INTERNAL AUDIT REPORT
ENGINEERING AND PUBLIC WORKS DEPARTMENT

ENGINEERING SERVICES DIVISION
MUNICIPAL SERVICE TAXING UNIT SECTION

CONSTRUCTION COORDINATION DIVISION

Report No. 10-19
W/P No. 09-28
BACKGROUND

The Engineering Services Division (Division) of the Engineering and Public Works Department (Department) is comprised of four Sections—Annual Contracts, Survey, Engineering Design, and the Municipal Service Taxing Unit (MSTU). The Division had a total of 28 staff and an operating budget of $2.6 million for Fiscal Year 2009. This audit focused on the MSTU Section (Section), responsible for managing a program providing paving and drainage improvements to property owners in the unincorporated parts of Palm Beach County (County).

MSTU projects are initiated either by a petition signed by a majority (51 percent or more) of property owners benefitting from the improvements or by direction of the Board of County Commissioners (BCC). The MSTU program operates through assessments levied against the benefitting properties and allows owners an extended period of time over which to pay annual installments. Until 2008, the program was governed by County Ordinance No. 94-11, which limited amounts to be assessed to property owners to 50 percent of costs of the improvement projects, including engineering, advertising, and roadway and drainage construction. In 2008, County Ordinance No. 2008-063 increased the allowable assessment to property owners to 100 percent of cost.

The audit was a regularly scheduled part of the annual audit work program. The audit was also undertaken in part in response to concerns raised by a citizen to the BCC regarding management actions taken relating to a project in the Palm Beach Ranchettes area. In response to the citizen’s concerns the BCC requested the Audit Committee to consider those concerns in approving a scope of work for the audit. The Audit Committee directed that the audit specifically look into the management of the specific project in the Ranchettes.

During Fiscal Year 2009, there were 15 active MSTU projects being managed by the Section. The Section had four staff members and a budget of about $370,000 for Fiscal Year 2009.

The Construction Coordination Division is responsible for monitoring construction within County-permitted subdivisions and within rights-of-way for compliance with plans, specifications, and permit requirements.
AUDIT OBJECTIVE

We conducted this audit to answer the following audit objective:

Did the County Engineer ensure that actions taken by the Engineering and Public Works Department concerning MSTU projects were in accordance with County Ordinances and Countywide, Department, and Division policies and procedures?

Management is responsible for establishing and maintaining effective internal control to help ensure that appropriate goals and objectives are met; resources are used effectively, efficiently and economically, and are safeguarded; laws and regulations are followed; and reliable data is obtained and maintained and fairly disclosed. We are responsible for using professional judgment in establishing the scope and methodology of our work, determining the tests and procedures to be performed, conducting the work, and reporting the results.

AUDIT SCOPE AND METHODOLOGY

Through interviews with Department and Division officials, including the Deputy County Engineer, review of Countywide and Department/Division PPMs, and the Division’s budget and complement report for Fiscal Year 2009, we prepared a risk assessment addressing the Section’s operational, reporting and compliance objectives. The risk assessment addressed objectives in the major areas under consideration for audit, including program objectives, methods used to attain these objectives, risks associated with attainment of these objectives, and internal controls implemented to mitigate these risks.

From this risk assessment, we selected the specific audit objectives cited above for which we prepared an audit program tailored to answer the audit objectives. The audit program focused on the procedures necessary to develop the evidence needed to answer the audit objectives and to provide reasonable support for our audit conclusions and recommendations. In developing the audit program, we obtained more information on the internal controls that we considered significant within the context of the audit objectives. In preparing the audit program, we also performed other limited tests, using such means as inquiries, observations, inspection of documents, and direct transaction tests.

The audit scope included active projects included in the Section’s inventory in Fiscal Year 2009. We selected one project undertaken in a County subdivision known as Palm Beach Ranchettes (Ranchettes) and one project undertaken in another part of the unincorporated area of the County known as Royal Palm Estates. The Ranchettes project began as four individually petitioned street projects which resulted in two design projects and one constructions project. Audit field work was conducted at the Engineering Services Division and the Construction Coordination Division’s offices from October 2009 through February 2010.

