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January 15, 2008

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Subject: Data Files Provided to Bidders

Dear Ms. Laird and Mr. Bakotich:

The Division 1 Subcommittee of the Washington State Chapter of the American Public Works Association has great concerns on the topic of providing data files to bidders. We have followed the discussion and the development of a draft specification within the AGC/WSDOT Administration Team, and would like the opportunity to provide input from our perspective.

Your decision will directly impact local agencies receiving FHWA funds, therefore we respectfully request that you review the points from the attached Discussion Paper in your multi-disciplinary management committee before making a recommendation for implementation. We urge you to consider WSDOT past practices for implementing significant changes in specifications by testing them on pilot projects and as General Special Provisions, before issuing them as an amendment.

Sincerely,

Kristina B. Nelson
Chapter Vice President and Div 1 Subcommittee Chair

attachment

c: **Donald Nelson, WSDOT**
Dave Mariman, WSDOT
Cathy Nicholas, FHWA
Div 1 Subcommittee mailing list

Jerry Lenzi, WSDOT
David Mounts, WSDOT
APWA Board of Directors

APWA-WA Division 1 Subcommittee Discussion Paper

Subject: Data Files Provided to Bidders

January 2008

Introduction

At the January 19, 2007 meeting of the AGC/WSDOT Administration Team (Admin Team), the topic of Data Files Provided to Bidders was brought up as new business. It was again discussed at the meetings on March 16, April 20, and September 21, 2007 as recorded in meeting minutes available on-line. The discussion began with the question: Can Contractors obtain electronic digital terrain models or other design files from WSDOT during the bid period? The discussion then progressed to the possibility of preparing a specification on this topic, and addressing issues that stem from the provision. A draft specification was prepared and distributed at the April meeting. The pertinent sections of these minutes and the draft specification have been attached to this Discussion Paper for the reader's convenience, beginning on Page 8.

A number of issues were discussed in the Admin Team meetings showing that considerable thought has already been put into this topic. As the content of the WSDOT/APWA Standard Specifications, and particularly Division 1 on FHWA-funded projects, has an impact on local agencies, the APWA Division 1 Subcommittee would like the opportunity to provide input to WSDOT and the Admin Team via this discussion paper and through the representation of Kristina (Tina) Nelson and Jerry Brais to ensure that issues of concern to local agencies have been considered.

A summary of discussion points are listed below followed by a discussion of those issues in greater depth.

Summary of Discussion Points

- 1) Providing electronic data during the bid period should be treated as a separate question from providing electronic data after the award of the contract.
- 2) Providing electronic data during the bid period will likely require the Engineer or other technical staff to provide technical assistance to Bidders, and can open the bid process to protests.
- 3) Varying levels of technological capability and resources among Bidders creates a potential risk of an unlevel platform for Bidders.
- 4) Varying levels of technological sophistication among designers creates a potential risk of inconsistency in the data delivered to Bidders.
- 5) What type of data is requested? Is there consensus on this among Contractors?
- 6) Standardization of data format can have detrimental effects on how designers perform their work and competition in the design industry.

- 7) Files will need to be purged of early versions of the design, and the preparation of electronic files (purging, transmittal, etc.) may require time and money that may not be available.
- 8) Liability attached to Digital Terrain Models (DTM)—DTMs are an interpretation of survey data by a licensed professional and attached liability will increase costs.
- 9) If liability is attached to design files, the standard of care in their preparation will increase the cost of design preparation.

Discussion of Issues

- 1) Providing electronic data during the bid period should be treated as a separate question from providing electronic data after the award of the contract. During the bid period, the data would have to be made available equally to all Bidders, raising questions as to whether all Bidders will be able to use the information equally. Logistics can also create havoc and open the project to contested bids. There isn't an obvious advantage to providing the information before bid. It may help Bidders to discover errors in quantities, but it is likely that information would be used to unbalance the bid, especially if some Bidders are not as technically capable.

After award of the contract, the data is only provided to the Contractor. Transmittal of the information can be accompanied by open discussions between the Engineer and the Contractor on how to use the files and any limitations that the Engineer is aware of. Providing electronic files after the project has been awarded can result in errors caught early enough to correct them at minimal cost, an obvious advantage to the Owner, Engineer, and Contractor.

Discussion points 2 through 4 specifically apply to the provision of electronic data during the bid period.

