

Ratcliff Constructors, LP 4200 Beltway Drive Addison, Texas 75001 Phone: (972) 432-9969 Fax: (972) 432-9943 Project: 21-501 - Collin County Adult Detention Facility, Phase 1 Addition
4300 Community Avenue
McKinney, Texas 75071

# Prime Contract Potential Change Order #092: RFI #258 Change X3 Light Fixtures at Exterior

то:	Collin County 4600 Community Avenue McKinney Texas, 75071	FROM:	Ratcliff Constructors, LP 4200 Beltway Drive Addison Texas, 75001
PCO NUMBER/REVISION:	092 / 0	CONTRACT:	1 - Collin County Adult Detention Facility, Phase 1 Addition Prime Contract
REQUEST RECEIVED FROM:	·	CREATED BY:	CJ Perry (Ratcliff Constructors, LP)
STATUS:	Pending - In Review	CREATED DATE:	2/27 /2024
REFERENCE:		PRIME CONTRACT CHANGE ORDER:	
FIELD CHANGE:	No		
LOCATION:		ACCOUNTING METHOD:	Amount Based
SCHEDULE IMPACT:		PAID IN FULL:	No
		TOTAL AMOUNT:	\$4,306.32

POTENTIAL CHANGE ORDER TITLE: RFI #258 Change X3 Light Fixtures at Exterior

**CHANGE REASON:** Allowance

POTENTIAL CHANGE ORDER DESCRIPTION: (The Contract Is Changed As Follows)

RFI #258 Change X3 Light Fixtures at Exterior

Provide for additional material, equipment, and labor required to replace all X3 light fixtures on the exterior per RFI #258. See backup.

#### ATTACHMENTS:

#	Cost Code	Description	Туре	Amount
1	<del>26-103 - Fiber Optic Cabling</del>	Replace X3 Light Fixtures	Subcontractor	\$ 3,866.51
2		Ratcliff Bonds (1.25%)		\$ 48.33
3		Ratcliff Fee (10.00%)		\$ 391.48
			Subtotal:	\$4,306.32
			Grand Total:	\$4,306.32

Michael Woods (Brinkley Sargent Wiginton Architects)

