

ACTION CALENDAR May 31, 2022

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: Paul Buddenhagen, Deputy City Manager

Subject: Discussion and Direction Regarding Vision 2050 Program Plan and Potential

Ballot Measures for the November 8, 2022 General Municipal Election

#### RECOMMENDATION

Discuss the results of the recent community survey; provide direction to the City Manager on whether to continue working towards placing measure(s) on the November ballot, and, if so, the type of and dollar amounts for revenue measures; and provide input on the Vision 2050 *Program Plan*.

### FISCAL IMPACTS OF RECOMMENDATION

If a potential revenue measure or measures are placed on the ballot and subsequently approved by voters, the City would receive additional funds from increased tax revenues.

#### **CURRENT SITUATION AND ITS EFFECTS**

Most of Berkeley's streets, sidewalks, sewers, parks, playgrounds and public buildings were built over 75 years ago and need repair. However, local revenues have not kept pace with the investments needed to maintain and/or update aging infrastructure, or promote sustainability and housing affordability. This underinvestment has led to more than \$1 billion in deferred maintenance and even more to ensure resilient and sustainable infrastructure. Studies show that \$1 spent in early maintenance of infrastructure, such as streets, can save \$7 in later, more expensive repairs. This explains why delays in addressing deferred maintenance in the City's streets quadruples the cost of addressing these needs by 2050.

The size and scale of these infrastructure needs show the challenge ahead despite proactive steps taken to address these needs in the last decade. Local voters approved the start of upgrades to local infrastructure through the passage of Measure M in 2012 (\$30M), the Parks Tax increase in 2014, and Measure T1 in 2016 (\$100M); and to affordable housing through the passage of Measure U1 in 2016 and Measure O in 2018 (\$135M). Together, these measures have provided additional resources to construct 308 affordable housing units (with 456 more units in the queue), and repair and improve Berkeley's aging infrastructure, including sidewalks, storm drains, parks, streets, senior and recreation centers, watershed and other City facilities.

While marking important progress, these measures have not been large enough to address this significant infrastructure and affordable housing need. A measure or measures on the November 2022 ballot would secure a dedicated funding source to support local infrastructure and affordable housing, and accelerate the City's path toward sustainability and resilience as envisioned in the Vision 2050 Framework.

In April 2022, a random, representative sample of 500 Berkeley voters were surveyed regarding their infrastructure priorities and possible revenue measures via telephone and text-to-online technology using professional interviewers. The survey had a margin of error of +/-4.4%, and top line results are in Attachment 1. The survey confirmed that voters' top priorities were affordable housing, streets and sidewalks, and undergrounding utilities to help reduce the risk of wildfire. In the survey, 57% of Berkeley's likely voters said they would vote yes on Option #1, a \$600 million general obligation bond, and 61-63% responded yes on Option #2, the pairing of one \$300 million general obligation bond (61%) with a 30 cent parcel tax (63%). These results fall short of the two-thirds necessary for voter approval on any of these measures. The "No" vote (between 26-29%) continues to register at higher levels than this City's previous pre-placement surveys, and the undecided vote is smaller than previous surveys.

Staff seeks City Council's direction on which, if any, measure or measures that staff should prepare for City Council's placement on the November 2022 ballot, and input on the draft *Vision 2050 Program Plan*.

#### BACKGROUND

On April 27, 2021, City Council approved a referral to the City Manager to "explore various options for a future city bond measure in November 2022 to support the growing need for infrastructure investment, including street repaving, Complete Streets infrastructure that promotes bike and pedestrian safety, restoration of public buildings and facilities, and affordable housing citywide." On June 30, 2021, City Council adopted a budget that included Vision 2050 implementation and exploration of revenue measures for the November 2022 ballot.

In significant coordination with Vision 2050 volunteers, staff have completed meetings with 25+ City Commissions and community organizations; conducted a scientific survey on infrastructure priorities in October 2021; updated City Council on progress on <a href="November 16">November 16</a>, 2021; updated and gained City Council's direction at the <a href="January 20">January 20</a>, <a href="2022 work session">2022 work session</a>; sent an informational brochure to all Berkeley residents inviting them to one of four large area public meetings; held those public meetings on March 30, April 6, April 13, and April 20; conducted this project's 2<sup>nd</sup> scientific survey of Berkeley

<sup>&</sup>lt;sup>1</sup>https://records.cityofberkeley.info/PublicAccess/api/Document/AdG61weWildAPhLXK5fpdWtst1f97yF2H RTRBZo4KWAcwbaDsmEVrPuMZbJ0saMj1yOQehYuhcR1QqgYN5qYWÉU%3D/

<sup>&</sup>lt;sup>2</sup> https://berkeleyca.gov/city-council-special-ws-meeting-eagenda-january-20-2022

voters in late April; reported to City Council on the City's bond capacity on <u>April 26</u>, <u>2022</u>; drafted a *Program Plan* and incorporated public comments received between May 2 and May 12, 2022; submitted to City Council a *Strategic Asset Management Plan* and *Asset Management Policy* on <u>May 10, 2022</u>; and issued <u>off agenda memos</u> on October 4, 2021, December 13, 2021, March 28, 2022, and May 3, 2022.

Vision 2050 Program Plan. Per City Council's direction at the January 20, 2022 work session, Attachment 2 is a draft long-term program to address Berkeley's infrastructure needs<sup>6</sup> through 2050, includes a high-level funding approach, four outcomes and tangible results from increased investments, a method for prioritizing work, an organizational approach to program delivery, key performance indicators, and a process for developing and approving projects funded by future revenue measures. While not binding, the Plan is a blueprint with enough flexibility to adapt as infrastructure needs evolve and will require updates every five years.

#### The *Plan's* four outcomes are:



Program Plan's Figure 7: Outcomes

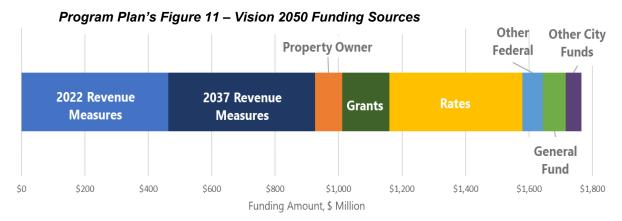
<sup>&</sup>lt;sup>3</sup> https://berkeleyca.gov/sites/default/files/2022-04/2022-04-26%20Special%20Item%2002%20Accept%20the%20Risk%20Analysis%20for%20Long-Term%20Debt.pdf

<sup>&</sup>lt;sup>4</sup> https://berkeleyca.gov/sites/default/files/2022-04/2022-05-10%20Item%2031%20Vision%202050%20Strategic%20Asset.pdf

<sup>&</sup>lt;sup>5</sup> https://berkeleyca.gov/your-government/city-council/agenda-memos

<sup>&</sup>lt;sup>6</sup> The City Council's adopted *Vision 2050 Framework* focused on infrastructure, not affordable housing. Given City Council's April 27, 2021 direction to include both infrastructure and affordable housing in the context of revenue measures, the revenue measure options below address both infrastructure and affordable housing, but the draft *Vision 2050 Program Plan* retains its focus on infrastructure.

As shown in the figure below, the *Program Plan* includes a high-level funding plan to address the City's infrastructure needs through a variety of fund sources, including revenue measures, grants and developer contributions, rates, and City (and General) funds.



The *Program Plan* at Table 3 prioritizes infrastructure categories based on the Institute for Sustainable Infrastructure's scorecard and public input assembled to date. Infrastructure categories in Priorities 1 and 2 are most aligned to resilience and sustainability measures in the scorecard criteria, closest to being able to move into construction, and most supported by public input gained to date.

Many of the infrastructure categories in Priorities 2 and 3 are important, but require more public process, planning, and/or engineering, some of which may be supported by funding from a revenue measure or measures. Some of these infrastructure categories, such as sewer, already have sufficient, dedicated funding sources that make them unnecessary to prioritize for new revenue funding.

Priority	Asset Category by Score
	Streets
1	Bicycle and Pedestrian Plan projects
	Sidewalks
	Undergrounding
	Stormwater
2	Parks
	Trees
	Waterfront
	Traffic, Streetlights, and Parking
	Transit projects
3	Civic center
	City buildings
	Transfer station
	Sewer

This prioritization is intended as a general guideline for resource allocation, and is not binding on when work on the particular infrastructure category is completed. Ultimately, City Council will select the projects to fund and their timing after consultation with Commissions, staff, and the community.

## Revenue Measure Options

For the November 2022 ballot, two types of infrastructure revenue measures are being considered: a General Obligation Bond (or Infrastructure Bond) and Parcel Tax. GO Bonds are paid by an ad valorem property tax based on taxable properties' assessed value and can only be used to fund capital improvements (no maintenance, operations or services). A parcel tax is a property tax of all properties, i.e., residential, commercial, and industrial, that can generate annual special revenues for capital, operations, maintenance, and services.<sup>7</sup> A summary of these funding mechanism's basics and their pros and cons is below.

**TYPE GO Bond Parcel Tax TAX BASIS** Assessed Value (AV) Building square footage **USE OF FUNDS** Capital only Capital + Maintenance TAX Progressive Progressive **PROGRESSIVITY EXEMPTIONS** None Low income/senior Fixed payments with cost of Relative tax burden decreases **PROS** living adjustments, funds capital as total AV increases and maintenance Cannot pay for maintenance or operations Increases tax burden if building **CONS** Does not adjust for future costs square footage increases

Table 4 from the Program Plan - Funding Mechanisms

With that context, staff seek direction among these possible revenue measure options:

Option #1, \$600M GO Bond: Such as measure could have the following investment priorities (and corresponding *Program Plan* outcomes):

- \$250 Million Street repair and traffic safety (*Program Plan's* Outcome 1)
- \$150 Million Affordable housing for low-income and homeless residents
- \$125 Million Climate change, sea level rise, wildfire prevention and protection (*Program Plan's* Outcome 2)

<sup>&</sup>lt;sup>7</sup> Some have suggested a split roll parcel tax, where residential and commercial properties are charged different rates. Staff have not been able to find many examples of these types of parcel taxes for infrastructure in other cities.

• \$75 Million - Other public infrastructure improvements<sup>8</sup> (*Program Plan's* Outcomes 3 and 4)

This option funds the community's top priorities from the public outreach and scientific surveys (affordable housing, street repair, and resilience to climate change), and is supported by the city's prioritization using the Vision 2050/Envision scorecard.

Option #2, Two Measures: Two measures on the November 2020 ballot would include:

- A parcel tax of \$0.30 per building square foot, raising approximately \$28 million annually, to improve streets and traffic safety (*Program Plan's* Outcome 1), and
- A \$300 million GO bond
  - \$150 million to address affordable housing for low-income persons and the unhoused
  - \$150 million to improve resilience to climate change, wildfire prevention and protection, and to improve other public infrastructure (*Program Plan's* Outcomes 2, 3, and 4)

Option #2 also funds voters' top priorities. To succeed, each measure would be required to separately meet the two-thirds threshold for approval, which may be more difficult than one measure meeting the two-thirds threshold. Both measures could gain voter approval, one measure could be approved by voters but not the other, or both could fail. In the scientific survey, Option #2's two-measure approach garnered more support (61-63%) than Option #1's \$600M GO bond (57%).

Option #2 is better positioned to deliver on Vision 2050's commitment to resilient and sustainable infrastructure. It provides more flexible sources of funding that could address maintenance needs in addition to capital improvements. The parcel tax component includes an annual cost of living escalator, whereas a GO bond does not. That means the GO bond's impact diminishes over time, as does its tax burden. The parcel tax not only includes a cost of living escalator, it delivers benefits through 2050 unless ended sooner by voters, whereas the GO bond is planned to deliver benefits for 15 years.

Tax Impacts from Options #1 and #2. The table below shows these options' tax impacts.

<sup>&</sup>lt;sup>8</sup> Other Public Infrastructure Improvements could include one-time projects, e.g., Old City Hall, Veterans Memorial Building, Waterfront and Marina, etc.

#### Program Plan's Table 7 - Tax Impacts

	Option #1 \$600M GO Bond	Option #2 \$300M GO Bond + Parcel Tax
Tax Rate (\$100,000 A.V.)	Avg \$51 Max \$91	Avg Bond = \$27 Parcel = 30 cents per sq. ft.
Tax (Avg Home: \$647,972; 1,900 sq ft)	Avg \$332 Max \$589	Avg Bond = \$166 Parcel = \$570 Total = \$736

Results from Options #1 and #2. These results assume the City continues its track record of successfully leveraging state, federal, and regional grants, and City Council allocates a total of approximately \$15 million—\$7 million in existing baseline funding plus \$8 million in new non-revenue measure funding—to the annual paving program in order to ensure proper ongoing maintenance of the City's streets.

### These investments would:

- Improve streets to good paving condition with an average Paving Condition Index of 70 or more
- Implement 75%+ of adopted traffic safety plans (bike/ped) and achieve Berkeley's vision of a low-stress bike network
- Complete selected sea level rise projects, and begin to implement undergrounding of evacuation routes and the stormwater/green infrastructure plan
- Assist in advancing the city's park and public realm projects, e.g., Waterfront and Civic Center Renovation
- Address 13-26% of Berkeley's affordable housing need through the addition of 500-1,000 new affordable housing units

Other Measures on the November 2022 ballot. To date, City staff and consultants are not aware of other measures that have been approved for the November ballot. In June, staff will bring a recommendation to the City Council to include an Article 34 measure, which is required by the California Constitution in order to develop affordable housing projects with state or local public financing. Such an approval has occurred in at least four previous elections and has had strong support.

Seeking Direction. Staff seeks Council direction on the following, should City Council want staff to continue working on placing revenue measure(s) on the November 2022 ballot:

- Should staff move forward with placing a measure or measures on the ballot?
  - If so, which revenue measure or measures should the City Attorney and City Manager's office draft for placement on the ballot?
  - O What should the amount of each measure be?
  - Which priorities (and their funding levels) should be included with each measure, e.g., streets and traffic safety, affordable housing, etc.? Should these priorities be indicated in the *Program Plan*, built into the measures themselves, both of the above, or neither?
  - If a GO bond is proposed for placement, should it include a 1% dedication to public art, an annual General Fund allocation to public art in lieu of the revenue measure dedication, or something else?
  - If a parcel tax is proposed for placement, should it include an exemption for very low income property owners?
  - o If a parcel tax is proposed for placement, should it include an end date?
- If streets and traffic safety are priorities in one or more measures, should the *Program Plan* include a specific commitment for City Council and staff to find non-revenue measure funding sources (~\$8 million) to fund the annual street maintenance necessary to ensure pavement condition does not decline?
- Given the significant request of voters' financial support, should the *Program Plan* (or revenue measure itself) include a commitment to ensure the General Fund contribution to infrastructure in the FY 2023 budget is a minimum for future years, except during times of emergency?

