

# DAIFUKU

## LOGAN TELEFLEX

BAGGAGE HANDLING SYSTEM  
SCOPE OUTLINE AND BUDGETARY PROPOSAL  
FOR THE  
EDS UPGRADE PROJECT  
AT THE  
SAVANNAH INTERNATIONAL AIRPORT  
SAVANNAH, GEORGIA

ENQUIRY No: QU 1040-SAV

30 SEPTEMBER, 2020  
REVISION: 0.0

## Table of Contents

1.	COMPANY PROFILE .....	3
2.	PROJECT REFERENCES .....	4
2.1	MINNEAPOLIS-SAINT PAUL INTERNATIONAL AIRPORT: .....	4
2.2	DAYTON INTERNATIONAL AIRPORT:.....	5
2.3	ANCHORAGE INTERNATIONAL AIRPORT:.....	6
3.	PROJECT SCOPE /DESIGN CRITERIA.....	8
3.1	DESCRIPTION OF WORK: .....	8
4.	PROJECT PARTNERS .....	9
4.1	BHS SYSTEMS CONTROLS PARTNERS – (INTELLIMODUS).....	9
4.2	BHS ELECTRICAL SUB-CONTRACTOR – (TECC) .....	9
4.3	BHS SYSTEM MECHANICAL INSTALLER – (MULTITECH GROUP).....	9
5.	BASIS OF THE LOGAN TELEFLEX INC. PROPOSAL .....	10
5.1	PROJECT BID DOCUMENTS .....	10
6.	PROJECT SCOPE OF SUPPLY .....	11
6.1	LEGACY SYSTEM CONFIRMATION/SITE SURVEY;.....	11
6.2	EQUIPMENT/COMPONENT SUPPLY .....	11
6.3	TESTING PROCEDURES .....	12
6.4	EQUIPMENT WARRANTY .....	12
7.	CONTROLS SCOPE.....	13
7.1	LOWER LEVEL CONTROL HARDWARE.....	13
7.2	UPPER LEVEL CONTROL SYSTEM .....	14
7.3	EXCLUDED .....	14
8.	SYSTEM PRELIMINARY SCHEDULE.....	15
9.	SYSTEM INVESTMENT .....	17
9.1	BUDGETARY PRICE .....	17
10.	CLARIFICATIONS & ASSUMPTIONS.....	18

## 1. COMPANY PROFILE

### Logan Teleflex Inc

Logan Teleflex, Inc., a subsidiary of Jervis B. Webb, are two of the most experienced and successful companies in the Airline Industry. Combined, both companies have provided robust baggage handling conveyor systems for over 500 airport customers worldwide.

As the following proposal will demonstrate, we have the specific experience, partnership alliances, and the market presence necessary to make this project a complete success. Our commitment to bringing the resources necessary to develop and implement this project is strong and unwavering. Our experienced teams of engineers and Project managers are available to handle any size of contract anywhere in the world. The equipment is installed by fully trained installation teams.

On Jan. 31, 2011 Daifuku Co., Ltd. (“Daifuku”) purchased all shares of Logan Teleflex worldwide; Logan Teleflex, Inc. (headquartered in the U.S.A.), Logan Teleflex (UK) Ltd. (headquartered in the United Kingdom) and Logan Teleflex (France) S.A. (headquartered in France. These three companies provide Airport Baggage Handling Systems and services throughout the world.

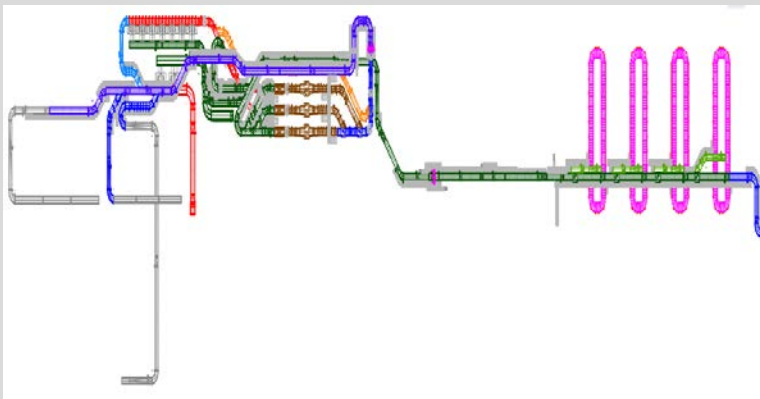
These three companies (“Logan”) are wholly owned subsidiaries within the Daifuku Group. In April 2010, Daifuku announced a three-year business plan called “Material Handling and Beyond,” where it expressed a commitment to position the Airport Baggage Handling Business as one of its core businesses. The Logan name has been associated with a quality product line for over 55 years.

