



Public Works Commission

**City of Berkeley
Utility Undergrounding Subcommittee
of the
Public Works Commission**

MEETING AGENDA

Subject: Utility Undergrounding

Date: January 28, 2016, 4:00 – 5:30 pm

Location: 1326 Allston Way (Berkeley's Corporation Yard)
Ratcliff Building, Willow Conference Room

1. Call to Order and Roll Call
2. Comments from the Public (3 minutes each speaker)
3. Discuss/Action:
 - A. Review the November 19, 2015 meeting notes
 - B. Discussion with Harris and Associates on their work scope and schedule
 - C. Review objective statement
 - D. Review historical summary
 - E. Review report to Council with updated workplan
 - F. Next meeting
4. Adjournment

An agenda packet is available for public review at the Engineering Division front desk.

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Commission Secretary:

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Utility Undergrounding - meeting notes

Meeting Date/Time: November 19 , 2015, 4:00 pm

Meeting Location: Willow Room, Corp Yard

Attending:

Affiliation	Team Member	Affiliation	Team Member
Public Works Commission (PWC)	Ray Yep ✓	Public Works Department	Phil Harrington
	Larry Henry		Sean Rose ✓
	Travis Neal		Ken Emeziem
	Hugh Roland ✓	Harris & Associates	
Disaster & Fire Safety Commission (DFSC)	Bob Flasher ✓		
	Victoria Legg ✓		
	Paul Degenkolb ✓		
Transportation Commission (TC)	Tony Bruzzone ✓		
	Ben Gerhardstein		

✓ Indicates present at meeting

Meeting Notes

1. Subcommittee Chair Ray Yep called the meeting to order at 4:00 pm.
2. Public comments:
 - Marvin Snow was in attendance and asked about the structure of Berkeley's commissions and subcommittee.
3. The notes from the October 20, 2015 undergrounding subcommittee meeting were reviewed and no exceptions were noted.
4. Historical summary:
 A summary of the historical work done on undergrounding in Berkeley has been started by Larry. The following suggestions were made:
 - Add a synopsis of data sources.
 - Document past decisions made by Berkeley on the subject.
 - Layout reasons on why do undergrounding, such as reasons used by other agencies or best practices.
 - Write-up the historical summary so that it can be used in the report.
5. Vision statement:
 A draft vision statement has been prepared by Victoria. The following suggestions were made:
 - Tony suggested that a vision statement is typically one paragraph.
 - We should focus on safety and reliability and not quality of life.
 - Undergrounding should benefit all residents.

6. Workplan:

Ray said that the workplan presented to Council in September 2015 needs to be updated. The following suggestions were made.

- There was consensus to use a two phase approach (phase 1 and 2). This will be more efficient.
- Include funding model assessment in Phase 1.
- Sean will finalize Harris' contract based on the comments made today. He will finalize the contract in December and they will be authorized to start work in January.
- We agreed to the following schedule:
 - Complete a draft report in June 2016
 - Phase 1 report to Council in September 2016
 - Updated workplan to Council in February 2016
- We will hold on conducting community outreach until Harris finishes a draft Phase 1 report.

7. Next meetings:

- A. No meeting in December.
- B. Ray informed the group that holding our meetings on the 3rd Thursday of each month has a conflict for Larry. Ray will re-poll the group for the date of the February meeting.

The meeting was adjourned at 6:00 pm.

End of notes.

