

Council Policy Prioritization: Early Consideration Response Form

Department	Information Technology	Rules Date	11/30/2022	Item	C.1 (22-504)
Department Rep. Name/Ext.	Khaled Tawfik + Abigail Shull (ITD)	Council Member Sponsorship	Mayor Liccardo & Councilmembers Carrasco, Cohen, and Foley		
Policy/Ordinance Subject	Accelerating Digital Equity by Deploying High Speed Fiber to All Households at No Cost to Taxpayers				

Staff Recommendation												
<input checked="" type="checkbox"/> GREEN Adopt based on tradeoffs outlined on next page			<input checked="" type="checkbox"/> YELLOW Refer to Priority Setting or to Budget Process			<input type="checkbox"/> RED Recommend Council not adopt nominated idea			<input type="checkbox"/> NEEDS CLARIFICATION OR MORE TIME TO EVALUATE			
Staff Evaluation												
Is this aligned with City Roadmap?			Is this already underway in a Department work plan?			Is this time critical or an emergency?			Will this require substantial resources, staffing, budget, or strategic support?			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Criterion to Determine Scale of Project Complexity												
Project complexity is determined by scoring the project in each of the 3 criteria below and then summing the score.												
a. Low Complexity is a sum of 6 or less. b. Medium Complexity is a sum of 7 – 9. Total Score = 11 c. High Complexity is a sum of 10 or greater.												
Scoring Criterion			Low Complexity			Medium Complexity			High Complexity			
	Estimated Duration		6 – 9 months <input checked="" type="checkbox"/> = 1			9 - 18 months <input type="checkbox"/> = 2			More than 18 months <input type="checkbox"/> = 3			
	(Internal)		Can Easily be Absorbed into Existing Work Plan <input type="checkbox"/> = 1			Planned Work (Future) <input checked="" type="checkbox"/> = 2			Work Not Currently Proposed <input type="checkbox"/> = 3			
			Have staff with required skillset/knowledge <input type="checkbox"/> = 1			Have staff with required skillset/ requires moderate research <input checked="" type="checkbox"/> = 2			Do not have staff with required skillset/requires significant research <input type="checkbox"/> = 3			
			Less than or equal 2 staff required <input type="checkbox"/> = 1			3 - 4 staff required <input type="checkbox"/> = 2			More than 5 staff required <input checked="" type="checkbox"/> = 3			
(External)		1 Additional Department <input type="checkbox"/> = 1			2 Other Departments Involved <input type="checkbox"/> = 2			3 or more Departments Involved <input checked="" type="checkbox"/> = 3				
DEPT. Required	<input type="checkbox"/> Airport	<input type="checkbox"/> Auditor	<input checked="" type="checkbox"/> CMO	<input type="checkbox"/> CMO – Communications	<input type="checkbox"/> OED/CA	<input type="checkbox"/> ESD	<input type="checkbox"/> Fire	<input type="checkbox"/> HR	<input checked="" type="checkbox"/> IT	<input type="checkbox"/> PRNS	<input type="checkbox"/> Police	<input type="checkbox"/> Retirement
	<input checked="" type="checkbox"/> Attorney	<input type="checkbox"/> Clerk	<input type="checkbox"/> CMO – Budget	<input type="checkbox"/> CMO –	<input type="checkbox"/> Community Energy	<input checked="" type="checkbox"/> Finance	<input type="checkbox"/> Housing	<input type="checkbox"/> IPA	<input checked="" type="checkbox"/> Library	<input type="checkbox"/> PBCE	<input checked="" type="checkbox"/> PW	<input checked="" type="checkbox"/> DOT

CMO Approval: /s/ Kip Harkness Date 11/29/2022

Analysis

Explain the rationale for staff recommendation, including any mitigating factors that need to be considered (recent legislative action, significant work plan changes, etc.). Please address the following as well.

GREEN LIGHT: The Administration can implement this Nominated Idea under its current work plan. Item should be sent to Council to add to Department work plan. (1) How will the Idea be approached? (2) If adopted, what is its impact and/or tradeoff to the City Roadmap or to a Department work plan, including strategic support? (3) What is the minimum viable scope to move the Idea forward and reduce its complexity?

Option 1: General Feasibility and Options Review (Green)

Conduct a narrow Request for Information to address options and feasibility of near-universal wired/wireless telecommunications. This approach would be Green-lit by using scope control to contain the work required; it does not produce a full evaluative process. Rather, it would inform staff on options and the state of the market. The effort would address the items in the memo as follows:

1. Staff would issue a Request for Information (RFI) in January 2023 with ~10 questions focused on...

- o Private-Public-Nonprofit approaches to a wired/wireless telecommunications network with near-universal coverage in San Jose at 1 Gbps symmetrical internet speeds;
- o Feasibility of construction methods, speeds, risks, and mitigation on City assets;
- o Financing and commitment models that support construction, service delivery, and infrastructure maintenance that require no funding from the City and taxpayers;
- o Public benefits companies provide to the City, residents, businesses, schools, and nonprofits;
- o Feasibility of utilizing private-public telecommunications network to enhance the City's infrastructure and advance the use of Smart City technologies to improve services at lower costs;
- o Regulatory oversight and liability;
- o City staffing and resources needed to initiate and provide oversight throughout the process, and
- o Methods best practices for infrastructure—e.g., vertical infrastructure use, fiber trenching, "dig once" moratoriums, rights-of-way agreements, coordinated support, resilience, disaster response, et al.

