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**BID # 2015-51
RADIO SYSTEM/SUBSCRIBER EQUIPMENT
WILL COUNTY**

**NOVEMBER 7, 2014
ADDENDUM #2**

We received the following questions and have provided answers below for the bid noted above:

Question #	RFP Section	Question
1.	Section 9.0 Existing Will County Infrastructure Equipment Page 28	<p>The County states in this section that the proposed system will have no queuing but state in the Introduction of the RFP (page 3) that the system is to have sufficient channels to provide less than 2% Blocking. In addition, in Section 3.0 (page 9) the County identifies that the system loading can have a maximum allowable delay of two seconds, both requirements imply that call queuing is present. Is the traffic loading design requirement for the system a 2% Grade of Service with queuing up to two seconds acceptable?</p> <p>RESPONSE: Proposer shall estimate the system capacity, and present details of the analysis. The analysis shall be based upon the equations known as "Erlang C ("blocked calls held"). All calculations shall be based upon the use of 8 channels.</p> <p>Proposer shall assume a call arrival rate of 625 active users during busy hour times 5 calls per user. Proposer shall assume an average call duration of 3.5 seconds plus any required call setup time plus any planned "hang time," plus any other applicable time in which the channel is unavailable for assignment. Proposer shall base the analysis on the proposed number of talk paths. Proposer shall also provide an analysis based on the proposed number of talk paths less 25 percent (in anticipation of failures, interference, etc.) Results of the analysis shall include, at a minimum, the following:</p> <ol style="list-style-type: none"> 1. Probability of an arbitrary call being delayed (by any amount of time greater than 0), expressed as a percentage (equivalent to Grade of Service) 2. Probability of an arbitrary call being delayed greater than 2 seconds, expressed as a percent. 3. Probability of a delayed call being delayed greater than 2 seconds, expressed as a percent.
2.	Section 9.0 Existing Will County Infrastructure Equipment Page 29	<p>The County states that the Contractor shall furnish and install new antenna systems specifically designed to meet the County's coverage requirements on page 29. On page 28, the County desires/encourages the Contractor to reuse the dbSpectra combiners and TX/RX TTAs/multicouplers installed recently for the Nextel rebanding of the system. Would the County revise the requirement to furnish and install new antenna system to allow for the reuse of the dbSpectra combiners and TX/RX TTAs/multicouplers in the antenna system design?</p> <p>RESPONSE: "New antenna systems" specifically refers to the physical antennas and transmission lines required to meet system design requirements.</p>

Question #	RFP Section	Question
3.	Section 9.0 Regional Interoperability via Project-25 ISSI Page 30	<p>Would the County identify the number of other P25 Systems that it intends to interface to with the new P25 System? Would the County also identify the number of interface talkpaths desired per P25 System interface connection?</p> <p>RESPONSE: the County requires the capability to interface to two (2) other P25 Systems via ISSI. The County requires 48 talkpaths.</p>
4.	Section 9.0 Regional Interoperability via Project-25 ISSI Page 30	<p>Would the County identify the number of other P25 Console Subsystems that they intend to interface to with their new P25 System? Would the County also identify the number of interface talkpaths desired per P25 Console Subsystem interface connection?</p> <p>RESPONSE: the County requires the capability to interface to two (2) other P25 System via CSSI. The County requires 48 talkpaths.</p>
5.	Section 10.0 Service Area Page 31	<p>The description of Digital Voice Quality (DAQ) in this section does not match the definition for either DAQ 4.0 or for DAQ 3.4. Would the County change the description to match the definitions presented in TSB-88?</p> <ul style="list-style-type: none"> • DAQ 4.0: Speech easily understood. Occasional Noise/Distortion. • DAQ 3.4: Speech understandable with repetition only rarely required. Some Noise/Distortion. <p>RESPONSE: The definition of DAQ is hereby revised:</p> <p>Delivered Audio Quality Subjective Performance Description</p> <ul style="list-style-type: none"> • DAQ 5.0 Speech easily understood. • DAQ 4.5 Speech easily understood. Infrequent Noise/Distortion. • DAQ 4.0 Speech easily understood. Occasional Noise/Distortion. • DAQ 3.4 Speech understandable with repetition only rarely required. Some Noise/Distortion. • DAQ 3.0 Speech understandable with slight effort. Occasional repetition required due to Noise/Distortion. • DAQ 2.0 Understandable with considerable effort. Frequent repetition due to Noise/Distortion. • DAQ 1.0 Unusable, speech present but unreadable.
6.	Section 10.0 Coverage Acceptance Criteria Page 32	<p>Please change 97% coverage in “while still meeting the overall goal of 97% coverage” to “97% coverage for mobile communications and 95% coverage for portable communications” as called out on page 31.</p> <p>RESPONSE: Coverage acceptance criteria clarification: “97% coverage for mobile communications and 95% coverage for portable communications within the boundaries of Will County.”</p>
7.	Section 10.0 In-Building Coverage Page 32	<p>Please provide the following information for the buildings identified in the list of critical buildings:</p> <ul style="list-style-type: none"> • Addresses and latitude and longitude coordinates for each building. • Identify if each building currently has 800 MHz BDAs or 800 MHz passive systems installed in them • Identify what the coverage requirement is for each building. <ul style="list-style-type: none"> ○ Is the coverage percentage identified in the table the desired coverage requirement or the current coverage that is present in the building? <p>RESPONSE: Please refer to information provided in Addendum #1, Attachment 1 for addresses/ coordinates and BDA information. The coverage percentage identified in the table is the current coverage. The expectation is for the new system to either meet or exceed the present in-building coverage provided by the existing BDA's.</p>

