

Regional DRB Recommendation

Districts IV, VI & Turnpike S. of Indian River County

April 17, 2015



Russell Engineering, Inc. vs. FDOT District Six
FDOT Project No. 427515-1-52-01
Contract No. T6363
County: Miami-Dade, Florida



Date and Time of Hearings: 13th Day of April, 2015 at 9:00 am

DRB Issue: Whether Russell is entitled to compensation for time and materials exhausted in the removal and replacement of concrete slabs showing uncontrolled cracking when its means and methods of installation met the acceptance criteria of the Contract Documents.

Project Information

Type: **Traditional Design-Bid-Build**

CEI: **District VI Construction**

Original Contract Amount: **\$5,378,636.16**

Location: **State Road 9a (I-95 SB) From NW 125th Street to Biscayne Canal Bridge**

Members of the Regional Disputes Review Board in 2015:

Robert Cedeno, P.E., Esq., Chairman

James Guyer, Member

James MacLaughlin, P.E., Member

Location of Hearing: FDOT District VI Construction Conference Room
1000 NW 111 Avenue
Miami, Florida 33172



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1.0 BACKGROUND OF THE DISPUTE

The Florida Department of Transportation (the “Department”) sent a Bid Solicitation Notice Advertisement to Russell Engineering, Inc. (“Russell”) for Proposal ID T6363 on the 19th Day of April, 2013. Russell submitted its bid proposal on the 22nd Day of May, 2013. Russell was the low bidder and was awarded Financial Project Number 427515-1-52-01 (the “Project”) on the 11th Day of June, 2013. Russell entered into Contract Number T6363 (the “Contract”) with the Department on June 27th, 2013. The Contract allowed 350 calendar days to construct the Project for a total amount of \$5,378,636.16. The first chargeable day of contract time was September 16th, 2013. The Contract includes concrete slab replacement work on State Road 9A (I-95 SB) from NW 125th Street to Biscayne Canal Bridge in Miami-Dade County, Florida, with a specific number of damaged concrete pavement slabs designed to be removed and replaced in a blended layout of categorical sizes on Interstate 95 (State Road 9A) in accordance with the Plans, “Standard Index 308 Concrete Slab Replacement”, other applicable Indexes of the 2013 FDOT Design Standards, Section 353 “Concrete Pavement Slab Replacement”, and other applicable Sections of the 2013 FDOT Standard Specifications, all authored and designed by the Department.

1.1 Russell’s Position in Summary:

The uncontrolled cracks that appeared in the newly replaced concrete slabs did so as a result of the Department’s inadequate design and shortcomings of its Specifications in the production of satisfactory concrete slabs, not because of Russell’s materials or workmanship. Russell relied on the Standard Specifications the Department authored for acceptable concrete slab replacement materials and construction methods to be adequate, in providing that the concrete slabs would not crack during the life of the Contract. Russell performed its workmanship in reasonable conformance with the Contract Documents. If concrete slab replacement work was not performed in reasonable conformance with Specifications for materials and methods and uncontrolled cracking appeared as a result, the Department would be justified in directing Russell to remove and replace the concrete slabs at no cost to the Department. However, such was not the case, as Russell did comply with the material and construction method Specification requirements for meeting acceptance criteria. Therefore, Russell respectfully requests the Board recommend that Russell has entitlement to compensation for all concrete slab replacement work performed and materials placed in reasonable conformance with the Contract Documents.

1.2 Department’s Position in Summary:

The removal and replacement of concrete slabs developing uncontrolled cracking is the responsibility of the contractor. The Department’s position is based on specification number 353-6 of the 2013 FDOT Standard Specifications of which the third paragraph states, “*If any uncontrolled cracks appear during the life of the contract, remove and replace the cracked slab at*



no expense to the Department. Repair by removing and replacing the pavement across the full width of all affected lanes or shoulders and to the nearest transverse joint in each direction. Investigate and implement immediate effective solutions to eliminate further cracks, in consultation with, and subject to the approval of, the Engineer.” The Department respectfully requests that the board recommend that no further compensation is due to Russell for the time and cost impacts claimed by the Contractor on this issue in maintaining strict accordance with the Contract Documents.

1.3 RDRB's Responsibility:

The Board's recommendation is based on its reading of the Contract, the Position and the Rebuttal Paper submitted by Russell, and the information learned during the course of the one-day Hearing which commenced around 9:00 am and was concluded around noon with unlimited successive rebuttals by both Parties. The Hearing was neither recorded nor was a court reporter permitted to document the proceedings.

