Project No. 091108 Sale Date - 8/19/2009

<u>Question Submitted:</u> 7/21/2009 <u>Question Number:</u> 1

Since the other Nelsonville Bypass Project No. 091080 has had an addendum issued for adding a pavement alternate, we respectfully ask that a similar addendum be issued for this project so everyone can plan accordingly.

Question Submitted: 7/29/2009

Question Number: 2

Can the Geopak project files be made available? At the least, the project base plan view, existing ground .tin file and the project gpk file would be very helpful. Any additional files such as any proposed .tin files or proposed ASCII text files would be great. Can I be notified if any of these files are posted on your FTP and the location?

ftp://ftp.dot.state.oh.us/pub/contracts/Attach/ATH-23846/

Question Submitted: 7/31/2009

**Question Number: 3** 

1. In Addendum #3 the Portable Concrete Barrier quantities were changed however it appears the quantities are still incorrect. The only 32" PCB is in Phase 2 which is 1740 LF. This makes the 50" PCB APP 6630 LF. 2. Is the Vehicles over 4 tons Speed Limit sign still required? 3. It appears the temporary striping quantities are incorrect. In Phase 3 there is no quantity for EB and in between 2-MT and 3-MT on page 37 and 5-MT on page 37. The areas in between the crossovers in Phase 4 are not included. Also, in Phase 4 there is no quantity for WB striping.

Answer 1: Quantities will be updated by addendum. Answer 2: Yes. The recent changes to truck speed limits only applied to interstates. Answer 3: For east bound traffic in Phase 3, the existing outside edge line will still be in place. Quantities for Phase 4 will be updated by addendum.

Question Submitted: 8/10/2009

**Question Number:** 4

Will ODOT consider waving any portions of 703.02 and 703.03 to allow contractors to produce sand from crushed sandstone material for use as pipe backfill, fine aggregate for grout, or the wick drain sand blanket? This could result in a substantial savings to ODOT.

No. The Dept will not waive the specifications.

Question Submitted: 8/10/2009

Question Number: 5

For Bridge No. HOC-33-1986, there is a note on plan sheet 952 which states, "Reinforcing steel weights for approach slab deflector parapets are included in Item 526, Reinforced Concrete Approach Slab (T = 15 inches), As Per Plan, for payment." The reinforcing steel quantities (Item 509) for each bridge appear to include the steel for the approach slab deflector parapets. Please revise the reinforcing steel quantities.

The bridge designers rechecked the numbers and confirmed the original quantity

Question Submitted: 8/10/2009

Question Number: 6

Please clarify item # 203, ROADWAY, MISC.: 6-INCH INJECTION BOREHOLE BY CONCENTRIC DRILLING = 28450 + 8840 + 3729 = 41019 FT.

The drilling quantity is summarized on plan sheet 819. 28,450 feet is the vertical drilling length. 8,840 feet is the angled drilling length. 3,729 feet is an additional quantity for use as directed by the Engineer. There is only one pay item for concentric drilling so all three numbers get added together in the summary. See the Mine Stabilization Special Provisions for the drilling specifications.

Question Submitted: 8/10/2009

**Question Number:** 7

For Bridge No. HOC-33-1908, there is a note on plan sheet 888 which states, "Steel points shall be used at Piers Nos. 2L and 2R, and the Forward Abutment Lt. and Rt. only." The plan quantities at Pier 2 for both the Left and Right bridges only account for 18 of the 21 piles at each pier. Is it the department's intent for 3 piles at each pier to not receive points? If so, please verify which piles do not receive points.

Question Submitted: 8/11/2009

**Question Number:** 8

On structure 1908 L&R, the deck concrete quantity seems to be understated. Please advise.

The calculations were checked by the designers and they got the same results.

