- Transportation Infrastructure Finance and Innovation Act (TIFIA) Loans;
- Capital Investment Grants (CIG) – Small Starts;
- Section 5307: Urbanized Area Formula Grants;
- Section 5311: Formula Grants for Rural Areas;
- Section 5339: Bus and Bus Facilities Program, both formula and competitive;
- Low or No Emission Vehicle Program – Section 5539 (C);
- New Markets Tax Credit (NMTC) Program;
- Opportunity Zones.

1.1 United States Department of Transportation

Better Utilizing Investments to Leverage Development

The Better Utilizing Investments to Leverage Development (BUILD) grant program (formerly known as TIGER) is a highly competitive USDOT discretionary grant program which supports the capital costs of road, rail, transit, and port projects that have a significant impact on the nation, a region, or a metropolitan area. In FY 2020, $1 billion was made available through the BUILD program; with the most recent cycle closing on May 18th, 2020. The program is subject to annual appropriations by Congress and the next BUILD notice of funding availability is anticipated in early 2021 with a submittal deadline in May.

Two California projects received funding during the 2020 BUILD cycle (both urban):

- SR 99 and Commercial Avenue Interchange Project (Tulare County Association of Governments) received $16 million
- Stockton Diamond Grade Separation Project (California Department of Transportation) received $20 million

The BUILD program is extremely competitive. Broad support and local consensus, including support from the business community, various interest groups (e.g., environmental, labor, economic development) and elected officials at the federal, state, and local levels are key requirements to being competitively positioned for BUILD funding. USDOT also prefers projects that have completed considerable project development (e.g., finalized environmental clearance) and secured commitments of matching non-federal funding. In situations where a project cannot meet USDOT's preparedness criteria, but the project sponsor anticipates they will in one to two years, they may submit an application to make

USDOT aware of the project and better position the project for future rounds of BUILD grants based on initial feedback.

Table 2. BUILD Program Summary Information

Funding Availability	$1 billion appropriated in FY 2020 FY 2020 Omnibus spending bill eliminated $25 million maximum award cap; average award was $16.9 million in FY 2020.
Funding Cycle	Annual, with notice of funding opportunity released in the first few months and application deadline in April or May
Matching Requirements	For urban projects, federal share may not exceed 80% of total project costs; minimum of 20% non-federal match may be public and/or private sector funding.
Eligible Stages	Planning, Environmental, Final design, Construction, ROW Acquisition

The likelihood of securing BUILD funding is moderate to low. The program is very competitive, and a successful BUILD application would need to demonstrate benefits associated with safety, state-of-good-repair, environmental protection, quality of life, and economic competitiveness. While the project may not directly increase transit ridership and/or reduce vehicles on the road, the application narrative could describe how the current facility will be demolished and the project is essential to the continuity as the transit system provides access to essential services and jobs locally and in the Sacramento region which enhances the vitality of the economy of the Yuba-Suter bi-county region.

Transportation Infrastructure Finance and Innovation Act Loans (TIFIA)

USDOT's Transportation Infrastructure Finance and Innovation Act (TIFIA), administered by the Build America Bureau (BAB), provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA leverages federal funds by attracting private and non-federal investments to projects, with TIFIA credit assistance providing improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments.

Any transit capital projects eligible for federal aid and included in the applicable State Transportation Improvement Program (STIP) are also eligible for the TIFIA program, including new bus facilities and vehicle purchases. The minimum cost thresholds vary based on the project type and infrastructure projects. The minimum cost threshold for local and rural projects is $10 million; the minimum cost

threshold for all other surface transportation projects (excluding Intelligent Transportation Systems) is $50 million.

Each dollar of federal funding applied to TIFIA (as the subsidy amount) can provide up to $15 in credit assistance and with applicant funding match supports up to $50 in transportation infrastructure investment.[1] Credit assistance is limited to 33 percent of reasonably anticipated eligible project costs. The combined share of TIFIA proceeds and other federal funding for a given project may not exceed 80 percent of the total project cost. The project must be at least partially supported by user charges such as fare revenues, toll revenues, or other non-federal dedicated funding sources.

The program permits repayment over a term of up to 35 years after a project's substantial completion and provides borrowers with the flexibility to defer principal and capitalize interest payments for up to 5 years. Principal payments may be structured to ramp up with projected growth in revenues pledged to service TIFIA debt.

Advantages of the program include low cost of financing (interest rate set daily at the treasury rate) and flexibility of repayment terms. Challenges of the program include competitiveness of the program, lengthy negotiations and structuring process, and the maximum cap on the percentage of TIFIA financing. As with all financing, the project must have a dedicated revenue stream and meet stress testing requirements to prove the project's credit worthiness.

As credit worthiness is a critical factor in the evaluation process, the project sponsors should be prepared to discuss the dedicated revenue streams available for the project as well as the other funding components of the project's financial plans. If the revenue streams of a project are unproven, an additional pledge by the state or local government can frequently be used to secure the loan. Applicants for TIFIA loans do not have to pay a credit risk premium to cover the cost of potential losses on the project. Congress appropriates funding each year to cover those costs.

Additionally, the Yuba-Sutter Transit Authority Joint Powers Agreement (JPA) stipulates that the agency cannot issue debt unless all four members approve.

Table 3. TIFIA Program Summary Information

Funding Availability	$300 million annually in credit subsidy, which equates to approximately $3 billion in lending capacity
Funding Cycle	Rolling
Matching Requirements	33% financing requires dedicated repayment stream and may require an additional pledge to ensure creditworthiness of the loan
Eligible Stages	Planning, environmental, final design, construction

[1] https://www.transportation.gov/buildamerica/financing#:~:text=Each%20dollar%20of%20Federal%20funds,%2450%20in%20transportation%20infrastructure%20investment.

Recently, the TIFIA program launched a sub-program called the Rural Project Initiative (RPI), aimed to help improve transportation infrastructure in America's rural communities. The RPI program defines rural communities as those which are outside of an urbanized area with a population greater than 150,000. Based on this definition, Yuba-Sutter Transit would likely qualify as a rural community (though it is considered a small urban agency based on FTA's definition), as its UZA population is roughly 116,000.

The RPI program offers special benefits such as:

- Loans more likely to provide up to 49% of total project costs (the traditional TIFIA program is more likely to cap its contribution at 33%)
- Fixed interest rates equal to one half of the U.S. Treasury rate of equivalent maturity at the time of closing (the traditional TIFIA program offers rates equal to the U.S. Treasury rate at the time of closing)
- Borrower fees are waived for projects under $75 million in total cost (in order to be eligible for RPI, total project costs should be between $10 million and $100 million)
- Peer agencies such as Monterey-Salinas Transit District and San Luis Obispo Regional Transit Authority recently both received loans to construction new operations and maintenance facilities:
- Monterey-Salinas Transit District (UZA population roughly 114,000) received an $8.45 million loan
- San Luis Obispo Regional Transit Authority (UZA population roughly 60,000) received a $13.08 million loan

In December 2020, USDOT launched a new demonstration program to establish several Regional Infrastructure Accelerators, which will expedite delivery of transportation infrastructure projects through innovative finance and delivery methods, including TIFIA. Additionally, on January 15, 2021 USDOT issued a NOFO for the Infrastructure for Rebuilding America (INFRA) program. The 2021 NOFO includes the INFRA EXTRA initiative, which is aimed at encouraging sponsors with competitive projects that do not receive an INFRA award to consider applying for TIFIA credit assistance.

The likelihood that the TIFIA program would support this project is moderate. The administrative requirements and application/approval process are extensive. Additionally, it is unclear whether the agency has identified a funding stream to sustain long term debt service commitments and meet creditworthiness requirements. Assuming the project can meet all administrative requirements, the zero emission bus investments could score well against program criteria such as environmental impact, promoting innovative technologies, and potentially leveraging private capital.

1.2 Federal Transit Administration

Capital Investment Grants (CIG) – Small Starts

The Small Starts program provides federal grants for eligible projects less than $300 million in cost that are seeking less than $100 million in federal grants. In addition to fixed-guideway transit modes, Small Starts funding may also be used for "corridor-based bus rapid transit" projects that do not operate in a dedicated right-of-way. Small Starts projects are limited to a maximum CIG program share of 80 percent as well as 80 percent from all federal funding.

The new facility and ZEB investments would not be eligible for Small Starts funding unless included in a larger program to support a new BRT service.

The CIG program includes a comprehensive project development and review process. This program requires a multi-year engagement with the FTA to outline the project components and benefits, which when successful, can result in a multi-year funding commitment from the federal government.

Table 4. CIG – Small Starts Program Summary Information

Funding Availability	$100 million available for Small Starts Projects in FY 2020; $17.0 million of the total available for Small Starts Projects currently unallocated
Funding Cycle	Rolling application cycle
Matching Requirements	Small Starts maximum CIG share of 80% of total project costs Federal share may not exceed 80% of total project costs
Eligible Stages	Design, construction

The likelihood that the CIG Small Starts program would support this project is low. The project is not well-aligned with the CIG Small Starts program objective to support new fixed guideway or BRT service. The CIG Small Starts program could be an option for the project if it were coupled with a larger program to support a new BRT service.

Section 5307: Urbanized Area Formula Grants

The Urbanized Area Formula Funding program makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas (UZA) and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census. Each year, FTA uses a formula which takes into account both demographic information and service factors for transit agencies serving the UZA to determine each UZA's apportionment of Section 5307 funding.

Eligible activities include: planning, engineering, design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement, overhaul and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. In addition, associated transit improvements and certain expenses associated with mobility management programs are eligible under the program.

All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.

In FY2020, the Yuba-City UZA received $2.6 million from the Urbanized Area Formula Funding Program, of which roughly $2 million was used for operations.

The likelihood that the Urbanized Area Formula Funding program would support this project is high to moderate. The Urbanized Area Formula Funding program is the most flexible of FTA's formula programs and is a reliable source of funding for Yuba-Sutter Transit. To the extent that other funding sources can be used to supplement operations, funding from the Urbanized Area Formula Funding program could provide capital funding for this project.

Section 5311: Formula Grants for Rural Areas

The Section 5311: Formula Grants for Rural Areas program provides capital, planning, and operating assistance to state and federally recognized Indian tribes to support public transportation in rural areas with populations less than 50,000. The federal share of 5311 funds is determined based on project type as follows:

- 80% for capital projects
- 50% for operating assistance
- 80% for ADA non-fixed route paratransit service, using up to 20% (previously 10%) of the recipient's apportionment

The program's formula apportions 83.15% of funds based on land area and population in rural areas and the remaining 16.95% based on land area, revenue-vehicle miles, and low-income individuals in rural areas. Yuba-Sutter Transit receives roughly $350,000 annually from this program, of which it is possible to secure $300,000 per year for design and construction of this facility beginning in FY2024 (these funds are programmed for vehicle procurement through FY2023).

The likelihood that the Formula Grants for Rural Areas program would support this project is high. The program is flexible and Yuba-Sutter Transit will likely be able to set aside $300,000 per year beginning in FY2024.

Emergency Relief Funds

Several rounds of emergency relief funding have been made available to transit agencies to respond to the Coronavirus Disease 2019 (COVID-19) pandemic and the financial burden it has put on transit operators. In April 2020, FTA provided $25 billion to recipients of urbanized area and rural area formulas funds through the Coronavirus Aid, Relief and Economic Security (CARES) Act. In January of 2021, FTA provided an additional $14 million to recipients of urbanized area and rural area formulas funds through the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA). As of February

2021, congress is working on a bill to provide a third round of emergency relief funds for transit operators, which could total as much as $30 billion. An additional allocation of emergency relief funding could support Yuba-Sutter Transit's operations costs, and open up additional Section 5307 Urbanized Area Formula Grants and Section 5311 Formula Grants for Rural Areas to support near term capital costs of the project.

Section 5339: Bus and Bus Facilities Program

The Section 5339: Bus and Bus Facilities Program objective is to make federal resources available to states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low- or no-emission vehicles or facilities.

The Section 5339: Bus and Bus Facilities Program includes the following components:

- 5339 (A), a formula program;
- 5339 (B), a competitive discretionary program;
- Low or No Emission Vehicle Program - 5339 (C), a sub-program which provides competitive discretionary funding to for bus and bus facilities projects that support low and zero-emissions vehicles.

Under this program, the maximum federal share of net project costs is 80%. Relevant exceptions include:

- Acquisition of vehicles in compliance with the Clean Air Act (CAA), maximum federal share is 85% of net project costs
- Acquisition of vehicle-related equipment or facilities in compliance with the CAA, maximum federal share is 90% of net project costs

Formula Program (A) and Discretionary (B)

Eligible projects are capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.

In FY 2020, the Section 5339 (A) national total formula apportionments were $627 million, of which $60 million was apportioned for UZAs with populations of 50,000 – 199,999, and $9 million of which was allocated to projects in California. The apportionment formula is based on population and service factors, using the Section 5307 Urbanized Area Formula Program apportionment formula.

Applications for the competitive discretionary program, Section 5339 (B) are evaluated based on demonstration of need, or the quality and extent to which they demonstrate how the proposed project will address the need for capital investment in bus vehicles and/or supporting facilities. Applications are also assessed based on demonstration of benefits, or how well they describe how the proposed project

will improve the condition of the transit system, improve the reliability of transit service for its riders, and enhance access and mobility within the service area.

The FY 2020 Bus and Bus Facilities competitive discretionary program application cycle closed on April 29, 2020. For this recent cycle, funding was awarded to 96 projects totaling $464 million in grants.

Five California projects were awarded funding in the most recent cycle, three of these projects supported zero emissions bus investments:

- Butte County Association of Governments received $1.8 million to purchase electric buses and related charging equipment and infrastructure for B-Line (Butte Regional Transit).
- Caltrans on behalf of Kern Regional Transit received $1.4 million to construct a bus maintenance facility in Kern County.
- City of Davis received $3.8 million to purchase battery-electric buses.
- Monterey-Salinas Transit received $2.5 million to purchase new conventional buses.
- Solano County Transit received $1.9 million to plan, construct, and install electrical charging infrastructure.
-

The maximum award for a single project was $18 million, but the majority of funding awards were less than $10 million.

The likelihood that the Section 5339 formula program or competitive discretionary program would support this project is high. Both the facility and potential ZEB investments are well-aligned with the program objectives. Section 5339 funding can be used to support charging infrastructure investments in advance of vehicle purchase. For example, Solano County Transit was awarded funding from the competitive program during both the FY2019 and FY2020 awards cycles ($1.8 million and $1.9 million, respectively), to support a future all electric fleet. Additionally, there is potential for the project to qualify for the higher federal match. These projects will compete well, especially if the request is for $10 million or less.

Low or No Emission Vehicle Program – 5539 (C)

The Low or No Emission Vehicle Competitive (LoNo) program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.

Eligible projects include:

- Purchasing or leasing low- or no-emission buses
- Acquiring low- or no-emission buses with a leased power source
- Constructing or leasing facilities and related equipment (including intelligent technology and software) for low- or no-emission buses

- Constructing new public transportation facilities to accommodate low- or no-emission buses
- Rehabilitating or improving existing public transportation facilities to accommodate low- or no-emission buses

The FY 2020 Low or Now Emission Vehicle Competitive program application cycle closed on March 17, 2020. This cycle, funding was awarded to 41 projects totaling $130 million in grants. California had one awardee: Antelope Valley Transit Authority will receive $6.3 million to purchase new electric buses. The maximum funding awarded to a single project was $7.1 million.

The likelihood that the highly competitive Low or No Emission Vehicle program would support this project is moderate as long as the project includes ZEB investments, including charging infrastructure. If the project includes ZEB investments, it would be well-aligned with the program objectives and could take advantage of the higher federal match through this program. The project would compete well under this program, especially if the funding request is roughly $7 million or less.

1.3 United States Department of the Treasury

New Markets Tax Credit (NMTC) Program

The U.S. Department of the Treasury's Community Development Financial Institutions (CDFI) Fund NMTC Program attracts private capital into low-income communities by permitting individual and corporate investors to receive a tax credit against their federal income tax in exchange for making equity investments in specialized financial intermediaries called Community Development Entities (CDEs). For every $1 invested by the Federal government, the NMTC Program generates over $8 of private investment. The credit totals 39 percent of the original investment amount and is claimed over a period of seven years. Five percent of the original investment amount is claimed in each of the first three years, and 6% of the original investment amount is claimed in each of the final four years. Eligible communities are those where the individual poverty rate is at least 20 percent or where median family income does not exceed 80% of the area's median income. Based on these criteria, site #3 (6035 Avondale Ave) and site #12 (1441 E Onstott Rd) would be eligible, but not site #7 (Goldfields Pkwy & N Beale Rd).

Through the NMTC Program, the CDFI Fund allocates tax credit authority CDEs through a competitive application process. CDEs are financial intermediaries through which private capital flows from an investor to a qualified business located in a low-income community. CDEs use their authority to offer tax credits to investors in exchange for equity in the CDE. Using the capital from these equity investments, CDEs can make loans and investments to businesses operating in low-income communities on better rates and terms and more flexible features than the market.

NMTC Program applicants must be certified as CDEs by the CDFI Fund. The NMTC Program typically supports retail, residential, mixed-used, and social infrastructure projects but can be used to support transportation purposes, though it is less common. Yuba-Sutter Transit would not be able to apply for the NMTC Program but could develop a partnership with a qualified CDE partner who could apply to the program.

