DISPUTE REVIEW BOARD RECOMMENDATION
FINANCIAL PROJECT ID. 415905-1-52-01 & 406904-1-52-01
FLORIDA TURNPIKE HOMESTEAD EXTENSION
&
N W 74th STREET
Miami-Dade County

October 6, 2008

Andres G. Mendoza Project Manager
Condotte America, Inc.
10790 NW 127th Street
Miami, FL. 33178

Michael Hammond, PE
Senior Project Engineer
The Corradino Group
4055 NW 97th Avenue
Miami, Florida 33178

RE; Florida Turnpike (SR-91) Homestead Extension Toll Facility and Northwest 74th Street Interchange
Fin No.: 415905-1-52-01 & 406104-1-52-01
Contract No.: E-8G91
Miami – Dade County

Subject: Dispute over the use of Muck Material in the Construction of Berms adjacent to the Right-of-way outside the Roadway Template

The Dispute Review Board was convened for a hearing requested by the Contractor, Condotte America, Inc regarding the use of unsuitable material for the construction of drainage berms outside the "toe of slope" of the Roadway Template. The hearing was held in the offices of The Corradino Group in Miami, Florida on September 24, 2008 at 1:30 PM.

Packages of information and position statements were presented to the Board by both parties and are made part of this recommendation.

CONTRACTORS POSITION

Introduction

The subject dispute of the construction of the berms for the detention ponds on the project primarily relates to the requirements of the soil material for the berm. In summary, Condotte America, Inc.'s position is that the berms can be constructed of material that is not suitable for roadway embankment material. The Engineer takes the position that the Florida Department of Transportation requires the berms to be built out of the same material required for the roadway embankment.

This dispute came forth after Condotte's significant progress in the construction of the said berms with A-8 material. At this time, Condotte has been directed to remove the A-8 material and re-construct the berms with embankment classified material. Condotte has assigned this dispute as Issue No. 110.

Issue for DRB's Determination

The parties present the following question for the DRB's determination: Is Condotte prohibited, by the contract documents or standard industry practice, from using muck to construct berms that not part of the roadbed? If Condotte is not prohibited from using muck to construct these berms, then is Condotte entitled to additional compensation and time to comply with FDOT's directives to use suitable embankment material to construct the berms that are not part of the roadbed?

Scope

The project proposed berms are located in the following areas:

1. NW 74th Street Project (406104-1-52-01 Project): Approx. 18,800 cy of berms.
    a. On the outside of Ramp A on the western side of the project (Ramp A Sta. 115+00 to Sta. 125+80),
    b. Around Ponds No. 1, 2, 3, 5, 6, 7, 8
2. Okeechobee Mainline Project (415904-1-52-01): Approx. 1,931 cy of berms
    a. Along the western ROW – outside of the southbound mainline as shown in the plans from Sta. 2156+20 to Sta. 2172+00 & Sta. 2177+00 to 2181+00

Issue Development

Before the start of contract time, Condotte on November 28, 2006, submitted to the Engineer (The Corradino Group) via Letter No. 201-011 the Certification of Sublet Work No. 1 which included the subcontractor DC Equipment Corp. Attached to this Sublet is DC Equipment's Exhibit A which provides a schedule of values for its scope of work. Item 2 of Exhibit A states "Remove Muck (Unsuitable Soil) from 13.8 AC on Exhibit H. (Approximately 18,835 CY) Also, *includes the construction of the Pond Berms with excavated muck* (loading, hauling, placement of muck by DC Equipment)." Therefore, it is clearly shown the it was Condotte's original intention to use muck in the construction of the permanent berms. A copy of the said letter is provided in Section 6.

During the course of June 2007, DC Equipment began the initial placement of the excavated muck material for the berms on the western limits of the project outside of Ramp A. Reference is made to Roadway Plan Sheets 33 and 36 of the 406104-1-52-01 (NW 74 Street) project. This initial placement of the material continued for several months without any objection by FDOT or the Engineer. Condotte's aerial monthly photos (Section 10) show the progress of this work by DC Equipment. As seen in the photos, Condotte had not begun the final shaping of the berms during 2007.

Also during the summer of 2007, Condotte began the reconstruction of the existing berms along the western ROW of the southbound mainline on the 415 project. The placement of the material for this berm was completed after the completion of the electrical direct burial line and related manholes. Condotte has not completed the final grading of the berms and detention ponds in this area.

Almost a year later, on April 4th, 2008, Corradino's Michael Hammond, the Sr. Project Engineer for the Project, via letter No. 045 stated that unsuitable (muck) material is not allowed to be used in the construction of the berms. Mr. Hammond also stated that the Design Standard Indices Nos. 500 and 505 do not allow the use of muck material in the template.

Condotte's Project Manager, Mr. Joe Ortega, transmitted Condotte Letter 201-122 on April 7, 2008, replying that 1) based on past construction experience and industry practice berms are allowed to be constructed of muck, 2) the berms existing on the Project site when construction began and the berms which they tie into were all constructed of muck, and 3) the specifications allow for use of unsuitable material outside of the standard minimum slope.

Subsequent to the Engineer's original correspondence on April 4, 2008, Condotte received a second correspondence dated May 20, 2008, from the Engineer that elaborated FDOT's position: "The Specifications for Subsoil Excavation (120-2.3) state that "subsoil excavation consists of the excavation and disposal of muck… Furthermore, the berms are designated as embankment and are included in the embankment quantities of the contract. Specification 120-7.2 clearly states that embankment shall not contain muck. The Standard Index (500 and 506) does not depict anywhere in the template allowing for the usage of muck material and outlines that 'highly organic soils shall not be used within the subgrade or embankment portion of the roadbed, with the exception of muck used as a supplement to construct a finish soil layer as described in Section 162 of the FDOT Standard Specifications.'" The Engineer stated that due to the fact that Condotte was intending to leave the muck as permanent material, a DDM (Disposition of Defective Material) was going to be generated for this issue.

On May 20, 2008, Condotte requested that this issue be escalated to the DRB. In addition, Condotte stated that 1) Index 505 does not include a detail for the berm construction and that the index does not prohibit the use of muck in the berms, and 2) while Condotte agrees that the embankment quantities include the berm, that does not lead to the conclusion that the material for the berm must meet the requirements for the material within the roadway template.

Despite knowing that the issue had been escalated, Corradino continued to put pressure on Condotte to reconstruct the berms. On May 22, 2008, the Engineer issued a DDM for "Use of excavated unsuitable subsoil material in the construction of berms throughout the project limits. Contractor notified material is unacceptable for use as embankment per specification section 120 and index 505."

The issue was escalated from the project level to Mario Rojas (Turnpike) and Andres G. Mendoza (Condotte). On June 6, 2008, Mr. Rojas and Mr. Mendoza met to discuss the berm issue. At this meeting, Mr. Mendoza stated that Condotte bid the project with the knowledge that muck can be used in the berms. This was evident in our subcontract with DC Equipment and based on past project experience. Mr. Mendoza also stated that there was no demucking called for under the berms. Mr. Mendoza asked Mr. Rojas why would you place rock fill embankment on top of existing muck grade. Mr. Rojas indicated that was a good point. In addition, Mr. Mendoza stated that 2004 Index 505 Note 5 does not disallow the use of muck in the berms. Furthermore, Mr. Mendoza stated that Note 5 only discusses where to use muck in the ROADBED and that the berms are not in the Roadbed. Mr. Rojas disagreed with Mr. Mendoza's position on Index 505 and stated that the Materials Department also disagrees. Mr. Rojas did mention that Specification Section 120-5.2 allows for the placement of muck on slopes or to be stored away from the roadway. Mr. Rojas told Mr. Mendoza that he would allow us to leave the muck in the berms if it is placed in 18" lifts (no densities taken) and compacted with a roller. Mr. Mendoza agreed in concept to that idea with the note that it may be too wet at first to attempt to put a roller on the material so a dozer may be required until the dry season arrives. Mr. Rojas said that he needed to run this idea by the Materials Office.[1]

On Monday morning, June 9, 2008, Mr. Mendoza sent a follow up e-mail to Mr. Rojas reminding him that per Note 5 of the Index 505 the berm is not part of the Roadbed. The Roadbed is defined in the FDOT Standard Specifications as "The portion of the roadway occupied by the subgrade and shoulders."

Soon thereafter, Mr. Mendoza receives a phone call from Mr. Rojas and Mr. Hammond. Mr. Rojas identified three items which FDOT demanded that Condotte meet in exchange for it accepting the berms built with muck: 1) Condotte would have to provide an Engineering Analysis for hydrology of the berms/ponds, 2) muck would have to be placed in 18" lifts, and 3) FDOT would not pay Condotte for any berm quantities. Mr. Mendoza responded two new items were not discussed at the meeting on Friday, June 6th and that the two new items were simply unfair. Mr. Mendoza stated that the "no pay" part of FDOT's demand was completely unacceptable.