**Undergrounding Plan
Phase 1 Work Tasks**

No.	Work Tasks	Commissions	Public Works Department	Consultant
1	<p>Establish project goals</p> <ul style="list-style-type: none"> A. Focus on public safety B. Ensure equity across the City C. Establish priorities for arterial, collector, and residential streets D. Coordinate with other City programs 	<ul style="list-style-type: none"> • Prepare a vision statement for the project. 	<ul style="list-style-type: none"> • Focus on public safety • Ensure equity across the City • Establish priorities for arterial, collector, and residential streets • Coordinate with other City programs 	
2	<p>Incorporate past studies</p>	<ul style="list-style-type: none"> • Prepare a historical summary of past studies and decisions made in Berkeley 		<ul style="list-style-type: none"> • Summarize Berkeley’s status on undergrounding of utilities and estimate Rule 20A and 20B funding
3	<p>Review relevant programs – learn from other cities that have studied and implemented programs to underground utilities</p>	<ul style="list-style-type: none"> • Meet with cities that have on-going programs, such as San Diego 	<ul style="list-style-type: none"> • Coordinate with Berkeley’s resiliency program and other relevant programs 	<ul style="list-style-type: none"> • Summarize the status of CPUC programs • Summarize undergrounding programs in other cities
4	<p>Develop undergrounding concepts</p>	<ul style="list-style-type: none"> • Provide input to prioritization model 	<ul style="list-style-type: none"> • Provide input to prioritization model 	<ul style="list-style-type: none"> • Create a map showing the classification of streets, the zoning, and if the area is overhead or underground. This will be done using pavement management reports. • Once the streets have been identified, work with City staff to create a prioritization model. The model will include factors such as completing a street where undergrounding has been done, or coordinating undergrounding with some other capital improvement project including your pavement management program.

No.	Work Tasks	Commissions	Public Works Department	Consultant
				<ul style="list-style-type: none"> Incorporate new concepts (such as utility corridors) and work with various utility pole users (such as cable TV, power, telephone) to find cost effective solutions.
5	Develop funding options – prepare a range of funding options and cost estimate.	<ul style="list-style-type: none"> Provide input to funding options 	<ul style="list-style-type: none"> Provide input to funding options 	<ul style="list-style-type: none"> Develop a range of alternatives for funding the program. Prepare preliminary cost estimate for undergrounding utility wires.
6	Prepare Phase 2 scope of work – prepare a detailed work scope to prepare the comprehensive Undergrounding Plan.	<ul style="list-style-type: none"> Review Phase 2 scope of work 	<ul style="list-style-type: none"> Prepare detailed Phase 2 scope of work 	
7	Prepare Phase 1 report	<ul style="list-style-type: none"> Provide input and review draft report 	<ul style="list-style-type: none"> Provide input and review draft report 	<ul style="list-style-type: none"> Prepare draft and final Phase 1 report
9	Coordinate with City Council – provide updates to Council as needed	<ul style="list-style-type: none"> Provide progress reports to Council 	<ul style="list-style-type: none"> Provide progress reports to Council 	

Comprehensive plan for the funding of undergrounding utility wires

Objective Statement

Draft by Victoria Legg, 2016-01-28

Berkeley's City Council has requested that three commissions (Public Works, Disaster and Fire Safety, and Transportation) collaborate to develop a comprehensive funding plan to underground utilities along arterials and collector streets in Berkeley. The commissions shall work with Public Works staff and specialty consultants to draft a plan for the Council's consideration.

The City of Berkeley is subject to wide range of natural disasters, including earthquakes, wildland fires, landslides, high winds, falling trees, and flooding. There can also be human created disasters, such as railroad derailments, gas line explosions, and car accidents. Although these disasters can occur in any part of the city, and yet affect the entire city. Burying utility lines can significantly reduce impacts from disasters by minimizing the dangers caused by prolonged downed or arcing power lines which can spark a serious fire, negatively affect power delivery to households for an extended period of time, and impact the ability of persons to leave their homes and/or first responders to reach persons in need. Undergrounding increases the safety of residents while strengthening the infrastructure of the region's delivery of these utility services, all of which positively contributes to the capability of our community.

The project objective is to develop a comprehensive plan that will provide the greatest benefit to all of Berkeley. The following are some guiding principles for the project:

- The primary driver is to provide reliability of utility service and safety to Berkeley's residents in an emergency.
- The scope of the study shall be all of the City of Berkeley.
- Implementation of the plan shall be prioritized to the streets that will have the greatest benefit to all of Berkeley. These will be the arterial and collector streets.
- Learn from other cities that have studied and implemented programs to underground utilities.
- Incorporate new concepts (such as utility corridors) and work with various utility pole users (such as cable TV, power, telephone) to find cost effective solutions.
- Conduct the study in two phases to allow for effective decision making and use of resources.

