

DISPUTES REVIEW BOARD RECOMMENDATION

**FLORIDA'S TURNPIKE ENTERPRISE
ITS DMS PROJECT**

**FP NO. 406124-1-52-01
CONTRACT NO. EH867 (E8H67)**

OCTOBER 15, 2008

Mr. Bert Barnes
Traffic Control Devices, Inc.
15835 SR 50
Clermont, FL 34711

Mr. Dale Cody
Ms. Vivi Kavadas
Metric Engineering, Inc.
229 Sunshine State Parkway
St. Cloud, FL 34772

Re: DRB Hearing dated September 30, 2008
Florida's Turnpike Enterprise
ITS DMS Project
FN: 406124-1-52-01

Dear Sirs and Madam:

The Contractor, Traffic Control Devices, Inc. (TCD) requested a hearing by the Disputes Review Board on the above referenced project. At issue is the question of whether or not sufficient information was correctly given in the plans to locate the drilled shafts for the foundations of the sign detailed on Plan Sheet IT 174 at Mile Post 13.2 northbound, or were the plans in error as maintained by the contractor? The hearing was held on September 30, 2008, and the findings of the Board are presented herein.

CONTRACTOR'S CLAIM:

TCD contracted the professional services of Schwabke-Shiskin & Associates, Inc., (SS&A), to survey and layout for the DMS sign structure foundations on this project. They were given a set of plan sheets and instructions to provide the following information at each foundation location:

1. Center of shaft
2. Elevation of shaft
3. Two offsets in each direction (i.e. two to the north and two to the west)

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SS&A mobilized at the jobsite prior to drilled shaft installation on the week of March 17th, 2008 and provided the mentioned survey.

After the drilled shafts were installed, Metric Engineering informed TCD that their installation at MP 13.2 was incorrect. They noted that although Plan Sheet IT 174 shows

RES. ENG.	_____
PROJ. ENG.	_____
SR. INSP.	_____
INSP.	_____
FILE NO.	20.1 1370G 50.6

the face of the upright to be installed 36' off the edge of the travel lane, the noted travel lane is actually a future travel lane, not the current travel lane. This resulted in the shafts being installed approximately 12' to the west of the Designer's intended location.

TCD contends that the plan sheets were both in error and misleading. This was the primary cause for the incorrect survey layout and consequently incorrect drilled shaft installations.

The following will point out some of the contributing causes and inconsistent language TCD feels led to SS&A providing incorrect survey and layout.

- Plan Sheet 7 and IT 174 are provided separately from the other plan sheets in the claim package as they are specific to the Mile Post (MP) 13.2 location in question.
- Plan sheets 1 and IT 174 through IT 225 are included in the claim package to illustrate a consistent pattern that was deviated from on Sheet IT 174.
- It is this deviation from the consistent pattern along with the other errors on the MP 13.2 specific plan documents that led to the errors with SS&A survey.

First, there are 27 plan sheets that identify the "edge of travel lane" as the control point for use in laying structures out. These 27 sheets are identified within the IT 178 through IT 225 group. On each of those 27 sheets, the control point note "edge of travel lane" is used. On each of those 27 sheets the "edge of travel lane" is the edge of the existing travel lane. Therefore, the plan sheets offer the correct information all 27 times.

Secondly, the following plan sheets further identify future roadway considerations or give more specific instructions than simply "edge of travel lane" as a control point for use in laying structures out.

- IT 210 notes edge of existing travel lane with illustrations.
- IT 216 notes edge of existing pavement currently and illustrates that the edge of existing pavement falls into the future westbound lane.
- IT 219 notes the edge of existing travel lane and points out the edge of the proposed travel lane.
- IT 220 notes the edge of existing travel lane and points out the edge of the proposed travel lane.
- IT 221 notes that there will be 29.9 feet to future edge of asphalt and that in our current configuration we have 41 feet to existing edge of asphalt.

At all five locations above, the additional information was critical to providing correct control for layout.

The consistent pattern only deviated on two occasions:

The first is on Sheet IT 174, MP 13.2 for which this information is being provided. The second is for Sheet IT 170, MP 9.7 for which two differing control points are given and led to the drilled shaft being installed in the wrong location. The owner has since agreed to pay TCD to install a new drilled shaft at this location.

In large part it was a break from this consistent and established pattern that influenced the outcome and led to the incorrect layout.

Specifically, Sheet IT 174 lists the edge of the lane as 36 feet to the face of the right upright. As with the consistent pattern outlined above, the survey was provided and the drilled shaft was installed 36 feet from the edge of the travel lane to the face of the upright. It was ultimately determined that this was not the "edge of travel lane", but the "edge of future travel lane". Notes outlining future travel lanes or proposed travel lanes as given in other locations would have identified this deviation from the existing conditions. This is the one and only sheet that differs from existing conditions using only the note "edge of travel lane" as a control point.

Note that the Roadway Plan 7, MP 13.2 NB, clearly shows that the west (left) upright was called to be 27.4 feet +/- from the back face of the shown double face guardrail. The survey provided by SS&A and the drilled shaft installed by TCD are accurate with this plan information. As we now know, the plan information noting 27.4 feet +/- is incorrect (by almost 10 feet) and had the correct information been given the plan errors may have been caught prior to the drilled shafts being installed.

It is without dispute that errors exist with the plan sheets specific to MP 13.2. From the examples listed above, there was a clear deviation on plan sheet IT 174 from the consistent pattern followed at all other locations.

For the reasons outlined, it is respectfully requested that TCD be fully compensated for these plan errors.

