

Permitting & Inspection Processes BIRDIE Report April 2018



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Executive Summary

Opportunity Evaluated

This BIRDIE team evaluated opportunities to improve the efficiency and effectiveness of the Village's permitting and inspections processes. We evaluated current permitting and inspection processes, planning and permitting forms, historical performance information, and best practices. A large amount of work in the Planning and Inspections (P&I) Department is performed using time-consuming manual processes. The BIRDIE team evaluated these processes to determine improvements that could make the processes more efficient and also more customer-friendly.

The BIRDIE team's recommendation supports the Village's strategic goals to ***“Ensure Quality Residential Development”*** and ***“Ensure Quality Business Development.”***

Final BIRDIE Team Recommendations

After evaluating alternative solutions, the BIRDIE team recommends the Village take eight (8) key actions that will result in improved efficiency and effectiveness of the Village's permitting and inspection processes:

1. Acquire and implement new permit and inspection software
2. Improve accessibility and usability of permit forms and applications
3. Create permit guides that clearly describe the permit process
4. Implement performance standards on turnaround times
5. Consider implementing single point of contacts for residents and builders, to the extent possible
6. Increase and enhance training efforts
7. Organize permit and inspection files
8. Amend the Pinehurst Development Ordinance for any process changes implemented.

Overview of the Process and Data Used to Determine Recommendations

Following our systematic BIRDIE process, the team conducted a thorough review of how the P&I Department's processes can be improved for more efficient and effective delivery of services to the building community and residents. To develop the recommendations included in this report, the team researched and evaluated the following:

- Current process for issuing permits and meeting key supplier and customer requirements,
- Current process for conducting building inspections and meeting key supplier and customer requirements,
- Key Performance Indicators (KPIs) related to the permit issuance and building inspection processes relative to benchmark comparisons,
- Alternative permit and inspection software programs, including demonstrations and reference checks with other local governments currently using the software programs, and
- Best practices for permit issuance.

Detailed Recommendations

After evaluating alternative solutions from a variety of perspectives, the BIRDIE team recommends the Village implement the eight (8) recommendations described in detail below to allocate resources more effectively to improve both the efficiency and effectiveness of permit and inspection processes.

Recommendation #1 – Acquire and implement new permit and inspection software

Currently, P&I staff use a third-party software product acquired with the Village's Great Plains Enterprise Resource Planning (ERP) system in 2004 that does not meet all of their needs and has not been enhanced as new technology has been introduced in the market to help better manage the permit and inspection processes. As a result, P&I staff are using the software to track permits and inspections but not to effectively manage the permitting and inspection processes as a whole, including plan reviews. The current software lacks key features such as allowing electronic plan submissions, online payments, and integration with Geographical Information Systems (GIS) property data.

A subgroup of the BIRDIE team evaluated five software programs against software requirements identified by the BIRDIE team and selected a new software program that can significantly enhance the efficiency and effectiveness of P&I operations. The software selected is a Land Management product by Accela, the same software company the Village utilizes for MY VOP service requests and complaints that was implemented in 2016.

To reach a decision on the software program that would best meet the Village's and customers' needs, the Village's Chief Information Officer and BIRDIE team member, Jason Whitaker, conducted extensive research on multiple software programs, obtained references from other agencies using the programs being evaluated, and negotiated the best possible pricing from the three software finalists selected. The BIRDIE team subgroup ranked each of the top three finalists using a variety of factors such as meeting software requirements, price, references, etc. Ultimately, it was a unanimous decision by the subgroup and the BIRDIE team to recommend the Accela Land Management software program, with a target GO LIVE! date of January 1, 2019.

Key features of the new software program that can significantly increase the efficiency and effectiveness of P&I staff and provide a better customer experience include:

- User-friendly online portal for builders and residents to submit permit applications (with electronic plans) and inspection requests
- Ability for staff to review plan submissions electronically with automated workflow steps
- Mobile capabilities for inspectors to document inspection results in the field
- Automatic text and email notifications to builders of inspection results in real-time
- Mobile print capabilities for inspectors in the field
- GIS integration with automated alerts and flags for site conditions
- Ability to integrate code violations and permit information so it is readily accessible by parcel information such as physical address, Parcel Identification Number (PIN), or Land Record Key (LRK)

In 2011, the Village engaged the Lawrence Group to review the development process and in their report dated May 11, 2011 they recommended the Village implement an online portal and allow

digital-only submissions where possible. The Accela Land Management software would allow the Village to implement these recommendations that were made approximately seven years ago.

Key features and benefits of the Accela Land Management software are shown below:

Accela Land Management

Build and grow your community faster and more safely

Accela Land Management helps communities build and grow safely with planning, permitting and code enforcement solutions. Features like Electronic Document Review, Esri GIS mapping and a series of role-based apps for inspectors, code officers and contractors can streamline business processes from office to field and improve the citizen experience.

Accela Planning

Upload plans and documentation and track reviews in real time

Accela Planning accelerates project approval by bringing the plan review process online. All reviewers can see where a plan is in the process, perform parallel reviews and see others' comments with Electronic Document Review. Citizens and contractors have transparency through Citizen Access, an online portal where they can receive updates about plans they submit and make any changes as necessary.

Accela Permitting

Decrease building permit turnaround times

Accela Permitting automates and accelerates the permitting process for contractors and residents, supporting economic development by moving key business processes online. When used with Electronic Document Review and Accela's mobile apps for inspectors and contractors, agencies can build their community more efficiently, all while keeping multiple departments informed in real time.

Accela Code Enforcement

Create and manage cases in the field

Accela Code Enforcement helps agencies manage enforcement cases against individuals, contractors, properties and businesses. Whether for follow-ups or proactive sweeps, agencies can use the app to create cases in the field using a smartphone, tablet or laptop, and quickly move from citation to resolution.

The need for significant technology advancements in the P&I department has been identified for several years and the BIRDIE team recommends implementing these advancements as soon as possible to not only increase staff efficiencies, but to make the permit process more customer friendly. The new software will also significantly increase the efficiency of the building inspectors who will be able to pass/fail inspections in the field with immediate notifications delivered to the builder.

