

# Parkfairfax Technology Committee

## Report for January 2012 Board of Directors Meeting

Submitted by Rick Fletcher (Chair)

### Introductory Notes

*This report covers mid December through early January 2012, with minutes from our regular meeting plus various appendices providing more information on the current Parkfairfax work order process.*

### January 5, 2011: Technology Committee Regular Meeting (7 p.m.)

#### Executive Summary

At this meeting, the highlights were as follows:

- *Improving the Parkfairfax Work Order Process* – we discussed work order input checklists, status of plans to do a pilot usage of the checklists; status of the prototype online work order request form, status of planning for trial of a TOPS-created website for work order tracking, and further reviewed management's current work order tracking process; related appendices are attached.
- *Other business* – we briefly recapped the need for collaboration management software to better support Parkfairfax management processes, including work order processing.
- *Next regular Technology Committee meeting* – The committee voted to cancel the February meeting due to schedule conflicts. Our next meeting is Thursday, March 1, 2012 at 7:00 p.m.

#### Minutes

1. Attending: Dave Bush (Board Liaison to Technology Committee), Alice Cave (Board Liaison to Communications Committee and Technology Committee member), Sarah Clark (Parkfairfax Assistant General Manager), Rick Fletcher (Technology Committee Chair – Moderator), George Gardner (Parkfairfax General Manager), and Jan Schrader (Communications and Technology Committee member).
2. Improving the Parkfairfax work order process
  - a) Review any management changes to the work order input checklist
    - There were no changes to the checklist from the draft we reviewed in November.
    - Reviews of the checklist will continue through and after its trial usage.
  - b) Discuss progress of a prototype online work order request form.
    - Sarah reported that no further progress was made on this in December.
    - Elaine continues to work on this prototype as time permits, given her other work.
    - Rick noted the importance of ensuring congruence between the prototype's input data and the work order request input checklists, with agreement from management.
  - c) Discuss planning for management's pilot usage of the work order request input checklists in work order request intake by phone or email.
    - Sarah noted that a second service coordinator was very recently hired, which was identified by management last month as a pre-condition for beginning this pilot.

- George confirmed that the pilot will occur during the first two weeks of February.
  - Rick recapped the goals of the pilot:
  - Have a subset of staff use the checklists when taking work orders by phone or email.
  - Note impact of using checklists on time to process requests, accuracy of request inputs.
  - Note any areas where checklists need to be corrected/improved.
- d) Discuss planning for a trial of a TOPS-created website for online work order tracking
- At last month's meeting, we confirmed that TOPS offered a service to build a work order tracking website with a 30-day money-back guarantee.
  - Sarah reported that TOPS needed a 7-day lead time to build the site for us.
  - Sarah reported that the TOPS site could be integrated into another website via a link.
  - George outlined some concerns about a) what the site seemed to offer and b) use of the site by unit owners to track work orders; concerns included the following:
    - The TOPS-built site would report an "Open" work order without a finer-grained status; Parkfairfax manual work order tracking does provide finer-grained status, but the site would not integrate that information as it isn't entirely within TOPS data sources.
    - Because Parkfairfax now must use two TOPS "communities" (name spaces) to categorize work orders (because TOPS limits work order numbers to 7 digits, and Parkfairfax "ran out of" work order numbers in October 2011; see previous months' Board reports for more), owners would need to deal with both: one community contains work orders before October 1, 2011, the other contains more recent orders.
    - Because one Parkfairfax work order can spawn one or more other related work orders, simply tracking work orders by number isn't always sufficient; ideally, there needs to be a way to track work orders related to other work orders.
    - Website users might find using this TOPS-created tracking site difficult/confusing.
  - The committee debated the merits of a proposed trial.
  - Rick recapped the key goals of the trial: to determine what the TOPS-created tracking site can and cannot offer Parkfairfax regarding improved work order tracking support.
  - Rick and other attendees noted that the trial was not intended as a widespread exercise for Parkfairfax website users, but rather a limited trial of the TOPS-created website by a much smaller subset of people.
  - After further debate, attendees reached agreement on the following regarding the trial:
    - It would be useful to learn more about what the TOPS-created website offers us.
    - Committee members and attendees could serve as the trial users.
    - The trial could be deferred until March 1, 2012.
    - Committee members and attendees would probably learn a lot more about both TOPS work order tracking capabilities and limitations, and management's current work order tracking process, through this trial.
    - From last month's minutes, a recap of what Parkfairfax would agree to for the trial:
      - TOPS would build, host, and support this website.
      - Startup cost: \$100.
      - There is a 30-day money-back guarantee.
      - Monthly usage and support cost: \$25/month.

