

**QUESTIONS AND ANSWERS REGARDING
MSCAA PROJECT 08-1260-03
Glycol Management Program – Deice Facility Airside Construction
May 20, 2019**

1.	P-152 - Unsuitable Excavation and Disposal – With over 29,000 CY in the bid tab, can you provide details as to unsuitable classifications and locations are known? There is potential for significant cost differences depending on the classification of the material encountered. Would the owner consider separate bid items to price more accurately?
	No additional pay items will be created. Geotechnical report was provided in Addendum No. 2.
2.	Sheet C-JT-10 - Please clarify details "X" and "Y" on this sheet. These areas appear to be replacement of existing trench drains that are to be demolished. Please confirm whether it is a requirement to reconstruct this section full depth, including P-220 Soil Cement, P-304 CTB, S-102 Porous Bituminous Base, and P-501 PCC Pavement, or just place P-501 PCC on suitable base. Due to constructibility issues with working in such a small area and proper placing methods, the underlying layers beneath the P-501 PCC pavement may not be possible to construct as shown.
	To be addressed as per plan.
3.	Sheet A4.2, Detail 5, Guardrail detail indicates 8" CMU block. Notes on Sheet A1.3 indicates all interior partitions are 6" CMU block and exterior walls are 12" CMU block. Please advise and/or clarify.
	Revised callout on A4.2, Detail 5 to 6" CMU block. See Addendum No. 3.
4.	Sheet M-DT-01, ADD 2/LAS Scope - What is LAS including inside the spill containment boxes shown on sheet M-DT-01? Are they providing only the spill containment box itself, or also supplying the internal ball valve and 3" camlock adapter?
	LAS is providing the spill box with a penetration adapter boot. They are not providing the piping, valve or fittings inside the box.
5.	Are cable and conduit for the Glycol control system and Bay Management system to be included in the lump sum price for the install of those systems, or will they be paid in the applicable unit price items for each size conduit and conductor?
	For the Bay Management system, all cable and conduit for each size and conductor shall be paid under the applicable unit price items. For the Glycol Control System all conduit and wiring shall be included in the lump sum install price under line item G-900-5.1.

6.	Specifications P-152/P-155 - Both of these specification sections include language allowing use of Hydrated Lime and Code "L" Lime, however, the bid form only lists Code "L" Lime. Please confirm that hydrated lime will be acceptable as a substitute to Code L Lime as it provides numerous benefits, including being more readily available. It also produces much less dust during spreading and mixing operations as it is not as fine of a product, which is both an environmental and safety and health benefit. Lastly silica exposure is not as big of a concern when using hydrated lime as much so as using Code L Lime. Based on these benefits, we ask for confirmation of approval to use hydrated lime as a substitute for Code L Lime for Pay Item P-152-4.6, as indicated in sections P-152 and P-155.
	Bid item has been changed to say "lime". See addendum No. 3. Code L lime shall be used.
7.	Specification G-200, Section 200-3.10 FLUSHING:, Pages 11 and 12: Paragraph 200-3.10,c. states "Flushing shall be completed after pipe installation for each sub-phase PRIOR TO BACK-FILLING." Question: There is no way that flushing can take place PRIOR to back-filling. Please restate that Flushing cannot take place until back-filling is complete.
	Flushing shall be completed after back filling. "Prior to backfilling" will be removed from G-200 specification.
8.	Specification G-200, Section 200-3.10 FLUSHING:, Pages 11 and 12: Paragraph 200-3.10, I, 1 states "Contractor shall providewater...required to complete flushing operations." Question: Request that this be restated so Owner will furnish all water necessary for flushing.
	Contractor is responsible for any fluids required for flushing of the systems
9.	Sheet G-FN-06 Detail 3 Ditch Structure note 2 indicates see SS-241 for additional information. SS-241 has not been provided. Please advise and/or clarify.
	Revised. See Addendum No. 2.
10.	Specification Section 00405 - In Division 0 - Section 00405 - Proposal, page 6, it states "Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above." Please confirm all other proposal documents submitted with our bid containing a signature from only one corporation will suffice so long as the said signature is reflected in Section 00405, Page 6.
	A set of companies which is intending to submit a bid as a Joint Venture must, in Section 00405, state its intent and list both company names that make up the Joint Venture and the owners with signatures. Once that has been stated, the Joint Venture can now in all other sections only sign with the signature of only one of Joint Venture owners and refer back to section 00405, page 6 that the single signature refers to the Joint Venture owners.

