

DISPUTES REVIEW BOARD RECOMMENDATION

October 13, 2004

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Ref: FPN: 256957; FAN: N/A; Contract No.: 21562, Pinellas County; SR-55 (US-19),
From North of SR-60 to North of CSX RR
Dispute Review Board Hearing concerning the, "Additional Sign Structure
Luminaries Issue".

Gentlemen:

The Florida Department of Transportation (Department) has denied compensation for additional sign structure luminaries over those called for in the Department's Traffic Design Standards Table, shown on the Index Number 17505 drawing. Cone & Graham, Inc. (Cone Graham) has requested a hearing before the Disputes Review Board (Board) on behalf of their subcontractor, Highway Safety Devices, Inc. (Highway Safety) concerning the Additional Sign Structure Luminaries Issue. Highway Safety believes they are entitled to be paid for the additional luminaries over that shown in Index 17505 under a field supplemental agreement.

Highway Safety, through Cone Graham, is asking the Board to determine if additional compensation is due for furnishing and installing sign structure luminaries over and above the quantity indicated on Standard Index 17505.

In the following discussion the references to various Exhibits have been left in so that the reader can return to the original submittal and find the referenced exhibit if desired.

CONTRACTOR'S POSITION

The roadway signing scope of work for the Project includes numerous single post signs, multi-post signs, and the installation of fourteen (14) overhead sign structures. These overhead sign structures contain sign panels that are illuminated by lighting luminaries. As Cone Graham's signing subcontractor, Highway Safety is responsible for the installation of the sign structures, sign panels, and the illuminating luminaries.

The scope of work for the roadway signing is depicted in Signing and Pavement Marking Plan Sheets S-1 through S-62. Highway Safety assembled its bid, including the quantity of sign lighting luminaries based on these Signing and Marking plans. After commencement of the work, a dispute arose as to the quantity of sign lighting luminaries

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required on this project. Highway Safety submitted a price of \$20,552.52 for the thirteen (13) additional sign luminaries (\$1,580.96/ea) required over and above the quantity depicted in Standard Index 17505. Washington Infrastructure Services (Washington) rejected our request for compensation of this additional cost, which has led to this DRB situation.

Highway Safety feels justified in its request for additional compensation for two main reasons:

- The direction provided in the plan by the Designer to utilize Index 17505, and
- The precedence established by the Department on other projects.

Designer's Direction

The Designer provides clear direction to the Contractor to utilize Index 17505 for the sign lighting. Specifically, Plan Sheet S-4, S-47, S-51, S-55, and S-59 (Tab 3) all contain references and provide clear direction to utilize Index 17505 for the luminaries for the sign structures. In Tab 4, Highway Safety has provided a copy of Index 17505 sheet for your review.

The Signing and Marking General Notes on Plan Sheet S-4 provide two separate references to Index 17505. Plan note 12 and 13 each contain a reference to Index 17505 and read as follows:

Note 12: **“All lighted overhead signs shall be illuminated to an average initial intensity of 30fc with a maximum to minimum uniformity ratio of 6:1. Wiring and mounting of sign luminaries shall be done in accordance with Index #17505. The Contractor shall submit sign lighting calculations along with shop drawings for all lighted overhead sign structures. ”**

Note 13. **"Pay Items 700-44-043, 700-44-057, 700-44-075, 700-45-11, 700- 45-22, 700-45-25, 700-45-26, 700-45-36 and 700-45-45 shall include the cost of furnishing and installing luminaries, galvanized RGS conduit, conductors, and NEMA weather proof enclosures, lockable with 30 amp breakers mounted on the sign structure away from the traffic as specified in Index #17505. The Contractor shall contact the power company for power service details.”**

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In addition, Plan Sheets S-47, S-51, S-55, and S-59 all include the following note:

"See Roadway Index 17505 for information on fabrication and installation of lighting."

Combined, the Signing and Marking General Notes and the Notes on the Structure Drawings provide clear and unmistakable direction from the Designer at bid time that Index #17505 will govern the quantity of the sign luminaries required.

Accordingly, Highway Safety based its bid pricing for the sign structures, including the quantity of luminaries required for each sign panel, on Standard Index 17505. The Index (see Tab 4) includes a chart giving specific details for the placement of the sign lights and the number of fixtures (luminaries) required for signs of different widths. For example, signs up to a width of 10' requires only one luminary, while signs panels up to 21'-6" wide require two luminaries and so on. At bid time, Highway Safety used the chart in Index 17505 to determine the signing luminary quantities for each sign panel.

