



PRINCE WILLIAM COUNTY, VIRGINIA

# Prince William County, Virginia

Department of Public Works:

Facilities Construction Management Division

Report Date: March 25, 2016



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March 25, 2016

The Audit Committee of  
Prince William County, Virginia  
1 County Complex Court  
Prince William, Virginia 22192

Pursuant to the internal audit plan for fiscal year (“FY”) 2015-16 for Prince William County, Virginia (“County” “PWC”), approved by the Board of County Supervisors on October 13, 2015, we hereby present the internal audit of the Department of Public Works: Facilities Construction Management Division. We will be presenting this report to the Audit Committee of Prince William County at the next scheduled meeting on May 10, 2016.

Our report is organized in the following sections:

<b>Executive Summary</b>	This provides a summary of the issues related to our internal audit of the selected Facilities Construction Management projects.
<b>Background</b>	This section provides an overview of the projects reviewed as well as a summary of the Facilities Construction Management Division.
<b>Objectives and Approach</b>	The internal audit objectives and focus are expanded upon in this section as well as a review of the various phases of our approach.
<b>Issues Matrix</b>	This section gives a description of the items noted during our internal audit and recommended actions as well as management’s response, responsible party and estimated completion date.
<b>Process Map</b>	This section provides a process map depicting the processes we reviewed.

We would like to thank the staff and all those involved in assisting our firm in connection with the internal audit of the Facilities Construction Management Division.

Respectfully Submitted,

*RSM US LLP*

**INTERNAL AUDITORS**

## **Executive Summary**

## Executive Summary

The Facilities Construction Management Division, within the Department of Public Works, is responsible for the oversight and management of construction projects at all County owned facilities, with the exception of PWC schools. Each project is typically supervised by a county-employed construction manager, while the work is performed by a 3<sup>rd</sup> party construction contractor. The use of outside construction contractors for these functions helps afford the County access to specializations on a project by project basis. Establishing appropriate monitoring controls over outsourced functions, including regular review of contractor performance is critical to the successful use of outside parties in this high-risk environment. The cost of construction projects are allocated to the benefiting program and funding sources for construction projects are varied, and may include specific restrictions on use.

As of March 1, 2016, the Facilities Construction Management Division had 8 projects in either the design or construction phase.

Project	Construction Start	Construction End	Occupancy
Haymarket Gainesville Community Library	May, 2014	August, 2015	October, 2015
Montclair Community Library	June, 2014	December, 2015	January, 2016
Central District Police Station	November, 2015	July, 2017*	August, 2017*
PWC Fire and Rescue Station #26	March, 2016	May, 2017*	June, 2017*
Gainesville Fire Station No. 4	April, 2016	March, 2017*	March, 2017*
Coles District Fire and Rescue Station	October, 2016*	December, 2017*	January, 2018*
PWC Firing Range	December, 2016*	July, 2017*	August, 2017*
ADC Phase II Expansion	April, 2017*	July, 2019*	September, 2019*

\*These dates are estimated per the Facilities Construction Management Division

The following CIP Budget and Expended to Date data shown below is updated from their most recent meeting on March 1, 2016.

Project	CIP Budget	Expended to Date
Haymarket Gainesville Community Library	\$13,855,688	\$10,845,010
Montclair Community Library	\$15,254,316	\$13,296,501
Central District Police Station	\$28,590,732	\$2,118,032
PWC Fire and Rescue Station #26	\$11,159,948	\$194,768
Gainesville Fire Station No. 4	\$4,367,757	\$657,932
Coles District Fire and Rescue Station	\$10,705,827	\$745,726
PWC Firing Range	\$1,575,900	\$12,547
ADC Phase II Expansion	\$45,723,451	\$741,745

The primary objectives of our internal audit were to identify risks within the construction process that contain the highest potential impact to the County, and to assess the design of key controls put in place by Facilities Construction Management to mitigate those risks. These objectives were accomplished through interviews, walkthroughs, and review of supporting documentation for the following construction contracts:

- Haymarket Gainesville Community Library
- Montclair Community Library
- Central District Police Station

## Executive Summary - continued

A summary of issues identified and their relative risk rating is provided below. We have assigned relative risk factors to each issue identified. This is the evaluation of the severity of the concern and the potential impact on operations. There are many areas of risk to consider in determining the relative risk rating of an issue, including financial, operational, and/or compliance, as well as public perception or 'brand' risk. Items are rated as High, Moderate, or Low.

- *High Risk Items* are considered to be of immediate concern and could cause significant operational issues if not addressed in a timely manner.
- *Moderate Risk Items* may also cause operational issues and do not require immediate attention, but should be addressed as soon as possible.
- *Low Risk Items* could escalate into operational issues, but can be addressed through the normal course of conducting business.

The details of the below summarized issues are included within the Issues Matrix section of this report. You will note in the Issues Matrix, each issue has been classified as "*Leading Practice*" or "*Compliance*"; definitions are as follows:

- *Leading Practice* – the issue relates to an instance where the design of a process or control does not conform to best known methods or common practices as we have observed them in the industry
- *Compliance* – the issue relates to an instance where the process or control is not in compliance with relevant guidance (County Policy / Procedure / Contract Terms & Conditions / etc.)

