

White Paper

*Streamlining and Expanding:
Technology for Residential Construction*



Information Management for Home Builders

Overview

For low-rise and high-rise residential builders, access to information is important. Moreover, access to the right information at the right time is critical to construction. Cellular phones have enabled builders to connection between head office, construction sites, sales offices, home buyers, etc. But transmitting work and purchase orders, construction schedules, sales agreements, prospect information, and all the other details of residential construction, have proven difficult and costly using traditional methods of information management and communication channels.

Challenges for Construction

Volume of Information

Residential builders are faced with a daunting task of managing large volumes of information. For example, a home with limited customization would involve 25 choices made by the home buyer. With 200 units in a typical project, the builder is faced with tracking 5000 customizations, including—which supplier(s) are providing materials, which trade(s) are

performing installations, what work is on time and on budget, what work is past due, etc.

And that is only home buyer customizations. The builder also needs to track construction schedules, invoicing, soft costs, and more. Tracking this information is a complex issue. Currently it is being handled using costly and inefficient printouts or spreadsheets.

Communication with All Involved

Residential construction involves a large number of individuals and companies. Builders interact with sales representatives, buyers, lawyers, suppliers, trades, architects, building officials, and numerous others. Ensuring each party receives and updates the information they need is critical to ensuring the entire construction process runs smoothly and cost efficiently. Current communication channels are cumbersome, difficult to manage, and often lead to costly errors.

Manual Processing

Current information systems widely utilized in construction require substantial manual processing. For example, work and purchase orders

are manually assembled, home buyer selections are manually recorded and manually transferred to purchase orders, and construction schedules are manually updated and manually transferred to management and banking reports. Manual processing is costly, time consuming and prone to error.

Information Management Solution

Integrated, web-based information management software is ideal for easing the troubles of the residential construction industry. The software system serves as a central repository of information, accessible to all involved, on a need-to-know basis. Ensuring the system is tailored to residential construction will ensure that the vast volume of data flows from one stage of the process to the next, without the need for costly and error-prone data entry.

Communication between all locations is important so that information can be transmitted to those who need it. This includes sending orders to suppliers and trades, and getting information onto a PDA for the site superintendent. It also includes making information available to the home buyer through a web portal, and reporting

to management.

The solution must be tailored to construction so that the system matches industry-specific work flows. A generic project management package might handle 90% of the requirements, but the other 10% of the business will need to be shoehorned into the system, at substantial cost and effort. This added expense will offset the potential benefit of a software system, and often increases the amount of data tracking required. A solution specifically designed for the residential builder will work much more effectively.

Benefits of an Integrated Management Solution

Communication is a critical component of residential construction - builders were the second industry to adopt cell phone technology (after cell phone providers). Information is constantly being updated in one location and required in another. Facilitating the communication streamlines the construction process while the software management system keeps everyone informed.

Décor Centre Update Business Scenario

A home buyer enters the builder's Décor Centre and requests a change in the hardwood colour for their Great Room. The update is transmitted to head office for pricing and approval by the contracts manager. Once approved, the request must be transmitted to the construction manager for approval. If the hardwood has already been installed in the Great Room, the construction manager can either decline the request, or notify the contracts manager of the additional costs involved. If the change request is approved by the construction manager, the contracts manager must be notified and send change orders to suppliers and trades, and the site superintendent must be informed of the change to ensure the previous hardwood selection is changed to the updated hardwood selection.

Each part of this process involves communication from one person and location to another. A software management system must facilitate the approvals, streamline communication between each part of the process. The system must also ensure the site superintendent is

informed of the change and provide reminders of the change to the super on-site through a PDA.

Construction Improvement Business Scenario

Some suppliers and trades are easy to work with and consistently perform well from project to project. Others gobble your site superintendent's time, and require time and effort to fix defects in deliveries and craftsmanship.

Tracking defects in supplies or craftsmanship is can be done easily with an information management system. Also, reporting on the defects can improve construction from one project to the next. The system can provide some key benefits:

- i) streamlining the on-site collection and remediation of construction defects, reducing the time requirement cost of the site superintendent
- ii) measuring supplier and trade performance for continuous improvement from one project to the next

Defects in deliveries or

craftsmanship should be recorded on-site using a PDA. This process captures the information quickly and easily and eliminates the binders and sticky notes which are prevalent in the industry today. The software system should then eliminate the manual processing required to put that defect onto a work order and deliver it to the supplier or trade. The system should give the power to the site superintendent to perform these actions on-site, eliminating the need to return to the site's fax machine to send the orders. The end result is the defects are handled efficiently and the site superintendent has more time on-site ensuring construction is progressing smoothly.

Reporting on the frequency of particular deficiencies is also important. When supplier and trade contracts are being negotiated for future projects, the contracts manager can use these reports to evaluate which trades are performing well and which trades had more defects than were appropriate. The contracts manager can either choose to not work with problematic trades, or use the report as leverage to negotiate more favourable pricing.

Additional Benefits

In addition to improving the work flow for residential construction, new capabilities are available to improve the overall experience for all involved. Below are a few examples currently available.

Home Buyer Portal

Many builders have experience with home buyers on-site while homes are under construction. This causes disruptions for the site workers and carries large liability risks for the owner of the site - the builder!

Giving the home buyer access to a web portal allows them to track their construction progress (with a home buyer version of the construction schedule), and even view updated pictures of their home as construction progresses. This alleviates the disruption and risk of home buyers on the construction site. Even more, it gives builders a tool to interact more with their home buyers, which ultimately improves customer service and the overall home buying experience. Both lead to increases in referrals and improved rankings on home buyer surveys.

Keeping information on the portal up-to-date is critical for making this a useful tool and improving the home buyer's experience. For that reason, the buyer's version of the construction schedule needs to be automatically updated when the superintendent updates the actual construction schedule on-site using a PDA.

Supplier and Trade Portal

Providing online access to construction information for suppliers and trades improves construction efficiency and effectiveness. Suppliers and trades can login to the system, view outstanding requests for quotes, enter their quotes directly into the bidding system, view/print outstanding purchase, work, and service orders, and update their contact information.

This optimizes the site superintendent's time. Instead of finding and re-printing orders for trades, the site superintendent can ensure construction is progressing smoothly, or perform an additional walk-through on a unit. Suppliers and trades can also check the status of their orders without consuming the builder's staff time.

Conclusion

For low-rise and high-rise residential builders, it is important to continually improve efficiency and effectiveness of their business. By building stronger relationships with clients through customer service, and by cultivating reliable business partners through productive working relationships, builders can improve

the bottom line.

The key to achieve these outcomes for is to implement a software system which will:

- improve current business work flows
- increase referral sales by improving relationships with home buyers

- provide an extendable framework to grow on for your future

Builder Lynx is streamlining residential construction and increasing the capabilities of builders and all involved. To find out more, visit www.BuilderLynx.com or contact Builder Lynx at: 1-866-870-2925
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