

**INTERNAL AUDIT REPORT**

**2019**

# **SCDOT ASSIGNMENT OF WORK TO MOWING CONTRACTORS**

An Assessment of:

- ✓ Risks
- ✓ Control Design Adequacy
- ✓ Control Operating Effectiveness



**INTERNAL AUDIT  
SERVICES**

**September 11, 2019**

# 1 EXECUTIVE SUMMARY

## ASSIGNMENT OF WORK TO MOWING CONTRACTORS

### OBJECTIVE:

- To determine whether incorrect selection of mowing contractors was made and to assess internal control design and effectiveness to manage risks of incorrect selection to an acceptable level.

### BACKGROUND:

- SCDOT uses outside contractors to conduct several of its maintenance responsibilities.
- One commonly used contract is the procurement of fixed price mowing services with the option to select from multiple contractors based on a preset maximum price.
- Various counties have in-house mowing crews and use contracts to supplement their workforce.
- Currently, nineteen counties in Districts One, Two, Four, Six, and Seven use a one-year fixed-price mowing contract.
- Counties are required to select the lowest bidder for the sum of activities in the scope of work.
- In cases where the lowest bidder is unable to perform the services, the County must document the reason and select the next lowest bidder.

Continued on the next page

# EXECUTIVE SUMMARY continued

## INTERNAL CONTROL OBSERVATIONS:

1. Selection Methodology	Risk Exposure:	Medium
<i>Observation:</i> The current methodology for selecting fixed price mowing contractors and documenting contractor notification varies across counties and does not follow a consistent, simple, and documented approach.		
(See detailed Observation 5.1 on page 10)		

2. Bid Price Transcription	Risk Exposure:	Medium
<i>Observation:</i> The Procurement Division transcribed the incorrect price from a contractor's bid information. This erroneous price was used in the contractor's selection and payment, but did not change the outcome of the contractor's ranking for assignment of work.		
(See detailed Observation 5.2 on page 12)		

**Management Action Plans are included in Sections 5 and 6 following each detailed Observation and Performance Opportunity as referenced above.**

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## 2 FOREWORD

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### **AUTHORIZATION**

The South Carolina Office of the State Auditor established the Internal Audit Services division (IAS) pursuant to SC Code Section 57-1-360 as revised by Act 275 of the 2016 legislative session. IAS is an independent, objective assurance and consulting function designed to add value and improve the operations of the South Carolina Department of Transportation (SCDOT). IAS helps SCDOT to achieve its objectives by bringing a systematic, disciplined approach to evaluating the effectiveness of risk management, internal control, and governance processes and by advising on best practices.

### **STATEMENT OF INDEPENDENCE**

To ensure independence, IAS reports administratively and functionally to the State Auditor while working collaboratively with SCDOT leadership in developing an audit plan that appropriately aligns with SCDOT's mission and business objectives and reflects business risks and other priorities.

### **REPORT DISTRIBUTION**

This report is intended for the information and use of the SCDOT Commission, SCDOT leadership, the Chairman of the Senate Transportation Committee, the Chairman of the Senate Finance Committee, the Chairman of the House of Representatives Education and Public Works Committee, and the Chairman of the House of Representatives Ways and Means Committee. However, this report is a matter of public record and its distribution is not limited.

### **PERFORMED BY**

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*Specializing in Assurance Services*

### **REVIEWED BY**

Wayne Sams, CPA  
Director of Internal Audit Services

### **ACKNOWLEDGEMENT**

We wish to thank members of management and staff in the Maintenance and Procurement Divisions, Districts, and Counties for their cooperation in sharing their knowledge and experience and developing actions to improve internal control and enhance operating performance.

## 3 INTERNAL AUDITOR'S REPORT

September 11, 2019

Ms. Christy A. Hall, Secretary of Transportation  
and  
Members of the Commission  
South Carolina Department of Transportation  
Columbia, South Carolina

We have completed a risk and control assessment of the South Carolina Department of Transportation's (SCDOT's) Assignment of Work to Mowing Contractors activity. The objective of this assessment was to contribute to the improvement of risk management by evaluating SCDOT's exposure to risks and the controls designed by Management to manage those risks. Our engagement included two aspects:

- Facilitation of Management's assessment of risks
- Independent assessment of the design and effectiveness of internal controls to determine whether those controls, if operating effectively, are adequately designed to manage the identified risks to an acceptable level. (We did not assess the effectiveness of those internal controls because SCDOT management had not fully implemented them at the time of our engagement.)