LA Metro has benefitted from the NMTC Program funded projects such as:

- MacArthur Park Transit-Oriented Development, a mixed-use development including affordable apartments and retail space next to LA Metro's MacArthur/Westlake station. The project was formed from a public-private-community partnership with the goal of providing affordable housing in a livable, walkable community with easy accessibility to jobs and services. The project was developed by an affordable housing developer, McCormack Baron Salazar, in partnership with several local and state agencies.
- Anderson Munger Family YMCA, a health and fitness center, half a mile from the Wilshire/Western Metro station and several bus stops. The project was supported by two CDEs: Lowe CDE (associated with Lowe Enterprises) and the Los Angeles Development Fund CDE.
- The 2020 NMTC cycle opened September 22, 2020 and closed on November 16, 2020. Recipients will be announced in Summer of 2021. The 2021 cycle would likely open in late Summer/early Fall of 2021.

Additionally, the Butte County Association of Governments (BCAG) was certified as a 501(c)(3) organization in order to become an eligible CDE. BCAG successfully applied for the NMTC program to support expansion of the Butte Regional Transit Operations Center (BRTOC), located in the city of Chico, which includes a non-profit office and community meeting spaces[2]. A large portion of Butte Regional Transit's patrons are transit-dependent and in addition to connecting these riders to health, food, and educational centers the system has provided emergency evacuation and other essential services in the wake of major environmental incidents such as the Oroville Dam emergency spillway crisis in 2017 and the Camp Fire wildfire in 2018. BCAG made a compelling application for the NMTC by demonstrating the strong nexus between public transportation services and other community resources culminating in two successful applications to the NMTC program:

- In 2016, BCAG received $15.5 million from the program to support the BRTOC expansion.
- In 2018, BCAG received an additional $6 million to build a solar array and Community Resource Center at the BRTOC facility.

The likelihood that the NMTC program would support the project is moderate. Assuming site #3 or site #12 were selected (site #7 is not in an eligible location) Yuba-Sutter Transit would likely need to partner with an eligible CDE who could apply to the program. It is possible that Yuba-Sutter Transit could coordinate with SACOG and follow a similar pathway to BCAG, assuming that SACOG were to complete necessary steps become an eligible CDE. The project could build a compelling application by demonstrating the key role the agency plays to provide vital connections in the community. The application could be strengthened if the project scope were to incorporate complementary community development features, similar to how BCAG included a Community Resource Center in the BRTOC facility. If the project were to incorporate a public-private partnership to construct, operate, and

[2] https://communityvisionca.org/nmtcbuildingreslience/

maintain solar panels on the bus canopies (described in more detail in a subsequent section), the project could be a stronger candidate for this program.

Opportunity Zones

The 2017 Tax Cut and Jobs Act created a new economic development tool called opportunity zones to increase economic development in low-income and distressed communities. An opportunity zone is an economically distressed community designated by the State's Governor and certified by the United States Secretary of the Treasury. The CDFI Fund is supporting the IRS with the opportunity zone nomination and designation process. To qualify for the opportunity zone designation, a community must be located in a census tract with a poverty rate of 20 percent or more, and where the median family income is less than 80 percent of the area median. Site #3 (6035 Avondale Ave) and site #12 (1441 E Onstott Rd) are located in designated opportunity zones, but not site #7 (Goldfields Pkwy & N Beale Rd).

Investing in opportunity zones offers tax benefits for business or individual investors who can elect to temporarily defer tax on capital gains if they timely invest those gain amounts in a Qualified Opportunity Fund (QOF). Investors can defer tax on the invested gain amounts until the date they sell or exchange the QOF investment, or Dec. 31, 2026, whichever is earlier.

The length of time the taxpayer holds the QOF investment determines the tax benefits they receive.

- If the investor holds the QOF investment for at least five years, the basis of the QOF investment increases by 10% of the deferred gain.
- If the investor holds the QOF investment for at least seven years, the basis of the QOF investment increases to 15% of the deferred gain.
- If the investor holds the investment in the QOF for at least 10 years, the investor is eligible to elect to adjust the basis of the QOF investment to its fair market value on the date that the QOF investment is sold or exchanged.

U.S. Department of Commerce's Economic Development Administration (EDA)

In addition to the tax incentives offered by the Department of the Treasury through the IRS, the U.S. Department of Commerce's Economic Development Administration (EDA) established a competitive grant funding program in 2018 to provide strategic investments that foster job creation and attract private investment to support development in opportunity zones. EDA has invested over $500 million in opportunity zones across the nation since 2018. The award ceiling is $3,000,000 and the award floor is $100,000. There is no submission deadline to apply for this opportunity, applications will be accepted on a rolling basis until a new NOFO is published. Most recently, in August 2020, this program awarded $4.4 million to three projects in Tennessee to support investments in water/wastewater infrastructure and liquid natural gas storage/regasification infrastructure.

To effectively position themselves for investment through opportunity zones, communities need to have a strong economic development plan in place that can send a signal to the private sector that the area has established a clear vision for the future, identified its important assets and challenges, and engaged key stakeholders.

The likelihood that the Opportunity Zone tax incentives would support the project is low to moderate. Assuming site #3 or site #12 were selected (site #7 is not in an eligible location) Yuba-Sutter Transit would not receive any direct benefit through opportunity zone tax incentives. A private entity that has invested equity in the project benefits from the tax incentives. The tax incentives apply to the private entity's capital gains on the investment, meaning the investment must be revenue-generating in order to receive the benefit. It would be difficult for Yuba-Sutter Transit to identify a private entity interested in investing in a standalone O&M facility. However, if the project were to incorporate a public-private partnership to construct, operate, and maintain solar panels on the bus canopies (described in more detail in a subsequent section), that would be a qualified, revenue-generating investment (the revenue stream would come from selling the energy back to the grid). Additionally, it is possible that the project could be awarded funding under the EDA's competitive funding program.

2. State Funding and Financing Options

Table 5. Existing Potential California State Funding and Financing Options

Funding Program	Administering Agency	Eligibility				Funding Potential
		O & M Facility	*Vehicle Charging Infrastructure*	*BEB*	*Hydrogen Fuel Cell Bus*	
Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)	CARB		✔	✔	✔	Low, agency would need to purchase ZEBs in order to qualify for infrastructure incentives.
State Volkswagen Settlement Mitigation	CARB		✔	✔	✔	Moderate to low, the program is well aligned but funding available is low.
Transit and Intercity Rail Capital Program (TIRCP)	CalSTA		✔	✔	✔	Moderate, assuming charging infrastructure is included, project is well-aligned. Challenges due to uncertainty in timing of next cycle and ridership and GHG emissions analyses requirements.
Solutions for Congested Corridor Programs	CTC			✔	✔	Low, program is intended for ZEB fleet purchases and would need to demonstrate congestion alleviation.
Low Carbon Transit Operations Program (LCTOP)	CalTrans	✔	✔	✔	✔	High, project is aligned with program objectives.
Transportation Development Act: Local Transportation Fund (LTF)	Caltrans/State Board of Equalization	✔	✔	✔	✔	High, urgency of the new facility could be used to justify an increase in the agency's allocation.
Transportation Development Act: State Transit Assistance (STA)	CalTrans/State Controllers's Office (SCO)	✔	✔	✔	✔	High, aligned with program objectives, flow directly to the agency.

SB 1 State of Good Repair Program (SGR)	CalTrans/SCO	✔	✔	✔	✔	High, program uses are flexible.
Infrastructure State Revolving Fund (ISRF) Program	IBank	✔	✔	✔	✔	Moderate pending identification of funding source for debt service repayment.
California Lending for Energy and Environmental Needs (CLEEN) Center	IBank	✔	✔	✔	✔	
Bond Financing Program	IBank	✔	✔	✔	✔	
Clean Mobility Options (CMO)	CALSTART		✔			Low, the project's ZEB investments would not be eligible; however, this program could fund projects to create a mobility hub at the maintenance and operations facility.

The state funding and financing options described and evaluated in this section include the following:

- Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP);
- State Volkswagen Settlement Mitigation;
- Transit and Intercity Rail Capital Program (TIRCP);
- Solution for Congested Corridor Programs (SCCP);
- Low Carbon Transit Operations Program (LCTOP);
- Local Transportation Fund (LTF);
- State Transit Assistance (STA);
- State of Good Repair Program (SGR);
- California Infrastructure and Economic Development Bank (IBank) financing;
- Clean Mobility Options (CMO).

2.1 California Air Resources Board

Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)

The California Air Resources Board (CARB), in partnership with CALSTART, launched the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) and Low NOx Engine Incentives in 2009, to accelerate the purchase of cleaner, more efficient trucks and buses in California. HVIP offers incentives, such as point-of-sale discounts, to purchase eligible zero-emission and hybrid trucks and buses, vehicles using engines that meet the optional low-NOx engine standard in California, and vehicles using eligible ePTO technologies. HVIP works directly with truck and bus dealers to apply a voucher incentive at the time of purchase. The program requires that buses are operated in California for at least three years.

Through its most recent funding cycle ($142 million for FY 2019 - 20), the program is projected to bring the total number of ultra-clean trucks and buses to more than 9,000.

On November 1, 2019 the HVIP program announced it was on hold until additional funding is identified, as the program is oversubscribed due to notable demand for the clean truck and bus program statewide. Additional funding is anticipated to become available in early 2021; CARB's FY 2020 – 21 Funding Plan for Clean Transportation Incentives includes an additional $25 million for the HVIP Program.

In the most recent funding cycle, the program offered the following price reductions:

- Fuel Cell Electric Truck or Bus: up to $315,000
- Battery Electric Bus: up to $190,000
- Zero Emission Shuttle Bus: up to $165,000

- Vehicles with ePTO System: up to $40,000
- Low NOx Engine: up to $52,000

Additionally, the program offered incentives to support infrastructure, available on a case-by-case basis:

- Up to $30,000 per vehicle to support electric vehicle infrastructure
- Up to $100,000 per vehicle to support hydrogen fuel cell infrastructure

These incentive amounts may be revised once the FY 2020-21 program is launched.

The likelihood that the HVIP program would support the project is low, as the agency would need to purchase ZEBs in order to qualify for infrastructure incentives. Assuming the HVIP program continues, it could be a future source of funding once the agency is ready to purchase ZEBs. Given recent demand for the program, Yuba-Sutter Transit should continue to monitor the status of the program so that they can be well-positioned to apply once the agency begins to purchase ZEBs.

State Volkswagen Settlement Mitigation

Coordinated by CARB, the Volkswagen (VW) Environmental Mitigation Trust provides about $423 million in total for California to mitigate the excess nitrogen oxide (NOx) emissions caused by VW's use of illegal emissions testing defeat devices in certain VW diesel vehicles. The program allocates funding to five different grant programs based on project category. Assuming this project includes both ZEB fleet and infrastructure investments, the project could be eligible for funding from the following categories.

Table 6. Volkswagen Settlement Mitigation Program Summary Information

Project Category	Application Type	Total Amount Allocated	Details
Zero-Emission Transit, School, and Shuttle Buses	Rolling	$130 million	Maximum Funding Levels: – Battery Electric Transit Bus: $180,000 – Fuel Cell Transit Bus: $400,000
Light-Duty Zero-Emission Vehicle Infrastructure: Hydrogen Stations	Competitive Solicitation	$5 million	The deadline to apply for this funding was May 22, 2020; all funding has been awarded.
Light-Duty Zero-Emission Vehicle Infrastructure: Charging Stations		$5 million	Scheduled to open February 2021. Chargers installed on government-owned properties are eligible to receive up 100% of eligible costs.

Funding through the Zero-Emission Transit School, and Shuttle Buses project category is awarded on a rolling basis, so the project should apply soon if ZEB fleet will be included in the project.

Under the Light-Duty Zero-Emission Vehicle Infrastructure project category, the $5 million allocation for Hydrogen Stations has been awarded. Since the funding for this program comes from a one-time settlement, it is not expected that this program would be replenished with additional funding in the future. However, the $5 million allocation for Charging Stations has yet to be awarded and the application process is scheduled to open in February 2021. At least 50% of funding will be awarded to stations that are installed in areas that benefit disadvantaged and low-income communities. Detailed scoring criteria are expected to be released in early 2021. Stations that are publicly accessible on government-owned property are eligible to receive up to 100% of eligible costs.

The likelihood that the VW Environmental Mitigation Trust funding program would support the project is moderate to low. Funding for hydrogen stations is no longer an option through this program. However, it is possible the project could receive funding for electric charging stations, noting that the application process is scheduled to open in February 2021. Given the $5 million total allocation for charging stations, funding awards for this program are likely to be very low if there are significant applications; or the program might opt for higher award values but very few awardees. Yuba-Sutter Transit could potentially apply for funding to support ZEB fleet investments in the future, assuming that Zero-Emission Transit Bus funding has not been exhausted by the time the agency plans to electrify the fleet.

2.2 California State Transportation Agency

Transit and Intercity Rail Capital Program (TIRCP)

Administered by the California State Transportation Agency (CalSTA), TIRCP funds transformative capital improvements that will modernize California's intercity, commuter and urban rail systems, and bus and ferry transit systems to reduce emissions of greenhouse gases by reducing congestion and vehicle miles traveled throughout California. Section 75220(a) of the Public Resources Code (PRC) establishes the following policy objectives for the TIRCP program:

- Reduce emissions of greenhouse gases
- Expand and improve transit service to increase ridership
- Integrate the rail service of the state's various rail operations, including integration with the high-speed rail system
- Improve transit safety

Additionally, Section 75221(c) of the PRC establishes a programmatic goal to provide at least 25 percent of available funding to projects that provide a direct, meaningful, and assured benefit to disadvantaged communities.

There have been three prior cycles of TIRCP funding, in which the California State Transportation Agency (CalSTA) has awarded $5.3 billion in funding to 56 projects throughout the state. Assembly Bill 398 (Chapter 135) extended the Cap and Trade Program that supports the TIRCP from 2020 through 2030. SB 1 (Chapter 5) continues to provide a historic funding increase for transportation with funds directed to the TIRCP from the Public Transportation Account for new programming.

The most recent TIRCP program cycle (Cycle 4) closed on January 16, 2020. Through this most recent funding cycle several ZEB projects received funding:

- Antelope Valley Transit Authority (also an awardee of the FY2020 LoNo Program) received $6.5 million (total project cost $8.5 million) for the Reaching the Most Transit-Vulnerable: AVTA's Zero Emission 'Microtransit' and Bus Expansion Proposal, which includes purchase of 11 zero emission battery electric buses and supportive charging infrastructure
- Lake Transit Authority received $13.0 million (total project cost $13.3 million) for the North State Intercity Bus System project, which includes purchase of four hydrogen fuel-cell buses and supporting infrastructure
- Long Beach Transit received $6.5 million (nearly the entire total project cost) for the LBT/UCLA Electric Commuter Express project, which includes purchase of five zero-emission battery electric buses and construct charging infrastructure
- San Bernardino County Transportation Authority (SBCTA) and Omnitrans received $15 million (total project cost $287.0 million) to support the West Valley Connector Bus Rapid Transit Phase 1 and Zero-Emission Bus Initiative
- Santa Monica Big Bus received $1.1 million (total project cost $6.7 million) to support the For People, Place and Planet: Connecting Inglewood to Regional Opportunities which includes purchase of seven ZEBs

- Torrance Transit Department received $6.0 million (total project cost $7.2 million) for the Torrance Transit Bus Service Enhancement Program which includes purchase of seven electric buses
- Transit Joint Powers Authority of Merced County (TJPAMC) received $3.1 million (total project cost $3.7 million) to support the Improving Air Quality and the Economic Growth with Electric Buses in Merced County, the Gateway to Yosemite project, which includes purchase of three zero-emission electric buses
- Solano Transportation Authority (STA) received $10.4 million (total project cost $17.2 million) for Transit Improvements Phase 2, which will include shared inductive charging infrastructure at five regionally significant locations. These charging facilities will charge electric buses used by STA, but also be available to other transit agencies, including Napa Vine and Contra Costa County Connection. Note that STA also received funding from the Section 5339 competitive program.

Advantages of the program include that TIRCP funds can be used as a local match for competitive federal funds. Demand for TIRCP program funds exceeds available funding, but the program is not as competitive as BUILD. Challenges of the program include that the application requires an emissions analysis and ridership projection data. Additionally, calls for projects are not issued annually, Cycle 4 awardees were announced in April 2020, but at this time it is unclear when the Cycle 5 call for projects will be issued. Previous TIRCP cycles were awarded in 2015, 2016, and 2018, so it is possible Cycle 5 would take place in 2022.

The likelihood that the TIRCP program would support the project is moderate, if charging infrastructure investments are included in the scope of the project. The project would compete well for TIRCP if it can be portrayed as a transformative capital improvement that will modernize the state's transit system, demonstrate reduced GHG emissions, increased ridership, integration with rail transit service, and improvements in safety. Uncertainty in the timing of the next call for projects as well as the required GHG and ridership analyses may impact the likelihood of funding award.

2.3 California Transportation Commission

Solutions for Congested Corridor Programs

The primary objective of the SCCP is to achieve a balanced set of transportation, environmental, and community access improvements within highly congested traveled corridors throughout the state. The competitive program makes $250 million available annually to projects that make specific performance improvements and are a part of a comprehensive corridor plan designed to reduce congestion in highly traveled corridors by providing more transportation choices for residents, commuters, and visitors to the area of the corridor while preserving the character of the local community and creating opportunities for neighborhood enhancement projects.

Eligible projects include: addition of HOV and managed lanes; new or existing transit infrastructure improvements such as adding roadway capacity for improved transit service (e.g., bus-only lanes or traffic signal priority); and acquisition of buses, including zero-emission buses.

Regional transportation planning agencies, county transportation commissions and Caltrans are eligible to apply for program funds through the nomination of projects. All nominated projects must be included in a multi-modal plan. Yuba-Sutter Transit would need to coordinate with SACOG and its member jurisdictions to nominate the project and ensure it is included in an appropriate multi-modal plan.