Logan provides advanced specialized products such as tilt tray sorters and the Intelligent Destination Coded Vehicle (IDCV), boasting more than 400 installations in 80 countries around the globe. Logan’s tilt tray sorters are utilized for connecting flight baggage sortation at hub airports, which are essential to bolster the baggage handling business and develop new markets in emerging countries. In addition, Logan established a joint venture in China, Kunming Logan KSEC Airport Logistics System Company Ltd., and has received orders for large-scale projects. Taking advantage of synergies in products and sales areas, Daifuku will accelerate the growth of its airport baggage handling business at a global level.

From top to bottom, our team is made up of experienced professionals – from project managers and engineers to system commissioners to maintenance techs – who understand the challenges of aviation design, construction, operations & maintenance in today’s high-tech, environmentally compliant, and security-minded world. Above all, we have successfully integrated all of the CTX Machines that are currently approved by the TSA including the implementation of the latest TSA PGDS requirements/standards.

## 2. PROJECT REFERENCES

### 2.1 Minneapolis-Saint Paul International Airport:



### Minneapolis St. Paul Terminal 2

#### PROJECT DESCRIPTION:

Install a fully TSA Compliant In-Line Screening system utilizing four (4) CTX 9400 units. Makeup units consist of four (4) Incline units. Installation in phases to minimize disruption.

#### PROJECT LOCATION:

Minneapolis International Airport

#### CLIENT NAME:

Kraus-Anderson

#### KEY CONTACT PERSON, ADDRESS, PHONE, EMAIL:

Bob Carter  
7048 34th Ave. South  
Minneapolis, MN 55450  
Ph: 612-486-6180

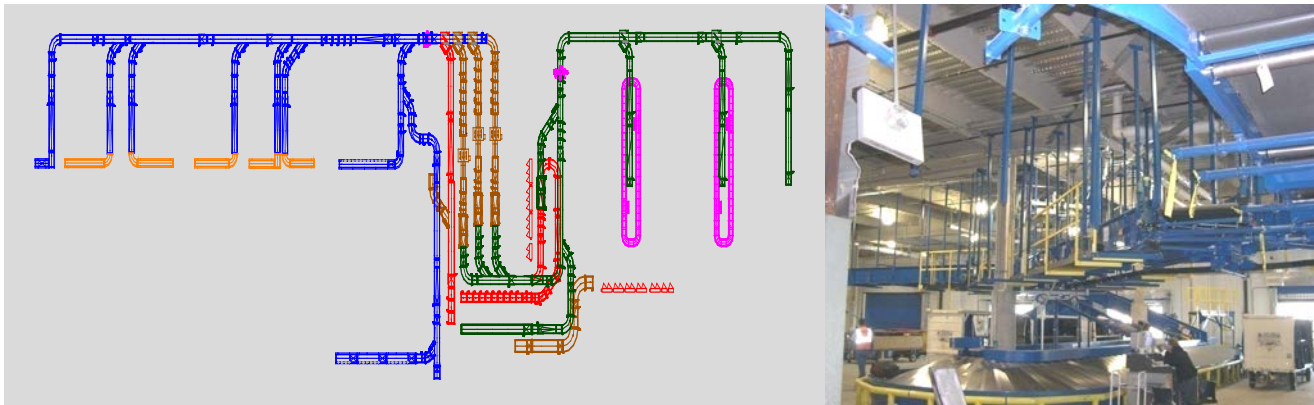
#### PROJECT VALUE:

Completion: \$10,800,000.00

#### PROJECT COMPLETION:

August 2016

## 2.2 Dayton International Airport:



### Terminal Lobby Security Enhancement

**PROJECT LOCATION:**

Dayton International Airport

**CLIENT NAME:**

Messer Construction

**KEY CONTACT PERSON, ADDRESS, PHONE, EMAIL:**

Kevin Cozart  
4801 Hempstead Station Drive  
Dayton, OH 45429  
Ph: 937-416-5975

