



Sophie Hahn
Councilmember District 5

SUPPLEMENTAL AGENDA MATERIAL

Meeting Date: March 28, 2017

Item Number: 30

Item Description: Progress Report for the Development of a Comprehensive Plan for the Funding of Undergrounding Utility Wires in Berkeley

Submitted by: Councilmember Sophie Hahn

Suggest renaming the Undergrounding Plan to be the 21st Century Energy, Communication and Street Lighting Infrastructure plan, and alter scope to encompass improvements for all energy, communications, and street lighting infrastructure.

ACTION CALENDAR
March 28, 2017
(Continued from February 28, 2017)

To: Honorable Mayor and Members of the City Council

From: Public Works Commission, Disaster and Fire Safety Commission, and
Transportation Commission

Submitted by: Margo Schueler, Chair, Public Works Commission
Bob Flasher, Chair, Disaster and Fire Safety Commission
Sofia Zander, Chair, Transportation Commission

Subject: Progress Report for the Development of a Comprehensive Plan for 21st Century Energy, Communications and Street Lighting for Berkeley ~~the Funding of Undergrounding Utility Wires in Berkeley~~

RECOMMENDATION

1. Approve the following work item:

a. An updated work plan to develop a comprehensive plan for 21st Century Energy, Communications and Street Lighting for Berkeley (the "21st Century Plan Undergrounding Plan") ~~for the funding of undergrounding utility wires in Berkeley~~. See Attachment 1.

2. Accept the following informational items:

a. A baseline study for the development of an undergrounding program, prepared by Harris and Associates, dated July 22, 2016. See Attachment 2.

b. An application to U.C. Berkeley's Goldman School of Public Policy to conduct Phase 2 studies for the development of a 21st Century Energy, Communications and Street Lighting Plan ~~an undergrounding program~~. See Attachment 3.

c. Hold a workshop with service providers, such as PG&E, AT&T, Comcast, and others, in early 2017, to get their input on the development of an innovative, forward reaching plan for Berkeley's Energy, Communications and Street Lighting infrastructure ~~an undergrounding program~~.

FISCAL IMPACTS OF RECOMMENDATION

There are no immediate fiscal impacts of the recommendation. Should Phase 3 move forward, there may will be a need to fund a consultant study in Phase 3 of the work plan, if the study moves to that stage. This will occur in fiscal year 2018.

CITY POLICY

Berkeley has established policies that prioritize public safety, energy efficiency, and seek to create a ready, resilient and responsive community, and an infrastructure that responds to this policy objective.

For more information see:

<http://documents.bayareacouncil.org/21cii.pdf>

<http://www.bayareaeconomy.org/report/21st-century-infrastructure/energy-infrastructure/>

<http://www.bayareaeconomy.org/report/21st-century-infrastructure/communications-and-energy-in-the-21st-century/>

<http://documents.bayareacouncil.org/21cii.pdf>

Attachment 1

WORK PLAN

To prepare a comprehensive plan for 21st Century Energy, Communications and Street Lighting Infrastructure, including considering the funding of undergrounding utility wires in Berkeley

Program Phases

The Berkeley City Council has asked the Public Works, Disaster and Fire Safety, and Transportation Commissions to develop a comprehensive plan for the funding of undergrounding utility wires in all major and collector streets in Berkeley. These Commissions have been working diligently to fulfill this referral, and have delivered preliminary findings that suggest undergrounding might cost anywhere from 135 Million to 600 Million dollars to implement. While undergrounding has clearly identified benefits, it does not address the broader question of the future of Energy, Communications and Street Lighting in a time of rapid technological change.

In light of a recent report from Former Councilmember Gordon Wozniak and community member John Gage, challenging the City to think to 2050 and even 2100 in formulating plans for the future of Berkeley's infrastructure, the City Council wishes to revise this referral to include a broader, comprehensive review of the future of Energy, Communications and Street Lighting in Berkeley, taking into account changing technologies. Several reports from the Bay Area Economic Council Economic Institute, linked to below, offer examples of more expansive, comprehensive thinking about the future of Energy and Communications for the Bay Area. This is potentially a large undertaking with impacts on City policies, work priorities, resources to conduct the work, cost to perform the planning and engineering, and the need for community input. It would be prudent to conduct the planning in multiple phases.The following is a phased programmatic Approach to the larger question of the future of Energy, Communications and Street Lighting in Berkeley.

Phase 1: [Completed] Prepare Baseline for the Undergrounding Program (Harris and Associates)

This phase will develop baseline information for the undergrounding program.

The work shall focus on the arterial and collector streets in Berkeley. The work

scope shall include:

- Summarize the history of undergrounding in Berkeley
- Develop preliminary cost estimate for undergrounding
- Review available funding alternatives
- Summarize what has been done in other cities
- Summarize the status of 20A, 20B, and 20C funding in Berkeley
- Summarize the pros/cons of undergrounding the arterial and collector Streets
- Prepare a report of the findings

This work has been assigned to Harris and Associates. The schedule for Phase

1 is from March to July, 2016.