Mr. Mendoza received an email on June 9th confirming the phone conversation and the demand by Mr. Rojas. Mr. Mendoza responded to the email by rejecting FDOT's demand and requesting the issue be escalated to Mr. Rick Espino (Condotte) and Mr. Paul Wai (Turnpike).

Phone conversations between Mr. Espino and Mr. Wai resulted in Mr. Wai advising Mr. Espino that FDOT does not want berms to be constructed of muck any more. This occurred during the week of Monday, July 7th, 2008.

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[1] On a separate note, Mr. Rojas showed Mr. Mendoza a copy of the 2008 Index 505 which now includes the section of a berm. Mr. Mendoza and Mr. Rojas agree that the 2008 Index does not apply to this project.

On July 11, 2008, Condotte received Corradino Letter No. 80 which stated that the current construction utilizing excavated subsoil material was not acceptable and that the issue had been properly escalated. The Engineer stated that Condotte should inform the Engineer if Condotte wished to escalate the issue to the DRB.

On July 15, 2008, Condotte presented RFI 74 STR 106 titled "Unsuitable Soil Under Proposed Berms" in an attempt to clarify the Engineers disposition on the material requirements for the intended BERM construction for project Okeechobee Mainline Toll Plaza and 74th St. Interchange @ the HEFT. The contractor provided the following question:

The roadway cross sections and roadway plans indicate that the existing berms are to be constructed in areas were the existing subgrade material is comprised of unsuitable (muck) material. A typical instance of this can be seen on Cross Section Sheet 136 for the SR821 baseline and Sheet 142 for the Ramp A baseline.

The Department has recently directed the Contractor to construct the berms with suitable embankment material. Please advise if the existing unsuitable subgrade material is to be removed from the areas of the subject berms and replaced with FDOT approved suitable embankment material. If so, Condotte kindly asks for the Engineer to revise the subject plan sheets in order to reflect the additional quantities of unsuitable soil and embankment quantities.

Or should the Contractor construct the proposed berms on the in-situ unsuitable soil material?

Condotte's July 16th, 2008 letter (0201-174) advised the Engineer of Condotte desire to escalate the issue to the DRB. In addition, Condotte stated that the following additional costs will be incurred by Condotte to re-construct the berms in accordance with FDOT's directives:

- Cost of removal and disposal of muck that was planned to be used in the berms;
- Cost of re-work and re-layout;
- Additional cost of transporting embankment material to berm areas where they are on top of muck - Condotte will need to build a temporary haul road, or require the placement of additional fill on the muck;
- Additional cost of excess material wasted due to the settlement of the heavier embankment fill over the in situ unsuitable soil at the existing grade (Note: the majority of the berms are in areas were the plans do not call for demucking); and
- Analysis of schedule impact as direct impact or resource constraint.

On July 18th, 2008, the Engineer responded a response to the RFI as follows "Berms shall be built per the contract plans over the unsuitable material beginning at the elevations shown in the cross sections." The response did not address the problem of settlement of the existing elevations shown in the cross sections once the rock fill embankment is placed.

Based on the previous Engineer correspondence and RFI 74STR-106, FDOT is directing Condotte to remove the already placed subsoil (muck) material and replace it with rock fill suitable for roadbed construction.

The elaboration of the second correspondence from the Engineer shows that the unsuitable material excavated from the project as a result of the de-mucking activities should be disposed from the project as outlined in specification section 120-2.3.

Following the standard industry bidding practice of most if not all General Engineering firms in the State of Florida, Condotte prepared a disposition of fill material prior to the estimate. In the disposition of fill material breakdown of the unsuitable material excavated from the demucking process was partially intended to be reused after shrinkage.

Condotte has not and did not intend on using any of the unsuitable material within the subgrade or embankment portion of the roadbed. Condotte quantified the amount of unsuitable material needed to supplement the construction of the finish soil layer in our estimate.

During the construction process, Condotte has been required to excavate through some of the existing berms adjacent to our project. It is evident that during the excavation process the existing berms adjacent to our project have been constructed with the same unsuitable material Condotte used to build the berms on this project.(Pictures Attached) In addition, the existing berms outside the project limits have been exposed by a fiber optic contractor. These berms outside of the project limits are also constructed of muck.

The Engineer and FDOT have acknowledged on various occasions the use of muck in the berm in the past has been allowed, but that now it is no longer allowed. Condotte has said that there has been no change to the specs or Indexes which would prohibit the use of muck. FDOT simply can not change its position from prior industry and FDOT practice without a change to the specifications or indexes or without notice to bidders of its intended change. Simply put, the use of muck for these berms has been acceptable for decades, and FDOT can not now change its practice against one contractor on one job without any advance notice.

In fact, in many locations the FDOT Standard Specification for Road and Bridge Construction 2004 edition support Condotte's position. One such section is Section 120-8.2.4, which in the very first sentence provides: "**Where material that is <u>unsuitable</u> for normal embankment construction is to be used in the embankment outside the standard minimum slope (approximately one to two), place such material in layers of not more than 18 inches(450mm) in thickness, measured loose."** Furthermore**,** Indexes 500 &505 addresses the roadway template, but does not address the berm construction. The silence as to the makeup of the berm means that there is no restriction on the use of muck; FDOT would like to rewrite those indexes to add a prohibition on the use of muck. The earthwork quantities should properly account for the volume of material required for the berm construction regardless of the material classification.

Section 120-5.2 Disposal of Muck on Side Slopes also states: "As an exemption to the provisions of 120-5.1, when approved by the Engineer, in rural undeveloped areas, the Contractor may place muck (A-8 material) on the slopes, or store it alongside the roadway, provided there is a clear distance of at least 6 feet between the roadway

grading limits and the muck, and the Contractor dresses the muck to present a neat appearance….."

Specifications 120-8.2.4 and 120-5.2 clearly reflect the standard industry practice for berm construction to allow its construction with unsuitable material. In addition, Index 505 Note 5 states "**Highly organic soils shall not be used within the subgrade or embankment portion of the roadbed**, with the exception of muck used as a supplement to construct a finish soil layer as described in Section 162 of the FDOT Standard Specifications." It is very clear that FDOT intended to restrict the kind of material that could be used in the roadbed, but there is no restriction on the material to be used in berms outside of the roadbed. Condotte does not take issue with those requirements as it relates to the roadbed However, the specifications do not prohibit the use of muck in the berms, since the berms are outside of the roadbed as defined in the specifications. Furthermore, there is no detail of the berm in the 2004 Index 505.

As of today, Condotte has placed and done initial shaping of the berms with unsuitable materials along Ramp A and the SB Turnpike. In addition, Condotte has stockpiled additional unsuitable materials to be used in the completion of the remaining berms. Once the jobsite dries out, Condotte will begin the re-construction of the berms with the embankment (rock/fill) material and ask for the Engineer to track this disputed work for claim purposes.

Basis of Estimates for Bidding Purpose

Condotte quantified the disposition of fill material prior to submitting our unit price for the "Embankment" pay item of the bid. The fill material quantified in the embankment disposition for the project allowed Condotte to establish the amount of unsuitable material required to be exported from the project which set the basis of the average unit price in the bid. A prudent contractor would not expect that the owner would require for a proposed berm to be built of rock fill over an existing grade of comprised of unsuitable soil.

In the process of establishing the unit price submitted in the bid, a certain amount of unsuitable material generated from the demucking activities was calculated used for the "BERM" construction quantities. As such, FDOT entered into a contract with Condotte maximizing the utilization of unsuitable material generated from the project.

Effects of Constructing BERMS with suitable Material on Unsuitable Material

Condotte considers the construction of berms with an average three feet of suitable material on the existing four foot layer of unsuitable material a constructability issue for the final product intended.

There exists potential settlement of the berms should the construction of the BERMS adhere to the disposition of the Engineer due to the fact that unsuitable material should not be used as a foundation for any construction. The settlement of the berms will eventually lead to a maintenance program not intended on a newly complete state of the art FDOT interchange.[2]

Conclusion

The use of unsuitable material for the berm construction will ensure the final intent of the design in that it will contain all run off generated from rain events in the retention ponds without any percolation through the contained retention pond walls. The adjacent existing berms constructed of muck along the Florida Turnpike hold water. This can be seen during this heavy rain season in which Condotte's partially constructed muck berms are also holding water as required.

Condotte respectfully request the Board review the above described effects, responses and basis of our interpretation of the contract documents and determine that 1) Condotte is not prohibited by the contract documents or standard industry practice from using muck to construct berms that not part of the roadbed, and 2) if FDOT requires Condotte to re-construct the berms using suitable material, as previously directed by FDOT, then Condotte entitled to additional compensation and time to comply with FDOT's directives. While Condotte has not completed a full review of the costs associated with the FDOT directives, Condotte estimates that the order of magnitude is around $800,000 of direct costs.