2.0 ISSUE IN DISPUTE

Whether Russell is entitled to compensation for time and materials exhausted in the removal and replacement of concrete slabs showing uncontrolled cracking when its means and methods of installation met the acceptance criteria of the Contract Documents.

3.0 FINDINGS OF FACT

3.1 Chronology of Significant Events

<u>September 16th, 2014:</u>	First chargeable day of the Contract.
<u>January 17th, 2014 to May 16th, 2014:</u>	32 concrete slabs showing uncontrolled cracks in Lanes 5 and 6 on State Road 9A (I-95 SB) were detected in the project.
<u>May 5th, 2014 to September 5th, 2014:</u>	Russell removed and replaced 32 slabs with uncontrolled cracks in Lanes 5 and 6 on State Road 9A (I-95 SB)

3.2 Chronology of Material E-mails after uncontrolled cracks appeared

<u>February 4th, 2014:</u>	Robert Bourdon, Construction Engineering and Inspection Field Personnel of The Corradino Group, writes an email addressed to Felipe Gonzalez (the “Engineer”) referring to a prior discussion regarding two (2) newly placed slabs that had cracked in the longitudinal direction.
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The slabs were located in Lane 6 MP 12.02 14' South and MP 12.01. He then stated that the slabs had been marked and Russell's Superintendent, Ed Neary, had been advised.

February 5th, 2014:

The Engineer sent an email to Brian Gibbs, Russell's Vice President, notifying him of the presence of uncontrolled cracks in newly replaced concrete slabs in lane six of SR 9a (SB I-95). Gonzalez requested the removal and replacement of the new slabs as required by specification number 353-6 of the 2013 FDOT Standard Specifications.

February 14th, 2014:

The Engineer writes an email to Brian Gibbs stating he had not received any response regarding the cracked slabs he had requested be removed and replaced. He continues by giving Russell the deadline of February 16th, 2014 to have the cracked slabs removed and replaced as per Sub-Section 353-6 of the Specifications. In the event that Russell did not meet the deadline for replacement, 8 SY of concrete removal and 4.11 CY of concrete placement would be deducted from Russell's compensation until the replacement was completed in the project.

Brian Gibbs responded to the Engineer's email stating that the cracked slabs would be removed by the following week.

March 3rd, 2014:

The Engineer sends an email to Brian Gibbs notifying him of the presence of uncontrolled cracks in four (4) additional concrete slabs, referencing the third paragraph of Sub-Section 353-6 as justification for directing Russell to remove and replace concrete slabs at Russell's expense.

March 12th, 2014:

The Engineer writes a follow-up email to Brian Gibbs stating that since Russell is moving South on Lane 5, and further away from the slabs showing uncontrolled cracks, he needs confirmation of the date of removal and replacement of the slabs in question.

March 17th, 2014:

The Engineer writes a second follow-up email to Brian Gibbs requesting a response on the replacement of the cracked slabs as soon as possible, as the deadline for replacement had passed. He continued by stating that Russell's failure to respond by the end of business that day would result in a deduction of 33.00 SY for concrete removal and 8.82 CY for concrete replacement from Russell.



Brian Gibbs responds and objects to the deduction of funds from Russell’s compensation and agrees to hold the issue to the next estimate, and if not resolved by then, a minor percentage could be removed.

March 27th, 2014:

Russell proposes a crack repair procedure for the Department to review in lieu of directing Russell to perform additional concrete slab replacement work at no expense to the Department.

March 31st, 2014:

The Department’s Assistant Resident Engineer, Mohamed Mabrouk, rejects Russell’s proposed crack repair procedure and directs Russell to remove and replace concrete slabs showing uncontrolled cracking at no extra cost to the Department.

April 22nd, 2014:

The Engineer directs Russell to remove and replace the concrete slabs showing uncontrolled cracks and states that the work must be completed before continuing on to the grinding of lanes 5 and 6. The Engineer refers Russell to the claims process stipulated in the contract standards in the event that Russell believes they are entitled to compensation for this work, then proceeds to direct Russell, once again, to remove and replace the concrete slabs showing uncontrolled cracks before continuing on to the grinding of lanes 5 and 6.

