

# BCD Permits Online Pilot Project Requirements Document

## **Project Overview**

The primary goal of the Permits Online Pilot Project is to establish a multi-phased pilot program that provides single-portal internet access to building codes information and services in the Tri-county region, including:

1. Electronic application/request, payment, issuance, and logging of electrical and plumbing minor label permits. (Note that this goal is being met through a separate sub-project and is therefore not addressed in this requirements document).
2. Access to general building codes information such as interpretations, how to order codebooks, and when one needs a permit.
3. Access to jurisdictional information such as city or county ordinances, permitting, planning and zoning information and the like.
4. Search capabilities to BCD and CCB licensing information.
5. E-submission and e-payment building/trade permits for select Tri-county jurisdictions.

The following pages describe the requirements for the new system.

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## Architectural Requirements

The system will include four architectural elements:

- **Hardware** the system will run on. The hardware is the DCBS network infrastructure, including PCs, LANs, File-Servers, Database-Servers, and Web-Servers.
- Database software called **Oracle** to store, manage and protect the data.
- A web application built with the **ColdFusion** development tool. The ColdFusion application will display Web pages with the capability of accessing and updating data stored in Oracle.
- Web reports built with the **Actuate** reporting tool. Actuate is an internet reporting tool that accesses data in Oracle and generates web page output. Actuate will create sophisticated reports that the users can generate from their PC desktop, delivering the product on-screen, on paper, or both. Results are immediate, and data downloading is possible.

Based on this environmental decision, completion of this project will require:

- Design and creation of the new database structure in Oracle;
- Design and creation of screens and programs for the Web using ColdFusion; and
- Design and creation of report programs using Actuate.

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## Functional Requirements Phase 1

### 1.0 Business Process Requirements Phase 1

Item	Description
	<b>Requirements for the overall Permits Pilot Portal page</b>
1.1.	The Main Permits Portal screen must have the following: <ul style="list-style-type: none"> <li>• Link to pilot permits information page, with a link to the address locator</li> <li>• Link to minor labels online (new system created in a related project)</li> <li>• Link to jurisdictions' web sites</li> <li>• Link to Permits Protect</li> <li>• Link to the Oregon license directory containing permit and license requirement information</li> <li>• Link to the SOS business referral center and the SOS business wizard</li> </ul>
	<b>Requirements for the Online Permits System Pilot</b>
1.2.	Create an address locator lookup function for the pilot jurisdictions: Clackamas Co., Washington Co., and the cities of Portland, Hillsboro, Gresham, Beaverton, and Milwaukie
1.3.	Maintain an Address Directory. The system must have a process for accepting address data in a standard format from all participating jurisdictions.
1.4.	The customer must enter the job site address where the permit work will occur on the Address Search screen. The system will search the address database for matches and return a list for the customer to select from.
1.5.	If the address is not found, allow customer to select the jurisdiction they want to purchase a permit from via the Jurisdiction Selection screen. Provide online information about jurisdictional boundaries to assist the customer with selecting the correct jurisdiction and to reduce phone calls. Provide information and reference telephone numbers for each jurisdiction so that customer can call to verify jurisdictions.
1.6.	After the address is found or jurisdiction is selected, display Select Permit Type screen, and require the customer to select the type of permit they are purchasing. <i>Note: The list of permits available online varies by jurisdiction.</i>
1.7.	If the address was found (jurisdiction wasn't explicitly selected), then map the selected address to the correct participating jurisdiction based on the address selected and the permit type selected.
1.8.	If the jurisdiction has an online system in place, transfer customer (pass control) to the appropriate jurisdiction web site, passing any address info the customer entered so it doesn't need to be re-keyed. If the jurisdiction does not have an online system in place, transfer customer (pass control) to the