In responding to a draft of this report the Deputy County Engineer commented that the projects selected for the audit were not representative of the full range of the projects in the MSTU program. Our original plan included more MSTU projects in the scope of our work but we reduced the number of projects to be included due to time constraints. The scope and
methodology section of the report has been revised to reflect the combining of four separately petitioned street improvements into a single project instead of referring to three projects as included in the Deputy County Engineer’s response.

To answer the audit objective we obtained and reviewed relevant County Ordinances and Countywide, Department and Division policies and procedures to identify requirements for selecting, prioritizing, and preparing and monitoring scopes of work for MSTU projects. From these sources, we prepared a compliance checklist, interviewed selected Engineering Services staff, obtained and reviewed project files, and made field trips to the selected project sites. We also identified the construction requirements contained in the contracts, prepared a compliance checklist from the construction contracts, interviewed selected Construction Coordination staff, reviewed contract files, and made field trips to project sites.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

CONCLUSIONS

Except for the Findings and Recommendations listed below, for the projects reviewed, the County Engineer generally ensured that actions taken by the Engineering and Public Works Department concerning MSTU projects were in accordance with County Ordinances and Countywide, Department, and Division policies and procedures.

FINDINGS AND RECOMMENDATIONS

1. Need for Improvements in Project Management and Administration

The audit identified several issues relating to Department and Division management of the Ranchettes projects from a project management perspective and a consultant contract management perspective. These issues include:

A. Four individually petitioned street improvement projects were ultimately combined into a single construction contract,
B. The project description differed between the Agenda Item Summary and the design task agreement resulting in design of a street segment not supported by petitions and requiring additional design work to complete the intended design,
C. The Department initiated a petition process which was a deviation from its normal practice of responding to property owner requests,
D. A $60,276 design contract change was authorized prior to receiving Contract Review Committee (CRC) approval as required by Countywide PPM CW-F-050 “Change Order and Consultant Services Change Authority for Construction, Engineering and Architectural Contracts.”
A. Combining Individually Petitioned Street Improvement Projects for Construction Contracting

The BCC awarded a construction contract on September 9, 2008 for improvements to four streets in the Ranchettes area--Yearling Drive, Rodeo Drive, Pinto Drive and El Paso Drive. Each of these streets had begun the MSTU process as individually petitioned projects as early as 2002 and 2003. Between the initial petitions in 2002 and the contract award in 2008, residents and Department officials attempted to develop project proposals and groupings acceptable to a majority of affected property owners. By 2007, the four projects had been combined into two groups of two projects for design and petitioning purposes. The four projects were combined into a single construction bid package prior to initial construction advertising in May 2008.

There is no guidance in either the MSTU Ordinance or Department PPMs addressing the issue of combining individually petitioned street improvements into one or more projects for design or construction. According to Department officials, it has not been unusual for property owners on one end of a street to support a street improvement petition while the other owners vote against the petition. In such cases, the Department has “sized” the project to match the owners’ wishes. In our view, guidance at either the Ordinance or Department PPM level may be appropriate to handle any future cases such as what occurred in the Ranchettes.

B. Agenda Item Summary and Design Task Agreement Differed in Description of Project to be Designed Resulting in Design of a Street Segment not Supported by Petitions and Requiring Additional Design Work to Complete Intended Design

The BCC approved a $144,156 consultant task agreement to design portions of Rodeo Drive and Pinto Drive between Fargo Avenue and Blanchette Trail in the Ranchettes area on August 16, 2005. The Agenda Item Summary described the two projects as Rodeo Drive from Frontier Drive to Blanchette Trail (the east half of Rodeo) and Pinto Drive from Fargo Avenue to Blanchette Trail (all of Pinto). (See the location sketch at Attachment A.) The task agreement identified the project as “paving and drainage improvements to Pinto Drive and Rodeo Drive, from Fargo to Blanchette.” However, other consultant documentation in the task agreement described the project as “PINTO 2700’ and RODEO 5400’ from Fargo to Blanchette.” This description is exactly opposite the description given in the Agenda Item Summary. The consultant proceeded to design the project as described in their task agreement. This discrepancy was not discovered until March 2008 by the MSTU Coordinator.