- 2) Providing electronic data during the bid period will likely require the Engineer or other technical staff to provide technical assistance to Bidders, and can open the bid process to protests. Communication may need to be handled by technical staff who are not well-trained in preserving equity among Bidders. The bid period is usually hectic. Adding the logistics of this additional communication will add risk to the bid process. Judging from past experience, it is unusual for an electronic transmittal to happen without some difficulty.
- 3) Varying levels of technological capability and resources among Bidders creates a potential risk of an unlevel platform for Bidders. Prime Contractors on multi-million dollar contracts may have the resources to make use of electronic data, but it is likely that many subcontractors and disadvantaged businesses will not be able to reach that level. Design software is expensive, and requires training and frequent updates. Designers use the software daily and make use of the more complicated functions of the software that the Contractors cannot expect to attain. Like so many things, a class will introduce a user to the basics of the software, but it takes experience to really learn it.

- 4) Varying levels of technological sophistication among designers creates a potential risk of inconsistency in the data delivered to Bidders. The inconsistencies can stem from several different reasons. WSDOT has standards governing how files are organized and most larger local agencies and consulting firms do as well, but many do not. On a project designed by a consultant, subconsultants may not work in the same organizational manner as the prime consultant. The design files can originate in different software, different versions, and can vary with each designer in a firm. Since Bidders do not use design software on a regular basis, inconsistencies in electronic data will add to their workload at bid time.
- 5) What type of data is requested? Is there consensus on this among Contractors? This is an important question. Having received requests for electronic data from a number of Contractors in the past, few have known how to request the information without being walked through it. Most have wanted it for staking, but some have wanted to be able to print the plans or calculate quantities.

To explain the importance of this question, here's an example from a recent project—³/₄ mile long widening of a State Route in an incorporated City—249 plan sheets produced by a prime consultant with four design subconsultants each using their own file and layer naming conventions—produced approximately 20 design files and at least 140 sheet files. Two DTMs were prepared for both existing and final ground since contours needed to be shown on the bridge deck and the stream bank underneath. With this many electronic files, it is essential to know the use intended by the Contractor in order to give them useful information. If the Contractor uses these files for staking, the electronic files may need to be re-transmitted any time there is a plan revision.

- 6) Standardization of data format can have detrimental effects on how designers perform their work and competition in the design industry. The discussion so far has presented many problems that could be resolved through standardization of electronic file formats, but standardization raises many problems of its own.

Designers use the software in different ways based on the needs of their business. For example, consultants are frequently asked to turn revisions to plans around in a very short time because the local agencies they work for do not understand the work required. To handle this short turnaround time, drawings can be organized to allow several CAD people to work on the same project at the same time by separating elements of work into separate CAD files—drainage, roadway, illumination, structures, etc. The files are then referenced into the sheet file and plotted. Not all designers organize in this manner because their business doesn't require it.

In the design industry, there are few designers proficient at both of the major software programs (Microstation and AutoCAD). It is unusual because these programs require a significant amount of training and use to master. It will be even rarer for a Bidder or Contractor to be able to work in both programs.

There is a file format that most design/data files can be translated into and from—the .xml file. The drawback with this format is that if the receiving software does not have all of the features of the original software, information will be lost in the translation.

Any type of standardization would need to apply to all projects that may be affected. This can include architectural projects such as transit stations, detention ponds that need to meet aesthetic goals, etc. Being the largest entity affected by the question, it seems likely that standards would be set based on WSDOT standards. WSDOT has committed to using Microstation while most other agencies and private firms use AutoCAD. WSDOT standards have evolved from linear projects such as roadways and translate poorly to non-linear projects. The standards assume that an alignment will be defined first, stationing, and the rest of the work is defined based on that stationing. Non-linear projects do not adapt well to stationing. WSDOT standards have also evolved from outdated hardware—line weights based on pen plotter technology. Drawings can be produced with a much cleaner appearance using today's hardware.

Making revisions to standards is a cumbersome process because there are so many people to re-train. Reaching consensus industry-wide appears insurmountable, and if obtained, the standards would still require frequent revision as new software and hardware become available.

- 7) Files will need to be purged of early versions of the design and the preparation of electronic files (purging, transmittal, etc.) may require time and money that may not be available. If early versions of the design are left in the files, it can confuse the Contractor, and possibly cause errors. It is fairly common practice to place the early versions on layers that are frozen and not printed. Data and design information that obscures the plan sheet is also frozen. A Contractor will likely want to see the frozen data and will therefore likely thaw the old versions of the design as well. In the project example described under Point No. 5, it would have required at least 40 hours to prepare the design files for transmission to a Bidder:
- 8) Liability attached to DTMs—DTMs are an interpretation of survey data by a licensed professional and attached liability will increase costs. A DTM is second generation data. If a Contractor takes the DTM and generates additional information from it, that is third generation data, each generation producing information that is less accurate.