April 23rd, 2014:

Russell submits a Preliminary Time Extension Request (PTER) and Notice of Intent (NOI) to claim additional compensation as a result of the Engineer directing Russell to remove and replace concrete slabs that developed uncontrolled cracks after means and methods met criteria for acceptance.

3.3 Russell’s Pertinent Position Regarding Entitlement to its Claim

Russell’s interpretation of Sub-Section 353-6 is based on a view of certain sentences and paragraphs of the Specification presumed to be triggered only if the acceptance criteria in the first paragraph are not met. As such, removal and replacement of concrete slabs showing uncontrolled cracking after meeting the plastic property requirements, achieving 2,200 psi, and the 24-hour compressive strength, is not the responsibility of the contractor when, among other things, means and methods of installation met the acceptance criteria of the first paragraph.

Russell, therefore, interprets the third paragraph of Sub-Section 353-6 as a condition that is a continuation of the second paragraph in Sub-Section 353-6, which states, “*If the compressive strength of any set of test cylinders fails to meet the strength requirements...[,]*” which was not



triggered as part of the acceptance criteria in the first paragraph. There was however no evidence put on to tie the failure of the 24-hour compressive strength exclusively to the uncontrolled cracking to make such an interpretation valid and beyond mere assumption.

In summary, Russell’s perception is that if concrete slab replacement work, according to the Department’s design criteria, was not performed in reasonable conformance with the Specifications for materials and methods and uncontrolled cracking appeared as a result, the Department would be justified in directing Russell to remove and replace the concrete slab at no expense to the Department. Furthermore, the uncontrolled cracks that appeared did so as a result of the Department’s inadequate design and Specifications to produce slabs that would not crack, not because of Russell’s materials or workmanship.

Therefore, Russell respectfully requests the Board recommend that Russell has entitlement to compensation for all concrete slab replacement work performed and materials placed in reasonable conformance with the Contract; specifically, the part of the contract which states that “[a]cceptance *will be based on...*[,]” the criteria specified in Sub-Section 353-6, and the quantity to be paid for will be the volume of concrete “[p]laced and accepted...[,]” in accordance with the criteria specified in Sub-Article 353-11.

3.4 Department’s Pertinent Position Regarding Entitlement

The Department’s position is that the replacement of the new slabs due to uncontrolled cracking is the responsibility of the contractor during the life of the contract regardless if plastic properties, psi of 2,200, and 24-hour compressive strength are all met. Such interpretation gives effect to all paragraphs of Sub-Section 353-6 based on a time continuum as the acceptance criteria. The Department’s position is also based mainly on last paragraph of Specification number 353-6 which states the following:

*“If any uncontrolled cracks appear **during the life of the contract**, remove and replace the cracked slab at no expense to the Department. Repair by removing and replacing the pavement across the full width of all affected lanes or shoulders and to the nearest transverse joint in each direction. Investigate and implement immediate effective solutions to eliminate further cracks, in consultation with, and subject to the approval of, the Engineer.”*

The Department emphasized, at the Hearing, that the scope of the project was concrete slab replacement without uncontrolled cracks and that after the cracked slabs were replaced, there were to be no more uncontrolled cracks.



4.0 GOVERNING CONTRACT SPECIFICATIONS

4.1 FDOT Standard Specifications 2013

SECTION 353: CONCRETE PAVEMENT SLAB REPLACEMENT

353-6 Concrete Slab Acceptance.

[Paragraph #1]: Reject any Concrete not meeting the plastic property requirements of 353-5. Acceptance will be based on plastic properties, achieving the 2,200 psi compressive strength prior to opening the slabs to traffic and the 24-hour compressive strength.

[Paragraph #2]: If the compressive strength of any set of test cylinders fails to meet the strength requirements, take immediate corrective measures to ensure that concrete placed in the future meets the specified strength requirements. The Engineer will evaluate the particular circumstances in each instance where a strength deficiency occurs. If the Engineer determines that there will be a significant effect on the service life of the replacement slab, replace the concrete at no expense to the Department.

[Paragraph #3]: If any uncontrolled cracks appear during the life of the contract, remove and replace the cracked slab at no expense to the Department. Repair by removing and replacing the pavement across the full width of all affected lanes or shoulders and to the nearest transverse joint in each direction. Investigate and implement immediate effective solutions to eliminate further cracks, in consultation with, and subject to the approval of, the Engineer.

353-11 Method of Measurement.

