

ADDENDUM No. 2

This Addendum consists of the following **CHANGES TO THE BID DOCUMENTS FOR OFFICIAL NOTICE No. 156-2013:**

1. Changes to the Project Specifications and Drawings:

1. Specification 02050.3-1

- a. Add the following at the end of the section:

The Contractor shall maintain the stability of structures at all times during construction. Any structural component which provides support, restraint, stabilization, etc., for any part of the facilities shall remain in place, if possible, during demolition. For structural components that must be moved or demolished, adequate measures shall be taken to provide support, restraint, etc., for all affected parts of the facility.

The Contractor shall be responsible for any damage, repairs or structural modifications that are required due to demolition beyond the limits identified on the drawings. Reinforcement for any existing concrete or masonry element shall not be damaged unless the element is to be demolished. When locating existing reinforcement is required, it shall be located using non-destructive methods.

2. Specification 13591.2-2

- a. Add the following paragraph:

“2-2.04 RS-485 Cable. Cable shall be shielded pair suitable for installation in conduit. Cable shall meet the following requirements:

- a. Twinaxial 22 AWG, tinned copper, three twisted pairs.
- b. Polyethylene insulation.
- c. Overall aluminum/polyester shield (100% coverage) plus tinned copper braid shield (65% coverage)
- d. 22 AWG stranded tinned copper drain wire
- e. Overall tinned copper braid shield
- f. PVC Jacket

Cable shall be Belden 3108A.”

3. Specification 16050.2-5.04(d)

- a. Replace 16050.2-5.04(d) with the following: “Welding receptacles shall be 30 amperes, 240 volts, 3 phase, with grounding conductors connected through a fourth pole, Leviton “430MI9W” or equal. One matching plug, Leviton "430P9W" with appropriate woven grip and plug cap, shall be furnished for the cable size directed by Owner.”

4. Specification 16050.3-13

- a. Delete the fifth sentence of this section and replace with the following:

“During times where one switchgear bus is de-energized for planned construction activities, if utility power is lost to the other switchgear bus, Contractor shall restore power to the de-energized bus within 1 hour. When work is being performed on L-TX-1 or 2 that would not allow a 1-hour reenergizing of the gear the Contractor shall have a rental generator onsite.

The cost of the rental unit shall be included in the bid. The generator rental package shall be furnished by FABCO Caterpillar, or equal, and come complete with a 2000kW engine-generator, 2.4kV secondary transformer, 1250 gallons of fuel (a full tank), 50 ft of connection cable, and all other components necessary for a complete system.

In the event of a loss of power from an issue down-stream of the 27kV gear the contractor shall connect the rental unit to the system until power is restored. Any fuel costs used in excess of the initial 1250 gallons furnished shall be issued as a change order and paid by the City.

The contractor shall coordinate with the City after the bid is awarded to develop a rental generator wiring connection plan to best determine how the rental unit can be wired into the system in less than an hour. Any costs incurred with connecting the generator in the event of a power outage shall be issued as a change order during construction and paid by the City.”

5. Specification 16345.2-7

- a. Add the following sentence to the beginning of the first paragraph:

“Modifications to existing switchgear shall be performed by the original equipment manufacturer or City approved equal.”

6. Specification 16346.2-33

- a. Add the following sentence to the beginning of the first paragraph:

“Modifications to existing switchgear shall be performed by the original equipment manufacturer or City approved equal.”

7. Sheet WP-308-C07

- a. Add the following Note 8:

“8. A level of site security equivalent to the existing fence must be maintained at all times. If the existing fence must be removed before excavation can begin, provide a temporary fence with equivalent security capability to secure the perimeter, until the new fence is installed.”

8. Sheet WP-308-E09

- a. Revise the existing connection of the potential transformers (PTs) on the two main breakers of L-SWG-01 from the load-side of the breaker to the line-side of the breaker.
- b. Revise circuit LS031-9A from 50#14 in a 2" conduit to 66#14 in a 2-1/2" conduit.

9. Sheet WP-308-E11

- a. Revise new 250A circuit breakers in L-MCC-1 sections AAH and AFF to 225A.
- b. Revise Main Breaker in LW-E-POP-03 from 250A to 225A.

