

## **NOTICE AND AGENDA**

Notice is hereby given that the City Council of the City of Santaquin will hold a City Council Meeting on Wednesday, April 19, 2017 in the Council Chambers, 45 West 100 South, at 6:00 pm.

- 1. ROLL CALL**
- 2. PLEDGE OF ALLEGIANCE**
- 3. INVOCATION/INSPIRATIONAL THOUGHT**
- 4. DECLARATION OF ANY CONFLICT OF INTEREST**
- 5. CONSENT AGENDA**
  - a. Minutes:
    1. March 15, 2017
  - b. Bills:
    1. \$662,482.76
- 6. PUBLIC FORUM, BID OPENINGS, AWARDS, AND APPOINTMENTS**
  - a. Payson Santaquin Area Chamber of Commerce Business of the Month Award
  - b. Award of Booster Pump Design Project Bid
  - c. Award of the Rodeo Lights Bid
  - d. Award of the 100 South 400 South Water Line Replacement Bid
- 7. FORMAL PUBLIC HEARING**
- 8. BUSINESS LICENSES**
- 9. NEW BUSINESS & ADOPTION OF ORDINANCES AND RESOLUTIONS**
  - a. Resolution 03-06-2017, "A Resolution Approving a Development Agreement with East Santaquin Meadows, LLC."
  - b. Resolution 03-11-2017, "A Resolution Amending the Employee Personnel and Policies Handbook"
  - c. Resolution 04-01-2017, "A Resolution Declaring Surplus Property of Santaquin City (Tasers)"
  - d. Resolution 04-02-2017, "A Resolution Amending the Consolidated Fee Schedule"
  - e. Resolution 04-03-2017, "A Resolution Approving a Water Agreement with Glade Robbins"
  - f. Resolution 04-04-2017, "A Resolution Approving a Water Agreement with Denny Brandon"
  - g. Resolution 04-05-2017, "A Resolution Approving a Real Property Purchase Agreement in support of 2<sup>nd</sup> Access to Summit Ridge from the Santaquin Water Special Service District
  - h. Ordinance 01-03-2017, "An Ordinance Amending the City Parks and Recreation Impact Fee Facilities Plan and Parks and Recreation Impact Fee Analysis"
  - i. Resolution 12-04-2016, "A Resolution Approving Addendum #5 of the Summit Creek Water Management Project"
  - j. Santaquin City Council – Annual Employment Training
- 10. CONVENE OF THE COMMUNITY DEVELOPMENT BOARD**
- 11. CONVENE OF THE SPECIAL SERVICE DISTRICT FOR ROADS MAINTENANCE**
- 12. CONVENE OF THE LOCAL BUILDING AUTHORITY OF SANTAQUIN CITY**
- 13. CONVENE OF THE SANTAQUIN WATER DISTRICT**
  - a. Resolution 04-01-2017SWD, "A Resolution Approving a Real Property Purchase Agreement for the sale of land to Santaquin City for the development of a 2<sup>nd</sup> Access to Summit Ridge
- 14. PETITIONS AND COMMUNICATIONS**
- 15. REPORTS OF OFFICERS, STAFF, BOARDS, AND COMMITTEES**
  - a. City Manager Reeves
  - b. Assistant City Manager Marker
- 16. REPORTS BY MAYOR AND COUNCIL MEMBERS**
  - a. Mayor Hunsaker
  - b. Council Members
- 17. EXECUTIVE SESSION** (May be called to discuss the character, professional competence, or physical or mental health of an individual)
- 18. EXECUTIVE SESSION** (May be called to discuss the pending or reasonably imminent litigation, and/or purchase, exchange, or lease of real property)
- 19. ADJOURNMENT**

If you are planning to attend this Public Meeting and, due to a disability, need assistance in understanding or participating in the meeting, please notify the City ten or more hours in advance and we will, within reason, provide what assistance may be required.

## **CERTIFICATE OF MAILING/POSTING**

The undersigned duly appointed City Recorder for the municipality of Santaquin City hereby certifies that a copy of the foregoing Notice and Agenda was e-mailed to the Payson Chronicle, Payson, UT, 84651, posted in 3 places; City Center, Post Office and Zions Bank as well as posted on the State of Utah's Public Website.

BY: \_\_\_\_\_  
Susan Farnsworth, City Recorder



**MINUTES OF A CITY COUNCIL MEETING  
HELD IN THE COUNCIL CHAMBERS  
APRIL 19, 2017**

The meeting was called to order by Mayor Kirk Hunsaker at 6:00 pm. Council Member attending: Keith Broadhead, David Hathaway, Mandy Jeffs and Nick Miller. Council Member Marianne Stevenson was excused.

Others attending: City Manager Ben Reeves, Assistant City Manager Dennis Marker, Police Chief Rod Hurst, City Engineer Norm Beagley, Director of Administrative Services/City Treasurer Shannon Hoffman, Recreation Director Amy Johnson, Payson/Santaquin Chamber of Commerce Representative Jade Walker, Ted Mickelson, Catherine Holman, Lindsey Bray, and other unidentified individuals.

**PLEDGE OF ALLEGIANCE**

Assistant City Manager Marker led the pledge of Allegiance.

**INVOCATION/INSPIRATIONAL THOUGHT**

Mayor Hunsaker Offered an Invocation.

**DECLARATION OF ANY CONFLICT OF INTEREST**

There weren't any "Conflicts of Interest" declared.

**CONSENT AGENDA**

***Minutes:***

March 15, 2017

***Bills:***

\$662,482.76

Council Member Miller moved to approve the Consent Agenda. Council Member Jeffs seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

**PUBLIC FORUM, BID OPENINGS, AWARDS, AND APPOINTMENTS**

Ms. Bray requested having the Ordinance pertaining to dog bites reviewed and amended to be more lenient. She presented the Mayor and Council Members with a copy of the Ordinance and possible changes. Her request will be reviewed by City Staff.

Mayor Hunsaker left the dais to address the Council Members.

Mr. Hunsaker introduced himself to those in attendance. He announced his intention of rerunning for Mayor of Santaquin City.

Mr. Hunsaker returned to the dais and his Mayoral seat.

***Award of Booster Pump Design Project Bid***

The Mayor and Council Members received an e-mail from City Engineer Norm Beagley reviewing the received bids for the proposed "Booster Pump Design Project. At the last Council Meeting they requested Engineer Beagley request additional information from several of the proposers. They



were told with that additional information, City Staff conducted evaluation of the work plans, proposed staffing, hours and hourly rates of responding firms.

*"From our further evaluation, we offer the following information for the Council: The submitted work plans for the two highest scoring firms (who also happen to have the two lowest proposed fees) shows an 18.77% difference in the proposed number of hours from the lowest proposed fee (Gilson at \$28,600.00) to the next lowest proposed fee (Jones & DeMille \$43,455.00). Gilson proposed 5 team members where Jones & DeMille proposed 10 team members. Gilson's work plan shows fewer staff to do the work, which leads to the fewer hours shown and the lower overall proposed fees. While the proposed hours for Gilson and Jones & DeMille were just 18.77% different, the overall fees were 34.18% apart on fees.*

*We also evaluated the previous Gilson, Jones & DeMille and Sunrise work experience (projects submitted as part of their proposal) and found that Gilson's overall design fees tended to be lower when compared to the next two highest scoring firms (Jones & DeMille & Sunrise). Gilson's design fees (when compared to actual construction costs) for their sample projects ranged from 4.1% to 8.3%. While Jones & DeMille and Sunrise design fees (collectively) ranged from 3.2% to 14.3%.*

*Subsequent to our further evaluation, and in consultation with Council Member Broadhead and Mayor Hunsaker, City Staff discussed the possibility to design and construct the booster pump station project using a CM/GC (Construction Manager/General Contractor) procurement and design process. You may recall that a CM/GC process was used by the City to design and construct the new PW facility back in 2015/2016. This process was very successful in the design and construction of the PW Facility and provided the City with a great finished project.*

*After our further review and in consideration of using a CM/GC procurement process, City staff recommends the following for the Council to consider:*

- We recommend that the design of the booster pump station be awarded to Gilson Engineering, in the amount of \$28,600.00.*
- We also recommend that the City move forward with a CM/GC process subsequent to and concurrent with Gilson's design efforts.*

*I consulted with Mike Christiansen of Gilson Engineering regarding the City's desire to use of the CM/GC procurement and design method. Gilson is willing to help accommodate the City moving forward using this method. We think this CM/GC approach will help the City to obtain the very best project we can, while at the same time, helping to control costs and receive the best value for our residents.*

*I also discussed with Mike that their (Gilson's) contract time (not scope or fees) would more than likely be lengthened out to help us accommodate the CM/GC approach. Mike indicated Gilson is fine with that.*

*Due to a potential scope change to have Gilson help us with the CM/GC approach/method, there could be a minor change to their scope and potentially fees as the project design proceeds. An actual fee change amount for this potential scope change has not been discussed or identified at this point. I would anticipate that the change could be in the range*



*of 10% to 15% of their overall fee amount. Please keep in mind this is purely my estimate and nothing has been proposed by Gilson at this point in time.*

*Should Council award of the project design to Gilson, we would immediately follow up that award by working to bring on a CM/GC contractor. We would plan to have a CM/GC come on board at approximately the 30% design stage. We would plan to bring a proposed CM/GC award to the City Council for their consideration at the May 3rd, 2017 Council Meeting.” (See attachment “A” for the Selection Committee Evaluation & Scoring)*

Council Member Broadhead moved to award the contract to Gilson Engineering for the “2017 Booster Pump Station Project not to exceed \$28,600.00, with direction to begin the Construction Manager General Contractor (CMGC) process and return to a future Council Meeting with the cost. Council Member Miller seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Nay
Council Member Miller	Aye

The vote passed 3 to 1.

#### ***Award of the Rodeo Lights Bid***

Council Member Jeffs indicated she recalled there wasn't to be any decisions made with regard to spending recreation funds until all the Council Members were in agreement. Council Member Hathaway indicated lighting at the rodeo arena is a project that can be completed now and to do the soccer field project correctly it would need to be expanded over a 2 year period.

Council Member Miller indicated he would like to see costs for all the proposed projects. He indicated the lighting was the lowest on his priority list. He would like to have more information before he made his decision. City Engineer Beagley indicated the topsoil that was discussed during the past Council Meeting is not available to us. He indicated what is stored at the Public Works Building is approximately half of what would be needed for the entire project. City Manager Reeves indicated there have been 13 building permits so far this month. \$2,500 from each permit is being set aside for use within the Park Impact Fees. Also discussed was the need to install 2 blocks of water line for a fire hydrant to be located by the proposed Recreation Building. City Manager Reeves asked if the Council Members would like them to contact MUSCO to see if they would honor the bid for an additional 60-90 days. Council Member Hathaway reminded the Council Members that when the priority list was discussed \$300,000 was set aside for the soccer fields which he doesn't believe is enough money to get the job done right. Assistant City Manager Marker indicated it isn't anticipated that the soccer fields would not be “playable” this year. Council Member Miller suggested completing 1 or 2 fields at a time. Council Member Broadhead was in agreement.

Assistant City Manager Marker reported three bids were received for manufacturing and delivery of new lights for the rodeo arena. Based on information received, City Staff recommends the City Council contract with MUSCO Lighting for the new arena lighting. Although their bid was not the lowest submitted, their warranty terms, delivery period, history with the City, and demonstration of capability to deliver make them the best choice. (See Attachment “B” for a copy of the bids)



Council Member Broadhead moved to authorize the Mayor to enter into a contract with MUSCO Lighting for the new rodeo arena lighting system, based on their submitted bid in the amount of \$89,892 and spend what money needed to finish the project. Council Member Hathaway seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Nay
Council Member Miller	Nay

City Manager Reeves reviewed the current money available in the Parks Impact Fees. He indicated he believes all the proposed projects could be accomplished this calendar year.

Council Member Broadhead amended the motion to add a not to exceed of \$132,000. Council Member Hathaway seconded the amended motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Nay
Council Member Miller	Nay

Mayor Hunsaker broke the tie by voting Aye. The motion passed 3 to 2.

***Payson Santaquin Area Chamber of Commerce Business of the Month Award***

Ms. Walker reported The Leavitt Group located in Santaquin is the Business of the Month for April. She also reported the luncheon with Spencer Cox was a great success.

***Award of the 100 South 400 South Water Line Replacement Bid***

City Engineer Beagley reported there were 3 bids received for the 100 South 400 South Water Line Replacement Project. Following are the bids received:

- RB Construction & Concrete, INC in the amount of \$68,945.00
- Greenhalgh Construction in the amount of \$78,301.00
- Mitchell Excavation, INC in the amount of \$180,862.96

Council Member Broadhead moved to award the contract for the 100 S 400 S Water Line Replacement to RB Construction with City Engineer Beagley verifying all items are included in the bid. Council Member Miller seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The motion passed with an unanimous vote.

**FORMAL PUBLIC HEARING**

There were no Formal Public Hearings scheduled.



## **BUSINESS LICENSES**

Elk Point LLC – Landscaping – Jake McKeachnic – 1168 E 300 S – Office only. No equipment stored on site.

## **NEW BUSINESS & ADOPTION OF ORDINANCES AND RESOLUTIONS**

### ***Resolution 03-06-2017, “A Resolution Approving a Development Agreement with East Santaquin Meadows, LLC”***

Council Member Miller moved to table Resolution 03-06-2017, “A Resolution Approving a Development Agreement with East Santaquin Meadows, LLC”. Council Member Jeffs seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

### ***Resolution 03-11-2017, “A Resolution Amending the Employee Personnel and Policies Handbook”***

A discussion was held with regard to the proposed changes to the Employee Personnel and Policies Handbook. Director/City Treasurer Hoffman indicated Fire Chief Olson requested the policy be changed addressing the paid volunteer within his department. She indicated “he is dealing with a lot of volunteers. With the way the policy is now, anytime he has to terminate anybody or anything like that because they are not coming to training or they are not showing up. He actually has to go through the whole process with a hearing and that kind of stuff. So he just kinda wanted to put them back to at will. So that is what this change is”. Council Member Miller asked how this affected the current employees. He was told that they were “at will” before the changes were made and now they are going back. He was told the Council Members had a right to change the policy at any time. Council Member Broadhead stated, “so none of our ‘at will’ employees, except for your guys, have no appeal rights”. Director/Treasurer indicated “correct”. Council Member Broadhead continued, “so if Stephen terminates somebody they have no appeal”. Director/Treasurer Hoffman indicated “that basically what ‘at will’ is”. Council Member Broadhead continued “the difference is that you guys are on contract and they are not. So they are at the will of the Chief”. City Manager Reeves stated “exactly”. Generally speaking it just doesn’t happen. Grant it could. Anybody at any time could be let go. That is the case with any of our part-timers in any of our departments right now. Generally speaking we try to work with our individuals and we try to build them up. It’s because of actions they have taken that they walk themselves out the door. We have gone through the documentation, we’ve done the things that we need to do that they know what they need to do to get in the good graces of the City as far as their work history is concerned or whether they are walking out the door”. “Technically speaking in the State of Utah you are ‘at will’. You could just be gone”. Director/treasurer Hoffman stated ‘I’ve not seen a situation where that’s been done. We try to work with the employee, try to correct the behaviors, all that kind of stuff”. Council Member Broadhead asked “do we have disciplinary steps for ‘at will’? He was told there weren’t any. He continued “so if they do it once then they can be out the door”. Director/Treasurer Hoffman said “they could but I have not seen that”. Council Member Broadhead stated “It doesn’t matter if you’ve seen it”. Director/Treasurer Hoffman said ‘we try to go through the discipline corrective action with any employee. We don’t want to just send them right out the door. We’ve invested a lot of time in these people and a lot of money in these people”. Council Member Broadhead stated “I understand that. But every department we own,



believe it or not, is divided. Police, Public Works, everybody. So if you are on the wrong side of the line it's easy for a Chief to just get rid of you. Just because he don't like you. And with volunteer, with you guys we have to, it's a penalty to get rid of you guys. Six months of your pay or whatever it is. These guys, I mean if its...if they feel like they have been wronged, where do they go? Can we make that for the EMS that they can appeal to the City Council"? Director/Treasurer Hoffman and City Manager Reeves simultaneously indicated "that's how it is right now". City Manager Reeves stated "if you are going to give anyone due process rights you have to give them full due process rights. Which means they have the right to have 10 days on paid administration with is hard to manage because they are a volunteer as they are only paid when they are called out. So how much do you really pay them? Do you don't? Do you look at an average per year? They have to have the opportunity for Legal Counsel, we have to provide our Legal Counsel, we prosecute the case with the Mayor being the Judge in that. The City Council needs to refrain from being in participation in that so if they want to appeal the Mayor decision it comes to the full body of the Council. Everything is re-prosecuted. Everything is shared again. And we have had several situations where it has been very expensive for us, for volunteers when we've had situations where they just weren't fulfilling their duties". Council Member Broadhead indicated "I understand why you want to do it. But I'd hate to be on the wrong side of a person". Mayor Hunsaker asked "have you gotten any feedback from the rest of the City employees"? He was told the change only affected the Fire and EMS. Council Member Miller stated "I understand where you're coming from. I agree but I also see the flip side of it cuz I think about this a lot. I was thinking about this today while I was at work, randomly. I hope it creates... I hope it's...I don't know. I'm ok with it. I don't think our current situation in our Fire Department is going to have this affect but I understand the respect that it could change overnight". Director/Treasurer Hoffman stated "I think that's why it was put in place in the first place is because we were getting a new Fire Chief and we didn't know what to expect". Council Member Broadhead asked "so if we get another Fire Chief will we have to change this again"? City Manager Reeves stated "if you want to implore... give that protection, you could at any point change it back". Council Member Miller said "I agree 100% that every department is divided and I just look at it and I don't think that the Fire Department is going to me more divided or less divided by making this one change. I understand that it's going to help the Chief, on paper, it should help the Chief, and go in the correct direction". Director/Treasurer Hoffman reported "he just had four Fire Fighters or EMT's that basically just stopped showing up. And in order to fire them he either needed to get a resignation from each of them. And if they're done, they're don. They don't usually answer their phones. They won't call back. He had to go through the whole process just to say there done". Council Member Miller stated "I agree especially where the cost of turnouts goes to these people and it really bottlenecks the process. I'm ok with this and I understand where you're coming from". Director/Treasurer Hoffman reminded the Council Members "you guys can change this at any time". Council Member Broadhead stated "I just want to see protection for the guys that do show up all the time and they may make one mistake and you're out of here and you have nothing to say about it". City Manager Reeves stated "keep in mind that, generally speaking, we would have never let an employee go without HR and myself being involved and/or running things by Brett". Council Member Broadhead stated "but it's not policy. Stephen can let them go and doesn't even have to talk to you two". City Manager Reeves said "right, but whenever we've done that for any part-time by practice we've always done that". Council Member Broadhead reiterates "by practice. But it isn't policy or not by Ordinance". City Manager Reeves added "there's nothing to say that somebody couldn't go to the Mayor who is over Stephen. Even though it's not in policy". Council Member Broadhead continued "the Mayor has no right. He has no power. He can't appeal it. He can't them back on". City Manager Reeves indicated "he could because he is the direct supervisor of the Fire Chief. He is the CEO of the City and over all personnel. So he could direct the Fire Chief if he wanted to". Mayor Hunsaker interjected "I just got a lot of responsibility that I didn't know I had". Council



Member Broadhead stated "now wait a minute. The City Council votes to fire you can you go to the Mayor and he can put you back on?" City Manager answered "no. Because it's a different situation. With you guys would you have to respond to the contract and you would have to have super majority of the Council which means four out of six". Mayor Hunsaker indicated "we cross our fingers that nobody ever gets fired that doesn't deserve it". City Manager Reeves stated "we're not in the process of firing people we've trained". Council Member Broadhead continued "the thing is if they do get released then they still come to us".

After the discussion of this item, Director/Treasurer Hoffman continued with the review of the proposed changes. City Manager Reeves indicated the Directors and their designees have reviewed the proposed changes and are in support of the proposed changes.

When the question was ask if there were any additional questions, Council Member Broadhead asked "if we demote someone. I read that the Mayor could do that. What if the employee decides to demote his self? Which I understand on of them has turned his stipes into the Police Department. Has his wage been adjusted accordingly". City Manager Reeves indicated "no". Council Member Broadhead asked "why not"? City Manager Reeves continued "generally speaking, we have always, when there has been a demotion or a step down, we have always maintained the same rate of pay. Whoever the range has dropped down so now they are higher in the range". Council Member Broadhead interjected by saying "but didn't he ask for this"? City Manager Reeves answered "yes". Council Member Broadhead commented "that's a pretty good deal. I'm going to get rid of all my responsibilities and keep my same pay. That is don't think is right. If that is what he wants to do then his wage should come down to match what his position is". Council Members Hathaway and Jeffs simultaneously stated "I agree". Council Member Broadhead indicated "I don't know if that need to be put in to this policy that if you voluntarily give up your position". Mayor Hunsaker asked "how do we get that to happen"? Director/Treasurer Hoffman asked "to put in the policy? We can just add it, yeah. You can just, yeah you can just add it by motion. We'll add it". City Manager added "but I don't think you can retroactively go back. I think in this particular...". Council Member Broadhead interjected "then give him his stripes back and make him do his job". City Manager stated "that's what you could do. You could require that they stay in the position and put it back on them if they want to...". Council Member Broadhead stated "Wade could say that he wanted to be the low man but keep me as high as I am. It makes no sense to me. So I think that issue needs to be resolved. Mayor, one way or the other it's your department and Rod. But if a guy decides he doesn't want to do it he shouldn't be rewarded for it". Council Member Jeffs asked "does it say in the policy now that's what it would do? That's why your following that or why it just change when....". Council Member Broadhead interjected 'well the only thing it says is the Mayor, if he, the Mayor can demote somebody. And he can decide yes you are going to keep your pay. But I didn't find anywhere in there that if the Employee voluntarily demotes themselves. Have you seen it Shannon"? Director/Treasurer Hoffman stated "no. there, no not that I've seen in the policy, no". Council Member Broadhead asked "is that something we need to put in there"? Director/Treasurer Hoffman said "I think if you want that as a policy then yes. I would put it in there. And I think you can do that tonight if you want to just by motion". Mayor Hunsaker indicated "three yeses right there". City Manager Reeves stated "then all you do is add it to your motion. However, for this particular employee, I think what you need to do is force the stripe to go back on and then allow the employee to decide whether or not they are going to step down, have the lower rate of pay or continue in with the higher responsibilities". Council Member Broadhead said "when he turned them in, what was his expectations"? City Manager Reeves said "that his rate of pay would stay the same". Council Member Broadhead asked "and we agreed to that"? City Manager Reeves said "that has been our policy". Council Member Broadhead stated "that's not your policy, there is no policy". City Manager Reeves stated "that has been our



practice". Council Member Broadhead continues "not a policy. Now we go back to practices that we have talked about all along till now. Trust us, our practices are good but we don't need to write it down". Council Member Jeffs asked "why would that be up to us and the Director"? In a side conversation between Council Member Miller and Council Member Broadhead stated "Jake". Council Member Jeffs continued "wouldn't that be the manager over the employee"? City Manager Reeves stated "it's whatever you want to put in your motion right now. When it's not clearly established then it's by practice and when it's by practice it's what historically what's been done with other employees". Council Member Broadhead asked "has this happened before"? City Manager Reeves answered "Denny Barnes is at his rate of pay. He's part-time and hourly but he was at his rate of pay when he went into the part-time position". Council Member Broadhead asked "so he makes the same hourly rate of pay but there was no policy it was just a practice". It was unknown who commented "then let's make a policy". Mayor Hunsaker indicated he wanted to know what Chief Hurst says. "Is he worth his Sargent pay"? City Manager Reeves interceded "I think where you are going into is executive session discussion". Mayor Hunsaker stated "okay, alright". Council Member Broadhead stated "I think it should be any employee". Mayor Hunsaker said "okay". City Manager Reeves stated "at this level it would be whatever you would like to add to the motion and then if you would like to get into specifics on an employee you should go into an executive session or the Mayor just handles it". Council Member Broadhead stated "I don't think we need to get into his conduct or personality. I think it needs to be across the board for any employee that if you decide you don't what to be it any more you're going to plan on losing your wage with it". City Manager Reeves indicated "that being the case, you should add it by motion." Council Member Broadhead said "maybe I want to quit being Councilman but pay me for the rest of my life". There was an interjection by Council Member Miller "not worth it, not worth it. In all seriousness you could work your way up pretty quick as a young guy. Alright I'm done doing this and go down and collect a pretty good salary". Council Member Broadhead indicated "Rodney could go back on patrol. You could become the dog catcher...[laughter] well this is where this could go". Director/Treasurer Hoffman stated "I think this is an appropriate place to put it. Just another, just a little sentence right here after 4 that if it is voluntary..." Council Member Broadhead asked if this is editable. Can we edit it"? City Manager Reeves said "this is, we can click out of here, we can switch, hold on...". Assistant City Manager Marker stated "just for the Council's information or a reminder. This, mentioning the Police Department is not the only case. We have recently been dealing with somebody that's revisited their situation and wanted to have a reduction in responsibilities". Council Member Miller jokingly asked "and what is their name"? City Manager Reeves responded "we should go to an executive session" [laughter]. Council Member Broadhead stated "that was full time to part-time right? Or is it somebody else"? Assistant City Manager Marker indicated "ya". Council Member Broadhead stated "so that is the same thing. You go from a full-time wage you're going to lose benefits anyway". Assistant City Manager Marker agreed. Council Member Broadhead indicated "but they're not on the top of their pay scale". City Manager Reeves indicated he wasn't sure where "this" should be included. It was suggested addressing it under the "Compensation" header. He indicated it could be place in the appropriate area and suggested the following wording for the motion: "I move to approve the Employee Handbook as written with the provision added that should an employee voluntarily choose to reduce their areas of responsibility that their compensation would go to a level commencent to that position and their years of service within that position". Council Member Hathaway ask "why would that only be under volunteer? What if someone is not doing their duties and ....". City Manager Reeves interjected "because that is a disciplinary thing and that is handled separately and under a different area". Director/Treasurer Hoffman stated "they appeal rights for that too". Council Member Broadhead requested the vote be handled on a change per change basis. He indicated he is fine with the Fire Department Members being "at will but there needs to be some way that an abusive Chief or Officer cannot just let somebody go without...". Council Member



Miller interjected "yeah, so clarification, it's only the Chief right? Now if he is influenced by someone else, but it is only the Chief who can make the firing. Right? Or does that need to be clarified? And I think maybe if you can explain, quickly, that rights that they have. Because I understand, again and respect were this is coming from, but I see it on the Fire Department it is not fair. It is not fair to the Fire Department to keep some of these people who are here for the tee-shirt and the rest of us are getting hurt. And so when we look at it and you say you have X amount of money to spend on turnouts you have X amount of money to do this and they're never getting touched. The turnouts are not getting used and people are kept on, from my perspective, because it's hard to get rid of them. It's a process to get rid of. Maybe there's something I don't know or don't see. So I understand where we're coming from but I also think we have to make this easier on the Chief to run the department and his employees". Council Member Hathaway stated "I know what Keith's trying to say, is all that we're saying is we want to give these guys somewhere to go to state their case. In other words they gotta be able to have their say somewhere whether it be to the Mayor or be to the...". Council Member Miller interjected "that is where I was asking for clarification. Maybe you can explain what happens now and is there a way to shorten that. Ok you got let go. You have a forty minute meeting with the Mayor. Done. At that point the Mayor says this, I know maybe you address that with..". City Manager Reeves interjected "so maybe the way to address it would be to say that terminations of at will employees need to be approved by the Mayor". Council Member Broadhead stated "that's fine as long as there is two eyes". City Manager Reeves said "so if you add the one line of at will employees needs to have the Mayor's signature on the termination". Council Member Jeffs stated "the Mayor needs to talk to the employee to. Not just the Chief". Council Member Miller said "if the Fire Chief comes and does a pretty good presentation to the Mayor, whether he likes this guy or it's a right or wrong, but he portrays it good to the Mayor and the Mayor agrees with it then I think you got to agree with it". Council Member Broadhead indicated "I would be good with that". City Manager Reeves asked "so the two provisions you would like to add is, maybe I will restate the motion in case someone wants to state so moved. If somebody were to make a motion to approve Resolution 03-11-2017, as written, with the modification to require that at will employees, upon termination, have to have the approval of the Mayor and that voluntary demotions would require the resetting of their salary back to a level commensurate to their new title and their years of service". Council Member Broadhead said "there you go".

