

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES	
			J	1	15
2. AMENDMENT/MODIFICATION NO. 0009	3. EFFECTIVE DATE 26-Jan-2016	4. REQUISITION/PURCHASE REQ. NO. ACQR4034383		5. PROJECT NO.(If applicable)	
6. ISSUED BY NAVFAC MID ATLANTIC PWD MAINE - FEAD PORTSMOUTH PORTSMOUTH NAVAL SHIPYARD BLDG 59 PORTSMOUTH NH 03801-2032	CODE N40085	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. N40085-16-B-9314	
			X	9B. DATED (SEE ITEM 11) 03-Dec-2015	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  The purpose of this amendment is as follows: 1) To issue all RFIs 2) All other terms and conditions remain unchanged and in full, force and effect.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			TEL:	EMAIL:	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)		26-Jan-2016	

## SECTION SF 30 BLOCK 14 CONTINUATION PAGE

**SUMMARY OF CHANGES**

## SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

AMENDMENT 9 RFIS

Solicitation Number: N40085-16-B-9314

Project Name: R22 HVAC Replacement and Controls Upgrades, RM12-2962

Request for Information:

1. Are existing controls getting new graphics?

**Response: Yes**

2. Are existing controls not to be commissioned?

**Response: Controls need to be verified, existing HVAC systems do not need to be commissioned or balanced**

3. Are new equipment and controls to be fully commissioned (complete functional testing and graphic verification)?

**Response: Yes**

4. Bldg 44 shows only one sequence for the chillers are we to assume that both chillers will be controlled the same?

**Response: Yes Chillers are connected to separate systems. They will use the same sequence**

5. Bldg 300 points list and sequence are not provided for the VRF system please clarify.

**Response: All control and monitoring points provided in the VRF heat pump system shall be included and integrated into the headend. Intent is to monitor and control the system from the head end and remotely**

6. Bldg 306 points list provided does not match the provided schematic please verify which is correct. No VAV boxes are shown on the building automation riser do they exist in the building?

**Response: Correct, there are no VAVs being installed. Drawing will be updated on construction documents.**

7. There is no bacnet controller shown on the building automation riser for the new AHU in Bldg315 will there be one?

**Response: Note 1 for equipment schedule requires new equipment to be provided with a BACnet interface.**

8. Regarding the controls specification: we noticed that part of this project falls under ICS however Section 25 00 00 is missing in regards to the actual controller specifications. Will there be a Section 25 00 00 and is it going to be the same as the Specification for Bldg 86?

Response: No section 25 00 00 will be issued. Replaced with 25 10 10

The requirements for the controllers are

The BACnet controllers shall be fully programmable using graphical function blocks and Graphical Programming Language (GPL) natively within the environment via an embedded tool requiring only a web browser. Products requiring a licensed, off site, non-embedded programming tool are not acceptable.

Open source as referred to herein shall afford the owner freedom of choice and competitive bidding for the initial installation of the IAS and future system expansions and modifications not limited by contractor, vendor or networking protocol. No territorially restricted OEM brands, single vendor or "branch only" products are acceptable

9. Section 25 10 10.00 24, Pg. 18, Item 1.11, Recommended Divisions of Work: notes that when separate from the ICS contractor the controllers are to be installed by either Division 23, 26 or 33. In regards to the R-22 project should the controls be installed by Division 25?

Response: The division of work is to be determined by the prime contractor. Any contractor installing equipment shall be qualified to perform the work they are performing.

10. What division is responsible for supplying and installing and configuring the RF antennas?

Response: The division of work is to be determined by the prime contractor

11. Section 25 13 00, Pg. 16, Item 2.2.1.8 Monitors: The spec calls for a 24" monitor but drawing no. 12703569 shows (2) 32" monitors and a 54" situation screen. Which is correct?

Response: Monitors shall be two 32" and one 54" per workstation. Spec states "no less than 24 inches"

12. Section 25 13 00, Pg. 16, Item 2.2.1.8 Monitors: says that the refresh rate should be 70Hz, is this correct or should the refresh rate be the standard 60Hz?