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[2] In contrast, if Condotte is allowed to use the unsuitable material, there will be no maintenance issues. It is Condotte's intent to shape, mold and densify the unsuitable material excavated from the project to be used for the berm construction in a manner to eliminate any potential future maintenance issues.

OWNERS POSITION

The Corradino Group (TCG) respectfully submits this statement and explanation of its position regarding a dispute over the Contractor's use of excavated subsoil material (muck) as embankment for the construction of berms. TCG requests the Board's review of this issue and recommendation regarding entitlement.

Issue

The Corradino Group notified Condotte America Inc (CAI) both verbally and via official correspondence that the use of excavated unsuitable material as embankment for the construction of the projects' berms is not permitted under the contract plans, FDOT Design Standards, and Standard Specifications. The Contractor contends that Index 505 of the 2004 FDOT Design Standards does not include a typical berm detail and does not disallow the use of muck material in the construction of berms.

Background

The contract plans for the NW 74th Street Interchange and Okeechobee Mainline Toll Plaza Lane Conversion call for constructing berms along the various alignments of both projects.

During the initial earthwork work of Ramp-A, TCG's personnel observed CAI utilizing the excavated subsoil material for the rough grading of the berms which were to be constructed adjacent to the ramp. CAI's superintendent was verbally notified that the contract plans call for the use of embankment material in the construction of the berms; however, the use of excavated subsoil continued.

On April 4, 2008, letter No. TCG0408-045 (Exhibit 1), again notified CAI that excavated unsuitable material continued to be used in the construction of the berms and re-stated that unsuitable material was not acceptable as embankment material per Standard Specification Section 120 (Excavation and Embankment), Design Standard Index No. 500 (Exhibit 5 – Removal Of Organic And Plastic Material) & Index 505 (Exhibit 6 – Embankment Utilization).

Standard Specification Article 120-2.3 (Exhibit 2 – Subsoil Excavation) establishes Subsoil Excavation as the excavation and **disposal of muck**, ... and **any other material that is unsuitable in its original position** and that is excavated below the finished grading template. The language of the article does not permit the Contractor to dispose of the excavated unsuitable material by employing it as embankment material for berms.

Article **120-2.3 States:**

120-2.3 Subsoil Excavation: Subsoil Excavation consists of the excavation and ***disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the finished grading template.*** For stabilized bases and sand bituminous road mixes, consider the finished

grading template as the top of the finished base, shoulders and slopes. For all other bases and rigid pavement, consider the finished grading template as the finished shoulder and slope lines and bottom of

completed base or rigid pavement. For pond and ditches that identify the placement of a blanket material, consider the finished base or rigid pavement. For pond and ditches that identify the placement of a blanket material, consider the finished grading template as the bottom of the blanket material. Subsoil Excavation also consists of the excavation of all suitable material within the above limits as necessary to excavate the unsuitable material. Consider the limits of Subsoil Excavation indicated on the plans as being particularly variable, in accordance with the field conditions actually encountered. The quantity of material required to replace the excavated material and to raise the elevation of the roadway to the bottom of the template will be paid for under Embankment or Borrow Excavation (Truck Measure).

In addition, Standard Specification Article 120-5.1 (Exhibit 3 – Ownership of Excavated Materials) furthermore strengthens the requirements of Standard Specification Article 120-2.3 by requiring the Contractor to take ownership of unsuitable excavated materials and dispose of them **outside the right-of-way.** Thus, the article specifically requires the disposal of all **excavated unsuitable material** to occur outside the project limits and does not permit its use in any section of the roadway template within the right-of-way. In addition, Standard Specification Article 120-5.2 (Exhibit 4 – Disposal Of Muck On Side Slopes) exempts the requirements of 120-5.1, **when approved by the Engineer**, by only allowing the placement of muck in the slopes, or by storing it alongside the roadway. Nowhere does the article permit or imply the allowed use of muck as embankment material or for berm construction. Furthermore, the Engineer, as demonstrated in the correspondence exhibits, has not given approval for placement of unsuitable material within the right-of-way limits.

120-5 Disposal of Surplus and Unsuitable Material.

Article **120-5.1 States:**

120-5.1 Ownership of Excavated Materials: ***Dispose of surplus and excavated materials*** as shown in the plans or, if the plans do not indicate the method of disposal, take ownership of the materials and ***dispose of them outside the right-of-way.***

Article **120-5.2 States:**

120-5.2 Disposal of Muck on Side Slopes: As an exception to the provisions of 120-5. 1, **when approved by the Engineer**, in rural undeveloped areas, the Contractor may place muck (A-8 material) on the slopes, or store it alongside the roadway, provided there is a clear distance of at least 6 feet [2 m] between the roadway grading limits and the muck, and the Contractor dresses the muck to present a neat appearance. In addition, the Contractor may also dispose of this material by placing it on the slopes in developed areas where, in the opinion of the Engineer, this will result in an aesthetically pleasing appearance and will have no detrimental effect on the adjacent developments. Where the Engineer permits the disposal of muck or other unsuitable material inside the right-of-way limits, do not place such material in a manner which will impede the inflow or outfall of any channel or of side ditches. The Engineer will determine the limits adjacent to channels within which such materials may be disposed.

On April 7, 2008, CAI letter No. 201-122 (Exhibit 9) responded to TCG's letter No. TCG0408-045 by citing Standard Specification Article 120-8.4 **[Placing** (Embankment) **Outside Standard Minimum Slope]** as the grounds by which the Department allows the use of unsuitable material as embankment material for the construction of berms. TCG disagrees with CAI's interpretation of 120-8.4 …*Where material that is unsuitable for normal embankment construction* ***is to be used*** *in the embankment outside the standard minimum slope (approximately one to two) … in thickness, measured loose.* Nowhere do the Contract plans call for unsuitable material **to be used** as normal embankment material for the berms, if such were the case, the Designer(s) of Record (DOR) would have included a special note on the plans denoting that unsuitable material **is to be used** as fill material in the berms. See attached e-mails (Exhibit 10 and Exhibit 11) from the DOR's confirming this. CAI's letter also alluded to an industry wide standard practice of using unsuitable material in the construction of berms. Per the State Construction Office's e-mail

(Exhibit 12) the practice of using muck for berms stopped between 1990 and 1992, the earliest being sixteen years ago.

> Per 120-7.2, (General Requirements for Embankment Materials): *Construct embankments of acceptable material including broken portland cement concrete pavement and portland cement concrete rubble,* ***but containing no muck, stumps, roots, brush, vegetable matter, rubbish, reinforcement bar or other material that does not compact into a suitable and enduring roadbed. Remove and waste material designated as undesirable. Use material in embankment construction in accordance with plan details or as the Engineer directs.*** The plans' details call for the use of embankment per 120-7.2 for the fill material in construction of the berms, by including the volumes of fill in the berms as part of the quantities for pay item 120-6 Embankment. CAI has acknowledged using excavated unsuitable material to construct the berms and as such the material presently utilized does not meet the definition of embankment. However, the material currently in the berms meets the definition of subsoil excavation per 120-2.3 and these quantities are included in pay item 120-4 Subsoil Excavation. As such, pay item 120-4 Subsoil Excavation compensates the Contractor to excavate, remove, and dispose of unsuitable material outside the right-of-way limits and not in the berms. In addition, the berms' fill material is quantified and paid under pay-item 120-6 Embankment. To allow the use of unsuitable material (paid under Subsoil Excavation) would mean that the Department pays the Contractor twice for handling the unsuitable material: once to excavate it and not dispose of it outside the right-of-way limits as required by the specifications and a second time to place it in the berms, as embankment material, within the project limits. The Department is paying the Contractor for embankment per 120-7.2 not for material containing muck, stumps, roots, etc.

In addition to the Department's Standard Specifications, the FDOT Design Standards Index 500 and Index 505 outline the requirements for the removal of unsuitable material and the use of excavated materials. General Note 1. of Design Index 500 notes the requirements for the removal of organic and plastic materials within the roadway template and General Note 2. points to Index 505 as the standard followed in the use of excavated materials within the roadway template.

Index 505 – General Note 5 addresses the allowable use of muck (unsuitable material) within the roadway template.

General Note (5):

5. Highly organic soils, composed primarily of partially decayed organic matter, often dark brown or black in color with an odor of decay, and sometimes fibrous, shall be designated as muck. Further, any stratum or stockpile of soil, which contains pockets of highly organic material, may be designated as Muck (M). **Highly organic soils shall not be used within the subgrade or embankment portion of the roadbed**, **with the exception of muck used as a supplement to construct a finish soil layer as described in Section 162 of the FDOT Standard Specifications.**

Index 505 only allows the use of muck to construct a finish soil layer; it does not permit the utilization of unsuitable material in construction of berms.

