

**BOARD OF PUBLIC WORKS
MEMBERS**

AURA GARCIA
PRESIDENT

M. TERESA VILLEGAS
VICE PRESIDENT

DR. MICHAEL R. DAVIS
PRESIDENT PRO TEMPORE

VAHID KHORSAND
COMMISSIONER

SUSANA REYES
COMMISSIONER

DR. FERNANDO CAMPOS
EXECUTIVE OFFICER

CITY OF LOS ANGELES

CALIFORNIA



ERIC GARCETTI
MAYOR

**DEPARTMENT OF
PUBLIC WORKS**

**BUREAU OF
STREET LIGHTING**

MIGUEL SANGALANG
EXECUTIVE DIRECTOR

1149 S. BROADWAY, SUITE 200
LOS ANGELES, CA 90015-2213

<http://bsl.lacity.org>

E-mail: bsl.streetlighting@lacity.org

09/13/2022

**TO: The Honorable Mayor Eric Garcetti
The Honorable Members of the Los Angeles City Council**

CC: The Connectivity and Digital Inclusion Working Group

% Michael Espinosa, Office of the City Clerk

COUNCIL FILE 21-0600-S46: STATUS OF BROADBAND CO-LOCATION DEPLOYMENTS AND EFFORTS TO BRIDGE THE DIGITAL DIVIDE

REPORT: CONNECTIVITY AND DIGITAL INCLUSION UPDATE AND PROPOSAL FOR UNIVERSAL BROADBAND SERVICES IN DISADVANTAGED COMMUNITIES

SUMMARY

The Digital Divide -- the gap between those that have opportunities to access and benefit from the internet and those that do not -- has been identified by the City as a significant issue impacting its residents. In April and May of 2022, the Council and Mayor approved the \$10M Universal Broadband Services spending plan identified in the Bureau of Street Lighting's (BSL) March 4 report titled "Connectivity and Digital Inclusion Update and Proposal for Universal Broadband Services in Disadvantaged Communities." The source of funding is one-time, and therefore, the plan is focused on infrastructure investments that will require minimal ongoing maintenance and that can be leveraged by other partners (including our partners at the State, County, and LAUSD, as well as future private and non-profit partners) to sustainably bridge the digital divide into the future. This report provides an update on key factors and developments that are relevant for this work plan, and seeks approval on a basic direction for each of the major components of the plan -- including how each will be supported by the \$750,000 in Strategic Technical Assistance and Program Support. These approvals will allow the Bureau to begin moving forward with procurement and other time-intensive planning processes.

NEW DEVELOPMENTS AND UPDATED PROPOSALS

Community Connectivity Pilots (\$6,000,000)

As approved in May, \$6M of the overall work program is to be used for a small number of place-based connectivity projects within some of the City's most underconnected communities. The current plan is for three projects, at roughly \$2M per project. These projects are expected to roughly model our CDBG-funded project in Southern Boyle Heights, which is currently in the procurement phase and is expected to make an award this month (with project work beginning in Winter '22 and service beginning in Spring '23). BSL plans to complete these projects using a mix of in-house construction services (especially for laying conduit) and contractors, where necessary.

Expected scale for each project is about 250 acres, focused on multifamily or otherwise high-density residential areas, based around new permanent connectivity infrastructure (e.g. fiber and/or antennae) connected to and located on/within street poles, and with backhaul internet sourced from LAUSD schools within the project areas. The end result for residents within each project area will be a scalable menu of services (depending on partnerships and additional subsidies leveraged) ranging from free and open public WiFi all the way up to gigabit-speed home internet, and including high-speed options subsidized by the Federal Government's Affordable Connectivity Program (ACP) and the LAUSD's All Families Connected.

Los Angeles County's Internal Services Department (ISD) is currently going through the procurement process for their own, much more extensive, place-based Community Broadband initiative. As was directed by instructions in the previous report, BSL has been in close contact and communication with ISD to ensure the greatest alignment between City and County connectivity investments and the most efficient use of public resources. In September, ISD is expected seek Board of Supervisors approval to award the first group of Master Agreements based on their recent Request For Statement of Qualifications (RFSQ), which would allow them to begin making specific project solicitations to a qualified bench of contractors sometime this Fall.