5000 Quorum Drive, Suite 600 Dallas Texas 75254

2 27 2024

DATE

Collin County

SIGNATURE

4600 Community Avenue McKinney Texas 75071

Ratcliff Constructors, LP

4200 Beltway Drive Addison Texas 75001

CICNATURE

DATE

DATE

ŭ,	? .	APPROVED	LIEU OF SIGNATURE, PLEASE ADVISE IMMEDIATELY IF ANY OF THE ABOVE DOES NOT AGREE WITH YOUR RECORDS				OTAL LABOR (This Sheet)	er-Diem - Sheet Sub-Total	vertime Time Labor - Sheet Sub-Total	remium Time Labor - Sheet Sub-Total	traight Time Labor - Sheet Sub-Total									regory Rodil	ME	EMPLOYEE		FOR C	JESCRIPTION OF WORK BUY 8 NEW TYPE AS TOF EXTERIOR KET #258	PROJECT NAME Collin County ADF	
			)VISE IMMED				Sheet)	tal	neet Sub-	eet Sub-	et Sub-T	L	_					+	+	M	표	EMP		FOR Chris Perry Jr.	suy a nev	ollin Co	
			DIATELY IF AI						Total	Total	otal	49	\$	\$	69	49	69	49	+	2 \$5		STRA		ry Jr.	v type X	unty ADI	
			NY OF THE ABO									\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				\$51.21 \$1	A	STRAIGHT TIME			TOF exteri		
			VE DOES NO									\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$102.42	HOURS	H			OF KFI #2		
Ω	CO		T AGREE WIT									\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	70	PREMI	LABOR		08	3	
ENT ALITHO	COMPANY		H YOUR REC									\$0.00	)							T	AMC	PREMIUM TIME	OR				
DRIZED EXT			ORDS.									\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-	-					
CLIENT ALITHORIZED EXTRA WORK APPROVER												\$0.00	\$0.0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Days RATE	PER					
PROVER													0								AMC	PER-DIEM					
								_				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		H					
	1	DATE					6 \$	69	9	N/A	on 69	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$54.16	\$72.9	HOURS RATE	OVERTIME				l	
		Ш					482.82				482										AMOUNT	TIME		1		PROJECT NO.	
							82 TOTAL	Sales Tax	Markup	Freight	482.82 Sheet Sub-Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	QU	+		EWA NO.		NO. 23005	
							Ļ	Tax	φ	nt	Sub-Tota	_				_	$\dashv$	+	+		1	-		ĕ		05	
																				type As light hames	DESCRIPTION  Y3 light fixtures		Material			WE DATE	
		REMARKS:							0.0									1		\$0.0.0c	PRICE	UNIT		•			
I		66	GR	Markup	오	_	69	49	0.00% \$	49	69								-	1000	3	c		AUTH			
			GRAND TOTAL	kup			3,032.19				3,032.19	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	AMOUNT	EXTENDED		AUTHORIZED BY		WORK PERFORMED	
			F				TOTAL EQUIPMENT (This Sheet)	"C" Company Owned - Sheet Sub-Tota	Equipment Tax - 3rd Party	Markup - 3rd Party Only	3,032.19 "T" 3rd Party Equip Sheet Sub-Total	\$0.00 Fuel, Oil & Lube for 3rd Party	Freight for 3rd Party	\$0.00 40' Aerial Lift	\$0.00 Company Truck	\$0.00 Scissor Lift	\$0.00 Core Drill	\$0.00 Packer	\$0.00 Jackhammer	\$0.00 Skidsteer	DESCRIPTION					RMED	SHEET
				10.00%	0.00%		T (This S	Sheet S	arty	y	Sheet Su	Party		Т	C	T	T	7	-1	-1 -	TYPE MO	EQUIP	EQUI				
			49	1%	%		Sheet)	ub-Total			b-Total	L	L	0	0	0	0	0	0	0			EQUIPMENT			PHA	
				60		s	40	69	0.00% \$	0.00% \$	69	S	S	\$0.00	\$750.00	\$2,040.00	\$850.00	\$0.00	\$0.00	\$0.00	RATE					PHASE CODE:	유 <b>I</b>
			3,866.51	351.50	,	3,515.0				1	1	-		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	AMOUNT						-1

**GREEN SHEETS** 

Project Name

Collin County ADF

**ELECTRICAL** 

Last Verfication:

12/03/2013 10:05 AM

			Proposal No.	ESTIMATOR			12.00			\$3,032.19
		DET			LABOR		LABOR	MATERIAL		MATERIAL
NO.	CODE	QTY	MATERIAL/DESCRIPTION	QUANTITY	UNIT	U/M	EXTENSION	PRICE	U/M	EXTENSION
	TYPE 3X	8	Exterior Light	8	1.500	EA	12.00	\$379.02	EA	\$3,032



### **FEATURES & SPECIFICATIONS**

INTENDED USE — Ideal for applications requiring low-profile, attractive emergency lighting with Optional normally-off or normally-on with photocell control. Provides a minimum of 90 minutes of illumination both indoors and outdoors upon loss of AC power. Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

**CONSTRUCTION** — Compact, low-profile, architectural design with die-cast aluminum housing. Finishes are texturized powder coat paint for dark bronze, white, black and non-texturized for natural aluminum. Test switch indicator light and remote enabled are located on the bottom of the housing and are easily accessible and visible from the floor.

**OPTICS** — LEDs with L70 of 55,000 hours. Delivers 635 lumens in Normal-On and Emergency operation. Optional field configurable for wide and forward throw distribution **(U.S. Patent No. - US10236712 B2)**.

