July 2, 2021

Dear Sir/Madam:

Attached is Addendum No. 7 to SEPTA’s Two-Step Procurement Solicitation 20-00554-ATMM - Computer Aided Radio Dispatch System

The deadline for receipt of technical proposals remains unchanged as Tuesday, August 24, 2021, at 1:00 P.M. Additional questions must be submitted in writing to tmoiani@septa.org no later than 1:00 P.M. on July 23, 2021, to guarantee an answer.

Any inquiries regarding this opportunity must be directed to Thomas Moiani of the Procurement, Supply Chain & DBE at tmoiani@septa.org.

Sincerely,

Thomas Moiani
Contract Administrator
Procurement, Supply Chain & DBE
Two-Step Procurement 20-00554-ATMM: Computer Aided Radio Dispatch System

To All Bidders:

The following constitutes Addendum No. 7 to SEPTA Solicitation 20-00554-ATMM, Computer Aided Radio Dispatch System.

This Addendum must be acknowledged by inserting the date of this Addendum next to “No. 7” in the Response Form entitled “Addenda”. Failure to do so may render your bid as non-responsive.

Questions, Answers, and Clarifications issued with this Addendum are hereby incorporated by reference and made part of the Terms and Conditions of this project.

A. General

1. Additional site visits to inspect and verify existing site conditions is scheduled July 12 to 16, 2021. See the response to Question 60 for additional information.
2. The date to submit additional questions in writing to tmoiani@septa.org has been changed from 1:00 P.M., July 14, 2021 to no later than 1:00 P.M. on July 23, 2021, to guarantee an answer.
3. Exhibit 4 Positive Train Control Frequencies is provided in response to question 62.
4. Answers to a question submitted is hereby incorporated by reference and are made part of the requirements of this bid. Questions submitted which are not included will be answered in a future addendum.

B. Specifications

1. Volume 3 Page 13342-41, has been replaced with Volume 3, Page 13342-41 Rev 1 in response to question 3.
2. Volume 3 Page 13352-9 has been replaced with Volume 3, Page 13352-9 Rev 1 in response to question 11.
3. Volume 3 Page 13700-20 has been replaced with Volume 3 Page 13700-20 Rev 1 in response to question 40.

C. Drawings

1. Drawing ES-1000 sheet 3 has been replaced with Drawing ES-1000 sheet 3 Rev 1 in response to questions 50.
1. **Question**  
Section 13342, Item 1.14.A: Can SEPTA confirm that Trapeze FX includes a unique ID to identify detours in their TSDE export? If not, will SEPTA remove this requirement, as it is impossible to determine a detour from the real route?

**Response**  
SEPTA will discuss in the design phase after selecting the winning bidder.

2. **Question**  
Section 13342, Item 1.15.F: To address "rail stoppage", typically a bus bridge is used. Can SEPTA confirm that a bus bridge is an acceptable solution to address this item?

**Response**  
Confirmed. Section 13342, subsection 1.15, item F describes bus bridge requirements.

3. **Question**  
Section 13342, Item 1.26.G.6 This list includes "operator data". The Trapeze FX scheduling system does not provide operator information. Can SEPTA remove "operator data" from this requirement?

**Response**  

4. **Question**  
Section 13342, Item 1.26.H SEPTA requires that the CAD/AVL System utilize the standard GTFS and GTFS-RT interface protocol and format and RESTful APIs." This implies that the vendor will receive data from GTFS and GTFS-RT. Yet Item 1.26.H.3 implies that the vendor is to create a GTFSRT feed for SEPTA. Will SEPTA accept a solution that generates GTFS-RT data synchronized to the existing SEPTA GTFS data source?

**Response**  
Proposer shall integrate supplied CAD/AVL functions with real-time customer information systems through GTFS,GTFS-RT, and API's as stated in section 13342, subsection 1.1, item B.10.

5. **Question**  
Section 13342, Item 1.26.H Will SEPTA accept a solution where the vendor provides both GTFS static and GTFS-RT data feeds to replace any existing SEPTA GTFS or GTFS-RT data feeds?