Based on our discussions with LA County ISD, and in the interest of providing the greatest benefit to the most Los Angeles communities, I recommend that the \$6M be spent on on three Community Connectivity Projects split the following three regions:

- Westlake/Pico Union - the highest concentration of dis-/underconnected households in Los Angeles
- San Fernando Valley - specifically one of the following high-density under-connected neighborhoods: Canoga Park, Panorama City, or Sun Valley
- Baldwin Village - a high-density under-connected community where HACLA plans to procure over 600 apartments for income-restricted housing

In tandem, the Bureau will still provide in-kind support including asset co-location for County efforts in other City communities of need, including those south of the 10 freeway and east of the 5 freeway. Additionally, we plan to align our Middle-Mile investments (see "Backbone Infrastructure Installation Pilots" below) to primarily support City and County efforts within South Los Angeles and the Eastside. The Bureau will seek out additional funds from forthcoming State and Federal Last-Mile grant opportunities in order to further

expand place-based efforts to meet the needs of our residents throughout the City, including in the Harbor communities.

Backbone Infrastructure Installation Pilots (\$2,000,000)

As approved in May, BSL is currently working on \$2M in infrastructure projects to support future public or private investments in equitable broadband service. These projects are expected to primarily take the form of installations of new fiber-capable conduit and may or may not include “dark” fiber (optical fiber that the Bureau will lay into the conduit but not connect to internet networks). Fiber conduit is the “backbone” of the internet, and publicly-owned open-access conduit and/or fiber has proven to be the foundation for more equitable digital outcomes in cities throughout the world. Indeed, this is California’s approach: as authorized by SB156, the State is currently undertaking a multi-billion dollar open-access “Middle-Mile” fiber network which will include branches along the 110 and 105 freeways within the City of Los Angeles – with construction on these branches to start as early as this Fall.

The State’s SB156 network will require local jurisdictions to construct further connections along municipal rights-of-way to reach internet backhaul locations (to “power” the network) and to connect the network to end users in project areas (including in the County ISD projects mentioned above). Given the Bureau’s long standing expertise in building and maintaining electrical conduit for our street light network, BSL is actively working to build fiber conduit capacities and capabilities into our workforce and operations so that we can be a part of this regional undertaking. The Bureau has been planning for this since our poles were first used by the telecom industry for communications co-location, and we recently brought on as-needed expert consulting services to support this shift.

BSL has been in contact with CalTrans, the California Technology Department, and other agencies leading the SB156 Middle-Mile network, and we plan to use our current and future resources to build connections from the State network to LAUSD schools (or other anchor institutions) along key corridors within South Los Angeles and the Eastside. The Bureau proposes to use the currently-allocated \$2M to construct two or more “branches” of fiber conduit emanating from at or near the West Coast internet hub at One Wilshire and connecting to priority digital divide project areas in and adjacent to Downtown.

Investments would be made toward the completion of a strategically-designed network, but would be prioritized based on coordination with other planned construction projects to reduce costs and maximize the impact of our funding. One active plan the Bureau is exploring is an East-West fiber corridor across Los Angeles, from Westlake through to Boyle Heights, crossing through Skid Row – and has been working with the Bureau of Engineering to include streetlight fiber conduit in portions of the 7th Street Streetscape project. Additionally, the Bureau is looking into a similar coordination with forthcoming Bureau of Street Services streetscape improvements on Martin Luther King, Jr. Blvd in Southeast Los Angeles.

The Bureau is concurrently working on an approximately \$5M grant application for a Federal Infrastructure Investment and Jobs Act (IIJA) grant for Middle-Mile infrastructure

as well as is actively following forthcoming State grant opportunities which would allow the Bureau to complete further branches into South LA and the Eastside (see Appendix: Map A for a concept of what a future BSL Middle-Mile conduit network could look like).

