



# Centralia, IL Label Verification System Development and Execution Proposal

Presented To: Govind Giri

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## 1.1 Revision History

Date	Rev.	Description	Author
01-APR-2024	0	Initial Issue	Cole Riddle

## 1.2 Referenced Documents

Document Number	Document Name	Rev.
N/A	N/A	N/A

#### 1.3 Contact Information

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# 1.4 Proprietary Notice

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# 2 Introduction

## 2.1 Executive Summary

ConAgra Brands LLC, hereinafter referred to as "Conagra" has engaged in extensive conversations, onsite visits, and live demonstrations with Grantek regarding a solution for Label Verification across their facilities. As a result, Grantek has been selected to execute their Label Verification solution across the selected facilities turnkey.

In Grantek's experience, successful Label Verification programs begin with good corporate guidance and consistency of deployment. Every line is different and presents its own challenges, and Grantek has seen one-off or out-of-the-box solutions continually fail to prevent recalls and meet plant expectations.

Grantek has extensive experience designing and commissioning Label Verification systems in the food and beverage industry with thousands of cameras deployed on over 500 lines across the US/Canada. Grantek leverages Inductive Automation's platform to deploy their Label Verification solution. Conagra has already invested in Ignition as their platform for SCADA, visualization, data collection, etc.

Grantek is a Premier and Enterprise Ignition integrator, a credential which represents our strong engineering workforce certified on the product, track record of successful implementations, and ability to scale for multi-site, Enterprise-level initiatives. Grantek has extensive Ignition experience with ten offices that are Gold Certified, having more gold certifications in North America than any other Enterprise Integrator. Grantek ensures projects executed in any region on the continent are served by engineers that have the latest training and using the current best practices from Inductive.

From Grantek's experience designing and commissioning these Label Verification systems and after discussions with the Conagra team, a 3-phased project approach has been developed:

- 1. Long Lead Hardware Procurement
- 2. Preliminary Engineering On-Site Investigations
- 3. System Design/Execution/Commissioning

This quotation will encompass the estimate for System Design, Execution and Commissioning phase for the Centralia, IL facility.

We thank you for the opportunity to provide you with this proposal and look forward to the successful completion of this project.

Cole Riddle

Sales Designer - Smart Packaging

**Grantek Systems Integration** 

## 2.2 Grantek Systems Integration Overview

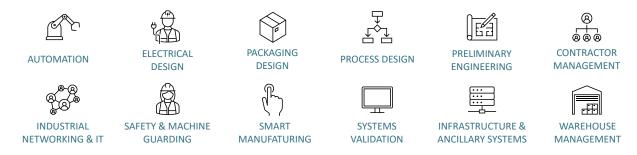
Grantek is a leading provider of integrated manufacturing automation services. Our innovative solutions are designed to increase our customers' return on investment and reduce time to market through improved manufacturing productivity, product quality, asset utilization and integrated technology.

Our customers are among the most respected manufacturers of global brands, as well as niche manufacturers seeking improved performance and competitive advantage. Since 1980, top manufacturers in Food & Beverage, CPG and Life Sciences/Pharmaceuticals have called upon Grantek to solve their most complex business and manufacturing challenges. Grantek helps enable greater profits to customers by creating better processes for them in:

- New Plant Installations
- Continuous Improvement Initiatives
- Business Intelligence and Enterprise
   Manufacturing Intelligence
- Conversion of Non-Automated Facilities
- Support, Maintenance and Troubleshooting

Grantek is a system integrator and business solution partner with over 40 years of experience, we have 200 employees and deliver solutions to manufacturers in the United States and Canada. Through our total system solution approach and the dedication of our professional staff, the Grantek team guarantees a manufacturing facility, line, or process that has been skillfully designed, professionally engineered, and executed for a vertical start-up.

Grantek provides services to the manufacturing community in the areas of:



Grantek has offices located in California, Illinois, Ontario, Pennsylvania, Quebec, Ohio, British Columbia, Florida, and Bangalore, India.

# 3 Scope of Work

Grantek has completed Long Lead Hardware Procurement (Phase 1) and Preliminary Engineering On-Site Investigations (Phase 2) at the Centralia, IL site. Now that all required information has been collected, Grantek is providing a proposal for System Design, Execution and Commissioning for this Label Verification project.