As part of this recommendation, there will be a significant amount of training needed for all P&I staff and members of appointed boards and commissions. In addition, P&I staff will also need

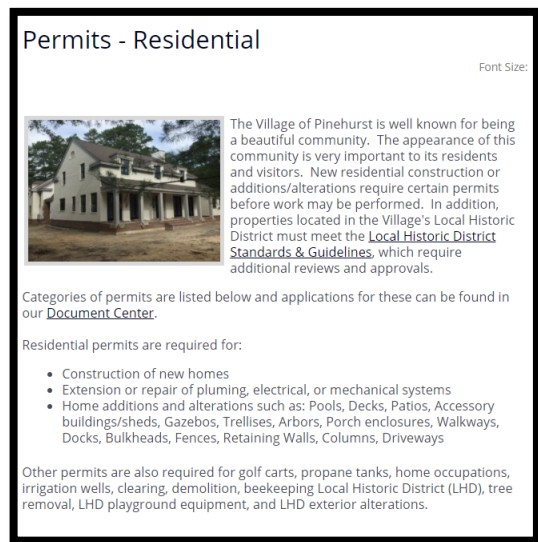
larger computer monitors to conduct plan reviews and building inspectors will need mobile devices and printers in the field. At this point, staff envisions continuing the current practice of providing paper plan reviews for appointed board and commission reviews, but providing electronic access if board members would prefer to review plans in that manner. Village staff will also need to conduct training for builders on how to access and utilize the online permitting portal during regular Builders Workshops facilitated by staff.

Recommendation #2 – Improve accessibility and availability of permit forms and applications

Currently, there are 37 different permit forms and applications available on the Village website with paper copies maintained at Village Hall. These forms are not organized in any manner on the Village website and it is often confusing for applicants to know which forms to complete. Also, these forms are buried deep in the Village website and it takes multiple decision points to navigate to the required forms with no explanation of what form is appropriate to use. With the current navigation structure, it is difficult for a knowledgeable person to find the form they need in an efficient manner.

This recommendation is to make the online permit application process more prominently displayed on the Village website, making it more user friendly and easily accessible. Centralizing the application process in an automated system that is prominent on the Village website will significantly streamline the process by eliminating the need to keep a large number of paper copies of permit forms on hand, reducing walk in traffic and telephone calls, and eliminating redundant manual processes.

This recommendation will require extensive and significant changes to how planning and inspections information is displayed on the Village website and require changes in website pages, navigation structure, and menus.



Recommendation #3 – Create permit guides that clearly describe the permit process

During the process, the BIRDIE team researched best practices for permitting and all of the research indicated a best practice is to produce permit guides that clearly describe various permit processes. This recommendation is to develop permit guides for key permit processes that provide a clear and concise description of the process used for key permit types, the expected amount of time the permit process takes at each step, and how to apply. Village staff would design and format the permit guides similar to the Village's existing learning guides to ensure brand consistency.

The BIRDIE team recommends Village staff produce and publish the following permit guides for inclusion on the Village website and distribution at Village Hall:

1. Amendments, Appeals, and Variances
2. Major Site Plan – Non-Residential
3. Minor Site Plan – Non Residential
4. Single Family New-Home Construction
5. Subdivisions
6. Historic Approvals

Recommendation #4 – Implement performance standards on turnaround times

To ensure Village staff process permits efficiently, employees should strive to perform their required reviews within a specified period of time. This recommendation is to establish performance standards for turnaround times for all reviewers in order to achieve desired cycle times for plan reviews overall. Target cycle times for plan reviews will vary based on the type of permit requested. This information will be captured in the recommended software so it is easy to obtain turnaround time data for review and analysis.

Performance standards for cycle times that P&I staff currently monitor on their department Balanced Scorecard include:

Permit Issuance

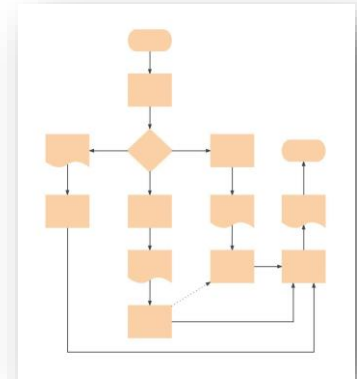
- % of single family residential new construction and addition/alteration plans reviewed within 14 days
- Average # of days to issue a SF permits for new construction and additions/alterations
- % of Certificates of Appropriateness issued by staff within 7 days
- % of Certificates of Appropriateness issued by the HPC within 45 days
- % of time non-residential development applicant receives initial Village staff comments within 21 days

Building Inspections

- % of building inspections completed within one business day
- # of building inspections completed per inspector FTE per day

Recommendation #5 – Consider single points of contact to the extent possible

During the BIRDIE team’s research of best practices, one concept that seemed prevalent was to have a single point of contact for an applicant. This recommendation is to seek ways to the extent possible to utilize a single point of contact to make the application process easier to navigate for customers. With a small department, this may be somewhat difficult to implement, but the BIRDIE team thinks it is worthwhile to investigate this opportunity. Once the P&I department is fully staffed, it may be possible to realign some duties to achieve some centralization of customer contact for some types of permits. To implement this recommendation, the P&I Director will evaluate individual staff duties to determine if some responsibilities can be shifted among existing staff to achieve some single points of contact.



Recommendation #6 – Increase and enhance training efforts

This recommendation became evident to the BIRDIE team when documenting the current permitting and inspection processes. There is a clear need to increase staff capabilities of utilizing GIS data systems on both the planning and inspections side of the house. In addition, there are several opportunities to implement a formal cross-training program to ensure consistency in permit processes. Currently, there is very limited cross training in the department and large amounts of knowledge rest with a few employees that could cause significant declines in service if these employees are absent. Finally, P&I staff indicated there are also additional opportunities to enhance training of appointed board members so they stay current on relevant state regulations.

The recommendation to increase and enhance training efforts includes:

- GIS training for all P&I staff, with specialized training for key staff members
- Develop and implement a formalized cross-training plan
- Conduct systematic training for board members

Recommendation #7 – Organize permit and inspection files

During the BIRDIE team’s evaluation, it became very clear that there are several opportunities to improve how permit and inspection files are organized and maintained by the P&I department to make it easier for staff to access files and records. Historically, P&I staff have not utilized the NC Records Retention Policy to purge and discard files and as a result the Village has maintained records much longer than needed. This has led to overcrowding of file storage space and unnecessary disorganization of records, making it difficult for staff to locate some planning records.

