

# Bismarck

## Airport

**DATE:** October 1, 2019

**FROM:**  for Greg Haug, Airport Director

**ITEM:** Consider Change Order #3 with Strata Corporation for Runway 13-31 phase 3.

### REQUEST

Please place this item on the 10/8/2019 City Commission meeting agenda.

### BACKGROUND INFORMATION

On September 18, 2018, the Board approved award of bids to Electrical Contractor Strata Corporation for Runway 13/31 Reconstruction Phase 3, third year of construction (Federal Aviation Administration (FAA) Phase 4). Construction is underway with Runway 13-31 scheduled to open on October 11.

On July 8, 2019 FAA notified Bismarck Airport that Program Guidance Letter 19-02 dated June 18, 2019 now makes Light Emitting Diode (LED) High Intensity Runway Lights (HIRL) eligible for Airport Improvement Program (AIP) grants and Passenger Facility Charge (PFC) reimbursement. Airport staff had purposely planned for installation of new HIRL's on Runway 13-31 in the last construction phase anticipating change in FAA policy so LED HIRL's could be installed but because the approval came late the project was awarded with Incandescent HIRLs. Staff has coordinated with Strata and FAA to change to LED HIRL's. LED HIRL's offer significant advantages by greatly reducing electrical power consumption and reducing maintenance. Unless damaged staff anticipates virtually no maintenance on LED HIRL's over a ten plus year life. With approval of Change Order 3 Strata would temporarily reinstall the old Incandescent HIRLs and order LED HIRL's and a power regulator. The LED HIRL's and regulator would be installed when the lights are delivered.

Because the LED lights cannot be ordered until Board approval of this change order and the lights typically are not manufactured until ordered the completion date for the installation (Item 3-1 and 3-2) in Change Order #3 has been set at one (1) week after the contractor takes delivery of those materials. The Prerequisites to Substantial Completion shall be the installed completion date of items CO 3-1 and CO 3-2. The prerequisites to Final Acceptance shall be completed within sixty (60) calendar days of the Prerequisites to Substantial completion.

Staff believes the costs are reasonable. FAA has reviewed Change Order 3 and determined the cost is fair and reasonable and that it is eligible under AIP and PFC programs. The Strata Change Order #3 increases the total contract cost by \$72,176.75 to a new total of \$600,338.29. The change cost is accommodated in the project budget approved by the Board.

### **RECOMMENDED CITY COMMISSION ACTION**

Approve Change Order #3 to the September 24, 2018 agreement with Strata Corporation for Runway 13/31 Reconstruction Phase 4.

### **STAFF CONTACT INFORMATION**

Greg Haug, Airport Director, 355-1808 or [ghaug@bismarcknd.gov](mailto:ghaug@bismarcknd.gov)

Enclosure:

1. Change Order #3 to the September 24, 2018 agreement with Strata Corporation.

# CONTRACT CHANGE ORDER FORM

## DEPARTMENT

Contract between the City of Bismarck and STRATA CORPORATION

Contract Number: 2018-43 (ELECT) Change Order Number: #3

Project/Subproject: AP6. AIR60.31 CONST Original Contract Amt: \$568,429.20

Project Description: RUNWAY 13-31 RECONSTRUCTION PHASE 3 (FAA PHASE 4)

Previous Contract Amount: \$528,161.54

Change Order Amount: \$72,176.75 NEW TOTAL: \$600,338.29

Original Contract Date: COMPLETE DEC 13, 2019 Change in Contract Timeline: YES, SEE NOTE

Within Project Scope: (Y) / N\*

Within Project Funding: (Y) / N\*\*

\*If not within project scope, attach description of change in scope for Board approval.

\*\*If not within project funding, attach revised Project Budget for Board approval.

NOTE: THE REVISED COMPLETION DATE FOR CO 3-1 AND CO 3-2 SHALL BE SET AT 1 WEEK AFTER THE CONTRACTOR TAKES DELIVERY OF MATERIALS. THE PREREQUISITES TO SUBSTANTIAL COMPLETION SHALL BE THE INSTALLED COMPLETION DATE OF ITEMS CO 3-1 AND CO 3-2. THE PREREQUISITES TO FINAL ACCEPTANCE SHALL BE COMPLETED WITHIN SIXTY (60) CALENDAR DAYS OF THE PREREQUISITES TO SUBSTANTIAL COMPLETION.