Question Submitted: 8/11/2009 Question Number: 9

Special Provisions (4.2.3) "Piping": It is not practical to pump concrete / grout through a normal four (4) inch slick line at velocities exceeding 15 ft. per second. Note: Concrete and grouts utilized in mine abatement project always utilize a minimum 4 inch slick line that enables higher productions while keeping pumping pressures at a minimum. Example: Pumping at 100 cy / hr only generates a velocity of 8.7 ft. / sec through a 4 inch line. Note: Historically, line pumping velocities rates are normally relegated to hydraulic conveyance of solids. Can this requirement be waived?

This specification was updated in Addendum No. 3.

Question Submitted: 8/11/2009

Question Number: 10

Special Provisions (4.6) "Drilling Equipment": In drilling hard rock formations, a minimum of 3,000 ± pounds of down force per inch diameter of hole is required for efficient tri-cone roller bit drilling. Whereas, percussion drilling methods only require a total of 500± pounds of down force to drill this same formation. Reducing the drilling down pressure above the mine roof seems like a good idea, however, the original mine roof has often collapsed or fallen over time, causing the original void to be 10 to 20 feet above the initial mine location. Not knowing where the roof elevation is, the driller will not reduce the down pressure on the tricone drilling method causing additional roof fall. The only place percussion drilling should not be utilized are within 20 feet of a structure where the condition of the foundation is unknown. Can percussion drilling be used on this project?

Question Submitted: 8/11/2009

Question Number: 11

Special Provisions, (7..5 & 7.6 "Barrier & Production Grout Placement": When pumping either Barrier or Production grout mixes in high volumes through both 4 inch slick lines and tremie tubes, it is impossible to stop pumping when either mix is 2 ft. above the roof of the mine void. The nominal ID of the drilled hole is 6 inches subtracting a 4 inch HDP; SDR 11 tremie pipe OD at 4.5 inches leaves only a 0.75 inch annular space. When pumping grout in the quantites required by this project, the hole will overflow into the annular space between the tremie pipe and the ID of the drilled hole before the grout can be stopped. Additionally, as the tremie pipe is pulled from the hole, the interior contents will nearly complete the infilling of the borehole. Typically the grout that is being injected in the borehole at mine level is also used to fill the stem of the borehole. Is that acceptable on this project?

This specification was updated in Addendum No. 3.

Question Submitted: 8/11/2009

Question Number: 12

Special Provisions sections (7.7) "Overburden Rock Grouting", (7.8) "Overburden Soil Grouting", and (7.10) "Grout Injection Borehole Sealing" require that the surface casing be removed. When PVC surfacing casing is used, it is typically left in place after grouting is complete. Is that acceptable on this project?

This specification was updated in Addendum No. 3.

Question Submitted: 8/11/2009

Question Number: 13

Special Provisions sections (11.3), "Roadway Misc: Vertical 6-inch Injection Borehole Through Soil by Conventional Drilling Methods", (11.4) Roadway Misc: Angled 6-inch Injection Borehole Through Soil by Conventional Drilling Methods", (11.5) Roadway Misc: Vertical 6-inch Injection Borehole Through Rock by Conventional Drilling Methods", and (11.6) Angled 6-inch Injection Borehole Through Rock by Conventional Drilling Methods" indicate that there will be separate pay items for each of the respective drilling types. The proposal bid sheet only has one pay item for "Roadway Misc: 6-inch Injection Borehole By Concentric Drilling". Can a new proposal bid sheet with quantities for all the above stated pay items be issued? Also, please explain the "concentric drilling" procedure referenced by the Special Provisions Section (11.7) "Roadway Misc: 6-inch Injection Borehole By Concentric Drilling". Normal and customary methods of advancing steel flush-joint casing through fractured or unstable overburden utilizes "eccentric drilling" practices; where the drill bit extends slightly in-front-of and is beyond the external casing diameter, allowing the casing to closely follow the advancing drill bit. We do not know of other methods that will allow the casing to be installed simultaneously and concentrically with the drilling operation, while enabling the casing to be advanced through hard fractured overburden formations.