It is also important to understand that the DTM contains less information than available to the person preparing the DTM and/or the design. In preparing the DTM, survey data is selected to provide the most accurate data for the use intended. Some survey points are intentionally excluded as they will create inaccuracies—a shot on the top nut of a fire hydrant, or the invert of a pipe as examples. Shots on trees are often excluded as the ground typically rises up around the trunk.

Also, different software produces different types of DTMs. AutoCAD's Land Development Desktop (LDD) creates a simple DTM. Microstation and the new product that AutoCAD is promoting, Civil 3D, produce 'intelligent' DTMs—including pipe inverts for example.

The existing ground DTM may not account for the volume removed during clear and grub operations. The finished ground DTM may not account for the layers of topsoil, base course, pavement, etc. When transmitting the DTM, the Bidder or Contractor must be informed about what it represents in order to use it properly.

Detention ponds provide a good example of why setting a standard for DTMs is problematic. Typical design processes apply the proposed geometry to form the finished ground DTM. For a detention pond, the design process starts with a proposed geometry to provide the design volume needed. A DTM is created to produce contours. Then the contours are revised to produce the desired aesthetic effect, and finally, quantities are calculated based on a DTM made from the contours. In AutoCAD, the contours can be individually edited, but the DTM can only be globally edited so this process must be iterative. The results of editing the DTM would not achieve the desired aesthetic effect while maintaining the needed volume.

When a design is in the final stages, time is always of the essence. To meet an advertisement date, final editing to the plans is often made using the quickest method. This may mean contours are adjusted manually, without adjustment to the DTM. It may not have serious implications to quantities, but can have serious implications if the Contractor uses the DTM during construction. The professional in charge of the design, and liable for the DTM, may not be aware of the changes made. Extra care will need to be given if DTMs are to be used during construction. In some cases, it may mean that the data must be maintained in two places instead of one.

If a DTM is to be provided to the Bidder or Contractor, it will be important for the designer to know this at or near the beginning of the design process. It will affect how the DTM is prepared and maintained. It may even effect how the survey work is performed. Survey work must conform to the National Map Accuracy Standards. Following these standards guarantees that the elevations shown on a map will be within $\frac{1}{2}$ of the contour increment, or ± 1 foot for a map with 2-foot contours. To meet these standards, cross-sections are typically

taken at 50 foot spacing in order to guarantee ± 1 foot accuracy for a map showing 2-foot contours. In reality, most of the map will be much more accurate than this, but in areas with steep slopes, or other difficult to map features, the guaranteed accuracy can be difficult to obtain. If a Contractor intends to use the DTM for grading, a tighter tolerance may be necessary, requiring survey shots to be taken at closer intervals.

- 9) If liability is attached to design files, the standard of care in their preparation will increase the cost of design preparation. Current practice attaches liability to the sealed and stamped hard copy of the plans. But it seems likely that providing electronic design files will incur at least some liability on the design professional. Depending on the level of control the designer has over the transmission of the data, and the amount of liability incurred, the method of preparing design files will change. If it is known at the beginning of design that the electronic files will be made available, increased costs can be kept under better control.

It may reach a point where the licensed professional must review the electronic file. There are many licensed professionals who are not proficient with the software programs used under their supervision, and it is often not good business practice for them to spend the time necessary to be proficient.

As noted under Point No. 8, time is of the essence in the final stage of design. Final editing of the plans is often made using the quickest method, resulting in features not drawn to scale, layers used inappropriately, and relaxation of the drawing standards in general.

Current practice often uses CAD technicians to prepare the electronic files from redlines. If design liability is attached to the files, it may become necessary to only use designers. Since there is currently a shortage of designers, this is not a good direction for the industry.

If claims result from transmission of electronic files, insurance costs and overhead costs can be expected to increase.

Requested Action

As technology continues to advance, it would be wise to adapt with it, and we do not wish to impede the development of a method for providing useful electronic data to Bidders or Contractors, but it must be done with adequate forethought. It's our understanding that WSDOT has typically tested significant changes in specifications on pilot projects or as General Special Provisions. We consider provision of electronic data to be significant, particularly before the bid. As one of our members stated "The bid is based on the contract documents, not the design process." We therefore respectfully request that the Admin Team consider the following actions:

- Test the provision of the electronic data, particularly before the bid, on WSDOT pilot projects or as General Special Provisions before issuing as an amendment.