10. Sheet WP-308-E14

- a. Revise panel schedule LP-02, circuit 14, from a 30A breaker to a 20A breaker. Revise LP-03, circuit 10, from a 30A breaker to a 20A breaker. Revise 30A receptacle call out on drawings WP-308-E16 and WP-308-E17 to 20A.
- b. Revise Lighting Fixture 2 to a Lithonia D-Series Size 2 LED Wall Luminaire with model number DSXW2 LED 30C 1000 40K T4M 120 BBW SF DDBXD.
- c. Revise Lighting Fixture 3 to a Lithonia D-Series Size 1 LED Wall Luminaire with model number DSXW1 LED 20C 1000 40K T2M 120 BBW SF DDBXD

11. Sheet WP-308-E16

- a. Revise LP02-14 receptacles from 30A to 20A.

12. Sheet WP-308-E17

- a. Revise LP03-10 receptacles from 30A to 20A.

13. Sheet WP-308-E19

- a. Ductbank Section 2
 - i. Revise conduit number "52" to "S2."
 - ii. Revise conduit number "63" to "S3."
- b. Ductbank Section 3
 - i. Revise conduit number "63" to "S3."
- c. Ductbank Section 5
 - i. Revise conduit number "64" to "S2."

2. Answers to Bidders' RFI Questions:

1. Sections 16345 & 16346 indicate modifications are required for existing switchgear. The only acceptable manufacturer listed in both sections is Caterpillar. Is the intent to have Cat make the required modifications at the two 2.4kv secondary breakers and at L-SWG-1?

ANSWER: Modifications to the existing Conventional Plant Switchgear, L-TX-1 Secondary Circuit Breaker, L-TX-2 Secondary Circuit Breaker, and L-SWG-1 (Shown in specifications 16345.2-7 and 16346.2-33 and on drawings WP-308-E08 and WP-308-E09) may be performed by the original equipment manufacturer or City Approved Equal.

2. Sheet WP-308-E10 item LW-E-EGN-C01 indicates control wiring between the engine generator control panel and the paralleling switchgear. The wiring is specified as "as required by manufacturer" Please provide detailed information on the types, quantities and specification of the required control cabling between the pieces of equipment. The same question applies to the generator at the ozone plant.

ANSWER: Bidder should coordinate wiring requirements with the Engine-Generator Supplier, as the Supplier will be a sub-contractor of the Contractor. Preliminary FABCO documents show the following wiring for each circuit:

EGNC01-1: 1-BELDEN 3073F,1-BELDEN 8618, 1-BELDEN 8719

EGNC01-2: 23#14,4#10

EGNC02-1: 1-BELDEN 3073F,1-BELDEN 8618, 1-BELDEN 8719

EGNC02-2: 23#14,4#10

EGNC03-3: 1-BELDEN 3073F,1-BELDEN 8618, 1-BELDEN 8719

EGNC03-4: 19#14,4#10

EGNC04-3: 1-BELDEN 3073F,1-BELDEN 8618, 1-BELDEN 8719

EGNC04-4: 19#14,4#10

3. Sheet WP-308-E04 notes that SWG02-7 is interconnecting cabling between the two portions of LW-E-SWG-02 as required by the manufacturer. Please provide detailed cable quantities, type and specification for the interconnecting cabling.

ANSWER: Bidder should coordinate wiring requirements with the Engine-Generator Supplier, as the Supplier will be a sub-contractor of the Contractor. Preliminary FABCO documents show the following wiring:

Circuit Types A,D: 2#10, 47#14, 2"

Circuit Type B: 33#14, 2"

Circuit Type C: 6#14, 20#10, 2"

4. Where are the two potential transformers located that are indicated to be wired back to LW-E-SWG-03 as tag numbers SWG03-8 & SWG-03-7?

ANSWER: Existing PT's located in L-SWG-1. See drawing WP-308-E09.

5. Please specify what components of the generator enclosures, electrical switchgear enclosures and load bank enclosures will have to be field installed. I.E. do the exhaust and intake hoods on the electrical buildings need to be field installed? Do the stairs come installed?

ANSWER: Any items not specified by the contract documents to be shop installed may or may not be shipped loose at the Engine-Generator Suppliers' discretion. As the Engine-Generator Supplier will be a sub-contractor to the successful bidder, it is the responsibility of the bidder to coordinate with the Engine-Generator Supplier what will be included in their scope of supply with the Contractor for items that the specifications do not specifically place in the scope of work for the Engine-Generator Supplier.

6. Please provide exact details on what are the required switchgear modifications required at L-SWG-1 for the new generator control system. GE does not feel that there is adequate information currently provide to be able to quote the modifications required.

