

CITY OF TAMPA, FLORIDA

**Growth Management and Development Services,
Construction Services Division**

Cost of Services and Process Improvement Study

FINAL REPORT

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MAXIMUS
1033 Skokie Boulevard, Suite 350
Northbrook, Illinois 60062
(847) 513-5508

Bruce Cowans, Project Director
Ani Saldaña, Project Manager
brucecowans@maximus.com
anisaldana@maximus.com

1. INTRODUCTION

Purpose of Study

The two purposes of the study are to address:

- 1) the cost of construction services in relation to current prices charged for those services - is the current fee schedule an accurate reflection of how the Division serves the public?
- 2) Stakeholders' request to review process improvement opportunities pertinent to Construction Services.

Cost of Services

Building fees in many locations have traditionally been set based on structural valuation. This method is difficult to correlate to services provided. If the structure of the fee schedule does not match the way the City works, customers may be over or under charged.

Other benefits from charging fees that fully reflect the cost of providing the underlying services are to:

- Identify the cost and staffing implications that result in increasing budgets
- Shift the cost to non-tax payers whenever possible, since some applicants live outside the City

NEXUS is a legally defensible, cost-based application that produces three fee schedules:

- New Construction permits (by occupancy type and size based on the International Building Code)
- Stand-alone permits (including mechanical, plumbing, and electrical)
- Miscellaneous permits (essentially all other building fees)

Process Improvement

The Division selected four processes where they found the most problems and inefficiencies. We focused on interviewing, flowchart-mapping, and analyzing those particular areas. The four processes are as follows:

Process 1: A 25,000 square foot office with Project Development (PD) approval by City Council and:

1. A preliminary site review with a DRC for a planned development with a deviation in the submitted plans.
2. Work in the Right of Way requiring the inclusion of the Department of Public Works – Transportation

Process 2: A 25,000 square foot office including plan review and inspections by the Fire Marshall's team.

Process 3: A 4,000 square foot single family residence located in a Historic or Overlay District and:

1. Grand trees to be removed and/or trimmed at the building site.
2. A Historic and/or Overlay District review and approval by Architectural Review & Urban Design Division.

Process 4: A 4,000 square foot single family residence with specialist inspectors by trade.

2. METHODOLOGY

Cost of Services

Hourly Rate Calculation: To determine the total available hours, we asked about compensated absences such as vacation, holiday and sick days, as well as authorized breaks, training and other commitments that reduce staff's availability for assignments to serve customers. The Division's hourly rate includes both direct and indirect costs, using the latest available data. We also included costs incurred by various other City departments to provide construction fee services. In this case, those departments specified which staff members and what percentage of their time in a year were involved in construction Services.

Time to Perform Services: Labor effort is the single largest category of expense. NEXUS breaks the service down to its task components, which we feel leads to more accurate time estimates. In some cases,

we requested more detailed information on certain occupancy types (professional office, factory industrial and custom homes) as a basis for scaling for the rest of the occupancy types. We reviewed the material with the Division, providing ample time for comments, edits and questions. Division staff took the time to understand the method of the study and to refine the data to ensure good technical information.

Validation of Estimates: NEXUS breaks down each service to its components and in the case of new construction, to the level of square footage. We feel that breaking down the process in this way leads to more accurate time estimates. The Division was very thorough in their approach to arriving at their time estimates. Staff had many weeks to review the numbers and refine them. We also validated these estimates by comparing them to available hours to do the work.

Process Improvement

Interviews with City staff: Once the four processes were established, we assembled separate interview groups with the City staff involved in each process. The first step was to determine what level of detail was needed. At too high a level, we could miss important opportunities to improve, but at too detailed a level, we would waste significant time and money analyzing minutiae of dubious value. City staff signaled where they encountered problems and we proceeded to drill down in those areas to understand the issue in more detail.

Process Flowcharts: Using the data from our interviews with staff, we created an “as-is” Visio flowchart for each of the processes. Our flowcharts show two levels – one is a bird’s eye view perspective of the entire process, and the second drills down to each step and sub-step in the process to show who does what, how long it takes, and how much time elapses for the step to occur (ie. does it take three or five days to review an application?). Each City Department/ Division is color coded in the flowcharts to highlight the areas of communication amongst them. Our legend distinguishes the colors and provides a description of various acronyms we use throughout. City staff took time to review the flowcharts to make sure they accurately reflected their current workflow.

Improvement Opportunities: We reviewed the current process flows with each interview group to discuss specific opportunities for improvement. In addition to our recommendations, City Staff presented a list of their own suggestions. We developed new sets of flowcharts for each of the four processes to show the “to-be” scenarios based on some of the recommendations. We then used the data we have from the NEXUS fee study to determine, as much as possible, any cost benefit analysis on each recommendation presented.