Subject to direction on these questions, the City Manager and City Attorney will return on July 12, 2022 seeking City Council's formal action to place a measure or measures.

Seeking Input on Vision 2050 Program Plan. Staff will revise the Vision 2050 Program Plan consistent with the direction provided on the above questions. In addition, staff seeks Council's input on any further revisions or changes to make to the Plan. Staff will return no later than July 26, 2022 with a revised Plan based on City Council's input.

### ALTERNATIVES CONSIDERED

City Council could direct staff to develop Options #1 or #2 but with different and/or smaller funding mechanisms, e.g. Option #1 but with a similarly-sized parcel tax in lieu of infrastructure bond, at different funding levels (lower or higher amounts), or with different investment priorities, e.g., more or less for affordable housing, street repair, etc.

Below is a table showing the revenue possibilities and tax impacts of smaller measures.

	Solo \$150M GO Bond	Solo \$0.15 Parcel Tax
Tax Rate	Avg \$13	15 cents
(\$100,000 A.V.)	Max \$22.73	per sq. ft.
Tax	Avg \$166	\$285
(Avg Home: \$647,972; 1,900 sq ft)	Max \$294	(generates \$14M/yr)
Survey	55% support 29% oppose	63% support 22% oppose

City Council could choose to delay this discussion until a future election; ask for other measure options to be developed further; or direct staff to consider an option not yet considered.

August 12, 2022 is the last day to submit measures to the County Registrar.

### **ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS**

Implementing Vision 2050 would result in more resilient public infrastructure that creates fewer greenhouse gases, and reduces conflict between our built and natural environment. More affordable housing in Berkeley would reduce greenhouse gas emissions caused by employees finding lower cost housing farther away from employment centers and requiring longer commutes.

### **CONTACT PERSON**

Paul Buddenhagen, Deputy City Manager, (510) 981-7014 Liam Garland, Director, Public Works, (510) 981-6303

#### Attachments:

- 1: Topline Results of April 2022 Scientific Survey
- 2: [Draft] Vision 2050 Infrastructure Program Plan



Strategy • Precision • Impact

# City of Berkeley Community Survey Live Phone and Text to Online April 28-May 3, 2022 FINAL WEIGHTED TOPLINES

## N=500 Likely Nov 2022 General Election Voters Splits: A/B, C/D

	N=	TOTAL 500	MEN 222	WOMEN 259
Region				
Council District 5, 6, 8		28	43 28 29	42 28 30
Party				
Democrat Republican NPP Other		2	74 2 21 3	86 2 10 2

**Q1.** Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely?

Yes, cell and can talk safely54	55	55
Yes, cell and cannot talk safely [CALL BACK] 0	0	0
No, not on cell, but own one	8	12
No, not on cell, and do not own one 1	1	0
(Don't know/refused) [TERMINATE] 0	0	0
Text-to-online	36	33

**Q2.** Although it is some time from now, what are the chances of you voting in the November 2022 general election for Governor, Congress, and other offices? Are you almost certain to vote, will you probably vote, are the chances about 50-50, are you probably not going to vote, or are you definitely not going to vote?

Almost certain to vote90	85	94
Probably will vote	15	6
50-50 [ <b>TERMINATE</b> ]0	0	0
Probably not [TERMINATE]0	0	0
Definitely not [TERMINATE]0	0	0
Don't know [TERMINATE]	0	0

	TOTAL	MEN	WOMEN
N=	500	222	259

**Q3**. Do you feel that things in the City of Berkeley are generally headed in the right direction or do you feel things are headed in the wrong direction?

Right Direction	47	46	49
Wrong Direction	24	24	25
(Don't know)	29	30	27

**Q4.** Now I'm going to read some different issues that have been identified as important needs in the city of Berkeley. If you had to choose, which one or two of the following would be the highest priority for you personally in the city of Berkeley? **[RANDOMIZE] [ACCEPT UP TO TWO RESPONSES]** 

Increasing affordable housing for low-income and			
homeless residents	58	55	61
Repairing deteriorating streets and sidewalks		29	23
wildfire	20	22	20
Protecting critical facilities from the threats of climate			
change		8	15
Improving pedestrian, bike, and traffic safety	11	12	11
Upgrading storm drains, green infrastructure, and			
our watersheds to keep pollution from the Bay	10	9	11
Improving the Berkeley waterfront, including docks,			
pilings, streets, parking lots, pathways, and marina			
dredging	. 9	11	7
Making public buildings, streets, and sidewalks more			
accessible to people with disabilities	. 8	6	8
Improving parks and recreation facilities	. 6	7	6
Creating and expanding bike lanes and			
infrastructure	. 6	6	6
Creating more transformative public spaces in			
Berkeley	. 5	8	3
Improving seismic safety of historic buildings in Civic			
Center, including Old City Hall and the Veterans			
Building	. 3	1	5
(None)	. 2	1	1
(Don't know)		1	0
(Refused)		1	0

TOTAL MEN WOMEN N= 500 222 259

Now, I'm going to read several versions of ballot measures that may appear on the ballot in Berkeley this November. I am going to ask about different ways of funding the measures and different dollar amounts for each. Here is the first measure.

## SPLIT C HEARS Q5 THEN Q6/Q7; SPLIT D HEARS Q6/Q7 THEN Q5

[IF SSC – READ AFTER Q5 AND BEFORE Q6/7:] Now I am going to ask you about two different measures that could be on the ballot instead of the first one. They are each smaller in size than the first, but, together, provide slightly more funding. Here is the first one.

[IF SSD – READ AFTER Q6/7 AND BEFORE Q5:] Now I am going to ask you about a different measure that could be on the ballot instead of the others I mentioned. It is larger in size than each of others separately, but provides slightly less than the previous two together.

Q5. This is a ballot measure that would provide funding through a general obligation bond.

In order to:

- Build and preserve affordable housing for low-income and homeless residents;
- Significantly repair streets, and improve traffic, bike, and pedestrian safety;
- Promote climate change resiliency, including protecting against wildfires; and
- Improve public buildings and infrastructure;

Shall the City of Berkeley enact a measure issuing bonds of 600 million dollars, at rates of 54 dollars per 100 thousand dollars of assessed property value, on average, generating approximately 30 million dollars annually while bonds are outstanding, and requiring regular audits and independent oversight?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly	3 13	31 14 13
Undecided/DK15	5 11	18
Lean no	6 4	3 7 14
(Refused)	0	0
Yes		58 24

SPLIT A HEARS Q6 THEN Q7; SPLIT B HEARS Q7 THEN Q6

TOTAL MEN WOMEN N= 500 222 259

Q6. This is a ballot measure that would provide funding through a general obligation bond.

In order to:

- Build and preserve affordable housing for low-income and homeless residents;
- Promote climate change resiliency, including protect against wildfires; and
- Improve public buildings and general infrastructure;

Shall the City of Berkeley enact a measure issuing bonds of 300 million dollars, at rates of 26 dollars per 100 thousand dollars of assessed property value, on average, generating approximately 17 million dollars annually while bonds are outstanding, and requiring regular audits and independent oversight?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly		38
Yes - not so strongly		
Lean yes	8	12
Undecided/DK14	14	13
Lean no		2
No - not so strongly6	5	7
No - strongly	20	13
(Refused) 0	0	0
Yes61	58	64
No25	27	22

TOTAL MEN WOMEN
N= 500 222 259

[KEEP IN BETWEEN Q6 AND Q7] Now I am going to read you another measure that would be on the ballot.

**Q7.** This ballot measure would provide funding through a parcel tax.

In order to:

- Significantly repair deteriorating streets;
- Improve traffic, bike, and pedestrian safety; and
- Fix sidewalks and increase access for those with disabilities;

Shall the City of Berkeley enact a measure levying 30 cents per building square foot, generating approximately 28 million annually, with low-income exemptions, regular audits, independent oversight, and all funds staying local?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly	7 17	37 17 12
Undecided/DK11	9	12
Lean no	5 8	2 4 16
(Refused)	0	0
Yes		66 22

Now, I am going to ask you about two different measures that could be on the ballot in place of those already described. Here is the first one.

SPLIT A HEARS Q8 THEN Q9; SPLIT B HEARS Q9 THEN Q8

TOTAL MEN WOMEN N= 500 222 259

**Q8**. This is the smallest version of the bond measure, providing a lower amount of funding than the previous versions.

In order to:

- Build and preserve affordable housing for low-income and homeless residents;
- Promote climate change resiliency, including protect against wildfires; and
- Improve public buildings and general infrastructure;

Shall the City of Berkeley enact a measure issuing bonds of 150 million dollars, at rates of 13 dollars per 100 thousand dollars of assessed property value, on average, generating approximately 8.7 (8 point 7) million dollars annually while bonds are outstanding, and requiring regular audits and independent oversight?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly30Yes - not so strongly15Lean yes10	30 15 8	33 15 11
Undecided/DK16	15	17
Lean no	5 6 21	4 7 14
(Refused)0	0	0
Yes	53 32	59 25

[KEEP IN BETWEEN Q8 AND Q9] Now I am going to read you another measure that would be on the ballot.

TOTAL MEN **WOMEN** N= 500 222 259

Q9. This is a smaller version of the parcel tax measure, providing a lower amount of funding than the previous version.

In order to:

- Significantly repair deteriorating streets;
- Improve traffic, bike, and pedestrian safety; and
- Fix sidewalks and increase access for those with disabilities;

Shall the City of Berkeley enact a measure levying 15 cents per building square foot, generating approximately 14 million annually, with low-income exemptions, regular audits, independent oversight and all funds staying local?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

[IF YES/NO]: And is that Yes/No strongly or not so strongly? [IF UNDECIDED]: Well, to which side do you lean?

Yes - strongly34	37	33
Yes - not so strongly	17	22
Lean yes	8	11
Undecided/DK15	13	16
Lean no4	4	4
No - not so strongly3	3	3
No - strongly	18	12
(Refused)0	0	0
Yes	61	66
No	26	18

TOTAL MEN WOMEN N= 500 222 259

**Q10**. Now I'm going to read some different statements that could be made about the proposed ballot measures described earlier. Please tell me whether each statement makes you MORE likely or LESS likely to vote YES on any of the ballot measures providing revenue for the city of Berkeley. **[RANDOMIZE STATEMENTS]** 

Sorted by "More likely"  10d.An increase in city funding for infrastructure and affordable housing helps Berkeley to leverage additional funding from federal and state government that would otherwise go to other			
cities	71	68	76
resilience is	70	72	70
sustainable place to live	69	68	71
homelessness on our streets	69	66	72
thrives years into the future	60	61	61
even more	39	42	35
more expensive to live in Berkeley.	32	32	31

Washington, DC | Berkeley, CA | New York, NY

	TOTAL	MEN	WOMEN
N=	500	222	259

a. Providing affordable housing for low-income and homeless residents is important to address the housing crisis in Berkeley and reduce the impacts of encampments and unsheltered homelessness on our streets.

More likely	69	66	72
Less likely	15	17	11
Not sure	16	17	17

b. Undergrounding utilities and building climate-resilient infrastructure is a practical necessity that will help reduce the risk of wildfires, save lives, and make Berkeley a safer and more sustainable place to live.

More likely	69	68	71
Less likely	15	16	13
Not sure		16	16

c. Berkeley has more than one billion-dollar backlog in infrastructure needs, including critical repairs to streets, parks, and other public facilities that will only get more expensive to fix over time. A long-term investment in repair and resilience is needed to avoid higher costs later on.

More likely	70	72	70
Less likely	12	10	12
Not sure	19	17	19

d. An increase in city funding for infrastructure and affordable housing helps Berkeley to leverage additional funding from federal and state government that would otherwise go to other cities.

More likely	71	68	76
Less likely	12	15	8
Not sure	17	18	16

e. In addition to providing funding to help fix current and past problems, we need a long-term investment to proactively build a Berkeley that thrives years into the future.

More likely	60	61	61
Less likely	16	16	16
Not sure		24	23

f. Berkeley's city government needs to do a better job of being responsible with the budget it already has before we are asked to raise taxes even more.

More likely	39	42	35
Less likely	33	31	34
Not sure	20	27	30

	TOTAL	MEN	WOMEN
N=	500	222	259

g. With inflation and cost of living on the rise, this is the wrong time to increase taxes and make it more expensive to live in Berkeley.

More likely	32	32	31
Less likely	41	41	42
Not sure	27	27	27

Sometimes in a survey like this, people change their minds. I'm going to read two of the ballot measures that you heard before, asking again how you would vote. Here is the first one.

## SPLIT A HEARS Q11 THEN Q12; SPLIT B HEARS Q12 THEN Q11

**Q11**. This is a ballot measure that would provide funding through a bond.

In order to:

- Build and preserve affordable housing for low-income and homeless residents;
- Promote climate change resiliency, including protect against wildfires; and
- Improve public buildings and general infrastructure;

Shall the City of Berkeley enact a measure issuing bonds of 300 million dollars, at rates of 26 dollars per 100 thousand dollars of assessed property value, on average, generating approximately 17 million dollars annually while bonds are outstanding, and requiring regular audits and independent oversight?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly	14	33 15 7	39 13 12
Undecided/DK	11	10	13
Lean no No - not so strongly No - strongly	6	4 7 23	4 5 14
(Refused)	0	0	0
Yes No		56 34	64 24

[KEEP IN BETWEEN Q11 AND Q12] Now I am going to read you the other measure that would be on the ballot.

TOTAL MEN WOMEN N= 500 222 259

Q12. This is a ballot measure that would provide funding through a parcel tax.

In order to:

- Significantly repair deteriorating streets;
- Improve traffic, bike, and pedestrian safety; and
- Fix sidewalks and increase access for those with disabilities;

Shall the City of Berkeley enact a measure levying 30 cents per building square foot, generating approximately 28 million annually until ended by voters, with low-income exemptions, regular audits, independent oversight, and all funds staying local?

If the election were held today, would you vote yes or no on this measure, or are you undecided?

**[IF YES/NO]:** And is that Yes/No strongly or not so strongly? **[IF UNDECIDED]:** Well, to which side do you lean?

Yes - strongly	37	41
Yes - not so strongly	16	13
Lean yes8	6	10
Undecided/DK12	9	15
Lean no5	5	5
No - not so strongly4	6	4
No - strongly	20	12
(Refused)0	0	0
Yes61	60	64
No	31	21

Finally, I would like to ask you a few questions for statistical purposes only.

	TOTAL	MEN	WOMEN
N=	500	222	259

### Q13. How long have you lived in Berkeley? [DO NOT READ, RECORD WITHIN RANGE]

Less than two years 10	10	10
Two to less than five years	15	9
Five to less than ten years	15	14
Ten to less than twenty years20	19	20
Twenty years or more	34	32
All your life9	5	12
(Don't know/refused)2	1	3

## Q14. What best describes your gender? [SELECT ALL THAT APPLY]

Man44	100	0
Woman 52	0	100
Nonbinary2	0	0
Prefer to self-describe/other0	0	0
(Prefer not to answer)2	0	0

Q15. [ASK ALL] And please tell me which one, or more than one, of these racial or ethnic groups you identify with?