### 3.1 Overview

The Centralia, IL site has a total of 5 Primary Packaging lines where Label Verification Systems will be implemented. Each of these lines will have a dedicated Label Verification control panel that have already been purchased as part of the Long Lead Hardware procurement phase. Each of the 5 lines will have similar configurations to verify the Primary Packaging lines outlined below:

Line Name	# of Main LV Panels	# of Cognex Dataman Readers	Inspection Type(s)
Line 1 – Layer Cake	1	1	1D barcode
Line 2 – Layer Cake	1	1	1D barcode
Line 3 – Layer Cake and Brownie	1	1	1D barcode
Line 4 – Frosting	1	1	1D barcode
Line 7 – Brownie	1	1	1D barcode

Table 1 - Line Overview

## 3.2 System Architecture

The Label Verification solutions architecture can be divided into two categories: Line Level Architecture and Site Level Architecture.

#### 3.2.1 Line Level Architecture

The Line Level Architecture is repeated for each line where Label Verification will be implemented, with some differences depending on each line's requirements. In general, the Line Level Architecture consists of the following main components:

- Label Verification Panel
  - o Rockwell Thin client Running an Ignition Perspective Floor-Level Application
  - o Rockwell PLC for System Control
  - Rockwell Managed Switch for Networked Devices
- Cognex Dataman Readers

#### 3.2.2 Site Level Architecture

The Site Level Architecture is specific to the site. In general, the Site Level Architecture consists of the following main components:

- Ignition Gateway Server Infrastructure
- SQL Database Server
- SFTP File Server for Image Storage
- Ignition Perspective Management Application with Access via Web Browser

#### 3.3 Floor-Level HMI

The Grantek LV solution includes a modern and user-friendly floor-level interface leveraging the Ignition Perspective platform. This Ignition Perspective HMI application will have the following functionality:

- Line Statistics/performance
- Camera Diagnostics
- Image Viewing
- Alarming

## 3.4 Management Application

Grantek does not only provide the floor-level interface through the Ignition platform, but also a web-based Management Application that allows users to perform higher-level functions. Some features included in this application are LV SKU Management, real-time dashboarding for insights on LV statistics and fault codes and LV inspection image viewing to diagnose no reads and mismatches.

#### 3.5 SQL Database and SFTP File Server

The Label Verification solution requires an SQL Database for data logging pertaining to the system, as well as a File Server for image storage from the Cognex devices via SFTP. Grantek will work with Conagra IT to deploy these systems.

## 3.6 PLC Program

Grantek has a templatized PLC program for the Label Verification solution. This PLC program will be individually configured for each line based on each line's specific requirements. In general, the PLC program will provide the following system control:

- Interface with Ignition Gateway for both Floor-Level HMI and Management Application date.
- Interface with the Product/Resource Code Database to receive product/resource code associations.
- Interface with the production line via Ethernet/IP or Discrete I/O to stop the line in event of a failure
- Interface with the production line via Ethernet/IP to stop the line in the event that the line is producing, and packages are not detected at the verification station.
- Interface with the Cognex Dataman Readers and/or Cognex Insight Cameras via Ethernet/IP and/or discrete I/O.
- Interface with the reject via discrete I/O (if applicable).
- Control of the stack lights.

## 3.7 Reader and Camera Configurations

Cognex Dataman Reader configuration for interface with Label Verification PLC **and 1D barcode** detection on the following packaging types:

- Carton
- Cylindrical tub

**Note**: Grantek assumes that all packaging graphics be 1D barcodes at this time. There may be a potential in the future to change to 2D barcode inspections, which may require additional scope. Grantek is working with Conagra to mitigate this.

## 3.8 Commissioning On-Site Services

Unless otherwise noted, all on-site services are to be completed within regular business hours. Hours worked beyond 8-hours within a 24-hour period will be billed at Grantek premium overtime rates. Associated travel time is also included in the estimate. Below lists the estimated number of days and trips currently allocated for commissioning, start-up, and training. If more trips are required due to an issue outside of Grantek's direct control, those additional trips will be processed as a change order. For example, production delays, key stakeholders being unavailable to answer questions or approve work, inability to access the lines, or unresolved network connectivity issues are all considered items outside of Grantek's direct control.

