ATTACHMENT I

EVALUATION CRITERIA FOR ULTRA-HIGH SPEED BROADBAND SYSTEM

General Criteria:
• Quality and completeness of proposal;
• Bidder’s experience, including the experience of staff to be assigned to the project, the engagements of similar scope and complexity;
• Bidder’s compliance with applicable laws, regulations, policies (including City Council policies), guidelines and orders governing prior or existing contracts performed by the contractor;
• References from customers of bidder;
• Whether City would eventually own the system infrastructure.

Technical Criteria:
• Design quality and system features of proposed network;
• Ability to operate system easily;
• Ability to rapidly upgrade the system and supply new services easily;
• Use of standards for construction of the network and delivery of ultra-high-speed broadband services;
• Network capabilities and types of service offerings;
• Network architecture;
• Network performance/reliability/quality of service guarantees;
• Network scalability;
• Network management.

Financial Criteria:
• Bidder’s business structure;
• Bidder’s and any subcontractors’ financial capabilities and resources;
• Estimated ongoing cost of system network maintenance and of end-user equipment;
• Estimated cost of the project to the City;
• Gross forecasted revenues (10 years);
• Net revenue potential to the City (10 years);
• Palo Alto customer price for service, cost to connect, and benefits.

Implementation/Operational Criteria:
• Project implementation schedule and timeline;
• Bidder’s apparent ability to perform the work within the timeline;
• Environmental impact of proposed plan;
• Bidder’s prior record of performance with City and/or other customers;
• Quality of service to Palo Alto customers likely to result from bidder’s plan;
• Bidder’s plan for providing maintenance, repairs, parts and/or services, as well as future expansion or upgrades;
• Availability of a local office.
ATTACHMENT II

PROJECT BACKGROUND AND SCOPE OF WORK

I. PROJECT OVERVIEW

The City of Palo Alto ("City") is seeking a proposal for the development, construction and operation of a citywide ultra-high speed bandwidth system. Such a network must provide minimum symmetrical bandwidth of 100 megabits per second per end-user connection, and make affordable and available to the customer in Palo Alto: high speed data transport and Internet access; and voice, data, and video services.

II. CITY OVERVIEW

Palo Alto is a thriving community of nearly 60,000 people situated adjacent to Stanford University in the heart of Silicon Valley, approximately 25 miles south of San Francisco and 14 miles north of San Jose. Palo Alto enjoys international name recognition. Travelers from all over the world come for purposes of education or research at Stanford University, training or business with the high technology firms of the Stanford Research Park, or medical care at the Stanford Medical Center.

The City General Fund budget is approximately $121 million for fiscal year 2005-2006, with eight departments. Palo Alto also owns its own Utilities, including Electric, Gas, Refuse, Storm Drainage, Wastewater Collection, Wastewater Treatment, and Water. Within the Electric Utility is a Telecommunications Division which operates the dark fiber ring (see below).

Palo Alto is a residential community of above-average household incomes and above-average educational levels. Approximately three-quarters of Palo Alto residents who are over the age of 25 have four or more years of college, half of whom have received at least one graduate degree. Also, an estimated 95% of households have an internet connection. Other key demographic statistics on Palo Alto include:1

- Approximately 28,000 households
- 57% of population (in 2000) owned a home
- Median value of owner-occupied units (2000) was $811,800
- Median household income (1999) was $90,377

1 Sources included: www.infoplease.com; City of Palo Alto Certified Annual Financial Report of June 30, 2005
III. PROJECT BACKGROUND

In 1997, CPAU constructed a fiber backbone and is currently licensing dark fiber to interested parties such as telecommunications carriers, ISPs, and local businesses. The Backbone consists of 33 route miles (over 4,750 fiber-miles), with 144 or more strands of single mode fiber along most routes. The Backbone is approximately 52% aerial and 48% underground. The Backbone passes Palo Alto’s major business parks and terminates in several buildings within the City, and can be accessed at over 40 locations. (See http://www.cpau.com/fiberservices/ for more details.)

In 2000, the Council approved a Fiber-to-the-Home trial for one year, to determine the feasibility of providing citywide fiber-to-the-home in Palo Alto, by offering the service to 66 homes in the Community Center neighborhood for one year. Service to trial participants began in 2001, and was quite successful in terms of customer satisfaction.