SCCP program scoring criteria include:

- Safety;
- Congestion;
- Accessibility;
- Economic development, job creation and retention;
- Air pollution and greenhouse gas emission reductions;
- Efficient land use;
- Level of matching funds; and
- The ability to complete the project in a timely manner.

Staff recommendations for 2020 SCCP funding cycle include a two-year program, for $494 million (FY 2021 – 2022 and 2022 – 2023) awarding funding to seven projects. Two of the seven projects support ZEB investments:

- West Valley Connector Bus Rapid Transit (also awarded funding in the 2020 TIRCP cycle) received $65 million and will include purchase of ZEBs
- Placer-Sacramento Gateway Corridor Phase I received $67 million and will include purchase of ZEBs.

Advantages of the program include that SCCP funds can be used as local match for competitive federal programs, and while demand for SCCP funds exceeds available funding the program is less competitive than federal programs such as BUILD. Challenges of this program include that coordination with regional partners is required to nominate projects and ensure they are included in a multi-modal plan. Additionally, the most recent SCCP cycle closed on July 17, 2020 and included a two-year program (FY 2021 – 2022 and FY 2022 – 2023); it is likely that the next cycle of funding would not be available until FY 2023 – 2024. Projects will only be considered for funding if at the time of adopting, the projects have completed CEQA/NEPA environmental review.

The likelihood that the SCCP program would support the project is low. While charging infrastructure investments support the program objective to reduce GHG emissions, the program is better-suited for ZEB fleet purchases. Additionally, the project would need to demonstrate that it would alleviate congestion. Funding is unlikely to be available until the FY 2023 – 2024 cycle, at which point Yuba-Sutter Transit might want to include ZEB fleet investments as well. Yuba-Sutter Transit can use this time until

the next cycle to pre-position for funding by coordinating with its regional partners to nominate the project and include it in a multi-modal plan.

2.4 California Department of Transportation

Low Carbon Transit Operations Program

Administered by Caltrans in coordination with the Air Resource Board (ARB) and the State Controller's Office (SCO), the LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities. Approved projects in LCTOP will support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, with each project reducing greenhouse gas emissions. For agencies whose service area includes disadvantaged communities, at least 50 percent of the total moneys received shall be expended on projects that will benefit disadvantaged communities. Senate Bill 862 continuously appropriates five percent of the annual auction proceeds in the Greenhouse Gas Reduction Fund (Fund) for LCTOP, beginning in 2015-16.

Funds are distributed on a formula basis based on prior use of State Transportation Act (STA) funds and is divided in two equal parts:

- 50 percent is available for regional entities and distributed based on the ratio of population of the area under its jurisdiction to the total population of the state;
- 50 percent is available to transit operators and is distributed based on the ratio of total revenue of each operator during the prior fiscal year to the total revenue (fare) of all operators of the state.

During the FY 2019 – 2020 LCTOP cycle, Yuba-Sutter Transit received $338,142 to support various fare initiatives and events providing benefits to disadvantaged communities. LCTOP funds can be accrued for up to four years before being expended, representing a potential of up to $1.35 million for Yuba-Sutter Transit over four years. Several other recipient agencies received funding for ZEB initiatives, which could be an option for Yuba-Sutter Transit to utilize in the future.

LCTOP formula funds can be used on a wide variety of projects that result in greenhouse gas reductions including new transit service and the purchase ZEBs and supporting infrastructure.

The likelihood that the LCTOP program would support the project is high. Equipment acquisition is an eligible use and the project is well-aligned with the program's objectives to reduce GHG emissions and serve disadvantaged communities.

Transportation Development Act

The Transportation Development Act (TDA) provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The TDA establishes two funding sources:

- Local Transportation Fund (LTF)

- State Transit Assistance (STA)
- These two funding sources are described in the subsequent sections.

Local Transportation Fund

The LTF is derived from a 0.25 cent of the general sales tax collected statewide. The State Board of Equalization, based on sales tax collected in each county, returns the general sales tax revenues to each county's LTF. Each county then apportions the LTF funds within the country based on population.

Yuba-Sutter Transit's UZA has a population under 200,000 which means the region's LTF funds are allocated based on "unmet transit needs". The region receives roughly $5.8 million per year, of which Yuba-Sutter Transit in recent years has received $2.8 million, which historically has been used for operating assistance. The local public works departments receive the remaining funds, typically using LTF funds for road maintenance, and can always justify the need. Given the essential nature of this new facility, Yuba-Sutter Transit could make a strong case that this facility constitutes an unmet transit need to justify receiving a larger share of LTF funds even if only temporarily.

State Transit Assistance

The STA funds are appropriated by the legislature to the State Controller's Office (SCO). The SCO then allocates the tax revenue, by formula, to planning agencies and other selected agencies. Statue requires that 50% of STA funds be allocated according to population and 50% be allocated according to transit operator revenues from the prior fiscal year.

On April 28, 2017 Governor Brown signed Senate Bill (SB) 1 (Chapter 5, Statutes of 2017), known as the Road Repair and Accountability Act of 2017. Senate Bill 1 (SB 1) augments the base of the STA program essentially doubling the funding for this program. To provide for SB 1 reporting and transparency, transit agencies are asked to work with the Department to report on planned expenditures for these augmented funds.

Yuba-Sutter Transit receives STA funds directly and primarily uses STA funds to support bus purchases and operating assistance. In recent years, Yuba-Sutter Transit has received roughly $1.6 million annually through the STA program. However, Yuba-Sutter Transit received less than $1 million in STA funding in FY21, as the STA program is funded by diesel sales tax revenues which have decreased as a result of the pandemic. As the economy recovers, STA funding levels are expected to rebound to pre-pandemic levels.

The likelihood that the LTF or STA programs would support the project is high. STA funds provide lower levels of funding compared to the LTF, but Yuba-Sutter Transit receives these funds directly and has complete control over how they are used. Yuba-Sutter Transit does not directly receive LTF funds, but the urgency of the new facility could be used to justify an increase in Yuba-Sutter Transit's allocation of LTF funds. If Yuba-Sutter Transit opts to use STA or LTF funding for the new facility, it will be important to identify other funding sources to ensure operating assistance is sufficient.

State of Good Repair Program

The State of Good Repair (SGR) Program is part of the SB 1 expansion of State Transit Assistance. The SGR Program provides additional revenues for transit infrastructure repair and service improvements. Eligible uses of SGR Program funds include transit maintenance, rehabilitation, and capital projects.

The SGR Program is funded from a portion of a new Transportation Improvement Fee on vehicle registrations due on or after January 1, 2018. In coordination with SCO, Caltrans is responsible for management and administration of the SGR Program. SGR Program funds are allocated under the same formula as STA funds.

In order to be eligible for SGR funding, agencies must comply with various reporting requirements. Unlike the STA Program, in order to receive an apportionment of SGR Program funds agencies must submit a project list and provide information such as description, location, schedule, and useful life of the improvement.

The SGR Program receives funding of approximately $105 million annually. Yuba-Sutter Transit received $247,000 from the FY 2019-20 SGR Program. Funds can be accrued for four years before being expended, representing a potential of up to $1 million for Yuba-Sutter Transit over four years.

The likelihood that the SGR program would support the project is high. Capital projects are eligible for SGR Program funding. Yuba-Sutter Transit is already familiar with the project submittal process, so the additional statutory requirements should not hinder the agency from continuing to secure funding for the facility through this program in future cycles.

2.5 California Infrastructure and Economic Development Bank

The California Infrastructure and Economic Development Bank (IBank) was created in 1994 to finance public infrastructure and private development that promote a healthy climate for jobs, contribute to a strong economy and improve the quality of life in California communities. IBank finances public infrastructure by issuing revenue bonds through programs such as:

- Infrastructure State Revolving Fund (ISRF) Loan Program
- California Lending for Energy and Environmental Needs (CLEEN) Center
- Bond Financing Program

These programs are described in the following sections.

ISRF, CLEEN, and Bond Financing Program could all be suitable options to finance facility construction or capital costs associated with ZEB investments. These programs accept applications on a rolling basis. Challenges of IBank financing programs include the extensive requirements to apply and be approved, including identification of a sustainable funding source to meet debt service requirements. Additionally, the Yuba-Sutter Transit JPA stipulates that the agency cannot issue debt unless all four member jurisdictions approve.

The likelihood that an IBank program would support the project is moderate. The project would be suitable for the IBank programs described below, but a successful application would be contingent upon identifying a sustainable funding source to meet debt service commitments.

Infrastructure State Revolving Fund (ISRF) Program

The ISRF Program provides low-cost public financing to state and local government entities and to nonprofit organizations sponsored by public agencies for a wide variety of public infrastructure and economic expansion projects. Project examples have included public streets, airport terminals, town halls, and water systems. ISRF Program funding is available in amounts ranging from $50,000 to $25 million with loan terms for the useful life of the project up to a maximum of 30 years.

Eligible applicants must be located in California and include any subdivision of a local government, including cities, counties, special districts, assessment districts, joint powers authorities and nonprofit organizations sponsored by a government entity.

California Lending for Energy and Environmental Needs (CLEEN) Center

This program provides financing to borrowers who help reduce greenhouse gases, conserve water, and preserve the environment such as municipalities, universities, schools and hospitals. The CLEEN Center offers two programs: the Statewide Energy Efficiency Program (SWEEP) and the Light Emitting Diode Street Lighting Program (LED). Financing can be through a direct loan from IBank in amounts from $500 thousand to $30 million. Transit projects are eligible for this program if they use technologies which have been commercially proven to result in carbon reduction benefits. Eligible transportation projects include refueling stations for alternative fuel vehicles, electric vehicles, hybrid electric vehicles, and alternative fuel vehicles. As an example, Humboldt County received $300,000 for a bus project with a cost of approximately $600,000.

Bond Financing Program

This program offers tax-exempt and taxable conduit revenue bond financing via Exempt Facility Bonds and Public Agency Revenue Bonds (PARBs). This program offers low interest rates and long-term financing.

2.6 CALSTART

Clean Mobility Options (CMO)

CMO program provides voucher-based funding for zero-emission carsharing, carpooling/vanpooling, bikesharing/scooter-sharing, innovative transit services, and ride-on-demand services in California's historically underserved communities. The program aims to improve underserved communities' access to clean mobility options that are safe, reliable, convenient, and affordable, by creating a streamlined application process for communities to apply for funding. The program also seeks to further mobility equity, improve local air quality, increase zero-emission vehicle adoption, reduce vehicle miles traveled, and advance workforce development in clean transportation.

The 2020 award cycle closed to non-tribal applicants on October 28, 2020. Total funding for the 2020 award cycle totaled $1.15 million in grants, with the majority of recipients receiving less than $50,000. However, for next year's voucher application window, the California Energy Commission will partner with the CARB to support the CMO program. The partnership will streamline the use of funds from both agencies, adding $8 million to voucher funds and provide support for under-resourced communities.

In order to be eligible, the project area must be in a community that meets at least one of three qualifications:

- It is on the Disadvantaged Communities List for Climate Investments in accordance with CalEPA's designation (e.g. have a score in the top 25 percent of CalEnviroScreen 3.0 scores)
- It is a tribal land or tribal property within AB 1550 designated low-income communities, or
- It serves a deed-restricted affordable housing facility (at least 80 percent of property residents have incomes at or below 60 percent of the area median income) with at least five units and located within an AB 1550 designated low-income community.

Additionally, eligible projects must be based on one of the following: car-sharing, bicycle or scooter sharing, carpooling/vanpooling, innovative transit services (e.g. on-demand shuttles and circulators, paratransit services and microtransit), or ride-on-demand services (e.g. taxi and "TNC" services).

The likelihood that the CMO program would support the project is low. As the program is currently defined, the project's ZEB investments would not be eligible; however, this program could fund projects to create a mobility hub at the maintenance and operations facility. Yuba-Sutter Transit should monitor the CMO program as it approaches the next application cycle, as it seems that more funding will be available. If the program expands its eligibility requirements to include mobility options for the surrounding disadvantaged community (assuming the project location meets the disadvantaged community qualifications) the likelihood of receiving a material level of funding from the project could increase.

3. Regional, Local, and Other Funding and Financing Options

Table 7: Potential Regional, Local, and Other Funding and Financing Options

Funding Program	Administering Agency	Eligibility				Funding Potential
		O & M Facility	*Vehicle Charging Infrastructure*	*BEB*	*Hydrogen Fuel Cell Bus*	
Regional Program: Maintenance and Modernization Category	SACOG	✔	✔	✔	✔	Low, the project's total cost would likely exceed the $5 million maximum threshold.
Regional Program: Transformative Category	SACOG	✔	✔	✔	✔	Moderate to high, aligned with program objectives, above the $5 million minimum threshold.
Regional Program: Revolving Match Fund Category	SACOG	✔	✔	✔	✔	Moderate, could provide a match to a competitive FTA or state transportation funding program.
Regional Program: Project Funding Gap Support Category	SACOG	✔	✔	✔	✔	Low, project is not eligible for this program as it is not included in a previous Regional Program.
Community Design Program: Competitive Category	SACOG	✔	✔			Moderate, the project is eligible but would need to demonstrate or incorporate land use planning/development consistent with Blueprint Principles.
EV Charge Network	Pacific Gas and Electricity (PG&E)		✔[3]			Low, program is at capacity and no longer accepting applicants.
EV Fleet Program	PG&E		✔[4]			High, charging infrastructure is eligible, applications accepted on a rolling basis while funding is available.

Joint Development	N/A	✔				Low, depends on site selection; difficult for non-passenger facilities.
Public-Private Partnership	N/A	✔	✔			Low, private sector is unlikely to be interested until the agency is closer to electrifying the fleet,

[3] Electric vehicle charging infrastructure only.
[4] Electric vehicle charging infrastructure only.

The regional, local, and other funding and financing options described and evaluated in this section include the following:

- SACOG Regional Program: Maintenance and Modernization Category;
- SACOG Regional Program: Transformative Category;
- SACOG Regional Program: Revolving Match Fund Category;
- SACOG Regional Program: Project Funding Gap Support Category;
- Community Design Program: Competitive Category;
- PG&E EV Charge Network;
- PG&E EV Fleet Program;
- Joint Development;
- Public-Private Partnership.

3.1 Sacramento Area Council of Governments

SACOG conducts funding rounds to allocate funds to transportation projects based on available apportionments of regional Congestion Mitigation and Air Quality (CMAQ), Regional Surface Transportation Program (RSTP), State Transportation Improvement Program (STIP), Active Transportation Program (ATP), and SACOG managed funds. The funds get distributed through individual funding programs that together make up a funding round.

Project applications are solicited from public agencies and their partners located in the SACOG region. All funding programs except Regional ATP are only available to projects located within Sacramento, Sutter, Yolo and Yuba counties.

SACOG administers funding for transportation projects through two programs:

- Regional Program
- Community Design Program

These programs are described in the following sections.

Regional Program

The emphasis of the Regional Program is to fund cost-effective transportation projects that realize the performance benefits of the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The Regional Program is SACOG's largest competitive program, its primary program categories include:

- Maintenance and Modernization category: This program provides funding for projects with a total cost of $5 million or less that support state of good repair.
- Transformative category: This program provides funding for projects with a total cost exceeding $5 million or expansion projects (e.g., roadway expansion, new transit service, new facility)

Additionally, the Regional Program includes two funding instrument tools:

- Revolving Match Fund category: This program provides funding to project sponsors to support local match to state and federal grants. If the project is not awarded state or federal grant, the Revolving Match Fund award is returned to SACOG and recirculated for future applicants.
- Project Funding Gap Support category: This program provides additional funding to fill in budget gaps on projects that have already received funding through SACOG's regional program since 2015.

These programs are described in further detail in their respective sections.

Maintenance and Modernization Category

A primary goal of the Maintenance and Modernization program category is to support projects that demonstrate "state of good repair" benefits that maintain and improve the existing transportation system. Projects are also asked to demonstrate how modernization features support additional MTP/SCS performance objectives: reduce VMT and/or GHG per capita; increase multi-modal travel and choice of transportation options; provide long-term economic benefit; improve goods movement; or improve safety. Additionally, the 2021 Maintenance & Modernization program category incorporates "advance socioeconomic equity" as a cross-cutting objective across performance outcomes.

Table 8 summarizes key information for the Maintenance and Modernization program category.

Table 8: Maintenance and Modernization Program Summary Information

Category Budget	$72 million - $92 million
Category Criteria	Non-expansion/state of good repair projects with a total cost of $5 million
Key Requirements	– Included in the 2020 Metropolitan Transportation Plan/Sustainable Community Strategy or fit within a lump-sum project category – The project must be identified as an "exempt" project on the application to help determine eligibility related to air quality considerations.[5] – Eligible for CMAQ, RSTP, or STIP funding – The project must be scheduled to begin construction no later than June 2025, with preliminary engineering and environmental analysis scheduled within three years – Construction funding requests must demonstrate that environmental, engineering, and right-of-way are reasonably estimated in the application materials and the agency has the financial capacity for ongoing operations and maintenance
Match Requirements	11.47% non-federal match required (waived if the project is located in a disadvantaged community)
Selection Criteria	– Project sponsor priorities (maximum score: 45 points) – Asset Conditions & Use (maximum score: 20 points) – Modernization Benefits (maximum score: 25 points) – Project Delivery & readiness (maximum score: 10 points)
Timeline	– The 2021 program opened on November 11, 2020 and closed on January 15, 2021 – Project awards to be announced in April 2021

[5] Per the Regional Program guidelines, "exempt" projects are typically considered non-expansion projects, while "non-exempt" projects are typically considered expansion projects.

	– Funding to be received no earlier than July 2021

The likelihood that the Regional Program's Maintenance and Modernization program would support the project is low. The project's total cost would likely exceed the $5 million threshold and may be best suited for the Transformative category described in the next section. Yuba-Sutter Transit will coordinate with SACOG to confirm which category is best suited to the project.