Outdoor wide throw distribution: 70' (3' path of egress) at a 7.5' mounting height with 1 FC Average.

4,000K correlated color temperature (CCT).

70 CRI.

**ELECTRICAL** — UVOLT (120 thru 347V, 50/60hz). Current-limiting charger maximizes battery life and minimizes energy consumption to provide low operating costs. Small battery chargers Certified in the CA Title 20 Appliance Efficiency Database

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts. Regulated charge voltage maintains a stable charge voltage over a wide range of line voltages.

Prevents over/undercharging that shortens battery life and reduces capacity. Filtered charger input minimizes charge voltage ripple and extends battery life.

Photocell option (PEL) for normally on product in order to discontinue illumination during periods when ambient light is present. Photocell option (PEL) for normally on products allow the user to force lamp illumination by user control (external switch). When power is not connected to switched line, illumination will respond to internal daylight sensor. For switched line applications, no other types of products shall be connected on the switched leg.

Remote units (OELR) are normally off. Emergency only functionality with DC power from an external battery.

BATTERY: Sealed, maintenance-free Lithium Iron Phosphate battery.

SELF-DIAGNOSTICS AND REMOTE TEST (SDRT OPTION): Automatic 24-hour recharge after a 90-minute discharge. Advanced electrical design provides constant light output throughout the entire discharge period for non-CW batteries. (For cold weather and cold temperature applications, the light may diminish though the discharge cycle). Brownout protection is automatically switched to emergency mode when supply voltage drops below approximately 80 percent nominal of 120, 220, 277 or 347. Other input voltages may vary. AC/LVDre-set allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Self-Diagnostics: Continuously monitors AC functionality. Standard derangement monitoring will indicate disconnected battery, charger failure and displays green flashing indicator light while in emergency mode. Single multi-chromatic LED indicator to display two-state charging, test activation and three-state self-diagnostics.

Self-diagnostic testing: Five minutes every 30 days and 90 minutes annually. Diagnostic evaluation of lamps, AC to DC transfer, battery charging and condition of microprocessor. Automatic test is easily postponed for eight hours by activating manual test switch or use of remote tester (RTKIT accessory).

Manual testing: Test switch and remote tester (RTKIT accessory) provides manual activation of 60-second diagnostic testing for on-demand visual inspection. 90 minute manual testing can be enabled by pressing the test switch again while in test mode.

**INSTALLATION** — Wall mount: typically meets 7.5' to 14' mounting height from ground or floor. Power supplied by either mounting directly to a 4" square or 4" octagon j-box (wall mount) and accepts rigid or flex conduit.

**LISTINGS** — UL wet location listed standard at 32-122°F (0-50°C). Unit with CW battery(cold weather) listed for -22°F to 122°F (-30° to 50°C). Remote listed for -40°F to 122°F (-40° to 50°C). Meets or exceeds all applicable requirements for UL 924, NFPA 101 (current Life Safety code), NFPA 70 (NEC), NOM (Norma Oficial Mexicana), California Energy Commission Title 20 section 1605.3 (W)(4), FCC Title 47, Part 15, Subpart B and OSHA. List and labeled to comply with Canadian Standards C22.2 No. 141-10. Meets City of Chicago Code.

**BUY AMERICAN ACT** — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to <a href="https://www.acuitybrands.com/buy-american">www.acuitybrands.com/buy-american</a> for additional information.

**WARRANTY** — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: <a href="www.acuitybrands.com/support/warranty/terms-and-conditions">www.acuitybrands.com/support/warranty/terms-and-conditions</a>

**Note**: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

 $\ \, \text{† Small Battery Chargers Certified in the CA Title 20 Appliance Efficiency Database}.$ 

# **AFFINITY**®

**Premium Die-Cast Architectural Emergency Light** 

**AFF** 



without photocell (white)



without photocell (natural aluminum)



with photocell (white)

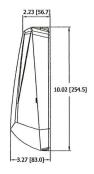


with photocell (dark bronze)

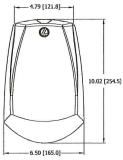
#### MOUNTING

All dimensions are inches (centimeters). Shipping weight: 3.5 lbs. (1.59 kgs.)

