

Budget Estimate

Tatlock Park Multipurpose Fields - Summit, NJ
1/5/2023

Budget Estimate – Materials with Pole-in-the-Air Installation

Investor's Field and Track.....	\$445,000.00-\$460,000.00
Adder for MuscoVision – Automated Streaming Service	\$17,500 +/- 10%
Upper Field.....	\$335,000.00-\$350,000.00

Light-Structure System™ with Total Light Control – TLC for LED™ technology

System Description – Light-Structure System™ complete from foundation to poletop in 5 Easy Pieces™

Factory-built, wired, aimed, and tested lighting system includes:

- Pre-cast concrete bases
- Galvanized steel poles
- Factory-wired and tested remote electrical component enclosures
- Pole length factory-assembled wire harnesses
- Factory-aimed and assembled luminaires, including BallTracker® technology
 - BallTracker® technology – targeted aerial light optimizing visibility of the ball in play with no glare for players.
- UL listed as a complete system
- Guaranteed light levels with reduced spill and glare.
- Control-Link® control and monitoring system to provide remote on/off and dimming (high/medium/low) control and performance monitoring with 24/7 customer support
- Product assurance and warranty program that includes materials and onsite labor, eliminating 100% of your maintenance costs for 25 years.

Show-Light+® Entertainment Package with Control-Link® Control and Monitoring System (Investor's Field Only)

- Control and monitoring cabinet(s) with gateway
- Communication cabinet(s) with show controllers
- Touchscreen(s) for onsite control of theatrical effects
- 6 pre-programmed and theatrical light shows applied to facility lighting design
- 3 custom 60 second light shows set to customer supplied and licensed music
- Remote on/off control
- Custom color accent lighting control
- Onsite dimming (high/med/low/blackout)
- Monitoring with 24/7 customer support



Budget Estimate

Estimate is based on:

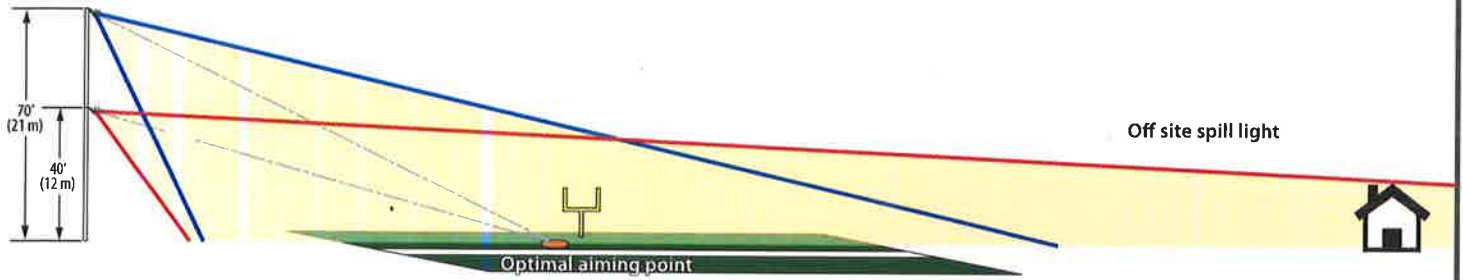
- Shipment of entire project together to one location.
- Structural code and wind speed = 2021 IBC, 115 mi/h, and exposure: C, Importance Factor 2.
- Owner is responsible for getting electrical power to the site, coordination with the utility, and any power company fees
- Standard soil conditions – rock, bottomless, wet, or unsuitable soil may require additional engineering, special installation methods and additional cost.
- Installation estimate includes off-loading, installation of foundations, poles, and lighting equipment by a contractor.
- Estimate is based on January, 2023 pricing and is subject to change.

Thank you for considering our Team for your sports lighting needs. Please contact me with any questions.