# [RANDOMIZE/READ CHOICES/ACCEPT MULTIPLE RESPONSES]

[IF "OTHER" OR "BIRACIAL" OR "MULTI-RACIAL" PROMPT:] Which two or three of these do you identify with the most?

White or Caucasian	30	62	60
Black or African American	10	8	13
Latino/Latina or Hispanic	. 9	8	11
Asian American or Pacific Islander	12	11	11
Native or Indigenous American	. 1	0	1
Middle Eastern	. 2	3	2
(Other)	. 3	3	3
(Don't know/Refused)	. 6	7	4

Q16. In terms of local politics, do you consider yourself progressive, liberal, moderate, or conservative?

Progressive Liberal Moderate Conservative (Don't know) (Refused)	28 19 4 3	40 26 23 5 1 5	41 30 17 3 4 5
Progressive /liberal Moderate /conservative		66 28	72 20

N=	TOTAL 500	MEN 222	WOMEN 259
Q17. What is the last year of schooling that you have	completed?		
1 - 11th Grade	6 1 14 6 34 37	1 5 2 15 4 36 35 3	0 6 0 13 6 32 40 2
H.S./Less Post H.S. College graduate or post-grad	20	5 21 71	6 19 72
Q18. Do you own your own home or do you rent?			
Own Rent (Other) (Don't know/refused)	44 6	46 47 4 3	47 42 8 3
Age			
18 - 24 25 - 29 30 - 34 35 - 39 40 - 44 45 - 49 50 - 54 55 - 59 60 - 64 65 - 69 70 - 74 Over 74	8 10 7 7 8 5 8 9	10 10 9 8 6 8 10 5 9 7 4 14	9 6 11 5 7 8 6 7 11 7
Under 30 30 - 39 40 - 49 50 - 64 65 & over	17 14 22	20 17 14 24 24	15 17 14 21 34

	N=	TOTAL 500	MEN 222	WOMEN 259
Vote Select				
PDI 22P9A: Voted 6/14, 11/14, 6/18, 11/18, 3 9/21PDI 22P9A: Reg after 9/21		97	96 4	98 2

# [RECORD AGE AND PARTY REGISTRATION FROM FILE]

This completes our survey. Thank you very much for your time, and have a pleasant day/evening!



# VISION 2050 PROGRAM PLAN





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# THE INFRASTRUCTURE **PROGRAM PLAN: OVERVIEW**

This section provides an overview of the Vision 2050 Initiative and



# 1.1 The Vision 2050 Initiative

The Vision 2050 initiative was introduced by Mayor Arreguin at his 2017 State of the City address. He described a complex network of pipes, streets, utility wires, bikeways, and transportation systems that are old and have suffered from historic disinvestment, neglect, and poor maintenance. As our infrastructure ages, we need a plan to make sure our systems are resilient to handle a growing population and climate change, including sea-level rise, more flooding, and wildfires. As technological innovations emerge and the condition of our infrastructure declines, we have an enormous and exciting opportunity to reimagine our streets and public spaces. This initiative is about building a future for Berkeley that provides essential services for future generations.

In November 2018, Berkeley voters approved Measure R. The Measure asked: "Shall the measure, advising the Mayor to engage citizens and experts in the development of Vision 2050, a 30-year plan to identify and guide implementation of climatesmart, technologically-advanced, integrated and efficient infrastructure to support a safe, vibrant and resilient future for Berkeley, be adopted?" The response was a resounding yes.

A 40-member residents' task force was formed and the team analyzed quality of life, environmental and technology trends, and funding issues. To help keep focus on the future, the team imagined being on a street corner in Berkeley in the year 2050. What will Berkeley be like then? Figure 1 shows a street corner view from 2050.

The task force worked diligently for 18 months and developed the principles, strategies and

recommended actions shown on Figure 2.

Community engagement was at the center of Vision 2050. Outreach began early in 2018 with four information nights across Berkeley. Outreach continued in an effort to reach people where they already congregate, including neighborhood and faith-based groups and community organizations. From September 2018 to July 2019, the Mayor's Office presented at thirteen community organization meetings in conversations that ranged from a handful to one hundred people. Community feedback was used to develop the principles, strategies, and recommended actions.









Hi, I'm Maria. It's already a warm morning as I cycle down the bike path, calling out to neighbors who are walking their kids to school and getting ready for work. I continue down the street, thankful for the protected and pothole-free bike lanes. What a difference the safe streets initiative (Vision Zero) has made to bike and pedestrian safety!

I am on my way to the South Berkeley co-op where my great aunt Lizzie lives. She's 85 and asked me if I'd like to join her at a habitat restoration workshop at the updated Berkeley Marina. She wants to learn how to improve the shared open area in her community.

My watch pings to let us know that the accessible shuttle, now celebrating its 20th year of electrified operation, will pick us up in five minutes. After we board, I take a moment to check my phone and see that my home's smart energy system has turned on my dishwasher and washing machine to take advantage of the strong output from our solar panels. It also notifies me that the window shades have been drawn on the sunny south side of the house.

▲ **Figure 1:** Street Corner View from Vision 2050 report

## VISION 2050

The Vision 2050 Framework focused on better coordination, integrated project delivery, utilizing new financing mechanisms, and broad principles and strategies for our infrastructure needs. The Framework was approved by Berkeley's City Council in September 2020. The City Manager then turned to implement the recommendations and assigned the Public Works Department to lead the effort. A timeline for the Vision 2050 initiative is shown below.

#### 2017

Mayor Arreguin announces Vision 2050 Initiative

#### **November 2018**

Measure R approved by voters

#### 2018-2019

Residents task force conducted analysis

### September 2020

City Council approves
Vision 2050 Framework

#### Current

Implementation led by City Manager

▲ **Figure 3:** Timeline for Vision 2050 Initiative



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# PRINCIPLES, STRATEGIES AND RECOMMENDED ACTIONS

- STATEGY ONE Use Integrated and Balanced Planning
  - > Use multi-criteria decision-making
  - > Use adaptive planning
  - > Prepare and implement a Dig Once policy
- **2 STATEGY TWO** Manage Infrastructure from Cradle to Grave
  - > Institute structured master planning
  - > Develop an Asset Management Program
- STATEGY THREE Adopt Sustainable and Safe Technologies
  - > Accelerate the transition to clean energy and electrification
  - > Implement Complete Streets to provide sustainable and healthy transportation
  - > Develop natural streetscapes that provide ecosystem services
  - > Use sensors, data, and advanced technologies
  - > Prepare a wildfire mitigation and safety plan
- STATEGY FOUR Invest in Our Future
  - Take advantage of a strong financial position to address infrastructure needs and commit to reducing large unfunded infrastructure liability by doubling capital expenditures
- STATEGY FIVE Prepare the City's Organization to Implement a Major Capital Program
  - Develop an organization that is integrated and has capacity to deliver
  - > Prepare a program approach with management tools
  - > Provide independent oversight and reporting
- ▲ Figure 2: Vision 2050 Principles, Strategies, and Recommended Actions

# 1.2 What is an Infrastructure Program Plan?

This Infrastructure Program Plan (Plan) is the City of Berkeley's roadmap to rebuild our public infrastructure over the next 30 years. This Plan supports the Vision 2050 principles and provides information on outcome objectives, program elements, community input, the funding plan, program implementation, and program oversight and reporting. The Plan serves as a roadmap to guide the many infrastructure decisions that will be required throughout the next three decades. The Plan is flexible and adaptable, so the City can anticipate and address new challenges that we will face in the future. Why prepare a Plan now?

Improving the City's infrastructure requires new funding and a revenue measure or measures, which voters may consider on the November 2022 ballot. This Plan is prepared to provide the public with an understanding of the "big picture" for Vision 2050 in advance of voting for new funding. This approach is an advancement from prior measures. The Plan describes the work at the asset category level—streets, stormwater, parks, waterfront, etc. It is not a project-by-project prioritization. That will happen if voters approve funding, after which a project and program team will be formed and an oversight committee designated.

# 1.3 Core Values and Principles Guide our Planning

Berkeley's streets, storm drains, sewers, and water lines date back to the early decades of the 20th century. Critical systems are simply wearing out. Recent budgets have been insufficient to address these infrastructure needs, let alone modernize our systems or improve their resilience. As defined in the City's resilience strategy, resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

The growing backlog of aging infrastructure leaves the community vulnerable to unplanned failure and service interruptions. For residents, workers, and businesses, this can translate to unsafe conditions, increased cost, and impediments to quality of life. Examples of infrastructure needs are shown in Figure 4.

As we begin to grapple with Berkeley's unfunded infrastructure needs, new challenges are emerging. The local impacts of the global climate crisis pose a major threat to our aging infrastructure. Extreme storm events, wildfires, heat waves, drought, groundwater, and sea level rise will challenge streets, pipes, and open spaces that were designed for a more benign environment. These vulnerabilities are layered upon other acute risks such as a major earthquake, and chronic challenges such as inequity. If our city is to survive and thrive, we must increase our resilience to these challenges.

## PRINCIPLE ONE

SUPPORT VIBRANT AND SAFE COMMUNITIES

Infrastructure shall take equity into account and improve the quality of life of all Berkeley residents, including having green open spaces, safe modes of mobility, and being prepared for fires and earthquakes.

# PRINCIPLE TWO

HAVE EFFICIENT, INSPIRED AND WELL MAINTAINED INFRASTRUCTURE

Infrastructure shall be long lasting, use advanced technologies, and be maintained to provide efficient service.

# PRINCIPLE THREE

FACILITATE A GREEN BERKELEY AND CONTRIBUTE TO SAVING OUR PLANET

Infrastructure shall accelerate the transition to carbon neutrality and include electrification, develop natural streetscapes using green infrastructure, and prioritize human-powered and public transportation.

▲ **Figure 2:** Vision 2050 Principles

As we rebuild our infrastructure and, at the same time, reimagine a landscape for a changing future, our infrastructure decisions must remain flexible, yet grounded in a set of clear values. For this reason, the Vision 2050 Framework identified four core values as shown in Figure 5. These values will guide implementation of Vision 2050.





▲ **Figure 4:** Example Infrastructure Needs

**Deteriorated Marina Dock** 

## CORE VALUES FOR INFRASTRUCTURE DEVELOPMENT



#### EQUITY

The benefits of improved infrastructure must be distributed equitably throughout the entire community. Equity should mean that disadvantaged citizens with more pressing needs experience benefits sooner than others and receive benefits particularly tailored to their unique needs.



#### STRONG LOCAL ECONOMY

A strong local economy provides resources to Berkeley citizens and creates an opportunity to build local skills and employment opportunities that support the city's diverse community.



#### PUBLIC HEALTH AND SAFETY

This core value considers safe and convenient access to greenspaces, public services, clean air, and social support networks, all of which can have a big impact on people's emotional and physical health.

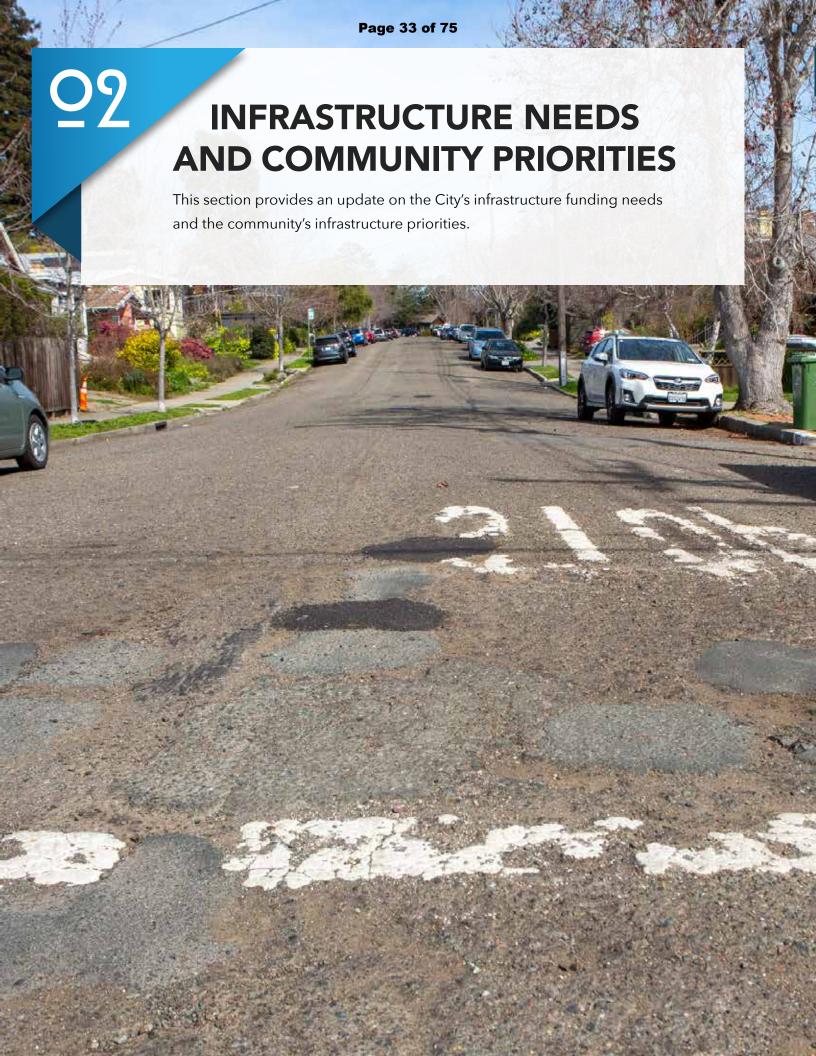


#### RESILENCY AND SUSTAINABILITY

Resilience requires systems and structures that are able to recover quickly from temporary and, sometimes, catastrophic events. Sustainability refers to the ability to minimize our impacts on the environment while still providing core services.

▲ **Figure 5:** Vision 2050 Core Values





# 2.1 Infrastructure Needs

The City has an extensive portfolio of capital assets and infrastructure, including 216 miles of streets, more than 300 miles of sidewalks, 255 miles of sewers, 78 miles of underground storm drains, 95 public buildings, 52 parks, 2 pools, and 3 camps. In addition, the City operates and maintains the Berkeley Waterfront and its related facilities, including the pier, docks, pilings, channel, streets, pathways, parking lots, buildings, trails, Adventure Playground, and 1,000 berth marina.

A City budget is prepared every two years and it includes a Capital Improvement Program (CIP). The City's ability to fund its CIP is limited by the total available resources that are competing with other community priorities. CIP funding resources include the General Fund, a number of special revenue funds, grants, and loans. The CIP attempts to identify all known CIP projects, categorizing them as baseline (annual, recurring program), one-time (special allocations, grants, loans), and unfunded (funding source has yet to be identified).