**Response**  
SEPTA will discuss in the design phase after selecting the winning bidder.

6. **Question**  
Section 13342, Item 1.26.H If the vendor is to consume existing SEPTA GTFS and GTFS-RT data feeds, can SEPTA clarify how this data is to be used by the CAD/AVL system?

**Response**  
See the response to question 5.
7. **Question**  
Section 13342, Item 1.26.H  
Can SEPTA please confirm that the reference to Trapeze in this requirement is simply for accessing fixed-route schedule data? If not, can you please clarify the purpose to reference Trapeze?

**Response**  
Confirmed. Reference to Trapeze in section 13342, subsection 1.26, item H is for accessing fixed-route scheduling data.

8. **Question**  
Section 13342, Item 1.26.H  
The GTFS-RT interface in Volume 3 page 159 identifies "arrival a delay as a data item. "delay" is a GTFS-RT experimental and GTFS-RT interface is preferential to "time" over "delay". Will SEPTA accept "time" instead of "delay"?

**Response**  
Yes, however the arrival time should be the ETA estimated time arrival.

9. **Question**  
Section 13342, Item 1.26.H.1  
Will SEPTA accept a solution that replaces the existing RTPI system and would result in a state-of-the-art responsive website that ensures legibility without constantly changing the zoom level, as well as has many other features? If so, will SEPTA include the following verbiage?  
The vendor shall provide an RTPI system that includes:  
- Responsive website  
- Bus arrival predictions for the next 30 minutes with accuracy of:  
  - When prediction is., accuracy shall be.  
    - 0-5 minutes < 75 seconds  
    - 6-10 minutes < 120 seconds  
    - 11-20 minutes < 180 seconds  
    - 20-30 minutes < 240 seconds  
- Shall not require historical data to make accurate predictions  
- Allow administrator to enter, modify, delete service bulletins  
- Includes SMS and related services for one way and two-way texting  
- Shall come with built-in accuracy monitoring tool by SEPTA, by route and by route direction  
- Shall integrate into SEPTA website  
- Shall have tabular views and map screens  
- The website shall automatically update upon receipt of vehicle location with no user interaction  
- Allow ridership to subscribe and configure what data they want from the system  
- Support multiple quick and easy access to RTPI data including selecting a stop to see all vehicle arrivals for next 30 minutes, selecting a vehicle to see the arrival time of the bus stops for the next 30 minutes, as well as fly over capability.

**Response**  
Replacing the existing RTPI system is not part of the current requirements.

10. **Question**  
Section 13342, Item 1.26.L  
What is the CAD/AVL system required to do with the driver and vehicle information that comes from the RouteMatch system?

**Response**
The SEPTA CARD System shall be designed to meet all defined system requirements as stated in section 01010, section 1.01, item J.

11. **Question**  
   Section 13342, Item 1.26.N Can SEPTA provide the Processed_Export_Vehicles definition from the RouteMatch system?

   **Response**  
   Volume 3, Page 13352-9 has been replaced with Volume 3, Page 13352-9 Rev 1. The 2nd "Processed_Export_Drivers.csv is replaced with "Processed_Export_Vehicles.csv".

12. **Question**  
   Section 13352  Regarding RESTful APIs, can SEPTA confirm that the contractor is to provide the listed data to accommodate the interface to the existing SEPTA RTPI system? Will SEPTA accept a solution that utilizes the contractor's API?

   **Response**  
   SEPTA will prefer having the same APIs as referenced in the requirements. SEPTA will consider using the contractors APIs if they provide similar functionalities and datasets.

13. **Question**  
   Section 01300, Item 9  What is/are the deliverable(s) for FAI?

   **Response**  
   First Article Inspection requirements are stated in section 01300, subsection 1.09, item 9 and section 01400, subsection 1.07, item M.

14. **Question**  
   Will all Fixed Route systems (buses, Trolleys, NHSL, MSHL) have timetables and routes exported from Trapeze? Which services are combined in a given schedule and which are separate?

   **Response**  
   The Trapeze scheduling system currently creates files for multiple sign ups (City Bus, Callowhill Rail, Victory, Elmwood, Frontier & Contract Ops) which are imported and combined into the schedule that is used.

15. **Question**  
   Will all fixed route systems have the same source for employee information?