We planned and performed the engagement with due professional care in order to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and conclusions. Observations are described in Section 5 beginning on page 10 of this report.

A handwritten signature in blue ink that reads 'George L. Kennedy, III'.

George L. Kennedy, III, CPA  
State Auditor

# 4 ENGAGEMENT OVERVIEW

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## 4.1 BACKGROUND

To accomplish the maintenance program without appreciably increasing the number of SCDOT personnel or performing services for which SCDOT does not have the specialized expertise and/or equipment, SCDOT uses outside contractors to conduct several of its maintenance responsibilities. Maintenance contracts range from major projects through emergency activities to the procurement of technical services and the purchase of equipment and materials. One commonly used contract is the procurement of fixed price mowing services.

Fixed price bidding is used to provide agencies with the option to select from multiple contractors based on a preset maximum price. The Procurement Office establishes a maximum amount to pay for the services in the contract. The contract also provides specifications for set mowing activities and associated activities to be performed within SCDOT's rights-of-way on a fixed-price, per line item, and as-needed basis.

Various counties have in-house mowing crews and use contracts to supplement their workforce. Currently, nineteen counties in Districts One, Two, Four, Six, and Seven use a one-year fixed-price mowing contract, with the option of having four one-year renewals. Contractors may adjust their bid price during each renewal period, and new contractors may be added to the awarded vendor list, provided the bidder furnishes evidence of responsibility and responsiveness defined as follows:

- Responsible bidder – a vendor who has the capability to perform the contract requirements and has the integrity and reliability which will assure good faith performance.
- Responsive bidder – a vendor who has submitted a bid or offer which conforms to all aspects of the invitation for bid as it relates to price, quality, quantity, performance, and delivery (i.e. not taking exception to the bid).

Routine mowing typically begins on each March 15<sup>th</sup>, although areas of rapid growth, especially those contributing to sight problems, may be mowed before then. Mowing is performed for several reasons:

- Maintain clear zones free of obstructions,
- Allow vehicles to recover after leaving the traveled way,
- Maintain a pleasant appearance,
- Enhance erosion protection with healthy turf, and
- Ensure storm water and sedimentation guidelines are met.

With 13 activities available on the contract, counties select the appropriate combination of activities to accomplish their needs. Below is the list of activities and the number of cycles per year as recommended by the Director of Maintenance Office (DOM). Interstate, Primary, and Outdoor Advertising (ODA) mowing cycles as listed below are required minimums by the DOM.

Interstate mowing start dates per cycle are set by the DOM. All other start dates are determined by a county Resident Maintenance Engineer (RME). Counties may write purchase orders (PO) for a single activity or multiple activities; however, they cannot include multiple cycles for the same activity on one PO.

<b>Activity</b>	<b># of Cycles per Year</b>
Interstate Mowing	6
Primary Mowing	6
Secondary Mowing	4
Interstate Guardrail	6
Primary Guardrail	6
Secondary Guardrail	4
ODA Interstate	2
ODA Primary	2
Brush Management	As Needed
Ditches (Interstate)	As Needed
Bridges Interstate	As Needed
Bridges Primary	As Needed
Bridges Secondary	As Needed

Counties are required to select the lowest bidder for each PO. The lowest bidder is determined by multiplying the activity’s quantity (i.e. acres, linear feet, etc.) by the bid amount for each contractor. For POs with more than one activity, this process is repeated for each activity and the lowest bidder is the sum of all the activities. In cases where the lowest bidder is unable to perform the services, the County must document the reason and select the next lowest bidder. This process will continue until a contractor accepts the request. The DOM requires that the counties illustrate how their selection was made, but does not require a particular format or presentation of this information.

## 4.2 OBJECTIVES

Management’s objective with the Assignment of Work to Mowing Contractors activity is to ensure that each County’s mowing cycle is assigned following the correct procurement selection process. Our objective was to determine whether incorrect selection of mowing contractors was made and to assess internal control design and effectiveness to manage risks of incorrect selection to an acceptable level.

## 4.3 SCOPE

We tested the entire population of 66 mowing cycle purchase orders for the contract period 2/21/19 through 6/30/19.