Subsequent to the commencement of the project and as required by Note 12 of the Signing and Marking General Notes, Highway Safety submitted lighting calculations that were reviewed and approved by the Engineer. It was at this time that Highway Safety first recognized that additional luminaries would be required. In Tab 5, Highway Safety has included a spreadsheet comparing the number luminaries required per the Contract Documents (Index 17505) versus the luminaries required by the approved lighting calculations for each overhead sign panel. Note that the additional luminaries required is thirteen (13 ea).

Washington's Position on Designer's Direction & Highway Safety's rebuttal

Washington has chosen to ignore the numerous instances that the Designer provided direction to utilize Index 17505. Instead, Washington has based its rejection on a position that Highway Safety "proposed" the increased number of sign luminaries in our submittal. See Washington letter #133 dated January 8, 2004 in Tab 9, "Previous Correspondence".

Washington's position is unfounded. Highway Safety did not "propose" to increase the number of luminaries. We submitted lighting calculations for each sign panel on the sign structures. The Designer's approval of the lighting calculation submittal then established the number of luminaries required for this project. For the record, this did not happen until after the commencement of the work on this Contract.

By taking the above position and refusing to provide compensation to Highway Safety for the additional luminaries, Washington is maintaining that Highway Safety should have included in its bid pricing an increased number of luminaries that could not be

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determined until after the Designer approved lighting calculations, **after the commencement of the Contract.**

This is unreasonable, especially in light of the numerous references to Index 17505 throughout the Contract Documents. Highway Safety cannot be expected to include in its bid an unknown quantity of luminaries that could not be determined until after the Designer approved of the lighting calculations.

Also, lighting calculations often result in a number of luminaries that is less than or equal to the quantity required by the Index, Highway Safety had no inkling or prior knowledge that the project would require additional luminaries.

Note 13 of the Signing and Marking General Notes is the pay item note for all the sign structures on this project. This note clearly states the these pay items include "**...the cost of installing luminaries, ...as specified in Index 17505.**"

This issue has resulted from a Designer error, not Highway Safety's error. If the Designer desired additional luminaries over the number required by Index 17505, he is obligated to provide the quantities in the Plans. This Designer did not take this initiative and failed to provide this information, thereby creating uncertainty in the Contract. Highway Safety is now unfairly being asked to finance this design error.

It is reasonable to expect that a Designer should provide luminary quantities when additional luminaries are required. Often a Designer will designate it the plans. To illustrate this point, we have provided a copy of Plan sheet L-8 from Department project FIN 255703-1-32-01 in Hillsborough County (See Tab 6). Upon review, you will note that the Designer for the Hillsborough County project provided a chart labeled "External Lighting for Signs". This chart provides explicit details on the number of luminaries needed for each sign panel, thereby leaving no question as to the number of luminaries that would be required. However, the Contract Documents for this Project contain no such chart.

Also, in their January 8, 2004 letter, Washington tries to invoke Article 5-2 of the Standard Specifications in an attempt to give more credence to a "portion" of Note 12 of the Signing and Marking General Notes. However, Washington conveniently chooses to ignore the fact that Note 12, the Designer also provides clear direction to utilize Index # 17505 when mounting the sign luminaries. The reference to Index #17505 in Note 12 establishes that Index #17505 carries equal if not more significance in determining the number of sign luminaries, than any other portion of Note 12. Washington also chooses to ignore the numerous references to Index 17505 throughout the Plans.

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Precedence

It is also important to consider the precedence set by the Department on this issue. Highway Safety has established the fact that on other Department projects, when designers desire additional luminaries they have indicated the actual quantity of luminaries required in the Plans. This leaves no question or assumptions to the Contractor.

Now we establish that in the past when Designers have failed to quantify the additional luminaries required, the Department has provided additional compensation for all luminaries required over the number shown in Index #17505. We provide two examples for your consideration.

Project 258882-1-52-01 in Pinellas County - This project was on 1-275 near downtown St. Petersburg. The Contract Documents for this project contained very similar Signing plan notes. Highway Safety bid the project per the Index, performed lighting calculations, and received approval of the lighting calculation submittal from the Engineer. Highway Safety requested compensation for the additional luminaries required by the lighting calculations. After several meetings and discussions, the Department agreed to compensate Highway Safety \$45,869.78 for the additional thirty (30) luminaries required (\$1,528.99/ea). We have provided some of the correspondence and plan sheets on this project in Tab 7 for your review.

Project 217864-1-52-01 in Bay County - This project is on US 98 in Bay County. Highway Safety bid this project per the Index, performed lighting calculations, and received approval of the lighting calculations from the Engineer. Highway Safety requested compensation for the additional luminaries required by the lighting calculations. The Department agreed to compensate Highway Safety \$4,362.51 for the additional three (3) luminaries required (\$1,454.17/ea.). Again, we have provided copies of correspondence and plan sheets on this project in Tab 8 for your review.