Council Member Miller said "so moved". Council Member Hathaway seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 04-01-2017, "A Resolution Declaring Surplus Property of Santaquin City (Tasers)"***

Council Member Jeffs moved to approve Resolution 04-01-2017, "A Resolution Declaring Surplus Property of Santaquin City (Tasers)". Council Member Miller seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye



Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 04-02-2017, "A Resolution Amending the Consolidated Fee Schedule"***

City Manager Reeves reviewed the proposed changes to the Consolidated Fee Schedule. A discussion was held as to how to pay for water and sewer projects.

After the discussion, Council Member Miller moved to approve Resolution 04-02-2017, "A Resolution Amending the Consolidated Fee Schedule" with the addition of including the fee for recycling being \$5.19. Council Member Jeffs seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 04-03-2017, "A Resolution Approving a Water Agreement with Glade Robbins"***

Council Member Broadhead moved to approve Resolution 04-03-2017, "A Resolution Approving a Water Agreement with Glade Robbins" subject to the approval of the Summit Creek Irrigation of a diversion site. Council Member seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 04-04-2017, "A Resolution Approving a Water Agreement with Denny Brandon"***

Council Member Jeffs moved to approve Resolution 04-04-2017, "A Resolution Approving a Water Agreement with Denny Brandon". Council Member Broadhead seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 04-05-2017, "A Resolution Approving a Real Property Purchase Agreement in support of 2<sup>nd</sup> Access to Summit Ridge from the Santaquin Water Special Service District"***

Council Member Broadhead moved to approve Resolution 04-05-2017, "A Resolution Approving a Real Property Purchase Agreement in support of 2<sup>nd</sup> Access to Summit Ridge from the Santaquin Water Special Service District. Council Member Hathaway seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Ordinance 01-03-2017, "An Ordinance Amending the City Parks and Recreation Impact Fee Facilities Plan and Parks and Recreation Impact Fee Analysis"***

Council Member Hathaway moved to approve Ordinance 01-03-2017, "An Ordinance Amending the City Parks and Recreation Impact Fee Facilities Plan and Parks and Recreation Impact Fee Analysis". Council Member Broadhead seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

***Resolution 12-04-2016, "A Resolution Approving Addendum #5 of the Summit Creek Water Management Project"***

City Manager Reeves reviewed the proposed Resolution. He indicated he would like to include the same wording in the terms pertaining to Utah County's payment.

Council Member Miller moved to approve Resolution 12-04-2016, "A Resolution Approving Addendum #5 of the Summit Creek Water Management Project" with the additional wording "Santaquin City's payments under agreement are subject to annual appropriation of funds by Santaquin City Council Members. In event of non-appropriation of funds, Santaquin City will not be subject to penalty or additional expense and expense and a right of action will not accrue to the other parties". Council Member Jeffs seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

At 8:30 the Council took a 10 minute break.



***Santaquin City Council – Annual Employment Training***

City Manager Reeves conducted the Annual Elected Leader Training with regard to Employment, Open Meetings Act, Utah State Ethics and Auditor Training. He will be conducting a section of these training throughout a number of Council Meetings.

**CONVENE OF THE COMMUNITY DEVELOPMENT BOARD**

There wasn't a need to convene the Community Development Board.

**CONVENE OF THE SPECIAL SERVICE DISTRICT FOR ROADS MAINTENANCE**

There wasn't a need to convene the Special Service District for Roads Maintenance.

**CONVENE OF THE LOCAL BUILDING AUTHORITY OF SANTAQUIN CITY**

There wasn't a need to convene the Local Building Authority of Santaquin City.

Council Member Miller moved to enter into a Santaquin City Water District Meeting. Council Member Hathaway seconded the motion. The vote was as follows:

Council Member Broadhead	Aye
Council Member Hathaway	Aye
Council Member Jeffs	Aye
Council Member Miller	Aye

The vote was unanimous.

**CONVENE OF THE SANTAQUIN WATER DISTRICT**

***Resolution 04-01-2017SWD, "A Resolution Approving a Real Property Purchase Agreement for the sale of land to Santaquin City for the development of a 2<sup>nd</sup> Access to Summit Ridge***

Board Member Broadhead moved to approve Resolution 04-01-2017SWD, "A Resolution Approving A Real Property Purchase Agreement For The Sale Of Land to Santaquin City For The Development of A 2<sup>nd</sup> Access To Summit Ridge. Board Member Miller seconded the motion. The vote was as follows:

Board Member Broadhead	Aye
Board Member Hathaway	Aye
Board Member Jeffs	Aye
Board Member Miller	Aye

The vote was unanimous.

Board Member Miller moved to adjourn the meeting of the Santaquin Water District and return to the regular Council Meeting. Board Member Jeffs seconded the motion. The vote was as follows:

Board Member Broadhead	Aye
Board Member Hathaway	Aye
Board Member Jeffs	Aye
Board Member Miller	Aye

The vote was unanimous.



## **PETITIONS AND COMMUNICATIONS**

There weren't any Petition or Communications to discuss.

## **REPORTS OF OFFICERS, STAFF, BOARDS, AND COMMITTEES**

### ***City Manager Reeves***

City Manager Reeves reported the following:

- The Storm Draining Stake Holders Meeting will be held on April 26th at 3 pm in the Public Safety Training Room.
- The City is moving forward with planning of Town Hall Meetings as well as information publications for the proposed Senior's Center. He reported donations would be sought to help fund the project. He reported he is researching the possibility of forming a "City wide" 501c to be used for such purposes.
- Senate Bill 198 will have a negative effect on the billings which will be based on calls per service. The new Dispatch Director has been hired and will begin working shortly.

### ***Assistant City Manager Marker***

Assistant City Manager Marker reported the following:

- Maverik is finalizing their expansion plans which included extending Main Street East approximately 300 feet.
- Baseball is in full swing. Soccer is the next sport to begin.

## **REPORTS BY MAYOR AND COUNCIL MEMBERS**

### ***Mayor Hunsaker***

Mayor Hunsaker reported he and City Manager Reeves met with Darrin Whipple, Highline Canal Representative. They are currently working on being allowed to pump water above the canal. More information will be shared as it is available.

### ***Council Members***

Council Member Hathaway was told the Public Works Department is working on the meter installation for the Summit Creek water sources.

Council Member Jeffs requested the new Police Officers be invited to attend the next Council Meeting so the Council could meet them.

Council Member Broadhead reported a Representative from CUP was the speaker at the Central Utah Valley Municipal Water Association. There was some discussion with regard to when the project may be complete.

Council Member Miller was told by Assistant City Manager Marker the "Durrants" have a business license for their business within Provo City limits. They are using the large vehicle as a commuter vehicle. Santaquin City doesn't currently have an Ordinance addressing the use or parking of such vehicles.

He also was told the Building Official will be meeting with the City's Legal Counsel to discuss what can be done with condemning buildings that have suffered fire damage.

**EXECUTIVE SESSION** (May be called to discuss the character, professional competence, or physical or mental health of an individual)

There wasn't a need to hold an Executive Session to discuss the character, professional competence, or physical or mental health of an individual.



**EXECUTIVE SESSION** (May be called to discuss the pending or reasonably imminent litigation, and/or purchase, exchange, or lease of real property)

There wasn't a need to hold an Executive Session to discuss the pending or reasonably imminent litigation, and/or purchase, exchange, or lease of real property.


**ADJOURNMENT**

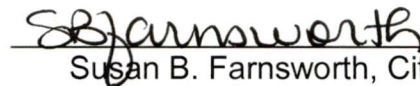
At 9:45 pm Council Member Miller moved to adjourn. Council Member Broadhead seconded the motion. The vote was as follows:

Board Member Broadhead	Aye
Board Member Hathaway	Aye
Board Member Jeffs	Aye
Board Member Miller	Aye

The vote was unanimous.

Approved on May 3, 2017.

  
Kirk Hunsaker, Mayor

  
Susan B. Farnsworth, City Recorder



**4-19-17 COUNCIL MEETING  
ATTACHMENT "A"**

Santaquin City  
2017 Booster Pump Station Project

Selection Committee Evaluation & Scoring

Proposing Firm	Rank	Relevant Experience (45 pts possible)	Methodology (35 pts possible)	Proposed Design Costs (20 pts possible)		Total Pts (100 pts possible)
Gilson Engineering	1	40.8	26.9	\$ 28,600.00	20.0	87.6
Jones & Demille Engineering	2	38.0	28.9	\$ 43,455.00	17.6	84.4
Sunrise Engineering	3	38.0	28.4	\$ 46,813.00	17.0	83.4
Horrocks Engineers	4	36.8	27.8	\$ 51,800.00	16.2	80.7
Epic Engineering	5	37.3	27.5	\$ 54,500.00	15.7	80.5
JUB Engineers	6	36.8	28.6	\$ 83,800.00	10.9	76.3





## Memorandum

To: Mayor Hunsaker and City Council  
From: Dennis L. Marker, Assistant City Manager  
Date: April 14, 2017  
Re: Rodeo Arena Lighting Bids

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Three bids were received for manufacturing and delivery of new lights for the rodeo arena. Based on information received, city **staff recommends the City Council contract with MUSCO lighting** for the new arena lighting. Although their bid was not the lowest submitted, their warranty terms, delivery period, history with the city, and demonstration of capability to deliver make them the best choice for this work.

The following table shows general bid response information

COMPANY	MUSCO	CODALE/ QUALITE	WESTLAND ELECTRIC
TOTAL PRICE	\$89,892	\$69,000	Non Responsive
DELIVERY PERIOD	28 Days	68 Days	35 Days
WARRANTY			
Parts	25 yrs	30 yrs	
Labor	25 yrs	5 yrs	
Lamps	25 yrs	2 yrs	20 yrs
Poles	25 yrs	30 yrs	
RELAMP	Yes		Yes

### Recommended Motion:

I move to authorize the Mayor to enter into a contract with MUSCO Lighting for the new rodeo arena lighting system, based on their submitted bid and for the amount of \$89,892.



SANTQUIN CITY CORPORATION  
Arena Lighting PROJECT  
BID TABULATION  
PREPARED April 11, 2017

PREPARED April 11, 2017	Codale		Westland Electric		Musco	
	Bid Form	Provided Docs	Bid Form	Provided Docs	Bid Form	Provided Docs
Arena Light Poles						
Manufacturer	Qualite		Techline Sports Lighting		Musco	
Product ID						
# of Poles	4	4	4	4	4	4
Cost Per Pole	11100		7895			
Total Cost					Included in Total	
Warranty	30		20		25	
Delivery (weeks)	7		3		4	
Shipping Cost	Included	Included	4225			
Total Cost Per Pole	44400		35805		Included in Total	
Arena Light Luminaires						
Manufacturer	Qualite		Techline Sports Lighting		Musco	
Product ID			ESL 1500 B			
# of Lights @ 30FC	44	22	24	24	24	
# of Lights @ 50FC		36		40		
Cost per Light	778	778	1184	1,184		
Total Cost			28416	28,416	Included in Total	
Warranty	30	Warranty indicates only 2 years	20		25	
Delivery (weeks)	7		5			
Shipping Cost	Included	Included	4225			
Total Cost for Luminaires @ 30FC	34232	17,116	30160		Included in Total	
Total Cost for Luminaires @ 50FC		28,008				
Light Pole Base Installation						
Estimated Cost	Non Responsive		Non Responsive		Included in Total	
Type	Direct Bury	Concrete Surround		Concrete Surround	Precast base	
Depth	TBD	Assumes 10-14'		10'		
Electrical Control Systems						
Manufacturer	Qualite		Techline Sports Lighting		Musco	
Product ID						
Cost per	7440				Included in Total	
Total Cost	7440					
Delivery (weeks)	7				4	
Shipping Cost	Included in Total					
Total Cost for Luminaires	7440					
Comments						
Bottom Line	\$ 69,000.00		Non Responsive		\$ 89,892.00	
Delivery Days	68		Non Responsive		28	
Monitoring	No		Unknown		Yes	
Arena Lighting Design						
Min		25		20.1		22.4
Max		36		39.0		44.2
Avg		31		30.0		33.2
Uniformity Value		1.4		1.4		2.0
Comments	Plan does not include northern and southern 20 feet of arena					
Warranty Info						
Labor		5				25.0
Parts		30				25.0
Luminaires		2		20.0		25.0
Poles	30	30				25.0
Assembly		10				25.0
Warranty of light level over time		90%				100%
Alignment		10				
Relamp				1.0		1.0

Additional Comments

Includes demolition of existing light poles  
Lamp has "visor"



# PRELIMINARY FOUNDATION AND POLE ASSEMBLY DRAWING

POLE ID	MOUNTING HEIGHT ft (m)	# OF LUMINAIRES	ASSEMBLED POLE WEIGHT <sup>3</sup> lb (kg)
P1	60 (18.3)	6	1587 (720)
P2	60 (18.3)	6	1587 (720)
P3	60 (18.3)	6	1587 (720)
P4	60 (18.3)	6	1587 (720)

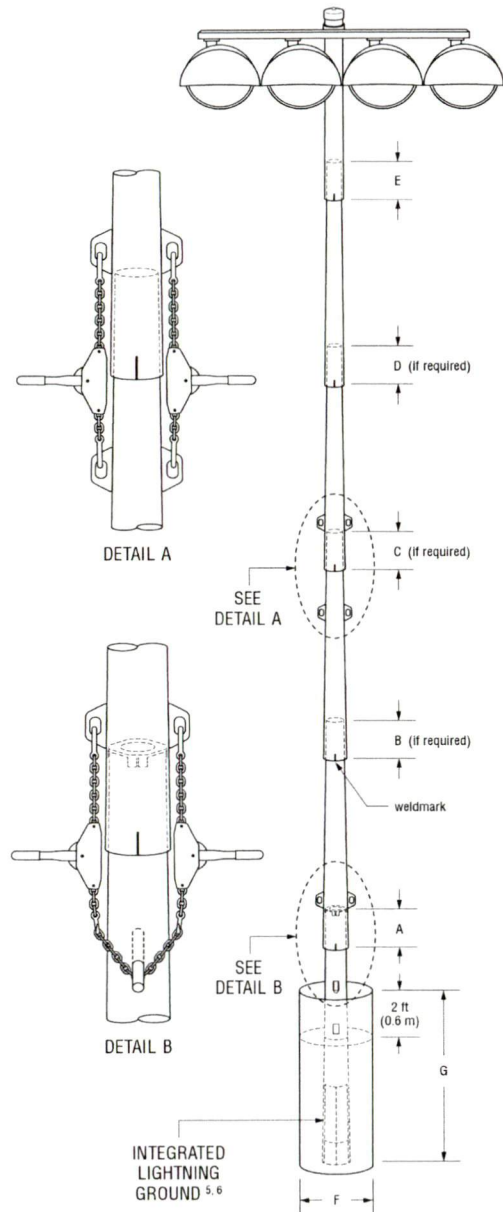
## Pole Assembly Notes:

1. Steel pole should overlap concrete base and be seated tight with 1 1/2 ton come-alongs (contractor provided)
2. Align weldmarks on steel sections before assembling.
3. Assembled pole weight includes steel sections, crossarms, luminaires, and electrical components enclosures.
4. This document is not intended for use as an assembly instruction. See *Installation Instructions: Light-Structure Green Lighting System™* for complete assembly procedure.

POLE ID	CONCRETE BASE WEIGHT lb (kg)	F in (mm)	BURIAL INFORMATION <sup>3,4</sup> G ft (m)	CONCRETE BACKFILL <sup>1,2</sup> yd <sup>3</sup> (m <sup>3</sup> )	CUT BASE	LIGHTNING GROUND <sup>5</sup> TYPE	SUPPLEMENTAL INSTRUCTION
P1	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
P2	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
P3	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
P4	2710 (1229)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	

## Foundation Notes:

1. Concrete backfill is calculated to 2 ft (0.6m) below grade (no overage included). Top 2 ft (0.6m) to be class 5 soil compacted to 95% density of surrounding undisturbed soil unless otherwise specified in stamped structural design.
2. Concrete backfill required 3000 lb/in<sup>2</sup> (20 MPa) minimum unless otherwise specified in stamped structural design.
3. Foundation design per 2012 IBC, 115 mph, exposure category C, variation STD (Risk Category II).
4. Assumes IBC class 5 soils.
5. Standard bases include integrated lightning protection. If bases are cut, supplemental lightning protection is required. Contact Musco for materials and instruction.
6. Lightning protection is a manufacturer installed concrete encased electrode and connector. Ground connection is made when concrete base is installed and footing is poured. No additional steps required.





MUSCO LIGHTING PROPOSAL  
PREPARED FOR:

**Santaquin City Rodeo Arena**

Lighting Project  
Santaquin, UT  
April 7, 2017

Project #184079

*Submitted by:*

**Musco Sports Lighting, LLC**

2107 Stewart Road  
Muscatine, Iowa 52761  
Toll Free: 800-756-1205  
Fax: 800-374-6402



- A. MUSCO LETTER**
- B. LIGHTING DESIGN**
- C. STRUCTURAL INFORMATION**
- D. WARRANTY**
- E. PRODUCT INFORMATION**





## **What Are Some Of The Advantages Of Musco's Sports Lighting System?**

1. **Lamp Life.** Musco's 1,500 watt Metal Halide Lamp is rated to last over 5,000 hours. Some other lamps are rated at only 3,000 hours of lamp life. Longer lamp life means less frequent relamping and the associated costs for doing so, which can really add up over time.
2. **Light Levels.** Musco provides "Constant Light" thru a series of automated timed power adjustments during the life of our lamps. We are the only company with this patented technology for sports lighting, so we know that our light levels will remain constant. Other manufacturers provide "Initial" light levels and "Maintained" light levels because their lamps depreciate (provide much less light over time.) This typically results in a higher number of fixtures (lamps) needed to light the arena compared with Musco.
3. **Energy Consumption.** Musco's System typically uses 30% to 40% fewer fixtures than other systems which mean significant energy cost savings over the years. Many Cities have projected 25 year life-cycle cost savings of many thousands of dollars with Musco's Light-Structure Green System compared with other systems, based on 200 to 400 hours per year of usage. When the usage is higher, then the life-cycle cost savings are even more when compared with other systems. This can easily be calculated for various systems based on their lighting designs and projected hours of usage provided by the City.
4. **Quality of Components.** Musco's fixture is composed of solid die-cast aluminum housing while others typically use a thin spun aluminum housing. Musco's hot dipped galvanized steel pole slip fits onto our pre-cast concrete base and rests about two feet above the ground so there is no ledge to collect water and rust, like on a typical anchor bolt base. Musco's pole and system design should last much longer from a structural standpoint than a standard pole on a typical anchor bolt base. Many other examples of our quality components could be given. This is important because better quality parts means less costs on repairs over the years.



5. Internal Wiring. The wiring in Musco's crossarm is all internal. Some manufacturers have external "SO" cords which dangle outside the crossarm and are exposed to the sun, rain, snow, wind, birds, etc. which leads to costly repairs for replacement parts down the road, and the costs associated with a lift needed to get to the top of the pole to make those repairs.

6. Warranty. Musco's Light-Structure Green System comes with our 25 year warranty which covers materials AND labor for 25 years and includes one group re-lamping at the end of the useful lamp life of 5,000 hours. We encourage people to read the fine print of our warranty because it is very comprehensive and we have the human resources (people) to back it up.

**Musco has trained Field Technicians who work full time doing service and warranty work. This is an excellent service which Musco has a great reputation for providing.**

7. Controls & Monitoring Cabinet. Musco's Light Structure Green System comes with our controls and monitoring cabinet for controlling the lights remotely (on a computer or smart phone) or with a simple phone call to Musco's Control-Link Central. We also proactively monitor the lights so that we can be aware of any lamp outages.

8. Spill & Glare Control. Musco has the most advanced spill and glare control technology in the industry. This becomes important to neighbors who live close to the lighted arena, as well as to the participants and any spectators. The amount of spill light can be quantified by manufacturers by providing horizontal spill scans at a certain distance from the fields, to demonstrate the actual amount of spill light. Glare light is what annoys spectators and neighbors and Musco's fixtures do a great job at controlling glare light. Seeing is believing.

9. Light Testing After Installation. Musco will have a Field Sales Rep complete a light test following installation to verify light levels in writing. Most other systems are sold thru distributors, and it can be a real challenge getting someone on site who even knows how to do this light testing to verify that the City actually got what they paid for.





10. Remote Ballast Box. Musco's Light-Structure Green System comes with a remote ballast box which is mounted onto each pole about 10' above the ground and is easily accessible with a step ladder. Some other systems have the ballast mounted directly behind the fixture at the top of the pole which often means paying for a lift to access the top of the pole when there is a problem with the ballast.

These are just a few things to remember as to why Musco really is the BEST sports lighting system available. There are "cheaper" lighting systems available in the short term if just looking at materials only costs, but there is a reason why they are cheaper, and in the long term Musco's Light-Structure Green System will save the City significant dollars, while providing better lighting on the arena and significantly less spill and glare light off the fields, for a much longer period of time. We are so confident in our system that it is all backed up by Musco's Constant 25 year materials and labor warranty!