Issues	Risk Rating
<b>1. Change Orders – Subcontractor Itemized/Segregated Quotes</b>	<b>Moderate</b>
<p>Through our review of change order documentation, we noted a lack of consistency in the level of detail provided on the subcontractor quotes / proposals submitted in support of each change order we reviewed. Specifically, we noted in the instances identified below, labor burden was not always segregated from base labor, labor and materials were not always itemized, and overhead and profit were not always separately broken out.</p> <p>For the sample of change orders we reviewed related to the Gainesville Library we noted 4 of 23 subcontractor quotes, or \$13,576 of the change order total, was not itemized / segregated by labor and materials. In addition, 20 of 23 subcontractor quotes, or \$155,726 of the change order total, contained labor that was not broken out by base labor and labor burden, and 5 of 23 subcontractor quotes, or \$8,815 of the change order total, were not broken out by overhead and profit.</p> <p>For the sample of change orders we reviewed related to the Montclair Library we noted 3 of 10 subcontractor quotes, or \$4,165 of the change order total, was not itemized / segregated by labor and materials. In addition, 7 of 10 subcontractor quotes, or \$46,041 of the change order total, contained labor that was not broken out by base labor and labor burden, and 4 of 10 subcontractor quotes, or \$4,446 of the change order total, were not broken out by overhead and profit.</p> <p>Without a detailed breakdown of all charges in the subcontractor quotes / proposals, reviewing Facilities Construction personnel may be unable to accurately assess the reasonableness of charges.</p>	

## Executive Summary - continued

Issues	Risk Rating
<b>2. Pay Applications - Approvals</b>	<b>Low</b>

Through our review of pay applications, we noted the approval process, as it is specifically stated in the Project Administrator's Handbook, was not followed. Per the Project Administrators Handbook 2015, Section 2.3.3 "*The Construction Manager must sign the request for payment, attesting that the request is in accordance with the contract and the billable items are accurate.*"

The tables below summarize the Construction Management approvals noted for each of the pay applications subjected to our procedures.

Gainesville Library			
Pay App #	Approved By		
	Construction Manager	Engineer III	Construction Coordinator
Pay App #3		X	
Pay App #9		X	
Pay App #17		X	

Montclair Library			
Pay App #	Approved By		
	Construction Manager	Engineer III	Construction Coordinator
Pay App #2	X		
Pay App #10		X	
Pay App #19			X

Lack of a compliant and consistently applied process for the review and approval of pay applications can result in unauthorized payments, overcharges and lack of involvement from relevant stakeholders.

## Executive Summary - continued

Issues	Risk Rating
<b>3. Change Orders – Additive and Deductive Change Order Items</b>	<b>Low</b>
<p>Through our review of change order documentation, we noted both additive and deductive subcontractor change orders can be combined together into a single change order for the purposes of obtaining required approvals.</p> <p>Specifically, for Gainesville Library change order #2, we noted 3 individual deductive change order line items were included therein, representing a \$24,836 reduction in project cost. This amount was then offset against the \$105,656 of additive changes, resulting in a net total change order of \$80,820.</p> <p>The netting of additive and deductive items on a single change order creates the opportunity for circumvention of the approval control currently in place as outlined in the Project Administrator’s Handbook 2015 – Section 2.3.2 and PWC Purchasing Regulations – Section 600.08, which indicates a change order must go to the Board for approval if the total value of the change is 25% of the original contract amount or \$50k, whichever is greater.</p> <p>Note: During our review we did not identify any instances where the netting of additive and deductive items resulted in a circumvention of the approval control. This issue speaks to the opportunity that exists, not an actual circumstance.</p>	
Issues	Risk Rating
<b>4. Close-Out – Timeliness of Final Completion</b>	<b>Moderate</b>
<p>Through our review of the closeout process on both the Gainesville Library and the Montclair Library projects, we noted both projects have exceeded the contractually allowable 30 day duration between Substantial and Final Completion.</p> <p>Per both Contracts, Section E states, “The Contractor shall achieve Final Completion of all work including correction of all punch list items within 30 days after the date established for Substantial Completion, unless modified by a written Change Order.”</p> <p>For the Gainesville Library, we noted substantial completion was met on August 31, 2015 and as of our last testing date of March 25, 2016 the Final Completion of all work has not occurred. This is a timeframe of 207 days that have passed since substantial completion.</p> <p>For the Montclair Library, we noted substantial completion was met on January 11, 2016 and as of our last testing date of March 25, 2016 the Final Completion of all work has not occurred. This is a timeframe of 74 days that have passed since substantial completion.</p> <p>Untimely project closeout can increase the risk of building maintenance schedule delays, litigation, general conditions / supervisory labor change orders, liquidated damages, and untimely or incomplete compilation and retention of project closeout documentation.</p>	