The FY2022 CIP identified an infrastructure capital funding need of more than \$1 billion in Berkeley. However, these infrastructure needs are constantly changing due to increased construction costs and new planning studies that result in updated cost estimates. Past estimates also focused primarily on "fix it first" type repairs rather than the transformational infrastructure sought by the Vision 2050 Framework.

For this reason, Table 1 provides an updated list of infrastructure needs. This list includes updates from prior estimates and advances Vision 2050 in several significant ways. It adds asset categories

that are more than simply fixing or repairing an asset and are about the ultimate use and safety of the asset. For example, instead of solely identifying the deferred maintenance in our pavement, the list includes the cost of fully implementing our adopted Bicycle and Pedestrian Plans, which would keep our streets safe for all users, especially bicyclists and pedestrians. Instead of focusing solely on traditional infrastructure, it includes trees as an important infrastructure category and begins to address the climate crises by building in the cost of undergrounding the City's evacuation routes.

Some of these categories have existing, dedicated funding for which an increase is necessary to cover these needs. Others categories may require multiple revenue sources, such as the General Fund, grants, State and Federal funding, developer contributions, user rates, and new revenue sources. An estimate of potential revenue from these funding sources is provided in Section 4.

Figure 6 summarizes these same needs, grouped by asset category within each of the four Vision 2050 Program outcomes discussed in Section 3. If these needs are addressed, then Vision 2050's goal of resilient and sustainable infrastructure will be reached.

#### **TABLE 1**

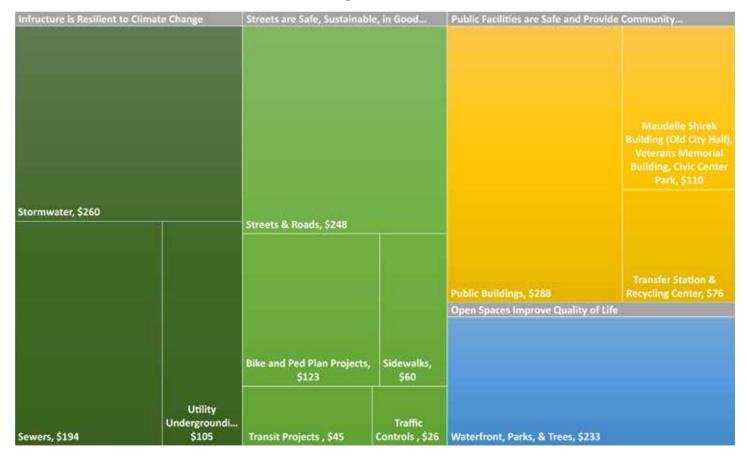
# **INFRASTRUCTURE FUNDING NEEDS**

(These are updated on an ongoing basis)

Asset Category	Infrastructure Funding Needs, in 2022 dollars
More immediate needs	
Parks, camps, and pools	\$81,000,000
Watefront	\$131,000,000
Public buildings	\$288,000,000
Sidewalks	\$60,000,000
Streets	\$248,000,000
Sewers	\$194,000,000
Stormwater	\$259,500,000
Traffic Controls, Streetlights, and Parking	\$26,000,000
Longer-term needs	
Bike and Pedestrian plan projects	\$122,500,000
Maudelle Shirek Building (Old City Hall), Veterans Memorial Building, Civic Center Park	\$110,000,000
Transfer station and recycling center	\$76,000,000
Transit projects	\$45,000,000
Trees	\$21,000,000
Utility Undergrounding	\$105,000,000
Total Average	\$1,767,000,000

Table 1's cost estimates are largely work that would be capital funded. In some cases, such as with streets and roads, the estimate includes recurring annual costs to keep the asset performing at the

expected level and without deterioration. The requirement to fund the annual maintenance of assets is addressed in the Asset Management Program discussed in Section 6.



▲ Figure 6: Infrastructure Funding Needs by Vision 2050 Outcome Objective

# 2.2 Community Input and Priorities

To better understand the community's infrastructure priorities, the following was completed in winter 2021 through spring 2022:

- Two statistically-reliable surveys of a representative sample of 500 Berkeley voters
- Meetings with over 25 commissions and local community organizations
- An online public survey that received over 1,000 responses
- An informational mailer to all Berkeley residents
- Development of a Vision 2050 websiteBerkeleyVision2050.org
- Four virtual large area public meetings

All of these efforts have been instrumental in sharing information and gaining input in the development of this Program Plan.

A survey in October 2021 of a random, representative sample of 500 Berkeley voters elicited respondents' infrastructure priorities and found that voters' top priorities included:

- Increasing affordable housing for low-income and homeless residents (79% rated as"important")
- Upgrading storm drains, green infrastructure, and watersheds to keep pollution from the Bay (79% important)
- Developing climate change resiliency, including protecting against sea level rise, wildfires and drought (78% important)
- Undergrounding utilities to reduce the risk of wildfire (73% important)
- Repairing deteriorating streets (73% important)

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An online survey was also conducted and a total of 1,024 responses were received. For the most part, the results from the online survey aligned with the scientific survey. More so than the scientific survey, street repair stood out as a clear top priority followed by affordable housing. The top five ranked priorities are listed below, with percentages indicating the number of respondents who ranked the particular item as top priority:

- > 28.5% Street repair
- > 19.2% Affordable housing
- 8.3% Bike lanes/safety
- > 7.5% Climate change resiliency
- > 6.8% Pedestrian safety

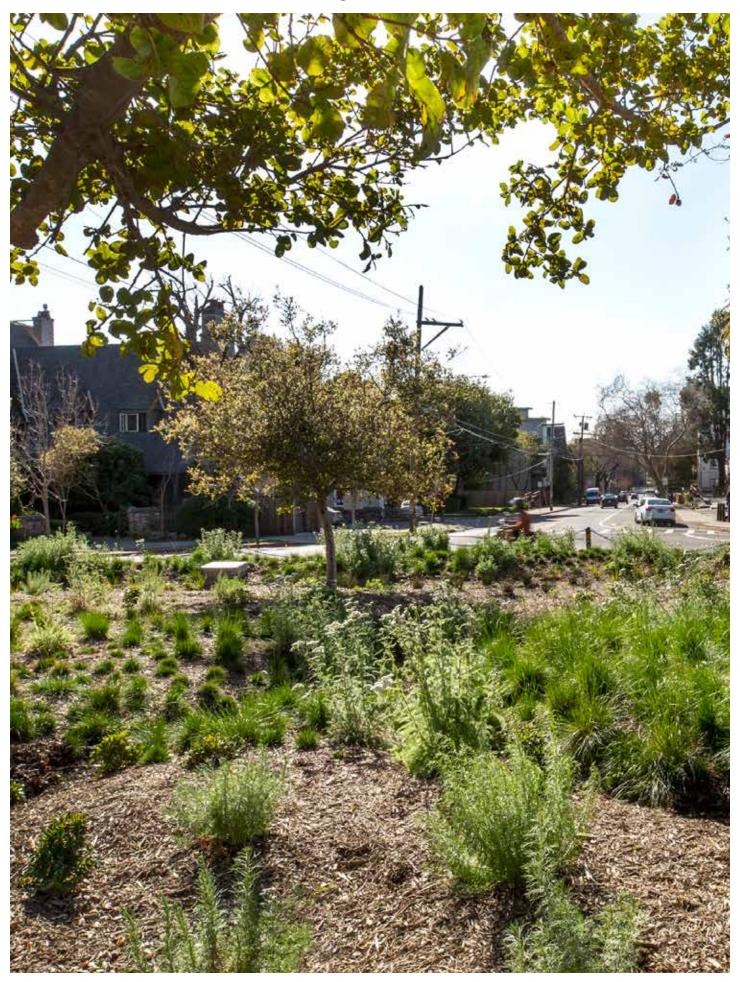
Input on this Program Plan was gained from four large area public meetings held on March 30, April 6, April 13, and April 20 and the following Commissions: Environment and Climate, Disaster and Fire Safety, Disabilities, Parks and Waterfront, Public Works, and Transportation. Berkeley residents brought their questions, input, and comments, a summary of which can be found at

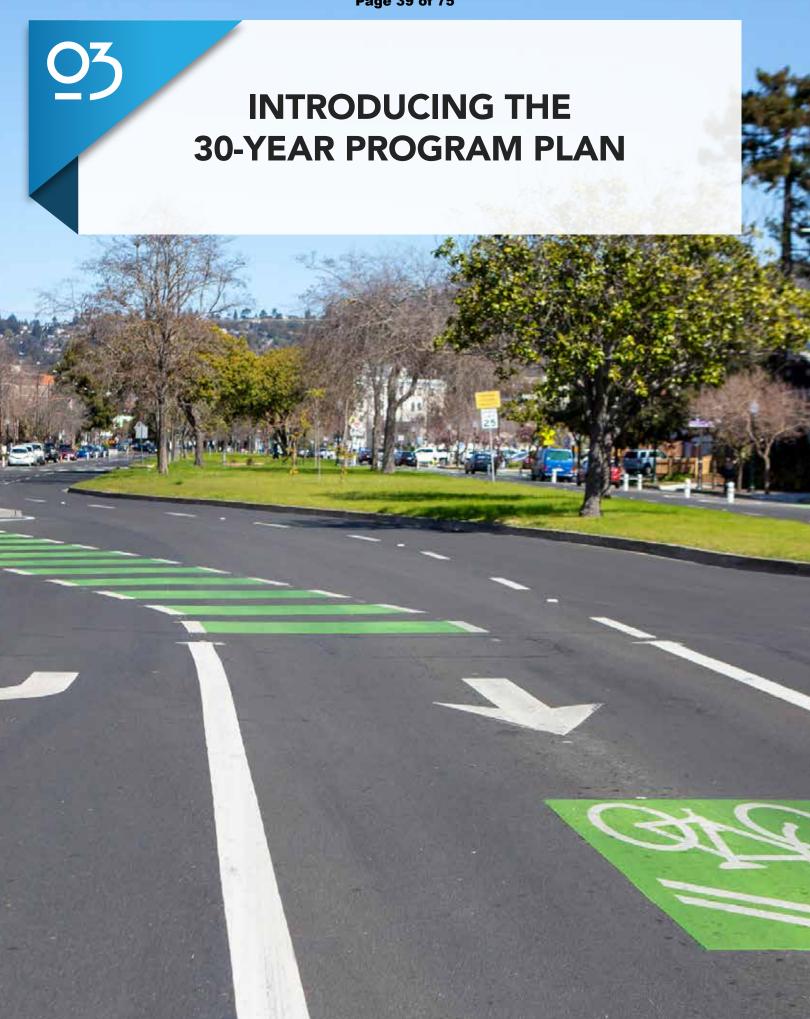
#### BerkeleyVision2050.org

This program plan reflects input gathered from these meetings, including:

- Adding regular five-year updates to the Program Plan to ensure flexibility and keeping up to date with technology
- Address overall vision
- Incorporate trees as public infrastructure assets
- > Include indicator on tree canopy and diversity
- Address sidewalks
- Address equity and reference existing equity-based plans
- Include transit
- Explain why affordable housing is being considered for the revenue measure(s)
- Include developers' fees as source of revenue
- Address General Fund commitments to maintaining public infrastructure
- > Include public art
- Revise indicators on EVs, sidewalks, and micromobility
- Revise Program Delivery section to address paving and traffic safety
- Include more on climate change, e.g., resilience and electrification in buildings
- > Include reference to the San Pablo Park pool
- Include coordination of programs/projects for multiple benefits







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The City's infrastructure systems are very complex, are in daily use, and can't be improved all at once. This Plan proposes making the improvements over a 30-year planning period in order to achieve a sustainable and resilient infrastructure. This is a reasonable time frame given the need to balance the work priority, the funding required, tax impacts, and the ability to deliver the projects. This also allows time for incorporating new technologies as they develop.

This 30-year Program Plan provides the following information:

- The major outcomes from implementing the Plan
- Implementing the Plan over 30 years in phases
- Possible results from the first phase

## 3.1 Outcomes of the Program Plan

This Plan includes visible outcomes. Four major outcomes have been identified that incorporate and advance Vision 2050 principles and core values, and

incorporate community input received to date.

The outcomes are shown in Figure 7 and the related infrastructure components are described below.



▲ **Figure 7:** Outcomes of the Program Plan

## **Outcome 1 - Have Safe and Good Quality Streets**

# Streets are Safer, More Sustainable, Improved to a Good Condition, and Maintained

Having streets that are safer, use sustainable technologies, and are in "good" or better condition is a top priority from the community input, has been a subject of City audits, and is a priority of the Council. The asset categories to achieve this outcome are described below.

## **Asset Category 1 - Street Surface**

The poor condition of Berkeley's streets has been documented by the City Auditor's report *Rocky Road: Berkeley Streets at Risk and Significantly Underfunded*, by residents' complaints, and by an overall low Pavement Condition Index (PCI). On a scale of 0 to 100, streets in a "good" condition have a PCI between 70 - 79. Berkeley's streets are "at risk" with an overall average PCI of 57. From a community survey conducted in the fall of 2021, improving the condition of Berkeley's streets is one of the community's highest infrastructure priorities. The target is to improve Berkeley's streets to a PCI of more than 70.

Berkeley's streets in 2050 will look much different than today. Personal automobiles will be rarer, and public transit, ride sharing services, bicycling, and walking more common. Streets will better serve all users, and include visible engineering improvements that make bicycling and walking safer. These streets will make transit easier, safer, faster, and more reliable to access and use. Work in our streets will also require a coordinated approach to the infrastructure above, both at and below the street surface. This will require planning that is integrated and uses concepts such as "Dig Once". We also will use other street surface technologies that are long lasting, help absorb stormwater and

reduce pollution, reduce surface temperatures and the "urban heat island" effect, and reduce our dependence on asphalt paving, the production of which generates greenhouse gas emissions.

The expected outcome is for Berkeley's street surface to be in an overall "good" condition, to move toward using sustainable technologies, and to have Vision Zero and Dig Once policies fully implemented.

#### **Reimagine Streets:**

- Implement Multi modal Streets with Protected Sidewalks and Bike Lanes
- Introduce Pervious and/or Cool Pavement
- Reclaim Street Parking for Trees and Vegetation
- Promote transit use



▲ **Figure 8:** Vision 2050 Streets

## **Asset Category 2 - Sidewalks**

Most Berkeley residents use a sidewalk daily, and many of us much more. Sidewalks in 2050 will be an even more important part of the transportation network. They will accommodate and promote the City's trees and healthy urban forest, serve users of all levels of ability and accessibility, and use materials that help filter stormwater and reduce

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surface temperatures. At present, the City faces a backlog of thousands of sidewalk repairs that have been requested by residents. While Measure T1 has significantly reduced that backlog, the backlog is about to grow again as City staff complete the first proactive assessment of the City's sidewalks to identify repair locations. This proactive assessment is being conducted as part of the City's update to its Americans with Disabilities (ADA) Transition Plan. The City addresses sidewalk repairs with short-term grinding and filling of problem areas and long-term replacement of damaged sidewalks. Where conflicts with the urban forest exist, tools like meandering sidewalks are used to reduce or resolve those conflicts and make tree removal a last resort.