Type of Change Order  
 Non Design-related Change Order: These change orders include unforeseen conditions, code-related issues, and building inspector changes.

Design-related Change Order: These change orders include unforeseen conditions that affect the appearance, layout, functionality, dimensions, and/or quality of the project.

Emergency Field Condition Change Orders: These change orders include any condition that causes an emergency situation where safety or other immediate losses may occur.

Other: (describe) \_\_\_\_\_

Project Manager Signature: (<\$15,000) \_\_\_\_\_ Date \_\_\_\_\_

Department Head Signature: (<\$25,000) \_\_\_\_\_ Date \_\_\_\_\_

## ADMINISTRATION

City Administrator Signature: (<\$50,000) \_\_\_\_\_ Date \_\_\_\_\_

Add to Commission Consent Agenda

## COMMISSION APPROVAL

Commission Approval Date: \_\_\_\_\_

Attach minutes for Commission Approval

## FISCAL

Comments: \_\_\_\_\_  
GRANTS COORDINATOR: \_\_\_\_\_ Signature \_\_\_\_\_ Date Completed \_\_\_\_\_

TO ALL DEPARTMENTS: Please attach a copy of the change order

Encl 1

## Timothy Thorsen

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**From:** Holzer, Mark (FAA) <Mark.Holzer@faa.gov>  
**Sent:** Monday, September 30, 2019 12:09 PM  
**To:** Timothy Thorsen  
**Cc:** Gregory Haug; 'tom.neigum@kljeng.com'; Anderson, David P (FAA); Peek, Andy (FAA); Lares, Sheri (FAA)  
**Subject:** BIS Runway 13-31 Reconstruction Phase 3 Change order Strata #3

Tim

The FAA concurs with BIS Runway 13-31 Reconstruction- Phase 3 for AIP 3-38-0003-059-2018 and AIP 3-38-0003-060-2018 as Strata proposed Change Order #3 for the replacement of Quartz HIRL with LED HIRL and its associated 7.5kw Constant Current Regular parts as follows:

In review of the change order that provided a cost price analysis performed by the sponsor, the FAA DMA ADO finds the amount to be fair and reasonable.

The following limitations apply to this action:

1- This determination is solely for the purpose of establishing eligibility of costs under the AIP or PFC program. This approval does not represent a commitment of Federal funds in addition to the original grant obligation. Please note the Supplemental Appropriation Grant No. 3-38-003-060-2018 Amendment No. 1 set forth in the Grant Agreement dated September 21, 2018 applies to this change order. Funding may be limited for this grant pending your future closeout final project costs and if availability of funding from this grant.

2-The incorporation of any non-participating work items must not directly or indirectly result in any additional cost to the AIP-eligible portion of the project. Please maintain a separate and accurate cost accounting of any non-participating work that will permit a third party auditor to verify proper allocation of costs.

3-The CATX document appears to include all the projects reflected in these change orders and if changes later are proposed, the sponsor shall update the NEPA determination.

We shall place your final accepted Strata change order #3 – Phase 3 for Rwy 13/31 in the project files for these grants.

Your Construction Plan as-built drawings shall include this Strata Change order 3 as applicable.

Please forward a copy of the executed changes to my attention as soon as it is available and fully executed.

Mark J. Holzer

Program Manager

Federal Aviation Administration

Dakota Minnesota Airports District Office

2301 University Drive, Bldg 23B

Bismarck, ND 58504

701.323.7393

**Change Order No.** 3  
**Date** October 1, 2019



**Airport Name** Bismarck Airport  
**Location** Bismarck, ND  
**Contract Description** Reconstruct Portion of Runway 13-31 (Phase 3), including Portions of Taxiway C1, Taxiway C2, Taxiway B and Runway 13 Blast Pad  
**Contract Date** September 24, 2018  
**AIP Project #** 3-38-0003-059-2018 and 3-38-0003-060-2018  
**KLJ Project #** 1518700  
**Owner's Project #** 600-620-603-6630-210 APG.AIP59.31CONST  
 600-620-603-6630-210 APG.AIP60.31CONST

<b>Owner</b>	<b>Contractor</b>	<b>Engineer</b>
City of Bismarck	Strata Corporation	KLJ
PO Box 991	PO Box 13500	4585 Coleman Street
Bismarck, ND 58502-0991	Grand Forks, ND 58208	Bismarck, ND 58503

**General Reason for Change** (quantify and explain details in sections 2 and 3)  
 For this change order, the Owner has requested that newly eligible LED High Intensity Runway Lights (HIRL) be installed instead of the quartz HIRL as bid. As part of changing the quartz HIRL to LED HIRL, the existing Runway 13-31 20 kW constant current regulator (CCR) will be replaced with a 7.5 kW CCR so that the regulator is appropriately sized to meet the needs of a runway lighting system with LED HIRL. Because of the lead time to get the LED HIRL and 7.5 kW CCR, the Contractor shall install the salvaged HIRL until the new LED HIRL and 7.5 kW CCR arrive and can be installed.

