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October 3, 2007

SUBJECT: Letter of Clarification No.3
700/800 MHz Trunked Radio & Communication System for the Information Technology
Department

REFERENCE: Request for Proposal No.: S29-T22459

TO: All Prospective Proposers

This Letter of Clarification is issued for the following reasons:

• **The following questions and City of Houston responses are as follows:**

1. Volume 1, Section 8.6 – Terms, Conditions, Limitations and Exceptions “The City can combine or consolidate proposals or portions thereof for the purposes mentioned above.” Is it possible that the City would award the infrastructure to one proposer and the subscriber units to another proposers?

ANSWER: *The City is requesting full-system proposals; however the City may purchase user equipment separately if it is in the City’s best interest to do so.*

2. Volume 2, Section 3.0 - Will the City of Houston allow a vendor to propose a design that requires operation on and/or the Harris County Radio System in order to satisfy the 95% 20 dB in-building and/or the 95% 10 dB in-building coverage requirements, particularly in areas furthest from the City of Houston central area near the edges of the 20 dB and 10 dB boundaries?

ANSWER: *Not in the initial complete required primary system offering. The complete required primary system offering should include all necessary equipment and services to meet the City of Houston’s requirements as detailed in the RFP. As outlined in the RFP, in addition to the complete required primary system offering, the City has allowed proposers the flexibility to submit a secondary alternate system offering(s). This flexibility provides the latitude for proposers to be creative in meeting the City’s stated needs & requirements. The Primary system offering developed in conformance with RFP requirements is required, in order to submit a secondary offering.*

3. Volume 2, Page 1-1/1.1.1C - The RFP states the HAS had migrated to an Astro P25 v7.1 system integrated with the Harris County System. Questions:

a. Is the FCC license still in the City's Name? If so, what is the call sign?

ANSWER: *The Houston Airport System's 800 MHz FCC licenses are still in the City's name. The FCC call signs are: WPNW558 five YP channels, KNDH570 ten YO channels.*

b. Does the City own the new v7.1 infrastructure? If so, please provide block diagram, interconnection, and model numbers/quantities of all infrastructure equipment including consoles.

ANSWER: *The Houston Airport System (HAS) purchased radios and sites to move its operations to the Harris County SmartZone 4.1 Regional Radio System. The specific model numbers and quantities are not germane to this RFP. As indicated in A1, the complete required primary system offering should include all necessary equipment and services to meet the City of Houston's requirements as detailed in the RFP.*

c. Does the City own the three present and near-term repeater sites? Can we get a site floorplan/diagram for each site?

ANSWER: *Interconnection diagrams are not currently available.*

***Note:** *Proposers should refer to Volume II Section 1.1 for details pertaining to the Houston Aviation System. All the questions asked can be found in this section.*

4. Volume 2, Section 3.0 - Will the City of Houston allow transfer of some of their assigned frequencies to the Harris County System for use on that system/sites to support the additional City of Houston traffic load when the City users must operate on the Harris County System due to the proposed design to satisfy the coverage requirements?

ANSWER: *The City has no plans to transfer frequencies to other agencies. As indicated in A1, the complete required primary system offering should include all necessary equipment and services to meet the City of Houston's requirements as detailed in the RFP.*

5. Volume 2, Section 3.0 - Will the City of Houston allow a vendor to propose a design that requires operation on the Harris County Radio Systems at the three Houston Airports in order to satisfy the coverage requirements on the airport and particularly within the required or Mandatory buildings on each airport identified in the RFP?

ANSWER: *Please refer to A1.*

6. Volume 2, Section 3.0 - Will the City of Houston allow transfer of some of their assigned frequencies to the Harris County System for use on those system/sites to support the additional City of Houston traffic load when the City users must operate on the Harris County System due to the proposed design to satisfy the coverage requirements at each airport?

ANSWER: *Please refer to A3.*

7. Volume 2, Page 1-1/1.1.1C - The RFP states the HAS has installed a Distributed Antenna System (DAS) at IAH. Questions:
- a. Does the City own the new DAS system? If not, please state ownership and point of contact. (i.e. Sprint consortium, name, telephone)?

ANSWER: *Sprint (In-Building Solutions) POC. Gustafson, James R [NTK] [mailto:James.R.Gustafson@sprint.com] or Jeffrey Wagner (Project Manager) Infinigy Engineering, jwagner@infinigy.com, cell 262/388-0606.*

- b. Can the City provide a block diagram, make, model, and full design engineering plans of the DAS system located at the IAH?

ANSWER: *Not at this time. System acceptance has not been performed, awaiting completion of system in Terminal E and upgrades to the existing system in all other terminals.*

- c. Does the City plan to extend the DAS to terminal E?