When the discrepancy was discovered, various Department officials discussed possible courses of action to respond to the situation. There were two primary issues. The first issue was what to do with the section of Rodeo Drive that had been designed but was not supported by petitions (the western half of Rodeo) discussed in Item C below. The second issue was how to deal with the section of Pinto Drive that was supported by petitions but had not been designed (the western half of Pinto) discussed in Item D below.
C. Department Initiates Petition

Department officials had to determine whether to discard the portion of the design not supported by petitions (the western half of Rodeo) or petition the property owners on that portion on their own to gain approval from the property owners to include that street in the project. The Deputy County Engineer told us that normal Department practice is to be reactive to petition requests, not to initiate such requests. However, the decision was made to solicit petitions from the affected property owners (the western half of Rodeo Drive) in March 2008. This portion of Rodeo Drive had been excluded from the original design as described in the August 2005 agenda item because it had not achieved majority support.

The MSTU Ordinance requires a majority of affected property owners support an assessment project. The Ordinance defines a majority as “no less than fifty-one (51) percent of the owners in number of the lands liable to be assessed for the improvements hereunder.” 13 of the 24 property owners on the western half of Rodeo Drive voted “yes” on the petitions. Department officials proceeded to include this section of Rodeo Drive (the western half) in the construction contract advertising package.

D. Consultant Requested to Begin Work Prior to Approval of Task Agreement

Countywide PPM CW-F-050 requires CRC approval of consultant task agreements in excess of $50,000 and not more than $100,000 subject to sufficient budget in the project account.

Department officials verbally requested the consultant in March 2008 to add the western half of Pinto Drive to the project plans. This request resulted in a $60,276 design task agreement. There was insufficient budget in the project at that time to fund the task agreement which would have required BCC approval of a budget transfer. The BCC approved the $60,276 design task agreement for the additional design work July 22, 2008 as part of an agenda item which also included a budget transfer providing funding for the task agreement. The task agreement was not submitted to the CRC for approval. BCC approval was received several months after the design work was completed.

The design task agreement covered the portion of Pinto which was included in the project description in the August 16, 2005 Board agenda item but excluded from the consultant task agreement supporting that agenda item. In a memo to the Deputy County Engineer dated April 22, 2008, the MSTU Coordinator reported that the consultant delivered the drawings on April 15, 2008 and that preparations were being made for the pre-advertisement meeting and finalizing bid documents. The Division Director stated that the construction contract was first advertised on May 11, 2008. Bids were opened on June 17, 2008 and the construction contract was awarded on September 9, 2008.

Recommendations:

(1) The County Engineer should evaluate current Department practices and procedures regarding combination or consolidation of MSTU petitioned projects and seek direction from the BCC regarding same.
(2) The County Engineer should reemphasize the need for Department staff to ensure that project scopes as identified in consultants’ documentation match the approved project scopes.

(3) The County Engineer should consider formalizing Department practice into a written policy regarding initiating petitions by staff.

(4) The County Engineer should reemphasize the need for Department staff to comply with the requirements of Countywide PPM CW-F-050 and ensure that appropriate approvals are obtained prior to authorizing consulting work to begin.

Management Comments and Our Evaluation

In responding to a draft of this report the Deputy County Engineer disagreed with recommendation #1 and stated that projects were combined when they were in the same vicinity in order to save money. She also stated that the BCC should not have to get involved in this decision. While the Deputy County Engineer is most likely correct as to the cost benefits of combining projects, we continue to believe that this practice should be incorporated into Departmental policy.

The Deputy County Engineer agreed with recommendation #2 but has not yet provided a time frame for implementation.

The Deputy County Engineer disagreed with recommendation #3 and stated that the actions taken by staff relative to the Ranchettes street improvements were for a one-time and very unusual situation which had never before occurred in the MSTU program. She also stated that once the Department implements recommendation#2 above the situation creating the need for the Department to initiate a petition should not occur again.