	AIP Grant 059	AIP Grant 060	Non-AIP	Total
Total Contract Amount Prior to this Change Order	\$ 311,912.68	\$ 216,248.86	\$ -	\$ 528,161.54
Change Resulting from this Change Order	-	72,176.75	-	72,176.75
Total Contract Amount After this Change Order	\$ 311,912.68	\$ 288,425.61	\$ -	\$ 600,338.29

Calendar Days	
Start Up Stage completion date prior to this Change Order	May 8, 2019
Change resulting from this Change Order	0
Start Up Stage completion date from this Change Order	May 8, 2019
Steady Stage completion date prior to this Change Order	October 7, 2019
Change resulting from this Change Order	0
Steady Stage completion date from this Change Order	October 7, 2019
Final Stage completion date prior to this Change Order *	October 11, 2019
Change resulting from this Change Order *	0
Final Stage completion date from this Change Order *	October 11, 2019
Prerequisites to Substantial Completion date prior to this Change Order *	October 11, 2019
Change resulting from this Change Order *	0
Revised Prerequisites to Substantial Completion date from this Change Order *	October 11, 2019
Prerequisites to Final Acceptance completion date prior to this Change Order *	December 13, 2019
Change resulting from this Change Order *	0
Revised Prerequisites to Final Acceptance completion date from this Change Order *	December 13, 2019

\* The revised Completion Date for Change Order 3 Items CO 3-1 and CO 3-2 shall be set at one (1) week after the Contractor takes delivery of those materials. The Prerequisites to Substantial Completion shall be the installed completion date of Items CO 3-1 and CO 3-2. The Prerequisites to Final Acceptance shall be completed within sixty (60) calendar days of the Prerequisites to Substantial Completion.

Change Order approved by:

\_\_\_\_\_  
 Date  
  
 \_\_\_\_\_  
 Date  
  
 \_\_\_\_\_  
 Date

\_\_\_\_\_  
 KLJ  
  
 \_\_\_\_\_  
 Strata Corporation  
  
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 City of Bismarck

**Summary of Changes**

Airport Name Bismarck Airport  
 Location Bismarck, ND  
 AIP Project # 3-38-0003-059-2018 and 3-38-0003-060-2018  
 Contractor Strata Corporation