Response: The specification is correct at 70Hz

13. Section 25 10 10.00 24 Pg. 1, Item 1.1 a "integrate existing legacy DDC controllers and/or provide new BACnet DDC controllers for equipment identified in the IAS drawings"; what are the specifications for any new controllers or I/O modules that may be needed?

Response: ROC #86 Response: The BACnet controllers shall be fully programmable using graphical function blocks and Graphical Programming Language (GPL) natively within the environment via an embedded tool requiring only a web browser. Products requiring a licensed, off site, non-embedded programming tool are not acceptable.

Contractor shall implement an open system that will allow multiple communication protocols and mechanical equipment from various suppliers to be integrated into a unified system in order to provide flexibility for expansion, maintenance, and service of the system. The PNSY shall be the named license holder of all software associated with any and all incremental work on the project.

Open source as referred to herein shall afford the owner freedom of choice and competitive bidding for the initial installation of the IAS and future system expansions and modifications not limited by contractor, vendor or networking protocol. No territorially restricted OEM brands, single vendor or "branch only" products are acceptable.

14. Section 25 10 10.00 24 Pg. 2, Item 1.1.1.1 i: The intent is to provide an open source ICS Tridium Niagara System, all controllers shall be fully programmable within embedded Niagara Workbench. What are the acceptable manufacturers for open source controllers?

Response: ROC #87 Honeywell WEBs was used as the basis of design. Other manufacturers that meet the requirements of "Open Source" as described herein would be considered acceptable. Controllers must be "Open Source" meaning that they are available from multiple contractors and or suppliers within the geographical are of the project. No territorially restricted OEM brands, single vendor or "branch only" products are acceptable.

15. Contractor Qualifications: Section 25 10 10.00 24 Pg. 17 Item 1.6.2:

a. Does the controls contractor need to be on listed on the product website dealer/contractor locator page and what which product websites are acceptable?

Response: ROC #88 If the control manufacturer has a web site that lists their authorized contractors then you must be on their website. If the manufacturer does not list their contractors on their web site you do not need to be listed, however you must have qualifications that comply with the statement of qualification requirements. Contractor will have to demonstrate that the manufacturer they represent does not go to market with territorially restricted products

b. How will PNSY enforce the "No Exemptions to this requirement will be allowed" portion of the contractor qualifications spec?

Response: Through approval of the submittals ROC #88

16. Section 25 10 10.00 24 Pg. 19 Item 1.12 Quality Assurance: it is indicated that Honeywell WEBs-Open or Tridium Vykon NiagaraAX Framework is the basis of design. Are those the acceptable products?

Response: Roc #89. Yes. They meet the intent of design for an open system

17. Section 25 10 10.00 24 Pg. 19 Item 1.13 Installers Qualifications: Installers experience with proposed product line. What will you accept for proof of experience and is it required as part of this bid?

Response: ROC #90. See solicitation N40085-15-B-6139 sections 0100 and 00800.

18. Section 25 10 10.00 24 Pg. 30 Item 3.1.1 Existing Conditions Survey: will there be an existing points list for existing DDC controllers that are required to be part of the N4 Front end?

**Response: ROC #91 Points will have to be migrated/integrated from existing controllers.**

19. Section 25 10 10.00 24 Pg. 33 Item 3.4.1 Coordination with Division 23, 26, and 33 Contractors: all new equipment is proposed as coming with BACnet cards. Is that the intent? And is division 23 responsible for carrying BACnet cards with the new equipment that they are proposing?

**Response: ROC #92 The intent is that the new equipment will communicate with the building controller over BACnet. If a piece of equipment does not have a BACnet capable communication device in accordance with div 23 specifications, then a BACnet communication card shall be added. The prime contractor shall decide which division these cards are carried in**

20. Section 25 10 10.00 24 Pg. 33 – Pg.35 Integration: Who is responsible for problems and issues found with existing control systems during the integration of that system?