## 4.4 METHODOLOGY

For the significant processes included in the engagement scope, we performed the following procedures:

1. We facilitated Management's completion of a process outline that documented the steps in the process and the individuals responsible for those steps.
2. We facilitated Management's completion of a risk and control matrix used to:
  - a. Identify risks which threaten process objectives;
  - b. Score the risks as to their consequence and likelihood of occurrence using the risk scoring matrix in Appendix B;
  - c. Determine if controls are adequately designed to manage the risks to within the Agency's risk appetite; and
  - d. Propose design improvements to controls when risks are not managed to within the Agency's risk appetite.

As shown on the Risk Scoring Matrix in Appendix B, risk significance is rated on a scale of 1 (lowest) to 25 (highest) and is the product of the risk consequence score (1 to 5) multiplied by the risk likelihood score (1 to 5). Risk appetite is the amount of risk exposure Management is willing to accept in pursuit of its objectives. Executive Management has set various risk appetites by risk type as shown in Appendix C. Risks scoring below Management's risk appetite require no further risk management. Controls determined to be inadequate in design result in risk exposure to the Agency if risk scores exceed risk appetite.

3. We observed the discussion by key process owners and other subject matter experts performing the steps in procedure two above.
4. We tested key controls for risks with inherent scores of 9 and above [scale of 1 (low) to 25 (high)] to determine if the controls are operating effectively. The tests included inquiry, observation, inspection of documentation, and re-performance of process steps.
5. We developed observations for controls determined to be inadequate in design and/or ineffective in operation.
6. We collaborated with management to develop action plans to improve control design and/or operating effectiveness.

## 4.5 CONCLUSION

In our opinion, based on our evaluation of Management’s assessment of risks and controls and based on our testing of key controls, internal controls are not adequately designed or operating effectively, as noted in our observations, to manage the significant risks associated with the Assignment of Work to Mowing Contractors activity to within a prudently acceptable level. While our testing revealed instances of incorrect selection of contractors, we did not note evidence that those selections were made with intentional bias to favor one contractor over another. Overall risk exposure to SCDOT for this activity is assessed as medium.



Risk Exposure Range	Number of Observations
Extreme	
High	
Medium-High	
Medium	2 Observations
Medium-Low	
Low	
Minimal	

## 4.6 DEVELOPMENT OF MANAGEMENT ACTION PLANS

We facilitated Management’s development of action plans for each observation to improve control design and effectiveness with practical, cost-effective solutions. These improvements, if effectively implemented, are expected to reduce the overall risk exposure to an acceptable level (i.e. within the Agency’s risk appetite).

We will follow up with Management on the implementation of the proposed actions on an ongoing basis and provide SCDOT leadership with periodic reports on the status of management action plans and whether those actions are effectively and timely implemented to reduce risk exposure to an acceptable level.

# 5 OBSERVATIONS

<b>Observation 5.1</b> <b>Selection Methodology</b>	<b>Risk Exposure</b>
<b>Medium</b>	
<b>Division:</b> District Maintenance Offices	
<b>Controls Assessed:</b> Control 1 – RME (or applicable employee) Review for Accuracy	
<b>Control Descriptions:</b> Control 1 – Counties review contractor bids and will select the lowest bidder based on price and quantity. If the lowest bidder is unable to perform the work, the next lowest bidder is notified. This will continue until a contractor is able to perform the services.	
<b>Processes Affected:</b> (See process description in the Background section) Assignment of Work to Mowing Contractors	
<p><b>Observation:</b> The current methodology for selecting fixed price mowing contractors and documenting contractor notification varies across counties and does not follow a consistent, simple, and documented approach. Without a formalized and user-friendly selection methodology, the current manual process is prone to error. We tested 66 purchase orders and found 5 were for incorrectly selected contractors as follows:</p> <ol style="list-style-type: none"> <li>1. A county regularly uses the higher priced contractor that was selected; staff told us they did so out of habit without taking into consideration the price.</li> <li>2. A second county made an incorrect selection because a contract line item was erroneously excluded from a previously issued purchase order. The county included the originally excluded line item in a separate purchase order, and selected the same contractor without taking into consideration the price.</li> <li>3. A third county made two incorrect selections. Staff told us they did not realize they were required to select the lowest bidder for the total line items and based their selection on just the lowest price for mowing.</li> <li>4. A fourth county selected a contractor that was not for the lowest price. Staff making the selection stated that they were instructed to do so by the District office but were unable to produce supporting documentation to that effect.</li> </ol> <p>We saw no evidence that any of the erroneous selections were made with intentional bias to favor one contractor over another.</p> <p>During our engagement, we learned that the Division of Maintenance (DOM) has developed and will be providing a selection spreadsheet (see Appendix C) which will enable the counties to more easily determine the lowest bidder. This spreadsheet will also provide a place to document the contractor notification and declining process.</p>	

**Recommendation:** The DOM should require counties to select fixed price mowing contractors using the newly developed spreadsheet. Individuals should be properly trained on filling out the spreadsheet and documenting the contractor notification and his/her declining of the work, should that occur. We further recommend that any exceptions to the standard selection process be reported to and approved by the Director of DOM with appropriate justification.