   **Response**  
   Yes, a csv file from the mainframe. Refer to Section 13342, subsection 1.26, item K. Authorized users shall have the ability to manually create, modify, and remove users.

16. **Question**  
   Will incident management be used by all transit modes?  
   a. If yes, are the forms and work flow the same or different?

   **Response**  
   All transit modes will use incident management. Forms and work flows will be provided to the winning bidder during the design phase.
17. **Question**
   Regarding Attachment ES-1000-1:
   a. Can SEPTA please clarify how many different bus builds were performed?
   b. Is each year different?
   c. Are there model years which are identical builds?
   d. Are there gaps where no buses were delivered for a particular model year?

   **Response**
   a. Within the current bus fleet, there have been 10 separate contracts to procure new buses for SEPTA:
      1) 2003-2004 40-Foot Diesel Buses (currently being retired) from New Flyer
      2) 2005-2006 40-Foot Diesel Buses from New Flyer
      3) 2008 40-Foot Trackless Trolley Buses from New Flyer
      4) 2008-2011 40-Foot Diesel-Electric Hybrid Buses from New Flyer
      5) 2013-2016 40-Foot & 60-Foot Articulated Diesel-Electric Hybrid Buses from Nova Bus
      6) 2016 30-Foot Diesel Midi Bus from New Flyer
      7) 2017-2021 40-Foot Diesel-Electric Hybrid Buses from New Flyer
      8) 2018 40-Foot Battery-Electric Bus from Proterra
      9) 2015-2017 Cutaway Paratransit Bus from Shepard Bros
     10) 2018-2020 Cutaway Paratransit Bus from Shepard Bros
   b. Within each contract, each model year is a production run of vehicles which are generally identical. However, from model year to model year there could be some changes to the vehicle, but typically no major design changes occur.
   c. Within each of the 10 contracts above, vehicles within that contract are generally similar, but not identical. As stated from model year to model year there could be some variation within the vehicles.
   d. Yes, based on a number of factors there are occasions where vehicles were not delivered to SEPTA in a calendar year, such as in 2012.

18. **Question**
   Drawing ES-1000-5       Sheet 5  CARD Radio and CAD/AVL Quantities  Should bidders assume and cost for template development for each identified "Group" on drawing ES-1000-5? If not; what is the desired number of templates that need to be developed?

   **Response**
   Yes. The most current information regarding the development of subscriber templates will be shared with the winning bidder. Refer to 13700-24 1.5.E

19. **Question**
   SECTION 16261-2 - 2.1.B B  Product Description: 480 volt input Uninterruptible Power Supply (UPS) with attached cabinet for 120/208 volt power distribution unit and K-13 shielded isolation transformer. Power distribution unit shall consist of two 42 pole 225 amp panels. Panel one shall be equipped with circuit breakers as shown on the contract drawings. Panel two shall be equipped with 42 spare 20 amp circuit breakers. Provide maintenance bypass switch. UPS shall be a double conversion unit with provisions to operate in economy mode to achieve 99% efficiency. Provide communications interface for alarms to connect to existing Site Scan system for remote monitoring.

   Can SEPTA please specify the locations where the 480V, 40KVA UPS unit is required?
20. Question
SECTION 16261-2 - 2.1.B B Product Description: 480 volt input Uninterruptible Power Supply (UPS) with attached cabinet for 120/208 volt power distribution unit and K-13 shielded isolation transformer. Power distribution unit shall consist of two 42 pole 225 amp panels. Panel one shall be equipped with circuit breakers as shown on the contract drawings. Panel two shall be equipped with 42 spare 20 amp circuit breakers. Provide maintenance bypass switch. UPS shall be a double conversion unit with provisions to operate in economy mode to achieve 99% efficiency. Provide communications interface for alarms to connect to existing Site Scan system for remote monitoring.

Is it acceptable to provide a smaller UPS at the transceiver sites which meets the requirements?

Response
Refer to 13700-8 Part 1-General, 1.2.T

21. Question
SECTION 13702 - 1.5.A The Motorola Astro 25 Core Network, WAN/LAN components, Simulcast Prime Site, all Servers, and associated sub-systems shall be connected to Contractor supplied DC power plants at the Contractor's proposed rack locations.