**PROJECT DESCRIPTION:**

Install a 100% Fully Automated Inline Baggage Security Screening Sortation System integrating three (3)-L3 (6600) EDS utilizing four (4)-Logan Teleflex Vertical Sortation Units and four (4)-Logan Powered-face diverters feeding two (2)-Logan FP Make-up Units (Shared) in an existing terminal while keeping the airport in full operation. (BNP Project)

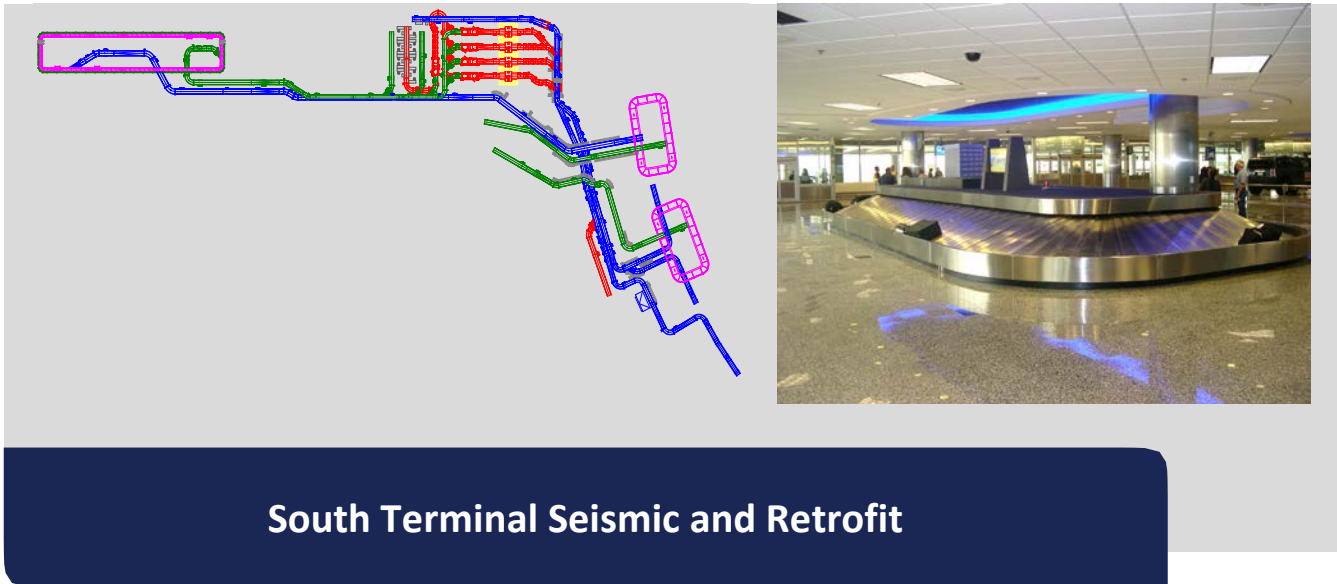
**PROJECT VALUE:**

Completion: \$6,500,000.00

**PROJECT COMPLETION:**

June, 2011

## 2.3 Anchorage International Airport:



### South Terminal Seismic and Retrofit

#### PROJECT LOCATION:

Ted Stevens Anchorage International Airport

#### CLIENT NAME:

PCL Construction Services

#### KEY CONTACT PERSON, ADDRESS, PHONE, EMAIL:

Scott Ivany  
1400 W Benson Blvd  
Ste 500  
Anchorage, AK 99502  
Ph: 907-243-7252

#### PROJECT DESCRIPTION:

Installation of a 100% fully automated Inline screening system integrating four (4)-CTX 9000 EDS including a large 350 linear foot Flat Plate (4-drives) common use make-up unit. Installation of 2-Inbound systems feeding two (2)-Logan Slope Plate Claim Units. Utilized Logan Vertical Sortation Units and Logan Powered Face Diverters. Logan Vertical Sortation Units and Logan Powered Face Diverters.

