

## DISPUTE REVIEW BOARD RECOMMENDATION

### FINANCIAL PROJECT ID. 231919-3-52-01 & 231920-2-52-01 INTERSTATE 95 ( SR-9 ) PALM BEACH COUNTY

May 25, 2005

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RE; I-95 (SR-9) Reconstruction from North of SR-80 to North of Palm Beach Lakes Boulevard  
Palm Beach County

#### **Subject: Dispute over Payment of Temporary Traffic Signals ( Fixed )**

A hearing has been requested by Hubbard Construction Company (HCC) and the Florida Department of Transportation in order to determine the unit of payment for pay item 102-104-2 *Temporary Traffic Control Signals (Fixed) - per each per day*. The Board was convened on March 2, 2009 and both parties were heard.

#### **HISTORY OF ISSUE**

The project of widening I-95 and constructing HOV lanes from North of State Road 80 to North of Palm Beach Lakes Blvd began in January of 2005. The work included the complete reconstruction of the Palm Beach Lakes Blvd Bridges, Ramps and widening of Palm Beach Lakes Blvd from Robbins Dr to Executive Center Dr. Within the Palm Beach Lakes Blvd and I-95 interchange HCC was required to install per the contract plans Temporary Traffic Control Signals having the pay item number 102-104-2.

Since that time HCC commenced work on Palm Beach Lakes Blvd proper and in accordance with the plans sheet 328 installed Temporary Traffic Control Signals at ramps A and D along with ramps B and C, followed by the removal of the existing signals. On May 15<sup>th</sup>, 2006 HCC began to certify ***Item No.102-104 Temporary Traffic Control Signals (Fixed) – per each per day*** at the quantity of signals installed at these ramps as can be seen in Exhibit "A" and the department commenced issuing payment for this certified quantity as illustrated in estimate number 0019 (exhibit "B").

On January 17<sup>th</sup>, 2008 FDOT informed HCC via email (exhibit "C") of their interpretation of the pay item to be 1 ED per intersection and directed HCC to recertify at this unit. In reviewing this issue, HCC found an error the quantity paid to date but maintained its position that HCC had properly been certifying, and would continue to certify, each signal per day. HCC notified FDOT of its position via email on January 21<sup>st</sup> (exhibit "D"). Our signal Subcontractor Atlas TMS confirmed on January 23 that their understanding concerning the issue was the same as HCC's (exhibit "H"). HCC reiterated its position, and that of its subcontractor, on February 13 via email (exhibit "D").

In estimate number 40 (exhibit “E”) FDOT unilaterally reduced the units down from the certified amount to 2 ED for 2008 and on estimate number 45 (exhibit “F”) the quantity was unilaterally reduced to 2 ED for all certifications previously provided by HCC for pay item 102-104-2. The certified quantity has continually been reduced down from 19 units ED to 2 units ED through the pay estimate dated December 14 – the date the Temporary Traffic Control Signals were removed from service.

### **Contractors Position**

In the FDOT 2004 Standard Specifications for Road and Bridge Construction the term “*per each per day*” is found 23 times, all in section 102 including the referenced 102-104 pay unit. The Standard Specifications used in this contract, **per each per day** is used with items such as; barricades, Type “B” lights, variable message boards, etc., in fact specification **102-13.23 Payment Items: Payment will be made under:** the following items are clearly stated in the same way:

- Item No. 102- 60- Work Zone Signs - per each per day.*
- Item No. 2102- 60- Work Zone Signs - per each per day.*
- Item No. 102- 74- Barricade (Temporary) - per each per day.*
- Item No. 2102- 74- Barricade (Temporary) - per each per day.*
- Item No. 102- 76- Advanced Warning Arrow Panel - per each per day.*
- Item No. 2102- 76- Advanced Warning Arrow Panel - per each per day.*
- Item No. 102- 77- High Intensity Flashing Lights (Temporary - Type B) - per each per day.*
- Item No. 2102- 77- High Intensity Flashing Lights (Temporary - Type B) - per each per day.*
- Item No. 102- 79- Lights, Temporary, Barrier Wall Mount – per each per day.*
- Item No. 2102- 79- Lights, Temporary, Barrier Wall Mount – per each per day.*
- Item No. 102-104- Temporary Traffic Control Signals (Fixed) - per each per day.**
- Item No. 2102-104- Temporary Traffic Control Signals (Fixed) -per each per day.**
- Item No. 102-150- Portable Regulatory Signs - per each per day.*
- Item No. 2102-150- Portable Regulatory Signs - per each per day.*
- Item No. 102-150- Radar Speed Display Unit - per each per day.*
- Item No. 2102-150- Radar Speed Display Unit - per each per day.*
- Item No. 102-150- Safety Warning Transmitter - per each per day.*
- Item No. 2102-150- Safety Warning Transmitter - per each per day.*
- Item No. 102-150- Highway Advisory Radio - per each per day.*
- Item No. 2102-150- Highway Advisory Radio - per each per day.*