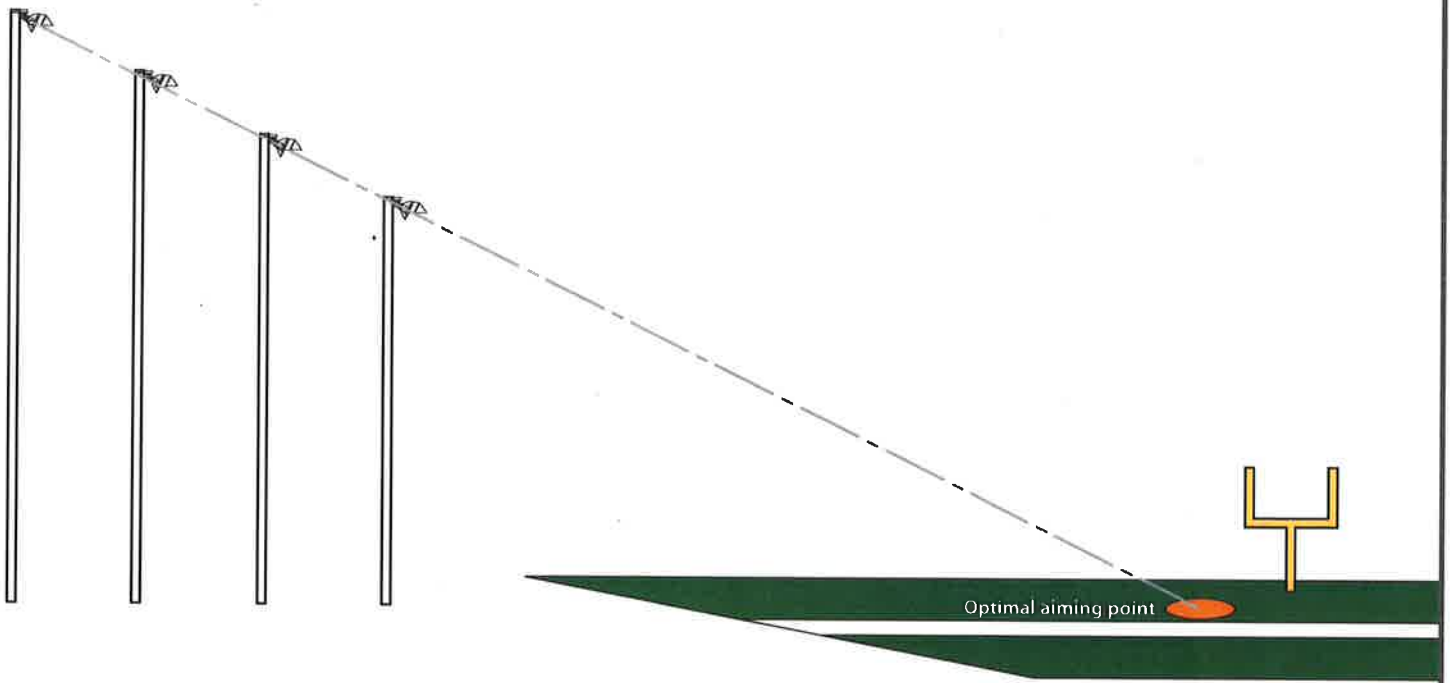
Dan Shalloo
Sales Executive
Musco Sports Lighting, LLC
Phone: 732-539-4329
Email: dan.shalloo@musco.com
Project # 116226