Question Submitted: 8/11/2009

Question Number: 14

On structure 1908L&R and structure 1697L&R, please verify if the very outer parapets walls will only have aesthetic detailing. The plans show dimensions and specific spacing for left and right parapets on the left and right structures. Also, if slipforming is allowed for the median walls, should the concrete be Class HP and not Class S stated on page 919 of 1144. Please advise.

Yes, only the outer parapets will have the aesthetic details. Plan sheets 859 and 919 have notes stating this. The plans call for the use of class S concrete with slip forming as a minimum.

Question Submitted: 8/11/2009 Question Number: 15

These question pertain to the Mine Stabilization Items1. Please identify the area where concentric drilling is being considered.2. Since mixing and pumping properties differ materially, please consider separate breakdown of the barrier grout quantity and production grout quantities. Also please consider separate pay quantities for these items.3. Must barrier grout contain coarse aggregate?4. Please provide separate breakdown of the drilling items (like the previous phase that bid 7/29) i.e. conventional drilling through soil, vertical and angled, conventional drilling through rock, vertical and angled.

Answer 1: All drilling on this project is concentric. Answer 2: The Department declines to breakdown the current pay items further. Answer 3: Section 5.0 in the Mine Grouting Special Provisions says barrier grout may contain coarse aggregate. Answer 4: All drilling on this project will be concentric so there is only one pay item for drilling.

Question Submitted: 8/12/2009

*Question Number:* 16

Supplemental Specification 800 inculded in Addendum #7 contains revisions to CMS 107.10 in reference to the contractors use of properties outside the right-of-way. Is the requirement under Ecological Resources Item C, regarding removal of trees greater than 8", in reference to the Indiana Bat Tree clearing restrictions?

The plans and addenda have more specific and detailed notes on tree clearing. Follow them.

Question Submitted: 8/12/2009

Question Number: 17

On plan sheet 956 note under Building Demolished, APPrequires that the brick plant site shall not have any impervious surfaces left. Is this only referring to large chunks of concrete? There is gravel and other fine impervious material covering the site. Will this require a dirt cap over the entire area?

Impervious means a soild surface (asphalt or concrete) that won't allow water to soak through. Gravel is considered pervious.

Question Submitted: 8/13/2009

Question Number: 18

Will the materials that make up the grout [cement,flyash, sand, gravel] be paid from delivery tickets or from calculated batch weights?

See Section 11.10 through 11.13 of the Special Provisions: Mine Stabilization.

Question Submitted: 8/13/2009

Question Number: 19

In regards to the mine grouting, this project only has a pay item for concentric drilling. Will the casing pipe be required to be placed full depth or partial depth? And will the casing be required to remain in place?

The casing will extend full depth with concentric drilling and it is expected that the contractor will remove the casing afterwards.

Question Submitted: 8/13/2009

Question Number: 20

Please provide additional boring logs and geotechnical information for the bridge structure, embankment and roadway approximately between Sta 43+00 to 50+00.

All borings are shown in the soil profile section. Digital photos of the cores were included with the zip file available for down load.

Question Submitted: 8/14/2009

Question Number: 21

In regards to reference no. 31, Roadway Misc.: Test Hole Drilling, 1500 Ft.; What type of drilling is required, concentric, conventional, confirmation, exploratory, etc......?

This item is not part of the drilling to be done to deliver grout down to the abandoned mine at Sta. 107+87.5 to Sta. 116+87.5. It is to be used to explore areas where because of geological features found during construction, the Engineer may suspect that an unknown mine may be present and to also provide for installation of monitoring wells in known mines that will be excavated so that the amount of water in the mine can be determined at the time of excavation. Any drilling method that would allow for the detection of mine voids (which would include determination of void height and depth) and the successful installation of monitoring wells would be acceptable.

Question Submitted: 8/14/2009

**Question Number:** 22

For Bridge No. HOC-33-1986, there is a note on plan sheet 924 which states that, "A zone of 203 Type B Granular Material is to be constructed full height of embankment fill within the footprint of the rear abutment piles and extending outward 10' downstation and to the sides and 20' upstation." The current embankments for Bridge No. HOC-33-1986 and Bridge No. HOC-33-1908 have already been constructed with durable sandstone (shot rock) as per Specification Item 203. Please revise this note.