Question #	RFP Section	Question
	Section 10.0 Coverage Acceptance Criteria Page 33	Please define the cities, business districts, and governmental area that require test grids to be no greater than 400 ft x 400 ft. Please provide boundaries in GIS form for these coverage areas. RESPONSE: Included. Refer to Attachment 1 and 2.
8.	Section 10.0 Coverage Acceptance Criteria Pages 34 & 35	The description of Digital Voice Quality (DAQ) in this section does not match the definition for either DAQ 4.0 or for DAQ 3.4. Would the County change the description to match the definitions presented in TSB-88? <ul style="list-style-type: none"> • DAQ 5.0: Speech easily understood. • DAQ 4.0: Speech easily understood. Occasional Noise/Distortion. • DAQ 3.4: Speech understandable with repetition only rarely required. Some Noise/Distortion. • DAQ 3.0: Speech understandable with slight effort. Occasional repetition required due to Noise/Distortion. • DAQ 2.0: Understandable with considerable effort. Frequent repetition due to Noise/Distortion. • DAQ 1.0: Unusable, speech present but unreadable RESPONSE: Please refer to the response to question 5.
9.	Section 10.0 Coverage Acceptance Criteria Page 35	Please change “Ninety-seven percent (97%) of grids tested must meet or exceed these defined requirements” to “Ninety-seven percent (97%) of grids tested for mobile communications and ninety-five percent (95%) of grids tested for portable communications must meet or exceed these defined requirements” as called out on page 31. RESPONSE: After the DAQ chart, the sentence shall read: “Ninety-seven percent (97%) of grids tested for mobile communications and ninety-five percent (95%) of grids tested for portable communications must meet or exceed these defined requirements.”
10.	Section 11.0 Coverage Acceptance Criteria Page 40	Please define the current capacity and configuration of the NICE logging recorder. <ul style="list-style-type: none"> • Trunked talkgroups • Conventional channels • 911 telephone lines RESPONSE: The current system records 48 talkgroups and 16 conventional radio channels.
11.	Section 2 Training and Maintenance	How many maintenance technicians require training? How many dispatch personnel will require console training? RESPONSE: Maintenance technicians: 3 Dispatch personnel: 50
12.	Pre-Bid Conference	Does the County wish to have the price of AES and DES included in the infrastructure and radios? RESPONSE: The County has requested that AES/DES be included in the infrastructure and subscriber equipment as defined in Section 3, “Encryption” Page 10, and Section 5.0, Page 13. The price can be shown as a separate line item or included in the quoted system and subscriber equipment pricing.
13.	Pre-Bid Conference	Does the County wish to have Phase 2 priced into the subscribers? RESPONSE: “Proposed mobile radio equipment must comply with APCO minimum recommendations and EIA/TIA standards for Project-25 Phase I and Phase II, Public Safety 800MHz trunked radio systems.” Pricing for Phase 2 equipment shall be provided.