The Contract plans reference Design Standard Index 500 in plan sheet No. 106 (Exhibit 7 – Roadway Soils Survey) on the notes section, in particular notes 1 and 4. Plan sheet 106 (note 4) calls for the removal of A-8 material (muck) in accordance with FDOT Roadway and Traffic Design Standard Index Drawing 505. Plan sheet 106 (note 1) calls for the removal of unsuitable material (muck) in accordance with section 110 of the FDOT Standard Specifications for Road and Bridge Construction.

Plan Sheet No. 106 (Roadway Soils Survey) – Notes:

1. The material from stratum 0 is topsoil (A-8) and considered to be unsuitable (Muck). ***It shall be removed during clearing and grubbing in accordance with Section 110 of the FDOT Standard Specifications For Road And Bridge Construction***.

4. The material from stratum number 2 (A-8) is considered to be organic (Muck). It was encountered at… ***This material shall be removed within the roadway in accordance with FDOT Roadway And Traffic Design Standard Index Drawing 500 and replaced***…and bridge construction.

In addition, the legend section of plan sheet No. 107 (Exhibit 8 – Muck Delineation) directs the Contractor to remove organic soils in accordance with FDOT Standard Index 500 thus referencing Standard Index 505 as the standard outlining the allowable use of excavated materials.

Design Standard Index 505 (sheet 1 of 3) classifies Select Soil as A-1, A-3, or A-2-4 and Muck as A-8. Plan sheet 105 (Exhibit 13 – Misc Drainage Details) provides a detail on the berms calling for the use of Select Fill, not Muck (A-8), as the embankment material for the berms at locations along the BL Survey SR821, BL Ramp B, BL Ramp C, and Ramp A. The berm locations on the roadway plan views sheets (Exhibit 14 – plan sheets 31 – 37) cross reference with the berm details on plan sheet 105; clearly showing that the contract documents call for the use of select material (embankment) as the fill material for the berms.

On July 2, 2008, the Turnpike Construction Office contacted the State Construction Office to get its opinion on the use of muck in berm construction. The State Construction Office is in agreement with TCG that excavated unsuitable material (muck) is not acceptable as embankment material in berms, that the Designers of Record did not intend for muck to be used in the berms, and that Design Standard Indexes 500 & 505 do not allow unsuitable material in the berms. In addition, the State Construction Office included a statement that the practice of using muck for berm construction stopped between 1990 & 1992.

Contractor's Position

CAI contends that FDOT 2004 Standard Specification Article 120-8.2.4 allows the use of unsuitable material for normal embankment construction outside the standard minimum slopes, thus permitting the utilization of muck as fill material for constructing the berms. CAI further stipulates that FDOT 2004 Design Standards Index 500 and Index 505 address the roadway template, not berm construction, thus permitting the use of unsuitable material as fill for berm construction.

Department's Position

TCG references the FDOT 2004 Standard Specifications, the FDOT 2004 Design Standards, and the Contract Plans to establish its position as summarized below:

- FDOT Standard Specification 120-5.1 requires the Contractor to take ownership of the materials ***(unsuitable)*** and to dispose of them ***outside of the right-of-way.***
- FDOT Standard Specification 120-5.2 allows the disposal of muck within the right-of way limits only on the slopes or stored alongside the roadway only ***when approved by the Engineer.*** The Engineer has not approved for the disposal of muck within the right-of-way limits.
- The Contract documents do not permit the use of excavated unsuitable material for berm construction.
- The Designers of Record intended for embankment Per Standard Specification Section 120-7.2 as the fill material for the berms.
- The plan earthwork quantities for embankment material include the volumes of fill required for constructing the berms.

- The Contractor is paid to remove and dispose of the unsuitable material outside the right-of-way and to use suitable material per 120-7.2 to fill the berms.
- The berms shall be constructed using suitable embankment material per 120-7.2 as intended in the Contract plans at no additional cost or time.
- The Contract plans on sheet 105 (Misc Drainage Details) provide a detail indicating the use of select fill as the embankment material for the berms.
- The typical section detail (Exhibit 15 – Typical Section) includes the berms as part of the template.
- On the cross-section sheets [Exhibit 16 – Cross Sections (sheet 115)] the embankment areas, including the berms, are differentiated from the muck areas by the muck areas having a cross-hatch fill pattern.

- Plan sheet 116 (Exhibit 17) clearly demonstrates that the embankment quantities include the fill material for the berms. A note on the plan sheet indicates that the northbound berm begins at station 2124+00; correspondingly, the embankment quantity column shows an end area of 274ft^2 for the station back (w/o the northbound berm) and an end area of 340 ft^2 for the station ahead (with the northbound berm). The increase in the end area of embankment at the station ahead, where the northbound berm begins, proves that the Designer of Record included the berms in computing the embankment quantities.
- A comparison between the embankment end area on cross section sheet 146 (Exhibit 18) at Ramp-A (sta 117+00) and the embankment end area, including the berm, on the Multiline area/volume Report (Exhibit 19) same station shows these quantities to be equal; again proving that the fill material for the berms is included in the embankment quantities.

Based on the foregoing, we believe the contract is clear and that the contract documents do not permit nor imply the use of excavated unsuitable material in berm construction.

CONTRACTORS REBUTTAL TO OWNERS POSITION

Dispute

To summarize the dispute, Condotte America, Inc. argues that the contract plans, Standard Specifications and FDOT Design Standards do not disallow the use of unsuitable material (muck) in the construction of the berms which are outside of the roadbed. Whereas, the Engineer (and CEI) have stated the contract documents do not permit the construction of the berms with muck material.

Condotte America, Inc. takes this opportunity to rebut the position taken by the Engineer on its DRB position paper. Condotte maintains that with the information provided at the time of the bid, the Contractor was not prohibited from using unsuitable muck material in the construction of the berms.

REBUTTALS

Specification Section 120-2.3 – Subsoil Excavation

Engineer's Position: The Engineer states that Standard Specification Section 120-2.3 does not permit the Contractor to dispose of the excavated unsuitable material by employing it as embankment material.

Contractor's Rebuttal: Section 120-2.3 "Subsoil Excavation" is sub-part of 120-2 "Classifications of Excavation". The sections reads as follows: *"Subsoil excavation consists of the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the finished grading template……Excavation also consists of the excavation of all suitable material within the above limits as necessary to excavate the unsuitable material."*

Contrary to the Engineer's position, this Section does not disallow the method of disposal of the material. **Disposal does not equate to off-site removal**. For example, excavated unsuitable material is commonly used in the finish soil layer. In addition, suitable material that is on top of unsuitable material is classified and paid as unsuitable but is it typically incorporated back into the project in the regular embankment. Another instance of disposal on the project is given in Section 120-5.2 "Disposal of Muck on Side Slopes" which allows for the disposal of muck on the side slopes. Similarly, Condotte bid the project taking into consideration that the excavated unsuitable material can be disposed outside of the road bed into the berms and finish soil layer. The Engineer even agrees in their position paper that Index 505 allows for the disposal of muck in the finish soil layer. Again, disposal does not mean removal from the project.

Nowhere in Section 120-2.3 is the Contractor disallowed from using muck in the construction of the berms. This is a "demucking" excavation specification in which Condotte has met the contract requirements.

Specification Section 120-5.1 – Ownership of Excavated Materials

Engineer's Position: The Engineer states that Section 120-5.1 does not permit the use of muck on the berms.

Contractor's Rebuttal: Section 120-5.1 is a sub-section of 120-5 "Disposal of Surplus and Unsuitable Material". This Section states the following: "Dispose of **surplus and excavated**

materials as shown in the plans or, if the plans do not indicate the method of disposal, take ownership of the materials and dispose of them outside the right-of-way."

Condotte's position is that this specification is for projects in which the material is a surplus. As you know, this project is a fill project with respect to roadbed construction. Therefore, all excavated suitable material is re-used on the project. Likewise, excavated unsuitable material is used on the project as either topsoil or in the berms. The balance of all unsuitable mater left over will be removed from the project limits. Again, this Section does not disallow the use of muck in the berms – it points out that surplus material should be removed from the project. Condotte bid the project with the intention of using the muck in the berms with any left over "surplus" to be removed from the job to comply with Section 120-5.1.

Specification Section 120-5.2 – Disposal of Muck on Side Slopes

Engineer's Position: The Engineer states that nowhere does this article permit or imply the allowed use of muck as embankment material or for berm construction.