Each line label verification panel will pass SAT to verify that the system performs as expected.

The below visits have considered that the Centralia, IL commissioning schedule will not take place in a sequential manner, but rather in different intervals of time. Grantek has accounted for trips based on the estimated time to successfully complete a line or lines during each visit.

#### 3.8.1 Line 1 - Layer Cake

- Line 1 Commissioning System Testing, Training, and SAT Execution
  - Five days
- Production Support
  - o Five days

#### 3.8.2 Line 2 - Layer Cake

- Line 2 Commissioning System Testing, Training, and SAT Execution
  - Five days
- Production Support
  - o Five days

#### 3.8.3 Line 3 – Layer Cake and Brownie

- Line 3 Commissioning System Testing, Training, and SAT Execution
  - Five days
- Production Support
  - Five days

#### 3.8.4 **Line 4 – Frosting**

- Line 4 Commissioning System Testing, Training, and SAT Execution
  - o Five days
- Production Support
  - Five days

#### 3.8.5 **Line 7 – Brownie**

- Line 7 Commissioning System Testing, Training, and SAT Execution
  - Five days
- Production Support
  - o Five days

#### 3.8.6 Site Wide Production Support

- Production Support
  - o Ten days

## 3.8.7 Training

- Training Unit Setup/Takedown
  - o One day
- Training
  - Four days

**Note**: The commissioning and support portions of this project outlined above are used to determine the cost, however Grantek/Conagra are collaboratively working on a live schedule that will aim to meet Conagra's requirements/production schedules/machine downtime which can cause trips/days on-site to shift or change.

## 4 Deliverables

#### 4.1 Grantek Deliverables

#### 4.1.1 Documentation

- · All documentation shall be in English
- A User's Manual will be developed for each of the control systems. The User's Manual will
  include a graphical depiction of each screen along with a description of how the control elements
  on each screen are used and complete description for each alarm along with a recommended
  course of corrective action.
- A Site Acceptance Test (SAT) protocol will be developed to test the full functionality of the installed system.
- One "review / revise" iterations for each released document are included in this proposal.
   Additional revisions of the documentation will be charged on a time and expense basis, at standard Grantek rates.
- All programming will be completed in a well-documented manner.
- Soft copies of all documentation will be provided.

#### 4.1.2 Electrical Design

- Site Reviews as required, determining project electrical requirements.
- Development of a standalone electrical drawing package for each system including Label Verification Panel.
- Modification to existing panel drawings to include interface with the Label Verification panel,
   Grantek will address each of the listed scenarios as follows:
  - O Up to date electrical CAD drawings are available for the machine:
    - Existing electrical CAD drawings will be modified to reflect the updates to the system.
  - Up to date PDF or drawings in a different format are available:
    - Existing PDF or drawings in a different format will be red-lined to reflect the updates to the system.
  - No drawings are available:
    - No modifications will be made.
- Provide electrical schematic diagrams set to meet the requirements of the project. All drawings will be provided in soft and hard copy, in AutoCAD format. The electrical design package will include:
  - Junction Box (JB) drawings specifying power, ethernet and IO terminations,
  - PLC Architectural drawings,

- o Electrical Schematic Drawings,
- Bill of Materials and
- Panel Layout drawings.
- The drawing set modifications detailed above will be made for the following systems:
  - o Line 1 Cartoner,
  - Line 2 Cartoner,
  - Line 3 Cartoner,
  - Line 4 Labeler and
  - Line 7 Cartoner.
- Provide an electrical as-built drawing set upon completion of project.
- Note: The Electrical SOW is outside the scope of this proposal. That deliverable is part of the Site
  Assessment proposal for this site, please reference document 2312.0097A Conagra (CENT) 2D Label Verification Electrical SoW.pdf.

#### 4.1.3 Mechanical Design

- Grantek will provide sample bracketing designs for the mechanical contractor via the Mechanical SOW. However, the mechanical contractor will ultimately be responsible for the final designs that they decide to fabricate. These designs should be based off the provided Mechanical SOW and communications with Grantek and Conagra.
- Note: The Mechanical SOW is outside the scope of this proposal. That deliverable is part of the Site Assessment proposal for this site, please reference document 2312.0097A - Conagra (CENT) - 2D Label Verification - Mechanical SoW.pdf.