The quantity to be paid for will be the volume, in cubic yards, of concrete placed and accepted. The quantity will be calculated on the basis of field-measured horizontal dimensions and pavement design thickness. No additional compensation will be allowed for additional concrete required to bring the proposed concrete slab up to finished grade.

5.0 THE PARTIES' CONTRACTUAL INTERPRETATIONS

5.1 Russell's Interpretation of FDOT Standard Specifications 2013 Sub-Section 353-6

Russell's requirements for concrete slab acceptance are outlined by Sub-Section 353-6 of the FDOT Standard Specifications 2013. Russell's interpretation of Sub-Section 353-6 is as follows:

(1) First, Russell's interpretation of the Specification separates the individual requirements of the Sub-Section and views each in isolation as having the potential to trigger the other requirements;

(2) Secondly, Russell views paragraph 1 as acceptance criteria, and the other two paragraphs as non-acceptance criteria. Specifically, paragraph 2 is only triggered by non-acceptance where failure to meet the acceptance criteria of paragraph 1 will necessarily trigger the requirements articulated by paragraph 2. When the situation occurs whereby paragraph 2 requirements are necessarily triggered, and then performance also fails the requirements stated by paragraph 2; then, paragraph 3 is thereby triggered.



5.2 Department's Interpretation of FDOT Standard Specifications 2013 Sub-Section 353-6

The Department interprets FDOT Standard Specifications Sub-Section 353-6 as one whole provision that solely states acceptance criteria; all of which must be complied with by Russell. Even though each paragraph contains independent requirements, all are a cumulative part of the acceptance criteria. Notwithstanding the acceptance of plastic properties, the concrete slabs need to be replaced any time uncontrolled cracks are present. The Department reads the requirements of Sub-section 353-6 in the following manner: (1) First, the Department links the requirements of all three parts of the first paragraph of the specification based on the timing of the requirements which sequentially flow into each consecutive time period; (2) secondly, the Department's interpretation functions to give effect to all the language of the specification as a whole, through the logical connection stating that each of the subsequent requirements are of a longer duration than the earlier requirements that went before; (3) thirdly, the Department interprets the second paragraph to mean that if performance met the acceptance criteria articulated by the first paragraph, and after the engineer makes the requisite determination as to the service life, the decision to keep or replace the concrete slabs will then be made; (4) lastly, the Department interprets the third paragraph as the requirement of the longest duration flowing from the previous paragraphs; that, if any uncontrolled cracks appear during the life of the contract, the concrete slabs shall be removed and replaced at no expense to the Department.

7.0 APPLICATION OF CONTRACT TO FINDINGS OF FACT

7.1 Findings of Fact

The first instance of the cracking of the concrete slabs was reported on February 4th, 2014, when Robert Bourdon notified the Engineer of the uncontrolled cracks appearing in the newly installed concrete slabs. On February 5th, 2014, the Department requested that Russell remove and replace the concrete slabs developing uncontrolled cracks as per Sub-Section 353-6 of the Standard Specifications. On February 14th, the Department presented Russell with a deadline for removing and replacing the cracked concrete slabs. In the event that Russell did not meet the deadline for replacement, 8 SY of concrete removal and 4.11 CY of concrete placement would be deducted from Russell's compensation until the replacement was completed in the project. On March 3rd, 2014, the Department sent an email to Russell notifying them of the presence of uncontrolled cracks in four (4) additional concrete slabs, referencing the third paragraph of Sub-Section 353-6 as justification for directing Russell to remove and replace concrete slabs at Russell's expense. On March 27th, 2014, Russell proposed a crack repair procedure for the Department to review in lieu of directing Russell to perform additional concrete slab replacement work at no expense to



the Department. On March 31st, 2014, the Department rejected Russell’s proposed crack repair procedure and directs Russell to remove and replace concrete slabs showing uncontrolled cracking at no extra cost to the Department. On April 23rd, 2014, Russell submitted a Preliminary Time Extension Request (PTER) and Notice of Intent (NOI) to claim additional compensation as a result of the Engineer directing Russell to remove and replace concrete slabs that developed uncontrolled cracks after meeting criteria for acceptance.

