

City of Long Beach

Citywide Fiber Network Infrastructure Initiative Update

Technology & Innovation Department Presentation
to TIC Commission August 24, 2022

Background

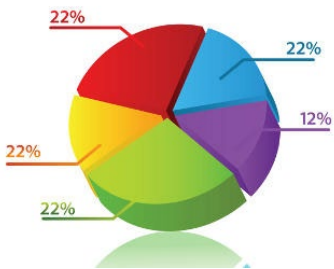
- Citywide fiber network infrastructure provides highly scalable data communications for:
 - Citywide Operations and Public Services
 - Smart Cities Programs
 - Digital Inclusion Programs
 - Economic Development Programs
 - Most Advanced Broadband Technologies depend on fiber
- The Citywide Fiber Network Initiative was initiated in 2015
 - Presented to Technology & Innovation Commission 2017, 2018, 2021
 - Presented to City Council in 2017, TFF Update in 2021
 - Presented to Digital Inclusion Stakeholder Committee 2019
 - Presented to EDC in 2021

Fiber Assessment & Planning

Internal Department Needs Survey



Market Research *Commercial & Residential*



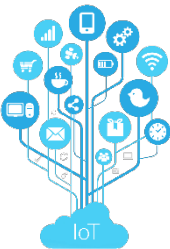
Economic Development & Public Safety Corridors



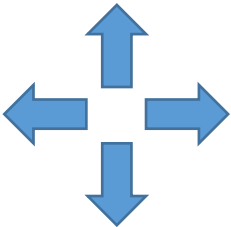
Financial Modeling



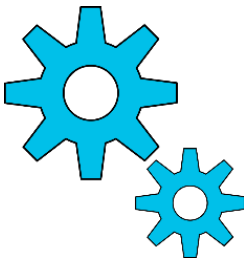
Smart Cities & The Internet of Things



Deployment Scenarios *City Build vs. Public- Private Partnership*



Engineering Analysis



Implementation Opportunities *Dig Once & Small Cell Policy*



City Build Scenarios #1-3

Scenario #1

Build Fiber Backbone & Laterals - Connect 143 City Buildings

- *~\$17 Million Cost*

Scenario #2

Extend to Connect Commercial Corridors

- *~\$32.8 Million Cost*
- *Lease Excess Capacity to Network Tenant(s)*
- *Business Enterprise Services Offered by City or Network Tenant(s)*