Residential development and inspection files are fairly well organized, but planning files such as non-residential permit and development files are particularly disorganized. In addition, historical files for Council appointed boards are scattered in various locations throughout the department and stored in various manners. The recommendation is to collaborate with the Village Clerk and apply Administration’s best practices for storing Village Council agendas and minutes to Planning & Zoning/Board of Adjustment and the Historic Preservation Commission files and records.

This recommendation will result in systematic filing that adheres to the NC Records Retention Policy. This can result in the removal of several filing cabinets in the department and help to declutter staff’s workspace significantly. In addition, there is a very large amount of planning and inspection files located in the basement of Village Hall that are not labeled or filed in any sort of order that staff will review and organize as part of this recommendation. The software implementation will also reduce future storage needs with an increase in electronic files and a decrease in paper files.



Recommendation #8 – Amend the Pinehurst Development Ordinance for any process changes implemented

This recommendation is for staff to review the Pinehurst Development Ordinance (PDO) to determine if they recommend any amendments to the PDO after implementing the new software. Potential changes could include minimizing the number of copies of plans that applicants are required to submit, for example.

Evaluation Process

Description of the BIRDIE Process and Team Members

The evaluation of the Village’s permitting and inspection processes began with the formation of a BIRDIE team in July 2017. BIRDIE is the Village’s systematic six-step process to evaluate and improve key organizational processes that have a considerable ongoing staffing and financial impact.

The BIRDIE team that evaluated opportunities for improving the efficiency and effectiveness of permitting and inspection processes over the course of eight months included the following members:

- Natalie Hawkins, Assistant Village Manager
- Nancy Fiorillo, Mayor
- Jason Whitaker, Chief Information Officer
- Lauren Craig, Village Clerk
- Will Deaton, Planning & Inspections Director
- Bruce Gould, Principal Planner
- Alex Cameron, Senior Planner
- Scott Thomas, Chief Building Official
- Jamie Reed, Planning Technician
- JoEllen Richter, Customer Service Representative
- Wayne Haddock, Residential Builder
- Perry Harrison, Landscape Architect

BIRDIE

B Bring the opportunity forward

I Investigate the opportunity

R Review potential solutions

D Determine the solution

I Implement the solution

E Evaluate the solution

Root Cause Analysis

The BIRDIE team’s evaluation began with documenting the current permitting and inspection processes using a SIPOC, which includes identifying Suppliers, Inputs, Process, Outputs, and Customers (SIPOC). Once these items were identified, the BIRDIE team then indicated what the suppliers need and what the customers need (or input and output requirements) of the processes and if these requirements were currently being met. Next, the BIRDIE team identified the root causes of why the supplier and/or customer requirements are not being met with the current process design. Performing the root cause analysis indicated that multiple requirements of both the permitting and inspection processes are not being consistently met today.

Figures 1 and 2 indicate the supplier and customer requirements identified by the BIRDIE team for the permitting process and the inspection process, with requirements not currently being met consistently highlighted in bold:

Figure 1. Permitting Process Requirements	
Input Requirements - What do staff, outside agencies, and boards/commissions need?	Output Requirements - What do builders, residents, and businesses expect?
Clear regulations (PDO, Municipal Code, Historic District Guidelines)	Timely notification that permit is ready
Complete information from the applicant	Efficient submittal process
Immediate access to up to date & accurate GIS information	Accessibility to VOP staff who have knowledge of VOP codes and permits required
Adequate amount of time to review applications	Clear documentation and communication protocols of deficiencies and proposed alternatives/solutions
Standardized processes with checklists	Alternative methods to communicate permits are ready/deliver permits to applicants
Central databases with permit information	Clearly communicate the fees associated with the permit
Minimize the # of copies made to the minimal amount needed	Easy access to permits and application forms
User friendly and easy way to look up permit information	Clear communication of the permit process and requirements both internally and externally
Timely response and clear communication between external and internal review parties	Clearly documented conditions of approval, as applicable
Continuous education to remain up to date on current practices and technology	Timely turnaround of permits
	Applicant knowledge of VOP codes/permits required and permit process

Figure 2. Inspection Process Requirements	
Input Requirements - What do builders, contractors, and staff need?	Output Requirements - What do builders, residents, and businesses expect?
Immediate staff access to up to date & accurate GIS information	Timely inspections (e.g. building inspectors have the ability to respond to inspection requests in a timely manner)
Effective and timely internal and external coordination among staff and outside agencies to determine if a Certificate of Occupancy (CO) can be issued	Quality inspections (e.g. inspector correctly applies NC Building Code)
Multiple, easy, convenient way to submit inspection requests	Timely notification of inspection outcome
Builder completes the work prior to an inspection request	Building inspectors who are accessible and available to consult with builders and contractors
Backup for Village staff who perform plan reviews and are absent (e.g. P&I, Fire, and Public Services staff)	Alternative electronic notifications of inspection outcomes in addition to on the job site
Easy to use and accessible mobile technology	
Adequate time to complete thorough inspections	
Access to property to inspect	

The key reasons for supplier and customer requirements not being met included:

- Lack of an integrated, user-friendly software with mobile capabilities, an online user interface that will accept electronic plans, and automatic notifications to applicants,

- Current permit forms and applications are hard to access and do not clearly describe the permit process so customer expectations may not be realistic,
- No real performance standards for some types of plan reviews,
- Lack of staff training in GIS with consistent procedures and protocols, and
- No standardized checklists or project tracking system for non-residential development.