- Approach the provision of electronic data before or after the bid as two separate issues and address the provision of electronic data after the award first. Then, if an advantage can be proven, add language to provide electronic data before the Bid. If provided first to Contractors, then later to Bidders, Contractors may become more technically capable with the types of software used by designers and their requests for electronic data will be better defined. This may resolve many of the issues discussed.
- If electronic data is provided to the Bidder, better protection from claims and potential liabilities should be provided by (1) enhancing the disclaimer—increase its specificity and require Bidders to execute a specific separate and knowing waiver of claims (rather than relying on the boilerplate specifications) and (2) clarifying that the electronic data is not part of the Contract Document, has no place or rank in the Order of Precedence, and is provided only as a convenience without warranty of accuracy.
- Add the following phrase at the end of the first paragraph of proposed section 1-02.4(3) “...if so provided in the Special Provisions.” This phrase will eliminate requests when the decision has already been made to not provide the data.
- Constrain the type of data to be provided by using more specific terms than presently proposed. This description will be written by the designer with knowledge of the information available and will give the Contractor an understanding of what can be expected.
- Continue to research the topic to explore how all agencies dependent on the standard specifications will be affected.
- Include a technical advisor from a local agency and/or private consulting firm performing work for local agencies in future discussions.

Your consideration of our input is greatly appreciated.

Prepared by:

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 Kristina Nelson, PE, Kitsap County, Committee Chair, Vice President WA State Chapter APWA
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Discussion paper sent to representatives of 27 local agencies within the State of Washington for review and comment on January 3, 2008—three agencies sent specific supporting comments and no opposing comments were received.

Excerpted from January 19, 2007 AGC/WSDOT Administration Team meeting minutes:

New Business – Data Files Provided to Bidders

Can contractors obtain electronic digital terrain models or other design files from WSDOT during the bid period? Regions are not providing them when requested. WSDOT has made cross-sections available to view or copy, but is not making the data files available. If the owner has the data, why not provide it? Contractors would use the electronic data to determine if the design is correct, if quantities are good, and how to approach the work.

Any information provided to an individual bidder would need to be provided to all bidders in order to provide a level playing field. It seems like any data that is provided would surely come with disclaimers. Providing data may sound easy to do at first, but WSDOT may not always have data to provide. Also, a standard format would need to be determined and accepted by Industry.

The use of digital data and electronic bidding is becoming more prevalent and is likely to evolve in this direction. A company named “Earthwork Services” currently provides mass diagrams and quantity takeoffs developed from DTM’s. It would be interesting to know what they require for input, and what they produce for output.

Action Items: Joe Spink will provide more information on “Earthwork Services” products. Dave Mariman will see who should participate at WSDOT and gather input.

Excerpted from March 16, 2007 AGC/WSDOT Administration Team meeting minutes:

Old Business – Data Files provided to Bidders

Joe Spink distributed copies of products from Earthwork Services, Inc. for review. These included earthwork quantity takeoffs, with cut/fill graphics and grid elevations. Wilder performs their own quantity takeoffs, and uses Earthwork Services for checking their quantities and for producing the terrain model for use with their GPS controlled earthwork equipment.

The products from Earthwork Services are based on the DTM, not on raw survey data. They may not result in the same quantities as the design. One problem is getting the Owner to release the data. It would help Owners feel comfortable if there was some way to confirm that quantities are accurate. Bid prices are frequently indicators of quantity errors. The biggest problem is getting the information, interpreting the information correctly and staking the work correctly. Too many errors result from poor communication.

Contractors want this information in order to verify quantities, and both parties benefit from less staking and by discovering errors before they are constructed. This technology enhances bidding ability for the right kind of projects. It is always challenging to tie into existing ground and make it fit. The ideal application [for GPS machine control] is on large earthmoving projects. It was noted that wetland mitigation jobs require tight tolerance. The Topcon equipment is capable of 3

mm accuracy. However, the end product is only as good as the data (survey work). Hand held GPS units can be used to alleviate conflicts with utilities and other appurtenances. The result is a reduction in RFI's and enhanced teamwork. The public sector is more restrictive. Designers are concerned with making the terrain models good enough to release. The data always needs to be fixed before it can be made available.