Given the trial’s success, the Council approved the engagement of a consultant beginning May, 2002 to complete a business case study and determine whether a full-scale FTTH business would be viable for the City. As part of that business case, trial participants and Palo Alto residents were surveyed to determine potential market interest in the project. In September, 2002, the business case was completed, and Council agreed both to extend the timeframe for trial participants and to fund the development of a business plan.

In the business plan, the consultant assumed the Electric Fund would issue (tax-exempt) revenue bonds to fund the fiber build-out, and demonstrated that a FTTH utility could be economically viable over the 20-year bond financing period. However, in 2004, it was determined that in fact, the Electric Utility could not fund the FTTH project with revenue bonds; therefore financing costs would be greater than previously assumed.

In April and May, 2004, staff presented financing options to the Utilities Advisory Commission (UAC) and to the Council that reflected the additional legal information. The only legally and politically feasible options seemed to be finding a private investor or forming an Assessment District. The Council asked staff to monitor other California jurisdictions pursuing FTTH. In 2005, staff recommended, based on the uneven and sometimes turbulent progress of other California municipal efforts, ceasing work on the FTTH program, and discontinuing the trial.

Council approved the discontinuation of the trial, but requested that staff report back on the “legal and financial issues” to lay the groundwork for issuing an RFP for a private-sector partner to construct and operate a FTTH service. Then, in January, 2006, Council further directed staff to proceed with issuance of an RFP for the construction and operation of a high-speed broadband system.

IV. OBJECTIVES OF THE PROJECT

The primary goals for this system are:
1. Capability of providing to each customer a minimum bandwidth of 100 megabits per second symmetrical service;
2. Provision of at least data, video, and telephony services; and
3. Eventual City ownership of the physical system.

A secondary goal for the system is to promote competition between multiple service providers. In addition, the following features are preferred:

- An open system
- Network neutrality
- Minimal financial risk to the City.

V. SCOPE OF WORK

A. Requirements of the System

System requirements include:

- Provision of citywide access to service to residences and businesses in Palo Alto. Bidders may be wholesalers or integrated suppliers of those services.

- Voice, Video and Data “triple-play”. This standard broadband service offering as outlined below is the minimum acceptable service level. The transmission medium is left to the Bidder’s discretion, but must be able to provide 100 Mbps symmetrical data rate for each end-user's hardware connection, with the following services available:
  - Voice: telephony (legacy analog or VoIP)
  - Video: commercial full spectrum “Cable” (analog) TV including HDTV and Video on demand.
  - Data: 100 Mbps symmetrical rate

- Highly Available, with reliability comparable to other competitive systems. Bidders will be asked to comment on the uptime characteristics of their proposed system.

- Phased Roll-Out: The network owner and service providers in their response should provide their strategy and plans to achieve full deployment.

- For low-density areas of the City, such as areas west of Highway 280, the 100 Mbps requirement may be relaxed, if access to basic service is provided to all users.

- Quality of System Service (QoS): Bidders need to provide QoS and packet prioritization for various classes of service such as First Responders, and various applications such as Voice over Internet Protocol (VoIP). Bidders must describe the quality of service capabilities of the proposed network.

- Systems Management: The network owner’s Network Operations Center, (NOC) is responsible for the monitoring and management of the network. NOC staff should have the tools and capability to centrally manage the network, be immediately notified in the event of network problems, and be able to dynamically reroute traffic or dynamically...
resolve capacity problems. The network owner must provide the capability to produce performance reports based on traffic classes and area served.

- Aesthetically Pleasing: All equipment and cabling for the network mounted within public view should blend into the existing architecture and not negatively affect the appearance of existing structures.

- Adherence to City Ordinances: All equipment must adhere to the Palo Alto Municipal Code and other City requirements and be approved by the City and its appropriate Boards and Commissions prior to deployment.

- Standards-Based: The System will need to be capable of delivering broadband services to devices built on industry standards-based technologies.

- The successful bidder will be required to apply for a cable franchise in accordance with P.A.M.C. Chapter 2.10, if the bidder proposes one or more technologies by which the bidder would be deemed to provide cable service in accordance with federal, state and/or local law TO THE EXTENT SUCH REQUIREMENT IS CONSISTENT WITH APPLICABLE LAW.