Our Master site servers, core network and the WAN/LAN equipment are AC powered. Is it acceptable to supply AC powered equipment for these components?

Response
Yes, provided the equipment is powered through a UPS capable of supporting the operation of said equipment for a minimum of 30 minutes under full load.

22. Question
SECTION 13703 - 1.2.C.m m One complete metering package and microphone common to all base stations at a single site shall be supplied. This includes a local speaker and volume control to monitor all on-channel signals.

As this function is typically seen in analog conventional base stations, can SEPTA remove this requirement?

Response
No, the requirement to monitor on-channel signals at a site remains. The bidder may propose alternate means in place of a metering package and microphone common to all base stations to fulfill this requirement.

23. Question
SECTION 13703 - 1.2.F.s S; (JP) Should be SECTION 13708 - 1.2F.10.s Provisions to control an existing SEPTA GUI-based digital instant-recall recorder shall be an integral part of each radio control. It shall have the following features:

What is the current provider for the SEPTA install recall recorder? Also, please provide software
version of the existing IRR solution.

Response
There is no existing, separate, GUI-based digital instant-recall recorder. The bidder is required to provide an instant recall recorder function for each radio dispatch console.

24. Question
Step-Two-Instructions-to-Bidders-and-Contract – 21 Steel Products Act The Commonwealth of Pennsylvania considers the requirements of the Steel Products Procurement Act to be met for federally funded projects with the federal Buy America Requirements. Can SEPTA remove the requirement as it was specified during the pre-bid that this is not a federally funded project? In our proposed solution, we will try to meet the intent of this specification, however some of the antenna mounts may require custom fabrication and become significantly more expensive if we need to comply with Steel Products Procurement Act.

Response
This is a state funded project. The contract must comply with the Steel Products Procurement Act per the Instruction to Bidders Item 21 and the Contract Exhibit I, SR-6.

25. Question
Drawings.PDF, Sheet 11, Microwave Drawing Per FCC filings there is an additional microwave link from 2nd & Wyoming to 1234 Market. Is that correct and is it being used?

Response
Yes, there is an existing license. It is currently not being used.

26. Question
Drawings.PDF, Sheet 42, 69ths & Frankford Coverage Maps The drawn boundaries extend beyond SEPTA-owned properties at the transportation centers. Can we assume only SEPTA properties need to be covered and tested?

Response
No, Refer to Volume 3, Section 13704, Part 1 General, 1.4 COVERAGE for specific coverage requirements.

27. Question
Drawings.PDF, Sheet 42, 69th St Map There are over a dozen structures at the 69th St transportation center. Do all structures need in-building coverage and coverage testing?

Response
Refer to Volume 3, Section 13700, PART 1 GENERAL, 1.2, F, 7 for a list of critical areas requiring coverage.; Also refer to the response to Question 19. in Addendum 5.

28. Question
13700-3 1.2 F.8 "The Contractor shall install two trunked remote 700MHz Tx/Rx Remote sites one each at the 15th Street passenger station (Broad Street Line) & Fairmount passenger station (Broad Street Line) to interface to the DCS system." In addition, Drawings.PDF, Sheet 33 indicates 12 channels for the new SEPTA trunked radio equipment for the DCS system.

Q1: Please confirm whether the two master sites (15th St and Fairmont) for the SEPTA DCS system should be remote sites for the 700 MHz simulcast cell with all 18 trunked channels, or
should they be a separate 2-site simulcast cell with 12 channels?

Q2: Are the 12 channels indicated in the Drawings.PDF Sheet 33 meant to be a subset of the 18 licensed channels or are there 12 additional licensed channels that SEPTA will provide?

Q3: Please confirm whether the two new SEPTA sites for the DCS system require the antenna systems to be located above ground or below ground?

**Response**

Q1: Confirmed, the two 700 MHz Simulcast transmit/receive sites at the 15th St. and Fairmont DCS Master Sites respectively should support all 18 trunked 700 MHz channels in the single simulcast cell.

Q2: No.

Q3: Per 13700-3 1.2.F.8, the two 700 MHz Simulcast transmit/receive sites are to interface to the DCS systems at each Master Site.