## **Background**

# Background

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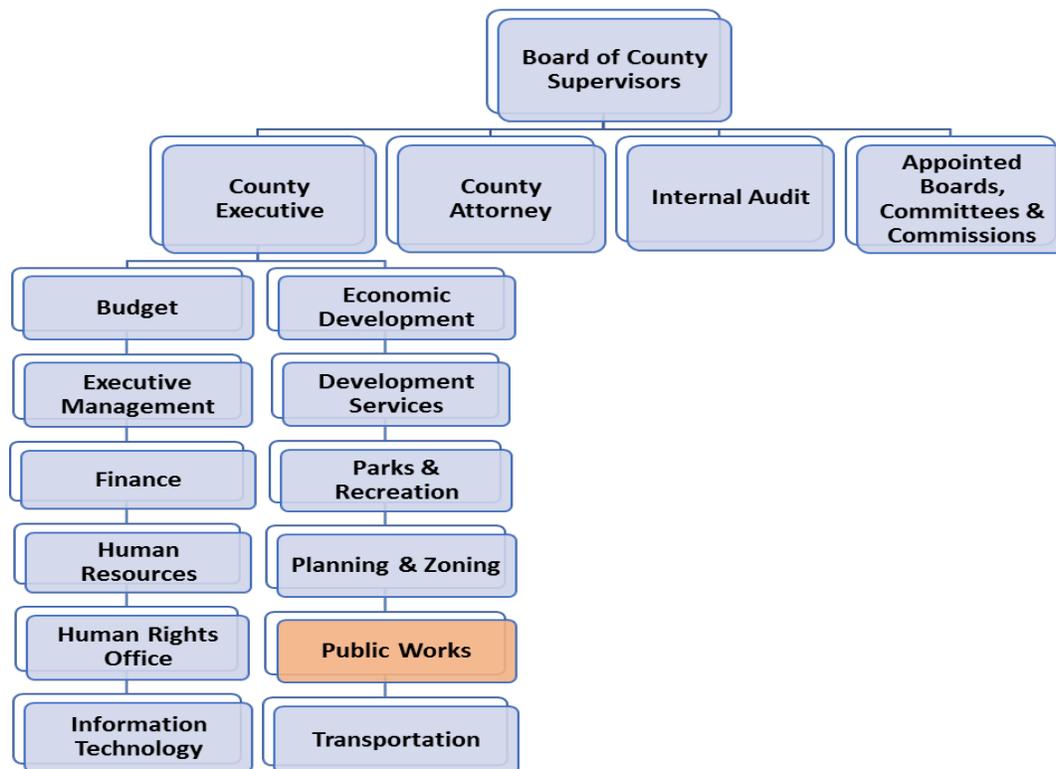
## Overview

The mission of the Prince William County Department of Public Works – Facilities Construction Management Division is to do the right thing for the community by creating and sustaining the best environment in which to live, work and play. The Facilities Construction Management Division is one of eight divisions in the Department of Public Works and supports the Capital Improvement Program (“CIP”) by developing budgets and managing the design and construction of County facilities. The majority of expenditure costs in this activity are recovered from capital projects.

As a testament to the strong policies and procedures in place, the Prince William County Public Works Department has been awarded American Public Works Association (APWA) Accreditation and Re-Accreditation in recent years. They received their first Accreditation in March 2012 and were awarded Re-Accreditation on March 9, 2016. Accreditation by the APWA represents the achievement of public works agencies that exceed the requirements of management practices established nationally in the industry. During our review of the 2015 Facilities Construction Management Division’s Project Administrators Handbook we noted the strong policies, procedures and process maps in place which help toward this significant accomplishment. We have added two flowcharts from the 2015 Project Administrators Handbook in the Appendix section of this report.

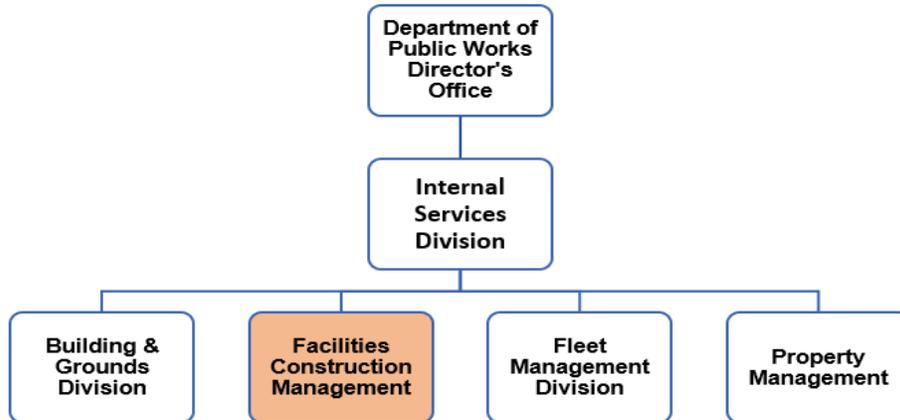
## Organizational Structure

The below organizational chart illustrates the Prince William County government. We highlighted in tan where the Facilities Construction Management Division is located.