**Response: AE ROC #93 Found problems are to documented and reported in RFI format to the contracting officer**

21. Existing control systems within buildings, is the intent to replace the JACE and re-create the logic within the Niagara front end or is it to add a second JACE and monitor points and leave the existing front end "as is"?

**Response: ROC #94. The intent is to replace the JACE and transfer/reprogram the program from the old JACE to the new JACE.**

22. Is the intent to replace all existing JACEs with J-8000 regardless of the existing JACE's ability to upgrade to N4?

**Response: AE ROC #95. Yes, the intent is not to have outdated controllers that no longer are being supported by their manufacturer**

23. Section 25 13 00 Pg. 2, Item 1.1.1.3 Niagara Framework Requirements: state that the UMCS shall use the Niagara Framework. Is this binding? Please list the approved "or equal" front-end supervisors that NAVFAC will accept as an alternate.

**Response: AE ROC #96. The Niagara framework by Tridium was the basis of design. Any supervisor frontend that is capable of performing the same functions of the Niagara framework would be acceptable. No territorially restricted OEM brands, single vendor or "branch only" products are acceptable**

24. Section 25 13 00 Pg. 19, Item 2.3.7 Monitoring and Control (M&C) Software: "The software shall be Niagara Framework AX Web Supervisor or Equivalent" and "software shall communicate with Niagara Framework Field control systems using the FOX protocol." Please list the acceptable "or equal" software that will communicate to the field level devices using the FOX protocol.

**Response: AE ROC #97 The Niagara framework by Tridium was the basis of design. Any supervisor frontend that is capable of performing the same functions of the Niagara framework would be acceptable. No territorially restricted OEM brands, single vendor or "branch only" products are**

acceptable Communications protocol will be dictated by front end supervisor capability. Niagara is the basis of design

25. Section 25 13 00 Pg. 13, Item 1.5.2 Contractors Qualifications: "The installer shall be a Honeywell Niagara AX Partner" and "Programmer shall have successfully completed the Niagara AX Certification Training Course and be certified." Are contractors not meeting this specification acceptable?

Response: AE ROC #98. Due to the addendum requiring Niagara or equal, the following is required.

Contractor shall implement an open system that will allow multiple communication protocols and mechanical equipment from various suppliers to be integrated into a unified system in order to provide flexibility for expansion, maintenance, and service of the system. The PNSY shall be the named license holder of all software associated with any and all incremental work on the project.

Open source as referred to herein shall afford the owner freedom of choice and competitive bidding for the initial installation of the IAS and future system expansions and modifications not limited by contractor, vendor or networking protocol. No territorially restricted OEM brands, single vendor or "branch only" products are acceptable.

Successful bidder shall demonstrate to the owner via an integrator locator website that there are multiple integrator service providers and vendors in the project geographic area to choose from. No exceptions to this requirement will be allowed

26. Several Items within the specification refer to contractor qualifications; what is PNSY requiring for proof of Primes and Subs ability to meet contractor qualifications as part of the bid package on 1/27/16?

Response: See solicitation N40085-15-B-6139 sections 0100 and 00800.

27. 01 45 00.00 20 requires a QC Manager for this contract, as this project involves multiple building sites that could potentially be worked concurrently please confirm that only one QC Manager is required for the project as long as we maintain the execution requirements of our QC Plan.

Response: One QC for the project is acceptable

28. 01 35 26.00 22 requires a "Safety oversight team that includes a minimum of one (1) Competent Person at each project site to function as the Safety and Health Officer", as this project involves multiple building sites that could potentially be worked concurrently please confirm that only one SSHO is required for the project as long as we maintain the execution requirements of our Safety Plan. Requiring multiple SSHO personnel will increase the cost of this project markedly.

Response: One SSHO for the project is acceptable

29. Drawing Sheet 116 of 550, Building 43 A1.0 indicates in general note 8 says to see A1.1 for shaft and chase enclosure information. Drawing Sheet 4 of 506, A1.0 is a general drawing with notes for shaft and chase details. Is a shaft or chase wall required in building 43? If so where is it to be located? What is the dashed box on the workstation on drawing Sheet 116, A1.0, detail A3?