## Pole / Fixture Summary

Pole ID	Pole Height	Fixture Qty	Lamp Type	Group
P1	60'	6	1500W MZ	A
P2	60'	6	1500W MZ	A
P3	60'	6	1500W MZ	A
P4	60'	6	1500W MZ	A
<b>4</b>		<b>24</b>		

## Calculation Grid Summary

Grid Name	Calculation Metric	Light Level				Uniformity		Groups	Fixture Qty
		Type	Ave	Min	Max	Max/Min	Ave/Min		
Blanket Grid	Horizontal Illuminance	Constant	17.8	0.11	44	410.71	165.93	A	24
Rodeo Arena	Horizontal Illuminance	Constant	33.2	22.4	44.2	1.98	1.48	A	24

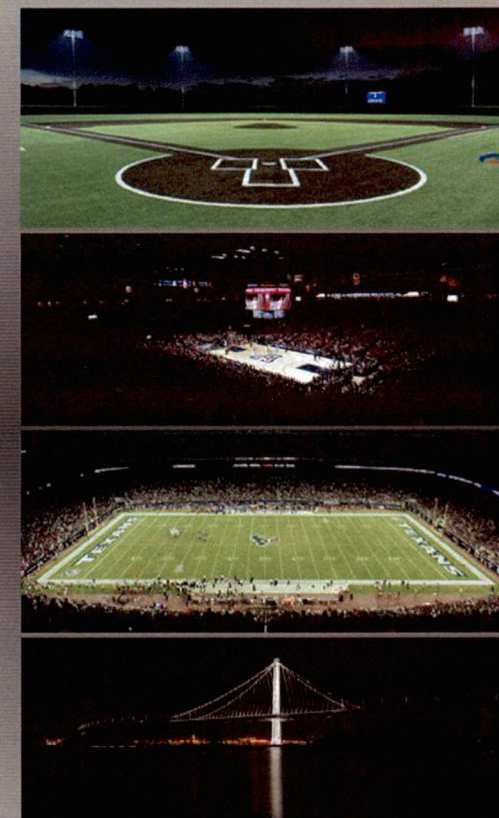
## Group Summary

Group	Description	Load	Fixture Qty
A	Rodeo Arena	37.54 kW	24

## MY PROJECT

Name: Santaquin City Rodeo Arena  
Location: Santaquin, UT

## From Hometown to Professional



We Make It Happen®

## ENGINEERED DESIGN

By: Brad Ver Steegh  
File # / Date: 184079c

05-Apr-17

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PROJECT SUMMARY



# EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	P1	60'	6'	66'	1500W MZ	6	6	0
1	P2	60'	7'	67'	1500W MZ	6	6	0
1	P3	60'	11'	71'	1500W MZ	6	6	0
1	P4	60'	9'	69'	1500W MZ	6	6	0
4	TOTALS					24	24	0



## MY PROJECT

Name: Santaquin City Rodeo Arena  
Location: Santaquin, UT

## GRID SUMMARY

Name: Rodeo Arena  
Size: 300' x 250'  
Spacing: 20.0' x 20.0'  
Height: 3.0' above grade

## CONSTANT ILLUMINATION

SUMMARY	HORIZONTAL FOOTCANDLES
	Entire Grid
Guaranteed Average:	30
Scan Average:	33.22
Maximum:	44.21
Minimum:	22.38
Avg / Min:	1.48
Guaranteed Max / Min:	2.5
Max / Min:	1.98
UG (adjacent pts):	1.34
CU:	0.51
No. of Points:	123
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Design Usage Hours:	5,000 hours
Design Lumens:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	24
Avg KW:	37.54 (40.8 max)

**Guaranteed Performance:** The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the design usage hours of the system.

**Field Measurements:** Illumination measured in accordance with IESNA RP-6-15 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

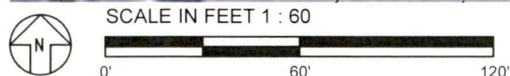
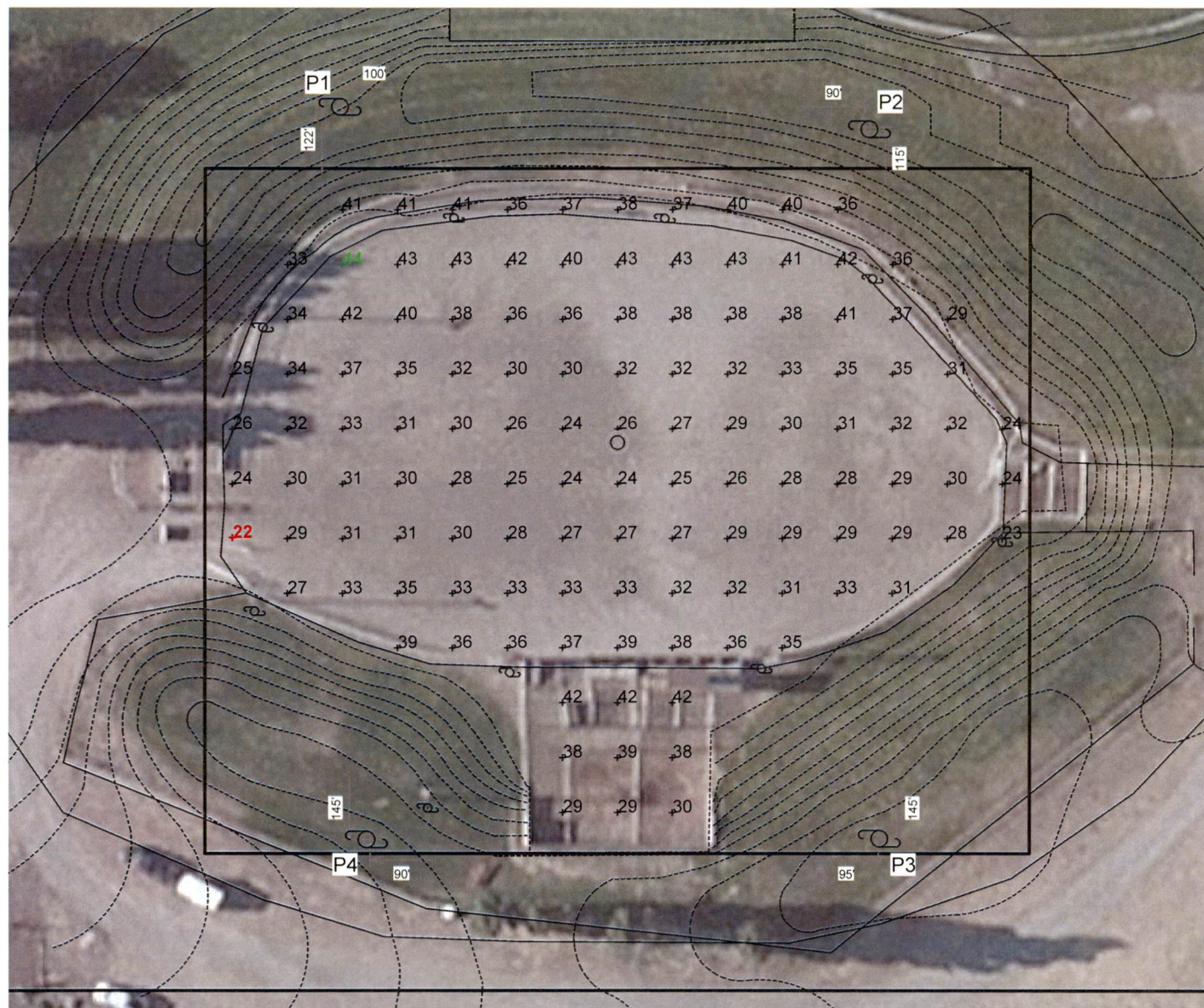
**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

## ENGINEERED DESIGN

By: Brad Ver Steegh  
File # / Date: 184079c 05-Apr-17

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Pole location(s) + dimensions are relative to 0,0 reference point(s) X

## ILLUMINATION SUMMARY



## EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	P1	60'	6'	66'	1500W MZ	6	6	0
1	P2	60'	7'	67'	1500W MZ	6	6	0
1	P3	60'	11'	71'	1500W MZ	6	6	0
1	P4	60'	9'	69'	1500W MZ	6	6	0
4	TOTALS					24	24	0



## MY PROJECT

Name: Santaquin City Rodeo Arena  
Location: Santaquin, UT

## GRID SUMMARY

Name: Blanket Grid  
Size: 500' x 400'  
Spacing: 20.0' x 20.0'  
Height: 3.0' above grade

## CONSTANT ILLUMINATION

SUMMARY	HORIZONTAL FOOTCANDLES
Entire Grid	
Scan Average:	17.77
Maximum:	43.98
Minimum:	0.11
Avg / Min:	165.93
Max / Min:	410.71
UG (adjacent pts):	6.64
CU:	0.81
No. of Points:	366
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Design Usage Hours:	5,000 hours
Design Lumens:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	24
Avg KW:	37.54 (40.8 max)

**Guaranteed Performance:** The CONSTANT ILLUMINATION described above is guaranteed for the design usage hours of the system.

**Field Measurements:** Illumination measured in accordance with IESNA RP-6-15 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

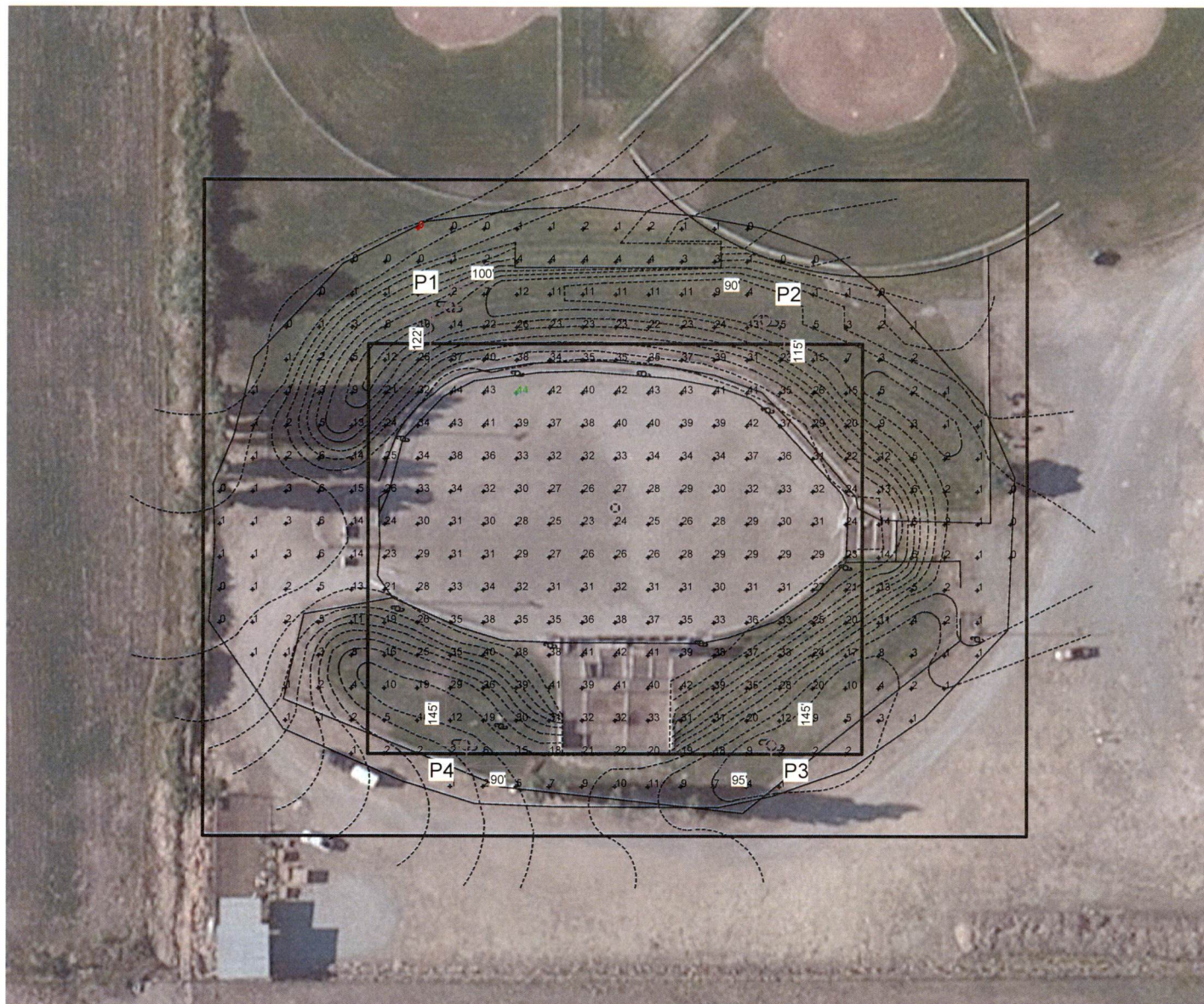
**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

## ENGINEERED DESIGN

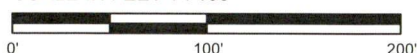
By: Brad Ver Steegh  
File # / Date: 184079c

05-Apr-17

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SCALE IN FEET 1 : 100



Pole location(s) + dimensions are relative to 0,0 reference point(s) ⊗





## MY PROJECT

Name: Santaquin City Rodeo Arena  
Location: Santaquin, UT

## EQUIPMENT LAYOUT

### INCLUDES:

- Blanket Grid
- Rodeo Arena

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

## EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires			QTY / POLE
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE		
1	P1	60'	6'	66'	1500W MZ		6
1	P2	60'	7'	67'	1500W MZ		6
1	P3	60'	11'	71'	1500W MZ		6
1	P4	60'	9'	69'	1500W MZ		6
4	TOTALS						24

## SINGLE LUMINAIRE AMPERAGE DRAW CHART

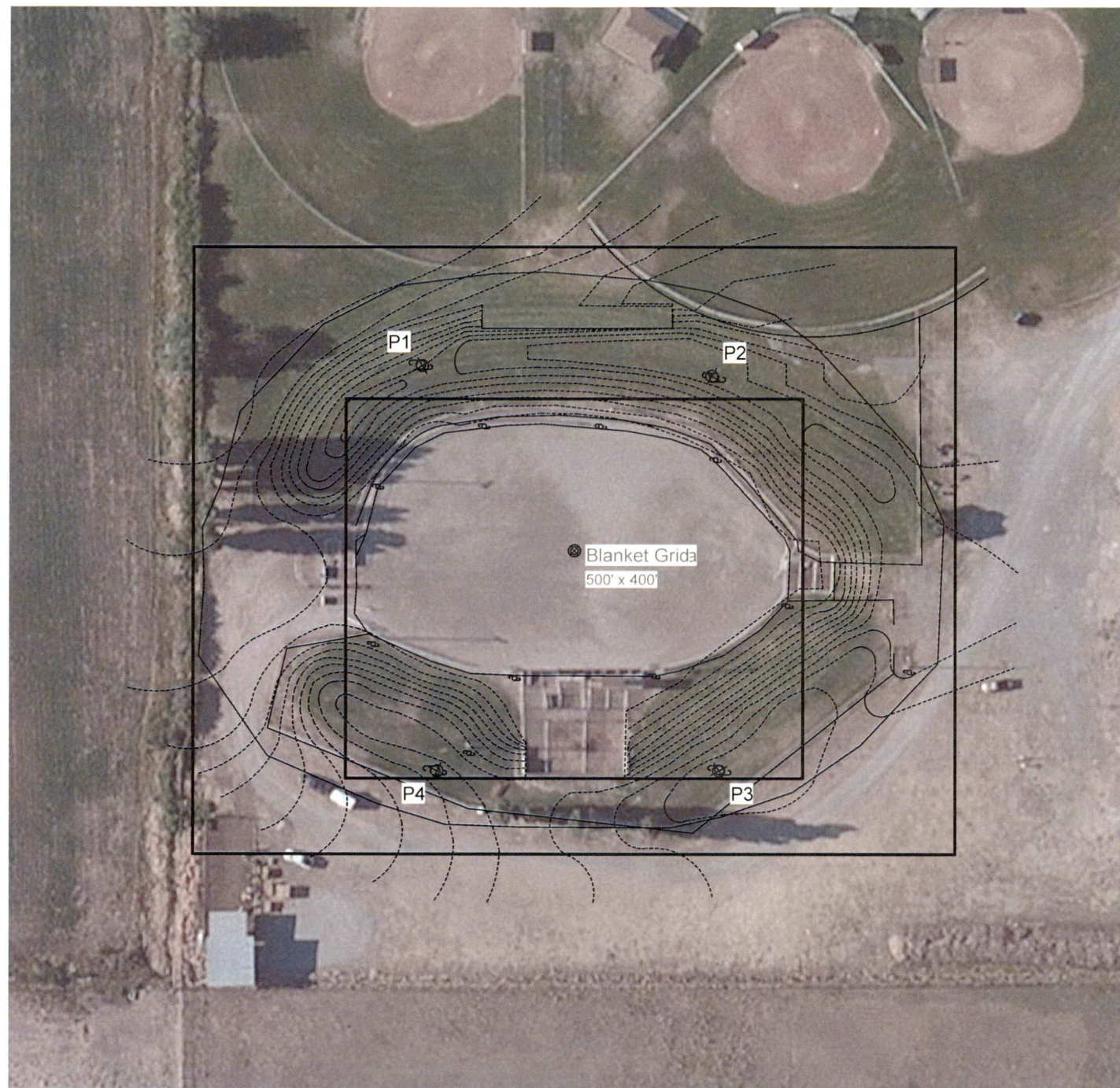
Ballast Specifications (.90 min power factor)		Line Amperage Per Luminaire (max draw)					
Single Phase Voltage		208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
1500 watt MZ		8.6	8.3	7.5	6.5	5.1	4.7

## ENGINEERED DESIGN

By: Brad Ver Steegh  
File # / Date: 184079c

05-Apr-17

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SCALE IN FEET 1 : 100



Pole location(s) + dimensions are relative to 0,0 reference point(s)



AWING

E 2: FOUNDATION DETAILS

INFORMATION <sup>3,4</sup>	CUT BASE	LIGHTNING GROUND <sup>5</sup>	SUPPLEMENTAL INSTRUCTION
CONCRETE BACKFILL <sup>1,2</sup>		TYPE	
yd <sup>3</sup> ( m <sup>3</sup> )			
1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	
1.5 (1.1)	NO	INTEGRATED <sup>6</sup>	

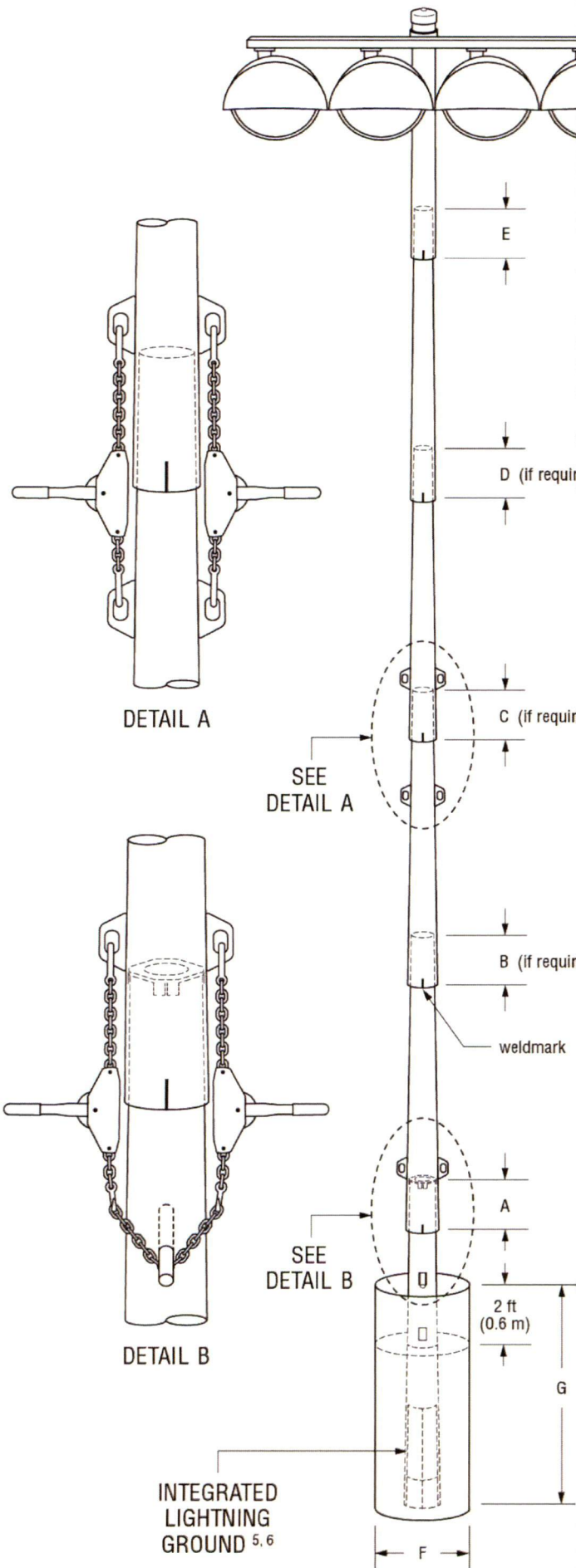
slow grade (no overage included). Top 2 ft (0.6m) to be class 5 soil (disturbed soil unless otherwise specified in stamped structural design.

1) minimum unless otherwise specified in stamped structural design.

2) exposure category C ,variation STD (Risk Category II).

3) protection. If bases are cut, supplemental lightning protection is required.

4) d concrete encased electrode and connector. Ground connection is made poured. No additional steps required.



Santaquin City Rodeo Arena - Santaquin, UT, USA

Date: 04/05/2017

Scale: N/A

Rep: Shane White

Page: 1 of 1

Project: 184079

Preliminary







# Musco Constant 25™

## 25-Year Product Assurance & Warranty Program

Musco Sports Lighting, LLC will provide all materials and labor to maintain operation of your lighting system to original design criteria for 25 years, or until maximum hours of coverage have accumulated, whichever comes first. Musco products and services are guaranteed to perform on your project as detailed in this document.

### Light

Average Constant Light™ illumination levels are guaranteed through Musco's Smart Lamp® power regulator and service technology.

Musco will electronically monitor lamp operation and operating hours, and will group re-lamp as described in the Project Details on the following page.

Individual lamp outages that occur during the lamp warranty and maintenance period are repaired when the usage of any field is materially impacted. If actual usage exceeds the maximum hours of coverage, the customer will be required to purchase lamp replacements in order to maintain the warranty to the end of 25 years.

### Energy Consumption

Average and maximum energy consumptions for your lighting system are guaranteed.

### 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™ service center staff is available toll-free 24/7. Regular usage reports are always available on Control-Link Central's web site.

### Structural Integrity

Your project has been designed to IBC 2012 115mph Exposure C.  
Structural integrity of equipment manufactured by Musco is guaranteed.

Musco has a team of people to ensure fulfillment of our product and services warranty and maintains financial reserves dedicated to support our fulfillment of this warranty. Please keep this document as your signed contract guaranteeing comprehensive service for the 25 year period.





# Musco Constant 25™

25-Year Product Assurance & Warranty Program

## Project Details

Project Name: Santaquin City Rodeo Arena Project Number: 184079

Owner: City of Santaquin City: Santaquin State: UT

Product(s) Covered: Light-Structure Green™

Date Issued: Date of Shipment

Expiration: Date of Shipment or maximum hours of coverage noted below, whichever occurs first

Total Average kW per hour: 37.5 Total Maximum kW per hour: 40.8

Musco products and services are guaranteed to perform on your project as follows:

Field/Zone	Fixture Quantity	Lamp Type/ Lamp Hours	Average Target Constant Light Level	Uniformity Max/Min	Total Relamps Included	Estimated Annual/25- Year Estimated Usage Hours	Maximum Hours of Coverage
Rodeo Arena	24	1500W MZ / 5,000	30FC	2.5:1.0	1	300 / 7,500	10,000





# Musco Constant 25™

## 25-Year Product Assurance & Warranty Program

### Terms and Conditions

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 on page 2.

"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 8AM 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 and installation 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 in the lowest alpha-numeric numbered enclosure. Musco will replenish spare fuses used.

You agree to keep your Green Generation Lighting system online. This means keeping the required control voltage to the control system at all times. Any deviation from this practice must be discussed with Musco's Warranty Department.

- 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.** For the purposes of and by your acceptance of this Contract you acknowledge and agree that if a surety bond ("Bond") is provided the warranty and/or maintenance guarantee provided for in this Contract and any corresponding liability on behalf of the issuing surety under the Bond is limited to the first twelve (12) months of said warranty and/or maintenance guarantee coverage period. Any warranty and/or guarantee coverage period in excess of said initial 12 month period does not fall within the scope of the Bond and shall be the sole responsibility of Musco.
  - d.** 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:** Except to owners, 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; however, 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*

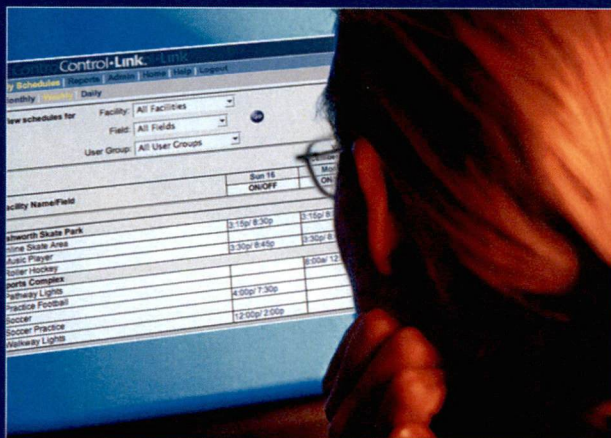
*your desk*

*your field*

*your home*

*your phone*

*... from anywhere*



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

Summary by Facility		Total Hours Usage
Facility		0.00
Jimmy Porter		28.45
Josey Park		131.25
McDonish 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	
McDonish Park	Field 3 Orange	
McDonish 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, and on-site manual controls are provided for your maintenance staff.