Comprehensive plan for the funding of undergrounding utility wires

Historical Summary

Draft by Larry Henry, 2016-01-28

Background

The history of undergrounding utilities in the United States is over 125 years old, it was after the Great Blizzard of 1888¹ that Manhattan decided to put all its infrastructure from power to water, to gas lines, steam and subways, all went underground, and at great cost at that time. A second notable example was the Galveston, Texas in 1900. As the largest city in Texas at the time, Galveston, was the Wall Street of the South, but was destroyed by a great storm on Sept. 8, 1900. The 8,000+ people killed by that storm, 20 percent of the island's total population, is still the largest single loss-of-life event from a natural disaster in U.S. history. Galveston built a 17 foot-high seawall that has protected the city from subsequent 44 hurricanes. But they also put all other vital infrastructure underground (natural gas, water, sewage and electricity telecom).

The California State Legislature in 1911 enacted laws to regulate erection and maintenance of poles and lines for overhead construction. Additionally, the "Municipal Improvement Act" of 1913 allowed for the financing of or acquisition of public improvements. This California State act is the enabling statute that municipalities use to construct and finance public works projects.

The history of undergrounding of overhead utility wires for older cities in the US is varied in its funding approach but mostly characterized by the incompleteness of efforts to fully experience the attributes and benefits of utility wire undergrounding. Currently utility customers in California pay about a dollar a month for a program that is supposed to bury all wires.

This ratepayer charge is based upon the California Public Utilities Commission action on September 19, 1967, as a result of their Case No. 8209. The California Public Utilities Commission (CPUC) adopted a rule requiring electric and telephone companies to initiate and participate in an active program to underground utilities in areas of general public benefit.

European countries have much more of their power and telecommunications utilities undergrounded, as part of the post-WWII rebuilding and much like in the US where overhead wires are buried for new construction in the suburbs or special circumstances like the Oakland/Berkeley hill fires of 1991. Additionally, for example, there is an incentive for the State owned monopolies, like the French Post and Telegraph (now French Telecom) to see the long term view of the cost/ benefit of undergrounding utility wires. The "incident of repair" for buried utility wires during normal conditions is 47% lower. There are increased costs for construction to underground utility wires, which most current analysis sees as prohibitively expensive at \$2 - 4 million a mile in urban areas, and repairs of utility outages do take longer in an undergrounded system². However, these long term cost/benefits studies do not include the economic externalities, like business and individual loss of life and lost productivity, resulting from fire caused by the lack of tree trimming, snow/ice storms, earthquakes and other climate costs related to extreme weather

¹ <http://www.history.com/this-day-in-history/great-blizzard-of-88-hits-east-coast>

² <http://www.ncuc.net/reports/undergroundreport.pdf>

phenomenon. Nor do these studies clearly address the time horizon for the payback period for their 'prohibitively expensive' judgments – 10, 20, 30, 50 or 100 years.

Understanding the consequences of undergrounding of utilities

There have been a number of studies on the consequence of utility undergrounding by both private and public sources. They almost start out from the perspective that power outages over extended periods present major health and safety concerns and economic losses. According to a report by the Edison Electric Institute, "almost 70 percent of the nation's distribution system has been built with overhead power lines. "Over the past 15 years or so, however, "approximately half the capital expenditures by U.S. investor - owned utilities for new transmission and distribution wires have been for underground wires." Making such a conversion is rarely justified solely on the basis of costs. For utility companies, undergrounding provides potential benefits through reduced operations and maintenance (O&M) costs, reduced tree trimming costs, less storm damage, reduced loss of day -to-day electricity sales, and reduced losses of electricity sales when customers lose power after storms³.

Potential Benefits of Underground Electric Facilities

An advocacy group called Underground 2020 summarizes the potential benefits of undergrounding as the following;

Advantages of underground lines include aesthetics, higher public acceptance, perceived benefits of protection against electromagnetic field radiation (which is still present in underground lines), fewer interruptions, and lower maintenance costs. Failure rates of overhead lines and underground cables vary widely, but typically underground cable outage rates are about half of their equivalent overhead line types.