29. **Question**

Page 13700-3, 1.2.F.9 "The Contractor shall test each backhaul link to verify that the performance meets the Contractor's design requirements."

Q: If the existing/provided fiber backhaul does not meet our design requirements, will SEPTA remedy this?

**Response**

No. The Contractor will identify the specific parameters of the existing Fiber backhaul from existing sites along the ROW to 1234 Market St and 2nd & Wyoming that fail to meet the Contractor's design requirements. The Contractor will propose options for providing the required backhaul link(s) in their design, along with the impact on the SEPTA CARD radio system performance requirements of not having the backhaul link(s) in question.; Also refer to the response to Question 80 in Addendum 4.

30. **Question**

Page 13700-6, 1.2.F.26 (and Page 13703-29, 1.11.J.1) Q: Are all vehicle and console backup radios to be dual UHF + 700, or just revenue vehicle radios?

**Response**

Refer to the table in Drawing ES-1000-5 for the quantities of subscriber radio units required by "OR EQUAL" radio type (columns) and SEPTA group (rows). Also refer to 13700-6, 1.2.F.26 as stated.

31. **Question**

Page 13700-20, 1.2.F.13.C "The Contractor shall furnish one (1) new Verint Media Recorder v15 on the 11th floor for 344 channels of analog recording to replace the existing v5 Bus, Police and Telephone Information Center loggers and the v4 CCT logger"

Q: Diagrams.PDF sheet 32: "Audio Logger New Configuration" shows the new configuration with all 3 of the Bus, Police and CCT loggers, but this requirement says to use 1 recorder to replace 3. Can you verify which is correct?
Response
SEPTA is moving from 4 separate recorders on the 11th floor of 1234 Market to a single recording solution of 344 channels. Contractor shall have a cutover plan to avoid losing recordings through the cutover; Refer to 13707-1 1.1 and 1.2 for additional details.

32. Question
Page 113700-24, 1.5.A
"The Contractor shall reference the drawing package for a table identifying departments and quantities for all replacement subscriber equipment and associated accessories."

Q: The Drawings package does not distinguish which radios should be upgraded, or which are already 700 MHz. Please provide that information.

Response
Refer to the table in Drawing ES-1000-5 Rev 1 included in Addendum 5 for the quantities of replacement subscriber radio units required by "OR EQUAL" radio type (columns) and SEPTA group (rows). Also refer to page 13700-4 1.2.F.10.

33. Question
Page 113700-24, 1.5.C "The contractor shall be responsible to reprogram and integrate the existing trunked control stations currently in use as the dispatch interface to the City of Philadelphia (COP) trunked radio system."

Q: how many City of Philadelphia control radios are located here (as backup for the ISSI)?

Response
The final configuration will consist of nine (9) control radios at 1234 Market St, 22nd Floor Penthouse, and another nine (9) control radios at 2nd and Wyoming in the Voter Room for a total of eighteen (18).; Also refer to 13700-22 1.3.J.1

34. Question
Page 13702-13, 1.6.C "The Contractor shall provision interfaces for up to 24 outside agencies via wireline or over-the-air (OTA) pickup."

Q: Where should the Interop Gateway located?

Response
(JP) Refer to 13700-18 1.3 H.9 for requirements. The current interop gateways are located at 1234 Market St and 2nd & Wyoming.; Also refer to 13700-22 1.3.J.1

35. Question
Page 13702-13, 1.6.C Q: Are analog to digital interop gateways required at only the UHF TX/RX sites stated in the RFP, or are there other sites which need interop gateways? How many interoperability channels are required per each interop gateway?

Response
Interop Gateways are required as stated in Volume 3 of the specifications. Refer to: 13700-18 H.9, and 13702-12 1.6,. Refer to 13700-18 1.3 H.9 for requirements for number of interoperability channels per interop gateway.; Also refer to 13702-13, 1.6.C.

36. Question
Addendum No. 7, 20-00554-ATMM

Page 13703-12, 1.10.A.1 "...backhaul supporting SEPTA's replacement 700 MHz, VHF and non-radio legacy T1 systems."

Q: What locations have VHF and/or non-radio legacy T1 systems?

