

BOARD OF SELECTMEN
Minutes of November 23, 2009

MEMBERS PRESENT: Vice-Chairman Bruce Breton called the meeting to order at 7:00 PM. Selectmen Ross McLeod, Charles McMahon and Roger Hohenberger were present, as was Town Administrator David Sullivan. Chairman Galen Stearns was excused. Mr. Breton read the agenda into the record, followed by the Pledge of Allegiance.

ANNOUNCEMENTS: Chief Lewis approached to request that the State 9-1-1 Committee had requested an updated liaison appointment. Mr. Hohenberger moved and Mr. McLeod seconded to appoint Police Chief Lewis as the Town's liaison. Passed 4-0.

Mr. Sullivan requested a moment of silence in acknowledgement of the passing of Police Captain Patrick Yatsevich and long-time Windham resident Iola Zins.

Mr. McLeod noted that the Annual Tree Lighting is scheduled for December 5th from 3P to 5P at the Town Common.

Mr. Sullivan noted that staff had recently attended the Local Government Center's annual conference, at which the Town's 1st place award for the 2008 Town Report had been accepted with pleasure.

MINUTES: None.

LIAISON REPORTS: None.

WBSL – LIGHT REQUEST: Mr. McMahon noted that, per the Board's request, representatives of the League had met with the Recreation Committee to discuss the lighting proposal presented to the Selectmen. He noted that the Committee, along with the Technical Review Committee and Planning Board, are in support of the proposal, with the former voting 6-0 to support the project as presented. Recreation had requested only that the lighting be remotely controlled, and will be proceeding to draft a policy relative to use/hours of operation.

Mr. McMahon noted that the Recreation Committee had also discussed budgeting for the electrical costs based on projected estimates, and had recommended that should the electrical costs for Griffin Park exceed \$10K annually, the excess be paid by the WBSL. He also noted that Soccer had been consulted.

Mr. McLeod noted that representatives of WSA had met with the vendors and members of the WBSL to discuss the proposal, and then deferred to WSA member Ann Senibaldi. Mrs. Senibaldi approached and read into the record a lengthy letter of support for the project (copy attached).

Mr. Hohenberger sought clarification that the WSA was not looking to expand the lighting at this time, but did support allocation of the costs to users for the fields. Mrs. Senibaldi replied in the affirmative, noting that Soccer felt the costs of the parking lot/walkway lights should be absorbed by the Town and the field light costs allocated to the users. Discussion ensued.

Mr. Hohenberger inquired whether the areas could be metered separately, and Mr. Steve Kozer replied in the affirmative subject to a check meter being installed at additional costs. Discussion ensued regarding the magnitude of the donation from WBSL, the costs to install said check meter and who would fund its placement, and the benefits of the overall lighting to WBSL

versus the general public. Mr. McLeod noted that benefits of lighting the field were distinct to the WBSL, and their cost could be rolled into the registration fee; however, the all users gained a benefit from the remaining lights as they exited the park at the dusk. He noted that this was the basis for WSA's support of separate metering, which he added also removes the Recreation Coordinator from the equation as it pertained to allocating usage costs.

Further discussion ensued in which Mr. Kozer then clarified that the costs to install the check meter would be under \$1,000. Mr. Breton pointed out that WBSL also contributes to field maintenance annually, and Mr. Anderson confirmed that the WBSL contributes approximately \$5-7,000 each year towards field mix, drainage, lining, etc. Discussion ensued regarding the fundraising efforts of the WBSL, the duration of the league season, which is 45 days, and the ongoing payment of the multi-purpose building bond by WBSL.

Mr. Michael Jeffers, Squire Armor Road, approached to reiterate his comments from a previous meeting relative to WBSL expending these funds toward improving the High School fields versus Griffin Park. Mr. McMahon clarified that that, while the HS fields do need to be finished, those are too large for the Little League players. Mr. Jeffers then inquired, if the lighting were approved, what controls would be in place to ensure the lights are extinguished at a certain time. Mr. McMahon noted that the Recreation Committee would be drafting a policy accordingly, and that it is the League's intent to turn the lights off at 9:00 PM. He then added that the lights will not be in use until late April or early May. Discussion ensued regarding the reasoning behind the 9PM shut off, which is to allow for an additional game.

Ms. Lisa Gutman, Squire Armor Road, approached to inquire what "green" lighting initiatives had been considered for the Town's portion of the lighting. Mr. McMahon noted that solar lighting had been considered, however, there was not adequate sun to guarantee sufficient lighting. He then noted that the Musco lighting planned for the fields was "green", and utilizes much less power than traditional.

Mr. Dan Gutman then approached to inquire what liability the Town assumed by lighting the Park. Mr. Sullivan clarified there was no added liability, as the Park is covered under the Town's insurance currently. Mr. McLeod added that, statutorily, the Town is protected from any liability.

Ms. Elizabeth Bondioli approached seeking clarification that the Soccer Association was in support of the identical proposal presented the Board of Selectmen and Recreation relative to amperage. Mr. McMahon replied in the affirmative, noting that a 600 amp transformer is planned.

Ms. Bondioli then reiterated her ongoing concerns relative to the inappropriateness of such lighting in a residential area and the continued parking/safety issues at the Park. A brief discussion ensued.

Mr. Joe Connolly, WSA, approached in support of the project and to clarify that, at this time, the WSA did not intend to pursue expanding the lighting to the back field. He noted, however, that given the success pilot program involving temporary lighting, the WSA will be revisiting the possibility in the future.

Mr. Hohenberger stated that, while the lights would improve the safety of the Park if they were used nightly, the best way to ensure safety in the area is to not utilize the park at night. He also expressed concerns regarding glow and loss of the night sky, and concurred with Ms. Bondioli that abutters would be adversely impacted. Brief discussion ensued.

Mr. McLeod then moved to:

“Approve the request from the WBSL to install lights at Griffin Park, subject to the following specifications and conditions: *(note all exhibits cited are attached to these minutes)*

- Parking lot lights
 - 8 poles uniformly spaced along the length of the parking lot. Ex. 1.
 - Located on the Range Road side of the parking lot.
 - Avalume brand, 20’ poles, 250 watts per light, bronze paint (finish BRP), equipped with shielding to direct the light towards the park (option HS). Ex. 2
- Walkway lights
 - 7 poles uniformly spaced along the central walkway from the park side of the parking lot to the north side of the Multi Use Building. Ex. 1.
 - Located on the Squire Armour Road side of the walkways.
 - Avalume brand, 16’ poles, 150 watts per light, bronze paint (finish BRP), equipped with shielding to direct the light down (option HS). Ex. 3
- Zimmer Field
 - 4 poles to be located around Zimmer Field; specific locations to be determined by WBSL.
 - Musco brand, Light Structure Green. Ex. 4.
 - Separately metered so that event/user specific electricity costs can be charged back to the user.
- Installation paperwork, to be approved by the Town Administrator prior to any work on the site.
 - Certificates of Insurance (coverages as required by the Town Administrator), showing coverage normal and customary to the scope of owkr.
- Installation paperwork
 - Permits as required (e.g., electrical).
- Work to be completed as per the attached quotes
 - ECEC, email proposal, 10.05.09. Ex. 7.

- USA, proposal, 10.16.09. Ex. 8.
- Musco Lighting, 9.30.09. Ex. 6.
- Prior to first and any use of lights
 - Restore any disturbed areas (i.e. repave, reseed).
 - Parking lot and walkway lights to be remotely controlled, separately from any field lights.
 - Field lights to have remote control (e.g., Musco Control Link). Ex. 5.
 - Policies and procedures to be in place.
 - Exception: construction performance testing.
- No pole-mounted public address system on any poles
- When work is completed, all contractors and subcontractors are to sign mechanic's lien waivers."

Mr. McMahan requested that Mr. McLeod amend his motion to add, under permitting, that all related fees will be waived. Mr. McLeod amended his motion accordingly and Mr. McMahan then seconded.

Motion passed 3-1, with Mr. Hohenberger opposed.

Mr. McMahan advised that, weather permitting, the project will commence in approximately one (1) week.

OLD/NEW BUSINESS: The Board interviewed Mr. Gerry Parsons for possible appointment to the Historic District/Heritage Commission. Mr. Hohenberger then moved and Mr. McLeod seconded to appoint Mr. Parsons as an alternate to the HDC. Passed 4-0.

Mr. Sullivan indicated that the Town had received a donation of Minolta Di200F copy/fax/scan/network business machine from Mr. Jim Hatzos. Mr. Sullivan noted Mr. Hatzos had attached no value to the equipment, and Mr. McMahan moved and Mr. Hohenberger seconded to accept the item with gratitude. Passed 4-0.

Mr. Sullivan noted that a request had been received from the Rockingham Emergency Veterinary Hospital to place a directional sign at the intersection of Lowell and Cobbetts Pond Road, similar to that in place for the Lobster Tail. After a brief discussion, Mr. McMahan moved and Mr. McLeod seconded to approve the request. Passed 4-0.

Mr. Sullivan presented an administrative abatement on behalf of the Tax Assessor, which the Board executed accordingly.

Mr. Sullivan requested that Board he and Highway Agent Jack McCartney to draft and advertise a form bid specification for the Salt Shed/Garage project to include a reduced scope for work. Mr. Sullivan indicated the intent was to garner cost information for the project prior to Town Meeting and, after a brief discussion, it was the consensus of the Board that Mr. Sullivan proceed as requested.

Mr. McLeod expressed concerns regarding an ongoing issue relative to Bauchman Towing. Mr. Sullivan noted that this is a code enforcement matter, over which the Board has no purview, however it could be discussed in non-public session. Discussion ensued.

NON-PUBLIC SESSION: Mr. Hohenberger moved and Mr. McMahon seconded to enter into a non-public session in accordance with RSA 91-A:3-Ib, c, d and e. Roll call vote – all members “yes”, with the exception of Mr. McLeod in opposition to the Bauchman matter. The topics of discussion were personnel, reputations, land acquisition, and legal.

The Board, Mr. Sullivan, Chief Lewis, and Ms. Devlin were in attendance in the first session.

The Board discussed a union matter relative to compensation. Mr. McMahon moved and Mr. McLeod seconded to support the Chief’s recommendation and deny the grievance. Passed 4-0.

The Board discussed a union matter relative to overtime compensation. Mr. McMahon moved and Mr. Hohenberger seconded to support the Chief’s recommendation and deny the grievance. Passed 4-0.

The Board, Mr. Sullivan, and Ms. Devlin were in attendance in the remaining sessions.

The Board discussed the possibility of entering into a property lease. No decisions were made.

Mr. Sullivan updated the Board on a matter relative to committee appointments. No decisions were made.

Mr. Sullivan discussed a personnel matter relative to temporary staffing. Mr. Hohenberger moved and Mr. McLeod seconded to approve the hiring of a temporary, part-time staff member as requested. Passed 4-0.

Mr. McLeod motioned and Mr. McMahon seconded to adjourn. Passed 4-0. The meeting was adjourned at 8:35 PM.