There is pending before Governor Schwarzenegger for his signature AB 2987, which would permit a video provider (one providing cable television as well as open video system services) to obtain a state franchise from the California Public Utilities Commission, not the JPA, in order to provide video programming services. If the video provider obtains a state franchise to provide these services, then it is unnecessary for the provider to also obtain a franchise from the JPA.

**B. Project Manager / Management**

The bidder must provide a Master Project Manager (PM) as the central point of contact for both the network owner installation and service provider(s) teams.

The PM is responsible for the identification and management of resources and dependencies including people, physical assets, financial or otherwise. The PM is responsible for the management and allocation of resources for the construction, implementation and operation of the network.

The successful Bidder must cooperate with the City on the use of Utility poles and undergrounding, and the PM will be the chief contact for this coordination.

**C. Project Work Plan and Schedule**

The PM must develop and present for City approval a complete Project Work Plan, including a full description of major tasks and subtasks, along with a proposed timeline for completing each one. The PM will be responsible for continuously maintaining the schedule for the complete roll-out of the project, and for providing status updates on a regular basis. The project schedule for design, implementation, and go-live activities shall be aligned and coordinated such that they are time- and cost-efficient. The PM is responsible for providing a
detailed plan and schedule for each logical phase. The plan for each phase must be kept up to date, along with the roll-ups into the Master Plan.

D. Milestones

The PM is responsible for clearly identifying major milestones and their planned completion dates for the project. On-track, on-schedule, and on-budget information and status of overall project and next-step milestones will be included in regularly scheduled update meetings.

E. Customer Service

Bidder must, at minimum, adhere to the Quality of Service requirements of the Joint Powers Authority cable franchise and all applicable FCC rules. (See http://www.cityofpaloalto.org/cable/franchise-agreement.html for complete text of the agreement.) In addition, proof of customer service performance that exceeds industry standards is required, with the goal of meeting the high service standards of the existing City Utilities.

Furthermore, bidders must describe how they plan to handle customer support calls, and detail any procedures that will be implemented due to an escalation of complaints. Lastly, bidders shall describe how they plan to handle customer trouble calls and dispatch emergency repair crews.

F. Customer Acquisition

The bidder must have proven ability to acquire and retain customers in a highly competitive environment that includes competition with no less than one incumbent provider.

G. Proposed technologies to achieve the City's primary goals

The bidder may propose any technology that has a proven field success rate that fulfills the requirements of this RFP.

H. Technology Description

Bidders must describe their technical approach, including as a minimum the following information:

- Technologies: Any technology that is based on industry standards and meets the City’s 100 Mbps symmetrical service goal may qualify. Bidders should be able to demonstrate the capacity of the proposed technology.

- Network Design: A description of the design criteria, network elements, physical media, switching and routing architecture, interfaces, topology, protocols, system reliability, fault tolerance, availability, and operations and maintenance. In addition, describe the degradation of service expected under the worst case scenario.

- Network Equipment: A description of the type of networking equipment proposed, and reasons for its selection.
• Interconnection and Interoperability: A description of interconnection, interoperability, and conformance to published standards. A description of where, when, and how interconnection will occur. A description of how interoperability between networks will be achieved is also required.

• Schematic: A schematic view of how the networking equipment will be interconnected and integrated to create a citywide network.

• Upgrade Plan: A plan for upgrading infrastructure as service requirements grow.

• Network Security: Any network security measures that will be deployed to ensure privacy of customer communications and prevent intrusions on customer computers must be described in full.

• Data Transport Performance Characteristics: Bidders are requested to characterize the anticipated performance of the proposed network design for data transport. At a minimum, the following attributes shall be described:
  ▪ Throughput: Describe the anticipated peak, mean, and minimum throughput for data transport between any two end stations on the network (specified in Megabits per second);
  ▪ Latency: Describe the anticipated mean, minimum, and maximum latency for data transport between any two nodes on the network (specified in microseconds).

VI. CITY OF PALO ALTO OFFERING

The City’s dark fiber ring may be considered a potential resource to the bidder. For example, the City will consider licensing to the successful bidder spare capacity along the fiber backbone, and, for a fee, CPAU may extend the fiber optic backbone more deeply into Palo Alto neighborhoods to interconnect with a successful bidder’s nodes, hubs, or other centralized distribution points.