Response
With regard to the microwave backhaul, all of the locations with existing microwave endpoints have VHF and/or non-radio legacy T1 systems. Also refer to 13700-22 1.3.J.1

37. Question
Page 13703-12, 1.10.A.1 "...backhaul supporting SEPTA's replacement 700 MHz, VHF and non-radio legacy T1 systems."

Q: How many T1's are located at each site for each system (700/VHF/T1)?

Response
Refer to Volume 3, Section 13706, 700 MHz Backhaul Requirements and specifically 1.3.B and Table 13706-1.

38. Question
Page 13704-10, 1.7.C "Radio System shall have a total calculated availability, including complete functional and hardware/software availability of 99.99%"

Q: is the 99.99% an aggregate of all subnetworks (radio, microwave, fiber, etc.).?

Response
Yes, the Radio System's total calculated availability includes all subsystems and subnetworks required for operation.

39. Question
Page 13704-10, 1.7.C What is the current reliability of the SEPTA fiber network?

Response
Refer to 13704-10 1.7.B

40. Question
Page 13707-2, 1.4.A "there are 9 local district recorders" which conflicts with 13700-20 13.f which states "SEPTA operates ten (10) local District logging recorders".

Q: Can SEPTA please clarify?

Response
Volume 3 Page 13700-20 has been replaced with Volume 3 Page 13700-20 Rev 1. The number of local District logging recorders is changed from ten to nine.

41. Question
Page 13703-12, 1.10.B "(microwave) bandwidth calculated supports traffic for the replacement 700 MHz P25 Radio System, existing VHF Conventional Analog System, SEPTA's existing legacy T1 non-radio systems and the existing SMARTNET UHF Trunked and UHF Conventional Systems during the transition".
Q: Can SEPTA please provide the current bandwidth of all existing/legacy systems?

Response
Refer to Volume 3, Section 13706, 700 MHz Backhaul Requirements and specifically 1.3.B and Table 13706-1.

42. Question
Page 13707-1, 1.1.E "Contractor shall provide new (additional) logging recorders at the 1234 Market St and 2nd & Wyoming to record all UHF / VHF voice channels and CAD VoIP channels and talk groups."

Q: Can SEPTA please provide the quantity of UHF/VHF voice channels and CAD VoIP channels and talk groups?

Response
The total quantity of UHF/Voice channels are included in the 344 channel logging recorder being added at 1234 Market St. Any CAD VoIP channels included in the bidder's proposed design + 20% should be included as well.

43. Question
Q: Can SEPTA provide a rough estimate of how long vendors will have to submit Step 2 from the time the vendor is made aware they were deemed "acceptable"?

Response
SEPTA expects to have four weeks between notification that a Qualifications package is deemed acceptable and the bid opening date.

44. Question
Page 13700-20, 13.D "The Contractor shall also furnish and install a new Verint Media Recorder v15 datacenter server on the 11th floor."

Q: how many analog or digital channels should this unit have?

Response
Refer to 13707-2 1.2 A.

45. Question
Page 13700-23, 1.5.B "The contractor shall be responsible to re-program all existing 700/800 trunked portable and control stations. The Contractor shall reprogram these radios to add additional new talk groups or frequencies required by the new SEPTA trunked radio system. These radios are currently in use and critical to the life safety nature of Police Operations, the Contractor shall include a plan to update the radios with minimal impact to the SEPTA Transit Police in the overall Transition Plan."

Q: A vendor cannot program a competitive vendor's subscribers. If the existing subscribers belong to another OEM, can reprogramming responsibility belong to SEPTA?

Response
The requirement stands as stated. SEPTA will work with the winning bidder to facilitate the reprogramming of existing radio subscriber units as required, but the winning bidder is responsible...
for getting it done.

46. **Question**  
   Page 13700-6, 1.2.F.30.d "The Contractor shall provide a total of eight (8) ISSI interfaces. ISSI interfaces shall be made to each of the following counties; Bucks, Montgomery and City of Philadelphia. The Contractor shall include equipment and integration costs for full ISSI functionality between the SEPTA 700 MHz System and the County/City Systems identified above. In addition, the Contractor shall provide equipment and Integration to future connections to the Counties of Chester, Delaware, the Delaware River Port Authority (DRPA)/PATCO and two (2) spare to be identified neighboring systems."