ANSWER:

- a. **Wire Remote Close, Remote Trip, and Breaker Status signals for each feeder, main, and tie to generator controller as shown on WP-308-E13**
- b. **Modify the existing electrical interlock scheme of the mains and tie to accommodate the new sequence of operations as specified in 16346. All three breakers can now be closed at the same time but only under the conditions specified in the sequence.**
- c. **Wire the existing main PT's voltage in L-SWG-1 back to the generator controller for voltage sensing of loss of utility power. The main PT's should sense line-side voltage as shown on WP-308-E02 instead of load-side as shown on WP-308-E09.**
- d. **Provide a new switchgear section on each side of the bus with a 2500AT/3200AF electronic trip circuit breaker as specified in 16346.**

7. Please provide manufacturer's complete nameplate information for L-SWG-1, conventional plant switchgear, L-MCC-1

ANSWER:

L-SWG-1

Plant Code: BN, Product Type: AKD-8 Style 3

Shop Order 918374

480/277 Volts, 3 Phase, 4 Wire, 60 Hz, 508 Volts Max

Amps: Supply 4000, Sect. 1600/3200/4000, Neutral 4000

Short Ckt Rating: 65,000 RMS SYM AMPS

L-MCC-1
GE Spectra Series Motor Control
Cat. No. 636X0690L01
Diagram No. 334B7878
Amps: Supply 1200, Sect. 600
480 Volts, 3 Phase, 3 Wire, 60 Hz

8. Please provide contactor wiring diagrams similar to those provided on sheet WP-308-E13 for the 6 2.4kv high voltage contactors that operate the 6 pumps.

ANSWER: The “Typical Pump Motor Starter Schematic” on WP-308-E13 is the high voltage contactor diagram for the pumps.

9. Are all the contacts that are shown on WP-308-E13 existing and just need to be wired to or are modifications required at each breaker/ starter?

ANSWER: Contacts or terminal points shown as screened are existing and just need to be wired.

10. Please provide a detailed specification of the fiber optic cable that is required between the LW-E-SWG-03 and remote HMI. There are several types of fiber listed in the specifications. Which should be used? The same question applies to LW-E-SWG-02.

ANSWER: Fiber optic cable shall be 62.5 micrometers core diameter cable as specified in 13591.2-3 and 13591.2-3.01.

11. Will the wiring between the 24vdc battery system in the new electrical enclosure (tagged as wires BAT04-1, BAT04-2, BAT03-1, BAT03-2, BAT06-1, BAT06-2) be provided prewired with the new electrical enclosure?

ANSWER: Bidder should coordinate field installation requirements with the Engine-Generator Supplier, as the Supplier will be a sub-contractor of the Contractor.

12. There is no wiring diagram for LW-E-BAT-04 on sheet WP-308-E11. Where is this unit located?

ANSWER: Similar to wiring diagram for LW-E-BAT-03 as shown on WP-308-E11. Located in LW-E-EGN-C04 enclosure on drawing E15.

13. GE has indicated that to perform the requested bucket modifications requested at L-MCC-1 the vertical bussing will have to be replaced in the two section having 250a circuit breakers added. The existing vertical bussing is only rated to 300 amps. Is this how you want to proceed?

ANSWER: Confirmed, replace as required. See question 44 for revision of 250A breaker to a 225A.

14. Please define the specifics of the fiber optic cabling needs between the load banks and the paralleling switchgear.'

ANSWER: Fiber optic cable shall be 62.5 micrometers core diameter cable as specified in 13591.2-3 and 13591.2-3.01.

15. Is there a dump site available for spoils? Should all spoils be removed from the site?

ANSWER: No dump site is identified on site. Remove all spoils from the site.

16. Please confirm the number of wires for breaker control at L-SWG-1. The drawings indicated 50 #14 between L-SWG-1 & LW-E-SWG-03. There are 3 pairs of wires for each breaker per detail L-SWG-1 on sheet WP-308-E13 and there are 11 breakers. That would be 66 wires with no spares.

ANSWER: Revise circuit LS031-9A from 50#14 in a 2" conduit to 66#14 in a 2-1/2" conduit.

17. Is CAT/FABCO supplying the required above ground fuel storage permits in their package for the 4 fuel tanks?

ANSWER: The Contractor is specified to obtain all necessary permits in Section 11910.1-2.02 and specifically those required for the fuel storage tanks in Section 11910.1-6.