FDOT has paid for each of the items noted above as noted – on a per each day basis – without question. The only pay item where FDOT has taken the position that “per each day” means something other than what the contract provides is for item 102-104.

The plain language of the basis of payment provision of section 102-13.20 **Temporary Traffic Control Signals** expressly contradicts FDOT’s unique interpretation for that particular pay item:

*Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide **an operable traffic signal**.*

The word signal by it self and in this manner refers to the singular quantity (**an operable traffic signal**) while Signals would mean plural or multiple however when stated as it is stated in the specifications the natural interpretation would be signals - multiple/plural - per each - an - (E), singular - per day (D). This is the same as the example of “Work Zone Signs” - multiple/plural - per each (E), singular - per

day (D) or ED. There is not any difference in the way these items are presented with in the FDOT CONTRACT SCHEDULE OF ITEMS dated 6/16/2004 (exhibit "G") units of measure and matched in the estimates unit of measure (exhibits "E, D, and F"). There is no contractual, or logical, difference in how a contractor should be paid for these pay items in section 102.

Other sections of the contract documents expressly provide for payment to be made on a per intersection basis and those sections use markedly different language than that used in the relevant pay item above. On page 118 of the 2004 Standard Specifications under section 102-13.21 **Temporary Traffic Detection Technology**<sup>[1]</sup> and it deals with Signalization but not with the Signal Assemblies, Signal Heads or Temporary Traffic Control Signals. "**102-13.21 Temporary Traffic Detection Technology Price and payment of per intersection/per day...**" with the associated pay items shown to be:

*Item No. 102-107- Temporary Traffic Detection - per day.*

*Item No. 2102-107- Temporary Traffic Detection - per day.*

There are other items that have the units PI or per intersection but are completely unrelated to temporary maintenance of traffic. These items are located in sections 632 and 634 and they explicitly refer to cables and span wires, in fact as excerpted from the Specifications;

**632-6.2 Furnish and Install:** *The Contract unit price **per intersection** for Cable (Signal) and per foot [meter] for Cable (Interconnect), furnished and installed, will include furnishing all material, hardware, support wire, cable ties, cable clamps, lashing wire, terminal connectors, cable grounding and labor necessary for a complete and accepted installation. **Payment for Cable (Signal) will be based on the number of intersections at which signal cable is furnished and installed.** Payment for Cable (Interconnect) will be based upon the length installed between cable terminations, as determined by the manufacturer's sequential markings printed on the cable jacket, recorded to the nearest foot [meter].*

**632-7 Basis of Payment.**

*Prices and payments will be full compensation for all work specified in this Section. Payment will be made under:*

*Item No. 632- 7- Cable (Signal) - per intersection.*

*Item No. 2632- 7- Cable (Signal) - per intersection.*

*Item No. 632- 8- Cable (Interconnect) - per foot.*

*Item No. 2632- 8- Cable (Interconnect) - per meter.*

**634-5 Basis of Payment.**

*Prices and payments will be full compensation for all work specified in this Section. Payment will be made under:*

*Item No. 634- 4- Span Wire Assembly - per intersection.*

*Item No. 2634- 4- Span Wire Assembly - per intersection.*

*Item No. 634- 5- Fiberglass Insulator - per foot.*

*Item No. 2634- 5- Fiberglass Insulator - per meter.*

The above sections clearly do not refer to signals, signal heads, or systems which have their own pay item designations; they refer to the signal cables and interconnects cables along with span wire assemblies and

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<sup>[1]</sup> These items are not incorporated into this project.

fiberglass insulators, and as noted above ”*specified in this Section*”. The use of **per intersection**, however, demonstrates that when payment is to be made per intersection the Contract specifically provides “**PER INTERSECTION**”.