11.	Sheet G-OP-04 - Please confirm that the limits of Phase 2A is at the Taxiway Object Free Area Line, in the location shown on sheets C-HZ-07 & C-HZ- 08, which places the trench drain outside of the Phase 2A limits, allowing it to be constructed with the remainder of Phase 2 and not in the constrained timeline of Phase 2A.
	Correct. The trench drain is shown outside of the Phases 2A and 2B.
12.	Addendum No. 3 Q&A - The Q&A provided with Addendum 2 clarify the phasing requirements as being constrained mostly by total unstabilized area, outside of the working within Taxiway OFA. Please confirm that cement treated soil base course is considered stabilization, and therefore, once disturbed area in a particular subphase is stabilized with soil cement, additional area can be disturbed, allowing work to progress and ultimately providing larger portions of the area to be paved concurrently.
	The Cement Treated Soil Subbase Course (P-220) layer is considered stabilization if the runoff is diverted and not flowing into the sediment basin. If runoff from stabilized Cement Treated Soil Subbase Course layer occurs and is flowing into the sediment basin, then that area is not considered stabilized and therefore it must be counted as contributing drainage area.
13.	Specification Section 00405 - On page 6 of Section 00405, we will fill out the last section of the page titled "A Joint Venture" since we will be submitting a bid as a JV; however, based on the instructions below that section stating "Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above," we want to verify that "A Joint Venture" is the only section we need to fill out, rather than each corporation within the JV providing information for the top portion of page 6, titled "A Corporation" as well. Please advise.
	See Question #10
14.	Addendum No. 2, Sheet G-PH-01 - Please further clarify the requirements for Phases 2A/2B & 3A/3B. Based on the Q&A provided with Addendum 2, it is understood that work within these areas can occur anytime over the course of Phases 2 and 3, but may not be performed concurrently with any other respective subphases. It is also assumed at this point that the durations for each subphase are maximum durations, and that the work must be completed within the maximum duration, within the allotted time for each phase, and also within the allotted window for each taxiway closure. Please confirm that this is a correct understanding.
	Correct.
15.	If submitting a bid as a Joint Venture, is the Joint Venture Agreement required in the submission of the proposal?
	Yes, the Joint Venture Agreement must be submitted as part of the proposal.

16.	Sheet C-UT-22 (Sheet 253) - There is a note on the drawing stating Concrete Pre-Fab Shelter by Others. Is the Shelter foundation by others as well?
	The shelter foundation is shown on Sheet C-UT-22.
17.	Sheet C-TS-07 (Sheet 071) - Note 2 states Rammed Aggregate Pier subgrade improvement system shall be installed per Spec S-201. There is no Spec S-201. Please provide this specification. If Rammed Aggregate Piers are required for this project please provide more details.
	See Specification S-601 provided in Addendum No. 3.
18.	Sheet C-HZ-09 (Sheet 082) - Tank Farm Foundations are shown and referenced to Sheet C-TS-07. Sheet C-PE-07 shows PCCP (P-610) at these foundations. Does these foundations sit on top of concrete (P-610) within the 8" curb limits? If so, what is the detail to reference for this concrete (P-610)? There is not detail on how the foundations correlate with the PCCP (P-610) and the Rammed Aggregate Piers.
	Tanks sit on the three (3) 30" high foundations. Rammed aggregate Piers are required for the 30" foundations sections. Rammed aggregate piers shall be provided in a construction submittal, provided by the successfully bidding contractor and their rammed aggregate pier subcontractor.
19.	Sheet G-PH-03 Note 3 states that Phases 2A and 2B shall be completed prior to beginning work on other subphases. Due to the expected award and NTP timeline, we recommend this note be amended to allow construction within these areas outside of the mandatory open dates of November through March, which would in turn allow construction of other Phase 2 subphases to begin prior to completing Phases 2A and 2B.
	Revised. See Addendum No. 2 Subphases 2A/2B and 3A/3B are available for schedule float within main phase 2 and 3.
20.	Sheet G-PH-05 - Please clarify the duration and start constraints for Phase 4. It appears that this phase can be constructed at any time throughout the project, assuming all necessary predecessor activities are completed, and may run concurrent with other phases. Why is it shown as such a short duration at the tail end of the project? Please clarify.
	May run concurrent with other phases, assuming predecessors are complete and approval has been obtained and coordination has occurred with and between the program manager and contractor. See mote 8 on sheet G-PH-05.
21.	Sheets G-PH-03/G-PH-04 Note 5 on both of these sheets states that gates must be locked or have a gate guard to control access into the AOA at all times. Note 9 on sheet G-PH-01 states that the gate guard will be a third party security firm supplied by MEM. Please confirm whether all AOA access control points will be manned with third party security firms supplied by the Owner, or whether the Contractor will be required to employ any gate guards for AOA access control points.
	AOA access control points will be manned with third party security supplied by the Owner.