Contractor's Rebuttal: Section 120-5.2 allows for the use of muck on the side slopes when approved by the Engineer. This use allows for the fattening of the slopes to dispose of the muck. Again, this is an instance when the muck is disposed on site. Condotte argues that this Section does not disallow the use of muck in the berms. No where does it state that muck can not be used in the berms. Condotte points out that this allowance of use of muck on the side slopes further reinforces the fact that it is common industry practice to dispose of muck on site in areas outside of the structural roadbed. While there has been no written approval of the use of muck on the side slopes, during the escalation of the issue between Mr. Mario Rojas and Mr. Andres Mendoza. Mr. Rojas did offer to implement the fattening of the slopes with muck per Section 120-5.2.

Specification Section 120-8.2.4 – Placing Outside Standard Minimum Slope

Engineer's Position: Nowhere do the Contract plans call for unsuitable material to be used as normal embankment material for the berms, if such were the case, the Designer(s) of Record (DOR) would have included a special note on the plans denoting that unsuitable material is to be used as fill material in the berms. The Engineer also made reference to two emails- one from Metric Engineering dated 8/5/08 and one from Gannett Fleming dated 8/7/08.

Contractor's Rebuttal: Section 120-8.4 states "Where material that is **unsuitable** for normal embankment construction is to be used in the embankment outside the standard minimum slope (approximately one to two) place such material in layers of not more than 18 inches in thickness measure loose.

Condotte contends that this section defines that there is (1) normal embankment and (2) unsuitable embankment. We agree that normal embankment must meet all material requirements outlined in Index 505. However, the unsuitable material can be used in

other areas of the project. After review of the DOR E-Mails, Condotte offers the following:

1) At the time of the bid, a Contractor can not expect for the plans to call out a note for something that is not disallowed in the plans. That is if the DOR(s) did not wish for us to use muck in the berms, then they should have noted as such in the drawings not vice versa.
2) The E-Mail from Metric Engineering's Hamze Samara quotes Index 505 Sheet 1 of 3 – "As described in Index 505 Sheet 1 of 3 highly organic soils shall not be used within the subgrade or embankment portion of the **roadbed**." Condotte stated in our position paper that we agree that no organic material can be used in the embankment portion of the ***roadbed***. The berms are not in the limits of the roadbed. The **Roadbed** as defined by the FDOT is **"The portion of the roadway occupied by the subgrade and the shoulders."** (See Division I, Section 1 – Definitions). It is clear that the berms are not in the limits of the roadbed since they are outside of the shoulders and subgrade.

Industry Wide Standard Practice & Specification Section 120-7.2 – General Requirements for Embankment Materials

Engineer's Position: The Engineer argued Condotte's position that the use of muck in the berms is an industry wide standard practice with an e-mail from a FDOT Specialty Engineer, Derek A. Fusco. Mr. Fusco's primary statements are 1) the 2004 Standard Index does not allow muck to be used in the berm, 2) The practice of using muck in the berm was stopped between 1990 and 1992. And the current index only allow S, P, and H material in the berm.

The Engineer further references Section 120-7.2 which states "Construct embankment of acceptable material including broken Portland cement concrete pavement and Portland cement concrete rubble, but containing no muck, stumps, roots, brush, vegetable matter, rubbish, reinforcement bar or other material that does not compact into a suitable and enduring **roadbed**."

Contractor's Rebuttal: Condotte maintains its position that it is common industry wide practice to use muck in berms unless otherwise shown in the plans. Mr. Fusco's email is not part of the contract documents. Furthermore, Mr. Fusco statement that the 2004 Index does not allow muck to be used in the berms is not supported. First, the berm is not shown on the 2004 Index 505 Sheet 1 of 3. Secondly, Index 505 only disallows the use of organics under the Roadbed. Mr. Fusco's statement that the use of muck in the berms was stopped between 1990 and 1992 is not supported in the contract documents. Condotte reminds the DRB that the Contract Documents need to be clear for those who are bidding an FDOT project for first time. Thus at the time of the bid, the Contract Documents did not disallow the use of muck in the berms. Furthermore, since 1992 berms have been constructed with unsuitable material. As explained in Condotte's position paper, the existing berms in the Turnpike are constructed of unsuitable material. Many of these interchange and widening projects took place after 1992.

Condotte would like to emphasize that our Roadway Superintendent has been working on FDOT projects since the early 1970's thru today. He has worked on many FDOT projects since 1992; yet, this was the first project in which he was stopped in constructing a ROW detention berm with unsuitable material. Likewise, Condotte employee's who started in the FDOT industry after 1992 have also been involved in projects in which unsuitable material was used in the berms.

Mr. Fusco states that the current Index only allows for S, P & H material in the berm. Mr Fusco is correct that the 2008 Index 505 "Embankment Utilization" **(Exhibit B)** illustrates a berm in which S (Select), P (Plastic) or H (High Plastic) can be used. However, we all agree that the 2008 Index does not apply to this project. The Design Standards that apply are the 2004 Revisions. Again, the 2004 Index 505 does not address the berm construction and only excludes organics from the Roadbed.

With respect to the Engineer's reference to Section 120-7.2, Condotte reminds the DRB that this Section only relates to the embankment in the Roadbed section of the project. This Section correlates with the 2004 Index 505 which states that no organics can be used in the Roadbed. Condotte has previously made reference to the FDOT's definition of Roadbed. This Section does not address the berm and therefore, does not disallow the use of muck in the berms.

Condotte's position is that the industry practice of using muck in the berms was not stopped in 1990 -1992; it was stopped by the issuance of the 2008 Index 505. If the Engineer, wishes to implement the 2008 Index 505, Condotte requests for an increase cost supplemental agreement to be issued.

FDOT Design Standard Index 505

Engineer's Position: The Engineer has stated that General Note 5 addresses the allowable use of muck (unsuitable material) within the roadway template. The Engineer's position is that Index 505 only allows the use of muck to construct a finish soil layer and that it does not permit the utilization of unsuitable material in construction of berms.

Contractor's Rebuttal: Condotte in its position paper and other rebuttal points has made it clear that the 2004 Index 505 does not show or address the berm construction. Furthermore, Note No. 5 clearly states that muck can not be used in the limits of the **ROADBED** or **SUBGRADE**.

Note 5 - Highly organic soils shall not be used within the **subgrade** or embankment portion of the **roadbed** with the exception of muck used as a supplement to construct finish soil layer…."

Reference is made to the Definitions Section of the Specifications. The Roadbed is defined as "The portion of the roadway occupied by the subgrade and shoulders." The Subgrade is defined as "The portion of the roadbed immediately below the base course

or pavement including below the curb and gutter, valley gutter, shoulder and driveway pavement…….Where no limits are shown in the plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter."

Condotte does not argue that Muck can not be used in the limits of the Roadbed or Subgrade. Furthermore, Condotte agrees that muck can be used to supplement the finish soil layer. However, the 2004 Index 505 does not address either pictorially or in text the construction of the berms. Therefore, the Engineer is incorrect that Index 505 limits the material to be used in the berm construction.

FDOT Design Standard Index 500 – Removal of Organic Material

Engineer's Position: The Engineer makes a very vague reference that Index 500 in conjunction with Index 505 limits the use of the unsuitable material.

Contractor's Rebuttal: Index 500 is for the removal of in place unsuitable soil. Condotte has complied with the required removal in accordance with this Index. With respect to this dispute, Index 500, confirms that outside of the minimum limit of muck removal (1:2 Control Line), muck is allowed to remain. The subject Berms are located outside of the limit of minimum muck removal; therefore, in areas where the muck is allowed to be used.

This issue is not about the removal of the muck, whereas, it is about the construction of the berms. The Engineer is confusing demucking requirements with berm construction. Condotte has reviewed Index 500 and finds no reference to the limitation of material used for the berm construction. Index 505 has been rebutted above.

Contract Plan Sheet 106 – Roadway Soils Survey

Engineer's Position: The Engineer unclearly relates the Soil Survey and Specification Section 110 "Clearing & Grubbing" to the dispute of the berm construction.

Contractor's Rebuttal: Sheet 106 merely provides the project soils survey which is typical to all projects. Note No. 1 states that we are to remove the top layer of unsuitable soil per Section 110. Condotte agrees that the specs requires for the Contractor to remove the existing top 12" of grass/roots in the areas of new construction. Condotte has complied with Section 110 of the Specifications. This Section does not mention the berm construction. Therefore, Condotte is not limited in using muck in the construction of the berms by Section 110 "Clearing & Grubbing". It is clear that the specifications regarding excavation and embankment construction is provided in the Section 120. The Engineer's association of Section 110 "Clearing and Grubbing" into this dispute seems to be an attempt to confuse the DRB.

Contract Plan Sheet 105 – Misc Drainage Details

Engineer's Position: The Engineer has made reference to Sheet 105 of the NW 74th Street Project. The Engineer states that "Plan Sheet 105 provides a detail on the berms calling for the

use of Select Fill, not Muck, as the embankment material for the berms at locations along the BL Survey SR821, BL Ramp B, BL Ramp C, and Ramp A. The Engineer now positions that Select fill is required for the Berms.