The expected outcome is for the backlog of Berkeley's sidewalk repairs to be completed and to have adequate resources to address future repair needs.

# Asset Category 3 - Bicycle and Pedestrian Plans

Eighty percent of the collisions that result in deaths or severe injuries on our streets involve someone riding a bike or walking. Making our streets safer means prioritizing bicycle and pedestrian safety. This is especially important to help more residents and workers choose these fossil fuel-free active transportation modes, and is why Berkeley's vision for the future of its transportation network is to be multi-modal, fossil-fuel free, and equitably accessed. The City has adopted the 2017 Bicycle Plan and the

2020 Pedestrian Plan, and has identified projects to help to bring the City closer to these safe and accessible multi-modal goals.

The City is transforming the City's bicycle network into a low-stress experience with a goal of reducing motor vehicle conflicts and connecting cyclists with the most utilized portions of the City. At the end of the program, over 50 miles of city streets will comprise bikeways, with 15.8 miles of these streets being full bicycle boulevards that criss-cross the City.

Walking is also a core mode of transportation in Berkeley. Improving walkability makes Berkeley safer, more inclusive, and more connected. As the most accessible and affordable form of transportation, walking lies at the core of an equitable mobility network and a healthy community. In addition to enhancing Berkeley's quality of life, improving walking will help the City to achieve its Vision Zero Policy goal of zero traffic deaths and severe injuries.

The Berkeley Pedestrian Plan includes an infrastructure inventory and an assessment of pedestrian demand and safety. The plan identifies ten priority street segments requiring projects to improve pedestrian safety and walkability. Projects provide improved street design, upgraded pedestrian crossings, installed speed management and traffic calming, and improved sidewalk maintenance and accessibility.

The expected outcome is for Berkeley's Bicycle and Pedestrian plans to be fully implemented.



# Asset Category 4 - Traffic Controls, Streetlights, and Parking

In support of creating safe, accessible, and easy to use streets, the City of Berkeley is planning upgrades to existing traffic signals, including detection at 67 locations, ADA accessibility, pedestrian push buttons at 103 locations, and battery back-ups at 124

locations. Public Works maintains 8,011 streetlights and is planning replacements and upgrades of 2,100 parking meters and 240 pay stations.

The expected outcome is for these traffic controls, streetlights, and parking needs to be addressed.

## **Outcome 2 - Protect the Environment**

# Infrastructure is Resilient, Protects the Environment, and is Adapted to Climate Change Impacts

Global warming is a significant threat to communities globally and to the City of Berkeley. Berkeley's 2009 Climate Action Plan, 2016 Resilience Strategy, and 2019 Local Hazard Mitigation Plan establish city-wide actions to reduce greenhouse gas emissions and adapt to climate change impacts. The message is clear that the City's infrastructure must be resilient to prepare the City for these risks. Key goals of the City's climate action plans are to use energy more efficiently, transition to renewable energy as a power source for both buildings and transportation, improve access to sustainable transportation modes, recycle our waste, and build local food systems. The asset categories to achieve this outcome are described below.



# Asset Category 1 - Stormwater and Watershed Management

The 2012 Watershed Management Plan (WMP) identified projects to improve storm drains, restore creeks, attenuate peak flows and to reduce pollutants entering San Francisco Bay. That project modelled the Potter and Codornices watersheds. The City is in the process of updating the WMP. The updated plan will consider flooding and drought caused by extreme storm events, sea level, and groundwater rise, implementation of the Green Infrastructure Plan, and modelling of all the watersheds. Infrastructure improvements will include storm drains, flow attenuation basins, permeable surfaces, bio-swales, and improvements at Aquatic Park.

The expected outcome is to have a stormwater system that addresses future climate impacts, reduces impervious surfaces, minimizes flooding, meets the City's stormwater discharge permit into San Francisco Bay, prevents pollution from reaching the San Francisco Bay, and revitalizes the urban watershed.

## **Asset Category 2 - Sewers**

The City's wastewater collection system includes approximately 254 miles of City-owned sanitary

sewers, 7,200 manholes and other sewer structures, seven pump stations, and approximately 31,600 service laterals. The City is responsible for maintenance and repair of the lower portion of the service laterals (located within the public right-of-way) from the property line cleanout to the connection to the City's sewer main. Wastewater generated in the City's collection system is conveyed to the East Bay Municipal Utility District (EBMUD) wastewater interceptor system and is treated at EBMUD's Main Wastewater Treatment Plant.

During the 1980s, EBMUD and the seven Satellite agencies conducted studies to address the problem of overflows and bypasses of untreated wastewater that occurred during large wet weather events due to excessive infiltration and inflow (I/I) into the collection systems. These studies resulted in a long-term program of construction of collection system relief sewers and sewer rehabilitation. The City has rehabilitated or replaced over 200 miles of its gravity sewers and associated lower laterals over the past 30 years. Since 2006, the City has also implemented a private sewer lateral (PSL) certification program requiring the inspection and/or repair or replacement of private (upper) sewer laterals at the time of property transfer or major building remodel.

The seven Satellites and EBMUD are in a Consent Decree with the U.S EPA, the State Water Resources Control Board, and the Regional Water Quality Control Board, which establishes requirements for achieving the elimination of untreated wastewater overflows and bypasses over the next 20 to 25 years.

The expected outcome is to comply with the City's requirements in the Consent Decree and seal the sewer system from storm water intrusion, thereby reducing the risk of untreated sewage reaching the Bay during wet weather. This will become even more important as storms intensify due to the climate crisis.

## Asset Category 3 - Undergrounding Overhead Utility Wires

The City of Berkeley's stated goal, as outlined in the General Plan, Disaster Preparedness and Safety Element, is to ensure the City's disaster related efforts are directed toward preparation, mitigation, response and recovery from disaster shocks. The Berkeley Local Hazard Mitigation Plan states that our two greatest disaster challenges are a Hayward Fault rupture and Wildland Urban Interface (WUI) fire. The climate crisis will result in periods of drought followed by very wet winters, producing heavy vegetation, dry summers, and hot easterly winds in the late summer. These conditions are known to create significant fires such as the 1991 Oakland Hills Tunnel Fire and fires in many parts of California in the past five years.

Methods to reduce the threat of overhead wires creating WUI fires include aggressive vegetation management and other fire hardening techniques. Overhead power lines, more so than undergrounded wires, can exacerbate unsafe conditions either by contributing to the disaster itself or hampering public safety efforts and evacuations. Earthquakes and landslides can knock over utility poles creating a special hazard. In an earthquake,



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poles have a tendency to sway in opposite directions causing wires to snap and throw sparks. Some of California's biggest fires have started because of live wires in contact with combustible fuel.

The Public Works Commission led a three-phase study to underground overhead utility wires in Berkeley. The Phase 3 report recommended undergrounding along evacuation routes to support public safety through ingress of first responders and egress of community members in the event of a major disaster.

The expected outcome is to implement the Phase 3 study recommendations to underground overhead utility wires along Berkeley's evacuation routes and to support neighborhoods in fire zones that choose to underground.

# Asset Category 4 - Electrification of Buildings Neighborhoods and Transportation

A major goal of Vision 2050 is to decrease the City's overall climate impact. This effort requires both the reduction of City-wide energy use and transition away from fossil fuels to renewable energy. The Existing Buildings Electrification Strategy in 2021 transitions existing buildings in Berkeley from natural gas appliances to all-electric alternatives in a way that benefits all residents, especially members of historically marginalized communities. As identified in the City's Resilience Strategy and Climate Action Plan, Berkeley seeks an energy system that, by 2045, is carbon neutral and delivers carbon-free electricity across a highly distributed system. Multifaceted changes to existing infrastructure and its uses are required to achieve carbon neutrality. Improvements to the existing energy grid may include, among other items:

- Increasing electricity distribution capacity to accommodate neighborhood electrification and mobility charging, in coordination with streets and other infrastructure improvements
- Improving or expanding access to transformers, vaults, and switchgears
- Seeking opportunities to decommission gas pipes in areas where buildings or neighborhoods are transitioning to all-electric
- Supporting solar energy and storage for critical facilities that prioritizes renewable backup power over diesel generators, including mobile batteries and electric vehicle-tobuilding connections
- Increasing electric vehicle infrastructure for municipal fleet and distributed mobility charging for residents

The expected outcome is to achieve the City's goal of becoming a fossil fuel-free city as soon as possible.

## **Asset Category 5 - Urban Forest**

The City's municipal forest includes approximately 42,000 street, park, and median trees. These are often referred to as "city trees" or "public trees."

# CLIMATE EQUITY FUND PILOT PROGRAMS

In 2021, the Berkeley City Council allocated \$600,000 for Climate Equity Fund Pilot Programs that provide decarbonization and resilience programs for low income community members to retrofit homes, increase access to electric bikes or other forms of electric micro mobility, and gain access to resilience measures and other electrification measures.

They are maintained by the Parks, Recreation, and Waterfront's Urban Forestry Unit, which performs pruning, removing, and planting trees. These trees are hard at work. They remove pollutants and carbon dioxide from the air, help cool the City during the summer, absorb stormwater during storms, and help the City stay green and support a high quality of life. However, there are approximately 10,000 vacant tree locations and many of these locations are in areas with higher proportions of low-income residents of color. The expected outcome is to increase our City's tree canopy by planting thousands more trees for the purpose of enhancing our urban forest, sequestering carbon, addressing equity, mitigating urban heat island impacts, and improving quality of life.

## Asset Category 6 - Specific Resilience Infrastructure Assets

While limiting City-wide climate impact is necessary, the effects of global warming are already testing traditional infrastructure and will continue to push our resources to their limits. Worsening drought conditions, increased risk of extreme weather events such as flooding and sea level rise create major challenges for our water supplies, watershed management, and resilience of our underground infrastructure systems. These events also have implications on the safety, health, and well-being of the community. The City has identified several new technologies and infrastructure to build while working towards climate adaptation and resilience. Some of the new infrastructure and adaptation strategies include:

- Develop rainwater catchments, expanding the use of gray water and expanding the distribution and use of EDMUD recycled water (purple pipe) for landscaping irrigation.
- Use natural green infrastructure solutions including infiltration basins, wetlands, bioswales, permeable paving, etc. to mitigate

- flooding from the combined effects of groundwater, sea level rise, and extreme rain events.
- Increase the urban forestry canopy and use cool paving technologies to protect against extreme heat.
- Upgrade Community Resilience Centers and Resilience Hubs to ensure respite and evacuation capacity.
- Identify and manage urban wildland forest canopy to mitigate wildfire risks.
- Install technologies such as air filtration to mitigate wildfire smoke impacts.
- Use "cool" paving and reduce dark asphalt street surfaces to combat urban heat island effects.
- Improve seismic safety systems in City facilities to reduce impacts from future earthquakes.



## **Outcome 3 - Promote Quality of Life**

## Open Space, Parks, and Recreation Improve Our Quality of Life

A key outcome of the Vision 2050 initiative is to improve our overall quality of life through the promotion of open spaces, parks, and recreational opportunities. The asset categories to achieve this outcome are described below.

## **Asset Category 1 - Parks**

The City has 52 parks that contain 15 athletic fields, 49 sports courts (basketball and tennis), and 63 play areas. Many parks need significant improvements to pathways, lighting, irrigation systems, play structures, and athletic fields. The expected outcome is to implement these improvements.

## **Asset Category 2 - Pools**

The City has two swimming pools, one by King Middle School and the other at West Campus. The pools require improvements to the locker rooms and office areas, and improvements to piping, decking, tiling, and roofs. While the King pool has a 30-year lease, the West Campus site has a five-year lease with the possibility that a new pool will be built at San Pablo Park that serves south and west Berkeley residents.



## **Asset Category 3 - Park Buildings** and Restrooms

The City has four community centers, 2 clubhouses, 29 restrooms, and outbuildings. Many of the required improvements have been made with

funding from Measure T1. Future improvements include seismic/deferred maintenance at some park buildings, renovation of existing restrooms, and construction of new restrooms. The expected outcome is to implement the required improvements, including electrification, elimination of natural gas connections, and the addition of solar and battery storage, where feasible.

## **Asset Category 4 - Camps**

The City of Berkeley's non-resident camps include Cazadero Camp located off the Russian River, Echo Lake Camp located just above South Lake Tahoe, and Berkeley Tuolumne Camp located just east of Yosemite Park. These camps include hundreds of facilities, amphitheaters, bridges, pathways, water systems, and swimming pools.

There are two significant camp projects in progress. The rebuilding of Berkeley Tuolumne Camp is nearly completed and is scheduled to reopen in the summer of 2022. At Cazadero Camp, the Jensen Dorm, which was destroyed by a landslide in 2016, has been reconstructed. These projects are primarily funded by insurance.

The expected outcome is to complete the construction at the camps and to have them back in operation.

## **Asset Category 5 - Waterfront**

The Waterfront is the largest public marina in the Bay Area located on 125 acres of land and 50 acres of water, and includes approximately 1,040 berths, public access docks, pilings, channels, streets, pathways, parking lots, buildings, restrooms, buildings, and small boat launch ramps. There are many funding needs at the Waterfront,

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where many of the facilities have reached the end of their useful life and are starting to fail.

As documented in multiple reports, there is a diminishing ability to pay for the pressing capital needs in the Waterfront. The Marina Fund is the City's mechanism for managing all Waterfront revenues and expenditures. Revenues steeply declined in the last two years as a result of safety and security concerns and failing infrastructure. The combination of falling revenue and increasing expenditure needs have strained the relatively small Marina Fund to a breaking point.

The City has begun a long-term planning effort – the Berkeley Marina Area Specific Plan (Figure 9)– to establish the community's vision for the Waterfront and to plan for making the Marina Fund viable and stable. There is still a need to address urgent infrastructure repairs to finger docks, pilings, electrical systems, and restrooms. If these investments are not made, facilities and

infrastructure will either require more costly emergency funding or be closed as in the case of the Berkeley Pier.

The expected outcome is to make the urgent repairs, complete the Berkeley Marina Area Specific Plans, and to return the Marina Fund to solvency.



▲ Figure 9: Marina Community Vision

## **Outcome 4 - Have Safe Public Facilities**

## Public Facilities are Safe, Resilient, and Provide Community Placemaking

The City is responsible for maintenance of 95 facilities, not including Library facilities and facilities leased to other entities. These facilities include 39 facilities in the Parks, Recreation, and Waterfront inventory and 56 facilities in the Public Works inventory. These facilities house City staff and are places where residents receive public services. These facilities need to be safe, healthy, and resilient, and provide community placemaking, where the connection between people and these places is strengthened. The asset categories to achieve this outcome are described below.