22.	Please provide approach surface diagrams for both runways that will potentially be impacted by construction activities, or provide maximum equipment heights within each area so as not to impact airport runway operations.
	Maximum equipment heights will be provided in the 7460 evaluation
23.	Will all required FAA waivers (Form 7460-1, 7460-2, etc.) be filed by the Owner and provided to the Contractor prior to construction?
	The Owner will file the required FAA Forms prior to construction and provide to the Contractor.
24.	Sheet G-OP-01 Barricade Note 8 states that barricades shall be paid for under Item S-100-6.6, which is Temporary Construction Gate and has a quantity of 4 LS. We recommend barricades and all incidental placement, maintenance, and relocation to be paid for under Item S-100-6.7, Project Safety & Security. Please clarify.
	Revised. See Addendum No. 3.
25.	Please clarify intent of Phase and Subphase Plans, per the discussion at the Pre-Bid Meeting. It is apparent that most subphases are tied to maximum allowed disturbed areas for erosion and sediment control for the approved SWPPP. Can all subphases (namely 2C-2E and 3C-3E) outside of the Runway and Taxiway OFA and safety areas be constructed concurrently, or are there true constraints to the start of each subphase?
	Subphase limits were determined and controlled by drainage and erosion control measures. Subphases may be concurrent within the confines of the SWPPP and maximum areas of disturbance.
26.	Sheet G-OP Series - The operational plans for Phases 3C and 3E indicate Taxiway N to be closed, and Phase 3B indicates that Taxiway N remains open for that phase. This seems to be incorrect, as Taxiway J is only closed for Subphases 2A and 2B which are in similar proximity to Taxiway J as the Phase 3 subphases. Please clarify.
	Revised. See Addendum No. 3.
27.	Sheet G-OP-15 Notes 8 and 9 seem to incorrectly describe requirements for work in Phase 5. Please clarify that the intent of these notes are to describe requirements for Phase 4 in lieu of Phase 5 since Phase 5 does not appear to exist.
	Revised. See Addendum No. 2.
28.	Sheet G-OP-16 Details 2 through 5 all indicate payment under Pay Item S-100-6.6, Temporary Construction Gate. Please clarify that these items should be paid for under Pay Item S-100-6.7, Project Safety and Security.
	Revised. See Addendum No. 3.