Response: The general drawing for shaft and chase details is provided for any building where shaft and chase are required. Contractor shall determine applicability during installation. The dashed line indicated file cabinets below.

30. Drawing Sheets 50 and 53 of 506, Building 22, MD2.0 indicates to remove a concrete pad and M2.0 indicates to extend a concrete pad for the ACCU. The civil sheets C1.0 and C2.0 indicate they have been removed from the project. Please confirm one ACCU foundation gets removed and one ACCU foundation gets extended?

**Response: Drawing MD2.0 indicates the smaller northern pad shall be removed and the larger southern pad shall remain. New equipment shown on M2.0 shall be placed on the larger southern pad. It is not expected for the existing pad to be increased in size**

31. Drawing Sheet 340 of 506, Building 299, M2.0 note 1 indicates to provide a new RTU. M4.0 shows a detail for a curb modifications. Is a curb modification required for this RTU and if so what is the size?

**Response: The intent is to reuse existing roof curbs unless the new equipment won't accommodate the existing roof curb**

32. Drawing Sheet 353 of 506, Building 300, M2.0 note 4 indicates to see structural drawings for the roof support for an ACCU unit. Drawing Sheet 5 of 306, S1.0 is the only structural drawing we see in the package and that is for framed openings. What steel support work is required for this project? Is it a framed roof opening or modifying a steel platform. Are there any other details for this steel support work we can have for bid purposes?

**Response: Expected structural work includes modifying existing steel frames or new rooftop sleepers. It is not expected that any new equipment will require a completely new steel frame. No support steel drawings are available**

33. Drawing Sheet 427 of 506, Building 337, M2.0B note 1 indicates to provide a new RTU. M4.0 shows a detail for a curb modifications. Is a curb modification required for this RTU and if so what is the size?

**Response: The intent is to reuse existing roof curbs unless the new equipment won't accommodate the existing roof curb**

34. Drawing Sheet 458 of 506, Building 375, M2.0B note 1 indicates to provide a new RTU. M4.0 shows a detail for a curb modifications. Is a curb modification required for this RTU and if so what is the size?

**Response: The intent is to reuse existing roof curbs unless the new equipment won't accommodate the existing roof curb**

35. Drawing Sheet 5 of 506 is for Structural General Notes and RTU Support Details, S1.0. These drawings do show a framed opening size and also indicate that the size and location of the framed openings is by the mechanical contractor. Does the government know the sizes of each opening? Are we to bid this size as shown on the S1.0 and adjust costs in the field if a larger or smaller framed opening is required at a later time. Is what shown the typically size of the RTU framed openings? Please advise?

**Response: This is a typical detail, opening size varies based on the size of the equipment. All opening sizes will be determined by mechanical contractor. Replacement systems have similar capacities. Opening sizes are not expected to significantly different than existing. Adapters may be needed to account for different shapes.**

36. Bldg. 43 Workstation: is there supposed to be a server here as well? Or just a work station that is using the web interface to monitor the systems stored on the server in bldg. 374 (being installed as part of the ROC project)?

**Response: Yes, Bldg 43 has a server as each project is stand alone. Server location is shown on Drawing A1.0**

37. Sheet 55 for Bldg 22 doesn't include removing the existing Niagara R2 network controller and integrating the existing LON controllers. Should this work be included in the scope of work to stay consistent with the other buildings?

**Response: Yes, the intent is to remove all unsupported controllers and replace with new controllers**

38. Sheet 91 includes a points list for an existing VAV AHU. Is the intent to integrate the existing controllers and provide graphics for the existing points but not to provide hardware and programming if the existing controller doesn't include a specified point? If new hardware and programming is required then please provide a list of the missing points. As this situation occurs throughout the drawings, this response will be assumed to apply to all occurrences unless stated otherwise.