City-Wide Broadband Adoption Efforts (\$1,250,000)

The purpose of this funding is to a) pay for a direct engagement campaign to encourage broadband adoption (especially while the Affordable Connectivity Program is available), and b) support City departments in performing outreach, engagement, digital literacy, and other services as well as extending/expanding device programs as needed. In ongoing discussions with the Mayor's Office and the Library Department, which are co-chairs of the City's Broadband Adoption strategy meetings, it has become clear that the City could benefit from a clear shared outreach and engagement plan, produced by a digital inclusion outreach expert. Additionally, the extensive work of coordinating multiple departments around shared messaging and programs requires additional staff resources. Therefore, our joint plan is to use some of the budget under the following category (Strategic Technical Assistance and Program Support) to procure a City-Wide Broadband Adoption Outreach and Engagement Plan and to bring on a new full-time short-term contracted position (department location TBD) to manage a direct-engagement campaign (see next section).

Strategic Technical Assistance and Program Support (\$750,000)

Since May, BSL has been working with our colleague departments to determine the appropriate mix of consultant services that will be needed to support the City's Digital Inclusion efforts, with consideration for the specific role that the City can and should play in regional strategies. We propose using the \$750,000 allocated for strategic technical assistance and program support to procure the following components. Two of these components refer to discrete plans that will be written and published.

City-Wide Digital Inclusion Infrastructure and Assets Plan (Up to \$300k):

BSL will procure consulting services to conduct a planning process and produce a plan document. This document will contain strategic recommendations around utilizing the City's assets and public works authorities and operations to best support regional efforts to build or otherwise establish public broadband infrastructure in service of sustainably bridging the digital divide. A particular focus of this plan will be how the City can contribute to these regional efforts in a way that enables a degree of City oversight to ensure that shared efforts work to undo and prevent digital redlining. It is therefore critical that the plan has full coordination and integration with other regional initiatives.

There is, however, urgency in bringing a consultant onboard as the next few months will see State and Federal grant opportunities open up. BSL proposes that we seek the services of the Broadband Equity Partnership (BEP, a joint consultancy of HR&A Advisors and CTC Technology and Energy) given the fact that the County (both the Internal Services Department and Department of Public Works), and the regional Internet Action Team (IAT) have all contracted with BEP for their strategic planning work. Since developing the New York City Internet Master Plan in 2020, BEP has emerged as a leading consultancy on municipal broadband efforts. BSL is currently exploring the

potential to piggyback off of the existing BEP contract with the County Department of Public Works, which went through a competitive solicitation (RFP) process.

As-Needed Technical Assistance (Up to \$150k):

This funding will be used to procure as-needed expert consultation and technical assistance for the BSL-led projects described in the sections above, in areas where the Bureau and/or the City do not have sufficient subject-area capacity. The Bureau has already retained an hourly as-needed public communications network consultant, which has proved invaluable as we assess technical proposals and work to establish design standards and operating practices. We expect this \$150,000 to cover such consultant needs for the next approximately two and a half years. The funding will remain in the Universal Broadband Services account for such use.

City-Wide Broadband Adoption Outreach and Engagement Plan (Up to \$50k): As mentioned in the section on adoption efforts above, in partnership with Broadband Adoption co-chairs Mayor’s Office and Library Department, we have determined the need for a City-wide plan for our various public-facing services. This funding will be used to procure such a plan from a consultant with expertise in Digital Inclusion outreach and engagement. The consultant would first engage in a listening and planning process with each relevant City department.

Contracted Project Manager for Outreach and Engagement Coordination (Up to \$250k):

We anticipate that a one-year project manager contracted position will be needed to manage resources and coordinate outreach and engagement efforts across City departments. This funding represents one year salary with benefits, to be hired as an outside consultant (not a City Employee position). This position would not be filled until a City-wide Outreach and Engagement plan is complete.

Long-Term Sustainability and Expansion Efforts

The table below is a summary of the different public infrastructure and connectivity service efforts that are currently in development for communities within Los Angeles (both those led by the City of Los Angeles and by other public entities). Excluded are any broadband adoption efforts that are currently underway, such as the expansion of computer labs at HACLA, Tech2Go at the Library, and the Our-Cycle program, as well as the County’s forthcoming Digital Navigator program. Additionally, this table does not include any future grants opportunities that could result in further infrastructure development in Los Angeles, such as the State’s forthcoming \$1B Last Mile grant program for urban communities under SB156.