7.2 Application of Russell’s Contract Interpretation to the Findings of Fact

Russell begins its analysis as to entitlement by first applying the acceptance criteria articulated in paragraph one of FDOT Standard Specifications Sub-section 353-6. At the onset of the cracking, on February 4th, 2014, Russell made the determination that the concrete slabs met the acceptance criteria articulated by the first paragraph of FDOT Standard Specifications Sub-section 353-6. Thereafter, Russell’s interpretation of the subsequent paragraphs of FDOT Standard Specifications Sub-section 353-6 led to its conclusion that paragraph two, beginning with, “[i]f the compressive strength of any set of test cylinders fails to meet the strength requirements...[:]” was only triggered if the concrete slabs failed to meet the acceptance criteria from paragraph one of FDOT Standard Specifications Sub-section 353-6. Further, Russell’s interpretation of paragraph three of FDOT Standard Specifications Sub-section 353-6 led to its conclusion that paragraph three was only triggered if the Engineer were to determine that there would be a significant effect on the service life of the replacement slab. Since Russell’s installation of the concrete slabs met the acceptance criteria from paragraph one of FDOT Standard Specifications Sub-section 353-6, paragraphs two and three of FDOT Standard Specifications Sub-section 353-6 were never triggered; therefore, Russell did not have to remove and replace the concrete slabs at its own cost.

7.3 Application of the Department’s Contract Interpretation to the Findings of Fact

The Department approaches its analysis as to entitlement in a manner whereby, although it reads the different paragraphs of FDOT Standard Specifications Sub-section 353-6 as individual requirements; the Department subsequently reconciles the individual requirements reading them as a whole based on the inherent time requirements built into the three paragraphs of FDOT Standard Specifications Sub-section 353-6. The Department was in agreement that Russell had met the initial requirements of paragraphs one and two; which formed the shortest durational requirements of FDOT Standard Specifications Sub-section 353-6. However, the durational requirements from paragraphs one and two are not to be read in a vacuum, they are to be read in conjunction with the longest durational requirement, which is stated in paragraph three of FDOT Standard Specifications Sub-section 353-6. Therefore, even though the durational requirements from paragraph one and two were met by Russell at the time the cracking began on February 4th, 2014, the longest durational requirement for acceptance of the concrete slabs, stated in paragraph three, was not met; as uncontrolled cracks appeared during the life of the contract.



8.0 CONCLUSION

Because the time continuum was not expressed but only implicitly evident in the slab replacement process in and of itself, it becomes evident that Russell’s contractual interpretation leads to a bifurcated reading of FDOT Standard Specifications Sub-section 353-6, segmenting some requirements and attributing a triggering characteristic to the other requirements which disregards the incremental time continuum for concrete slab acceptance inherent in the contract specification at issue.

The Department’s contractual interpretation leads to a consideration of the acceptance criteria possessing durational characteristics that must be reconciled as a whole, starting from the shortest durational acceptance requirement leading through to the longest durational acceptance requirement; all of which, gives effect to the entire concrete slab acceptance procedure as a whole on a time continuum during the life of the contract.

The difference in the interpretation therefore can be clarified in future specifications by making the time continuum for acceptance on the face of the specifications rather than implicitly in the slab replacement acceptance process.¹

9.0 RDRB’s RECOMMENDATION

9.1 Summary

RDRB finds Sub-Section 353-6 must be read as a whole giving effect to all parts chronologically, taking into consideration the acceptance criteria of the concrete slabs along a time continuum for a practical concrete slab acceptance process, which is ultimately governed by the life of the contract.

9.2 Recommendation

Since uncontrolled cracking of the concrete slabs occurred while the contract was in full force and effect, Russell had to remove and replace the cracked slabs at no expense to the Department. The RDRB hereby holds that Russell is **not entitled** to additional time or compensation for the removal and replacement of the material concrete slabs at issue in this dispute.

¹ The RDRB read Sub-Section 356-6 multiple times in order to arrive at the unanimous conclusion contained herein. The use of the word “Acceptance” and placement of the word “Acceptance” in the first paragraph created a circuitous path towards the ultimate conclusion in favor of the Department, though only marginally.

Regional DRB Recommendation – On the Issue of Entitlement

April 17, 2015

Uncontrolled Cracks In Concrete Slabs- SR 9A (I-95 SB) 125th Street To Biscayne Canal Bridge



Submitted by and for:

Date of Recommendation: April 17, 2015

A handwritten signature in blue ink, appearing to read "R. Cedeno", positioned above a horizontal line.

Robert Cedeno, P.E., Esq., Chairman

Jim Guyer, Member

James MacLaughlin, P.E., Member

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