Respectfully submitted,

Wendi Devlin, Administrative Assistant

Note: These minutes are in draft form and have not been submitted to the Board for approval.



TOWN OF WINDHAM, NEW HAMPSHIRE

CHERYL S. HAAS, RECREATION COORDINATOR

Post Office Box 120, 4 North Lowell Road, Windham NH 03087-0120

Memo

To: Windham Board of Selectmen

From:  Windham Recreation Committee

Date: November 20, 2009

RE: Lights Proposal at Griffin Park

Please be advised that at the Recreation Committee Meeting on November 19, 2009, the Committee voted (6-0) to support the Griffin Park Lighting project as presented with the following conditions:

- 1). Pathway and parking lot lights to be remotely controlled, separate from all field lights.
- 2). Policies and procedures shall be in place prior to the first use of the lights
- 3). Windham Baseball shall provide a written summary on November 23, 2009 of the amperage size, transformer size and other details as well as the extent of lighting that will be supported.
- 4). The Recreation Budget for electricity be increased by \$3,000 for 2010.
- 5). If the electric bill for Griffin Park in 2010 exceeds \$10,000 Windham Baseball will pay the cost over \$10,000.

Mr. Senibaldi and Ms. Haas will be present at the Board of Selectmen meeting on Monday if there are any questions.

Attached is a copy of the proposed Electricity for 2010 in Recreation Budget.

RECREATION 2010

Electricity - 12661-59200

Line item covers the electricity expenses of Griffin Park & the multi-purpose building, the beach, Tokanel, Searles, Nashua and Roger's fields, as well as the light at the playground.

usage thru 9/30/09	Cost to Date	Months of Usage	Ave / Month	Projected Ann. Costs	Expected Rate Inc.	Est. Nxt Yr Costs
Griffin Park	\$ 5,018.90	9.0	\$ 557.66	\$ 6,691.87	1.00	\$ 6,691.87
All Others	\$ 1,121.00	9.0	\$ 124.56	\$ 1,494.67	1.00	\$ 1,494.67
Totals Needed						\$ 8,186.53

2010 Budgeted Amount	\$ 8,190	2009 Budget	\$ 8,640	-5.21%
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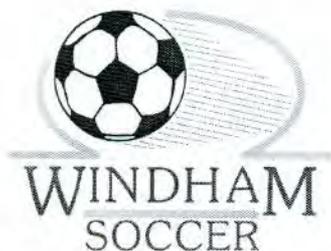
ADMINISTRATOR:	\$ 8,190	Same as Department
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SELECTMEN:	\$ 8,190
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<u>DEPARTMENT</u>		
PROPOSED BUDGET 2010	\$ 186,495	\$ (2,550.00) Decrease
BUDGET 2009	\$ 189,045	-1.349% percent

<u>ADMINISTRATOR</u>		
PROPOSED BUDGET 2010	\$ 186,495	\$ (2,550.00) Decrease
BUDGET 2009	\$ 189,045	-1.349% percent

<u>SELECTMEN</u>		
PROPOSED BUDGET 2010	\$ 186,495	\$ (2,550.00) Decrease
BUDGET 2009	\$ 189,045	-1.349% percent



Post Office Box 333, Windham, NH 03087

November 23, 2009

Dear Chairman Stearns and fellow members of the Board of Selectmen:

The Windham Soccer Association ("WSA") supports the request by WBSL to install lights at Griffin Park in the parking lot, down the central walkway to the Multi-Use Building, and around Zimmer Field. On November 18, 2009, with near-unanimous support (Mr. McLeod abstained), WSA moved to notify the Selectmen of WSA's support for the lighting project request and to send this letter.

Having lights in the parking lot and walkway would enable people to use the park into dusk and then be able to safely exit the park. People inevitably use the facilities at the park up until dusk, yet then must safely get to their vehicles. A dark, unlit parking lot is a potential safety hazard with young athletes zooming about and perhaps not exercising the higher degree of caution that adults would exercise. Lights would make this post-practice parking lot ritual a much safer process.

Furthermore, as a sister youth athletic organization, we understand the challenges associated with providing athletic opportunities. While WSA will not be pursuing the installation of field lights for the soccer fields at this time, WSA nevertheless supports field lights for baseball. Field lights will give WBSL additional flexibility with field use, provision of practices and games, and increase their ability to provide athletic opportunities for our children. Even absent an expansion of games and practices, field lights would enable WBSL to play a fixed time-based schedule throughout the season, instead of slowly cutting back on field use as daylight recedes from summer through fall. In other words, WBSL could play a set schedule of games at 6pm, for example, throughout their season. WSA views this as not about adding on to a schedule (i.e., games that start at 9:00 pm), but instead about maintaining a schedule throughout the various seasons.

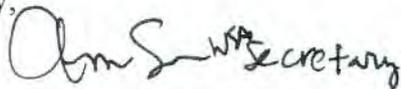
The addition of the lights to Griffin Park will also increase its flexibility of use. Eventually, other facilities within the park may be lit and if so, the parking lot and walkway lights will be a valuable part of the infrastructure needed to make that possible. In short, the parking lot and

walkway lights are not only valuable for the short term as mentioned above, but are valuable for long-range planning.

The Selectmen will necessarily have to sort through many issues associated with this project. One issue that comes to mind is the variable cost associated with electricity to run the lights – parking lot, walkway, and fields, and whether the Town absorbs that cost or instead apportions the cost to the various organizations using the park. WSA would support allocating costs to run the field lights to the particular sports organization, while treating the parking lot and walkway lights as a Town expense.

There are several other issues to consider, about which WSA takes no position. Instead, we will keep this letter at the high level and reiterate our clear and strong support for the project as a whole, for the reasons stated. We hope that the Board of Selectmen will see fit to approve this project and enhance an already valuable recreational asset.

Sincerely,

A handwritten signature in black ink, appearing to read "Adam S. WSA Secretary". The signature is written in a cursive style with some capital letters.

Windham Soccer Association

Parking Lot

①

Submitted by Omni-Lite	Job Name: Griffin Park	Catalog Number: AVA I F 250 240 HS	Type: PARKING
omni lite THE OMNI-LITE COLLECTION		Notes:	

Notes: Pole ht. 20ft

Job: _____
Type: _____



AVALUME



GENERAL DESCRIPTION: The EMCO Avalume is a rectilinear area luminaire defined by its sleek rounded profile and rugged construction. The housing is one-piece, die cast aluminum and mounts directly to a pole or wall without need of a separate support arm. The multifaceted arc-image duplicating optical systems provide IES Types III, IV and V distributions. The door frame is single-piece diecast aluminum and retains an optically clear tempered flat glass lens. The luminaire is completely sealed and gasketed preventing intrusion from moisture, dust and insects. The Avalume luminaires are finished with a fade and abrasion resistant TGIC powdercoat.

CUTOFF PERFORMANCE: Flat glass lens luminaires provide full cutoff performance.

ORDERING

PREFIX	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS
AVA	I	F	250	240		HS

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

→ AVA

MOUNTING

- 1 Single Pole Mount
- 2 Twin Pole Mount at 180°
- 2@90 Twin Pole Mount at 90°
- 3 3-way Pole Mount at 90°
- 3@120 3-way Pole Mount at 120°
- 4 4-way Pole Mount
- W Wall Mount
- WS Wall Mount with Surface Conduit

DISTRIBUTION

- 3 IES Type III
- F IES Type IV Forward Throw

NOTE: Type III reflectors ship as Type F. Removal of an insert converts the reflector to Type 3.

- 5 IES Type V
- MTS Medium Throw with Solite™ Lens
Fluorescent only.

WATTAGE

150HPS	100MH ¹	175PSMH	MTS Optics only
250HPS	150MH ¹	250PSMH	(2)60CF ²
400HPS	175MH	320PSMH ¹	(3)42TRF ²
	250MH	350PSMH ¹	
	400MH ¹	400PSMH ¹	

HPS - High Pressure Sodium
MH - Metal Halide
PSMH - Pulse Start Metal Halide
CF - Compact Fluorescent
TRF - Triple Tube Compact Fluorescent

VOLTAGE

- 120
- 208
- 240
- 277
- 347
- 480
- UNIV² Fluorescent only.

FINISH

- select (
- BRP Bronze Paint
 - BLP Black Paint
 - WP White Paint
 - NP Natural Aluminum Paint
 - BGP Beige Paint
 - OC Optional Color Paint
Specify RAL designation
ex: OC-RAL7024.
 - SC Special Color Paint
Specify. Must supply color chip.

OPTIONS³

- HS⁴ External House Side Shield
- LF⁵ In-Pole/In-Line Fusing
- PC⁶ Locking Type Photocontrol Receptacle
with Photocontrol
- PCR Locking Type Photocontrol Receptacle
- MF⁷ Mast Arm Fitter
- PTF2 Pole Top Filter 2.375" X 4"
- PTF3 Pole Top Filter 3" - 3.5" X 6"
- PTF4 Pole Top Filter 3.5" - 4" X 6"
- QS⁸ Quartz Standby
- QST⁹ Quartz Standby - Timed Delay
- WG Wire Guard
- POLY⁴ External Polycarbonate Shield
- TB Terminal Block

- 3. Luminaires shipped complete from stock require field installation of all options.
- 4. Supplied standard in black only.
- 5. Kit includes In-Line Fuses.
- 6. Not available with 480V.
- 7. Requires 2 3/8" O.D. Mast Arm.
- 8. See QS/QST Table.
- 9. 250 watt maximum.

Wattage	QS / QST Table
175 watts or less	Maximum Quartz Lamp Watts
Above 175 watts (up to 400 watts)	100 Watts
	150 Watts
QS and QST options not available with 480V	

Emco Lighting 1811 Clovis Barker Road San Marcos, TX 78666 (800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 www.siteighting.com
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Emco Lighting is a Philips group brand

PHILIPS

Ex 2

Parking Lot

#2

Submitted by Omni-Lite	Job Name: Griffin Park	Catalog Number: AVA-3-250PMH	Type: A3
omni lite THE OMNILITE COLLECTION		Notes:	



AVALUME

SPECIFICATIONS

GENERAL SPECIFICATIONS: Each Emco Avalume luminaire is a rectilinear area luminaire defined by its sleek rounded profile and rugged construction.

HOUSING: The housing is one-piece diecast aluminum, and mounts directly to a pole or wall without the need of a separate support arm. The low profile rounded form reduces the E.P.A. (Effective Projected Area) of the luminaire to only 1.1 square feet (0.10 square meters).

DOOR/LENS ASSEMBLY: The door frame is single-piece diecast aluminum and retains an optically clear tempered flat glass lens. The diecast aluminum lens frame hinges down from the housing and is secured by a stainless steel lanyard and hinge pin. The tempered flat glass lens is mechanically secured with four (4) retainers. The electrical and optical chambers are thoroughly sealed with an extruded one-piece memory retentive extruded silicone gasket to prevent intrusion from moisture, dust, insects and other contaminants.