29.	Sheet G-TC Series - Have traffic control plans been submitted for approval by City of Memphis? Has the Program Manager or Engineer obtained a Traffic Control permit for the project based on these plans?
	Plans for the Traffic Control are currently being submitted to the City. Contractor shall acquire the necessary permits.
30.	Sheet C-DM-08 - Will the Airfield Maintenance Project stockpile shown on this sheet be removed prior to beginning work on this project?
	No, the removal of the stockpile will be part of this project.
31.	Sheet C-TS Series - Please clarify what is intended for Item 10, P-152 Compacted Fill, along with the associated "4' Box Cut" note shown on the typical sections. It appears that Item 10 should be described as Pay Item P-152-4.4, Subgrade Preparation in lieu of P-152-4.5, Granular Backfill. Is the intent of the 4' box cut, along with the associated subgrade preparation paragraph in Section P-152, to excavate to 4' below design subgrade elevation and backfill in lifts as the subgrade preparation activity?
	See Addendum 2. Contractor may not be required to cut 48" in all locations. See Specification P-152-3.5 for description on measurement of subgrade preparation. Subgrade Preparation is required to achieve compaction requirements of 95% of Maximum dry density.
32.	Sheet C-TS-02A - Will the existing bridge fill be placed and compacted to P-152 moisture and density specifications, or should Contractors plan on recompacting and moisture conditioning the placed fill prior to placing final fill and subgrade preparation?
	Phase 1 of the project currently under construction was designed to TDOT standard specifications. Contractor will be required to verify all fill under proposed pavement meets specification P-152.
33.	Sheet C-TS-07 Details for the Tank Farm Foundations show Rammed Aggregate Pier and describe to be installed per Spec S-201. Spec S-201 has not been provided with the bid documents. Please provide Spec S-201, as well as adding pay items for Rammed Aggregate Piers with appropriate quantity total and unit of measure.
	See Specification S-601 provided in Addendum No. 3.
34.	Sheet C-JT Series - Will the Owner consider alternate joint layout patterns that may eliminate the odd-shaped/narrow slabs at the edges of the taxiways? A revised joint layout plan may help in eliminating the need for excessive reinforcing, mitigating the potential for slab cracking, and overall improving the efficiency of the paving operation.
	Joint layout shown in plans is based on FAA requirements.

35.	Sheet C-JT Series - Please provide joint layout plan for P-610 PCC Pavement at CDF Tank Farm, shown on sheet C-PE-07.
	See Addendum No. 3. Joint Layout provided on C-TS-07.
36.	Sheets C-GR-33/C-GR-33A - For improved concrete pavement finish, and to eliminate pavement penetrations that tend to lead to cracking at the corners of storm structure penetrations, we recommend casting the upper portion of the storm structures integral to the pavement and eliminating the isolation joint and associated corner reinforcement in the pavement. We propose to cast the structure castings into the pavement, and the top of the structure be cast integral and tied into the surrounding pavement in lieu of isolating the structure from the pavement and creating re-entrant corners that are prone to cracking. This provides a much smoother finished surface, and mitigates potential for cracking at the structure corners. Please confirm that this is acceptable.
	Contractor shall provide bids with details as shown on the plans. This is the standard design practice at MEM.
37.	Sheets C-GR-31 through C-GR-33A - Please provide basis of design (manufacturer and model number with approved equals) for storm structure castings and trench drain grate.
	Castings and Trench Drains shall be aircraft rated and meet the specified loading requirements shown in the plans. Not allowed to specify a certain grate. See C-GR-33 for aircraft loading requirements.
38.	Sheet C-UT-04 - Is the intent for the new 12" DI Gravity Sewer Line to be installed in the asphalt service road, will it be acceptable to install in the grass ditch between Shelby Dr. and the service road?
	It is the intent to install as shown in the plans. Successful contractor may propose alternatives after selection.
39.	Sheet C-UT-04 - Is the costs associated with demo and replacement of the asphalt service road to be paid under applicable demo and paving bid items or is the demo and replacement or pavement incidental to the 12" Sewer Gravity Line bid item?
	Yes. Demo and replacement of asphalt road is incidental to S-106-5.2.
40.	Bid Schedule - Please clarify if Item No. 26, S-105-5.5, Casing Pipe (24") is shown in error, as no drawings in the plans appear to show this item.
	See sheet C-UT-06.