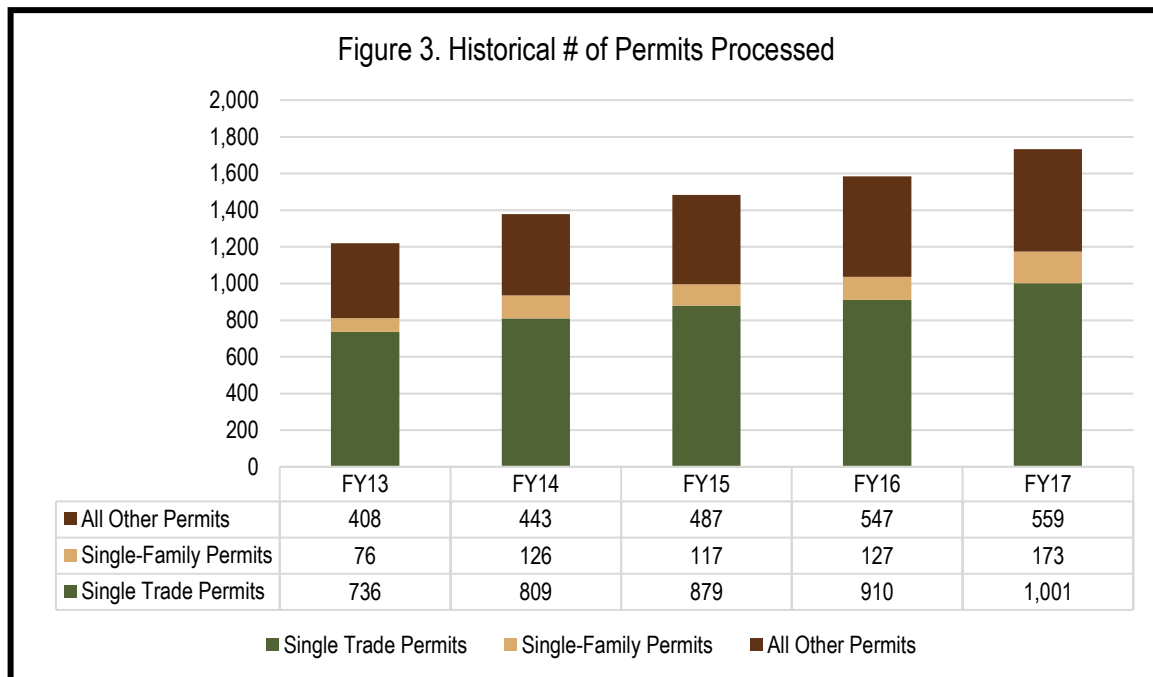
What the Data Told Us

The BIRDIE team researched and evaluated data in the following areas to develop the recommendations included in this report:

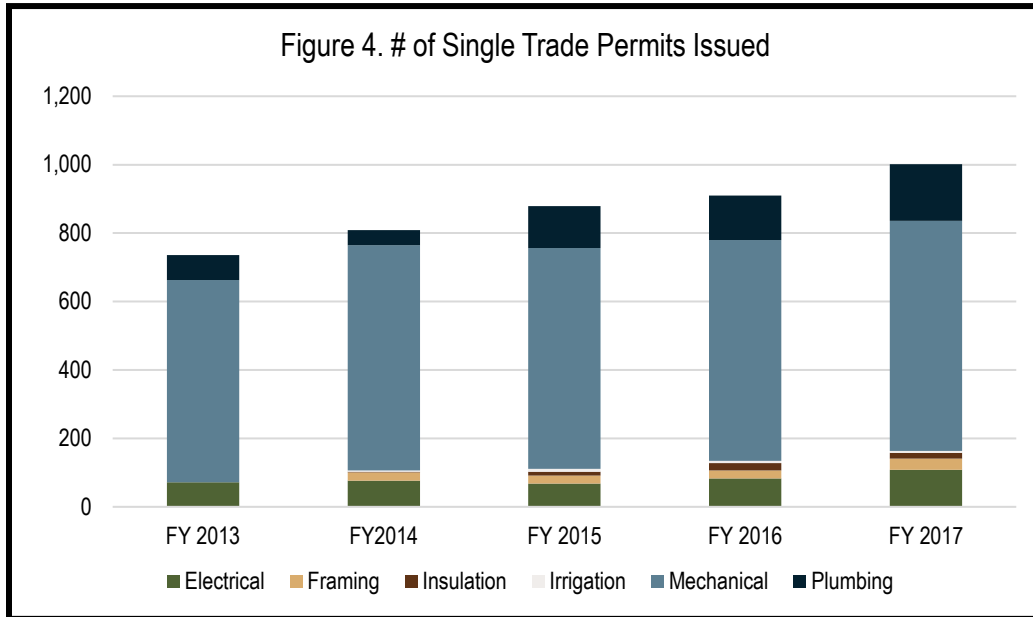
- Historical # of permits issued by type
- Historical performance levels for plan reviews and inspections cycle times
- Available benchmark data for plan review and inspections cycle times

of Permits

The data in Figure 3 indicates the workload in the Planning & Inspections Department has increased considerably in the past few years, particularly for single-family home permits, which have increased 127% in the last four years.

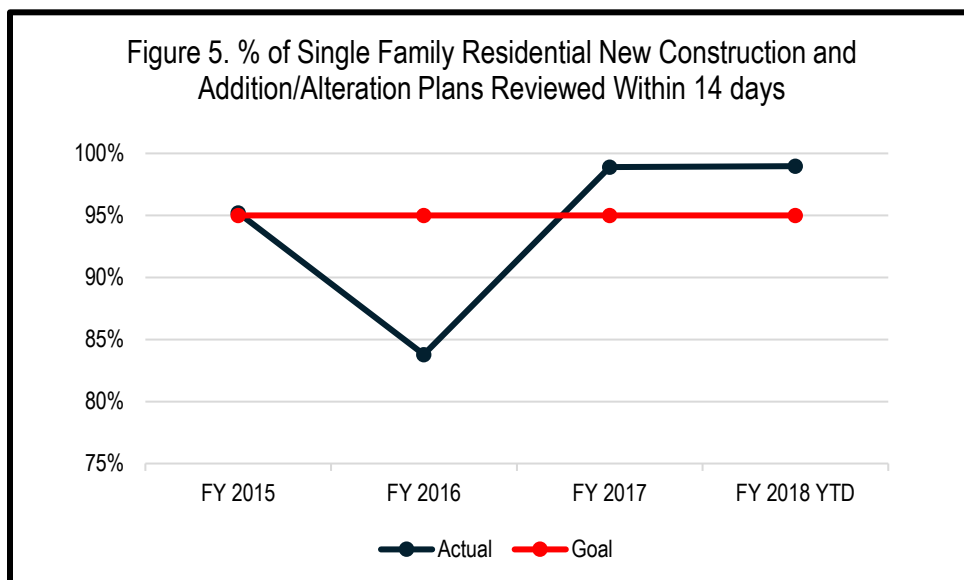


Single trade permits have also increased by 36% over the past few years and front desk staff at Village Hall issue these permits as shown in Figure 4. Processing these permits on the spot at the front desk helps to relieve some of the workload in the P&I Department and makes it easier for the customer to obtain a permit.