OPTICAL SYSTEMS: The segmented reflector system consists of two tiers of highly specular aluminum facets, precisely aligned to achieve specific photometric distributions. Optical systems are of the fixed position type with the lampholder be positioned on the arm-side of the luminaire.

The position-oriented mogul base lampholder is glazed porcelain with a nickel plated screw shell.

Fluorescent luminaires use a Medium Throw reflector with a Solite® glass lens (MTS).

ELECTRICAL: Each high power factor ballast is the separate component type, capable of providing reliable lamp starting down to -20°F/-29°C. Component to component wiring within the luminaire will carry no more than 80 percent of rated current and is listed by U.L. for use at 600 VAC at 150°C or higher. Plug disconnects are listed by U.L. for use at 600 VAC, 15 A or higher. Standard fluorescent ballasts are solid state.

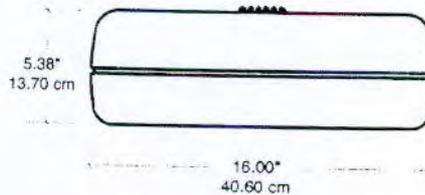
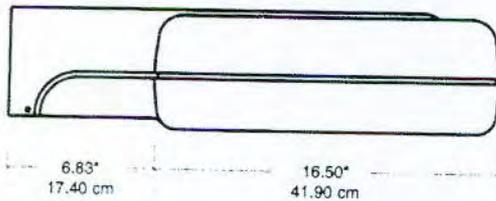
FINISH: Each standard color luminaire receives a fade and abrasion resistant electrostatically applied thermally cured triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include Bronze (BRP), Black (BLP), White (WP), Natural Aluminum (NP). Consult factory for specifications on custom colors.

LABELS: All luminaires bear U.L. or C.U.L. (where applicable) Wet Location labels.

FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle of 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

CUTOFF PERFORMANCE: Cutoff performance means a luminaire distribution where the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle at or above 90° above nadir, and 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

DIMENSIONS



EPA		
1	2	3/4
1.1 ft ²	2.2 ft ²	2.7 ft ²
0.10 m ²	0.20 m ²	0.25 m ²
with House Side Shield		
1	2	3/4
1.2 ft ²	2.2 ft ²	3.2 ft ²
0.11 m ²	0.20 m ²	0.30 m ²

Emco Lighting 1611 Clovis Barker Road, San Marcos, TX 78666 (800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 www.sitelighting.com
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PHILIPS

WALKWAY

#1

Submitted by Omni-Lite		Catalog Number: AVA-3-150PMH	Type: WALKWAY
omni lite THE OMNI-LITE COLLECTION	Job Name: Griffin Park	Notes:	

Notes: Pole ht. 16ft

Job: _____
Type: _____



AVALUME



GENERAL DESCRIPTION: The EMCO Avalume is a rectilinear area luminaire defined by its sleek rounded profile and rugged construction. The housing is one-piece, die cast aluminum and mounts directly to a pole or wall without need of a separate support arm. The multifaceted arc-image duplicating optical systems provide IES Types III, IV and V distributions. The door frame is single-piece diecast aluminum and retains an optically clear tempered flat glass lens. The luminaire is completely sealed and gasketed preventing intrusion from moisture, dust and insects. The Avalume luminaires are finished with a fade and abrasion resistant TGIC powdercoat.

CUTOFF PERFORMANCE: Flat glass lens luminaires provide full cutoff performance.

ORDERING

PREFIX	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS
AVA	1	3	150MH	240		

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

AVA

MOUNTING

- 1 Single Pole Mount
- 2 Twin Pole Mount at 180°
- 2@90 Twin Pole Mount at 90°
- 3 3-way Pole Mount at 90°
- 3@120 3-way Pole Mount at 120°
- 4 4-way Pole Mount
- W Wall Mount
- WS Wall Mount with Surface Conduit

DISTRIBUTION

- 3 IES Type III
- F IES Type IV Forward Throw

NOTE: Type III reflectors ship as Type F. Removal of an insert converts the reflector to Type 3.

- 5 IES Type V
- MTS Medium Throw with Solite™ Lens Fluorescent only

WATTAGE

150HPS	100MH ¹	175PSMH	MTS Options only
250HPS	150MH ¹	250PSMH	(2)60CF ²
400HPS	175MH	320PSMH ¹	(3)42TRF ²
	250MH	350PSMH ¹	
	400MH ¹	400PSMH ¹	

¹ Requires BT28 / E28 mogul base lamp
² Fluorescent luminaires feature electronic ballasts that accept 120V through 277V, 50Hz to 60Hz, input. Specify "UNIV" voltage for 120V through 277V.

VOLTAGE

- 120
- 208
- 240
- 277
- 347
- 480
- UNIV² Fluorescent only

FINISH

Select C

- BRP Bronze Paint
- BLP Black Paint
- WP White Paint
- NP Natural Aluminum Paint
- BGP Beige Paint
- OC Optional Color Paint
Specify RAL designation
ex: OC-RAL7024.
- SC Special Color Paint
Specify. Must supply color chip.

OPTIONS³

- HS⁴ External House Side Shield
- LF⁴ In-Pole/In-Line Fusing
- PC⁴ Locking Type Photocontrol Receptacle with Photocontrol
- PCR Locking Type Photocontrol Receptacle
- MF⁴ Mast Arm Fitter
- PTF2 Pole Top Filter 2.375" X 4"
- PTF3 Pole Top Filter 3" - 3.5" X 6"
- PTF4 Pole Top Filter 3.5" - 4" X 6"
- QS⁴ Quartz Standby
- QST⁴ Quartz Standby - Timed Delay
- WG Wire Guard
- POLY⁴ External Polycarbonate Shield
- TB Terminal Block

³ Luminaires shipped complete from stock require field installation of all options.
⁴ Supplied standard in black only.
⁵ Kit includes In-Line Fuses.
⁶ Not available with 480V.
⁷ Requires 2.38" O.D. Mast Arm.
⁸ See QS/QST Table.
⁹ 290 watt maximum.

QS / QST Table	
HID Lamp Watts	Maximum Quartz Lamp Watts
175 watts or less	100 Watts
Above 175 watts up to 400 watts	150 Watts
QS and QST options not available with 480V	

Emco Lighting 1811 Clovis Barker Road San Marcos, TX 78668 (800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 www.sitelighting.com
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Emco Lighting is a Philips group brand

PHILIPS

Ex. 3

WALKWAY

#2

Submitted by Omni-Lite		Catalog Number: AVA-3-150PMH	Type:
omnilite THE OMNI-LITE COLLECTION	Job Name: Griffin Park	Notes:	



AVALUME

SPECIFICATIONS

GENERAL SPECIFICATIONS: Each Emco Avalume luminaire is a rectilinear area luminaire defined by its sleek rounded profile and rugged construction.

HOUSING: The housing is one-piece diecast aluminum, and mounts directly to a pole or wall without the need of a separate support arm. The low profile rounded form reduces the E.P.A. (Effective Projected Area) of the luminaire to only 1.1 square feet (0.10 square meters).

DOOR/LENS ASSEMBLY: The door frame is single-piece diecast aluminum and retains an optically clear tempered flat glass lens. The diecast aluminum lens frame hinges down from the housing and is secured by a stainless steel lanyard and hinge pin. The tempered flat glass lens is mechanically secured with four (4) retainers. The electrical and optical chambers are thoroughly sealed with an extruded one-piece memory retentive extruded silicone gasket to prevent intrusion from moisture, dust, insects and other contaminants.

OPTICAL SYSTEMS: The segmented reflector system consists of two tiers of highly specular aluminum facets, precisely aligned to achieve specific photometric distributions. Optical systems are of the fixed position type with the lampholder be positioned on the arm-side of the luminaire.

The position-oriented mogul base lampholder is glazed porcelain with a nickel plated screw shell.

Fluorescent luminaires use a Medium Throw reflector with a Solite® glass lens (MTS).

ELECTRICAL: Each high power factor ballast is the separate component type, capable of providing reliable lamp starting down to -20°F/-29°C. Component to component wiring within the luminaire will carry no more than 80 percent of rated current and is listed by U.L. for use at 600 VAC at 150°C or higher. Plug disconnects are listed by U.L. for use at 600 VAC, 15 A or higher. Standard fluorescent ballasts are solid state.

FINISH: Each standard color luminaire receives a fade and abrasion resistant electrostatically applied thermally cured triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include Bronze (BRP), Black (BLP), White (WP), Natural Aluminum (NP). Consult factory for specifications on custom colors.

LABELS: All luminaires bear U.L. or C.U.L. (where applicable) Wet Location labels.

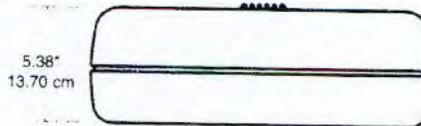
FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle of 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

CUTOFF PERFORMANCE: Cutoff performance means a luminaire distributor where the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of or above 90° above nadir, and 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

DIMENSIONS



6.83" 17.40 cm
16.50" 41.90 cm



5.38" 13.70 cm
16.00" 40.60 cm

EPA

1	2	3/4
1.1 ft ²	2.2 ft ²	2.7 ft ²
0.10 m ²	0.20 m ²	0.25 m ²

with House Side Shield

1	2	3/4
1.2 ft ²	2.2 ft ²	3.2 ft ²
0.11 m ²	0.20 m ²	0.30 m ²

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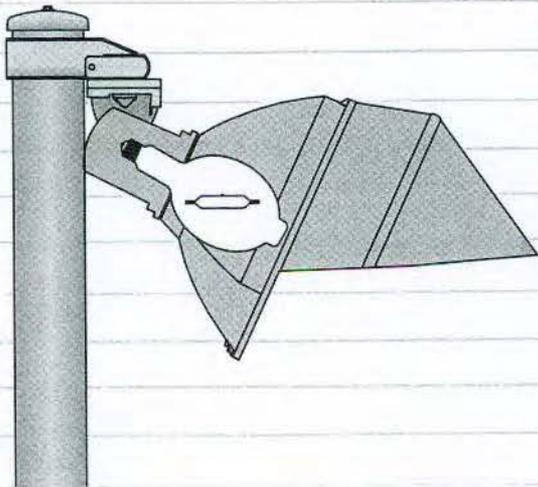
7815-561008