   Q: Can SEPTA please clarify whether the vendor needs to include connectivity and testing of the new SEPTA ISSI to each of the six ISSIs listed in the requirement, or will SEPTA and the individual agencies be responsible for the connectivity once the vendor provides the ISSI with eight interfaces? Will ten talkpaths per system connection be sufficient?

   **Response**  
   The winning bidder is responsible for the successful integration, connectivity, and testing of the SEPTA 700 MHz radio system ISSI to each of the six (6) named agencies named in the requirement and the two (2) to be identified neighboring systems.; An assumption of ten (10) talkpaths per external ISSI interface will be sufficient.

47. **Question**  
   Page 13704-4 1.3.4a This section requests coverage maps be provided at 24 x36 inches. This is contrary to the requirement in Step-One which indicates fold-out drawings of a maximum size of 11x17. Can SEPTA please clarify?

   **Response**  
   Coverage maps shall be printed on a paper size of 24 inches by 36 inches. All other fold-out drawings shall be of a maximum size of 11x17.

48. **Question**  
   Page 13700-3 1.2.7, 13704-5 1.4.A.2.c, 13711-13 1.17 F All these requirements state that mobile and portable in-building coverage is required in the critical locations. Can SEPTA provide an in-building penetration level in dB to design for?

   **Response**  
   Refer to the response to Question 19 in Addendum 5.

49. **Question**  
   If there are discrepancies between the Drawings.PDF quantities and Volumes 2/3 which haven't been addressed in the Q&A thus far, should the vendor assume that the Drawings.PDF quantities take precedence?

   **Response**  
   Per the Contract Section IV. CONFLICTS - ALL DUTIES TO CONTRACTOR TO BE CUMULATIVE DUTIES

   With respect to technical matters, all questions pertaining to the quality or quantity of any item of the Work, or to the extent of the Drawings and Specifications, or to conflicts or inconsistencies between the Specifications and Drawings shall be promptly submitted by the Contractor to SEPTA,
whose determination shall be final and binding upon the Contractor. SEPTA's interpretation shall be based on the following descending order of priority:

A. Agreement, and Change Orders
B. Special Conditions
C. Specifications
D. Drawings

50. Question

Drawings.PDF Sheet 5 - Network Management Systems This drawing shows a single microwave NMS at 2nd & Wyoming yet the Drawings.PDF Sheet 41 shows microwave NMS's at 1234 Market and 2nd & Wyoming.

Q: Please clarify how many microwave NMS terminals are required and where they should be located.

Response

Drawing ES-1000 sheet 3 has been replaced with Drawing ES-1000 sheet 3 Rev 1. The table is amended to include an additional MICROWAVE NETWORK FAULT MANAGEMENT SYSTEM (NMS) terminal at 1234 Market.

51. Question

Can vendor use one terminal for all three system management functions (system administration, network management system, and network security system) or does SEPTA require three separate terminals, one for each function?

Response

Separate terminals are required as indicated in Drawing ES-1000-sheet 3 Rev 1.

52. Question

Page 13700-14, 15, 1.3.G.5.o-q Letter o requires network management at 3 locations plus 10 laptops for remote use. Letter p requires 10 RPTUs. Letter q requires that the network management system shall be accessible at all remote simulcast sites via Contractor-provided RPTUs. Drawings Sheet 8, Table 4, requires 6 laptops for network management.

Q1: Can SEPTA please clarify if the 10 RPTUs noted in Letter p are the same as the 10 laptops noted in Letter o?

Q2: Can SEPTA please clarify if additional laptops/RPTUs are required if there are more than 10 remote simulcast sites per Letter q?

Q3: Can SEPTA please clarify the difference between the quantities in Letters o-q and the 6 laptops listed on Table 4 of the Drawings Sheet 8?

Response

Volume 3, Pages 13700-15 and 16, has been replaced with Volume 3, Pages 13700-15 and 16 Rev 1. Note that laptops intended for RPTUs are included within the overall laptop quantities of Table 4.