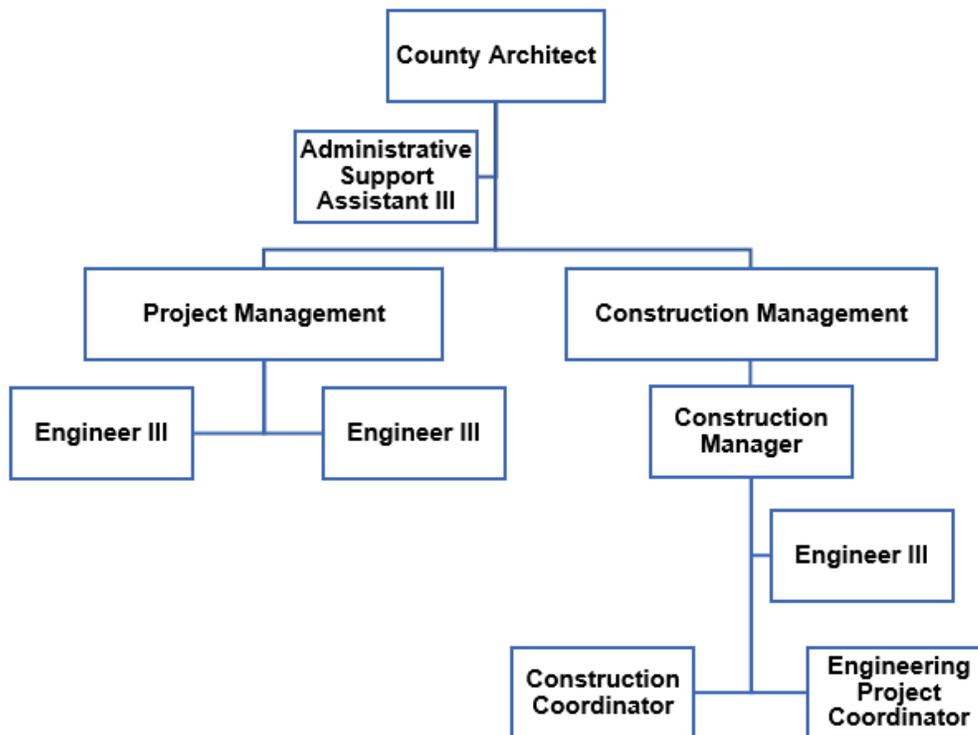


## Background - continued

The Department of Public Works is divided into two groups, the External Services Division and the Internal Services Division with each containing multiple sub-divisions. The Facilities Construction Management Division falls under the Internal Operations Division as we highlighted in tan below.



The Facilities Construction Management Division is comprised of eight employees. The County Architect is the head of the Division which consists of two groups: Project Management and Construction Management. The Project Management side focuses on the design and maintains a high-level view of the project, whereas the Construction Management side focuses on the day to day communication with the Contractor.



# Background - continued

## Project Overview

### *Haymarket Gainesville Community Library*

The Haymarket Gainesville Community Library is roughly 20,000 square feet and located at the intersection of Route 15 and Lightner Road. The construction of this library was authorized by voters in the 2006 bond referendum and includes traditional services, such as check-out of materials, information and readers' advisory services, and children's programs and services. Although this Library is occupied, HVAC and control system issues have occurred which has delayed the final retainage payment and the completion of the close-out process.

Total Construction Cost	Number of Pay Applications	Number of Change Orders	Change Order Amount
\$7,448,617	17	6	\$296,797



## Background - continued

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### Project Overview - continued

#### *Montclair Community Library*

The Montclair Community Library is a 20,000 square foot full-service facility near the intersection of Route 234 and Waterway Drive. It was authorized by voters in the 2006 bond referendum and includes traditional services, such as check-out of materials, information and readers' advisory services and children's programs and services. Although this Library is occupied, HVAC and control system issues have occurred which has delayed the final retainage payment and the completion of the close-out process.

Total Construction Cost	Number of Pay Applications	Number of Change Orders	Change Order Amount
\$10,274,967	18	10	\$545,467



## Background - continued

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### Project Overview - continued

#### *Central District Police Station*

This Police Station is a new 50,000 square foot facility located on Davis Ford Road between the Prince William County Parkway and Asdee Lane. This is the most recent of the three projects we reviewed as the groundbreaking ceremony was held on January 12, 2016. This facility will provide police services to the mid-County area, primarily the Dale City, Lake Ridge, and Davis Ford Road corridor and personnel from the Patrol Service Bureau, Criminal Investigations Division, Special Operations Bureau, and the Office of the Chief will be located in this building. As of our Report date, construction has not started yet due to initial weather issues, but is on pace to begin shortly.

Total Construction Cost	Number of Pay Applications	Number of Change Orders	Change Order Amount
\$19,489,000	1	0	\$0



## **Objectives and Approach**

# Objectives and Approach

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## Objectives

The objective of our internal audit was to assess the design of internal controls, at the department level, put in place to promote and encourage the achievement of management's objectives of compliance with applicable laws, administrative rules, and other guidelines. Specific objectives were as follows:

- Identify primary risks within key in-scope processes
- Identify missing or inadequately designed controls
- Identify instances of non-compliance with policies and procedures
- Identify instances of non-conformance with industry standards or best known methods
- Identify opportunities for process improvement, and efficiency gains

The scope of our procedures was limited to the following processes and construction projects:

Processes
Procurement of construction contractor
Construction pay application / invoicing
Construction change orders
Project closeout

Projects
Haymarket Gainesville Community Library
Montclair Community Library
Central District Police Station

## Approach

Our audit approach consisted of the following phases:

### Understanding and Documentation of the Process

The first phase of our review consisted primarily of inquiry in an effort to obtain an understanding of the Division's structure and key processes in scope. The following procedures were conducted as part of this phase of our review:

- Conducted interviews with key personnel to obtain a detailed understanding of the Facilities Construction Management process
- Performed a review of any documented policies and procedures, quantitative reporting and other information obtained from the Division
- Performed inquiry of key process owners to obtain an understanding of the following processes:
  - Procurement
  - Change Order
  - Pay Application
  - Close-out
- Based on the information obtained through our inquiry procedures, RSM identified inherent risks and relevant controls and developed a detailed, risk-based, work plan for the evaluation of the design of processes and control.