Plan Reviews

Village staff track the cycle time of single-family residential plan reviews with a goal to review 95% of residential plans within 14 days, including weekends. This is measured by tracking the number of days from when a residential permit is initially submitted until all internal reviews are completed by the Permit Technician and the Building Inspector and does not include any reviews required by outside agencies, such as U.S. Fish and Wildlife. In the last two years, Village staff have exceeded this performance goal, as shown in Figure 5.

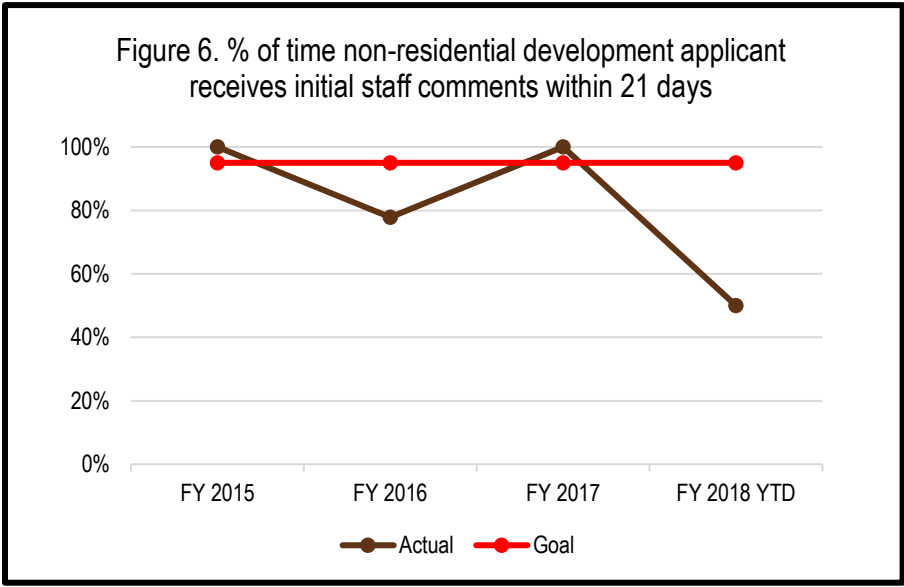


A review of benchmarks in *Municipal Benchmarks* (3rd Edition) by David Ammons indicates the vast majority of municipalities measure a shorter turnaround time for single-family permits that include 2 days, 5 days, 7 days, and 10 days. This, along with high performance levels at the current 14-day review time goal indicates the Village should consider modifying this Key Performance Indicator and seek ways to streamline the process to shorten single-family plan review turnaround time.

In addition, the BIRDIE team discovered that the P&I Department does not systematically track review cycle time for non-residential permits, with the exception of providing initial comments from the Technical Review Committee within 21 days (See Figure 6). Beyond this Key Performance Indicator, P&I staff do not track or monitor the length of time it takes to complete site plan reviews or issue a non-residential building permit.

“Most of the cities examined perform building permit reviews within 4 weeks for commercial projects and within two weeks for residential buildings. Review time in some cities is notably shorter, with reviews of commercial plans requiring only about a week and residential plans only a few days.”

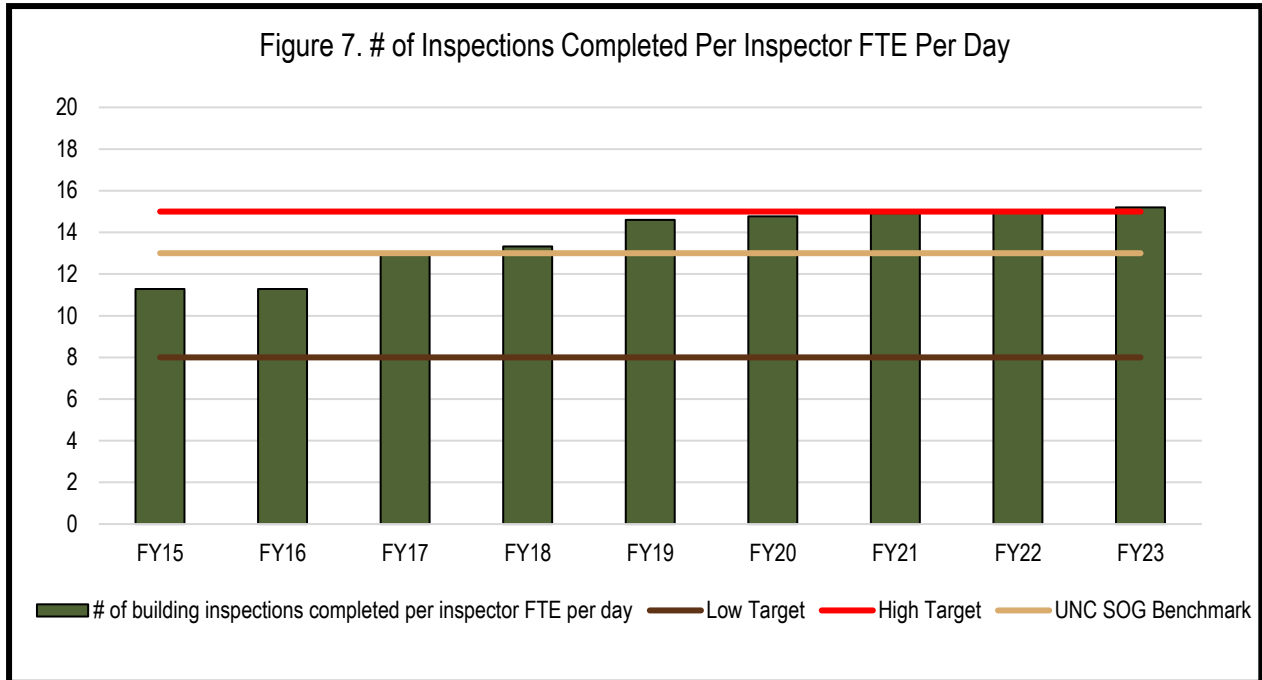
-Municipal Benchmarks (3rd Edition) by David Ammons



Building Inspections

In terms of cycle-time, the Village’s building inspectors are delivering a high level of service with nearly 100% of inspections being completed within one business day of the request. The historical average for the UNC School of Government Benchmarking Project municipalities is closer to 95%. Often, plan review takes a back seat to getting inspections completed the next business day as building inspectors view inspection turnaround time as one of their highest priorities.