Potentially far fewer momentary interruptions occur from lightning, animals and tree branches falling on wires which de-energize a circuit and then re-energize it a moment later.

Primary benefits most often cited can be divided into four areas:

Potentially-Reduced Maintenance and Operating Costs

- Lower storm restoration cost
- Lower tree-trimming cost

Improved Reliability

- Increased reliability during severe weather (wind-related storm damage will be greatly reduced for an underground system, and areas not subjected to flooding and storm surges experience minimal damage and interruption of electric service.
- Less damage during severe weather
- Far fewer momentary interruptions
- Improved utility relations regarding tree trimming

Improved Public Safety

- Fewer motor vehicle accidents

³<http://www.underground2020.org/documents/Advantages%20of%20Undergrounding%20Utilities%20White%20Paper%2005-09.pdf>

- Reduced live-wire contact injuries
- Fewer Fires (Lake County, Ca just a current example)

Improved Property Values

- Improved aesthetics (removal of unsightly poles and wires, enhanced tree canopies)
- Fewer structures impacting sidewalks

Tangible Savings

The following chart, which summarizes the total benefits that the Virginia State Corporation Commission calculated Virginia utilities might realize if the state’s entire electric distribution system were placed underground, shows tangible metrics for projecting savings to utilities. It shows an annual projected savings of approximately \$104 million.

Cost Saving Item:	\$/Year
Operations & Maintenance	no savings
Tree Trimming	\$ 50,000,000
"Hundred-Year" Post Storm Rebuild	\$ 40,000,000
Reduction in Day-to-Day Lost Electricity Sales	\$ 12,000,000
Elimination of Lost Electricity Sales From "Hundred-Year" Storms	\$ 2,000,000
Total	\$ 104,000,000

Source: Virginia State Corporation Commission, January 2005, “Placement of Utility Distribution Lines Underground” Societal Benefits

The following summarizes some of the societal benefits, including enhanced electric reliability to the economy, reduced economic losses to customers due to fewer power outages after major storms, and reduced injuries and deaths from automobiles striking utility poles.

Cost Saving Item:	\$/Year
Avoided Impact of Day-to-Day Outages	\$ 3,440,000,000
Avoided Impact of "100-Year" Storm Outages	\$ 230,000,000
Avoided Impact of Motor Vehicle Accidents	\$ 150,000,000
Total	\$ 3,820,000,000

The State of Virginia study, while not directly applicable, it does give us a template to use. We can substitute the “100 year storm” with known earthquake science that sees that every 35 years approximately the Bay Area experiences a greater than 6.0 quake. The risk is knowable the exact timing is uncertain.⁴ Using a yearly per capita savings, based on the summary savings above, Berkeley can benefit from undergrounding of utilities by nearly \$60 million annually.

The PG&E Program

PG&E places underground each year approximately 30 miles of overhead electric facilities, within its service area. This work is done under provisions of the company's Rule 20A, an electric tariff filed with the California Public Utilities Commission.

⁴ “The Signal and the Noise; Why So Many Predictions Fail -but Some Don't”, Nate Silver, 2012

Projects performed under Rule 20A are nominated by a city, county or municipal agency and discussed with Pacific Gas and Electric Company, as well as other utilities. The costs for undergrounding under Rule 20A are recovered through electric rates after the project is completed. Rule 20 also includes sections B and C. Sections A, B and C are determined by the type of area to be undergrounded and by who pays for the work.

Rule 20A

Rule 20A projects are typically in areas of a community that are used most by the general public. These projects are also paid for by customers through future electric rates. To qualify, the governing body of a city or county must, among other things, determine, after consultation with Pacific Gas and Electric Company, and after holding public hearings on the subject, that undergrounding is in the general public interest for one or more of the following reasons:

- Undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities.
- The street or road or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic.
- The street, road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.
- The street or road or right-of-way is considered an arterial street or major collector as defined in the Governor's Office of Planning and Research General Plan Guidelines.

Rule 20B

Rule 20B projects are usually done with larger developments. The majority of the costs are paid for by the developer or applicant.

