

AGC/MoDOT ANNUAL COOP MEETING
December 2-3, 2008
GRADING DIVISION AGENDA ITEMS

1. If a contractor has machine control systems for cutting sub grade and placing rock base and does not require any staking to perform this work are all pavement stakes needed or can stakes be placed every so often on one side for MoDOT to do any checking.
(M Ax – Fred Weber, Inc.)

From a survey standpoint, MoDOT agrees. Technology provides us the tools and methods to be able to inspect the project based on these controls. The RE Quality Circle is in the process of reviewing the Engineering Policy guidance on construction surveying.

2. I have a question concerning the approval of new products for use on MoDOT projects, specifically the use of certain erosion and sediment control products. Currently MoDOT uses the Texas TTI list for approved erosion control products. However this list does not cover sediment control devices such as ditch checks. The list only covers the use of “soil retention blankets”. I have attempted for the past several years to gain approval for the use of products for Type II Ditch Checks. The specification states:

806.30.3.2 Type II Ditch Checks. Approved alternate Type II ditch checks may be used as shown on the contract. Type II ditch checks shall not be used where drainage areas exceed 50 acres (20.2 ha) or where ditch slopes exceed 10 percent.

When I ask MoDOT Materials, I am told I need to find a project and a contractor that is willing to submit the product to the RE for approval or use on that project. If an RE approves the use of the product and then uses it on the job, he is to fill out a New Product Evaluation Form. Sometimes the RE is unwilling to try something new, and sometimes the contractor is unwilling to try something new because neither one wants to take the risk or be responsible – even if the product is offered for free.

It seems odd that the RE would be responsible for determining what is used statewide. He or she is responsible for their projects in their district, but each district has unique features that may not be found throughout the state.

I know there are other projects that are being used as Type II Ditch Checks, but there is no PAL or QL listing.

Please help me understand how this is supposed to work. – *(Andy Carrigan)*

In the last several years there has been an influx of new products relating to erosion/sediment control. Neither MoDOT nor TTI has the resources to test and evaluate each new erosion/sediment control item that comes to market. We have developed a process/policy that allows new products to be used that a contractor may propose to use. The RE or inspector has to option to approve/disapprove based on his engineering judgment. They are encouraged to allow new products and to evaluate them as to the performance and report such to Organizational Results (OR). OR will compile these results so the RE can check the performance of a product.

3. Why is HDPE pipe not included in JSP – Alternate Technical Concepts for Group A Pipe? (***D Rhea – Don Schnieders***)

There are basically two issues with HDPE, constructability and durability. We feel that the constructability issues have been resolved. We are currently looking at the durability issue and will make a recommendation to Senior Management early next year.

4. Can there be a standard set for payment on significant material underruns for material that cannot be returned to the suppliers? (***D Rhea – Don Schnieders***)

105.2.7.3 Left Over Material

Manufactured material items such as pipe, guardrail, reinforcing steel, etc., obtained by the contractor for authorized work, which have been inspected, tested and accepted by the engineer, but not incorporated in the work, and which have been properly stored and maintained, will be purchased from the contractor at actual cost as shown by receipted bills or other proper evidence. This includes all handling charges derived from requiring the contractor to move the left over material to points designated by the engineer. If documented on the invoice(s) and designated by the resident engineer up to 15% over the actual material costs may be reimbursed to the contractor for any handling of material. Payment for this material should be shown as a line item adjustment for the line number for which the materials were purchased. The adjustment type shall be "Left Over Materials." The resident engineer should document the acceptance and disposition of the material.

Available since 2002

\$130K 2008/ \$280K last two years \$5K average per item

5. ATC implementation issues.
- The release of initial bidding documents should be earlier. How about standardizing an 8-Week release for ATC projects?
 - Would it be possible to allow the MoDOT design squad to perform the revisions? Your designers have the most skill and experience with MoDOT plans.
 - Lump Sum items must be further clarified. Shall all altered quantities be considered Lump Sum?
 - Standardized unit prices for Class A and Class C are too low for current costs.

5a – We are attempting to advertise ATC projects as soon as possible. MoDOT understands that it is to our advantage to have these types of projects for as much time as possible to allow for contractor innovation. For example we be advertising the I-270 and Dorsett project six months early to get early input from contractors on the design and on the use of ATC's.

5b – The most recent pre-approved bridge ATC's included re-design by MoDOT. Part of the evaluation of ATC's will determine whether the proposed savings are worth the re-design costs. If an ATC is pre-approved MoDOT is providing the expected date of the re-designed plans.

The Mississippi River Bridge team is also providing the MoDOT/Consultant design for minor ATC's.

5c – Pay items to ATC concepts is an evolving process that we will continue to work with contractors on. The pay items will be a case-by-case situation depending on the type of project.

5d – See Question 10.

6. Grading only projects and tolerances - for the second time (We discussed this at last years meeting with no results).
 - a. Consideration should be made for naturally occurring subsidence between the grading contract and the paving contract.
 - b. Should the sub-grade be over-built to allow for shouldering?

MoDOT agrees. We are working on updating the specifications.

7. There needs to be more consistency within MoDOT construction offices within Districts and throughout the state.
 - a. Subcontract request form submittal should be defined more distinctly.
 - b. Clearing limits (and measurement and payment) are not uniformly interpreted.
 - c. Erosion Control inspection reports must be delivered uniformly.
 - i. Each week within 48 hours of the inspection.
 - ii. After each ½” rainfall event.
 - d. Erosion Control deficiencies can only be corrected when conditions permit. Can there be allowances made for adverse weather when mandating corrections?
 - e. General Comments.