41.	<p>Sheet C-UD-09 - Please clarify the backfill requirements of the underdrain piping. Some details show granular backfill stopping at the bottom of P-304 CTB layer with P-304 layer over top of underdrain. This detail will not allow water to migrate from Porous Base Course into underdrain system. Another detail shows 8" of P-402 backfill over underdrain. This is not very constructable or economically feasible due to the narrow trench width and plant supply of porous bituminous backfill. We recommend installation of underdrain following CTB installation and granular backfill of underdrain trench to top of P-304 layer then placement of P-402 underdrain layer over backfill, as is shown in Detail 3/C-UD-09, which is typical procedure. Please clarify that this is acceptable and desired method of construction, as well as clarifying limits of payment for Item D-705-5.1 and 5.2 accordingly.</p>
	<p>Details include sections where the underdrain is under the P-304 layer. This is normal practice. Groundwater should enter the underdrain beneath the P-304 layer as in Detail 1 on sheet C-UD-09. Water entering the concrete pavement will use the S-102 asphalt drainage layer to reach the underdrain beneath the shoulders.</p>
42.	<p>Sheet C-UT Series - Have all utility plans been submitted to MLGW for permitting and approval, or will this be the responsibility of the Contractor after award?</p>
	<p>Plans have been submitted and coordination has begun with MLGW.</p>
43.	<p>Sheet C-UT Series - Who is responsible for paying MLGW engineering fees for final design of utilities?</p>
	<p>MLGW fees come out of the Utility Allowance on the Bid Form.</p>
44.	<p>Sheet C-UT-01 Note 14 under Sanitary Sewer notes requires a registered Engineer in the State of Tennessee to inspect and certify the installation of new sanitary sewer lines as required by Shelby County Code Enforcement. Will the Owner provide these inspections and certification through the Program Manager or Engineer, or will the Registered Engineer be required to be employed or contracted by the Contractor?</p>
	<p>Sewer inspection is the responsibility of the Owner.</p>
45.	<p>Sheet C-UT-22 - Please confirm that concrete pre-fab shelter for the Lift Station is to be provided by others, outside of this contract. Will this contract be responsible for the shelter foundation?</p>
	<p>Pre-fab shelter and shelter foundation shall be provided by the contractor.</p>
46.	<p>Sheet C-UT-25 - Is the shelter and shown on this sheet in addition to the shelter shown on sheet C-UT-22? This sheet refers to sheet C-UT-20 for foundation location and orientation, but no shelter is shown on sheet C-UT-20. Please clarify location for both the AGL Base Station Shelter and Lift Station Shelter.</p>
	<p>The shelter shown on C-UT-22 is for the Lift Station. The shelter shown on C-UT-25 is for the AGL Base Stations. Sheet references to C-UT-20 updated to C-UT-19. AGL base stations shown on sheets C-FO-02 and C-FO-04. See Addendum No. 3</p>

47.	Sheet C-UT-25 - What pay item shall the AGL Base Station be included in for payment?
	See Addendum No. 3. Pay item provided in L-130.
48.	Sheets M-TD-01 thru M-TD-03 - Provide details of the Tank "Support Pedestals".
	See question 49.
49.	Sheets M-TD-01 thru M-TD-03 - Is the Tank "Support Pedestals" the same as the Tank Farm Foundations 1,2,3 shown on C-TS-07?
	Correct.
50.	Sheets G-PL-01, G-PH-04 and G-PH-05 - Refer to Project Description "Schedule III" on G-PL-01. It states that this work is in Phase 4. This area is called out to be in Phase 3 as shown on G-PH-04. Phase 4 is indicated on G-PH-05. Please clarify and/or correct notes.
	Revised. See Addendum No. 2.
51.	Sheets C-GR-23 thru C-GR-25 and C-GR-31 - Section A on C-GR-31 indicates that the trench drain depth varies from 1'-10" minimum to 4'-0" maximum. In reviewing the trench drain profiles it looks like the minimum depth is closer to 1'-00". Are we supposed to build the trench drains from the profiles and info provided on the profiles or build to the depth requirements stated on C-GR-31? 7" to 10" depth variation can add up to a lot of money over 7000 lft of trench drain. Please clarify.
	Revised. See Addendum No. 3.
52.	Sheets G-FN-01, G-FN-02 and G-FN-03 - Bid Schedule I, Pay item 107 Chain Link Fence Double Swing Gate indicates a quantity of 4 EA however there appears to be a total of 5 shown on drawings G-FN-01 through G-FN-03. Please clarify.
	Revised. See Addendum No. 2.