Another Key Performance Indicator (KPI) reviewed by the BIRDIE team was the number of building inspections completed per inspector FTE per day, as shown in Figure 7. This KPI provides insight into the workload placed on the Village’s building inspectors. A review of this historical data and the projections for the five-year planning period indicate development levels are approaching the maximum capacity of the two building inspectors on staff. Prior to the Great Recession, the Village employed three building inspectors in the department. As the economy improves and development increases, it is important to seek ways to maximize the capacity of existing building inspector staff in order to continue to provide the existing high level of inspection services.



Solutions Evaluated and Perspectives Considered

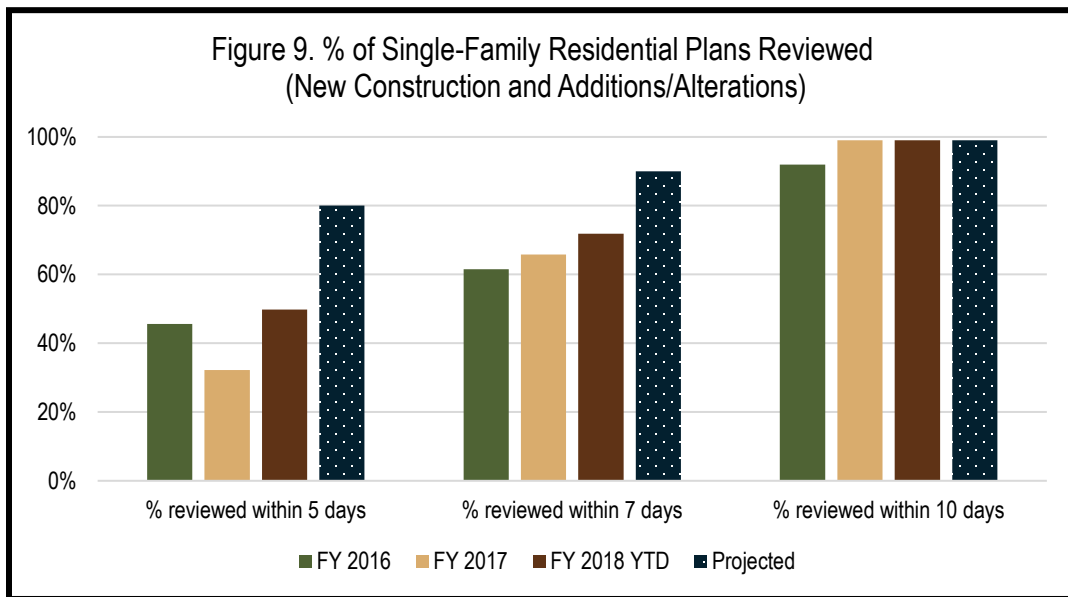
After identifying potential solutions, the BIRDIE team evaluated possible solutions from four different perspectives, identifying the key advantages/benefits, the key disadvantages/costs, and any mitigating actions staff could take to minimize potential disadvantages/costs. **Appendix A** indicates the benefit/cost analysis for each of the BIRDIE team’s eight (8) recommendations. The four perspectives considered in the analysis included:

1. The customer’s perspective,
2. Village staff’s perspective,
3. Appointed board members’ perspective (Planning & Zoning and Historic Preservation Commission), and
4. The financial perspective.

Impact of Recommendations

Performance Impact

While it is unclear how much the efficiency improvements of implementing the Accela Land Management software will generate, the BIRDIE team believes one of the key reasons the Village should acquire the software is to help staff save time by reducing the cycle time of single-family plan reviews. Figure 9 indicates historical cycle times and the projected performance impact of the BIRDIE team recommendations on single-family plan reviews. As indicated in Figure 9, staff review times have declined since P&I staff began monitoring plan review cycle times in FY 2016, but automation of processes is projected to shorten review times even more.



With an estimated time savings of one-hour per inspector per day and another one-hour per day time savings for the Permit Technician, P&I staff believe it can eliminate up to 3 hours of duplicate or manual work each work day, or approximately 780 hours in a year. This equates to approximately \$29,000 of salaries and benefits.

Because P&I staff do not currently monitor non-residential plan review cycle times, it is not possible to project the impact of the BIRDIE team recommendations on this type of plan review. However, the new software will allow staff to track non-residential plan review time automatically within the system. Once the Village has some historical data, the BIRDIE team recommends adding a Key Performance Indicator (KPI) to the Planning Department's Balanced Scorecard for non-residential plan review cycle time in FY 2020.

The BIRDIE team also believes the amount of walk-in traffic at Village Hall will decline because of implementing the team's recommendations. For each of the last three fiscal years, front desk staff at Village Hall have served on average 30 customers for the P&I Department per day either in person or over the telephone. Based on the number of working days in a year, that equates to 7,800 P&I customers served annually. The BIRDIE team believes it is reasonable to estimate at

least a 30% reduction in P&I walk-in traffic and telephone calls at the front desk, if not more. This would eliminate approximately 2,340 customer visits and phone calls to Village Hall each year, or the equivalent of approximately \$13,500 of salaries and benefits.

Overall, a conservative estimate of the indirect financial impact the Village could expect to result from the efficiency improvements of the BIRDIE team’s recommendations would be to divert approximately \$42,500 of salaries and benefits expense annually to other tasks.

Workforce Impact

The BIRDIE team’s recommendations will have a significant impact on Planning & Inspections staff in the 2018 calendar year. In addition, other departments will also be impacted, including Administration, Public Services, and Fire. These departments also process permits or play a role in plan review. As a result, select employees in these departments will also need training on the new software and will need to modify their current processes accordingly. The Village’s IT department will oversee the acquisition and configuration of the software so they will also be impacted. Staff estimates it will take approximately 775 combined staff hours over the next eight months to acquire, configure, and learn the new software before launching it to the public on January 1, 2019.