Phase 2: Study options for innovative, technologically advanced infrastructure for Energy, Communications and Street Lighting for Berkeley. Conceptualize the Undergrounding Program

This phase will ~~explore a conceptualize some of the~~ broad range of options and technologies to meet Berkeley's future infrastructure needs related to Energy, Communications and Street Ligthing. longer term issues facing the undergrounding program in Berkeley. This phase will be completed in two

parts,

as follows.

Phase 2A (Goldman School of Public Policy)

This phase will utilize the expertise of the U.C. Berkeley Goldman School of

Public Policy in these key study areas:

Study Area 1 – Future Technologies and Social/Geographic Equity

This component will evaluate how PG&E, service providers (such as Comcast,

AT&T, etc.) and street lighting may change in the next 50 to 100 years. ~~As an example, the benefit of distributed rooftop PV solar is constrained by the design and operation of the existing electrical grid. This will help with forecasting the type of~~

~~undergrounding methods to be used and the type of above-ground poles that will remain.~~ The work will involve talking with PG&E, utility providers, and research into technologies. The studies linked to below offer examples of topics which may be covered by a broad inquiry into the future technologies and infrastructure needs.

Also included shall be considerations for social/geographic equity for implementation. ~~For example, the utility wires in the Berkeley hills are a hazard due to their proximity to earthquake faults and heavy vegetation. Undergrounding in these areas would not only protect the homes in the area, but the City as a whole. How would this and other examples be evaluated from a social/geographic equity viewpoint?~~

Study Area 2 – Funding Alternatives

This component will delve further into the costs and benefits of various evaluate the range of funding alternatives for Berkeley to consider in implementing new technologies for Energy, Communications and Street Lighting. ~~an undergrounding program.~~ Included shall be:

- ~~Range in cost of funding needs~~
- ~~Long term bond financing~~
- ~~Revenue generation potential from utility corridors~~
- ~~Utility service charge funding~~
- ~~Options for home owner funding~~
- ~~Pros/cons of funding alternatives used by other cities~~
- ~~Other~~

Study Area 3 – Benefit/Cost Analysis

This component will evaluate the benefits and costs of various options identified an undergrounding program. The benefits considered shall include:

- ~~Value of greater emergency access in an emergency~~
- ~~Value of avoided catastrophic financial losses from an emergency~~
- ~~Value to property values~~
- ~~Other~~

Traditional methods of calculating benefit/cost ratios shall be used.

This work shall be performed by the U.C. Berkeley Goldman School of Public Policy. The schedule for Phase 2 is from September 2016 to June 2017.

Phase 2B (Public Works Department and Commissions)

This phase will pull together the work done in Phase 1 and Phase 2A into a

cohesive Concept Plan for Berkeley. It is at this point where decisions should be

made on the feasibility of various alternatives for -of undergrounding in Berkeley and recommend whether if future studies are warranted. A summary report shall be written for the City Council's consideration. Included in the report shall be the following:

- ~~● Objectives for undergrounding~~
- ~~● Summary of utility undergrounding completed in Berkeley~~
- ~~● Summary of undergrounding programs by other cities~~
- ~~● Future technologies of utility and service providers~~
- ~~● Potential undergrounding corridors and costs~~
- ~~● Community meetings and input from the public.~~
- ~~● Input from stakeholders.~~
- ~~● Recommendations for future studies, costs, schedule, and resources needed~~
- Decisions required of City Council and staff

The schedule for Phase 2B is from June 2017 to March 2018.

After completion of the above Council may consider additional steps.

~~Phase 3: Comprehensive Funding and Implementation Plan~~
City Council approval of the Concept Plan is needed before moving forward with this phase. This phase will prepare a detailed Comprehensive Funding and Implementation Plan. The work scope shall include:

- ~~● Conduct a series of community meetings.~~
- ~~● Conduct a detailed evaluation of project funding and recommended actions.~~
- ~~● Prepare a detailed plan for implementation.~~

~~Recommend organizational needs for implementation, including staffing and other resource needs.~~

~~Prepare an overall program plan.~~

~~City Council adoption of the Comprehensive Funding and Implementation Plan.~~

~~Identification of voter requirements before proceeding.~~

~~The schedule for this phase shall be March 2018 to March 2019.~~

~~Phase 4: Program Implementation~~

~~This phase will implement the recommended undergrounding program. This will be a long-term effort.~~

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~~Progress Report for the Development ACTION CALENDAR of a Comprehensive Plan for Funding March 28, 2017
Undergrounding Utility Wires in Berkeley~~