### Evaluation of the Design of Process and Controls

The process and control evaluation phase consisted of an evaluation of the design and testing of select transactions identified within the respective Division's processes as listed in Phase One above. We performed walkthroughs of each process, including select testing procedures. Specific procedures performed included:

- We evaluated the design of the key processes and controls identified in the previous phase through industry benchmarking, best practices, and comparable client experience.
- We reviewed processes to identify areas where instances of non-compliance with existing PWC Policies and Procedures. The sample testing noted above facilitated this review and any instances of non-compliance are reported herein.
- We developed recommendations for process and control modification / addition / deletion for any design gaps or non-compliance issues identified.

### Reporting

At the conclusion of this audit, we summarized our findings into this report. We have reviewed the results with the appropriate persons in Management, and have incorporated management's response into the report.

**Issues Matrix**

## Issues Matrix

Rating	Issue
Moderate	1. Change Orders – Subcontractor Itemized/Segregated Quotes
	<p style="text-align: center;"><b>Leading Practice</b></p> <p>Through our review of change order documentation, we noted a lack of consistency in the level of detail provided on the subcontractor quotes / proposals submitted in support of each change order we reviewed. Specifically, we noted in the instances identified below, labor burden was not always segregated from base labor, labor and materials were not always itemized, and overhead and profit were not always separately broken out.</p> <p>For the sample of change orders we reviewed related to the Gainesville Library we noted 4 of 23 subcontractor quotes, or \$13,576 of the change order total, was not itemized / segregated by labor and materials. In addition, 20 of 23 subcontractor quotes, or \$155,726 of the change order total, contained labor that was not broken out by base labor and labor burden, and 5 of 23 subcontractor quotes, or \$8,815 of the change order total, were not broken out by overhead and profit.</p> <p>For the sample of change orders we reviewed related to the Montclair Library we noted 3 of 10 subcontractor quotes, or \$4,165 of the change order total, was not itemized / segregated by labor and materials. In addition, 7 of 10 subcontractor quotes, or \$46,041 of the change order total, contained labor that was not broken out by base labor and labor burden, and 4 of 10 subcontractor quotes, or \$4,446 of the change order total, were not broken out by overhead and profit.</p> <p>Without a detailed breakdown of all charges in the subcontractor quotes / proposals, reviewing Facilities Construction personnel may be unable to accurately assess the reasonableness of charges.</p>
	<p style="text-align: center;"><b>Recommendation</b></p> <p>We recommend the Facilities Construction Management Division require the general contractor to instruct their subcontractors to provide a detailed breakdown of all charges such as labor/materials, labor/labor burden, and profit/overhead as applicable for all Change Order request(s) / proposal(s).</p> <p>This will allow more visibility into the details of a respective change, in order to better assess the reasonableness of the costs proposed</p>
	<p style="text-align: center;"><b>Management's Response</b></p> <p><b>Response:</b> FCM agrees. The back-up documentation to change orders can sometimes be confusing when there are multiple Proposed Change Orders ("PCO"s) included in a single change order. Details, such as overhead and profit or labor and material, can be lost in the amount of back-up documentation attached or possibly overlooked. A process/procedure needs to be in place to organize supporting change order documentation and ensure that each quote is complete.</p> <p>Planned Action: A form is currently under development that will be used to summarize the cost breakout of each PCO included in a change order. The back-up documentation will be clearly labeled with the reference PCO number on each sheet, bound together with a summary sheet on top of each individual PCO. All PCO bundles will then be grouped together to support the change order.</p>

## Issues Matrix - continued

Rating	Issue
Moderate	1. Change Orders – Subcontractor Itemized/Segregated Quotes - continued
	<p style="text-align: center;"><b>Management's Response</b></p> <p><b>Response - continued:</b> Information included will be as follows:</p> <ul style="list-style-type: none"> <li>• Project Name</li> <li>• PCO reference number and title</li> <li>• Subcontractor:</li> <li>• Materials</li> <li>• Labor</li> <li>• Subtotal</li> <li>• Overhead and profit</li> <li>• GC overhead</li> <li>• GC profit</li> <li>• TOTAL COST of PCO</li> <li>• Notes/Special conditions/comments</li> <li>• Change order number</li> <li>• Architect's signature and date of review</li> <li>• Construction Manager's (or designee's) initials and date of review/acceptance</li> </ul> <p>This form will be issued for use in the Central District Police Station immediately. It will be included in all future FCM Capital Improvement Projects contract documents for construction.</p> <p><b>Responsible Party:</b> The County Architect, Construction Manager and Senior Project Managers will be responsible for implementation of this.</p> <p><b>Estimated Completion Date ("ECD"):</b> April 2016</p>