Length: 6 1/2 (16.51) Depth: 3 27/100 (8.30) Height: 10 ( 25.45) Weight: 3.5 lbs ( 1.59kg)





















AFF

EMERGENCY

# AFF Affinity® Premium Die-Cast Architectural Emergency Light

#### **SELF-POWERED MODELS**

ORDERING INFORMATION

For the shortest lead times, configure product using bolded options.

**Example:** AFF PEL DWHGXD UVOLT LTP SDRT WT

Series	Unit 1	「ype¹	Housing Co	olor	Voltage		Batte	гу Туре	Autom	atic Testing	Optic	s	Option	ns
AFF AFFINITY Premium	PEL	Photocell: Normally-ON with internal battery Normally-OFF with internal battery	DWHGXD DBLBXD DNAXD	White textured Black textured Natural aluminum Dark bronze textured	UVOLT	120-347VAC, 50/60Hz	LTP	Lithium Iron Phosphate	SDRT	Self-diagnostics remote test	WT FCT	Wide Throw Field configurable throw <sup>2</sup>	BAA	Cold Weather (-30 - 50C) Buy America(n Act Compliant

Notes

1 AFF with internal battery is not remote capable.

#### **REMOTE MODELS** listed for -40°F to 122°F (-40° to 50°C)

HEIMOIC	. IVIODELD	listed for	10 1	w	122	٠,	10	10 30	•
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Name of Street							

ORDERING INFORMA	For the shortest lead t	imes, configure product using <b>bolded o</b>	ptions.	Exai	mple: AFF OELK DWHGXD W
Series	Unit Type	Housing Color	Voltage	Optics	Options
AFF AFFINITY Premium	OELR Remote fixture, Normally OFF (requires external battery source)	DWHGXD White textured  DBLBXD Black textured  DNAXD Natural aluminum  DDRTYD Dark bronze textured	(blank) Universal DC voltage (8-30VDC)	WT Wide Throw  FCT Field configurable throw 1	BAA Buy America(n) Act Compliant

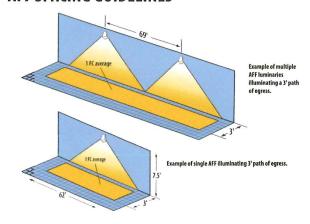
Accessories: Order as separate catalog number.

RTKIT Remote test kit, up to 40' away (includes goggles, laser and battery)

#### Mada

 FCT optics ships standard in the WT (wide throw) mode. Upon installation, configuration can be changed to the FCT mode.

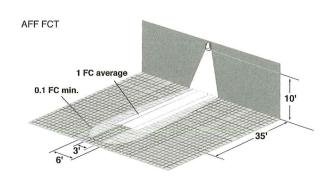
## **AFF SPACING GUIDELINES**



#### Maximum Spacing Guidelines - AFF (WT)

Mounting	Illumination	Single Luminaire		Multiple l	.uminaire	
Height	Level	3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	Application Notes *
7.5'	>	62'	46'	69'	53'	
10'	1FC Avg	48'	34'	55'	46'	200' Open Space 80/50/20
12'		28'	22'	46'	41'	reflectances
14'		6'	N/A	38'	36'	

 $<sup>\</sup>hbox{* Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.}$ 



#### **Maximum Spacing Guidelines - AFF (FCT)**

Mounting	Illumination	Single Lu	ıminaire	
Mounting Height	Level	3' Path of Egress	6' Path of Egress	Application Notes *
7.5'		24'	23'	
10'	1FC Avg	35'	35'	200' Open Space 80/50/20
12'	ITCAVG	37'	31'	reflectances
14'		31'	N/A	

<sup>\*</sup> Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.