Project	Funding Source	Timeline	Community(ies)	Status
First Community Connectivity Project (“Pilot of Pilots”)	\$2.1M CDBG Grant (one time)	Spring/Summer 2023 completion and service start	Southern Boyle Heights (Wyvernwood)	Procurement Process Nearing Completion
BSL Middle-Mile Conduit Network	\$2M in Universal BB Workplan (one time)	Construction could start as early as Fall 2022	Downtown- Adjacent Communities TBD	Procuring equipment and preparing design standards

3 Community Connectivity Projects	\$6M in Universal BB Workplan (one time)	Late 2023 service start	Baldwin Village, Canoga Park, and Westlake (proposed)	Finalizing Locations
First County ISD Community Broadband Networks	\$40+M County Funding (one time)	First locations to begin service in 2023 or 2024, with expansion ongoing into 2026	Current planning area is all of Southeast Los Angeles and the Eastside South of the 110	County establishing a bench of contractors
110 and 105 Corridor State Middle Mile	State SB 156 (one time)	Completion in late 2024	Southeast and South Los Angeles	CalTrans in design phase

As mentioned in the Summary at the start of this report, given that the sources of funding for the City-led projects are one-time in nature, we have proposed to use the bulk of funding on infrastructure projects that will have minimal maintenance needs. We have also concentrated our proposed projects on underconnected communities adjacent to Downtown Los Angeles given the population density of these communities (greater benefit per infrastructure mile), the potential to create synergies through proximity, and the presence of key network assets such as One Wilshire.

However, we are also keenly aware of the high levels of need in communities throughout Los Angeles. Adequately serving all of our underconnected communities will require an investment in infrastructure that is orders of magnitude larger than what is currently outlined in this report. Even if the City is extraordinarily successful in securing available State and Federal infrastructure grant funding, we will still fall short of the need. As a comparative example, SB156's "last mile" category of grants would require us to competitively win all \$1B in available funding (and still come up with additional funding) should the City wish to pursue a Fiber to the Home Strategy.

It is for these reasons that BSL believes it is critical to retain a consultant to develop a sustainable business model for expanding, maintaining, and managing our public connectivity infrastructure. Additionally, we are exploring alternative ways to expand our infrastructure through methods other than construction, including direct purchasing. Our aim is to have a longer-term proposal with options for large-scale expansion and fiscal sustainability presented to Council in 2023.

LOCAL AREA TECHNICAL ASSISTANCE (LATA) GRANTS

At the request of Council District 8 and in partnership with Destination Crenshaw, BSL recently submitted a grant application for the CPUC's Local Area Technical Assistance (LATA) program for the Crenshaw corridor in the amount of \$150,000. LATA grants are reimbursement grants that are intended to support technical assistance and planning for broadband network projects within specific communities (i.e. not City-wide). Applications are accepted on an on-going basis, so there is no specific deadline for application. Applicants must demonstrate that the community includes "unserved" or "underserved"

areas – areas that are not served by an internet provider and where residents cannot purchase a high-speed internet plan.

LA County's ISD applied for LATA grants for the majority of South and Southeast LA as well as the Eastside for which, through our MOU as a joint area of interest, BSL sent a letter of support. For clarity, under the grant guidelines the City cannot apply for a LATA grant for the same area. BSL therefore recommends that the City explore LATA grants (including determining eligibility given "unserved/underserved" requirement above) for the Westlake/Pico Union communities as well as underconnected communities in the San Fernando Valley. BSL is also exploring sources for front-funding, as the grant funding is issued on a reimbursement basis.

FISCAL IMPACT

The \$10 million for Universal Broadband Services in Disadvantaged Communities has been budgeted as part of the 21-22 Adopted Budget in the Unappropriated Balance. There is no additional General Fund impact.

RECOMMENDATIONS

1. Authorize BSL to make necessary technical adjustments, subject to the approval of the City Administrative Officer; and, authorize the Controller to implement the instructions and technical adjustments.
2. Authorize the General Manager, or a designee, of BSL as the administrative and fiscal agent for the Digital Inclusion Fund to facilitate receipt and disbursement of the funds to each participating department as outlined in the above proposed and updated workplans.

A handwritten signature in black ink, reading "Miguel Sangalang" with a stylized flourish at the end.

Miguel Sangalang
Executive Director, Bureau of Street Lighting

Appendix: Map A

Conceptual City Middle Mile Network