# **Asset Category 1 - Public Buildings** In 2013, staff retained a consultant to perform

assessments and provide updated condition reports and cost estimates for the City's facility inventory. The recommended improvements are extensive. All projects included in these assessments are considered either major maintenance or capital projects. Despite support from a variety of City funds, the cost for routine maintenance, major maintenance, and capital improvements far exceeds currently existing sources of funds.

The expected outcome is that condition assessments of the City's public buildings will be conducted regularly, and necessary improvements identified and completed. These improvements include electrification, elimination of natural gas

connections, and addition of solar and battery storage, where feasible.

## **Asset Category 2 - Civic Center**

The Civic Center comprises portions of the area surrounding Martin Luther King Jr. Civic Center Park including the Maudelle Shirek Building "Old City Hall" (1909) and the Veterans Memorial Building (1928). Presently, the historic buildings have decades of accumulated deferred maintenance and are seismically unsound. As part of the city's Measure T1 program, the Veterans Memorial Building and Old City Hall were slated for structural analysis and visioning of possible conceptual design alternatives, in concert with Civic Center Park. A consultant was retained to conduct a community outreach strategy, perform an assessment of the existing infrastructures, identify programs and functions for the two buildings, develop concepts for improvements for the Park. The consultant completed this work and presented a suite of financing and revenue generation strategies for the facility. City Council approved the following vision:

#### **CIVIC CENTER VISION**

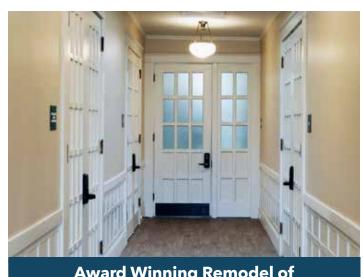
The Civic Center will be the heart of Berkeley's community. Civic Center will be the prime space for civic life, culture, and the arts. It will reflect the city's diverse identities, celebrating its history, and contributing to shaping its future. A place of shared resources and a platform for free expression accessible to all, Civic Center aims to manifest the city's values, advance social justice, and demonstrate the power of true public space.

The expected outcome is to design and construct a Civic Center consistent with this vision and to provide placemaking.

# Asset Category 3 - Transfer Station and Recycling Center

The city's current solid waste transfer station was opened in 1983. In the late 1980s, Berkeley's recycling operations relocated to the site to be operated by the Community Conservation Center. In the 1990s, the residential recyclable collection operator, the Ecology Center, was allocated an area at the site for its operations yard and office building. These facilities are not integrated and operations are not coordinated in a way that provides customers ease of use, access, or efficient drop-off of materials. These facilities do not meet current seismic requirements, have not been upgraded or improved since constructed, exceed their serviceable life, and cannot help meet the city's Zero Waste Goal. The city retained a consultant to conduct a feasibility study to build a new solid waste transfer and recycling facility. Through active collaboration and community participation between November 2018 to May 2019, the city has developed a consensus around two conceptual facility designs.

The expected outcome is that the CEQA analysis and design of the approved project will be completed and a replacement facility constructed that helps the city achieve its Zero Waste goal.



Award Winning Remodel of the Mental Health Building

## 3.2 Work Prioritization and Phasing

The Vision 2050 program is planned to be implemented over 30 years in approximately three, 10-year phases. Due to the work's complexity and volume, an understandable prioritization process is needed to sequence the work. The Program Plan uses a scoring system based on these components and weighting:

- Envision criteria, 60% weighting
- Community input criteria, 40% weighting

The Vision 2050 report recommended the use of multi-criteria decision-making and suggested using the Envision criteria as prioritization tool. Envision is a program that is organized by the Institute for Sustainable Infrastructure and provides an objective framework of criteria designed to help identify ways in which sustainable approaches can be used to plan, design, construct, and operate individual infrastructure projects.

The Envision framework includes 64 sustainability and resilience indicators organized around five categories: quality of life, leadership, resource allocation, natural world, and climate and resilience. Envision is now widely applied to civil infrastructure projects akin to LEED certification. This criteria is given a weighting of 60%.

The other criteria comprises community input from the surveys, online feedback and community meetings. What the community wants for Berkeley is important and this criteria is given a weighting of 40%. The resulting criteria and score sheet is shown on Table 2.

## **TABLE 2: PRIORITIZATION SCORE CARD Envision Criteria (Weight 60%) Quality of Life** Public Health and Safety Equity **Public Space** Leadership 700 Integrated Planning Lifecycle Maintenance Local Economy Resource Allocation Sustainable and Durable Materials Reduces Energy Use Preserves Water Resources Ready to Implement Natural World Green Infrastructure Open Space and Habitats Climate and Resilience Reduces Greenhouse Gas Emissions Extreme Climate Impacts Resilience Strategy **Total Envision Points Community Input Criteria (Weight 40%)** Complies with Community Survey Input Complies with Commisions and Public Input **Total Community Input Points**







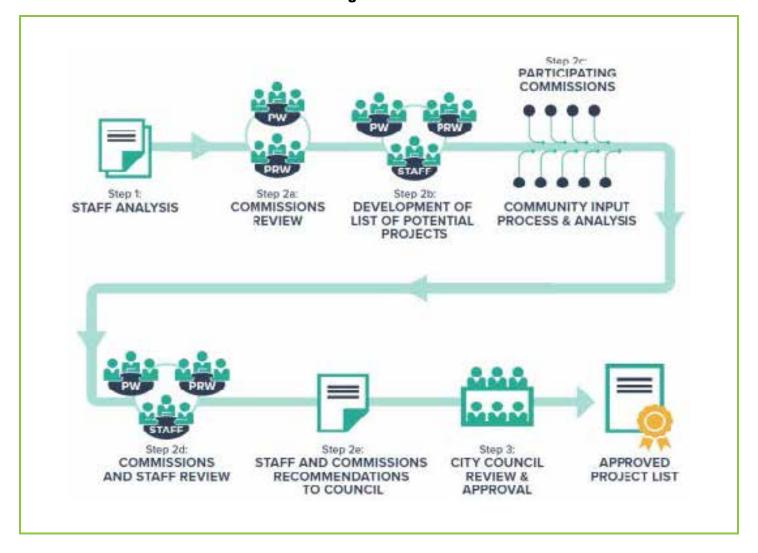


Each asset category was rated using the score sheet, and initial scoring was completed by managers in the Public Works and Parks, Recreation and Waterfront departments. A summary of the scoring results is shown on Table 3. This rating is intended as a general guideline for resource allocation. It does not dictate when the works gets done as there may be other project requirements. For planning purposes, the work can be placed in three priority groups as shown in Table 3. This can serve as a start for the planning of a 30-year program. More details

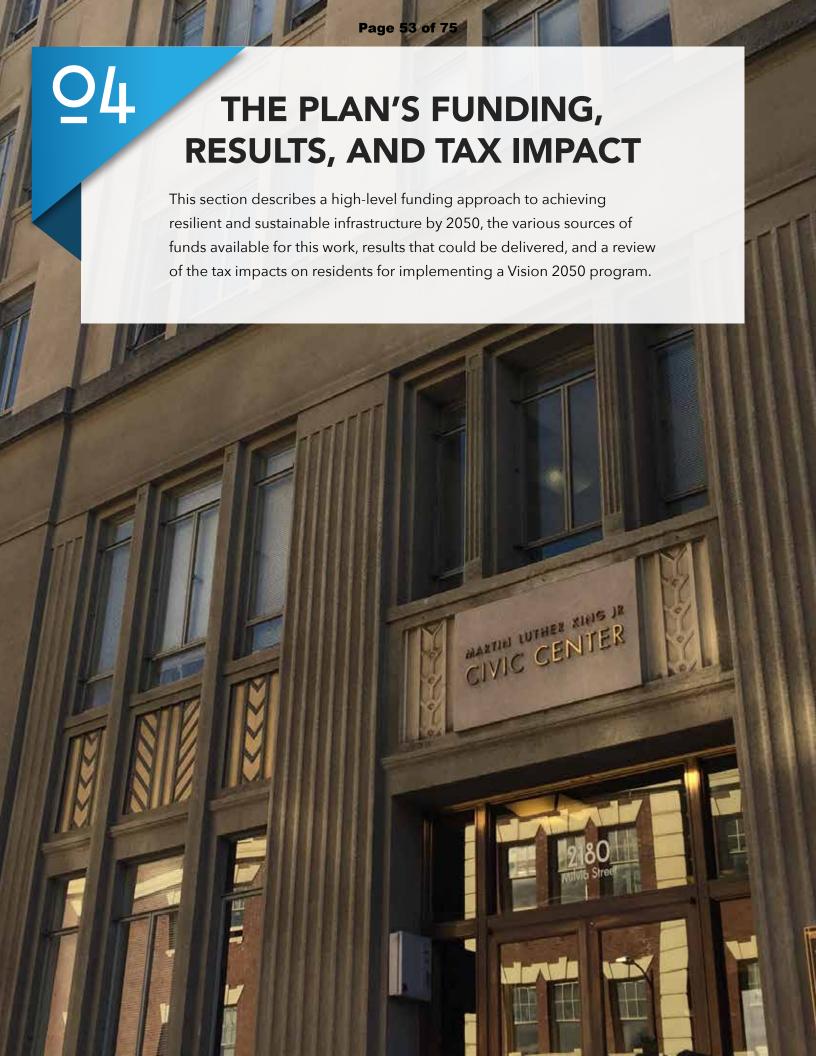
TABLE 3 SUMMARY OF PRIORITY SCORING			
Priority	Asset Category by Score		
	Streets		
1	Bicycle and Pedestrian Plan projects		
	Sidewalks		
	Undergrounding		
	Stormwater		
2	Parks		
	Trees		
	Waterfront		
	Traffic Controls, Streetlights, and Parking		
	Transit projects		
3	Civic center		
J	City buildings		
	Transfer station		
	Sewer		

of the 3-phase program will be developed by the program team, should voters approve new funding for the program. Ultimately, the City Council will select the projects to fund and their timing. The Program Plan's goal is to ensure all of these asset categories become Priority 1 well before 2050. Asset categories in Priorities 1 and 2 are most aligned to resilience and sustainability measures in the criteria and are closest to being able to move into construction. Many of the asset categories in Priorities 2 and 3 require more public process, planning, and/or engineering, some of which may be supported by a revenue measure or measures. Some of these asset categories, such as sewer, have sufficient, dedicated funding sources that make them unnecessary to prioritize for new revenue funding.

When sufficient funding mechanisms and the project team are in place, the work of selecting projects will begin. The process will be carried out separately for each 10-year program phase. The project selection process is shown on Figure 10. This process is being used successfully on the second phase of the Measure T1 program. Projects that are identified as high priority for implementation within each 10-year phase will move forward to final acceptance after staff analysis, community and Commission input, and City Council review and approval. The prioritization of the projects will use the scorecard shown on Table 2, or as updated at the time.



▲ **Figure 10:** Project Approval Process



## **4.1 Funding Sources**

Achieving a resilient and sustainable infrastructure by 2050 will require new revenue from a variety of sources, including new voter-approved measures. Adjustment to user fees and rates that are dedicated to certain services will be another important source of infrastructure funding. For example, Berkeley's sewer system is operated and maintained through user fees charged to customers. Through financial analysis, staff have determined that the \$194 million needed in the city's sewer systems can be addressed in the next decade or so with cost-of-living adjustments to existing rates. Other services have dedicated funding sources (or rates), but that funding falls short. This is true of the city's

stormwater fee and a special parcel tax for parks and trees. Other sources of funds include grants (federal, state, and other), developer fees, city funds (including the General Fund), and property owner fees, e.g., 50/50 sidewalk repairs.

Figure 11 shows the anticipated funding sources that will be available to complete each of the four Program outcomes and deliver sustainable and resilient infrastructure by 2050. This is a high-level projection with many assumptions yet to be proven, but is offered to show a funding path to the Vision 2050 destination and its dependence on a variety of revenue sources.



▲ Figure 11: Vision 2050 Funding Sources



## 4.2 Funding Alternatives

For the November 2022 ballot, two types of infrastructure revenue measures are being considered: a General Obligation Bond (or Infrastructure Bond) and Parcel Tax.

General Obligation Bonds (GO Bonds) are paid by an ad valorem property tax based on taxable property assessed value and can only be used to fund capital improvements (no maintenance, operations or services). GO Bonds are considered the most secure type of municipal debt and carry the lowest interest rates given the taxing power for repayment of the debt service. GO Bonds can also be structured to match the life expectancy of the infrastructure improvements and be issued in independent series as required based on project costs and timing. This phasing can allow for a better alignment of infrastructure utilization and repayment of the debt. Also, bond measures are generally considered progressive forms of taxation since they are based on the assessed value of properties.

The city has historically managed its GO Bond program for each authorization (Measures G, S, I, FF, M, T1 and O) through the issuance of individual bond series calculated to meet the capital funding requirements of the projects. Bonds were issued in amounts that minimized the impact on the tax rate required to make debt service payments. Since 1992, the city has maintained annual tax rates below original projections represented to voters for each of the GO Bond authorizations.

A **Parcel Tax** is a property tax that generates annual special revenues for capital, operations, maintenance and services. State law provides for

a number of different tax formulas for levies to all properties (residential and commercial) including per parcel, building square footage or land use. A parcel tax cannot be based on property value. A parcel tax based on building square feet is generally considered a progressive form of taxation since larger properties pay more than smaller properties, and exemptions for seniors and lowincome property owners are allowed.

Given the scale of the infrastructure need, the Program Plan assumes an initial funding phase in the range of \$600M, to be generated through one or more voter-approved measures in November 2022. The measures could include a single \$600M GO Bond (Infrastructure Bond) or a combination of a \$300M GO Bond and an additional \$0.30 building square foot parcel tax.

Comparisons of general obligation bonds and parcel taxes are summarized in Table 4 on the next page.

# Option #1 - \$600 million GO Bond (Infrastructure Bond)

A \$600 million GO Bond would be used to fulfill a portion of the asset replacement priorities following the priorities developed using the Vision 2050/ Envision prioritization scorecard, as discussed above. This distribution of funds would focus on improving the city's street, traffic, and pedestrian safety, which present the highest risk for any of the Asset Categories. Such a measure could have the following investment priorities:

\$250 million - Outcome 1: Streets are safe, sustainable, and in good condition

# TABLE 4 FUNDING MECHANISMS

Туре	GO Bond	Parcel Tax	
TAX BASIS	Assessed Value (AV)	Building square footage	
USE OF FUNDS	OF FUNDS Capital only Capital + Main		
TAX PROGRESSIVITY	Progressive	Progressive	
EXEMPTIONS	None	Low income/senior	
PROS	Relative tax burden decreases as total AV increases	Fixed payments with cost of living adjustments, funds capital and maintenance	
Cannot pay for maintenance or operations Does not adjust for future costs		Increases tax burden if building square footage increases	

- \$150 million Special Need: Affordable housing for low-income and homeless residents
- \$125 million Outcome 2: Infrastructure is resilient and adapts to climate change
- \$75 million Outcomes 3 and 4: Other public infrastructure improvements

This option funds the community's top priorities voiced in the public outreach: affordable housing,

street repair, and resilience to climate change. Street repair is also the top and most urgent need identified by online survey respondents, and is supported by the city's prioritization using the Vision 2050/Envision scorecard. This option would significantly reduce the city's risk related to infrastructure unfunded liabilities, and improve the City's streets to good condition while making streets safer for all users.