**Management Action Plan (MAP) 5.1**

The DOM has developed the “Fixed Price Mowing Purchase Order Tabulation Form” (see Appendix C) to better assist Engineers in determining contractor rank and documenting communication for fixed price mowing work requests. This implementation should reduce the risk of selection errors since ranking is automatically calculated, and Counties will be given an area to document deviations from the “low bid” selection. The “Fixed Price Mowing Purchase Order Tabulation Form” for each county utilizing this contract will be maintained by the DOM office on the shared network drive. DOM developed a draft memorandum which fully details the required selection process to the Engineers.

Upon approval by the Deputy Secretary for Engineering, this process will be fully implemented beginning with internal training for Resident Maintenance Engineers and other appropriate SCDOT personnel (mowing inspectors, administrative assistants, etc.).

MAP Owner:	Director of Maintenance
Division:	Maintenance
Scheduled Date:	1/15/2020

<b>Observation 5.2</b> <b>Bid Price Transcription</b>		<b>Risk Exposure</b>
		<b>Medium</b>
<b>Division:</b> Procurement Division		
<b>Control Assessed:</b> None – this observation addresses a risk in which no associated controls were identified. <b>Risk Identified:</b> Incorrect contractor selected because bid amount is not accurately reflected in the information sent to the counties to make a decision on contractors.		
<b>Control Description:</b> Not Applicable.		
<b>Process Affected:</b> (See process description in the Background section) Assignment of Work to Mowing Contractors		
<p><b>Observation:</b> During testing, we discovered that the Procurement Division recorded the incorrect price from a contractor’s bid information. This erroneous price was used in the contractor’s selection and payment but did not change the outcome of the contractor’s ranking for assignment of work.</p> <p><b>Recommendation:</b> We recommend that the Procurement Division perform an independent review of manual bid recordings so that transcription errors may be detected thus preventing potential incorrect contractor selection.</p>		
<b>Management Action Plan (MAP) 5.2</b>		
<p>In an ideal state, vendors would input their information into SCEIS thereby reducing the possibility of errors. If this were to happen 100% of the time the Procurement Office would be able to extract those numbers by County. As this is not the case and a significant number of bidders send in paper copies of their responses we must address the manual process that occurs in this office.</p> <p>An independent review of manual bid recordings is the recommendation. In order to implement this recommendation, when paper bids are received and the bidder has not entered their own pricing online (occasionally Procurement receives both) the Procurement Director will review the pricing entered against the pricing submitted.</p>		
MAP Owner:	Director of Procurement	
Division:	Procurement	
Scheduled Date:	2/15/2020	

# APPENDIX A

## RISK SCORING MATRIX

Risk significance is rated on a scale of 1 (lowest) to 25 (highest) and is the product of the risk consequence score (1 to 5) multiplied by the risk likelihood score (1 to 5). The following matrix provides a color scale corresponding to risk significance scores.

Likelihood	Frequent or Almost Certain	3-4 Low	9-13 Medium	14-17 Med-High	18-21 High	22-25 Extreme
	Likely	3-4 Low	5-8 Med-Low	9-13 Medium	14-17 Med-High	18-21 High
	Possible	3-4 Low	5-8 Med-Low	5-8 Med-Low	9-13 Medium	14-17 Med-High
	Unlikely	1-2 Minimal	3-4 Low	5-8 Med-Low	5-8 Med-Low	9-13 Medium
	Rare	1-2 Minimal	1-2 Minimal	3-4 Low	3-4 Low	3-4 Low
		Incidental	Minor	Moderate	Major	Extreme
		Consequence				

# APPENDIX B

## RISK APPETITE

Risk appetite is defined as the amount of risk the Agency is willing to accept in the pursuit of its objectives. Management’s goal is to manage risks to within the appetite where mitigation is cost-beneficial and practical. Management has set the Agency’s risk appetite by risk type using scoring methodology consistent with the Risk Scoring Matrix shown in Appendix B. Risk appetites by risk type are as follows:

RISK TYPE	EXAMPLES	RISK APPETITE SCORE 1 = Minimal Risk 25 = Extreme Risk (See Scoring Matrix in Appendix B)
<b>Safety</b>	Employee and Public Well-Being	<b>2</b>
<b>Ethical</b>	Fraud, Abuse, Mismanagement, Conflict of Interest	<b>2</b>
<b>Financial</b>	Funding, Liquidity, Credit, Reporting	<b>4</b>
<b>Strategic</b>	Resources not Aligned, Unclear Objectives	<b>4</b>
<b>Reputational</b>	Unintentional Unwanted Headlines	<b>4</b>
<b>Operational</b>	Delays, Cost Overruns, Waste, Inefficiency	<b>6</b>
<b>Regulatory</b>	Non-Compliance	<b>6</b>
<b>Legal</b>	Lawsuits	<b>10</b>

# APPENDIX C - CONTRACTOR SELECTION SPREADSHEET

The below spreadsheet shows an example of assigning work to contractors based on eight pre-awarded vendors and three types of activities (page 7 of this report includes a full list of activities). Based on this example, the third lowest cost vendor for these activities was selected because the lowest cost vendor declined the work and the second lowest cost vendor did not respond to the request within the prescribed response timeframe.

FORM INSTRUCTIONS	
1	Determine the activity/activities desired to commence on the upcoming cycle start date.
2	Select the cycle number/type from the drop-down menu (Cycles 1-6, or Non-Routine).
3	Select "Yes" or "No" from the drop-down menu under each mowing activity.
4	Under "Yes" items, verify the quantity shown is correct.
5	The total cost for all "Yes" items will be calculated and the contractor's rank (lowest to highest on a scale of 1-10) will appear.
6	Contact the contractor ranked "1" first to offer the selected activities for the scheduled cycle date.
7	Enter the date and time the contractor is contacted and the date and time of the contractor's response.
8	Select "Accept, Reject, or No Response" from the drop-down menu based on the contractors response.
9	Continue moving down the ranking list in this manner until a contractor accepts the work
10	Enter pertinent information regarding the selection process in the Reason/Notes column.

## Fixed Price Mowing Purchase Order Tabulation Form

COUNTY NAME	BRUSH MANAGEMENT (ACRES)	DITCH INTERSTATE (ACRES)	ODA INTERSTATE (ACRES)	TOTAL COST OF PURCHASE ORDER ITEMS	RANK	DATE AND TIME CONTRACTOR CONTACTED	DATE AND TIME CONTRACTOR RESPONDED	RESPONSE	REASON / NOTES
CYCLE 1	Yes	Yes	Yes						
INCLUDE ON THIS CYCLE/PO? (SELECT YES OR NO)	Yes	Yes	Yes						
BID QUANTITY	2410	3000	3500						
REDUCTION (-) / INCREASE									
TOTAL	2410	3000	3500						
	RANK								
EXAMPLE VENDOR 3	8	\$ 405	\$ 405	\$ 405	\$ 3,608,550	8	N/A	N/A	N/A
EXAMPLE VENDOR 6	6	\$ 302	\$ 302	\$ 302	\$ 2,690,820	6	N/A	N/A	N/A
EXAMPLE VENDOR 7	4	\$ 295	\$ 295	\$ 295	\$ 2,628,450	4	N/A	N/A	N/A
EXAMPLE VENDOR 2	3	\$ 260	\$ 260	\$ 260	\$ 2,316,600	3	11/16/2019	11/16/2019	ACCEPT
EXAMPLE VENDOR 8	7	\$ 305	\$ 305	\$ 305	\$ 2,717,550	7	N/A	N/A	N/A
	2								Contractor did not respond to request.
EXAMPLE VENDOR 1		\$ 110	\$ 110	\$ 110	\$ 980,100		11/15/2019	11/15/2019	NO RESPONSE
EXAMPLE VENDOR 4	5	\$ 297	\$ 297	\$ 297	\$ 2,646,270	5	N/A	N/A	N/A
EXAMPLE VENDOR 5	1	\$ 98	\$ 98	\$ 98	\$ 873,180	1	11/15/2019	11/15/2019	DECLINE

Input by Director of Maintenance Office

Input by County Office after Rank column is completed

Input by Director of Maintenance Office personnel from data provided by Procurement Division

Automatically Calculated based on prices input by Contractor