2. This option does not include a complete analysis of permitting processes specifically for trenching. Information from industry will be gathered on trenching, building at scale and speed, and requirements of the City to support as part of the RFI. A more complete analysis would require more than 40 hours effort and is Yellow Lit (see Option 2).

3. Staff would evaluate available Federal, state, and grant funding to leverage funding sources to address long-term resident and business connectivity needs. Staff would report on approaches and timing to best deliver the desired benefits.

YELLOW LIGHT: The Administration recommends Council send this Nominated Idea to the Priority Setting Process due to (describe cost implications, workload impacts, or other factors).

Option 2: Detailed Evaluative Process and Analysis (Yellow)

Conduct a detailed Request for Information to gather approaches for evaluation of near-universal wired/wireless telecommunications deployed at full-city scale, construction practices, funding options and sustainability of infrastructure and business approach along the lines of the memo. This approach would be Yellow-lit based due to the need to identify sufficient staffing and resourcing, including potential consulting time to analyze options. If prioritized, Option 2 has the advantage of a more complete evaluation and moving move rapidly toward potential partnership and project direction with identified staffing and services resources.

The work would include:

1. Staff would issue a Request for Information, conduct a full evaluation, and make a recommendation based on the evaluation. Starting with an RFI in January 2023 with 20+ questions focused on...

- o Non-exclusive Private-Public-Nonprofit approaches to a wired/wireless telecommunications network with near-universal coverage in San Jose at 1 Gbps symmetrical internet speeds;
- o Evaluating construction methods, construction speeds achieved, build commitments, risks, and mitigation of impact on City assets, including detailed verification with peer communities;
- o Financing and commitment models that support construction, service delivery, and infrastructure maintenance that require no funding from the City and taxpayers, along with evaluating financial strength of submittals;
- o Public benefits companies provide to the City, residents, businesses, schools, and nonprofits, identifying those with the most measured impact;
- o Feasibility of utilizing private-public telecommunications network to enhance the City's infrastructure and advance the use of Smart City technologies to improve services at lower costs;
- o Value-trading options for City access, support, and/or speed in exchange for telecommunications assets, services, and/or funding from partner(s);
- o Regulatory oversight and liability;
- o Terms for exit and/or cancellation to include disposition of assets, and
- o Methods best practices for infrastructure management—e.g., vertical infrastructure use, fiber trenching, "dig once" moratoriums, rights-of-way agreements, standards, sharing of build information and spatial layers, coordinated support, resilience, disaster response, et al.

(Cont'd below)

RED LIGHT: The Administration recommends Council not adopt this Nominated Idea due to (describe reason implementation would be difficult if not impossible – conflict with other laws, etc.).

Analysis (Continued)

(Cont'd from Yellow Light/Option 2)

2. Identify and bring forward for Council consideration changes the City can make to further expedite permitting process for rapid deployment of fiber and/or wireless at scale, including options for effective micro-trenching/fiber trenching that minimize impact on City streets, and options to offset staffing costs associated with permitting. Staff would also research municipalities who recently initiated or completed telecommunication initiatives with similar goals as stated in the memo to gain understanding of the challenges and opportunities those communities faced.
3. Evaluate available Federal, state, and grant funding to leverage funding sources to address long-term resident and business connectivity needs. Staff would report on approaches and timing to best deliver the desired benefits.

Additionally, staff would seek to assess the viability and the financial, legal, and regulatory impacts on the City of promising models. Staffing and professional consulting services would be needed to assist the City evaluate, including possibly negotiating legal, financial, and oversight requirements if strong options are submitted that the City wishes to pursue. The full analysis would need to be prioritized against other City initiatives and priorities.

The importance of near-universal high-speed connectivity to community opportunity and health is clear. The global pandemic demonstrated the impacts broadband internet access has on the work, health, and education of San José residents. Additionally, wired and wireless communications have evolved over the past decade, with new options for conduit and fiber infrastructure deployment, gigabit-per-second wireless speed now common, and the current progression from 4th generation cellular to 5G 1Gbps service.

Staff understands and agrees the importance of assessing proven wired and wireless communications infrastructure options is timely. Modern approaches may be able to deliver high-speed connectivity options to almost all residents and businesses, supporting digital equity and COVID recovery goals connected to the City Roadmap. Companies and nonprofits have communicated new partnership and business models to the City. Further, Federal and state grant funding emerged from pandemic budgets and may be opportune. Identifying these trends in early-2022, the City identified the need to plot long-term direction as a potential project.

Prioritized along the FY2022-2023 City Roadmap, this memo connects with three Enterprise Priorities:

- COVID-19 Pandemic Community and Economic Recovery
- Resilient and Sustainable City Infrastructure and Emergency Preparedness
- Clean, Vibrant, and inclusive Neighborhoods and Public Life.

Staff sees two options given existing workloads and priorities, primarily in the Public Works and Information Technology departments: Option 1: General Feasibility and Options Review (Green) or Option 2: Detailed Evaluative Process and Analysis (Yellow).