#### Why is affordable housing included in these possible revenue measures?

The Vision 2050 Framework focused on infrastructure, not affordable housing. However, on April 27, 2021, City Council approved exploring revenue measures that addressed both infrastructure and affordable housing, given both were top priorities for residents. Housing and infrastructure are connected. Ensuring affordable housing in a city such as Berkeley reduces greenhouse gas emissions because it affords lower and middle-income residents an opportunity to live closer to where they work, which means less emissions getting to work. At the same time, ensuring affordable housing is an important tool for ensuring a diverse and equitable city, which is an important priority of our community and City Council.

# Option #2 - Bond and Parcel Tax Measures

Multiple measures on the November 2020 ballot could include the following:

- An parcel tax of \$0.30 per building square foot, raising approximately \$28 million annually, that is dedicated to streets and traffic safety as described under Outcome No. 1
- An infrastructure bond of \$300 million with \$150 million to address affordable housing for low-income persons and the unhoused and \$150 million to improve resilience to climate change, wildfire prevention and protection, and to improve other select public infrastructure, as described in Outcome No. 2, 3, and 4

Similar to Option No. 1, this approach also funds voters' top priorities. In addition, having multiple measures provides more flexible sources of funding that could address maintenance needs in addition to capital improvements. Results from these investments are likely to be better than the results from Option No. 1. However, each of these measures would have to separately meet the two-thirds voter-support threshold for approval. If one or both measures are not approved by voters, the city will not be able to address the current backlog of infrastructure or housing needs.

#### Results

Per Section 4.1, these results assume the City continues its track record of successfully leveraging state, federal, and regional grants, and City Council allocates a total of \$15 million to annual paving from non-revenue measure sources in order to ensure proper ongoing maintenance of the City's streets. These investments would:

- > Improve streets to good paving condition
- Implement 75%+ of adopted traffic safety plans (bike/ped) and achieve Berkeley's vision of a low-stress bike network
- Complete selected sea level rise projects, and begin to implement undergrounding of evacuation routes and the stormwater/green infrastructure plan
- Assist in advancing the city's park and public realm projects, e.g., Waterfront and Civic Center Renovation

One significant caveat is that Option #2 is much better positioned to deliver these needs after accounting for costs that increase in future years.

A parcel tax can include an annual cost of living adjustment, whereas a GO bond's funding maximum amounts are static.



## 4.3 Review of Tax Implications

Property tax rates for Berkeley property owners are comparable to neighboring cities. After accounting for ad valorem taxes, city voter-approved taxes and assessments, school district taxes, and other fixed charges, FY 2021 tax rates in Berkeley (1.58%) were on par with Oakland (1.54%) and lower than in Albany (1.89%).

The city's prior bond issuances include Measure FF (neighborhood libraries), Measures G, S, and I (public safety, main library/seismic retrofit, animal shelter), Measure O (affordable housing), Measure M (streets and watershed), and Measure T1 (infrastructure and public facilities). Debt service from prior bond measures constitutes only 3.2% of the average property owner's tax bill.

The city has a current debt service of \$52.90 per \$100,000, which is low compared to nearby cities and their school districts, as shown in the table below. Even after implementation of Options 1 or 2, the city's debt service will continue to be lower than nearby cities and school districts.

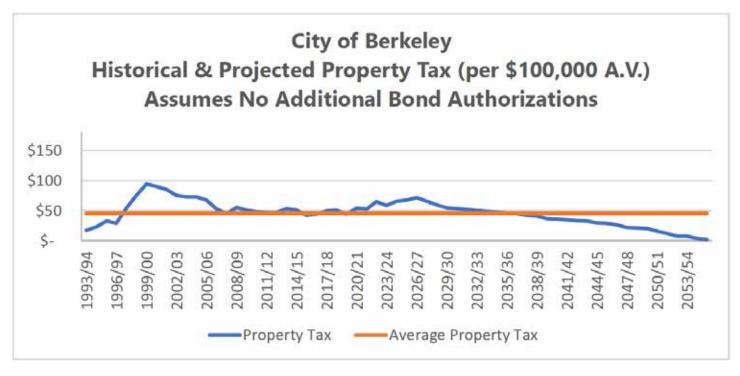
TABLE 5
<b>EXISTING DEBT SERVICE</b>
AND TAX IMPACT

2021/22 Tax Rates	Total GO Bond Tax Burden
Per \$100,000	\$52.90
Average Tax (based on assessed property value of \$647,972)	\$342.78

TABLE 6			
<b>DEBT SERVICE COMPARISON</b>			
City or District	Debt Service per \$100,000 of Assessed Value		
City of Oakland	\$201.10		
Albany School District	\$195.00		
Berkeley School District	\$145.10		
City of Albany	\$130.30		
Oakland School District	\$120.20		
City of Berkeley plus Option 1, \$600M Bond	\$103.90 (average)		
City of Berkeley plus Option 2, \$300M bond	\$79.75 (average)		
City of Berkeley (current)	\$52.90 (average)		

The city has historically maintained low GO Bond tax rates as shown in Figure 12. This represents the previously approved bond measures including the remaining bonds for Measures T1 and O to be issued over the next four years.

If voters approved a \$600 million GO bond, the maximum tax required for the new bond authorization will be \$91 per \$100,000 of assessed value. Assuming the existing GO bond authorization capacity are issued as scheduled, the cumulative debt service on all GO Bonds will increase through 2036, and then begin to decrease as prior bonds are paid off. Over the life of the \$600M GO Bond,



▲ Figure 12: Historical & Projected Property Tax

a property owner will have an average annual property tax of \$51 per \$100,000 of assessed value. If a \$300 million bond is approved by voters, the average annual property tax is estimated to be \$26 per \$100,000 of assessed value (excluding the existing GO Bond authorizations). Due to this lower bond amount being insufficient to address the City's infrastructure need, it is coupled with a separate parcel tax at an estimated value of \$0.30 per square foot of developed property. Assuming average

developed property size of 1,900 square feet, this parcel tax would add \$570 annually to the average property owner's tax bill, which is comparable to the annual cost of refuse service based on a 32-gallon cart.

Below is a summary of the tax impacts of these options on an average property, assumed to be an average valued house at \$647,972 (assessed value) with 1,900 sq ft.

TABLE 7 SUMMARY OF TAX IMPACTS				
	Option #1 \$600M GO Bond	Option #2 \$300M GO Bond + Parcel Tax		
Tax Rate (\$100,000 A.V.)	Avg \$51 Max \$91	Avg Bond = Parcel =	\$27 30 cents per sq. ft.	
Tax (Avg Home: \$647,972; 1,900 sq ft)	Avg \$332 Max \$589	Avg Bond = Parcel = Total =	\$166 \$570 \$736	

## 4.4 Other Benefits of Infrastructure Spending

Infrastructure spending has other benefits. It creates jobs. The U.S. Department of Transportation has found that for every \$1 billion in infrastructure investment, 13,000 jobs are created. In a place like Berkeley, which follows both state law on public works expenditures and local law via a Community Workforce Agreement, this means jobs that pay prevailing wages and benefits.

Infrastructure spending also can add art to our public spaces. If 1 percent of a revenue measure is dedicated to local public art, as was the case with Measure T1, or City Council commits an annual General Fund allotment of a similar amount, then Berkeley's public spaces will get more public art. Public art plays an integral role in improving our community's wellbeing by creating inspired spaces that reflect the unique character of our city. Public art breathes life into the built environment, engages the community with creative art experiences, and fosters a sense of belonging.





**Art Installation at Civic Center Garage** 



**Statue of William Byron Rumford** 



Art Installation at Shattuck & Center

Figure 13: Public Art in Berkeley

## 5.1 Current Organization and Measure T1 Implementation

Capital projects are delivered by the Engineering and Transportation Divisions in the Public Works Department, and Capital Projects Division of the Parks, Recreation and Waterfront Department. Most of this work is based on regular, annual contributions from special funds, including ratepayer funds (sewer, stormwater, and streetlight) and a parks-focused parcel tax.

As shown in the table below, capital investments have more than doubled in the last decade.

Year	Capital Program	
2010	\$41.6 million	
2020	\$114.5 million	

This growth has largely been driven by Measure T1 and the large project to rebuild Tuolumne Camp. In November of 2016, Berkeley voters passed Measure T1, authorizing the city to sell \$100 million of General Obligation Bonds to repair, renovate, replace, or reconstruct portions of the city's aging infrastructure.

The City of Berkeley has managed all T1 projects internally with a team that includes administrative, financial, and project management staff from the Public Works and Parks, Recreation, and Waterfront Departments. Five full-time equivalent positions were allocated across 11 staff within PW and PRW. One of the five FTEs is a T1 Associate Management Analyst. While projects are managed by city staff, the planning, design, and construction management of projects are largely completed by consultants.

As a part of preparing this Program Plan, interviews were conducted with the T1 Management Team and project managers to learn what has worked well and how things can be done better in the future.

#### Positive outcomes of T1 implementation:

- The City has completed nearly all of the 39 projects in Phase 1. Phase 2 projects are approved and are on track to be completed by 2026
- Interdepartmental collaboration has been very effective with regular meetings and open communications
- Community messaging has been regular and recurring, with ongoing updates to the website and email distribution lists, periodic reporting to Council, and a January 2022 informational brochure mailed to residents
- The program team has been able to staff up and retain staff during the program
- Staff costs have been kept to a minimum, i.e., less than 12% of project costs
- Meetings are held at the conclusion of each project to discuss challenges, successes, and lessons learned
- The project teams have largely been able to keep up with the project schedules

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#### Ideas for future improvements:

- Reduce the time it takes to hire staff
- Increase IT and legal support to match the program size
- Add consultants to help with certain tasks in project management
- Improve tools to aid in project management

Streamline contracting policies, including bid protest procedures and purchasing policies

It is important to note there will be overlap with the T1 team completing the Phase 2 projects and the Vision 2050 team ramping up. The future organization will need to account for this to ensure the success of both programs.

## **5.2 Research on Other Programs**

The City and its consultants conducted interviews with three cities implementing large capital programs. Interview topics included organization, tools, implementation, and accountability.

Successes, challenges, and lessons learned were discussed with each group, too. Table 8 summarizes the cities and their programs.

TABLE 8 CITIES INTERVIEWED AND THEIR CAPITAL PROGRAMS			
City	City Program Description		
		\$87M / 20 employees = ~\$4.4M per employee.	

#### **City of Oakland (cont.)**

- Oakland's PCI was 53 in 2019 and increased to 58 in 2021. They are using \$100 M of Measure KK funds over 3 years to improve 350 miles of street surface
- Measure KK has a 9 member Public Oversight Committee. The members were appointed by the Mayor and report to the City Council

#### **City of Sunnyvale**

- The Public Works Engineering Division delivers all capital projects through four groups: a) special projects, b) project design,
   c) construction management, and d) land development
- > The special projects group manages very large capital projects, e.g., \$1 billion wastewater treatment plant re-build. Consultants handle the day-to-day project management but do not have monetary authority
- > There are 8 staff in the project design group, who manage the smaller on-going capital projects
- > The City uses e-Builder software
- > Staffing vacancies are a problem
- > City Council's target PCI is 80. Their current PCI is about 76

\$176.5M / 30 employees=  $\sim$  \$5.9M per employee.

#### **City of San Diego**

- Projects and b) Strategic Capital Projects. Capital Projects perform projects that are \$5 to 20 million in size, the work is long-term and they have about 700 staff. The Strategic Capital department works on projects over \$100 million in size, the work requires special expertise, there are about 50 staff and there is a high reliance on consultants
- > The current 5-year CIP has a funding need of \$8.4 billion
- > The City uses OCI (overall condition index) instead of PCI. The City's target for OCI is 70
- > Staff vacancies range from 15 20%
- A State of CIP Report is provided to City Council twice per year
- San Diego is a participant is a California multi-agency benchmarking group

\$830M / 750 employees = ~\$1.1M per employee

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While Berkeley uses City staff for project management and consultants for planning, design, and construction management, by comparison, the larger programs are managed by a combination of City staff and consultants. Berkeley's 5 full time equivalent employees are handling \$45 million projects at present, a higher ratio than these other cities. City staff make all financial decisions, manage City processes, and complete repeatable tasks. Consultants assist City staff with a wide variety of tasks involving project planning, design, construction management, and execution, and provide necessary specialized expertise and knowledge. Some program teams include a

dedicated group who administer grant funding. Challenges experienced during large program implementation include difficulty in recruiting and retaining a talented workforce, having sufficient administrative and support services, and having effective and efficient hiring and on-boarding processes, including a continuous recruitment process.

These issues could be addressed in part by including dedicated financial and recruiting staff that are funded through the revenue measure, and developing program-specific hiring policies and procedures.