While the estimated amount of time to implement the software and other BIRDIE team recommendations is 775 hours, staff estimates these recommendations will save at a minimum 1,365 hours on an annual basis post implementation. In addition, a significant positive workforce impact will be to enhance the GIS skills and capabilities of P&I staff.

Financial Impact

Of the eight recommendations, the only one that has a real direct financial impact is Recommendation #1 - Acquire and implement new permit and inspection software. Other recommendations have an indirect financial impact of staff time either needed or saved. The direct financial cost to acquire, configure, and implement the recommended Accela Land Management software solution includes one-time implementation costs and annual recurring software maintenance costs thereafter, as shown in Figure 8. Of the three software programs evaluated, Accela was the most economical with the other two options costing two and three times the cost of the software selected by the BIRDIE team.

Figure 8. Direct Financial Impact of Recommendation #1 – Acquire software	
Description	Financial Impact
Hardware costs (mobile devices, printers, monitors, mobile field access)	\$ 5,000
Acquire, configure, & implement Accela Land Management software, with training	\$ 47,190
First year maintenance costs	\$ 25,200
Total Implementation Costs in FY 2018	\$ 77,390
<i>* Annual ongoing software, licensing and data charges will be approximately \$31,600 annually.</i>	

The Fiscal Year (FY) 2018 budget included \$50,000 for the purchase of permit and inspection software in anticipation of the BIRDIE team’s recommendation. Should the Council approve the recommendation to acquire new software, the current budget of \$50,000 plus the amount currently included in the FY 2019-2023 Financial Forecast that will be presented to the Village Council in

May 2019 will be sufficient to cover the cost of the software and ongoing annual software, licensing and data charges.

As indicated previously, a conservative estimate of the indirect financial impact of the BIRDIE team’s recommendations on the Village is a savings of approximately \$42,500 in staff time.

Conclusion

Overall, the BIRDIE team believes the advantages or benefits of the team’s eight recommendations significantly outweigh the disadvantages or costs. Figure 10 below indicates the KEY advantages and disadvantages of the overall recommendations that are detailed more fully in *Appendix A*.

Figure 10. KEY Advantages and Disadvantages of BIRDIE Team Recommendations	
Advantages or Benefits	Disadvantages or Costs
Reduced plan review turnaround time and immediate notification of inspection outcomes, saving builders time and money (improving from 50% to 80% of plans reviewed within 5 days and from 72% to 90% of plans reviewed within 7 days)	Financial Cost: <ul style="list-style-type: none"> Initial cost of software - \$77,390 setup costs Ongoing cost of software - \$31,600 annual maintenance/license fees
More user-friendly and transparent process with easily accessible online portal for customers with electronic plan submittals and payment	Estimated 775 hours of staff time to implement in FY 2019
A central location of permit and inspection data and organized filing systems to help staff retrieve files and records easier and quicker	
Increased staff capabilities with employee-specific training and cross-training	
Staff time savings of approximately 1,365 hours each year, which equates to approximately \$42,500 in annual salary & benefits	

When the BIRDIE team considered the financial impacts, workforce impacts, performance impacts and other advantages and disadvantages from different perspectives, the team unanimously concluded the recommendations contained within this report are intelligent risks the Village should pursue (i.e. the benefits of the recommendations outweigh the costs).

These eight recommendations represent meaningful, innovative improvements to key Village processes and services that will add new value for all stakeholders, including staff, builders, residents, members of Council-appointed Boards and Commissions and ultimately the public at large. They also address a strategic opportunity identified by the Village Council to “*Utilize technology to improve services*” and a strategic challenge of “*Responding to increased demand for services and changing needs due to growth.*”

The Permitting & Inspection BIRDIE team respectfully requests the Village Council approve the recommendations presented in this report.

Implementation Plan

Should the Village Council approve these recommendations, the BIRDIE Team suggests the following implementation plan and timeline shown in Figure 11. Staff has scheduled these implementation steps and deadlines in order to achieve full implementation of the new processes and software before launching the new software on January 1, 2019. Because January and February are typically slower months for the P&I Department, the BIRDIE team agreed a January 1, 2019 *GO LIVE!* date for the new software would provide staff time to get familiar with the new software before development picks up in the Spring.

It is important to note that with the development of the 2035 Long-Range Comprehensive Plan underway during this same time period, it will take a significant staff commitment to achieve these projected implementation deadlines. However, staff is committed to ensuring a successful implementation and are willing and able to make the required investment of time to ultimately achieve the desired efficiencies and deliver a higher level of service to our customers.

Figure 11. Implementation Plan	
June 30, 2018	Identify and inform P&I staff of NC record retention policies
	Acquire P&I software and hardware
	Begin software implementation
September 30, 2018	Complete file organization in the P&I department
	Begin software setup & configuration
December 31, 2018	Complete GIS training for P&I staff
	Develop a P&I staff cross-training schedule
	Complete software configuration, staff training, & testing
	Provide software training for staff, builders, and Board members
	Identify & draft any changes needed to the PDO based on process changes
	Develop permit guides and update the Village website & MYVOP accordingly
	Implement single points of contacts to the extent possible
Identify and implement new turnaround performance standards for Village staff	
March 31, 2019	Go <i>LIVE!</i> with new software and processes & adjust as needed
	Distribute & publish new permit guides
	Adopt any required PDO changes
	Implement P&I staff cross training plan
	Complete file organization in the basement of Village Hall
	Reconvene BIRDIE Team & staff to evaluate the first few months of implementation

Appendix A

*Detail of Advantages/Benefits and
Disadvantages/Costs of Individual
Recommendations*