Pole height impacts aiming angles and the amount of spill light



Distance from the aiming point determines optimal pole height



PROJECT	DATE
DESIGNER	DATE
CHECKER	DATE
APPROVER	DATE

CROSS-SECTION EXHIBIT LIGHTING

TATLOCK PARK
LIGHTING INSTALLATION
80 BURT HWY
SUMMIT, NEW JERSEY 07901

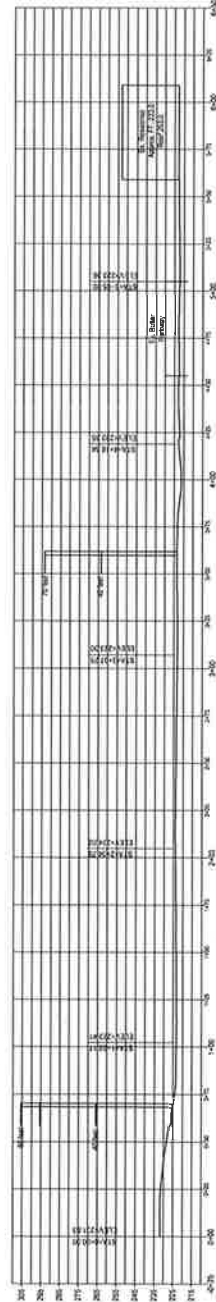
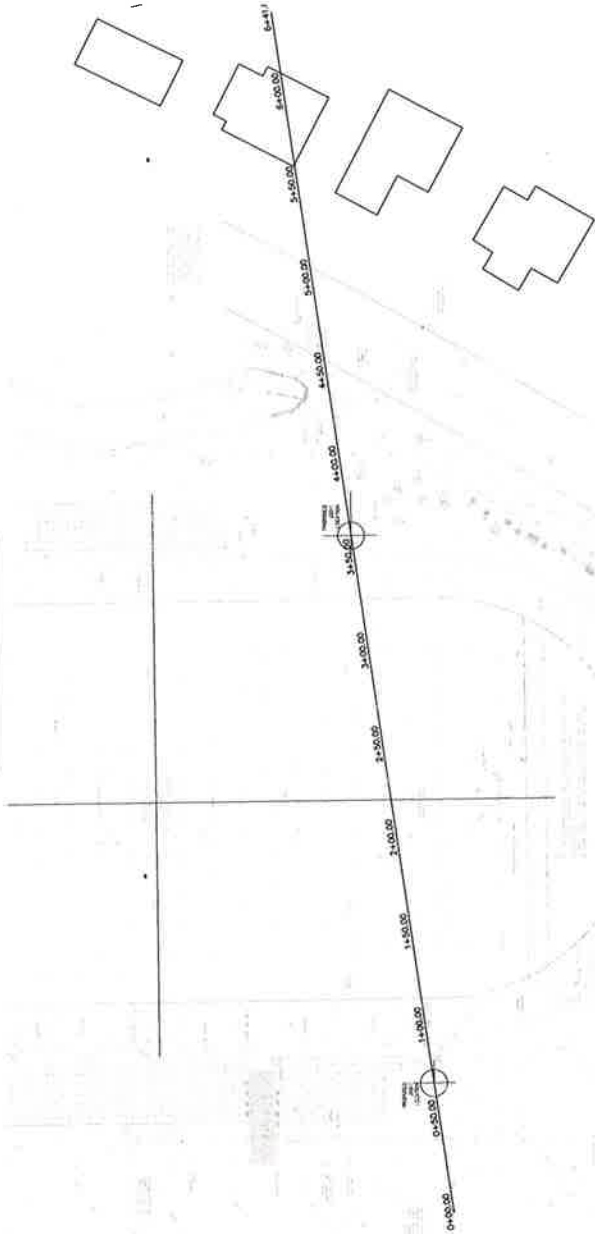


THOMAS J. MILLER, PE, CMAA, PP
PAUL J. MILLER, PLS, CMAA, PP
THOMAS J. MILLER, PE, CMAA, PP

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INVESTORS BANK FIELD



Conceptual/Budget Construction Estimate
Tatlock Park - Investors Bank & Upper Tatlock Fields
LED Sports Lighting System

City of Summit, New Jersey

January 23, 2023



Item #	Description		Unit Price	Amount
1	Investors Bank Field (IBF) - Electrical Service	1 LS	\$300,000	\$300,000
2	Upper Tatlock - Electrical Service	1 LS	\$200,000	\$200,000
3	IBF - Materials with Pole-in-the-Air (PIA) Installation	1 LS	\$460,000	\$460,000
4	Addition for MuscoVision - Auto. Streaming Service *	1 LS	\$17,500	\$17,500
5	Upper T. - Materials with Pole-in-the-Air Installation	1 LS	\$350,000	\$350,000
Subtotal:				\$1,330,000
13% Engineering, Permits & Expenses:				\$172,900
10% Contingencies:				\$133,000
Total (rounded up):				\$1,640,000

* +/- 10%

Notes:

- 1) This tabulation is an approximate, time sensitive, conceptual estimate for budgetary purposes.
- 2) Current estimate revised by **ppd**, to date shown, to reflect latest concept updates.
- 3) Prices are escalating outside of norms due to supply chain issues.
- 4) During the design phase costs can be refined.
- 5) Electrical estimates based upon 1/6/23 report by Grant Engineering, LLC.
- 6) Materials with PIA budget estimates based upon 1/5/23 document by Musco Sports Lighting, LLC.
- 7) For further information refer to individual reports.