18. Is CAT/FABCO responsible for the field sound testing indicated in section 11910?

ANSWER: There is no specified requirement for the Engine-Generator Supplier to perform the field sound testing as part of their scope of work.

19. Please indicate what emissions permits are required for this project. No such permits were required at Riverside or Grange. Typically units on standby emergency only service do not require emissions permits. Would CAT/FABCO be responsible for those permits as the supplier of the equipment?

ANSWER: The Contractor is responsible for submitting the appropriate air emissions permits as specified in Section 11910.2-8. It is the Contractor's responsibility to determine whether permits are required for the service identified in the specifications.

20. There is no silt fence shown on sheet WP-308-C04. Is any silt fence required in this location?

ANSWER: A silt fence not required for the area shown on WP-308-C04. Contractor may install one if desired to facilitate their work.

21. Will the City be applying for the erosion control permit with the DNR or will that be the contractor's responsibility. Typically it is the landowner's responsibility.

ANSWER: The Contractor shall procure all necessary permits and licenses as specified in Paragraph 2.3.8 of the General Specifications.

22. Is there a specification for the RS-485 cable required for the project?

ANSWER: Cable shall be shielded pair suitable for installation in conduit. Cable shall meet the following requirements:

- g. Twinaxial 22 AWG, tinned copper, three twisted pairs.**
- h. Polyethylene insulation.**
- i. Overall aluminum/polyester shield (100% coverage) plus tinned copper braid shield (65% coverage)**
- j. 22 AWG stranded tinned copper drain wire**
- k. Overall tinned copper braid shield**
- l. PVC Jacket**

Cable shall be Belden 3108A.

23. At what elevation is the existing 90" ozonated water line and how does it conflict with the proposed duct package into the ozone building from the new switchgear?

ANSWER: As shown on WP-308-C07 the centerline of the 90" Ozonated Water pipe is EL 3.40 at the 45 degree bend by the southwest corner of the Ozone Generator Building. It is not expected that the pipe will vary greatly from this elevation in the area where the electrical duct bank crosses it, but the precise elevation will need to be field verified as specified in Paragraph 3-3 of Section 02202. The top of the pipe is likely around EL 7.5. Maintain a 6 inch clearance between the top of the pipe and the bottom of the duct bank. As the duct bank is around 2.5 feet high and grade is around EL 12.0 in this location, it will be acceptable for the duct bank ground cover in this area to be less than 2 feet but not less than 1 foot.

24. Are there elevations/ profiles for the new duct packages and how they interact with existing facilities/ structures?

ANSWER: Detail A on Drawing WP-308-E20 shows how duct bank Section 4 enters the Ozone Generator Building foundation. The "Typical Underground Duct Bank Entrance Detail" on Drawing WP-308-E20 shows details for other locations. Underground conduit shall have at least two feet of cover, unless otherwise indicated, and elevations shall vary as required for field conditions.

25. Upon award will we be able to obtain CAD drawings of the project to do surveying and grade control?

ANSWER: After contract award the City will supply the CAD drawings, in Micro-Station format, as well as hard copies of all construction documents for contractor use during construction. After project completion, all documents, including the CAD drawings shall be returned to Water Works for updates and destruction.

26. To what extent and which feeders/ specifically need to comply with COPS requirements?

ANSWER: Per 16050 1-1, "All new work, including modifications to existing equipment is defined as a COPS." Compliance with NEC 708 for the COPS systems includes

identification of COPS conduit boxes, enclosures, and equipment as such in accordance with 16050 1-4. Compliance also includes concrete encasing all feeders or providing a 2-hour fire rating protective system as defined in 16050 3-7.01(ab).

New and Modified equipment to be identified include:

- LW-E-SWG-02
- LW-E-EGN-01 AND 02
- LW-E-EGN-01 AND 02 MVS
- L-TX-1 AND 2
- CONVENTIONAL PLANT SWITCHGEAR
- MCC-1A
- MCC-3
- LW-E-ATS-02
- LW-E-POP-02
- LW-E-EGN-01 AND 02 POWER PANELS
- LW-E-LP-02
- LW-E-SWG-03
- LW-E-EGN-03 AND 04
- L-SWG-1
- L-MCC-1
- LW-E-ATS-03
- LW-E-POP-03
- LW-E-EGN-03 AND 04 POWER PANELS
- LW-E-LP-03
- GUARDHOUSE 100A DISCONNECT SWITCH
- LW-E-GHPP-01
- LW-E-GHLP-01