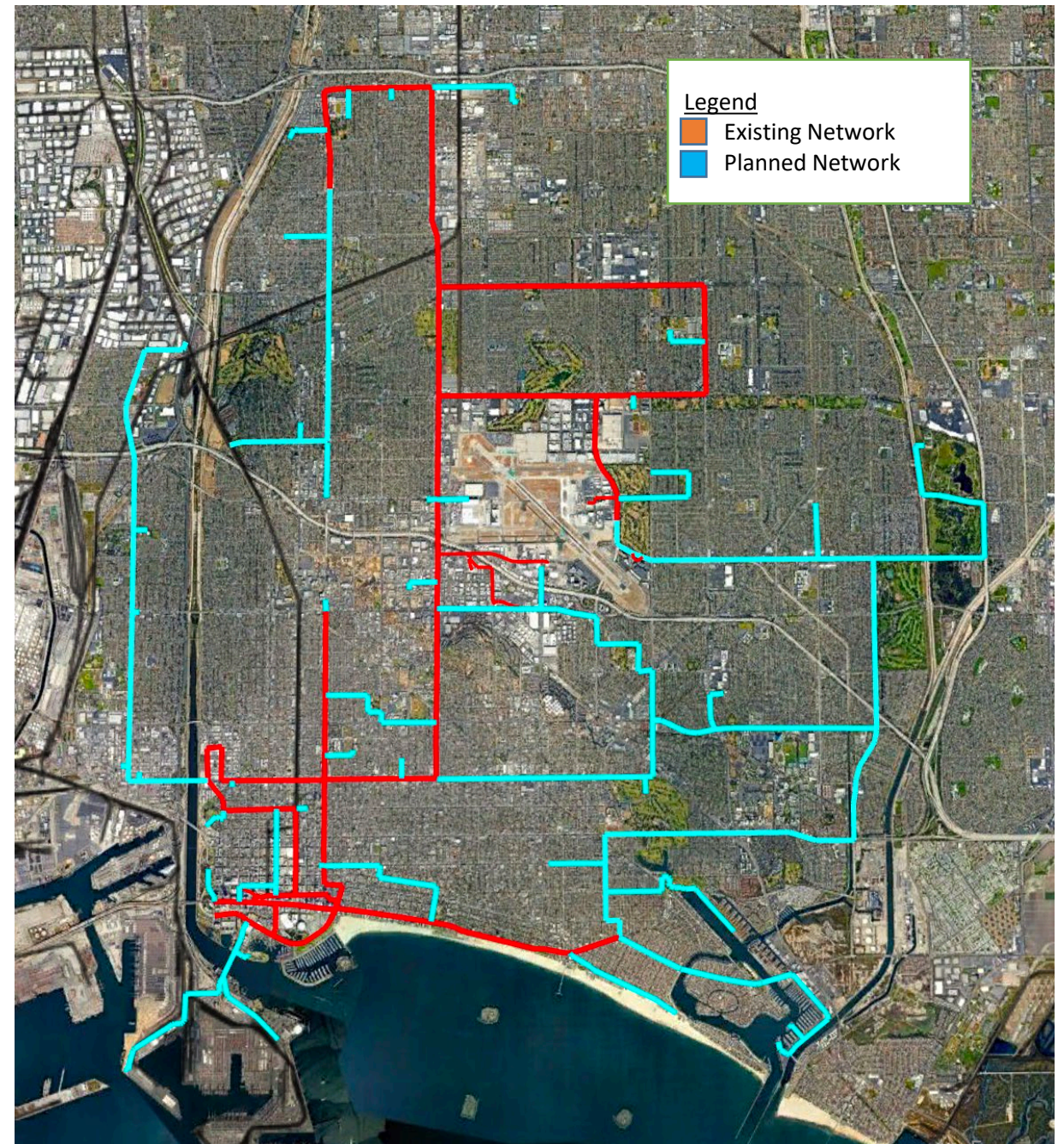
Scenario #3

Extend Network Citywide

- *~\$182.5 Million Cost*
- *Lease Excess Capacity to Network Tenant(s)*
- *Business Enterprise and/or Residential Services Offered by Tenant(s)*

Planned Citywide Fiber Infrastructure

- Designed with excess capacity for Service Providers to leverage the City's investments and reach underserved areas through faster deployment and lower construction costs with less disruption to streets and neighborhoods.
- This approach allows the City to meet its own internal needs, while also addressing digital equity and economic development goals contained in the Digital Inclusion Roadmap, Framework for Racial Reconciliation, Economic Development Blueprint and the Everyone In Economic Inclusion Plan.



Updates and Next Steps

- ❑ Conducting detailed City Fiber Survey including testing, validation and analysis
- ❑ Prepare detailed engineering and drawings of the Conduit and Fiber Networks
- ❑ Prepare a construction bid package for the Conduit and Fiber Network
- ❑ Leveraging emerging fiber opportunities, through dig once and execution of a public-private partnership with Verizon
- ❑ Participating in regional planning efforts including LA County, LA DEAL, Gateway Cities COG, LBEP, and national planning efforts including NDIA and NTIA
- ❑ Continuing to identify resources to advance digital inclusion through state and federal sources and potential public/private partnerships
- ❑ Convene Digital Inclusion Stakeholder Implementation Committee focused on implementation to include a Connectivity Subgroup focused on Connectivity goals and strategies