## Issues Matrix - continued

Rating	Issue																																																
Low	<p><b>2. Pay Applications - Approvals</b></p> <p style="text-align: center;"><b>Compliance</b></p> <p>Through our review of pay applications, we noted the approval process, as it is specifically stated in the Project Administrator's Handbook, was not followed. Per the Project Administrators Handbook 2015, Section 2.3.3 "<i>The Construction Manager must sign the request for payment, attesting that the request is in accordance with the contract and the billable items are accurate.</i>"</p> <p>The tables below summarize the Construction Management approvals noted for each of the pay applications subjected to our procedures.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #e1ecf4;">Gainesville Library</th> </tr> <tr> <th style="width: 15%;">Pay App #</th> <th colspan="3" style="width: 85%;">Approved By</th> </tr> <tr> <td></td> <th style="width: 33%;">Construction Manager</th> <th style="width: 33%;">Engineer III</th> <th style="width: 33%;">Construction Coordinator</th> </tr> </thead> <tbody> <tr> <td>Pay App #3</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>Pay App #9</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>Pay App #17</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="background-color: #e1ecf4;">Montclair Library</th> </tr> <tr> <th style="width: 15%;">Pay App #</th> <th colspan="3" style="width: 85%;">Approved By</th> </tr> <tr> <td></td> <th style="width: 33%;">Construction Manager</th> <th style="width: 33%;">Engineer III</th> <th style="width: 33%;">Construction Coordinator</th> </tr> </thead> <tbody> <tr> <td>Pay App #2</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Pay App #10</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>Pay App #19</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> </tbody> </table> <p>Lack of a compliant and consistently applied process for the review and approval of pay applications can result in unauthorized payments, overcharges and lack of involvement from relevant stakeholders.</p> <p style="text-align: center;"><b>Recommendation</b></p> <p>We recommend the Construction Management team within the Facilities Construction Management Division follow the approval guidelines as stated in the Project Administrator's Handbook 2015 for all pay applications.</p> <p>If Facilities Construction feels other personnel in their group are technical enough and should be able to approve the pay application then the Project Administrator's Handbook 2015 should be updated to include language for other personnel.</p> <p style="text-align: center;"><b>Management's Response</b></p> <p><b>Response:</b> FCM partially agrees. Internal FCM work flow documentation lists the individuals by name that have the authority to review and approve contractor pay applications. This however is not clearly outlined in the Project Administrator's handbook nor is it included in any formal documentation within the Department of Public Works.</p> <p><b>Planned Action:</b> The Project Administrator's Handbook 2015, Section 2.3.3 will be revised to read "The Construction Manager and/or his/her designee, must sign the request for payment, attesting that the request is in accordance with the contract and the billable items are accurate. Additional designees may be assigned by the County Architect as needed."</p> <p>A Standard Operating Procedure (SOP) will be developed that details approval paths, designees and approval limits (dollars) for FCM staff, including project managers, Construction Management and others as necessary.</p> <p>Beginning July 1, 2016, the new ASCEND accounting program will add an additional level of approval when it goes into operation. Project and construction management staff will be first level approvers for their assigned projects. The County Architect will be the level 2 approver for all projects and costs.</p> <p><b>Responsible Party:</b> The County Architect will be responsible for implementing the new SOP and revisions to the Handbook.</p> <p><b>ECD:</b> June 30, 2016</p>	Gainesville Library				Pay App #	Approved By				Construction Manager	Engineer III	Construction Coordinator	Pay App #3		X		Pay App #9		X		Pay App #17		X		Montclair Library				Pay App #	Approved By				Construction Manager	Engineer III	Construction Coordinator	Pay App #2	X			Pay App #10		X		Pay App #19			X
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Pay App #10		X																																															
Pay App #19			X																																														

## Issues Matrix - continued

Rating	Issue
Low	3. Change Orders – Additive and Deductive Change Order Items
	<p style="text-align: center;"><b>Leading Practice</b></p> <p>Through our review of change order documentation, we noted both additive and deductive subcontractor change orders can be combined together into a single change order for the purposes of obtaining required approvals.</p> <p>Specifically, for Gainesville Library change order #2, we noted 3 individual deductive change order line items were included therein, representing a \$24,836 reduction in project cost. This amount was then offset against the \$105,656 of additive changes, resulting in a net total change order of \$80,820.</p> <p>The netting of additive and deductive items on a single change order creates the opportunity for circumvention of the approval control currently in place as outlined in the Project Administrator’s Handbook 2015 – Section 2.3.2 and PWC Purchasing Regulations – Section 600.08, which indicates a change order must go to the Board for approval if the total value of the change is 25% of the original contract amount or \$50k, whichever is greater.</p> <p>Note: During our review we did not identify any instances where the netting of additive and deductive items resulted in a circumvention of the approval control. This issue speaks to the opportunity that exists, not an actual circumstance.</p> <p style="text-align: center;"><b>Recommendation</b></p> <p>We recommend the Facilities Construction Management Division consider adding language to their Project Administrator’s Handbook to clearly indicate that the netting of additive and deductive change order items be limited to those instances where the individual items are all directly related to the overall scope of the change, and are not mutually exclusive.</p> <p style="text-align: center;"><b>Management’s Response</b></p> <p><b>Response:</b> FCM agrees with the recommendations.</p> <p>Planned Action: All future change orders will be organized so that contract price deducts are shown on the same change order as any potential increases in cost for the same issue or change in work. This will ensure that the costs for changes in work and/or scope are all inclusive in one change order, including a reduction, change and add in scope of work.</p> <p><b>Responsible Party:</b> The County Architect will be responsible for implementing the new SOP and revisions to the Handbook.</p> <p><b>ECD:</b> This process will begin immediately as change orders are developed with the current construction project Central District Police Station and Fire and Rescue Station 26. The SOP will be implemented by June 30, 2016, end of the fiscal year 2016 for all CIP construction projects.</p>