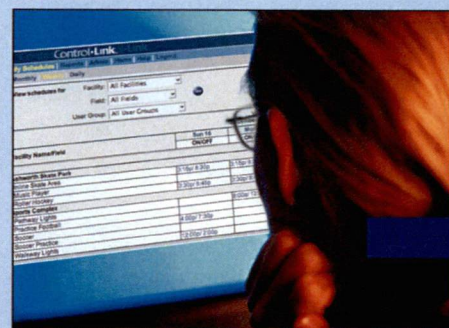
### **Solid management tools reduce hassle**

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**



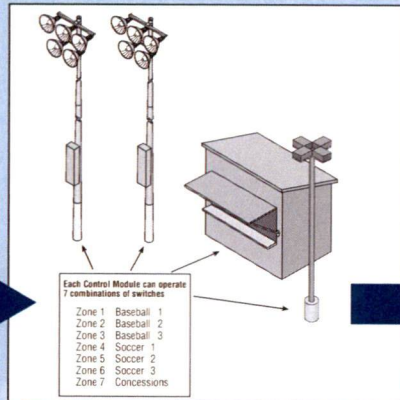
### **1 Enter schedules at your convenience**

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 5000 fields per night and have experience with controlling over 1.7 million schedules per year worldwide.



"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 three options for management and control of your facilities:

- Directly control your fields via an easy-to-use website
- Enter, edit, and update your schedules from your web-enabled smart phone
- 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 amount of 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, your warranty specialist 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 call 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
McInnis 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	OnNow 6:07p/6:15p/10:15p			
Field 3 Orange	5:47p/10:15p		5:48p/11:00p	OnNow 6:07p/6:15p/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	OnNow 9:16p/9:30p/11:30p	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 (Auto Only)  
By Facility, Field  
Usage Type of Light Usage  
June, 2010

Summary by Facility		Total Auto Hours Usage	Total Hours Saved from Early Offs
Facility			
Cowley		112:50	17:08
Dunbar		64:53	29:46
Garland Parklet		49:48	0:00
Herschel Field		256:47	26:05
<b>Total:</b>		<b>484:18</b>	<b>72:59</b>

Summary by Facility, Field		Total Auto Hours Usage	Total Hours Saved from Early Offs
Facility	Field		
Cowley	Baseball	63:04	17:08
Cowley	Basketball	49:46	0:00
Dunbar	Baseball	64:53	29:46
Garland Parklet	Courts	49:48	0:00
Herschel Field	(Lower) Baseball-FB	81:22	10:23

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

**A Message from the Control-Link Staff**

This site was developed as a tool for managing your lighted facilities. Your scheduling and reporting needs are a high priority to us at Control-Link Central. Any time you have a question or a new idea, please contact our online support!

**We're here to help you!**  
24 Hours a Day - 7 Days a Week - 365 Days a Year

**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)
- Surge protection device

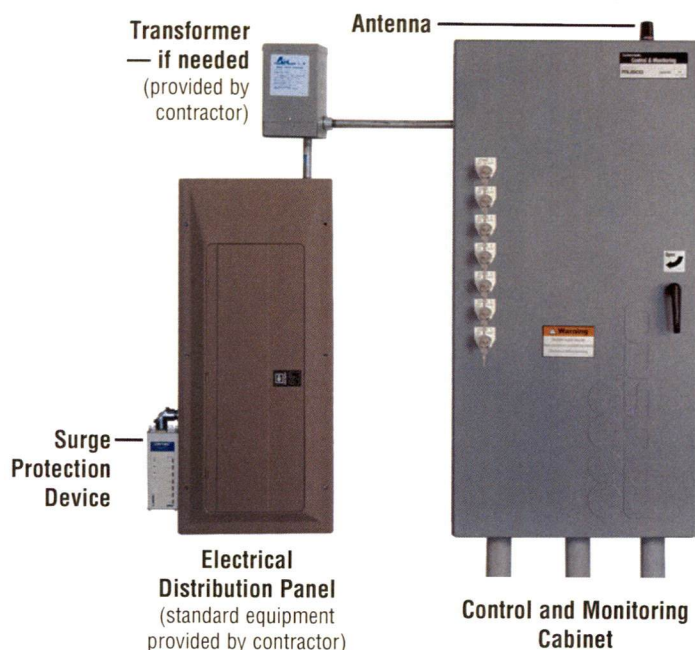
### Optional Equipment

- Remote Manual Switches cabinet

### Supplied by Contractor

- Main disconnect (electrical distribution panel), conduit, and power wiring
- 20A control circuit
- Transformer if control voltage 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 7 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: 72 inch – 150 lbs., 48 inch – 125 lbs. Project specific details available upon request

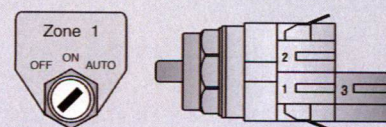
#### Enclosures

- 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

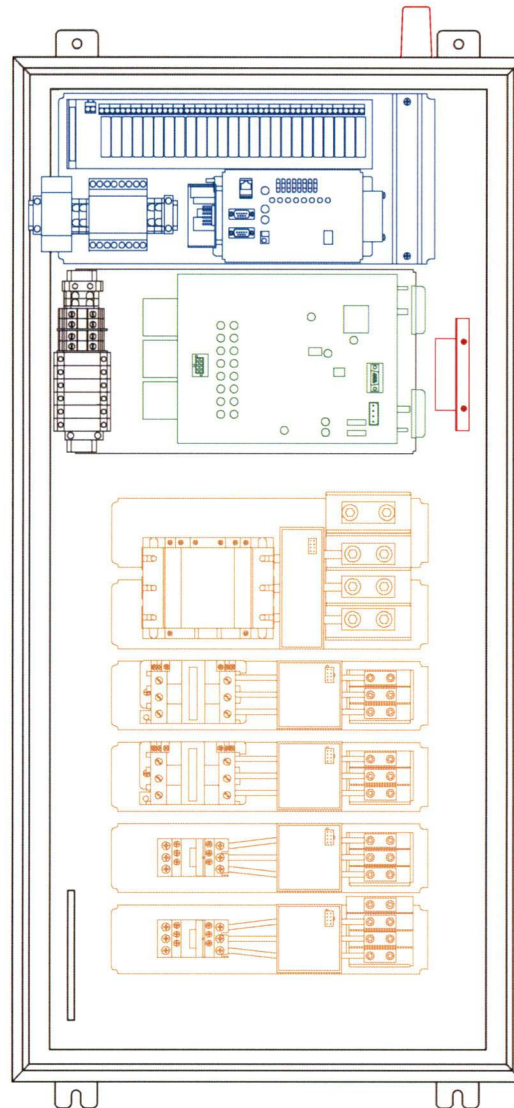
Monitors your lighting system and reports any fixture outages to help plan routine maintenance and keep your facilities operating.

## Contactor Switching Modules

Switches your equipment on and 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.



(Small Enclosure shown)

## 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 or 240 phase to neutral volt coil options

### 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	Line Side Wire Size Range*	Load Side Wire Size Range*	Maximum Per Small Cabinet	Maximum Per Large Cabinet
30 amp	3-10 AWG	2/0-14 AWG	6	12
60 amp	2-10 AWG	2/0-14 AWG	6	12
100 amp	2/0-14 AWG	350mcm-6 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.

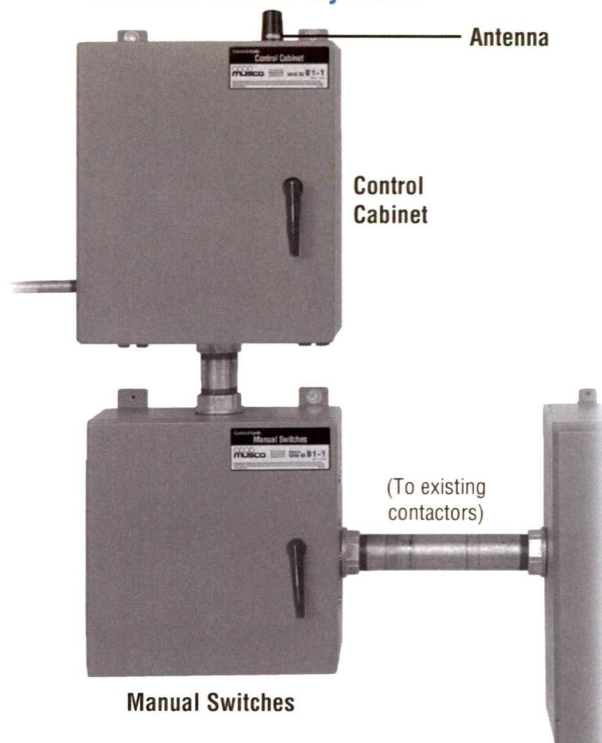
Your factory-built and tested Control-Link equipment includes

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

### Supplied by Contractor

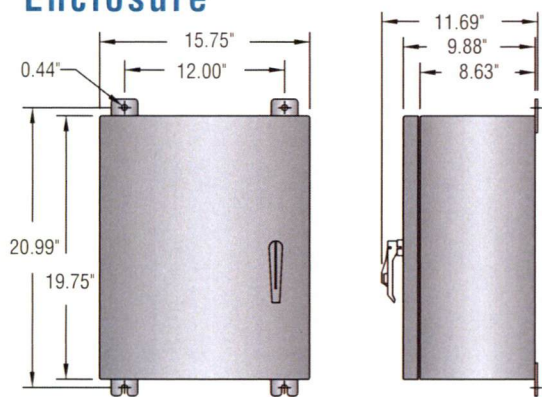
- Main disconnect (electrical distribution panel), conduit, and power wiring
- 20A control circuit
- Transformer if control voltage supply not available
- Mounting hardware for cabinets
- Conduit and NEMA Type 4 hubs

### Control-Link® System

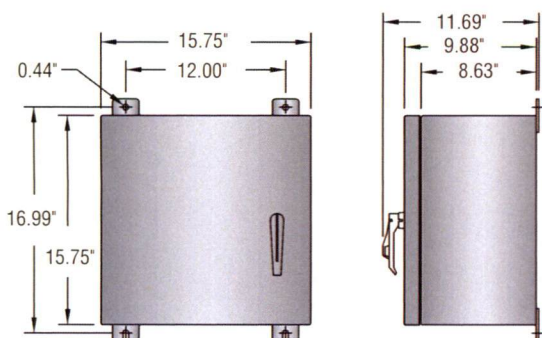


## Control Cabinet

### Enclosure



Control Cabinet



Manual Switches Cabinet

## 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 7 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

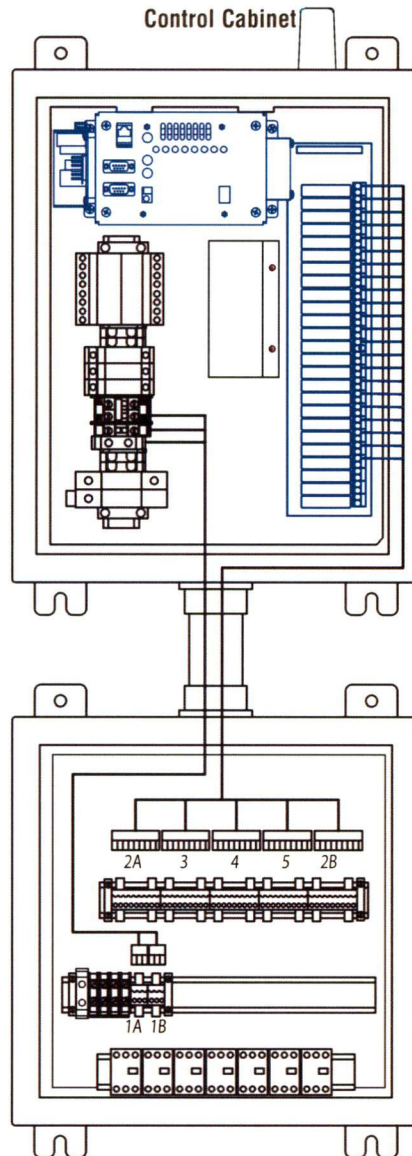
The on-site Control Cabinet operates your existing sports facility's lights and equipment, allowing you to manage your schedules and facility usage from your home, office, or anywhere.

## On/Off Control Module

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

## Communication Modem Module

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



**Manual Switches Cabinet**  
(connections behind switches)

## Technical Features

### Panel

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

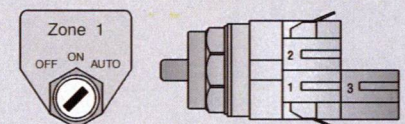
### Communication Modem

- 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)

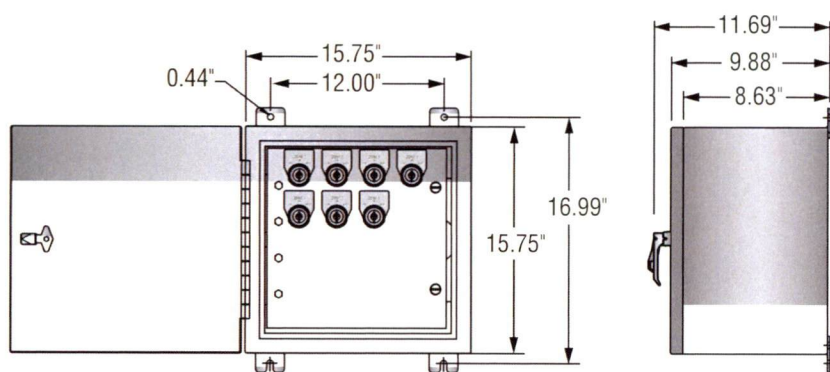
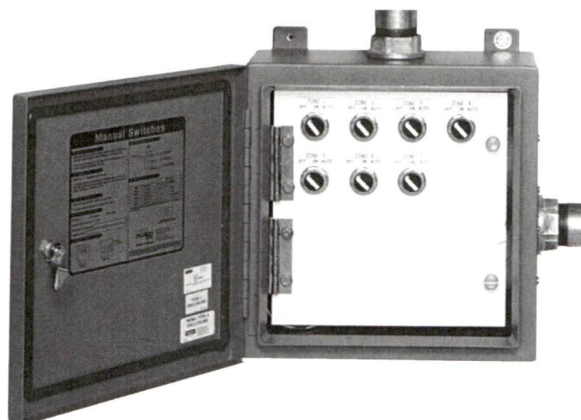




# Remote Manual Switches Cabinet

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



# 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*



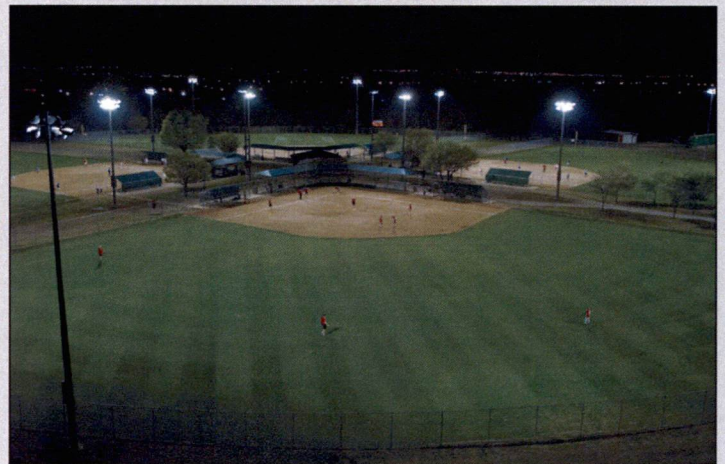
**Corona Park, California**

## 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.

- Cuts operating costs in half
- Reduces off-site spill light by 50%
- Eliminates 100% maintenance costs for 25 years, including lamp replacements
- Provides guaranteed Constant Light™ levels

## SportsCluster Green™

### Outdoor & Indoor: Retrofit Applications

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

- Cuts operating costs in half
- Reduces off-site spill light by 50%
- Eliminates 100% maintenance costs for 10 years, including lamp replacements
- Provides guaranteed Constant Light™ levels

## 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

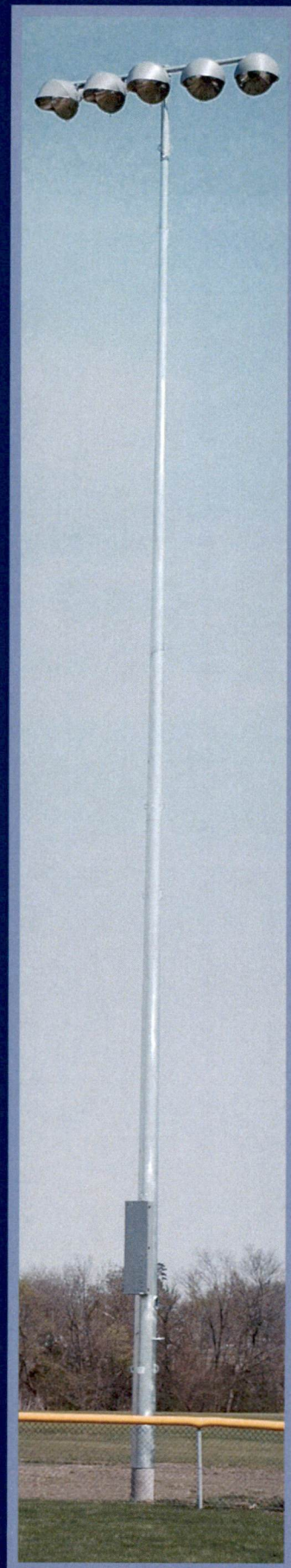


**We Make It Happen.®**

[www.musco.com](http://www.musco.com)

email: [lighting@musco.com](mailto:lighting@musco.com)

United States Patents: D411096, D567422, D567433, D573752, D574098, D577149, D593883, 5398478, 5426577, 5600537, 6036338, 6203176, 6250596, 6681110, 6969034, 7059572, 7176635, 7209958, 7452108, 7500764, 7527393, 7547118, 7675251, 7600901, 7736024, 7740381. Chinese Patents: ZL200530139426.7, ZL200680008460.2, ZL200680008829.X, ZL200680008830.2, ZL200680008832.1. U.S. and foreign patents pending. [033R40\_101510]



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B-5050-11



MUSCO LIGHTING PROPOSAL  
PREPARED FOR:

**Santaquin City Rodeo Arena**

Lighting Project  
Santaquin, UT  
April 7, 2017

Project #184079

*Submitted by:*

**Musco Sports Lighting, LLC**

2107 Stewart Road  
Muscatine, Iowa 52761  
Toll Free: 800-756-1205  
Fax: 800-374-6402



**We Make It Happen.**



April 11, 2017

Mr. Dennis Marker  
Assistant City Manager  
Santaquin, City  
[dmarker@santaquin.org](mailto:dmarker@santaquin.org)

Re: Santaquin Rodeo Lights

Subj: Electrical Proposal

Dear: Dennis Marker

Westland Electric submits the following electrical proposal for the **BID** project located in **Santaquin, Utah**. We have prepared our proposal in compliance with the contract document drawings **As Per Plan**. Santaquin, City acceptance of **Westland Electric** bid, in writing, is Santaquin, City agreement to the terms and conditions herein. In accepting our bid signed or not, you are agreeing that **you will incorporate the terms and conditions of this electrical proposal into any writing subsequently entered between Santaquin, City and Westland Electric, which writing will not supersede any of the terms in this proposal.**

Electrical Proposal \$185,400.00  
This price includes tax

**I. SCOPE of WORK – CLARIFICATIONS / CONSIDERATIONS:**

1. Our Utah Electrical Contractor's License is # 4931859-5501
2. It is our request that this Scope letter is made part of our Subcontract. This proposal has been based on an AIA Document A401-1997 Sub-Contract. Subcontract being issued to **Westland Electric** for the performance of this work.
3. We have excluded all plan check, city and county permits, and engineering fees.
4. Our proposal does not include job site security, sanitary facilities, refuse disposal.
5. Excluded are all utility company fees and utility bills.
6. Our proposal does not include a Performance Bond.
7. This proposal shall remain valid for a period of 30 days from the above date.
8. It is anticipated that all work will be performed during normal working hours, 7:00 AM to 3:30 PM.
9. Included is 4 60foot light poles, trenching, backfill (native fill). For 2" PVC conduits with 2 – 2/0 copper, 1-#6 copper.
10. 3/4" 10' ground rod next to each pole is included
11. Hauling off excess dirt is excluded
12. Compaction testing is excluded for all trenching
13. Demo of 8 existing light Poles is included. As per plan
14. Our proposal excludes budget for a basic temporary service to provide power for small hand tools and general "non-task" lighting. This budget excludes power to job trailers and all Utility Company costs.
15. All cutting, removal, and patching of asphalt is excluded will be performed by others.
16. Backing that may be required for the installation of all equipment is excluded.
17. The equipment, cabling, rough in, and installation is excluded for all low voltage systems, such as Security, Sound, Telephone/Data, etc.
18. **Any work and/or material that are not specifically defined in this proposal are excluded. (Any additions or**



---

*Creating a Powerful Standard*

changes in quantities outside the scope of this project will be considered a change and will be subject to additional costs).

19. Owner is responsible for all unforeseen difficulties

II. **NON-SCOPE TERMS**

- A. This bid is based upon the drawings provided by Santaquin, City. Santaquin, City warrants that construction methods, fixtures, systems, panels, relays, disconnect, and other such devices specifically called for in the plans and specifications provided to **Westland Electric** for bidding purposes meet electrical codes at the time of the electrical inspection. If the drawings call for specific methods, systems, panels, relays, disconnects and other such devices, which do not meet current electrical code, then Santaquin, City will issue a change order to meet code requirements. Santaquin, City will respond in a timely manner to **Westland Electric** requests for information.
- B. This proposal is an offer to enter a standard **AIA Document A401-1997 Sub-Contract**, modified only to include the contract drawings and bid specifications set forth herein above and the terms and conditions of this Electrical Proposal letter.
- C. Santaquin, City will make progress payments to **Westland Electric**, monthly. Progress payments will include all materials, fixtures, and equipment delivered to the site, and stored on site, at a site agreed to in writing.
- D. This proposal is based on **Westland Electric** performing all work during normal work hours and per an appropriately sequenced construction schedule. As soon as possible, after execution of this Agreement and within a reasonable time before work is to commence on this project, Santaquin, City and **Westland Electric** will cooperate in deriving a construction schedule, which will be coordinated between trades to avoid interferences and conflicts in work between the trades. Construction's schedule will provide optimal efficiency of electrical installation, objectively considering appropriate manpower requirements. Any material acceleration of work by Santaquin, City will be the subject of a change order. **Westland Electric** will not be responsible for the costs of delays caused by the Owner, Santaquin, City, other trades or third persons not the employees, agents, or subcontractors of **Westland Electric**. Santaquin, City will pay to **Westland Electric** its costs to protect finished work, or uncover and recover work, due to an inappropriate construction schedule or because of material delay or acceleration, which is not the fault of **Westland Electric**.
- E. Santaquin, City will promptly negotiate change orders. **Westland Electric** may stop that electrical work which is affected by Santaquin, City requested change order until Santaquin, City provides **Westland Electric** with a written change order executed by appropriate persons. **Westland Electric** will be paid for its costs of delay, acceleration, and uncovering and recovering resulting from Santaquin, City direction to proceed during a delay in issuing change orders.
- F. Contractor agrees that **Westland Electric** does not have the ability and has not had the opportunity to ascertain the financial ability of Owner to pay for the work performed by **Westland Electric**, and that **Westland Electric** does not rely on Owner therefore.



*Creating a Powerful Standard*

- G. Do to the Extreme volatility of the commodity prices of copper and aluminum **Westland Electric** will not cover the increase in cost of any differences in price of wire between **Westland Electric** original quote on wire and the current price of wire when wire is bought.
- H. Change orders will be quoted at \$65.00 per man hour, and at 15% O/P.
- J. No work will be done on changes, unless change order is signed and returned to **Westland Electric**.  
**NO EXCEPTIONS**

Thank you for the opportunity to present this proposal. If you have questions, please do not hesitate to contact me.