The Deputy County Engineer agreed with recommendation #4 but has not yet provided a time frame for implementation.

2. Deleting Construction Contract Work Without a Change Order

On May 13, 2008, a citizen from the Ranchettes pointed out to a County Commissioner that construction plans for the MSTU project which had been approved in the Ranchettes included a T-style pavement that intersected the road by his property on Fargo Avenue. He stated that he believed this T-style pavement could potentially cause a drainage issue on Fargo Avenue. The Commissioner forwarded these concerns to the Department for its review. On May 14, 2008, the Deputy County Engineer told Division staff of the problem with the patches of asphalt intended to be placed within Fargo Avenue. The MSTU Coordinator told the Deputy County Engineer that staff would amend the construction plans during the Pre-Construction meeting to remove the pavement at each of the four intersections of Fargo Avenue. The Engineering Services Division Director told the Deputy County Engineer on May 19, 2008 that the proposed pavement would be terminated on the east-west roads at the radius return, prior to reaching the right of way for Fargo Avenue.
The audit found that the T-style pavement was included within original construction plans which were included in the construction contract awarded on September 9, 2009. However, at the Pre-Construction meeting held on October 14, 2008, the MSTU Coordinator advised the contractor that construction should be ended at the east right of way line for Fargo Avenue. However, the audit found that no formal change order had been issued, and that construction of the T-style pavement at the four intersections with Fargo Road had indeed begun with excavation work. In this regard, we found that reports prepared by the Construction Coordination Division noted that the contractor had excavated for sub grade at the intersection of Pinto Drive and Fargo Avenue on December 18, 2008 and continued to finish base rock on Pinto Drive and Fargo Avenue on December 22, 2008.

The audit also found that construction of the T-style pavement had ended prior to the pouring of asphalt. We were unable to determine the circumstances whereby construction had been stopped prior to completion. The Construction Coordination Division Director told us that he received verbal instructions from the Engineering Services Division Director to terminate the T-style pavement. The audit was unable to determine when the actual construction of the T-style pavement was terminated.

**Recommendation**

(5) The Engineering Services Division Director should ensure that changes to construction contracts are supported by approved change orders and that important decisions made about road design and construction are put into writing in a timely manner and made a part of the project file(s).

**Management Comments and Our Evaluation**

In responding to a draft of this report the Deputy County Engineer agreed with the recommendation but has not yet provided a time frame for implementation. She also explained her reason for removing the T-style pavement was not related to drainage concerns but was intended to keep the actual road work within the road right-of-way the County would be accepting responsibility for.

**3. Non-Compliance with County Ordinance on Project Petitions**

County Ordinance No. 94-11, Section 26-30 requires that petition forms sent to property owners are approved by the County Attorney and that these petitions include a statement that the property owner recognizes that the BCC will make the determination of special assessments at a public hearing.

According to a document entitled “Palm Beach Ranchettes Petition History,” a total of 20 petitions were provided at various times to property owners for the four streets that ultimately comprised the construction project reviewed within the Ranchettes. We were told by Section staff that petitions were not sent for the Royal Palm Estates project because it was approved by the BCC as a priority project recommended for funding by the Countywide Community Revitalization Team (CCRT). The audit found that 14 of the 20 petitions sent to the Ranchettes
property owners were included in project files; however, none of the 14 contained either (a) a statement that the property owner recognizes that the BCC will make the determination of special assessments at a public hearing, or (b) approval by the County Attorney’s Office.

The Assistant County Attorney representing the Department told us that, in her view, the Ordinance language required the County Attorney to approve the form of the petition and not each individual petition sent out. She also said that, during her tenure (more than 20 years) with the Department, she did not recall ever approving a petition form.

**Recommendations:**

1. **The Engineering Services Division Director should ensure that MSTU petitions sent to property owners comply with County Ordinance No. 94-11.**
2. **The Engineering Services Division Director should obtain clarification from the County Attorney as to the requirements of Section 26-30 of the Ordinance as to approval of petitions and ensure that such approvals are documented in the Division files.**

**Management Comments and Our Evaluation**

In responding to a draft of this report the Deputy County Engineer agreed with both recommendations but has not yet provided a time frame for implementation. She also stated that any revisions to the petitions will be documented and sent to the County Attorney for approval.