Contractor's Rebuttal: Condotte is well aware of Sheet 105 which is titled "Misc Drainage Details". What the Engineer failed to mention in his position is that the Select fill is called out for on the "Ditch Block Detail". In addition, the detail calls out for 5 specific locations (Sta. 2148+00 BL SR821, Sta. 225+49.43 BL Ramp B, Sta. 304+00 BL Ramp C, Sta. 2114+50 BL SR821 & Sta. 2145+33.40 BL SR821). The Engineer incorrectly states that this detail is a Berm detail; wherein, it is actual the DITCH BLOCK DETAIL.

Condotte's position is that at these particular Ditch Block locations the fill is required to be Select (S). The Ditch Blocks are typically located across the ends of the Ponds as shown on Sheet 32 (**Exhibit A**). However, this select requirement is solely limited to these 5 locations. The Engineer's position that the fill requirement at this detail is typical for the entire berm is incorrect. Note that the detail show the width and slopes of the Ditch Blocks to be different than the adjacent berms (10 ft wide vs. 5 ft wide, etc.); therefore, the dimensions and notes given on the Ditch Block Detail is not applied project wide – ONLY AT THESE LOCATIONS.

Finally, Condotte notes that the Engineer in using the Ditch Block Detail is contradicting it previous arguments. Reference is made to Corradino Letter 056 dated May 20, 2008 in which the Engineer in addressing the required material for the berms states - "The allowable material outside of the standard minimum slope is S, P, or H." As previously noted, S is Select, P is Plastic and H is Highly Plastic per Index 505. So, now in its position paper, the Engineer is stating that the Contractor must use S (Select); where as, in the earlier letter, the Engineer stated that we can use either S, P or H. The Engineer is not being consistent in their position.

Condotte's position is that the Ditch Block Detail shows the fill requirement only at the location of the actual Ditch Block. Condotte intends on complying with this requirement. The Ditch Block Detail does not limit the material to be used in the Berm.

Typical Sections Detail – Corradino Exhibit 15

Engineer's Position: The Engineer states that the Typical Section shows the berm to be part of the template.

Contractor's Rebuttal: Condotte does not argue that the Berm is shown on the Typical Section. However, the illustration of the Berm on a Typical Section does not address the material composition of the berm. The Typical Section provides material requirements for the asphalt and base (pavement design). The Work of Section 120 (Excavation and Embankment) is not entirely supported by the Typical Section. For example, the Typical Sections do not show the demucking limits.

It is Condotte's position that the Typical Cross Sections do not provide any arguments for the material requirements of the Berm.

Cross Section Sheets – Corradino Exhibit 16

Engineer's Position: The Engineer states that "On the cross section sheets the embankment areas, including the berms, are differentiated from the muck areas by the muck areas having a cross-hatch fill pattern.

Contractor's Rebuttal: The Engineer clearly does not understand the purpose of the cross-hatching on the cross-sections. As you know, the Cross-Hatching is the "Limits of Removal for Unsuitable Soil". The cross-hatching does not provide the complete limits of existing unsuitable soils. If so, then the cross hatch would extend all the way to the limits of the western ROW along Ramp A and the BL SR821. The Designer of Record used the requirements of Index 500 to establish the limits of demucking.

Furthermore, Condotte in its position paper identified that there was muck under the proposed berm. Condotte thru RFI No. 74STR-106 asked the Engineer the muck under the proposed berm should be removed prior to constructing the requested rock fill berm. The Engineer stated that the Contractor should build the berms over the unsuitable material. Note that this unsuitable material that the berm is to be built over is NOT cross-hatched.

It is Condotte's position that the Cross Sections do not disallow the use of muck in the berms.

Embankment Quantities

Engineer's Position: The Engineer has stated that the volume of the berms is included in the overall embankment quantities; thereby disallowing the use of the unsuitable material in the berms.

Contractor's Rebuttal: Condotte agrees that the volume of berm material is included in the embankment quantities. Condotte stated in its position paper that we bid the project with the knowledge that the berms could be constructed with unsuitable material and that we would be paid for the quantity (cy) of berm material.

Standard Specifications Article 120- 1.1 – General states the following: *Excavate and construct embankments as required for the roadway, ditches, channel changes and borrow material. Prepare subgrades and foundations, construct embankments, and otherwise use or dispose of the materials excavated.*

Article 120-1.1 of the Standard Specification clearly informs that Condotte America is allowed to **use or dispose** of the material excavated. In the process of establishing the unit price submitted in the bid, a certain amount of unsuitable material generated from the de-mucking activities was calculated to be used for the "BERM" construction quantities. Condotte's bid unit price for Pay Item 120-6 Embankment is $17.00/Cubic Yard. The pricing took into

consideration the overall averaging of not having to purchase material for the berms since it could be built with the onsite material.

It is Condotte's position that the quantity and Pay Item Notes does not disallow the use of unsuitable soil in the berms.

SUMMARY

After review of the Engineer's position paper, Condotte could not find any reference to a specification or plan which prohibits the use of unsuitable (muck) material in the construction of the berms.

Condotte's rebuttal has reinforced the position that the specifications and plans do not disallow the use of muck in the berms. The following points summarize Condotte's position:

- The Design Standards, Specifications & Contract Plans do not disallow the use of unsuitable soil in the Berms.
- The applicable 2004 Index 505 Design Standard only limits the type of material to be used in the limits of the subgrade and Roadbed. The berms, by definition, are located outside of the Roadbed.
- The Specifications and Design Standards allow for the incorporation and disposal of excavated muck into the project limits. Whereas, the Engineer tried to define disposal as only "off site removal", specifications clearly identify disposal to also include onsite disposal.
- The existing ground in the areas of the berms consists of unsuitable soil. It is not common practice to build a berm of rock fill on top of unsuitable soil. Extreme settlement of the heavier material over the organic material would affect the final berm construction. The Engineer's response to RFI 74STR-106 is more posturing for the dispute than practical construction.
- The Engineer's counter to Condotte's argument that the use of muck is an industry accepted practice is solely refuted by the FDOT Specialty Engineer who stated the practice was stopped sometime between 1990 and 1992. Yet, the Specialty Engineer does not provide a particular specification reference to support this historical reference.
- The existing to remain and adjacent berms are constructed of unsuitable material.

While not applicable to this contract, one must consider that the 2008 Index 505 may be playing a role in the position and desires of the Engineer. The internal FDOT July 7, 2008 e-mail provided by the Engineer in their position paper provides the following statement "And the current Index only allow S, P, and H material in the berm" which enforces the belief that the Engineer's position is based on a desire to meet a new standard which is not applicable to the project.

We believe that the way in which we originally interpreted and bid the project remains correct. No where in the applicable plans, design standards or standard specifications is the Contractor prohibited from using unsuitable soil in the berms.

The Engineer's directive to remove the already placed berm material and replace it with S, P or H type material will require the Contractor to seek an equitable compensation for this additional unforeseen work.

Based on the information provided, we believe that it is clear that the Contractor is not restricted in using unsuitable soil in the berms. Condotte America, Inc. thanks the members of the Disputes Review Board for their time in their review of Condotte's position paper and rebuttal.

OWNERS REBUTTAL TO CONTRACTORS POSITION

CAI's Position: The Contract documents allow berms to be constructed using excavated unsuitable material (muck).

CAI claims that the Contract documents do not disallow the use of muck in construction of the project berms, the Engineer however disagrees, as the Contract documents do not permit the use of excavated unsuitable as fill material for berm construction.

Issue for DRB 's Determination

The parties present the following question for the DRB's determination: Is Condotte prohibited, by the contract documents or standard industry practice, from using muck to construct berms that are not part of the roadbed? If Condotte is not prohibited from using muck to construct these berms, then is Condotte entitled to additional compensation and time to comply with FDOT's directives to use suitable embankment material to construct the berms that are not part of the roadbed?

FDOT'S Response/Rebuttal:

Yes, the contract documents as supported by TCG's Position Paper and current industry practice do prohibit Condotte from using muck to construct the berms. Constructing the berms out of suitable embankment material is not a directive by the FDOT; it is a contractual requirement for the reasons detailed in TCG's Position Paper. No, Condotte is not entitled to additional compensation and time in order to construct the berms out of suitable embankment as The Contractor chose to use muck material to construct the berms. In addition, the pay item for subsoil excavation compensates the Contractor for removing and disposing of the excavated unsuitable material outside the right-of-way limits, and the pay item for embankment (which includes the berms) compensates the Contractor for the using suitable fill material to construct the berms.