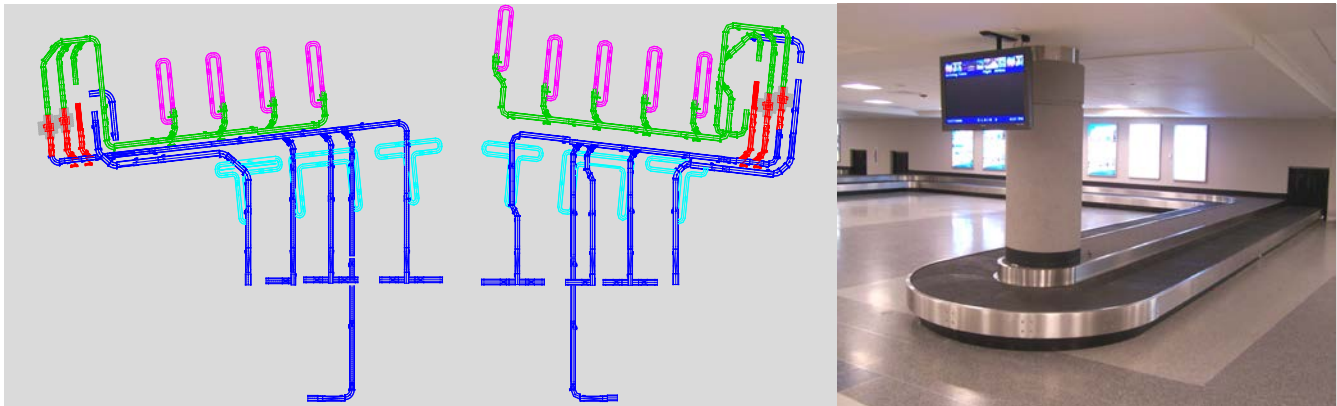
#### PROJECT VALUE:

Completion: \$8,600,000.00

#### PROJECT COMPLETION:

May, 2010

Richmond International Airport:



## In-Line Baggage Handling System

### PROJECT DESCRIPTION:

#### PROJECT LOCATION:

Richmond International Airport

#### CLIENT NAME:

URS

#### KEY CONTACT PERSON, ADDRESS, PHONE, EMAIL:

Nagesh Tummala  
Capital Regional Airport commission  
1 Richard E Byrd Terminal Drive  
Richmond, VA 23250  
Ph: 804-236-4000

Install 100% In-line Baggage Security Screening System integrating five (5)-L3 (6000) EDS into existing terminal while keeping the airport in full operation. Installation of nine (9)-Logan Flat Plate Make-up Units and eleven (11)-Logan Powered-faced diverters.

#### PROJECT VALUE:

Completion: \$9,000,000.00

#### PROJECT COMPLETION:

August, 2007

### 3. PROJECT SCOPE /DESIGN CRITERIA

#### 3.1 Description of Work:

This project consists of the removal and replacement of (2) two existing EDS Machines, (SS2 and SS3) replacing each machine with an extended tunnel EDS Machine. Modifications to the existing Checked Baggage Handling System controls to accommodate these new machines will be done at the time of each phased replacement.

Each upgraded Line will include the removal of (1) 42" Long Queue Conveyor, and replacement of (1) 42" Long Queue Conveyor with a 39" Long Queue Conveyor.

**These modifications will include, but not be limited to;**

To support the removal path of the existing EDS machine and the installation path of the new EDS machine, conveyors will be temporarily removed, and relocated. These conveyors (Less one) will be re-installed with the addition of (1) new shortened Queue Conveyor, after the new EDS machine is installed.

The speeds on existing conveyors prior to following each new EDS Machine will be verified and if need be, adjusted to reflect the conveyor belt speed requirements associated to the new EDS Machines.

The addition of an Upstream Photo-Eye Bag Measurement device on the SS3 Feed Line will serve as a directional routing for oversized bags entering the preferred EDS Line.

The Controls Engineer will Modify the existing photo-eye logic / locations at the appropriate check-in subsystems to reflect the revisions to the maximum baggage sizes that can be accommodated by the new EDS machines.

The Logan Teleflex Controls Provider will Modify the Existing Control which monitors the CBIS for fault diagnostics and reporting functionality as needed to address changes made.

Upon completion of the BHS installation, and modifications, The BHS Contractor will perform all related programming and internal testing/debugging, demonstrate the system's operating capability to the Airport and his representatives for acceptance and for ISAT to confirm compliance with the specified requirements.



ML2 Line



## **4. PROJECT PARTNERS**

Logan Teleflex will subcontract the Controls elements of this project. Our On-Site Subcontractor will report directly to the Logan Teleflex Site Supervisor. This Supervisor directs and coordinates the activities of each subcontractor and oversees all the work related to the installation of the baggage handling system. All project personnel have a fundamental responsibility to maintain a secure and safe job site.