#### 4.1.4 Hardware

• Estimated/Generalized Bill of Materials as follows:

Quantity	Description
5	Cognex Dataman 374X
5	Power, IO and Ethernet cables
5	Allen Bradley Input Cards
4	Keyence Photo Eye (LR-ZH490CB) 500mm Range, Cables, and Mounting Brackets
1	PowerFlex 525 1 HP

Table 2 – Hardware and Accessories

 Note: Label Verification Panels have already been ordered as part of the Long Lead Hardware procurement phase. Out of the 50 panels ordered, 5 panels will be allocated for this site.

#### 4.1.5 Commercial Software

 No commercial software licenses have been included in this estimate. It is assumed that Conagra already has or will purchase the required Ignition licenses.

#### 4.1.6 Floor-Level HMI

- Grantek's templatized Ignition HMI program will be configured for the 5 lines in question. Asbuilt backup of the Label Verification Ignition HMI backup will be provided to the client upon completion of the project for the following systems:
  - Line 1.
  - o Line 2.
  - Line 3,
  - o Line 4 and
  - Line 7.
- Existing machine HMIs will be updated to add required alarms. As-built backup of the updated existing HMI program will be provided to the client upon completion of the project for the following systems:
  - Line 1 Cartoner,
  - Line 2 Cartoner,
  - Line 3 Cartoner,
  - Line 4 Labeler and
  - Line 7 Cartoner.
- **Note**: The Line 7 Cartoner HMI was unable to be collected during the Site Assessment. The Line 7 Cartoner HMI modifications will be dependent on if the Line 7 HMI backup is accessible.

#### 4.1.7 Management Application

 As-built backup of the Label Verification Ignition Management Application project will be provided to the client upon completion of the project.

#### 4.1.8 PLC Programming

- Grantek's templatized PLC program will be configured for the 5 lines in question. As-built backup of the Label Verification PLC program will be provided to the client upon completion of the project for the following systems:
  - o Line 1.
  - o Line 2,
  - o Line 3,
  - o Line 4 and
  - Line 7.
- Existing machine PLCs will be updated to add interlock logic and required alarms. As-built backup of the updated existing PLC program will be provided to the client upon completion of the project for the following systems:
  - Line 1 Cartoner,
  - Line 2 Cartoner,

- Line 3 Cartoner,
- Line 4 Labeler and
- Line 7 Cartoner.
- Note: The Line 7 Cartoner PLC was unable to be collected during the Site Assessment. The
   Line 7 Cartoner PLC modifications will be dependent on if the Line 7 PLC backup is accessible.

#### 4.1.9 Reader and Camera Programming

- As-built Cognex Dataman backups will be provided to the client upon completion of the project for the following systems:
  - Line 1 1 backup,
  - Line 2 1 backup,
  - Line 3 1 backup,
  - Line 4 1 backup and
  - Line 7 1 backup.

#### 4.1.10 Commissioning On-site Services

- Unless otherwise noted, all on-site services are to be completed within regular business hours.
- Hours worked beyond 8-hours within a 24-hour period will be billed at Grantek premium overtime rates.
- If the required time on-site increases due to a change in the scope of work the increase will be handled through the change order process.
- If the required time on-site increases due to a project delay the increase will be handled through the change order process.
- Please refer to section 3.8 for more details around provided commissioning services.

## 4.1.11 Training

Grantek has provided operator shift and maintenance shift training on the Grantek LV Training
 System. Please see the schedule below for the proposed training schedule based on the operator
 and maintenance personnel count:

	Monday	Tuesday-Friday			
		1 <sup>st</sup> Shift (7-7:30am)			
		5 Operators			
Operator Training	System Setup	2 <sup>nd</sup> Shift (10-10:30am)			
(~60 Operators)	System Setup	5 Operators			
		3 <sup>rd</sup> Shift (5-5:30pm)			
		5 Operators			
		1st Shift (7-9am)			
		1-2 Maintenance Personnel			
Maintenance Training (~20 Maintenance)	System Setup	2 <sup>nd</sup> Shift (10am-12pm)			
	System Setup	1-2 Maintenance Personnel			
		3 <sup>rd</sup> Shift (5-7pm)			
		1-2 Maintenance Personnel			

## **4.1.12 Meetings**

• Grantek has provided for 8 hours of remote meetings in this proposal. Additional meetings will be charged on a time and expense basis, at standard Grantek rates.

