

**DEPARTMENT OF PUBLIC WORKS
ROAD OPERATIONS DIVISION**

**REVIEW OF CONTRACT (A/B-127)
ORLANDO PAVING COMPANY**

APRIL 2000

Prepared by:
Internal Audit Division
Clerk of the Circuit Court

April 24, 2000

The Honorable Carlton Henley
Chairman
The Board of County Commissioners
Seminole County, Florida
1101 East First Street
Sanford, FL 32771

Dear Mr. Chairman:

I am very pleased to present you with the attached audit of the administration of contractual agreement with Orlando Paving Company.

The audit was performed from October 30, 1999 to December 30, 1999. Management's responses have been incorporated into the final report.

With warmest personal regards, I am

Most cordially,

Maryanne Morse
Clerk of the Circuit Court
Seminole County

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**Seminole County
Department of Public Works
Road Operations Division**

**Review of Contract (A/B-127)
Orlando Paving Company**

The Internal Audit Division of the Office of the Clerk of the Circuit Court has completed an audit of the administration of the contractual agreement between Seminole County and Orlando Paving Company, a division of Hubbard Construction Company, hereafter, OPC.

Purpose

The purpose of the audit was to determine if the administrative controls over the contract were adequate and operating as intended in compliance with applicable laws, regulations, and other Seminole County policies and procedures. Specifically, the purpose of the audit was to ensure compliance with established terms, conditions, laws and regulations.

Background

On January 14, 1997, the Seminole County Board of County Commissioners (BCC) selected OPC as the primary contractor to provide the County hot and cold asphaltic concrete. County Purchasing reported to the BCC that twelve (12) bid packets had been mailed but that only two (2) companies had submitted bids. The contract award was for a one (1) year period with a two (2) year option to renew at the current terms, conditions, and prices. The total estimated annual value of the agreement was \$1,048,476.00. The contract period was from January 15, 1997 through January 14, 1998. Subsequently, the contract was extended by the BCC through January 14, 2000.

The contract called for OPC to prepare and provide a hot and cold asphaltic concrete base mixture to be installed on road construction projects. These hot and cold asphaltic materials, the "laid-in-place" services, and the plant producing the materials were required to comply with all the specifications of the Florida Department of Transportation Standard Specification for Road and Bridge Construction Sections 310, 320, 330 through 333, 335, 337, and 339. The county asked the contractor to submit a fixed unit price for the asphaltic concrete based on five (5) zones throughout the County. The contractor was required to bill the county based upon the agreed to prices for work done within these zones.

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The results of the audit are included in the report that follows.

Scope

The scope of this audit included a review of the billings provided by OPC for the period October 1, 1997 to September 30, 1999. During that time, OPC submitted invoices to the County for \$4,022,874.28; or an average of \$2,011,437.14 per year. All source documents related to these invoices were subject to review.

The audit included:

- Review of procedures being used to ensure compliance with established purchasing policies and procedures, Florida Statutes, and other applicable regulations;
- Review of internal controls to ensure that all payments to the contractor were in accordance with established terms, conditions, laws, and regulations;
- Review of OPC's invoices for accuracy, completeness, and timeliness;
- Review of the bidding process used by the county to ensure that competition was fair, consistent, and provided for the most economical and efficient service to the community;
- Review of the process used by the Road Operations Division to estimate the quantities to be used by companies to bid on the contract;
- Review of the process used by the Road Operations Division in determining the actual scope of the work to be performed by OPC;
- Review of the process used by the Road Operations Division in evaluating and prioritizing the roads to be resurfaced;
- Review of the special terms and conditions contained in the contract; and,
- Any other procedures considered necessary under the circumstances.

Field work began October 30, 1999, and was completed December 30, 1999. The audit was performed by Bill Carroll, Pat Tindel, and Gail Joubran.

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Overall Evaluation

It is our opinion that the internal controls over the administration of the contract were inadequate. The following conditions warrant management's attention:

- Delivery tickets were not always being "signed off" by a county representative as evidence that the asphalt was actually delivered to the job site;
- The division's business processes are not documented in the form of written policies and procedures; the documentation regarding the roads to be resurfaced was not available at the time the audit was conducted;
- There was no requirement to perform yield calculations on a regular basis;
- Bid estimates were not reasonable in relation to the actual asphalt installed; and,
- Commodity code assignments were not accurate and were not up to date.