Logan Teleflex's Subcontractor's management includes the understanding that Site Safety is never put at risk, and that no extra work can proceed without written authorization.

### **4.1 BHS Systems Controls Partners – (INTELLIMODUS)**

Project, Logan Teleflex will again team with Louisville, KY based INTELLIMODUS (Formerly ControlTouch Systems). INTELLIMODUS has teamed with Logan Teleflex on the existing BHS System currently in use at the Savannah International Airport.

Logan Teleflex has partnered with INTELLIMODUS on hundreds of Projects, both large and small, over a span of more than 15 years. To date, all projects were completed On-Time/Certified In Compliance by the TSA/other governing Agencies

### **4.2 BHS Electrical Sub-Contractor – (TECC)**

TECC out of Florida will again handle the Electrical Install and Panel modifications

### **4.3 BHS System Mechanical Installer – (MULTITECH Group)**

Logan Teleflex will again team with the MULTITECH Group for the Mechanical Installation, the same Installer on the previous Savannah Baggage Handling System at the Airport.

## **5. BASIS OF THE LOGAN TELEFLEX INC. PROPOSAL**

### **5.1 Project Bid Documents**

#### **5.1.1 Introduction:**

This proposal is in response to the Request for Schedule and Pricing for the EDS Upgrade Project at the Savannah International Airport.

#### **5.1.2 Project Manuals and/or Specifications:**

This proposal is in reference to the Project Manual as issued for the previous BHS In-Line System Project at the Savannah International Airport. This proposal is in compliance to the JSM & Associates SAV EDS Upgrade General Scope of Work for this Project, received by Logan Teleflex on 9/15/2020.

#### **5.1.3 Project Bid Drawings:**

Reference to the Project BHS Drawings provided by JSM & Associates, as part of their General Scope of Work.

#### **5.1.4 Project Preliminary Schedule:**

Reference the Preliminary Project Schedule in Section 9 of this Proposal; Logan Teleflex has based Phasing of the Project on the schedule of work included within the JSM & Associates SAV EDS Upgrade General Scope of Work for this Project, received by Logan Teleflex on 9/15/2020.

## 6. PROJECT SCOPE OF SUPPLY

### 6.1 Legacy System Confirmation/Site Survey;

At the commencement of the project, prior to any changes are made to the Legacy system, e.g. PLC and conveyor(s), Logan Teleflex Inc. will run a Benchmark Test to establish the existing condition/performance of the Legacy system. The results of this test will establish the existing throughput and status of the existing Legacy System, standards for the subsequent upgrades and if additional modifications are required that are outside of the scope of the contractual specifications.

### 6.2 Equipment/Component Supply

#### 6.2.1 SS2 – EQUIPMENT SUPPLY:

- (1) 39" Long X 39" Wide Queue Conveyor Sidewalls and Bed Sections; 0" Sidewall height on (1) Side/12" Sidewall Height on the opposite side.
- Interior Cladding Panel
- Conveyor Belting for the 39" Length Conveyor
- All existing interior Rollers, adjusting Plates supports and Gearmotors will be installed on this new conveyor Frame, forming the new 39" Long Conveyor.
- Panel wiring additions/modifications and Field Wiring of the Motors/VFD Remote Devices
- Bag Measurement Photo-Eye Array for the Main Feed Line

#### 6.2.2 SS3 – EQUIPMENT SUPPLY:

- (1) 39" Long X 39" Wide Queue Conveyor Sidewalls and Bed Sections; 0" Sidewall height on (1) Side/12" Sidewall Height on the opposite side.
- Interior Cladding Panel
- Conveyor Belting for the 39" Length Conveyor
- All existing interior Rollers, adjusting Plates supports and Gearmotors will be installed on this new conveyor Frame, forming the new 39" Long Conveyor.

#### EXCLUSIONS:

- No Seismic/P.E. Sealed Drawings are included as part of this modification.
- BY OTHERS: ALL BAG TAGS
- Bag Portering due to re-routing of baggage or line down-time is the responsibility of the Airport.

## 6.3 Testing Procedures

### 6.3.1 COMMISSIONING/SYSTEM TESTING

Logan Teleflex Site Supervisor and Controls Engineer will conduct all phases of the Local and System Testing Procedures.

Following installation of each sub-system for each phase of the Project, The BHS Contractor shall perform all operational testing prior to acceptance. This shall include: dynamic electrical, dynamic mechanical, and functional testing. The test program shall list each control station, control device, etc., and its related control function that shall be demonstrated and/or tested.