-- CAI'S Issue Development (1)

- *Before the start of contract time, Condotte on November 28, 2006, submitted to the Engineer (The Corradino Group) via Letter No. 201-011 the Certification of Sublet Work No. 1 which included the subcontractor DC Equipment Corp. Attached to this Sublet is DC Equipment's Exhibit A which provides a schedule of values for its scope of work. Item 2 of Exhibit A states "Remove Muck (Unsuitable Soil) from 13.8 AC on Exhibit H (Approximately 18,835 CY). Also,* ***includes the construction of the Pond Berms with excavated muck*** *(loading, hauling, and placement of muck by DC Equipment)." Therefore, it is clearly shown it was Condotte's original intention to use muck in the construction of the permanent berms.*

FDOT'S Rebuttal (1):

- TCG agrees that CAI submitted a Certification of Sublet Work with verbiage containing **"**…***construct the Pond Berms with excavated muck…*****";** however, the scope of work in a schedule of values does not supersede the requirements of the FDOT Design Standards, FDOT Standard Specifications, or the Contract Plans. In addition, the Engineer's non-response to **DC Equipment's** scope of work shown on the schedule of values does not imply approval of work not meeting the requirements of the Contract documents. As stated in TCG's position paper, the Contract Documents call for the use of Embankment material per Standard Specification (Materials for Embankment) 120-7.2 and the disposal of unsuitable material outside of the right-of-way. It may have been Condotte's original intention to use muck in the construction of the permanent berms, however the intent does not exempt CAI from meeting the contractual requirements of building the berms out of suitable material.

-- CAI'S Issue Development (2)

- *During the course of June 2007, DC Equipment began the initial placement of the excavated muck material for the berms on the western limits of the project outside of Ramp A. Reference is made to Roadway Plan Sheets 33 and 36 of the 406104-1-52-01 (NW 74 Street) project. This initial placement of the material continued for several months without any objection by FDOT or the Engineer. Condotte's aerial monthly photos (Section 10) show the progress of this work by DC Equipment. As seen in the photos, Condotte had not begun the final shaping of the berms during 2007. Also during the summer of 2007, Condotte began the reconstruction of the existing berms along the western ROW of the southbound mainline on the 415 project. The placement of the material for this berm was completed after the completion of the electrical direct burial line and related manholes. Condotte has not completed the final grading of the berms and detention ponds in this area. Almost a year later, on April* ***4th,*** *2008, Corradino's*

Michael Hammond, the Sr. Project Engineer for the Project, via letter No. 045 stated that unsuitable (muck) material is not allowed to be used in the construction of the berms. Mr. Hammond also stated that the Design Standard Indices Nos. 500 and 505 do not allow the use of muck material in the template.

FDOT'S Rebuttal (2):

- TCG disputes CAI's claim that The Engineer did not object to the placement of excavated unsuitable material for berm construction. During the initial earthwork operations for Ramp-A TCG's inspector observed excavated unsuitable material being pushed to the outside and not being removed off-site. The inspector verbally notified CAI's superintendent that the plans called for the use of embankment as the fill material for the berms. However, CAI chose to continue placing unsuitable material to construct the berms.
- The muck material, as part of the subsoil/embankment operation continued being pushed to the outside and it was not immediately evident that the material was intended to remain in place. Once the rough dressing of the slopes was performed, the Engineer notified CAI that "…the removed subsoil (muck) is not acceptable for use in berms to be constructed on this project."

- If it were factual, CAI's stipulation that the placement of unsuitable material for the berms continued for several months without the Engineer's or FDOT's objection does not imply a tacit approval/acceptance of material not permitted by the Contract documents.

-- CAI'S Issue Development (3)

- *Condotte's Project Manager, Mr. Joe Ortega, transmitted Condotte Letter 201-122 on April 7, 2008, replying that 1) based on past construction experience and industry practice berms are allowed to be constructed of muck, 2) the berms existing on the Project site when construction began and the berms which they tie into were all constructed of muck, and 3) the specifications allow for use of unsuitable material outside of the standard minimum slope.*

FDOT'S Rebuttal (3):

- 1) The State Construction Office's position is that the practice of using muck in berm construction discontinued between 1990 and 1992. To emphasize this point the 1990 Design Standard Index 505 (Exhibit 1) and the 1992 Index 505 (Exhibit 2) are included. As can be observed, the 1990 Index allows the use of soils classified as Select, Plastic, High Plastic, and Muck in embankment within the template. In contrast, the 1992 Index no longer allows soils classified as Muck in embankment within the template.
- 2) The berms existing on the project site when construction began and the berms, which they tie into, may have been constructed of muck, however that is

not the current industry practice and as indicated in TCG's position paper, the contract documents do not allow the use of unsuitable material.

- 3) The FDOT Standard Specifications do allow the use of unsuitable material outside the standard minimum slope. However, the specification contends that the Engineer give approval and that the muck be placed on the side slopes, not as fill material for berms.

-- CAI'S Issue Development (4)

- *On May 20, 2008, Condotte requested that this issue be escalated to the DRB. In addition, Condotte stated that 1) Index 505 does not include a detail for the berm construction and that the index does not prohibit the use of muck in the berms, and 2) while Condotte agrees that the embankment quantities include the berm, that does not lead to the conclusion that the material for the berm must meet the requirements for the material within the roadway template. Despite knowing that the issue had been escalated, Corradino continued to put pressure on Condotte to reconstruct the berms. On May 22, 2008, the Engineer issued a DDM for "Use of excavated unsuitable subsoil material in the construction of berms throughout the project limits. Contractor notified material is unacceptable for use as embankment per specification Section 120 and index 505".*

FDOT'S Rebuttal (4):

- Index 505 includes a detail showing that soil classified as Muck is not allowed within the roadway template and a note that it may be used as a finish soil layer.
- CAI agrees that the embankment quantities include the berms. Thus, per the executed Contract, FDOT compensates CAI for berm material that meets the requirements of Spec 120-7.2 (Materials For Embankment), not for subsoil material which FDOT has already paid CAI to excavate and dispose of outside of the right of way limits. Allowing the use of muck material in the berms would mean that the Department pays twice for the material, once as subsoil excavation and a second time as embankment material though excavated within the FDOT's right of way.
- TCG rejects CAI's assertion that the Disposition of Defective Material (DDM) was issued as form of putting additional pressure on Condotte. It is standard FDOT procedure to issue a DDM on an issue such as this one.

-- CAI'S Issue Development (5)

- *Soon thereafter, Mr. Mendoza receives a phone call from Mr. Rojas and Mr. Hammond. Mr. Rojas identified three items, which FDOT demanded that Condotte meet in exchange for it accepting the berms built with muck: 1) Condotte would have to provide an Engineering Analysis for hydrology of the berms/ponds, 2) muck would have to be placed in 18" lifts, and 3) FDOT would not pay Condotte for any berm quantities. Mr. Mendoza responded two new items were not discussed at the meeting on Friday, June **6th** and that the two*

*new items were simply unfair. Mr. Mendoza stated that the "no pay" part of FDOT's demand was completely unacceptable. Mr. Mendoza received an email on June **9th** confirming the phone conversation and the demand by Mr. Rojas. Mr. Mendoza responded to the email by rejecting FDOT's demand and requesting the issue be escalated to Mr. Rick Espino (Condotte) and Mr. Paul Wai (Turnpike).Phone conversations between Mr. Espino and Mr. Wai resulted in Mr. Wai advising Mr. Espino that FDOT does not want berms to be constructed of muck any more. This occurred during the week of Monday, July 7th, 2008.*

FDOT'S Rebuttal (5):

- The State Construction Office confirmed that berms are no longer constructed out of muck material and that the practice of building berms out of unsuitable material stopped between 1990 and 1992 as shown in Exhibits 1 & 2 and summarized on the rebuttal to ***CAI'S Issue Development (3)***.
- The FDOT's position of no pay for berm quantities is based on the fact that the pay amount for embankment includes the berms, as CAI has agreed, and that the Department is paying for embankment (Select) material not for soil classified as Muck, which has already been paid for under the pay item for subsoil excavation.

-- CAI'S Issue Development (6)

- *On July 15, 2008, Condotte presented RFI 74 STR 106 titled "Unsuitable Soil Under Proposed Berms" in an attempt to clarify the Engineers disposition on the material requirements for the intended BERM construction for project Okeechobee Mainline Toll Plaza and 74th St Interchange @ the HEFT. The contractor provided the following question:*
  - *The roadway cross sections and roadway plans indicate that the existing berms are to be constructed in areas were the existing subgrade material is comprised of unsuitable (muck) material. A typical instance of this can be seen on Cross Section Sheet 136 for the SR821 baseline and Sheet 142 for the Ramp A baseline.*

    The Department has recently directed the Contractor to construct the berms with suitable embankment material. Please advice if the existing unsuitable subgrade material is to be removed from the areas of the subject berms and replaced with FDOT approved suitable embankment material. Also, Condotte kindly asks for the Engineer to revise the subject plan sheets in order to reflect the additional quantities of unsuitable soil and embankment quantities.