Our detailed findings and recommendations are included in the report that follows.

Finding No. 1

More than \$2.3 million dollars of hot mix asphaltic concrete was delivered to job sites without a representative from the county signing off on delivery tickets.

Having a county representative sign off on delivery tickets was proof that the shipment of asphalt was actually delivered to the job site. Of the \$3,531,095.80 in invoices processed for the period October 1997 to September 1999, 65.7 percent (\$2,318,980.60) were submitted for payment with delivery tickets attached that had not been signed by a county representative. Consequently, no corroborating evidence exists to prove that \$2,318,980.60 (63,991 tons) of hot mix asphaltic concrete was actually delivered to the job sites. We were informed by Road Operations Division management that the reason the tickets were not signed was that the superintendent was not always available to receive and inspect the trucks.

There were no other controls to ensure that the County had received the entire shipments of materials. Although the Road Operations Division had the ability to run yield reports, a procedure, or requirement, to do so on any sort of regular routine basis was not required and therefore not done.

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By not having a county representative physically inspect and acknowledge receipt of the asphalt, there was a risk that some of the materials being billed and paid never were received on the job site.

Recommendation

Develop policies and procedures to ensure that the asphalt billed was the asphalt received.

Management Response

This statement is based on the assumption that if a ticket is not signed, no one is present. This is not true; therefore, this finding is not an accurate statement. The contract is required to comply with the Florida Department of Transportation Standard Specifications for Road Bridge Construction. The applicable sections that relate to delivery tickets are 320-2.4 of this manual. No where in this section does it state that delivery tickets are to be signed by a County or State Representative, except if that representative is at the plant verifying the weight on certified scales. Since certified scales are not feasible at the job site, an on site inspector cannot sign delivery tickets verifying weights. Having one asphalt inspector to cover the entire county with multiple contractors, it is impossible to be at multiple job sites at the same time. The inspector makes it a priority to be present on active projects as much as is possible, often working nights, weekends, and holidays. The percent of times the inspector is physically present when loads are delivered has been estimated by the inspector to be 80% of the time. The inspector does gather all delivery tickets and checks them against the original estimate for accuracy. Any discrepancies are then resolved by use of yields, coring, sampling, etc. In order to have an inspector present on every job when every load is delivered would require the addition of another Lead Inspector position to our staff.

Calculations are performed at the start of work and after completion of work and recorded in detailed reports of every roadway that work is performed on. To determine estimated tons requires the use of a theoretical yield. To establish an estimated cost requires this calculation of tonnage to identify the proper unit cost. Effective immediately, we will, however, record and retain in our files yield calculations at the actual completion of each road resurfaced.

Audit Comment

By having a county employee sign the delivery tickets at the time the truck delivers the asphalt is proof that the asphalt was actually delivered to the job site. We appreciate the fact that the on site inspector has multiple tasks and multiple job sites. However, for major projects with large quantities of asphalt being delivered, the county should have a representative accepting delivery. In our opinion, the representative accepting delivery does not have to be the lead inspector; it can be anyone employed by the county. Some sort of receiving document should be signed for all products or services received by the county. The county purchasing manual (Section 440) has an entire section on the procedures required to be followed for receipt of goods and services. In addition to not complying with county policy, it is basic internal control and sound business practices that dictates someone be present

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to receive delivery of goods or services.

Finding No. 2

The division's business processes are not documented in the form of written policies and procedures; the documentation regarding the roads to be resurfaced was not available at the time the audit was conducted.

Because the division did not maintain written policies or procedures, nor any sort of paper trail documenting decisions made, we relied on the program manager's verbal explanation as to how roads-to-be-resurfaced were selected. We understand that the division evaluates roads to be resurfaced using a three-step process: First, a computer software program (Dynalect) was used to evaluate the **strength** of existing roadways; some 20 percent of the roads were evaluated. Second, another program known as the Infrastructure Management System (IMS), a laser surface survey was used to evaluate the **surface condition** of the road. Third, division personnel physically **observes and inspects** the roads needing repair. This three-step process was used to rank the road projects for placement on the candidate for resurfacing list. To confirm that this process was operating as described, Internal Audit requested the candidate list for road projects for 1997, 1998, and 1999. By not having written policies and procedures, nor detailed records, the process cannot be audited for compliance with sound business practices or management directives.