Question #	RFP Section	Question
14.	<i>Pre-Bid Conference</i>	<p>Is our quote to include tower remediation money?</p> <p>RESPONSE: the Proposer is to provide budgetary estimates for any tower remediation based upon observed tower condition.</p>
15.	<i>Pre-Bid Conference</i>	<p>Please describe the detail which the County would like to see noted on the coverage maps.</p> <p>RESPONSE: Coverage maps shall indicate (1) signal strength coverage at -90 and -100 dBm, for talk-in and talk-out conditions to a portable-on-the-hip; (2) coverage meeting the less-than 2% BER requirement. All parameters used to develop signal strength coverage maps shall be provided (as defined on Page 33).</p>
16.	<i>Pre-Bid Conference</i>	<p>Can the existing EFJ equipment be re-located as part of a new system?</p> <p>RESPONSE: The Proposer shall identify any and all equipment that might need to be relocated to accommodate the new P25 equipment.</p>
17.	<i>Section 9.0 Infrastructure System Configuration</i>	<p>Please clarify coordinates for Wilmington. The coordinates in the RFP put that site outside the County, about nine miles from Wilmington. The coordinates of the address (1165 S. Water St.) are 41-17-43N, 88-08-15W.</p> <p>RESPONSE: Please refer to information provided in Addendum #1.</p>

ATTACHMENT 1

City Boundaries - For 400x400 Grid Testing

Godley		.39 mi2	
41.2383	41.2455	10764090 ft2	400x400
-88.2454	-88.2359		160,000 ft2
41.2306	41.2309		
-88.2451	-88.2354		
			whole county
			23731555500 ft2
Braidwood		5.06 mi2	
41.2886	41.2900	141161950 ft2	
-88.2470	-88.1794		
41.2596	41.2603		
-88.2461	-88.2169		
Wilmington		3 mi2	
41.3298	41.3303	82256760 ft2	
-88.1542	-88.1329		
41.2909	41.2911		
-88.1508	-88.1304		
Homer glen		10.75 mi2	
41.6427	41.6447	300283440 ft2	
-87.9804	-87.9118		
41.5986	41.6000		
-87.9782	-87.9105		
Joliet	Ingalls Park	1.1 mi2	
41.5293	41.5298	31633800 ft2	
-88.0434	-88.0240		
41.5131	41.5136		
-88.0427	-88.0237		
Joliet	Ridgewood	1.3 mi2	
41.5330	41.5472	36604850 ft2	
-88.0576	-88.0247		
41.5287	41.5298		
-88.0573	-88.0242		

Frankfort Square		10 mi2
41.5533	41.5513	280078577 ft2
-87.8535	-87.7923	
41.5064	41.5060	
-87.8498	-87.7910	
Crete area		33 mi2
41.4697	41.4700	918153620 ft2
-87.6744	-87.5258	
41.4058	41.4072	
-87.6703	-87.5261	
Beecher		5.25 mi2
41.3697	41.3700	147266977 ft2
-87.6405	-87.5878	
41.3408	41.3410	
-87.6407	-87.5924	
Bolingbrook		5.75 mi2
41.7283	41.7288	161123920 ft2
-88.0691	-88.0306	
41.6989	41.6988	
-88.0679	-88.0295	
Naper/Aurora		5.9 mi2
41.7091	41.7097	165465540 ft2
-88.2609	-88.2057	
41.6797	41.6805	
-88.2606	-88.2046	
Channahon		8.2 mi2
41.4628	41.4639	228940000 ft2
-88.2517	-88.1967	
41.4197	41.4256	
-88.2505	-88.1945	

If there are any questions regarding this information, please contact Rita Weiss.

ATTACHMENT 2