Respectfully,

**Westland Electric**

*Kyle Jackson*

President

Santaquin, City: Sign & Date:

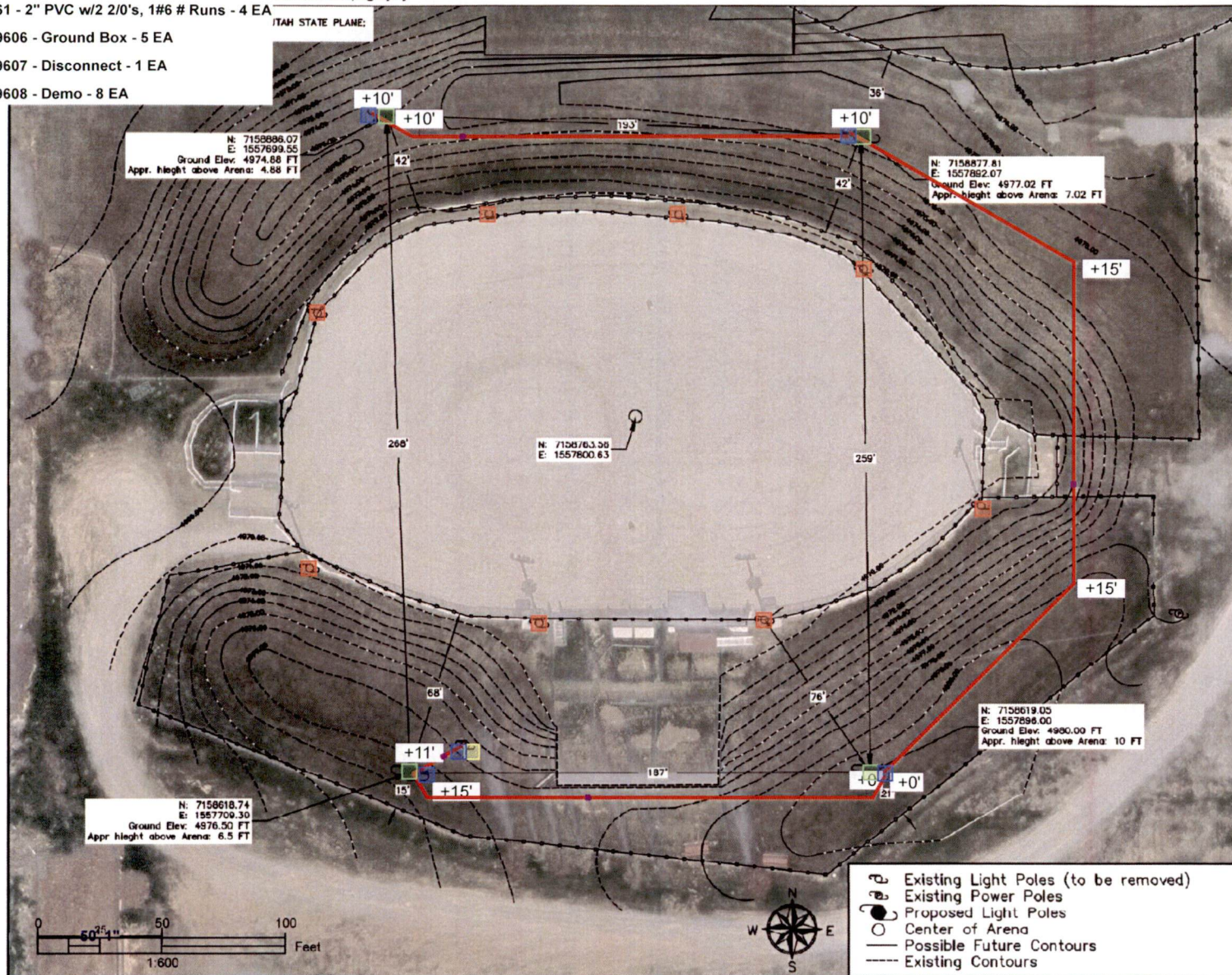
X  
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- 1 - 60 foot Pole - 4 EA
- 160 - 2" PVC w/2 2/0's, 1#6 - 850 LF
- 161 - 2" PVC w/2 2/0's, 1#6 # Runs - 4 EA
- 19606 - Ground Box - 5 EA
- 19607 - Disconnect - 1 EA
- 19608 - Demo - 8 EA

with arena topography

UTAH STATE PLANE:





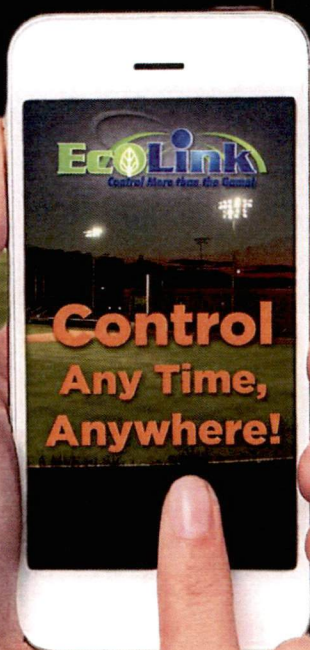
**50%**  
ENERGY SAVINGS



**REDUCE**  
ENERGY COSTS BY

**50%**

- Reduces energy costs by 50%
- Track hours used
- Reduces operating and labor costs
- SMS and email notifications
- Complete customer training
- 24/7 Technical support
- Allows proactive scheduling and monitoring of all your fields or facilities
- Easily added to existing lighting systems



**Wixson Hufstetler, City of Jonesboro:**

The main thing I like about having EcoLink is the **energy savings**. We have the ability to schedule our light usage rather than depend on people manually turning lights on and off. With 19 soccer fields and 14 baseball fields, that is a lot of poles and can be a significant cost to us. With EcoLink, we simply schedule the lights automatically from the convenience of our phone or computer.



**TECHLINE**  
SPORTS LIGHTING

**800.500.3161**  
**sportlighting.com**





We Bring Our Best Game... *To LIGHT!*



# Santaquin Rodeo Grounds

## Rodeo Arena

**(1500 Watt Metal Halide)**

Prepared By: Jim Thomas





15303 Storm Drive • Austin, Texas 78734  
(800) 500-3161 • www.sportlighting.com

## Santaquin Rodeo Arena

Santaquin, UT - 4/4/2017

### Rodeo Arena

**\*\*30 FC Avg Maintained Light Level\*\***

**1500 Watt Metal Halide - Per Design #:1781994**

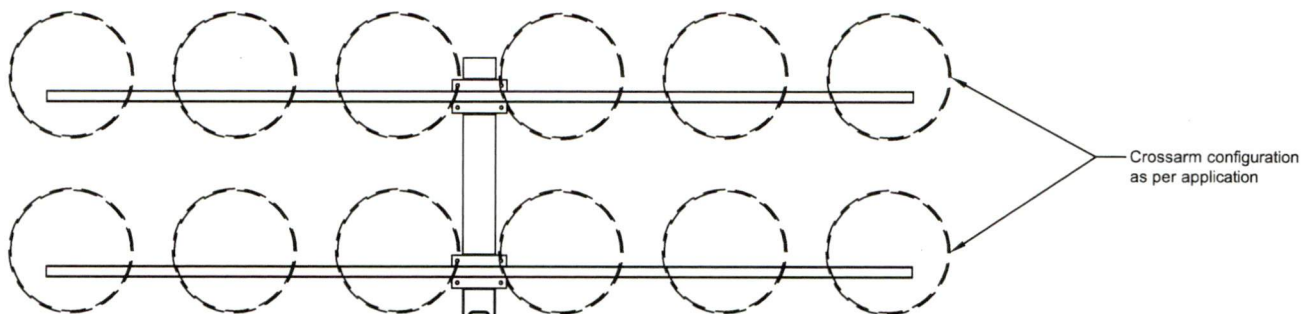
**20 Year Warranty / Including 1 Group Relamp**

Quantity	Description
4	60 Foot Mounting Height Steel Poles
4	10 Fixture Crossarms
24	1500 Watt Metal Halide Integral Ballast Luminaires
24	EcoStar Lenses w/ External Visors
24	1500 watt metal halide lamps
4	Prewiring for Poles and Crossarms
1	EcoLink Wireless Control System - Base Station
1	20 Year Lamp Warranty

#### Project Notes:

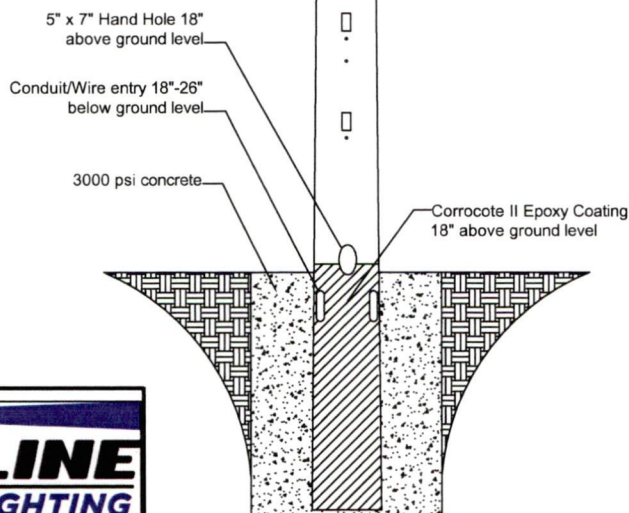
- \* Price includes poles, prewired crossarms and light fixtures.
- \* Price includes delivery to jobsite.
- \* Price firm for 60 days.
- \* Allow 3-5 weeks for delivery.
- \* **EcoLink Wireless Control Systems include the first 24 months of communication costs.**
- \* Pole locations must also be accessible and not obstructed by fencing, buildings, etc.
- \* A tax exemption certificate must be filed with Techline if applicable.
- \* All work to be performed that requires a license, including but not limited to electrical & plumbing will be performed by individuals currently licensed in the proper jurisdiction. All proposals are based in bids by licensed individuals anticipated to perform the work.





TSL65MA	
Mounting Height	60' *
Overall Length	70'
Length A.G.L.	60' *
Burial Depth	10'
Tip Diameter	7.25"
Butt Diameter	17.45"
Pole Shape	Round Tapered

\* dimension to bottom row of crossarm



\*\* Hot-Dipped galvanized after fabrication to ASTM A123 specifications

\*\* NOT TO SCALE



15303 STORM DR.  
AUSTIN, TX 78734  
PHONE: (512) 977-8880  
TOLL FREE: (800) 500-3161  
FAX: (512) 977-8882

DATE:  
8-12-15

REV.:  
X

CHECKED BY:

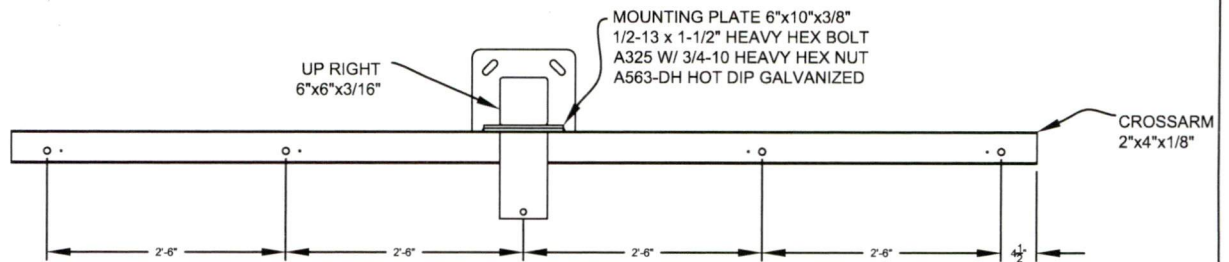
DRAWING NUMBER:  
TSL 70-FIX

DRAWN BY:  
WW

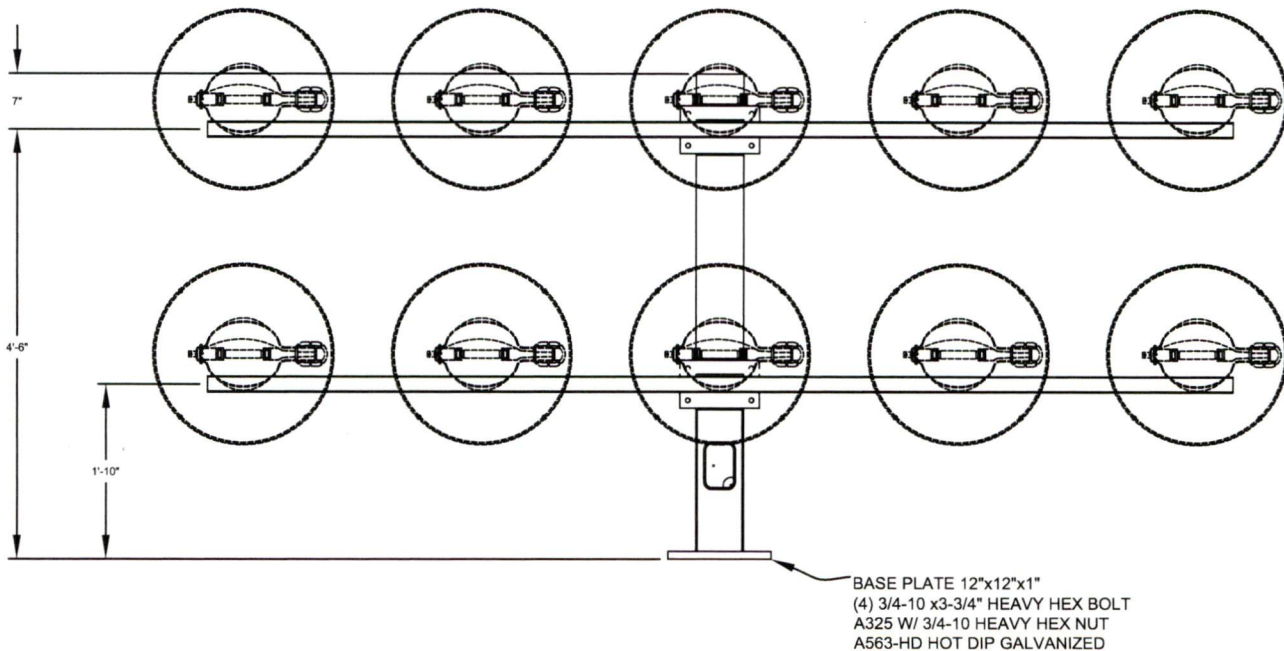
CONCRETE ENCASED  
GALVANIZED STEEL POLE



# TOP VIEW



# FRONT VIEW



\*\* Hot-Dip galvanized after fabrication  
to ASTM A123 specifications

\*\* Assembly Weight: 811 lbs  
Assembly EPA: 38.29 sq. ft.  
(Including Fixtures)



\*\* NOT TO SCALE

15303 STORM DR.  
AUSTIN, TX 78734  
PHONE: (512)977-8880  
TOLL FREE: (800)500-3161  
FAX: (512)977-8882

DATE:  
7/14/15

DRAWING NUMBER:  
TDA 10

REV: CHECKED BY:

DRAWN BY:  
WW

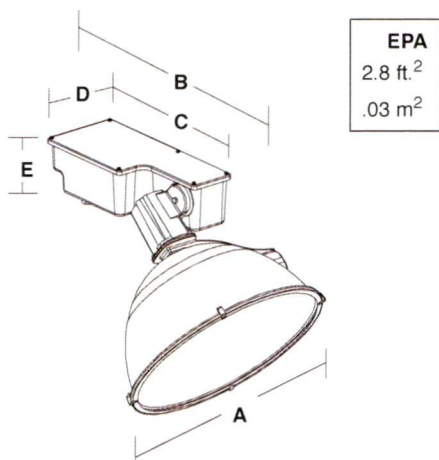
10 FIXTURE CROSSARM  
ASSEMBLY



Job Santaquin Rodeo Arena

Type Arena

## Dimensions



## Integral Ballasted System Horizontal Optics

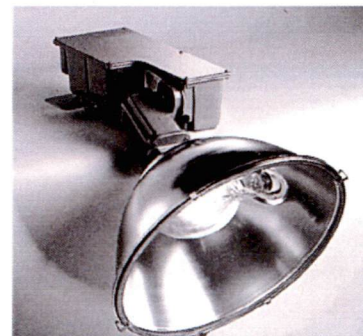
A	B	C	D	E
22.87"	35.75"	20.13"	8.75"	5.5"
579 mm	907 mm	511 mm	223 mm	140 mm

Note: Aimed 40° below horizontal

## Optional Visor



## Specifications



## Housing

Die cast aluminum housing. Isolated die cast aluminum socket housing. Isolated ballast compartment. Isolated capacitor compartment. Isolated wiring chamber (maximum 90° input cord). Vertical aiming/repositioning memory. Horizontal aiming indicator. Polyester powder paint finish (gray).

## Optics

Horizontal mounted lamp. Uses standard BT-56 lamps. Four point latching. Stainless steel lens ring. Stainless steel door hinge. Silicone gasketing. Tempered clear glass lens. Filtered optics. Front lamp support standard.

## Installation

One captive mounting bolt (3/4" dia.) installed in fixture. Aiming sight included. Shipped assembled from factory. Single ballast cover plate for easy access.

## Special Features

1g, 100,000 cycle vibration tested. Wind tunnel tested to 120 mph. Captive hardware. UL 1598 listed and CSA NRTL certified for 40°C ambient operation. Mogul socket, 4kv pulse rated, 600v rated. 100% factory electrically tested.

## Ordering Information

Series	Watt	Optic Type	Voltage	Lamp	Options	Options
ESL	1500	*		L	V	

## SERIES

ESL	Techline Sports lighting
TSL	Techline Sports lighting

## OPTIC TYPE

N	Horizontal Narrow
M	Horizontal Medium
W	Horizontal Wide

## LAMP

L	Lamp (shipped separately)
---	---------------------------

## WATT

1000	1000W
1500	1500W

## VOLTAGE

5	480V
MT	Multi-TAP (120, 208, 240, 277V)

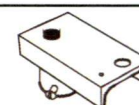
## OPTIONS

HD <sup>1</sup>	Outer Hull
V <sup>2</sup>	Visor

## TSL SERIES ACCESSORY

TSLSLIP

Slipfitter for 2" (2 3/8" OD) tenon



TSLSLIP

1. Hull adds 4lbs. to total weight.  
2. Shipped separately.

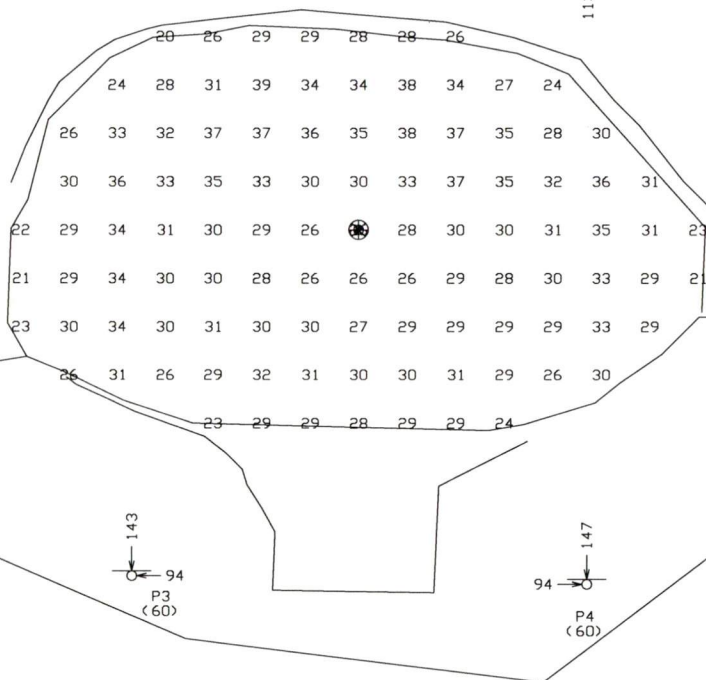
Comments

\* Per Photometric Design #: 1781994



P2  
(60)  
124  
100

P1  
(60)  
95  
113



ILLUMINANCE SUMMARY										
TARGET PLANE: X-Y (HORIZ.) AT Z = 3.00'										
ILLUMINANCE: HORIZONTAL FC										
GRID NAME	NO. POINTS	AVG	MAX	MIN	A/M	M/M	UG	CV	GRID SIZE X	GRID SIZE Y
ARENA	105	30.0	39.0	20.1	1.49	1.94	1.39	0.13	20'	20'

LUMINAIRE SUMMARY							
GRID	TYPE	CATALOG NUMBER	TEST NUMBER	INITIAL LUMENS	LLF	Q'TY	AVG. TILT
ALL	B	ESL1500MV	4455	180000	0.70	24	1.00
Total Luminaires/Combined Avg. Tilt						24	1.00

MOUNTING LOCATION SUMMARY						
MTG. LOC. LABEL (X, Y)	MTG. HT. (FEET)	Q'TY PER LOC.	kW LOAD	TYPE		
				A	B	C
P1 (95, 113)	60.0	6	9.66	-	6	-
P2 (-100, 124)	60.0	6	9.66	-	6	-
P3 (-94, -143)	60.0	6	9.66	-	6	-
P4 (-94, -147)	60.0	6	9.66	-	6	-
TOTAL		24	38.64	-	24	-

\* MOUNTING HEIGHTS MEASURED FROM PLAYING SURFACE  
MTG. LOCATION(S) (X, Y) ARE RELATIVE TO 0,0 AT

NOTES: 1. DIMENSIONS ARE IN FEET & ORIGINATE FROM EACH FIELD'S  
2. MOUNTING HEIGHT ( ) ABOVE PLAYING SURFACE

50 25 0 50 100  
Graphic Scale

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.	
2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.	
3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.	
REVISED FROM DRAWING NUMBERS	TITLE
	SANTAQUIN RODEO ARENA
	30 FC
	1500 WATT ESL V2

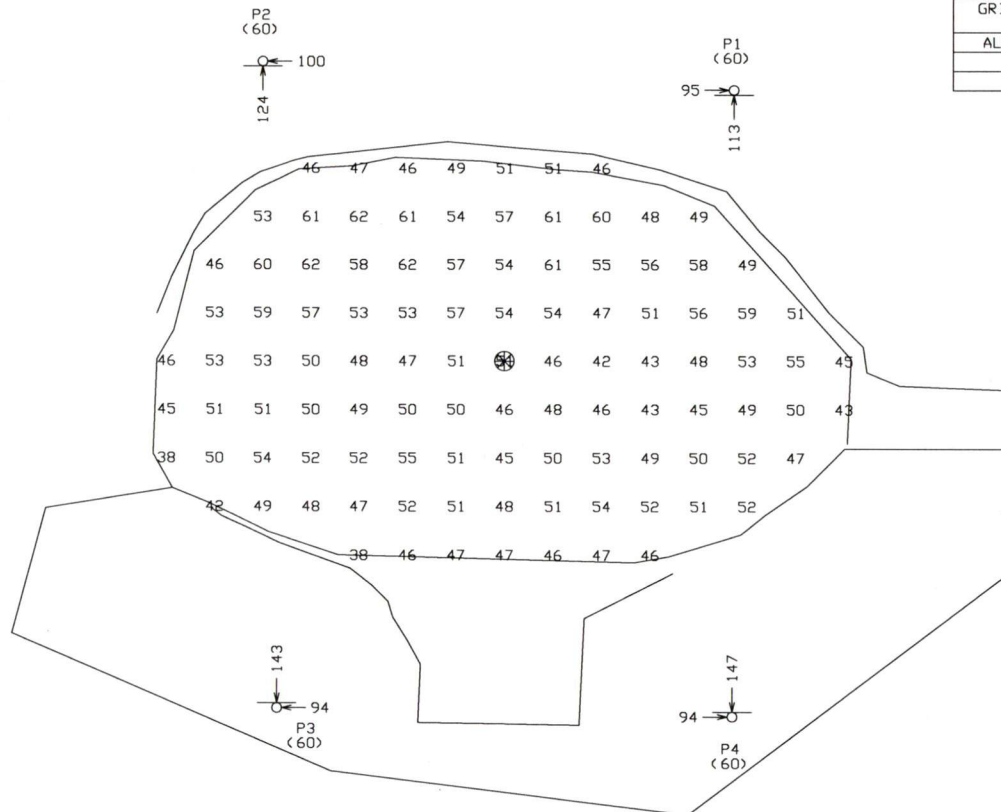
SCALE 1"=50'	DATE 4-4-17
DWN AMP	APP'D
DRAWING NO. 1781994	

**TECHLINE**  
SPORTS LIGHTING  
1-800-500-3161



ILLUMINANCE SUMMARY										
TARGET PLANE: X-Y (HORIZ.) AT Z = 3.00'										
ILLUMINANCE: HORIZONTAL FC										
GRID NAME	NO. POINTS	AVG	MAX	MIN	A/M	M/M	UG	CV	GRID SIZE X	GRID SIZE Y
ARENA	105	50.9	62.3	38.0	1.34	1.64	1.32	0.10	20'	20'

LUMINAIRE SUMMARY							
GRID	TYPE	CATALOG NUMBER	TEST NUMBER	INITIAL LUMENS	LLF	Q'TY	AVG. TILT
ALL	A	ESL1500NV	4454	180000	0.70	8	1.00
	B	ESL1500MV	4455	180000	0.70	32	1.00
Total Luminaires/Combined Avg. Tilt						40	1.00



- NOTES: 1. DIMENSIONS ARE IN FEET & ORIGINATE FROM EACH FIELD'S   
2. MOUNTING HEIGHT ( ) ABOVE PLAYING SURFACE

50 25 0 50 100  
Graphic Scale

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3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.	
REVISED FROM DRAWING NUMBER(S)	TITLE

SANTAQUIN RODEO ARENA  
50 FC  
1500 WATT ESL V2

SCALE  
1"=50'  
DATE  
4-4-17  
BY  
AMP  
AP'VD  
DRAWING NO.  
1781994B

**TECHLINE**  
SPORTS LIGHTING  
1-800-500-3161



## Appendix B: Required Bid sheet and Information

**Bid Form**  
for  
Santaquin City  
Rodeo Arena Lighting

Bid Amount (\$)					
<b>Arena Light Poles (including poles, hardware attachments, etc.)</b>					
Manufacturer	Techline Sports Lighting				
Product ID	TSL65MA	# of Units	7	Cost per Unit	7845 \$ 31,579
Warranty Period	20	yrs			
Earliest Delivery Date	3 weeks	Estimated Shipping Cost	\$ 4,225		
<b>Arena Lights</b>					
Manufacturer	Techline Sports Lighting				
Product ID	TSL150MA	# of Units	24	Cost per Unit	1181 \$ 28,395
Warranty Period	20	yrs			
Earliest Delivery Date	3 weeks	Estimated Shipping Cost	\$ 4,225		
Light Pole Base	\$				
Although installation will be done by city personnel, please provide a cost estimate for the pole bases necessary to uphold the poles and related lighting system equipment. Estimates must be based on State of Utah, Utah County, labor and material costs. This estimate should include any wiring conduits but not electrical wiring.					
<b>Electrical control systems</b>					
Manufacturer	Techline Sports Lighting				
Product ID	Elect	# of Units		Cost per Unit	\$
Warranty Period	10	yrs			
Earliest Delivery Date	3 weeks	Estimated Shipping Cost	\$		
<b>Total:</b>					\$ 250
I/We hereby commit to complete and full delivery of all Arena Lighting System(s) engineered design calculations within 3 weeks (21 Days) of award of a Contract.					✓
I/We hereby commit to complete and full delivery of all Arena Lighting System(s) shop drawings within 4 weeks (28 Days) of award of a Contract, as Specified in the Project Manual.					
I/We hereby commit to complete and full delivery of all Arena Lighting System components as indicated or shown on the attached drawings, as Specified and as Bid herein within (X) Days (insert number of days in the column to the right) after Santaquin City's approval of submitted system plans.					Days

Manufacturer/Supplier warrants that the item(s) proposed on the Bid Form will conform to the description as quoted, and as described and shown in the Project Drawings and Specifications, and shall be of good and merchantable quality for the known purpose for which it is specified. This warranty is in addition to any standard warranty or service guarantee provided by the Manufacturer/Supplier.