## **Conclusion**

As indicated by its statements in the attached emails, FDOT basis its position not in its contract language, but on how it pays for this on other district projects. What the rest of the district does on other projects and how those contracts are (or are not) written was not considered when HCC bid this project and priced this item of work. HCC bid this project based on the FDOT specifications as written by FDOT.

HCC submits that the clear, unambiguous language of this contract requires payment by FDOT for each signal for each day and that this Board should issue a recommendation that FDOT issue payment to HCC in full accordance with the contract and FDOT’s course of conduct over the first two years of this project.

## **Departments Position**

**Issue:** The Contractor contends that payment for Traffic Control Signals (Fixed) is based on each “signal head.” The Contract clearly establishes payment for Signal System per Intersection.

## **Background and References**

As part of the I-95 widening project from SR 80 to north of Palm Beach Lakes Blvd, the Traffic Control Plans (TCP) include the use of temporary traffic signals at the two intersections on Palm Beach Lakes Blvd and the I-95 ramps. Payment for these signals is under Pay Item 102-104-2, Temporary Traffic Control Signal (Fixed), with a quantity of 4,374.00 at a unit price of \$40.00 ED. The Contractor has been certifying the quantities on a per signal head basis, while the Department has been reducing the payment to reflect a per intersection basis.

## **Review of the Contract**

Standard Specifications for Road and Bridge Construction (2004) Section 102-9.14 Temporary Traffic Control Signals (pg. 110) states in part:

“Furnish, install and operate temporary traffic control signals **as indicated in the plans** (emphasis added). Temporary traffic control signals will consist of either portable or fixed traffic signals.”

Standard Specifications for Road and Bridge Construction (2004) Section 102-11.20 Method of Measurement – Temporary Traffic Control Signals (pg. 115) states:

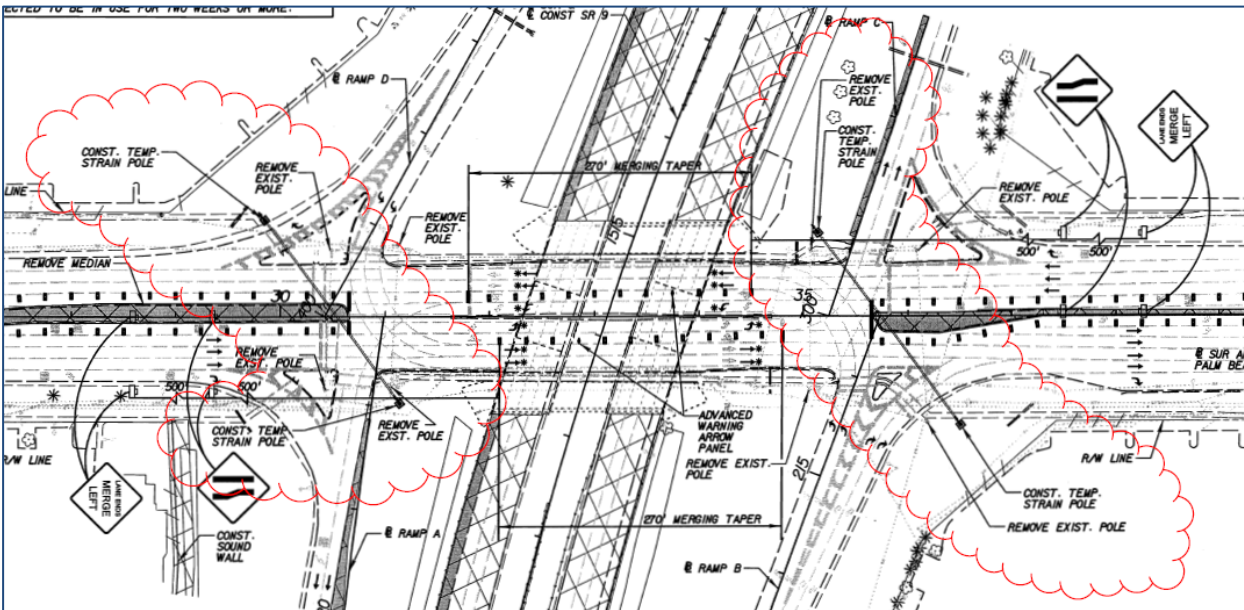
“The quantity of Temporary Traffic Control Signals to be paid will be the number of completed installations (each signalized location) of portable traffic signals, or the number of fixed traffic signals in place and operating on the project, as authorized by the Engineer and certified as in place and in operation on the project.”Traffic Control Plan Note 29 (Sheet 236) states:

“The Contractor shall maintain Palm Beach Lakes Blvd signalization during construction at all times by using existing, temporary, and proposed signals as approved by the Engineer. The Contractor shall

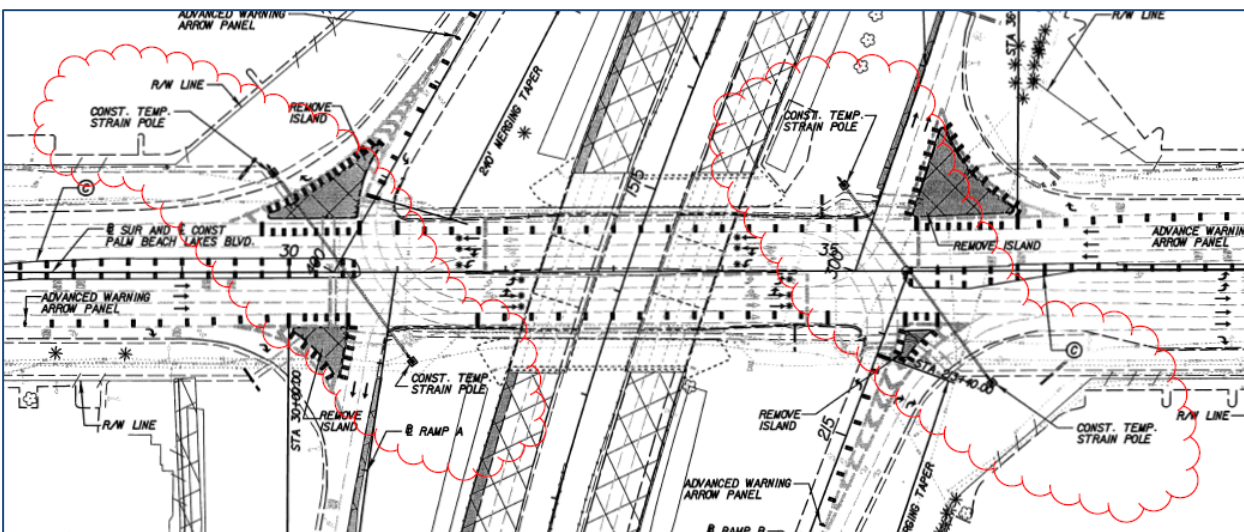
realign and/or relocate signal heads and poles as required by the TCP. All costs to be included in Pay Item 102-1."

Traffic Control Plan Phase I Median Removal Palm Beach Lakes Blvd (Sheet 328) and Phase I Island Removal (Sheet 331) shows construction of the strain poles at Ramps A/D and B/C:

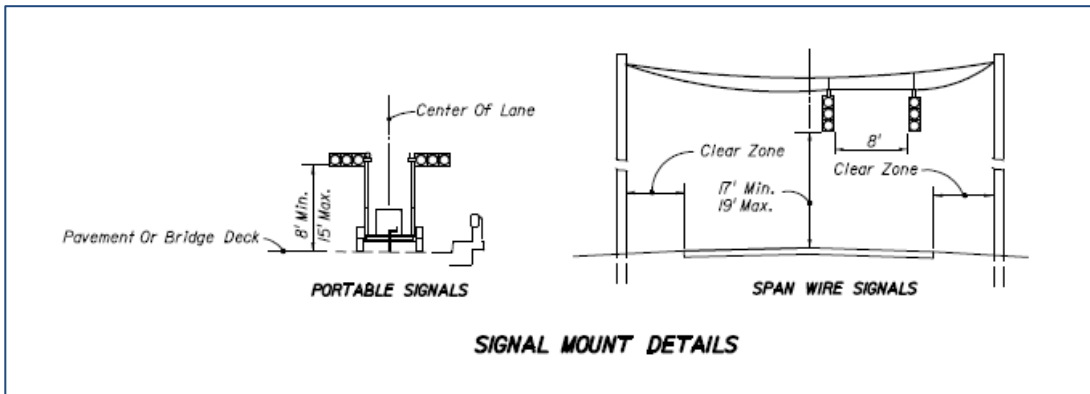
Sheet 328:



Sheet 331



Design Standards (2002) Index 608 sheet 1/4 shows both portable and fixed signals:



**Department’s Position**

It is the position of the Department that temporary signals are to be paid as a complete system per intersection basis and not per signal head. The plan quantity for the temporary signal item is 4,374 ED. As shown in the Comp Book (not part of the Contract, but consistently used to develop contract quantities), the was developed using the “No. of intersections” times Days” times 1.35 (35% growth account for unknowns, as determined by the Department) – 2 x 1620 x 1.35 This is in accordance with the Estimates which states based on the number of installations (each signalized operation on the project.” It until a review of project that it was discovered that the

102-104- A TEMPORARY TRAFFIC CONTROL SIGNAL				
	Unit	ED	Accuracy	Each Day
Notes				PlanQuantity? no
Details	Estimate based on the number of completed installations (each signalized location) in operation on the project.			
Related Items	Required		Recommended	
Forms	Design	SHTabQuant	COMP 700-050-03	
	Construction	700-050-51		
Documentation	Design	Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.		
	Construction	Record final quantity on the tabulation sheet (plans) or computation form (comp book).		
References	PPM Chapter			
	Other			
	Standards	Index No. 606		
	Specifications	Section 102		
	Prep & Doc Manual Chapter(s)	7, 13		
<hr/>				
TRNS*PORT Category (DRAFT FIELD):	0200	Roadway		
Status				
Struct.	102-104- A	TEMPORARY TRAFFIC CONTROL SIGNAL		ED
	A = Type			
	1 (Portable)			
	2 (Fixed)			

explicitly a

all FDOT quantity formula “Contract factor to

= 4,374. Basis of “Estimate completed location) in was not quantities certified

quantity provided by the Contractor had seriously overrun the plan quantity that this issue was brought to the Department’s attention. The Contractor, as of the January 2009 estimate, has certified 21,324 ED under this Pay Item. The Department has reduced the total quantity to 1,890 ED, based upon 2 ED as installed.

As can be seen from the TCP Plan Sheets 328 and 331 (above), the Designer did not specify the number of heads needed for each intersection. The plan sheets merely show two temp strain poles per intersection and span wire. Standard Index 608, Sheet 1/4 shows a sample temporary signal setup of two poles, span wire, and 2 heads. The Contractor, arbitrarily or otherwise, decided that 19 total signal heads was sufficient for the two intersections.

A comparison of HCC’s bid price on this item (\$40.00 ED) to Statewide Averages (SWA) for 2004 (bid year of this contract) and on shows that their bid price is in line with SWA (range from \$25.58 on 11 contracts in 2004 up to a high of \$30.71 on 9 contracts in 2006).



2004:								
<u>Item</u>	<u>No. of</u>	<u>Weighted</u>	<u>Total</u>	<u>Total</u>	<u>Unit</u>	<u>Obs?</u>	<u>Description</u>	
	<u>Conts</u>	<u>Average</u>	<u>Amount</u>	<u>Quantity</u>	<u>Heas</u>			
0102104	2	11	\$25.50	\$513,587.46	20,000.000	ED	N	TEMPORARY TRAFFIC CONTROL, FIXED SIGNAL
2005:								
0102104	2	15	\$30.40	\$444,192.06	14,612.000	ED	N	TEMPORARY TRAFFIC CONTROL, FIXED SIGNAL
2006:								
0102104	2	9	\$30.71	\$357,058.64	11,628.000	ED	N	TEMPORARY TRAFFIC CONTROL, FIXED SIGNAL
2007:								
0102104	2	9	\$25.51	\$379,614.93	14,882.000	ED	N	TEMPORARY TRAFFIC CONTROL, FIXED SIGNAL

We have investigated statewide the proper methodology for payment for this pay item. Our findings reveal that in two separate instances there have been formal disputes over the same issue of entitlement for temporary signals. While the argument can be made that each contract should be evaluated on its own, the Specifications and previous rulings and determinations on the disputes cannot be ignored. The two examples below are based on the same contract provisions as ours.

DRB Recommendation for the project SR 70 from 72<sup>nd</sup> Blvd East to a point east of Lakewood Ranch Blvd, FIN 196121-1-52-01 (Attachment 1) states *“In reading Method of Measurement Article 102-11.20 the Board reads the phrase “number of complete installations” as applying to both portable and fixed traffic signals.”*(emphasis added). While the dispute in that case dealt with maintenance of existing intersections in addition to new temporary setups, the Contractor only refers to the signals with regards to intersections, and not individual heads.