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	appropriate jurisdiction web site for information about how to get a permit from that jurisdiction. Once control is passed, there is no further action by this system.
	<b>Requirements for the System Administration Module</b>
<b>1.9.</b>	Allow for creation of users, user groups, and assignment of users to user groups. Access to various system functions should be based on user group rights.
<b>1.10.</b>	Allow DCBS staff ability to manage jurisdiction specific information: list of permit types the jurisdiction handles, link to jurisdiction permit info pages, etc.
<b>1.11.</b>	Address data load function (DCBS staff only).
<b>1.12.</b>	Enter/update jurisdiction list for customers to pick from (DCBS staff only).
<b>1.13.</b>	Enter/update system down message (DCBS staff only).
<b>1.14.</b>	Enter/update user list, and assignment of users to jurisdictions (DCBS staff only).
	<b>General requirements for all systems</b>
<b>1.15.</b>	Maintain audit trail of changes: user id and date/timestamp for all changes. Do not need a before and after data image for each change.
<b>1.16.</b>	<b>Security:</b> The only security needed for phase 1 (the address locator function), is the creation of a DCBS admin user group that can update the information and tables listed in the System Administration Module (requirements 1.9-1.14).
<b>1.17.</b>	
<b>1.18.</b>	

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## 2.0 Data and Access Requirements Phase 1

Item	Description
2.1.	The following data should be entered by customer when locating an address: <ul style="list-style-type: none"> <li>• As much job site address information as possible</li> <li>• Optional – customer can enter a business name or owner name with minimal or no job site address information.</li> </ul>
2.2.	Jurisdiction Control Record should contain: <ul style="list-style-type: none"> <li>• Link to jurisdiction permit info pages</li> </ul>
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## 3.0 Reporting Phase 1

Item	Description
3.1.	None
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## Functional Requirements Phase 2

### 4.0. Business Process Requirements Phase 2

Item	Description
	<b>Requirements for the overall Permits Pilot Portal page</b>
4.1.	The Main Permits Portal screen must have the following: <ul style="list-style-type: none"> <li>• Link to pilot permits online (new system created for this project)</li> <li>• Link to minor labels online (new system created in a related project)</li> <li>• Link to jurisdictions' web sites</li> <li>• Link to Permits Protect</li> <li>• Link to the Oregon license directory containing permit and license requirement information</li> <li>• Link to the SOS business referral center and the SOS business wizard</li> </ul>
	<b>Requirements for the Online Permits System Pilot</b>
4.2.	Allow for permit applications/sales for the pilot jurisdictions: Clackamas Co., Washington Co., and the cities of Portland, Hillsboro, Gresham, Beaverton, and Milwaukie
4.3.	Allow for application for and issuance of specified permits: Over-the-counter, non-plan review, electrical, plumbing and structural permits.
4.4.	Allow for online credit card payment with Visa or MasterCard. Note: No debit cards, American Express, or trust accounts in phase 2.
4.5.	Allow both contractors and private individuals to purchase permits.
4.6.	Once submitted, permit information will be immediately transferred in pdf form to the appropriate jurisdiction for data input.
4.7.	Maintain an Address Directory. The system must have a process for accepting address data in a standard format from all participating jurisdictions.
4.8.	The Main Permits Online screen must provide the information listed in requirements 1.2 through 1.7. It must include a link to 'Continue on to purchase Permit(s)' which takes a customer to the Permit Application Start screen.
4.9.	The Permit Application Start screen must ask if the customer is a contractor or homeowner.
4.10.	If the customer is a contractor or a homeowner using a contractor, the system must require them to enter the BCD and CCB Contractor license number on the Contractor Verification screen. The system must verify the license numbers are valid before continuing. The system should populate the Contractor name and address information based on the BCD license number.
4.11.	If the customer is a homeowner doing their own work, the system must display a Homeowner Signoff screen requiring an electronic signature that they understand all restrictions, laws and statutes, etc. similar to this statement