## **SPECIFICATIONS**

#### **Electrical: Primary Circuit**

Unit Type	Battery Type	Input Voltage(V)	Input Current(A)	Watts(W)
DEL MIT	LTP	120-347	0.053-0.086	11.28
PEL WT	LTP CW	120-347	0.089-0.167	20.39
DEL ECT	LTP	120-347	0.053-0.086	11.28
PEL FCT	LTP CW	120-347	0.089-0.167	20.39
OFI WIT	LTP	120-347	0.025-0.032	2.50
OEL WT	LTP CW	120-347	0.075-0.097	11.60
OEL FCT	LTP	120-347	0.025-0.032	2.50
OEL FCI	LTP CW	120-347	0.075-0.097	11.60
OELR WT	N/A	8-30	0.248 - 1,225	8.57*
OELR FCT	N/A	8-30	0.254 - 1.168	8,22*

<sup>\*</sup>OELR watts data is in addition to the lamp heads on the product

## **BATTERY**

Lithium Iron Phosphate											
Туре	Voltage	Typical Shelf Life <sup>1</sup>	Typical Life <sup>1</sup>	Maintenance <sup>2</sup>	Temperature range <sup>3,4</sup>						
STD	12.8V	1 year	6-8 years	none	32 - 122°F (0 - 50°C)						
CW	12.8V	1 year	6-8 years	none	-22 - 122°F (-30 - 50°C)						

#### Notes

- 1 At 77°F (25°C).
- 2 Battery life is negatively impacted by many variables including temperature, charging rates, number of cycles and deep discharges due to long periods of time without AC power.
- 3 All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.
- 4 Temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity. See option packages for expanded temperature ranges.



Ratcliff Constructors, LP 4200 Beltway Drive Addison, Texas 75001 P: (972) 432-9969 F: (972) 432-9943 Project: 21-501 Collin County Adult Detention
Facility, Phase 1 Addition
4300 Community Avenue
McKinney, Texas 75071

## RFI #258: X3 Emergency Lightss are not Designed for Exterior Conditions

**Status** 

Open

To

Michael Woods (Brinkley Sargent Wiginton

Architects)

Jason Mansur (MD Engineering, LLP - MEP

Engineer)

From

Zach Reynolds (Ratcliff Constructors, LP)

4200 Beltway Drive

Addison, Texas 75001

**Date Initiated** 

Jan 16, 2024

**Due Date** 

Jan 23, 2024

Location

**Project Stage** 

**Cost Impact** 

Schedule Impact

**Spec Section** 

**Cost Code** 

**Drawing Number** 

Reference

**Linked Drawings** 

**Received From** 

Willy Jovel (BTX Construction Group LLC)

**Copies To** 

Brian Odom (Ratcliff Constructors, LP), CJ Perry (Ratcliff Constructors, LP), Shane Worley (Ratcliff

Constructors, LP)

#### **Activity**

#### Question

Question from Zach Reynolds Ratcliff Constructors, LP on Tuesday, Jan 16, 2024 at 05:18 PM CST

In our meeting this week, we discussed that we have 8 type X3 exit lights called out for the exterior to go above the exterior doors. However we discussed this fixture type is not designed to go at wet locations, or at the exterior. Please provide a wall pack model that is designed for exterior locations, that is readily available for we can keep our schedule.