Each person submitting a Bid specifically acknowledges, both individually and on behalf of the submitting entity, that all information provided with this submitted Bid is a true and accurate representation of ability to perform the Work as specified.

\_\_\_\_\_  
Manufacturer/Supplier Representative

7/11/17  
Date

## Appendix B: Required Bid sheet and Information

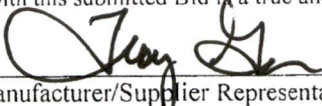
**Bid Form**  
for  
Santaquin City  
Rodeo Arena Lighting

Bid Amount (\$)

Arena Light Poles (including poles, hardware attachments, etc.)					
Manufacturer	Qualite - makers				
Product ID		# of Units	4	Cost per Unit	11,100 \$ 44,400.00
Warranty Period	30	yrs			
Earliest Delivery Date	6-8 weeks		Estimated Shipping Cost	incl	\$
Arena Lights					
Manufacturer	Qualite				
Product ID		# of Units	44	Cost per Unit	778 \$ 17,160.00
Warranty Period	30	yrs			
Earliest Delivery Date	6-8 weeks		Estimated Shipping Cost	Incl	\$
Light Pole Base	Direct Burial Steel Poles				\$ 0
Although installation will be done by city personnel, please provide a cost estimate for the pole bases necessary to uphold the poles and related lighting system equipment. Estimates must be based on State of Utah, Utah County, labor and material costs. This estimate should include any wiring conduits but not electrical wiring.					
Electrical control systems Direct Burial Steel Poles					
Manufacturer	Qualite				
Product ID		# of Units		Cost per Unit	10t \$ 7,440.00
Warranty Period	30	yrs			
Earliest Delivery Date	6-8 weeks		Estimated Shipping Cost		\$
<b>Total:</b>					\$ 69,000.00
I/We hereby commit to complete and full delivery of all Arena Lighting System(s) engineered design calculations within 3 weeks (21 Days) of award of a Contract.					✓
I/We hereby commit to complete and full delivery of all Arena Lighting System(s) shop drawings within 4 weeks (28 Days) of award of a Contract, as Specified in the Project Manual.					✓
I/We hereby commit to complete and full delivery of all Arena Lighting System components as indicated or shown on the attached drawings, as Specified and as Bid herein within (X) Days (insert number of days in the column to the right) after Santaquin City's approval of submitted system plans. after signed submittals					68 Days

Manufacturer/Supplier warrants that the item(s) proposed on the Bid Form will conform to the description as quoted, and as described and shown in the Project Drawings and Specifications, and shall be of good and merchantable quality for the known purpose for which it is specified. This warranty is in addition to any standard warranty or service guarantee provided by the Manufacturer/Supplier.

Each person submitting a Bid specifically acknowledges, both individually and on behalf of the submitting entity, that all information provided with this submitted Bid is a true and accurate representation of ability to perform the Work as specified.

  
Manufacturer/Supplier Representative

4/11/2017  
Date





## **Submittal Packet**

### Table of Contents/Cover Page

<u>Material:</u>	<u>Pages:</u>
Design Layout Drawings	A
Typical Pole Information	B
Controls Information/Diagram	C
Light Level Guarantee Letter	D
Warranty Information	E
Bill of Material	F
Ballast Information	G
Lamp Information	H
Lighting Technical Guide	I



**A**



# CONTINUOUS LIGHT LEVEL

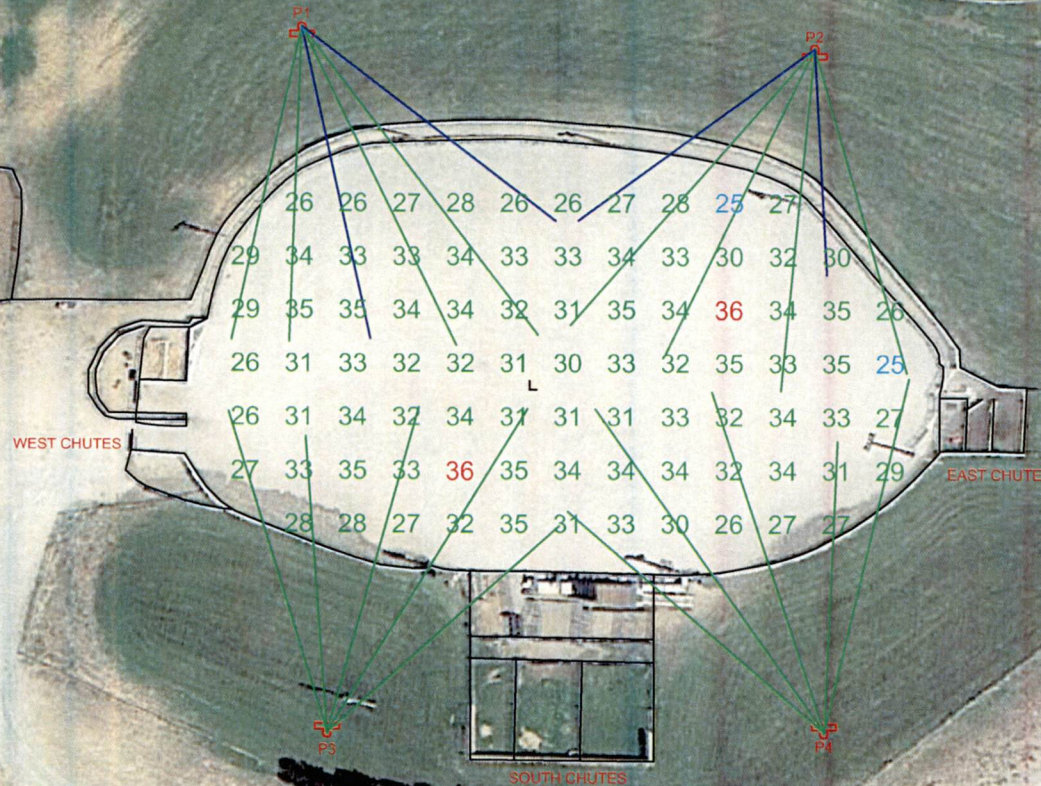
POLES P1 & P2 ARE SIZED FOR 3 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC  
POLES P3 & P4 ARE SIZED FOR 4 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC

POLE P1 IS 65' ON A 5' ELEVATION  
POLE P2 IS 63' ON A 7' ELEVATION  
POLE P3 IS 63.5' ON A 6.5' ELEVATION  
POLE P4 IS 60' ON A 10' ELEVATION

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8

Wide  
Universal Series V 1500W

Medium  
Universal Series V 1500W



RODEO ARENA AREA  
85 points at z=3, sp 20ft by 20ft  
HORIZONTAL FOOTCANDLES  
Average 31  
Maximum 36  
Minimum 25  
Avg:Min 1.25  
Max:Min 1.44  
Coef Var 0.10  
UnifGrad 1.40



## QUALITE SPORTS LIGHTING, LLC

215 W. MECHANIC ST.  
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PHONE 517/439-1581  
FAX 517/439-1194  
800/933-9761  
WWW.QUALITE.COM

REVISED (LAST DATE) QL-18788D1-1

SANTAQUIN CITY RODEO ARENA LIGHTING

SANTAQUIN CITY RODEO, SANTAQUIN CITY, UT

TWS SCALE: 03-3-17 1 OF 1

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GUARANTEED FOR THE RATED LIFE OF THE LAMP WITHIN +/-10% OF LIGHT LEVEL INDICATED. BASED ON PROPER INSTALLATION, VOLTAGE +/-3%, POLE PLACEMENT AND MOUNTING HEIGHT WITHIN 3 FEET OF SPECIFIED LOCATION AND HEIGHT. POLES TO COMPLY WITH CURRENT AASHTO STANDARDS

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# CONTINUOUS LIGHT LEVEL

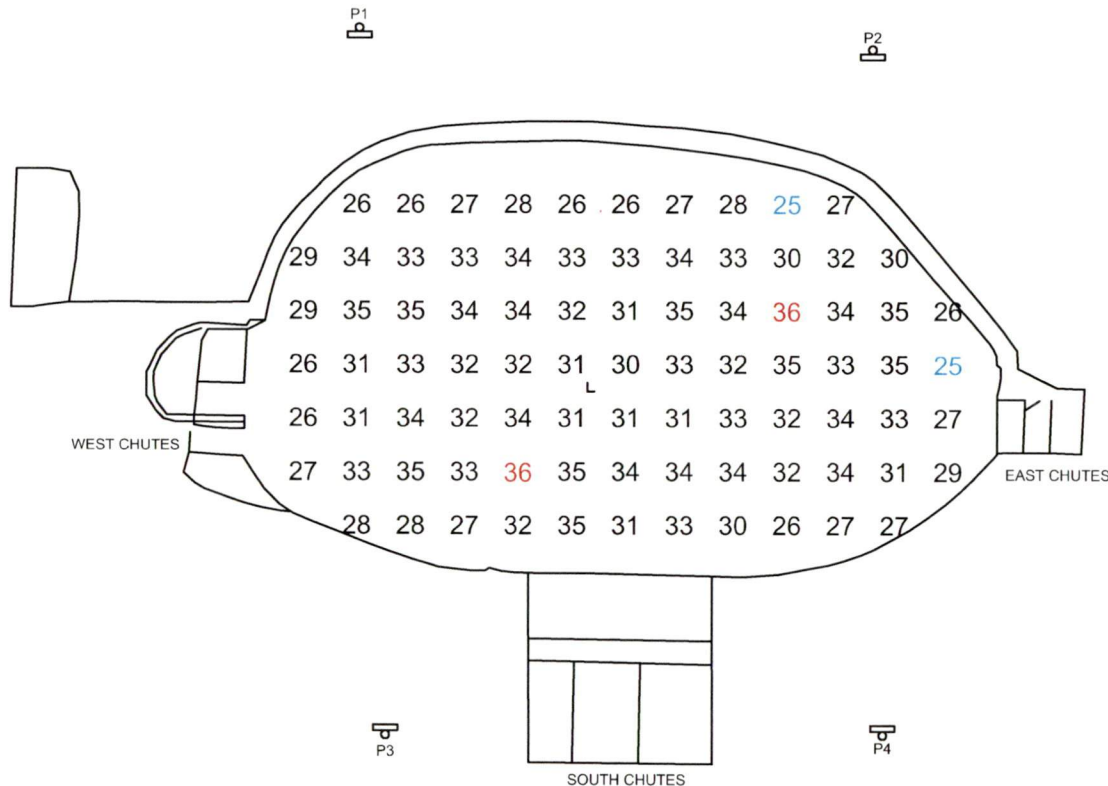
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POLE P4 IS 60' ON A 10' ELEVATION

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8

Wide  
Universal Series V 1500W

Medium  
Universal Series V 1500W



RODEO ARENA AREA  
85 points at z=3, sp 20ft by 20ft  
HORIZONTAL FOOTCANDLES  
Average 31  
Maximum 36  
Minimum 25  
Avg:Min 1.25  
Max:Min 1.44  
Coef Var 0.10  
UnifGrad 1.40



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QUALITE SPORTS LIGHTING, LLC			
215 W. MECHANIC ST. HILLSDALE, MI 49242		PHONE: 517/439-1581 FAX: 517/439-1194 800/933-9741 WWW.QUALITE.COM	
REVISED (LAST DATE)		QL-18788DI-.1	
SANTAQUIN CITY RODEO ARENA LIGHTING			
SANTAQUIN CITY RODEO, SANTAQUIN CITY, UT			
TWS	SCALE=1	03-3-17	1 OF 1



# CONTINUOUS LIGHT LEVEL

POLES P1 & P2 ARE SIZED FOR 2 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC  
POLES P3 & P4 ARE SIZED FOR 4 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC

POLE P1 IS 65' ON A 5' ELEVATION  
POLE P2 IS 65' ON A 7' ELEVATION  
POLE P3 IS 65' ON A 5' ELEVATION  
POLE P4 IS 65' ON A 10' ELEVATION

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8

Wide  
Universal Series V 1500W

Medium  
Universal Series V 1500W

EAST CHUTES  
20 points  
HORIZONTAL FOOTCANDLES  
Average 12  
Maximum 18  
Minimum 6  
Avg:Min 2.02  
Max:Min 3.00  
Coef Var 0.35

WEST CHUTES  
25 points  
HORIZONTAL FOOTCANDLES  
Average 12  
Maximum 22  
Minimum 5  
Avg:Min 2.42  
Max:Min 4.40  
Coef Var 0.43

SOUTH CHUTES  
42 points at z=3, so 10ft by 10ft  
HORIZONTAL FOOTCANDLES  
Average 13  
Maximum 28  
Minimum 4  
Avg:Min 3.24  
Max:Min 7.00  
Coef Var 0.63  
UnifGrad 1.60



QUALITE SPORTS LIGHTING, LLC

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REVISED (LAST DATE) QL-18788D2-1

SANTAQUIN CITY RODEO ARENA LIGHTING

SANTAQUIN CITY RODEO, SANTAQUIN CITY, UT

TWS SCALE: 05-5-17 1 OF 1

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GUARANTEED FOR THE RATED LIFE OF THE LAMP WITHIN +/- 10% OF LIGHT LEVEL INDICATED. BASED ON PROPER INSTALLATION, VOLTAGE +/- 5%, POLE PLACEMENT AND MOUNTING HEIGHT WITHIN 5 FEET OF SPECIFIED LOCATION AND HEIGHT. POLES TO COMPLY WITH CURRENT ASHRAE STANDARDS

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# CONTINUOUS LIGHT LEVEL

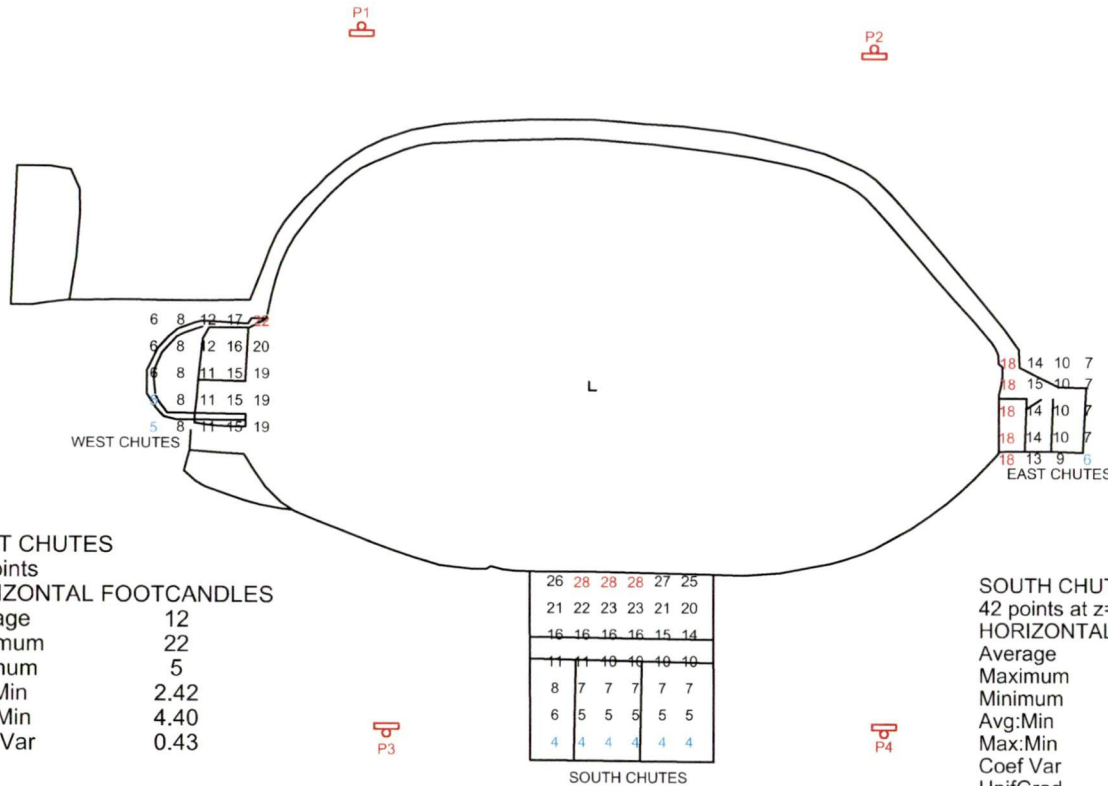
POLES P1 & P2 ARE SIZED FOR 3 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC  
POLES P3 & P4 ARE SIZED FOR 4 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC

POLE P1 IS 65' ON A 5' ELEVATION  
POLE P2 IS 63' ON A 7' ELEVATION  
POLE P3 IS 63.5' ON A 6.5' ELEVATION  
POLE P4 IS 60' ON A 10' ELEVATION

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8

Wide  
Universal Series V 1500W

Medium  
Universal Series V 1500W



EAST CHUTES  
20 points  
HORIZONTAL FOOTCANDLES  
Average 12  
Maximum 18  
Minimum 6  
Avg:Min 2.02  
Max:Min 3.00  
Coef Var 0.35

WEST CHUTES  
25 points  
HORIZONTAL FOOTCANDLES  
Average 12  
Maximum 22  
Minimum 5  
Avg:Min 2.42  
Max:Min 4.40  
Coef Var 0.43

SOUTH CHUTES  
42 points at z=3, sp 10ft by 10ft  
HORIZONTAL FOOTCANDLES  
Average 13  
Maximum 28  
Minimum 4  
Avg:Min 3.24  
Max:Min 7.00  
Coef Var 0.63  
UnifGrad 1.60



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REVISED (LAST DATE) QL-18788D2=.1

SANTAQUIN CITY RODEO ARENA LIGHTING

SANTAQUIN CITY RODEO, SANTAQUIN CITY, UT

TWS SCALE=1 03-3-17 1 OF 1

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GUARANTEED FOR THE RATED LIFE OF THE LAMP WITHIN +/-50% OF LIGHT LEVEL INDICATED. BASED ON PROPER INSTALLATION, VOLTAGE +/-5%, POLE PLACEMENT AND MOUNTING HEIGHT WITHIN 3 FEET OF SPECIFIED LOCATION AND HEIGHT. POLES TO COMPLY WITH CURRENT ASHRAE STANDARDS

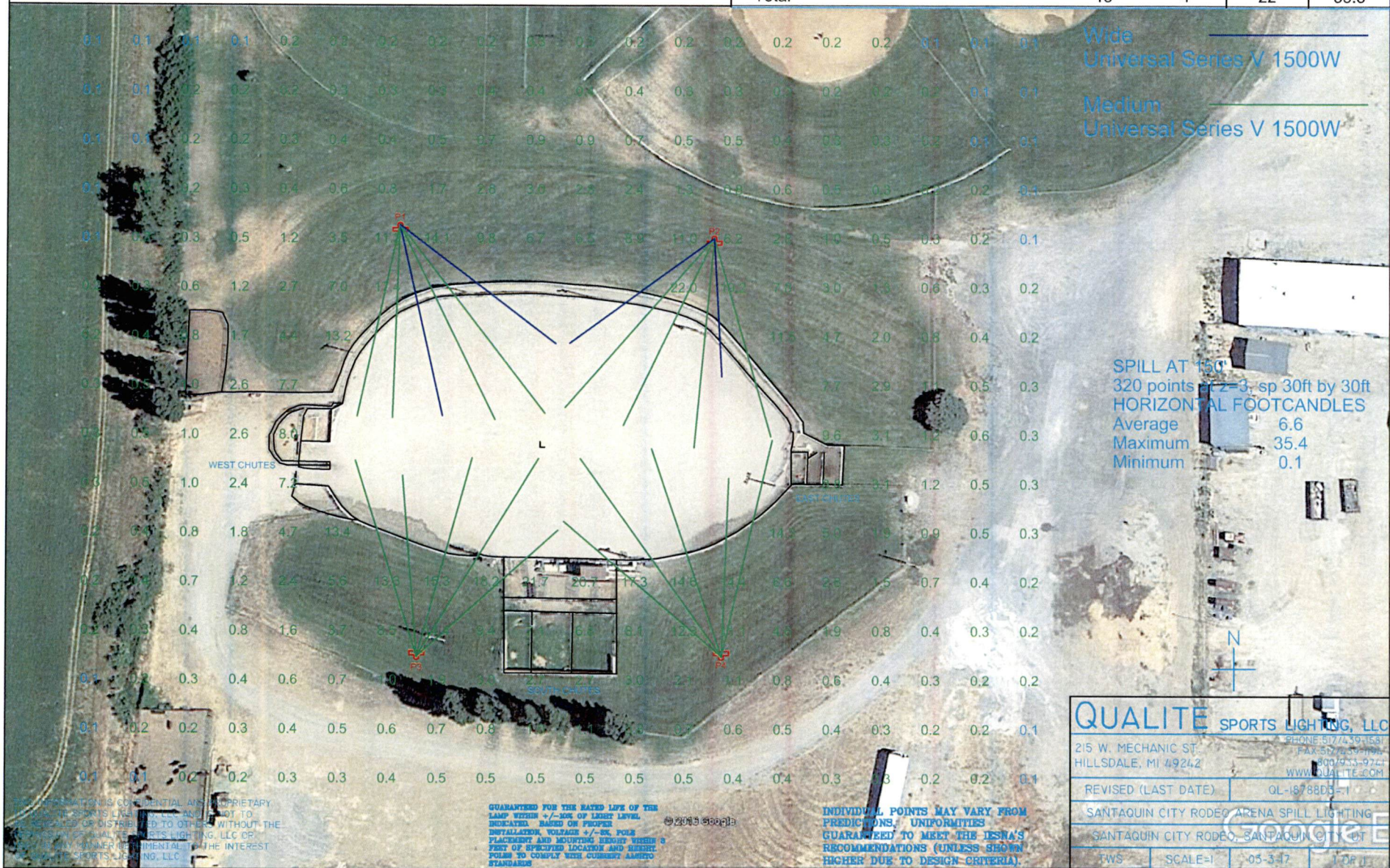
INDIVIDUAL POINTS MAY VARY FROM PREDICTIONS. UNIFORMITIES GUARANTEED TO MEET THE IESNA'S RECOMMENDATIONS (UNLESS SHOWN HIGHER DUE TO DESIGN CRITERIA).