Change Order No. 3  
 Section 2

KLJ Project # 1518700  
 Owner's Project # 600-620-603-6630-210

Item #	Spec #	Item	Quantities			Unit	Unit Price	Revised Cost	Changed Cost
			Planned	Revised	Change				
<b>Schedule 2, Division 1 - Reconstruct Portion of Runway 13-31 - Electrical Construction - AIP 060</b>									
1	L-108	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed In Trench, Duct Bank or Conduit	2,510			L.F.	\$ 1.00	\$ -	\$ -
2	L-108	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed In Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	2,500			L.F.	1.20	-	-
3	L-108	No. 2/0 AWG, 600V, Type RHW Cable, Installed in Trench, Duct Bank or Conduit	-			L.F.	2.85	-	-
4	L-108	No. 2 AWG, Insulated, Stranded Equipment Ground, Installed in Duct Bank or Conduit	-			L.F.	1.75	-	-
5	L-108	Cable Plowing (Counterpoise Only)	2,500			L.F.	1.00	-	-
6	L-110	Sand-Encased Electrical Duct, 1x3x2" PVC	190			L.F.	20.00	-	-
7	L-110	Non-Encased Electrical Conduit, 2" PVC	2,175			L.F.	3.00	-	-
8	L-110	Non-Encased Electrical Conduit, 1" PVC	170			L.F.	2.85	-	-
9	L-110	Non-Encased Electrical Conduit, 2" PVC (Bored)	-			L.F.	10.00	-	-
10	L-115	L-867B Base Can With Solid Cover	4			Each	450.00	-	-
11	Plan Notes	L-862 Runway Light (Base Mounted)	9			Each	850.00	-	-
12	Plan Notes	L-862 Runway Light (On Existing Base Can)	72			Each	300.00	-	-
13	Plan Notes	L-862E Threshold Light (Base Mounted)	8			Each	950.00	-	-
14	Plan Notes	L-862E Threshold Light (On Existing Base Can)	8			Each	300.00	-	-
15	Plan Notes	L-858(L) Lighted Sign, Size 3	2			Each	3,200.00	-	-
16	Plan Notes	Temporary Lighting	1			L.S.	20,000.00	-	-
17	Plan Notes	L-880 PAPI System	1			L.S.	18,000.00	-	-
18	Plan Notes	Existing Equipment Removal	1			L.S.	20,000.00	-	-
19	Plan Notes	Pavement Sensor System	1			L.S.	65,000.00	-	-
20	26 0520	Sluice Gate Control System	-	-	-	L.S.	15,000.00	-	-
21	Local	Mobilization	1			L.S.	25,000.00	-	-
<b>TOTAL SCHEDULE 2, DIVISION 1</b>								<b>\$ -</b>	<b>\$ -</b>
<b>Schedule 2, Division 2 - Taxiway C1 - Electrical Construction - AIP 059</b>									
1	L-108	Cable Trench	-			L.F.	\$ 4.00	\$ -	\$ -
2	L-108	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in Trench, Duct Bank or Conduit	1,467			L.F.	1.00	-	-
3	L-108	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	1,012			L.F.	1.20	-	-
4	L-108	Cable Plowing (Counterpoise Only)	965			L.F.	1.00	-	-
5	L-110	Sand-Encased Electrical Duct, 1x3x2" PVC	113			L.F.	20.00	-	-
6	L-110	Non-Encased Electrical Conduit, 2" PVC	994			L.F.	3.00	-	-
7	Plan Notes	Reinstall L-861T Taxiway Light (Base Mounted)	12			Each	500.00	-	-
8	Plan Notes	L-861T(L) Taxiway Light (Base Mounted)	10			Each	900.00	-	-
9	Plan Notes	L-858(L) Lighted Sign, Size 3	1			Each	3,200.00	-	-
<b>TOTAL SCHEDULE 2, DIVISION 2</b>								<b>\$ -</b>	<b>\$ -</b>
<b>Schedule 2, Division 3 - Taxiway C2 - Electrical Construction - AIP 059</b>									
1	L-108	Cable Trench	-			L.F.	\$ 4.00	\$ -	\$ -
2	L-108	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed In Trench, Duct Bank or Conduit	2,006			L.F.	1.00	-	-
3	L-108	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	1,286			L.F.	1.20	-	-
4	L-108	Cable Plowing (Counterpoise Only)	1,066			L.F.	1.00	-	-
5	L-110	Sand-Encased Electrical Duct, 1x3x2" PVC	89			L.F.	20.00	-	-
6	L-110	Non-Encased Electrical Conduit, 2" PVC	1,224			L.F.	3.00	-	-
7	Plan Notes	Reinstall L-861T Taxiway Light (Base Mounted)	14			Each	500.00	-	-
8	Plan Notes	L-861T(L) Taxiway Light (Base Mounted)	10			Each	900.00	-	-
9	Plan Notes	L-858(L) Lighted Sign, Size 3	1			Each	3,200.00	-	-
<b>TOTAL SCHEDULE 2, DIVISION 3</b>								<b>\$ -</b>	<b>\$ -</b>

Airport Name Bismarck Airport  
 Location Bismarck, ND  
 AIP Project # 3-38-0003-059-2018 and 3-38-0003-060-2018  
 Contractor Strata Corporation