Audit Comment: At the time requested, November 1999, the division did not or could not provide the listings. Therefore, based on the information provided during the audit, we concluded that the division did not have an effective operating plan. At a subsequent meeting in April 2000, management was able to provide the requested candidate lists. Internal Audit reviewed these reports and have concluded that the Road Operations Division does have a process in place to support roads selected to be resurfaced. We are concerned, however, with the length of time it took the division to locate the requested reports.

Recommendation

Develop written policies and procedures.

Management Response

The process has been in place since 1988 and has been recognized throughout the State of Florida as one of the most progressive and comprehensive pavement management programs in existence. We are one of the few Counties in the entire state that utilizes structural testing combined with sound engineering practices and decision making, backed up with repeatable and reliable testing and data to identify pavement rehabilitation needs. We made the decision back in 1988 that we did not want to continue using subjective methods to determine pavement rehabilitation needs by performing visual windshield surveys. We have structural and laser information on every roadway in the county, detailed pavement reports, overall

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pavement reports and five-year master plans. We can provide reams and reams of information concerning pavements and current and future conditions on any roadway within the County. Records, reports, and data are available at Road Operations for inspection.

Finding No. 3

The division did not require yields to be calculated for OPC projects.

As noted in Finding No. 2, invoices totaling \$2,318,980.60 for hot mix asphaltic concrete were submitted for payment with unsigned delivery tickets. Even though these tickets were unsigned, management maintains that it can be reasonably assured as to the quantity and quality of a specific delivery by calculating a “yield” on a project. A yield is a calculation of average thickness of installed asphalt on a given project. However, the division did not require yields to be calculated on OPC projects.

The division has stated that the average thickness of asphalt on any given project is approximately 1.50 inches. We asked the division to calculate the yield on three sampled projects. The first project had a “yield” of 160.68 lbs. per square yard or a 1.60 inch average thickness. The second was 226.60 lbs. per square yard or a 2.27 inch average thickness. The third was 188.79 lbs. per square yard or a 1.89 inch average thickness. As a matter of practice, yield calculations or variance explanations were not placed on the face of the invoices. Therefore, payment was made to OPC absent verification that the amount billed was reasonable or even correct.

Without a yield calculated on each project, and without a representative from the county verifying size or content of the delivery, there was a high risk that the county could be paying for materials never delivered or over delivered to the job site. Also, materials installed were not tracked.

Recommendation

Requiring yield calculations on every project; justify and approve variances in writing.

Management Response

As previously stated, estimates are performed prior to beginning work relative to square yards and the estimated tonnage. As long as the project is completed within that estimate, additional yields and calculations may not have been recorded. Effective immediately, actual yield calculations will be recorded and retained for all roads resurfaced. This is already being done. Will now be written and retained.

Audit Comment

Subsequent to the issuance of the draft audit report, management showed us computer files in the Pavement Management Program that contained sufficient data

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to calculate yields on completed road projects. By using the data available in the computer files, management has the tools readily available to document the yield variances on every project.

Finding No. 4

Bid estimates submitted by the Road Operations Division were not realistic.

The Road Operations Division provides County Purchasing with the quantities of materials it estimates will be needed for the contract period. These estimated quantities were then incorporated into the Invitation to Bid. Prospective bidders use these quantities in developing its proposal to the county.

Internal Audit compared the quantities estimated by zone for the three year contract period versus the actual quantities billed by the contractor for hot mix asphaltic concrete. The following table represents the results of the review:

Zone	Estimated Quantities	Actual Syds Installed	Variance (in Syds)	Cost Variance
1	1,800 syds	28,530.08	26,730.08	\$ 956,936.86
2	1,800 syds	11,206.19	9,406.19	336,741.60
3	1,800 syds	22,066.01	20,266.01	725,523.16
4	1,800 syds	9,767.30	7,967.30	285,229.34
5	1,800 syds	<u>25,869.34</u>	<u>24,069.34</u>	<u>861,682.37</u>
		<u>97,438.92</u>	<u>88,438.92</u>	<u>\$3,166,113.33</u>

This variance of \$3,166,113.33 represents unanticipated and unplanned costs to the taxpayer. By not tracking the materials actually installed, estimating future requirements is problematic.

Recommendation

Develop a management reporting system that can be used to track, monitor, and evaluate the quantities estimated and installed by zone.