**OBSERVATION**

**Drainage Issue**

As mentioned in finding #2 above, a Ranchettes citizen property owner believed that construction of T-style pavement could potentially cause a drainage issue on Fargo Avenue. Because of this citizen’s expressed concerns to both Department management and the BCC, we developed information contained in project files discussing the issue. That information follows:

On June 6, 2008, in anticipation of a potential MSTU project on Fargo Avenue, the MSTU Coordinator informed the Deputy County Engineer that he had discussed a task with Civil Design, Inc. (CDI) for design services and permitting. On April 3, 2009, CDI contacted the MSTU Coordinator explaining that they and the Lake Worth Drainage District believed that the existing drainage system on Fargo Avenue would likely not be utilized for the proposed project. At that time, the County’s work at the four intersections on Fargo Avenue for the projects completed within the Ranchettes had been accomplished.

CDI described the existing system on Fargo Avenue stating that “The ditches that provide drainage for Fargo have not been maintained and are extremely overgrown…the drainage structures and the pipes are full of sedimentation…approximately 100+ feet of the newly constructed roadways do not have positive drainage. Therefore, the Fargo Avenue roadway improvements should provide positive drainage for these portions of the east-west roads…to do
this without adding an excessive number of drainage structures, we may need to lower Fargo and
direct the runoff from the side streets into the Fargo system.”

In the Division’s project files, we found photos taken on April 3, 2009 of the four intersections
on Fargo Avenue, in which the roads appeared to be dry. An attached note stated that “Previous
to the date of the photos a significant rain event took place on March 13, 2009. During and just
after the rain event, there was no evidence of impeded flow in the swales or roadway of Fargo
noted by project personnel on the project nor reported to the County or the contractor by area
residents. The finished base onto Fargo from Pinto, El Paso, Rodeo and Yearling was matched
to existing roadway of Fargo.”

Despite the photos and the note, on April 7, 2009, when the Division requested BCC direction
regarding potential road paving projects in the Ranchettes, including Fargo Avenue, the Agenda
Item Summary stated that “Drainage improvements in the Fargo right [of] way should have been
included in the current Ranchettes project to address the water flowing from the east/west roads
into Fargo. Those improvements are required and will be installed.”

On May 21, 2009, a survey of the elevations along Fargo Avenue and at the intersection areas
was completed by the Division’s Survey Section staff. During the audit, we compared the
resulting survey maps with “Plan and Profile” grade maps prepared by the design consultant
prior to construction. Our comparison suggested that the elevations on Fargo and the other
east/west streets were essentially the same after the construction effort as they were during the
design effort. In our original audit planning for this assignment, we had considered having an
independent professional Engineer provide an assessment on whether drainage had worsened on
Fargo Avenue due to the projects undertaken in the Ranchettes. However, as audit work
proceeded, we decided not to engage the services of an independent Engineer because, in our
view, little if anything would be accomplished because conditions at the construction site had
changed during the considerable time elapsed since project completion, and the surveys we
reviewed suggested there had been no significant elevation changes to the roadways.

On June 2, 2009, the BCC decided to go forward with the paving of Fargo Avenue. However, on
July 7, 2009, the BCC decided to delay the project until such time as the MSTU program is re-
established, and subject to a new vote by the property owners.

Joseph F. Bergeron, CPA, CIA, CGAP
Internal Auditor
(Exit Conference date)
ADMINISTRATIVE RESPONSE
Inter-Office Memorandum

Date: May 21, 2010

To: Joe Bergeron,
   Internal Auditor

From: Tanya N. McConnell, P.E., Deputy County Engineer

Re: MSTU Audit

I provide the following in response to the audit report on the MSTU program. The headings correspond to those in your report.