Another DRB Recommendation for the project SR 45 (US 41 Business) from Palermo Place to US 41 Bypass N, FIN 198005-1-52-01 (Attachment 2) states *“this note is consistent with the above listed bid documents and shows the pay item for a temporary device at a single location... This is the only location for temporary signal. This pay item is for the furnishing and installation of one temporary traffic control device located on the new southbound bridge.”* (For comparison, the pay item used in that Contract is 2104-102-2, the metric equivalent, but is still for a fixed installation). In this DRB Recommendation, the Contractor also agrees that payment is per intersection: *“HSD states that pay item 2102-104-2 is included in the contract to pay for completed installations of temporary traffic signals.”* (emphasis added)

### Conclusion

As can be seen from above, it is not just the Department’s “position” that temporary signals should be paid for on a per intersection basis (as opposed to per signal head), but it is standard practice as shown in the two prior DRB Recommendations, by both the DRBs in those cases, and the reading of the Contractor’s Positions in those Recommendations. There is nothing in the Contract, Specifications, or Plans that calls for temporary signals to be paid for based on the number of signal heads installed.

The Department respectfully requests that the Board rules in the Department's favor that Pay Item 102-104-2, Temporary Traffic Control Signal (Fixed), is to be paid for a per intersection per day basis. The Standard Specifications, Design Standards, Contract documents, standard practice, and previous DRB rulings all clearly support this position.

Contractor's Positions in those Recommendations. There is nothing in the Contract, Specifications, or Plans that calls for temporary signals to be paid for based on the number of signal heads installed.

The Department respectfully requests that the Board rules in the Department's favor that Pay Item 102-104-2, Temporary Traffic Control Signal (Fixed), is to be paid for a per intersection per day basis. The Standard Specifications, Design Standards, Contract documents, standard practice, and previous DRB rulings all clearly support this position.

### **Contractors Rebuttal**

Hubbard Construction Company ("HCC") submits this rebuttal paper in response to the position statement provided by the Corradino Group on behalf of FDOT.

#### **FDOT's Reliance on Non-Contract Documents**

As it is the role of the Board to apply the Contract for this project to the dispute at hand, HCC must object to FDOT's reliance upon documents that are clearly not a part of the contract, including the following:

##### **▪ The Comp Book**

Although FDOT concedes that the Comp Book is not a contract document, FDOT contends that the comp book supports its position because it appears to support the plan quantity for 102-104-2 of 4,374 based on the calculation of  $2 \times 1620 \times 1.35$ . First, this calculation is in error as the work for PBLB is only 950 days and not the total contract time of 1620 days. Second, overruns/under runs in quantities are not unexpected, as the following quantities on this project are among those that will vary significantly from the plan quantity:

- Pay item 521-72-3 with a plan qty of 10,008 but an actual qty of only 5,730;
- Pay item 521-5-1 with a plan qty of 6,621 but an overrun of approximately 3,365;
- Pay item 327-70-11 with a plan qty of 12,258 but a job to date qty of 24,531;
- Pay item 327-70-6 with a plan qty of 81,515 but a job to date qty of 99,848.

Neither the fact that an overrun exists nor the possibility that the Comp Book might also misinterpret the relevant specifications lend support for the FDOT position. Discrepancies related to actual quantities installed/performed versus plan quantities have no bearing on whether payment is per device or per intersection under this Contract.

##### **▪ Previous DRB Recommendations**

The use of rulings from other Boards should not be allowed as (1) they are not contract documents; (2) DRB recommendations are not precedent setting and are not even binding on the participants; (3) we are not privy to particulars of those projects or the disputes presented; (4) we do not know whether the contract documents and plans for those projects were the same as the project at hand; and (5) it is not known whether the parties to those recommendations even accepted the decisions upon which FDOT relies.

Nevertheless, it must be noted that FDOT has utilized the DRB recommendation dated August 24, 2007 out of context as the dispute was for whether intersections where no temporary signals were installed qualify for payment under the temporary signal pay item. This is simply not the same dispute presented here which involves payment for the actual



number of temporary traffic signals actually installed. This recommendation is silent on how many signals made up the intersection and the contractor's characterization or labeling of its payment request is irrelevant to the question before this Board. Additionally, the set of contract documents appeared to have "traffic control signalization plans" (not provided in this contracts document) that may have told them the number of signal devices to be provided. In short, the August 24, 2007 DRB decision should have no bearing on the outcome of this dispute.