## Issues Matrix - continued

Rating	Issue
Moderate	<b>4. Close-Out – Timeliness of Final Completion</b>
	<p style="text-align: center;"><b>Compliance</b></p> <p>Through our review of the closeout process on both the Gainesville Library and the Montclair Library projects, we noted both projects have exceeded the contractually allowable 30 day duration between Substantial and Final Completion.</p> <p>Per both Contracts, Section E states, “The Contractor shall achieve Final Completion of all work including correction of all punch list items within 30 days after the date established for Substantial Completion, unless modified by a written Change Order.”</p> <p>For the Gainesville Library, we noted substantial completion was met on August 31, 2015 and as of our last testing date of March 25, 2016 the Final Completion of all work has not occurred. This is a timeframe of 207 days that have passed since substantial completion.</p> <p>For the Montclair Library, we noted substantial completion was met on January 11, 2016 and as of our last testing date of March 25, 2016 the Final Completion of all work has not occurred. This is a timeframe of 74 days that have passed since substantial completion.</p> <p>Untimely project closeout can increase the risk of building maintenance schedule delays, litigation, general conditions / supervisory labor change orders, liquidated damages, and untimely or incomplete compilation and retention of project closeout documentation.</p> <p style="text-align: center;"><b>Recommendation</b></p> <p>We recommend the Facilities Construction Management Division consider implementing a process for regular tracking and monitoring of the 30 day, post Substantial completion closeout documentation gathering process.</p> <p>Regular milestones should be identified within the 30 day schedule to ensure all required information is obtained, reviewed and approved prior to closure of the 30 day window.</p> <p style="text-align: center;"><b>Management’s Response</b></p> <p><b>Response:</b> FCM agrees with the assessment. 30 days between substantial completion and final completion of the construction contract is very aggressive and often not achievable due to the nature of the work and complexity of possible issues when closing a project. FCM staff will reevaluate the timing and sequencing of the closeout process, along with Purchasing and other PW divisions that participate in CIP projects, such as B&amp;G and Property Management.</p> <p>Action Plan: FCM will assemble a group to research and revise the process for project closeout. The timing between substantial completion and final completion will be increased to 90 days and the close-out process will be clearly defined in 3 parts; 30 days after issuance of the certificate of substantial completion for all punch list items and final commissioning; 60 days for resolution of any outstanding work items, PCOs and a final change order and 90 days for all relative documentation associated with a certificate of Final Completion.</p> <p>As part of this process, staff will investigate ways to apply two levels of liquidated damages to the construction contract. Full liquidated damages will be assessed for a delay in the substantial completion. A lower cost will be calculated that will apply for contractor delays that exceed the 30, 60 and 90 day completion dates.</p> <p>Clear definitions of each phase and tasks will be included in future construction contracts to ensure complete knowledge and understanding of all parties, including the owner, consultants, contractors and subcontractors.</p> <p><b>Responsible Party:</b> Senior FCM Design and Construction staff, headed by the County Architect, along with Finance will be responsible for implementation of this.</p> <p><b>ECD:</b> December 2016 for final implementation. As parts are developed, they will be included in standard construction contract language for pending CIP project construction phases.</p>