#### **TEST PRODUCT – BAGGAGE AND TOTES:**

Logan Teleflex Inc. has included (40) Test Bags, and loaded totes for system tests, load and speed testing.

### 6.3.2 ISAT TESTING

Logan Teleflex Site Supervisor will assist the Controls Engineer and TSA personnel with all ISAT System Certification Testing.

Testing will be conducted by the TSA to ensure that the EDS equipment meets performance standards. Logan Teleflex will supply sample baggage, totes and loading labor for all referenced tests.

## 6.4 Equipment Warranty

Per Project Specifications, Logan Teleflex will provide a (12) Twelve Month warranty for all provided equipment. Warranty commences upon the date of Airport Acceptance of each piece of Equipment.

## 7. CONTROLS SCOPE

### 7.1 Lower Level Control Hardware

The following outlines the Lower Level Hardware modifications, and upgrades to be included as part of the Logan Teleflex Scope of Supply;

#### 7.1.1 Motor Control Panel (MCP)

Two (2) existing Motor Control Panels will be modified as needed. I/O will be provided as part of this modification. We have excluded any material or engineering to bring the existing panels up to code/standards beyond this scope.

#### 7.1.2 Motor Controls

All conveyors in this project will be controlled by existing motor starters or variable frequency drives.

#### 7.1.3 Power Distribution

The existing power feed will remain as is; Controls Engineers will be making modifications to the existing MCP's, as needed.

#### 7.1.4 Variable Frequency Drives

The existing VFD's will remain as is.

The existing conveyor speeds will be verified and adjusted if needed.

The existing photo-eyes will be reused as part of this scope with the exception of the new Measurement Eyes on the SS2 Feed Line.

#### 7.1.5 Control Stations

The existing control stations will be reused as part of the scope.

#### 7.1.6 PLC Hardware

Modifications to the existing PLC's, as needed.

#### 7.1.7 PLC Software

Controls Engineers will modify or upgrade the existing PLC software to develop the PLC applications for each of the PLC processors to control the baggage handling system.

The PLC control logic will incorporate standard software modules that have been deployed in nearly 100 BHS projects over the course of nearly 20 years. This software has proven time-and-again to provide some of the best baggage tracking logic available in the industry.

## 7.2 Upper Level Control System

The Upper Level Control System encompasses the Maintenance Diagnostic System (MDS), Sort Allocation Controller (SAC) and the Operator Work Stations.

**NOTE:** Our scope of work will **not** include providing any new PC hardware and software for this portion of the control system. All existing Hardware will be reused.

### 7.2.1 MDS Updates

Intellimodus will update the existing Maintenance Diagnostic System (MDS) graphics, to reflect any changes to the system. Any reporting updates will be completed, as required, provided the information is available in the system.

## 7.3 EXCLUDED

The Modified Motor Control Panels will NOT be re-certified for UL Compliance.

## 8. SYSTEM PRELIMINARY SCHEDULE

<b>NOTICE to PROCEED</b>	<b>Mon 10/19/2020</b>		
Onsite Survey and Document Verification	Mon 10/19/20	Fri 10/23/20	1 Week
Systems Engineering and Submittals	Mon 10/26/2020	Fri 11/06/2020	2 Weeks
Submittal Approval	Mon 11/09/2020	Fri 11/20/2020	2 Weeks
Release Equipment For Fabrication	Mon 11/23/2020	Tue 11/24/2020	2 Days
Equipment Fabrication and Delivery	Wed 11/25/2021	Wed 1/06/2021	6 Weeks
Equipment On-Site	Fri 1/08/2021		
<b>On-Site Installation – PHASE 1- SS3</b>	<b>Mon 01/11/2021</b>	<b>Tue 01/20/2021</b>	<b>7 Days</b>
SS3 Line is Shut-Down Prepare SS3 EDS Machine Area for Upgrade – Remove Conveyors/Wiring from the SS3 Line – Measurement Eyes installed – Conveyor Assembly	Mon 01/11/2021		
TSA upgrades the SS3 EDS – Conveyor Reinstallation starts – Panel Modifications Made	Tue 01/12/2021		
Conveyor Reinstallation complete/Rewired-PLC Upgrades	Wed 01/13/2021		
Commissioning/Testing	Thu 01/14/2021		
Punchlist Items/Final Pre ISAT Testing	Fri 01/15/2021		
TSA ISAT Testing	Mon 01/18/2021		
On-Site Standby for Live Run-In	Tue 01/20/2021		
<b>On-Site Installation – PHASE 2- SS2</b>	<b>Wed 01/21/2021</b>	<b>Fri 01/29/2021</b>	<b>7 Days</b>
SS2 Line is Shut-Down Prepare SS3 EDS Machine Area for Upgrade – Remove Conveyors/Wiring from the SS3 Line – Measurement Eyes installed - Conveyor Assembly	Thu 01/21/2021		
TSA upgrades the SS3 EDS – Conveyor Reinstallation starts – Panel Modifications Made	Fri 01/22/2021		
Conveyor Reinstallation complete/Rewired-PLC Upgrades	Mon 01/25/2021		
Commissioning/Testing	Tue 01/26/2021		
Punchlist Items/Final Pre ISAT Testing	Wed 01/27/2021		
TSA ISAT Testing	Thu 01/28/2021		