Just like this project, Highway Safety had no knowledge at bid time that additional luminaries would be required on the precedent projects. It was only determined when the Designer approved the lighting calculations. Consistently on all three projects, Highway Safety submitted a request for compensation after the lighting calculations were approved, which determined the number of luminaries required. On the two referenced precedent projects, the Department approved payment to Highway Safety for the additional luminaries. Accordingly, the Department should again provide compensation on this project. Highway Safety also points out that our requested unit price of \$1,580.96 per each luminary is comparable to the unit prices paid by the Department on the two precedent projects.

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The Record on these two projects establishes a strong precedence that the Department will compensate a contractor for all luminaries over the quantity required in Index #17505. By agreeing to compensate Highway Safety, the Department sent an unmistakable message that Index 17505 will be the tool to utilize to determine the number of luminaries.

In conclusion, Highway Safety maintains that the Contract Documents do not contain clear direction that Highway Safety should have included additional luminaries in our bid pricing. Instead, the Designer includes numerous references in the Plans, which provide clear direction to utilize Index #17505 for the sign luminaries. As such, Highway Safety utilized Index #17505 at bid time to determine the number of luminaries required.

Highway Safety relied on the Designer's direction and on the precedence that if the lighting calculations required additional luminaries, the Department had compensated us for the cost of these additional luminaries. We again request that the Department provide that same fair compensation in this instance.

Therefore, Highway Safety respectfully requests that the Disputes Review Board review the information contained in this Position Statement and in the attached documentation, consider the facts, and rule that:

HSD should receive additional compensation to furnish and install additional luminaries over an above the quantity designated by Index #17505.

DEPARTMENT'S POSITION

The Department begins by stating the issue and continues with Contract language as follows:

Note 12 of the Signing and Marking General Notes, plan Sheet No. S-4 of Construction plans states: "All lighted overhead signs shall be illuminated to an average initial intensity of 30 fc with a maximum to minimum uniformity ratio of 6:1. Wiring and mounting of sign luminaries shall be done in accordance with index 17505. The contractor shall submit sign lighting calculations along with shop drawings for all lighted overhead sign structures." Cone Graham and Highway Safety have requested a hearing of the Board to determine if the entitlement exists for additional payment for 13 luminaries. The 13 luminaries represent the difference between the number of luminaries needed to achieve the intensity requested by the Note 12 and the number of the luminaries indicated in Index 17505, page 1 of 2 of the Department's Roadway and Traffic Design Standards, January 2000 edition.

Standard Specification Article 5-2 Coordination of Contract Documents assigns the Plans a higher level of precedence than the Road Design, Structures, and Traffic Operation Standards, "...in the governing order of documents..."

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Note 12 of the Signing and Marking General Notes, plan Sheet No. S-4 of Construction plans states: "All lighted overhead signs shall be illuminated to an average initial intensity of 30 fc with a maximum to minimum uniformity ratio of 6: 1. **Wiring and mounting** of sign luminaries shall be done in accordance with index 17505. The contractor shall submit sign lighting calculations along with shop drawings for all lighted overhead sign structures.

On page 8 of the Special Provisions, Article 2-4 is expanded by the following: "Prior to letting, direct questions through Teresa Driskell at..."

On page 80 of the Supplemental Specifications, Article 2-4 Examination of Plans, Specifications, Special Provisions and Site of Work, states: "Examine the Contract Documents and the site of the propose work carefully before submitting a proposal for the work contemplated. Investigate the conditions to be encountered, as to the character, quality and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents."

On page 36 of Department Standard Specifications, 2000 edition, Article 5-4 Errors or Omissions in Contract Documents, states: "Do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify the Engineer of such discovery."

In addition to the Department's position Washington takes the following position:

Note 12 of the Signing and Marking General Notes, plan Sheet No. S-4 of Construction plans indicates the designer's emphasis on quality of illumination regardless of the number of luminaries used. By issuing this note the designer eliminated the part of Index #17505 that deals with the number of fixtures required for particular sign sizes. Other references to Index #17505 in the plans are irrelevant to quality of illumination or to the number of luminaries needed.

Since the Note 12 was included in the original bid documents and neither contract documents nor site condition nor scope of work have changed, the contractor's request for additional payment can not be based on alteration of plans or of character of work. Moreover, the contractor had the opportunity and, based on his previous experience, accountability to report perceived ambiguity in the plans to the Department during the pre-bid period.

The number of luminaries in approved sign lighting calculations was proposed by the contractor (manufacturer), not by the EOR or the Department, to meet the criteria for quality of illumination set forth by Note #12 in the original contract documents. The number of luminaries shown in approved **structural** shop drawings for overhead sign structures, also proposed by the contractor (manufacturer), is not related to the criteria for intensity of illumination.