Change Order No. 3  
 Section 2

KLJ Project # 1518700  
 Owner's Project # 600-620-603-6630-210

Item #	Spec #	Item	Quantities			Unit	Unit Price	Revised Cost	Changed Cost
			Planned	Revised	Change				
<b>Schedule 2, Division 4 - Taxiway B - Electrical Construction - AIP 059</b>									
1	L-108	Cable Trench	-			L.F.	\$ 4.00	\$ -	\$ -
2	L-108	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in Trench, Duct Bank or Conduit	5,745			L.F.	1.00	-	-
3	L-108	No. 6 AWG, Solid, Bare Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Ground Rods and Ground Connectors	3,827			L.F.	1.20	-	-
4	L-108	Cable Plowing (Counterpoise Only)	2,699			L.F.	1.00	-	-
5	L-110	Sand-Encased Electrical Duct, 1x3x2" PVC	65			L.F.	20.00	-	-
6	L-110	Non-Encased Electrical Conduit, 2" PVC	3,847			L.F.	3.00	-	-
7	Plan Notes	Reinstall L-861T Taxiway Light (Base Mounted)	29			Each	500.00	-	-
8	Plan Notes	L-861T(L) Taxiway Light (Base Mounted)	3			Each	900.00	-	-
9	Plan Notes	Reinstall L-858(L) Lighted Sign	2			Each	2,000.00	-	-
10	Plan Notes	L-858(L) Lighted Sign, Size 3	1			Each	3,200.00	-	-
<b>TOTAL SCHEDULE 2, DIVISION 4</b>								<b>\$ -</b>	<b>\$ -</b>
<b>Schedule 2, Division 5 - FAA Electrical Construction - AIP 059</b>									
1	L-108	No. 2/0 AWG, 600V, Type RHW Cable, Installed in Trench, Duct Bank or Conduit	3,657			L.F.	\$ 2.50	\$ -	\$ -
2	L-108	No. 2 AWG, 600V, Type RHW Cable, Installed in Trench, Duct Bank or Conduit	7,816			L.F.	1.75	-	-
3	L-108	No. 8 AWG, 600V, Type RHW Cable, Installed in Trench, Duct Bank or Conduit	1,340			L.F.	0.60	-	-
4	L-108	No. 2/0 AWG, Insulated, Stranded Equipment Ground, Installed in Duct Bank or Conduit	1,219			L.F.	2.50	-	-
5	L-108	No. 2 AWG, Insulated, Stranded Equipment Ground, Installed in Duct Bank or Conduit	3,908			L.F.	1.30	-	-
6	L-108	No. 6 AWG, Insulated, Stranded Equipment Ground, Installed in Duct Bank or Conduit	560			L.F.	0.90	-	-
7	L-108	No. 1/0 AWG, Bare, Guard Wire, Installed in Trench	1,960			L.F.	2.00	-	-
8	L-110	Non-Encased Electrical Conduit, 2" PVC	2,029			L.F.	3.00	-	-
9	L-110	Non-Encased Electrical Conduit, 3" PVC	1,761			L.F.	5.00	-	-
10	Plan Notes	MALS Threshold Lights - Sta. 0	1			Each	15,000.00	-	-
11	Plan Notes	MALS Steady Burn Lights - Sta. 2	1			Each	20,000.00	-	-
12	Plan Notes	MALS Steady Burn Lights - Sta. 4	1			Each	20,000.00	-	-
13	Plan Notes	MALS Steady Burn Lights - Sta. 6	1			Each	18,000.00	-	-
14	Plan Notes	MALS Steady Burn Lights - Sta. 8	1			Each	18,000.00	-	-
15	Plan Notes	Adjust MALS Steady Burn Lights Tower - Sta. 12	1			Each	4,000.00	-	-
16	Plan Notes	Adjust MALS Steady Burn Lights Tower - Sta. 14	1			Each	4,000.00	-	-
17	Plan Notes	Aircraft rated in-ground (4'x4') junction box	4			Each	8,000.00	-	-
18	Plan Notes	FAA Owned PAPI System Reinstallation	1			L.S.	23,000.00	-	-
<b>TOTAL SCHEDULE 2, DIVISION 5</b>								<b>\$ -</b>	<b>\$ -</b>
<b>Change Order 1</b>									
<b>Schedule 2, Division 5 - FAA Electrical Construction - AIP 059</b>									
CO 1-1	CO1	Revision to Plan Sheet E28 and Revisions to LIR Poles at Station 6 and Station 8	1			L.S.	\$ 211.28	\$ -	\$ -
<b>TOTAL CHANGE ORDER 1</b>								<b>\$ -</b>	<b>\$ -</b>
<b>Change Order 2</b>									
<b>Schedule 2, Division 1 - Reconstruct Portion of Runway 13-31 - Electrical Construction - AIP 060</b>									
CO 2-1	CO2	Change Temporary Construction Signs that Depict Runway Length	1			L.S.	\$ 1,979.36	\$ -	\$ -
<b>TOTAL CHANGE ORDER 2</b>								<b>\$ -</b>	<b>\$ -</b>