# CONTINUOUS LIGHT LEVEL

POLES P1 & P2 ARE SIZED FOR 3 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC  
POLES P3 & P4 ARE SIZED FOR 4 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8

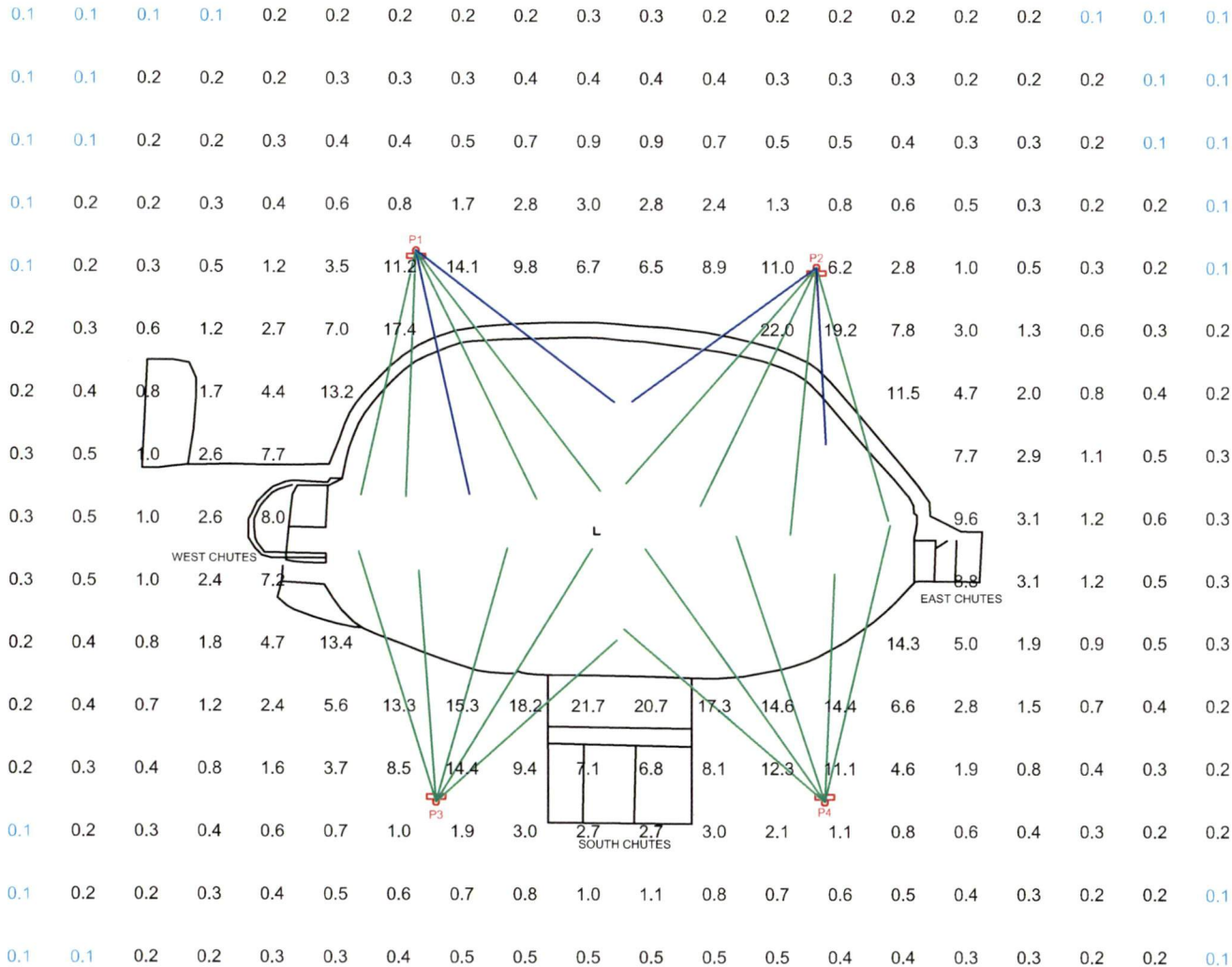




# CONTINUOUS LIGHT LEVEL

POLES P1 & P2 ARE SIZED FOR 3 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC  
POLES P3 & P4 ARE SIZED FOR 4 EXTRA FIXTURES FOR FUTURE UPGRADE TO 50FC

Pole	x-loc	y-loc	height	Medium	Wide	Total	kw
P1	-85	136	70ft	4	2	6	9.8
P2	106	128	70ft	4	2	6	9.8
P3	-75	-128	70ft	5		5	8.1
P4	110	-128	70ft	5		5	8.1
Total				18	4	22	35.8



Wide  
Universal Series V 1500W

Medium  
Universal Series V 1500W

SPILL AT 150'  
320 points at z=3, sp 30ft by 30ft  
HORIZONTAL FOOTCANDLES  
Average 6.6  
Maximum 35.4  
Minimum 0.1



**QUALITE SPORTS LIGHTING, LLC**

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800/933-9741  
WWW.QUALITE.COM

REVISED (LAST DATE) QL-18788D3-.1

SANTAQUIN CITY RODEO ARENA SPILL LIGHTING

SANTAQUIN CITY RODEO, SANTAQUIN CITY, UT

TWS SCALE=1 03-3-17 1 OF 1

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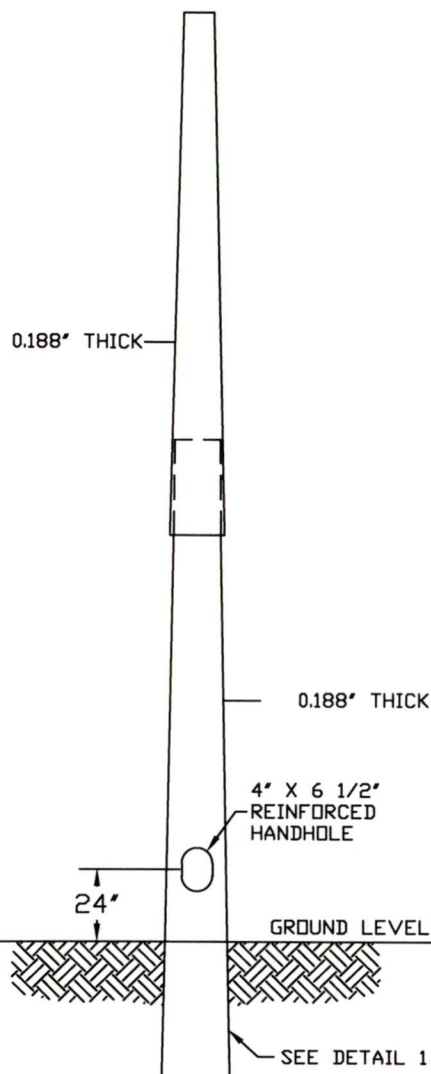
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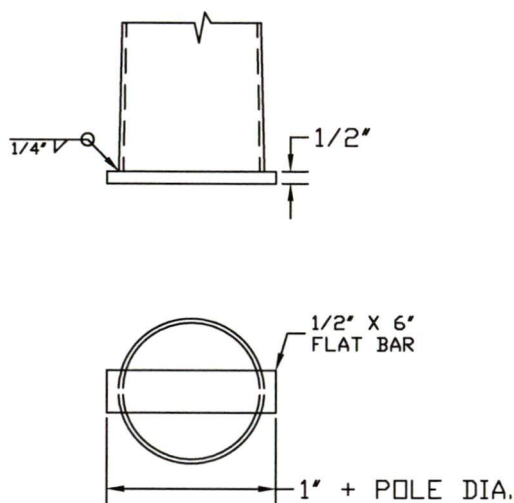




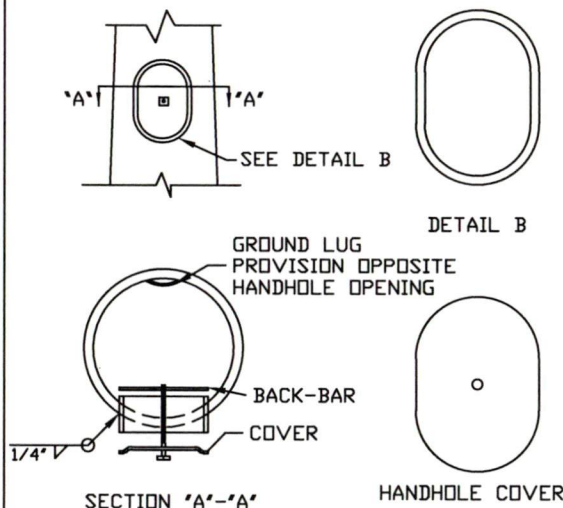
**B**



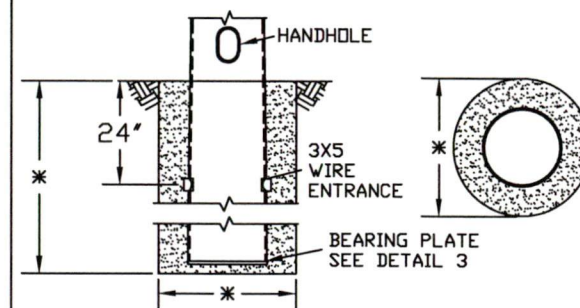
DETAIL 1 POLE ASSEMBLY



DETAIL 3 BEARING PLATE



DETAIL 4 HANDHOLE



\* DIMENSIONS TO BE DETERMINED BY ENGINEER.

NOTE:  
EXTERIOR TOP COATED WITH COAL  
TAR MASTIC FOR EMBEDMENT  
DEPTH PLUS 6".

DETAIL 1 ANCHOR BOLTS

COMPONENT	SPECIFICATION
POLE TOP	ASTM A572 GR. 65
POLE BOTTOM	ASTM A572 GR. 65
MISC. STEEL	ASTM A36

- GENERAL NOTES:
1. ALL HARDWARE TO BE GALVANIZED TO ASTM A153.
  2. POLE ASSEMBLY TO BE GALVANIZED TO ASTM A123.
  3. ALL WELDING TO CONFORM TO AWS D1.1 MOST RECENT EDITION.
  4. DESIGN INCORPORATE GUST FACTOR PER REF CODE.
  5. DESIGNS ARE BASED AGAINST AASHTO 2002 STANDARDS.
  6. REFER TO GENERAL INSTALLATION INSTRUCTIONS PRIOR TO ASSEMBLY.

DETAIL 2 MATERIAL SPECIFICATIONS

**MSM**  
Makers Sales and Marketing, LLC

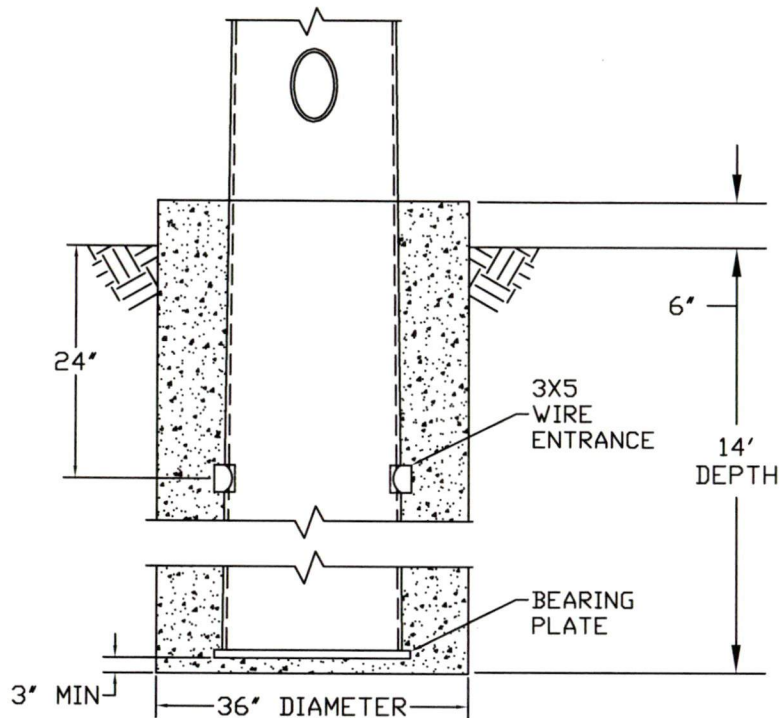
2316 WEAVER ST.  
HALTOM CITY, TX 76117  
METRO (817) 834-5538  
TOLL FREE (866) 724-4527  
FAX (817) 831-6088

DATE: N/A	REV.: 00	JOB NO.: N/A	SCALE: NTS
DRAWING NUMBER: TYP DIRECT EMBED	DRAWN BY: TYP	QUOTE NUMBER: N/A	

QUALITE SPORTS LIGHTING  
TYPICAL DIRECT EMBEDDED

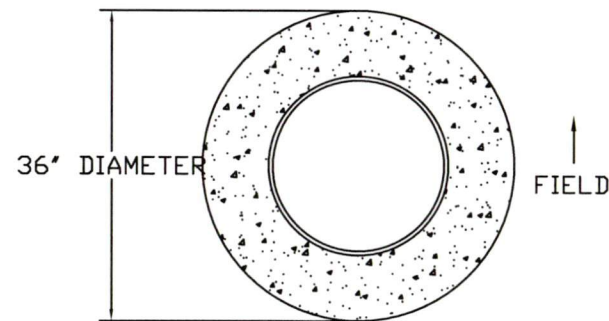


NOT FOR CONSTRUCTION  
FOR ESTIMATION ONLY



DESIGN ASSUMPTIONS:

1. NON-COHESIVE SOIL
2.  $\phi = 38^\circ$  MIN.
3. EFFECTIVE UNIT WEIGHT = 110 PCF MIN.
4. SITE GRADE IS 7H : 1 V OR FLATTER
5. WATER TABLE BELOW FOUNDATION



NOTES:

- IF ACTUAL SUBSURFACE CONDITIONS DIFFER FROM THOSE ASSUMED ABOVE OR IF THE POLE CALCULATIONS ARE REVISED THEN THE DESIGN MUST BE REVIEWED PRIOR TO ANY CONCRETE PLACEMENT.
- FOUNDATION TO BE CAST AGAINST UNDISTURBED SOIL.
- REBAR IS ASTM A615 GRADE 60 DEFORMED BARS. CONCRETE HAS MINIMUM 28 DAY COMPRESSIVE STRENGTH ( $f_c$ ) = 3000 PSI.
- ANY NECESSARY CONDUIT LAYOUT IS NOT SHOWN.
- IF THIS DESIGN DIFFERS FROM ANY OTHER PROJECT SPECIFICATION OR REQUIREMENT THEN THE MORE DEMANDING REQUIREMENT WILL APPLY.

**MSM**

Makers Sales and Marketing, LLC

PO BOX 14537  
HALTOM CITY, TX 76117  
METRO (817) 834-5538  
TOLL FREE (866) 724-4527  
FAX (817) 831-6088

DATE:

REV.:

CHECKED BY:

DRAWING NUMBER:  
70' FD

DRAWN BY:  
TRH

70' FOUNDATION DESIGN



C





## System Summary

## Santaquin City Rodeo

## Santaquin, UT

QL#	18788D1	Pre Bid	4/3/2017
Field Type	Other		
Field Type	NA		
Fixture Type	MH	Universal Series	
Watts	1500		
Per Fixture Watts	1625		
Design Voltage	480 3PH		
Total Fixture Qty.	22		
System Watts	35750		
	35.75 kVA		
System Amps	43.0		
Controls	Request		
Monitoring (Request)	No		
Control Voltage	120		
QCC	Yes		
Enclosure size & Qty.	24X20X10		
Contactors Qty.	4		
Zones	1		
Keyed control Switches	1		

Pole #	Zone	Rodeo Arena	Fixture Qty.	kVA/pole	FLA	Amps*1.25	Contactor Size	Contactor ID	If 480/277V 3 phase Wye or 347V			
									A (LN)	B (LN)	C (LN)	Contactor Size
P1			6	9.8	11.7	14.7	37A	C1	NA	NA	NA	NA
P2			6	9.8	11.7	14.7	37A	C2	NA	NA	NA	NA
P3			5	8.1	9.8	12.2	37A	C3	NA	NA	NA	NA
P4			5	8.1	9.8	12.2	37A	C4	NA	NA	NA	NA

Zone Fixture Qty.	22	35.8	43.0	53.75
-------------------	----	------	------	-------

Insert Additional Zones here

Total Fixture Qty 22

List Options Here

Switched via ReQuest - 2 zone unit

As long as voltage and phasing do not change - QCC will handle the added "future" fixtures called out on design. Future add on would mean the poles would all have 9 fixtures total.

## NOTES

Please confirm system design voltage as listed above is accurate. Failure to verify design voltage and phasing may cause delays and additional incurred costs.

Typical three (3) phase installations require all three (3) phases pulled to each pole. Neutral although not typically required, may be necessary depending on the fixture requirements.

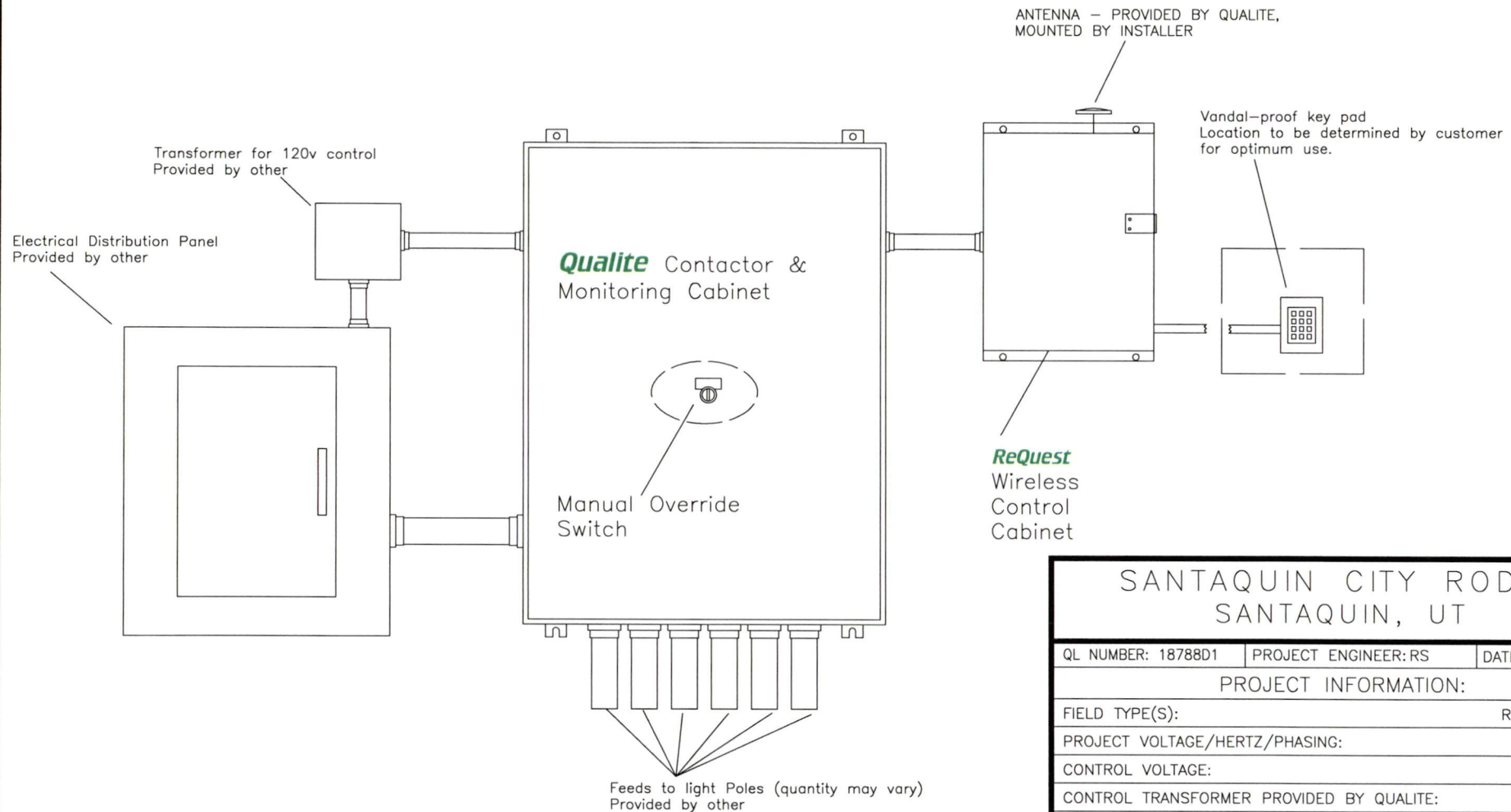
Typically one (1) contactor is required per circuit to each Sports Lighting pole. Small load circuits; area lighting, security lighting, etc. may have a single contactor feeding multiple poles.

Contractor to provide required circuit protection per circuit.

60Hz unless otherwise indicated

If 120V for control circuit is not available, a control transformer may be required at additional cost.

# Control System Diagram



## SANTAQUIN CITY RODEO SANTAQUIN, UT

QL NUMBER: 18788D1	PROJECT ENGINEER: RS	DATE: 4/7/17
PROJECT INFORMATION:		
FIELD TYPE(S):	RODEO ARENA	
PROJECT VOLTAGE/HERTZ/PHASING:	480/60/3	
CONTROL VOLTAGE:	120	
CONTROL TRANSFORMER PROVIDED BY QUALITE:	NO	
TOTAL ZONES:	1	
EQUIPMENT LIST:		
QUANTITY		
1	24" X 20" X 10" CONTACTOR AND MONITORING CABINET	
4	CONTACTORS (SEE SCHEDULE FOR SIZE AND ASSIGNMENT)	
1	17" x 15" x 6" REQUEST WIRELESS CONTROL CABINET	
1	REMOTE VANDAL—PROOF KEY PAD	





## Qualite Control Cabinet



### Control individual poles or an entire sports complex

Qualite's factory-built Control Cabinet (QCC) is designed to meet specific sports lighting requirements, offering the flexibility to switch on a single field or a multi-field complex. The UL listed QCC utilizes only listed or recognized components and is built by a UL listed panel builder. Rugged NEMA type 4 enclosure seals out contaminants, and protects all electrical components to make the cabinet suitable for mounting inside or out. Manual control is provided by keyed or standard selector switches without keys. Push button switches are available.

#### TECHNICAL DATA

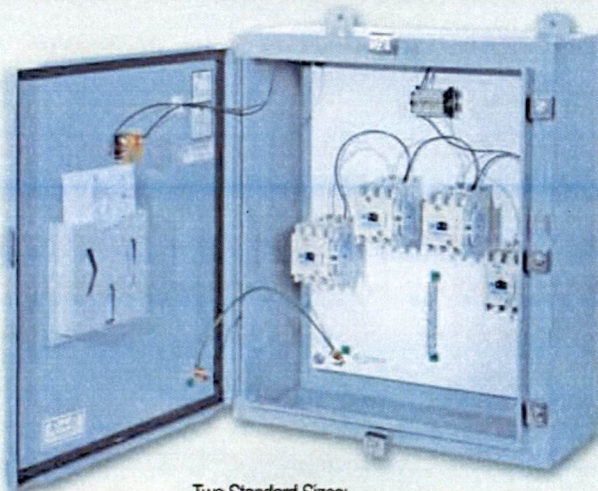
- Cutler-Hammer IEC freedom series contactors
- Cutler-Hammer heavy duty oil-tight 3 position keyed switch
- 14 gauge galvanized with ANSI 61 gray polyester powder coating
- NEMA type 4
- AWG 15-1/0 terminal blocks for pole feeds (when needed)
- 13 circuit ground bar AWG 26-10

#### INDUSTRY STANDARDS

- UL/CUL 508 Type 4, 12 and 13
- NEMA Type 4, 12 and 13
- IEC 529, IP 66

### Features/Options

- Nothing to assemble in the field
- Designed to meet individual field or sports complex configurations
- QCC can be pre-wired to interface with ReQUEST, Qualite's wireless controls
- Optional timing controls
- 30A, 60A, 100A contactors are standard
- Contactors are rated up to 480v  
Control power standard 120v
- Covered under the Qualite system warranty for 10-30 years.



Two Standard Sizes:  
(Height) 30" x (Width) 24" x (Depth) 10"  
or (H) 24" x (W) 20" x (D) 8"  
\* others available based on project size

# Qualite

SPORTS LIGHTING, LLC

215 West Mechanic Street  
Hillsdale, MI 49242  
Phone: (800) 933-9741  
Fax: (517) 439-1194  
[www.qualite.com](http://www.qualite.com)



# ReQUEST™

## Programmable Remote Control System



### TECHNICAL DATA

- Dimensions: 14" x 12" x 8"
- Weight: approximately 21 lbs.
- NEMA 3,4,4X metallic enclosure for outdoor use
- Operating Frequency: 929-932 MHz
- Switching type, non-linear power supply to survive power drops and surges
- Supply Voltage: 110 VAC/Hz (Standard) 220 VAC/60Hz (Optional)
- Operating Temperature: -20° C to 70° C (-4° to 158° F)
- Current Draw (outputs off) 285ma

Qualite's ReQUEST sends and receives data via a sophisticated land and satellite communications infrastructure. An operating program is included, however, the system can also be interfaced with new or existing scheduling reservation software, or supplied with a software package.

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**1a**

Automation of the ReQUEST System is achieved by the utilization of software installed on a PC at the customer's site. Central control, automation and reporting for all units installed can be achieved by this method.

**2**

The RCU commands are sent over standard telephone lines from any telephone/cellular or computer modem to a ReQUEST wireless service provider.

The wireless service provider then sends the commands to the ReQUEST RCUs (wirelessly), with virtually no boundary or distance limitations imposed on the wireless signals.