New feeders include circuits:

- SWG01-1,2,3,4
- MCC1A-1
- LW-E-GHTRF-01
- MCC3-1
- POP02-1,2,2A,3,4
- SPB02-1,2,3
- The four circuits shown on the Guardhouse “Electrical One-Line Diagram” shown on WP-308-E10.
- SWG03-1,2,5,6
- LMCC1-1,2
- POP03-1,2,2A,3,4
- SPB01-1,2,3

27. Is detail 6/C10 only for areas where duct packages cross roadways? If so, what is the backfill requirements for duct packages not under roads?

ANSWER: Backfill requirements for electrical duct banks are specified in 02202.3-5. Requirements for the duct bank packages themselves are specified in 16050.3-7.02 and shown on the duct bank detail on drawing WP-308-E20.

28. What do the two 30 amp breakers with note #3 applied to them but no loads connect go to on LW-E-POP-03?

ANSWER: These are spare breakers. They are available for use by the enclosure manufacturer, if required, for additional lights and HVAC equipment that may be supplied with the enclosure.

29. Is temporary fencing required around the excavation area at the new electrical equipment at the ozone plant while construction is in progress? The existing fence would need to be removed before excavation could begin.

ANSWER: A level of site security equivalent to the existing fence must be maintained at all times. If the existing fence must be removed before excavation can begin, provide a temporary fence with equivalent security capability to secure the perimeter, until the new fence is installed.

30. What is the quantity and type of any existing control wiring between the two transformer secondary breakers L-TX-1 & -2 and the conventional plant switchgear?

ANSWER: According to the 1997 Ozonation Facilities Project drawings there is a 1-1/4" conduit with 18#12 and a #12G going from the building to each transformer secondary breaker. 8#12 go to the Main Switchgear, 8#12 go to the SCADA System, 2#12,#12G go to a 125VDC panel. This information was taken from previous construction record drawings, is for reference only, and shall be field verified by the Contractor prior to ordering of materials and beginning construction.

31. Please provide the shipping weight of the fuel tanks for each set of generators that must be set separately from the generator enclosures.

ANSWER: Bidder should coordinate shipping details with the Engine-Generator Supplier, as the Supplier will be a sub-contractor of the Contractor.

32. Please provide details of the required interconnections between the fuel tanks and generator enclosures that will have to be performed by the contractor both electrically and mechanically.

ANSWER: Bidder should coordinate field installation requirements with the Engine-Generator Supplier, as the Supplier will be a sub-contractor of the Contractor.

33. Is a standard dry type transformer with the addition of the N3R rain shield and acceptable weatherproof style of transformer for the guard house? The specification for the disconnect switch ahead of the transformer would be stainless steel as a NEMA 4x but the transformer would be painted sheet steel with an added rain shield over the cooling vent openings.

ANSWER: NEMA 4x is not required for the transformer, NEMA 3R is acceptable.

34. Fixture types 2 & 3, as specified, are designed to be surface mounted and feed from the back. The locations indicated on the drawings seem to indicate the fixtures are to be fed with surface mounted conduit. There would be no way to mount the specified fixtures and achieve the feed with surface mounted conduit. Is there another fixture that could be specified that would allow surface mounting? Would the attached fixtures be acceptable?

ANSWER: Revise Lighting Fixture 2 to a Lithonia D-Series Size 2 LED Wall Luminaire with model number DSXW2 LED 30C 1000 40K T4M 120 BBW SF DDBXD. Revise Lighting Fixture 3 to a Lithonia D-Series Size 1 LED Wall Luminaire with model number DSXW1 LED 20C 1000 40K T2M 120 BBW SF DDBXD.

35. Sheet WP-308-E18 show the locations of the 4 structural steel supports required for the conduits into the electrical room to serve L-SWG-1. Detail B/S10 indicates two new concrete piers installed for support of the steel. However it appears that the north most pier in the switchgear room is located in the pipe vault that is below the electrical room on the north side of the room. Please confirm the type of support/ foundation required for structural steel in this location.

ANSWER: The electrical support furthest north in the switchgear room is located on the top slab of the pipe vault. The structural steel column can be bolted to the floor slab in accordance with drawing WP-308-S10, Detail D. No new concrete pier is required.