ANSWER: *Yes.*

- d. Can the City provide the technical details of the proposed tap in 1.1.2B?

ANSWER: *Please reference 1.1.2B in the RFP for answer.*

- e. Can the City provide coverage test details of the new DAS to include all areas including tunnels?

ANSWER: *No, System has not been accepted. Acceptance testing for the DAS will be performed after Terminal E is completed.*

8. Volume 2, Page 1-1/1.1.1C - We understood the HAS installed a BDA in IAH to support the old 800MHz trunking system that was decommissioned. Questions:

- a. Is this old BDA system still in operation, or was it incorporated into the current DAS?

ANSWER: *All BDA's have been decommissioned on the "Old in-building System".*

- b. Can the City provide a block diagram, make, model, and full plans of the old BDA system located at the IAH?

ANSWER: *System is not in use. Diagrams are not available at this time.*

9. Volume 2, Page 1-17/1.2.4F - With relocation of Fire Dispatch to the HEC Center, new redundant optical fiber service has been provided by Southwestern Bell. True route diversity on the Southwestern Bell fiber has not been confirmed by the City. To help ensure redundant connectivity, the City is planning to construct a new self-supporting radio tower at the HEC Center and implement digital microwave links between the dispatch center, 61 Riesner (HPD), and One Shell Plaza. The microwave connectivity should be in place by mid 2008.

Can this system be used as part of the new design, if yes, the following requests and questions apply.

Requests:

1. Please provide a tower drawing showing the current space usage and loading on the tower.

ANSWER: *The City is currently in the process of finalizing the scope of work for the development of the new tower at the HEC and the associated three hop ring microwave system. Drawings of the actual tower are not currently available; however, the tower plans do include space for the three-hop ring system in the vicinity of the 100' to 150' level on the tower. To help minimize system costs, the City envisions making this microwave system available to support connectivity between the HEC, One Shell Plaza and 61 Reisner, subject to capacity limitations.*

2. Please provide a block diagram of the Fiber Optics system.

ANSWER: *A block diagram of the fiber network will not be provided at this time.*

3. Please provide a block diagram of the Microwave system.

ANSWER: *A block diagram of the microwave system is not currently available.*

Questions:

- a. Will the tower support additional loading for the system being proposed?

ANSWER: *The City has estimated the forecasted antenna system loading likely to be imposed by the new trunked radio system and other systems that may occupy space on the new tower. That information has been included in the estimated tower load for designing the new HEC tower. The procurement of that tower is not part of the trunked radio project.*

For planning purposes, proposers shall provide a breakdown of the equipment they plan to install on the HEC tower in their proposal so that the City can compare the proposed loading with that expected and planned for.

- b. Is there unused circuit capacity in the Fiber Optics system that can be utilized for the system being proposed?

ANSWER: *The City's optical fiber network is provided by Southwestern Bell, now AT&T. The contract for that service ends in five years. It is currently unknown whether or not the City will extend that contract.*

As indicated in A1, the primary system offering shall be based on a microwave system as outlined in the RFP. Alternate system offerings may utilize other means of system connectivity.

- c. Is there unused circuit capacity in the Microwave system that can be utilized for the system being proposed?

ANSWER: *There will likely be spare capacity on the new three hop ring microwave system that runs from the HEC to 61 Reisner to One Shell, to HEC. The current capacity of that system is initially planned to be OC-3 with Ethernet and T1 capability. It should be noted that this microwave system is still in the planning stage and such information is subject to change. The proposals should indicate specific capacity required and what format.*

10. Volume 2, Page 1-35/1.4.1A - Does the City prefer retaining the existing PW&E system as an independent system? If so, does the City want to use the other new systems to augment the coverage of the primary single-site system? If not, can we integrate the existing 800MHz RF channels into the new system, assuming an acceptable migration plan?

ANSWER: *As indicated in A1, the complete required primary system offering should include all necessary equipment and services to meet the City of Houston's requirements as detailed in the RFP. The intent is to develop a PW&E system that provides the coverage performance outlined in RFP Volume II Section 3 – Radio Coverage Performance. The current PWE frequencies can be incorporated into your system design as needed in order to meet the coverage required.*

11. Volume 2, Page 1-43/1.4.4C - We understand the PW&E 800MHz system is in the re-banding process. Questions:

a. Where is the City in the rebanding process? Can you provide the anticipated schedules for a signed FRA, and the anticipated frequency change completion deadline?

ANSWER: *We are in the process of finalizing the FRA that should be completed in the next 90 days no further information will be made available until the FRA is completed.*

b. Would the City provide a copy of the FRA once it is finalized?