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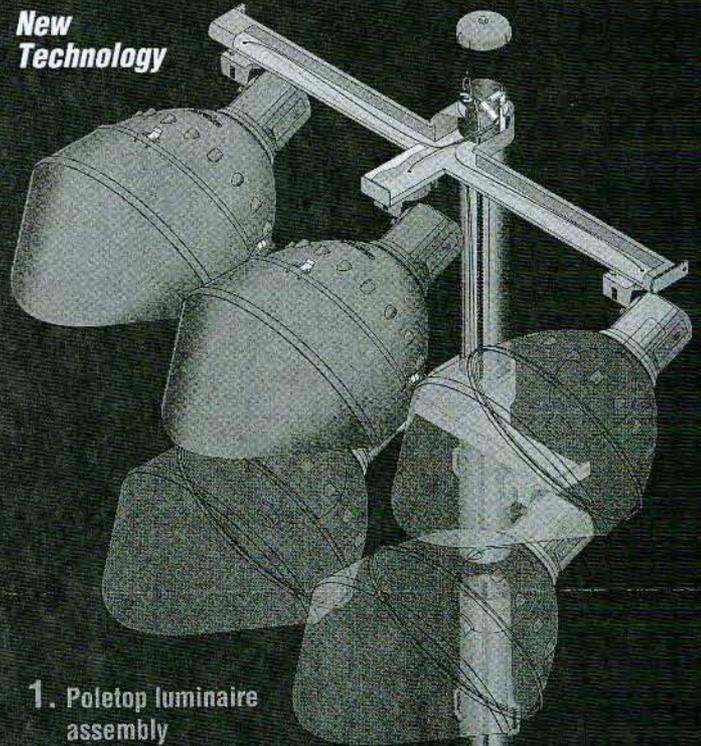
PHILIPS

Light-Structure GREEN™

**For your budget,
for the environment.**



**New
Technology**



1. Poletop luminaire assembly

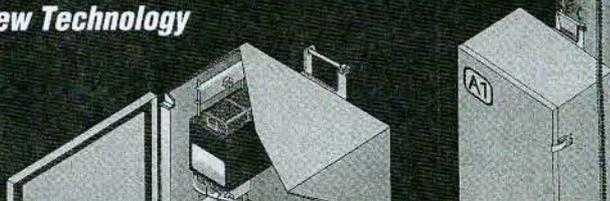
2. Wire Harness

3. Galvanized steel pole

New Technology

- Cuts operating costs in half
- Reduces spill light by 50%
- Includes system monitoring and remote

New Technology



- Provides constant light levels

Same 5 Easy Pieces™

- Complete system from foundation-to-poletop
- Factory wired, aimed and tested
- Fast, trouble-free installation
- Comprehensive corrosion package

Includes

Musco Constant 25™ 25-Year Warranty and Maintenance Program

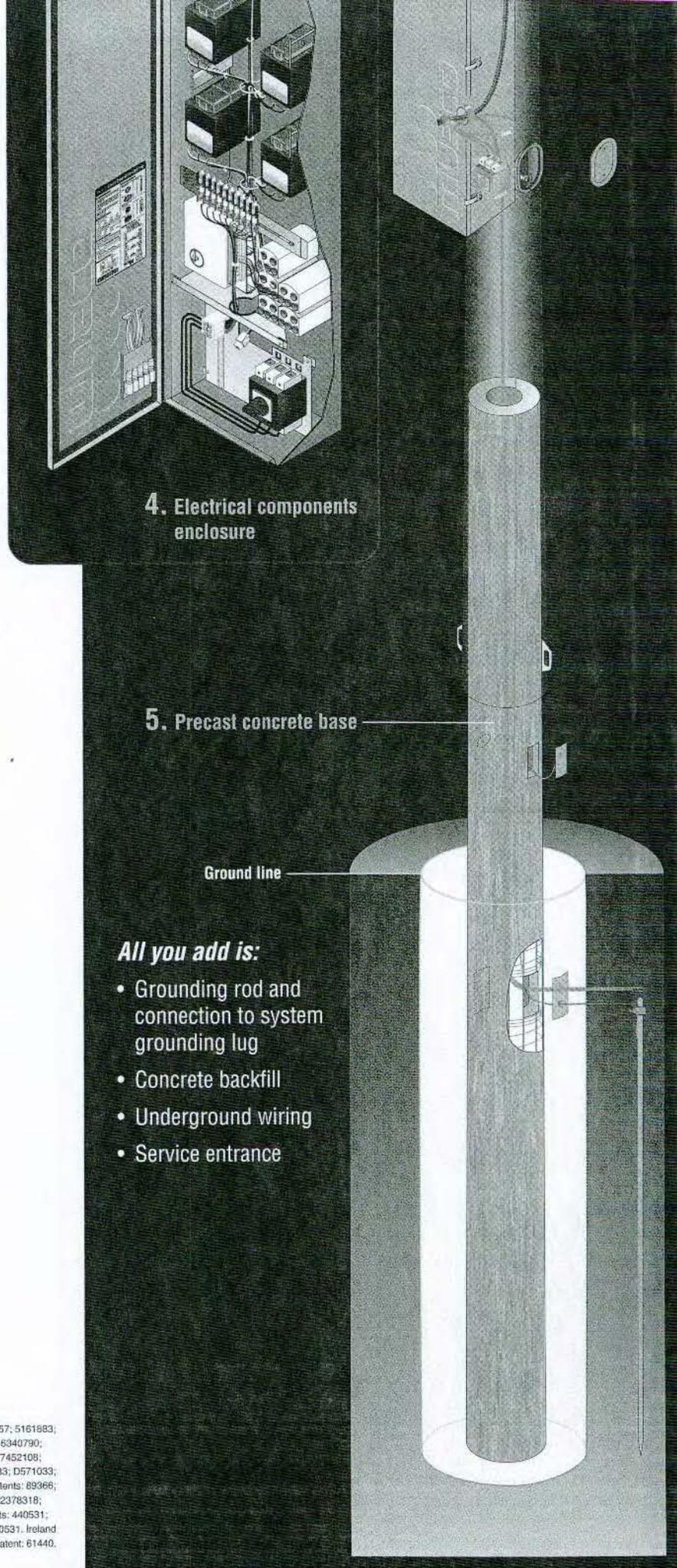
Provides 25 years of trouble-free lighting equipment operation, including parts, labor and group lamp replacement.



We Make It Happen.®

641/673-0411
800/825-6030
www.musco.com

Musco products are protected by one or more of the following patents. U.S. Patents: 4994718; 5075828; 5134557; 5161883; 5229681; 5377611; 5398478; 5423281; 5426577; 5600537; 5794387; 5856721; 6036336; 6203176; 6250596; 6340790; 6398392; 6681110; 6833675; 6929385; 6969034; 6988697; 7059572; 7171793; 7176635; 7209958; 7216437; 7452108; 7458700; 7467880; D337168; D353797; D353911; D411096; D567179; D567422; D567432; D567433; D567433; D571033; D573752; D574098; D575181; D577149; D567995; D583499; D583500. Australia Patents: 780583. Canada Patents: 69366; 2009749; 2026850; 2027033; 2035014; 2058261; 2103874; 2110014; 2200511; 2200515; 2378279; 2378283; 2378318; 2407922; 2407924. China Patents: ZL200530139426.7; ZL200630131085.3; ZL200630131086.8. EPC Patents: 440531; 1192793; 000376496-0001; 000376496-0002; 000376496-0003. France Patents: 440531. Germany Patent: 440531. Ireland Patent: 1192793. Iceland: 27/2005. Mexico Patent: 175863. Norway Patent: DESIGNREG.NR.: 79633. Russia Patent: 61440. Spain Patent: 440531. Taiwan Patent: I263753. Vietnam Patent: 9692. Other patents pending.



4. Electrical components enclosure

5. Precast concrete base

Ground line

All you add is:

- Grounding rod and connection to system grounding lug
- Concrete backfill
- Underground wiring
- Service entrance



Musco Constant 25™

25-Year Product Assurance & Warranty Program

For 25 years, Musco Lighting will provide all materials and labor to maintain operation of your lighting system to original design criteria. Our products and services are guaranteed to perform on your project as follows:

Light

Average Constant Light™ levels of ____ footcandles are guaranteed through Musco's Smart Lamp™ and service technology, within the Illumination Engineering Society of North America RP-6-01 standards of +/- 10% of the design criteria.

Musco will electronically monitor lamp operation and operating hours, and will group relamp at the end of the 5000 hour useful life.

Initial lamps provided:	5000 hours
Group lamp replacements # ____ x 5000 hours:	_____ hours
Maximum hours of lamp warranty and maintenance:	_____ hours

Individual lamp outages that occur during the lamp warranty and maintenance period stated above are repaired when the usage of any field is materially impacted. If actual usage exceeds _____ hours, the customer will be required to purchase lamp replacements in order to maintain the warranty to the end of twenty-five years.

Energy Consumption

Energy consumption for your lighting system will average ____ kW per hour, and will not exceed ____ kW per hour at the maximum. Exhibit A provides a 25-year energy cost model based upon the customer provided utility rate and anticipated hours of usage. Changes in rates or usage will proportionately change the costs.

Monitoring, Maintenance and Control Services

Musco shall monitor the performance of your lighting system, including on/off status, hours of usage and lamp outages. If fixture outages that affect playability are detected, Musco will contact you and proactively dispatch technicians.

On-off control of your lighting system is provided via an easy-to-use web site scheduling system, phone, fax or email. Our trained Control-Link Central™ staff is available toll-free 24/7. Regular usage reports will be sent to you and are always available on Control-Link Central's web site.

Spill Light Control

Spill light readings at identified locations are guaranteed to be controlled to the values provided in Musco's design documents for your project, shown in Exhibit B. Readings shall be within the Illumination Engineering Society of North America RP-6-01 standards of +/- 10% of the design criteria.

Structural Integrity

Your project has been designed to _____ (code reference). Structural integrity of equipment manufactured by Musco is guaranteed.

Musco has a team of people to ensure fulfillment of our product and services warranty shown in Exhibit C and maintains specifically-funded financial reserves dedicated to support our fulfillment of this warranty.

To further assure compliance, Musco will provide the Owner with this signed contract guaranteeing the comprehensive service for the 25-year period.

See additional information on back page of warranty



Musco Constant 25™

25-Year Product Assurance & Warranty Program

Project Name: _____ Project Number: _____

Product Covered: _____

Fixture Quantity: _____ Lamp type: _____ Number of Group Lamp Replacements: _____

Date Issued: _____ [Date of Shipment] Expiration: _____ [Date] or _____ hours, whichever occurs first

SAMPLE DOCUMENT

Service under this Contract is provided by Musco Sports Lighting, LLC ("Musco") or an authorized servicer approved by Musco. Services performed under this Contract shall consist of furnishing labor and parts necessary to restore the operation of the Covered Product(s) to original design criteria provided such service is necessitated by failure of the Covered Product(s) during normal usage. This Contract covers Product(s) consisting of Musco's Green Generation Lighting™ with Control-Link® and any additional Musco manufactured product as listed above.

"We", "us" and "our" mean Musco. "You" and "your" mean the purchaser of the Covered Product(s). No one has the authority to change this Contract without the prior written approval of Musco. Musco shall not assume responsibility for their agents or assignees other than as described below. If there is a conflict between the terms of this Contract and information communicated either orally or in writing by one or more of our employees or agents, this Contract shall control.