7a - Shared/Partial Items have been a problem. The contractor needs to work with the subcontractors on what portion of the work they will be paid for.

7b - MoDOT is working on improving the plans to better indicate clearing limits.

7c - The inspectors have been told to get any inspection report that highlights corrective measures to the contractor within the day of the inspection. Scanning or faxing of the inspection report is acceptable. Whatever system the Project Office and the Contractor sets up should be discussed during the precon.

7d - It is understandable that conditions will exist that does not allow the contractor to conduct cleanup or repair of deficient BMP. When this occurs documentation and photos will help explain the conditions that exist. The inspector should be doing this documentation but the contractor may also provide it too. The documentation should be included in the Erosion Control Reports File for the project held in the Project Office.

8. Utility issues. (This might be covered within the ATC design topic.)
 - a. What can be done when a utility does not respond to our needs?
 - b. Can utility relocation contractors be held to the “Cooperation between Contractors” clause?

8a - The Utility JSP's state that the contractor is responsible for determining the schedule for utility relocations. The contractor's sole remedy for the effects of the

presence of utilities, delay of relocation or any other effects shall be an excusable delay as provided by Sec 105.7.3.

MoDOT is trying several techniques to try to accelerate utility relocations ahead of the project lettings. MoDOT is currently trying an incentive/decentive contract with a utility on Route 54 in Camden County where MoDOT pays for an additional utility designer to complete utility relocation designs. This keeps the relocation design ahead of the construction crews so that the utility can hire contract construction crews if they need to accelerate the relocations.

Based on partnering meetings with the utility companies the biggest motivator is bad public perception. So if the perception (i.e. excavation all around the utility) is that the construction project is being delayed because the utilities are not being relocated in a timely manner that is probably the biggest hammer we can use.

8b – The utility master agreements do not currently have this clause in the agreements but we can look to add that language to future utility master agreements.

9. Semifinal inspections. Some jobs have had a semifinal and when we finish inspectors have created additional items after the semifinal. How many punch-lists are acceptable?

The job is not complete until everything has been accepted. Often the Inspectors will provide the contractor with items that need to be finished or corrected before acceptance and the RE will provide a “punch-list”. MoDOT agrees that once the contractor has corrected the items on the RE’s list, plus any maintenance items that may have developed; the job should usually be accepted.

10. MoDOT uses previous bid tabs to evaluate change orders.
- a. The statewide averages for change order pricing are becoming extremely inadequate due to skyrocketing material and fuel costs.
 - b. Most contractors that are material driven have started demanding force account work instead of unit prices or lump sums. If force account becomes the norm all parties will suffer.
 - i. Time and Cost of paperwork preparation.
 - ii. Micro-Management of field activities.

10a – The fixed prices in Sec 109.15 were updated in June 2008. They are updated on a regular basis by the Design Division.

10b – The estimators in the Design Division have provided assistance to RE’s in the past for cost based estimates of change orders. Any resident engineer or inspector can call Kenny Voss at 573-526-2923 or Natalie Roark at 573-526-3726 to get up to date estimates for specific change orders.

11. Surface-to-Surface calculation of earthwork quantities is possible using MicroStation V8. Cross section methodology results in less accurate volume calculations.
- a. It seems that MoDOT only agrees to calculate using the surface-to-surface method infrequently.

- b. This topic should be discussed at the Pre-Con and a mutual decision made on a case-by-case basis.
- c. Perhaps a joint task force to study the application of the newest calculation technologies could be formed.

In many cases, I suspect this ties to the first question. Some of our offices are much more progressive than others. One thing is important to note here however. We agree that surface-to-surface quantities are likely more accurate, easier to quantify, and require much less field and office work to create. We must understand though, what surfaces we are using and their relative accuracy. The existing surface provided comes with photogrammetric grade accuracy (ie +/- 1 foot). The as graded model will be created with controlled GPS accuracy of about 1 to 2 inches. Doing a model-to-model volume calculation could produce volumes that are not indicative to actual earth moved. When we add to this that our existing model is, of course, prior to clearing and grubbing, we add to the possibility of error. If we (or the contractor) created a model of the site with GPS accuracy after the clearing, then the model surfaces we use to produce the volumes would be of similar accuracy. MoDOT could 'truth' the model with check shots and the volumes could be used from the surface-to-surface calculation. This does pose some issues for incremental payments during the project.

In general a joint task force to study this as he suggests is likely a good place to start.

- 12. For Classified earthwork projects there is often an on-site agreement on the percentage of rock in a given section of roadway cut. This is entirely acceptable. In Karst conditions or pinnacle formations the Department has required that the earthen sections between the pinnacles be removed as a part of that percentage agreement, and at no additional pay.

This is inappropriate since the excavation between pinnacles is behind the pre-split line and, more importantly, the amount of work required to perform this excavation is unknown to all when the percentage agreement is made. The work to remove the earth between pinnacles should qualify for measurement and payment. We propose that the Department consider payment for this work under a new line item that more closely represents the effort and cost required for this work.

MoDOT agrees that the contractor should be paid for required excavation behind the pre-split line.

- 13. On some jobs I still feel that industry may not see the importance of finishing or put as much importance on it as MoDOT. I feel that MoDOT tries to be flexible on each job site to open up ground necessary to facilitate good production but industry needs to make more of a commitment to keep finishing equipment and manpower on jobs to get areas seeded faster and on the flip side, MoDOT needs to be aware of production and try to facilitate in any way. Do we need tighter specs/different specs? Or just awareness?
(Macy Rodenbaugh – MoDOT)

The need for the contractor to seed and mulch as soon as practical after grading was thoroughly discussed in previous items.