**Response: Correct**

39. Sheet 91 (bldg. 29) doesn't specify if the existing Delta PC is to remain or if it's to be removed. My concern is the confusion that can occur if the Delta system and the new Niagara systems are both attempting to command the same points. Please provide clarification. As this situation occurs throughout the drawings, this response will be assumed to apply to all occurrences unless stated otherwise.

**Response: In buildings where existing open protocol DDC systems exist, the existing field controllers will remain however the existing headend will be removed and replaced with an instance of Niagara (JACE). The system integrator is to interrogate the existing headend to see what level of programming exist within the headend and replicate that programming in the new N4 JACE 8000.**

40. Sheet 171 depicts removing the existing Microzone 8000 and note 2 references it as an R2 JACE. The Microzone controllers are ASD protocol field controllers and are depicted as the existing BACnet controllers. Is the intent of this sheet to remove the existing Global Command Module and integrate the existing Microzone controllers utilizing the readily available N4 ASD driver?

**Response: The existing Microzone 8000 controller, shall be replaced with a new Jace 8000. The note is in error, the system is not an R2 Jace. The system integrator has the option of reusing the existing proprietary Microzone branch controllers and communicating to them through the N4 ASD driver or replacing the existing controllers with new programmable BACnet controllers.**

41. Sheet 198 depicts removing an existing UNC-500. This UNC is slated for replacement under FY 16 Energy Project Task 1-C-RCX B86. Please clarify if the scope should be to integrate the "to be installed under another project" Bldg 86 J-8000 into the new N4 Supervisor?

**Response: Yes, the intent is to have the new HVAC equipment connected to the JACE that will be installed as part of the B086 retro commission.**

42. Sheet 218 depicts removing an existing UNC-500. This UNC is slated for replacement under FY 16 Energy Project Task 1-C-RCX B86. Please clarify if the scope should be to integrate the “to be installed under another project” Bldg 86 J-8000 into the new N4 Supervisor?

**Response: Yes, the intent is to have the new HVAC equipment connected to the JACE that will be installed as part of the B086 retro commission**

43. Sheet 295 shows an existing CRAC unit in building 170. Please clarify if this unit is to be retrofitted with Liebert’s ICom and/or a BACnet Unity card?

**Response: As shown on Sheet 304, CRAC schedule Note 1 indicates requirement for BACnet communications.**

44. Sheet 304 specifies Liebert CRAC units. These units are often controlled by Liebert’s ICom system and then integrated through the Unity card. Can you please clarify if the ICom package is required?

**Response: BACnet interface must be provided by equipment manufacturer.**

45. Please clarify if the existing programmable controllers shown on sheet 332 (bldg. 291) are existing ASD Microzone controllers and are to be integrated using the readily available N4 ASD driver.

**Response: Bldg 291 is going through an energy project which may impact the final design of this project. Contractor shall price the project as shown on the drawing with a new head end unit connecting to existing controllers.**

46. Sheet 334 shows and schedules IO-16-485. Please clarify if the IO-16-485 is required in this building as the floor plans don’t indicate new space sensors are to be installed. As this situation occurs throughout the drawings, this response will be assumed to apply to all occurrences unless stated otherwise.

**Response: The I/O card is not required. Drawing M3.0 no temperature sensors will be installed. They are incorrectly shown on sheet 334.**

**Bldg 291 is going through an energy project which may impact the final design of this project.**

47. Note 1 on page 451 states wiring requirements for the existing communication bus. Is it the intent to include rewiring the existing communication bus in the base scope of work? This note is repeated throughout the bid documents. The response to this question will be assumed to apply to all occurrences unless stated otherwise.

**Response: The system integrator is not expected to rewire the communication bus of any existing controllers, however all new controllers shall be wired in the recommended daisy chain fashion.**

48. Sheet 495 depicts a Delta System installed in building 389. This system is actually a Schneider R2 JACE with Schneider IA field controllers.

**Response: Drawing will be updated next revision.**

49. Sheet 414 (bldg. 315) depicts new hot water system sensors. The existing DDC system currently has full control of the steam heat exchanger including the hot water sensors. Please clarify if the new redundant sensors are required.