53.	<p>Contract Article 2 & GP 50-03 - Please clarify the order of precedence, Article 2 is silent regarding the General Provisions of the Contract thereby making the GPs the highest precedent as being part of The Contract. Within GP 50-03, both Special Provisions and Technical Specifications are listed as having a higher precedence. In addition, GP-10-54 states the Cited Standards are as if stated in the contract which is contrary to what is stated in GP 50-03.</p> <p>Please clarify order of precedence relative to the Contract, the Contract General Provisions, Specifications and Cited References.</p>
	<p>Order of precedence should follow Section 2.03 in the Contract. General Provisions are included in Section 2.03e under "FAA General Provisions".</p>
54.	<p>Revisions from Addenda - Does MSCAA intend to reissue conformed documents incorporating the changes being made? Please provide a revised Bid Schedules that incorporates changed items. When reissued, would we be able to receive a native file format of these bid schedules?</p>
	<p>Issue for Construction documents will be provided to the successfully bidding contractor.</p>
55.	<p>Item P-220 Cement Treated Soil Subbase Course - Section 220-3.1 States "Before the start of subbase construction, tests on the soil or soil-aggregate material to be stabilized to determine the quantity of cement required for the mix design." Could the Client provide the % of cement used on previous projects at the MEM airport or otherwise provide a means of paying for the cement separately to mitigate risk and lower estimated costs?</p>
	<p>Historically, 5.5% has been used on previous projects. This quantity is shown in a new pay item under P-220-6.2 Cement – per ton. See Addendum No. 3.</p>
56.	<p>Item P-501 Cement Concrete Pavement - Section 501-2.12 Bond Breaker states "Liquid membrane forming compound shall be in accordance with paragraph 501-2.9-a." This is for concrete curing compound. Where is this bond breaker to be applied?</p>
	<p>Bond Breaker shall be applied between the Porous Bituminous base and the P-501 Surface Course. Curing compound and bond breaker are one and the same.</p>
57.	<p>Item P-501 Cement Concrete Pavement - Will the Client supply previously approved mix designs for the concrete pavement at the MEM Airport?</p>
	<p>Proposed mix design shall be for this project per the project specifications. Past mix designs will not be provided.</p>

58.	<p>Item P-152 & 155 - It is our understanding from P-152-2.1 that Bid item "Code-L Lime" is available for sole purposes of drying soils when aeration and manipulations have failed or to serve as an aid to protect progress of an embankment. P-152 later references P-155 is being the governing specification for installation requirements.</p> <p>The installation specification P-155 – Lime Treated Subgrade requirements are beyond what is needed to achieve the goals stated above, to manage the drying and progress of on embankments. Specified mix designs, remixing, curing, finishing, tolerances, and acceptance testing are all generally used when constructing a structural section for a pavement section to be placed immediately upon. In this case when utilizing periodically while constructing embankments, these requirements do not seem appropriate and will drive costs higher.</p> <p>Please confirm and provide a specification for incorporations that would be more in line with what we believe to be the intent of this bid item.</p>
	<p>Code-L Lime is used as a tool to expedite drying of soils and is only allowed on a case-by-case basis with approval by the program manager. See Spec P-152 issued in Addendum No. 3.</p>
59.	<p>Item P-152 & 155 - With regard to Bid item "Code-L Lime", this item is paid by the Ton and the bid quantity is 17,500 tons. Will the client provide the basis of estimate for the quantity of Lime given? What percent of lime are they anticipating and what depth?</p>
	<p>Code L Lime quantity is based on past experience with airport. See answer to question 19.</p>
60.	<p>Operational Plan Phasing Sheets - Please see attached drawing for reference. We believe that the project will require additional space for the contractor to use as plant sites, laydown and admin facilities.</p> <p>Are the areas identified in red available to the contractor for additional laydown, parking and office facilities?</p> <p>In general it seems as though the majority of the undeveloped space along Louis Carruthers Drive would be available to the contractor. If there is additional space, can you share what additional property beyond what you have shown in the drawings will be available to us and if there are associated fees of any kind?</p>
	<p>The additional location northeast of the project site will be available for staging, batch plant, parking, etc. The other requested location (northwest of site) is being utilized by additional projects at the airport and will not available. See included Exhibit showing the additional area available. Revised Phasing Sheet(s) will come in Addendum #4.</p> <p>Owner will look at potential additional/alternate locations including south of Shelby Drive with the successful Contractor.</p>
61.	<p>Item P-304 Cement-Treated Aggregate Base Course Section 304-5.6 states "The Contractor shall install the CTB layer in single compacted layer no greater than 6 inches thick." If the Contractor can demonstrate during the Control Strip that the material can be placed in a single 8" lift per the plan thickness, will this be allowed?</p>
	<p>FAA Specifications require placement in lifts of 6" or less. Lifts greater than 6" must be approved by Owner and FAA. Approval is not guaranteed.</p>