Undergrounding under Rule 20B is available for circumstances where the area to be undergrounded does not fit the Rule 20A criteria, but still involves both sides of the street for at least 600 feet. Under Rule 20B, the applicant is responsible for the installation of the conduit, substructures and boxes. The applicant then pays for the cost to complete installation of the underground electric system, less a credit for an equivalent overhead system, plus the ITCC (tax), if applicable. Berkeley has one 20B District - Thousand Oaks Heights

Rule 20C

Rule 20C projects are usually smaller projects involving a few property owners and the costs are almost entirely borne by the applicants.

Undergrounding under the provisions of Rule 20C is available where neither Rule 20A nor Rule 20B applies. Under Rule 20C, the applicant pays for the entire cost of the electric undergrounding, less a credit for salvage.

Rule 20 Process Flow

A cross-functional team that includes representatives from Pacific Gas and Electric Company, the phone and cable companies, local governments and the community at-large oversees Rule 20A projects. Projects are accomplished by:

- Identifying and reviewing potential projects
- Developing preliminary costs for the projects
- Refining associated boundaries and costs
- Coordinating the schedules of other public works projects
- Developing final project plans
- Passing a municipal underground resolution
- Developing an underground design
- Converting service panels for underground use
- Starting construction
- Installing underground services
- Completing all street work
- Removing existing poles from the project area

City of Berkeley’s Undergrounding Efforts

Berkeley has a total of 237 miles of utility wires, with 86 miles or 36% of the total miles currently undergrounded and 151 miles or 64% remain aboveground. Arterials and Emergency access routes comprise 29% of the total 237 miles. Of the nearly 86 miles currently undergrounded 51% are Arterials and Emergency access routes – thus barely ½ of the Arterials and Emergency Access routes have been undergrounded out of the total that experienced undergrounding using statewide PG&E ratepayer 20A funds. Nearly 50% of the 20A undergrounding funds from PG&E funds have been allocated to residential streets or nearly \$26(??) million of the total \$65(??) million PG&E rate payer 20A funds that Berkeley received.

Undergrounding Districts Completed

1970s	1980s	1990s	2000s
Hearst (Freeway to 6 th)	Oxford St (Hearst to University)	Ashby/Benvenue	Los Angeles/Mariposa
Sixth St (University to Cedar)	Sacramento St (Oregon to South City Limit)	Hearst Ave (LaLoma to Cyclotron)	Park Hills
Sutter/Henry St	Ajax PL/Hill Rd.	Grizzly Peak/Cragmont	Miller Stevenson
San Pablo Avenue	Kains/Cedar/Hopkins/Jones/Page	Vicente/Alvarado	Grizzly Peak/Summit (estimated completion date 2020)
Eastshore Highway (Hearst to Gilman)	Oakvale Ave (Claremont to Domingo)	MLK Jr Way	Vistamont/Woodmont (estimated completion date 2025)
Stannage Ave (Gilman to Hopkins)	LaLoma (Buena Vista to Cedar)	Woodmont Ave	
Buena Vista Way	Channing/Bonar	Hill Rd	
Camelia St. (Stannage to San Pablo)	West Frontage Rd (South to North City Limit)	Spruce Vassar	
Colby (Ashby to Webster)	MLK Jr Way (University to Hopkins)	Leroy/Euclid	
So. Hospital Drive (Ashby to Webster)	Amador Ave (Shattuck to Sutter)	Benvenue (Woolsey to Stuart)	

Telegraph (Bancroft to South City Limit)	Woodmont Ave Area	College /Hillegas	
	Hill Rd/ Atlas Pl	Cragmont	
	Spruce St/Vassar	Arlington Avenue (Marin Circle to City Limit)	
	Benvenue Ave (Ashby to Stuart)		
1970s	1980s	1990s	2000s
	University Avenue		
	Solana Avenue		

Districts Completed with Additional Funds other than PG&E Ratepayer 20 A funds

Shattuck/Adeline	BART
University Avenue	Caltrans, Private
6 th Street	Redevelopment
Kains, etc.	CDGB
Bancroft Ave	UC
San Pablo	Caltrans

Districts formed since 1990:

- Number of Districts formed: 9
- Criteria for Selection: First come/first served based upon organization and initiative of citizens in local area/district
- Annual obligations committed to these Undergrounding districts can borrow up to 5 years in advance on PG&E ratepayer 20A funds

Rule 20A Districts in Berkeley as written by PWC in 2004

“Berkeley and Oakland were two cities who aggressively went after Rule 20A funds and formed a long queue of assessment districts in their areas. They convinced PG&E to bend the guidelines and use Rule 20A monies in residential neighborhoods where residents were more willing to pay for private connection costs (\$2000+ per parcel).