Transformative Category

The program seeks to promote effective and efficient use of limited state and federal funding resources to both develop and maintain the regional transportation network and provide regional benefits. This is accomplished through the funding of capital and lump-sum category projects included in the 2020 MTP/SCS and reflected in the following performance objectives of the MTP/SCS:

- Reduce regional vehicle miles travelled (VMT) and/or greenhouse gases (GHG) per capita.
- Reduce regional congested VMT per capita.
- Increase multi-modal travel/alternative travel/choice of transportation options.
- Provide long-term economic benefit within the region, recognizing the importance of sustaining urban and rural economies.
- Improve goods movement, including farm-to-market travel, in and through the region.
- Significantly improve safety and security.
- Demonstrate "state of good repair" benefits that maintain and improve the existing transportation system.

Similar to the Maintenance and Modernization category, the 2021 Transformative program category incorporates "advance socioeconomic equity" as a cross-cutting objective across performance outcomes.

The policy framework for the 2021 regional funding round also establishes an opportunity for a limited number of non-expansion projects applying in the Transformative category to be considered for a multi-round (2+ year) funding commitment. These longer-term funding commitments will be included as part of the staff recommendation for awards.

Table 9 summarizes key information for the Transformative program category.

Table 9: Transformative Program Summary Information

Category Budget	$72 million - $92 million
Category Threshold	Projects exceeding a total cost of $5 million (regardless of project type) or expansion projects (regardless of total cost)
Key Requirements	– Included in the 2020 Metropolitan Transportation Plan/Sustainable Community Strategy or fit within a lump-sum project category – Project must be identified as either an “exempt” or “non-exempt” project on the application to help determine eligibility related to air quality considerations. – Eligible for CMAQ, RSTP, or STIP funding – The project must be scheduled to begin construction no later than June 2025, with preliminary engineering and environmental analysis scheduled within three years. – Construction funding requests must demonstrate that environmental, engineering, and right-of-way are reasonably estimated in the application materials and the agency has the financial capacity for ongoing operations and maintenance.
Match Requirements	11.47% non-federal match required. State program funds that are supported by federal revenues (e.g., HSIP, HBR) may also be used to meet the matching requirements.
Selection Criteria	– Project Benefit (maximum score: 50 points) – Project Leverage & Cost Effectiveness (maximum score: 30 points) – Project Delivery & Risk Assessment (maximum score: 20 points)
Timeline	– The 2021 program opened on November 11, 2020 and will close on February 1, 2021 – Project awards to be announced in April 2021. – Funding to be received no earlier than July 2021

The likelihood that the Regional Program's Transformative program would support the project is moderate to high. Based on the project's total cost, the 2022 Cycle of the Transformative program is appropriate for this project. Considering the urgency of this project to maintain transit service and facility state of good repair, the project is aligned with program objectives. The project application will benefit from the inclusion of zero emissions charging infrastructure to support reduced GHG emission. As stated in the previous section, Yuba-Sutter Transit will coordinate with SACOG to confirm which category (Maintenance and Modernization or Transformative) is best suited to the project.

Revolving Match Fund Category

This program provides funding to project sponsors to support local match to state and federal grants. If the project is not awarded state or federal grant, the Revolving Match Fund award is returned to SACOG and recirculated for future applicants.

Table 10 summarizes key information for the Revolving Match Fund program category.

Table 10: Revolving Match Fund Category Program Summary Information

Category Budget	Up to $16.39 million
Award Cap	$2 million per sponsor
Key Requirements	– Included in the 2020 Metropolitan Transportation Plan/Sustainable Community Strategy or fit within a lump-sum project category – Eligible for CMAQ, RSTP, or STIP funding – Match awards must be used with a federal or state transportation grant application, within one year from the time of receipt
Match Requirements	Projects in disadvantaged communities may use a match award to meet a minimum match requirement on a federal or state grant. Projects outside of these geographies are eligible for a match award if they can separately meet the minimum match required on a grant. In these cases, sponsors must already have committed a minimum of 11.47 percent match in non-federal funds towards the project cost. State program funds that are supported by federal revenues (e.g., HSIP, HBR) may also be used to meet the matching requirements.

Selection Criteria	– Project Sponsor Priorities (maximum score: 50 points) – Project Delivery & Readiness (maximum score: 50 points)
Timeline	– The 2021 program opened on December 7, 2020 and will close on February 1, 2021 – Project awards to be announced in April 2021 – Funding to be received no earlier than July 2021

The likelihood that the Regional Program's Revolving Match Fund program would support the project is moderate. The project could be a strong candidate to receive funding through the Revolving Match Fund category in the 2022 Regional Program. The Revolving Match Fund could provide a match to an FTA program such as any of the Section 5339 programs or one of the competitive state transportation funding programs.

Project Funding Gap Support Category

This program provides additional funding to fill in budget gaps on projects that have already received funding through SACOG's Regional Program since 2015.

Table 11. Project Funding Gap Support Category Program Summary Information

Category Budget	Up to $8.19 million
Award Cap	$1.5 million per sponsor
Key Requirements	– Included in the 2020 Metropolitan Transportation Plan/Sustainable Community Strategy or fit within a lump-sum project category – Scheduled for construction within one year of the funding award. – Eligible for CMAQ, RSTP, or STIP funding
Match Requirements	11.47% non-federal match required (waived if the project is located in a disadvantaged community)
Selection Criteria	– Project Sponsor Priorities (maximum score: 50 points) – Project Delivery & Readiness (maximum score: 50 points)

Timeline	– The 2021 program opened on December 7, 2020 and will close on February 1, 2021 – Project awards to be announced in April 2021 – Funding to be received no earlier than July 2021

The likelihood that Regional Program's Project Funding Gap Support program would support the project is low. The project is not eligible for this program as it is not already included in a previous Regional Program (since 2015).

Community Design Program

The Community Design Funding Program provides funding to local governments to build placemaking projects in their communities. The projects must implement any of the SACOG Blueprint Principles:

- Housing options
- Transportation options
- Infill development
- Mixed land uses
- Compact development
- Preservation of natural resources
- Quality design.

The most commonly awarded projects in the past have been streetscape improvements with associated land use development that are consistent with the Blueprint Principles. The program includes three categories: competitive, non-competitive, and the REAP housing funding category. The Competitive Category is for cities, counties, and agencies with agreements with Caltrans (or FTA) to manage federal transportation funds within Sacramento, Sutter, Yolo and Yuba counties. Yuba-Sutter Transit is not eligible to apply for the non-competitive category and the REAP housing funding category is not applicable for this project.

The Community Design funding target for the 2021 round is $16.5 million (excluding REAP housing funding) in grant awards to local agencies for transportation projects that promote placemaking and help implement the SACOG Blueprint principles. Historically, the program has awarded $12 million - $20 million per cycle. The funding cap for the competitive category is $4 million per project; historically most applicant have not sought less than $500,000. The non-federal match requirement is 11.47%. Federal and state funding requirements apply.

Federal and state funding requirements are applicable. The funding sources available are Regional Surface Transportation Program (RSTP, aka STBG), the Congestion Management and Air Quality Program (CMAQ), and State Transportation Improvement Program (STIP). For capital projects, federal funds may be used for the preliminary engineering phase, which includes environmental work and design, as well as for right-of-way and construction phases.

Eligible projects must consist of federal aid eligible activities that will primarily lead to or include construction. Federal aid eligible projects are those that significantly contain transportation infrastructure in public right-of-way. Activities or tasks within the project must be categorized as “construction,” “environmental,” “design” or “right-of way.” Pure planning activities are not considered an eligible use in the Competitive Category.

The following are examples of projects that are considered federal aid eligible:

- Transportation infrastructure directly connected to a land development project, land use plan, or in an existing “Blueprint friendly” community
- Bicycle and pedestrian paths, tunnels, and bridges
- On-street bike lanes, separated bikeways, or other bicycle infrastructure on publicly owned land
- Pedestrian plazas in public rights-of-way and public property • Pedestrian street crossings
- Streetscaping such as median landscaping, street trees, lighting, and furniture
- Traffic calming (but not interfering with public transit, bicycling, or walking)
- Transit stop amenities such as shelters, and benches
- Transit transfer centers
- Electric vehicle charging stations and other support infrastructure within community gathering environments

Criteria for project selection include:

- Project Benefit: How well does the proposed project promote the Blueprint Principles? (maximum score: 75 points)
- Project Readiness & Deliverability: How realistic is it for this project to be implemented within the program timeline? (maximum score: 25 points)

The likelihood that Community Design program would support the project is moderate. The project would be eligible but would need to demonstrate or incorporate land use planning/development consistent with Blueprint Principles.

3.2 Private Funding Programs

PG&E EV Charge Network

Pacific Gas and Electricity (PG&E)'s EV Charge Network program is helping to accelerate California's transition to a clean transportation future by offering electric vehicle charger installation at select locations in PG&E's service territory. Any PG&E customer is eligible for participation in the program as long as they install at least 10 adjoining EV parking spaces, sign the program's terms and conditions, and sign an easement allowing PG&E to maintain their infrastructure. Whoever owns the infrastructure that is a part of the EV Charge Network is responsible for installing and operating and maintaining it in the future, but PG&E will pay for all infrastructure up to the parking space including trenching, construction, and transformer upgrades. Site hosts are not required to make charging stations publicly available.

Program currently at fully subscribed. The next application phase timing is unclear because the program is at capacity.

The likelihood that PG&E's EV Charge Network program would support the project is low as the program currently is at capacity and no longer accepting applicants. However, if the project were to include electric chargers at the new facility, assuming the program's funding is replenished, the project would compete well. Yuba-Sutter Transit should monitor this program to see if funding is replenished in the future.

PG&E EV Fleet Program

PG&E created its EV Fleet program to make it easier and more cost-effective to install charging infrastructure. The EV Fleet program offers dedicated electrical infrastructure design and construction services, significant cost offsets for electrical infrastructure work, and additional EV charger rebates for eligible equipment.

The program's goal is to get 700+ organizations converted to electric fleet vehicles by 2023 to support the adoption of at least 6,500 medium- and heavy-duty electric vehicles. The program has $236 million budgeted from 2019-2023.

To be eligible for the EV Fleet program, the following criteria must be met:

- Be a PG&E customer (this includes Direct Access and retail customers). Customers receiving power from a Community Choice Aggregator are also eligible to participate.
- Own or lease the property where chargers will be installed.
- Allow a property easement as needed.
- Acquire or have on order a minimum of two electric fleet vehicles. Eligible vehicles include: transit bus, school bus, medium-duty vehicle, forklift, truck stop electrification, transportation refrigeration unit, port cargo truck, airport ground support, other heavy-duty vehicles and class 8 vehicles.
- Agree to program terms and conditions.
- Provide data related to EV usage for at least 5 years after the chargers are installed and operational.
- Operate and maintain the EV charging equipment for at least 10 years.

Customers planning to have electrical infrastructure installed to support vehicles to be purchased in the future must provide a formal plan or mandate demonstrating the organization or entity's commitment to long-term electrification to justify future expansion and a schedule of anticipated load increase. PG&E will install electrical infrastructure to support vehicles the company has demonstrated commitment to procuring within five years.

The likelihood that PG&E's EV Fleet program would support the project is high assuming the project includes charging infrastructure. The program is currently accepting applicants on a rolling basis. Given that PG&E's EV Charge Network program is already at capacity, it is possible that EV Fleet program could soon reach capacity as well. As such, Yuba-Sutter Transit should begin the application as soon as possible, assuming electric charging infrastructure is included in the new facility.

3.3 Other Funding and Financing Options

Joint Development

Joint Development is a partnership between a public entity and a private developer created to develop certain assets. According to FTA guidance, the development and the property must have a physical and a functional relationship. Joint Development can occur when an agency owns land that can be leased to

the developer for a long period of time. This will enable the developer to build on the land with a low risk of losing the capital investment. In exchange, rents are paid to the agency, creating a revenue stream that can be bonded against to support the development of a transit improvement. The revenue potential can vary depending on market conditions.

Joint development is most common at transit stations. The public agency that either owns an asset or is undertaking an improvement may solicit the involvement of a private sector partner. Alternatively, a private enterprise that owns land or a building may seek to partner with a public agency to develop transportation enhancements that will benefit their property as well as the traveling public. Joint development projects are generally beneficial to both parties and may lead to increased revenue for property owners decreased costs for operating or constructing public transportation systems, increased transit ridership, and enhanced amenities for transit riders. Common joint development arrangements range from air-rights development to ground leases, station interface or connection improvements, cost sharing arrangements, and incentive agreements.

Joint development may also involve public sector land-banking to prepare for transportation infrastructure construction, a public entity's sale of development or property rights in exchange for cash, or the public-private coordination of large-scale transportation and real estate developments. When joint development involves private funding of public transportation improvements, it is a form of public-private partnership.

The likelihood that joint development would support the project is moderate to low. The project's capacity to support a joint development partnership depend on the site selection. Joint development is most common in transit for passenger facilities such as stations and intermodal transfer centers. Joint development opportunities would need to be identified early on in project development as it may take time to coordinate the appropriate arrangement with the private partner.

Public-Private Partnership

Public-Private Partnership (P3) is a strategy for procurement which involves a long-term contractual agreement between the government and a private firm targeted towards financing, designing, constructing, maintaining and operating infrastructure facilities and services that were traditionally provided by the public sector. P3 addresses limited funding resources for infrastructure or development projects of the public sector, thereby allowing the allocation of public funds for other local priorities.

Two general forms of P3 structures are common: availability payment- and concession-based P3s.

- In availability payment-based P3s, the public authority contracts with a private sector entity to provide a public good, service or product at a constant capacity for a given payment (capacity fee) and a separate charge for usage of the public good, product or service (usage fee).

- In concession-based P3s, the government grants the private sector the right to build, operate and charge public users of the public good, infrastructure or service, a fee or tariff which is regulated by public regulators and the concession contract.

There are a number of P3 contractual arrangements, such as Design-Build-Operate-and-Maintain, Design-Build-Finance, and Design-Build-Finance-Operate-and-Maintain (DBFOM), which reflect the different appetites for risk and the role of the project proponent. A concession-based P3, for instance, such as a tolled highway would likely be a Design-Build-Finance-Operate-and- Maintain contract. P3 is a mechanism to finance a project and transfer risk. Under a P3 contractual arrangement, some of the risks typically assumed by the agency would be transferred to the private partner. The following subsection provides detail about a specific partnership opportunity with a private partner that could be suitable for this project.

Alternative private delivery

Alternative delivery and innovative finance is assumed to be contracting and financing agreements that allow private firms to take on "traditional" public roles. More responsibility, or risk, can be allocated to the private sector depending on project goals. The private sector may be compensated through availability payments, payment per completion of project goals, or on a per-kilowatt basis, among other arrangements. For instance, a private sector entity may be responsible for delivery of a fixed infrastructure assets, along with some financing and maintenance support of these fixed infrastructure assets. The private sector could install and maintain the charging infrastructure, and the public agency would not necessarily be responsible for upfront costs. The private sector could then be compensated through long-term payments, such as on a per-kilowatt basis. Given the potentially lower long-term costs of the energy supply versus current energy sources, this financial structure could have significant benefits for the public agency. Yuba-Sutter Transit might consider a partnership opportunity with a firm (example such as AMPLY), where the private entity would pay for up to 50% of the costs for a bus facility canopy and solar panels, with an ongoing agreement with Yuba-Sutter Transit to reimburse them through incremental utility rate charges.

The likelihood that a P3 would support the project is low. Depending on Yuba-Sutter Transit's desire to work with the private sector, there is potential for a private entity to pay for up to 50% of the costs for a bus facility canopy and solar panels, with an ongoing agreement with Yuba-Sutter Transit to reimburse them through incremental utility rate charges. Given that Yuba-Sutter Transit does not plan to transition to fully-electric fleet in the near term, private sector partners are unlikely to be interested in pursuing such a partnership at this stage. However, Yuba-Sutter Transit could revisit this option in the future once the agency is closer to electrifying its fleet.

Yuba-Sutter Transit

RESILIENT NEXT GENERATION TRANSIT FACILITY PLAN

PLANNING LEVEL ESTIMATE OF PROBABLE CONSTRUCTION COST BASED ON SPACE NEEDS PROGRAM AREAS FOR SITE 3

wsp

Date: February 2021

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Concept Level Estimate of Probable Construction Costs Based on
Space Needs Program Areas for Site 3
Preamble (Basis of Estimate)

Date: February 2021

A) Basis of Estimate:

This Estimate is based on the following:

1 Yuba-Sutter Transit Preliminary Space Needs Program dated June, 2020
2 Concept design alternatives for Site 3 as selected by Yuba-Sutter Transit to be one of the three sites considered for the new Maintenanace and Operations Facility.
3 Unit costs based on RSMeans Cost Data - 2019 edition Building Construction Costs

B) General Scope of Work

The general scope includes the following:

1 Materials and labor to prepare and construct a new bus transit administration, operations, and maintenance facility on the selected site listed above.

2 Includes costs for multiple fuels to power the entire fleet as diesel, battery electric, and hydrogen fuel cell vehicles. Anticipated final facility construction costs will include a blend of diesel and either / or both battery electric and hydrogen fuel cell buses

C) Exclusions

The estimate specifically excludes the following items:

1 Haz-mat investigation and abatement, if any
2 Cost escalation from the date of this estimate
3 Operations and maintenance costs
4 Cost of the property acquisition
5 Demolition and removal of any existing structures on selected site
6 Phased costing between initial and ultimate build out.

It is assumed that the above items, if needed, are included elsewhere in the owner's overall project budget.