Airport Name Bismarck Airport  
 Location Bismarck, ND  
 AIP Project # 3-38-0003-059-2018 and 3-38-0003-060-2018  
 Contractor Strata Corporation

Change Order No. 3  
 Section 2

KLJ Project # 1518700  
 Owner's Project # 600-620-603-6630-210

Item #	Spec #	Item	Quantities			Unit	Unit Price	Revised Cost	Changed Cost
			Planned	Revised	Change				
<b>Change Order 3</b>									
<b>Schedule 2, Division 1 - Reconstruct Portion of Runway 13-31 - Electrical Construction - AIP 060</b>									
CO 3-1	CO3	Change Quartz HIRL to LED HIRL	-	1	1	L.S.	\$ 57,114.21	\$ 57,114.21	\$ 57,114.21
CO 3-2	CO3	7.5 kW CCR	-	1	1	L.S.	13,462.54	13,462.54	13,462.54
CO 3-3	CO3	Install Salvaged L-862 Runway and L-862E Threshold Lights	-	1	1	L.S.	1,600.00	1,600.00	1,600.00
<b>TOTAL CHANGE ORDER 3</b>								<b>\$ 72,176.75</b>	<b>\$ 72,176.75</b>
<b>TOTAL AIP 059 CHANGE</b>								<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL AIP 060 CHANGE</b>								<b>\$ 72,176.75</b>	<b>\$ 72,176.75</b>
<b>TOTAL NON-AIP</b>								<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE</b>								<b>\$ 72,176.75</b>	<b>\$ 72,176.75</b>

NOTE: The items highlighted above in orange are items that are funded 90 percent under AIP Grant 059  
 NOTE: The items highlighted above in orange are items that are funded 90 percent under AIP Grant 060  
 NOTE: The items highlighted above in yellow are items that are funded 100 percent non-AIP and 0 percent AIP.



## Explanation of Changes

Airport Name	Bismarck Airport	Change Order No.	3
Location	Bismarck, ND	Section	3
AIP Project #	3-38-0003-059-2018 and 3-38-0003-060-2018	KLJ Project #	1518700
Contractor	Strata Corporation	Owner's Project #	600-620-603-6630-210

### Item No. CO3-1

#### Description

Change Quartz HIRL to LED HIRL

#### Reason for Change

The FAA recently approved the eligibility of LED High Intensity Runway Lighting (HIRL). As a result, the Owner wants to replace the quartz HIRL that were bid as part of this project with LED HIRL. The cost is the material cost to replace all of the Runway 13-31 lights (edge lights, threshold lights) and their associated transformers with LED HIRL and their associated transformers. This item shall be paid per lump sum upon installation of the HIRL LED equipment. The original lighting bid items shall be paid on a per each basis per the original Agreement. The salvaged quartz HIRL and their transformers shall be salvaged and turned over to the Owner per the original bid items.

The proposed cost appears to be allowable, allocable and reasonable.

### Item No. CO3-2

#### Description

7.5 kW CCR

#### Reason for Change

As part of changing the quartz HIRL to LED HIRL, the existing Runway 13-31 20 kW constant current regulator (CCR) will be replaced with a 7.5 kW CCR so that the regulator is appropriately sized to meet the needs of a runway lighting system with LED HIRL. The Contractor shall remove and salvage the existing 20 kW CCR and turn it over to the Owner. The new 7.5 kW CCR shall be installed in its place. The price shall fully compensate the Contractor for all labor, equipment, tools, and incidentals necessary to complete the item.

The proposed cost appears to be allowable, allocable and reasonable.

### Item No. CO3-3

#### Description

Install Salvaged L-862 Runway and L-862E Threshold Lights

#### Reason for Change

The Contractor shall install the salvaged L-862 Runway and L-862E Threshold Lights, including transformers, until the new LED HIRL and 7.5 kW CCR arrive and can be installed. This work shall be completed by the original completion date of October 11, 2019. The price shall fully compensate the Contractor for all labor, equipment, tools, and incidentals necessary to complete the item.

The proposed cost appears to be allowable, allocable and reasonable.

