

Gulf Islands Consulting

Drywall Estimation System

Request for Proposal

Version 1.1

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Document History

Version	When	Who	What
1.0	2019-01-19	Gulf Islands Consulting	Initial Drafting
1.1	2019-01-22	Gulf Islands Consulting	Final Version

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1.0 Problem Description

Island Drywall wants to improve the drywall estimation system. The current system for providing quotes has notable shortcomings:

- The estimations are done manually
 - Requires travelling to and from job-site
 - Requires measuring entire building by hand
 - Employee needs special training to provide quotes
 - All calculations are performed manually
- The estimations are not time effective
 - The process takes 4-5 hours on average

Island Drywall is not satisfied with the time and resources required to provide quotes to clients. A faster, and ideally remote, system with the same accuracy is required to improve the estimation process.

2.0 Project Objectives

The new estimation system should meet the following criteria:

- Provide a quote in 1-2 hours
- Provide price quotes with at least 90% accuracy
- Reduce the amount of manual measuring and calculations required
- Be usable internally by employees with minimal training
- Be adaptable for changing building restrictions
- Be adaptable for changing material prices

The new system should implement a software solution which assists the employee in providing quotes.

3.0 Current System

Island Drywall's current system of generating quotes is largely manual. Assuming that the basic structural work of the jobsite is already completed (i.e. framing), measurements are taken via visual inspection and tape measure. If necessary, the client (property owner) or general contractor may accompany the inspector to provide additional notes or useful information pertaining to timelines or relevant project details. Measurements and data are recorded in the inspector's notebook. If structural work has not yet been completed, then measurements will be taken by referring to construction blueprints.

Material costs are gathered by contacting suppliers (by phone) and comparing prices. The data is later used to generate an invoice with the help of Sage, a general-purpose accounting and bookkeeping software. This serves as a template to outline material and labour costs.

Upon completion, the quote is submitted to the client to review and compare with other companies' quotes. If selected for the job, the price remains firm to the initial quote unless any critical unforeseen circumstances arise. Any cost variation is the responsibility of Island Drywall and should not affect the client's price.

NOTE: At the time of this RFP, all inspections and quotes are solely performed by the company owner of Island Drywall. Past invoices/documentation are stored through Sage online.

4.0 Intended users and their interaction with the system

There will only be internal usage of the system by company employees. These are the interactions they will have with the system:

- Estimate drywalling price: the company employees will use the system to estimate the total price of the drywalling job by using size dimensions and material price
- Update material price: to ensure the correct estimation, the company employees will adjust material price by checking with Home Depot, Slegg Building Materials and Rona.

5.0 Known interaction with other systems within or outside the client organization

There are two main interactions that occur outside the client organization and pertain to the estimation process. Firstly, interaction between Island Drywall and their client for a specific project occurs throughout the estimation process, where they discuss the project and Island Drywall eventually provides a quote for the cost of the project based on the estimation. In some cases, this client will be a contractor, and the interaction takes place between the two organizations. Data on the project, such as cost and material details, must be recorded in the contractor's system.

Secondly, there may be complications in the estimation process due to wiring or piping restricting the area where drywall can be set up. In this scenario, Island Drywall & Finishing must consult local electricians or plumbers (who may utilize manual or software systems of their own) to ensure a safe and efficient resolution to the problem.

6.0 Known constraints to development

In this project, there are three listed constraints critical to the system of operation described in the outline below. These are essential to preserve the integrity and viability of the system.

Client Must Not Be Able To Access the System

The system is intended to be exclusively operated internally and to be inaccessible to customers. Therefore, the system must limit access to company staff only.

Providing Quotes Must Take Less Than the Current System

The current system takes 4 to 5 hours to generate the estimation; the new system must be able to generate estimations faster.

Budget

This project must be completed within a budget of \$1000 to \$3000.

7.0 Project Schedule

Task:	Start Date:	End Date:	Duration:	Assigned To:
Request for Proposal	01/16/2018	01/22/2018	7 days	Gulf Islands Consulting
Requirement Document (RD) 1.0	01/23/2018	02/05/2018	14 days	Developers (Group 8)
RD 1.1	02/06/2018	02/06/2018	1 day	Gulf Islands Consulting
Requirements Specification Document (RSD) 0.9	02/07/2018	03/12/2018	34 days	Developers
RSD 1.0	02/07/2018	03/19/2018	41 days	Developers
RSD 1.1	03/20/2018	03/23/2018	4 days	Gulf Islands Consulting
RSD 2.0	03/24/2018	03/26/2018	3 days	Developers
Final Demo	03/27/2018	04/04/2018	9 days	Developers

8.0 Project Team

Gulf Islands Consulting consists of eight motivated individuals and can be contacted at the following email and website:

Email: seng321spring2019group4@gmail.com

Website: <https://andysmit.github.io/SENG321/>

Rhett Devlin (Chief Intern)
Jared Larter (PR & HR Manager)
Jeremy Megyesi (Domain Expert)
Subah Mehrotra (Business Analyst)
Ryan Russell (Project Manager)
Andy Smith (Master Web Developer)
Mona Soleimanieh (Quality Control)
Eric Wiebe (Product Development)

9.0 Glossary of terms

Drywall	A type of board used in the construction of internal walls and ceilings.
Framing	Fitting together components to create a defined shape and structure.
Home Depot	Home improvement and building supply retailer chain.
Quote	An approximation of the project cost accumulated from the price of materials and labour.
RONA	Home improvement and building supply retailer chain.
Sage	Business assistance software used for generating and tracking invoices.
Slegg Building Materials	Building supply retailer located on Vancouver Island.