The City of Palo Alto owns the utility poles in Palo Alto, along with AT&T and/or Pacific Gas and Electric Company. All construction of new plant or relocation of existing plant in Palo Alto shall meet California General Order (GO) 95 and GO128 rules and regulations, among others. The City also owns conduits, and the City has the rights-of-way needed to provide distribution of utility services within Palo Alto.

Bidders are encouraged to propose other services the City could offer to help successfully deploy the requested services.

VII. ADDITIONAL REQUIRED ELEMENTS OF THE PROPOSAL

In addition to the required attachments listed above and in Section 5 of the main body of this RFP which need to be submitted, the bidder must include information on the following:
A. Financial Risk to the City: The City wishes to minimize its financial exposure in the development, construction and operation of the proposed system. However, the City recognizes the potential need to contribute financial or other assets to the project to achieve the primary goals. The financial risks assumed by the bidder should also be detailed regarding quantity and timing. Bidder must include specifically:

- Proposed financial and other contributions required from the City;
- Assessment of financial risk to the City; and
- Ways of mitigating the financial risk to the City.

B. Ownership: The City desires to own the system’s fiber infrastructure, and at a minimum, it must maintain use and control over the dark fiber network. The City understands that the limitations of such ownership could be partly determined by the extent of the City’s financial contributions to the project. The bidder should clarify the amount of investment required from the City in order to achieve substantial City ownership of the system infrastructure.

C. City Roles and Responsibilities: The bidder must specify the proposed roles of the City versus roles of the bidder vis-à-vis the construction, implementation, and operation of the high-speed-broadband network.

D. Description of Service Offerings: Bidders are requested to provide a detailed description of the services to be offered to residents and businesses at project inception, and others that will be phased in within the first 3 years of the project.

E. Services by Outside Parties: Bidders are requested to identify any services, if applicable, that will be provided by outside parties. Any available documents related to agreements with outside parties shall be attached.

F. Financial Model and Business Case: Bidders are expected to provide a Financial Model and Business Case in their response. These shall include:

1. Pro-Forma Income (Profit & Loss) Statement (years 1-10)
2. Annual cash flow projections, and a Statement of Cash Position (years 1-10)
3. Expected annual net income to the City based on the bidder’s proposed contractual arrangement, and appropriate cash flow and breakeven analyses
4. Source of funding for Ultra-High-Speed Broadband system construction and operation
5. Preliminary market and competitive analyses to support the pro-forma income and cash flow statements
6. Forecasted customers by year and by service classification (years 1, 5, 10)

G. Warranty Terms: Describe all warranty terms and conditions, including price and performance guarantees.
## ATTACHMENT III

### SUMMARY COMPARISON OF BROADBAND PROPOSALS

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>DYNAMIC CITIES</th>
<th>180 CONNECT/PACKETFRNT</th>
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<tbody>
<tr>
<td><strong>General:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Role of Vendor in Project</td>
<td>Project Manager/Consultant</td>
<td>Designer, Builder, Marketer, and Financial Partner</td>
</tr>
<tr>
<td>Bidder’s experience with engagements of similar scope and complexity</td>
<td>One comparable project (UTOPIA)</td>
<td>Many comparable projects worldwide</td>
</tr>
<tr>
<td>Whether City would eventually own the system infrastructure</td>
<td>City would own system immediately.</td>
<td>City would own system in 30 years.</td>
</tr>
<tr>
<td><strong>Technical:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network capabilities and types of service offerings</td>
<td>Open-Access Model: service offerings would depend upon service providers</td>
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</tr>
<tr>
<td><strong>Financial:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bidder’s and any subcontractors’ financial capabilities and resources</td>
<td>No capital resources presented; states connections to members of the investment community.</td>
<td>Company is well-capitalized and proposes a specific investment partner, the Royal Bank of Canada.</td>
</tr>
<tr>
<td>Estimated cost of the project to the City;</td>
<td>$51 million of which $5-10 million may come from private investors at a 20% expected rate of return; remainder from taxable bonds issued by City.</td>
<td>“The City would not have to provide or contribute assets beyond the existing system or facility locations…We believe that the current assets if made available would provide appropriate leverage to complete the funding process.” Details to be further clarified.</td>
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