Question Submitted: 8/14/2009 Question Number: 23

Should the abutments at Bridge No. HOC-33-1697 and Bridge No. HOC-33-1829 contain a 203 Type B Granular Material zone, similar to that shown on plan sheet 924, for the prebored holes to be drilled through? Please notify.

No.

Question Submitted: 8/3/2009

Question Number: 24

There appear to be several conflicts with the proposed culverts and the existing gas lines. Please provide 4A notes so that we may know the dates and locations of the relocations.

The utilities have been relocated. New crossings were shown on the plan sheets. Examples are the power line on plan sheet 71 and the gas lines on plan sheets 81 and 83.

Question Submitted: 8/4/2009

**Question Number:** 25

Please make the design files available for this project in the same format provided for 091080.

ftp://ftp.dot.state.oh.us/pub/contracts/Attach/ATH-23846/

Question Submitted: 8/4/2009

Question Number: 26

could you please make available the geopak files for the project?

ftp://ftp.dot.state.oh.us/pub/contracts/Attach/ATH-23846/

Question Submitted: 8/4/2009

Question Number: 27

1. Sheet 706 shows 21" pipe. Sheet 71 quantities show 15" pipe. Which is correct?2. During phase 3, two-lane, two-way traffic is maintained on existing EB US 33 so that proposed WB US 33 can be constructed. In order to construct the proposed WB US 33, the existing storm pipe at 34+00 will have to be removed and the proposed storm pipe will have to be installed to the phase line. Storm water in this area drains to the south; however, due to the phasing, the outlet at 34+00 cannot be constructed until the following phase. How are we to maintain drainage during construction?

Question Submitted: 8/5/2009

<u>Question Number:</u> 28

For Bridge No. HOC-33-1697, the piling quantities in the "Piles To Bedrock" notes section on plan sheet 828 contradict the Pile Layout Plan on sheet 831 as well as the estimated quantities charts on sheets 829 and 830. Please correct this contradiction and verify by addendum.

Question Submitted: 8/5/2009

**Question Number: 29** 

For Bridge No. HOC-33-1697, plan sheets 833 and 837 show Type 2 Waterproofing at both the Left and Right Bridge Forward Abutments. Is it the department's intent for the waterproofing to be incidental to Item 511 – Class C Concrete, Abutment Not Including Footing? Please confirm.

Question Submitted: 8/5/2009

**Question Number:** 30

For Bridge No. HOC-33-1697, the spiral rebar quantity for the piers on the Right Bridge appear to be omitted from the total rebar quantity. Please update the total rebar quantity for the Right Bridge to include this spiral rebar.

Question Submitted: 8/5/2009

Question Number: 31

For Bridge No. HOC-33-1829, the quantities for Item 511 – Cass C Concrete, Abutment Not Including Footing, appear to be overstated. Please verify.

Question Submitted: 8/5/2009

**Question Number:** 32

For Bridge No. HOC-33-1829, the quantities for Item 511 – Class HP Concrete, Bridge Deck, appear to be overstated. Please verify.

Question Submitted: 8/6/2009

Question Number: 33

For Bridge No. HOC-33-1986, the quantities for item 511 - Class C Concrete, Abutment Including Footing, oppear to be understated. Please Verify.

The bridge designers rechecked the numbers and confirmed the original quantity.

Question Submitted: 8/7/2009 Question Number: 34

Addendum #3 states that the cost for rock cut underdrains is to be included with the cost for shallow pipe underdrains. Since the cross sections in this project do not show the existing elevations after 191+00, the rock undercuts for ATH/HOC-33-0.71/18.97 are not shown as they are in ATH/HOC-33-16.62/0.00. Please provide a quantity for the rock cut underdrains past station 191+00.