ANSWER: *Yes. However, the City does not believe the FRA has bearing on the responses to this RFP. As indicated in A1, the complete required primary system offering should include all necessary equipment and services to meet the City of Houston's requirements as detailed in the RFP.*

c. Would the City consider a "fast track" option to allow the rebanding upgrade of the existing 800 MHz system and terminals to a Project 25 platform, more importantly, the ability for those terminals to be upgraded at a later date to support Phase 2 technology?

ANSWER: *Yes. However, the City does not believe this has any bearing on the responses to this RFP. As indicated in A1, the complete required primary system offering should include all necessary equipment and services to meet the City of Houston's requirements as detailed in the RFP.*

12. Volume 2, Page 1-43/1.4.4C – Can you provide the exact quantity, by model number and features, of the proposed replacement radios to be provided as a result of re-banding? Can you also include both user radios and infrastructure units in this response? Is there a plan for these radios to be Phase 2 upgradeable?

ANSWER: *No. This information is not applicable to this RFP. Proposers should refer to RFP Volume II, Section 1.4.1 for current totals of mobile and portable radios for the purpose of their complete required primary system offering.*

13. Volume 2, Page 1-9/1.2.3G - Can the new "backup" 800MHz trunking system be used in the new system design or does the city prefer a new state-of-the-air system? If yes, can the city provide the block diagram of the new "backup" 800MHz trunking system including the model numbers and connectivity?

ANSWER: *The City is not currently developing a new 700 / 800 MHz trunked system as a separate project.*

14. Volume 2, Page 2-4/2.1.1O, Page 2-12/2.2.2D, Page 3-1/3.1F, Page 7-6/7.2.1E, & Page 13-7 through 13-12/13.7a-13.10A - RFP Section 2.1.1O specifies the ability for the proposed system to be upgradeable to Project 25 Phase 2 capability. Subsequent sections in 2.2.2D, 3.1.F, 7.2.1E, and 13.7A through 13.10A ask for detailed explanations of what impact the migration towards this new technology platform will have on the coverage, infrastructure, and terminal equipment. When the specification refers to Project 25 Phase 2, does this specifically mean the 12 kbps two-slot TDMA "Harmonized" proposal that was approved by the P25 Steering Committee in April 2007, and is currently being standardized within the APCO P25/TIA TR-8 subcommittees?

Will an interim proprietary TDMA solution be acceptable if the P25 Phase 2 standards are not complete in time?

ANSWER: *When the specification refers to Project 25 Phase 2, it refers to the 12 kbps two-slot TDMA "Harmonized" proposal that was approved by the P25 Steering Committee in April 2007. An interim solution that is not fully Phase 2 compliant will be evaluated based on its merits.*

15. Volume 2, Page 7-15/7.2.4 - Can the City please identify all of the "fixed locations" where radio operations are required? Will an interim proprietary TDMA solution be acceptable if the P25 Phase 2 standards are not complete in time?

ANSWER: *The City believes that the first part of this question deals with the locations of control stations. A listing of the quantities of control stations has been provided. Detailed information about all locations is not currently available.*

Regarding the interim Project 25 part of the question, an interim solution that is not fully Phase 2 compliant will be evaluated based on its merits.

16. Volume 2, Section 14 - It would be extremely helpful and expedite the proposal development effort if vendors could have the pricing pages in MS Word or MS Excel format. Will the City please provide those to the vendors?

ANSWER: *The City will provide the pricing pages in at least one of the two requested formats to help facilitate proposal development.*

17. Volume 2, Section 13.1.17 - This section of the RFP requires that Attachment A and C of Exhibit VII be included as part of the vendors' proposal. Please clarify that Attachment B is not required to be submitted with the vendor's proposal.

ANSWER: *We are uncertain of exactly which attachment is being referenced in this question. If the question is regards to "Attachment B" on page 28 of 55 in Volume I of the RFP then our answer is "YES" it is required.*

18. Would it be possible to get a plan holders list for bid no. T22459 – Trunked Radio and Communications System.

ANSWER: *The City will not be utilizing a plan holders list.*

**LETTER OF CLARIFICATION 3
700/800 MHz TRUNKED RADIO & COMMUNICATION SYSTEM
SOLICITATION NO. S29-T22459**

When issued, Letter(s) of Clarification shall automatically become a part of the proposal documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. It is the responsibility of the proposers to ensure that it has obtained all such letter(s). By submitting a proposal on this project, proposers shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this proposal.

If you have any questions or if further clarification is needed regarding this Request for Proposal, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Douglas Moore". The signature is written in a cursive, flowing style.

Douglas Moore
Division Manager
City of Houston, Strategic Purchasing Division
713-247-1073

END OF CLARIFICATION NO. 3