Data Management Improvement at Heritage Gas

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1. Problem Statement

- Decentralized approach for documenting and requesting/transmitting project data.
- Independent and intra-departmental conventions for documentation. There is not common standard.
- Information overload and error-based documentation are more likely, given the need for information sharing.
- Decentralization causes extra non-value added steps.

2. Scope

Based on the client's expectations, a database prototype is created via MS Access in order to demonstrate centralization and all the associated benefits. If further pursued it can also act as a preliminary database to a more advanced commercial package. This can provide an efficient platform for personnel to update and retrieve project information. The prototype also can reduce some manual work.
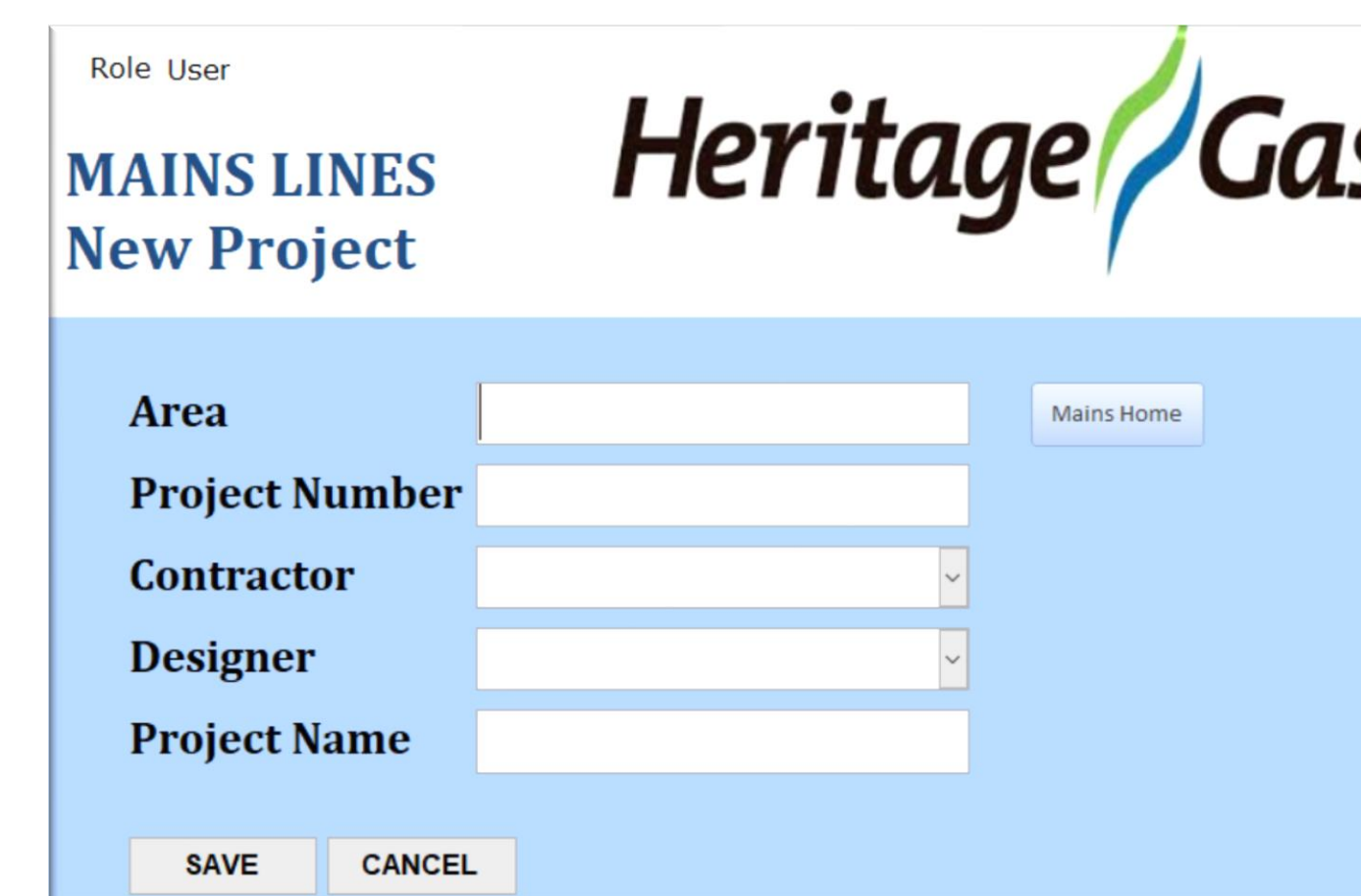
3. Methodology and Analysis

Popular software for a scope of this magnitude are listed below, with associated attribute weighting in order to meet the client satisfaction with respect to the expected factors influencing a database.