OWNER'S POSITION:

The Department's analysis reveals that there is no contractual basis for entitlement in this issue. Adequate information was provided to lay out the two drilled shafts within substantial conformance with the plans. Accordingly, the DRB should deny entitlement for the contractor and uphold the provisions of Standard Specification 5-3 and Supplemental Specifications 5-1.6 and 455-20. The following facts are offered to support this position:

Fact: A northbound half span DMS sign structure was called for in the plans to be located at Sta. 667+42 as indicated on plan sheet IT-32. The DMS sign structure was to be laid out utilizing the cross-section for the structure shown on IT 174.

Fact: Three dimensions are provided in the plans for the layout. Two dimensions are required for the layout, while the third is utilized for verification. The following identifies the required dimensions that were provided for DMS 13.2 NB as shown in the cross section on IT 174 and reiterated on plan sheet IT 32.

1. Plan sheet IT 174 identifies the median offset from the existing guardrail to the proposed face of the upright to be 17.05 feet. This is further clarified on plan sheet IT 32 where the existing guardrail is labeled and the dimension is shown 17.05 feet to the face of the upright.
2. Plan sheet IT 174 identifies a 36 foot dimension from the face of the right upright pole to the edge of the travel lane. The edge of travel lane label points to a widened section of the cross section indicated by a solid line showing the future widening. This labeling is consistent with the labeling on plan sheet IT 32 where the proposed widening is superimposed over the existing conditions shown in the aerial.
3. Plan sheet IT 174 identifies a 113.89 foot dimension between the faces of the two uprights.

Fact: After completion of the drilled shafts, the contractor was notified that both of the drilled shafts were installed approximately 12 feet to the west of the plan locations shown on IT 174. Per Standard Specification 5-3, Conformity of Work with the Contract Documents, the contractor is required to "perform all work and furnish all materials in reasonably close conformity with the lines, grades, cross-sections, dimensions, and material requirements, including tolerances, as specified in the Contract Documents." In addition Supplemental Specification 455-20, Construction Tolerances, states that the contractor shall "Ensure that the top of the drilled shaft is no more than three inches laterally from the position indicated in the plans." Therefore, since the drilled shafts offset substantially exceeded the allowable tolerance, the contractor was told that the drilled shaft placement was not in compliance with the plans and therefore not acceptable.

Finally, any substantial deviation (such as the 12-foot deviation from the 17.05 foot offset) should have immediately been brought to the attention of the Engineer if the Contractor felt there was an error or discrepancy as stated in their issue statement. Standard Specification 5-4 states, "do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify the Engineer of such discovery. The Engineer will then make such corrections and interpretations as necessary to reflect the actual spirit and intent of the Contract Documents."

As stated above and shown on the attached exhibits, adequate information was presented in the plans to lay out the drilled shafts in reasonable conformity with the plans. Per the requirements of Supplemental Specifications 5-1.6, Corrections for Construction Errors, and per Standard Specification 5-3, Conformity of Work with Contract Documents, the contractor is obligated to remove and replace or otherwise correct the work or materials at no expense to the Department.

DEPARTMENT'S REBUTTAL OF TCD'S POSITION:

In rebuttal to TCD's Position Paper, the Department further notes that both drilled shafts were successfully installed on May 13, 2008, utilizing the information and dimensions shown in the plans.

Regarding the inconsistency of the plans alleged by TCD, the Department notes that the other plan sheets cited by TCD are not relevant to the layout work necessary to install both drilled shafts at MP 13.2. Only sheet IT 174 and sheet IT 32 are applicable at this location.

The future widening at MP 13.2 is clearly shown by superimposing a widened and thickened pavement section on IT 174, consistent with that shown on IT 32. Three key dimensions were given for the layout as previously stated.

Plan sheet 7 is part of the roadway plans provided for the installation of the guardrail and miscellaneous asphalt, and as roadway plans, are not relevant to the location or layout work required for the two drilled shafts at MP 13.2.

As stated within our position paper, there is no contractual basis for entitlement. Further, adequate information was provided to lay out the two drilled shafts within substantial conformance with the contract documents. Accordingly, the Department feels that the Board should deny entitlement and uphold the provisions of Standard Specification 5-3 and Supplemental Specifications 5-1.6 and 455-20.

BOARD FINDINGS:

Based on the information provided in the Position Papers and the explanations given at the hearing, the Board findings are as follows:

1. In laying out the drilled shafts for IT 174 at MP 13.2, SS&A could not match the 17.05 foot closure dimension shown on the Sheet IT 174. This failure by a significant distance to "close", using the information on IT 174, should have been immediately conveyed to the Engineer in accordance with usual construction practice and Specification 5-4. Instead, the Contractor apparently chose to rely on the roadway plans showing the 27.4+/- dimension on Roadway Plan Sheet 7.
2. The Designer has used roadway cross section plans from other FDOT projects to locate ITS sign structures. This is a common practice on ITS projects. Some of these plans depict existing roadways while others show existing roadways with future widening. Sheet IT-218, for example, locates a feature off of an added lane using the same call out as IT 174. The Contractor should have been familiar

with the sign cross section plans for this project to the extent that whoever did the shaft layout could recognize the distinction between an existing roadway and a widening. The 36' offset shown on IT 174 is clearly off of a lane added by widening.

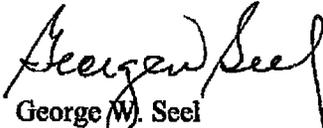
BOARD RECOMMENDATION:

Based on the information provided, and the presentations made at the hearing, the Disputes Review Board finds there is **NO ENTITLEMENT** to the Contractor.

The Board appreciates the efforts of both sides in the preparation and presentation of their side of this dispute. Please advise the Board and the other party of your concurrence or disagreement of our recommendation within 15 calendar days of receipt of this recommendation.

Signed with the concurrence of all Members of the Board.

Sincerely,



George W. Seel
Chairman

CC: Michael C. Bone
John W. Nutbrown