Procurement Department Bid Section

February 6, 2025

ADDENDUM NUMBER: Three (3)

TITLE: 1411921050 (IFB) BGS Standby Emergency Diesel Generator Integration

PROPOSAL DUE DATE: February 19, 2025

TIME OF RECEIPT: 12:00 PM EST

THIS ADDENDUM IS FOR THE PURPOSE OF MAKING THE FOLLOWING CHANGES OR CLARIFICATIONS:

1. **Question:** How many men and how many straight-time hours for CSU (Commissioning & Start-up)?

   Answer: 3 men and 40 hours. This will include pre-checks on wiring with Engineering and testing the backup system for proper operation under several scenarios.

2. **Question:** Can you please provide the sizes of the eight (8) manholes on DWG. 60903-CEE-E3000 Rev 4 (Raceway Composite Overall Site)?

   Answer: Sizes and plans for all relevant manholes are shown in attached drawing “cma-s3322” (was not included in bid package). Electrical manhole list/table at the bottom-left corner of the drawing.

3. **Question:** What size are the larger conduits in the duct banks shown on DWG. 60903-CMA-S3320 Rev 4 (Building & Grounds - Underground Utilities Electrical Duct Bank Sections & Details) ? Can't read drawing - blurry.

   Answer: The larger conduits in the duct banks on “DWG. 60903-CMA-S3320” are 5” conduits.

4. **Question:** What size conduits are the emergency feeders from the shared services building to the units to be pulled in - 4" or the larger conduits (5" or 6") ? Drawings provided do not indicate which conduits will be used.

   Answer: All conduits used for the emergency feeders from the shared services building to the units will be 5” conduit. The only exception will be the conduits from Manhole CEMH05 to Unit 4, which will be 4” conduit.
   a. Each manhole and duct bank was verified to have enough spare conduits, no specific conduits are identified to be used as of now.
   b. Each unit will have a dedicated conduit, so there should be enough pull space based on the specified amount/size of conductors being used.

5. **Question:** On the 5.4 Feeder Cable Specifications, Building 50 shows 225 FLA with 500KCM wire, while the Eaton submittal indicates that this breaker will have a 400 amp trip. The ATS indicates it is rated for 600 amps. Please clarify the FLA and or the wire size.

   Answer: The FLA for the Building 50 panel will be around 225A. The associated breaker inside the switchboard will be set by engineering to trip at around 225A (max trip rating is 400A). ATS is rated higher for reliability. We want to use 500KCM cable to be consistent with the rest of the breakers/panels fed from the switchboard.

6. **Question:** On the same schedule you are showing the same wiring for both 600 amps and 800 amps. Normally 600 amps would be 2 sets of 350KCM. Please confirm that you want to use 500KCM on the 600 amp switches.

Answer: 500KCM was chosen to be consistent with the other breakers/panels fed from the switchboard. We will still want to use 500KCM cable.

7. **Question:** Please confirm that there is no control wiring between the buildings.

   Answer: No control wiring will be run from building to building. All control wiring will go from each building's equipment, to the building's associated Mark VI DCS cabinet.

8. **Question:** We are concerned about the lack of neutrals in the 5.4 Cable Specs. JEA has had issues in the past with fluctuating voltages when there were no neutrals used. Please confirm that no neutrals are to be pulled.

   Answer: No Neutrals will be pulled for this project, only ground wires (specified in Section 5.4 table).

9. **Question:** Can THHN/THWN be used for wire in lieu of XXHW-2?

   Answer: We want to use XXHW-2 wire to stay consistent with most other cables plant-wide. Conditions in the duct-banks also warrant the use of XXHW-2 wire.

10. **Question:** Will back up power be required for the MCC gear during the ATS tie in and outage? If so, will JEA be supplying the mobile with temp cables, or does the contractor need to carry this in the bid?

    Answer: No backup power will be required to temporarily power any MCC/panel. All tie-ins will be performed during an outage for that unit. Any backup power required for equipment will be provided by JEA.

11. **Question:** Please confirm how to get out of the manholes and into the ATS's at each building and the approximate distance between.

    Answer: JEA will provide Haz-Gas monitoring for confined space permitting, but all physical access equipment must be provided by the contractor (tripod lift, harness, etc.).

12. **Question:** The drawing on page 2 of the Layout and Underground Conduit does not show the 4th duct bank in red or Building 54. Please advise.

    Answer: The drawing on page 2 of the Layout and Underground Conduit set is continued on page 9 of the same set. The drawing on page 9 will show the duct bank going towards building 54 from the west-most manhole highlighted on page 2.

13. **Question:** Please confirm that the new ATS's and switchgear will be stored in Building 50. If not please give us the address of the warehouse.

    Answer: The ATS's and switchboard will be stored in a warehouse on-site. Same address as where the work is being done.