CITY OF SUMMIT NEW JERSEY

Tatlock Park Sports Lighting

Grant Engineering Consultants, LLC – January 6, 2023

James F. Ghaemi, PE

CITY OF SUMMIT, NEW JERSEY

Tatlock Park Sports Lighting Report

I. **Background**

Grant Engineering Consultants staff visited Tatlock Park to survey existing power distribution system and equipment to determine existing available electrical power for new Sports Lighting at Investors Bank Field and Upper Tatlock Field. Our staff also surveyed existing Field House's electric utility service equipment to document its ratings and spare capacity associated with interior renovation of the Field House. Each of the above locations is metered separately with the following information, ratings, and peak demands that were calculated using the latest 12 months of electric bills for each service that were provided to us by the City of Summit:

a. Investors Bank Field:

- i. Account No.: 100005244296
- ii. Existing Service: 208VAC, 200A, 3-Phase, 4-Wire
- iii. Peak Load: 13.1 kW (45.5 Amps)

b. Upper Tatlock Field:

- i. Account No.: 100005244403
- ii. Existing Service: 240VAC, 200A, 1-Phase, 3-Wire
- iii. Peak Load: 13.1 kW (68.2 Amps)

c. Field House:

- i. Account No.: 100005244528
- ii. Existing Service: 240VAC, 100A, 1-Phase, 3-Wire
- iii. Peak Load: 11 kW (57.3 Amps)

II. Observations

a. Investors Bank Field:

There is an existing electrical outdoor enclosure that houses electric utility service metering equipment, distribution panel, and Tennis Courts lighting control panel (see Photos 1 & 2). The distribution panel powers a sub-panel that is located in Investor Bank Field's press box.