#### 4.2 Customer Deliverables

- Coordination of Conagra team and final agreement with Grantek issued schedule for site reviews.
- Detailed Centralia, IL site schedule for commissioning.
- All existing electrical drawings relating to the current systems.
- Copies of the latest PLC programs, HMI applications, and configuration files as required.
- Technical Support for Commissioning & Start-up.
- · Appropriate downtime on required lines.
- Conagra is responsible for supplying all label types for evaluation so that Grantek can confirm
  image acquisition performance. Grantek cannot be held responsible if an unknown or untested
  label type requires further hardware or additional initiative to obtain the specified/required result.
  Any modifications or changes will be treated as a change order.
- · Ignition Gateway server infrastructure and licensing.
- SFTP server provided with any required licensing.
- Assistance from Conagra IT for system setup.

# 4.3 Summary of Deliverables

The following table summarizes the split of key responsibilities this proposal aligns with.

Deliverables	Grantek	Client/Others	Not In Scope
Management and Meetings			
Meeting scheduling and meeting minutes	$\overline{\checkmark}$		
Production schedule and project schedule	$\overline{\checkmark}$	$\overline{\checkmark}$	
Production downtime coordination		$\square$	
Construction management		$\overline{\checkmark}$	
Attendance at scheduled meetings	$\overline{\checkmark}$	$\overline{\mathbf{V}}$	
Action register	$\overline{\checkmark}$		
Monitor scope, communicate potential change orders	$\overline{\mathbf{V}}$		
Hardware and Devices		•	
Hardware Procurement (see 4.1.4)	$\overline{\checkmark}$		
Software		•	
Software licensing and activation		$\overline{\checkmark}$	
Supply and install software on server/HMIs		$\overline{\checkmark}$	
Software configuration on servers/HMIs once software is installed	$\overline{\checkmark}$		
As-built PLC Backups	$\overline{\checkmark}$		
As-built HMI backups	$\overline{\mathbf{V}}$		
Power BI Design and Configuration			$\overline{\mathbf{V}}$
SAP Integration			$\overline{\mathbf{V}}$
HMI and PLC Integration into existing systems	$\overline{\mathbf{V}}$		
Electrical			
Electrical Installation		$\square$	
Electrical SOW			$\overline{\checkmark}$
Mechanical		•	
Mechanical Installation		$\overline{\checkmark}$	
Mechanical SOW			$\square$
Sample mechanical designs	$\overline{\checkmark}$		
On-Site			
Coordination of contractors	$\overline{\mathbf{V}}$		
Commissioning schedule coordination		V	

Deliverables	Grantek	Client/Others	Not In Scope
Onsite Construction Support, Commissioning, System Testing, SAT Execution, Production Support, and Training for all lines (See section 3.8 for details)	V		
Training during commissioning	$\overline{\checkmark}$		
Post commissioning support requests			V

Table 3 – Division of Responsibilities Matrix

# 5 Schedule

The table below summarizes a preliminary milestone schedule for Grantek's scope of supply. The milestone schedule below is only an estimate. Upon receipt of PO and review of the customer's schedule, a more detailed schedule can be prepared and provided. Grantek is currently booking out resourcing approximately 4-6 weeks after receipt of PO.

Milestone	Date
Target PO Receipt	April 2024
Hardware to be Ordered	After receipt of PO
Hardware and Panels Delivered to Site	Panels Delivered to site 🗹
System/Electrical Design	April 2024
SAT & Commissioning Start	May 2024

Table 4 – Preliminary schedule

# 6 Pricing

#### 6.1 Fixed Price

## **6.1.1 Design and Commissioning**

Description	Price
Project Management	\$35,700.00
System, Electrical Design and Documentation	\$138,200.00
LV Training Unit Service	\$46,300.00
Onsite Commissioning, SAT Execution, Production Support and Training	\$189,900.00
Total	\$410,100.00

Table 5 – Fixed Price: Design and Commissioning

#### 6.1.2 Hardware

Description	Price
Estimated Hardware as per Section 4.1.4	\$37,500.00
Total	\$37,500.00

Table 6 – Fixed Price: Hardware

# 6.2 Remote 24/7 Support - Centralia, IL

Grantek and Conagra have engaged in discussions for an annual support contract that will encompass the Centralia, IL site outside of this proposal.