The issue was discussed at Weekly Progress meetings several times and later it was escalated to the Department's RE office.

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Following are the contractor's statements that outline the contractor's position. The statements were extracted from the previous contractor's correspondence.

Highway Safety compared approved sign structure submittals and approved sign lighting photometrics submittal. They compared this project's approved sign luminaries requirements to the Department's standard index governing sign lighting. The designer added thirteen (13) additional sign luminaries.

The requirement to install more sign luminaries than required by Index #17505 is an alteration of the plans. Since Index #17505 is included in Plan Note #12, it carries equal if not more significance to the sign luminaries than any other reference in Plan Note # 12. Washington's assertion that the first sentence (of Note # 12) has a higher level of precedence than Index #17505 is incorrect.

If the designer wanted more luminaries than shown in Index # 17505, he had a responsibility to provide the calculations himself and identify in the contract documents the additional sign luminaries. The Designer failed to do so and instead directed the contractor to utilize Index #17505.

Note #13 on Plan Sheet S-4 reads as follows: "Pay Items 700-44-043, and 700-45-45 shall include the cost of furnishing and installing luminaries, galvanized RGS conduit, conductors, and NEMA weatherproof enclosures, lockable with 30 amp breakers mounted on the sign structure away from the traffic as specified in Index #17505." By the wording, "as specified in Index #17505" Highway Safety is directed to furnish and install the sign luminaries as per Index #17505. It was only after the approved submittals were received, that Highway Safety realized additional luminaries would be needed.

The Department points out other points they feel are important to their position as follows:

The cost of F&I of the luminaries for each sign is included in the unit price of the pay item for each assembly of the lighted overhead sign structure.

The additional amount requested by the contractor is **\$22,946.89**.

DISPUTES REVIEW BOARD FINDINGS

The Board is governed in our decision making process by the plans, specifications (standard, supplemental, technical, special), and the contract. Therefore, our recommendation is based on the above documents.

After reviewing all the documents presented and listening to both parties' presentations, the Board finds that:

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The Department contended in their position statement and at the hearing that Highway Safety should have recognized the fact that there might be more luminaries required because they had previously experienced a similar problem in this District. The Department experienced the same problem within this District and the Department is responsible for the production of the plans and specifications. If the Department felt that the number of luminaries on the various signs was, or could be a problem, then it should have been recognized and corrected.

Specification 2-3 Interpretation of Estimated Quantities indicates how the Department expects contractors to bid on items where quantities are given in the plans and states in part:

For those items constructed within authorized plan limits or dimensions, **use the quantities shown in the plans and in the proposal form as the basis of the bid.** The Department will also use these quantities for final payment as limited by the provisions for the individual items. For those items having variable final pay quantities that are dependent on actual field conditions, use and measurement, the **quantities shown in the plans and in the proposal form are approximate and provide only a basis for calculating the bid upon which the Department will award the Contract.** Where items are listed for payment as lump sum units and the plans show estimates of component quantities, the Department is responsible for the accuracy of those quantities limited to provisions of 9-3.3... (Emphasis added)

There is no design error in the plans as to the number of luminaries, but rather an indication of the number of luminaries upon which all contractors should base their bids. The intent of the plans is to bid the number of luminaries shown on the table in Index 17505, sheet 1 of 2, so that the Department will receive similar bids from all Contractors.

Specification 2-4 Examination of Plans, Specifications, Special provisions and Site of Work, is complimentary to Specification 2-3 and states in part:

Examine the Contract Documents and the site of the proposed work carefully before submitting a proposal for the work contemplated. Investigate the conditions to be encountered, as to character, quality and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents.

The quantities of luminaries are shown on Index 17505, sheet 1 of 2.

Highway Safety was not taking advantage of an error or omission in the plans, there was none, when they bid this project, but merely bidding the quantities shown in Index 17505, sheet 1 of 2 so that their bid would be comparable to all others bidding the project.

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Based upon the information presented the Board finds that Cone Graham is entitled to receive compensation for the 13 additional luminaries that were furnished and installed on this project.

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The Board sincerely appreciates the cooperation of all parties and the information presented for its review in making this recommendation. The Disputes Review Board's recommendation should not prevent, or preclude, the parties from negotiating an equitable solution (should it be appropriate) to any issue pursuant to their partnering agreement.

Please remember that a response to the Board and the other party of your acceptance or rejection of the recommendation is required within 15 days. Failure to respond constitutes an acceptance of this recommendation by the non-responding party.

I certify that I have participated in all meetings of this Board regarding this issue and concur with the findings and recommendations.

Signed for, and with the concurrence of, all members.

Members

Lester C. Furney

Gerald H. Stanley

John C. Norton

John C Norton, P.E.

Chairman