Additional Provisions

- 1. Availability of Service:** Control-Link Central™ operators shall be available 24/7 via web site, phone, fax or email. Maintenance service specialists shall be available 8 AM to 5PM Central Time, and services shall be rendered during these same hours in your local time zone, Monday through Friday (with the exception of national holidays). Hours of operation are subject to change without notice to you. Musco will exercise all reasonable efforts to perform service under this Contract, but will not be responsible for delays or failure in performing such services caused by adverse weather conditions, acts of any government, failure of transportation, accidents, riots, war, labor actions or strikes or other causes beyond its control.
- 2. Determination of Repairs:** Musco will utilize the field monitoring system and any information provided by the customer to determine when the usage of the field is materially impacted. From this information, Musco will determine needed repair and/or replacement of Covered Product(s) and parts. Repair will be with product(s) of like kind and quality.
- 3. Your Requirements Under this Contract:** You must meet all electrical requirements as specified by the manufacturer. In addition, you promise and assure: full cooperation with Musco, Musco's technicians and authorized servicers during telephone diagnosis and repair of the Covered Product(s); reasonable accessibility of the Covered Product(s); a non-threatening and safe environment for service.

You agree to check fuses and to replace fuses as needed. Musco provides spare fuses and a fuse puller in the lowest alpha-numeric numbered enclosure. Musco will replenish spare fuses used.

4. Service Limitations - This Contract does not cover: Maintenance, repair or replacement necessitated by loss or damage resulting from any external causes such as, but not limited to, theft, environmental conditions, negligence, misuse, abuse, improper electrical/power supply, unauthorized repairs by third parties, attachments, damage to cabinetry, equipment modifications, vandalism, animal or insect infestation, physical damage to Covered Products parts or components, failure of existing structures, supporting electrical systems or any non-Musco equipment, or acts of God/nature (including, but not limited to: earthquake, flood, tornadoes, typhoons, hurricanes or lightning).

5. Contract Limitations:

- a. EXCLUSIONS FROM COVERAGE:** IN NO EVENT WILL MUSCO BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH INCLUDE, BUT ARE NOT LIMITED TO, ANY DELAY IN RENDERING SERVICE OR LOSS OF USE DURING THE REPAIR PERIOD OF THE COVERED PRODUCT(S) OR WHILE OTHERWISE AWAITING PARTS.
- b. Limitation of Liability:** To the extent permitted by applicable law, the liability of Musco, if any, for any allegedly defective Covered Product(s) or components shall be limited to repair or replacement of the Covered Product(s) or components at Musco's option. THIS CONTRACT IS YOUR SOLE EXPRESS WARRANTY WITH RESPECT TO THE COVERED PRODUCT(S). ALL IMPLIED WARRANTIES WITH RESPECT TO THE COVERED PRODUCT(S) INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY EXCLUDED.
- c.** Musco requires reasonable access for a crane or man lift equipment to service the lighting system. Musco will not be responsible for damage from operating the vehicle on the property when the equipment is operated in the prescribed manner over the designated access route.

6. Transfer and Assignment: You shall not have the right to assign or otherwise transfer your rights and obligations under this Contract except with the prior written consent of Musco provided, however, that a successor in interest by merger, operation of law, assignment or purchase or otherwise of your entire business shall acquire all of your interests under this Contract.

7. Governing Law: Unless otherwise governed by applicable state law, the Contract shall be interpreted and enforced according to the laws of the State of Iowa.

8. Subrogation: In the event Musco repairs or replaces any Covered Product(s), parts or components due to any defect for which the manufacturer or its agents or suppliers may be legally responsible, you agree to assign your rights of recovery to Musco. You will be reimbursed for any reasonable costs and expenses you may incur in connection with the assignment of your rights. You will be made whole before Musco retains any amounts it may recover.

Signature: _____

Vice President of Sales

Another Musco Innovation

Control-Link®

Flexible control and solid management of your facility — saves operating cost and improves service

Get fingertip control of your facilities from

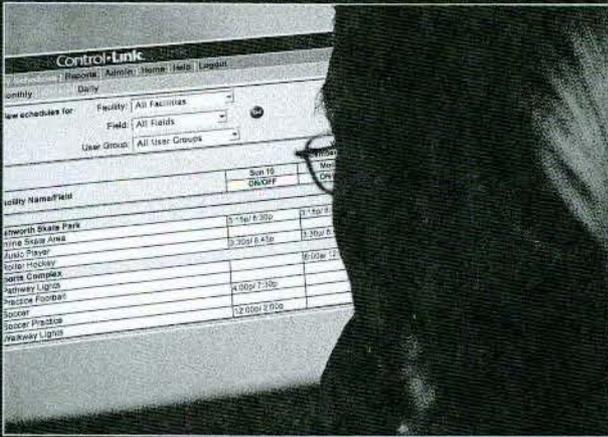
your desk

your field

your home

your phone

... from anywhere



Musco Control-Link Usage Report
City of Carrollton Carrollton, TX
By Facility, Field
Usage Type of Light Usage
March, 2007

Summary by Facility		Total Hours Usage
Jacklin		0.00
Jimmy Porter		28.45
Josey Park		131.25
McInnish Park		30.33
RE Good Park		5.06
Thomas Park		195.49
City of Carrollton		

Summary by Facility, Field		Total Hours Usage
Facility	Field	
Josey Park	Field 1 Red	
Josey Park	Field 2 Blue	
Josey Park	Field 3 Orange	
Josey Park	Field 4 Yellow	
Josey Park	Field 5 Football	
Josey Park	Field 1 Red	
Josey Park	Field 2 Blue	
McInnish Park	Field 3 Orange	
McInnish Park	Field 4 Yellow	



We Make It Happen.®

Musco's Control-Link® System for new and existing sports facilities

With cities and recreational needs growing faster than ever, it's critical to maximize your available resources and make solid decisions about managing and expanding your facilities.

Control-Link® is the reliable, cost-effective system that helps control, monitor, and manage your new recreational facility lighting. In addition, it can control your existing lighting systems and other electrically-operated equipment. Whether for new lighting systems or to upgrade existing lights, the Control-Link System includes our Control-Link Central™ team, the on-site Control-Link equipment, and an industry-leading warranty. Our exclusive Control-Link Central team is staffed 24/7 to assist with your scheduling and reporting needs.

Reduce energy cost and staff legwork

Control-Link reduces energy usage by operating lights and equipment only when needed. This helps curtail taxpayers' concerns about lights operating when fields are not in use. The automated system does not require staff to travel from field to field to turn lights on and off. It also eliminates distributing and tracking multiple sets of keys and reduces time coordinating staff and facility schedules.

Flexible control simplifies operational needs

Lighting schedules are entered into an easy-to-use Control-Link Central website or by email, phone, or fax. User passwords have varying access levels that you specify. Passwords, unlike keys, can be issued or cancelled at any time – making seasonal personnel or volunteer changes easier to manage.

Emergency schedule changes can be made through Control-Link Central or an optional on-site Schedule Override screen, and on-site manual controls are provided for your maintenance staff.

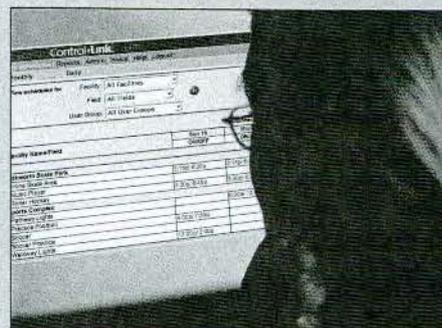
Solid management tools reduce hassle

Control-Link saves you time overseeing facility operations, scheduling staff, and planning routine maintenance. Control-Link Central accumulates information for you about your facility usage, including operating history by facility and user group. The Control and Monitoring System provided with new lighting systems provides proactive monitoring of your lighting system, reporting fixture outages to help plan routine maintenance. A preseason light check helps assure your fields are ready for play.

Our Control-Link Central team can assist you in generating reports and analyzing your data to provide tools for efficient operations, allocation of costs, assessment of user fees, proactive maintenance, and facility expansion planning.

These capabilities provide for significant long-term cost savings and the potential for providing better customer service and innovative uses of your facilities without adding staff.

Manage your

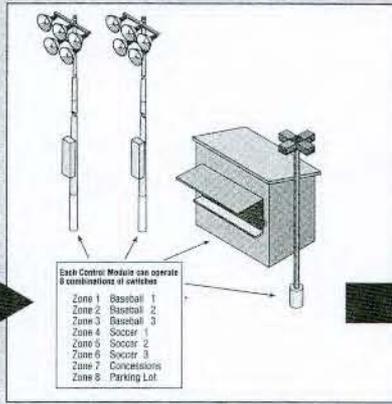


1 Enter schedules at your convenience

Enter schedules from any location via our easy-to-use Control-Link Central web site, or by email, phone, or fax.

- *Saves Energy and Staff Costs*
- *Allows Flexible Control*
- *Provides Usage Data*
- *Increases Security*
- *Provides Reliable Operation*
- *Monitors System Performance*

lights without the late-night hours



Available
24/7



2 Schedules are stored on-site, backed-up at Control-Link Central™

Schedules are transmitted from Control-Link Central via digital cellular technology and stored in the on-site equipment controller.

3 Equipment is controlled automatically

Lights and other equipment such as door locks, concession stands, and security lights are operated per your schedules.

4 Control-Link Central™ provides support, monitoring, and usage data

Control-Link Central supports you every step of the way. Trained staff provide scheduling support and verification, and monitor your lighting system for fixture outages. Control-Link Central's database stores field usage data by facility and user group.

"Thank you so much for providing such an effective and advanced system for scheduling our lights; it has truly revolutionized the way we work."

— Kelly Barker
Athletic Field Permit Coordinator
Dept. of Parks, Recreation and Marine
City of Long Beach, CA

"It's like being an umpire. If people don't know you're there, you did a great job. If there aren't any complaints about the lights, I know the system is doing its job."

— Roger Russomanno
Ballfield Operations Supervisor
Denver, CO, Parks and Recreation Dept

"I use Control-Link Central™ to enter the weekly schedules so I can spend my time taking care of other things ... They do a great job, week after week."

— John Banks
Park and Recreation Supervisor
Laguna Niguel, CA

Control-Link Central™

Trained Staff Available 24/7

Meet Our Control-Link Central Team

Control-Link Central™ provides trained technical assistance with the helpful, "can-do" attitude you expect from Musco, to solve any last-minute change or issue.

Control-Link Central operators oversee on/off control of over 4000 fields per night and have experience with controlling over 10 million hours of lighting system operation nationwide.

Available day or night, the Control-Link Central staff is ready to assist you with facility reports, which analyze data from your fields' use by user groups to maximize facility management.



"We strive to provide a level of service where every customer reaches a live operator, rather than a voice mail system, when they call in. We can make your last minute scheduling changes happen in just a few minutes."

Ryan Tighe
Control-Link Central™ Manager

Control-Link Central™

Efficient Management Tools

Operations Support

Control-Link Central™ provides two options for management and control of your facilities:

- Directly control your fields via an easy-to-use website
- Contact Control-Link Central's team of trained operators 24/7 to enter your schedules and request last minute changes

Data Management

Control-Link Central offers effective tools to manage and analyze the extensive stored information. Standard reports include usage reports by facility, field, and/or end-user.