## Process Map

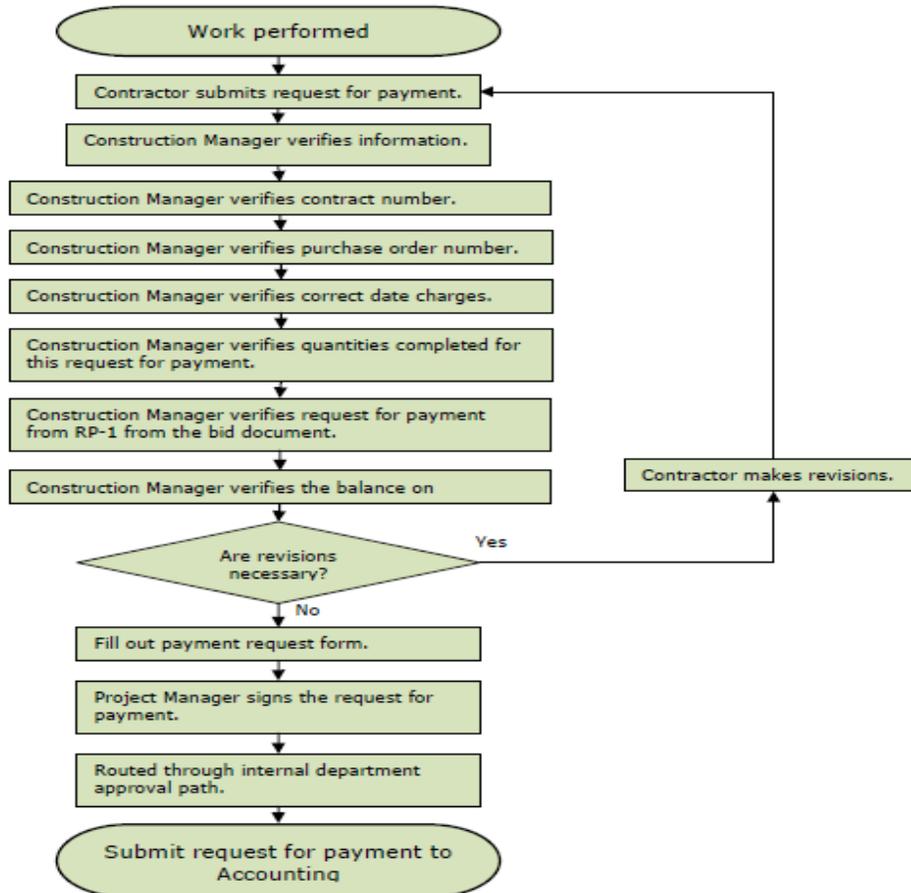
# Process Map

Request for Payment

2.3.3

## Process Notes

## Flow Chart

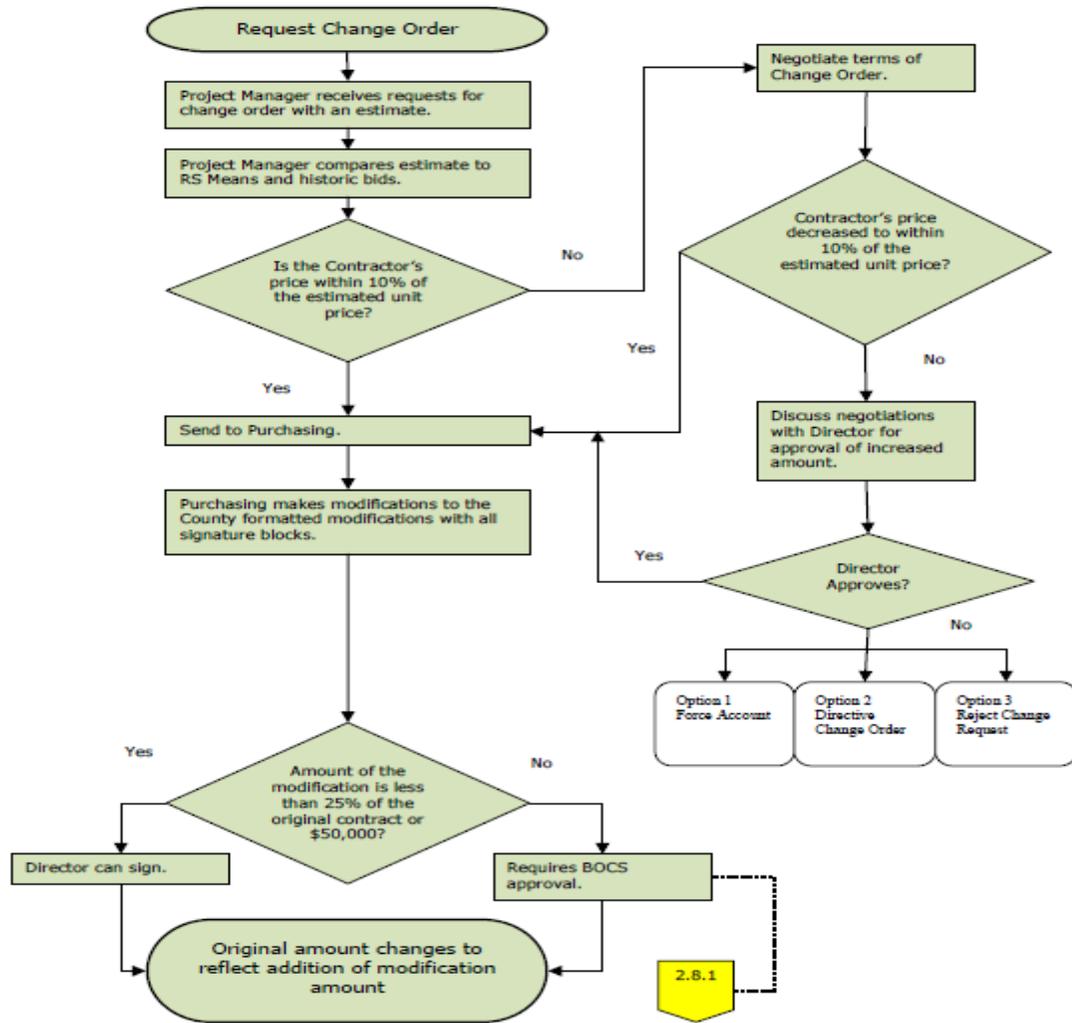


# Process Map – continued

## Change Order

2.3.2

### Flow Chart



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