D) Assumptions & Qualifications

1 The work will be done under one general contract during normal working hours

2 The estimate is based on unit costs and programmatic areas *for the layout and site selected as indicated in this document* . The intent of the estimate is to generate a budgetary construction cost estimate to assist Yuba-Sutter Transportation in verifying their project budget assumptions.

3 The following is a list of some future schematic and detail items that will affect the cost estimate:
Modifications to the scope of work or assumptions included in this estimate
Special phasing requirements
Restrictive technical specifications or excessive contract conditions
Any specified item of equipment, material, or product that cannot be obtained from at least three different sources
Any other non-competitive bid situations

4 Unless broken out separately unit costs used include costs for material, labor and equipment, sales tax, and installing contractor's (trade contractor's) markup prior to the General Contractor General Condition and Yuba-Sutter Transportation mark ups as listed.

5 Abbreviations used in the estimate:
Allow = Allowance
CF = cubic foot
CY = cubic yard
EA = each
LB = pound
LF = linear foot
LS = lump sum
SF = square foot
ZEB = Zero Emission Bus

Yuba-Sutter Transit

Concept Level Estimate - Master Plan

Site 3

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**19.7 Acres**
3					**Developed**	**14.0 Acres**
4					**Remaining**	**5.7 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		843,681	$ 590,577
11	Drainage	SF	$ 2.50		843,681	$ 2,109,203
12	Utilities (water, elect, sewer, gas)	SF	$ 2.70		843,681	$ 2,277,939
13	Landscape / Irrigation	SF	$ 15.60		141,071	$ 2,200,708
14	Fencing	LF	$ 230.00	Calculated LF per side + gates	3,361	$ 773,030
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 642,705
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	302,233	$ 2,810,767
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	67,940	$ 516,344
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		1,327	$ 127,392
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,057	$ 1,902,166
28	**Shop Equipment (Maint. / Bus Wash / Fueling)**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 25,581,537
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Allow	$ 63,000	Support for 70 FCEB	70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Full BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)		$ 91		11,305	$ 1,028,755
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		$ 98		7,733	$ 757,834
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	35	$ 3,920,000
41	Switchgear for BEB Charging	Each	$ 240,000		2	$ 480,000
42	BEB Emergency Generator	Allow		Assumed (2) 2MW diesel gensets	1	$ 2,600,000
				Full BEB Fleet Charging Subtotal		$ 8,786,589
43	Facility + BEB Option Subtotal (no H2)					**$ 34,368,126**

unit costs bases on ***latest MS Means we have*** 2019

Construction Cost Escallation	2020	3% per year	**$ 35,399,170**
	2021		**$ 36,461,145**
	2022		**$ 37,554,980**

44	General Contractor's General Conditions		10.0%	3,436,813
45	General Contractor's Contractors Fee		8.0%	2,749,450
46	Subtotal			**$ 43,741,243**
47	Contingency, Design		Allow	500,000
48	Contingency, Construction		10.0%	4,374,124
49	**TOTAL CONSTRUCTION COST**			**$ 48,615,367**
50	Contingency, Owner's		10.0%	4,861,537
51	Soft Cost (design, CM, permits, etc.)		15.0%	7,292,305
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**			**$ 60,769,209**

Yuba-Sutter Transit

Concept Level Estimate - Initial Build-Out

Site 3

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**19.7 Acres**
3					**Developed**	**14.0 Acres**
4					**Remaining**	**5.7 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		843,681	$ 590,577
11	Drainage	SF	$ 2.50		843,681	$ 2,109,203
12	Utilities (water, elect, sewer, gas)	SF	$ 2.70		843,681	$ 2,277,939
13	Landscape / Irrigation	SF	$ 15.60		141,071	$ 2,200,708
14	Fencing	LF	$ 230.00	Calculated LF per side + gates	3,361	$ 773,030
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 642,705
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	302,233	$ 2,810,767
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	67,940	$ 516,344
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		1,327	$ 127,392
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,057	$ 1,902,166
28	**Shop Equipment**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 25,581,537
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Allow	$ 63,000	Support for 70 FCEB	70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Initial Build-Out BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)		$ 80		11,305	$ 904,400
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)			Not needed for Initial Build-Out		
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	2	$ 224,000
41	Switchgear for BEB Charging	Each	$ 240,000		1	$ 240,000
42	BEB Emergency Generator			Not needed for Initial Build-Out		
				Initial Build-Out BEB Fleet Charging Subtotal		$ 1,368,400
43	Facility + BEB Option Subtotal (no H2)					**$ 26,949,937**
	unit costs bases on ***latest MS Means we have*** 2019					
	Construction Cost Escallation 2020		3% per year			**$ 27,758,436**
	2021					**$ 28,591,189**
	2022					**$ 29,448,924**
44	General Contractor's General Conditions		10.0%			2,694,994
45	General Contractor's Contractors Fee		8.0%			2,155,995
46	Subtotal					**$ 34,299,913**
47	Contingency, Design		Allow			500,000
48	Contingency, Construction		10.0%			3,429,991
49	**TOTAL CONSTRUCTION COST**					**$ 38,229,904**
50	Contingency, Owner's		10.0%			3,822,990
51	Soft Cost (design, CM, permits, etc.)		15.0%			5,734,486
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**					**$ 47,787,380**

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Schedule (Site 3)

Purchase property	Q1 Jan 2021	-	end of Q2 2021	6 months
Solicit and complete final desing	Q3 2021	-	end of Q1 2022	9-12 months
Bid and select GC	Q2 2022	-	end of Q2 2022	3 months
Construct	Q3 2022	-	end of Q1 2024	18 months

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on
Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
9	**Sitework (not including paving)**					
10	**Grading**					
	Rough grading	843,681	sf	0.20	168,736	
	Fine grading	843,681	sf	0.50	421,841	
	Grading	**843,681**	**SF**	**0.70**	**590,577**	
			Use	**0.70**		
11	**Drainage**					
	Storm drainage	843,681	sf	2.50	2,109,203	
	Drainage	**843,681**	**SF**	**2.50**	**2,109,203**	
			Use	**2.50**		
12	**Utilities (water, elect, sewer, gas)**					
		843,681	sf			
	Assuming the following utilities					
	Domestic water	1,824	lf	65.00	118,560	
	Fire water, to building & site	3,173	lf	85.00	269,705	
	Fire hydrant	11	ea	8,000.00	88,000	
	Electrical conduit and wiring	5,074	lf	100.00	507,400	
	Site lighting	370,631	sf	2.50	926,578	
	Sewer	1,858	lf	65.00	120,770	
	Gas	1,858	lf	50.00	92,900	
	Connect to existing utilities	5	ea	25,000.00	125,000	
	Storm - with item 9 above					
	Utilities (water, elect, sewer, gas)	**843,681**	**SF**	**2.67**	**2,248,913**	
			Use	**2.70**		
13	**Landscape / Irrigation**					
	Area of landscaping	141,071	sf			
	Assuming:					
	Top soil, 6"	2,612	cy	85.00	222,020	
	Planting	141,071	sf	10.00	1,410,710	
	Irrigation	141,071	sf	4.00	564,284	
	Landscape / Irrigation	**141,071**	**SF**	**15.57**	**2,197,014**	
			Use	**15.60**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
14	**Fencing**					
	Fencing based on	2,653	lf			Assume same as Property Line
	Assuming:					
	Footings at 12' o.c.	222	ea	500.00	111,000	
	Security fencing, 8' H	2,653	lf	120.00	318,360	
	Entry gates	3	ea	15,000.00	45,000	
	Screening wall	11,008	sf	19.00	209,152	
	Footing for Screening wall	153	cy	305.00	46,665	
	Decorative metal fence	708	lf	64.00	45,312	
	Fencing	**3,361**	**LF**	**230.73**	**775,489**	
			Use	**230.00**		
15	**Stormwater Management**					
	Key Assumption					
	Site Area	**843,681**	**gsf**			Assume remaining non-improved site sufficient for on-site storm water mitigation. Cost in graded item 9 above.
		1	Allow	50,000.00	50,000	
	Stormwater Management	**843,681**	**gsf**		**50,000**	
16	**Off-Site Improvements**					
	New traffic signal (4-way)	1	Allow	450,000.00	450,000	
	Curb and gutter	670	lf	75.00	50,250	
	Sidewalk	4,273	sf	14.50	61,959	
	Asphalt paving (overlay)	26,832	sf	3.00	80,496	
	Off-Site Improvements				**642,705**	
17	**Paving**					
18	**Bus Parking & Circulation (concrete)**					
	10" RC paivng on 6" aggregate base	302,233	sf			
	Assuming:					
	6" aggregte base, imported	5,597	cy	50.00	279,850	
	Reinforced concrete, say 1 lb/sf	302,233	lb	1.15	347,568	
	Concrete material & placing	9,328	cy	190.00	1,772,320	
	Concrete finishes	302,233	sf	0.40	120,893	
	Striping, marking & signage	302,233	sf	1.00	302,233	
	Lighting		With Utilities			
	Bus Parking & Circulation (concrete)	**302,233**	**sf**	**9.30**	**2,822,864**	
			Use	**9.30**		
19	**Employee/Visitor Parking (asphalt)**					
	8" paivng on 6" aggregate base	67,940	sf			
	Assuming:					
	6" aggregte base, imported	1,258	cy	50.00	62,900	
	8" AC	3,020	ton	120.00	362,400	
	Surface finishes	67,940	sf	0.35	23,779	
	Striping, marking & signage	67,940	sf	1.00	67,940	
	Lighting		With Utilities			
	Employee/Visitor Parking (asphalt)	**67,940**	**sf**	**7.60**	**517,019**	
			Use	**7.60**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on
Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
20	**New Building Construction**					
21	**Admin /Ops Building**					
	Key Assumption					
	Gross floor area	**15,312**	**gsf**			
	Length	**132**	**lf**			
	Width	**116**	**lf**			
	Height	**14**	**lf**			
	Substructure					
	Foundations	15,312	gsf	10.00	153,120	
	Slab On Grade		with surface parking, item 15 or 16			
	Superstructure					
	Floor/roof deck for building including columns	15,312	sf	28.00	428,736	
	Stair, 1 level		None			
	Exterior Closure					
	Exterior Wall, say 60%	4,166	sf	50.00	208,300	
	Exterior Windows, say 40%	2,778	sf	150.00	416,700	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roofing					
	Roofing, insulation and sheet metal	15,312	sf	20.00	306,240	
	Interior Construction					
	Partitions	15,312	gsf	15.00	229,680	
	Interior Doors	15,312	gsf	3.00	45,936	
	Specialties	15,312	gsf	5.00	76,560	
	Interior Finishes					
	Wall Finishes	15,312	gsf	5.00	76,560	
	Floor Finishes	15,312	gsf	7.00	107,184	
	Ceiling Finishes	15,312	gsf	8.00	122,496	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic		None			
	Mechanical					
	Plumbing	15,312	gsf	15.00	229,680	
	HVAC	15,312	gsf	28.00	428,736	
	Fire Protection	15,312	gsf	8.00	122,496	
	Electrical					
	Electrical Distribution	15,312	gsf	22.00	336,864	
	Lighting & Branch Wiring	15,312	gsf	10.00	153,120	
	Communication & Security	15,312	gsf	5.00	76,560	
	Audio Visual System	15,312	gsf	1.50	22,968	
	Equipment					
	Bus Service Equipment		None			
	Furnishings					
	Fixed FF&E/Casework (Allowance)	15,312	gsf	5.00	76,560	
	Movable Furnishings		None			
	Total Direct Cost	**15,312**	**gsf**	**237.10**	**3,630,496**	
			Use	**237.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
22	**Bus Maintenance Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**20,064**	**gsf**			
	Perimeter	**568**	**lf**			
	Height	**25**	**lf**			
	Substructure					
	Foundations	20,064	gsf	15.00	300,960	
	Slab On Grade	20,064	gsf	10.00	200,640	
	Superstructure					
	Floor	With slab on grade				
	Roof	20,064	sf	16.00	321,024	
	Exterior Closure					
	Exterior Wall, solid, say 80%	11,360	sf	50.00	568,000	
	Exterior Windows, say 20%	2,840	sf	150.00	426,000	
	Exterior Doors	10	ea	3,000.00	30,000	
	Roll-up Doors	10	ea	45,000.00	450,000	
	Roofing					
	Roofing, insulation and sheet metal	20,064	sf	15.00	300,960	
	Interior Construction					
	Partitions	20,064	gsf	7.00	140,448	
	Interior Doors	20,064	gsf	1.00	20,064	
	Specialties	20,064	gsf	3.00	60,192	
	Interior Finishes					
	Wall Finishes	20,064	gsf	1.50	30,096	
	Floor Finishes	20,064	gsf	3.00	60,192	
	Ceiling Finishes	20,064	gsf	2.50	50,160	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	20,064	gsf	10.00	200,640	
	HVAC	20,064	gsf	8.00	160,512	
	Fire Protection	20,064	gsf	6.00	120,384	
	Electrical					
	Electrical Distribution	20,064	gsf	25.00	501,600	
	Lighting & Branch Wiring	20,064	gsf	10.00	200,640	
	Communication & Security	20,064	gsf	2.50	50,160	
	Audio Visual System	20,064	gsf	1.00	20,064	
	Equipment					
	Bus Service Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	20,064	gsf	1.00	20,064	
	Movable Furnishings	None				
	Total Direct Cost	**20,064**	**gsf**	**210.96**	**4,232,800**	
			Use	**211.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
23	**Fuel Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**2,432**	**gsf**			
	Perimeter	**200**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	2,432	gsf	15.00	36,480	
	Slab On Grade	2,432	gsf	10.00	24,320	
	Superstructure					
	Floor		With slab on grade			
	Roof canopy	2,432	sf	25.00	60,800	
	Exterior Closure		None			
	Roofing					
	Standing seam roofing for canopy	2,432	sf	20.00	48,640	
	Interior Construction		None			
	Interior Finishes		None			
	Mechanical					
	Plumbing	2,432	gsf	5.00	12,160	
	HVAC		None			
	Fire Protection		None			
	Electrical					
	Electrical Distribution	2,432	gsf	10.00	24,320	
	Lighting & Branch Wiring	2,432	gsf	8.00	19,456	
	Communication & Security	2,432	gsf	2.00	4,864	
	Audio Visual System	2,432	gsf	0.50	1,216	
	Equipment					
	Fuel Service Equipment		See separate item			
	Furnishings					
	Fixed FF&E/Casework (Allowance)		None			
	Movable Furnishings		None			
	Total Direct Cost	**2,432**	**gsf**	**95.50**	**232,256**	
			Use	**96.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
24	**Wash Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**1,327**	**gsf**			
	Perimeter	**172**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	1,327	gsf	15.00	19,905	
	Slab On Grade	1,327	gsf	10.00	13,270	
	Superstructure					
	Floor	With slab on grade				
	Roof canopy	1,327	sf	25.00	33,175	
	Exterior Closure	None				
	Roofing					
	Standing seam roofing for canopy	1,327	sf	20.00	26,540	
	Interior Construction	None				
	Interior Finishes	None				
	Mechanical					
	Plumbing	1,327	gsf	5.00	6,635	
	HVAC	None				
	Fire Protection	None				
	Electrical					
	Electrical Distribution	1,327	gsf	10.00	13,270	
	Lighting & Branch Wiring	1,327	gsf	8.00	10,616	
	Communication & Security	1,327	gsf	2.00	2,654	
	Audio Visual System	1,327	gsf	0.50	664	
	Equipment					
	Wash Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	None				
	Movable Furnishings	None				
	Total Direct Cost	**1,327**	**gsf**	**95.50**	**126,729**	
			Use	**96.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
25	**Fuel Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**508**	**gsf**			
	Perimeter	**115**	**lf**			
	Height	**13**	**lf**			
	Substructure					
	Foundations	508	gsf	15.00	7,620	
	Slab On Grade	508	gsf	10.00	5,080	
	Superstructure					
	Floor	With slab on grade				
	Roof	508	sf	16.00	8,128	
	Exterior Closure					
	Exterior Wall, solid, say 80%	1,196	sf	50.00	59,800	
	Exterior Windows, say 20%	299	sf	150.00	44,850	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roll-up Doors		ea	15,000.00		
	Roofing					
	Roofing, insulation and sheet metal	508	sf	15.00	7,620	
	Interior Construction					
	Partitions	508	gsf	7.00	3,556	
	Interior Doors		gsf	1.00		
	Specialties	508	gsf	3.00	1,524	
	Interior Finishes					
	Wall Finishes	508	gsf	1.50	762	
	Floor Finishes	508	gsf	3.00	1,524	
	Ceiling Finishes	508	gsf	2.50	1,270	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	508	gsf	10.00	5,080	
	HVAC	508	gsf	8.00	4,064	
	Fire Protection	508	gsf	6.00	3,048	
	Electrical					
	Electrical Distribution	508	gsf	25.00	12,700	
	Lighting & Branch Wiring	508	gsf	10.00	5,080	
	Communication & Security	508	gsf	2.50	1,270	
	Audio Visual System	508	gsf	1.00	508	
	Equipment					
	Fueling Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	508	gsf	15.00	7,620	
	Movable Furnishings	None				
	Total Direct Cost	**508**	**gsf**	**380.13**	**193,104**	
			Use	**380.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
26	**Wash Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**1,842**	**gsf**			
	Perimeter	**196**	**lf**			
	Height	**18**	**lf**			
	Substructure					
	Foundations	1,842	gsf	15.00	27,630	
	Slab On Grade	1,842	gsf	10.00	18,420	
	Superstructure					
	Floor	With slab on grade				
	Roof	1,842	sf	16.00	29,472	
	Exterior Closure					
	Exterior Wall, solid, say 80%	2,822	sf	50.00	141,100	
	Exterior Windows, say 20%	706	sf	150.00	105,900	
	Exterior Doors	2	ea	3,000.00	6,000	
	Roll-up Doors	2	ea	15,000.00	30,000	
	Roofing					
	Roofing, insulation and sheet metal	1,842	sf	15.00	27,630	
	Interior Construction					
	Partitions	1,842	gsf	7.00	12,894	
	Interior Doors		gsf	1.00		
	Specialties	1,842	gsf	3.00	5,526	
	Interior Finishes					
	Wall Finishes	1,842	gsf	1.50	2,763	
	Floor Finishes	1,842	gsf	3.00	5,526	
	Ceiling Finishes	1,842	gsf	2.50	4,605	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	1,842	gsf	10.00	18,420	
	HVAC	1,842	gsf	8.00	14,736	
	Fire Protection	1,842	gsf	6.00	11,052	
	Electrical					
	Electrical Distribution	1,842	gsf	25.00	46,050	
	Lighting & Branch Wiring	1,842	gsf	10.00	18,420	
	Communication & Security	1,842	gsf	2.50	4,605	
	Audio Visual System	1,842	gsf	1.00	1,842	
	Equipment					
	Wash Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	1,842	gsf	15.00	27,630	
	Movable Furnishings	None				
	Total Direct Cost	**1,842**	**gsf**	**304.14**	**560,221**	
			Use	**304.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 3