System and Schedule Monitoring

The Control-Link Control and Monitoring System provided with new lighting systems checks your system performance each time your lights are turned on. If the system detects fixture outages that affect playability, Control-Link Central is notified and will contact you. Preseason checks can be a part of your proactive maintenance program to help make sure your lights are operating properly before the first game.

Control-Link Central staff monitors all schedules entered to make sure they are successfully received by the controller. In addition, they monitor the status of the system on a daily basis to ensure it is ready to run your schedules. If any system issues are detected, the Control-Link Central staff will contact you to resolve them before they become a problem.

Control-Link Activation

Once the on-site equipment is installed, a Musco technician will contact the installing contractor and assist them in commissioning the system. The technician will send sample schedule commands to the Control-Link system to test each lighting zone and its associated control and lighting equipment. The technician will also collect baseline diagnostic data, allowing the lighting system to be monitored for correct operation from that point on.

Customer Training

Control-Link Central staff provides customer training via telephone, conference, or on-line tutorial covering Control-Link operation, scheduling, website access, and all user functions.

"We greatly appreciate your super-friendly service."

— Kelly Barker
Athletic Field Permit Coordinator
Dept. of Parks, Recreation and Marine
City of Long Beach, CA

Facility Name/Field	Sun 25	Mon 26	Tue 27	Wed 28	Thu 1	Fri 2	Sat 3
	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
McInnish Park							
Field 1 Red	5:47p/10:15p	5:47p/10:15p	5:48p/11:00p	6:00p/10:15p	5:54p/10:15p		
Field 2 Blue		5:47p/10:15p	5:48p/11:00p	6:15p/10:15p			
Field 3 Orange	5:47p/10:15p		5:48p/11:00p	6:00p/10:15p	5:54p/10:15p		
Field 4 Yellow	5:47p/10:15p	5:47p/10:15p	5:48p/11:00p	6:00p/11:15p	5:54p/10:15p		
Field 5 Green		OnNow 7:12p/7:15p/9:00p	5:48p/11:00p		6:45p/9:00p		
Field 6							
Field 7							
Field 8							
Field 9							
Field 10			5:48p/9:15p		5:54p/9:00p		
Soccer 11	5:47p/10:15p	5:47p/9:15p	5:48p/11:15p	5:53p/9:15p	5:54p/9:15p		
Soccer 12	5:47p/10:15p	5:47p/9:15p	5:48p/9:30p	5:53p/9:15p	5:54p/9:15p		

This is a partial sample of a customer's weekly schedule as entered on Musco's Control-Link website. The current day is always highlighted.

Musco Control-Link Usage Report
City of Carrollton Carrollton, TX
By Facility, Field
Usage Type of Light Usage
March, 2007

Summary by Facility		Total Hours Usage
Facility		
Jimmy Porter		0.00
Josey Park		28.45
McInnish Park		131.25
RE Good Park		30.33
Thomas Park		5.06
City of Carrollton		195.49

Summary by Facility, Field			Total Hours Usage
Facility	Field		
Josey Park	Field 1 Red		3:35
Josey Park	Field 2 Blue		3:35
Josey Park	Field 3 Orange		3:35
Josey Park	Field 4 Yellow		3:35
Josey Park	Field 5 Football		14:25
McInnish Park	Field 1 Red		19:13
McInnish Park	Field 2 Blue		13:52

Control-Link Central's database stores usage data by field and user group.

Control-Link® Creates Cost Savings; Eliminates Errors and Complaints

For 15 years, lights at Denver's two-dozen municipal ball diamonds were manually operated through a private contract with a softball organization led by volunteers in exchange for waiver of usage fees.

Learn how Control-Link created cost savings and increased efficiency for the Denver Parks and Recreation project.

...to adjust times from a remote location. That feature has been worth its weight in gold.
— Roger Russomanno, Supervisor

The Control-Link website provides easy and efficient scheduling of fields, reports, and control over the access levels of your Control-Link website users.

New System: On-Site Equipment Overview

The Control-Link Control and Monitoring System provides reliable, cost-effective control, monitoring, and management of your new recreational facility lighting.

Your factory-built and tested Control-Link equipment includes

- Digital cellular communication equipment
- Control and Monitoring cabinet(s)

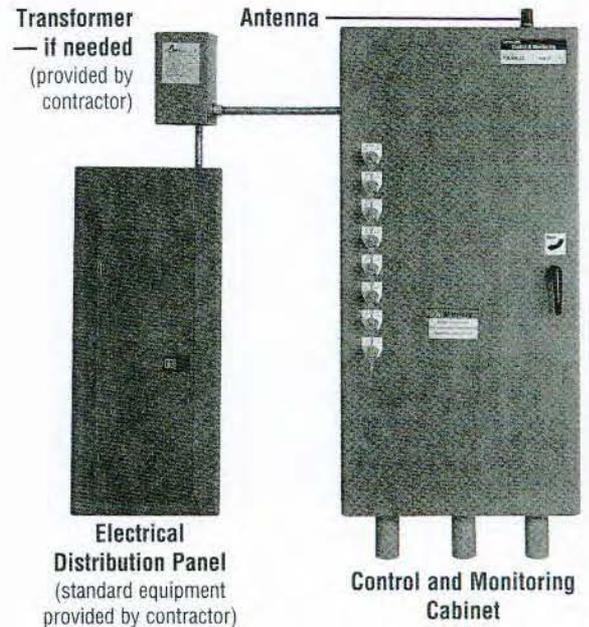
Optional Equipment

- Remote Manual Switches cabinet
- Schedule Override cabinet

Supplied by Contractor

- Main disconnect (electrical distribution panel), conduit, and power wiring
- 120 volt AC control circuit(s)
- Transformer if 120 volt supply not available
- Mounting hardware for cabinets
- Conduit and NEMA Type 4 hubs

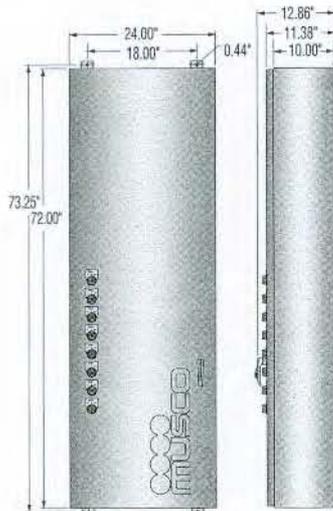
Control-Link® Control and Monitoring System



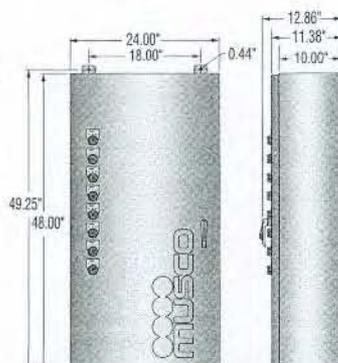
Control and Monitoring Cabinet

Enclosure

Large Enclosure



Small Enclosure



Technical Features

Assembled Cabinet

- Entire assembly UL 508 LISTED (Industrial Control Equip.) #E204954
- Meets FCC Part 15 Class A
- Factory wired, programmed, and tested
- Controls up to 8 zones per cabinet
- Operating temperature -20°C to +60°C (-4°F to +140°F)
- Internal time clock with battery back-up
- Database memory protected from power outages or fluctuations
- Typical enclosure and component weight: 6 foot – 150 lbs., 4 foot – 125 lbs. Project specific details available upon request

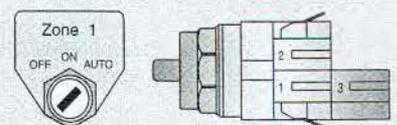
Enclosures

- NEMA Type 4, 5052 H32 aluminum
- Powder-coat finish after fabrication
- External mounting feet
- Lockable, 3-point latching assembly
- Door grounded enclosure

Manual Off-On-Auto Switches

- Keyed, maintain position
- Make-before-break contacts
- Factory wired to terminal blocks
- Mounted to maintain NEMA 4 rating
- Legend plate clearly identifies zone
- Switches may be placed in optional remote Manual Switches cabinet, see page 10 for details

Manual Off-On-Auto Switch detail



Control and Monitoring Cabinet

The on-site Control and Monitoring cabinet operates and monitors your new lighting system. It allows you to manage your schedules and facility usage from your home, office, or anywhere.

On/Off Control Module

Receives and stores schedules from Control-Link Central™ to operate your equipment and verify that schedules were carried out.

Monitoring Module

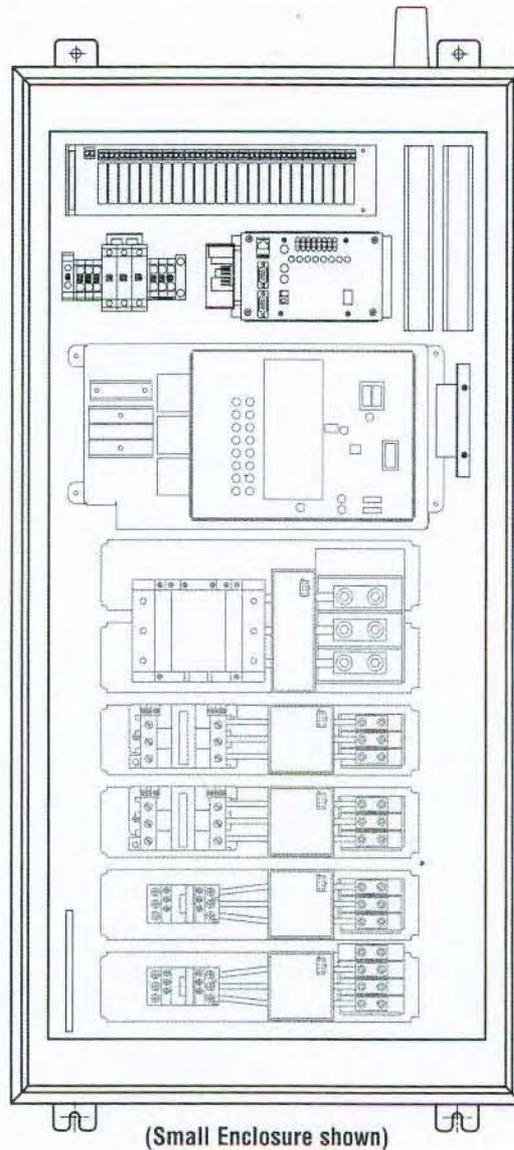
Monitors your lighting system and reports any fixture outages to help plan routine maintenance and keep your facilities operating.

Contactor Switching Modules

Switches your equipment on/off based on the schedules stored in the control module.

Communication Modem Module

Reliable, high-speed integrated communication system provides two-way communication to Control-Link Central™.