14. **Question:** Please confirm that Mark IV on 3.8 and Mark VI on 5.5 are actually the same in the Technical Specifications.

    Answer: All mentioned DCS cabinets are Mark VI cabinets (otherwise is a typo on our end).

15. **Question:** Will a City permit be required for this project?

    Answer: No city permitting required for this project.

16. **Question:** Please clarify the new roll up door placement. Is it going between the large junction box and the vertical steel support which is between the fire hose and the fire extinguisher or does the vertical steel support need to move as well?

    Answer: The new rollup door will be placed between the large junction box and the double doors on the same wall (west wall of Building 50). The horizontal and vertical steel supports will have to be re-worked to fit the new door.

17. **Question:** Please clarify the size of the roll up door. 3.10 states 8' X 10', but does not designate height or width on either.

    Answer: 8’ width and 10’ height for the new roll up door.

18. **Question:** Will the cable from the switchboard to each location run through the electrical duct bank; no need to trench or run conduits?

    Answer: Cable from the switchboard to each other unit will go through an existing electrical duct bank. No trenching/conduits necessary between buildings.

19. **Question:** Is there any special tool required to open the manhole?

    Answer: There is a special tool required to open the outdoor manholes. There are no such tool onsite, contractor needs to provide tools for entry to manholes.

20. **Question:** What is the weight of manhole cover?

    Answer: Exact weight of manhole cover is not known. Based on experience opening the outdoor manholes, I would say each section (two sections) of the manhole cover is about 200-300 lbs.

21. **Question:** What is the space like inside the manhole?

    Answer: Manhole details were mistakenly omitted from the bid package. See drawing “cma-s3322” for manhole spacing.

22. **Question:** Can you fit two guys in the manhole?

    Answer: See new drawing “cma-3322” for manhole spacing.

23. **Question:** On the below Conduit Schedule the distance listed, are those from the ATS to the equipment inside?

    - B50 Switchboard (10ft)
    - B50 Generator Panel (20ft)
    - B50 Automatic Transfer Switch (10ft)
    - B51 Automatic Transfer Switch (50ft)
    - B52 Automatic Transfer Switch (50ft)
    - B53 Automatic Transfer Switch (50ft)
    - B54 Automatic Transfer Switch (50ft)

    Answer: The conduit schedule distances are mostly from associated equipment to cable trays and/or equipment inside of each building.

24. **Question:** What are these cable lengths to and from?

FROM EQUIPMENT	TO EQUIPMENT	FLA (A)	CABLE SIZE (AWG)	NEC CABLE AMPACITY (A)	115F TEMP DERATING	DERATED CABLE AMPACITY	TWO CONDUCTOR AMPACITY	CABLE LENGTH (FT)	NOTE
B50 SWG E	B50 ATS E	225	1#500KCM, 1#1G	380	0.82	311.6	NA	150	NOTE 1
B50 SWG E	B51 ATS E	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	900	NOTE 1/2
B50 SWG E	B52 ATS E	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	700	NOTE 1/2
B50 SWG E	B53 ATS E	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	700	NOTE 1/2
B50 SWG E	B54 ATS E	800	1#500KCM, 1#1/0G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	900	NOTE 1/2
B50 SWG N	B50 ATS N	225	1#500KCM, 1#1G	380	0.82	311.6	NA	150	NOTE 1
B51 SWG N	B51 ATS N	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	150	NOTE 1/2
B52 SWG N	B52 ATS N	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	150	NOTE 1/2
B53 SWG N	B53 ATS N	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	150	NOTE 1/2
B54 SWG N	B54 ATS N	800	1#500KCM, 1#1/0G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	200	NOTE 1/2
B50 ATS L	B50 480V Panel	225	1#500KCM, 1#1G	380	0.82	311.6	NA	150	NOTE 1
B51 ATS L	B51 480V Panel	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	100	NOTE 1/2
B52 ATS L	B52 480V Panel	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	100	NOTE 1/2
B53 ATS L	B53 480V Panel	600	1#500KCM, 1#1G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	100	NOTE 1/2
B54 ATS L	B54 MCC	800	1#500KCM, 1#1/0G, 2C per phase, 1 GND per set	380	0.82	311.6	623.2	150	NOTE 1/2
NOTE 1	CABLES SHALL BE COPPER, 600V, SINGLE CONDUCTOR, XHHW-2, 90C								
NOTE 2	2 CONDUCTORS PER PHASE, 1 GND CONDUCTOR PER SET								

Answer: The cable lengths shown in the table in section 5.4 represent cable lengths from/to equipment (as designated in the from/to columns in the same table). The longer cable lengths (700/900 ft) are cables going through the duct banks from building 50, out to the other buildings. The shorter cable lengths (100-200ft) are cables run between equipment within/around the same building. The lengths account for multiple turns, as well as some added wiggle room to ensure adequate cable for pulls.