62.	Item S-401 (Hot Mix) Section 307.09 states that the Hot Mix will be measured and paid by the square yard. The bid item quantities are by the Ton. Which units of measure will this be paid by?
	Revised. See Addendum No. 2; Spec S-401 is measured per ton
63.	Sheets 292 and 295 and Bid Schedule I - Bid Schedule I, Item 284 indicates a total of 5 LPD or HPV required. There are actually 4 LPD's and 2 HPV's shown on Sheets 292 and 295. Note 4 for detail 2/C-GS-50 on sheet 303 states where 3 glycol lines are served use 2 pits. This occurs at 2 LPD's and 2 HPV's so there are actual a total of 10 required on sheets 292 and 295. Please verify required quantity and revise bid schedule accordingly.
	11 pits will be required. Bid schedule will be revised
64.	Sheet 308 - Refer to Key notes 6 and 7. What bid schedule and item should these LPD's and HPV's be included in?
	The above grade LPD and HPV's shall be included in the linear foot price of the pipe of that size in schedule 2.
65.	SS G200 paragraph 3.10 - As currently stated, the flushing of the glycol system is to be included in the individual piping bid items. Flushing is going to be an expensive scope of work. Would it not be better to have a separate bid item for flushing? Unit could be Inft. Please consider.
	Addendum #2 Q&A response: Flushing will not be broken out as a separate bid item.
66.	Permit for HVAC/Plumbing - Generally the cost of Mech/HVAC/Plumbing permits would include the cost of the total value of the Mech/HVAC/Plumbing equipment. Will a City of Memphis permit be required for the Glycol system, and if so, will the cost of the glycol vendor furnished equipment, storage tanks, vaults, HPV's, LPV's and other glycol equipment be required to be included in the cost of this permit? Please clarify and/or confirm.
	Contractor shall coordinate with the City of Memphis Permitting Department.
67.	Item 283 Schedule I - Item 283 (G-200-5.17), 3" Above Ground Stainless Steel Pipe appears to only be required between the blending system and load stands, which are to be supplied with the Glycol System and paid for under Schedule II. However, all 3" above ground Stainless Steel Pipe is included in the bid schedule under Schedule I. Please clarify whether the 3" above ground stainless steel pipe should be included on Schedule I and not on Schedule II where the associated equipment is included.
	Piping between the load stands and the blending cubes is not provided by the glycol equipment supplier and needs to be supplied by the contractor. There is above ground 3" SS piping upstream of the blending cube and between the blending cube and load stand which will be a part of Schedule 1. There is also above ground SS piping of various sizes between the tanks and the pump house which would be a part of Schedule 2.

68.	SS G903 paragraph 4.1 Paragraph 4.1 states that the heat tracing should be included in Schedule II Line Item G500-5.1 Glycol Equipment Provided by Glycol Vendor. Shouldn't the heat tracing be included in the Line Item G500-5.2 Glycol Equipment Install? Please confirm and/or clarify.
	Heat tracing should be provided and installed under G-500-5.2
69.	Sheet 014, Overall Phasing Plan - We don't feel there is sufficient time allotted for Phase 4 (88 days). This phase consists of construction of the pump house and installation of all HVAC/Plumbing and Glycol equipment and piping inside the pump house. Request additional days for this phase.
	Phasing is limited by the size of disturbed area for the erosion control requirements and sediment basins. Flexibility on phasing starts is possible with approval of Program Manager. Please see Addendum #2 Q&A for maximum allowable disturbed area.
70.	Sheet G-PL-01, Bid Schedule - Please confirm that both bid schedules 1 and 2 are base bid as shown on sheet G-PL-01, and not only Bid Schedule 1 is the Base Bid and Bid Schedule 2 is not Alternate 1 as currently stated on the bid form in the proposal package.
	Revised. See Addendum No. 2
71.	Sheet G-PL-01 Note 14 states that the contractor is responsible for acquisition for water as required for construction operations. Will a well be permitted for use as temporary construction water. If no well is allowed, please provide MLGW or other applicable agency contact for permitting and usage fees associated with acquisition of water.
	The Water Well shown on Sheet C-EC-08 will be available for contractor use during construction. For additional water sources, the contractor shall coordinate with MLGW to obtain a meter tap into the nearest water source available.
72.	Sheet G-PL-01/G-PH-01 Note 6 on sheet G-PH-01 states that the contractor shall utilize the batch plant and staging locations identified for the project. 1.) Has the airport confirmed that the batch plant height will not interfere with any imaginary surfaces associated with runway approach at its current location? 2.) If clearance has been confirmed, what is the maximum height allowed in the proposed staging area? 3.) Due to the vast amount of glycol, utility, and stormwater piping, along with electrical and lighting material, we do not feel as though adequate laydown and staging area has been provided. Please consider providing additional laydown and staging area beyond what is currently proposed.
	<p>1) The Owner will coordinate with the successful Contractor to ensure batch plant location does not impact airspace through the 7460 evaluation.</p> <p>2) Max height will be provided after 7460 has been completed by the FAA.</p> <p>3) Additional staging/laydown/batch plant area is available northeast of the project site. See Question #60. There is also area south of Shelby Dr. Successful Contractor can coordinate with Program Manager and owner for exact locations.</p>