Likewise, FDOT relies upon excerpts from a January 2002 DRB recommendation that did not present the same issue. First, FDOT quotes as follows: "this note is consistent with the above listed bid documents and shows the pay item for a temporary device at a single location..." However, this same recommendation also provides: "this pay item is for the furnishing and installation of **one temporary traffic control device** (emphasis added) located on the southbound bridge." Based on this statement it would appear that a location is wherever the furnished and installed device is placed and location does not equal intersection as allured by the department.

Although FDOT contends that the contractor in that decision, Highway Safety Devices (not HCC), had agreed that the item paid was to be paid per intersection such a statement cannot be found anywhere in the recommendation. While HSD refers to intersection it is only in reference to the time which the unit would commence to be tracked and FDOT's mischaracterization of the HSD position underscores the danger of utilizing other DRB recommendations as support for a position on another project involving different contractors.

### Contract Documents Addressed by FDOT

It is important to note that, other than what is generally required in the MUTCD and Standard Specifications, the plans for this project did not indicate the number of signals, or their placement, of anything other than poles and span wires. This left responsibility for providing the necessary equipment for an adequately signalized intersection with Hubbard which, in this case, required the furnishing and complete installation of 19 operable traffic control signals. As result, FDOT's reference to section 102-9.14 and its "as indicated in the plans" statement is really meaningless.

Standard Index 608 upon which FDOT relies details "two lane, two way lane closure by signal control day or night operations" and not how many units are to be used or, more importantly, how they are to be paid. As seen below the referred index has no relation to the dispute at hand.

**CONDITIONS**  
 WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OR MOMENTARILY ENCROACH ON BOTH LANES OF A TWO-LANE TWO-WAY ROADWAY AND TRAFFIC SIGNALS ARE NEEDED.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
TRAFFIC CONTROL THROUGH WORK ZONES				
TWO-LANE, TWO-WAY				
LANE CLOSURE BY SIGNAL CONTROL				
DAY OR NIGHT OPERATIONS				
	Names	Dates	Approved By	
Designed By		12/87	<i>James D. White</i> Roadway Design Engineer	
Drawn By		12/87	Revision	Sheet No. Index No.
Checked By		12/87	00	1 of 4 608

In the statement by the Department referring to Standard Index 608 it is inferred that 2 signal heads should have been used. The designer did not say how many signal assemblies to use yet based on the sheets 328 and 331 using 2 signal devices/assemblies/heads would not provide a sufficient number of signalized locations to provide the minimum traffic control at these intersections.

The Department claims that "The contractor arbitrarily or otherwise, decided" how many signal heads to use but that statement is non-sense. HCC did not decide arbitrarily, but decided based on what is required for adequate and safe traffic control.

## Conclusion

HCC has methodically outlined in its position paper what this Contract requires with regard to payment for the temporary signals in question and the relevant Contract provisions lead to only one conclusion – that pay item 102-104-2 requires each device/assembly/head should pay per each unit per day of use and each unit does not equal an intersection. When FDOT intends for payment to be made on an intersection basis, it knows how to require this in other sections of the Contract and FDOT simply did not do that in this instance.

## Departments Rebuttal

The Corradino Group (TCG) respectfully submits this rebuttal to the position paper from Hubbard Construction Company (HCC) regarding a dispute over payment method for Temporary Traffic Control Signals (Fixed), 102-104-2.

The basis for Hubbard’s position can be broken down into two arguments. Those arguments are:

1. A “Signal Head” is the same thing as a “Signal.”
2. Other specifications noted refer to “per intersection” while this item does not.

In rebutting these arguments below, TCG will utilize the pertinent Specifications to clearly demonstrate the actual definition and direction given by the Contract Documents for the pay item.

## Signal Head vs. Signal

The basis for Hubbard’s position is that a “signal head” is the same thing as a “signal.” The Specifications make it clear that a “signal head” is a *component* of a “signal.” Further discussion attempts to blur the issue, and to justify HCC’s position, by showing how the Specifications use the singular and plural, “signal”/“signals.”

Hubbard quotes Article 102-13.21, and uses the singular/plural “signal”/“signals” to confuse the issue and justify their argument. In all actuality, this Specification, when combined with the Signalization Specifications in 611 clearly define the issue.