- One-year contract required.
  - See the related, attached appendices supplied by management.
  - Given that, as management has told us, TOPS offers a 30-day money-back guarantee for this site, the trial would cost Parkfairfax nothing if we a) found the TOPS site not useful enough vs. its cost, and b) asked for the refund.
  - Therefore, management should plan on taking steps to enable a trial of a TOPS-created work order tracking website by committee members and attendees, to begin in early March 2012.
- e) Further discussion of improvements to management's current work order tracking process
- Background:
    - During the past few months, the committee has been reviewing management's current process for tracking work orders.
    - Motivations for this review include identifying opportunities for both "internal" process improvement, and adding support for online work order tracking on our website.
    - At our October meeting, Assistant GM Sarah Clark drafted and presented a very useful summary of management's current process for tracking work orders (see the related appendix to our October 2011 report to the Board).
    - This summary, and follow-on committee discussions, identified process steps where
      - One person must typically perform a step before others can perform subsequent steps are possible, raising issues of scalability and a single point of failure.
      - Manual work order tracking and hand-written data recording occur, such that there are no electronic data for work orders at some points in the process.
      - Manual paper work order transmittal; according to the summary, "there have been times when work orders have been lost from {their} route from the main office to the maintenance yard" (though the summary also said lost work orders can be recovered from transmittal sheets).
  - George raised the following points related to our review:
    - Work orders are rarely lost, in his experience.
    - Management's current work order tracking process works well overall; Brian gets a weekly status for each work order, and staff is generally handling them well.
    - The committee's attempts to improve the current work order tracking process might complicate management's work and result in the need to hire additional staff to perform additional and/or modified work order tracking steps.
    - Many work orders are completed quickly, and may not need online tracking.
    - More about cross-indexing of related work orders, here is an example:
      - A work order is created for to a request to assess water damage in a unit.
      - Once in the unit, the crew finds plaster damage that needs to be repaired.
      - A second work order is created to handle the plaster repair.
      - The second work order, related to the first one, is cross-indexed manually in management's current tracking process, yet TOPS doesn't provide cross-indexing capabilities as part of its "out of the box" functionality.
    - Staff does need to continually check TOPS data when handling work orders, and instances where this is not done diligently enough can create problems.

- TOPS constraints (including data it accepts, the work order number limitation issue (see above re the two TOPS “communities” Parkfairfax must now use) may limit process improvements and online work order tracking functions/usability.
  - Concern about how to translate/map management’s current work order tracking process, including its workarounds for TOPS issues, to an online work order tracking system.
- Committee members and attendees discussed the direction of our process review.
  - Dave noted that last month, we discussed the manual steps and bottlenecks in management’s current work order tracking process, and agreed they exist and could benefit from improvements.
  - Rick said that the intention of our process improvement effort was to analyze the current process and suggest incremental improvements, working with management to help ensure improvements could be implemented without major negative impacts.
  - Rick also noted that he appreciates management’s concerns about the impacts of process reengineering, and wants to ensure we do incremental analysis and improvements in collaboration with management to mitigate those impacts.
  - Dave asked for a recap of why Parkfairfax management continues to use TOPS, given that its limitations were impacting us in obvious and negative ways (e.g. the “communities” issue for one).
  - George responded that TOPS remained in use at Parkfairfax because
    - TOPS is the leading condominium data management application available.
    - Parkfairfax now has a large amount of “legacy” data in TOPS format, e.g. many work orders previously entered into our TOPS installation, so we face vendor lock-in issues (which would be confronted if/when we identified a non-TOPS alternative).
  - Rick suggested we should re-focus on initial, incremental improvements to management’s current work order tracking process to
    - Reduce single points of failure, without necessarily having to hire more staff.
    - Reduce hand-written and paper process steps.
    - Increase use of electronic data for process steps.
    - Increase use of better-structured and better-documented process steps.
    - Focus on “internal” process improvements first, as these would be necessary to get the work order tracking data in better shape for possible online tracking use on the Parkfairfax website.
    - Leverage the TOPS-created work order tracking website trial to learn more about both TOPS work order tracking and management’s tracking process.
  - Rick also reminded attendees that we should continually focus on the entire work order process improvement process – including work order requests as well as work order tracking – to maintain our progress and perspective on the following:
    - What process improvements are proving to be both feasible and useful.
    - What the relative impacts and costs of those improvements are.
    - How the most promising improvements can best be realized in collaboration with management so as to incrementally improve, vs. disrupt, management’s ongoing work order processing tasks.

- George and Sarah both said that the use of printed work orders from the maintenance yard is important to crews performing them in the field at Parkfairfax.
- George cited concerns about process improvements that could increase the workload and bottlenecks at the yard related to having one person there print out work orders there in the future vs. receive printed orders from the office as occurs today.
- The broader concern that George cited here was asking staff to do tasks they were not trained to do and the time/cost impact of that (Rick's notes: a valid concern, though part of process improvement entails improving communication and knowledge such that more people have more knowledge able to perform more tasks independently/collaboratively; challenge is gradually doing "smart" improvements).
- George noted that the biggest "accuracy gap" in the work order process was in taking work order requests over the phone.
- Dave said that there are many reasons why taking work order requests over the phone could yield inaccurate information.
- Rick noted that the reason the committee began our work order process improvement effort with work order requests was to ensure we improved the accuracy of work order input data, which necessarily affects work orders throughout their life cycle (including management actions on them, tracking, closing out, etc.).
- Committee members and attendees discussed the direction of our process review.
- We agreed to move forward on work order process improvements via the checklist pilot, online work order request form prototype, TOPS-created website trial, and further analysis of work order tracking process steps, in future meetings.