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
27	**Photo-Voltaic Panels (Over Bus Parking)**					
	Key Assumption					
	Solar panels and solar panel support	50,057	sf	17.54	878,000	
	Framing and structure to support PV panels	50,057	sf	20.00	1,001,140	
	Total Direct Cost	**50,057**	**sf**	**37.54**	**1,879,140**	
			Use	**38.00**		
	NOTE: Site area available for ground mounted solar farm.		gsf			Could be a cost benefit/cost reduction for the project.
28	**Shop Equipment (Maint. / Bus Wash / Fueling)**	1	Allow	1,600,000.00	1,600,000	
29	**Furnishings (Office Areas)**	1	sf	20.00	37,726	
30	**IT and Communications**	1	sf	10.00	37,726	
31	**ZEB Fueling Options**					
33	**Full Fleet Hydrogen Stor / Compress / Dispense**					
	Key Assumption					
	Hydrogen Fuel Cell Equipment for 20 buses	1		3,500,000.00	3,500,000	Quote from Ballard
	Hydrogen Fuel Cell Equipment for 70 buses	1		63,000.00		Average from 2020 AC Transit study with 7 independent quotes to support 100 buses.
35	**Hydrogen Compression Modular Trailer**					
	Key Assumption					
	Hydrogen Compression Modular Trailer	Allow	1	1,450,000.00		Quote from Powertech
	Hydrogen Electrolizer Modular Trailer	Allow	1	2,100,000.00		Quote from Powertech
	Modular Limited Hydrogen Fleet Fueling			3,550,000.00		Quote from Powertech
BEB Initial Build-Out						
37	**Initial Build-Out BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)	11,305	lf	80.00	904,400	AC Conduit Only
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		None	-		
	BEB Charging Cabinet/Dispensers	2	ea	112,000.00	224,000	
	Switchgear for BEB Charging	1	ea	240,000.00	240,000	Support for 40 buses
	Key Assumption					
	Furnishings	**10,000**	**sf**			
	Assume Mid-high end furnishing	**10,000**	**sf**	**20.00**	**200,000**	
			Use	**20.00**		
BEB Master Plan						
37	**Full BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)	11,305	lf	91.00	1,028,755	AC Conduit and Wiring
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)	7,733	lf	98.00	757,834	
	BEB Charging Cabinet/Dispensers	35	ea	112,000.00	3,920,000	
	Switchgear for BEB Charging	2	ea	240,000.00	480,000	Support for 40 buses

Yuba-Sutter Transit

RESILIENT NEXT GENERATION TRANSIT FACILITY PLAN

PLANNING LEVEL ESTIMATE OF PROBABLE CONSTRUCTION COST BASED ON SPACE NEEDS PROGRAM AREAS FOR SITE 7

WSP

Date: February 2021

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Concept Level Estimate of Probable Construction Costs Based on
Space Needs Program Areas For Site 7
Preamble (Basis of Estimate)

Date: February 2021

A) Basis of Estimate:

This Estimate is based on the following:

1. Yuba-Sutter Transit Preliminary Space Needs Program dated June, 2020
2. Concept design alternatives for Site 7 as selected by Yuba-Sutter Transit to be one of the three sites considered for the new Maintenanace and Operations Facility.
3. Unit costs based on RSMeans Cost Data - 2018 edition Building Construction Costs

B) General Scope of Work

The general scope includes the following:

1. Materials and labor to prepare and construct a new bus transit administration, operations, and maintenance facility on the selected site listed above.
2. Includes costs for multiple fuels to power the entire fleet as diesel, battery electric, and hydrogen fuel cell vehicles. Anticipated final facility construction costs will include a blend of diesel and either / or both battery electric and hydrogen fuel cell buses

C) Exclusions

The estimate specifically excludes the following items:

1. Haz-mat investigation and abatement, if any
2. Cost escalation from the date of this estimate
3. Operations and maintenance costs
4. Cost of the property acquisition
5. Demolition and removal of any existing structures on selected site
6. Phased costing between initial and ultimate build out.

It is assumed that the above items, if needed, are included elsewhere in the owner's overall project budget.

D) Assumptions & Qualifications

1. The work will be done under one general contract during normal working hours

2. The estimate is based on unit costs and programmatic areas *for the layout and site selected as indicated in this document* . The intent of the estimate is to generate a budgetary construction cost estimate to assist Yuba-Sutter Transportation in verifying their project budget assumptions.

3 The following is a list of some future schematic and detail items that will affect the cost estimate:
Modifications to the scope of work or assumptions included in this estimate
Special phasing requirements
Restrictive technical specifications or excessive contract conditions
Any specified item of equipment, material, or product that cannot be obtained from at least three different sources
Any other non-competitive bid situations

4 Unless broken out separately unit costs used include costs for material, labor and equipment, sales tax, and installing contractor's (trade contractor's) markup prior to the General Contractor General Condition and Yuba-Sutter Transportation mark ups as listed.

5 Abbreviations used in the estimate:
Allow = Allowance
CF = cubic foot
CY = cubic yard
EA = each
LB = pound
LF = linear foot
LS = lump sum
SF = square foot
ZEB = Zero Emission Bus

Yuba-Sutter Transit

Concept Level Estimate - Master Plan

Site 7

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**21.0 Acres**
3					**Developed**	**15.5 Acres**
4					**Remaining**	**5.5 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		910,990	$ 637,693
11	Drainage	SF	$ 2.50		910,990	$ 2,277,475
12	Utilities (water, elect, sewer, gas)	SF	$ 2.50		910,990	$ 2,277,475
13	Landscape / Irrigation	SF	$ 15.60		210,047	$ 3,276,733
14	Fencing	LF	$ 130.00	Calculated LF per side + gates	5,678	$ 738,140
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 792,631
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	316,229	$ 2,940,930
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	79,505	$ 604,238
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		1,327	$ 127,392
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,388	$ 1,914,744
28	**Shop Equipment**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 27,218,159
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Per Bus	$ 63,000		70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Full BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)		$ 91		27,250	$ 2,479,750
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		$ 98		8,946	$ 876,708
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	35	$ 3,920,000
41	Switchgear for BEB Charging	Each	$ 240,000		2	$ 480,000
42	BEB Emergency Generator	Allow		Assumed (2) 2MW diesel gensets	1	$ 2,600,000
				Full BEB Fleet Charging Subtotal		$ 10,356,458
43	Facility + BEB Option Subtotal (no H2)					**$ 37,574,617**

unit costs bases on ***latest MS Means we have*** 2019

Construction Cost Escallation 2020	3% per year	**$ 38,701,855**
2021		**$ 39,862,911**
2022		**$ 41,058,798**

44	General Contractor's General Conditions		10.0%	3,757,462
45	General Contractor's Contractors Fee		8.0%	3,005,969
46	Subtotal			**$ 47,822,229**
47	Contingency, Design		Allow	500,000
48	Contingency, Construction		10.0%	4,782,223
49	**TOTAL CONSTRUCTION COST**			**$ 53,104,452**
50	Contingency, Owner's		10.0%	5,310,445
51	Soft Cost (design, CM, permits, etc.)		15.0%	7,965,668
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**			**$ 66,380,565**

Yuba-Sutter Transit

Concept Level Estimate - Initial Build-Out

Site 7

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**21.0 Acres**
3					**Developed**	**15.5 Acres**
4					**Remaining**	**5.5 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		910,990	$ 637,693
11	Drainage	SF	$ 2.50		910,990	$ 2,277,475
12	Utilities (water, elect, sewer, gas)	SF	$ 2.50		910,990	$ 2,277,475
13	Landscape / Irrigation	SF	$ 15.60		210,047	$ 3,276,733
14	Fencing	LF	$ 130.00	Calculated LF per side + gates	5,678	$ 738,140
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 792,631
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	316,229	$ 2,940,930
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	79,505	$ 604,238
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		1,327	$ 127,392
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,388	$ 1,914,744
28	**Shop Equipment**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 27,218,159
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Per Bus	$ 63,000		70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Initial Build-Out BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)		$ 80		27,250	$ 2,180,000
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)			Not needed for Initial Build-Out		
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	2	$ 224,000
41	Switchgear for BEB Charging	Each	$ 240,000		1	$ 240,000
42	BEB Emergency Generator			Not needed for Initial Build-Out		
				Initial Build-Out BEB Fleet Charging Subtotal		$ 2,644,000
43	Facility + BEB Option Subtotal (no H2)					**$ 29,862,159**
	unit costs bases on ***latest MS Means we have*** 2019					
	Construction Cost Escallation 2020		3% per year			**$ 30,758,024**
	2021					**$ 31,680,764**
	2022					**$ 32,631,187**
44	General Contractor's General Conditions		10.0%			2,986,216
45	General Contractor's Contractors Fee		8.0%			2,388,973
46	Subtotal					**$ 38,006,376**
47	Contingency, Design		Allow			500,000
48	Contingency, Construction		10.0%			3,800,638
49	**TOTAL CONSTRUCTION COST**					**$ 42,307,014**
50	Contingency, Owner's		10.0%			4,230,701
51	Soft Cost (design, CM, permits, etc.)		15.0%			6,346,052
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**					**$ 52,883,767**

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Schedule (Site 7)

Purchase property	Q1 Jan 2021	-	end of Q2 2021	6 months
Solicit and complete final desing	Q3 2021	-	end of Q1 2022	9-12 months
Bid and select GC	Q2 2022	-	end of Q2 2022	3 months
Construct	Q3 2022	-	end of Q1 2024	18 months

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
9	**Sitework (not including paving)**					
10	**Grading**					
	Rough grading	910,990	sf	0.20	182,198	
	Fine grading	910,990	sf	0.50	455,495	
	Grading	**910,990**	**SF**	**0.70**	**637,693**	
			Use	**0.70**		
11	**Drainage**					
	Storm drainage	910,990	sf	2.50	2,277,475	
	Drainage	**910,990**	**SF**	**2.50**	**2,277,475**	
			Use	**2.50**		
12	**Utilities (water, elect, sewer, gas)**					
	D2	910,990	sf			
	Assuming the following utilities					
	Domestic water	1,093	lf	65.00	71,045	
	Fire water, to building & site	3,750	lf	85.00	318,750	
	Fire hydrant	10	ea	8,000.00	80,000	
	Electrical conduit and wiring	5,603	lf	100.00	560,300	
	Site lighting	407,703	sf	2.50	1,019,258	
	Sewer	1,173	lf	65.00	76,245	
	Gas	1,173	lf	50.00	58,650	
	Connect to existing utilities	5	ea	25,000.00	125,000	
	Storm - with item 9 above					
	Utilities (water, elect, sewer, gas)	**910,990**	**SF**	**2.53**	**2,309,248**	
			Use	**2.50**		
13	**Landscape / Irrigation**					
	Area of landscaping	210,047	sf			
	Assuming:					
	Top soil, 6"	3,890	cy	85.00	330,650	
	Planting	210,047	sf	10.00	2,100,470	
	Irrigation	210,047	sf	4.00	840,188	
	Landscape / Irrigation	**210,047**	**SF**	**15.57**	**3,271,308**	
			Use	**15.60**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
14	**Fencing**					
	Fencing based on	3,371	lf			Assume same as Property Line
	Assuming:					
	Footings at 12' o.c.	282	ea	500.00	141,000	
	Security fencing, 8' H	3,371	lf	120.00	404,520	
	Entry gates	4	ea	15,000.00	60,000	
	Decorative metal fence	2,307	lf	64.00	147,648	
	Fencing	**5,678**	**LF**	**132.65**	**753,168**	
			Use	**130.00**		
15	**Stormwater Management**					
	Key Assumption					
	Site Area	**910,990**	**gsf**			Assume remaining non-improved site sufficient for on-site storm water mitigation. Cost in graded item 9 above.
		1	Allow	50,000.00	50,000	
	Stormwater Management	**910,990**	**gsf**		**50,000**	
16	**Off-Site Improvements**					
	New traffic signal (3-way)	1	Allow	250,000.00	250,000	
	Curb and gutter	1,924	lf	75.00	144,300	
	Sidewalk	16,297	sf	14.50	236,307	
	Asphalt Paving		none			
	Shoulder Improvements	81,012	sf	2.00	162,024	
	Off-Site Improvements				**792,631**	
17	**Paving**					
18	**Bus Parking & Circulation (concrete)**					
	10" RC paivng on 6" aggregate base	316,229	sf			
	Assuming:					
	6" aggregte base, imported	5,856	cy	50.00	292,800	
	Reinforced concrete, say 1 lb/sf	316,229	lb	1.15	363,663	
	Concrete material & placing	9,760	cy	190.00	1,854,400	
	Concrete finishes	316,229	sf	0.40	126,492	
	Striping, marking & signage	316,229	sf	1.00	316,229	
	Lighting		With Utilities			
	Bus Parking & Circulation (concrete)	**316,229**	**sf**	**9.30**	**2,953,584**	
			Use	**9.30**		
19	**Employee/Visitor Parking (asphalt)**					
	8" paivng on 6" aggregate base	79,505	sf			
	Assuming:					
	6" aggregte base, imported	1,472	cy	50.00	73,600	
	8" AC	3,534	ton	120.00	424,080	
	Surface finishes	79,505	sf	0.35	27,827	
	Striping, marking & signage	79,505	sf	1.00	79,505	
	Lighting		With Utilities			
	Employee/Visitor Parking (asphalt)	**79,505**	**sf**	**7.60**	**605,012**	
			Use	**7.60**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
20	**New Building Construction**					
21	**Admin /Ops Building**					
	Key Assumption					
	Gross floor area	**15,312**	**gsf**			
	Length	**132**	**lf**			
	Width	**116**	**lf**			
	Height	**14**	**lf**			
	Substructure					
	Foundations	15,312	gsf	10.00	153,120	
	Slab On Grade		with surface parking, item 15 or 16			
	Superstructure					
	Floor/roof deck for building including columns	15,312	sf	28.00	428,736	
	Stair, 1 level		none			
	Exterior Closure					
	Exterior Wall, say 60%	4,166	sf	50.00	208,300	
	Exterior Windows, say 40%	2,778	sf	150.00	416,700	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roofing					
	Roofing, insulation and sheet metal	15,312	sf	20.00	306,240	
	Interior Construction					
	Partitions	15,312	gsf	15.00	229,680	
	Interior Doors	15,312	gsf	3.00	45,936	
	Specialties	15,312	gsf	5.00	76,560	
	Interior Finishes					
	Wall Finishes	15,312	gsf	5.00	76,560	
	Floor Finishes	15,312	gsf	7.00	107,184	
	Ceiling Finishes	15,312	gsf	8.00	122,496	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic		none			
	Mechanical					
	Plumbing	15,312	gsf	15.00	229,680	
	HVAC	15,312	gsf	28.00	428,736	
	Fire Protection	15,312	gsf	8.00	122,496	
	Electrical					
	Electrical Distribution	15,312	gsf	22.00	336,864	
	Lighting & Branch Wiring	15,312	gsf	10.00	153,120	
	Communication & Security	15,312	gsf	5.00	76,560	
	Audio Visual System	15,312	gsf	1.50	22,968	
	Equipment					
	Bus Service Equipment		None			
	Furnishings					
	Fixed FF&E/Casework (Allowance)	15,312	gsf	5.00	76,560	
	Movable Furnishings		None			
	Total Direct Cost	**15,312**	**gsf**	**237.10**	**3,630,496**	
			Use	**237.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
22	**Bus Maintenance Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**20,064**	**gsf**			
	Perimeter	**568**	**lf**			
	Height	**25**	**lf**			
	Substructure					
	Foundations	20,064	gsf	15.00	300,960	
	Slab On Grade	20,064	gsf	10.00	200,640	
	Superstructure					
	Floor	With slab on grade				
	Roof	20,064	sf	16.00	321,024	
	Exterior Closure					
	Exterior Wall, solid, say 80%	11,360	sf	50.00	568,000	
	Exterior Windows, say 20%	2,840	sf	150.00	426,000	
	Exterior Doors	10	ea	3,000.00	30,000	
	Roll-up Doors	10	ea	45,000.00	450,000	
	Roofing					
	Roofing, insulation and sheet metal	20,064	sf	15.00	300,960	
	Interior Construction					
	Partitions	20,064	gsf	7.00	140,448	
	Interior Doors	20,064	gsf	1.00	20,064	
	Specialties	20,064	gsf	3.00	60,192	
	Interior Finishes					
	Wall Finishes	20,064	gsf	1.50	30,096	
	Floor Finishes	20,064	gsf	3.00	60,192	
	Ceiling Finishes	20,064	gsf	2.50	50,160	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	20,064	gsf	10.00	200,640	
	HVAC	20,064	gsf	8.00	160,512	
	Fire Protection	20,064	gsf	6.00	120,384	
	Electrical					
	Electrical Distribution	20,064	gsf	25.00	501,600	
	Lighting & Branch Wiring	20,064	gsf	10.00	200,640	
	Communication & Security	20,064	gsf	2.50	50,160	
	Audio Visual System	20,064	gsf	1.00	20,064	
	Equipment					
	Bus Service Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	20,064	gsf	1.00	20,064	
	Movable Furnishings	None				
	Total Direct Cost	**20,064**	**gsf**	**210.96**	**4,232,800**	
			Use	**211.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
23	**Fuel Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**2,432**	**gsf**			
	Perimeter	**200**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	2,432	gsf	15.00	36,480	
	Slab On Grade	2,432	gsf	10.00	24,320	
	Superstructure					
	Floor		With slab on grade			
	Roof canopy	2,432	sf	25.00	60,800	
	Exterior Closure		None			
	Roofing					
	Standing seam roofing for canopy	2,432	sf	20.00	48,640	
	Interior Construction		None			
	Interior Finishes		None			
	Mechanical					
	Plumbing	2,432	gsf	5.00	12,160	
	HVAC		None			
	Fire Protection		None			
	Electrical					
	Electrical Distribution	2,432	gsf	10.00	24,320	
	Lighting & Branch Wiring	2,432	gsf	8.00	19,456	
	Communication & Security	2,432	gsf	2.00	4,864	
	Audio Visual System	2,432	gsf	0.50	1,216	
	Equipment					
	Fuel Service Equipment		See separate item			
	Furnishings					
	Fixed FF&E/Casework (Allowance)		None			
	Movable Furnishings		None			
	Total Direct Cost	**2,432**	**gsf**	**95.50**	**232,256**	
			Use	**96.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
24	**Wash Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**1,327**	**gsf**			
	Perimeter	**172**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	1,327	gsf	15.00	19,905	
	Slab On Grade	1,327	gsf	10.00	13,270	
	Superstructure					
	Floor		With slab on grade			
	Roof canopy	1,327	sf	25.00	33,175	
	Exterior Closure		None			
	Roofing					
	Standing seam roofing for canopy	1,327	sf	20.00	26,540	
	Interior Construction		None			
	Interior Finishes		None			
	Mechanical					
	Plumbing	1,327	gsf	5.00	6,635	
	HVAC		None			
	Fire Protection		None			
	Electrical					
	Electrical Distribution	1,327	gsf	10.00	13,270	
	Lighting & Branch Wiring	1,327	gsf	8.00	10,616	
	Communication & Security	1,327	gsf	2.00	2,654	
	Audio Visual System	1,327	gsf	0.50	664	
	Equipment					
	Wash Equipment		See separate item			
	Furnishings					
	Fixed FF&E/Casework (Allowance)		None			
	Movable Furnishings		None			
	Total Direct Cost	**1,327**	**gsf**	**95.50**	**126,729**	
			Use	**96.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
25	**Fuel Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**508**	**gsf**			
	Perimeter	**115**	**lf**			
	Height	**13**	**lf**			
	Substructure					
	Foundations	508	gsf	15.00	7,620	
	Slab On Grade	508	gsf	10.00	5,080	
	Superstructure					
	Floor	With slab on grade				
	Roof	508	sf	16.00	8,128	
	Exterior Closure					
	Exterior Wall, solid, say 80%	1,196	sf	50.00	59,800	
	Exterior Windows, say 20%	299	sf	150.00	44,850	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roll-up Doors		ea	15,000.00		
	Roofing					
	Roofing, insulation and sheet metal	508	sf	15.00	7,620	
	Interior Construction					
	Partitions	508	gsf	7.00	3,556	
	Interior Doors		gsf	1.00		
	Specialties	508	gsf	3.00	1,524	
	Interior Finishes					
	Wall Finishes	508	gsf	1.50	762	
	Floor Finishes	508	gsf	3.00	1,524	
	Ceiling Finishes	508	gsf	2.50	1,270	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	508	gsf	10.00	5,080	
	HVAC	508	gsf	8.00	4,064	
	Fire Protection	508	gsf	6.00	3,048	
	Electrical					
	Electrical Distribution	508	gsf	25.00	12,700	
	Lighting & Branch Wiring	508	gsf	10.00	5,080	
	Communication & Security	508	gsf	2.50	1,270	
	Audio Visual System	508	gsf	1.00	508	
	Equipment					
	Fueling Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	508	gsf	15.00	7,620	
	Movable Furnishings	None				
	Total Direct Cost	**508**	**gsf**	**380.13**	**193,104**	
			Use	**380.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
26	**Wash Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**1,842**	**gsf**			
	Perimeter	**196**	**lf**			
	Height	**18**	**lf**			
	Substructure					
	Foundations	1,842	gsf	15.00	27,630	
	Slab On Grade	1,842	gsf	10.00	18,420	
	Superstructure					
	Floor	With slab on grade				
	Roof	1,842	sf	16.00	29,472	
	Exterior Closure					
	Exterior Wall, solid, say 80%	2,822	sf	50.00	141,100	
	Exterior Windows, say 20%	706	sf	150.00	105,900	
	Exterior Doors	2	ea	3,000.00	6,000	
	Roll-up Doors	2	ea	15,000.00	30,000	
	Roofing					
	Roofing, insulation and sheet metal	1,842	sf	15.00	27,630	
	Interior Construction					
	Partitions	1,842	gsf	7.00	12,894	
	Interior Doors		gsf	1.00		
	Specialties	1,842	gsf	3.00	5,526	
	Interior Finishes					
	Wall Finishes	1,842	gsf	1.50	2,763	
	Floor Finishes	1,842	gsf	3.00	5,526	
	Ceiling Finishes	1,842	gsf	2.50	4,605	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	1,842	gsf	10.00	18,420	
	HVAC	1,842	gsf	8.00	14,736	
	Fire Protection	1,842	gsf	6.00	11,052	
	Electrical					
	Electrical Distribution	1,842	gsf	25.00	46,050	
	Lighting & Branch Wiring	1,842	gsf	10.00	18,420	
	Communication & Security	1,842	gsf	2.50	4,605	
	Audio Visual System	1,842	gsf	1.00	1,842	
	Equipment					
	Wash Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	1,842	gsf	15.00	27,630	
	Movable Furnishings	None				
	Total Direct Cost	**1,842**	**gsf**	**304.14**	**560,221**	
			Use	**304.00**		