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	<p>from the MyBuildingPermit.com in Kirkland, WA:</p> <p>I certify that I am the property owner or agent, or a residential renter and</p> <ul style="list-style-type: none"> <li>- I am exempt from the requirements of the Contractor Registration laws, RCW 18.27.010 and 18.27.110.</li> <li>- I will do all my own work or use only registered and licensed contractors to do work performed under the permit resulting from this application.</li> </ul>
<b>4.12.</b>	The customer must enter the job site address where the permit work will occur on the Address Search screen. The system will search the address database for matches and return a list for the customer to select from.
<b>4.13.</b>	If the address is not found, allow customer to select the jurisdiction they want to purchase a permit from the Jurisdiction Selection screen. Provide online information about jurisdictional boundaries to assist the customer with selecting the correct jurisdiction and to reduce phone calls. Provide a help desk number for the customer to call if they can not identify the correct jurisdiction
<b>4.14.</b>	After the address is found or jurisdiction is selected, display Select Permit Type screen, and require the customer to select the type of permit they are purchasing. Note: The list of permits available online varies by jurisdiction.
<b>4.15.</b>	If the address was found (jurisdiction wasn't explicitly selected), then map the selected address to the correct participating jurisdiction based on the address selected and the permit type selected.
<b>4.16.</b>	If the jurisdiction has an online system in place, transfer customer (pass control) to the appropriate jurisdiction web site, passing any address info the customer entered so it doesn't need to be re-keyed. Once control is passed, there is no further action by this system.
<b>4.17.</b>	If a contractor is involved and if the jurisdiction requires a local/city business license number require one to be entered on the Permit Type screen. NOTE: This number will not be verified by this system, but will be printed on the permit form that is emailed to the jurisdiction for verification by the local jurisdiction at the time of data entry. The jurisdictions will need to decide what they will do if a permit was issued that gave an incorrect or bogus local/city license number].
<b>4.18.</b>	After the address/jurisdiction is selected and the permit type is selected, display Permit Detail screen for that jurisdiction/permit type. Customer will fill in the details for the permit they are purchasing, and system will calculate associated fees.
<b>4.19.</b>	After calculating fees, display the Permit Details Confirmation screen (which will look very similar to the final permit document showing contractor name, license numbers, job site address, permit details and fees), and ask the customer to verify the details and total amount the permit will cost.
<b>4.20.</b>	After the customer verifies permit details, display the Additional Purchase screen. From this screen the customer can select the 'Ready to pay' button,

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	or the 'Purchase another permit/same address' button, or the 'Purchase another permit/different address' button.
<b>4.21.</b>	If the customer wants to purchase another permit for the same address, loop back to step 4.16.
<b>4.22.</b>	If the customer wants to purchase for a different address, loop back to step 4.11.
<b>4.23.</b>	When the customer is ready to pay (checkout), display Permit Summary screen showing list of permits to purchase sorted and totaled by jurisdiction, and showing a grand total at the bottom. Provide instructions about how the payment process will work (describe the next several steps, tell them not to cancel/close in the middle of processing, and indicate how long the payment process takes, etc).
<b>4.24.</b>	Display a Start Payment screen when customer will enter their payment information (credit card number, exp date, name on card, and possibly address for card).
<b>4.25.</b>	Verify valid card # prior to authorization request (check digit routine). This reduces the number of bad card authorization requests that we process as we get charged for each authorization attempt, even if it was unsuccessful.
<b>4.26.</b>	For each jurisdiction the customer is purchasing permits for in this transaction: <ul style="list-style-type: none"> <li>• Generate a unique Receipt # for the transaction (one receipt# for all permits for that jurisdiction).</li> <li>• Connect to USBank's Viaklix system, pass the correct merchant id based on jurisdiction, amount to charge, receipt # for reference, and request payment authorization.</li> </ul>
<b>4.27.</b>	If unsuccessful payment authorization: ask customer to try again (possibly with a different card).
<b>4.28.</b>	After successful payment, generate a unique state permit id number for each new permit issued  NOTE: Jurisdictions could add this number as a new field in their own permits systems. Then when their customers call in to schedule an inspection for a permit they purchased through the portal, jurisdictions could allow customers to use the State permit id number that was on the permit form PDF the customer printed to identify which permit they are requesting an inspection for.
<b>4.29.</b>	After a successful payment, display a 'print a receipt' page for customer to print. List all permits paid and State permit#, sorted by jurisdiction with total paid to each jurisdiction and the text that will appear on the credit card bill, and with grand total paid listed at bottom of receipt.
<b>4.30.</b>	After successful payment, generate a PDF version of each permit for the customer to print.