On-Site Standby for Live Run-In	Fri 01/29/2021		
<b>PROJECT DURATION</b>	<b>Mon 10/19/2020</b>	<b>Fri 1/29/2021</b>	<b>15 Weeks</b>



## 9. SYSTEM INVESTMENT

### 9.1 Budgetary Price

For the design, supply manufacture and installation of the proposed equipment as described in this Scope Outline/ Proposal; All in compliance to the Project Specifications

#### 9.1.1 PRICING – All Prices are for Budgetary Purposes

Base System Price.....	\$205,631.00
Payment & Performance Bond.....	\$ 1,544.00
Taxes (No Taxes Included) .....	\$2,317.00
Summary Total.....	\$209,492.00

**QUOTED PRICES ARE FOB; SAVANNAH INTERNATIONAL AIRPORT**

#### Notation:

Your use of this bid price is contingent upon the inclusion of Logan Teleflex Inc'. Policies and Clarifications as detailed in Section 10 of this proposal.

## 10. CLARIFICATIONS & ASSUMPTIONS

### PROPOSAL NOTE:

Logan Teleflex Scope of Supply consist of the Baggage Handling System Equipment as specified under Section 347739, and as described in this Proposal. Specifications and/or equipment NOT germane to the Baggage Handling System (i.e. Civil, Architectural, Structural, Electrical or Mechanical) are NOT included in the Logan Teleflex supply;

Baggage Handling System design and installation will reference applicable standards and specifications for compliance to any current code or building statutes but will NOT provide any additional equipment or work beyond what is not specific to the Baggage Handling System. These items and/or tasks are the responsibility of the General Contractor or its Sub-Contractors.

### GENERAL NOTES:

1. This Logan Teleflex Proposal is based on the bid documents available at the time of bidding. Logan reserves the right to review any additional documents or requirements, which may be provided or imposed after the bid, and to modify its proposal due to any additional or differing requirements contained in the new documents.
2. Acceptance of a Contract in reference to this Logan Teleflex Inc Proposal is subject to and conditioned upon negotiation of mutually acceptable contract terms between the parties. These terms will include a mutually agreeable Project Schedule, Submittal Requirements and Submittal Schedule.
3. Notwithstanding any other provision in the Contract Documents to the contrary, Logan will be liable for the payment of liquidated damages only to the extent the delay or breach was caused by Logan and liquidated damages have been assessed by the Owner. Liquidated damages are the Owner's and Contractor's sole remedy for any delay or breach of Logan's contractual obligations. Liquidated damages shall not exceed 3% of Logan's Contract Price.
4. Reference to Delays and Extensions of Time; If the Logan Teleflex is delayed in performance of the Work by any separate contractors, or by fire, unavoidable casualty, Acts of God, or national emergency, "including any epidemic/pandemic" the Contractor shall be entitled to an extension of the Contract Time for a period equal to the length of such delay, and any additional costs caused by the delay.
5. Notwithstanding any other provision in the Contract Documents to the contrary, indemnity obligations are applicable against Logan only to the extent the claim indemnified results from the tortious or negligent acts of Logan or its subcontractors, agents, or employees.

6. Monthly Progress Payments will be based on a Schedule of Values; invoices substantiated upon work completed. This will include work in progress such as engineering, project management, and fabrication/assembly in our facility, shipping and installation.

End of Proposal