36. How should wiring be routed to the traffic signal mounted on the precast concrete light pole? Can the conduit be surface mounted on the outside of the light pole? We won't be able to route wiring up the inside wiring and come out the side of the pole to the traffic signal. The precast pole cannot be supplied with a divided wiring compartment required to segregate the line and low voltage wiring. How shall we proceed?

ANSWER: Surface mounting of conduit on the outside of the pole to the traffic signal is acceptable.

37. The specification for the 240v welding receptacles indicates a 60 amp outlet. The receptacle is fed from a 30 amp breaker. Is this the correct 240v welding receptacle?

ANSWER: New welding receptacles shall be 30A receptacles. Revise 16050.2-5.04(d) from 60A to 30A. Receptacles shall be Leviton "430MI9W" or equal.

38. Please confirm that the 30 amp single pole breaker is the appropriate size for the 20 amp 120v receptacles on the outside of the various equipment enclosures at the Ozone and north courtyard.

ANSWER: Receptacles shall be 20 amps as specified. Revise panel schedule LP-02 circuit 14 from a 30A breaker to a 20A breaker. Revise LP-03 circuit 10 from a 30A breaker to a 20A breaker. Revise 30A receptacle call out on drawings WP-308-E16 and WP-308-E17 to 20A.

39. Specifications section 16050 3-13 modifications to existing switchgear indicates that during times when one switchgear bus is de-energized for construction, in the event of a power failure of the energized bus the contractor shall restore power to the de-energized bus within 15 minutes.

Additionally a switchgear bus shall only be allowed to be de-energized during the work day and shall not be allowed to remain de-energized overnight. With the specified removal of L-TX-1 and L-TX-2 from their pads for the pad modifications and new conduit/cable entry and GE having to rebuild the drawout trays & replace the relay it does not seem possible that power to the de-energized bus could ever be re-established in 15 minutes nor is it likely that the bus will be put back in service in one 8 hour work day. How shall we proceed? What temporary facilities if any shall be provided?

ANSWER: The upstream 27kV switchgear, where L-TX-1 and 2 are powered from, have an automatic transfer controller to automatically switch from one source to another in case of a normal loss of utility. When work is being performed on L-TX-1 or 2 that would not allow a 1-hour reenergizing of the gear the Contractor shall have a rental generator onsite. The City shall allow a 1 hour window instead of the 15 minutes specified.

The cost of the rental unit shall be included in the bid. The generator rental package shall be furnished by FABCO Caterpillar, or equal, and come complete with a 2000kW engine-generator, 2.4kV secondary transformer, 1250 gallons of fuel (a full tank), 50 feet of connection cable, and all other components necessary for a complete system.

In the event of a loss of power from an issue down-stream of the 27kV gear the contractor shall connect the rental unit to the system until power is restored. Any fuel costs used in excess of the initial 1250 gallons furnished shall be issued as a change order and paid by the City.

The contractor shall coordinate with the City after the bid is awarded to develop a rental generator wiring connection plan to best determine how the rental unit can be wired into the system in less than an hour. Any costs incurred with connecting the generator in the event of a power outage shall be issued as a change order during construction and paid by the City.

40. For the new rollout, does the customer intend to re-use the existing CPT, or are they wanting us to provide a new one? If new, do they want the same catalog number CPT, or do they have a different one in mind that they would like to use?

ANSWER: Existing CPT shall remain. New PT shall be provided in addition to the existing CPT. Contractor shall furnish all modifications required to house both transformers. See Note 2 on WP-308-E08.

41. I need either a catalog number for the new PTs they want, and/or rating information so that we can determine which PTs to quote them.

- a. I also need to know if they need the PTs to be wye or delta. (i.e. do they need the rollout configured for qty (3) PTs or qty (2)?)

ANSWER: Contractor shall coordinate PT type and size with engine-generator supplier to supply as required for voltage sensing requirements by the paralleling controls as directed in Note 2 of WP-308-E08.

42. I will need to know the cat# of the new relay that they are wanting us to provide. There are several different characteristics a relay can have and we will not guess as to what the customer's needs are.

ANSWER: The existing Multilin 735 shall be replaced with the most recent version of the Multilin 735 as directed in Note 2 of WP-308-E08. All relay functions and parameters shall remain the same.

43. As per our MOD standard, we will be providing a new, custom-punched door for this MOD. Does the customer plan on re-using all other existing door-punched devices (i.e. indicating lights, control switches, etc), or do we need to replace these as well? If they plan on re-using the other devices, the factory will need punch drawings for the existing doors, so that we can have the new doors punched accordingly.