73.	Has the Engineer or Program Manager contacted MLGW regarding availability of temporary power or performed any preliminary power studies for temporary power to the batch plant location? Please provide MLGW contact for temporary electrical service and usage fees.
	Temporary power will be the responsibility of the successfully bidding contractor.
74.	Sheet G-PH-01 Note for Phases 2A & 2B indicates that Taxiway J must be available for use for the months of November through March. However, Phase 2A is shown to start at approximately day 40 after NTP, with an 81 day duration. With the expected NTP of early August as indicated at the Pre-Bid Conference, this timeline would require Taxiway J closure during the winter months, contradictory to what is stating on the Phasing Plan. Please clarify the phasing requirements of the project.
	Revised. See Addendum No. 2; Subphases 2A/2B and 3A/3B are available for schedule float within main phase 2 and 3.
75.	Sheet C-UT-03 - There is an 8" DI Sanitary Sewer Force Main Recirculation Line shown on C-UT-03, but there is no pay item in the bid schedule for this item. Please confirm that 8" is the correct diameter, and if a bid item is to be added to the bid schedule for this item.
	8" is the correct diameter for the recirculation line. This 8" recirculation line is part of the lump sum price of the Sanitary Pump System & Lift Station, pay item M-101-4.1.
76.	G-700, paragraph 2.2.a - Tank Manufacturer's are quoting the tanks fabricated conforming to UL-142 not ASME Section 8, Division 1. Is this acceptable? If so, please revise accordingly.
	A UL-142 listing is acceptable if it can be acquired by the tank manufacturers. According to UL-142 the certification only applies to fluids with a specific gravity of 1 or less. Glycol Type I is 1.04 and type IV is 1.03 meaning we could not get an official certification for the UL.
77.	Sheet C-UT-04 - Please provide existing pavement section thickness for the asphalt service road. and for Shelby Drive.
	See the geotechnical report provided in addendum no. 2. Shelby Drive information is not available, however plans have been modified to jack and bore for the sanitary sewer.

78.	Pre-Bid Site visit - Please provide us with the scope sheet (inclusions/exclusions) for JCAII for the Bay Management System
	See sheet MM-02 as noted in Addendum No. 3 for updated list.
79.	Sheet E-DT-28A - Provide spec section for 5" piling.
	MLGW constructs the pilings.
80.	G200, 3.10.c - Specs indicate that flushing has to be done prior to back-filling. This is counterproductive due to great possibilities of rainfall in open ditches thus compromising the integrity of the ditch. Request that this requirement be changed.
	See response to line item 7.
81.	G200, 3.10.i - Specs state that the contractor is responsible for the water for flushing. Request that this requirement be changed to " the owner will furnish all required water for flushing".
	See response to line item 8.
82.	Does MSCAA have a preferred Regulator for Airfield lighting?
	MSCAA currently purchases and installs Manairco Constant Current Regulators.

**Questions are listed as submitted, company names are withheld.
This Addendum No. 3 includes Questions received through May 13, 2019.
Any future questions will be answered in a future Addendum.**