## 6.3 Travel

Grantek employees will travel home every weekend, unless otherwise agreed to in writing.

## 6.4 Risk Mitigation

The following is a list a risks and concerns that may cause an increase (or decrease) in the price quoted above:

- Expansion of Scope As the project progresses, additional deliverables may become required.
- Changes in Vendor Delivery Time Occasionally the timing in vendor deliveries may be delayed resulting in an increase in project timelines.
- Software/Hardware Pricing Changes Any unforeseen changes to a vendor price, or additionally required software or hardware.
- Change Elements and Re-work There is possibility that new changes are required that result in previously completed deliverables needing to be adjusted.
- Overtime Overtime work may become required as the project progresses due to changing time constraints and additional deliverables.

# 7 Commercial Terms

## 7.1 Services Payment Schedule

- The total Fixed Price Services amount will be billed as follows:
  - 25% Electrical Package Release for Review
  - o 45% Ready for commissioning
  - 20% Upon Commissioning complete\*
  - o 10% Upon final submittal

## 7.2 Hardware Payment Schedule

- 50% of Hardware purchased by Grantek will be invoiced upon receipt of PO.
  - o Net 0 days
- 20% upon signed approval BOM/drawings
  - Net 120 days
- 30% upon ready to ship FOB Conagra site.
  - o Net 120 days

## 7.3 Payment Terms

- All prices in this document are in USD.
- · All prices in this document are FOB client site.
- This proposal is valid for thirty days.
- Taxes are not included in any prices listed in this document.
- Net 120 days, unless otherwise specified, 1.5% per month on overdue accounts.
- Payment terms as per Conagra/Grantek MSA

## 7.4 Ownership

All software and hardware purchased under this order will become the property of and registered to the customer. Grantek reserves the right to use any source code and other developments produced by this order on any future Conagra projects.

## 7.5 Terms and Conditions

Refer Conagra and Grantek MSA.

<sup>\*</sup>Invoicing pro-rated per completion of lines commissioned

# 7.6 Assumptions, Clarifications, and Exclusions

# 7.6.1 Project Specific

Reference	Description
Assumption	s
PSA0	Grantek has assumed all onsite work is done within regular business hours.
PSA1	Conagra will provide remote access to all cameras and PLCs for remote troubleshooting.
PSA2	Grantek assumes that all packaging graphics be 1D barcodes at this time. There may be a potential in the future to change to 2D barcode inspections, which may require additional scope.
PSA3	Production will be available for commissioning after installation and I/O checkout. Any commissioning delays or extra trips required due to lack of production will be handled as a change order.
PSA4	Except with those specifically mentioned in the proposal, Conagra will supply all necessary server licenses, including, but not limited to Rockwell Automation, Windows, MS-SQL, Ignition and virtual environment has sufficient capacity to host new Grantek servers, etc.
PSA5	At the time of the proposal, not all electrical schematics have been received by Grantek. It is assumed the OEM equipment will have available Inputs/Outputs to interface with the Grantek system. If additional hardware and drawings are needed, this will be handled as a change order.
PSA6	Grantek will supply the hardware specified in Section 4.1.4.
PSA7	Grantek assumes that all Ignition infrastructure will be in place and ready for Grantek to develop and deploy on.
PSA8	Grantek assumes the provided SKU list is up to date.
PSA9	Grantek has quoted on the assumption that all inspections will be 1D barcodes, with the future 2D barcode location being within the same camera field of view as the 1D barcode. Otherwise, moving of the camera will be required.
PSA10	Grantek has received the latest and most up to date drawings sets for all lines.
PSA11	Grantek has assumed no special flowthrough requirements are needed after discussion with the plant.
PSA12	Grantek assumes that the existing gantry system on Line 4 is in working condition.
PSA13	Grantek has assumed that the Operator and Maintenance personnel training on the LV Training Unit will occur in the same week, following the schedule defined in section 4.1.11.
Clarification	s
PSC0	No clarifications.
Exclusions	
PSE0	Software licenses not specifically outlined in this proposal are not included.
PSE1	Power BI design and configuration work has not been included in this proposal. As per discussion with Conagra this work will be a separate initiative with its own pricing.
PSE2	SAP integration design work has not been included in this proposal. As per discussion with Conagra this work will be a separate initiative with its own pricing.