### 3. Use of document-sharing collaboration solution software at Parkfairfax

- a) During the past two meetings, the committee has been researching use of Microsoft SharePoint and other document sharing collaboration solution software at Parkfairfax.
- b) While the motivation for this research was initially to help improve Parkfairfax's work order process (both work order requests and tracking), it could also potentially improve other management processes that are impeded by less-than-optimal communication and notification when using documents and other electronic data.
- c) Rick continues to take the lead on this research, working with management as needed on issues.
- d) Rick reviewed this research for George, who asked for a summary of it at this meeting.
- e) Summary of the status of this research:
  - The benefits of using document sharing collaboration software include:
    - Support for multiple users sharing and versioning documents.
    - Support for messaging and notifications (generally of the "publish and subscribe", or one-to-many, nature) when documents are created, updated, or deleted.
    - Improved communication and workflow across an enterprise as a result
  - Microsoft SharePoint is one alternative that might fit in well with management's use of Microsoft products.

- While licensing fees for SharePoint use and support are an issue, Rick found one reference suggesting that those fees might be waived if a customer already had paid for an enterprise Windows Server license.
- While open-source alternatives to SharePoint exist (e.g. Alfresco; see <http://www.alfresco.com>), these would require Parkfairfax to assume responsibilities for infrastructure, support, and maintenance which would arguably create new expenses and learning curves for management.
- Therefore, assuming SharePoint fees are minimal, it might be the best overall solution for management given their current IT environment and staffing.
- Rick will continue research on SharePoint costs, pros and cons, work with management on licensing issues and costs, and make recommendations at future meetings.

#### 4. Next Steps

- a) Management will schedule a two-week pilot usage of their work order request input checklists, to commence on or about February 1 as convenient given their other work and constraints.
- b) Elaine will, as time permits, work on another iteration of the prototype online Work Order Request form, to present at the next Technology Committee meeting if feasible.
- c) Management will schedule a month-long trial of a TOPS-created work order tracking website, to commence on or soon after the March 2012 committee meeting, as convenient given their other work and constraints.
- d) The management committee representative will report on these items at the January meeting.
- e) Rick will continue research on collaboration software for sharing electronic documents.
- f) Rick and management will coordinate on Parkfairfax's Microsoft license issues re SharePoint.
- g) Everyone will read and digest the minutes of this meeting, as presented here, for our March meeting in order to be prepared to move forward on more process improvement steps
- h) Everyone will think about the work order process more, and actively research how work order process improvement has been approached by other enterprises (a simple way to do this would be via Google or another online search engine).
- i) The committee voted to cancel the February meeting due to schedule conflicts, thus our next meeting is Thursday, March 1, 2012 at 7:00 p.m.
- j) Elaine should update the website calendar for February to delete the committee meeting event.

#### 5. This meeting adjourned at about 8:15 p.m.

### **Appendix: TOPS-Created Website Details**

The website will sync with TOPS at a time we specify (typically done overnight) to update information that has been entered since the last sync. TOPS will need to be configured in order to sync. TOPS Support Center will assist in the configuration. They require 7 days of lead time to create the website.

We have the option to allow only owners to log in, or owners and tenants. Residents will have their login information generated from the owner information that is in TOPS.

The website will be able handle the two communities and when owners login, they will be able to see work orders from both communities.

Embedding a link, in a similar manner as Community Archives for resale documents, will be all that is necessary to integrate this site, hosted at <http://www.athomenet.com/>, with the Parkfairfax website.

**Appendix: Sample TOPS-Created Website Screenshot**

**Online Work Order Tracking**

**Account Information**

**Account Contact**

Mary Wilson  
7000 Devon St  
Duluth GA 30097

**Balance / Payment Info**

Account Balance: \$135.00 [Pay Now](#)  
As of: 2/15/2007  
Last Payment: \$135.00 on 2/10/2007 with  
Check# Credit-Pre

[Click here for Account History](#)

[Architectural Requests](#) | [CC&R Violations](#) | **Work Orders** | [Pool Passes](#) | [Vehicles](#) | [Visitor Passes](#) | [Service Requests](#)

**Work Order #:** 1285  
**Summary:** inspect water damage  
**Description:** please check for water damage/water intrusion coming from through the brick in the back under the wall and rotting the floor  
**Authorized By:** Michelle Byers  
**Vendor/Employee:** Painting  
**Status:** Open  
**Date Closed:**

[Add/Edit/Delete Service Request Notification Recipients](#)