Audit Scope and Methodology:
The projects selected for the audit did not appear to be representative of the program. While the Ranchettes projects had to be a part, the other project chosen should have been one that followed the same procedures, i.e., petitioning. The Royal Palm Estates project was dictated by the Board. Using a more similar project would have shown whether or not the procedures are always varied or whether the Ranchettes projects just happened to be the odd case. It is also misleading calling the Ranchettes as three projects instead of one. Again it gives the impression that the majority of our petitioned projects are messed up (3 for 3) where this is not actually the case. I find this to be extremely misleading.

1. Need for Improvements in Project Management and Administration Findings and Recommendations:
A. The individual projects were combined into a single construction contract to save the residents money. In the construction industry, as a general rule, the larger the quantities the lower the price. Combining the projects for construction in no way compromises the designs, the petitions, or any other aspect of the jobs. It is not a decision that even warrants, or should warrant, debate. Combining the projects essentially
consists of adding the quantities together to get lower prices to pass on to the residents, and it saves considerably on lump sum items such as mobilization.

C. The Western portion of Rodeo Drive had initially been petitioned in 2003 with insufficient positive response to go forward. Actually there was only one positive response and nothing else. That segment was again petitioned in 2005 (the letter was sent to Andrew Schaller) and we have no record of responses. The decision was made to petition them once more instead of throwing out the perfectly good design that had been mistakenly done. While this does deviate from the practice, it was a one-time decision to address an unusual situation.

D. The $60,276 was a task order against an annual contract and would have gone to the Change Order Committee except for the fact that a budget transfer was required. The consultant, being aware of the circumstances and errors on everyone’s part, agreed to proceed with the design at risk in an effort to not delay the bidding of the project.

A. **Combining Individually Petitioned Street Improvement Projects for Construction Contracting:**
There should be some clarification of the statement that “Department officials attempted to develop project proposals and groupings acceptable to a majority of affected property owners”. This gives the impression that an attempt was made to circumvent the process and “fudge” the percentages. That is certainly not the case. A majority response was obtained for each segment of roadway. The grouping, as you call it, for design and for construction was for no other reason than to save costs. You also state that the four projects were combined into two for petitioning purposes. Petitioning was already done before the design started and positive petitions had already been received for each leg (except for the one with the error).

D. **Consultant Requested to Begin Work Prior to Approval of Task Agreement:**
As previously explained, the consultant worked at risk to save time since the projects were ready to be bid. The Board had
already approved the need for the design though not the design fee. The task order approving this cost would normally have gone to the Change Order Committee (CRC) and never to the Board except for the need for a budget transfer. At that time, we chose to include the fee approval to save the additional time that would have been needed to then go back to the CRC. The choice to start work ahead of the approval was made by the consultant upon our request as he had worked with us for a long time, was aware of the errors made, and wanted to assist us in keeping the rest of the project on schedule.

Recommendations:

(1) Disagree. The BCC should not have to get involved in this decision. Projects are combined when in the same vicinity in order to save money. It in no way whatsoever compromises the intent of the MSTU program or any of its approved ordinances and procedures. All individual segments must first have the required majority approval of its residents.

(2) Agree.

(3) Disagree. It has never been the intent of the MSTU program for staff to initiate the petitions. As explained, this was a one-time situation, very unusual, which had never before occurred in all the time of the MSTU program, and is not likely to occur again since no such error should occur again once we follow your recommendation in (2) above.

(4) Agree.

2. Deleting Construction Contract Work Without a Change Order:
You state that the citizen indicated that the T-Style pavement could potentially cause a drainage issue though my recollection of when he brought the issue to my attention was more of a maintenance concern, with no mention of drainage. My reason when directing staff to pull back work, had nothing whatsoever to do with drainage. The intent was to keep the work within the road right-of-way that the County was accepting responsibility for and to not go beyond that.
Recommendations:

(5) Agree.

(6) Agree.

(7) Agree. Any revisions made to the petitions will be documented and sent to the County Attorney for approval.

I appreciate the opportunity to respond to your audit report. As always, we welcome your input.

Cc: George T. Webb, P.E., County Engineer
    Steven B. Carrier, P.E., Assistant County Engineer
    Marlene Everitt, Esq., Assistant County Attorney
    Charles Rich, P.E., Director, Engineering Services