3. FINDINGS

Cost of Services

Financial Reconciliation: The Division currently recovers 36% of its cost to provide construction services. The table below shows the costs received and incurred by Building Fee Category. “Non-fee activities” are essential services or tasks performed within the Division for which there are no fees, permits or applicants.

Revenue Surplus/Subsidy				
Fee Category	Computed Rev from Current Fees & Volume	Computed Rev from Actual Cost & Volume	Current Public Subsidy	% of Current Revenue Recovered
New Construction	\$ 3,765,468	\$ 9,352,237	\$ 5,586,770	40.3%
MEP's	\$ 448,941	\$ 1,480,372	\$ 1,031,431	30.3%
Miscellaneous Items	\$ 633,345	\$ 2,654,099	\$ 2,020,754	23.9%
Non-Fee Activities	\$ -	\$ 125,285	\$ 125,285	0.0%
Total Revenues	\$ 4,847,754	\$ 13,486,708	\$ 8,638,955	35.94%

Staff Reconciliation: The percentage FTE (Full-Time-Equivalent) difference denotes the variance between how many hours Division staff have available to work versus the total calculated consumed hours. Since workload depends heavily on permit volume, which fluctuates from year to year, normally we expect a range

of +/-10%. The table below shows the Division at a percentage difference of -9.7% of available versus consumed hours, which is within the reasonable range.

Adjusted Consumption of Productive Hours			
Productive Hours Available	Calculated Consumption of Hours	Difference	% Difference
159,272.3	174,791.1	-15,518.8	-9.7%

Productive Hours Available: Paid hours minus paid leave and administrative duties.
 Consumption of Hours: Sum of time estimates multiplied by the number of permits.

Division Hourly Rate: The Division’s fully loaded hourly rate of \$81.70 includes both direct and indirect costs, using the latest available data. We also included costs incurred by various other City departments to provide construction services. Similar Divisions nation-wide have hourly rates ranging from \$80-\$120. We believe that being in the low end of the spectrum demonstrates already-established efficiencies within the Division.

At the Division’s request, we provided the fully loaded hourly rate and cost of permits excluding the cost from other City departments. We determined this new hourly rate to be \$75.74. The attachments in this report provide two model extracts: version FY09 is shows the cost of permits excluding other City department costs in the hourly rate, and version FY10 is shows the cost of permits including other City department costs in the hourly rate.

Process Improvement

Throughout our visits with Construction Services Division staff, we realized that there were two evident and critical recommendations that our report needed to address. They are described in the paragraphs that follow.

Acquire a New Permitting System - Our initial impression was that the Division can not expect any significant improvements in efficiency and internal communication until it acquires a system that is up to date and suitable the necessary operations of a Building Division. Currently, the Division manages to perform with a 15 year-old legacy system which makes internal communication amongst staff difficult. This especially becomes apparent when there is coordination between the Division and other City departments in a different location. This situation creates more work for City staff as well as for the applicant, who is forced to re-submit basic information of their projects to each department it corresponds with. The current system also does not provide management with the adequate reporting tools it needs to run the operation. Instead, Division staff have had to find ways to work around the system’s many deficiencies, creating external logs and shared drives in order to improve work flow and efficiency.

We strongly recommend that the Division work towards acquiring a more adequate system. In the meantime, we suggest that it establishes web-enabled collaboration sites where applicants and City staff can send and review shared information. The Division is also looking into the opportunity to allow applicants to submit their plans electronically.

Re-location of co-workers - Whereas the face to the applicant is mostly the Construction Services Division, there are various other City Divisions and Departments involved in the permitting process. During our group interviews, City staff had the opportunity to be physically seated together, having a discussion on their workflow concerns. It was apparent that, especially amongst inter-departmental staff who worked in separate locations, simply having the ability to communicate in person alleviated many tensions and confusions that had been present before.

Clearly, with an already limited system, trying to collaborate extensively and effectively with co-workers that are located in a separate location becomes a very difficult and frustrating task. As was proven by our discussion groups, simply conferring about project issues and operational ideas amongst staff while being physically present in the same room can go a long way.

Long-term solution (3+ years): Ideally, the City would obtain a building to host all the City departments that are in constant collaboration. Applicants would then have a “one-stop-shop” to submit all their project application documents and inquire on the status or issues that may arise.

Short-term solution (FY09): We realize that the long-term solution is a recommendation that would take several years of planning re-organizing. So in the meantime, we recommend that the City re-arrange staff to co-locate several particular staff members in other departments which provide extensive support and/or collaboration with Construction Services Division staff. In particular, we believe that co-locating someone from the Parks and Recreation department would rid of many current inefficiencies and misunderstandings.