Recommendation #1: Acquire and implement new permit and inspection software

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Increased convenience to the customer with reduced confusion about forms and documentation required; faster permit turnaround times will help save customers time and money; Adds the ability for customers to 1) submit plans and applications electronically and pay online, and 2) view permit status electronically; Adds the ability for builders to receive immediate electronic notification of inspection outcomes	Access to information in a centralized location; Reduces the amount of paper files, walk-in traffic, telephone calls, and amount of double (sometimes triple) data entry for single-family residential permits; Adds the ability to: 1) review plans and applications electronically, 2) merge code enforcement documentation with permit records, and 3) easily monitor and quickly determine permit status	Board members are able to review plans and applications electronically, reducing the amount of paper files and expediting the process	Increase in staff efficiencies mitigates the need to add additional staff in the future and allows staff to redirect approximately 1,365 hours annually to other tasks (this equates to approximately \$42,500 in salaries and benefits)
Disadvantages	Difficulty learning the new process/technology for permit submittals; Some customers may not have the technology or ability to submit electronically	Will require approximately 775 hours of staff time devoted to software configuration, testing, and training; Some staff may be resistant to learning a "new" way of doing things	Will require board training on how to access the software; Some board members may be reluctant to review plans electronically	Direct financial costs: Initial cost of software - \$77,390 setup costs; Ongoing annual maintenance and license fees software - \$31,600
Mitigating Actions	Conduct training for builders at Builders Workshops - hold multiple training sessions over a period of time; Continue to allow paper submissions with staff entering information into the software	Conduct an ample amount of on-site training for all staff (and outside agencies such as Village engineer and Moore Co. staff); Operate in a dual environment for two months to test the software; Involve P&I staff in process redesigns and software configurations	Conduct an ample amount of training for all board members; Continue to allow board members to review paper copies of plans if they are not comfortable with the software	\$50,000 is already budgeted in FY2018 and recurring costs of \$31,600 are programmed in the FY 2019-2023 Five-Year Financial Forecast

Recommendation #2: Improve accessibility and usability of permit forms

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Easier to locate permitting portal on VOP website, reducing the amount of time for customers to identify information needed for permit	Reduction in walk-ins and telephone calls will free up staff time for other tasks		
Disadvantages	Confusion about where to locate application information if accustomed to going to the current location	Will take staff time to develop and make the needed website changes		
Mitigating Actions	Conduct training for builders at Builders Workshops - hold multiple training sessions over a period of time; Include links to online tutorials on the website for builders and contractors; Use permit guides to inform residents of new home construction process	Utilize Admin and IT staff to assist with website changes		

Recommendation #3: Create permit guides that clearly describe the permit process

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Increased transparency of the permitting process; Increased customer knowledge and understanding of the permit process so customers know what to expect	Reduction in walk-in traffic and telephone calls will free up staff time for other tasks; Guides can be used to help cross-train staff in the P&I department	Can be used as a training tool/information for new Board members, reducing the amount of time needed to understand permitting processes	
Disadvantages	May be difficult to explain all of the processes clearly and concisely in permit guides due to complexity of some processes	Will take staff time to create permit guides		Minimal print costs
Mitigating Actions	Staff can research and implement best practices to make permit guides as clear as possible; Staff to preview permit guides to builders before finalizing them in order to get their input on usability and usefulness	Utilize the Communication Specialist and Admin staff to research permit guide best practices, design, and publish permit guides		Absorb in current budget

Recommendation #4: Implement performance standards on turnaround times

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Reduction in permit turnaround times, resulting in a time and cost savings for customers	With all reviewers held accountable to performance standards, will reduce the amount of effort expended to follow up on overdue reviews; Will increase employee accountability to management with performance standards included in annual employee goals	Provides clear expectations to Board members about desired cycle times for reviews and approvals	
Disadvantages		Increased amount of time to track and monitor performance standards; Increased accountability could cause some employees to stress over meeting performance standards goals		
Mitigating Actions		Purchase licenses for other departments so performance standards can be automatically tracked in the software; Supervisors set realistic performance standards in consultation with staff and routinely monitor actual performance relative to standards regularly throughout the year		

Recommendation #5: Consider creating single points of contact where possible

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Easier for customers to navigate the permit process with a single point of contact	Can help to clarify staff roles and centralize responsibilities so staff become more of an "expert" in certain areas and therefore more productive		
Disadvantages	Customers may prefer to work with the same person they have worked with in the past	Increased cross training would be required		
Mitigating Actions	Ensure all staff are fully capable and have capacity to be the single point of contact so they deliver high quality services and instill customer trust	Clearly identify and define the level of knowledge needed for each individual staff member and provide quality instruction and training		

Recommendation #6: Increase and enhance training efforts

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Higher level of service provided to customers with increased staff capabilities/knowledge	Increased professional capabilities with knowledge of new software, GIS, and cross-training can help make staff more productive; Other departments can benefit from more employees knowing how to use GIS	Ability to expand capabilities to perform Board roles assigned by the Village Council	
Disadvantages		Will require an investment of staff time and on-the-job use of skills acquired in training (i.e. responsibilities and workload could increase with new knowledge and capabilities)	Will require an investment of Board member time to acquire needed training on how to access online portal for plan reviews	Cost of GIS training
Mitigating Actions		Clearly identify and define the level of knowledge needed for each individual staff member; Provide quality instruction and training, with work assignments to reinforce new skills		Absorb GIS and board training in current budget

Recommendation #7: Organize permit and inspection files

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	More timely response to information requests when staff can more easily locate files and records; Declutters common areas in the P&I department, presenting a better public image and instilling a more positive image of the department as a whole	Easier for staff to locate files and records, saving time; Declutters P&I offices and common areas; Ensures compliance with NC Record Retention Policy	Easier for staff to locate files and records requested for review by Board members, increasing response times to Board requests	Free up file cabinets for other departments to use/saving \$
Disadvantages		Staff time needed to organize and purge a large amount of files and records; Not all staff are aware of or utilize the NC Records Retention Policy (e.g. just keep everything)		
Mitigating Actions		Utilize the Village Clerk to assist with file organization, implementing best practices for Village Council filing system; Collaborate with staff to develop a systematic record filing and retention process after staff are educated on the requirements of the NC Records Retention Policy		

Recommendation #8: Amend the PDO to reflect improvements made

	Customer Perspective	Village Staff Perspective	Board Member Perspective	Financial Perspective
Advantages	Potentially reduced regulations to comply with (e.g. require fewer copies of plans)	Alignment of PDO requirements with new processes clarifies staff responsibilities to obtain required documents	Alignment of PDO requirements with new processes	
Disadvantages		Staff time to review and revise the PDO, as needed	Board time to review and revise the PDO, as needed	
Mitigating Actions			Village staff to prepare and present any amendments needed	