When PG&E started to face their own problems (rapid demand caused by internet server farms & bankruptcy hearings) they began to refuse to deviate from the original criteria established by the CPUC under Rule 20. The first instance was PG&E’s outright rejection of a proposed Rule 20A district in Oakland’s Piedmont Pines neighborhood.

At that point, Berkeley still had a number residential districts approved by PG&E in queue and their Rule 20A monies committed years into the future. As a result, the City Council issued a moratorium on Rule 20A districts until a new policy for future Rule 20A monies could be developed.

Today there are still three residential districts which have paid their connection and street light costs, but are still waiting for PG&E to schedule construction.

1. Miller/Stevenson/Grizzley Estimated construction 2007-2008
2. Grizzley Peak/Summit To be scheduled
3. Vistamont (Woodmont) To be scheduled

Rule 20B -Most Residential Neighborhoods

- In December 2000, the City rolled out guidelines for neighborhoods interested in forming Rule 20B districts. Although many neighborhoods have expressed interest and continue to do so, only one neighborhood (Thousand Oaks Heights) actually formed a district which is now complete.
- Although cost estimates are being updated based on the experience of Thousand Oaks Heights, the estimates from August 2005 give you some indication. At that time the range was \$25-\$30k per household, not including the conversion costs on each parcel or \$2.5k-\$5K. In broad terms this translated into approximately \$2000 annual costs added to county property tax bills. Of course, these costs would probably be a little higher today.”

Moratorium established in 2000 on forming new districts until new criteria for forming districts:

Criteria developed passed unanimously by both the Public Works Commission and Transportation Commission in January of 2009

- It recommends that the Council reaffirm its December 19, 2000, to prioritize major arterial routes which were additionally emergency and evacuation routes, by adopting priority routes that meet the convergence of three criteria
- a major arterial route as designated by the General Plan
- major emergency/first responder/evacuation route as designated by the General Plan
- highest traffic volumes as determined by the Public Works/Transportation division

This recommendation to Council was never agenzed or acted upon by Council.

Current Situation - 2015: These Districts were established between FY 1991 and FY 1992

- Berkeley Alameda Grizzly Peak Blvd “Engineering Phase”
- Berkeley Alameda Vistamont Ave “Planning Phase”

These two remaining Undergrounding Districts will not be completed until 2020 and 2025 respectively. Additionally, PG& E current allocation of 20 A funds for those districts being completed means that new 20A funds will not be available until 2025

Funding Decisions

Few alternatives exist for utilities themselves when it comes to financing the undergrounding of power lines; primarily through either rate increases or special charges to monthly utility bills. Conversely, jurisdictions have much greater flexibility and alternatives to consider in paying for undergrounding, for example:

- Charging a flat fee to all property owners within the jurisdiction;

- Create special districts within communities which could be added to monthly utility bills or tax bills;
- Community-financing through their operating budgets and General Obligation Bonds;
- Pooling monies from residents to pay for their own lines, or at least the portion that runs from the pole to their home meters;
- Implementing a small local tax on rooms, meals, liquor, and/ or retail sales;
- Using economic development, housing and community development, and other creative grant funding from resources such as the State Highway Administration, FEMA, and the State General Assemblies;
- Coordinate the timing and location with State and local infrastructure projects such as road, water, or gas line replacement to save on overall costs. ⁵
- All the above.