Other process improvement recommendations are sited in the attached tables, flowcharts, and cost/benefit analyses. We gathered all recommendations as a result of discussion groups with City staff. Many of the suggestions on work-flow came from staff once they had the opportunity to visually see the process flows and identify issues with their co-workers. To the extent that it was possible, recommendations are visually represented in the “to-be” flowcharts. Our comprehensive list of recommendations is provided in a table format which is attached to this report.

Report Attachments

The following study results and work documents are attached to this report:

- Two different versions of the fee study model. Version FY09 shows the cost of permits excluding other City department costs in the hourly rate. Version FY10 shows the cost of permits including other City department costs in the hourly rate.
- “As-is” Visio flowcharts of the current work-flow for each of the four processes identified by the Division.
- “To-be” Visio flowcharts for each of the four processes that we studied. Key changes from one version to another are marked in red font. See the Flowchart legend, also attached, for guidance on acronyms, color shading, and descriptions of the various shape and arrow types.
- Tables which describe all recommendations along with any cost/benefit analysis whenever possible.

Process Improvement Recommendations
for the City of Tampa, Florida
Construction Services Division

Recommendations identified (in red) in the "to-be" process flowcharts where a cost benefit analysis can be identified.

Note: The cost savings identified in the table below may not include all cost savings consequent of the recommended change.

	Process	Sub-Process	Recommendation Description	"As-is" Cost	"To-be" Cost	% Cost Savings
1	3	Grand Tree Removal	Co-locate Parks and Recreation staff with CSD staff.	\$ 48	\$ 20	58%
2	4	All Inspection Sub-Processes	Establish a Comprehensive Inspector to conduct all residential inspections for one and two family dwelling projects in order to provide a single contact for all inspection related issues resulting in improved productivity and efficiency.	\$ 816	\$ 707	13%
3	1,2	Plan Review (Site and Building)	Develop comprehensive Plan Reviewers in order to eliminate the need for separate reviews by the Commercial plan review team resulting in improved productivity and efficiency.	\$ 208	\$ 114	45%
4	1,2	Fire Inspections	Fire Reviewers and Inspectors should follow the CSD standards, procedures, and processes in order to create a consistent permitting process resulting in improved productivity and efficiency. For example, automated load balancing for all inspectors would eliminate the need for staff to manually perform this function.	\$ 114	\$ 38	67%

Process Improvement Recommendations
for the City of Tampa, Florida
Construction Services Division

Recommendations for which a cost benefit analysis cannot be clearly defined based on the nature of the change.

Short-term implementation

Note: This does not imply that these recommendations have less of an impact on efficiency and cost savings, just that the exact figures cannot be defined based on the data available.

	Process	Sub-Process	Recommendation Description
1	1,2,3	Applicant Sign-In	Obtain a customer queuing system in order to assist in improving customer satisfaction, productivity, and efficiency.
2	1,2,3	Applicant Sign-In, Certificate of Occupancy Necessary Documents (NOCs)	Cross-train Customer Service Representatives and Permit Technicians to perform all intake and permitting functions in order to process all customer requests resulting in improved productivity and efficiency.
3	1,2,3	Plan Review	Create an automated assignment "sheet" for both residential and commercial projects. This would allow staff to check the status from their desks and share all data electronically.
4	1,2,3,4	Not applicable	Explore new and more reliable package delivery messenger services.
5	1,2	Preparation of Plans	For threshold projects, create a mandatory Technical Assistance Consultation with the project's design professional(s) if the plans are disapproved during the initial submittal. The Technical Assistance Consultation will serve as a "Red Line" meeting in order to eliminate the need for a full 2nd plan review as only Red Line changes will be reviewed.
6	1,2	Not applicable	Create a position to serve as the CSD liaison for threshold or special projects in order to provide the customer with a single CSD contact for the duration of their project in order to provide enhanced service to our customers.
7	1,2,3	Applicant Sign-In	Add a kiosk to the Sign In process to allow customers to sign themselves in.
8	1,2,3	Applicant Sign, Project Intake	Allow contractors to input their information themselves and validate the entered information eliminating the need for staff to conduct a contractor check.
9	1,2,3,4	Not applicable	Allow customers to access, review and/or print project/plan comments, permits, Certificates of Occupancy, etc.
10	1,2,3,4	Not applicable	Allow customers to auto-schedule Preliminary Plan Review appointments, electronically submit plans/documents, and pay all CSD fees online.
11	1,2,3,4	Applicant Sign, Project Intake	Auto-populate information entered into the CSD fillable forms used by staff and customers.
12	1,2,3,4	Inspections	Enhance the current system to incorporate an ARC Inspection at key point(s) in the building process to make certain that all design commitments are being kept. The current system should be enhanced to notify the ARC if the building plans change during the construction phase.