**Response: The sensors are for the older system in 315, not 315A.**

50. Please provide the ceiling height, type, and wiring requirement for each building. For example (15' AFF, hard ceiling, EMT) or (9' AFF, ACT, Open Plenum Rated).

**Response: Information is unavailable. Wiring means and methods is responsibility of contractor**

51. Is remote access to the network going to be available to the selected control contractor during installation and the warranty period?

**Response: No the system will not be available on the commercial internet nor through dial up.**

52. Due to the amount of time required to sort this project for each building costs and the amount of questions asked we request at least a 1 week bid extension?

**Response: The new bid due date for R-22 is 02/05/2016, 1400.**

53. Currently both the R-22 project (N40085-16-B-9314) and the ROC project (N40085-B-15-6140) are bid the same day. With the amount of work required to price each building with multiple trades pricing it would be in the best interest that the government not have both bids the same day and give at least one or two days between bids. Trying to complete both at the same time would be difficult at best. Please separate these two projects so they bid on different days?

**Response: Please see the ROC project for its new bid due date.**

54. In Specification Section 25 10 10.00 24, Section 1.6.2 – It states “the contractor or subcontractor that will perform the work shall have completed at least three systems installations of the same type and design specified”. Is it acceptable for the contractor or subcontractor to provide Niagara AX installation experience to meet this requirement since Niagara 4 has only been commercially available within the last 60 days (and Jace 8000's were just released in Jan 2016- this month)?

**Response: Yes, Niagara AX experience is acceptable.**

55. In Specification Section 25 10 10.00 24, Section 2.5, UPS – Is the UPS required at all newly installed JACE 8000s?

**Response: UPS is only required at Building 43.**

56. In Specification Section 25 10 10.00 24, Section 2.6, Locked Racks and Enclosures – Where existing R-2 Network Controllers exist in existing enclosures, can the new Jace 8000's be placed in these existing enclosures and reused, or must new enclosures be provided?

**Response: Existing boxes may be used if the new equipment fits and the boxes meet the requirements for the new equipment**

57. In Specification Section 25 10 10.00 24, Section 3.2.2, As-Built Drawings - Is the Contractor responsible for providing field marked up drawings (aka red-lined) back to the EOR firm so they can generate final control system as-built drawings, or, is the contractor required to provide engineering approved, final as-built drawings?

**Response: SECTION 01 78 00.00 22 Closeout Submittals, stipulate requirements for the contractor to provide control system as-built drawings**

58. In Specification Section 25 10 10.00 24, Section 3.2.2, As-Built Drawings – If the contractor is responsible for providing final as-built control system drawings, do all the existing control system drawings exist on CAD currently?

**Response: Existing control drawings are not all on CAD and may not be fully accurate. As-builts are expected for installed equipment only, not the entire existing system**

59. In Specification Section 25 10 10.00 24, Section 3.2.2, As-Built Drawings - Will NAVFAC provide all the existing as-built control system drawings in CAD to the contractor for generating final as-builts?

**Response: See above questions 57 and 58**

60. Can plenum-rated wire (i.e. for space temperature sensor wire) be utilized and ran via existing raceway/cable trays and/or hung by J-Hooks?

**Response: Yes, in a case by case basis as approved by NAVFAC. Assume conduit required through fire walls, exterior walls floors and where visible.**

61. Reuse of existing Conduit - Can the Contractor reuse existing conduits/raceways?

**Response: Re-use of conduit allowed as long as it meets NEC requirements. Controls and other low voltage shall not share conduit with power.**

62. There are multiple drawing M3.2 shown that have a controller layout label global network interface 2. These M3.2 drawings show a total of 6 temperature sensors wired to the terminal block. The location of the temperature sensors are not indicated on the drawings. Are these 6 temperature sensors required whenever global network interface 2 is shown? If they are required what is the location of these temperature sensors?

**Response: This is typical for building that currently has no existing DDC control. The sensors provide the base with some basic information about the building. Location of the sensors will be determined in the field and coordinated with base personnel**

63. Multiple mechanical schedules for new equipment show that at BACnet interface is required for new CRACU, AHUs, Split A/Cs etc. What is the BACnet protocol that will be used for integration to these new units BACnet MS/TP or BACnet IP?