Does this eliminate stakes in the ground? Not for structure construction, but it does eliminate staking needed for earthwork. This can result in increased productivity. What about for surfacing and paving? Granite Construction used GPS machine controls for paving at the airport by attaching the GPS equipment to the paver. Normally, machine controls are used for aggregate courses, and paving is performed to the specified depth.

What happens when the model is wrong or contains errors? Who owns the responsibility? The model is not a replacement for surveying. Wilder has professional surveyors check (and certify) their work. Scoccolo also uses licensed surveyors for structures. CalTrans released their terrain model to Granite once by change order, but the contractor had to agree to file no claims related to the use of the data. Contractors cannot understand how an owner can provide data and then say that bidders cannot rely on that data. Only huge errors provide any sort of bidding opportunity. Besides, how often does WSDOT reject bids because of unbalancing?

The accuracy of quantities in the proposal is always in question. But how bad are WSDOT estimates? Over a two year period in NWR, 31 projects with 6000 cy of roadway excavation or more were evaluated. Of these projects, 48% experienced change orders under Section 1-04.6 for Variations in Estimated Quantities (8 overruns and 7 under runs). At some point the Engineering cost to make the quantities perfect are greater than the cost of the change order to address an imperfect quantity.

How can WSDOT provide a level playing field for all bidders? Does providing design data produce competitive advantages for some bidders? Perhaps Contractors that don't use this technology need to step up to be competitive. WSDOT has an interest in making sure that whatever changes are made results in a level playing field. Not everybody has the technology to make use of electronic design data.

The WSDOT Roadway Surveying provision says that the owner will provide surveying control and the contractor shall develop their own staking tools. Do contractors take on the staking that Owners are now responsible for? It would require a higher level of design effort to make the data good enough for this to happen. The Local Agencies that do not provide construction staking need to design to a higher level. Subcontractors would rather see owners provide the surveying. There is less waiting for information and fewer conflicts with utilities and other features. Contractors feel like the owners are expecting them to fix design errors, when their obligation is really just to stake it and build it. What spec changes would be required to accommodate this technology? Currently the Standard Specs state that the Owner will provide the staking. When

WSDOT does not do this because the contractor is using GPS machine controls, who owns errors that may occur? If the owner provides digital terrain data and the Contractor uses GPS, then the Owner should not be obligated to stake as well.

There is a great concern with contractors using design data against the Owner. Designers know that it is impractical to make the DTM perfect, and the fear is that contractors are looking for mistakes in order to take advantage of them. Some owners will never release the data for fear of liability.

The DTM may be only one of several tools that the designer uses to produce the final bid documents, and may not be representative of the actual final quantities. A contractor that bids the DTM instead of the proposal may do so at their own peril. Quantities based on the model may vary from those in the proposal. Establishing this information as a lower precedence of contract documents may be an option to address this.

FHWA is supportive of making design data available to bidders. But the data may not be reliable. Currently, WSDOT uses InRoads as our civil design software. The Statewide Program Management Group (SPMG) is currently looking at electronic documentation, document sharing and enterprise tools for construction management. Perhaps this is consistent with their efforts and might be a topic for them to look at. Electronic documentation is on the agenda for the next Construction Engineers meeting, and this may be a good subject for discussion there, as well.

Action Item: WSDOT will work with HQ Design, HQ Construction and Regions to make a decision and to look at necessary spec changes.

Excerpted from April 20, 2007 AGC/WSDOT Administration Team meeting minutes:

Old Business – Data Files Provided to Bidders

Since the last meeting, Dave Mariman met with the WSDOT State Design Engineer (Pasco Bakotich) and WSDOT Computer Aided Engineering (CAE) Manager (Jon Bauer). Dave shared the information from Earthwork Services that Joe Spink provided and the discussions of this Team with Pasco and Jon. The request for electronic data and the information to support the request was received in a very positive light. Pasco and Jon had several questions, including: exactly what data files are desired, and exactly what will they be used for? Dave did his best to speak for the Contractors, but acknowledges that important details may have been lost in the translation.

Dave Mariman distributed draft specifications for review and comment (attached). Those provisions were written in the form of a GSP so that the designer is forced to make a conscious decision to provide the data, thereby allowing an opportunity to make the data “presentable.” The GSP is intended to be used in conjunction with the provision for GPS Machine Controls that is currently appearing in a few projects around the state by special provision. Although no specs are written yet, there might be a need to revise the Standard Specifications regarding

surveying/construction staking to make sure that the WSDOT responsibilities for staking are shifted to the Contractor when GPS Machine Controls are utilized during construction. This may be accomplished by using the GSP for "Contractor Surveying" with minor modifications.