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas For Site 7

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
27	**Photo-Voltaic Panels (Over Bus Parking)**					
	Key Assumption					
	Solar panels and solar panel support	50,388	sf	17.54	883,806	
	Framing and structure to support PV panels	50,388	sf	20.00	1,007,760	
	Total Direct Cost	**50,388**	**sf**	**37.54**	**1,891,566**	
			Use	**38.00**		
	NOTE: Site area available for ground mounted solar farm.	175,523	gsf			Could be a cost benefit/cost reduction for the project.
28	**Shop Equipment**	1	Allow	1,600,000.00	1,600,000	
29	**Furnishings (Office Areas)**	1	sf	20.00	37,726	
30	**IT and Communications**	1	sf	10.00	37,726	
31	**ZEB Fueling Options**					
33	**Full Fleet Hydrogen Stor / Compress / Dispense**					
	Key Assumption					
	Hydrogen Fuel Cell Equipment for 20 buses	1		3,500,000.00	3,500,000	Quote from Ballard
	Hydrogen Fuel Cell Equipment for 70 buses	1		63,000.00		Average from 2020 AC Transit study with 7 independent quotes to support 100 buses.
35	**Hydrogen Compression Modular Trailer**					
	Key Assumption					
	Hydrogen Compression Modular Trailer	Allow	1	1,450,000.00		Quote from Powertech
	Hydrogen Electrolizer Modular Trailer	Allow	1	2,100,000.00		Quote from Powertech
	Modular Limited Hydrogen Fleet Fueling			3,550,000.00		Quote from Powertech
BEB Initial Build-Out						
37	**Initial Build-Out BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)	27,250	lf	80.00	2,180,000	AC Conduit Only
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		None	-		
	BEB Charging Cabinet/Dispensers	2	ea	112,000.00	224,000	
	Switchgear for BEB Charging	1	ea	240,000.00	240,000	Support for 40 buses
	Key Assumption					
	Furnishings	**10,000**	**sf**			
	Assume Mid-high end furnishing	**10,000**	**sf**	**20.00**	**200,000**	
			Use	**20.00**		
BEB Master Plan						
37	**Full BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)	27,250	lf	91.00	2,479,750	AC Conduit and Wiring
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)	8,946	lf	98.00	876,708	
	BEB Charging Cabinet/Dispensers	35	ea	112,000.00	3,920,000	
	Switchgear for BEB Charging	2	ea	240,000.00	480,000	Support for 40 buses

Yuba-Sutter Transit

RESILIENT NEXT GENERATION TRANSIT FACILITY PLAN

PLANNING LEVEL ESTIMATE OF PROBABLE CONSTRUCTION COST BASED ON SPACE NEEDS PROGRAM AREAS FOR SITE 12

wsp

Date: February 2021

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Concept Level Estimate of Probable Construction Costs Based on
Space Needs Program Areas for Site 12
Preamble (Basis of Estimate)

Date: February 2021

A) Basis of Estimate:

This Estimate is based on the following:

1. Yuba-Sutter Transit Preliminary Space Needs Program dated June, 2020
2. Concept design alternatives for Site 12 as selected by Yuba-Sutter Transit to be one of the three sites considered for the new Maintenanace and Operations Facility.
3. Unit costs based on RSMeans Cost Data - 2019 edition Building Construction Costs

B) General Scope of Work

The general scope includes the following:

1. Materials and labor to prepare and construct a new bus transit administration, operations, and maintenance facility on the selected site listed above.
2. Includes costs for multiple fuels to power the entire fleet as diesel, battery electric, and hydrogen fuel cell vehicles. Anticipated final facility construction costs will include a blend of diesel and either / or both battery electric and hydrogen fuel cell buses

C) Exclusions

The estimate specifically excludes the following items:

1. Haz-mat investigation and abatement, if any
2. Cost escalation from the date of this estimate
3. Operations and maintenance costs
4. Cost of the property acquisition
5. Demolition and removal of any existing structures on selected site
6. Phased costing between initial and ultimate build out.

It is assumed that the above items, if needed, are included elsewhere in the owner's overall project budget.

D) Assumptions & Qualifications

1. The work will be done under one general contract during normal working hours

2. The estimate is based on unit costs and programmatic areas *for the layout and site selected as indicated in this document*. The intent of the estimate is to generate a budgetary construction cost estimate to assist Yuba-Sutter Transportation in verifying their project budget assumptions.

3 The following is a list of some future schematic and detail items that will affect the cost estimate:
Modifications to the scope of work or assumptions included in this estimate
Special phasing requirements
Restrictive technical specifications or excessive contract conditions
Any specified item of equipment, material, or product that cannot be obtained from at least three different sources
Any other non-competitive bid situations

4 Unless broken out separately unit costs used include costs for material, labor and equipment, sales tax, and installing contractor's (trade contractor's) markup prior to the General Contractor General Condition and Yuba-Sutter Transportation mark ups as listed.

5 Abbreviations used in the estimate:
Allow = Allowance
CF = cubic foot
CY = cubic yard
EA = each
LB = pound
LF = linear foot
LS = lump sum
SF = square foot
ZEB = Zero Emission Bus

Yuba-Sutter Transit

Concept Level Estimate - Master Plan

Site 12

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**13.9 Acres**
3					**Developed**	**11.8 Acres**
4					**Remaining**	**2.1 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		607,546	$ 425,282
11	Drainage	SF	$ 2.50		607,546	$ 1,518,865
12	Utilities (water, elect, sewer, gas)	SF	$ 5.00		607,546	$ 3,037,730
13	Landscape / Irrigation	SF	$ 15.60		94,375	$ 1,472,250
14	Fencing	LF	$ 210.00	Calculated LF per side + gates	3,139	$ 659,190
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 801,589
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	297,394	$ 2,765,764
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	53,659	$ 407,808
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		5,180	$ 497,280
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,074	$ 1,902,812
28	**Shop Equipment**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 25,119,279
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Per Bus	$ 63,000		70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Full BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)		$ 91		13,904	$ 1,265,264
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		$ 98		10,189	$ 998,522
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	35	$ 3,920,000
41	Switchgear for BEB Charging	Each	$ 240,000		2	$ 480,000
42	BEB Emergency Generator	Allow		Assumed (2) 2MW diesel gensets	1	$ 2,600,000
				Full BEB Fleet Charging Subtotal		$ 9,263,786
43	Facility + BEB Option Subtotal (no H2)					**$ 34,383,065**

unit costs bases on ***latest MS Means we have*** 2019

Construction Cost Escallation 2020	3% per year	**$ 35,414,557**
2021		**$ 36,476,993**
2022		**$ 37,571,303**

44	General Contractor's General Conditions		10.0%	3,438,306
45	General Contractor's Contractors Fee		8.0%	2,750,645
46	Subtotal			**$ 43,760,254**
47	Contingency, Design		Allow	500,000
48	Contingency, Construction		10.0%	4,376,025
49	**TOTAL CONSTRUCTION COST**			**$ 48,636,279**
50	Contingency, Owner's		10.0%	4,863,628
51	Soft Cost (design, CM, permits, etc.)		15.0%	7,295,442
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**			**$ 60,795,349**

Yuba-Sutter Transit

Concept Level Estimate - Initial Build-Out

Site 12

	A	B	C	D	E	F
1					**Resilient Next Generation Transit Facility Plan**	
2					**Total Site**	**13.9 Acres**
3					**Developed**	**11.8 Acres**
4					**Remaining**	**2.1 Acres**
5				Total Bus Fleet	**70**	
6				Total NRV Fleet	**15**	
7		Unit	Unit $	Remarks	Qty.	Estimated Cost
8	**New Facility (Excluding ZE Fueling)**					
9	**Sitework (not including paving)**					
10	Grading	SF	$ 0.70		607,546	$ 425,282
11	Drainage	SF	$ 2.50		607,546	$ 1,518,865
12	Utilities (water, elect, sewer, gas)	SF	$ 5.00		607,546	$ 3,037,730
13	Landscape / Irrigation	SF	$ 15.60		94,375	$ 1,472,250
14	Fencing	LF	$ 210.00	Calculated LF per side + gates	3,139	$ 659,190
15	Stormwater Management	Allow		surface drainage	1	$ 50,000
16	Off-Site Improvements	Allow		Signals, curbs/gutters, sidewalk, roadwork	1	$ 801,589
17	**Paving**					
18	Bus Parking & Circulation (concrete)	SF	$ 9.30	10" reinforced conc, agency parking + circ	297,394	$ 2,765,764
19	Employee/Visitor Parking (asphalt)	SF	$ 7.60	typical surface car parking	53,659	$ 407,808
20	**New Building Construction**					
21	Admin /Ops Building	SF	$ 237.00		15,312	$ 3,628,944
22	Bus Maintenance Building	SF	$ 211.00		20,064	$ 4,233,504
23	Fuel Canopy	SF	$ 96.00		2,432	$ 233,472
24	Wash Canopy	SF	$ 96.00		5,180	$ 497,280
25	Fuel Building	SF	$ 380.00		508	$ 193,040
26	Wash Building	SF	$ 304.00		1,842	$ 559,968
27	**Photo-Voltaic Panels (Over Bus Parking)**	SF	$ 38.00		50,074	$ 1,902,812
28	**Shop Equipment**	Allow	$ 1,600,000	Entire Facility Area	1	$ 1,600,000
29	**Furnishings (Office Areas)**	SF	$ 20.00	Entire Building Area	37,726	$ 754,520
30	**IT and Communications**	SF	$ 10.00	Entire Building Area	37,726	$ 377,260
				Facility Cost Subtotal		$ 25,119,279
31	**ZEB Fueling Options**					
32	**Full Hydrogen Fleet Fueling**					
33	Full Fleet Hydrogen Stor / Compress / Dispense	Per Bus	$ 63,000		70	$ 4,410,000
34	**Modular Limited Hydrogen Fleet Fueling**					
35	Hydrogen Compression Modular Trailer	Allow		3 FCEB daily	1	$ 1,450,000
36	Hydrogen Electrolizer Modular Trailer	Allow		H2 for 3 FCEB daily	1	$ 2,100,000
				Modular Limited Hydrogen Fleet Fueling Sub		$ 3,550,000
37	**Initial Build-Out BEB Fleet Charging**					
38	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)		$ 80		13,904	$ 1,112,320
39	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)			Not needed for Initial Build-Out		
40	BEB Charging Cabinet/Dispensers	Each	$ 112,000	Assumed 1:2 Charging	2	$ 224,000
41	Switchgear for BEB Charging	Each	$ 240,000		1	$ 240,000
42	BEB Emergency Generator			Not needed for Initial Build-Out		
				Initial Build-Out BEB Fleet Charging Subtotal		$ 1,576,320
43	Facility + BEB Option Subtotal (no H2)					**$ 26,695,599**
	unit costs bases on ***latest MS Means we have*** 2019					
	Construction Cost Escallation 2020		3% per year			**$ 27,496,467**
	2021					**$ 28,321,361**
	2022					**$ 29,171,002**
44	General Contractor's General Conditions		10.0%			2,669,560
45	General Contractor's Contractors Fee		8.0%			2,135,648
46	Subtotal					**$ 33,976,210**
47	Contingency, Design		Allow			500,000
48	Contingency, Construction		10.0%			3,397,621
49	**TOTAL CONSTRUCTION COST**					**$ 37,873,831**
50	Contingency, Owner's		10.0%			3,787,383
51	Soft Cost (design, CM, permits, etc.)		15.0%			5,681,075
52	**FACILITY + BEB OPTION TOTAL PROJECT COST**					**$ 47,342,289**