**Response: Both BACnet MSTP and BACnet IP are acceptable. Each application is dependent upon what the manufacturer supplied. If given a choice by the equipment manufacturer, BACnet MSTP is preferred.**

64. Drawing 12703618 demo note 1 indicates all wearable parts are to be replaced. What is the existing equipment on this unit?

**Response: the units are Carrier AHU 39MN30C, 16,000 CFM. The Note states to replace the bearings, motors, dampers, and sensors..**

65. Drawing 12703624 shows an existing BACnet network with an existing BarbaraColeman Microzone 8000. Can it be confirmed that it is an existing BACnet network or Barbara Coleman proprietary network?

Response: The existing Microzone 8000 controller, shall be replaced with a new Jace 8000. The system integrator has the option of reusing the existing proprietary Microzone branch controllers and communicating to them through the N4 ASD driver or replacing the existing controllers with new programmable BACnet controllers.

66. Drawing 12703884 mechanical schedule does not indicate that BACnet card will be provided by the unit manufacturer. Is this controller to be provided by the unit manufacturer or the controls contractor?

Response: Prime contractor to decide if provided by mechanical contractor purchasing equipment or controls contractor.

67. The ET drawings indicate the locations of the RF antennas required for the network. However, the network device description is indicated under Div 25. Is this scope of work required to be done by the Div 25 contractor or the Div 26 or Div 28 Contractor, or does it matter either way?

Response: Prime Contractor to provide direction

68. The modern RS-485 transceivers typically do not require Loytec (LT-B4) devices like indicated on detailed drawings. Is the project requiring the Loytec (LT-B4) still be used on this project for the new JACE 8000?

Response: The JACE 8000 has internal biasing therefore the Loytec (LT-B4) as shown on the drawing is not required for this project.

69. There are multiple drawings in the M series drawings that indicate a continuous BACnet MS/TP daisy chained network is required between terminal equipment. Is the Contractor to assume that this BACnet MS/TP network is currently in place and properly functioning or will the Contractor be required to rework or add this network?

Response: The system integrator should assume that the existing network is in place and functioning properly. The system integrator is not expected to rewire the communication bus of any existing controllers, however all new controllers shall be wired in the recommended daisy chain fashion.

70. There are multiple drawings in the M series of drawings that show the existing terminal equipment. In some cases the total number of terminal equipment is not indicated. Please confirm the existing terminal equipment counts per building to understand how many devices/point counts must be mapped over to new Niagara 4.

Response: Point counts vary by building, no drawing is available to quantify the number of points.

71. Which buildings will require escorts during construction?

Response: Not all buildings with security islands will require escort depending on control location and cabling runs.

72. The project indicates some curb modifications for buildings 79, Building 86/86A, Building 96, Building 170, Building 238, Building 299, Building 337 and Building 375. Please provide the type of roof system, depth of insulation/roof system, and/or a detail of each roof system for the buildings listed above?

Response: PNSY is not able to provide a list, as requested, in a timely manner to address this question.

73. Are the points/graphics going to be the same for all or keeping some of the upgraded points?

Response: The project required graphics to be similar from building to building as seen from the control center at bldg. 43. Question regarding upgraded points is unclear

74. Alarm Points are not shown. Is it possible to show the alarms points?

Response: Alarm points exist only on existing building controllers.

75. Specification Section 019113, under related requirements mentions air barrier. Can we assume there is no commissioning of the envelope intended to be included in the project scope?

Response: Commissioning of all new HVAC equipment is required, no commissioning of building envelope is expected.

76. Specification Section 019113 references Section 230923.13, but this section does not appear to be included in the project manual. Will this section be added?

Response: Specification will not be added.

Reference to 23 spec be deleted

77. Specification Section 019113, under related requirements, mentions both lighting/lighting controls and communication system commissioning. Are these systems included in the commissioning scope?