Response from the Team indicated that giving more attention to the design data is important. Design data that is loosely prepared during the design of the project would need to be cleaned up prior to making it available to contractors.

Regarding the draft specs, why would WSDOT be inclined to disclaim the validity of the data? Why would Contractors even want design data that is inaccurate or not representative of the work and quantities? It was stated that the Owner is liable for the data. The State may not want responsibility for the accuracy of the data, but they own it nonetheless.

The draft specs are written in recognition that there is too much cost involved in trying to make the design perfect. Also, the DTM's and CAD files are generated in order to produce the contract documents, but they are not a part of the contract. The Owner is obligated to provide a level playing field for all bidders in order to evaluate bids for award purposes, and the way that they do this is by providing a common bid proposal.

It was stated that some data is made available in current contract, but it is being provided inconsistently across the state. Some Project Engineers will provide copies of the data, while others may only allow it to be viewed, and others may permit it to be traced manually. Contractors are not even interested in our DTM anyway, they generate their own; it is the CAD files that are desired. Besides, Contractors are not concerned with minor errors, they are looking for big issues, and it was stated that if big errors were discovered then the Owner would be notified.

It is apparent that the industry is moving in this direction naturally. Productivity and quality is greatly improved in the building industry when contractors are able to utilize good design data during construction.

This topic is on the agenda for the May 15-16 Project Development Conference in Vancouver. It would be very helpful if a Contractor or two could participate in this discussion in order to answer questions and provide their perspective on the matter.

Action: Dave Mariman will distribute the Agenda for the May 15-16 Project Development Conference to the Team, and solicit contractors to represent this issue at the meeting.

Section 1-02.4 is supplemented with the following new subsection:

1-02.4(3) Design Data

If the Contracting Agency has developed digital terrain models, cross-sections, alignments, roadway templates or other electronic data during the design of the proposed Work, then this data may be made available to bidders in an electronic format.

The Contracting Agency will determine the type, amount and format of any electronic design data that is provided. The Contracting agency does not guarantee that electronic design data that is provided will be compatible with any of the systems that are used by the bidder. No corrections, additions, or updates of any kind will be made to the electronic design data provided to bidders.

No representations or warranty expressed or implied is made by the Contracting Agency that electronic design data provided to bidders:

1. Is complete;
2. Is a representation of actual conditions at the project site; or,
3. Accurately reflects the quantities or character of the actual Work required.

The availability of electronic design data from the Contracting Agency shall not relieve the bidder or the Contractor from any risks or of any duty to make examinations and investigations as required by Section 1-02.4(1) or any other responsibility under the contract or as may be required by law.

02042.FR1 Design Data

(August 6, 2007)

Use in projects for which a Digital Terrain Model or InRoads Design Files have been created and that contain 5000 cy or more of the following items (with or without haul): roadway excavation, ditch excavation, pond excavation or structure excavation Class A.

(2 fill-ins) The first fill-in describes the type of data that will be provided and the file format of the electronic data. The second fill-in is the name and address of the Project Engineer administering the contract.

(August 6, 2007)

Design Data

Section 1-02.4(3), is supplemented with the following:

The following design data created during the development of this project is available to the bidder in an electronic format upon written request:

\$\$1\$\$

Data may be obtained by furnishing a written request for design data to the Project Engineer at the following address:

\$\$2\$\$

Data will be furnished to bidders on compact disk(s) and shipped via US Mail. Bidders shall allow sufficient time for the processing of their written request and for shipping by others. The Contracting Agency is not responsible in any way for delayed receipt or failure to receive the requested data.

Excerpted from September 21, 2007 AGC/WSDOT Administration Team meeting minutes:

Old Business – Data Files Provided to Bidders

The Team was updated on the status of this effort. Craig McDaniel, Greg Waugh and Dave Mariman presented this subject to the Project Development Engineer's conference in Vancouver this spring and the proposal was well received. WSDOT management supports the effort and has chartered a multi-disciplinary committee to provide recommendations for implementation. Dave Mariman is a committee member. APWA has been informed of this and has a lot of concerns about sharing this information. It was also acknowledged that some design offices have this type of data, but not all do.

Action Item: Dave Mariman will solicit feedback from the Team as needed, and bring information as work progresses.