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan
Schedule (Site 12)

Purchase property	Q1 Jan 2021	-	end of Q2 2021	6 moths
Solicit and complete final desing	Q3 2021	-	end of Q1 2022	9-12 monts
Bid and select GC	Q2 2022	-	end of Q2 2022	3 months
Construct	Q3 2022	-	end of Q1 2024	18 months

Yuba-Sutter Transit
Resilient Next Generation Transit Facility Plan **Date: February 2021**
Concept Level Estimate of Probable Construction Costs Based on Space Needs Program Areas for Site 12

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
9	**Sitework (not including paving)**					
10	**Grading**					
	Rough grading	607,546	sf	0.20	121,509	
	Fine grading	607,546	sf	0.50	303,773	
	Grading	**607,546**	**SF**	**0.70**	**425,282**	
			Use	**0.70**		
11	**Drainage**					
	Storm drainage	607,546	sf	2.50	1,518,865	
	Drainage	**607,546**	**SF**	**2.50**	**1,518,865**	
			Use	**2.50**		
12	**Utilities (water, elect, sewer, gas)**					
	D2	607,546	sf			
	Assuming the following utilities					
	Domestic water	806	lf	65.00	52,390	
	Fire water, to building & site	3,256	lf	85.00	276,760	
	Fire hydrant	9	ea	8,000.00	72,000	
	Electrical conduit and wiring	15,104	lf	100.00	1,510,400	
	Site lighting	361,225	sf	2.50	903,063	
	Sewer	824	lf	65.00	53,560	
	Gas	824	lf	50.00	41,200	
	Connect to existing utilities	5	ea	25,000.00	125,000	
	Storm - with item 9 above					
	Utilities (water, elect, sewer, gas)	**607,546**	**SF**	**4.99**	**3,034,373**	
			Use	**5.00**		
13	**Landscape / Irrigation**					
	Area of landscaping	94,375	sf			
	Assuming:					
	Top soil, 6"	1,748	cy	85.00	148,580	
	Planting	94,375	sf	10.00	943,750	
	Irrigation	94,375	sf	4.00	377,500	
	Landscape / Irrigation	**94,375**	**SF**	**15.57**	**1,469,830**	
			Use	**15.60**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
14	**Fencing**					
	Fencing based on	2,296	lf			Assume same as Property Line
	Assuming:					
	Footings at 12' o.c.	192	ea	500.00	96,000	
	Security fencing, 8' H	2,296	lf	120.00	275,520	
	Entry gates	6	ea	15,000.00	90,000	
	Screening wall	6,080	sf	19.00	115,520	
	Footing for Screening wall	85	cy	305.00	25,925	
	Decorative metal fence	843	lf	64.00	53,952	
	Fencing	**3,139**	**LF**	**209.28**	**656,917**	
			Use	**210.00**		
15	**Stormwater Management**					
	Key Assumption					
	Site Area	**200,000**	**gsf**			Assume remaining non-improved site sufficient for on-site storm water mitigation. Cost in graded item 9 above.
		1	Allow	50,000.00	50,000	
	Stormwater Management	**200,000**	**gsf**		**50,000**	
16	**Off-Site Improvements**					
	New traffic signal (4-way)	1	Allow	450,000.00	450,000	
	Curb and gutter	1,407	lf	75.00	105,525	
	Sidewalk	6,821	sf	14.50	98,905	
	Asphalt paving (overlay)	10,095	sf	3.00	30,285	
	Asphalt paving (build new)	7,986	sf	9.00	71,874	
	Shoulder Improvements	22,500	sf	2.00	45,000	
	Off-Site Improvements				**801,589**	
17	**Paving**					
18	**Bus Parking & Circulation (concrete)**					
	10" RC paivng on 6" aggregate base	297,394	sf			
	Assuming:					
	6" aggregte base, imported	5,507	cy	50.00	275,350	
	Reinforced concrete, say 1 lb/sf	297,394	lb	1.15	342,003	
	Concrete material & placing	9,179	cy	190.00	1,744,010	
	Concrete finishes	297,394	sf	0.40	118,958	
	Striping, marking & signage	297,394	sf	1.00	297,394	
	Lighting		With Utilities			
	Bus Parking & Circulation (concrete)	**297,394**	**sf**	**9.30**	**2,777,715**	
			Use	**9.30**		
19	**Employee/Visitor Parking (asphalt)**					
	8" paivng on 6" aggregate base	53,659	sf			
	Assuming:					
	6" aggregte base, imported	994	cy	50.00	49,700	
	8" AC	2,385	ton	120.00	286,200	
	Surface finishes	53,659	sf	0.35	18,781	
	Striping, marking & signage	53,659	sf	1.00	53,659	
	Lighting		With Utilities			
	Employee/Visitor Parking (asphalt)	**53,659**	**sf**	**7.60**	**408,340**	
			Use	**7.60**		

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Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
20	**New Building Construction**					
21	**Admin /Ops Building**					
	Key Assumption					
	Gross floor area	**15,312**	**gsf**			
	Length	**132**	**lf**			
	Width	**116**	**lf**			
	Height	**14**	**lf**			
	Substructure					
	Foundations	15,312	gsf	10.00	153,120	
	Slab On Grade		with surface parking, item 15 or 16			
	Superstructure					
	Floor/roof deck for building including columns	15,312	sf	28.00	428,736	
	Stair, 1 level		none			
	Exterior Closure					
	Exterior Wall, say 60%	4,166	sf	50.00	208,300	
	Exterior Windows, say 40%	2,778	sf	150.00	416,700	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roofing					
	Roofing, insulation and sheet metal	15,312	sf	20.00	306,240	
	Interior Construction					
	Partitions	15,312	gsf	15.00	229,680	
	Interior Doors	15,312	gsf	3.00	45,936	
	Specialties	15,312	gsf	5.00	76,560	
	Interior Finishes					
	Wall Finishes	15,312	gsf	5.00	76,560	
	Floor Finishes	15,312	gsf	7.00	107,184	
	Ceiling Finishes	15,312	gsf	8.00	122,496	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic		none			
	Mechanical					
	Plumbing	15,312	gsf	15.00	229,680	
	HVAC	15,312	gsf	28.00	428,736	
	Fire Protection	15,312	gsf	8.00	122,496	
	Electrical					
	Electrical Distribution	15,312	gsf	22.00	336,864	
	Lighting & Branch Wiring	15,312	gsf	10.00	153,120	
	Communication & Security	15,312	gsf	5.00	76,560	
	Audio Visual System	15,312	gsf	1.50	22,968	
	Equipment					
	Bus Service Equipment		None			
	Furnishings					
	Fixed FF&E/Casework (Allowance)	15,312	gsf	5.00	76,560	
	Movable Furnishings		None			
	Total Direct Cost	**15,312**	**gsf**	**237.10**	**3,630,496**	
			Use	**237.00**		

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Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
22	**Bus Maintenance Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**20,064**	**gsf**			
	Perimeter	**568**	**lf**			
	Height	**25**	**lf**			
	Substructure					
	Foundations	20,064	gsf	15.00	300,960	
	Slab On Grade	20,064	gsf	10.00	200,640	
	Superstructure					
	Floor	With slab on grade				
	Roof	20,064	sf	16.00	321,024	
	Exterior Closure					
	Exterior Wall, solid, say 80%	11,360	sf	50.00	568,000	
	Exterior Windows, say 20%	2,840	sf	150.00	426,000	
	Exterior Doors	10	ea	3,000.00	30,000	
	Roll-up Doors	10	ea	45,000.00	450,000	
	Roofing					
	Roofing, insulation and sheet metal	20,064	sf	15.00	300,960	
	Interior Construction					
	Partitions	20,064	gsf	7.00	140,448	
	Interior Doors	20,064	gsf	1.00	20,064	
	Specialties	20,064	gsf	3.00	60,192	
	Interior Finishes					
	Wall Finishes	20,064	gsf	1.50	30,096	
	Floor Finishes	20,064	gsf	3.00	60,192	
	Ceiling Finishes	20,064	gsf	2.50	50,160	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	20,064	gsf	10.00	200,640	
	HVAC	20,064	gsf	8.00	160,512	
	Fire Protection	20,064	gsf	6.00	120,384	
	Electrical					
	Electrical Distribution	20,064	gsf	25.00	501,600	
	Lighting & Branch Wiring	20,064	gsf	10.00	200,640	
	Communication & Security	20,064	gsf	2.50	50,160	
	Audio Visual System	20,064	gsf	1.00	20,064	
	Equipment					
	Bus Service Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	20,064	gsf	1.00	20,064	
	Movable Furnishings	None				
	Total Direct Cost	**20,064**	**gsf**	**210.96**	**4,232,800**	
			Use	**211.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
23	**Fuel Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**2,432**	**gsf**			
	Perimeter	**200**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	2,432	gsf	15.00	36,480	
	Slab On Grade	2,432	gsf	10.00	24,320	
	Superstructure					
	Floor		With slab on grade			
	Roof canopy	2,432	sf	25.00	60,800	
	Exterior Closure		None			
	Roofing					
	Standing seam roofing for canopy	2,432	sf	20.00	48,640	
	Interior Construction		None			
	Interior Finishes		None			
	Mechanical					
	Plumbing	2,432	gsf	5.00	12,160	
	HVAC		None			
	Fire Protection		None			
	Electrical					
	Electrical Distribution	2,432	gsf	10.00	24,320	
	Lighting & Branch Wiring	2,432	gsf	8.00	19,456	
	Communication & Security	2,432	gsf	2.00	4,864	
	Audio Visual System	2,432	gsf	0.50	1,216	
	Equipment					
	Fuel Service Equipment		See separate item			
	Furnishings					
	Fixed FF&E/Casework (Allowance)		None			
	Movable Furnishings		None			
	Total Direct Cost	**2,432**	**gsf**	**95.50**	**232,256**	
			Use	**96.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
21	**Wash Canopy**					
	Key Assumption					
	Single story canopy					
	Gross canopy	**5,180**	**gsf**			
	Perimeter	**418**	**lf**			
	Height	**19**	**lf**			
	Substructure					
	Foundations	5,180	gsf	15.00	77,700	
	Slab On Grade	5,180	gsf	10.00	51,800	
	Superstructure					
	Floor	With slab on grade				
	Roof canopy	5,180	sf	25.00	129,500	
	Exterior Closure		None			
	Roofing					
	Standing seam roofing for canopy	5,180	sf	20.00	103,600	
	Interior Construction		None			
	Interior Finishes		None			
	Mechanical					
	Plumbing	5,180	gsf	5.00	25,900	
	HVAC		None			
	Fire Protection		None			
	Electrical					
	Electrical Distribution	5,180	gsf	10.00	51,800	
	Lighting & Branch Wiring	5,180	gsf	8.00	41,440	
	Communication & Security	5,180	gsf	2.00	10,360	
	Audio Visual System	5,180	gsf	0.50	2,590	
	Equipment					
	Wash Equipment		See separate item			
	Furnishings					
	Fixed FF&E/Casework (Allowance)		None			
	Movable Furnishings		None			
	Total Direct Cost	**5,180**	**gsf**	**95.50**	**494,690**	
			Use	**96.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
22	**Fuel Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**508**	**gsf**			
	Perimeter	**115**	**lf**			
	Height	**13**	**lf**			
	Substructure					
	Foundations	508	gsf	15.00	7,620	
	Slab On Grade	508	gsf	10.00	5,080	
	Superstructure					
	Floor	With slab on grade				
	Roof	508	sf	16.00	8,128	
	Exterior Closure					
	Exterior Wall, solid, say 80%	1,196	sf	50.00	59,800	
	Exterior Windows, say 20%	299	sf	150.00	44,850	
	Exterior Doors	4	ea	3,000.00	12,000	
	Roll-up Doors		ea	15,000.00		
	Roofing					
	Roofing, insulation and sheet metal	508	sf	15.00	7,620	
	Interior Construction					
	Partitions	508	gsf	7.00	3,556	
	Interior Doors		gsf	1.00		
	Specialties	508	gsf	3.00	1,524	
	Interior Finishes					
	Wall Finishes	508	gsf	1.50	762	
	Floor Finishes	508	gsf	3.00	1,524	
	Ceiling Finishes	508	gsf	2.50	1,270	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	508	gsf	10.00	5,080	
	HVAC	508	gsf	8.00	4,064	
	Fire Protection	508	gsf	6.00	3,048	
	Electrical					
	Electrical Distribution	508	gsf	25.00	12,700	
	Lighting & Branch Wiring	508	gsf	10.00	5,080	
	Communication & Security	508	gsf	2.50	1,270	
	Audio Visual System	508	gsf	1.00	508	
	Equipment					
	Fueling Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	508	gsf	15.00	7,620	
	Movable Furnishings	None				
	Total Direct Cost	**508**	**gsf**	**380.13**	**193,104**	
			Use	**380.00**		

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Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
23	**Wash Building**					
	Key Assumption					
	Single story building					
	Gross floor area	**1,842**	**gsf**			
	Perimeter	**196**	**lf**			
	Height	**18**	**lf**			
	Substructure					
	Foundations	1,842	gsf	15.00	27,630	
	Slab On Grade	1,842	gsf	10.00	18,420	
	Superstructure					
	Floor	With slab on grade				
	Roof	1,842	sf	16.00	29,472	
	Exterior Closure					
	Exterior Wall, solid, say 80%	2,822	sf	50.00	141,100	
	Exterior Windows, say 20%	706	sf	150.00	105,900	
	Exterior Doors	2	ea	3,000.00	6,000	
	Roll-up Doors	2	ea	15,000.00	30,000	
	Roofing					
	Roofing, insulation and sheet metal	1,842	sf	15.00	27,630	
	Interior Construction					
	Partitions	1,842	gsf	7.00	12,894	
	Interior Doors		gsf	1.00		
	Specialties	1,842	gsf	3.00	5,526	
	Interior Finishes					
	Wall Finishes	1,842	gsf	1.50	2,763	
	Floor Finishes	1,842	gsf	3.00	5,526	
	Ceiling Finishes	1,842	gsf	2.50	4,605	
	Conveying Systems					
	Elevators & Lifts, 2 stops, passenger, hydraulic	None				
	Mechanical					
	Plumbing	1,842	gsf	10.00	18,420	
	HVAC	1,842	gsf	8.00	14,736	
	Fire Protection	1,842	gsf	6.00	11,052	
	Electrical					
	Electrical Distribution	1,842	gsf	25.00	46,050	
	Lighting & Branch Wiring	1,842	gsf	10.00	18,420	
	Communication & Security	1,842	gsf	2.50	4,605	
	Audio Visual System	1,842	gsf	1.00	1,842	
	Equipment					
	Wash Equipment	See separate item				
	Furnishings					
	Fixed FF&E/Casework (Allowance)	1,842	gsf	15.00	27,630	
	Movable Furnishings	None				
	Total Direct Cost	**1,842**	**gsf**	**304.14**	**560,221**	
			Use	**304.00**		

Item	Description	Quantity	Unit	Unit Cost	Estimated Cost	Notes
27	**Photo-Voltaic Panels (Over Bus Parking)**					
	Key Assumption					
	Solar panels and solar panel support	50,074	sf	17.54	878,298	
	Framing and structure to support PV panels	50,074	sf	20.00	1,001,480	
	Total Direct Cost	**50,074**	**sf**	**37.54**	**1,879,778**	
			Use	**38.00**		
	NOTE: Site area available for ground mounted solar farm.	N/A	gsf			Not available. Potential of adjacent property used for other purpose.
28	**Shop Equipment**	1	Allow	1,600,000.00	1,600,000	
29	**Furnishings (Office Areas)**	1	sf	20.00	37,726	
30	**IT and Communications**	1	sf	10.00	37,726	
31	**ZEB Fueling Options**					
32	**Full Fleet Hydrogen Stor / Compress / Dispense**					
	Key Assumption					
	Hydrogen Fuel Cell Equipment for 20 buses	1		3,500,000.00	3,500,000	Quote from Ballard
	Hydrogen Fuel Cell Equipment for 70 buses	1		63,000.00		Average from 2020 AC Transit study with 7 independent quotes to support 100 buses.
35	**Hydrogen Compression Modular Trailer**					
	Key Assumption					
	Hydrogen Compression Modular Trailer	Allow	1	1,450,000.00		Quote from Powertech
	Hydrogen Electrolizer Modular Trailer	Allow	1	2,100,000.00		Quote from Powertech
	Modular Limited Hydrogen Fleet Fueling			3,550,000.00		Quote from Powertech
BEB Initial Build-Out						
37	**Initial Build-Out BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit Only)	13,904	lf	80.00	1,112,320	AC Conduit Only
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)		None	-		
	BEB Charging Cabinet/Dispensers	2	ea	112,000.00	224,000	
	Switchgear for BEB Charging	1	ea	240,000.00	240,000	Support for 40 buses
	Key Assumption					
	Furnishings	**10,000**	**sf**			
	Assume Mid-high end furnishing	**10,000**	**sf**	**20.00**	**200,000**	
			Use	**20.00**		
BEB Master Plan						
37	**Full BEB Fleet Charging**					
	Battery Electric Bus (BEB) Infrastructure (AC Conduit + Inputs / Outputs)	13,904	lf	91.00	1,265,264	
	Battery Electric Bus (BEB) Infrastructure (DC Conduit + Inputs / Outputs)	10,189	lf	98.00	998,522	
	BEB Charging Cabinet/Dispensers	35	ea	112,000.00	3,920,000	
	Switchgear for BEB Charging	2	ea	240,000.00	480,000	Support for 40 buses