Technical Features

Panel

- 5052 H32 aluminum
- Pre-punched, modular configuration
- Powder-coat finish after fabrication

Communication Modem

- Digital cellular technology
- No additional monthly charges

Contactors

- Sized for 30, 60, or 100 amp lighting loads
- Electrically held
- 120 volt coil

Ground Bar

- 15 grounding terminals provided
- Holds size #14 to #4 gauge wires

Internal Control Wiring

- Fuse holder 600 volt 30 amp IEC type
- Control terminal blocks mounted to DIN rail
- Plug-in wire harnesses for multiple cabinets (if required)

Contactor Module Options

Rated Lighting Capacity	Wire Size Range *	Maximum Per Small Cabinet	Maximum Per Large Cabinet
30 amp – 1st (upper) position	3-10 AWG	1	1
30 amp – remaining positions	6-14 AWG	5	11
60 amp	2-10 AWG	6	12
100 amp	250 mcm – 8 AWG	3	6

* Stranded cable, single conductor, without cable end

Retrofit System: On-Site Equipment Overview

The Control-Link Control System provides reliable, cost effective control of your existing recreational facility lighting and other electrically-operated equipment.

Your factory-built and tested Control-Link equipment includes

- Digital cellular communication equipment
- Control cabinet(s)
- Remote Manual Switches cabinet

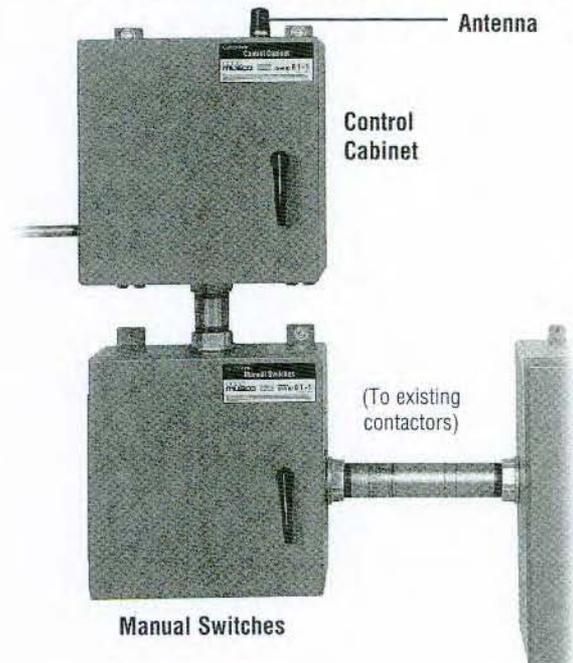
Optional Equipment

- Schedule Override cabinet

Supplied by Contractor

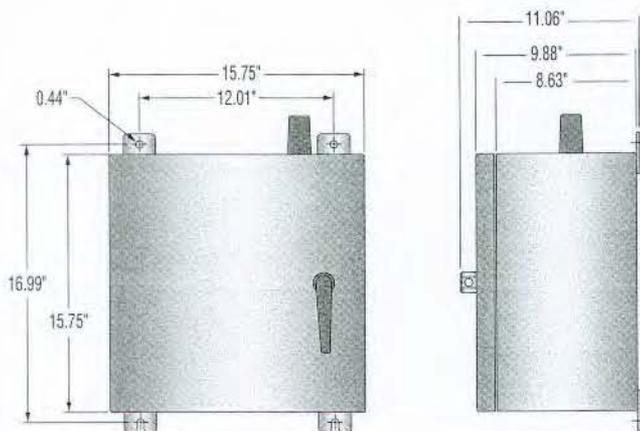
- Main disconnect (electrical distribution panel), conduit, and power wiring
- 120 volt control circuit(s)
- Transformer if 120 volt supply not available
- Mounting hardware for cabinets
- Conduit and NEMA Type 4 hubs

Control-Link® System



Control Cabinet

Enclosure



Technical Features

Assembled Cabinet

- Entire assembly UL 508 LISTED (Industrial Control Equip.) #E204954
- Meets FCC Part 15 Class A
- Factory wired, programmed, and tested
- Controls up to 8 zones per cabinet
- Operating temperature -20°C to +60°C (-4°F to +140°F)
- Internal time clock with battery back-up
- Database memory protected from power outages or fluctuations
- Typical enclosure and component weight: 28 lbs. Project specific details available upon request.

Enclosures

- NEMA Type 4, 5052 H32 aluminum enclosure
- Powder-coat finish after fabrication
- External mounting feet
- Lockable door
- Door grounded enclosure

Control Cabinet

The on-site Control Cabinet operates your existing sports facility's lights and equipment, allowing you to manage your schedules and facility usage from your home, office, or anywhere.

On/Off Control Module

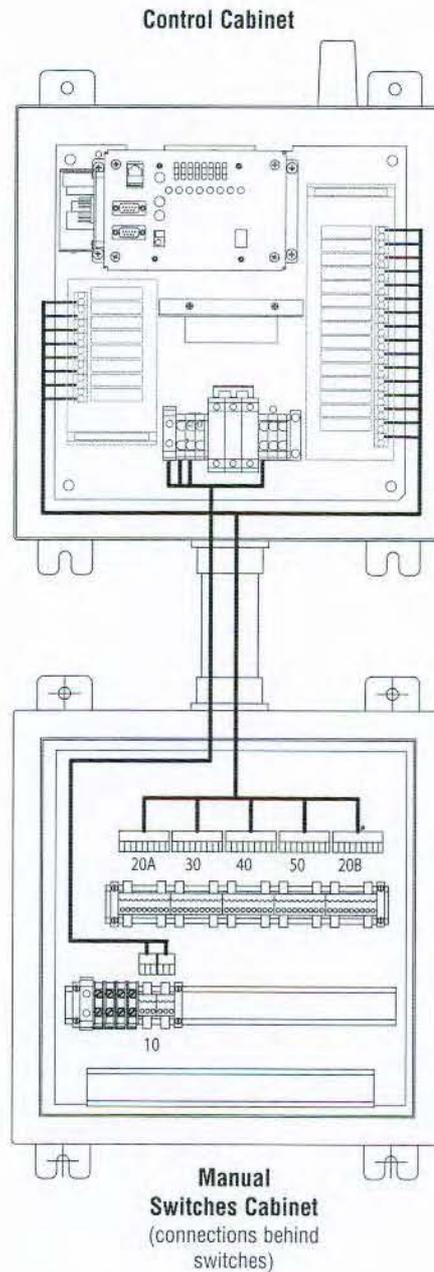
Receives and stores schedules from Control-Link Central to operate your equipment and verifies schedules were carried out.

Contactor Switching Module

Switches your equipment on/off based on schedules stored in the control module.

Communication Modem Module

Reliable, high-speed integrated communication system provides two-way communication to Control-Link Central™.



Technical Features

Panel

- 5052 H32 aluminum
- Pre-punched, modular configuration
- Powder-coat finish after fabrication

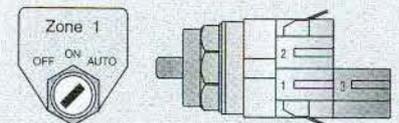
Communication Modem

- Digital cellular technology
- No additional monthly charges

Internal Control Wiring

- Control terminal blocks mounted to DIN rail
- Plug-in wire harnesses for multiple cabinets

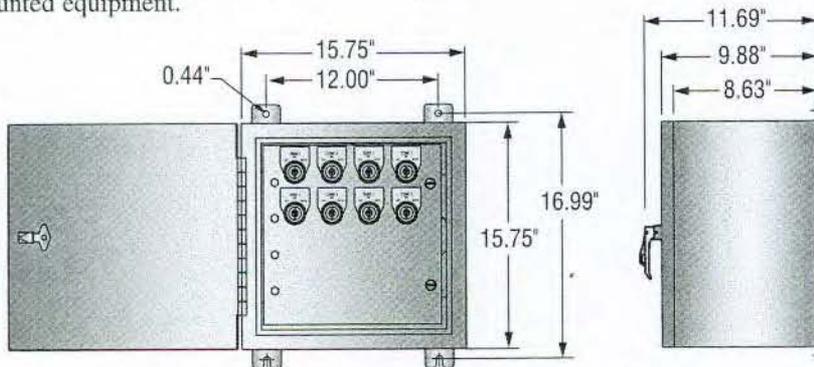
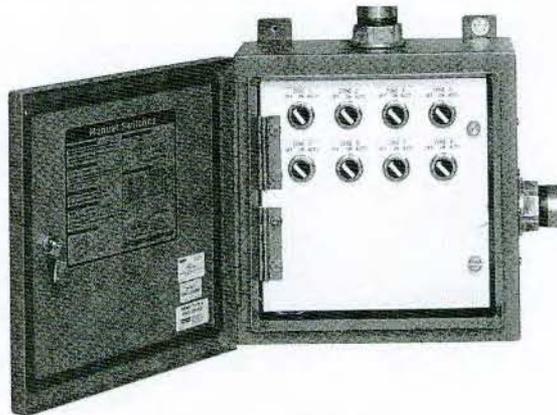
Manual Off-On-Auto Switch Detail (Remote Manual Switches Cabinet)



Remote Manual Switches Cabinet

The remote Manual Switches cabinet comes standard with the Retrofit System for operating your existing facility lighting.

Optional for the Control and Monitoring system, it provides for special switching requirements or for more convenient Off-On-Auto switch location for maintenance staff. Lockable cabinet helps prevent tampering for outdoor mounted equipment.



Manual Switches Cabinet

Technical Features

Remote Manual Switches Cabinet

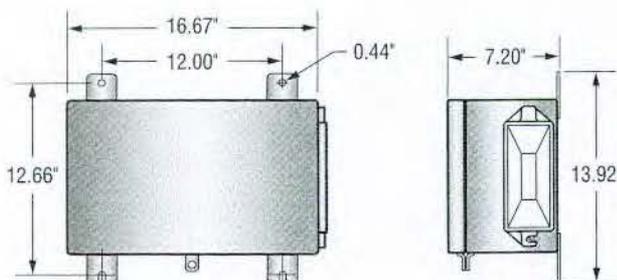
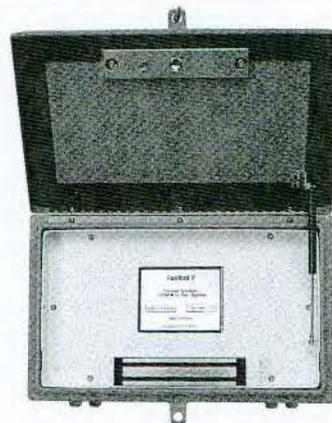
- NEMA Type 4, 5052 H32 aluminum enclosure
- Operating temperature -20°C to +60°C (-4°F to +140°F)
- Powder-coat finish after fabrication
- External mounting feet
- Lockable, latching assembly
- Door electrically bonded to enclosure
- Locate up to 300 feet from Control Cabinet
- Typical enclosure and component weight 33 lbs. Project specific details available upon request.