Table 7 – Project Specific Assumptions, Clarifications, and Exclusions

## 7.6.2 Clarifications

Reference	Description	
Clarifications		
General		
CG1	In the event that any of the assumptions, exclusions or limitations specified in this proposal are not satisfied, these situations will be re-evaluated on a case-by-case basis and Grantek is not responsible for affected related scope.	

Reference	Description
CG2	If Grantek is not supplying the hardware in question, the Customer is responsible for ensuring that all existing field devices that are in use, or that are to be reused, are in good working order, or will be repaired or replaced by the Customer when required. Grantek is not responsible for the repair and/or replacement of damaged existing field devices.
CG3	Any changes to the BOM may result in a Change Order.
CG4	This proposal does not include any "time and expense not to exceed" terms, either in direct terminology or in spirit.

Table 8 – Clarifications

## 7.6.3 Exclusions

Reference	Description		
Exclusions			
General	General		
EG1	Grantek makes no performance guarantees concerning third-party equipment. Grantek will guarantee the performance specified in the proposal's acceptance criteria and agreed-upon deliverables.		
EG2	Software licenses not specifically outlined in this proposal are not included.		
EG3	Training not specifically outlined in this proposal is not included.		
Safety and Machine Safeguarding			
ES1	The scope of this proposal does not include any functional or performance modifications that can affect the motion of exposed, hazardous mechanical parts of equipment, storage/dissipation of hazardous energy, or any accessibility to hazardous areas.		
ES2	Where aspects of requirement specifications are not provided or unknown, Grantek's modification will be designed to meet or exceed the existing performance (e.g. circuit performance, holding force, response time, etc.) and maintain equivalent functionality (e.g. stop category, control of hazardous energy, etc.).		
ES3	Any safety-related aspects discovered throughout the project lifecycle that appears to be insufficient, inappropriate or non-compliant with industry best practice standards will be brought to the attention of the Customer to determine appropriate actions.		
ES4	All safety requirement specifications provided by the Customer as part of this project are assumed to be correct and appropriate. In the event there is any missing or conflicting information, it is the Customer's responsibility to determine the correct course of action.		
ES5	Grantek will apply well established safety engineering principles to all design elements within this project. This includes careful selection, combination, arrangement, design, assembly and installation of components/systems related to the application.		
ES6	All existing safeguarding devices, complementary devices, Safety-Related Parts of Control Systems included in the scope of work shall be identified by the Customer before any design or engineering is performed.		
Industrial Info	ormation Technology		
EIIT1	Grantek is not tasked with developing system requirements related to technical infrastructure to support the system, including but not limited to project scope, network design, virtualization, storage, or computation. The Customer will provide a User Requirements Specification detailing the exact scope requirements and criteria for acceptance. Grantek cannot be held responsible for the network or computing performance including infrastructure availability, speed, connectivity, bandwidth, and overall performance of the system's infrastructure. If infrastructure upgrades are required, it is expected that the customer will perform the necessary upgrades to support the system or Grantek's Industrial IT services may be added to the project to troubleshoot, define requirements, or design and deploy infrastructure.		

Reference	Description
EIIT2	Grantek is not tasked with developing system requirements related to cybersecurity to the system, or deploying compensating controls beyond those which are explicitly mentioned in this proposal. The customer understands it is responsible for securing its own equipment, facilities, systems, and networks, and as such will provide a User Requirements Specification detailing the exact security criteria for system acceptance. If cybersecurity risk and business continuity are a concern, Grantek's Industrial IT services may be added to the project to assess cybersecurity risk to the system, understand the customer's risk tolerance, and define and implement the required security controls to reduce risk to a tolerable level.

Table 9 – Exclusions