**“102-13.20 Temporary Traffic Control Signals:** Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control *signals* including all equipment and *components* necessary to provide an operable traffic *signal.*” (emphasis added).

Hubbard’s argument focuses on the last word of the paragraph, the singular “signal” to imply that it means an individual signal head. They argue that the signal system they installed includes multiple heads, and thus multiple “signals”, and therefore they should be paid for all of them. This is flawed logic because it fails to address the other parts of the specification. 102-13.20 also states “including all equipment and *components* necessary to provide an operable traffic *signal.*” To get the definition of a “component” one only need to refer to Article 611 which “sets forth Contract acceptance procedures for signalization installations and for equipment purchase contracts,” and more specifically Article 611-2.3.2:

**“611-2.3.2 Components:** Include as-built information for all components of the signal installation. As a minimum, identify the following components in the format indicated below.”

“Below” includes:

611-2.3.2.1 Conduit and Cable

611-2.3.2.2 Loops

611-2.3.2.3 Pull Boxes

611-2.3.2.4 Poles

**611-2.3.2.5 Signal Heads** (emphasis added)

611-2.3.2.6 Cabinet

611-2.3.2.7 Preemption

Finally, a review of Article 990-11 “Temporary Traffic Control Signals” provides additional guidance on the specific requirements of the temporary signal. While 990-11 is specifically for portable signals, it does state in 990-11 (1) to “(e)nsure there are **two signal heads** for each direction of traffic.” (emphasis added). This further enforces the Department’s position that the signal head is a piece of the whole system.

Clearly “Signal Heads” is a “component” of the “signal” and not the “signal” itself. Further reading of 611 will show that consistently the term “signal” is used to mean the entire system, and not just the signal heads necessary to provide an operable traffic signal.

#### **Per Intersection**

In the Department’s Position Paper, it was stated that the Department is defining payment as on a “per intersection” basis, and the Basis of Estimates and Specifications define it as “per installation.” In this case the two are not mutually exclusive, however we feel that it needs to be clarified. While in this project “per installation” and “per intersection” are interchangeable, after further investigation we realize that there may be cases where there are multiple installations at an intersection (i.e. 1 set of strain poles for each movement, as opposed to this project with one set of strain poles for all movements). This provides additional clarification as to why the Specifications refer to per installation and not per intersection. Additionally, since an intersection will typically have only one controller, there will only be one traffic detection device per intersection.

#### **Conclusion**

The Specifications are clear, when read as a whole, that “signal heads” are merely components of the “signal.” There is nothing in the Contract, Specifications, or Plans that calls for temporary signals to be paid for based on the number of signal heads installed.

#### **Boards Findings**

The Board has met, reviewed and deliberated all the submittals made by both the Contractor and Department and have found the following.

The Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition states.

**“Signal Head---an assembly of one or more signal sections,”**

This definition shows the Signal Head is only a component of a complete signal system.

Each DRB Recommendation is unique and the use of other DRB Recommendations as a precedent is wrong. The two recommendations used in this matter deal with other facets of the Temporary Signal item and have no effect on the matter under review.

Throughout all documents reviewed by the Board in this matter, the Signal Head is not mentioned. In each case the Specifications refer to Traffic signal as a complete and operable unit paid for each day

it is in use. It may only take one signal to control an intersection but it could possibly use more than one and each will be paid by the day not the intersection.

**102-13.20 Temporary Traffic Control Signals:** Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal.

The Pay Item shown above could be worded in a clearer way, but does not at anytime show reason to feel that the Pay Item is to be paid by the number of Signal Heads used. Again the Signal Head is only a small component of a complete traffic signal.

### **Boards Recommendation**

After full deliberation and examination of all documents a majority of the Board finds the Contractor is **not entitled** to compensation based on the number of signal heads but is entitled to payment based on the number of days each temporary **Traffic Signal** is used.

The Board appreciates the cooperation by all parties involved and the information provided to make this recommendation. Please remember that failure to respond to the DRB and the other party concerning your acceptance or rejection of the DRB recommendation within 15 days will be considered acceptance of the recommendation.

I certify that I participated in the Hearings of the DRB regarding the Dispute indicated.  
Respectfully submitted,

Dispute Review Board

John W. Nutbrown, Chairman  
Rammy Cone, Member  
Jimmie Lairacey, Member



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DRB Chairman