#### Official Response

Response from Jason Mansur MD Engineering, LLP - MEP Engineer on Friday, Feb 23, 2024 at 12:54 PM CST

Provide Lithonia

AFF OEL DDBTXD UVOLT LTP SDRT WT CW

#### Official Response

Response from Jason Mansur MD Engineering, LLP - MEP Engineer on Monday, Jan 29, 2024 at 04:09 PM CST

Here are 4 we recommend:

EXTERIOR EGRESS NORMALLY OFF EMERGENCY LIGHT, MOUNT 6" ABOVE DOOR FRAME, BRONZE FINISH, SELF POWERED BATTERY BACKUP, SELF DIAGNOSTIC TESTING, COLD WEATHER RATED EVENLITE WW EM BZ CT (STANDARD IS RATED FOR 0° C / OPTION -25° C) LITHONIA AFF OEL DDBTXD UVOLT LTP SDRT WT CW (STANDARD IS RATED FOR 0° C / OPTION -30° C) DUAL LITE PGZ HTR (STANDARD IS RATED FOR 0° C / OPTION -30° C) SIGNTEX MOE BB 7 B (STANDARD IS RATED FOR -20° C / AVAILABLE -40° C VERY COLD LOCATIONS)

#### **All Replies**

Response from Jason Mansur MD Engineering, LLP - MEP Engineer on Friday, Feb 23, 2024 at 12:54 PM CST

Provide Lithonia

AFF OEL DDBTXD UVOLT LTP SDRT WT CW

## Chris Perry, Jr.

From: Michael Woods <mwoods@bsw-architects.com>

Sent: Monday, February 26, 2024 9:46 AM

**To:** Jason Mansur; Chris Perry, Jr.

Cc: Brad Harris - Collin County Jail Owners Rep; Shane Worley; Brian Odom; Zachary

Reynolds

Subject: RE: RFI #258: X3 Emergency Lights are not Designed for Exterior Conditions

#### Bronze is fine.

#### Michael Woods

**BRINKLEY SARGENT WIGINTON ARCHITECTS** 

From: Jason Mansur < JMansur@md-eng.com> Sent: Monday, February 26, 2024 9:40 AM

To: Chris Perry, Jr. <cj.perry@ratcliffconstructors.com>; Michael Woods <mwoods@bsw-architects.com>

Cc: Brad Harris - Collin County Jail Owners Rep <br/> <br/> Shane Worley

<Shane.Worley@ratcliffconstructors.com>; Brian Odom <Brian.Odom@ratcliffconstructors.com>; Zachary Reynolds

<Zachary.reynolds@ratcliffconstructors.com>

Subject: RE: RFI #258: X3 Emergency Lights are not Designed for Exterior Conditions

#### I would recommend BRONZE, but that is up to Michael W

Jason Mansur | MD Engineering
Texas Registered Engineering Firm F-7489
1255 W 15<sup>th</sup> Street, Suite 300
Plano, Texas 75075

469.284.9678 Direct 469.467.0200 Office 469.467.0300 Fax 469.576.6518 Cell

#### www.md-eng.com

\*\*For Construction Administration items and questions please send all correspondance to mdengca@md-eng.com.\*\*

This message, including any attachments, contains confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message. Any disclosure, copying, or distribution of this message, or the taking of any action based on it, is strictly prohibited.

From: Chris Perry, Jr. <ci.perry@ratcliffconstructors.com>

Sent: Friday, February 23, 2024 11:48 AM

To: Jason Mansur < JMansur@md-eng.com>; mwoods@bsw-architects.com

Cc: Brad Harris - Collin County Jail Owners Rep <br/>
<br/>bjharris@co.collin.tx.us>; Shane Worley

<<u>Shane.Worley@ratcliffconstructors.com</u>>; Brian Odom <<u>Brian.Odom@ratcliffconstructors.com</u>>; Zachary Reynolds

<<u>Zachary.reynolds@ratcliffconstructors.com</u>>

Subject: RFI #258: X3 Emergency Lights are not Designed for Exterior Conditions

Jason / Michael,

Please select from the attached (finish as well) X3 replacement fixtures options so we can finalize and submit pricing.

Thanks,

## **Christopher Perry Jr.**

Project Manager | Ratcliff Constructors, L.P.



4200 Beltway Drive, Addison Tx 75001 972-432-9969 Office | 469-855-7192 Cell

cj.perry@ratcliffconstructors.com