53. Question

Page 13700-16, 1.3.G.6.h "Remote terminals shall be provided by the Contractor at: 1234 Market St. 13th floor, Wyoming Dispatcher Desk, Wyoming Radio Room and Market East Server Room."
Drawings Sheet 8, Table 4, requires 6 laptops for system administration management.

Q: Can SEPTA please clarify if 4 laptops are needed per the 4 locations listed in the requirements above or if 6 laptops are needed per Table 4 of Drawings Sheet 8 for system administration management?

**Response**
Volume 3, Page 13700-15, has been replaced with Volume 3, Page 13700-15 Rev 1 and Volume 3, Page 13700-16, has been replaced with Volume 3, Page 13700-16 Rev 1.

54. **Question**
Page 13704-4 1.3.3a Previous requirements indicated that the mobile radios would need to support UHF and 700 MHz. In order to support that a multi-band antenna would be required which would not provide 3 dB of gain. While the coverage maps will show mobile antenna gain of 3 dB please clarify that the antennas for multi band mobiles are not required to be 3 dB

**Response**
The bidder is required to provide coverage maps for the parameters given in the specification at a minimum.

55. **Question**
Page 13704-5 1.4.2 b No height is specified for the portable unit. Please specify what height should be used for the portable coverage maps.

**Response**
Refer to 13704-5 1.4.A.2.b that requires "hip-level" antenna height.

56. **Question**
13702-13 1.6.D: "The existing trunked or conventional Radio Systems to be interfaced may operate in the VHF, UHF, 700/800 MHz, or 900 MHz frequency bands." "The existing trunked or conventional Radio Systems to be interfaced may operate in the VHF, UHF, 700/800 MHz, or 900 MHz frequency bands."

There is no evidence in the FCC database of 700/800/900 MHz channels licensed other than the 18 channels licensed for the new 700 MHz CARD system. Please specify which 700/800/900 MHz systems SEPTA is referring to, and please provide the channel counts, traffic loading impacts, electrical loading requirements and the sites they are located at.

**Response**
The specification section 13702-13 1.6.D refers to existing trunked or conventional Radio Systems belonging to other agencies outside of SEPTA.

57. **Question**
Is the "Drawing ES-1000-sheet 5 Rev 1.pdf" actually meant to replace the original Drawings.PDF Sheet 3?

**Response**
No.

58. **Question**
Can SEPTA provide details regarding the backup power available at each site? We would like to
confirm the UPS size and the current power load for the existing site equipment being supported.

**Response**

(JP) Refer to Addendum 6, Exhibit 3, Available Electrical and HVAC info at existing SEPTA Sites 20210609R001.pdf for available information on locations where 480V, 40KVA UPS units currently exist. Also refer to 13700-8 Part 1-General, 1.2.T.

59. **Question**

The specification for the card system called out for an intermod study, to be performed on all the current radio channel including the proposed new system. The bid package list all of the frequencies with exception of the Positive train control radio frequencies in the listing. Is it possible get the frequencies used in subway location only for those PTC units.

**Response**

The Positive Train Control Frequencies are provided as Exhibit 4 with Addendum 7.

60. **Question**

I am reaching out to you in regard to Addendum No.6, 20-00554-ATMM.

We're requesting access to the buildings listed below to conduct site surveys:

- 1234 Market St.
- 2nd & Wyoming,
- 15th Street
- Fairmount
- Bridge St. Tower
- ACC
- Victory Tower
- Roxborough
- Y100
- Bacton Hill
- 69th St. T.C.
- Fern Rock T.C.
- Bus/Trolley Depots

**Response**

Site visits to the requested locations will be from Monday, July 12 to Thursday, July 15, 2021. No SEPTA vehicles will be available to survey during these site visits. See documents “Site Visit 2 Itinerary” and “Site Survey Information” for additional information. Note, Covid 19 Safety Measures Update: masks are no longer required for Vaccinated Individuals at any outdoor environment. Masks are required at any indoor location with more than one person.

Please complete document “Site Visit 2 Attendee Response Form” and email the completed from to tmoiani@septa.org; no later than 1:00 P.M., Thursday, July 8, 2021.

**** End Addendum ****