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<b>4.31.</b>	After successful payment, email a copy of each permit form PDF to the appropriate jurisdiction and a copy to the customer.
<b>4.32.</b>	After emails are complete, display 'Thank you' message and return customer to main portal page.
	<b>Requirements for the System Administration Module</b>
<b>4.33.</b>	Allow for creation of users, user groups, and assignment of users to user groups. Access to various system functions should be based on user group rights.
<b>4.34.</b>	Allow jurisdictions to manage their own setup information: <ul style="list-style-type: none"> <li>• list of permit types the jurisdiction handles</li> <li>• list of fees for each permit type</li> <li>• email box for incoming Permit PDF docs</li> <li>• contact info to display at bottom of fee pages</li> <li>• link to jurisdiction permit info pages</li> <li>• merchant id to pass to ViaKlix</li> <li>• message line that should appear on customers credit card bills</li> <li>• identify whether a local/city business license will be required</li> <li>• etc.</li> </ul>
<b>4.35.</b>	Address data load function (DCBS staff only).
<b>4.36.</b>	Enter/update jurisdiction list for customers to pick from (DCBS staff only).
<b>4.37.</b>	Enter/update system down message (DCBS staff only).
<b>4.38.</b>	Enter/update Next State Permit ID# (DCBS staff only).
<b>4.39.</b>	Enter/update user list, and assignment of users to jurisdictions (DCBS staff only).
	<b>General requirements for all systems</b>
<b>4.40.</b>	Maintain audit trail of changes: user id and date/timestamp for all changes. Do not need a before and after data image for each change.
<b>4.41.</b>	<b>Security:</b> <ul style="list-style-type: none"> <li>• Internal</li> <li>• External</li> </ul>
<b>4.42.</b>	<b>Online help</b> Include how to navigate the system and definitions of system terms and concepts.
<b>4.43.</b>	<b>User document</b> Not the same as a training guide, but with the same basic information as the Online Help mentioned above.

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## 5.0 Data and Access Requirements Phase 2

Item	Description
5.1.	The following data should be entered by customer when applying for a permit: <ul style="list-style-type: none"> <li>• Customer Name</li> <li>• Contractor ID: BCD License Number, CCB Number, Local Business License (if required by jurisdiction)</li> <li>• Job site address</li> <li>• Permit details</li> <li>• Credit Card information (this will not be stored, but will be passed to the e-pay system).</li> </ul>
5.2.	Jurisdiction Control Record should contain: <ul style="list-style-type: none"> <li>• Email box for incoming Permit PDF docs and reports/files</li> <li>• FTP location if applicable</li> <li>• Contact info to display at bottom of fee pages</li> <li>• Link to jurisdiction permit info pages</li> <li>• Merchant id to pass to e-pay system</li> <li>• Message line that should appear on customers credit card bills</li> <li>• Identify whether a local/city business license will be required</li> <li>• Fees for jurisdiction permits</li> <li>• Flag indicating jurisdiction is “In Test”, “In Production”, “Down for Maintenance”, etc.</li> </ul>
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## 6.0 Reporting Phase 2

Item	Description
6.1.	Daily transaction file automatically emailed/ftp'ed to each jurisdiction listing all payments made and all permits sold
6.2.	Daily transaction report automatically emailed/ftp'ed to each jurisdiction listing all payments made and all permits sold
6.3.	Permit sales statistics and payment totals by jurisdiction by permit type sold for a specified time period (default to today's date).
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## 7.0 Requirements Document Approval

### BCD Minor Labels E-payment Project

I have reviewed the information contained in this Requirements Document dated August 23, 2004, and agree to have the project team proceed to the next phase of the project based on these requirements. I understand that any changes to the requirements (scope) after this point may result in an increase to the project cost and/or schedule.

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Administrator  
Building Codes Division  
Dept. of Consumer and Business Services

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Date

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Joanie Stevens-Schwenger  
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