## 5.3 Recommendations for Vision 2050 Implementation

The recommendations presented in the section below build off the successes and lessons learned from implementation of Measure T1 and the City's regular capital program, and from the three cities we interviewed and researched. These recommendations will help in delivering a more significant investment in the city's infrastructure:

- Responsible organization A Vision 2050 program management team should be formed and report to the Public Works Director for the first phase of improvements, given this phase's focus is likely within the right of way, which is Public Works' responsibility. This team would be multi-discipline, meaning the team would be responsible for implementing all aspects of the Vision 2050 program, including projects outside of the normal purview of Public Works. In future phases, as determined by future Vision 2050 priorities, this program management team could report either to Directors of Public Works or Parks, Recreation, and Waterfront, a Deputy City Manager, or the City Manager.
- **Multiple Benefits -** The Vision 2050 Framework recommended infrastructure improvements that have multiple benefits. Given this Plan's initial focus on streets and traffic safety, the program management team will ensure projects are delivered that, to the extent feasible, combine paving, traffic safety, and green infrastructure improvements. Recent annual paving projects demonstrated progress in this regard, as they have included paving, green infrastructure, and various traffic safety features such as traffic circles, traffic diverters, and pedestrian islands. Given this plan prioritizes the cobenefits of street paving and traffic safety, staff have modeled how to meet both goals simultaneously. By dedicating two-thirds of streets-focused investments to paving and onethird to traffic safety, this Plan's goals can be met in ten years or so.
- Program management team and staffing - The City should initiate a recruitment for a new full-time position, Vision 2050

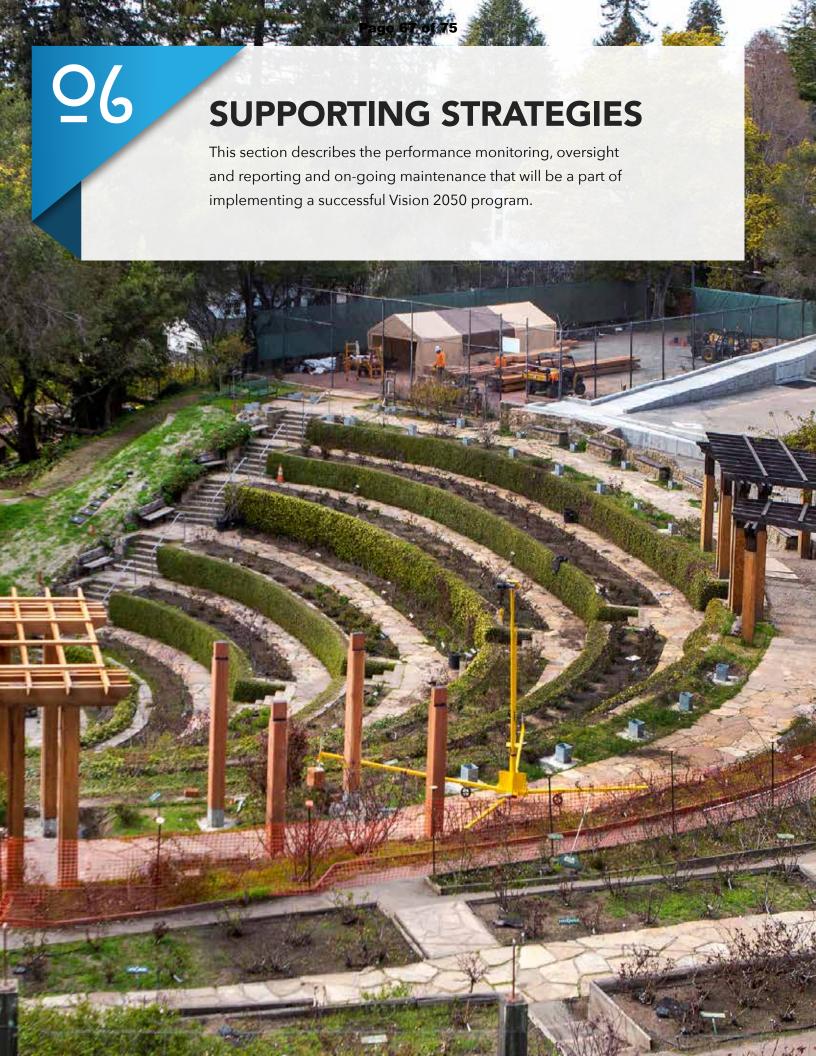
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Program Manager. The manager should have an administrative support person and project managers (the number to be determined prior to implementation). The City team would ideally include dedicated staff in lieu of 3-year limited term positions, given the duration of the work. In addition, the city team should include both an in-house construction inspector and a project coordinator to assist with time-intensive tasks such as compiling budget data, preparing public outreach materials, and coordinating meetings. Outreach support should be included on this team as well. The Program Manager should also have a mix of staff and consultant support in a blended team. Consultant support may include: a) preparation of a project management manual, b) project cost tracking, c) performance indicator tracking, and d) management of special projects.

- the engineering functions As discussed above, the engineering and capital delivery divisions in the Public Works and Parks, Recreation and Waterfront Departments will continue to deliver ongoing projects. These include aspects of street paving, sidewalk repairs, sewer rehabilitation, and park and playground improvements.
- Special projects Projects that are not normally handled by the City's engineering

- divisions should be managed by the program management team or assigned to a consultant. Examples of these projects may include utility undergrounding, seismic improvement to public buildings, public realm projects, etc
- Supporting departments Advanced planning needs to be held with the City's procurement, legal, human resources and information technology departments. Challenges experienced during large program implementation include difficulty in recruiting and retaining a talented workforce and having effective on-boarding processes. In addition, the City's procurement procedures need updating and improvement. The ideal Vision 2050 organization may include dedicated recruitment and financial staff, as well as new policies that are developed specifically for the program. For example, the City of Oakland cut 500 staff hours and months from project timelines by reducing the number of project and procurement approvals.
- Tools, software and procedures An evaluation of current and new tools will be made for delivering the program. This will include: a) procurement tools for goods and services, b) project scheduling and tracking software, c) document management, and d) reporting.





## **6.1 Performance Indicators**

A large complex program like Vision 2050 can benefit from identifying Key Performance Indicators (KPIs) to track progress. An initial list of KPIs is shown on Table 9 and are organized around the four Vision 2050 outcome objectives. The indicators go beyond the traditional tracking of cost and schedule progress and incorporate indicators that reflect sustainability and resilience goals.

It will be important to update these KPIs at the beginning of each phase of this thirty-year program, and more frequently in some areas, in order to incorporate changing conditions, new technologies, and new priorities.

TABLE 9 VISION 2050 KEY PROGRAM PERFORMANCE INDICATORS				
1. Streets are Safer, More Sustainable, Improved to a Go	1. Streets are Safer, More Sustainable, Improved to a Good Condition, and Maintained			
Paving condition	% of sidewalks in safe condition			
Three year average of severe injuries/fatalities	% of Bicycle, Pedestrian, and ADA Transition Plans implemented			
% of 2020 pavement surface converted to pervious surface	Public satisfaction with right of way			
% of commute trips by solo occupant vehicle	% of trips by walking, micro mobility or transit			
2. Infrastructure is Resilient, Protects the Environment, a	nd is Adapted to Climate Change Impacts			
Citywide GHG reductions	% of public buildings fossil-fuel free			
Citywide natural gas consumption	% of automobiles that are EV citywide			
% of Stormwater and GI plans implemented	% of sea level rise, undergrounding, and evacuation route projects completed			
% of target acres treated by Green Infrastructure	% of 2022 vacant street tree sites planted			
% of public buildings seismically retrofitted				
3. Open Space, Parks, and Recreation Improve our Qual	lity of Life			
% of Backlog Addressed Annually	Diversity of the Urban Forest			
# of Street Trees/Tree Canopy Ratio	Public satisfaction at Parks and open spaces			
4. Public Facilities are Safe and Provide Community Placemaking				
% of public realm/placemaking opportunities implemented	% of Backlog Addressed			
% of ADA Transition Plan implemented in buildings	Public satisfaction in public spaces			
% of public buildings with battery storage				

## 6.2 Equity

Incorporating equity into infrastructure is a core value of the Vision 2050 Framework, and is something Berkeley residents want. Three-fourths of voters said an infrastructure measure should incorporate equity.

Poorly maintained infrastructure is inherently inequitable, as it is more detrimental to Berkeley's most vulnerable residents. Those with mobility impairments can find potholes, deficient sidewalks, failing hand rails, or out-of-service elevators as insurmountable challenges. Those on bikes or walking, instead of in vehicles, are more at risk of death or serious injury on streets with potholes, failing pavement markings, and lacking traffic safety controls. As reported by the city auditor, low-income residents who depend on their automobile to get to work face greater risk from the estimated annual \$1,049 repair bill attributable to poorly maintained streets. The state of our parks, recreation and senior

centers has a serious impact on the programs and services delivered to children of color and lower income seniors.

In implementing equity into Vision 2050, Berkeley will build on recent progress. The City's transportation plans prioritize projects in historically underinvested neighborhoods in Berkeley, including improvements like bus bulbouts and dedicated bus lanes which help lower income residents more likely to use transit. Many capital projects approved in Measure T1 implementation advanced equity. These projects include the African American Holistic Resource Center, South Berkeley Senior Center, the Martin Luther King Jr. Youth Services Center, and public restrooms citywide approved as part of Measure T1, Phase 2. In addition, Phase 1 projects such as paving and park improvements at San Pablo Park and 10 play structures in West Berkeley also advance equity.

## **6.3 Reporting and Oversight**

A Vision 2050 program team will prepare a Program Management Manual. The manual will include the performance indicators and a format for reporting progress. Typically, performance monitoring reports are prepared on a semi-annual basis. The reports will be provided to Council and will be available to the public via the Vision 2050 website.

To ensure accountability, an independent oversight committee will be formed. This can be an existing Berkeley commission or a newly formed oversight committee, as has been used with Berkeley's Sugar Sweetened Beverage Product Panel of Experts, Berkeley Unified School District's Bond Oversight Committee, and Oakland's Measure KK Public Oversight Advisory Committee. The committee will review the progress of the work and will prepare an independent annual report of progress.

## **6.4 Lifecycle Maintenance**

Asset Management is an important concept in which the city's infrastructure systems are managed throughout the life cycle from 'cradle to grave.'

Taking an asset management approach was a key part of the City Council adopted Vision 2050 recommendations.

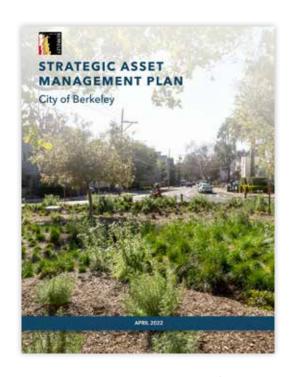
A Strategic Asset Management Plan (SAMP) was recently prepared to develop policy guidance, to review the city's current maintenance practices, and to prepare a roadmap of key initiatives for implementing a full Asset Management Program (AMP) in Berkeley's Public Works and Parks, Recreation & Waterfront Departments. Critical systems that we depend on every day are simply wearing out. Recent budgets were inadequate for infrastructure capital and maintenance needs, let alone modernizing them. An AMP is needed to manage our infrastructure assets throughout their useful life.

The city retained a consultant to assess the city's current asset management practices against a global standard benchmark on Asset Management in six areas: asset strategy and planning, asset management decision-making, lifecycle delivery, asset information, organization and people, and risk assessment. Based on the benchmark, Berkeley's average assessment was in the 'developing' level of asset management implementation and comparable to many U.S. cities, but not nearly good enough. The consultant worked with city staff to develop a 'Roadmap' of key initiatives in the next two years to implement an effective AMP.

The components include:

- Prepare an Asset Management policy for City Council's adoption
- Form an Asset Management team, consisting of a team leader and two program staff
- Form an AM Steering Committee to guide the program implementation
- Provide consultant support
- Prepare the strategies, procedures and analyses to implement an AMP

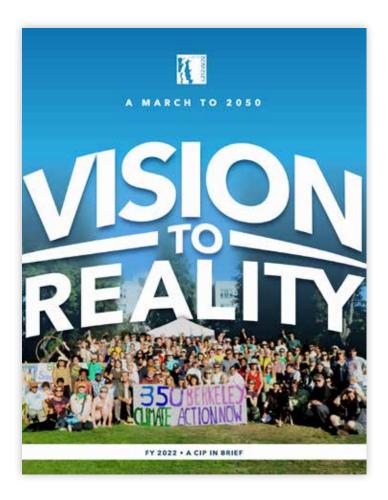
The SAMP conducted an asset-by-asset review of annual infrastructure maintenance funding and found that some asset categories such as streets and city buildings had insufficient maintenance funding by a wide margin, while other assets like sewer and streetlights had adequate maintenance funding. Assets such as stormwater have sufficient maintenance funding now. However, climate change and green infrastructure might make current funding commitments insufficient in future years.



## 6.5 General Fund Support for Infrastructure Maintenance

The level of General Fund contribution for public infrastructure in the last 12 years has remained flat in nominal terms. Given escalating annual costs, this led to a decline in General Fund support for infrastructure. To remedy this, City Council is currently considering two budget referrals to find existing City funding sources that total \$15 million per year for street maintenance, which is the level of investment required to ensure paving condition does not deteriorate. A common theme

from community engagement has been to grow General Fund support for infrastructure and, at the very least, that revenue from any new measures not replace existing General Fund commitments to infrastructure. One approach is to set a "floor" for General Fund support of infrastructure moving forward, akin to the State of California's requirement that cities demonstrate a maintenance of effort in street funding before allowing cities to use Gas Tax proceeds to maintain a city's streets.





The FY 2022 CIP in Brief was the beginning of melding Vision 2050 into the City's capital budget



## **APPENDICES**

## A. Acknowledgements

#### **City of Berkeley**

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## **B. GLOSSARY OF TERMS AND ABBREVIATIONS**

Terminology	<b>Definition</b>	
ADA	Americans with Disabilities Act	
АМР	Asset Management Program	
Asset categories	A logical grouping of similar assets or equipment types used to categorize, organize, and manage the asset portfolio.	
Asset management	Data driven planning that improves operational, maintenance and capital forecasting of potential needs, and optimization of investments to realize the greatest value from assets while operating over their lifecycle.	
CEQA	California Environmental Quality Act	
CIP	Capital Improvement Program	
City	City of Berkeley	
Council	City Council of Berkeley	
EBMUD	East Bay Municipal Utility District	
Envision	Developed by the Institute for Sustainable Infrastructure and Harvard University, Envision provides industry-wide sustainability metrics for all types and sizes of infrastructure to help users assess and measure the extent to which their project contributes to conditions of sustainability across the full range of social, economic, and environmental indicators.	
KPI	Key Performance Indicator	
General obligation bond	A General Obligation bond is a common type of municipal bond that is secured by a government's pledge to use legally-available resources, including tax revenues, to repay bondholders.	
Parcel tax	The parcel tax is a tax on parcels of real property collected as part of a property tax bill.  Unlike the property tax, the parcel tax cannot be based on property value. To impose a parcel tax, governments must win support from two-thirds of voters.	
PCI	Pavement Condition Index, which is a scale of 0 to 100 (with 100 being the best) that indicates the condition of an asphalt street surface.	
Program plan	A structured approach to organizing a long term complex array of subcomponents. The plan typically describes the project components, schedule, outcomes, funding, and reporting.	
SAMP	Strategic Asset Management Plan. This is a high level plan that reviews an organization's policies, assesses its maturity on maintenance, and develops a roadmap to implement a lifecycle maintenance management program.	
U.S. EPA	United States Environmental Protection Agency	
Vision 2050	An initiative of Berkeley's Mayor Jesse Arreguin to take a long term approach to improving Berkeley's aging infrastructure. The approach incorporates sustainability and resiliency and anticipating a future world with climate impacts.	
WMP	Watershed Management Plan	

## **C. Reference Documents**

- 1. Information on Vision 2050 can be found on its website: **BerkeleyVision2050.org**.
- 2. Reference documents referenced in this program plan can be found on the City of Berkeley website (**BerkeleyCA.gov**) using the search feature
- 3. Information on Berkeley's Measure T1 program can be found on its website: **BerkeleyCA.gov/your-government/our-work/ballot-measures/measure-t1**.
- 4. Information on the Envision process can be found on the Institute for Sustainable Infrastructure's website: **SustainableInfrastructure.org**.

#### MEET YOUR COUNCILMEMBERS



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JESSE ARREGUIN

Term Expires 11/30/2024



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