Weight	30	25	20	15	10		
Factors / Software	Low Cost	Function	Maintenance	Robust	Familiar	Total Score	RANK
MS Access	5	5	1	4	4	395	1
MS Excel	5	3	1	4	5	355	2
MS SharePoint	1	4	3	5	1	275	7
MySQL	3	4	3	5	1	335	3
System Application and Products (SAP)	2	5	3	5	1	330	t-4
Zapier	3	4	3	4	2	330	t-4
Maximo	2	5	3	5	1	330	t-4

4. Prototype Function

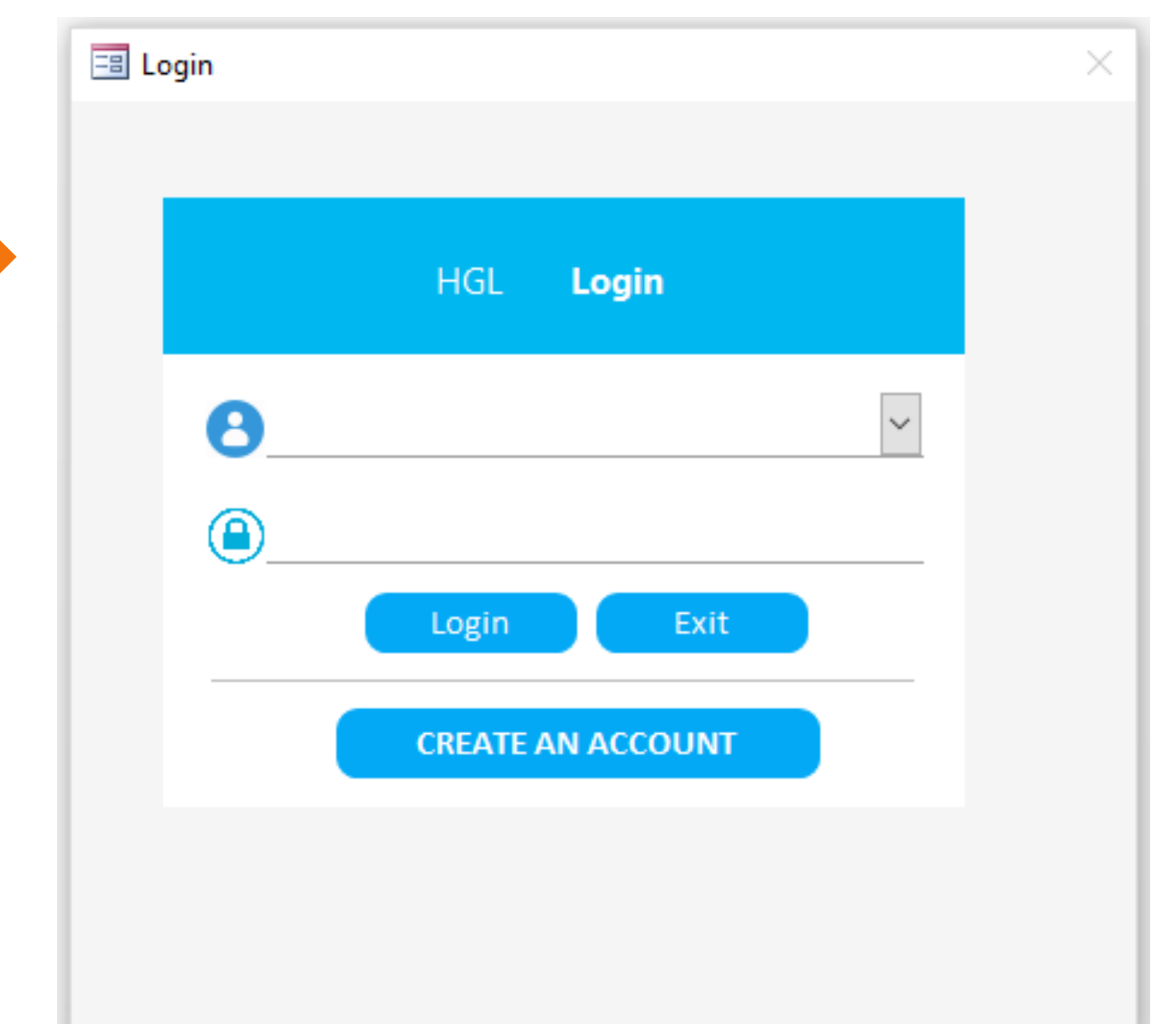### Required

