

Project Number: 126990

Project Name: Lorenzi Park

Prepared By: Eric Svenby

Sales Rep: Shane White

Scan: 126990

Service Location: 1 of 1

Date: 03/15/2007

MUSCO CONTROL SYSTEM SUMMARY

Control and Monitoring Digital
Typical Equipment Layout

Off-On-Auto
Selector Switch

Digital Cellular
Alarm

Control and
Monitoring
Cabinet

Additional
Control and
Monitoring
Cabinet(s)
(as required)

Backed
Distribution Panel
(Installed by Customer)

DESCRIPTION

APPROXIMATE SIZE

1. CONTROL AND MONITORING CABINET

24 X 72

2. CONTROL AND MONITORING CABINET

24 X 72

QTY

SIZE

TOTAL CONTACTORS: 24

30 AMP

TOTAL On/Off/Auto SWITCHES: 4

Wiring Details

WIRE	DESCRIPTION	VOLTAGE	# OF WIRING	W.P. SIZE	NOTES	SUPPLIER
1	POWER TO LIGHTING CONNECTIONS (400V)	NOTE A	NOTE A	NOTE B	A. 400V F. CONTRACTOR	
2	POWER FROM CONTACTORS TO POLES (240V)	NOTE A	NOTE A	NOTE B	A. 400V F. CONTRACTOR	
3	CONTROL VOLTAGE (480 AMP)	120V (400)	3	12	CABLE CONTRACTOR	
4	CONTROL VOLTAGE WIRING (120V)	120V (400)	---	---	CABLE CONTRACTOR	
5	MONITORING AND/OR SCHEDULING CIRCUIT	N/A	1	---	CABLE CONTRACTOR	

Notes:

A. Voltage and phasing per the notes on page 2.

B. Calculate per load, voltage drop.

C. For more information on equipment, see attached drawings.

D. Refer to Installation Instructions for details on equipment mounting and conduit entry points.

E. Power circuits (wires #1-3) must be run in separate conduit from non-power circuits (wire #5).

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CABINET #

CONTROL MODULE LOCATION

CONT. ID

CIRCUIT DESCRIPTION

FULL LOAD AMPS

DISTRIBUTION PANEL ID BY OTHERS

CIRCUIT BREAKER POSITION BY OTHERS

1

1

C1

Pole A1

14.8

1

1

C2

Pole A2

14.8

1

1

C3

Pole B1

16.5

1

1

C4

Pole B2

16.5

1

1

C5

Pole C1

14.8

1

1

C6

Pole C2

14.8

1

1

C7

Pole A3

14.8

1

1

C8

Pole A4

14.8

1

1

C9

Pole B3

16.5

1

1

C10

Pole B4

16.5

1

1

C11

Pole C3

14.8

1

1

C12

Pole C4

14.8

2

1

C13

Pole A5

14.8

2

1

C14

Pole A6

14.8

2

1

C15

Pole B5

16.5

2

1

C16

Pole B6

16.5

2

1

C17

Pole C5

14.8

2

1

C18

Pole C6

14.8

2

1

C19

Pole A7

14.8

2

1

C20

Pole A8

14.8

2

1

C21

Pole B7

16.5

ZONE SCHEDULE

ZONE	REC RELAY #	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	POLE ID	CONT ID
Zone 1	1	Zone 1	A1	A2	C2
			B1	B2	C4
			C1	C2	C6
			C3	C4	C8
Zone 2	2	Zone 2	A4	A5	C8
			B3	B4	C10
			C3	C4	C11
			C4	C5	C12
Zone 3	3	Zone 3	A4	A5	C13
			A5	A6	C14
			B4	B5	C15
			C5	C6	C16
			C6	C7	C17
			C7	C8	C18
Zone 4	4	Zone 4	A1	A6	C19
			B1	B6	C20
			C2	C7	C21
			C3	C8	C22
			C4	C9	C23
			C5	C10	C24

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CIRCUIT SUMMARY BY POLE ID

POLE	CIRCUIT NAME	# OF POLE	FULL LOAD AMPS	CONTACTOR SIZE(AMPS)	CONTACTOR ID	ZONE
A1	Zone 1	5	14.8	30	C1	1
A1	Zone 4	5	14.8	30	C19	4
A2	Zone 1	5	14.8	30	C2	1
A3	Zone 2	5	14.8	30	C7	2
A4	Zone 2	5	14.8	30	C8	2
A4	Zone 3	5	14.8	30	C13	3
A5	Zone 3	5	14.8	30	C14	3
A6	Zone 4	5	14.8	30	C20	4
B1	Zone 1	7	16.5	30	C3	1
B1	Zone 4	7	16.5	30	C21	4
B2	Zone 1	7	16.5	30	C4	1
B3	Zone 2	7	16.5	30	C9	2
B4	Zone 2	7	16.5	30	C10	2
B4	Zone 3	7	16.5	30	C15	3
B5	Zone 3	7	16.5	30	C16	3
B6	Zone 4	7	16.5	30	C22	4
C1	Zone 1	5	14.8	30	C5	1
C2	Zone 1	5	14.8	30	C6	1
C3	Zone 2	5	14.8	30	C11	2
C4	Zone 2	5	14.8	30	C12	2
C5	Zone 3	5	14.8	30	C17	3
C6	Zone 3	5	14.8	30	C18	3
C7	Zone 4	5	14.8	30	C23	4
C8	Zone 4	5	14.8	30	C24	4

IMPORTANT NOTES:

1. This design is based on 480 VOLTS 3 phase. If voltage is other, equipment costs may be affected. Contact your Musco sales representative.

2. When 3 phase service is available, all 3 phases are to be run to each pole.

3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit.

4. If the lighting system will be fed from more than one service location, additional equipment may be required.

5. Entrance hub and locknut materials must be die-cast zinc, copper free die-cast aluminum or PVC and must meet NEMA 4 enclosure sealing requirements.

6. A single 120V control circuit must be supplied to each control system.

7. Size overcurrent device using the full load amps column of the chart. Full load amps based on an assumed power factor of 0.9.

SWITCHING SCHEDULE

Field Type	Zone	Customer Field Name
Baseball	1	Baseball #1
Baseball	2	Baseball #2
Baseball	3	Baseball #3
Baseball	4	Baseball #4

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CABINET #

CONTROL MODULE LOCATION

CONT. ID

CIRCUIT DESCRIPTION

FULL LOAD AMPS

DISTRIBUTION PANEL ID BY OTHERS

CIRCUIT BREAKER POSITION BY OTHERS

2

1

C22

Pole B6

16.5

2

1

C23

Pole C7

14.8

2

1

C24

Pole C8

14.8

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NOT FOR CONSTRUCTION

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1-10-09 Record Drawing

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Electrical and Mechanical Engineers
300 South 2000 West, Suite 100
(702) 567-1022 Fax: (702) 567-1025
Email: pda@pda-inc.com
Website: www.pda-inc.com

Engineering Station
PDA Project No. 25049

Lorenzi Park Renovations
Phase 1
SPORTS LIGHTING DETAILS

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES

400 EAST STEWART AVENUE
LAS VEGAS, NEVADA 89101
PHONE: (702) 229-8538
FAX: (702) 384-8848
TDD: (702) 384-8848

DATE: 06-03
DATE: JUNE 2007
SCALE: AS SHOWN
CIVIL NO.
SITE NO.

E4.04

119362