Management Response

Quantities shown in the bid document are an attempt to show order of magnitude for an item if it were to be utilized. They are meant to be used for bid analysis, not as any guarantee to the bidder of quantities. This contract has 36 items, five geographic zones, four quantity groupings and three different procurement options. Not knowing three years ahead of time which specific material will be used, what specific quantity will be used on the same day, and whether the material will be picked up or delivered, makes it an impossible task to place accurate quantities in each category, zone, individual job quantity and delivery method. Some items may never be used

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during the life of the contract. These bid documents are not solely for use by the Pavement Management Program. They are also used by other Departments, for special projects, for emergencies, and for routine, day to day maintenance repairs. There is no way to accurately predict these other needs over three years. The quantities shown for bid purposes are realistic. A discussion of the many variables and outside influences that affect a three-year estimate would be helpful in explaining variances.

This tracking and monitoring is already being done by individual roadway; however, the overall program is monitored and evaluated based upon accomplishments compared to the annual work plans and budgets. The variety of strategies which are applied to the County's roadways means that aggregate quantities by zones are not pertinent to budget estimating nor to most users of our management reporting system; this level of detail is therefore left at the individual roadway level.

Audit Comment

The audit report states that there were large variances between what was submitted by Road Operations personnel in the Invitation to Bid versus what the Division actually experienced with its paving program. Although we agree that the Division may not know the exact quantities of materials it needs to use during a contract period, comparing the estimate versus actual quantities installed indicates that the estimates were off by nearly 1,082%. If the Division does not intend to use the quantities to estimate future requirements of the county, consideration should be given to making modifications in the way the Invitation to Bid is prepared. Such modifications may interest other companies in bidding on the work.

Finding No. 5

Commodity code assignments were not accurate or up to date.

County Purchasing has contracted with DemandStar.com (formally Information on Demand, Inc.) to maintain a vendor-list-by-commodity-code of manufacturers, suppliers, agents and consultants that desire to do business with Seminole County. DemandStar.com also was responsible for maintaining vendor applications and faxing bid documents to requesting bidders.

Internal Audit surveyed four companies taken from the bid list for hot and cold asphaltic concrete (A/B-127) to confirm that it was receiving Invitations to Bid, and to ask why it elected not to bid. One company stated that it strictly was a supplier of materials, not an installer; another worked solely on reclamation projects. The other two, the jobs were simply too large for their company. Therefore, these four companies were not qualified to place a bid for this work.

We then asked Purchasing for copies of the original applications of the companies invited to bid on A/B-127. Purchasing was only able to furnish four of

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twelve applications requested; the other eight companies had not registered with DemandStar.com.

In addition, three of twelve (25 percent) companies listed did not have its telephone number included, and one did not list a contact name. Obviously, the file was incomplete.

By having incorrect commodity codes assigned, and unqualified vendors included, the number of eligible vendors solicited was in fact much lower than the publicly-stated seventeen. Without an accurate and up-to-date vendor list, there was no assurance that the most qualified vendor was awarded the contract at the best possible price to the taxpayer.

Recommendation

DemandStar.com should ensure that vendor applications on file are accurate and the Purchasing Division should verify that commodity codes are correct. Additionally, Purchasing should periodically review the files maintained by DemandStar.com, to ensure that all appropriate and interested vendors are receiving bid information on county jobs.

Management Response

We cannot comply with this recommendation. The Purchasing Division ensures that public notice of invitations to bid for goods and services is given in compliance with state and county regulations. A service arrangement with DemandStar.com is one of several tools employed to maximize competition in the procurement of goods and services. DemandStar.com's database is proprietary information and consists of vendors who register with the company for a specialized service. The County cannot monitor that database. The vendor list, established and used by DemandStar.com is not maintained, nor intended, as a "prequalified bidder" list. When vendors register as a customer of DemandStar.com, they select the commodity codes applicable to their organization for which they would like bid notification.

Purchasing will continue to seek cost effective methods to encourage a maximum number of responses to bidding opportunities for Seminole County Government.

Audit Comment

It appears from management's response that it does not believe that it has a right to audit or inspect DemandStar.com's records. The County should never sign a contractual agreement without an audit clause. We again recommend that Purchasing verify the accuracy of DemandStar.com's database by requesting a listing and/or copies of all vendor applications on file to ensure that appropriate vendors are registered and therefore, able to receive bid information on county jobs.

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