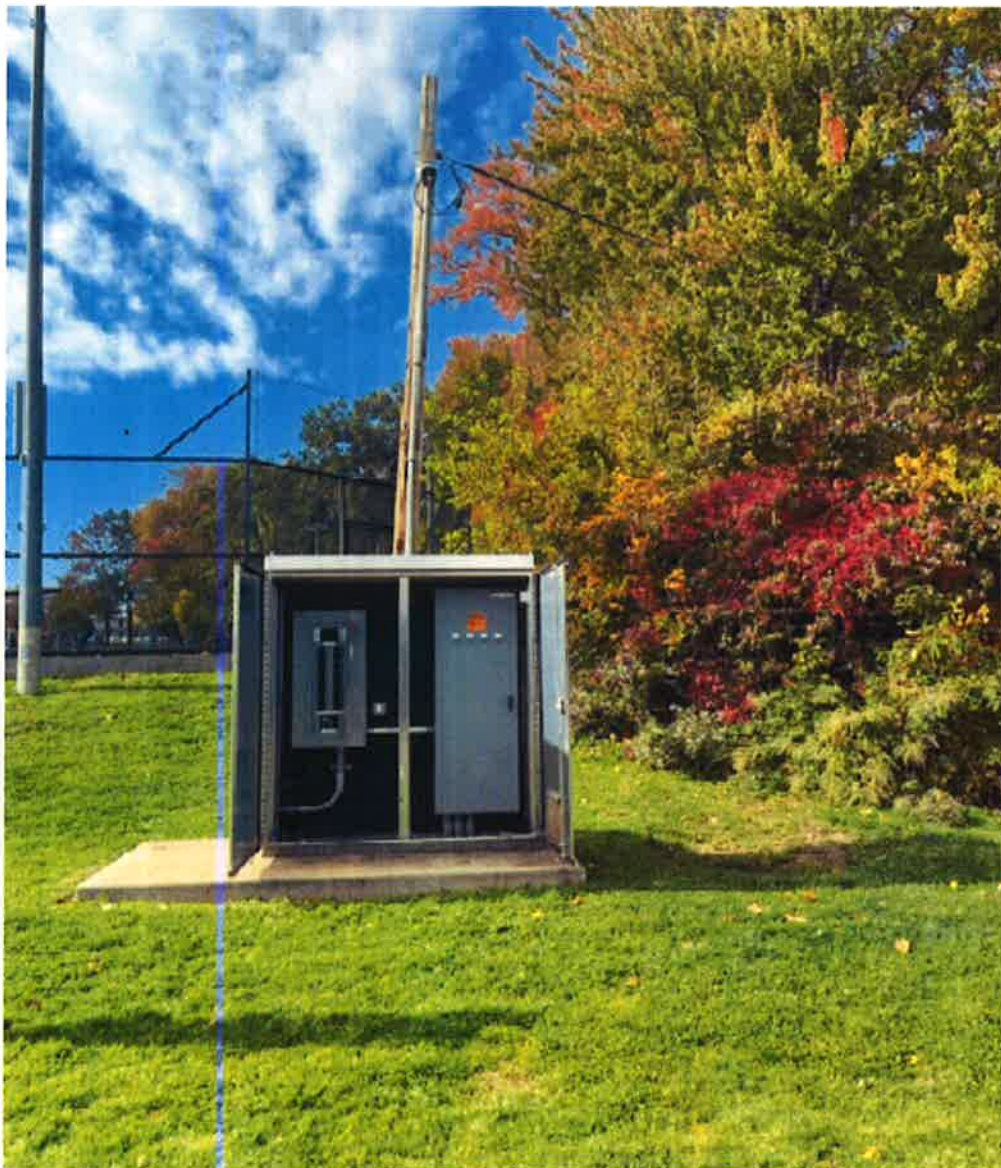


Photo 1 – Investors Bank Field Outdoor Enclosure with Electrical Equipment



Photo 2 – Investors Bank Field Outdoor Enclosure Electric Utility Service Meter

b. Upper Tatlock Field:

There is existing outdoor electric utility service metering equipment and distribution panel at this location (see Photo 3). There are existing pole-mounted flood lighting fixtures that are fed from this service.



Photo 3 – Upper Tatlock Field Electric Utility Service Meter and Distribution Panel

c. Field House:

There is existing indoor electric utility service metering equipment and distribution panel inside the Field House (see Photo 4). All power and lighting loads are fed from the distribution panel.



Photo 4 – Field House Electric Utility Service Meter and Disconnect

III. Recommendations

Proposed lighting loads at Investors Bank Field and Upper Tatlock Field have been analyzed and tabulated to determine if existing electric utility services have sufficient spare capacity for the new lighting loads. Due to limited available information on proposed electrical/mechanical equipment associated with existing Field House renovation, it is assumed that the existing electric service will be sufficient for the renovated Field House, as long as heating and cooling loads and sources of energy remain the same.

a. Investors Bank Field:

Existing Elec Service	Existing Peak Load	Proposed Lighting Load	Recommendations	Estimate
208VAC/200A/3-Ph/4-W	13.1 kW	50.36 kW	<ul style="list-style-type: none"> • Reuse existing 200A service-entrance rated panel to feed the existing Tennis Court and the new Investors Bank Field Musco Lighting Panels. • Install a new 200A distribution panel to feed the new Investors Bank Field Musco Lighting Control Panel. • Install a new outdoor enclosure to house the new panels and Musco Lighting Control Panel. • Install new conduit, wiring, and electrical boxes for the new pole-mounted Musco Lighting Fixtures. • Install a new 20kW standby generator to power Investors Bank Field Egress and Security Lighting fixtures. 	\$300,000

b. Upper Tatlock Field:

Existing Elec Service	Existing Peak Load	Proposed Lighting Load	Recommendations	Estimate
240VAC/200A/1-Ph/3-W	13.1 kW	44.64 kW	<ul style="list-style-type: none"> • Replace existing 200A service-entrance rated panel with a new 200A service-entrance rated panel, NEMA 3R. • Feed new Musco Lighting Control Panel from the new 200A service-entrance rated panel. • Install new conduit, wiring, and electrical boxes for the new pole-mounted Musco Lighting Fixtures. 	\$200,000

c. Field House:

Existing Elec Service	Existing Peak Load	Proposed Electric Load	Recommendations	Estimate
240VAC/100A/1-Ph/3-W	11 kW	11 kW	Reuse existing distribution panel to power all equipment in the Field House.	N/A