Response: Commissioning of all new equipment shall be included, including controls and communication.

78. Specification Section 019113 include building envelope and electrical systems in the items to be commissioned. Is this accurate and, if so, to what extent?

Response: Commissioning of all new equipment shall be included, including electrical. Building envelope is not required.

79. Specification Section 019113 requires bi-weekly attendance for the commissioning agent at the contractor meetings. What is the duration for each project? Can we simply carry a dollar value for each meeting in addition to those carried and outlined in our base scope?

Response: Attendance requirement shall be dictated by prime contractor.

80. There is no reference to commissioning in any of the Division 23 specification sections. Can we assume that the installing contractors will be required to assist in the commissioning process?

Response: Commissioning occurs after completion of construction and is performed by the commissioning agent. It is not typical that the installing contractor assists in commissioning. The prime contractor can clarify his requirements.

81. Sheet 35 air cooled chiller piping details shows two pressure ports for use by ATC contractor. Please specify how the ATC contractor is to utilize these ports?

Pressure ports are used to measure the pressure drop across the chiller

82. Sheet 134 (bldg. 44) shows a J-600E but then note 2 references an R2 JACE. Please confirm this is actually an R2 JACE in this building. Also please confirm that the existing controller are LON and not BACnet as shown?

Per NAVFAC Shop, Jace is an R2 and it is assumed to be LON..

83. 2015 Wage Rates have been provided with this solicitation. Please confirm contractors are to use the 2015 wage rates posted with the project and if the 2016 wage rates are available or come out before the bid date the government will post them in an amendment for use? Confirm we are to use the rates posted with the project?

**Response: The Government will upload the latest wage rate with these RFIS. The latest version was published on 01-15-2016.**

84. With regard to radio installations, buildings 13, 43, 86, 170, and 376 are shown on both the ROC-374 and R-22 project bid schedules. Is the contractor to install two radios in these buildings or just one? If just one, which project should carry the cost of these radio installations?

**Only a single antenna is expected to be installed. Each project to stand alone and therefore carry the costs for radio installation.**

85. The drawings call out Cisco radios. Can we substitute Cisco radios with a different and equal model/manufacturer?

**Response: Cisco was the basis of design. Any alternate manufacturer must comply with performance requirements shown on the drawing:**

**86. Are the power over Ethernet injectors to be carried under the 'Building Controller' line item?**

**Response: Included in the same line item as the antennas:**

87. POE injectors can only provide power over short distances. It seems likely that most of the radio enclosures and the building controller enclosures will be too far away from each other to warrant the use of POE injectors. Furthermore, is it the intent of the designer to have all radios connected to an uninterrupted power supply? If so, it'd make more sense to build a radio enclosure that includes a UPS, and is powered from the nearest receptacle (or hard wired), instead of installing POE injectors in the building controller enclosures.

**POE is suitable to 100 meters (328 feet). If this distance restriction cannot be met a POE extender can be used. It is not expected that all communication equipment is connected to a UPS. In the event of loss of power, the communication network may be offline but the building controller will still operate:**

88. Which Solicitation will cover the installation, integration and connection of the DDC systems, and what are the remote monitoring requirements? There appears to be some ambiguity and duplication of requirements between two concurrent Solicitations at the Portsmouth Naval Shipyard. The Solicitation documents and drawings for both the "R-22 HVAC Replacement & DDC Improvements" project "Replace equipment utilizing R-22 refrigerant with new equipment utilizing R-410A or equivalent in 32 buildings. Connect these buildings to the network DDC with remote monitoring in B043, Maintenance Shop", and the "Regional Energy Command Center (ROC) at PNSY", Solicitation N40085-15-B-6140, "Work includes connecting the HVAC control systems in 25 buildings to an Industrial Control System (ICS)."

Both projects require installing and connecting DDC panels

One project calls out the ROC as the central monitoring point and does not have requirements for remote monitoring in any other building, and the other calls out for remote monitoring in B043.

**Response: 'Both projects are designed to stand alone**

(End of Summary of Changes)