    Or should the Contractor construct the proposed berms on the in-situ unsuitable soil material?

- *Condotte's July 16th, 2008 letter (0201-174) advised the Engineer of Condotte's desire to escalate the issue to the DRB. In addition, Condotte stated that the following additional costs will be incurred by Condotte to re-construct the berms in accordance with FDOT's directives:*
  - *Cost of removal and disposal of muck that was planned to be used in the berms;*
    Cost of re-work and re-layout;

- *Additional cost of transporting embankment material to berm areas where they are on top of muck - Condotte will need to build a temporary haul road, or require the placement of additional fill on the muck;*
- *Additional cost of excess material wasted due to the settlement of the heavier embankment fill over the in-situ unsuitable soil at the existing grade (Note: the majority of the berms are in areas were the plans do not call for demucking); and*
- *Analysis of schedule impact as direct impact or resource constraint.*

FDOT'S Rebuttal (6):

- The limits of demucking on plan sheet 136 and 142 do not include the berms, however plan sheet 105 (Miscellaneous Drainage Details) provides a drainage ditch block detail showing Select Fill as the embankment material for the berms and no demucking limits.
- CAI chose to use excavated unsuitable material as the fill material for the berms in contradiction of the Contract documents and the CEI bringing it to the Contractor's attention. CAI is not entitled to any additional compensation for removing and disposing of muck material used to construct the berms, the pay item of subsoil excavation has already paid for the removal and disposal of excavated unsuitable material outside of the right of way limits.
- Any impact to the project schedule is not the responsibility of the FDOT for it was CAI's decision to build the berms out of muck and not out of suitable embankment material as called for in the plans.

-- CAI'S Issue Development (7)

- *During the construction process, Condotte has been required to excavate through some of the existing berms adjacent to our project. It is evident that during the excavation process the existing berms adjacent to our project have been constructed with the same unsuitable material Condotte used to build the berms on this project.(Pictures Attached) In addition, the existing berms outside the project limits have been exposed by a fiber optic contractor. These berms outside of the project limits are also constructed of muck.*
- *The Engineer and FDOT have acknowledged on various occasions the use of muck in the berm in the past has been allowed, but that now it is no longer allowed. Condotte has said that there has been no change to the specs or Indexes which would prohibit the use of muck. FDOT simply cannot change its position from prior industry and FDOT practice without a change to the specifications or indexes or without notice to bidders of its intended change. Simply put, the use of muck for these berms has been acceptable for decades, and FDOT cannot now change its practice against one contractor on one job without any advance notice.*

FDOT'S Rebuttal (7):

- The material make up of the previously constructed existing berms has no bearing on the fill material requirements of the berms on the subject projects. The use of soils classified as Muck in berm discontinued between 1990 and 1992 as shown in the change between the 1990 Design Index 505 and the 1992

Design Index 505 (Exhibits 1 & 2 respectively) and as confirmed by the State Construction Office.

-- CAI'S Issue Development (8)

- *In fact, in many locations the FDOT Standard Specification for Road and Bridge Construction 2004 edition supports Condotte's position. One such section is Section 120-8.2.4, which in the very first sentence provides:* ***"Where material that*** *is* *unsuitable* *for* ***normal embankment construction is to be used in the embankment outside the standard minimum slope (approximately one to two), place such material in layers of not more than 18 inches(450mm) in thickness, measured loose."*** *Furthermore, Indexes 500 & 505 addresses the* ***roadway template, but does not*** *address the* ***berm*** *construction. The silence as to the makeup of the berm means that there is no restriction on the use of muck; FDOT would like* ***to rewrite those*** *indexes to add a prohibition on the use of muck. The earthwork quantities should properly account for the volume of material required for the berm construction regardless of the material classification.*
- *Section 120-5.2 Disposal of Muck on Side Slopes also states: "As an exemption to the provisions of 120-5.1, when approved by the Engineer, in rural undeveloped areas, the Contractor may place muck (A-8 material) on the slopes, or store it alongside the roadway, provided there is a clear distance of at least 6 feet between the roadway grading limits and the muck, and the Contractor dresses the muck to present a neat appearance Specifications 120-8.2.4 and 120-5.2 clearly reflect the standard industry practice for berm construction to allow its construction with unsuitable material. In addition, Index 505 Note 5 states "Highly organic soils shall* ***not be used within the*** *subgrade or embankment portion of the* *roadbed,* *with the exception of muck used as a supplement to construct a finish soil layer as described in Section 162 of the FDOT Standard Specifications." It is very clear that FDOT intended to restrict the kind of material that could be used in the roadbed, but there is no restriction on the material to be used in berms outside of the roadbed. Condotte does not take issue with those requirements as it relates to the roadbed. However, the specifications do not prohibit the use of muck in the berms, since the berms are outside of the roadbed as defined in the specifications. Furthermore, there is no detail of the berm in the 2004 Index 505.*

FDOT'S Rebuttal (8):

- Standard specification 120-8.2.4 does allow the use material unsuitable for normal embankment construction outside the standard minimum slope. However, the Contract plans call for Select Fill (sheet 105 – Miscellaneous Drainage Details), as detailed in TCG's Position Paper, and the berms are included in the embankment quantities shown on the Contract plans' cross section sheets.

- TCG agrees that Section 120-5.2 allows for the disposal of muck on the side slopes however, approval must come from the Engineer. The Department does not desire placement of muck in the berms and the specification clearly identifies the side slopes, not the berms, as the location where unsuitable material may be disposed of.
- There is a restriction on the material to be used in the construction of the berms as shown on plan sheet 105 (Miscellaneous Drainage Details) where the use of Select Fill is called for as the material to construct the berms that tie into the other berms identified in the Contract.

Summary

The Department's position remains unchanged. The Contract plans and documents call for the berms to be constructed using Select Fill material not excavated unsuitable material. Any time or costs associated with constructing the berms as required are not the result of the Department's position, as it was the Contractor's decision to construct the berms using muck. We hope the Board will agree and rule accordingly.

BOARDS FINDING

After close review and study, the Board has found the following:;

The Designer of Record (DOR) shows the berms on the Earthwork Cross-Sections, however there is no mention as to what type of material is to be used in the construction of these berms. There are construction notes disallowing the use of unsuitable material in these proposed berms. No subsoil removal is shown in this area, or in the bottom of the dry retention areas. The only area where any type of material is specified is for the construction of 5 (five) Ditch Blocks, detailed at various stations within the project. The Ditch Block detail is not a standard to be used for berm construction throughout the project

Both parties have referred to Index 505, especially note number 5. The Board finds this sheet, as well as this note, to be completely silent regarding construction of any berms outside the Roadway Template. The word *"berm*" is not mentioned anywhere and all references are to the Roadway Template. The details shown in Index 505 do not extend beyond the toe of slope of the Roadway Template. The Contractor was very adamant that no unsuitable material was to be used *"within the template"* as shown on Index 505 or allowed by Standard Specification. Any surplus material remaining after all grading was accomplished would be disposed of as required by the contract..

The Board is fully aware that the Index 505 has been changed in the 2008 Edition and does not allow muck or unsuitable material to be used for construction purposes within the Right-of-Way, however this change has no bearing on this contract.

No written prohibition in the project plans, specifications or written documents provided prevent the Contractor from using unsuitable material for construction of the berms.

The Earthwork Cross-Sections show a number of dry retention areas adjacent to the toe-of-slope of the Roadway Template. These areas require excavation and no fill which by the crosshatching on the plans have muck in them but no removal is shown. This would further lead the Contractor or bidder to believe the standard practice of using unsuitable material for grading outside the Roadway Template and for berm construction was permitted.

The fact that the Contractor plans to use material excavated from elsewhere on the project (and not otherwise required) does not preclude the use of this material to grade and construct the berms outside the Roadway Template as shown in the plans.

The documents referenced by the FDOT/CEI (Standard Specifications for Road and Bridge Construction 2004, Standard Index 500 and 505) in support of its position were prepared by the Department .As such, any ambiguity or discrepancies which may exist are the responsibility of the preparer of these documents, in this case, the Florida Department of Transportation.

BOARDS RECOMMENDATION

Based on the documents provided, the Board finds the Contractor **is entitled** to additional time and dollars should the Department insist that the berms as shown be built of select material. Further, should the Department direct the contractor to remove any previously constructed berms, said removal and replacement should be considered as extra work and the Contractor compensated accordingly.

The Boards appreciates the courtesy and efforts of both parties in the preparation and presentation of this dispute. Please notify the Board and the other party of your concurrence or disagreement with this recommendation within fifteen (15) calendar days of receipt of this document.

This is a unanimous decision and is signed with the concurrence of all members of the Board

Sincerely;

John W. Nutbrown
Dispute Review Board Chair.

Cc: Kenneth E. Fusch, PE.
Ashley R. Cone