- Single Project Research
- User Authority
- Meters of Pipe Installed
- New Project Creation
- Stage of the Process
- Engineering Design Status Report
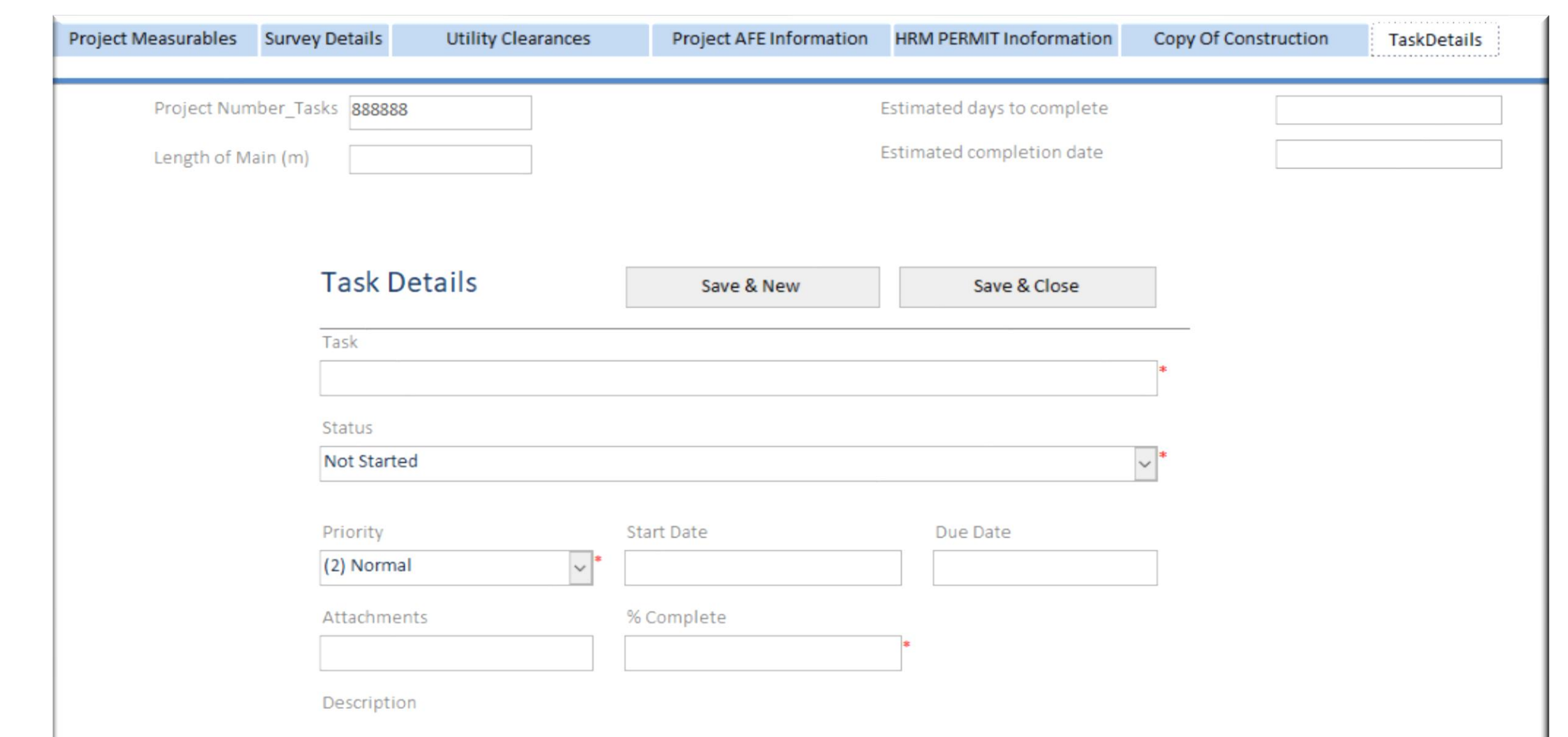- Meter Placement (by Construction)
- Number of Meter Per Month
- Pending Package Report
- Phases with Construction
- Open and Completed Projects Report
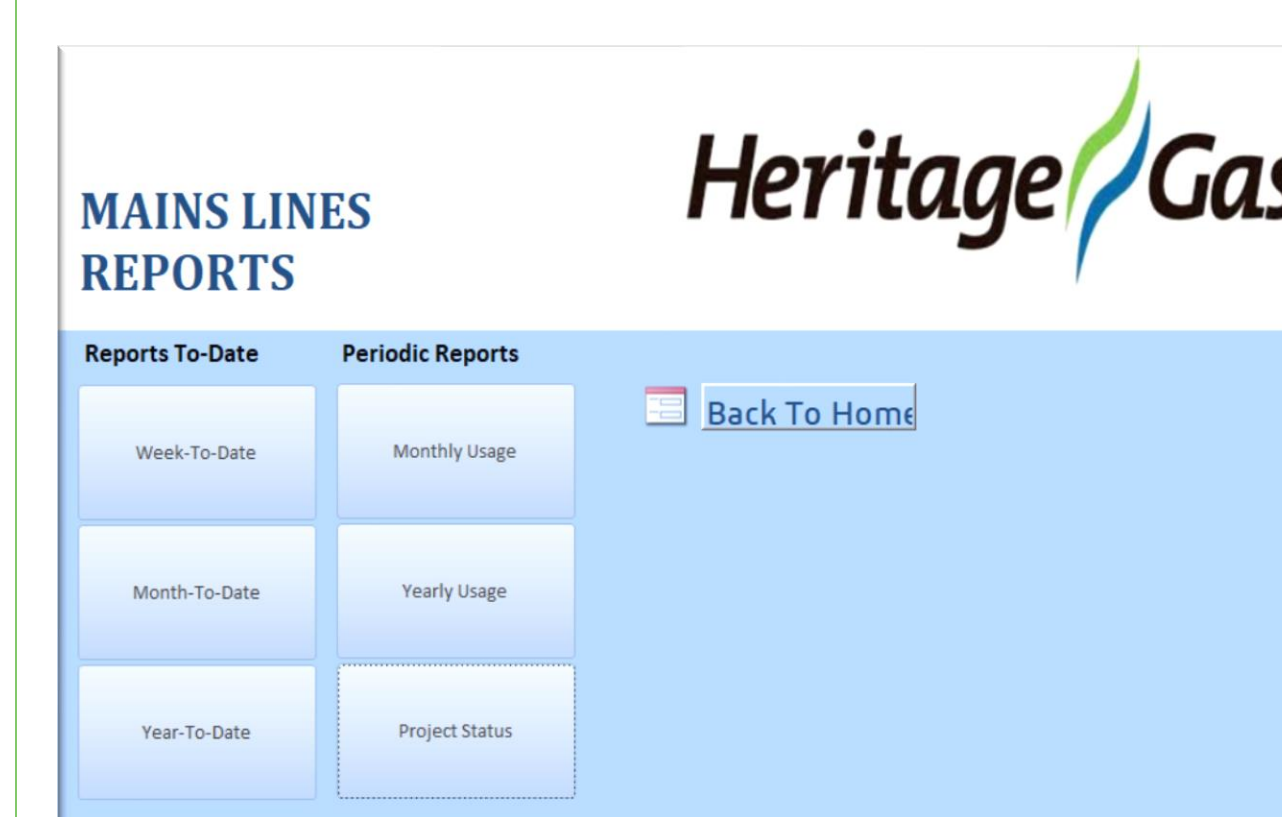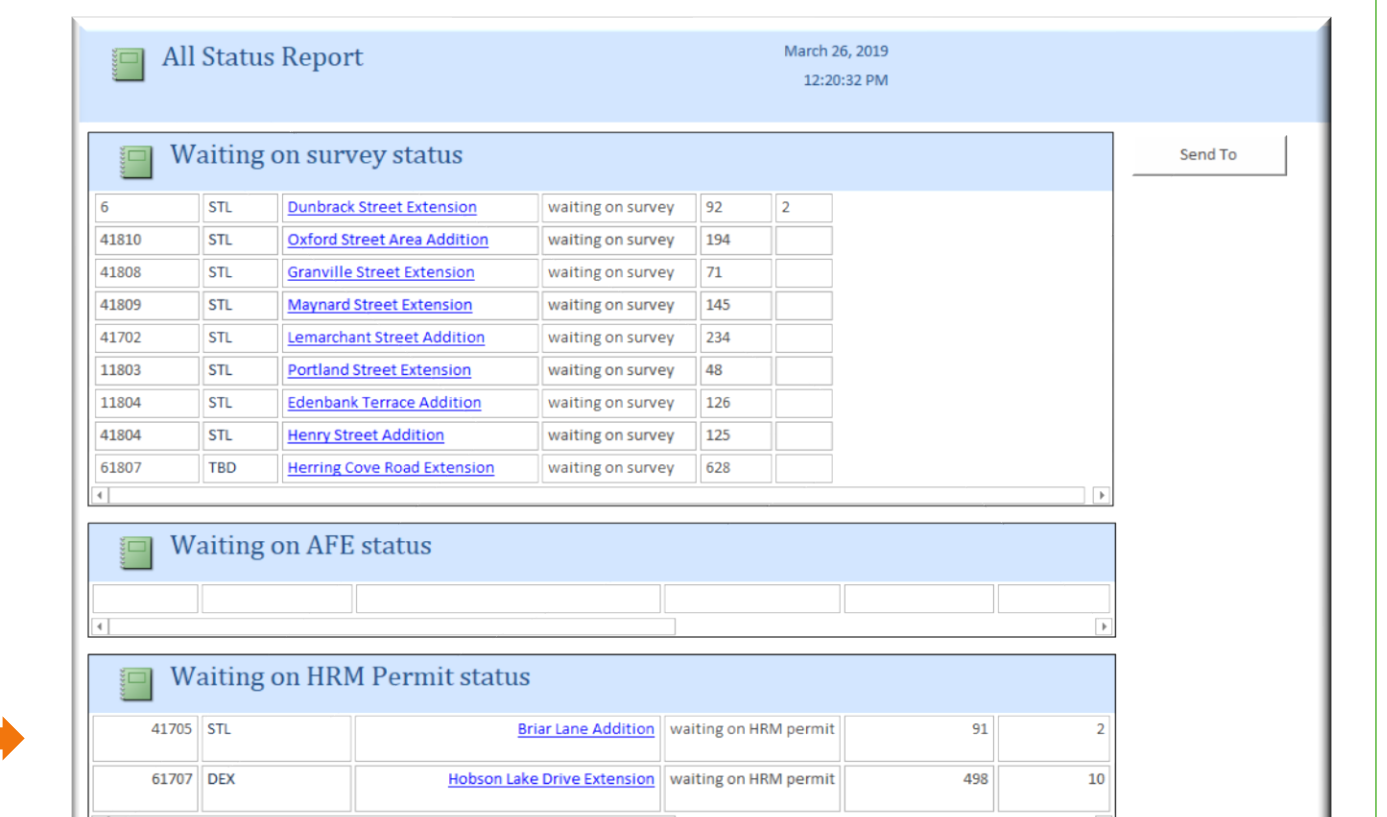- Meter Placement Per Technical Planner

Suggested

- Multiple Area/Fields Research
- Data Categorization
- Automate Weekly Engineer Report
- Status by Type

5. Result

The estimated cost yearly savings is **15,000** CAD

Improved Process

Improved Process
All project information can be found in the prototype
The "Task Details" form records the progress of construction
Categorization of data into different forms (centralization)
Automatically generate reports
Forecast based on the analysis of historical data

Benefit

Benefit
Efficiently exchange project information
Ability to have construction progress easily accessible
Easier to handle multiple projects / Access project specific information
Ability to easily add new reports along with automating existing reports
More accurate forecasting