25. **Question:** Line and load distance?

Answer: The line and load distance is about what the cable lengths are referring to.

26. **Question:** What is “Mark VI” at each building?

Answer: The Mark VI at each building are the DCS control cabinets where all control wiring will be terminated.

27. **Question:** What are the cable lengths to and from?

FROM EQUIPMENT	TO EQUIPMENT	CABLE SIZE (AWG)	CABLE LENGTH (FT)
B54 ATS	B54 MARK VI	14	150
B53 ATS	B53 MARK VI	14	150
B52 ATS	B52 MARK VI	14	150
B51 ATS	B51 MARK VI	14	150
B50 ATS	B50 MARK VI	14	200
B50 MAIN BKR	B50 MARK VI	14	200
B50 BKR 1A	B50 MARK VI	14	200
B50 BKR 2A	B50 MARK VI	14	200
B50 BKR 3A	B50 MARK VI	14	200
B50 BKR 4A	B50 MARK VI	14	200
B50 BKR 5A	B50 MARK VI	14	200
B50 GEN PNL	B50 MARK VI	14	200
B50 GEN PNL #2	B50 MARK VI	14	200
NOTE	ALL CABLES 14 CONDUCTOR		

Answer: The cables for control wiring will be coming from each piece of equipment and going to the associated Mark VI cabinet of each building. The cable lengths account for multiple turns, as well as some added wiggle room to ensure adequate cable for pulls.

28. **Question:** Can a 1" conduit size be used?

    Answer: Conduit size for the control cables depend on the equipment the control cables are coming from. Since 14AWG 14 conductor cables were specified for control wiring, a 1" conduit will be sufficient for a single 14 conductor cable. However, if more 14 conductor cables are going to be bundled, a larger conduit will be needed. This is left up to the contractor, but we **must** have conduit between equipment and cable trays.

29. **Question:** Where is the "Generator Panel" located?

    Answer: The generator interface control panel is located on the South-Western corner of building 50 (as designated on page 1 of the Layout and Underground Conduit drawing set).

30. **Question:** Will conduit be required for the new comms cabinet?

    Answer: No conduit will be required for the new Mark VI cabinet in Building 50.

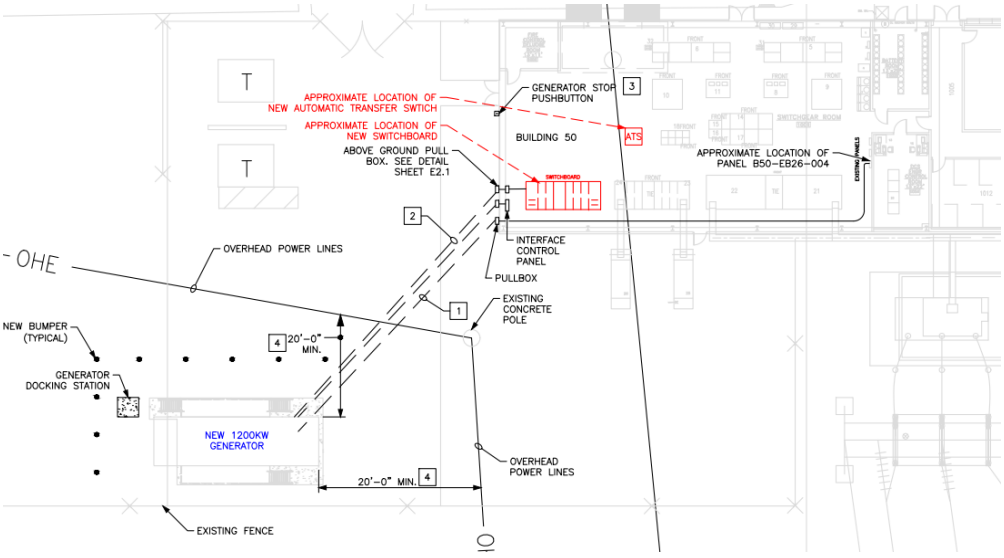
31. **Question:** Are we to terminate cables in the new comms cabinet?

    Answer: Cables will need to be terminated in the new Mark VI cabinet.

32. **Question:** If no termination is require, how much slack is required to be left unterminated at the new comm cabinet?

    Answer: We plan to terminate control wires in the Mark VI cabinet. If we are not able to terminate cables for whatever reason, amount of slack will be determined based on what is left from the cable length specified in the table in Section 5.5.

33. **Question:** Are housekeeping pads required for the switchboard or ATS at B50? If yes, how many inches?



    Answer: No pads are required for the switchboard/ATS at Building 50.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE PROPOSAL FORM.