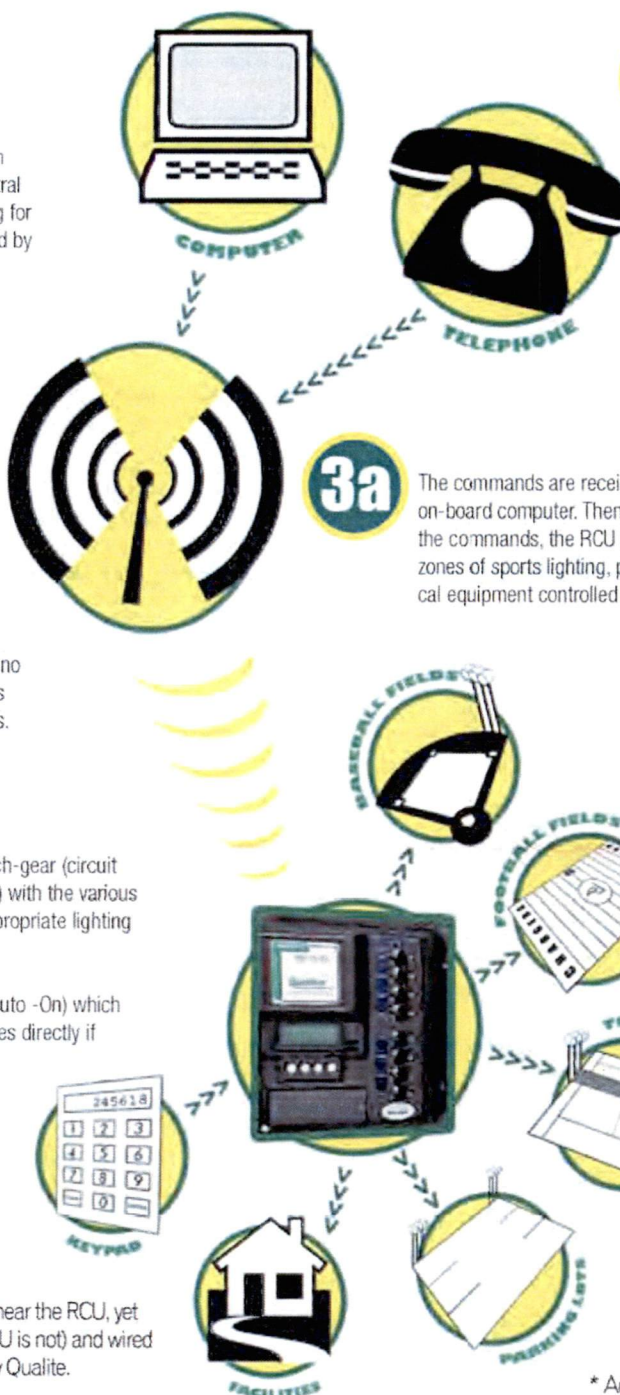
**3b**

The RCUs are located at the switch-gear (circuit breakers, lighting contactors, etc.) with the various zones of the RCU wired to the appropriate lighting contactors, relays, etc.

The RCU includes switches (Off-Auto-On) which are capable of controlling the zones directly if manual control is desired.

**4**

The Keypad is typically mounted near the RCU, yet accessible to the public (if the RCU is not) and wired to the RCU with cable supplied by Qualite.

**1b**

A standard or cellular telephone may be used to send commands to the Remote Control Units (RCUs).

This method of control utilizes TeleDirect operating command set and can be initiated by any telephone/cellular at any location.

**3a**

The commands are received wirelessly and processed by the RCU's on-board computer. Then, at the appropriate date and times dictated by the commands, the RCU switches power (on or off) to the independent zones of sports lighting, parking lot or security lighting, or other electrical equipment controlled by the RCU.

# ReQUEST™

## Graphical Overview

\* Access to the web interface can be found at [www.skylogix.com](http://www.skylogix.com) with training available from SkyLogix Tech Support at 1-800-650-1913.

# Qualite

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Fax: (517) 439-1194  
[www.qualite.com](http://www.qualite.com)



D



## **Qualite Performance Guarantee**

Thank you for choosing Qualite.

We are pleased to offer our Universal Series Sports Lighting System to light your athletic fields. Our new metal halide system uses state of the art technology, is completely manufactured in the United States, and adheres to the high quality standard that Qualite has built its reputation on.

The enclosed layout(s) indicate the guaranteed maximum Kilowatt consumption.

Qualite also guarantees the Light levels and uniformities as specified; or per IESNA recommendations if a performance specification was not provided.

As a pre-aimed, pre-wired system, our guarantee requires proper input voltage and installation. We understand that sometimes unforeseen conditions can dictate layout changes, during installation and we guarantee to react and assist as quickly as possible to help ensure great results for the end user. This guarantee must exclude mounting to wooden poles; due to their tendency to twist and change the aiming.

Sincerely,

**The Qualite Sports Lighting Team**



E





THE NEW GENERATION OF SPORTS LIGHTING

## Total System 30 Year Standard Warranty

### Description of Equipment/Location

Project Name: Santaquin City Rodeo City: Santaquin City State: UT  
Fixture Series: Universal Series (visored) Fixture Wattage: 1500w QL#: 18788D1

### Warranty Period, beginning: *UPON SHIPMENT*

During the term of this agreement Qualite Sports Lighting, LLC, in keeping with the unique capabilities of our Maintenance Diagnostic System, will either repair or replace equipment as stipulated. Repair will include any adjustment and/or replacement of parts required in maintaining equipment in an operating condition consistent with Qualite's specifications.

### Thirty (30) year coverage parts and labor included (as noted)

1. Any parts, except lamps and fuses, found to be defective shall be replaced, labor included, during the first five (5) years and parts only for the remainder of the warranty period.
2. Lamps are warranted for a total of two (2) years; installation and lamps included first year, lamps only for the remainder of the warranty period.
3. Poles included in this purchase – repair or replacement

**\*Qualite requires reasonable access to the lighting equipment using a standard lift or steps/cabbling system.**

### Inspection

Qualite shall be allowed access to provide inspection of lighting system and poles if purchased from Qualite. Spot inspections shall be granted upon justified customer request.

### Exclusion

- Improperly installed lighting equipment.
- Equipment failure due to acts of nature, vandalism, unauthorized modifications, or the use of attachments, accessories or alterations not sold by, or approved in writing by Qualite Sports Lighting, LLC.
- Failure to follow manufacturer operating instructions.
- Any electrical equipment and wiring not supplied by Qualite Sports Lighting, LLC.

Qualite requires reasonable access to the lighting equipment using a standard lift or steps/cabbling system. Qualite will not be responsible for damage to the site when a lift is used properly in the designated area. Warranty will go into effect after receipt of final payment, but the warranty timeline begins as stated in the "warranty period, beginning" line (above).

### Warranty Response

Request for warranty work via our **toll free technical service number: 800-933-9741**

We guarantee thirty-six (36) hour weekday and seventy-two (72) hour weekend response time. On-site service to be performed by personnel or a contractor at the sole discretion of Qualite Sports Lighting, LLC and is available in all 50 states and Canada.

**Mr. Nick Page, President**

Name: \_\_\_\_\_

\_\_\_\_\_  
**Authorized Qualite Signature**

\_\_\_\_\_  
**Authorized Buyer (Owner Representative)**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



THE NEW GENERATION OF SPORTS LIGHTING

## **Customer Protection Statement 30 Year Standard Warranty**

### ***Warranty (30 Year Standard Warranty)***

Qualite shall warrant the luminaire assemblies and alignment of their pre-aimed positions, for a period of ten (10) years from date of purchase or date of significant completion as defined by AIA document G702, whichever applies. Any parts found to be defective shall be replaced, labor included, during the entire warranty period. Lamps are guaranteed as outlined in the Maintenance Free warranty document attached.

Outstanding invoices in excess of 90 days shall temporarily void all warranties until invoice is paid in full unless other terms are agreed upon by all parties.

Poles are only covered by this warranty if purchased directly from Qualite Sports Lighting, LLC.

Fuses are not warranted after initial installation and this warranty covers parts and workmanship as supplied from the manufacturer.

### ***Exclusions***

- Improperly installed lighting equipment.
- Equipment failure due to acts of nature, vandalism, unauthorized modifications, or the use of attachments, accessories or alterations not sold by, or approved in writing by Qualite Sports Lighting, LLC.
- Failure to follow manufacturer operating instructions.
- Any electrical equipment and wiring not supplied by Qualite Sports Lighting, LLC.

Qualite requires reasonable access to the lighting equipment using a standard lift or steps/cabbling system. Qualite will not be responsible for damage to the site when a lift is used properly in the designated area. Warranty will go into effect after receipt of final payment, but the warranty timeline begins as stated in the "warranty period, beginning" line (above).

### ***Shortages/Freight Damage***

In the event there is a piece shortage or damage at the time of delivery, the Bill of Lading or Freight Receipt must be signed short/damaged or Qualite cannot guarantee that parts can be replaced on a no-charge basis. Any hidden shortages will be handled directly from Qualite. Hidden shortages must be reported within 10 days, in written form, after receipt of shipment. Replacement parts will be shipped by common carrier only. Expedited delivery is the responsibility of the customer. Qualite cannot be responsible for back-charges due to damages, delays, construction schedules, shortages, or expedited delivery service.

### ***Replacement Parts***

Any damaged or shortage parts will be replaced directly from Qualite. Back-charges for locally purchased replacement parts will not be honored without prior written authorization from Qualite.

### ***Lamps***

For assistance with lamp returns and replacements, or if you have questions **please call Qualite Sports Lighting at 800-933-9741.**





F



4/05/17  
QL# 18788D1

**Rodeo Arena  
Santaquin City Rodeo  
Santaquin City, UT**

**Qualite Equipment**

**22- luminaires(visored)**-Factory aimed, assembled, and labeled.

**Pole length wire harnesses**-w/quick connects on each end.

**Ballast assemblies**-labeled for each cross-arm, ready for single point power feed.

**Maintenance Diagnostic System**- For simple system trouble shooting with the power off.

**1-extra lamps**

**2-extra fuses**

**Qualite Contactor Cabinet**-UL listed and configured for voltage, phase and load required.

**ReQuest**

**Poles** – (4)Makers steel direct embedded.

**Delivery of all equipment to site.**





G



# M1500MLHAC5M

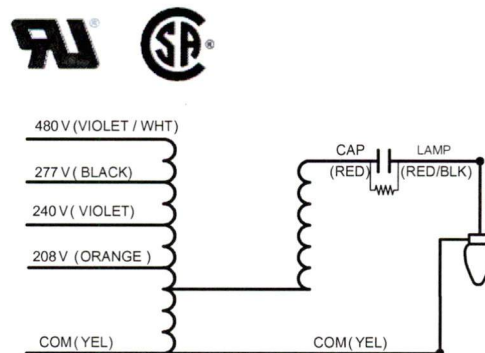
1500W M48

Metal Halide

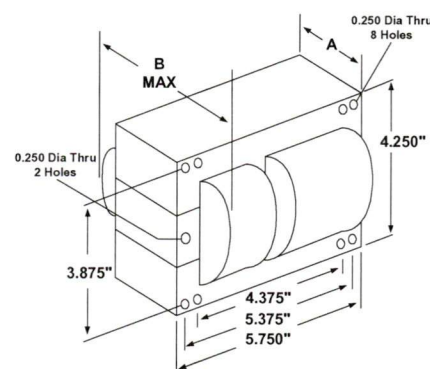
60Hz CWA

## Specification Sheet

<b>Input Volts</b>	208	240	277	480
<b>Regulation</b>				
Line Volts	±10%	±10%	±10%	±10%
Lamp Watts	±10%	±10%	±10%	±10%
Power Factor (min)	90%	90%	90%	90%
Input Watts	1625 W	1625 W	1625 W	1625 W
NOM. Open Circuit Voltage	455 V	455 V	455 V	455 V
<b>Line Current (Amps)</b>				
Operating	7.90	7.00	6.00	3.50
Open Circuit	5.20	4.50	3.90	2.25
Starting	4.50	3.90	3.40	1.95
Recommended Fuse (Amps)	25	20	18	10
Lamp Dropout Voltage (Line)	125 V	145 V	170 V	290 V
<b>UL Temperature Ratings</b>				
Insulation Class	H (180°C)	H (180°C)	H (180°C)	H (180°C)
Temperature Code	G	E	G	G
MIN. Starting Temperature	-22°F -30°C	-22°F -30°C	-22°F -30°C	-22°F -30°C
<b>CAPACITOR Specifications</b>				
Microfarads	32 uf	32 uf	32 uf	32 uf
Volts (min.)	525 V	525 V	525 V	525 V
<b>60Hz Test Procedures</b>				
High Potential Test 1 Minute	2000 V	2000 V	2000 V	2000 V
High Potential Test 1 Second	2500 V	2500 V	2500 V	2500 V
Secondary Open Ckt Voltage (V)	410 - 505	410 - 505	410 - 505	410 - 505
Secondary Current Shorted (A)	7.45 - 9.15	7.45 - 9.15	7.45 - 9.15	7.45 - 9.15
Input Operating Current (A)	7.05 - 8.70	6.30 - 7.70	5.40 - 6.60	3.15 - 3.90
Input Open Circuit Current (A)	2.55 - 7.50	2.20 - 6.50	1.90 - 5.65	1.10 - 3.25
Input Short Circuit Current (A)	3.10 - 5.30	2.60 - 4.50	2.30 - 4.00	1.20 - 2.20
<b>Core and Coil Specifications</b>				
Dimension A	4.40 in	4.40 in	4.40 in	4.40 in
Dimension B	6.40 in	6.40 in	6.40 in	6.40 in
Weight	30.0 lbs	30.0 lbs	30.0 lbs	30.0 lbs
Lead Lengths (inches)	12-14	12-14	12-14	12-14
Coil Material (Pri. / Sec.):	Cu / Cu	Cu / Cu	Cu / Cu	Cu / Cu



Wiring Diagram

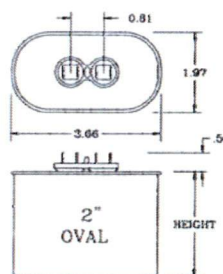


Reference Drawing

Capacitor: 005-1474-MF

Ignitor: None

Temp Rating: 90 °C  
Height: 3.88 in  
Width / Diameter: 3.66 in



This Ballast does not require a Ignitor

For alternate capacitor construction consult sales

Data is based upon tests performed by Universal Lighting Technologies in a controlled environment and is representative of relative performance. Actual performance may vary depending on operating conditions. Specifications are subject to change without notice.

Universal Lighting Technologies

26 Century Blvd. Suite 500 - Nashville, TN 37214

Phone 1-800-225-5278 Fax 1-800-206-0035

www.unvlt.com

5/14/2009





H

## Specification Bulletin

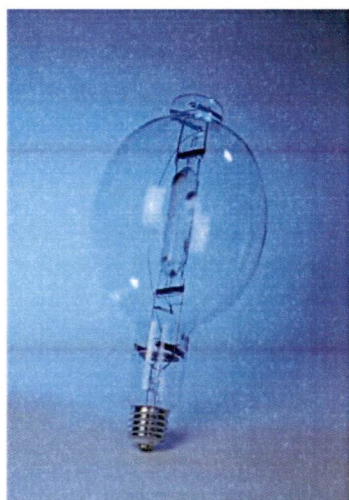
Horizontal Metal Halide

**1500MH**

1500w Metal Halide

### Features:

- High Initial and Maintained Lumens
- Longer Lamp Life
- Improved CCT
- Nickel-Plated Base with ceramic insulator
- Superior lamp to lamp color consistency
- Reduced Lumen Maintenance



### Performance Data:

Initial Lumens.....	180,000
LPW - Luminous efficacy.....	110.76
Mean Lumens (5h on/3h off cycle).....	144,000
Rated Average Life (5h on/3h off cycle).....	5,000h
Warm-up time(90%).....	<10min
Time to Restart (max).....	15min
Correlated Color Temperature.....	4,000
Color rendering Index [Ra].....	65-70

### Physical Description:

Bulb Size.....	BT-56
Bulb Finish.....	Clear
Base.....	Mogul
Max. Overall Length.....	386mm (15.38")
Light Center Length.....	241mm (9.48")
Bulb Diameter.....	178mm (7")
Arc Tube Material.....	Quartz
Max. Base Temperature.....	210C (410F)
Maximum Bulb Temperature.....	400C (752F)

### Electrical Characteristics:

Nominal Lamp Wattage.....	1500
Nominal Lamp Voltage.....	268
Nominal Lamp Current.....	6.2A(rms)
Ballast Type.....	ANSI M48





I

# Universal Series™



## For greater energy efficiency and control of light

The "state-of-the-art" Sports Floodlight features industry leading computer designed horizontal optics with internal glare/spill light control, and is the perfect choice for both amateur field lighting and professional sports Stadiums and arenas. UL Listed for wet location. CSA certified. Rated for 55°C indoor ambient temperature environment. Parks and recreation field lighting, high school and college sport facilities, and professional sport stadiums and arenas including color TV broadcasting.



**Qualite**  
SPORTS LIGHTING, LLC

THE NEW GENERATION OF SPORTS LIGHTING



## FEATURES

## BENEFITS

Pre-aimed/Pre-wired System

Ease of installation assures you have the best aiming strategy with your system

Semi Specular Optics  
Designed for Sports Lighting

Optimal design to create the most efficient and uniform sports lighting layouts

Multiple Beam Shapes

Greater efficient use of the light providing more uniform results

Spill and Glare Control

Superior off site lighting and glare control

Remote Ballast and Disconnect

Ease of troubleshooting and maintenance

Maintenance Diagnostic System

Easy, power off trouble-shooting at the push of a button

Photometry with Multiple  
Lamp Manufacturers

Non-Proprietary components

## ABOUT QUALITE

For over 29 years, Qualite has been the sports lighting partner for high schools, colleges, parks and recreation departments, minor league baseball clubs and more. With thousands of installations nationally and globally, we have helped provide our customers with lighting solutions that meet all requirements and exceed expectations. Count on us for your next lighting project.

**Contact us today for a FREE lighting analysis or consultation for your next sports lighting project.**



THE NEW GENERATION OF SPORTS LIGHTING

1-800-933-9741 | [www.qualite.com](http://www.qualite.com)

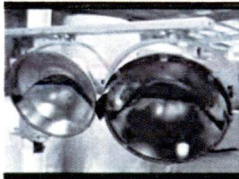
215 W. Mechanic St., Hillsdale, MI 49242 Phone: (517) 439-1581 Fax: (517) 439-1194

# QUALITE UNIVERSAL SERIES FIXTURE

Integral and Remote Ballast Options

## DESCRIPTION

The Universal floodlight features industry leading computer designed horizontal optics with optional internal glare/spill control louvers. The Universal fixture is the perfect choice for all sports lighting applications. The Universal fixture offers the coolest operating temperature rating in the industry which increases performance and extends component life. For detailed listing reports visit the Universal ETL reports at [www.QUALITE.com](http://www.QUALITE.com)



^ Remote Ballast Fixture with and without optional external top visor

## FEATURES

### A - Ballast Cover (Integral shown)

One piece hot dipped galvanized cover allows the Universal fixture to operate in extreme corrosive environments.

### B - Socket Castings

Die-cast aluminum socket castings are sealed with a high temperature silicone gasket to keep out contaminants.

### C - Optical Yoke

Rugged cast aluminum yoke finished in a powder coated gray finish features internal wiring with a quick connect and a simple two fastener attachment for easy installation. Optical module features locked in re-aiming allowing for either front or rear relamping without affecting aiming integrity.

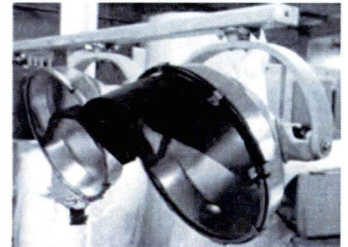
### D - Lens/Door Frame

1/8" tempered, heat and shock-resistant glass lens is sealed with high temperature silicone gasket to protect optics from dirt and contaminants and is mounted in hinged stainless steel door frame with stainless steel latches.

### E - Reflector and Internal Glare/Spill Light Control

Computer designed spun aluminum reflectors feature internal glare/spill light control reflector segments for maximum lighting control without unwanted glare and light trespass. Horizontal optics feature standard BT56 mogul base lamps for safe, reliable operation.

**\* Optional external top visor.**

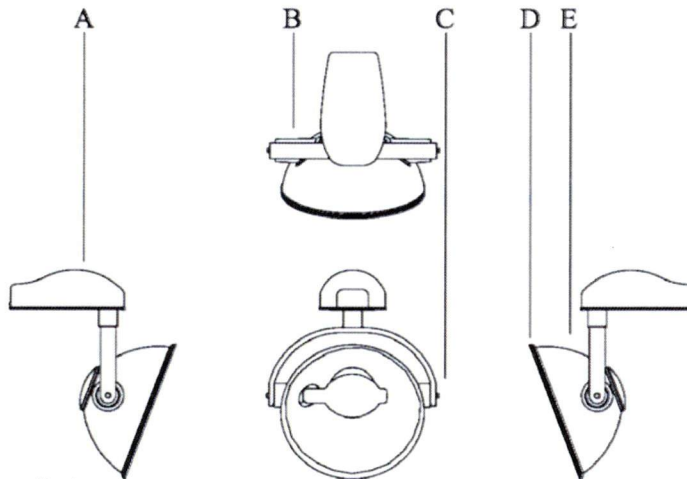


**1000 – 1500 w**

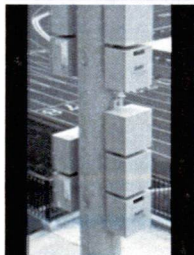
## ENERGY DATA

CWA Ballast Input Watts

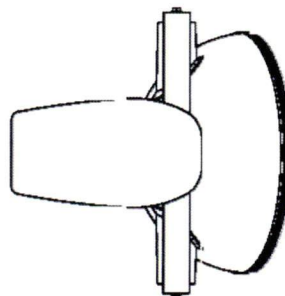
1000 w MH (1080)  
1500 w MH (1625)



^ Integral Ballast Fixture without optional external top visor



^ Remote Ballast Assembly



**Qualite**  
SPORTS LIGHTING, LLC

Qualite Sports Lighting, LLC  
215 West Mechanic Street  
Hillsdale, MI 49242

Tel 800-933-9741  
Fax 517-439-1194  
[www.qualite.com](http://www.qualite.com)





RB Construction & Concrete, inc.

Santaquin City

400 south and 100 south Waterline Installation

Quote includes:

Labor to install new 8" c900 culinary line approx. 2837 feet

Labor for Tie Ins to existing line

Labor for 25 tie in existing water laterals to new line

Labor for pressure testing of new line

Traffic Control

Quote based on Plans and quantity take-off provided by City.

Variances from these plans and quantities will be compensated for.

City to provide all pipe, fittings, bedding material and haul-off of spoils, saw cutting.

Exclusions: Hauling of any material, pipe and fittings, Testing, permits, city fees, cold weather protection, survey, dewatering, SWWWP, Rock excavation that requires more than a typical excavator.

Total:

\$68,945.00



P.O. Box 219  
Santaquin, Utah  
84655

## Proposal

NAME / ADDRESS		DATE	455
Santaquin City 275 West Main Street Santaquin, Utah 84655		4/12/2017	ESTIMATE NO.
		Phone #	801-404-3000
		Fax #	801-754-3080
		TERMS	
E-mail		kirk@fasttraxllc.com	Due 10

DESCRIPTION	QTY	COST	Total
<b>Watermain Installation 400 South &amp; 100 South</b>			
<b>400 South:</b>			
8 Inch C900 PVC Watermain	1,053	18.00	18,954.00
8 Inch MJ 45 or 22 Degree bend	6	150.00	900.00
8 X 8 X 8 Inch MJ Tee	3	1,000.00	3,000.00
6 Inch 45 or 22.5 Degree bend	3	110.00	330.00
8 X 8 X 4 Inch Tee	1	575.00	575.00
4 Inch 22.5 or 45 Degree bend	1	100.00	100.00
8 X 8 X 6 Inch MJ F.H. Tee	4	500.00	2,000.00
8 Inch Gate Valve	2	120.00	240.00
3/4 Inch lateral	8	350.00	2,800.00
<b>100 South:</b>			
8 Inch C900 PVC Watermain	1,784	18.00	32,112.00
8 Inch MJ 45 or 22 Degree bend	8	150.00	1,200.00
8 inch Cap	1	100.00	100.00
8 X 8 X 8 Inch MJ Tee	7	1,000.00	7,000.00
6 Inch 22 or 45 Degree bend	7	110.00	770.00
8 X 8 X 6 Inch MJ F.H. Tee	3	500.00	1,500.00
8 Inch Gate Valve	4	120.00	480.00
3/4 Inch lateral	14	350.00	4,900.00
1 Inch Water Lateral	1	350.00	350.00
2 Inch Water Lateral	2	495.00	990.00
Materials, Bedding, Engineered Fill, Asphalt, Surface restoration, and sawcutting not included.			
The above terms, prices and specifications are satisfactory and hereby accepted. X		<b>Total</b>	\$78,301.00



MITCHELL EXCAVATION, INC.

1455 W 200 S.  
Lindon, UT 84042

# Estimate

Date	Estimate #
4/13/2017	2951

Name / Address
Santaquin City

			Project	
			Cost	Total
Description	Unit	Qty		
SANATQUIN CITY				
400 S. & 100 S. WATERLINE REPLACEMENT				
400 S				
Transport	LS	1	2,500.00	2,500.00
8" C-900 Water Main complete with cleanup	LF	1,053	35.64	37,528.92
8" Bends	EA	6	875.00	5,250.00
8" Plug	EA	0	0.00	0.00
8" Tee	EA	8	1,246.00	9,968.00
6" Bend	EA	3	875.00	2,625.00
4" Bend	EA	1	875.00	875.00
8" Gate Valve	EA	2	450.00	900.00
Water Services	EA	8	702.00	5,616.00
Subtotal				65,262.92
100 S				
Transport	LS	1	2,500.00	2,500.00
8" C-900 Water Main complete with clean up	LF	1,784	40.81	72,805.04
8" Bends	EA	8	875.00	7,000.00
8" Plug	EA	1	500.00	500.00
8" Tee	EA	10	1,246.00	12,460.00
6" Bend	EA	7	875.00	6,125.00
8" Gate Valve	EA	4	450.00	1,800.00
Water Services 3/4" and 1"	EA	15	702.00	10,530.00
Water Services 2"	EA	2	940.00	1,880.00
Subtotal				115,600.04
*Labor only				
		<b>Total</b>	\$180,862.96	