Manual Off-On-Auto Switches

- Factory wired to terminal blocks
- Mounted to maintain NEMA 4 rating
- Legend plate clearly identifies zone

Optional Schedule Override Cabinet

The on-site Schedule Override touch screen enables your user groups to extend play or turn the lights off early. Offers easy-to-use LCD screen and user access code protection.



Schedule Override Cabinet

Technical Features

Schedule Override Cabinet

- NEMA Type 3R, 5052 H32 aluminum enclosure
- Powder-coat finish after fabrication
- External mounting feet
- Magnetic lock, disengages when schedule operating
- Operating temperature -20°C to +60°C (-4°F to +140°F)
- Four-digit user access code
- Locate up to 175 feet from Control & Monitoring cabinet

What Our Customers Have to Say

Usage Data is Great

"It's been great. It's ten times better than anything we've tried before. The field usage data is great. Our monthly reports needed for financial planning are more accurate and easy to do. That makes setting user fees much easier. The customer service we continue to get from Musco is excellent. I know I can call them anytime, from anywhere, and they're right there to help, 24 hours a day, 7 days a week."

Judy Flynn

*Former Recreation Supervisor
City of Corona, California*



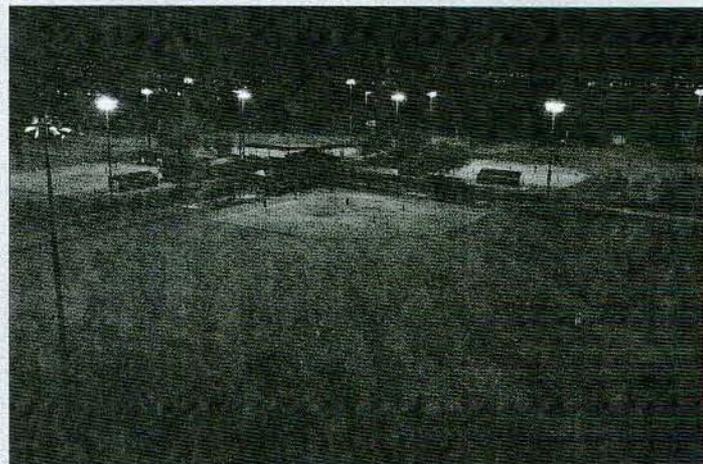
Corona Park, California

Neighbors Appreciate Control Link

"We used to get calls from neighbors every once in a while that the lights had been left on, and someone would have to go out in the middle of the night to turn them off. Neighbors have called us saying how much they appreciate the lights being on only when someone is actually using the field."

Scott Whitaker

*Park & Recreation Director
City of Carrollton, Texas*



Carrollton Sports Complex, Texas

Easy to Operate

"Musco's Control and Monitoring System is definitely a more proactive approach than our previous system. When there is a problem, the monitoring system allows a warranty specialist to immediately notify us. This is a huge asset, as problems are resolved right away. The system is user friendly, very efficient, and easy to operate. Using a phone to call Control-Link Central is much easier than our previous system, which required a laptop to dial in and make changes to a particular facility. The simplicity of this system is very refreshing."

Joe Ross

*Recreation Programmer
City of Rialto, Recreation and Community Services
Rialto, CA*

Customer Service Second to None

"We enjoy the great customer service. The staff answering the phones are so polite and we really appreciate that. We value being able to monitor the usage of the facilities through the website. Control-Link helps ensure that field lights are turned off when they are supposed to be. We no longer receive calls at 1:00 in the morning that the lights were left on. The monitoring system has also been impressive. We received a call during the day that there was a problem with one of the fixtures. After checking the fuses, we replaced one and the system was back to go. The problem was resolved before we would have even been aware there was a problem."

Stephen Cooke

*Sports Manager, Greenville County Recreation Dept.
Assistant District Administrator SC District 7 Little League
Greenville, SC*

Musco Systems to Meet Your Sports-Lighting Needs

Light-Structure Green™

Outdoor: New Lighting Applications

Still engineered as 5 Easy Pieces™, Light-Structure Green offers unequalled performance for your budget, for the environment.

- Reduces operating costs by 50%
- Cuts wasted spill light by 50% or more
- Eliminates 100% of your maintenance costs for 25 years
- Provides Constant Light™

SportsCluster Green™

Outdoor & Indoor: Retrofit Applications

A modular photometric unit factory aimed and tested to perform from your choice of structures — makes retrofit of old equipment easy.

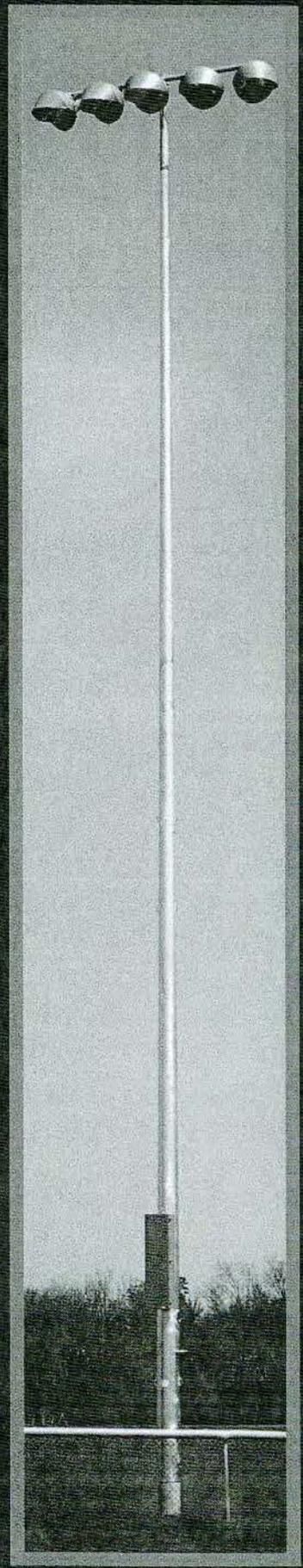
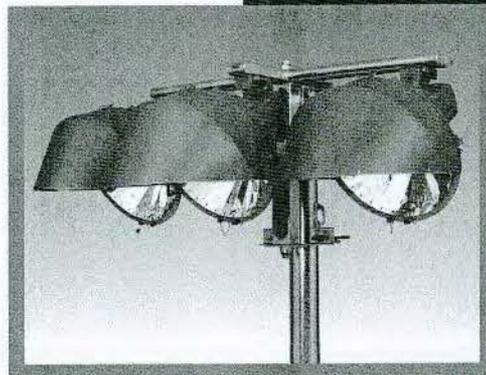
- Reduces operating costs by 50%
- Cuts wasted spill light by 50% or more
- Eliminates 100% of your maintenance cost for 10 years
- Provides Constant Light™

Light-Pak™

Indoor: New and Retrofit Applications

Energy-efficient indoor sports lighting that operates at your choice of two energy levels for improved cost control.

- Saves energy costs over alternative systems



We Make It Happen.®

www.musco.com

e-mail: lighting@musco.com

100 1st Avenue West / PO Box 808
Oskaloosa, Iowa 52577
641/673-0411 • Fax: 641/673-4852

800/825-6030

Patents Pending
©1998, 2007 Musco Lighting
B-505-10



Quote

Griffin Park
Windham, NH
Date: September 30, 2009
To: Mr. Charlie McMahon

Quotation Price- Little League Field One (Phase 1)

Musco's Light Structure Green™ as described below and delivered to the job site \$53,277.

Equipment Description

Light Structure Green™ System delivered to your site in Five Easy Pieces™

- (4) Pre-cast concrete bases
- (4) Galvanized steel poles
- UL Listed remote electrical component enclosures
- Pole length wire harness
- (18) Factory-aimed and assembled luminaires

Also Includes:

- Energy savings of more than 50% over a standard lighting system
- 50% less spill and glare light than Musco's prior industry leading technology
- ★ • Musco Constant 25™ warranty and maintenance program that eliminates 100% of your maintenance costs for 25 years, including labor and materials
- Guaranteed constant light level of 50 footcandles in the Infield and 30 footcandles in the Outfield for 25 years, +/- 10% per IESNA RP-06-01
- One group re-lamp at the end of the lamps' rated life, 5000 hours
- Reduced energy consumption with an average of 28.2 kW per hour → *per light?*
- Control Link® Control & Monitoring System for flexible control and solid management of your lighting system
- Lighting Contactors sized for 240 Volt single phase
- (9) Future Fixture Accommodations on the A4 and B4 poles for future lighting of the Little League Field 2

ECEC

From: Steve Koza
Sent: Monday, October 05, 2009 3:49 PM
To: 'Charlie McMahon'
Subject: RE: griffin park

Charlie,

I will have my estimator write up a formal proposal but it is as follow;

Pricing for all electrical work as follows:

Furnish and install all site lights for parking area(8) and walkway(7) from parking down to MPB; fed via from existing service next to portable toilets with TC control

Furnish all precast pole bases for 15 poles; installed by USA

Furnish and install new 1200 amp 120/240 service; transformer to be located next to MPB entrance door (1200 amps is what is required for all 3 baseball fields and the 2 soccer fields)

Furnish and install new 200 amp disconnect to refeed existing MPB panel

Furnish and install new 400 amp panel to feed all lights on field B and provisions for field A

Furnish and install all wiring from new panel to MUSCO control cabinet

Furnish and install all conduit and wiring from MUSCO control cabinets to all lights on field B

Furnish and install conduit stubs from MPB for future light poles on 3rd base side of field A and Field C

~ Total ECEC Cost \$54,765.00 for field B

~ Total ECEC Cost \$61,380.00 for field A and B

Using previous USA breakout numbers and the new MUSCO numbers I come up with the following total cost:

Total cost for ECEC, MUSCO and USA for field B is \$128,203.00

Total cost for ECEC, MUSCO and USA for fields A & B is \$183,751.00

Total cost for ECEC, MUSCO and USA for all 3 fields is \$296,433.00

Ex. 7



Windham Griffin Park
Charlie McMahon / Steve Koza
Musco Lighting

October 16, 2009

Proposals

Utility Service & Assistance Inc. submits its proposal to successfully complete the following work. Included in our cost is all labor , tools , equipment , specified materials and supervision.

Griffin Park Fields – Windham

Zone 2 - LL field # 2 Zimmer Field

Install (4) concrete foundations	
Install (2) 60 ft. poles / (1) 70 ft. pole / (1) 80 ft. pole w/ 18 luminaires	\$ 20,780.00
Trenching for Musco Lts.....	\$ 3,200.00
Trenching for new transformer and concrete pad and associated utility cost.....	\$ 1,400.00
Trenching for (15) concrete base installations for Walkway and parking lot.....	\$ 3,500.00
Total	\$ 28,880.00

All the above work includes dig safe , auger holes, concrete , foundation installation to Musco Specifications ,excavation and erection of poles with cross arms, ballast and luminaires. Installation of walk/parking concrete bases.Assist ECEC with standing of (15) poles.

Any ledge or extreme water conditions will be extra. Work to be done prior to frozen Ground.

Should you have any questions , please do not hesitate to contact our office

Respectfully,

Tom Skeffington/President

Ex. 8