ANSWER: The existing door-punch devices shall remain in use. If new custom –punched door is provided then contractor shall coordinate existing door devices with manufacturer as required.

44. Questions regarding the requested modifications to L-MCC-1: Please see if a plug-in 225A bucket is acceptable. If they must have 250A it will be a bolt-on construction and will require a new vertical bus asm. Please advise – if they must have 250A, we need to know the exact desired locations – limited to 1 bolt-on breaker per section.

ANSWER: 225A breakers are acceptable. Contractor shall revise the main breaker in LW-E-POP-03 from 250A to 225A.

45. Detail A/E18 has a note that reads “modified storm water drain pipe.” The mechanical, structural and civil drawings do not provide any detail on what is supposed to occur. Please provide clarification on the intended scope of work regarding this storm water drain piping.

ANSWER: As identified in Note 6 on Sheet WP-308-E18, the existing 10 inch storm water, cast iron soil pipe, drain will interfere with the new conduit. Work shall consist of adding approximately 5 feet of additional 10 inch cast iron soil pipe on the down comer on the east end, removing 5 feet of pipe on the down comer on the west end, reconnecting pipe, and providing insulation and insulation jacket for the new pipe section, so that the existing horizontal run in the area of interference may be lowered 5 feet. Contractor shall field

verify pipe sizes and necessary length to lower horizontal section, to maintain pipe as close as possible to original location.

46. The typical duct bank detail on sheet E20 notes that the conduit spacers should be installed on 8'-0" centers. The specifications for the conduit in duct banks per 16050 page 23 is PVC schedule 40. An 8' on center spacing would be a typical installation for rigid conduit. Please confirm the duct bank spacers should be 8' on center for PVC schedule 40 conduit..

ANSWER: Detail reads "on 8' max centers." Supports shall be provided as required per the trade size of the conduit being supported in accordance with the NEC.

47. Should conduit #64 be installed in duct bank 5/E19? It is listed as not used, but appears in the duct bank profile. The same question applies to duct bank profile 2/E19 and conduit #63..

ANSWER: Conduit #64 in section 5 shall be a spare and revised to "S2". Conduit #63 in sections 2 and 3 shall be revised to "S3".

48. Please confirm that conduit #52 should be in duct profile 2/E19 from LW-E-EGN-03. I believe conduit #52 should go to L-SWG-1 from LW-E-SWG-03. I believe then there is a 2" conduit missing in profile 2/E19. Profiles 2/E19 and 5/E19 should be identical..

ANSWER: Conduit #52 in ductbank section 2 shall be revised to "S2".

49. Is the intent of details A/E18, B/E18 & C/E18 to cut and completely remove the existing concrete footing wall completely from grade/masonry bearing to the footing and replace the footing wall with the concrete frame system detailed in C/E18? What kind of shoring/ support will be required to support the existing masonry building wall while the new frame is being constructed?.

ANSWER: The intent of the details shown on Sheet WP-308-E18 is to cut and completely remove the existing concrete footing wall completely from grade/masonry bearing to the footing and replace with the system detailed on that sheet. The Contractor shall maintain the stability of the structure at all times during construction. Any structural component which provides support, restraint, stabilization, etc., for any part of the facilities shall remain in place, if possible, during demolition. For the structural component that must be moved or demolished, adequate measures shall be taken to provide support, restraint, etc., for all affected parts of the facility. Temporary supports to maintain the stability of the structure are a means and methods by which the Contractor accomplishes their work and are solely the responsibility of the Contractor.

50. The part number provided for fixture type 4 is not complete. Please provide the size and number of LED light bar required..

ANSWER: See part number listed under manufacturer column of the Lighting Fixture Schedule. "B08" equates to (8) 21 LED light bars.

51. Section 02900, Mechanically Stabilized Retaining Wall Systems states that we can utilize one of the system listed below. Is there a specific product and color requested from each system? “The retaining wall system shall be Anchor Wall Systems, Minnetonka, MN; Keystone Retaining Wall Systems, Minneapolis, MN; or Versa-Lok Retaining Wall Systems, North St. Paul, MN, or approved equal.”

ANSWER: WP-308-C09 requires that the block should have a minimum height of 8 inches. Submit color and texture alternatives of a specified system as part of the submittal process for approval by the City during the construction period as specified in Section 02900.