Unit	QTY	Unit Price	Total Price	10% Restocking
L-862 YLW Clear	9	130.67	\$1,176.03	\$117.60
ISO	9	89.375	\$804.38	\$80.44
L-862 YLW Clear	31	130.67	\$4,050.77	\$405.08
L-862 Clear Clear	41	130.67	\$5,357.47	\$535.75
Iso	72	89.375	\$6,435.00	\$643.50
L-862E	4	177.05	\$708.20	\$70.82
L-862E	4	177.05	\$708.20	\$70.82
Iso	8	91.25	\$730.00	\$73.00
L-862E	4	177.05	\$708.20	\$70.82
L-862E	4	177.05	\$708.20	\$70.82
Iso	8	91.25	\$730.00	\$73.00

			\$22,116.45	\$2,211.64
ADB Quote	\$71,273.50			
Credit	-\$22,116.45			
Restocking Fee	\$2,211.64			
Freight	\$400.00			
Tax	\$5,345.51			
<b>Total Additional Cost</b>	<b>\$57,114.21</b>			

## Tom Neigum

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**From:** Chris Horner <Chris.Horner@stratacorporation.com>  
**Sent:** Tuesday, August 20, 2019 11:36 AM  
**To:** Tom Neigum  
**Cc:** Brent Theurer; Keith Wolter  
**Subject:** RE: CCR Data  
**Attachments:** CSF6607-5200.pdf

Tom,

The cost to procure, ship, and install a new 7.5kW regulator will be a lump sum price of \$13,462.54.

I attached a cut sheet of the L-828 (non-monitoring) regulator that was quoted. ADB is telling me lead time is 8-10 weeks.

Let me know how you would like to proceed.

Thanks

Chris Horner  
Strata Corporation

**From:** Tom Neigum <tom.neigum@kljeng.com>  
**Sent:** Thursday, August 15, 2019 1:25 PM  
**To:** Chris Horner <Chris.Horner@stratacorporation.com>  
**Cc:** Brent Theurer <Brent.Theurer@kljeng.com>  
**Subject:** FW: CCR Data

Chris,

See below. Please investigate the cost of a 7kW CCR.

Tom

**From:** Wes Gullicks <[Wes.Gullicks@apexenggroup.com](mailto:Wes.Gullicks@apexenggroup.com)>  
**Sent:** Wednesday, August 7, 2019 4:10 PM  
**To:** Tom Neigum <[tom.neigum@kljeng.com](mailto:tom.neigum@kljeng.com)>; John Klein <[John.Klein@apexenggroup.com](mailto:John.Klein@apexenggroup.com)>  
**Subject:** RE: CCR Data

Tom

We reviewed the plans for the runway 13-31 proposed LED lighting load. It looks like there are 97 fixtures with a total load of approximately 3200VA. We feel a 4KW CCR would not have enough spare/safety factor and would recommend a 7KW unit.

Let us know if you have questions.

Thanks  
Wes

## Tom Neigum

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**From:** Chris Horner <Chris.Horner@stratacorporation.com>  
**Sent:** Monday, September 30, 2019 4:19 PM  
**To:** Tom Neigum  
**Cc:** Keith Wolter  
**Subject:** RE: BIS RWY 13-31 LED HIRL

Tom –

\$1600 to reset and then to re-mob out to site. As far as completion date, Keith thinks 1 week after delivery. This of course will be dependent on weather for closing of the runway to gain access.

Thanks.

Chris

**From:** Tom Neigum <tom.neigum@kljeng.com>  
**Sent:** Monday, September 30, 2019 4:00 PM  
**To:** Chris Horner <Chris.Horner@stratacorporation.com>  
**Subject:** RE: BIS RWY 13-31 LED HIRL  
**Importance:** High

Chris,

I need this ASAP, preferably today. I also need to know what the completion date will be for the LED HIRL and 7.5 kW CCR installation for the change order.

Tom

**From:** Tom Neigum  
**Sent:** Monday, September 30, 2019 1:06 PM  
**To:** 'Chris Horner' <[Chris.Horner@stratacorporation.com](mailto:Chris.Horner@stratacorporation.com)>  
**Subject:** RE: BIS RWY 13-31 LED HIRL

Chris,

Do you have costs to install the reused lights in the interim prepared?

Tom

**From:** Chris Horner <[Chris.Horner@stratacorporation.com](mailto:Chris.Horner@stratacorporation.com)>  
**Sent:** Tuesday, September 3, 2019 4:16 PM  
**To:** Tom Neigum <[tom.neigum@kljeng.com](mailto:tom.neigum@kljeng.com)>  
**Cc:** Keith Wolter <[Keith.Wolter@stratacorporation.com](mailto:Keith.Wolter@stratacorporation.com)>  
**Subject:** RE: BIS RWY 13-31 LED HIRL

Tom,