⁵ Prepared by: Navigant Consulting, Inc., A Review of Electric Utility Undergrounding Policies and Practices
March 8, 2005



CONSENT CALENDAR
March 29, 2016

To: Honorable Mayor and Members of the City Council
From: Public Works Commission, Disaster and Fire Safety Commission, and
Transportation Commission
Submitted by: Andy Kelly, Chair, Public Works Commission
_____, Chair, Disaster and Fire Safety Commission
_____, Chair, Transportation Commission
Subject: Updated Workplan for the Development of a Comprehensive Plan for the Funding of
Undergrounding Utility Wires in Berkeley

RECOMMENDATION

That Council approve an updated work plan, as attached hereto, to develop a comprehensive plan (the “Undergrounding Plan”) for the funding of undergrounding utility wires in Berkeley.

FISCAL IMPACTS OF RECOMMENDATION

There are no fiscal impacts of the recommendation.

CITY POLICY

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

BACKGROUND

The City Council, at their meeting on December 16, 2014, referred to the Public Works Commission, Disaster and Fire Safety Commission and Transportation Commission to develop a comprehensive plan for the funding of the undergrounding of utility wires on all major and collector streets in Berkeley. The commissions responded with a workplan and it was approved by Council on September 29, 2015. Since that time, Public Works staff has contracted for the support of a specialty consultant, Harris and Associates. The commissions, Public Works staff, and the consultant have met to review the work scope and schedule and have prepared an updated workplan.

RATIONALE FOR RECOMMENDATION

The updated workplan more accurately reflects the project work scope and schedule to prepare the Undergrounding Plan. It incorporates input from the commissions, Public Works staff, and the consultant.

Undergrounding of utility wires

CONSENT CALENDAR
March 29, 2016

CITY MANAGER

TBD

CONTACT PERSON

Ray Yep, Public Works Commission

Bob Flasher, Disaster and Fire Safety Commission

Tony Bruzzone, Transportation Commission

WORK PLAN
**Prepare a comprehensive plan for the
funding of undergrounding utility wires in Berkeley**

OBJECTIVE

The objective of this work plan is to prepare a comprehensive approach to the organizing, planning, and implementation of an Undergrounding Plan for Berkeley.

PARTICIPANTS

The participants in preparing the plan shall include:

- The Public Works Commission (lead commission), Disaster and Fire Safety Commission, and Transportation Commission
- Staff in the Public Works Department, Finance Department, and Fire Department
- Consultant resources
- Community input
- City Council direction and oversight

PHASED PROGRAM APPROACH

Phase 1 – Program Development

Phase 1 will develop an overall approach to the undergrounding program. The activities shall include:

- Establish project objectives – The primary driver is to provide reliability of utility service and safety to Berkeley’s residents in an emergency. The scope of the study shall be all of the City of Berkeley. Implementation of the plan shall be prioritized to the streets that will have the greatest benefit to all of Berkeley. These will be the arterial and collector streets.
- Incorporate past studies and decisions made in Berkeley.
- Learn from other cities that have studied and implemented programs to underground utilities.
- Incorporate new concepts (such as utility corridors) and work with various utility pole users (such as cable TV, power, telephone) to find cost effective solutions.
- Determine a range of alternatives for funding the program.
- Prepare preliminary cost estimate to implement the program.
- Prepare a report of the Phase 1 findings, including the priority for implementation, funding alternatives, and a Phase 2 work scope, if needed.
- Provide updates to City Council as needed

Phase 2 – Prepare Comprehensive Funding Plan

Phase 2 will prepare the comprehensive plan for funding the undergrounding of utility wires. The activities shall include:

- Collect public input
- Develop details to fund the program

- Prepare an overall implementation program, including priorities, cost, schedule, approval process, and implementing organization.
- Prepare a report with recommendations
- Provide updates to City Council.

Phase 3 – Program Implementation

Phase 3 will implement the recommendations.

ESTIMATED SCHEDULE

The following is a timeline for the implementation.

- December 2014 – City Council referral to commissions
- Phase 1
 - September 2015 – City Council approval of response from commissions
 - January 2016 – Consultant authorized to start work
 - September 2016 – Phase 1 report to Council
- Phase 2 – 15 months
- Phase 3 – to be determined